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XEROX

**DocuColor 3535/2240/1632,  
WorkCentre M24 Service Manual**



**701P40862**  
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**CAUTION**

*Certain components in this device are susceptible to damage from electrostatic discharge. Observe all ESD procedures to avoid component damage.*

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### NOTICE

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### NOTICE

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### WARNING

This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions documentation, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to subpart J of part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to correct the interference.

**DANGER:** Cet équipement génère, utilise et peut émettre des fréquences radio, et, s'il n'est pas installé et utilisé selon les recommandations du manuel d'instructions, peut causer des interférences aux communications radio. Il a été testé et jugé conforme aux limites des systèmes de catégorie A, conformément à la partie 15 de l'alinéa J des règlements FCC, établis pour protéger contre de telles interférences pendant le fonctionnement en milieu commercial. Dans une zone résidentielle, il peut causer des interférences; dans ce cas, l'utilisateur devra corriger le problème à ses propres frais.

### WARNING

This machine contains an invisible laser. There is no visual indication that the laser beam is present. During servicing, the machine is a Class 3B product because of the invisible laser. The laser beam could cause eye damage if looked at directly. Service procedures must be followed exactly as written without change. The service representative must observe the established local laser safety precautions when servicing the machine. Do not place tools with a reflective surface into the ROS opening. Do not look in the area of the ROS window if the power is On and the laser is energized.

**DANGER:** L'équipement contient un faisceau laser invisible et aucune indication visible signale la présence du faisceau laser. De ce fait le produit est classé 3B pour tout ce qui concerne la maintenance. L'exposition directe des yeux au faisceau laser peut entraîner des lésions visuelles. Les procédures de maintenance doivent être réalisées sans aucun changement comme indiqué dans la documentation. Le représentant Xerox lors d'interventions sur l'équipement doit respecter les consignes de sécurité locales concernant les faisceaux laser. Ne pas placer d'objet réfléchissant dans la zone du ROS quand il est ouvert. Ne pas regarder dans la zone du ROS lorsque la machine est sous tension et que le laser est en fonctionnement.



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## About this Manual

This Service Manual is part of the multinational documentation system for DocuColor 3535/2240/1632, WorkCentre M24 copier/printers. The Service Documentation is used in order to diagnose machine malfunctions, adjust components and has information which is used to maintain the product in superior operating condition. It is the controlling publication for a service call. Information on its use is found in the Introduction of the Service Documentation.

This manual contains information that applies to **NASG (XC) and ESG (XE)** copiers.

## Service Manual Revision

The Service Manual will be updated as the machine changes or as problem areas are identified.

## Organization

This Service Manual is divided into seven sections. The titles of the sections and a description of the information contained in each section are contained in the following paragraphs:

### Section 1: Service Call Procedures

This section contains procedures that determine what actions are to be taken during a service call on the machine and in what sequence they are to be completed. This is the entry level for all service calls.

### Section 2: Status Indicator RAPs

This section contains the diagnostic aids for troubleshooting the Fault Code and non-Fault Code related faults (with the exception of image quality problems).

### Section 3: Image Quality

This section contains the diagnostic aids for troubleshooting any image quality problems, as well as image quality specifications and image defect samples.

### Section 4: Repairs/Adjustments

This section contains all the Adjustments and Repair procedures.

#### Repairs

Repairs include procedures for removal and replacement of parts which have the following special conditions:

**When there is a personnel or machine safety issue.**

**When removal or replacement cannot be determined from the exploded view of the Parts List.**

**When there is a cleaning or a lubricating activity associated with the procedure.**

**When the part requires an adjustment after replacement.**

**When a special tool is required for removal or replacement.**

Use the repair procedures for the correct order of removal and replacement, for warnings, cautions, and notes.

## Adjustments

Adjustments include procedures for adjusting the parts that must be within specification for the correct operation of the system.

Use the adjustment procedures for the correct sequence of operation for specifications, warnings, cautions and notes.

## Section 5: Parts Lists

This section contains the Copier/Printer Parts List.

## Section 6: General Procedures/Information

This section contains General Procedures, Diagnostic Programs, and Copier/Printer Information.

## Section 7: Wiring Data

This section contains drawings, lists of plug/jack locations, and diagrams of the power distribution wire networks in the machine. Individual wire networks are shown in the Circuit Diagrams contained in Section 2. This section also contains the Block Schematic Diagrams.

## Section 9: Installation

This section contains installation information for various machine components.

## How to Use this Documentation

The Service Call Procedures in Section 1 describe the sequence of activities used during the service call. The call **must** be entered using these procedures.

## Use of the Circuit Diagrams

Circuit Diagrams (CDs) are included in Sections 2 (Status Indicator RAPs) and 3 (Image Quality RAPs) of the Service Manual. All wirenets, with the exception of power distribution wirenets, are shown on the CDs. Power distribution wirenets are shown in Section 7 (Wiring Data) of the Service Manual. The power distribution wirenets on the CDs will end at the terminal board for the power being distributed. Find the wirenet for that power and locate the terminal board on the wirenet. Use the wirenet to troubleshoot any power distribution wiring not shown on the CD.

## Use of the Block Schematic Diagrams

Block Schematic Diagrams (BSDs) are included in Section 7 (Wiring Data) of the Service Manual. The BSDs show the functional relationship of the electrical circuitry to any mechanical, or non-mechanical, inputs or outputs throughout the machine. Inputs and outputs such as motor drive, mechanical linkages, operator actions, and air flow are shown. The BSDs will provide an overall view of how the entire subsystem works.

It should be noted that the BSDs no longer contain an Input Power Block referring to Chain 1. It will be necessary to refer to the Wirenets in order to trace a wire back to its source.

## Symbology and Nomenclature

The following reference symbols are used throughout the documentation.



## Warnings, Cautions, and Notes

Warnings, Cautions, and Notes will be found throughout the Service Documentation. The words **WARNING** or **CAUTION** may be listed on an illustration when the specific component associated with the potential hazard is pointed out; however, the message of the **WARNING** or **CAUTION** is always located in the text. Their definitions are as follows:

### WARNING

**A Warning is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in personal injury.**

### CAUTION

*A Caution is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in damage to the equipment.*

**NOTE:** A Note is used whenever it is necessary to highlight an operating or maintenance procedure, practice, condition, or statement.

## Machine Safety Icons

The following safety icons are displayed on the machine:

### WARNING

**This machine contains an invisible laser. There is no visual indication that the laser beam is present. During servicing, the machine is a Class 3B product because of the invisible laser. the laser beam could cause eye damage if looked at directly. Service procedures must be followed exactly as written without change. The service representative must observe the established local laser safety precautions when servicing the machine. Do not place tools with a reflective surface in the area of the ROS opening. Do not look in the area of the ROS window if the power is On and the laser is energized.**

**The following symbol and statement appear on a label in the machine. The symbol by itself, or the symbol and the statement may also appear in the service documentation and in the training program. When this symbol appears, the service representative is warned that conditions exist that could result in exposure to the laser beam.**

### WARNING

**Do not try to bypass any laser interlocks for any reason. Permanent eye damage could result if the laser is accidentally directed into your eye.**



Figure 1 Laser Hazard Symbol

Laser Hazard Statement

DANGER INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.

### CAUTION

*The use of controls or adjustments other than those specified in the Laser Safety Training Program may result in an exposure to dangerous laser radiation.*

For additional information, review the Laser Safety Training program.

An arrow points to the location to install, to gain access to, or to release an object.



Figure 2 Customer Access Label

This symbol indicates that a surface can be hot. Use caution when reaching in the machine to avoid touching the hot surfaces.



Figure 3 Heated Surface Label

Danger label indicates where electrical currents exist when the machine is closed and operating. Use caution when reaching in the machine.



Figure 4 Shock Hazard Label

These symbols indicate components that may be damaged by Electrostatic Discharge (ESD).



0700002A-RAP

Figure 5 ESD warning Label



Electrostatic Discharge (ESD) Field Service Kit

The purpose of the ESD Protection Program is to preserve the inherent reliability and quality of electronic components that are handled by the Field Service Personnel. This program is being implemented now as a direct result of advances in microcircuitry technology, as well as a new acknowledgment of the magnitude of the ESD problem in the electronics industry today.

This program will reduce Field Service costs that are charged to PWB failures. Ninety percent of all PWB failures that are ESD related do not occur immediately. Using the ESD Field Service Kit will eliminate these delayed failures and intermittent problems caused by ESD. This will improve product reliability and reduce callbacks.

The ESD Field Service Kit should be used whenever Printed Wiring Boards or ESD sensitive components are being handled. This includes activities like replacing or reseating of circuit boards or connectors. The kit should also be used in order to prevent additional damage when circuit boards are returned for repair.

The instructions for using the ESD Field Service Kit can be found in ESD Field Service Kit Usage in the General Procedures section of the Service Documentation.

Illustration Symbols

Figure 6 shows symbols and conventions that are commonly used in illustrations.

REFERENCE SYMBOLOGY

Test data, notes, adjustments, and parts lists are supportive to the BSD and RAP information. This supportive data is referenced, using the symbols shown in the following paragraphs:




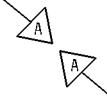






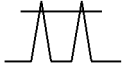
<div>TEST DATA</div> <div></div> <div>This symbol appears on the BSD whenever a test data reference is necessary in order to verify the presence of a signal.</div>	<div>TEST POINTS</div> <div></div> <div>This symbol is used to identify a test point/test hole available for measuring a signal.</div>	<div>[ X-XXX ]</div> <div>This symbol placed above a signal name on a BSD indicates the input or output component control code for that signal.</div>
<div>NOTES</div> <div></div> <div>This symbol is used to refer to notes. The notes normally appear on the same page.</div>	<div>BSD GRAPHICS</div> <div></div> <div>This symbol indicates the continuation of a signal line in a vertical direction.</div>	<div>[ X-XXX ] [ X-XXX ]</div> <div>This symbol placed above a signal name on a BSD indicates that two component control codes ( an output and an input ) are required to check that signal.</div>
<div>ADJUSTMENTS</div> <div></div> <div>This symbol refers to adjustments on the Service Data Section.</div>	<div></div> <div>This symbol indicates the continuation of a signal line in a horizontal direction.</div>	<div>[ X-XXX/X-XXX ]</div> <div>This symbol placed above a signal name on a BSD indicates component control codes for two components, in this example, two Paper Trays. The left hand code is for Paper Tray 1, and the right hand code is for Paper Tray 2.</div>
<div>PARTS LISTS</div> <div>PL2-XX</div> <div>This symbol refers to a parts list on the Service Data Section. PL indicates that this is a parts list reference and, in this example, the exploded view drawing is on Parts List 2-XX. Parts list reference appear on the BSDs next to all replaceable parts shown on the diagram.</div>	<div></div> <div>This symbol indicates the direction of signal flow.</div>	<div></div> <div>Fault Codes Indicator shown on BSD.</div>
	<div></div> <div>This symbol indicates a feedback signal.</div>	<div></div> <div>The Flag symbol indicates a reference point into a Circuit Diagram from a RAP. Instructions will be given to check for an open circuit, a short circuit, or an intermittent condition</div>
	<div></div> <div>This symbol is used to show a twisted pair of wires.</div>	

Figure 6 Illustration Symbols



## Signal Nomenclature

Refer to [Figure 7](#) for an example of Signal Nomenclature used in Circuit Diagrams and BSDs.

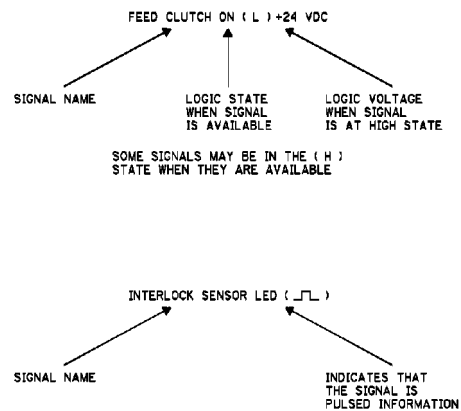


Figure 7 Signal Nomenclature

## Voltage Measurement and Specifications

Measurements of DC voltage must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure. All measurements of AC voltage should be made with respect to the adjacent return or ACN wire.

Table 1 Voltage Measurement and Specifications

VOLTAGE	SPECIFICATION
INPUT POWER 220 V	198 VAC TO 242 VAC
INPUT POWER 100 V	90 VAC TO 135 VAC
INPUT POWER 120 V	90 VAC TO 135 VAC
+5 VDC	+4.75 VDC TO +5.25 VDC
+24 VDC	+23.37 VDC TO +27.06 VDC

## Logic Voltage Levels

Measurements of logic levels must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure.

Table 2 Logic Levels

VOLTAGE	H/L SPECIFICATIONS
+5 VDC	H= +3.00 TO +5.25 VDC L= 0.0 TO 0.8 VDC
+24 VDC	H= +23.37 TO +27.06 VDC L= 0.0 TO 0.8 VDC

## DC Voltage Measurements in RAPs

The RAPs have been designed so that when it is required to use the DMM to measure a DC voltage, the first test point listed is the location for the red (+) meter lead and the second test point is the location for the black meter lead. For example, the following statement may be found in a RAP:

**There is +5 VDC from TP7 to TP68.**

In this example, the red meter lead would be placed on TP7 and the black meter lead on TP68.

Another example of a statement found in a RAP might be:

**There is -15 VDC from TP21 to TP33.**

In this example, the red meter lead would be placed on TP21 and the black meter lead would be placed on TP33.

If a second test point is not given, it is assumed that the black meter lead may be attached to the copier frame.







## Introduction

### Symbology and Nomenclature

#### WARNING

A Warning is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in personal injury.

**DANGER:** Une note DANGER est utilisée à chaque fois qu'une procédure de maintenance ou qu'une manipulation présente un risque de blessure si elle n'a pas été strictement observée.

#### WARNING

This machine contains an invisible laser. There is no visual indication that the laser beam is present. During servicing, the machine is a Class 3B product because of the invisible laser. The laser beam could cause eye damage if looked at directly. Service procedures must be followed exactly as written without change. The service representative must observe the established local laser safety precautions when servicing the machine. Do not place tools with a reflective surface in the area of the ROS opening. Do not look in the area of the ROS window if the power is On and the laser is energized.

**DANGER:** L'équipement contient un faisceau laser invisible et aucune indication visible signale la présence du faisceau laser. De ce fait le produit est classé 3B pour tout ce qui concerne la maintenance. L'exposition directe des yeux au faisceau laser peut entraîner des lésions visuelles. Les procédures de maintenance doivent être réalisées sans aucun changement comme indiqué dans la documentation. Le représentant Xerox lors d'interventions sur l'équipement doit respecter les consignes de sécurité locales concernant les faisceaux laser. Ne pas placer d'objet réfléchissant dans la zone du ROS quand il est ouvert. Ne pas regarder dans la zone du ROS lorsque la machine est sous tension et que le laser est en fonctionnement.

The following symbol and statement appear on a label in the machine. The symbol by itself, or the symbol and the statement may also appear in the service documentation and in the training program. When this symbol appears, the service representative is warned that conditions exist that could result in exposure to the laser beam.

**DANGER:** Les symboles et instructions suivants sont indiqués sur des étiquettes dans la machine et sont identifiés dans la documentation technique et dans le manuel de formation. Quand ces symboles s'affichent le représentant Xerox est prévenu des risques encourus concernant une exposition au rayon laser.

#### WARNING

Do not try to bypass any laser interlocks for any reason. Permanent eye damage could result if the laser is accidentally directed into your eye.

**DANGER:** Ne pas essayer de shunter les contacts laser pour quelques raisons que ce soit. Si le faisceau laser est dirigé accidentellement vers les yeux il peut en résulter des lésions oculaires permanentes.

### 3 Image Quality

#### IQ6 IOT Background RAP

#### WARNING

**HIGH VOLTAGE!**

**DANGER: HAUTE TENSION!**

Exercise care when making the voltage check in the following steps.

**DANGER:** Soyez extrêmement vigilant lorsque vous effectuez les tests de tension au cours des étapes qui suivent.

#### IQ21 Developer Bias RAP

#### WARNING

**HIGH VOLTAGE!**

**DANGER: HAUTE TENSION!**

Exercise caution when performing the voltage checks in this procedure.

**DANGER:** Soyez extrêmement vigilant lorsque vous effectuez les tests de tension au cours de cette procédure.

### 4 Repairs and Adjustments

#### Electrical

##### REP 1.1 LVPS Bracket

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

##### REP 1.2 MCU PWB

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

##### REP 1.4 3.3 V LVPS or 5 V LVPS

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

##### REP 1.5 24 V LVPS

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

##### REP 1.6 High Voltage Power Supply Chassis

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.



**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.7 DEV/BTR2/DTS HVPS; BCR HVPS

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.8 I/F (Interface) PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.9 24 V LVPS Bracket

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.10 BTR1 HVPS

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.11 AC Drive PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.12 ESS PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with

the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.13 ESS NVM PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.14 PS-2 ROM, PS-1 ROM

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.15 MCU NVM PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.17 VSEL PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 1.18 Fax Module

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.



### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

#### Main Drives

REP 4.1 Main Drive Motor Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.



### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 4.3 Developer Drive Motor Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 4.4 Drum Motor Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

**Document Handler**

REP 5.1 DADF

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.2 Registration Gate Solenoid

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.3 Left/Right Counterbalance

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des

activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.4 DADF Control PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.5 Feed Motor Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.6 Nudger Roll

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.7 Feed Roll Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.8 Lower Chute Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.9 Retard Roll

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.





**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.10 Set Gate Solenoid Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.11 Registration Sensor

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.12 Size Sensors 1/2 (Rear/Front)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.13 DADF Belt Motor Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.14 Duplex Sensor

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.15 Registration Pinch Roll

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with

the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.16 Exit Motor Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.17 Document Transport

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.18 Rear Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 5.19 Platen Belt

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

Imaging

REP 6.1 ROS

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 6.2 Platen Glass



### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 6.3 IIT Top Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 6.4 Lens Kit

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 6.5 IIT/IPS PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 6.6 UI PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 6.11 Carriage Cables

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 6.12 Carriage Motor

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 6.13 Exposure Lamp

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 6.14 Lamp Wire Harness

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

Paper Trays

REP 7.1 Tray 5

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.2 Tray 5 Feed Roll

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.3 Tray 1 Feeder

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.



### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.5 Tray 1 Paper Size Sensor

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.6 Tray 3 (TTM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.7 Tray 4 (TTM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.8 Tray 1

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.9 Tray 2

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon

d'alimentation branché.

REP 7.10 Tray 2 Feeder (TTM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.11 Tray 3 Feeder (TTM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.12 Tray 4 Feeder (TTM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.13 Tray 2 (3TM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.14 Tray 3 (3TM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.15 Tray 4 (3TM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des



activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.16 Tray 2 Feeder (3TM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.17 Tray 3 Feeder (3TM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.18 Tray 4 Feeder (3TM)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 7.19 Tray Module PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

**Paper Feed and Registration**

REP 8.1 Left Cover Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 8.2 Duplex Chute

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with

the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 8.3 Duplex Transport Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 8.5 Inverter Transport

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 8.6 Registration Transport Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 8.7 Exit Transport Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

**Xerographic**

REP 9.1 Drum Cartridge

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.2 ROS Shutter Motor



### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.3 Waste Toner Cartridge Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.4 Waste Toner Cartridge

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.5 Full Toner Sensor

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.6 Inner Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.7 Toner Dispenser

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.8 Plate Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.9 Developer Housing

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.10 Developer

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.11 Toner Dispenser Base Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.12 IBT Steering Drive Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

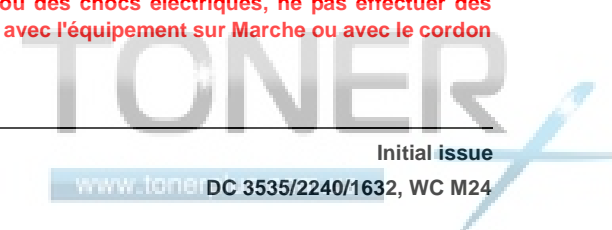
REP 9.13 Agitator Motor Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.14 MOB Sensor Assembly





### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.15 IBT Belt Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.16 IBT Cleaner Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.17 Auger Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.18 Lever

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.19 Left Hinge/Right Hinge

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.20 Right Lift Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.21 Left Lift Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.22 Transfer Belt

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.23 1st BTR Roll

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.24 2nd BTR Roll

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 9.25 Erase Lamp (K, Y, M, C)

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.



### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

#### Fuser

REP 10.1 Fuser

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

### WARNING

Personal injury may result from grasping hot areas of Fuser Module. If a hot Fuser Module must be removed, grasp Fuser Module by Grip Rings (Figure 1).

**DANGER:** Des blessures peuvent résulter si les zones chaudes du module de four sont touchées. Si un module de four chaud doit être enlevé, le saisir par les demi-cercles en plastique (Figure 1).

REP 10.2 Fuser Fan

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 10.3 Main/Sub Heater Rod

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

#### Finisher

REP 12.1 H Transport Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des

activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.2 H Transport Belt

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.3 Entrance Sensor

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.4 Finisher

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.5 Stack Height Sensor Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.6 Eject Roll Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.7 Decurler Roll Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.



**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.8 Finisher Drive Motor

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.9 Belt

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.10 Rail

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.11 Stapler Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.12 Compiler Tray Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.13 Stacker Motor Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with

the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.14 Front Elevator Bracket

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.15 Paddle Gear Shaft

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.16 Finisher PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.18 Cam Bracket Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.19 Finisher Rack Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 12.20 Lowering Stacker Tray

### WARNING



To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

#### Covers

REP 14.1 Top Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.2 Rear Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.3 Right Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.4 Rear Left Middle Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.5 Rear Left Upper Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.6 Left Lower Cover Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.7 Front Cover Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.8 Fuser Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.9 Rear Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.10 Inner Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

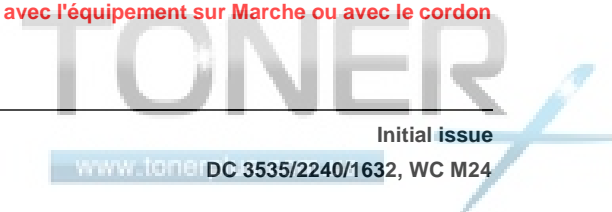
REP 14.11 Left Cover Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

REP 14.12 Left Lower Cover





### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

#### DADF

ADJ 5.2 DADF Counterbalance

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

ADJ 5.3 DADF Parallelism

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

ADJ 5.4 Document Transport Height

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

#### Scanner

ADJ 6.1 Full/Half Rate Carriage

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.

#### Xerographic/Registration

ADJ 9.6 Color Registration (dC685)

### WARNING

To avoid exposure to laser light, reinstall the Waste Cartridge before attempting to recheck the adjustment.

**DANGER:** Pour éviter toute exposition au rayon laser, réinstaller la cartouche de toner usagé avant de re-vérifier le réglage.

#### Finisher

ADJ 12.1 Finisher Alignment

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.







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# 1 Service Call Procedures

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# Service Call Procedures

## Service Strategy

The service strategy for the DocuColor 3535/2240/1632 and WorkCentre M24 Copier/Printers is to perform any High Frequency Service Item (HFSI) actions before attempting to repair any problems. Some problems will be corrected by this strategy without the need to diagnose them. The Repair Analysis Procedures (RAPs) will be used for any remaining problems.

Problems that occur in the Basic Printer mode will be repaired before problems that occur when using the accessories.

Image Quality problems should be repaired after all other problems are repaired.

## Service Call Procedures

The **Service Call Procedures** are a guide for performing any service on this machine. The procedures are designed to be used with the Service Manual. Perform each step in order.

### Initial Actions

The Initial Actions gather information about the condition of the machine and the problem that caused the service call.

### Call Flow

Call Flow summarizes the sequence of the Service Call Procedures.

### Detailed Maintenance Activities

This section provides the information needed to perform the dC135 High Frequency Service Item (HFSI) actions.

### Cleaning Procedures

The cleaning procedures list what needs to be cleaned at each service call.

### Final Actions

The Final Actions will test the copier/printer and return it to the customer. Administrative activities are also performed in the Final Actions.



## Initial Actions

### Purpose

The purpose of the Initial Action section of the Service Call Procedures is to determine the reason for the service call and to identify and organize the actions which must be performed.

### Procedure

1. Gather the information about the service call and the condition of the copier/printer.
  - a. Question the operator(s). Ask about the location of most recent paper jams. Ask about the image quality and the copier/printer performance in general, including any unusual sounds or other indications.
  - b. After informing the customer, disconnect the machine from the customer's network.
  - c. Check that the power cords are in good condition, correctly plugged in the power source, and free from any defects that would be a safety hazard. Repair or replace the power cords as required. Check that the circuit breakers are not tripped.
  - d. Inspect any rejected copies. Inquire as to, or otherwise determine, the paper quality and weight. The specified papers for optimum image quality with this machine are 24 lb. Xerox Color Xpressions Plus (XC) or 90 gsm Colotech + (XE). Look for any damage to the copies, oil marks, image quality defects, or other indications of a problem.
  - e. Record the billing meter readings.
  - f. Connect the PWS to the machine. Enter the Diagnostics Mode.  
  
**NOTE:** If a fault code is displayed while performing a diagnostics procedure, go to that fault code RAP and repair the fault. Return to Diagnostics and continue with the dC procedure that you were performing.
  - g. Go to **dC135** and determine what HSFI action is required based on the customer output volume. Refer to the **Detailed Maintenance Activities** section for the detailed HSFI information. Record any items that require action.
  - h. Display and record the information in the **dC118** Jam Counter, **dC120** Fault Counter, and **dC122** Shutdown History. Classify this information into categories:
    - Information that is related to the problem that caused the service call.
    - Information that is related to secondary problems.
    - Information that does not require action, such as a single occurrence of a problem.
  - i. Check the Service Log for any recent activities that are related to the problem that caused the service call or any secondary problem.
2. Perform any required HSFI activities identified above. Refer to the Detailed Maintenance Activities section.
3. Exit diagnostics. Try to duplicate the problem by running the same jobs that the customer was running.
4. Go to **Call Flow**.



## Call Flow

This procedure should be performed at every service call.

### Initial Actions

Ask the operator about the problem. If the problem appears to be related to operator error, or an attempt to perform a job outside of the machine specifications, assist the customer in learning the correct procedure.

### Procedure

The UI displays correctly (no garbled text, blank screen, or missing elements).

Y N  
The machine is completely dead (no cooling fans running, no indicator lamps on)  
Y N  
Go to the **OF 2-1** RAP to repair the UI display error.  
Go to the **OF 1-2** RAP.

The machine passes the self-test/boot-up routines (if the machine is locked up or if the PWS tool will not connect, select N).

Y N  
**NOTE:** For DC3535, if you cannot connect the PWS, disconnect the Network Controller from the IOT and retry the connection.  
Go to **GP 2**.

The reported problem occurs in Print Mode ONLY.

Y N  
(WC 24 only:) There is a problem sending or receiving fax.  
Y N  
Place the Color Test Pattern on the Document Glass. Make a copy from each paper tray. **The Copier/Printer can copy from all trays.**  
Y N  
**NOTE:** Not all fault codes can be displayed on the UI. Connect the PWS and launch the diagnostic tool to ensure that any fault code is displayed. Some codes will appear only the Last 40 Faults list Other faults (paper feed and Tray Module faults) appear only as messages on the UI; fault codes for these problems are generated only when the machine is operated (printing test patterns) in diagnostic mode.  
**A fault code is displayed.**  
Y N  
The problem is related to a specific paper tray (for example, erroneous "Tray X out of Paper" message).  
Y N  
For intermittent problems, Go to **GP 4**.  
Go to **dC612**. Print Test Pattern 2 from the suspect tray. When a fault is declared, go to the RAP for that fault code.

A B C D  
Go to the RAP for the displayed fault.  
Place two originals into the DADF and program a duplex job. **The Copier/Printer can copy from the DADF.**  
Y N  
**A fault code is displayed.**  
Y N  
Check that the DADF is enabled (set NVM loc. 715-400 to 1).  
Check the DADF Document Sensors for debris or damage. Check the mechanical drives and Feed Rolls for contamination, wear, damage, or binding.  
Go to the RAP for the displayed fault code.  
Check the image quality in the BASIC COPIER MODE:  
• Select a tray that is loaded with 11 X 17 or A3 paper.  
• Select the following parameters:  
– Output Color to **Auto**  
– Original Type to **Photo and Text Halftone**  
– Reduce/Enlarge **Auto**  
– Lighter/Darker to **Auto Contrast**  
– Sharpness to **Normal**  
– Preset Color Balance **Normal**  
– Color Shift to **Normal**  
– Color Saturation to **Normal**  
– Copy Position to **No Shift**  
– Variable Color Balance **Normal**  
• Run four copies of the Color Test Pattern.  
**The Image Quality of the copies produced is acceptable.**  
Y N  
Go to the **IQ1** RAP.  
Go to **Final Actions**.  
Go to the **OF 17-1** RAP.  
**The problem occurs in all print jobs.**  
Y N  
If the problem is specific to a single application or group of applications, ensure that current drivers are loaded. If the problem persists, escalate the call to the Customer Support Center.  
For DC 3535, refer to the Network Controller service documentation for possible troubleshooting.  
Go to **GP 1** (Network Printing Simulation) and send a print job. **An acceptable print is produced.**  
Y N  
The machine is a DC 3535.



**Y N**

- verify machine settings
- reload system software
- replace the ESS PWB (PL 13.1).

**The problem is Image Quality (print mode)****Y N**

- Verify that the AC power, Scan, and DDI cables are connected correctly.  
If the cables are OK, refer to the Network Controller service documentation to verify the correct operation of the DFE. If the Network Controller appears to be working correctly, check the following in the IOT:
- verify machine settings
  - reload system software
  - replace the ESS PWB, then the VSEL PWB (PL 13.1).

Refer to the Network Controller service and user documentation for color calibration information.

The problem is in the customer network or the setup. Check the following:

- Ensure that the Static IP/DHCP setting matches the customer's network
- Verify that the IOT IP address is correct; for DC 3535, ensure that the Network Controller IP information is correct.
- For DC 3535: "Ping" the Network Controller from a Client to verify connectivity

When resolved, go to [Final Actions](#).



## Detailed Maintenance Activities (HFSI)

### Procedure

1. Clean the ADC Sensor on every call.
2. Enter Diagnostics and select **dC135**.

3. Perform the Service Actions in [Table 1](#) for any High Frequency Service Item (HFSI) counters that are over threshold or approaching the threshold. Using the customer's output volume numbers (high, medium, or low volume), evaluate which HFSI actions should be accomplished now to avoid an additional service call in the near future.
4. Refer to [Cleaning Procedures](#) for detailed cleaning instructions.

**Table 1 High Frequency Service Items**

Counter	Name	Threshold	Service Action to be performed
006-802	IIT Scan No. of scans (Including pre-scan) after HFSI counter cleared	2400000	No action required - counter only
005-805	Document Feed No. of DADF Feed after HFSI Counter Cleared.	2400000	No action required - counter only
954-801	IBT Belt Assembly	(WC M24, DC 2240/1632) - 480K (DC 3535) - 592.8K increments by 1 for letter size or smaller; by 2 for longer than letter size	Replace the IBT Assembly (PL 5.3)
954-802	2nd BTR Unit	(WC M24, DC 2240/1632) - 150K (DC 3535) - 100K	Replace the 2nd BTR Unit (PL 2.8)
954-803	IBT Belt Cleaner Assy	100K	Replace the IBT Belt Cleaner (PL 5.3) Warning at 98.5K
954-804	Fuser	10000000 counts Area conversion, with A4L = 100 counts/ sheet, 8.5x11 = 96 counts/sheet, 11x17 = 193 counts/sheet, A3 = 200 counts/ sheet, etc.	Replace the Fuser (PL 7.1) Warning at 9000000 counts
954-805	Unused Counter	99999999	No action required - counter only
954-806	Tray 1 Feed counter	300K	Replace the Roll Kit (PL 2.5).
954-807	Tray 5 Feed counter	300K	Replace the Feed Roll Assembly and Retard Pad (PL 2.14).
954-808	Tray 2 Feed counter	300K	Replace the Roll Kit (PL 16.8 for TTM or PL 15.4 for 3TM).
954-809	Tray 3 Feed counter	300K	Replace the Roll Kit (PL 16.10 for TTM or PL 15.6 for 3TM).
954-810	Tray 4 Feed counter	300K	Replace the Roll Kit (PL 16.12 for TTM or PL 15.8 for 3TM).
954-811 (DC 3535 only)	Black Developer Housing	592.8K increments by 1 for letter size or smaller; by 2 for longer than letter size	Replace the Black Developer Housing (PL 6.2)
954-812 (DC 3535 only)	Cyan Developer Housing	592.8K increments by 1 for letter size or smaller; by 2 for longer than letter size	Replace the Cyan Developer Housing (PL 6.2)
954-813 (DC 3535 only)	Magenta Developer Housing	592.8K increments by 1 for letter size or smaller; by 2 for longer than letter size	Replace the Magenta Developer Housing (PL 6.2)
954-814 (DC 3535 only)	Yellow Developer Housing	592.8K increments by 1 for letter size or smaller; by 2 for longer than letter size	Replace the Yellow Developer Housing (PL 6.2)



## Cleaning Procedures

### Purpose

The purpose is to provide cleaning procedures to be performed at every call.

### Procedure

#### CAUTION

*Do not use any solvents unless directed to do so by the Service Manual.*

#### General Cleaning

Use a dry lint free cloth or a lint free cloth moistened with water for all cleaning unless directed otherwise by the Service Manual. Wipe with a dry lint free cloth if a moistened cloth is used.

#### 1. Feed Components (Rolls and Pads)

Follow the General Cleaning procedure above.

#### 2. ROS Windows

Use the cleaning wand to clean the ROS windows (follow the procedure in the User Guide).

#### 3. Toner Dispense Units

Vacuum the Toner Dispense units.

#### 4. Jam Sensors

Clean the sensors with a dry cotton swab.

#### 5. IBT Cleaning

Check the Transfer Belt surface and wipe with a dry lint free cloth. If the surface is excessively dirty, replace the Transfer Belt (PL 5.3).

Do not rub the IBT Cleaning Blade. If it is necessary to clean the blade, use a soft brush or dry swab to brush away contamination. Rubbing will remove the protective coating on the blade.

#### 6. Fuser Components (best cleaned when hot)

Wipe with a lint free cloth.

#### 7. Scanner

- Switch off the power and allow the Exposure Lamp to cool off.
- Using the optical Cleaning Cloth, clean the front and rear of the Document Glass, Document Cover, White Reference Strip, Reflector, and Mirror.
- Clean the Exposure Lamp with a clean cloth and Film Remover.
- Clean the Lens with Lens and Mirror Cleaner and lint free cloth.

#### 8. DADF

Check the paper path for debris or damage. Clean the rolls with a clean cloth and Film Remover as required.

#### 9. Finisher

Check the paper path for debris or damage. Clean the Finisher with a dry lint free cloth.

## Final Actions

### Purpose

The intent of this procedure is to be used as a guide to follow at the end of every service call.

### Procedure

- Ensure that the exterior of the copier/printer and the adjacent area are clean. Use a dry cloth or a cloth moistened with water to clean the copier/printer. Do not use solvents.
- Check the supply of consumables. Ensure that an adequate supply of consumables is available according to local operating procedures.
- Conduct any operator training that is needed. Ensure that the operator understands that the Automatic Gradation Adjustment procedure in the User Guide should be used to calibrate the colors.
- Complete the Service Log.
- Perform the following steps to make a copy of the Demonstration Original for the Customer:
  - Load Tray 1 with 8.5 x 11 inch (A4) or 11 x 17 inch paper.
  - Place the Color Test Pattern on the glass with the short edge of the test pattern registered to the left edge of the glass. Select Tray 1 and make a single copy.
  - Print out the Machine Settings (Configuration Report). Refer to GP 12. Store this report with the service log in Tray 1.
  - Ask the customer to verify the Print and Scan functions.
  - Present the copies to the customer.
- Go to dC351 and select **Save Machine Settings**. When the save is complete, exit the PWS Tool. Save the machine data to the Machine Settings floppy. For DC 3535/2240/1632, store the floppy under the left cover of the Control Panel, adjacent to the touch-screen stylus. For WC M24, store the floppy in the plastic pouch mounted on the Rack.
- Reconnect the machine to the customer network. Verify function.
- Issue copy credits as needed.
- Discuss the service call with the customer to ensure that the customer understands what has been done and is satisfied with the results of the service call.



## 2 Status Indicator RAPs

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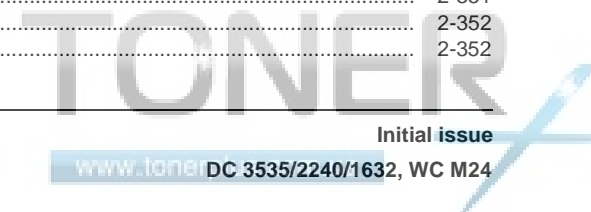


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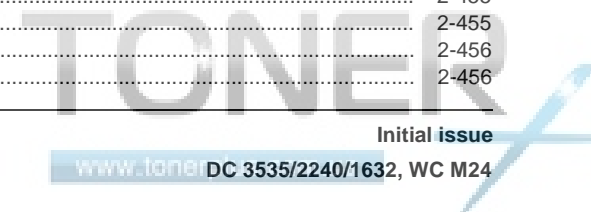


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## 1-300 RAP

The Left Cover is open.

### Procedure

Enter **dC330** [001-301] and press the **Start** button. Open and close the Left Cover (PL 2.7).

**The Display changes state.**

Y N

**+24 VDC is measured between +24 LVPS P/J502-1 and GND(-).**

Y N

Replace the LVPS (PL 9.1).

Disconnect **P/J172** from the Left Cover Interlock Switch (PL 2.11). Refer to **Figure 1** and check the resistance between A1 and B1 when the switch is actuated. **The resistance is less than 3 ohms.**

Y N

Replace the Left Cover Interlock Switch (PL 2.11).

Reinstall the switch. Close the Left Cover (PL 2.7). **+24 VDC is measured between P/J535-A1 on the I/F PWB and GND.**

Y N

Repair the open circuit between the +24 VDC LVPS and the I/F PWB.

Replace the I/F PWB (PL 9.1).

If the problem continues, replace the MCU PWB (PL 13.1).

Check the installation of the Cover/Actuator.

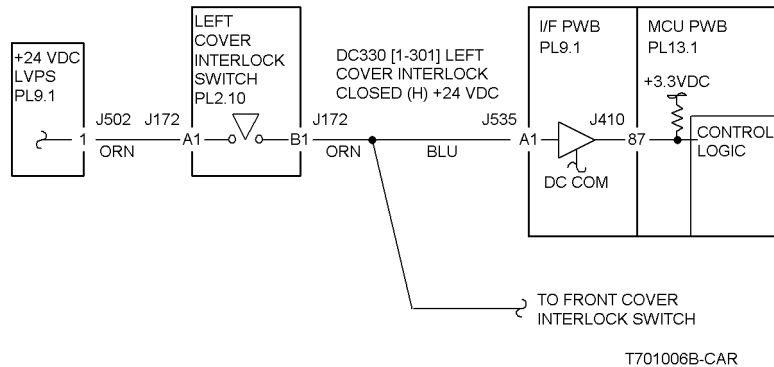


Figure 1 1-300 RAP Circuit Diagram - Left Cover Interlock Switch



## 1-301 RAP

The Left Lower Cover is open

### Procedure

Enter **dC330** [001-302] and press the **Start** button. Open the Left Lower Cover. Actuate the LH Lower Cover Interlock Switch (**PL 2.3**) with a screwdriver. **The display changes state.**

**Y N**

Go to the **OF 99-2** RAP and repair the LH Lower Cover Interlock Switch. (**PL 2.3**). Refer to **Figure 1**.

Check the Actuator and Left Lower Cover installation (**PL 2.3**).

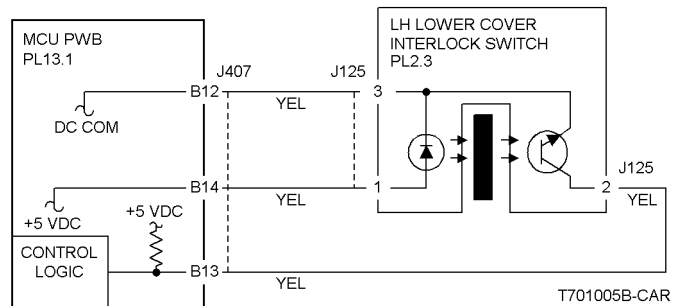


Figure 1 1-301 RAP Circuit Diagram - LH Lower Cover Interlock Switch



## 1-302 RAP

The Front Cover or the Right Side Cover is open.

### Initial Actions

Check the operation of the Actuator and the switch.

### Procedure

Open the Front Cover. Check the Front Interlock Switch. **The Fault Code 001-302 is cleared.**

Y N  
**+24VDC is measured between the I/F PWB P/J531-1 (+) and GND (-).**  
 Y N  
**+24VDC is measured between the Front Interlock Switch P/J171-B1 (+) and GND (-).**  
 Y N  
**24VDC is measured between the Front Interlock Switch P/J171-A1 (+) and GND (-).**  
 Y N  
 Repair the open circuit between the Left Cover Interlock Switch P/J172-B1 and the Front Interlock Switch P/J171-A1.

Replace the Front Interlock Switch (PL 10.1).

**+24VDC is measured between the RH Cover Interlock Switch P/ J173-B1 (+) and GND (-).**

Y N  
**+24VDC is measured between the RH Cover Interlock Switch P/ J173-A1 (+) and GND (-).**

Y N  
 Repair the open circuit between the Front Interlock Switch P/J171-B1 and the RH Cover Interlock Switch P/ J173-A1.

Replace the RH Cover Interlock Switch (PL 10.1).

**The machine is a DC 3535.**

Y N  
 Refer to Figure 1. Check the wire for an open circuit between the RH Cover Interlock Switch P/ J173-B1 and the Interlock Relay PWB P/J569-2.  
 Check the wire for an open circuit between the Interlock Relay PWB P/J569-1 and the I/F PWB P/J531-1.

Refer to Figure 2. Check the wire for an open circuit between the RH Cover Interlock Switch P/J173-B1 and the I/F PWB J531-1.

Replace the I/F PWB (PL 9.1).

If the problem continues, replace the MCU PWB (PL 13.1).

Check installation of Cover/Actuator (PL 10.1).

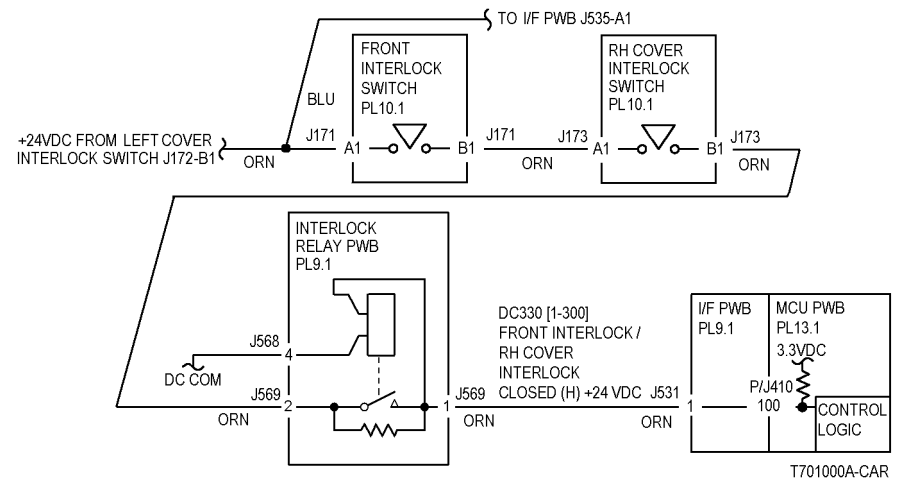


Figure 1 1-302 RAP Circuit Diagram - DC 2240/1632, WC M24 Front Cover / RH Cover Interlock

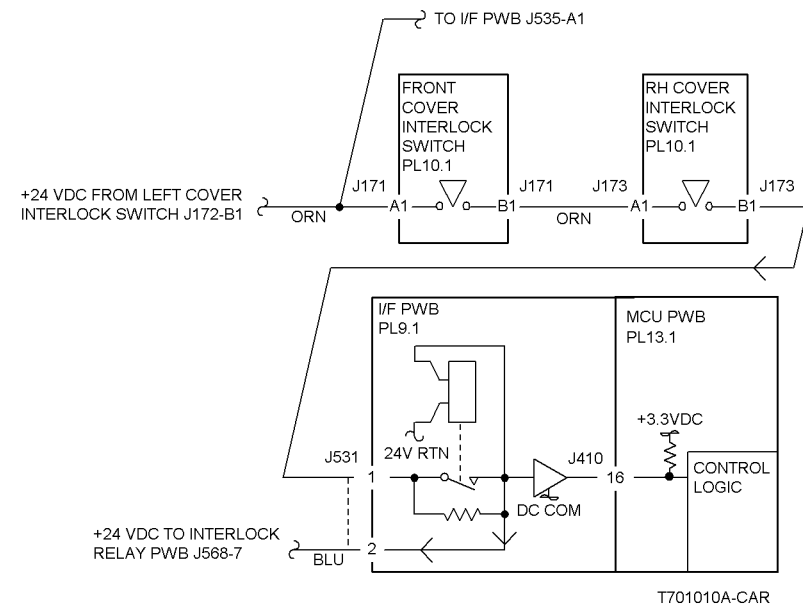


Figure 2 1-302 RAP Circuit Diagram - DC 3535 Front Cover / RH Cover Interlock



**1-303 RAP**

The Tray Module Left Door is open.

## Procedure

Enter **dC330** [001-304] and press the **Start** button. Actuate the Tray Module LH Cover Interlock Switch (**PL 16.13**) with a screwdriver. **The Display changes state.**

**Y**      **N**

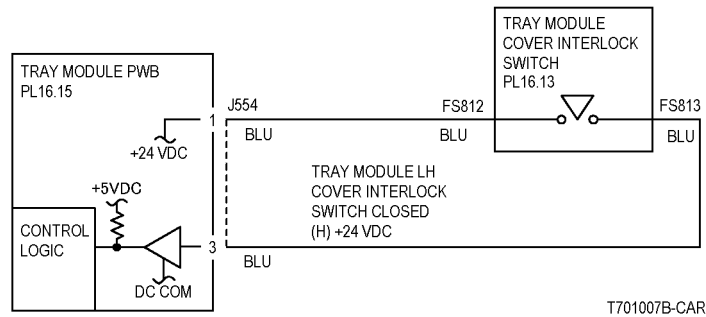
**+24 VDC is measured between the Tray Module PWB P/J554-3 (+) and GND (-).**

**Y      N**

Refer to [Figure 1](#) and check the wires from the Tray Module PWB [P/J554-3](#) to Tray Module Cover Interlock Switch FS813 for damage. If the wires are good, replace the Tray Module Cover Interlock Switch ([PL 16.13](#)).

Replace the Tray Module PWB (PL 16.15).

Check the Switch Actuator and the Cover installation (PL 16.13).



**Figure 1 1-303 RAP Circuit Diagram - Tray Module LH Cover Interlock Switch**



## 1-306 RAP

The Duplex Cover is open.

### Procedure

Enter **dC330** [008-300] and press the **Start** button. Open the Duplex Transport. Actuate the Duplex Cover Interlock Switch (PL 12.2) with a screwdriver. **The Display changes state.**

**Y N**  
Deactuate the Duplex Cover Interlock Switch. **Approximately +3.3 VDC is measured between the Drawer Connector P/J626-A6 (+) and GND (-).**

**Y N**  
**The machine is a DC 3535.**

**Y N**  
Refer to **Figure 1**. **Approximately +3.3 VDC is measured between the MCU PWB P/J406-A9 (+) and GND (-).**

**Y N**  
Replace the MCU PWB (PL 13.1).

Repair the open circuit between the MCU PWB P/J406-A9 and Drawer Connector between P/ J626-A6

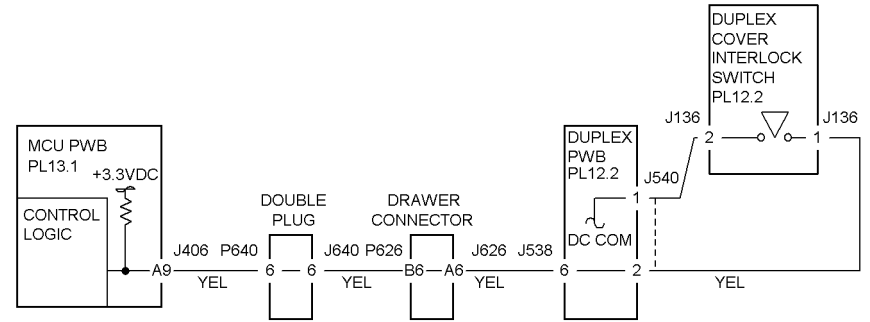
Refer to **Figure 2**. **Approximately +3.3 VDC is measured between the MCU PWB P/J406-A6 (+) and GND (-).**

**Y N**  
Replace the MCU PWB (PL 13.1).

Repair the open circuit between the MCU PWB P/J406-A6 and Drawer Connector between P/ J626-A6

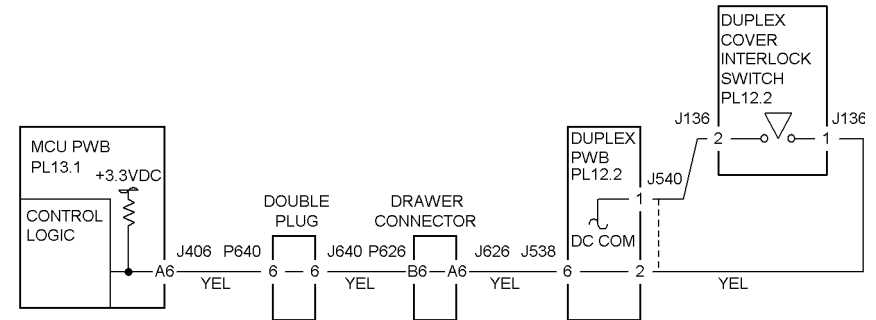
Check the wires at the Drawer Connector between P/ J626-A6 and the Duplex PWB P/ J540-1. If the wires are good, replace the Duplex Cover Interlock Switch (PL 12.2).

Check the Cover Actuator and the Cover installation. If there is no problem, replace the MCU PWB (PL 13.1).



T701008C-CAR

**Figure 1 1-306 RAP Circuit Diagram - DC 2240/1632, WC M24 Duplex Cover Interlock Switch**



T701011A-CAR

**Figure 2 1-306 RAP Circuit Diagram - DC 3535 Duplex Cover Interlock Switch**







### 3-205 Billing Meter Mismatch

The billing meters on the three serialized PWBs do not match.

#### Procedure

Switch the power off then on. If the fault remains, perform [GP 10](#).

### 3-206 Billing Restoration Failure

One of the billing meters on the three serialized PWBs do not match the others.

#### Procedure

Switch the power off then on. If the fault remains, perform [GP 10](#).



### 3-317 IIT Software Failure

Configuration mismatch

#### Procedure

Change the position of the document sensor. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Rewrite the NVM values.

### 3-318 IIT Software Failure

#### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the ESS PWB connectors (P/J Locations, [Figure 14](#)). If the check is OK, replace the ESS PWB ([PL 13.1](#)).



### 3-319 IIT Video Driver Failure

Video Driver declared a DMA or compression error.

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the ESS PWB connectors (P/J Locations, [Figure 14](#)). If the check is OK, replace the ESS PWB ([PL 13.1](#)).

### 3-320 IIT-ESS Communication Failure 1

Controller received check code error (incorrect parameter instruction).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 14](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).



### 3-321 IIT-ESS Communication Failure 2

Controller received check code error (wrong sequence number in sent message packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).

### 3-322 IIT-ESS Communication Failure 3

Controller received check code error (wrong packet number in sent message packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).



### 3-323 IIT-ESS Communication Failure 4

Controller received check code error (wrong message packet length in sent packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).

### 3-324 IIT-ESS Communication Failure 5

Controller received check code error (sent packet checksum error).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).



### 3-325 IIT-ESS Communication Failure 6

Controller received check code error (parity error in IISS).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).

### 3-326 IIT-ESS Communication Failure 7

Controller received check code error (framing error in IISS).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).



### 3-327 IIT-ESS Communication Failure 8

Controller received check code error (over-run error in IISS).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).

### 3-328 IIT-ESS Communication Failure 9

Controller received check code error (transmission aborted after header received).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).



### 3-329 IIT-ESS Communication Failure 10

Controller received check code error (wrong sequence number in received message packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).

### 3-330 IIT-ESS Communication Failure 11

Controller received check code error (wrong packet number in received message packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).



### 3-331 IIT-ESS Communication Failure 12

Controller received check code error (wrong message packet length in received packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).

### 3-332 IIT-ESS Communication Failure 13

Controller received check code error (received packet checksum error).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).



### 3-333 IIT-ESS Communication Failure 14

Controller received check code error (parity error in UART)

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).

### 3-334 IIT-ESS Communication Failure 15

Controller received check code error (UART framing error)

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).



### 3-335 IIT-ESS Communication Failure 16

Controller received check code error (UART over-run error).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).

### 3-336 IIT-ESS Communication Failure 17

Controller received check code error (reception aborted after header received).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).



### 3-337 IIT-ESS Communication Failure 18

Controller received check code error (reception aborted after header received).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors (P/J Locations, [Figure 30](#)). If the check is OK, replace the IIT/IPS PWB ([PL 18.3](#)).

### 3-340 IOT-ESS Communication Failure 1

Controller received check code error (incorrect parameter instruction).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).



### 3-341 IOT-ESS Communication Failure 2

Controller received check code error (wrong sequence number in sent message packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

### 3-342 IOT-ESS Communication Failure 3

Controller received check code error (wrong packet number in sent message packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).



### 3-343 IOT-ESS Communication Failure 4

Controller received check code error (wrong message packet length in sent packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

### 3-345 IOT-ESS Communication Failure 5

Controller received check code error (sent packet checksum error).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).



### 3-346 IOT-ESS Communication Failure 6

Controller received check code error (parity error in IOT).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

### 3-347 IOT-ESS Communication Failure 7

Controller received check code error (framing error in IOT).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).



### 3-348 IOT-ESS Communication Failure 8

Controller received check code error (IOT over-run error).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

### 3-349 IOT-ESS Communication Failure 9

Controller received check code error (transmission aborted after header received).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).



### 3-350 IOT-ESS Communication Failure 10

Controller received check code error (wrong sequence number in received message packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

### 3-351 IOT-ESS Communication Failure 11

Controller received check code error (wrong packet number in received message packet).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the check is OK, replace the MCU PWB ([PL 13.1](#)).



### 3-352 IOT-ESS Communication Failure 12

Controller received check code error (wrong message packet length in received packet).

#### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the check is OK, replace the MCU PWB ([PL 13.1](#)).

### 3-353 IOT-ESS Communication Failure 13

Controller received check code error (received packet checksum error).

#### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).



### 3-354 IOT-ESS Communication Failure 14

Controller received check code error (UART parity error).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

### 3-355 IOT-ESS Communication Failure 15

Controller received check code error (UART framing error).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).



### 3-356 IOT-ESS Communication Failure 16

Controller received check code error (UART over-run error).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

### 3-357 IOT-ESS Communication Failure 17

Controller received check code error (reception aborted after header received).

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).



### 3-358 IOT-ESS Communication Failure 18

Controller received check code error.

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

### 3-359 IOT-ESS Communication Failure 19

Controller received check code error.

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).



### 3-360 IOT-ESS Initialization Failure

IOT driver initialization failure.

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Reinstall the software. If the problem continues, check the MCU PWB connectors (P/J Locations, [Figure 15](#)). DC 3535 only: Replace the VSEL PWB ([PL 13.1](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

### 3-364 DMA Transfer Failure

Compression/extraction did not complete.

#### Procedure

Switch the power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Replace the RAM ([PL 13.1](#)).  
Perform [ADJ 9.8](#). If the problem continues, replace the HDD ([PL 13.1](#)).  
If the problem persists, replace the ESS PWB ([PL 13.1](#)).



### 3-365 Overflow on Write Loop Back

The extended data exceeds the reserved buffer size

#### Procedure

Switch the power off then on. **The problem continues.**

**Y    N**

Return to Service Call Procedures.

Replace the ESS PWB (PL 13.1).

### 3-366 Library Fail

#### Procedure

Switch the power off then on. **The problem continues.**

**Y    N**

Return to Service Call Procedures.

Replace the ESS PWB (PL 13.1).



### 3-370 Marker Code Detect Failure

The end code cannot be found in the compressed data.

#### Procedure

Switch the power off then on. **The problem continues.**

**Y    N**

Return to Service Call Procedures.

Replace the RAM (PL 13.1).

Perform ADJ 9.8. If the problem continues, replace the HDD (PL 13.1).

If the problem persists, replace the ESS PWB (PL 13.1).

### 3-747 Print Instruction Failure

The print parameter is incorrect. This may indicate that a selected function such as finishing, stapling, or duplexing is not available.

#### Procedure

Switch the power off then on. **The problem continues.**

**Y    N**

Return to Service Call Procedures.

Change the print parameter and print again.



### 3-750 Insufficient Number of Document Pages

Insufficient number of pages programed when making a book.

#### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Set the number of document pages to the maximum count.

### 3-761 Tray Select Error

The paper sizes are different than the tray that will be selected by the APS.

#### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Select an appropriate tray.



### 3-941 Insufficient Page Memory

#### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Perform the operation again.

### 3-942 Document Size Error

DADF mode: The DADF Document Sensors cannot determine the size of the original.

Platen mode: The APS Sensor cannot determine the size of the original.

#### Procedure

DAFD mode:

- If the document prefeeds into the DADF before the fault is declared, go to the **5-195** RAP.
- If no prefeed takes place, or if the Feed Motor does not energize, go to the **5-110** RAP.

Platen mode:

- Ensure that the Platen Glass, Lens, and APS Sensor are clean.
- Ensure that the original is correctly registered.



### 3-946 Tray 1 Not In Position

Tray 1 not in ready position.

#### Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 1 Paper Size Sensor for damage or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 1 for wear or damage. Repair or replace as required

#### Procedure

Ensure Tray 1 is closed. Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Go to the 7-270 RAP.

### 3-947 Tray 2 Not In Position

Tray 2 not in ready position.

#### Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 2 Paper Size Sensor for damage or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 2 for wear or damage. Repair or replace as required

#### Procedure

Ensure Tray 2 is closed. Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Go to the 7-271 RAP.



### 3-948 Tray 3 Not In Position

Tray 3 not in ready position.

#### Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 3 Paper Size Sensor for damage or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 3 for wear or damage. Repair or replace as required

#### Procedure

Ensure Tray 3 is closed. Switch the power off then on. **The problem continues.**

**Y N**  
Return to the Service Call Procedures.

**The machine is equipped with a 3TM.**

**Y N**  
Go to the 7-276 RAP.

Go to the 7-272 RAP

### 3-949 Tray 4 Not In Position

Tray 4 not in ready position.

#### Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 4 Paper Size Sensor for damage or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 4 for wear or damage. Repair or replace as required

#### Procedure

Ensure Tray 4 is closed. Switch the power off then on. **The problem continues.**

**Y N**  
Return to the Service Call Procedures.

**The machine is equipped with a 3TM.**

**Y N**  
Go to the 7-277 RAP.

Go to the 7-273 RAP.



## 3-950 Tray 1 Empty

Paper is not detected in Tray 1

### Procedure

Remove Tray 1. Enter **dC330** [007-120] and press **Start**. Actuate the Tray 1 No Paper Sensor (PL 2.4). **The display changes state.**

**Y N**

Press **Stop**. Check the circuit of the Tray 1 No Paper Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

- Go to the 7-281 RAP and check the circuit of the Tray 1 Level Sensor.
- Ensure that the connectors shown in the circuit diagram (Figure 1) are securely connected and that the wires are not damaged.
- Replace the Tray 1 No Paper Sensor (PL 2.4).
- If the problem persists, replace the MCU PWB (PL 13.1).

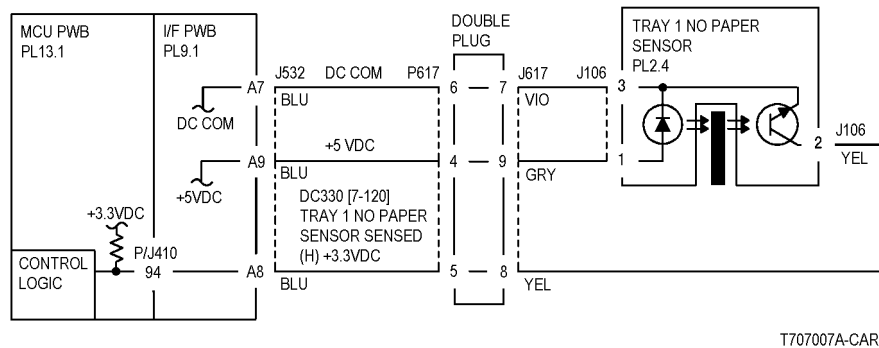


Figure 1 3-950 RAP Circuit Diagram - Tray 1 No Paper Sensor

## 3-951 Tray 2 Empty

Paper is not detected in Tray 2

### Procedure

The machine is equipped with a 3TM.

**Y N**

Remove Tray 2. Enter **dC330** [007-121] and press **Start**. Actuate the Tray 2 No Paper Sensor (PL 16.7). **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Tray 2 No Paper Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**.

- Go to the 7-282 RAP and check the circuit of the Tray 2 Level Sensor.
- Ensure that the connectors shown in the circuit diagram (Figure 1) are securely connected and that the wires are not damaged.
- Replace the Tray 2 No Paper Sensor (PL 16.7).
- If the problem persists, replace the Tray Module PWB (PL 16.15).

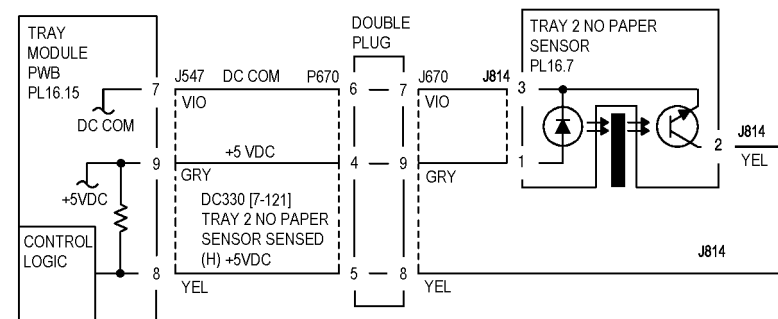
Remove Tray 2. Enter **dC330** [007-121] and press **Start**. Actuate the Tray 2 No Paper Sensor (PL 15.3). **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Tray 2 No Paper Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**.

- Go to the 7-282 RAP and check the circuit of the Tray 2 Level Sensor.
- Ensure that the connectors shown in the circuit diagram (Figure 2) are securely connected and that the wires are not damaged.
- Replace the Tray 2 No Paper Sensor (PL 15.3).
- If the problem persists, replace the Tray Module PWB (PL 15.9).



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Figure 1 3-951 RAP Circuit Diagram - Tray 2 No Paper Sensor (TTM)



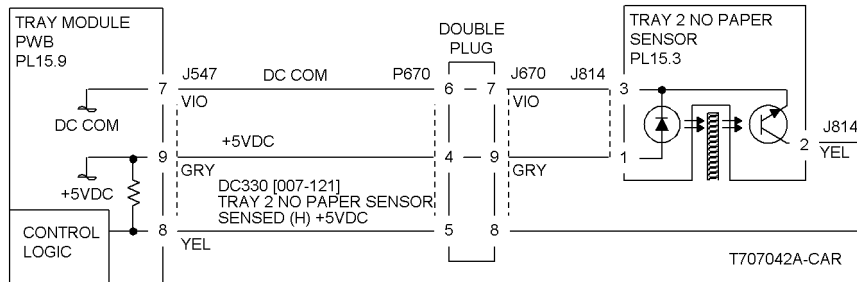


Figure 2 3-951 RAP Circuit Diagram - Tray 2 No Paper Sensor (3TM)

### 3-952 Tray 3 Empty

Paper is not detected in Tray 3

#### Procedure

The machine is equipped with a 3TM.

Y N

Remove Tray 3. Enter **dC330** [007-122] and press **Start**. Actuate the Tray 3 No Paper Sensor (PL 16.9). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Tray 3 No Paper Sensor (Figure 1). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Press **Stop**.

- Go to the **7-291** RAP (TTM) and check the circuit of the Tray 3 Level Sensor.
- Ensure that the connectors shown in the circuit diagram (Figure 1) are securely connected and that the wires are not damaged.
- Replace the Tray 3 No Paper Sensor (PL 16.9).
- If the problem persists, replace the Tray Module PWB (PL 16.15).

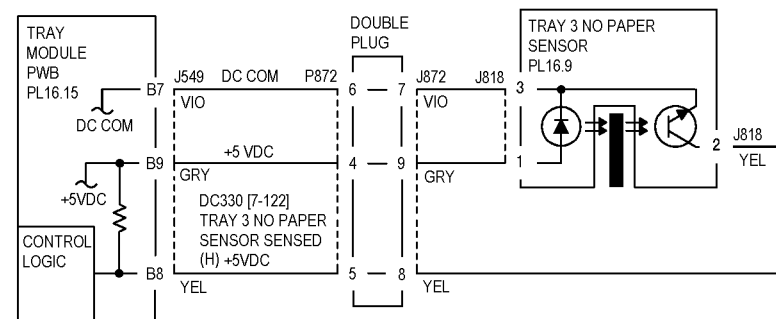
Remove Tray 3. Enter **dC330** [007-122] and press **Start**. Actuate the Tray 3 No Paper Sensor (PL 15.5). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Tray 3 No Paper Sensor (Figure 2). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Press **Stop**.

- Go to the **7-283** RAP and check the circuit of the Tray 3 Level Sensor.
- Ensure that the connectors shown in the circuit diagram (Figure 2) are securely connected and that the wires are not damaged.
- Replace the Tray 3 No Paper Sensor (PL 15.5).
- If the problem persists, replace the Tray Module PWB (PL 15.9).



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Figure 1 3-952 RAP Circuit Diagram - Tray 3 No Paper Sensor (TTM)



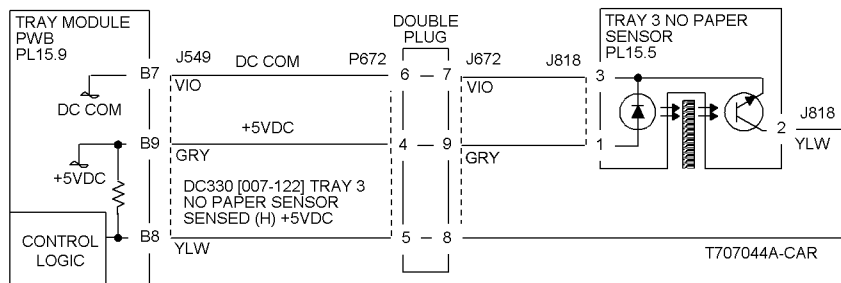


Figure 2 3-952 RAP Circuit Diagram - Tray 3 No Paper Sensor (3TM)

### 3-953 Tray 4 Empty

Paper is not detected in Tray 4.

#### Procedure

The machine is equipped with a 3TM.

Y N

Remove Tray 4. Enter **dC330** [007-123] and press **Start**. Actuate the Tray 4 No Paper Sensor (PL 16.11). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Tray 4 No Paper Sensor (Figure 1). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Press **Stop**.

- Go to the **7-293** RAP (TTM) and check the circuit of the Tray 4 Level Sensor
- Ensure that the connectors shown in the circuit diagram (Figure 1) are securely connected and that the wires are not damaged.
- Replace the Tray 4 No Paper Sensor (PL 16.11).
- If the problem persists, replace the Tray Module PWB (PL 16.15).

Remove Tray 4. Enter **dC330** [007-123] and press **Start**. Actuate the Tray 4 No Paper Sensor (PL 15.7). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Tray 4 No Paper Sensor (Figure 2). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Press **Stop**.

- Go to the **7-284** RAP (3TM) and check the circuit of the Tray 4 Level Sensor.
- Ensure that the connectors shown in the circuit diagram (Figure 2) are securely connected and that the wires are not damaged.
- Replace the Tray 4 No Paper Sensor (PL 15.7).
- If the problem persists, replace the Tray Module PWB (PL 15.9).

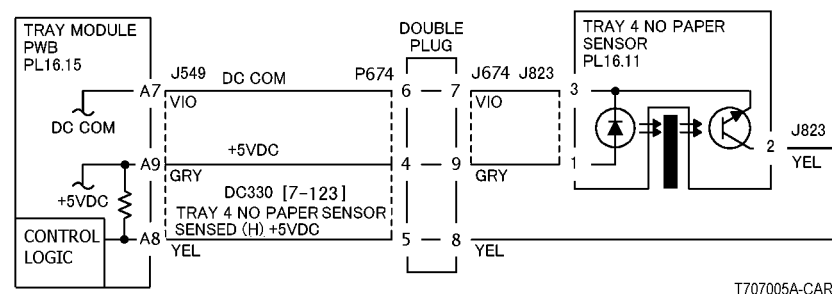


Figure 1 9-353 RAP Circuit Diagram - Tray 4 No Paper Sensor (TTM)



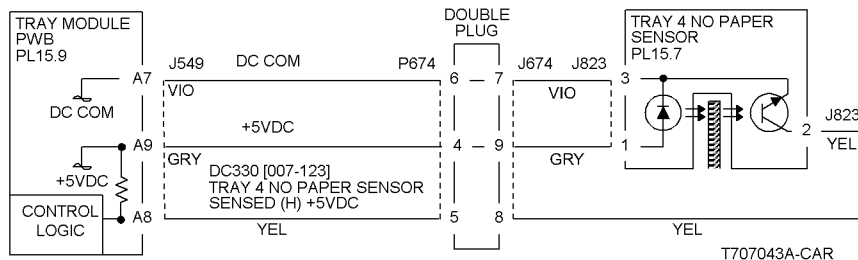


Figure 2 9-353 RAP Circuit Diagram - Tray 4 No Paper Sensor (3TM)

### 3-954 Tray 5 Empty

Paper is not detected in Tray 5.

#### Procedure

Enter **dC330** [007-125] and press **Start**. Actuate the Tray 5 No Paper Sensor. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Tray 5 No Paper Sensor (Figure 1). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagram (Figure 1) are securely connected and that the wires are not damaged.
- Replace the Tray 5 No Paper Sensor (PL 2.13).
- If the problem persists, replace the MCU PWB (PL 13.1)

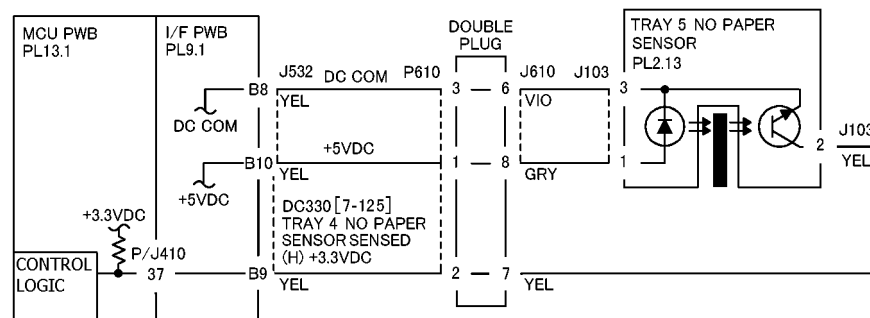


Figure 1 3-954 RAP Circuit Diagram - Tray 5 No Paper Sensor



### 3-958 Tray 5 Paper Size Mismatch

The paper in the Tray 5 does not match the paper size selected.

#### Procedure

The correct size paper is loaded in Tray 5.

**Y   N**  
|     Load the correct size paper and return to Service Call Procedures.

Go to the 7-274 RAP.

### 3-959 Tray 1 Paper Size Mismatch

The paper in Tray 1 does not match the paper size selected.

#### Procedure

The correct size paper is loaded in Tray 1.

**Y   N**  
|     Load the correct size paper and return to Service Call Procedures.

Go to the 7-270 RAP.



### 3-960 Tray 2 Paper Size Mismatch

The paper in Tray 2 does not match the paper size selected.

#### Procedure

The correct size paper is loaded in Tray 2.

Y N

Load the correct size paper and return to Service Call Procedures.

Go to the 7-271 RAP.

### 3-961 Tray 3 Paper Size Mismatch

The paper in Tray 3 does not match the paper size selected.

#### Procedure

The machine is equipped with a 3TM.

Y N

The correct size paper is loaded in Tray 3.

Y N

Load the correct size paper and return to Service Call Procedures.

Go to the 7-276 RAP.

The correct size paper is loaded in Tray 3.

Y N

Load the correct size paper and return to Service Call Procedures.

Go to the 7-272 RAP.



### 3-962 Tray 4 Paper Size Mismatch

The paper in Tray 4 does not match the paper size selected.

#### Procedure

The machine is equipped with a 3TM.

Y N

The correct size paper is loaded in Tray 4.

Y N

Load the correct size paper and return to Service Call Procedures.

Go to the 7-277 RAP.

The correct size paper is loaded in Tray 4.

Y N

Load the correct size paper and return to Service Call Procedures.

Go to the 7-273 RAP.

### 3-965 No Paper (ATS or APS mode)

The paper does not match the paper size selected.

#### Procedure

The correct size paper is loaded.

Y N

Load the correct size paper and return to Service Call Procedures.

Go to the appropriate paper size sensor RAP:

- For Tray 1 size mismatch, go to the 7-270 RAP.
- For Tray 2 size mismatch, go to the 7-271 RAP.
- For Tray 3 size mismatch (3TM), go to the 7-272 RAP.
- For Tray 3 size mismatch (TTM), go to the 7-276 RAP.
- For Tray 4 size mismatch (3TM), go to the 7-273RAP.
- For Tray 4 size mismatch (TTM), go to the 7-277 RAP.
- For Tray 5 size mismatch, go to the 7-274 RAP.



### 3-971 Magnification

Incompatible Magnification selected

#### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Change parameters and rerun job.

### 3-972 Over Number of Document Pages Stored

#### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Show the customer how to set the number of document pages to the maximum count:

1. Press the **Access** button on the Control Panel.
2. In the **System Administrator - Password Entry** screen, have the System Administrator enter the Access Number (11111- default) and press **Confirm**.

**NOTE:** If the **System Administrator - Password Entry** screen does not appear, proceed to Step 4. (The System Administrator password function is turned OFF.)

3. Press the **System Settings** button on the display.
4. Press the **System Settings** button on the display.
5. Press the **Copy Mode Settings** button on the display.
6. Press the **Copy Control** button on the display.
7. Set the **Maximum Stored Pages** to maximum count:
  - a. Select **Maximum Stored Pages**.
  - b. Press the **Change Settings** button.
  - c. Set **New Value** to 999.
  - d. Press **Save**.



### 3-974 Next Document Specified

Manual placement of Next Document Specified

#### Procedure

Manually change documents on platen glass. **The problem continues.**

**Y** **N**  
| Return to Service Call Procedures.

Switch the power off then on.

### 3-975 Document replacement request

Document replacement request when 2-sided is selected when the Platen is used for scanning

#### Procedure

Manually change documents on platen glass. **The problem continues.**

**Y** **N**  
| Return to Service Call Procedures.

Switch the power off then on.



### 3-980 Stapler Position Error

The Stapler is not available at the specified position.

#### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Re-set the parameters.

### 3-985 Tray 5 Pause Check

The Tray 5 tray jammed.

#### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Go to the 7-959 RAP.



### 3-986 Print Completion Error

The number of spooled pages does not match the output.

#### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Count the number of prints to ensure job integrity.







## 4-340 IOT RAM Failure

MCU PWB RAM test failed.

### Procedure

Switch the power off, then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Check the connection between the MCU PWB and the MCU NVM PWB. If the check is OK, replace the MCU PWB (PL 13.1).

### CAUTION

*Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.*

If the problem continues, replace the MCU NVM PWB (PL 13.1).



## 4-341 IOT Logic Failure

MCU PWB cannot detect INTLK +5 VDC.

### Initial Actions

- Check that the Waste Toner Bottle and all four Drum Cartridges are seated correctly.
- Check fault history for 9-925 faults. If this fault has occurred recently, go to the 9-925 RAP.
- Check that the I/F PWB is securely connected to the MCU PWB at P410.
- Reinstall the IOT software. Refer to the instructions on the s/w install CD.

### Procedure

There is +5VDC from P/J535-B13 on the I/F PWB to GND.

Y N

There is +5VDC from P/J631-1 to GND.

Y N

There is +5VDC from P/J631-3 to GND.

Y N

Go to Figure 1. Check the wire from FS134 to P/J631-3 for an open circuit.

Go to Figure 1. Check the +5VDC INTLK wiring through the Drum connectors (P/J151 - P/J154). If the wires are OK, check the CRUM connectors on the Drum Cartridges for damage, wear, or contamination. Clean, repair, or replace as required (Machine Consumables) (PL 4.1).

Go to Figure 1. Check for an open circuit between P/J631-1 and P/J568-2 on the Interlock Relay PWB (PL 9.1). If this wire is OK, check for an open circuit between P/J535-B13 and P/J568-1. If this wire is OK, replace the Interlock Relay PWB (PL 9.1).

There is +5VDC from P/J401-B20 to GND.

Y N

There is +5VDC from P/J400-9 to GND.

Y N

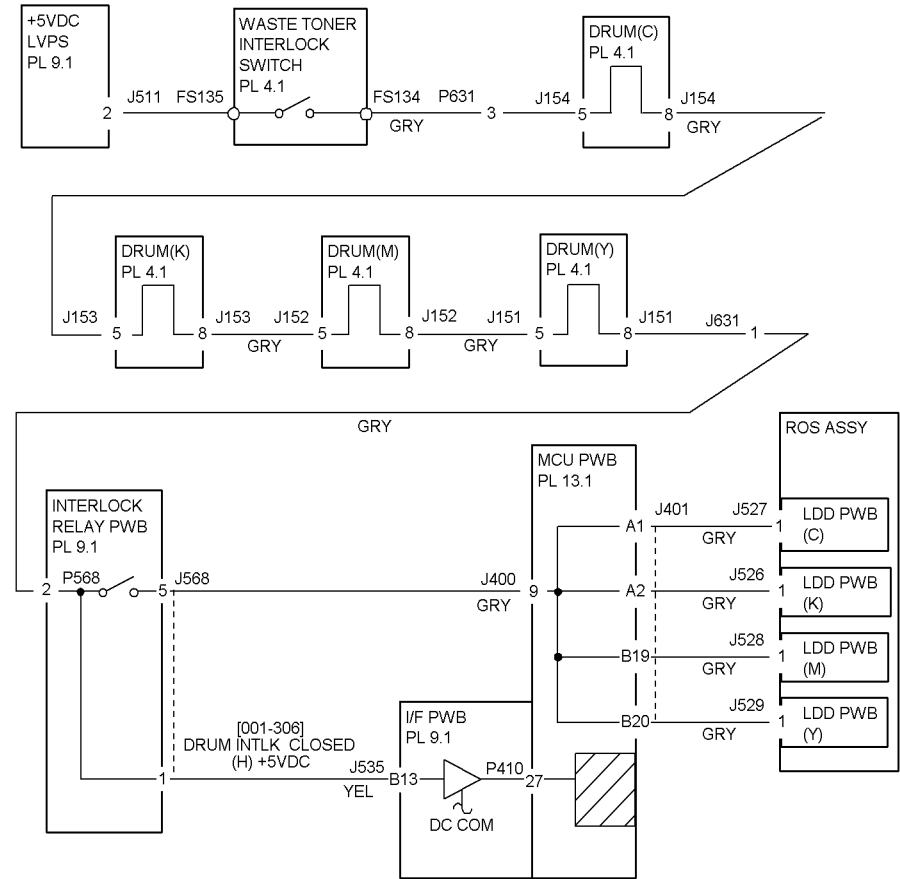
Go to Figure 1. Check the wire from J568-5 to J400-9 for an open circuit. If the wire is OK, replace the Interlock Relay PWB (PL 9.1).

Go to Figure 1. Check the four wires from J401 to P/J526 - P/J529 on the ROS for a short circuit. If the wires are OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ROS (PL 3.1).

Go to Figure 1. Check the wires between the MCU PWB and the ROS for an open circuit or loose connection:

- J401-A1 to J527-1
- J401-A2 to J526-1
- J401-B19 to J528-1
- J401-B20 to J529-1

If the wires are OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ROS (PL 3.1).



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Figure 1 4-341 RAP Circuit Diagram



## 4-342 Flash ROM Limit Failure

Limit failure of Flash ROM

### Procedure

Switch the power off, then on. **The problem continues.**

**Y** **N**  
| Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).

## 4-343 IOT Flash ROM Read Write

Flash ROM operation failure.

### Procedure

Switch the power off, then on. **The problem continues.**

**Y** **N**  
| Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).



## 4-344 IOT Micro Pitch

The micro pitch did not occur within the specified time.

### Procedure

Switch the power off, then on. **The problem continues.**

**Y N**  
Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).

## 4-345 MCU/HVPS Communication

Communication error between MCU PWB and HVPS Control PWB

### Procedure

There is +5 VDC from P/J574-5 to P/J574-4 on the HVPS Control PWB.

**Y N**  
Disconnect P/J574. There is +5 VDC from J574-5 to J574-4.

**Y N**  
There is +5 VDC from P/J406-B5 on the MCU PWB to GND.

**Y N**  
Replace the MCU PWB (PL 13.1).

Go to Figure 1. Check for open circuit or loose connections in the 5VDC supply wires between P/J406, pins B5 and B6; and P/J574, pins 5 and 4.

Go to Figure 1. Check the wire from J406-B5 to J574-5 for a short circuit to GND. If the wire is OK, replace the HVPS Control PWB (PL 9.1).

Switch off the power. Go to Figure 1 and check these wires for an open or short circuit to GND:

- HVPS Control PWB P/J574-9 to MCU PWB P/J406-B1.
- HVPS Control PWB P/J574-8 to MCU PWB P/J406-B2.
- HVPS Control PWB P/J574-7 to MCU PWB P/J406-B3.
- HVPS Control PWB P/J574-6 to MCU PWB P/J406-B4.

If the problem continues, replace the MCU PWB (PL 13.1). If this does not resolve the problem, replace the HVPS Control PWB (PL 9.1).

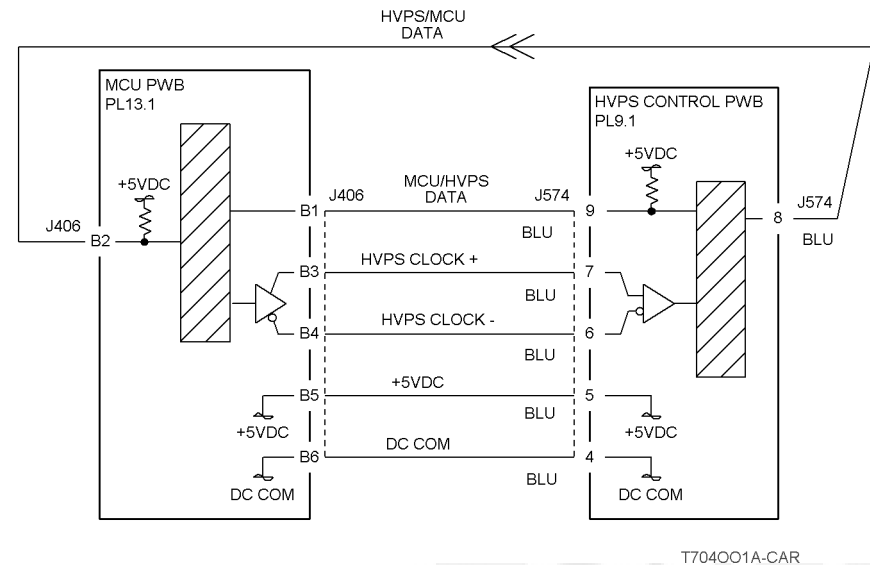


Figure 1 4-345 RAP Circuit Diagram



## 4-346 Transfer Belt Home Fault

The IBT Home Sensor does not detect the Belt Home signal.

**NOTE:** If this fault is declared 3 times in succession, print mode will be disabled. In order to clear this condition, reset NVM location 741-056 to 0.

### Initial Actions

Check the following:

- If the fault occurs immediately after installation, ensure that the IBT shipping brackets on the left side of the IBT Assembly have been removed.
- Check that the IBT Belt Cleaner is not damaged, binding, or incorrectly assembled.
- Ensure that the Transfer Belt is clean, free from damage, and that the Home position reflector is intact.

### Procedure

- If any Developer Housings were just serviced, verify installation is correct (REP 9.9).
- If the IBT was just serviced, verify the installation is correct (REP 9.15).
- If a Finisher status code occurred just before the 4-346 in fault history, go to the RAP for the Finisher status code.

Block the IBT Home Sensor (PL 5.4) with paper. Enter dC330 [004-014], then [004-100]. Press **Start**. The display indicates H.

Y N  
There is +5 VDC between P/J533-A13(+) on the I/F PWB and GND(-).  
Y N  
There is +5 VDC between P/J533-A9(+) and P/J533-A12(-) on the I/F PWB.  
Y N  
Replace the MCU PWB (PL 13.1).  
Refer to Figure 1. Check the wires between P/J121 on the IBT Home Sensor and P/J533 on the I/F PWB. If no problems are found, replace IBT Home Sensor (PL 5.4).  
Replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

Remove the IBT Assembly (REP 9.15). Ensure that the Belt can be rotated manually by turning the gears on the rolls.

Check the IBT Belt Cleaner Assembly for binding or damage to the shutter actuator. The IBT Assembly is OK.

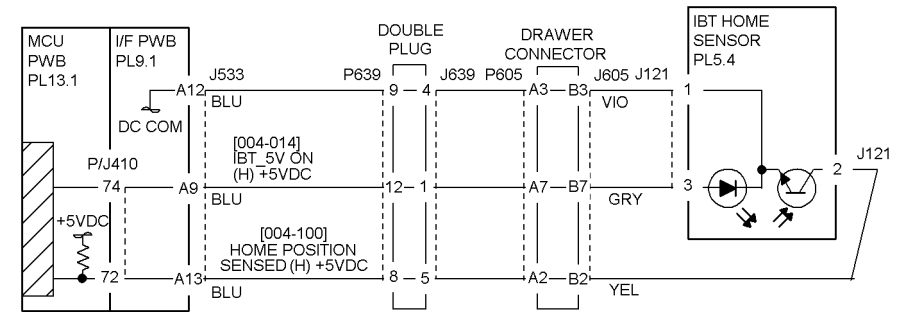
Y N  
Repair or replace the IBT Assembly (PL 5.2).

Enter dC330 [004-002] and press **Start**. The IBT Motor energizes.

Y N  
There is +24 VDC between P/J551-3(+) and GND(-) on the I/F PWB.  
Y N  
Go to the 24 VDC Wirenets (Figure 2) and check the +24VDC circuit up to I/F PWB P/J551-3  
Go to Figure 2. Check for wire damage or bad connection between the IBT Motor and P/J551 on the I/F PWB. If the wires are OK, replace the IBT Motor (PL 1.1).

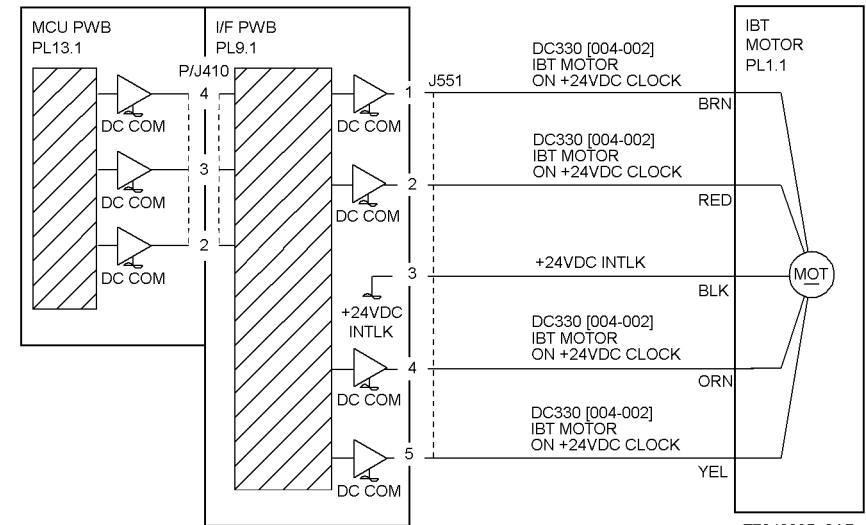
A

Replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).



T704002B-CAR

Figure 1 4-346 RAP Circuit Diagram - IBT Home Sensor



T704003B-CAR

Figure 2 4-346 RAP Circuit Diagram - IBT Motor



## 4-347 Transfer Belt Out of Position

The IBT Edge Sensor does not sense the Transfer Belt edge in the correct position.

### Initial Actions

Check the following:

- Check that the IBT Belt Cleaner is not damaged, binding, or incorrectly assembled.
- Ensure that the Transfer Belt is clean and free from damage, especially the inboard edge.
- Check if the actuator for IBT Edge Sensor touches the belt edge; check actuator installation.

### Procedure

Switch the power on. Enter **dC330** [004-014] and press **Start**. Measure voltage between **P/J533-A11(+)** on the I/F PWB and **GND(-)**. **Between +3 VDC and +1 VDC is measured.**

**Y N**  
There is +5 VDC between **P/J533-A9(+)** and **P/J533-A10(-)** on the I/F PWB.

**Y N**  
Close the Front Cover. If the voltage between **P/J533-A9(+)** **P/J533-A10(-)** is less than +5VDC, replace the MCU PWB (PL 13.1).

**There is +5 VDC between P/J533-A11(+)** on the I/F PWB and **GND(-)**.

**Y N**  
0 VDC is measured between **P/J533-A11(+)** on the I/F PWB and **GND(-)**.

**Y N**  
Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for damage or loose connections. If the wires are OK, replace the IBT Edge Sensor (PL 5.4)  
If the problem continues, replace the MCU PWB (PL 13.1).

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for a short circuit. If the wires are OK, replace the IBT Edge Sensor (PL 5.4).

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for an open circuit. If the wires are OK, replace the IBT Edge Sensor (PL 5.4).

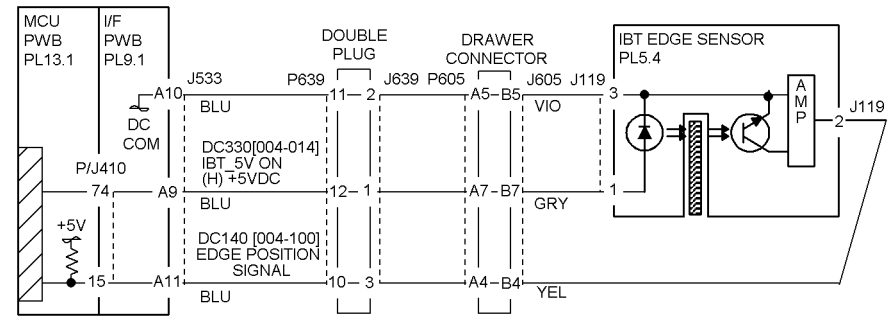
**+24 VDC is measured between P/J550-5(+)** on the I/F PWB and **GND(-)**.

**Y N**  
Go to the **+24 VDC Wirenets** and check +24VDC circuit up to **P/J550-5** on the I/F PWB.

Remove the IBT Assembly. Enter **dC330** [004-001] and press **Start**. The **Steering Motor** energized.

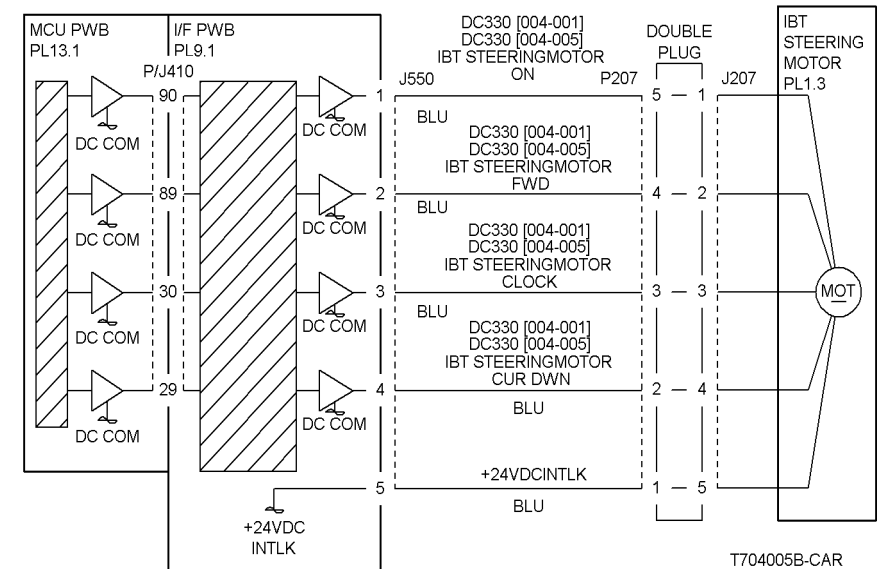
**Y N**  
Refer to **Figure 2**. Check the wires from P550 on the I/F PWB to J207 on the IBT Steering Motor for damage or a loose connection. If the wires are OK, Replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1), and IBT Steering Motor (PL 1.3).

Check the IBT Belt installation (REP 9.22). If no problems are found, replace the MCU PWB (PL 13.1).



T704004B-CAR

Figure 1 4-347 RAP Circuit Diagram - IBT Edge Sensor



T704005B-CAR

Figure 2 4-347 RAP Circuit Diagram - IBT Steering Motor



## 4-348 Transfer Belt Edge Not Detected

The IBT Edge Sensor cannot sense the Transfer Belt edge.

### Initial Actions

Check the following:

- Check that the IBT Belt Cleaner is not damaged, binding, or incorrectly assembled.
- Ensure that the Transfer Belt is clean, free from damage, especially the inboard edge.
- Check if the actuator for IBT Edge Sensor touches the belt edge; check actuator installation.

### Procedure

Switch the power on. Enter **dC330** [004-014] and press **Start**. Measure voltage between **P/J533-A11(+)** on the I/F PWB and GND(-). **Between +3 VDC and +1 VDC is measured.**

Y N

**There is +5 VDC between P/J533-A9(+)** and **P/J533-A10(-)** on the I/F PWB.

Y N

Close the Front Cover. If the voltage between **P/J533-A9(+)** **P/J533-A10(-)** is less than +5VDC, replace the MCU PWB (PL 13.1).

**There is +5 VDC between P/J533-A11(+)** on the I/F PWB and GND(-).

Y N

**0 VDC is measured between P/J533-A11(+)** on the I/F PWB and GND(-).

Y N

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for damage or loose connections. If the wires are OK, replace the IBT Edge Sensor (PL 5.4)

If the problem continues, replace the MCU PWB (PL 13.1).

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for a short circuit. If the wires are OK, replace the IBT Edge Sensor (PL 5.4).

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for an open circuit. If the wires are OK, replace the IBT Edge Sensor (PL 5.4).

**+24 VDC is measured between P/J550-5(+)** on the I/F PWB and GND(-).

Y N

Go to the **+24 VDC Wirenets** and check +24VDC circuit up to **P/J550-5** on the I/F PWB.

Remove the IBT Assembly. Enter **dC330** [004-001] and press **Start**. The **Steering Motor energized.**

Y N

Refer to **Figure 2**. Check the wires from P550 on the I/F PWB to J207 on the IBT Steering Motor for damage or a loose connection. If the wires are OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1), and IBT Steering Motor (PL 1.3).

Check the IBT Belt installation (REP 9.22). If no problems are found, replace the MCU PWB (PL 13.1).

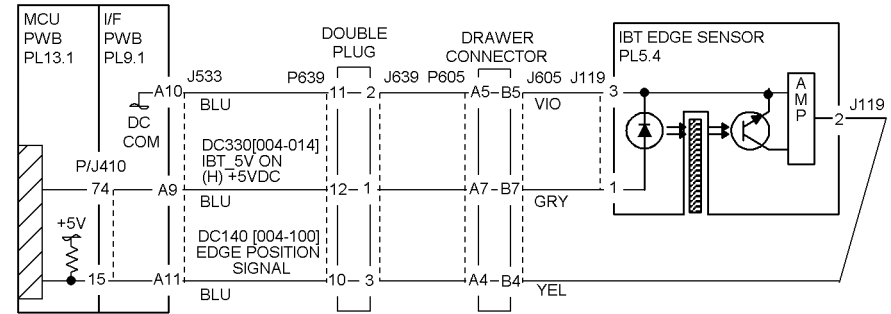


Figure 1 4-348 RAP Circuit Diagram - IBT Edge Sensor

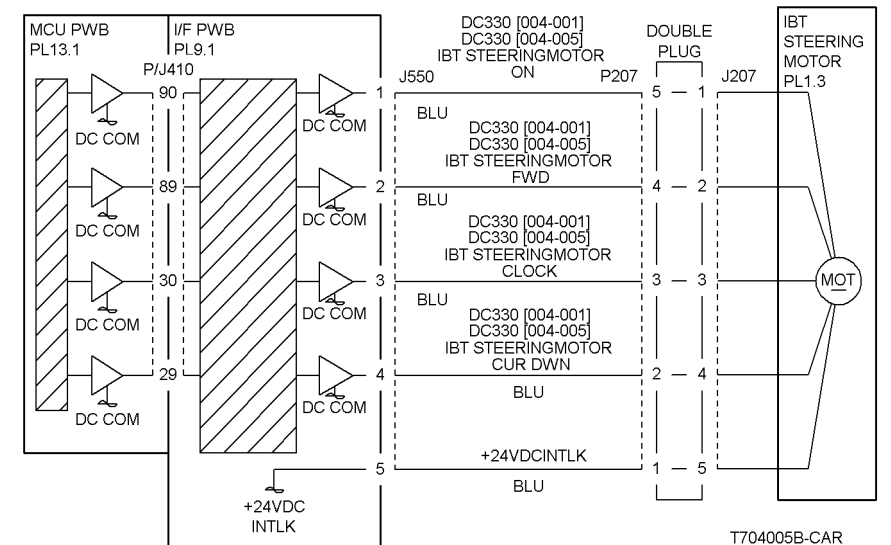


Figure 2 4-348 RAP Circuit Diagram - IBT Steering Motor



## 4-349 Marking Software Logic

Control Logic detected a fatal failure in the Marking software.

### Procedure

Switch the power off, then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Again, Switch the power off, then on. Run the job again.

## 4-358 ESS IOT Communication

Communication failure between the ESS and IOT.

### Procedure

Switch the power off, then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Check the MCU PWB and ESS PWB connectors.

If the problem continues, re-install the software.

If the problem continues, replace the MCU PWB (PL 13.1).

If the problem continues, replace the ESS PWB (PL 13.1).



## 4-361 Drum Motor

Drum Motor failure.

### Initial Actions

- Remove all Drum Cartridges.
- Perform [REP 1.6](#).

### Procedure

The machine is a DC3535.

**Y N**  
Enter **dC330** [004-003] and press **Start**. The Drum Motor energizes and the drives rotate.  
**Y N**  
Go to [Figure 1](#) of this procedure and measure voltage between the Drum Motor **P/J210-4 (+)** and GND (-). **+5 VDC is measured.**  
**Y N**  
Go to [Figure 3](#) of the +5 VDC Wirenets and troubleshoot the problem.  
**Y N**  
Go to [Figure 1](#) of this procedure and measure voltage between the Drum Motor **P/J210-6 (+)** and GND (-). **+24 VDC is measured.**  
**Y N**  
Go to [Figure 2](#) of the +24 VDC Wirenets and troubleshoot the problem.  
Enter **dC330** [004-003] and press **Start**. Measure voltage between:  

- **P/J210-1 (+)** and GND (-)
- **P/J210-2 (+)** and GND (-)

**Less than +1 VDC is measured on P/J210-1 and 2.**  
**Y N**  
Enter **dC330** [004-003] and press **Start**. Measure voltage between:  

- **P/J535-B5 (+)** and GND (-)
- **P/J535-B3 (+)** and GND (-)

**Less than +1 VDC is measured on P/J535-B5 and B3.**  
**Y N**  

- Check connection between MCU PWB and I/F PWB (P410).
- If no problems are found, replace the MCU PWB ([PL 13.1](#)).
- If the problem persists, replace the I/F PWB ([PL 9.1](#)).

- Check for wire damage or bad connection between **P/J210** and **P/J535**.
- If no problems are found, replace the Drum Motor ([PL 1.1](#)).

  
Enter **dC330** [004-003] and press **Start**. Measure AC and DC voltage between **P/J210-3 (+)** and GND(-).  
**NOTE:** If you can measure frequency (Hz) with your meter, then you may check for 1 - 1.3 KHz on **P/J210-3**.  
**2.5V AC and DC is measured (1 - 1.3 KHz is measured.)**  
**Y N**  
Enter **dC330** [004-003] and press **Start**. Measure AC and DC voltage between I/F PWB **P/J535-B2 (+)** and GND (-).

**NOTE:** If you can measure frequency (Hz) with your meter, then you may check for 1 - 1.3 KHz on **P/J535-B2**.

**2.5V AC and DC is measured (1 - 1.3 KHz is measured).**

- Y N**
- Check connection between MCU PWB and I/F PWB (P410).
  - If no problems are found, replace the MCU PWB ([PL 13.1](#)).
  - If the problem persists, replace the I/F PWB ([PL 9.1](#)).
- 
- Check for wire damage or bad connection between **P/J210** and **P/J535**.
  - If no problems are found, replace the Drum Motor ([PL 1.1](#)).

Enter **dC330** [004-003] and press **Start**. Measure voltage between **P/J210-8 (+)** and GND (-). **Less than +1 VDC is measured.**

**Y N**  
Replace Drum Motor ([PL 1.1](#)).

Enter **dC330** [004-003] and press **Start**. Measure voltage between **P/J535-B1 (+)** and GND (-). **Less than +1 VDC is measured.**

**Y N**  
Check for wire damage or bad connection between **P/J210** and **P/J535**.

- Check connection between MCU PWB and I/F PWB (P410).
  - If no problems are found, replace the MCU PWB ([PL 13.1](#)).
  - If the problem persists, replace the I/F PWB ([PL 9.1](#)).
- 
- Check connection between MCU PWB and I/F PWB (P410).
  - If no problems are found, replace the MCU PWB ([PL 13.1](#)).
  - If the problem persists, replace the I/F PWB ([PL 9.1](#)).

Enter **dC330** [004-003] and press **Start**. The Drum Motor energizes and the drives rotate.

**Y N**  
Go to [Figure 2](#) of this procedure and measure voltage between the Drum Motor **P/J210-5 (+)** and GND (-). **+5 VDC is measured.**

**Y N**  
Go to [Figure 6](#) of the +5 VDC Wirenets and troubleshoot the problem.

Go to [Figure 2](#) of this procedure and measure voltage between the Drum Motor **P/J210-7 (+)** and GND (-). **+24 VDC is measured.**

**Y N**  
Go to [Figure 2](#) of the +24 VDC Wirenets and troubleshoot the problem

Enter **dC330** [004-003] and press **Start**. Measure voltage between:

- **P/J210-1 (+)** and GND (-)
- **P/J210-2 (+)** and GND (-)
- **P/J210-3 (+)** and GND (-)

**Less than +1 VDC is measured on P/J210-1,2 and 3.**

**Y N**  
Enter **dC330** [004-003] and press **Start**. Measure voltage between:  

- **P/J535-B3 (+)** and GND (-)



- P/J535-B4 (+) and GND (-)
- P/J535-B5 (+) and GND (-)

**Less than +1 VDC is measured ON P/J535-B3,B4 and B5.**

**Y N**

- Check connection between MCU PWB and I/F PWB (P410).
- If no problems are found, replace the MCU PWB (PL 13.1).
- If the problem persists, replace the I/F PWB (PL 9.1).
- Check for wire damage or bad connection between P/J210 and P/J535.
- If no problems are found, replace the Drum Motor (PL 1.1).

Enter **dC330** [004-003] and press **Start**. Measure AC and DC voltage between P/J210-4 (+) and GND (-).

**NOTE:** If you can measure frequency (Hz) with your meter, then you may check for 1 - 1.3 KHz on P/J210-4.

**2.5V AC and DC is measured (1 - 1.3 KHz is measured).**

**Y N**

Enter **dC330** [004-003] and press **Start**. Measure AC and DC voltage between P/J535-B2 (+) and GND (-).

**NOTE:** If you can measure frequency (Hz) with your meter, then you may check for 1 - 1.3 KHz on P/J535-B2.

**2.5V AC and DC is measured (1 - 1.3 KHz is measured).**

**Y N**

- Check connection between MCU PWB and I/F PWB (P410).
- If no problems are found, replace the MCU PWB (PL 13.1).
- If the problem persists, replace the I/F PWB (PL 9.1).
- Check for wire damage or bad connection between P/J210 and P/J535.
- If no problems are found, replace the Drum Motor (PL 1.1).

Enter **dC330** [004-003] and press **Start**. Measure voltage between P/J210-9 (+) and GND (-). **Less than +1 VDC is measured.**

**Y N**

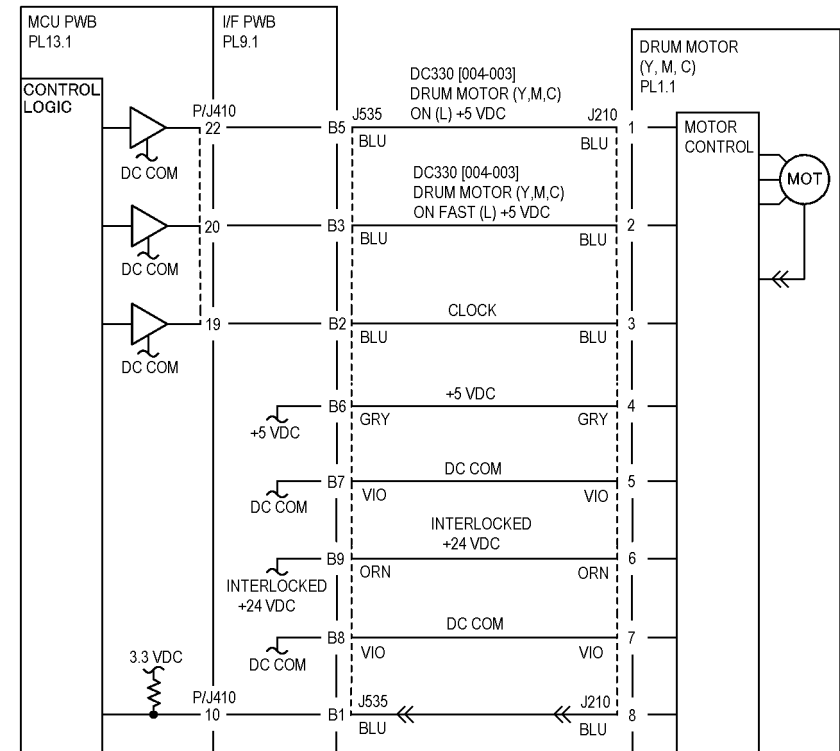
Replace Drum Motor (PL 1.1).

Enter **dC330** [004-003] and press **Start**. Measure voltage between P/J535-B1 (+) and GND (-). **Less than +1 VDC is measured.**

**Y N**

Check for wire damage or bad connection between P/J210 and P/J535.

- Check connection between MCU PWB and I/F PWB (P410).
- If no problems are found, replace the MCU PWB (PL 13.1).
- If the problem persists, replace the I/F PWB (PL 9.1).
- Check connection between MCU PWB and I/F PWB (P410).
- If no problems are found, replace the MCU PWB (PL 13.1).
- If the problem persists, replace the I/F PWB (PL 9.1).



T704006A-CAR

**Figure 1 4-361 RAP Circuit Diagram - Drum Motor (Y, M, C) (DC2240/1632, WC M24)**



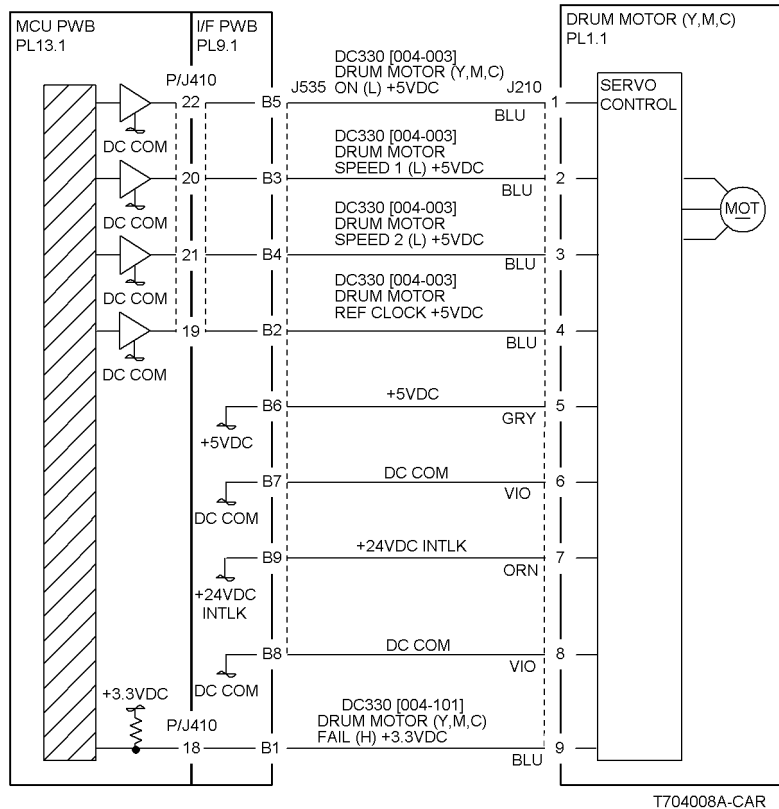


Figure 2 4-361 RAP Circuit Diagram - Drum Motor (Y,M,C) (DC3535)

## 4-362 IOT NVM Read Write

Read Write at the MCU PWB NVM R/W.

### Procedure

Switch the power off, then on. **The problem continues.**

**Y N**

Return to Service Call Procedures.

Check the connection between the MCU PWB and the MCU NVM PWB.

If the problem continues, replace the MCU PWB (PL 13.1).

### CAUTION

*Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.*

If the problem continues, replace the MCU NVM PWB (PL 13.1).



## 4-363 K Drum Motor

Drum Motor K failure.

### Initial Actions

- Remove all Drum Cartridges.
- Perform [REP 1.6](#).

### Procedure

The machine is a DC3535.

**Y N**  
Enter **dC330** [004-006] and press **Start**. **Drum Motor K energizes.**

**Y N**  
Go to [Figure 1](#) of this procedure and measure voltage between I/F PWB [P/J534-A12](#) (+) and GND (-). **+5 VDC is measured.**

**Y N**  
Go to [Figure 3](#) of the +5 VDC Wirenets and troubleshoot the problem.

Go to [Figure 1](#) of this procedure and measure voltage between I/F PWB [P/J534-A15](#) (+) and GND (-). **+24 VDC is measured.**

**Y N**  
Go to [Figure 2](#) of the +24 VDC Wirenets and troubleshoot the problem.

Enter **dC330** [004-006] and press **Start**. Measure voltage between:

- [P/J534-A9](#) (+) and GND (-)
- [P/J534-A10](#) (+) and GND (-)
- [P/J534-A11](#) (+) and GND (-)

**Less than +1 VDC is measured on [P/J534-A9,A10 and A11](#).**

**Y N**

- Check connection between MCU PWB and I/F PWB (P410).
- If no problems are found, replace the MCU PWB ([PL 13.1](#)).
- If the problem persists, replace the I/F PWB ([PL 9.1](#)).

- Check for wire damage between [P/J534](#) and [P/J235](#).
- If no problems are found, replace the Drum Motor ([PL 1.1](#)).

Enter **dC330** [004-006] and press **Start**. Measure AC and DC voltage between [P/J534-A8](#) (+) and GND (-).

**NOTE:** If you can measure frequency (Hz) with your meter, then you may check for 800 - 900 Hz on [P/J534-A8](#).

**Approximately +2.1V AC and DC is measured (800 - 900 Hz is measured).**

**Y N**

- Check connection between MCU PWB and I/F PWB (P410).
- If no problems are found, replace the MCU PWB ([PL 13.1](#)).
- If the problem persists, replace the I/F PWB ([PL 9.1](#)).

Enter **dC330** [004-006] and press **Start**. Measure voltage between [P/J534-A7](#) (+) and GND (-). **Less than +1 VDC is measured.**

A

- Y N**  
Replace Drum Motor ([PL 1.1](#)).
- Check connection between MCU PWB and I/F PWB (P410).
  - If no problems are found, replace the MCU PWB ([PL 13.1](#)).
  - If the problem persists, replace the I/F PWB ([PL 9.1](#)).

Enter **dC330** [004-006] and press **Start**. **Drum Motor K energizes.**

**Y N**  
Go to [Figure 2](#) of this procedure and measure voltage between I/F PWB [P/J534-A6](#) (+) and GND (-). **+5 VDC is measured.**

**Y N**  
Go to [Figure 3](#) of the +5 VDC Wirenets and troubleshoot the problem.

Go to [Figure 2](#) of this procedure and measure voltage between I/F PWB [P/J534-A9](#) (+) and GND (-). **+24 VDC is measured.**

**Y N**  
Go to [Figure 2](#) of the +24 VDC Wirenets and troubleshoot the problem.

Enter **dC330** [004-006] and press **Start**. Measure voltage between:

- [P/J534-A5](#) (+) and GND (-)
- [P/J534-A4](#) (+) and GND (-)
- [P/J534-A3](#) (+) and GND (-)

**Less than +1 VDC is measured on [P/J534-A5,A4 and A3](#).**

**Y N**

- Check connection between MCU PWB and I/F PWB (P410).
- If no problems are found, replace the MCU PWB ([PL 13.1](#)).
- If the problem persists, replace the I/F PWB ([PL 9.1](#)).

- Check for wire damage between [P/J534](#) and [P/J235](#).
- If no problems are found, replace the Drum Motor ([PL 1.1](#)).

Enter **dC330** [004-006] and press **Start**. Measure AC and DC voltage between [P/J534-A2](#) (+) and GND (-).

**NOTE:** If you can measure frequency (Hz) with your meter, then you may check for 800 - 900 Hz on [P/J534-A2](#).

**Approximately +2.1V AC and DC is measured (800 - 900 Hz is measured).**

- Y N**
- Check connection between MCU PWB and I/F PWB (P410).
  - If no problems are found, replace the MCU PWB ([PL 13.1](#)).
  - If the problem persists, replace the I/F PWB ([PL 9.1](#)).

Enter **dC330** [004-006] and press **Start**. Measure voltage between [P/J534-A1](#) (+) and GND (-). **Less than +1 VDC is measured.**

- Y N**  
Replace Drum Motor ([PL 1.1](#)).
- Check connection between MCU PWB and I/F PWB (P410).



- If no problems are found, replace the MCU PWB (PL 13.1).
- If the problem persists, replace the I/F PWB (PL 9.1).

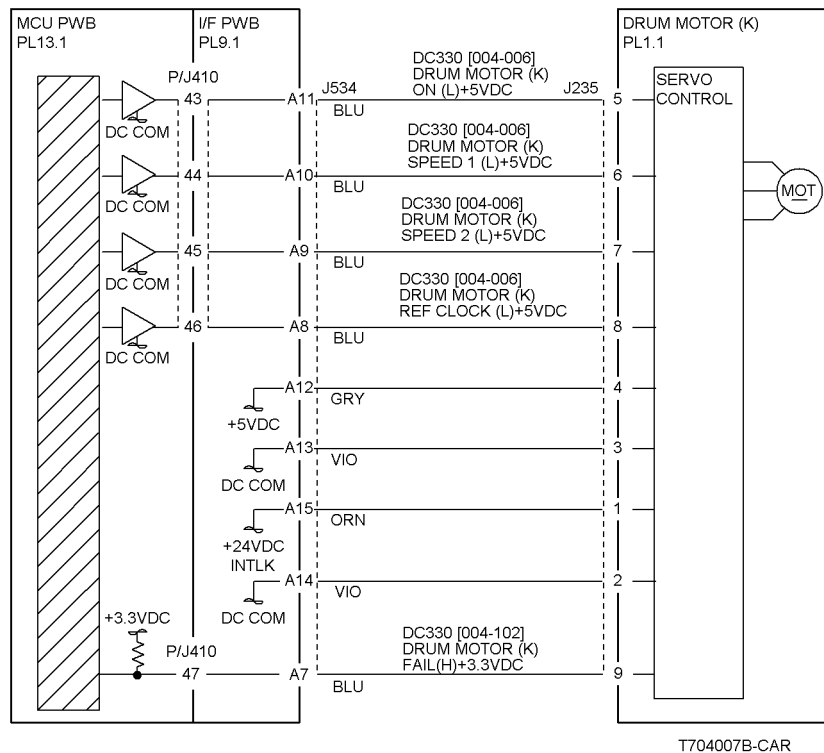


Figure 1 4-363 RAP Circuit Diagram - Drum Motor (K) (DC2240/1632, WC M24)

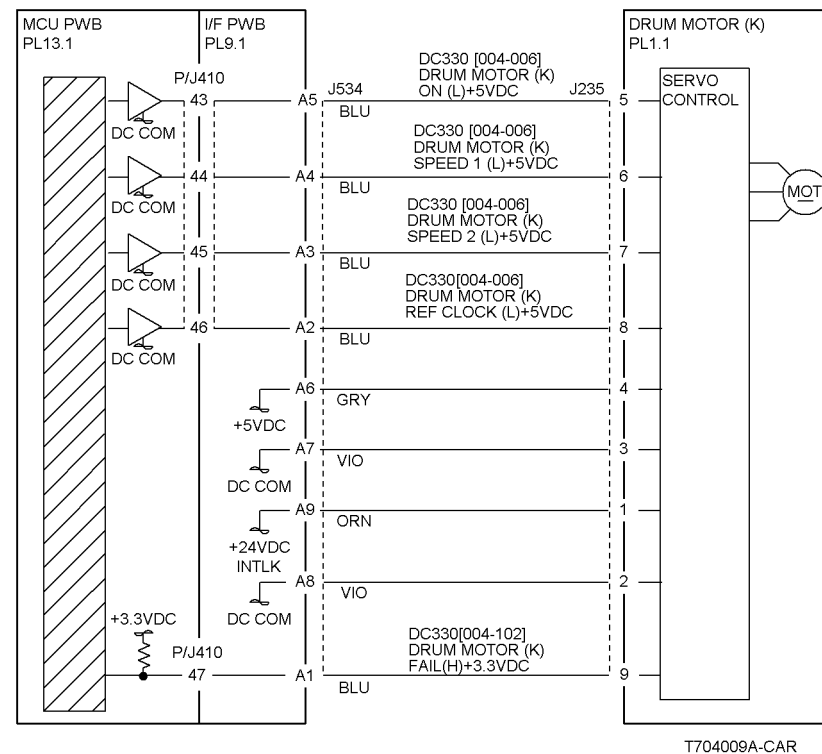


Figure 2 4-363 RAP Circuit Diagram - Drum Motor (K) (DC3535)



## 4-371 IOT Controller Timing Failure

There is a communication failure between the ESS and IOT.

### Procedure

Switch the power off, then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

Check the MCU PWB and ESS PWB connectors.

If the problem continues, re-install software.

If the problem continues, replace the MCU PWB (PL 13.1).

If the problem continues, replace the ESS PWB (PL 13.1)

## 4-414 IBT Belt Cleaner

IBT Belt Cleaner near end of life.

### Procedure

Replace the IBT Belt Cleaner Assembly (PL 5.3). **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to Service Call Procedures.

**Was the IBT Belt Cleaner Assembly HFSI Counter reset in dC135 on the PWS.**

<b>Y</b>	<b>N</b>
	Reset the IBT Belt Cleaner Assembly Counter.

Replace the MCU PWB (PL 13.1).

### CAUTION

*Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.*

If the problem continues, replace the MCU NVM PWB (PL 13.1).



## 4-415 2nd BTR Unit

It is time to replace the 2nd BTR Unit.

### Procedure

Replace the 2nd BTR Unit (PL 2.8). **The problem continues.**

**Y N**  
Return to Service Call Procedures.

**Was the 2nd BTR Unit HFSI Counter reset in dC135 on the PWS.**

**Y N**  
Reset the 2nd BTR Unit Counter.

Replace the MCU PWB (PL 13.1).

### CAUTION

*Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.*

If the problem continues, replace the MCU NVM PWB (PL 13.1).

## 4-417 Transfer Belt Assembly

Transfer Belt Assembly near end of life.

### Procedure

Replace the Transfer Belt Assembly (PL 5.3). **The problem continues.**

**Y N**  
Return to Service Call Procedures.

**Was the Transfer Belt Assembly HFSI Counter reset in dC135 on the PWS.**

**Y N**  
Reset the Transfer Belt Assembly Counter.

Replace the MCU PWB (PL 13.1)

### CAUTION

*Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.*

If the problem continues, replace the MCU NVM PWB (PL 13.1).



## 4-420 Transfer Belt Assembly

Transfer Belt Assembly end of life.

### Procedure

Replace the Transfer Belt Assembly (PL 5.3). **The problem continues.**

**Y N**  
Return to Service Call Procedures.

**Was the Transfer Belt Assembly HFSI Counter reset in dC135 on the PWS.**

**Y N**  
Reset the Transfer Belt Assembly Counter.

Replace the MCU PWB (PL 13.1).

### CAUTION

*Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.*

If the problem continues, replace the MCU NVM PWB (PL 13.1).

## 4-421 IBT Belt Cleaner Life End

IBT Belt Cleaner Assembly end of life.

### Procedure

Replace the IBT Belt Cleaner Assembly (PL 5.3). **The problem continues.**

**Y N**  
Return to Service Call Procedures.

**Was the IBT Belt Cleaner Assembly HFSI Counter reset in dC135 on the PWS.**

**Y N**  
Reset the IBT Belt Cleaner Assembly Counter.

If the problem continues, replace the MCU PWB (PL 13.1).

### CAUTION

*Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.*

If the problem continues, replace the MCU NVM PWB (PL 13.1).



## 4-605 IOT NVM Corrupt

The system detected that the NVM of the IOT is empty.

### Procedure

Switch the power off, then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).

### CAUTION

*Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.*

If the problem continues, replace the MCU NVM PWB (PL 13.1).



## 4-640 Belt Walk failure

This hidden fault is declared if the dynamic (short term) color-to-color registration exceeds specification while image formation is in progress.

### Initial Actions

Adjust the color registration (ADJ 9.6). If the problem remains, continue with the procedure.

### Procedure

Switch on the power. Enter **dC330** [004-014] and press **Start**. Measure voltage between **P/J533-A11(+)** on the I/F PWB and GND(-). **Between +3 VDC and +1 VDC is measured.**

**Y N**  
There is +5 VDC between **P/J533-A9(+)** and **P/J533-A10(-)** on the I/F PWB.

**Y N**  
Close the Front Cover. If the voltage between **P/J533-A9(+)** **P/J533-A10(-)** is less than +5VDC, replace the MCU PWB (PL 13.1).

There is +5 VDC between **P/J533-A11(+)** on the I/F PWB and GND(-).

**Y N**  
**0 VDC is measured between P/J533-A11(+)** on the I/F PWB and GND(-).

**Y N**  
Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for damage or loose connections. If the wires are OK, replace the IBT Edge Sensor (PL 5.4)  
If the problem continues, replace the MCU PWB (PL 13.1).

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for a short circuit. If the wires are OK, replace the IBT Edge Sensor (PL 5.4).

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for an open circuit. If the wires are OK, replace the IBT Edge Sensor (PL 5.4).

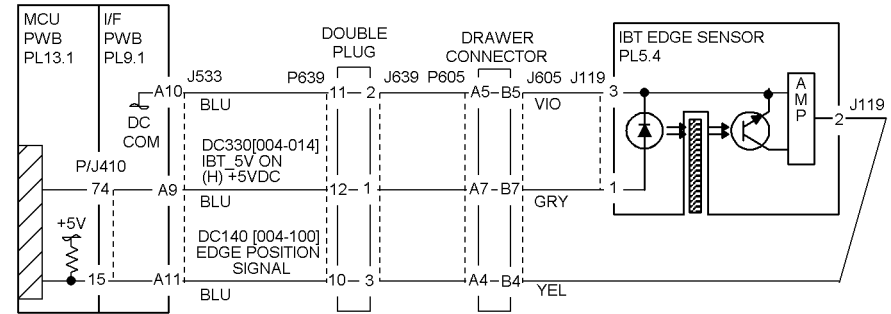
**+24 VDC is measured between P/J550-5(+)** on the I/F PWB and GND(-).

**Y N**  
Go to the **+24 VDC Wirenets** and check +24VDC circuit up to **P/J550-5** on the I/F PWB.

Remove the IBT Assembly. Enter **dC330** [004-001] and press **Start**. The **Steering Motor energized.**

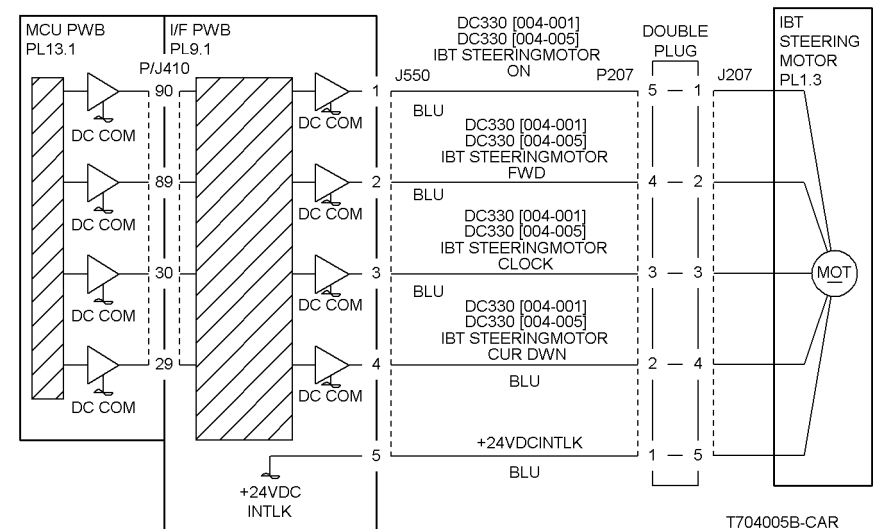
**Y N**  
Refer to **Figure 2**. Check the wires from P550 on the I/F PWB to J207 on the IBT Steering Motor for damage or a loose connection. If the wires are OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1), and IBT Steering Motor (PL 1.3).

Check the IBT Belt installation (REP 9.22). If no problems are found, replace the IBT Assembly (PL 5.2).



T704004B-CAR

Figure 1 4-640 RAP Circuit Diagram - Belt Edge Sensor



T704005B-CAR

Figure 2 4-640 RAP Circuit Diagram - IBT Steering Motor



## 4-641 Belt Edge Learn Failure

This hidden fault is declared if the dynamic (short term) color-to-color registration exceeds specification while edge learning is in progress.

### Initial Actions

Check the edge of the Transfer Belt (PL 5.3) for wear or damage.

Adjust the color registration (ADJ 9.6).

### Procedure

Switch on the power. Enter **dC330** [004-014] and press **Start**. Measure voltage between **P/J533-A11(+)** on the I/F PWB and GND(-). **Between +3 VDC and +1 VDC is measured.**

**Y N**

**There is +5 VDC between P/J533-A9(+) and P/J533-A10(-) on the I/F PWB.**

**Y N**

Close the Front Cover. If the voltage between **P/J533-A9(+)** **P/J533-A10(-)** is less than +5VDC, replace the MCU PWB (PL 13.1).

**There is +5 VDC between P/J533-A11(+) on the I/F PWB and GND(-).**

**Y N**

**0 VDC is measured between P/J533-A11(+) on the I/F PWB and GND(-).**

**Y N**

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for damage or loose connections. If the wires are OK, replace the IBT Edge Sensor (PL 5.4)

If the problem continues, replace the MCU PWB (PL 13.1).

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for a short circuit. If the wires are OK, replace the IBT Edge Sensor (PL 5.4).

Refer to **Figure 1**. Check the wires from J533 on the I/F PWB to J119 on the IBT Edge Sensor for an open circuit. If the wires are OK, replace the IBT Edge Sensor (PL 5.4).

**+24 VDC is measured between P/J550-5(+) on the I/F PWB and GND(-).**

**Y N**

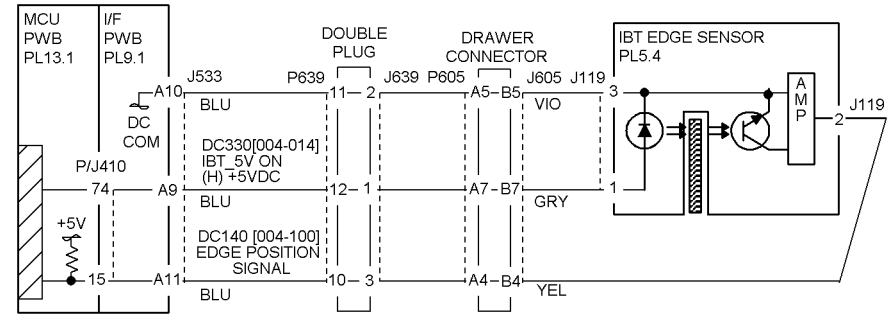
Go to the **+24 VDC Wirenets** and check +24VDC circuit up to **P/J550-5** on the I/F PWB.

Remove the IBT Assembly. Enter **dC330** [004-001] and press **Start**. The **Steering Motor energized.**

**Y N**

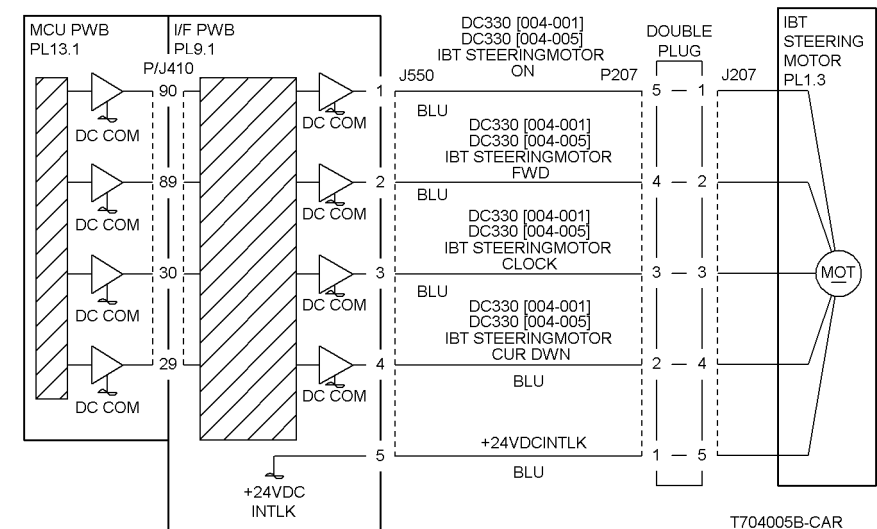
Refer to **Figure 2**. Check the wires from P550 on the I/F PWB to J207 on the IBT Steering Motor for damage or a loose connection. If the wires are OK, Replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1), and IBT Steering Motor (PL 1.3).

Check the IBT Belt installation (REP 9.22). If no problems are found, replace the IBT Assembly (PL 5.2).



T704004B-CAR

Figure 1 4-641 RAP Circuit Diagram - Belt Edge Sensor



T704005B-CAR

Figure 2 4-641 RAP Circuit Diagram - IBT Steering Motor



## 4-642 Belt Edge Check Failure

This hidden fault is declared if the dynamic (short term) color-to-color registration exceeds specification while edge checking is in progress after power on or interlock actuation.

### Procedure

This code does not mean that there is a problem with the IBT or with color registration. The code is declared if the edge learn routine is executed after power on or interlock actuation.

Check fault history for 4-640 or 4-641 faults occurring immediately after this code is declared. Perform the actions described in the RAPs for those codes.

## 4-650 IOT Cycle Down Time Out

Incorrect print processing continued for 2 minutes.

### Procedure

Check the harness connections between the ESS PWB (PL 13.1) and the MCU PWB (PL 13.1). **The problem continues.**

**Y    N**

Return to Service Call Procedures.

Replace the ESS PWB (PL 13.1)



## 4-908 2nd BTR Life End

2nd BTR end of life.

### Procedure

Replace the 2nd BTR (PL 2.8) (REP 9.24). The problem continues.

Y N  
Return to Service Call Procedures.

Was the 2nd BTR Unit HFSI Counter reset in dC135 on the PWS.

Y N  
Reset the 2nd BTR Unit Counter.

Replace the MCU PWB (PL 13.1).

### CAUTION

*Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.*

If the problem continues, replace the MCU NVM PWB (PL 13.1).







## 5-110 Registration Sensor On

The Registration Sensor did not detect a document within 800 msec. after the Feed Motor energized.

### Initial Actions

- This fault can be caused by the following operator errors:
  - Pulling the document out of the DADF while it is being fed.
  - Loading too many documents or documents that are not in specification for the DADF (incorrect size or quality, staples or paper clips, etc.).Instruct the operator how to operate the DADF.
- Ensure document path is clear. Look for pieces of paper that could be blocking the Registration Sensor or the document path.
- Ensure Feed and Nudger Rolls are free of contamination and wear (PL 20.4).

### Procedure

Clear the jam if one exists. Place a document in the DADF and press the **Start** button. **The document prefeeds into the DADF.**

Y N

Remove the following:

- Front Cover (PL 20.1)
- Entrance Tray (PL 20.1)
- Lower Chute Assembly (REP 5.8)
- Rear Cover (REP 5.18)

Visually check the fingers of the Set Gate (PL 20.5). **The Set Gate is in the raised position.**

Y N

Go to the 5-700 Set Gate Solenoid RAP.

Enter dC330 [005-011]. Select **Start**. The Set Gate goes to the lowered position.

Y N

Go to the 5-700 Set Gate Solenoid RAP.

Attempt to feed another document. **The Feed Motor energizes.**

Y N

Go to the 5-701 Feed Motor RAP and check the circuit of the Feed Motor.

Check the Fuse F3 on the DADF Control PWB. **The Fuse is good.**

Y N

If a fuse is not available, replace the DADF Control PWB (PL 20.3).

Check the +24 VDC wires on the Feed Motor for a short circuit to frame.

If the wires are good, and the problem continues, replace the Feed Motor (PL 20.4).

Access the Feed Rolls (REP 5.7). Check the Feed Roll Drives (Feed Belt, Pulleys, etc.). Repair as required (PL 20.4).

Clear the jam. Enter dC330 [005-110]. The display indicates H.

Y N

Go to the 5-702 Registration Sensor RAP

A

Open the Document Feed Assembly and block the Registration Sensor with a sheet of paper.

**The display changes to L.**

Y N

Go to the 5-702 Registration Sensor RAP

Check the following:

- Nudger Roll (PL 20.4) for wear or damage
- The bracket in which the Nudger Rolls are mounted. Check that the bracket is not bent or deformed. Reform the bracket if necessary.

If the problem continues, replace the Registration Sensor (PL 20.5). If the problem still continues, replace the DADF Control PWB (PL 20.3).



## 5-111 Registration Sensor Off

The document did not deactuate the Registration Sensor within 1000 msec after the DADF Belt Motor energized.

### Initial Actions

This fault can be caused by an operator loading a large quantity of documents with too much curl. Question the operator to ensure the documents do not contain too much curl.

Check the customer's documents to ensure they meet DADF specifications. Some documents, such as coated paper, have a high amount of adhesion and will not move freely through the DADF. Documents over 128 gsm may cause this problem in the DADF.

Ensure that the Platen Belt is properly aligned on the transport. Visually check the alignment of the Platen Belt with the registration guide on the rear edge of the Platen Glass (PL 20.11). Align or replace the Platen Belt if necessary (PL 20.10).

If the problem is caused by multi-sheet feeds, check the Retard Rolls (PL 20.5).

Ensure the document path is clear.

### Procedure

Remove the following:

- Front Cover (PL 20.1)
- Entrance Tray (PL 20.1)
- Lower Chute Assembly (REP 5.8)
- Rear Cover (REP 5.18)

Enter dC330 [005-055]. Select **Start** and observe the Platen Belt. **The Platen Belt rotates.**

Y N  
The DADF Belt Motor is energized.

Y N  
Go to the 5-703 DADF Belt Motor RAP.

Observe the Platen Belt drives from the rear of the DADF to see if there are any apparent drive faults (broken drive belts, rolls not turning, etc.). Repair any obvious problems.

Clear any jam. Enter dC330 [005-110]. The display indicates H.

Y N  
Go to the 5-702 Registration Sensor RAP

Open the Document Feed Assembly and block the Registration Sensor with a sheet of paper.

**The display changes to L.**

Y N  
Go to the 5-702 Registration Sensor RAP

Observe the drives for the Registration Rolls and Registration Pinch Rolls for drive or contamination problems (PL 20.8).



## 5-112 Registration Sensor Inversion

The document does not actuate the DADF Registration Sensor within 1000 msec after the Belt Motor energized for document inversion.

### Initial Actions

This fault can be caused by using documents with too much curl. Check the documents and inform the operator.

### Procedure

Load a document in the DADF, select 1 to 1 and make a copy. **The document exits the DADF.**

**Y N**  
Go to the RAP for the displayed status code.

Enter **dC330** [005-119] and press **Start**. Actuate the Duplex Sensor (PL 20.7). **The display changes.**

**Y N**  
**The display indicates High**

**Y N**  
Go to **Flag 1**. Check the wire for a short circuit to GND.

Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the Duplex Sensor (PL 20.7). If the problem continues, replace the DADF Control PWB (PL 20.3).

Enter **dC330** [005-075] and press **Start**. **The Registration Gate Solenoid energizes.**

**Y N**  
**+24 VDC is measured at P/J598-4 on the DADF Control PWB.**

**Y N**  
Replace the DADF Control PWB (PL 20.3).

**+24 VDC is measured at J598-5 on the DADF Control PWB.**

**Y N**  
Go to **Flag 3** and **Flag 4**. Check the wires for an open circuit. If the wires are good, replace the Registration Gate Solenoid (PL 20.2).

Enter **dC330** [005-075]. Select **Start**. **The voltage at P/J598-5 drops to less than +1.0 VDC.**

**Y N**  
Replace the DADF Control PWB (PL 20.3).

Check the Registration Gate Solenoid linkage for binding. If the linkage is good, replace the Registration Gate Solenoid (PL 20.2).

Open the Document Feed Assembly and block the Registration Sensor with a sheet of paper. **The display changes.**

**Y N**  
Go to the **5-702** Registration Sensor RAP

Check Following:

- Check the Duplex Lower Chute for warping (PL 20.7). Replace the chute if it is warped more than 0.6 mm end-to-end.
- Check the pinch rolls in the duplex drive area (PL 20.7)
- Check the DADF Transport Height (ADJ 5.4). Adjust if necessary.
- The Platen Belt for contamination, wear and a rotation failure (PL 20.10).
- The Platen Belt for an improper tension (REP 5.19).

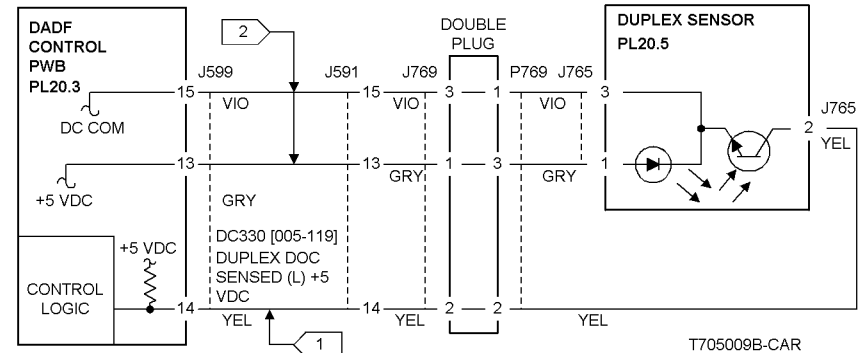


Figure 1 5-112 RAP Circuit Diagram - Duplex Sensor

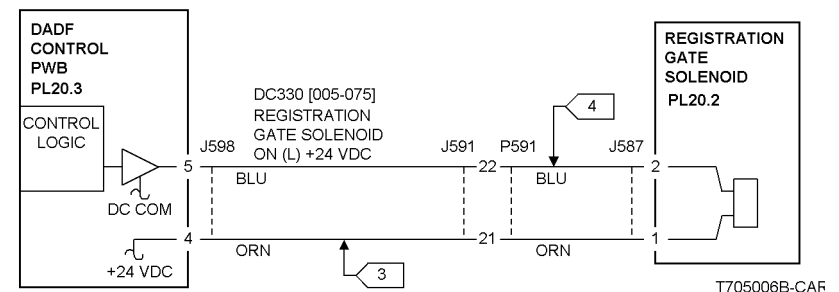


Figure 2 5-112 RAP Circuit Diagram - Registration Gate Solenoid

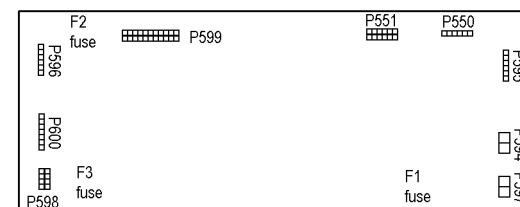


Figure 3 DADF Control PWB



## 5-113 Registration Sensor Inversion

The document does not deactuate the DADF Registration Sensor 1500 msec after the Belt Motor energized for document inversion.

### Initial Actions

- Ensure that the Platen Belt is properly aligned on the transport. Visually check the alignment of the Platen Belt with the registration guide on the rear edge of the Platen Glass (PL 20.11). Align or replace the Platen Belt if necessary (PL 20.10).
- Check the customer's documents to ensure they meet DADF specifications. Some documents, such as coated paper, have a high amount of adhesion and will not move freely through the DADF. Documents over 105 gsm may cause this problem in the DADF.
- Check/adjust the DADF Counterbalances (ADJ 5.2). Ensure that the DADF rests against the Platen surround.

### Procedure

Enter **dC330** [005-110] and press **Start**. Block the Registration Sensor (PL 20.5). The display changes.

**Y N**  
Go to the 5-702 Registration Sensor RAP.

Enter **dC330** [005-075] and press **Start**. The Registration Gate Solenoid energizes.

**Y N**  
+24 VDC is measured at **P/J598-4** on the DADF Control PWB.

**Y N**  
Replace the DADF Control PWB (PL 20.3).

+24 VDC is measured at **P/J598-5** on the DADF Control PWB.

**Y N**  
Go to **Flag 3** and **Flag 4**. Check the wires for an open circuit. If the wires are good, replace the Registration Gate Solenoid (PL 20.2).

Enter **dC330** [005-075]. Select **Start**. The voltage at **J598-5** drops to less than +1.0 VDC.

**Y N**  
Replace the DADF Control PWB (PL 20.3).

Check the Registration Gate Solenoid linkage for binding. If the linkage is good, replace the Registration Gate Solenoid (PL 20.2).

Enter **dC330** [005-056] (reverse) and press **Start**. Document Belt operates in reverse.

**Y N**  
Go to the 5-703 DADF Belt Motor RAP

Open the Document Feed Assembly and block the Registration Sensor with a sheet of paper. The display changes.

**Y N**  
Go to the 5-702 Registration Sensor RAP

Check the following:

- Duplex Rolls for contamination, wear and a rotation failure (PL 20.6).

- Duplex Roll Drive for a mechanical load (PL 20.6).
- Duplex Chute for deformation (PL 20.7).
- Registration Roll for a transportation failure due to contamination, torn paper, or wear (PL 20.8).
- Document Transport Height (ADJ 5.4).

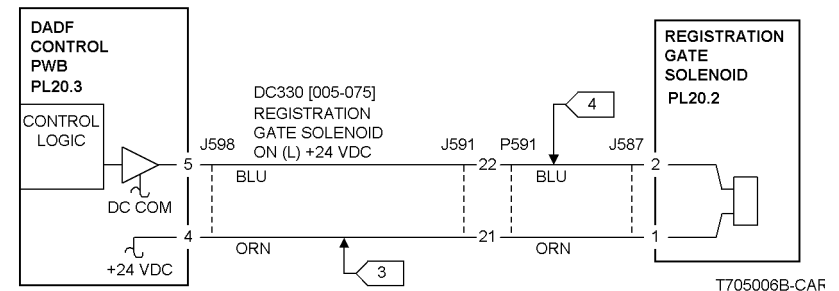


Figure 1 5-113 RAP Circuit Diagram - Registration Gate Solenoid

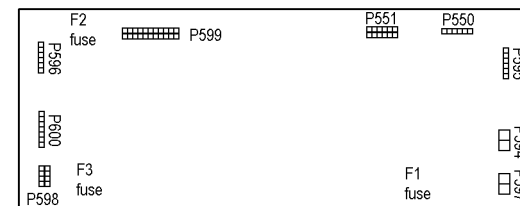


Figure 2 DADF Control PWB



## 5-115 Exit Sensor On

The DADF Exit Sensor does not detect a document 1500 msec after the DADF Exit Motor energized at document replacement/output.

### Initial Actions

- Check the customer's documents to ensure they meet the specification for the DADF.
- Ensure the Exit Roll and Exit Pinch Roll are clean and properly installed (PL 20.9).

### Procedure

Enter **dC330** [005-115] and press **Start**. Actuate the DADF Exit Sensor (PL 20.9). The display changes.

**Y N**  
The display indicates H.

**Y N**  
Go to **Flag 1**. Check the wire for a short circuit to GND.

Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the DADF Exit Sensor (PL 20.9). If the problem continues, replace the DADF Control PWB (PL 20.3).

Enter **dC330** [005-081] and press **Start**. DADF Exit Motor operates.

**Y N**  
Check Fuse F2 on the DADF Control PWB. The Fuse is good.

**Y N**  
If a fuse is not available, replace the DADF Control PWB (PL 20.3). Check the +24 VDC wires on the DADF Exit Motor for a short circuit to frame. If the problem continues, replace the DADF Exit Motor (PL 20.9).

**+24 VDC is measured between P/J596-1 on the DADF Control PWB and GND.**

**Y N**  
Replace the DADF Control PWB (PL 20.3).

**NOTE:** In the following step, one of the pins to the motor ( P/J596-2, 3, 4, or 5) will measure approximately +2 to +5 VDC. This is normal operation.

**+24 VDC is measured between P/J596-2, 3, 4, or 5 on the DADF Control PWB and GND.**

**Y N**  
Go to **Flag 3** and **Flag 4**. Check the wires for an open circuit. If the wires are good, replace the DADF Exit Motor (PL 20.9).

Check the following:

- Look for binding in the exit drives (PL 20.9).
- Replace the DADF Exit Motor (PL 20.9).
- If the problem continues, replace the DADF Control PWB (PL 20.3).

Check the following:

- Platen Belt for contamination, wear, tear and a rotation failure (PL 20.10).
- Belt Pinch Rolls for a rotation failure (PL 20.10).
- Platen Belt for an improper tension (REP 5.19).

- Platen Glass for contamination (PL 20.11).
- Document Transport Height (ADJ 5.4).
- DADF Exit Sensor for an improper installation (PL 20.9).
- Exit Lower Chute for correct installation (PL 20.9).

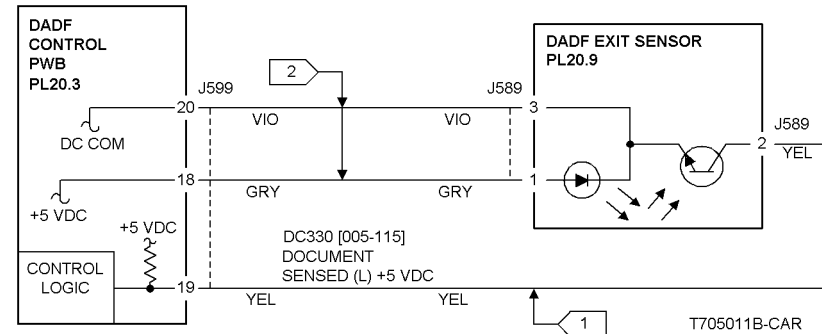


Figure 1 5-115 RAP Circuit Diagram - DADF Exit Sensor

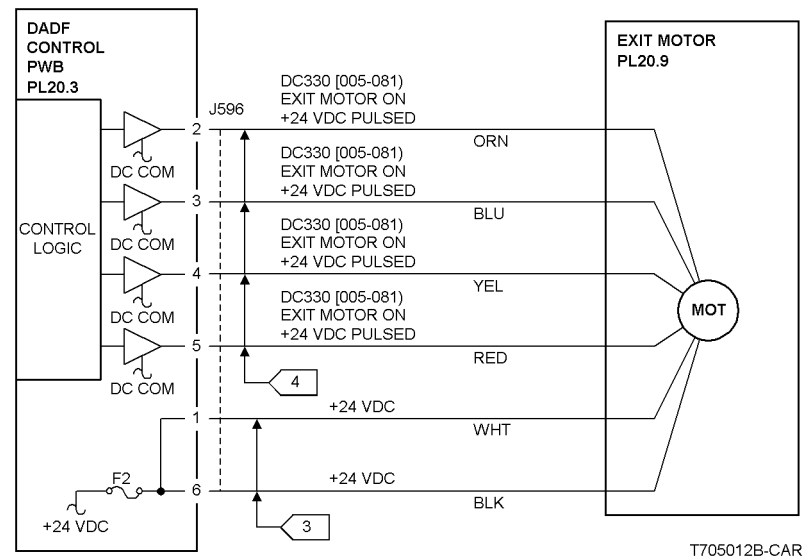
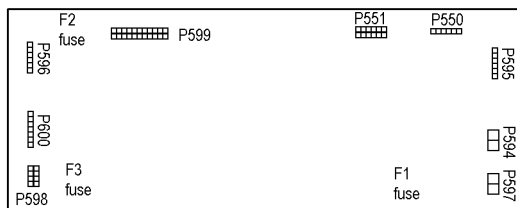


Figure 2 5-115 RAP Circuit Diagram - DADF Exit Motor





**Figure 3 DADF Control PWB**



## 5-116 Exit Sensor Off

The document does not deactivate the DADF Exit Sensor after the DADF Exit Sensor actuated.

### Initial Actions

Check the customer's documents to ensure they meet the specification for the DADF.

Ensure the Exit Roll and Exit Pinch Roll are clean and properly installed (PL 20.9).

### Procedure

Enter **dC330** [005-115] and press **Start**. Actuate the DADF Exit Sensor (PL 20.9). **The display changes.**

**Y N**  
**The display indicates H.**  
**Y N**  
 Go to **Flag 1**. Check the wire for a short circuit to GND.

Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the DADF Exit Sensor (PL 20.9). If the problem continues, replace the DADF Control PWB (PL 20.3).

Enter **dC330** [005-081] and press **Start**. **DADF Exit Motor operates.**

**Y N**  
 Check Fuse F2 on the DADF Control PWB. **The Fuse is good.**  
**Y N**  
 If a fuse is not available, replace the DADF Control PWB (PL 20.3).  
 Check the +24 VDC wires on the DADF Exit Motor for a short circuit to frame.  
 If the wires are good, and the problem continues, replace the DADF Exit Motor (PL 20.9).

**+24 VDC is measured between P/J596-1 on the DADF Control PWB and GND.**

**Y N**  
 Replace the DADF Control PWB (PL 20.3).

**NOTE:** In the following step, one of the pins to the motor ( P/J596-2, 3, 4, or 5) will measure approximately +2 to +5 VDC. This is normal operation.

**+24 VDC is measured between P/J596-2, 3, 4, or 5 on the DADF Control PWB and GND.**

**Y N**  
 Go to **Flag 3** and **Flag 4**. Check the wires for an open circuit. If the wires are good, replace the DADF Exit Motor (PL 20.9).

Check the following:

- Look for binding in the exit drives (PL 20.9).
- Replace the DADF Exit Motor (PL 20.9).
- If the problem continues, replace the DADF Control PWB (PL 20.3).

Check the following:

- Exit Roll for contamination, wear and a rotation failure (PL 20.9).
- Exit Upper/lower Chute for deformation (PL 20.9).

- Static Eliminator for deformation (PL 20.9).
- Exit Roll Drive Belt for disengagement and damage (PL 20.9).

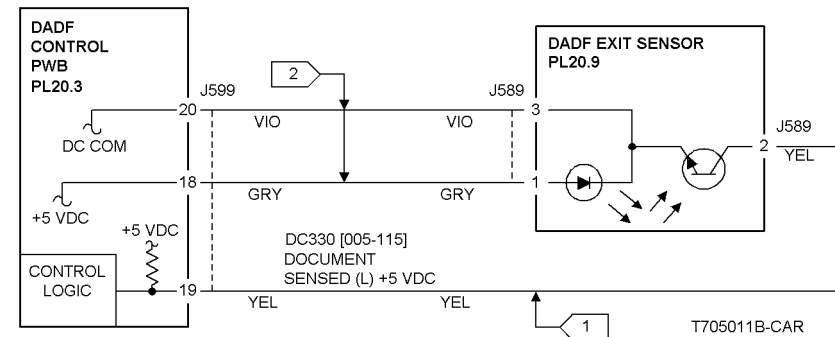


Figure 1 5-116 RAP Circuit Diagram - DADF Exit Sensor

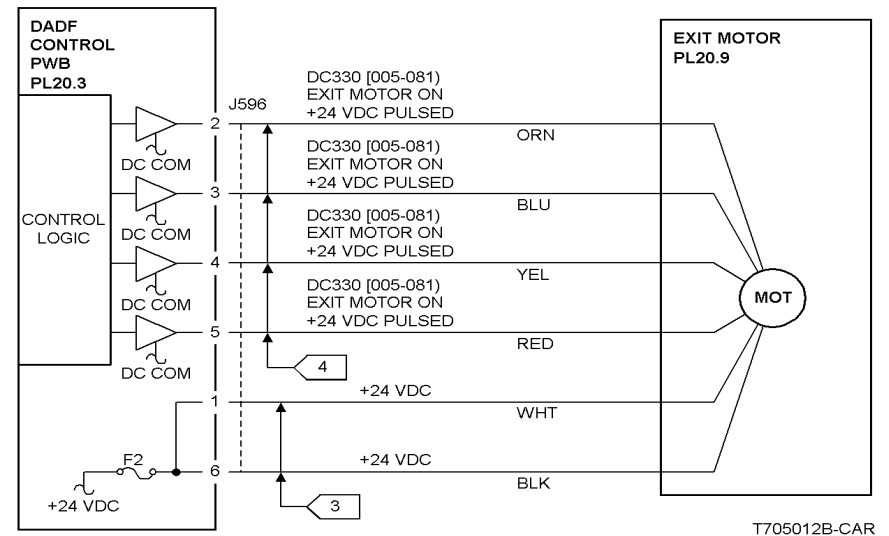
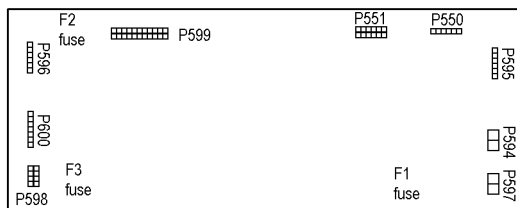


Figure 2 5-116 RAP Circuit Diagram - Exit Motor





**Figure 3 DADF Control PWB**



## 5-195 Document Size Mismatch

Different sized documents are detected in the NO MIX mode.

### Initial Actions

This fault can be caused by the following:

- Mixed size documents are fed without selecting that option on the UI.
- There is too much curl in the documents being fed through the DADF.
- The documents are improperly loaded.
- The type of document being fed (coated paper, etc.)

Instruct the operator on proper DADF operation.

### Procedure

Enter **dC330** [005-150] and select **Start**. Actuate the DADF Size Sensor 1 (Rear) (PL 20.5).

The display changes.

Y N

The display indicates a constant High.

Y N

Go to **Flag 1**. Check the wire for a short circuit to GND. If the wire is good, replace the Size Sensor 1 (Rear) (PL 20.5).

Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the Size Sensor 1 (Rear) (PL 20.5). If the problem continues, replace the DADF Control PWB (PL 20.3).

Enter **dC330** [005-151] and press **Start**. Actuate DADF Size Sensor 2 (Front) (PL 20.5). The display changes.

Y N

The display indicates a constant High.

Y N

Go to **Flag 3**. Check the wire for a short circuit to GND. If the wire is good, replace the Size Sensor 1 (Rear) (PL 20.5).

Go to **Flag 3** and **Flag 4**. Check the wires for an open circuit. If the wires are good, replace the Size Sensor 2 (Front) (PL 20.5). If the problem continues, replace the DADF Control PWB (PL 20.3).

Open the Document Feed Assembly and block the Registration Sensor with a sheet of paper.

The display changes.

Y N

Go to the **5-702** Registration Sensor RAP

Check the following:

- Size Sensor for correct installation (REP 5.12).
- Multiple feed due to retard malfunction (PL 20.5).
- DADF document skew caused by misadjustments (ADJ 5.2) (ADJ 5.3) (ADJ 5.4).
- Document meets specification
- Different document size (mixed documents)

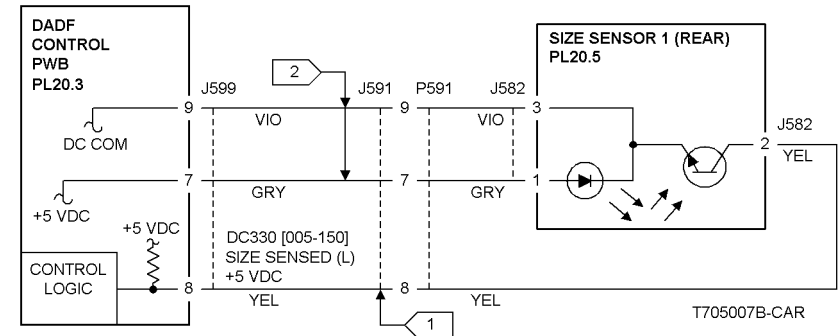


Figure 1 5-195 RAP Circuit Diagram - Size Sensor 1 (Rear)

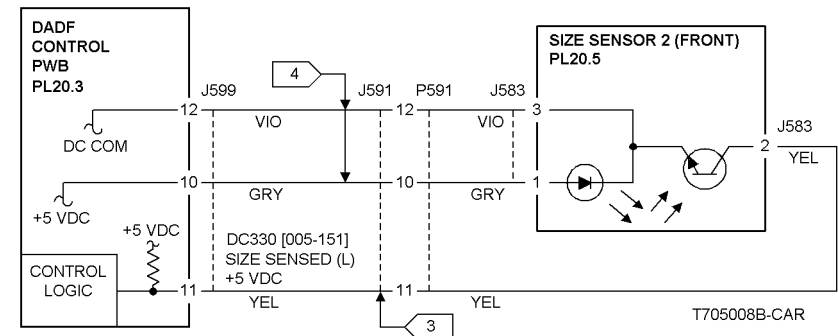


Figure 2 5-195 RAP Circuit Diagram - Size Sensor 2 (Front)

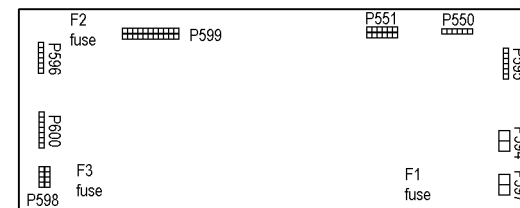


Figure 3 DADF Control PWB



## 5-274 Original Size Sensor

At power on, the DADF Registration Sensor turns off, and the DADF Size Sensor 1 or the DADF Size Sensor 2 turns on (Size Sensor detection failure)

### Procedure

Enter **dC330** [5-150] and select **Start**. **The display indicates High.**

**Y N**  
Remove the DADF Entrance Tray (PL 20.1). Disconnect the DADF Size Sensor 1 (Rear) P/J582 (REP 5.12). **The display changes**

**Y N**  
Disconnect P/J599 on the DADF Control PWB. Measure the resistance between J599-8 and the frame. **The resistance is 3 Ohms or less.**

**Y N**  
Replace DADF Control PWB (PL 20.3).

Go to **Flag 1**. Check the wire between DADF Size Sensor 1 (Rear) P/J582-2 and DADF Control PWB P/J599-8 for a short circuit to frame (Figure 1).

Replace DADF Size Sensor 1 (PL 20.5).

Enter **dC330** [005-151] and select **Start**. **The display indicates High.**

**Y N**  
Remove the DADF Entrance Tray (PL 20.1). Disconnect the DADF Size Sensor 2 (Front) P/J583 (REP 5.12). **The display changes.**

**Y N**  
Disconnect P/J599 on the DADF Control PWB. Measure the resistance between J599-11 and the frame. **The resistance is 3 Ohms or less.**

**Y N**  
Replace DADF Control PWB (PL 20.3).

Go to **Flag 3**. Check the wire between the DADF Size Sensor 2 (Front) P/J583-2 and the DADF Control PWB P/J599-11 for a short circuit to the frame (Figure 2).

Replace DADF Size Sensor 2 (Front) (PL 20.5).

Replace DADF Control PWB (PL 20.3).

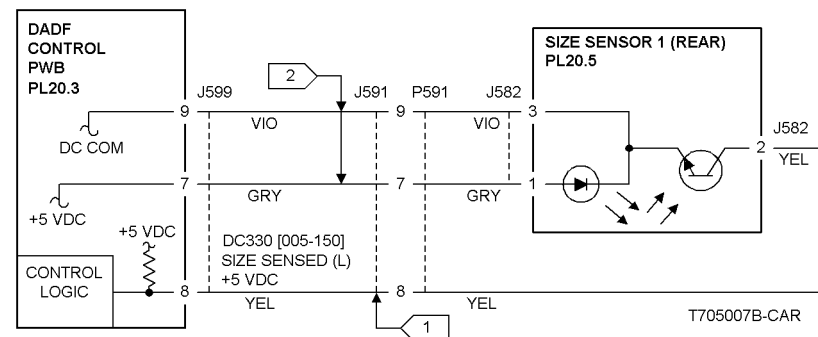


Figure 1 5-274 RAP Circuit Diagram - Size Sensor 1 (Rear)

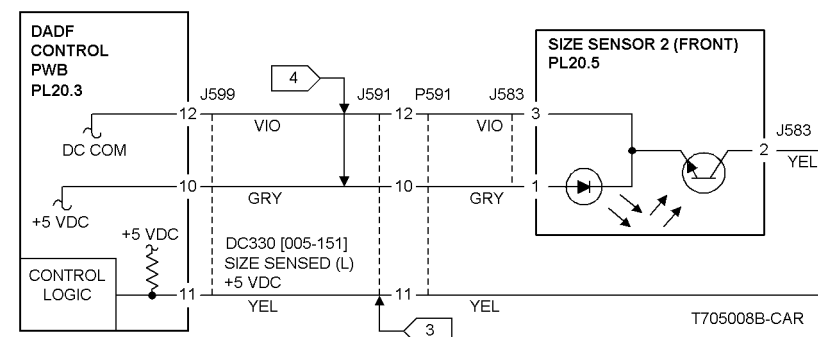


Figure 2 5-274 RAP Circuit Diagram - Size Sensor 2 (Front)

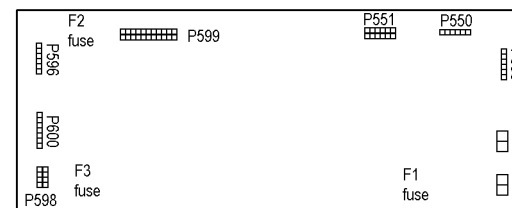


Figure 3 DADF Control PWB



## 5-275 DADF Ram Failure

RAM failure of the DADF PWB.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Replace the DADF Control PWB ([PL 20.3](#)).



## 5-301 Top Cover Interlock Open

The Top Cover is open.

### Procedure

Manually actuate both DADF Top Cover Interlock Switches (front/rear) at the same time. **The 5-301 fault is cleared.**

**Y N**

Remove the DADF Rear Cover (REP 5.18). Close the DADF Top Cover. **Less than +1.0 VDC is measured between the DADF Control PWB P/J599-17 (+) and GND.**

**Y N**

Go to **Flag 3** and **Flag 4**. Check the wires for an open circuit. If the wires are good, replace the DADF Top Cover Interlock Switch (Front) (PL 20.2).

**Less than +1.0 VDC is measured between the DADF Control PWB P/J599-22 (+) and GND.**

**Y N**

Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the DADF Top Cover Interlock Switch (Rear) (PL 20.2).

Check the actuator for breakage and bending, and the Top Cover for correct installation (PL 20.2).

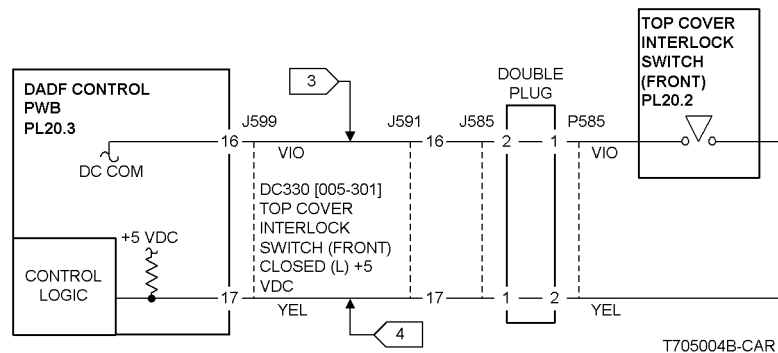


Figure 1 5-301 RAP Circuit Diagram - Top Cover Interlock Switch (front)

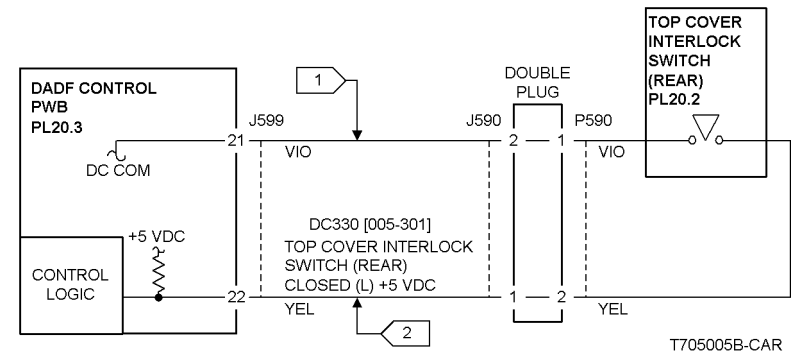


Figure 2 5-301 RAP Circuit Diagram - Top Cover Interlock Switch (rear)

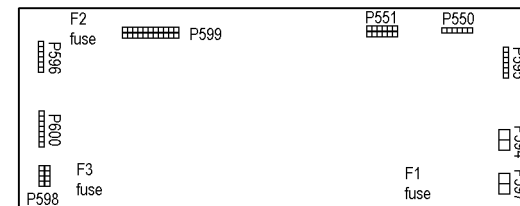


Figure 3 DADF Control PWB



## 5-700 Set Gate Solenoid RAP

Use this RAP when directed to troubleshoot problems with the DADF Set Gate Solenoid.

### Initial Actions

Remove the following:

- Front Cover (PL 20.1)
- Entrance Tray (PL 20.1)
- Lower Chute Assembly (REP 5.8)
- Rear Cover (REP 5.18)

Check the linkage of the Set Gate Solenoid. Check for any binding. Ensure the Set Gate is not damaged.

### Procedure

Switch on the power. **+24 VDC is measured between P/J598-2 on the DADF Control PWB and GND.**

Y N

Replace the DADF Control PWB (PL 20.3).

**+24 VDC is measured between P/J598-3 on the DADF Control PWB and GND.**

Y N

Check the following

- Go to **Flag 2**. Check the wire for an open or short circuit.
- Go to **Flag 3**. Check the wire for an open circuit.
- If the wires are good, replace the Set Gate Solenoid (PL 20.5).

Enter **dC330** [005-011]. Select **Start**. **The voltage at P/J598-3 goes to less than +1.0 VDC.**

Y N

Replace the DADF Control PWB (PL 20.3).

**+24 VDC is measured between P/J598-1 on the DADF Control PWB and GND.**

Y N

Check the following

- Go to **Flag 1**. Check the wire for an open or short circuit.
- If the wire is good, replace the Set Gate Solenoid (PL 20.5).

Enter **dC330** [005-012]. Select **Start**. **The voltage at P/J598-1 goes to less than +1.0 VDC.**

Y N

Replace the DADF Control PWB (PL 20.3).

The circuit for the DADF Set Gate Solenoid appears to be functioning properly. Look for any loose or damaged wires. Ensure the solenoid bracket is adjusted so that the plunger for the solenoid is not binding. If the problem continues, replace the Set Gate Solenoid (PL 20.5). If the problem continues, replace the DADF Controller PWB (PL 20.3).

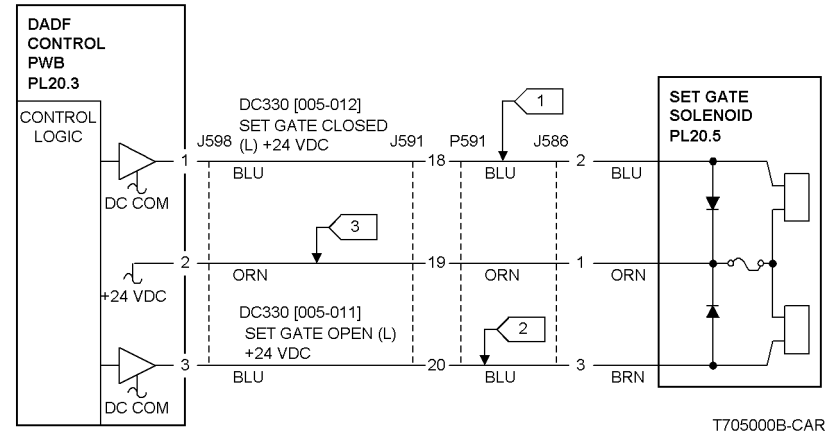


Figure 1 5-700 RAP Circuit Diagram - Set Gate Solenoid



## 5-701 Feed Motor RAP

Use this RAP when directed to troubleshoot problems with the Feed Motor.

### Initial Actions

Remove the following:

- Front Cover (PL 20.1)
- Entrance Tray (PL 20.1)
- Lower Chute Assembly (REP 5.8)
- Rear Cover (REP 5.18)

Check the Feed Belt (PL 20.4). Ensure that it is not broken or frayed. Replace if necessary.

### Procedure

Switch off the power and manually move the Feed Belt. **The Feed Belt can be moved.**

**Y N**  
Look for binding in the DADF feed transport. Correct any problems.

Switch on the power. **+24 VDC is measured at P/J600-1 on the DADF Control PWB.**

**Y N**  
Replace the DADF Control PWB (PL 20.3).

**NOTE:** In the following step, one of the pins on P/J600 will measure less than +24 VDC. This is normal operation.

**+24 VDC is measured at three of the following pins: P/J600-2, -3, -4, and -5**

**Y N**  
Go to Flag 1 and Flag 2. Check the wires for an open circuit.

Replace the Feed Motor (PL 20.4). If the problem continues, replace the DADF Control PWB (PL 20.3).

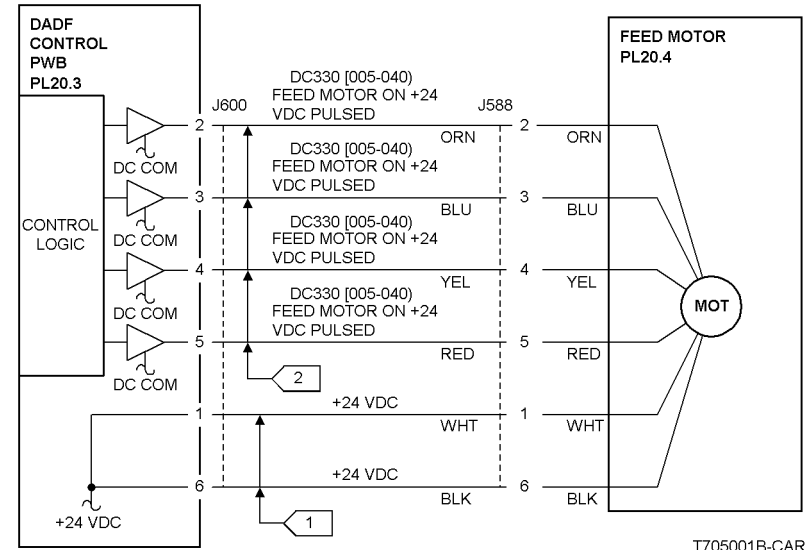


Figure 1 5-701 RAP Circuit Diagram - Feed Motor



## 5-702 Registration Sensor RAP

Use this RAP when directed to troubleshoot problems with the Registration Sensor.

### Initial Actions

Remove the following:

- Front Cover (PL 20.1)
- Entrance Tray (PL 20.1)
- Lower Chute Assembly (REP 5.8)
- Rear Cover (REP 5.18)

Ensure the document path is clear. Look for pieces of paper that could be blocking the Registration Sensor.

### Procedure

The Fault Code is 5-902.

- Y N**  
Enter **dC330** [005-110]. Block and unblock the Registration Sensor The display changes state.
- Y N**  
+5 VDC is measured between **P/J599-2 (+)** and GND.  
**Y N**  
Replace the DADF Control PWB (PL 20.3).
- Block the sensor. The voltage at **P/J599-2** goes to less than +1.0 VDC.  
**Y N**  
Go to **Flag 1**. Check the wire for an open circuit. If the wire is good, replace the Registration Sensor (PL 20.5).
- Replace the DADF Control PWB (PL 20.3).

Ensure that the steps listed in the Initial Actions of this RAP have been completed. If so, and the problem continues, replace the DADF PWB (PL 20.3).

Perform the following:

- Go to **Flag 1**. Check the wire for a short circuit.
- Go to **Flag 2**. Check the wires for an open circuit.
- If the wires are good, replace the Registration Sensor (PL 20.5).
- If the problem continues, replace the DADF Control PWB (PL 20.3).

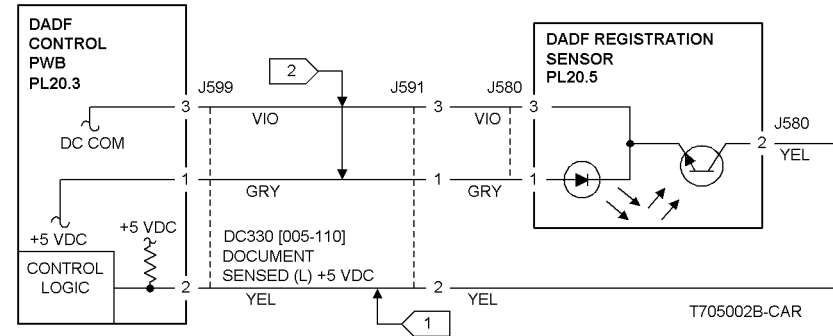


Figure 1 5-702 RAP Circuit Diagram - Registration Sensor



## 5-703 DADF Belt Motor RAP

Use this RAP when directed to troubleshoot problems with the DADF Belt Motor.

### Initial Actions

Remove the following:

- Front Cover (PL 20.1)
- Entrance Tray (PL 20.1)
- Lower Chute Assembly (REP 5.8)
- Rear Cover (REP 5.18)

### Procedure

Switch off the power and manually move the Platen Belt (PL 20.10). **The Platen Belt moves freely.**

Y N

Look for binding in the DADF Platen Belt and the drives for the DADF Belt Motor. Correct any problems

**Check Fuse F1 on the DADF Control PWB. The Fuse is good.**

Y N

Replace the Fuse. If the Fuse blows again, go to **Flag 1**, **Flag 2**, and **Flag 3**. Check the wires for a short circuit to ground. If the wires are good, replace the DADF Belt Motor (PL 20.6). If the problem continues, replace the DADF Control PWB (PL 20.3).

**+24 VDC is measure at P/J595-1 on the DADF Control PWB.**

Y N

**+24 VDC is measured at P/J594-2 on the DADF Control PWB.**

Y N

**+24 VDC is measured at P/J594-1 on the DADF Control PWB.**

Y N

Replace the DADF Control PWB (PL 20.3).

Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the DADF Interlock Switch (PL 20.3).

Replace the DADF Control PWB (PL 20.3).

**NOTE:** In the following step, one of the pins on P/J595 will measure less than +24 VDC. This is normal operation.

**+24 VDC is measured at three of the following pins: P/J595-2, 3, 4, or 5.**

Y N

Go to **Flag 3** and **Flag 4**. Check the wires for an open circuit. If the wires are good, replace the DADF Belt Motor (PL 20.6).

Replace the DADF Belt Motor (PL 20.6). If the problem continues, replace the DADF Control PWB (PL 20.3).

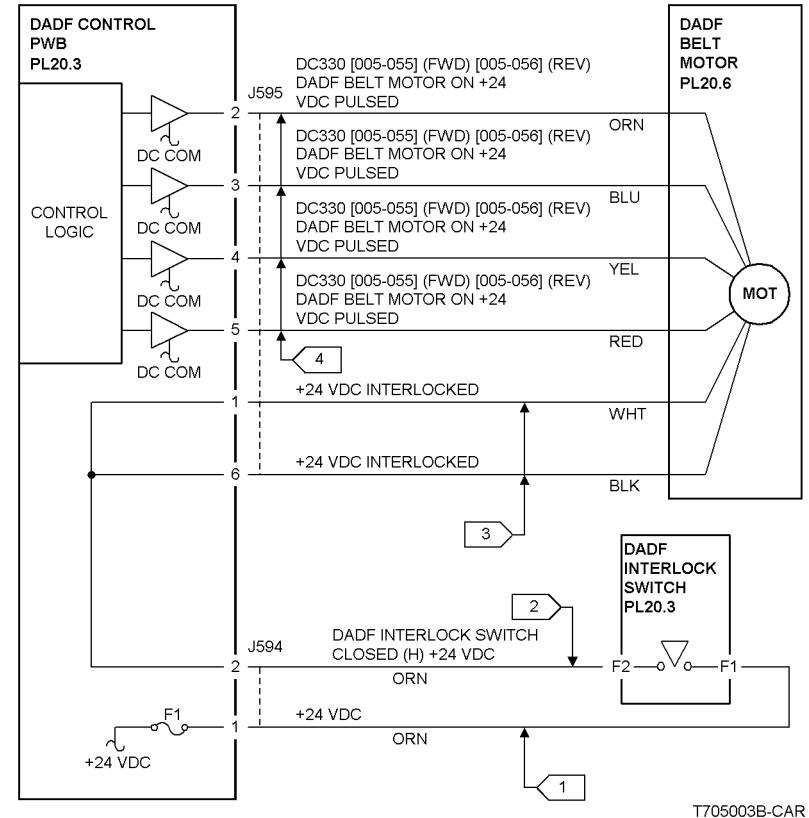


Figure 1 5-703 RAP Circuit Diagram - Belt Motor



## 5-900 Document Sensor Timing

One of the following DADF Interlocks was opened during DADF operation:

- DADF Interlock Switch (PL 20.3)
- Top Cover Interlock Switch (Front) (PL 20.2)
- Top Cover Interlock Switch (Rear) (PL 20.2)

## Initial Actions

If the problem appears to be operator caused, instruct the operator on proper DADF operation.

Check the interlock to be sure it is operational and is mounted correctly.

## Procedure

Switch the power off then on. Run the DADF. **The problem continues.**

Y	N
	Return to Service Call Procedures.

Check all DADF Interlocks for an intermittent condition. Ensure they are mounted correctly and that all connectors are securely connected. Replace any Interlock that does not function correctly. If the problem continues, replace the DADF Control PWB (PL 20.3).

## 5-901 Power On Document Present

The Document Sensor detects a document at Power On.

## Initial Actions

Clean the Document Sensor. Ensure there are no pieces of paper on the sensor.

## Procedure

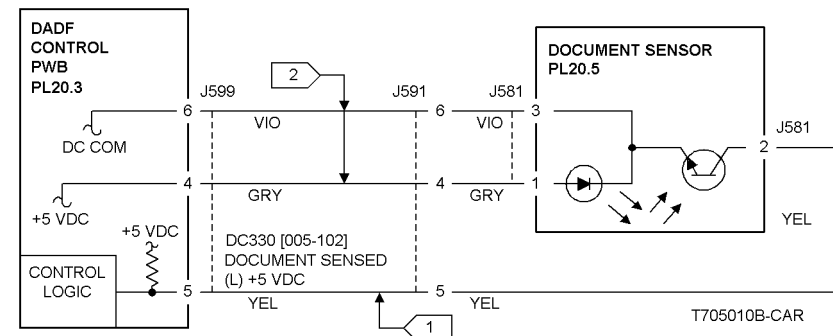
Enter **dC330** [005-102] and select **Start**. The display indicates **H**.

Y	N
	Disconnect <b>P/J599</b> from the DADF Control PWB. <b>The display changes to H.</b>

Y	N
	Replace the DADF Control PWB (PL 20.3).

Go to **Flag 1**. Check the wires for an short circuit. If the wire is good, replace the Document Sensor (**PL 20.5**).

The Document Sensor appears to be functioning correctly. Check the wires from the sensor to the DADF Control PWB. Look for loose connectors/pins. If the problem continues, replace the Document Sensor (PL 20.5). If the problem continues, replace the DADF Control PWB (PL 20.3).



**Figure 1 5-901 RAP Circuit Diagram - Document Sensor**



## 5-902 Power On Registration Sensor

The Registration Sensor detected a document when the Top Cover/platen Interlock was closed or power was switched on.

## Initial Actions

Clean the Registration Sensor. Ensure there are no pieces of paper on the sensor.

This problem may be caused by running prepunched (CFF) forms through the DADF. Instruct the operator.

Check the operator documents. Ensure they are not folded, curled, thin paper, or out of specification for the DADF.

## Procedure

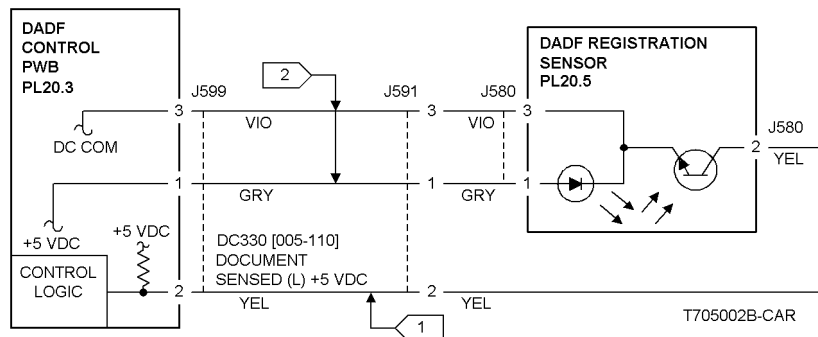
Enter **dC330** [005-110] and select **Start**. The display indicates **High**.

Y	N
	Disconnect <b>P/J599</b> from the DADF Control PWB. <b>The display changes to High.</b>

Y	N
	Replace the DADF Control PWB (PL 20.3).

Go to **Flag 1**. Check the wire for a short circuit. If the wire is good, replace the Registration Sensor (**PL 20.5**).

The Registration Sensor appears to be functioning correctly. Check the wires from the sensor to the DADF Control PWB. Look for loose connectors/pins. If the problem continues, replace the Registration Sensor (PL 20.5). If the problem continues, replace the DADF Control PWB (PL 20.3)



**Figure 1 5-902 RAP Circuit Diagram - DADF Registration Sensor**

## 5-903 Power On Exit Sensor

The DADF Exit Sensor detected a document when the Top Cover/platen Interlock was closed or power was switched on.

## Initial Actions

Clean the Exit Sensor. Ensure there are no pieces of paper on the sensor.

## Procedure

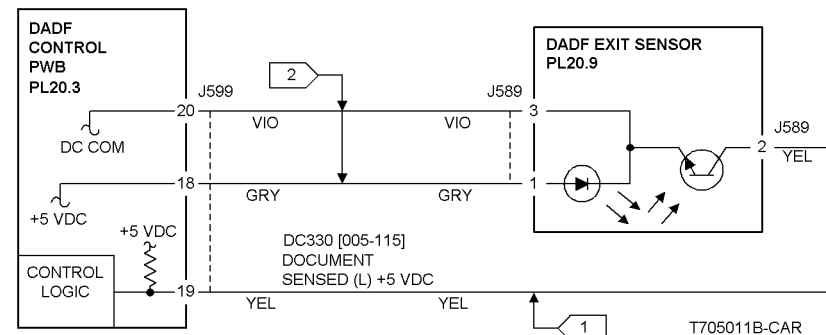
Enter **dC330** [005-115] and select **Start**. The display indicates **High**.

Y	N
	Disconnect <b>P/J599</b> from the DADF Control PWB. <b>The display changes to High.</b>

Y	N
	Replace the DADF Control PWB (PL 20.3).

Go to **Flag 1**. Check the wire for a short circuit. If the wire is good, replace the Exit Sensor (PL 20.9).

The Exit Sensor appears to be functioning correctly. Check the wires from the sensor to the DADF Control PWB. Look for loose connectors/pins. If the problem continues, replace the Exit Sensor (PL 20.9). If the problem continues, replace the DADF Control PWB (PL 20.3)



**Figure 1 5-903 RAP Circuit Diagram - Exit Sensor**



## 5-904 Power On Duplex Sensor

The DADF Duplex Sensor detected a document when the Top Cover/platen Interlock was closed or power was switched on

### Initial Actions

Clean the Duplex Sensor. Ensure there are no pieces of paper on the sensor.

### Procedure

Enter **dC330** [005-1195] and select **Start**. The display indicates **High**.

**Y N**  
Disconnect **P/J599** from the DADF Control PWB. The display changes to **High**.

**Y N**  
Replace the DADF Control PWB (PL 20.3).

Go to **Flag 1**. Check the wire for a short circuit. If the wire is good, replace the Duplex Sensor (PL 20.7).

The Duplex Sensor appears to be functioning correctly. Check the wires from the sensor to the DADF Control PWB. Look for loose connectors/pins. If the problem continues, replace the Duplex Sensor (PL 20.7). If the problem continues, replace the DADF Control PWB (PL 20.3)

## 5-940 Document Removed During Start

The Control Logic detected that the document was removed immediately after the DADF started.

### Procedure

Rerun the job. **5-940 is declared again**.

**Y N**  
Return to Service Call Procedures.

Replace the DADF Control PWB (PL 20.3).

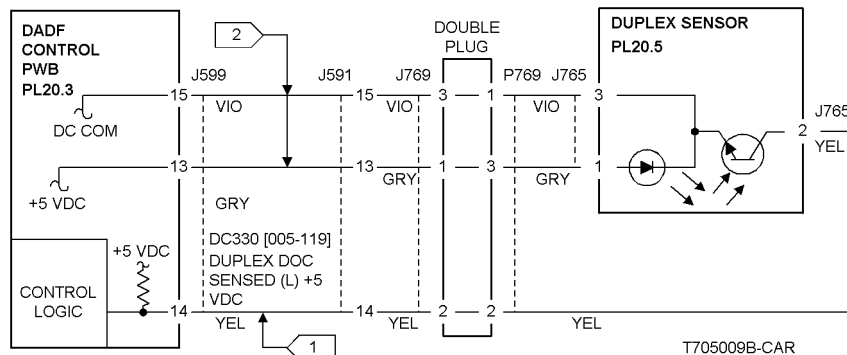


Figure 1 5-904 RAP Circuit Diagram - Duplex Sensor



## 5-941 Document Miscount

The software detected a document miscount.

### Procedure

Rerun the job. **5-941 continues.**

**Y   N**  
|     Return to Service Call Procedures.

Replace the DADF Control PWB (**PL 20.3**).



## 6-277 IIT/DADF Communication

Communication cannot be established between the IIT/IPS and the DADF Control PWB.

### Procedure

Switch on the power. **CR4 on the DADF Control PWB illuminates.**

- Y N  
+5VDC is measured between the DADF Control PWB **P/J550-6 (+)** and ground (-).  
Y N  
Check the +5VDC circuit to the DADF Control PWB **P/J550-6** by referring to Section 7 Wiring Data (DADF+5VDC)  
Replace the DADF Control PWB (**PL 20.3**).

Switch off the power. Check continuity of the following (**Figure 1**):

- Between IIT/IPS PWB **P/J725-20** and DADF Control PWB **P/J551-A1**
- Between IIT/IPS PWB **P/J725-19** and DADF Control PWB **P/J551-A2**
- Between IIT/IPS PWB **P/J725-18** and DADF Control PWB **P/J551-A3**
- Between IIT/IPS PWB **P/J725-17** and DADF Control PWB **P/J551-A4**

**The resistance is 4 Ohms or less for all wires.**

- Y N  
Check wires with more than 4 Ohms for an open circuit or poor contact (Refer to **Flag 1** and **Flag 2**).

Replace the DADF Control PWB (**PL 20.3**).

If the problem continues, replace the IIT/IPS PWB (**PL 18.3**).

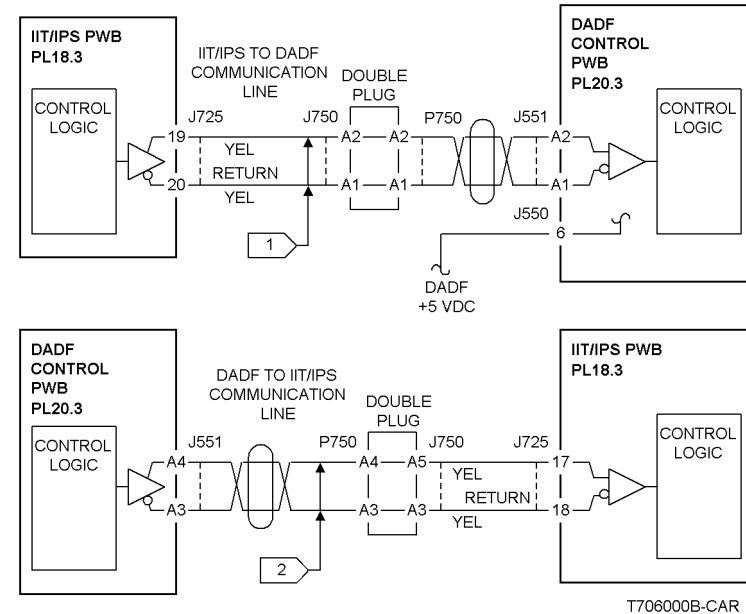


Figure 1 6-277 RAP Circuit Diagram - IIT DADF Communication



## 6-300 DADF Open

The DADF was opened during the DADF Job.

### Procedure

Enter **dC330** [006-300] and place a magnet over the Platen Open Switch (**PL 18.4**). **The display changes.**

Y N

Remove the Platen Glass (**REP 6.2**). Remove IIT/IPS Cover (**PL 18.3**). Connect a jumper between **P/J722-A2** and ground. **The display changes.**

Y N

Replace the IPS/IIT PWB (**PL 18.3**).

Check the circuit of the Platen Open Switch for an open circuit (**Figure 1**). If the wires are good, Replace the Platen Open Switch (**PL 18.4**).

Replace the magnet in the DADF.

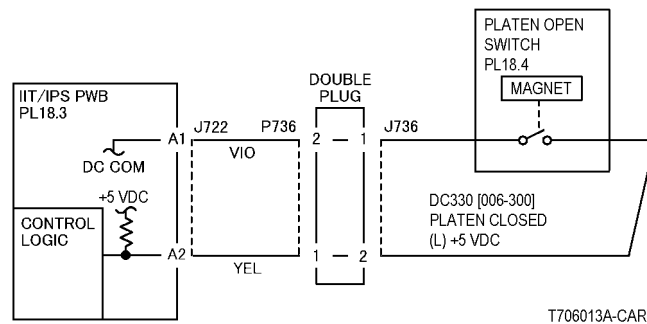


Figure 1 6-300 RAP Circuit Diagram - Platen Open Switch

## 6-312 IIT Memory Hot Line

The system detected an open circuit in the IIT Memory Hot Line.

### Procedure

Switch off the power. Reseat all connections on IIT/IPS PWB. Switch on the power. **The problem continues.**

Y N

Return to Service Call Procedures.

Replace the IIT/IPS PWB (**PL 18.3**).



## 6-340 ESS RAM Test Error

At power on, the system detected a IIT/IPS PWB RAM test error.

### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**  
|     Return to Service Call Procedures.

Replace the IIT/IPS PWB (PL 18.3).

## 6-345 ESS ROM

- The NVM value cannot be written at the IIT/IPS PWB Write.
- A communication failure with the ROM was detected.

### Procedure

Switch off the power. Reseat all connections on IIT/IPS PWB (PL 18.3). Switch on the power.

**The problem continues.**

**Y   N**  
|     Return to Service Call Procedures.

Replace the IIT/IPS PWB (PL 18.3).



## 6-355 IPS Fan

The control logic detects an IPS Fan failure.

### Procedure

Enter **dC330** [006-014] and select **Start**. The IPS FAN (PL 18.4) energizes.

**Y N**  
Switch off the power. Remove the Platen Glass (REP 6.2) and the IPS Cover (PL 18.3). Switch on the power. Enter **dC330** [006-014] and select **Start**. **+24VDC** is measured between the IIT/IPS PWB P/J722-B8 (+) and GND.

**Y N**  
Replace the IIT/IPS PWB (PL 18.3).

Switch the power off. Check the continuity of the following (Figure 1).

- Between the IIT/IPS PWB P/J722-B8 and the IPS FAN P/J738-1
- Between the IIT/IPS PWB P/J722-B9 and the IPS FAN P/J738-2
- Between the IIT/IPS PWB P/J722-B10 and the IPS FAN P/J738-3
- Between the IIT/IPS PWB P/J722-B11 and the IPS FAN P/J738-4

**Less than 5 ohms is measured.**

**Y N**  
Repair the wire.

Replace the IPS FAN (PL 18.4).

Switch off the power. Remove the Platen Glass (REP 6.2) and the IPS Cover (PL 18.3). Switch on the power. **+3.3 VDC** is measured at the IIT/IPS P/J722-B10

**Y N**  
Replace the IIT/IPS PWB (PL 18.3).

Check the wire from IIT/IPS PWB P/J722-B10 to the IPS Fan connector P/J738-3 for an open circuit. If the wire is good, replace the IPS FAN (PL 18.4).

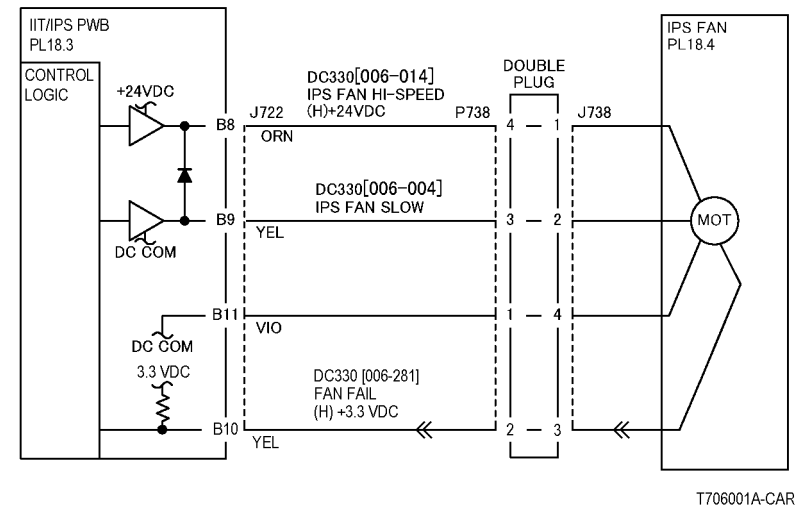


Figure 1 6-355 RAP Circuit Diagram - IPS Fan



## 6-360 Carriage Position

A carriage position error was detected.

### Procedure

Switch the power off. Remove the Platen Glass (REP 6.2). Manually move the Full Rate Carriage. **The carriage moves easily.**

Y N  
Repair as required (PL 18.5).

Switch the power on. Enter dC330 [006-212] and select **Start**. Manually move the Full Rate Carriage to the left until it stops, then move it to the right about 6 inches. **The display changes.**

Y N  
Switch the power off. Remove the IPS Cover (PL 18.3). Enter dC330 [006-212] and select **Start**. Manually move the Full Rate Carriage to the left until it stops. **The display indicates Hi.**

Y N  
Go to **Flag 2**. Check the wire for a short circuit to GND. If the wire is good, replace the IIT Registration Sensor (PL 18.4).

**+5 VDC is measured between P/J722-B3 and P/J722-B1 on the IIT/IPS PWB.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

Move the Full Rate Carriage to the right about 6 inches. **Less than +1.0 VDC is measured at P/J722-B2 to GND.**

Y N  
Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the IIT Registration Sensor (PL 18.4).

Replace the IIT/IPS PWB (PL 18.3).

Manually move the Full Rate Carriage to the **left** until it stops. Enter dC330 [006-005] (Scan) and select **Start**. **The Carriage Motor energizes.**

Y N  
**+24 VDC is measured at P/J725-1 and -2 on the IIT/IPS PWB.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

**NOTE:** In the next step, two of the four pins on P/J725 should measure at least +24 VDC. The other two will measure approximately +2 to +4 VDC.

**+24 VDC is measured at two of the following pins on P/J725: 3, 4, 5 or 6.**

Y N  
Go to **Flag 3** and **Flag 4** and check the wires for an open circuit. If the wires are good, replace the Carriage Motor (PL 18.5).

Replace the IIT/IPS PWB (PL 18.3).

Select **Stop**. Enter dC330 [006-006] (Reverse). Select **Start**. **The Carriage Motor energizes.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

Check the following:

- Carriage Motor Belt for disengagement, damage, or no tension (PL 18.5).
- Carriage Capstan Shaft/pulley damage (PL 18.5).
- Full Rate/Half Rate Carriage Position Adjustment (ADJ 6.1).

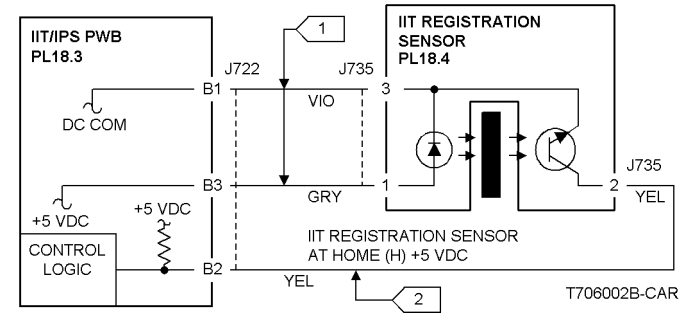


Figure 1 6-360 RAP Circuit Diagram - IIT Registration Sensor

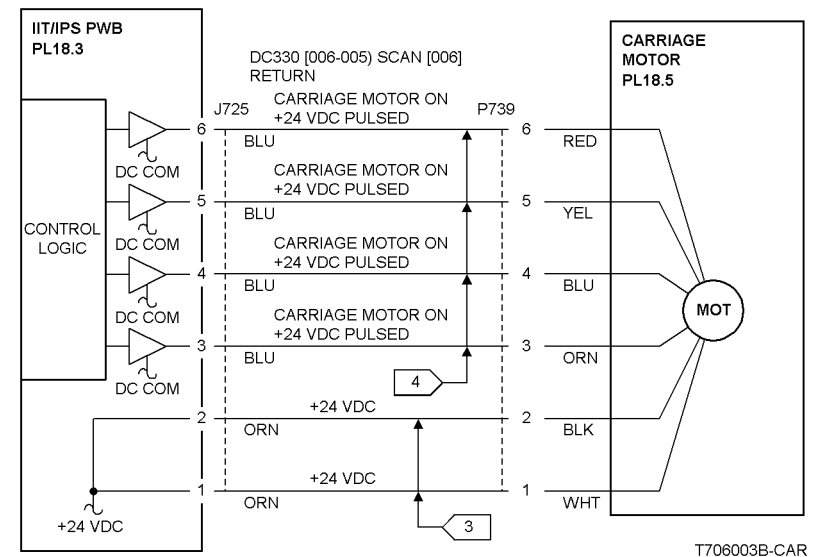


Figure 2 6-360 RAP Circuit Diagram - Carriage Motor



## 6-361 Scan Registration Sensor

Registration Sensor failure at carriage initialization.

### Procedure

Switch the power off. Remove the Platen Glass (REP 6.2). Manually move the Full Rate Carriage. **The carriage moves easily.**

Y N  
Repair as required (PL 18.5).

Switch the power on. Enter dC330 [006-212] and select **Start**. Manually move the Full Rate Carriage to the left until it stops, then move it to the right about 6 inches. **The display changes.**

Y N  
Switch the power off. Remove the IPS Cover (PL 18.3). Enter dC330 [006-212] and select **Start**. Manually move the Full Rate Carriage to the left until it stops. **The display indicates Hi.**

Y N  
Go to **Flag 2**. Check the wire for a short circuit to GND. If the wire is good, replace the IIT Registration Sensor (PL 18.4).

**+5 VDC is measured between P/J722-B3 and P/J722-B1 on the IIT/IPS PWB.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

Move the Full Rate Carriage to the right about 6 inches. **Less than +1.0 VDC is measured at P/J722-B2 to GND.**

Y N  
Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the IIT Registration Sensor (PL 18.4).

Replace the IIT/IPS PWB (PL 18.3).

Manually move the Full Rate Carriage to the **left** until it stops. Enter dC330 [006-005] (Scan) and select **Start**. **The Carriage Motor energizes.**

Y N  
**+24 VDC is measured at P/J725-1 and -2 on the IIT/IPS PWB.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

**NOTE:** In the next step, two of the four pins on P/J725 should measure at least +24 VDC. The other two will measure approximately +2 to +4 VDC.

**+24 VDC is measured at two of the following pins on P/J725: 3, 4, 5 or 6.**

Y N  
Go to **Flag 3** and **Flag 4** and check the wires for an open circuit. If the wires are good, replace the Carriage Motor (PL 18.5).

Replace the IIT/IPS PWB (PL 18.3).

Select **Stop**. Enter dC330 [006-006] (Reverse). Select **Start**. **The Carriage Motor energizes.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

Check the following:

- Carriage Motor Belt for disengagement, damage, or no tension (PL 18.5).
- Carriage Capstan Shaft/pulley damage (PL 18.5).
- Full Rate/Half Rate Carriage Position Adjustment (ADJ 6.1).

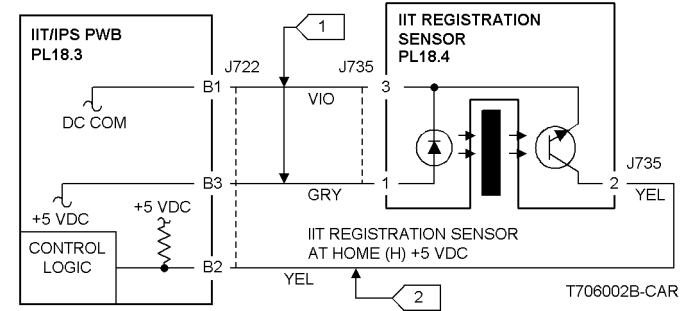


Figure 1 6-361 RAP Circuit Diagram - IIT Registration Sensor

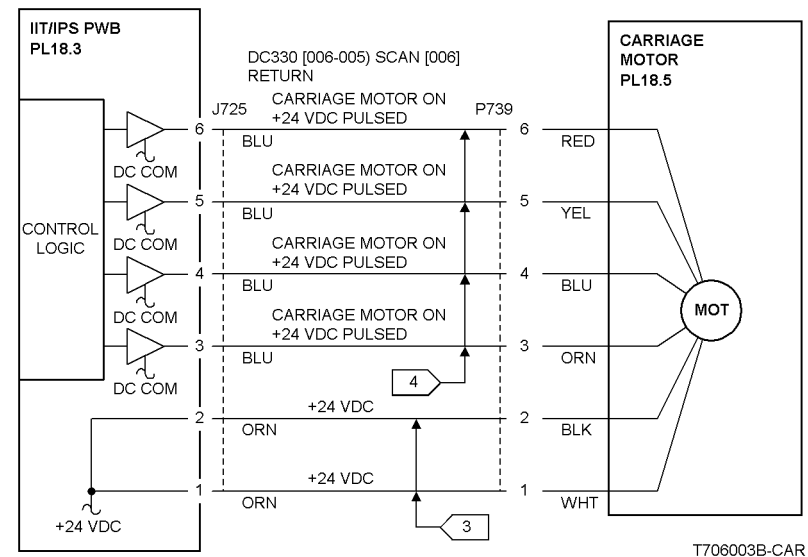


Figure 2 6-361 RAP Circuit Diagram - Carriage Motor



## 6-371 Exposure Lamp

Open circuit of the Lamp was detected.

### Procedure

Enter **dC330** [006-002]. Press **Start**. **The Exposure Lamp illuminates.**

**Y N**  
Switch off the power. Remove the Platen Glass (REP 6.2) and the IPS Cover (PL 18.3).  
Switch the power on. (Refer to Figure 1.) **There is +24VDC from P/J724-3 on the IIT/IPS PWB to ground (-).**

**Y N**  
**There is +24VDC from P/J724-1 to P/J724-4 on the IIT/IPS PWB.**

**Y N**  
Replace the IIT/IPS PWB (PL 18.3).

Replace the Lamp Wire Harness (PL 18.6).

If the problem continues, replace the Lamp Ballast PWB (PL 18.6).

If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Enter dC 330 [006-002] and select **Start**. **The voltage at P/J724-3 drops to approximately 7.5 VDC.**

**Y N**  
Replace the IIT/IPS PWB (PL 18.3).

Replace the Exposure Lamp (PL 18.6).

If the problem continues, replace the Lamp Wire Harness (PL 18.6).

If the problem continues, replace Lamp Ballast PWB (PL 18.6).

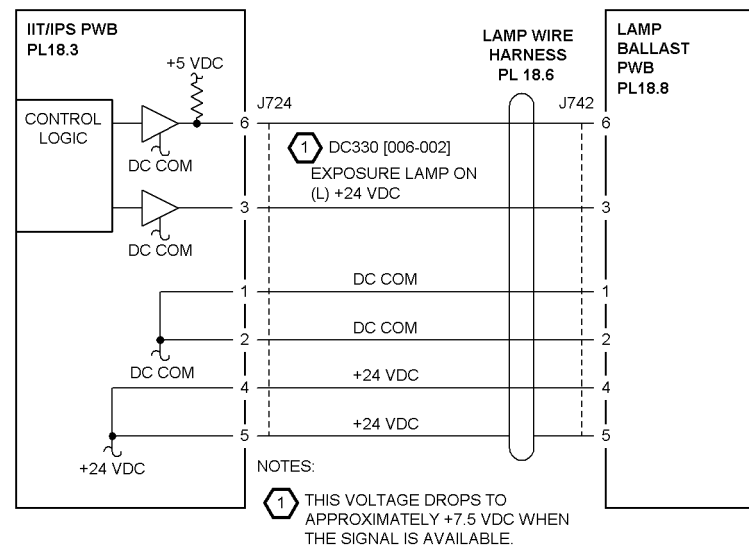
Check the following:

- The White Reference Strip, under the frame that is below the Registration Edge, for excessive contamination (REP 6.13).
- The optical light path for contamination.

If the Strip and optics are clean, replace the Exposure Lamp (PL 18.6).

If the problem continues, replace the Lamp Ballast PWB (PL 18.6).

If the problem continues, replace the IIT/IPS PWB (PL 18.3).



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Figure 1 6-371 RAP Circuit Diagram - Exposure Lamp



## 6-372 ROS Polygon Motor

The Control Logic has detected a ROS Motor failure.

### Procedure

Enter **dC330** [006-031] and select **Start**. **+3.3VDC** is measured between the MCU PWB **P/J402 (+)** and ground **(-)**

**Y N**  
Go to **Flag 1**. Check the wire for an open circuit.

**+24VDC** is measured between **P/J402-6 (+)** and ground **(-)**.

**Y N**  
Replace the MCU PWB (PL 13.1).

Enter **dC330** [006-031]. **Less than +1.0 VDC** is measured between **P/J402-4 (+)** and ground **(-)**

**Y N**  
Replace the MCU PWB (PL 13.1).

**Approximately +2.5 VAC** is measured between **P/J402-2 (+)** and ground **(-)**.

**Y N**  
Replace the MCU PWB (PL 13.1).

Go to **Flag 1**, **Flag 2**, **Flag 3**, and **Flag 4**. Check the wires for an open circuit or a short circuit to GND. If no problems are found, replace the ROS (PL 3.1).

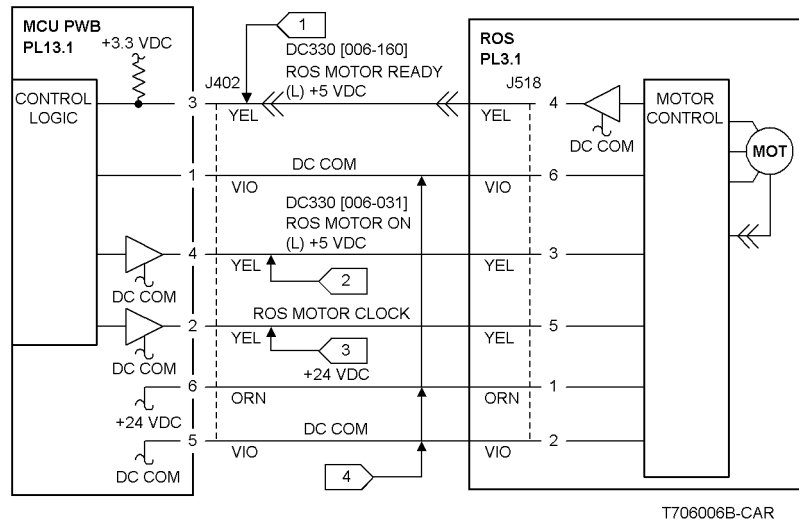


Figure 1 6-372 RAP Circuit Diagram - Polygon Motor Control

## 6-380 ROS SOS Y Length

The interval of the ROS Start-of-Scan (Y) signals exceeds the specified value.

### Procedure

**+5VDC** is measured between the MCU PWB **P/J401-B20 (+)** and ground **(-)**

**Y N**  
Replace the MCU PWB (PL 13.1).

Refer to **Figure 1** and check the wire between the SOS PWB (Y) **P/J516-2** and the MCU PWB **P/J401-B15** for an open circuit.

Check the wires between **P/J529** and the MCU PWB **P/J401** for an open circuit.

If no problems are found, replace the ROS Assembly (PL 3.1).

If the problem continues, replace the MCU PWB (PL 13.1).

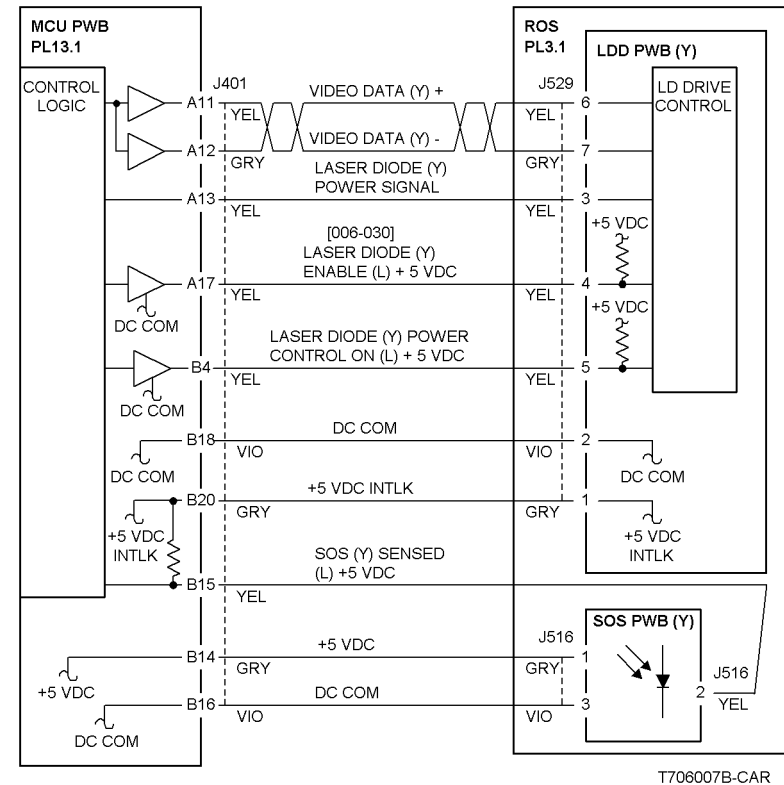


Figure 1 6-380 RAP Circuit Diagram - ROS SOS Y



## 6-381 ROS SOS M Length

The interval of the ROS Start-of-Scan (M) signals exceeds the specified value.

### Procedure

+5VDC is measured between the MCU PWB **P/J401-B19 (+)** and ground (-).

**Y N**  
Replace the MCU PWB (PL 13.1).

Refer to **Figure 1** and check the wire between the SOS PWB (M) **P/J517-2** and the MCU PWB **P/J401-B12** for an open circuit.

Check the wires between **P/J528** and the MCU PWB **P/J401** for an open circuit.

If no problems are found, replace the ROS Assembly (PL 3.1).

If the problem continues, replace the MCU PWB (PL 13.1).

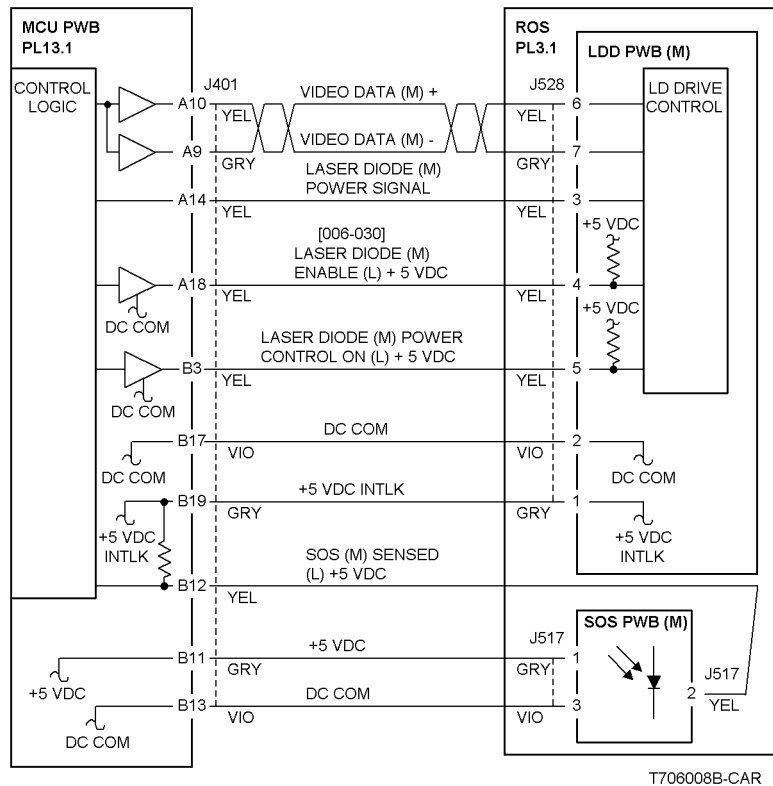


Figure 1 6-381 RAP Circuit Diagram - ROS SOS M

## 6-382 ROS SOS C Length

The interval of the ROS Start-of-Scan (C) signals exceeds the specified value.

### Procedure

+5VDC is measured between the MCU PWB **P/J401-A1 (+)** and ground (-).

**Y N**  
Replace the MCU PWB (PL 13.1).

Refer to **Figure 1** and check the wire between the SOS PWB (C) **P/J514-2** and the MCU PWB **P/J401-B9** for an open circuit.

Check the wires between **P/J527** and the MCU PWB **P/J401** for an open circuit.

If no problems are found, replace the ROS Assembly (PL 3.1).

If the problem continues, replace the MCU PWB (PL 13.1).

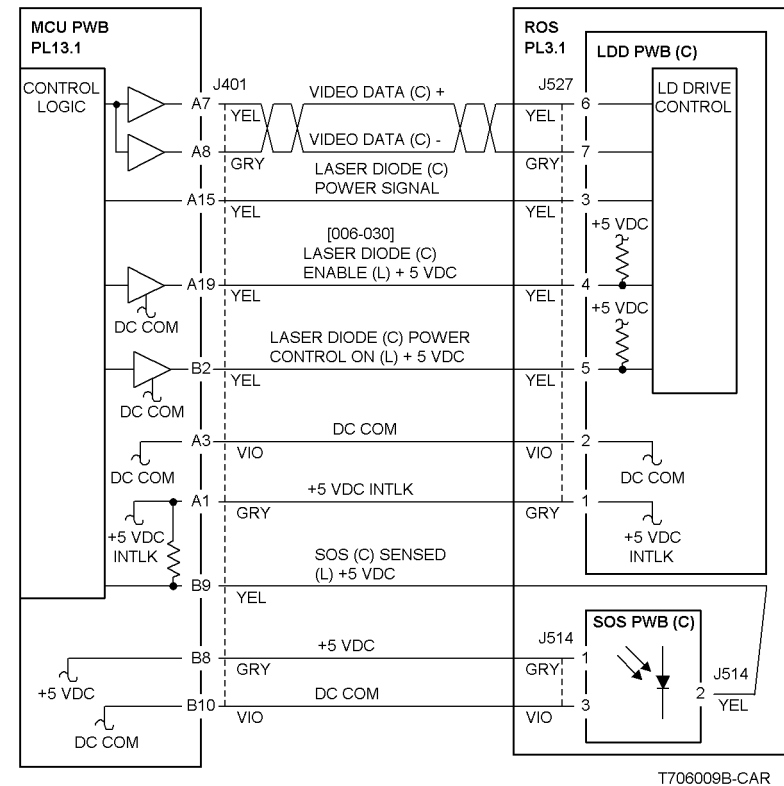


Figure 1 6-382 RAP Circuit Diagram - ROS SOS C



## 6-383 ROS SOS K Length

The interval of the ROS Start-of-Scan (K) signals exceeds the specified value.

### Procedure

**+5VDC is measured between the MCU PWB P/J401-A2 (+) and ground (-).**

**Y N**  
Replace the MCU PWB (PL 13.1).

Refer to **Figure 1** and check the wire between the SOS PWB (K) P/J515-2 and the MCU PWB P/J401-B6 for an open circuit.

Check the wires between P/J526 and the MCU PWB P/J401 for an open circuit.

If no problems are found, replace the ROS Assembly (PL 3.1).

If the problem continues, replace the MCU PWB (PL 13.1).

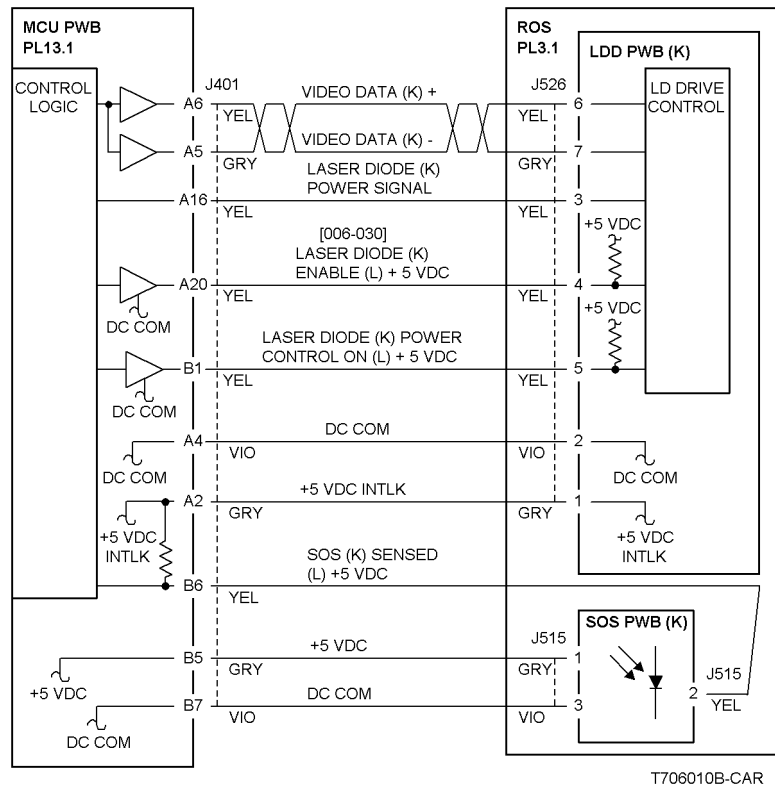


Figure 1 6-383 RAP Circuit Diagram - ROS SOS K

## 6-385 ROS ASIC

The Control Logic detected an operation failure of the ROS ASIC in the MCU PWB.

### Procedure

Switch power off then on. **The problem continues.**

**Y N**  
Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).



## 6-389 Carriage Over Run Right

The carriage has overrun at the Scan End.

### Procedure

Switch the power off. Remove the Platen Glass (REP 6.2). Manually move the Full Rate Carriage. **The carriage moves easily.**

Y N  
Repair as required (PL 18.5).

Switch the power on. Enter dC330 [006-212] and select **Start**. Manually move the Full Rate Carriage to the left until it stops, then move it to the right about 6 inches. **The display changes.**

Y N  
Switch the power off. Remove the IPS Cover (PL 18.3). Enter dC330 [006-212] and select **Start**. Manually move the Full Rate Carriage to the left until it stops. **The display indicates Hi.**

Y N  
Go to **Flag 2**. Check the wire for a short circuit to GND. If the wire is good, replace the IIT Registration Sensor (PL 18.4).

**+5 VDC is measured between P/J722-B3 and P/J722-B1 on the IIT/IPS PWB.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

Move the Full Rate Carriage to the right about 6 inches. **Less than +1.0 VDC is measured at P/J722-B2 to GND.**

Y N  
Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the IIT Registration Sensor (PL 18.4).

Replace the IIT/IPS PWB (PL 18.3).

Manually move the Full Rate Carriage to the **left** until it stops. Enter dC330 [006-005] (Scan) and select **Start**. **The Carriage Motor energizes.**

Y N  
**+24 VDC is measured at P/J725-1 and -2 on the IIT/IPS PWB.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

**NOTE:** In the next step, two of the four pins on P/J725 should measure at least +24 VDC. The other two will measure approximately +2 to +4 VDC.

**+24 VDC is measured at two of the following pins on P/J725: 3, 4, 5 or 6.**

Y N  
Go to **Flag 3** and **Flag 4** and check the wires for an open circuit. If the wires are good, replace the Carriage Motor (PL 18.5).

Replace the IIT/IPS PWB (PL 18.3).

Select **Stop**. Enter dC330 [006-006] (Reverse). Select **Start**. **The Carriage Motor energizes.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

Check the following:

- Carriage Motor Belt for disengagement, damage, or no tension (PL 18.5).
- Carriage Capstan Shaft/pulley damage (PL 18.5).
- Full Rate/Half Rate Carriage Position Adjustment (ADJ 6.1).

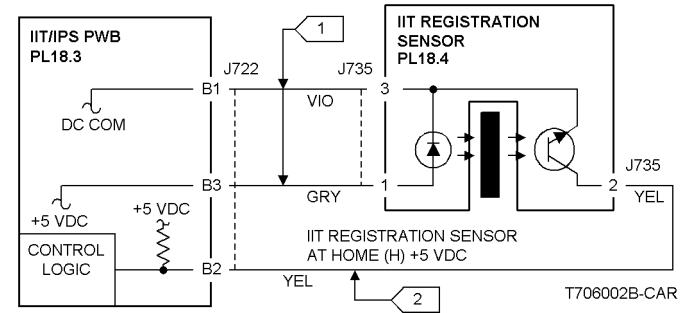


Figure 1 6-389 RAP Circuit Diagram - IIT Registration Sensor

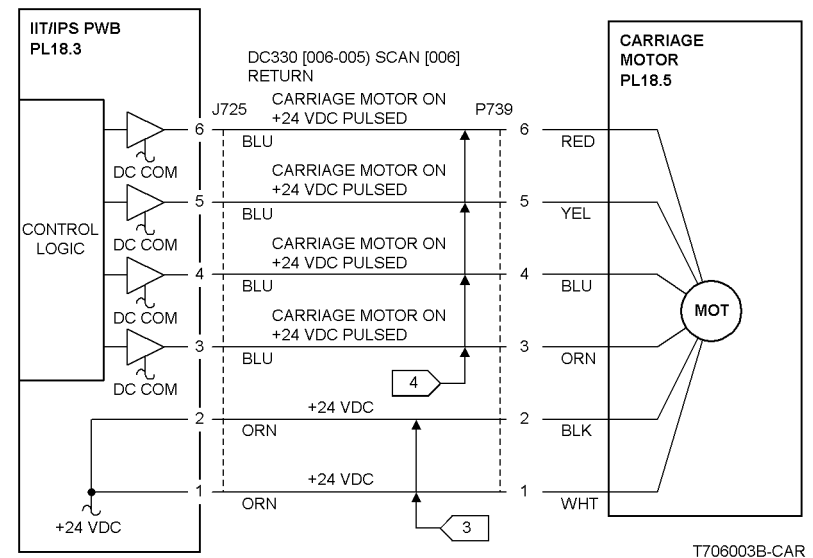


Figure 2 6-389 RAP Circuit Diagram - Carriage Motor



## 6-390 Carriage Over Run Left

The carriage has overrun at the Home End.

### Procedure

Switch the power off. Remove the Platen Glass (REP 6.2). Manually move the Full Rate Carriage. **The carriage moves easily.**

Y N  
Repair as required (PL 18.5).

Switch the power on. Enter dC330 [006-212] and select **Start**. Manually move the Full Rate Carriage to the left until it stops, then move it to the right about 6 inches. **The display changes.**

Y N  
Switch the power off. Remove the IPS Cover (PL 18.3). Enter dC330 [006-212] and select **Start**. Manually move the Full Rate Carriage to the left until it stops. **The display indicates Hi.**

Y N  
Go to **Flag 2**. Check the wire for a short circuit to GND. If the wire is good, replace the IIT Registration Sensor (PL 18.4).

**+5 VDC is measured between P/J722-B3 and P/J722-B1 on the IIT/IPS PWB.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

Move the Full Rate Carriage to the right about 6 inches. **Less than +1.0 VDC is measured at P/J722-B2 to GND.**

Y N  
Go to **Flag 1** and **Flag 2**. Check the wires for an open circuit. If the wires are good, replace the IIT Registration Sensor (PL 18.4).

Replace the IIT/IPS PWB (PL 18.3).

Manually move the Full Rate Carriage to the **left** until it stops. Enter dC330 [006-005] (Scan) and select **Start**. **The Carriage Motor energizes.**

Y N  
**+24 VDC is measured at P/J725-1 and -2 on the IIT/IPS PWB.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

**NOTE:** In the next step, two of the four pins on P/J725 should measure at least +24 VDC. The other two will measure approximately +2 to +4 VDC.

**+24 VDC is measured at two of the following pins on P/J725: 3, 4, 5 or 6.**

Y N  
Go to **Flag 3** and **Flag 4** and check the wires for an open circuit. If the wires are good, replace the Carriage Motor (PL 18.5).

Replace the IIT/IPS PWB (PL 18.3).

Select **Stop**. Enter dC330 [006-006] (Reverse). Select **Start**. **The Carriage Motor energizes.**

Y N  
Replace the IIT/IPS PWB (PL 18.3).

Check the following:

- Carriage Motor Belt for disengagement, damage, or no tension (PL 18.5).
- Carriage Capstan Shaft/pulley damage (PL 18.5).
- Full Rate/Half Rate Carriage Position Adjustment (ADJ 6.1).

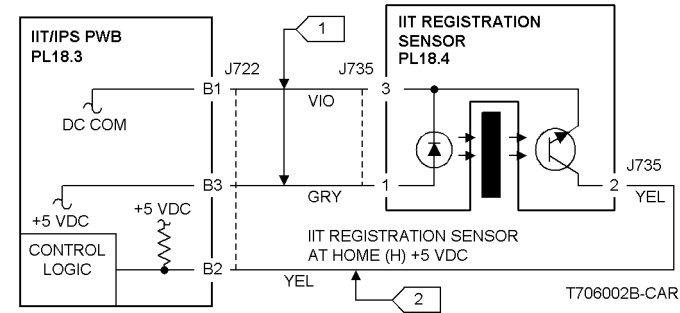


Figure 1 6-390 RAP Circuit Diagram - IIT Registration Sensor

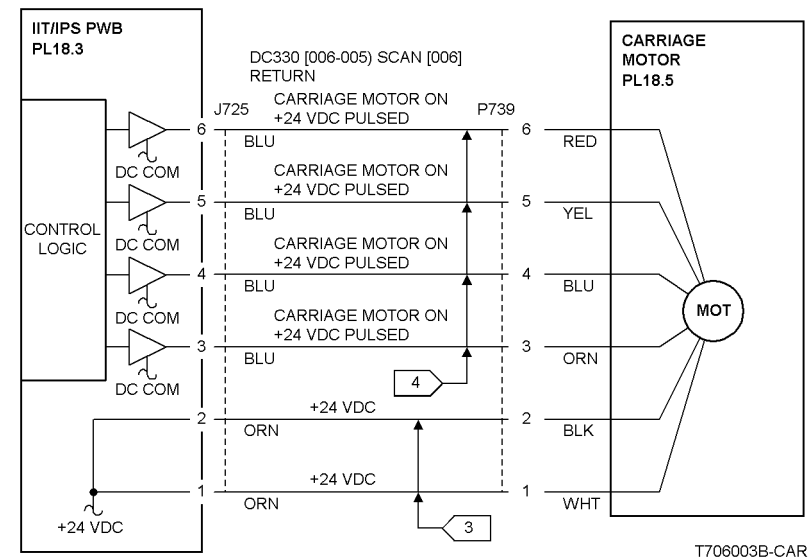


Figure 2 6-390 RAP Circuit Diagram - Carriage Motor



## 6-391 Scan Initialize Motor Driver

A Carriage Motor error was detected after initialization was started.

### Procedure

Manually move the Full Rate Carriage to the **left** until it stops. Enter **dC330** [006-005] (Scan) and select **Start**. **The Carriage Motor energizes.**

**Y N**  
+24 VDC is measured at **P/J725-1** and **-2** on the IIT/IPS PWB.

**Y N**  
Replace the IIT/IPS PWB (PL 18.3).

**NOTE:** In the next step, two of the four pins on **P/J725** should measure at least +24 VDC. The other two will measure approximately +2 to +4 VDC.

+24 VDC is measured at two of the following pins on **P/J725**: 3, 4, 5 or 6.

**Y N**  
Go to **Flag 3** and **Flag 4** and check the wires for an open circuit. If the wires are good, replace the Carriage Motor (PL 18.5).

Replace the IIT/IPS PWB (PL 18.3).

Select **Stop**. Enter **dC330** [006-006] (Reverse). Select **Start**. **The Carriage Motor energizes.**

**Y N**  
Replace the IIT/IPS PWB (PL 18.3).

Check the following:

- Carriage Motor Belt for disengagement, damage, or no tension (PL 18.5).
- Carriage Capstan Shaft/pulley damage (PL 18.5).
- Full Rate/Half Rate Carriage Position Adjustment (ADJ 6.1).

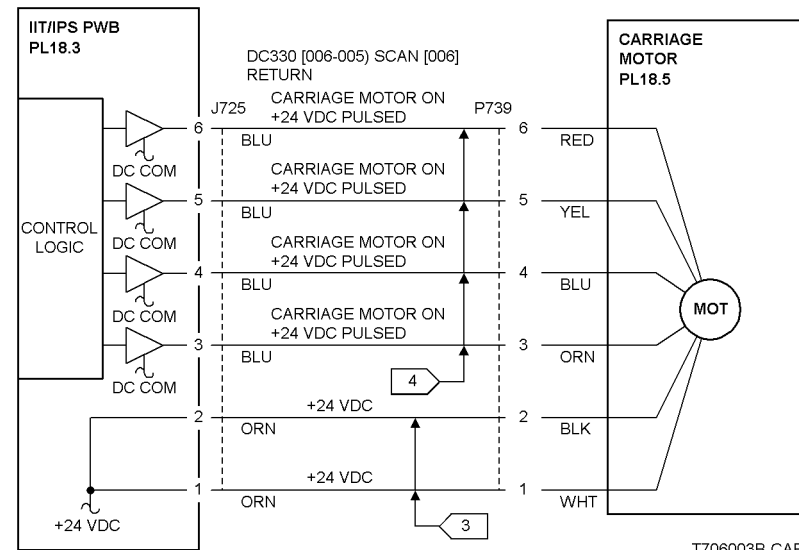


Figure 1 6-391 RAP Circuit Diagram - Carriage Motor







## 7-104 Tray 1 Feed Out Sensor

The Tray 1 Feed Out Sensor does not detect paper fed from Tray 2, 3, or 4 within the specified time after the Takeaway Sensor was actuated.

### Initial Actions

- Check condition and specification of paper in Tray 2, 3 and 4.
- Check the paper path for obstructions.
- Check for wear and clean the Takeaway Rolls and the Pinch Rolls.

### Procedure

The machine is equipped with a 3TM.

**Y N**  
Open the Left Lower Cover (PL 2.3). Enter **dC330** [008-100] and press **Start**. Block and unblock Tray 1 Feed Out Sensor (PL 2.3). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Tray 1 Feed Out Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Close the Left Lower Cover and open the Left Cover and cheat the Left Cover Interlock Switch (PL 16.13). Enter **dC330** [008-106] and press **Start**. Block and unblock the Takeaway Sensor (PL 16.6). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Takeaway Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter **dC330** [008-036] and press **Start**. **Both Takeaway Rolls (PL 16.6) rotate.**

**Y N**  
**Takeaway Motor 1 energizes.**

**Y N**  
Press **Stop**. **+24 VDC is measured between P/J552-3 and GND on the Tray Module PWB.**

**Y N**  
**+24 VDC is measured at P/J555-3 on the Tray Module PWB.**

**Y N**  
Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 16.15).

**+24 VDC is measured at each of the following pins on P/J552: Pin 1, 2, 5, and 6.**

**Y N**  
Refer to Figure 3. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 16.15)

With **dC330** [008-036] still entered, press **Start** and check that the voltage at **P/J552** pins 1, 2, 5, and 6 each drop to approximately +22 VDC. **The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-036] is entered.**

**A B C**

**Y N**  
Replace the Tray Module PWB (PL 16.15).

Replace the Takeaway Motor 1 (PL 16.15).

Check the drives of the Takeaway Motor 1 (refer to PL 16.15)

Press **Stop**.

- Ensure that the Chutes (PL 2.3, PL 16.5, PL 16.6) are properly seated and not damaged.
- Check the Pinch Rolls (PL 2.3, PL 16.13) for damage or contamination.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- If the problem persists, replace the Tray Module PWB (PL 16.15).

Open the Left Lower Cover (PL 2.3). Enter **dC330** [008-100] and press **Start**. Block and unblock Tray 1 Feed Out Sensor (PL 2.3). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Tray 1 Feed Out Sensor (Figure 1). Refer to the OF 99-2 RAP for the troubleshooting procedure.

Press **Stop**. Close the Left Lower Cover and open the Left Cover and cheat the Left Cover Interlock Switch (PL 15.10). Enter **dC330** [008-106] and press **Start**. Block and unblock the Takeaway Sensor (PL 15.10). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Takeaway Sensor (Figure 4). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter **dC330** [008-028] and press **Start**. **Both Takeaway Rolls (PL 15.10) rotate.**

**Y N**  
**Takeaway Motor 1 energizes.**

**Y N**  
Press **Stop**. **+24 VDC is measured between P/J552-3 and GND on the Tray Module PWB.**

**Y N**  
**+24 VDC is measured at P/J555-3 on the Tray Module PWB.**

**Y N**  
Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 15.9).

**+24 VDC is measured at each of the following pins on P/J552: Pin 1, 2, 5, and 6.**

**Y N**  
Refer to Figure 5. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 15.9)

With **dC330** [008-028] still entered, press **Start** and check that the voltage at **P/J552** pins 1, 2, 5, and 6 each drop to approximately +22 VDC. **The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-028] is entered.**



D

Y N

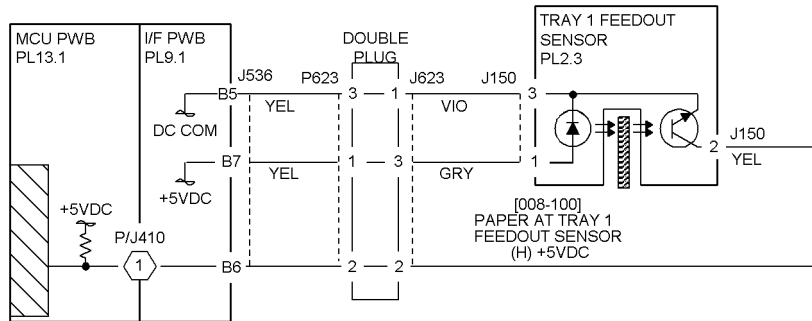
Replace the Tray Module PWB (PL 15.9).

Replace the Takeaway Motor 1 (PL 15.9).

Check the drives of the Takeaway Motor 1 (refer to PL 15.9)

Press **Stop**.

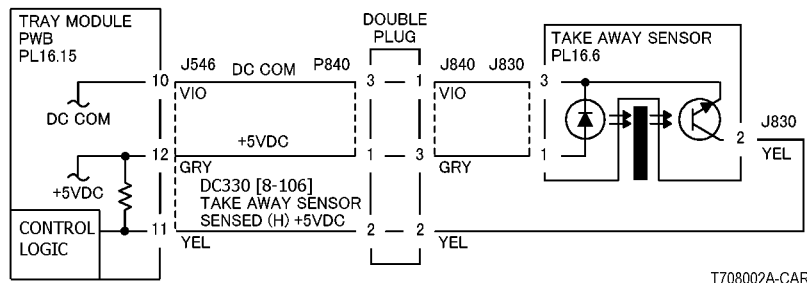
- Ensure that the Chutes (PL 2.3, PL 15.10) are properly seated and not damaged.
- Check the Pinch Rolls (PL 2.3, PL 15.10) for damage or contamination.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 4, Figure 5) are securely connected and that the wires are not damaged.
- If the problem persists, replace the Tray Module PWB (PL 15.9).



1 PIN 55 FOR DC2240/1632, WC M24.  
PIN 53 FOR DC3535.

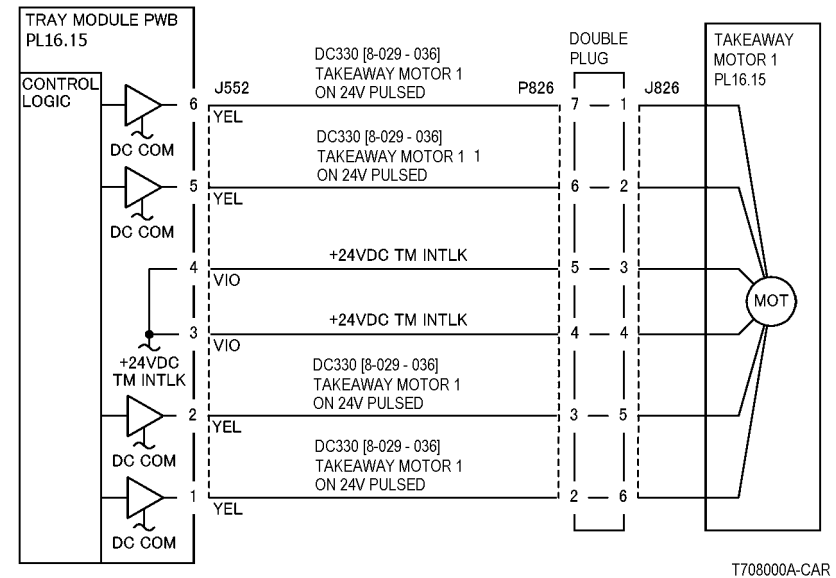
T708005C-CAR

Figure 1 7-104 RAP Circuit Diagram - Tray 1 Feed Out Sensor



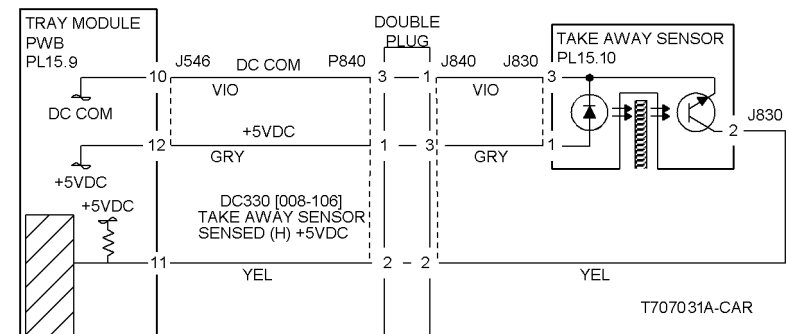
T708002A-CAR

Figure 2 7-104 RAP Circuit Diagram - Takeaway Sensor TTM



T708000A-CAR

Figure 3 7-104 RAP Circuit Diagram - Takeaway Motor 1 TTM



T707031A-CAR

Figure 4 7-104 RAP Circuit Diagram - Takeaway Sensor 3TM



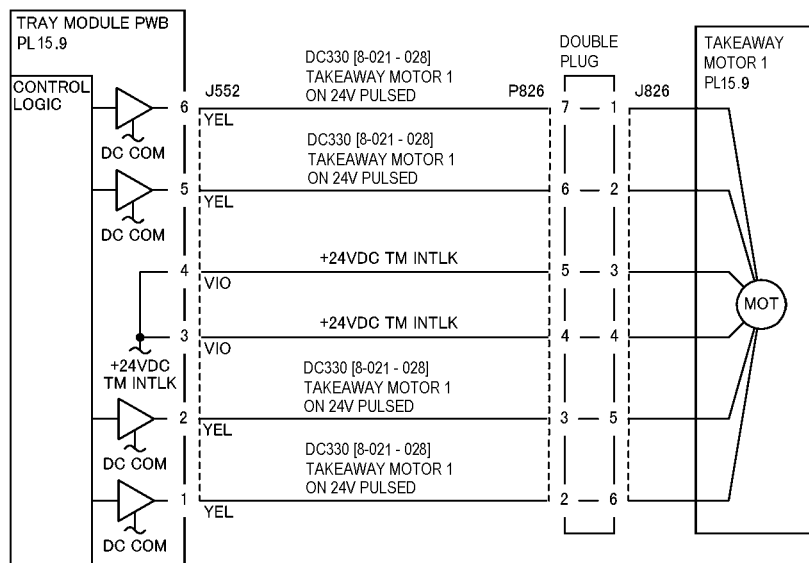


Figure 5 7-104 Circuit Diagram - Takeaway Motor 1 3TM



## 7-105 Tray 1 Misfeed

The Tray 1 Feed Out Sensor does not detect paper after feeding from Tray 1.

### Initial Actions

- Check condition and specification of paper in Tray 1.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 1 Feed Roll, Takeaway Roll and the Pinch Roll.

### Procedure

Open the Left Lower Cover (PL 2.3). Enter **dC330** [008-100] and press **Start**. Block and unblock the Tray 1 Feed Out Sensor (PL 2.3). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Tray 1 Feed Out Sensor (Figure 1). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop** and close the Left Lower Cover. Enter **dC330** [008-001] and press **Start**. **The Tray 1 Feed/Lift Motor (PL 2.4) energizes.**

**Y N**  
Press **Stop**. Check the circuit of the Tray 1 Feed/Lift Motor (Figure 2). Check the wires from the I/F PWB to the Tray 1 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 1 Feed/Lift Motor (PL 2.4). If the problem still exists, replace the I/F PWB (PL 9.1)

- Check the Tray 1 Feed / Lift Motor and its associated gears (PL 2.4) for damage, contamination or misalignment.
- Ensure that the Tray 1 Chute (PL 2.3) is properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- If these checks are OK, replace the I/F PWB (PL 9.1).
- If the problem persists, replace the MCU PWB (PL 13.1).

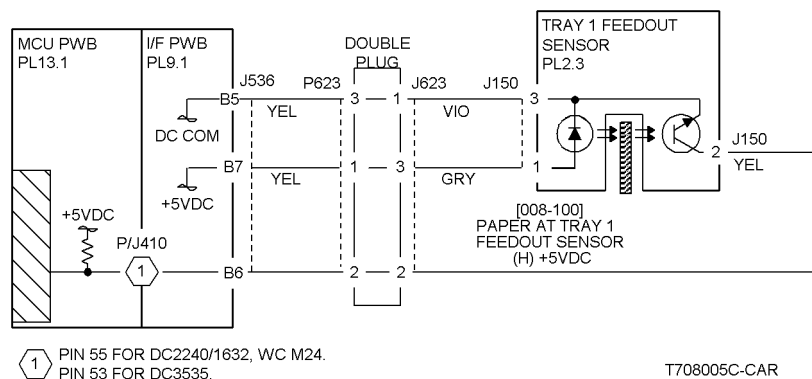


Figure 1 7-105 RAP Circuit Diagram - Tray 1 Feed out Sensor

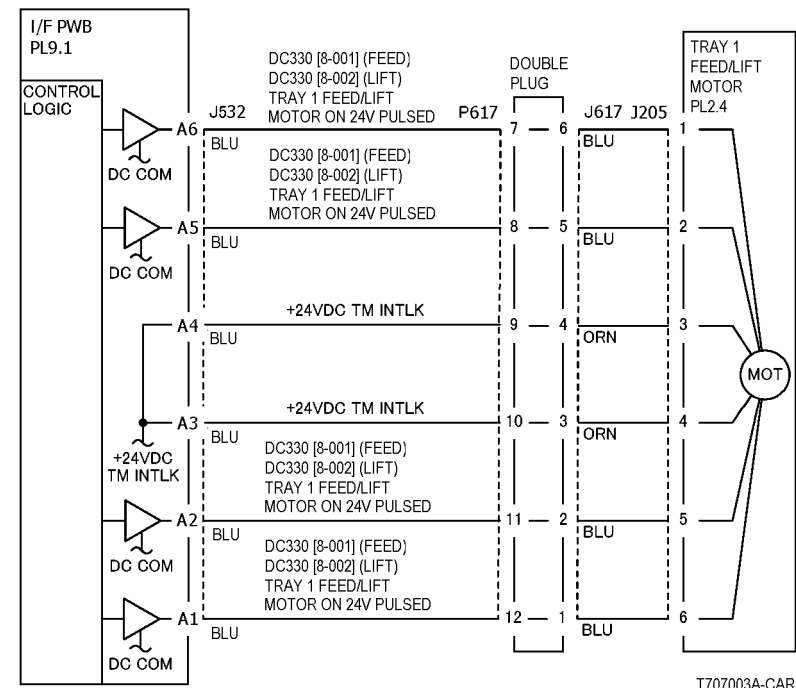


Figure 2 7-105 RAP Circuit Diagram - Tray 1 Feed/Lift Motor



## 7-110 Tray 2 Misfeed

The Takeaway Sensor does not detect paper after feeding from Tray 2.

### Initial Actions

- Check condition and specification of paper in Tray 2.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 2 Feeder Roll, Takeaway Roll and the Pinch Roll.

### Procedure

The machine is equipped with a 3TM.

Y	N
	Open the Left Cover and cheat the Left Cover Interlock Switch (PL 16.13). Enter dC330 [008-106] and press <b>Start</b> . Block and unblock the Takeaway Sensor (PL 16.6). <b>The display changes.</b>
Y	N
	Press <b>Stop</b> . Check the circuit of the Takeaway Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.
	Press <b>Stop</b> . Enter dC330 [008-003] and press <b>Start</b> . <b>The Tray 2 Feed/Lift Motor (PL 16.7) energizes.</b>
Y	N
	Press <b>Stop</b> . Check the circuit of the Tray 2 Feed/Lift Motor (Figure 2). Check the wires from the Tray Module PWB to the Tray 2 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 2 Feed/Lift Motor (). If the problem still exists, replace the Tray Module PWB ()
	Press <b>Stop</b> . Enter dC330 [008-036] and press <b>Start</b> . <b>Both Takeaway Rolls (PL 16.6) rotate.</b>
Y	N
	<b>Takeaway Motor 1 energizes.</b>
Y	N
	Press <b>Stop</b> . +24 VDC is measured between P/J552-3 and GND on the Tray Module PWB.
Y	N
	+24 VDC is measured at P/J555-3 on the Tray Module PWB.
Y	N
	Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.
	Replace the Tray Module PWB (PL 16.15).
	+24 VDC is measured at each of the following pins on P/J552: Pin 1, 2, 5, and 6.
Y	N
	Refer to Figure 3. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 16.15)

A	B	C	D
			With dC330 [008-036] still entered, press <b>Start</b> and check that the voltage at P/J552 pins 1, 2, 5, and 6 each drop to approximately +22 VDC. <b>The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-036] is entered.</b>
		Y	N
			Replace the Tray Module PWB (PL 16.15).
			Replace the Takeaway Motor 1 (PL 16.15).
			Check the drives of the Takeaway Motor 1 (refer to PL 16.15)
			Press <b>Stop</b> .
			<ul style="list-style-type: none"><li>• Check the Tray 2 Feed / Lift Motor and its associated gears (PL 16.7) for damage and misalignment.</li><li>• Ensure that the Tray 2 Chute (PL 16.6) is properly seated and not damaged.</li><li>• Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2, Figure 3) are securely connected and that the wires are not damaged.</li><li>• If these checks are OK, replace the Tray Module PWB (PL 16.15).</li></ul>
			Open the Left Cover and cheat the Left Cover Interlock Switch (PL 15.10). Enter dC330 [008-106] and press <b>Start</b> . Block and unblock the Takeaway Sensor (PL 15.10). <b>The display changes.</b>
		Y	N
			Press <b>Stop</b> . Check the circuit of the Takeaway Sensor (Figure 4). Refer to the OF 99-2 RAP for troubleshooting procedure.
			Press <b>Stop</b> . Enter dC330 [008-003] and press <b>Start</b> . <b>The Tray 2 Feed/Lift Motor (PL 15.3) energizes.</b>
		Y	N
			Press <b>Stop</b> . +24 VDC is measured between P/J547-3 and GND on the Tray Module PWB.
		Y	N
			+24 VDC is measured at P/J555-3 on the Tray Module PWB.
		Y	N
			Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.
			Replace the Tray Module PWB (PL 15.9).
			+24 VDC is measured at each of the following pins on P/J547 Pin 1, 2, 5, and 6.
		Y	N
			Refer to Figure 5. Check the wires from the Tray Module PWB to the Tray 2 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 2 Feed/Lift Motor (PL 15.3).
			Replace the Tray 2 Feed/Lift Motor (PL 15.3). If the problem continues, replace the Tray Module PWB (PL 15.9).
			Press <b>Stop</b> . Enter dC330 [008-028] and press <b>Start</b> . <b>All three Takeaway Rolls (PL 15.9) rotate.</b>



Y N  
**Takeaway Motor 1 (PL 15.9) energizes.**

Y N  
 Press **Stop**. +24 VDC is measured between **P/J552-3** and GND on the Tray Module PWB.

Y N  
 +24 VDC is measured at P/J 555-3 on the Tray Module PWB.

Y N  
 Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 15.9).

+24 VDC is measured at each of the following pins on **P/J552**: Pin 1, 2, 5, and 6.

Y N  
 Refer to Figure 6. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 15.9)

With [008-028] still entered, press Start and check that the voltage at **P/J552** pins 1, 2, 5, and 6 each drop to approximately +22 VDC. **The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-028] is entered.**

Y N  
 Replace the Tray Module PWB (PL 15.9).

Replace the Takeaway Motor 1 (PL 15.9).

Press **Stop**. Check the Takeaway Motor 1 and its associated gears (PL 15.9) for damage, contamination and misalignment.

Press **Stop**.

- Check the Tray 2 Feed / Lift Motor and its associated gears (PL 15.3) for damage and misalignment.
- Ensure that the Tray 2 Chute (PL 15.10) is properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure) are securely connected and that the wires are not damaged.
- If these checks are OK, replace the Tray Module PWB (PL 15.9).

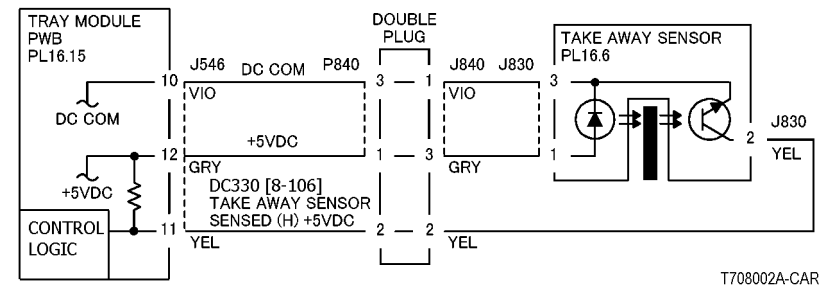


Figure 1 7-110 RAP Circuit Diagram - Takeaway Sensor (TTM)

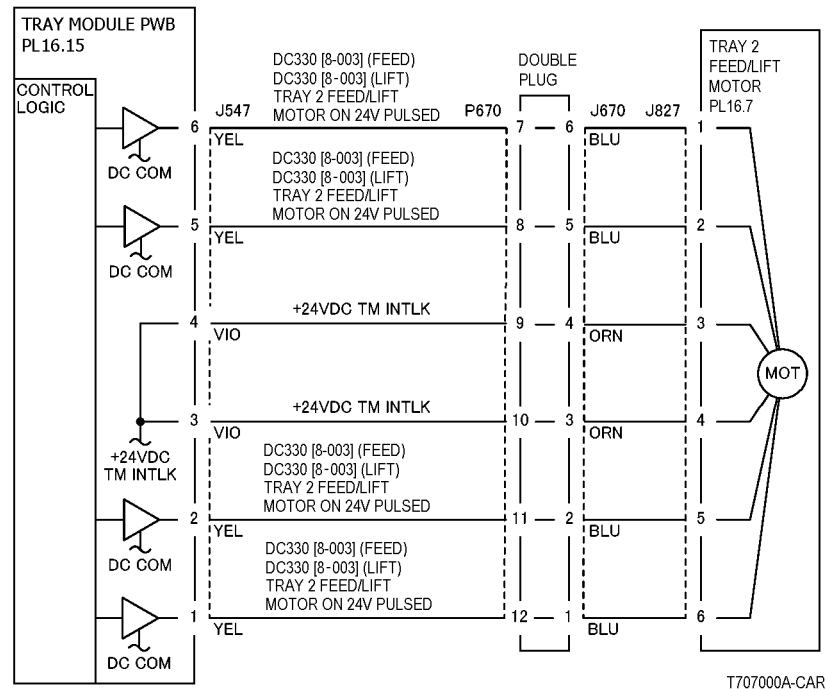


Figure 2 7-110 RAP Circuit Diagram - Tray 2 Feed/Lift Motor (TTM)



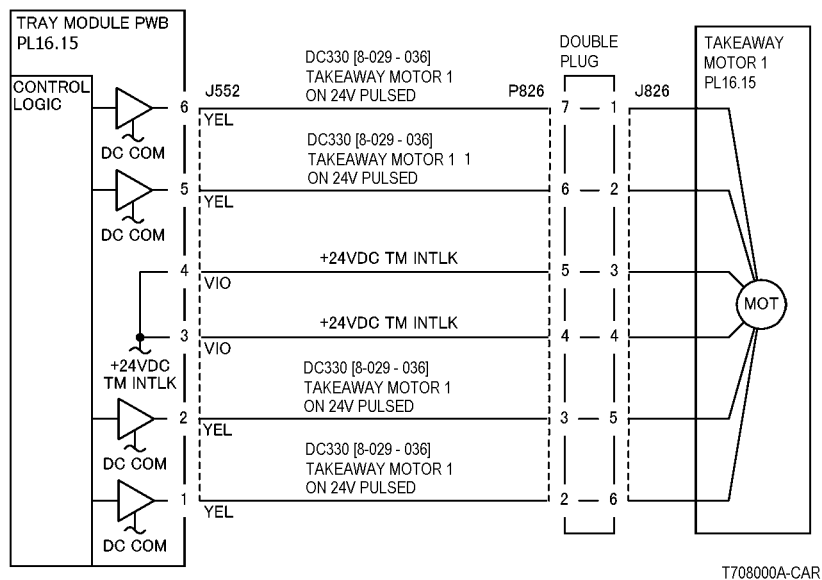


Figure 3 7-110 RAP Circuit Diagram - Takeaway Motor 1 (TTM)

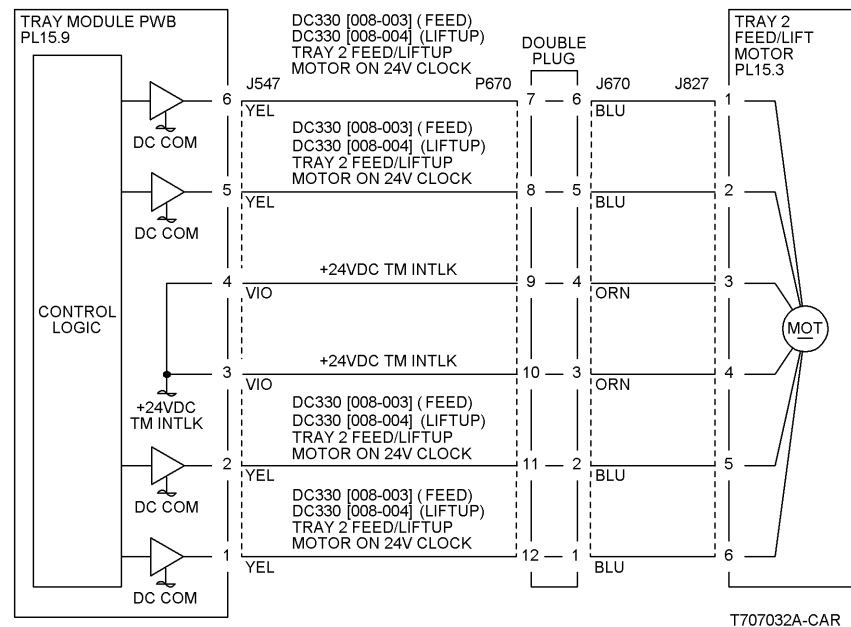


Figure 5 7-110 RAP Circuit Diagram - Tray 2 Feed/Lift Motor (3TM)

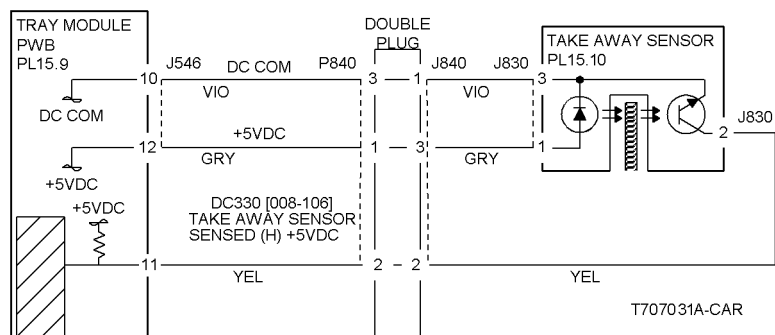


Figure 4 7-110 RAP Circuit Diagram - Takeaway Sensor (3TM)



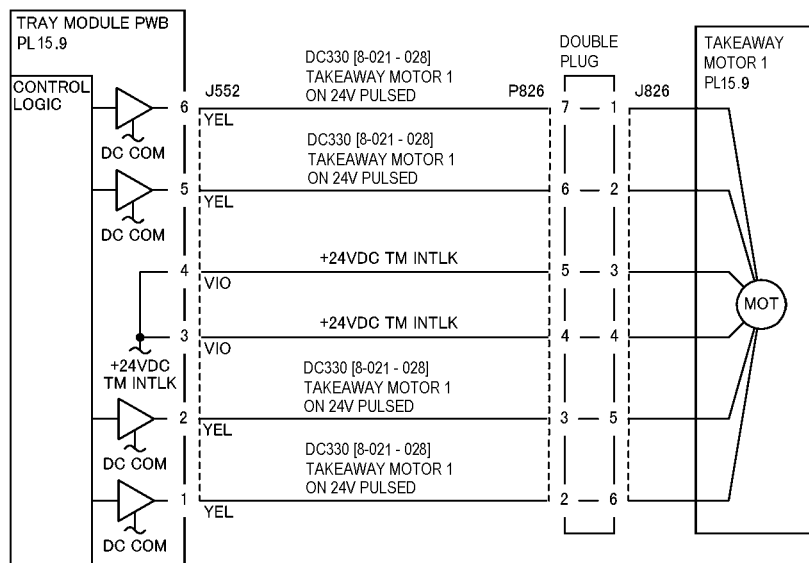


Figure 6 7-110 RAP Circuit Diagram - Takeaway Motor 1 (3TM)



## 7-115 Tray 3 Misfeed (TTM)

The Tray 3 Feedout Sensor does not detect paper after feeding from Tray 3.

### Initial Actions

- Check condition and specification of paper in Tray 3.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 3 Feeder Roll, Takeaway Roll and the Pinch Roll.

### Procedure

Open the Left Cover and cheat the Left Cover Interlock Switch (PL 16.13). Enter dC330 [008-102] and press **Start**. Block and unblock the Tray 3 Feed Out Sensor (PL 16.6). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Tray 3 Feed Out Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [008-005] and press **Start**. **The Tray 3 Feed/Lift Motor energizes (PL 16.9).**

Y N

Press **Stop**. Check the circuit of the Tray 3 Feed/Lift Motor (Figure 2). Check the wires from the Tray Module PWB to the Tray 3 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 3 Feed/Lift Motor (PL 15.5). If the problem still exists, replace the Tray Module PWB (PL 15.9).

Press **Stop**. Enter dC330 [008-036] and press **Start**. **Both Takeaway Rolls (PL 16.6) rotate.**

Y N

**Takeaway Motor 1 energizes.**

Y N

Press **Stop**. +24 VDC is measured between P/J552-3 and GND on the Tray Module PWB.

Y N

+24 VDC is measured at P/J552-3 on the Tray Module PWB.

Y N

Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 16.15).

+24 VDC is measured at each of the following pins on P/J552: Pin 1, 2, 5, and 6.

Y N

Refer to Figure 3. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 16.15)

With [008-036] still entered, press **Start** and check that the voltage at P/J552 pins 1, 2, 5, and 6 each drop to approximately +22 VDC. **The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-036] is entered.**

Y N

Replace the Tray Module PWB (PL 16.15).

A

B

C

Replace the Takeaway Motor 1 (PL 16.15).

Press **Stop**. Check the Takeaway Motor 1 and its associated gears (PL 16.15) for damage, contamination and misalignment.

Press **Stop**.

- Check the Tray 3 Feed / Lift Motor and its associated gears (PL 16.9) for damage and misalignment.
- Ensure that the Tray 3 Chute (PL 16.6) is properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- If these checks are OK, replace the Tray Module PWB (PL 16.15).

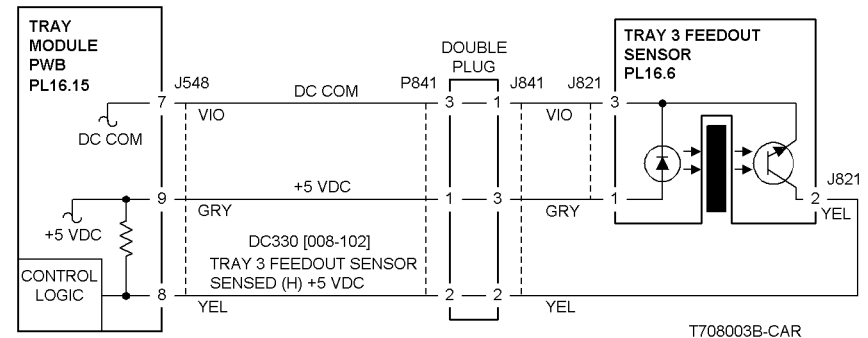


Figure 1 7-115 RAP Circuit Diagram - Tray 3 Feedout Sensor (TTM)

A B C

Initial issue

DC 3535/2240/1632, WC M24

09/03

2-123



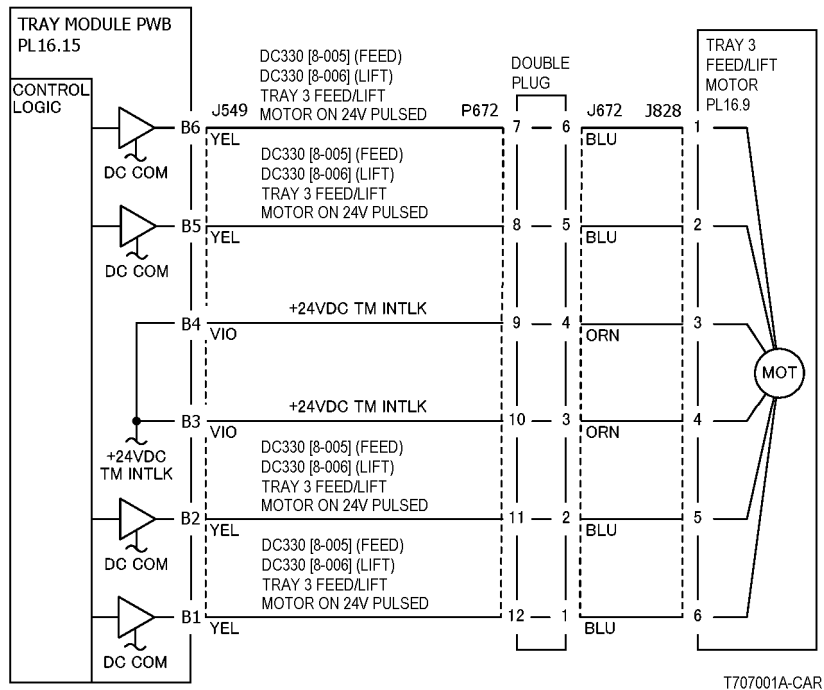


Figure 2 7-115 RAP Circuit Diagram - Tray 3 Feed/Lift Motor (TTM)

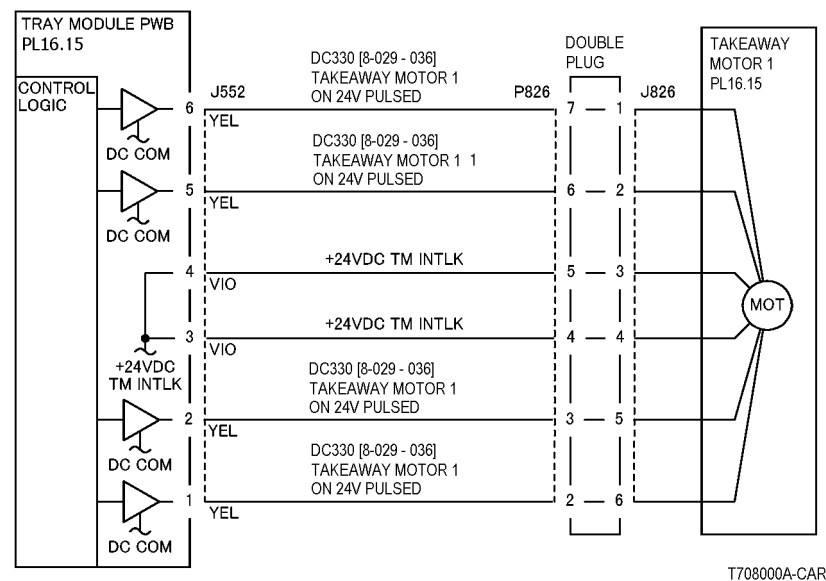


Figure 3 7-115 RAP Circuit Diagram - Takeaway Motor 1 (TTM)



## 7-117 Tray 3 Misfeed (3TM)

The Tray 3 Feed Out Sensor does not detect paper after feeding from Tray 3.

### Initial Actions

- Check condition and specification of paper in Tray 3.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 3 Feeder Roll, Takeaway Roll and the Pinch Roll.

### Procedure

Open the Left Cover and cheat the Left Cover Interlock Switch (PL 15.10). Enter **dC330** [008-102] and press **Start**. Block and unblock the Tray 3 Feed Out Sensor (PL 15.10). The **display changes**.

Y N

Press **Stop**. Check the circuit of the Tray 3 Feed Out Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter **dC330** [008-005] and press **Start**. The Tray 3 Feed/Lift Motor (PL 15.5) energizes.

Y N

Press **Stop**. Check the circuit of the Tray 3 Feed/Lift Motor (Figure 2). Check the wires from the Tray Module PWB to the Tray 3 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 3 Feed/Lift Motor (PL 15.5). If the problem still exists, replace the Tray Module PWB (PL 15.9).

Press **Stop**. Enter **dC330** [008-028] and press **Start**. All 3 Takeaway Rolls (PL 15.10) rotate.

Y N

Takeaway Motor 1 energizes.

Y N

Press **Stop**. +24 VDC is measured between P/J552-3 and GND on the Tray Module PWB.

Y N

+24 VDC is measured at P/J552-3 on the Tray Module PWB.

Y N

Refer to the +24 VDC Wirenets (Figure 3). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 15.9).

+24 VDC is measured at each of the following pins on P/J552: Pin 1, 2, 5, and 6.

Y N

Refer to Figure 3. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 15.9)

With **dC330** [008-036] still entered, press **Start** and check that the voltage at P/J552 pins 1, 2, 5, and 6 each drop to approximately +22 VDC. The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-036] is entered.

Y N

Replace the Tray Module PWB (PL 15.9).

Replace the Takeaway Motor 1 (PL 15.9).

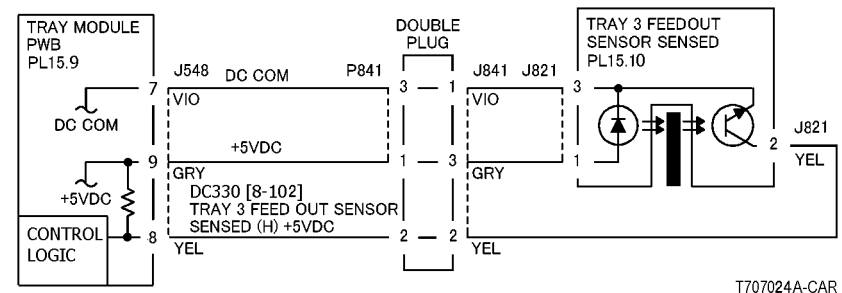
A

B

Press **Stop**. Check the Takeaway Motor 1 and its associated gears (PL 15.9) for damage, contamination and misalignment.

Press **Stop**.

- Check the Tray 3 Feed/Lift Motor and its associated gears (PL 15.5) for damage, contamination and misalignment.
- Ensure that the Tray 3 Chute (PL 15.10) is properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- If these checks are OK, replace the Tray Module PWB (PL 15.9).



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Figure 1 7-117 RAP Circuit Diagram - Tray 3 Feed Out Sensor (3TM)

A B

Initial issue

DC 3535/2240/1632, WC M24

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2-125

Status Indicator RAPs

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7-117





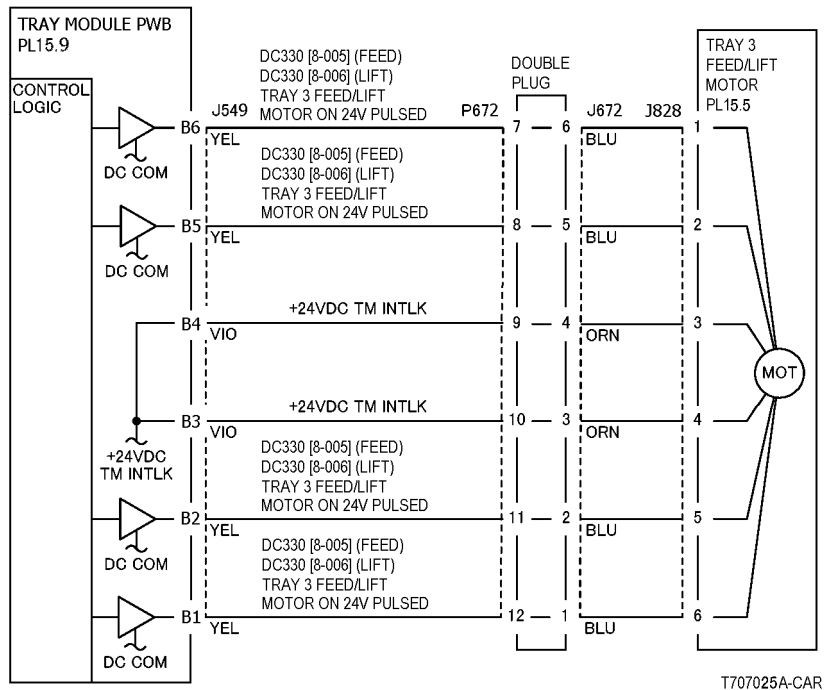


Figure 2 7-117 RAP Circuit Diagram - Tray 3 Feed/Lift Motor (3TM)

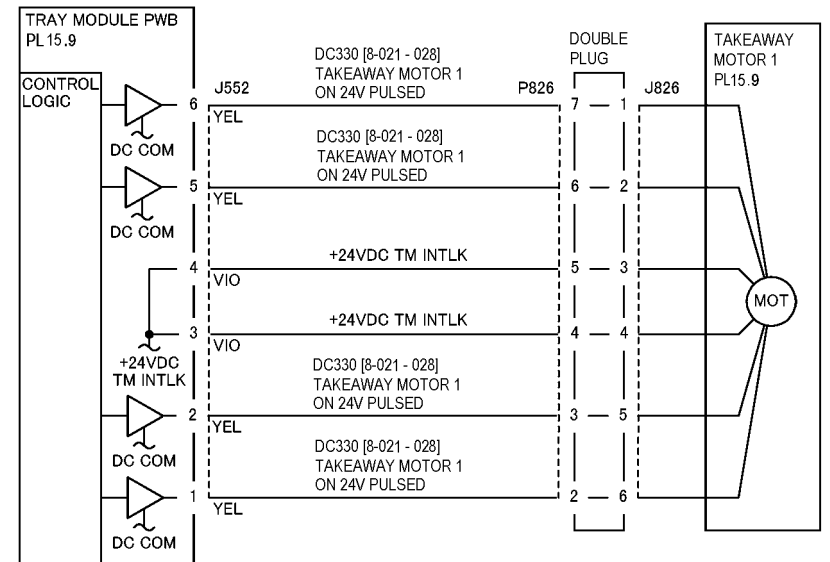


Figure 3 7-117 RAP Circuit Diagram - Takeaway Motor 1 (3TM)



## 7-119 Tray 4 Misfeed (TTM)

The Tray 4 Feed Out Sensor does not detect paper after feeding from Tray 4.

### Initial Actions

- Check condition and specification of paper in Tray 4.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 4 Feeder Roll, Takeaway Roll and the Pinch Roll.

### Procedure

Enter **dC330** [008-103] and press **Start**. Block and unblock the Tray 4 Feed Out Sensor (PL 16.5) by sliding Tray 4 in and out of the machine. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Tray 4 Feed Out Sensor (Figure 1). Refer to the **OF 99-1 RAP** for troubleshooting procedure.

Press **Stop**. Enter **dC330** [008-007] and press **Start**. **The Tray 4 Feed/Lift motor energizes (PL 16.11).**

**Y N**

Press **Stop**. Check the circuit of the Tray 4 Feed/Lift Motor (Figure 2). Check the wires from the Tray Module PWB to the Tray 4 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 4 Feed/Lift Motor (PL 16.11). If the problem still exists, replace the Tray Module PWB (PL 16.15).

Press **Stop**. Remove the TTM Rear Cover (PL 16.16). Enter **dC330** [008-048] and press **Start**. **The Takeaway Motor 2 (PL 16.15) energizes.**

**Y N**

Press **Stop**. **+24 VDC is measured between P/J553-3 and GND on the Tray Module PWB.**

**Y N**

**+24 VDC is measured at P/J555-3 on the Tray Module PWB.**

**Y N**

Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 16.15).

**+24 VDC is measured at each of the following pins on P/J553: Pin 1, 2, 5, and 6.**

**Y N**

Refer to Figure 3. Check the wires from the Tray Module PWB to the Takeaway Motor 2 for an open circuit. If the wires are good, replace the Takeaway Motor 2 (PL 16.15)

With [008-048] still entered, press **Start** and check that the voltage at P/J553 pins 1, 2, 5, and 6 each drop to approximately +22 VDC. **The voltage at P/J553 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-048] is entered.**

**Y N**

Replace the Tray Module PWB (PL 16.15).

Replace the Takeaway Motor 1 (PL 16.15).

Press **Stop**.

- Check the Tray 4 Feed / Lift Motor and its associated gears (PL 16.11) for damage, contamination and misalignment.
- Check the Takeaway Motor 2 and its associated gears (PL 16.15) for damage, contamination and misalignment.
- Check that the Tray 4 Upper and Lower Chutes (PL 16.5) are properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- If these checks are OK, replace the Tray Module PWB (PL 16.15).

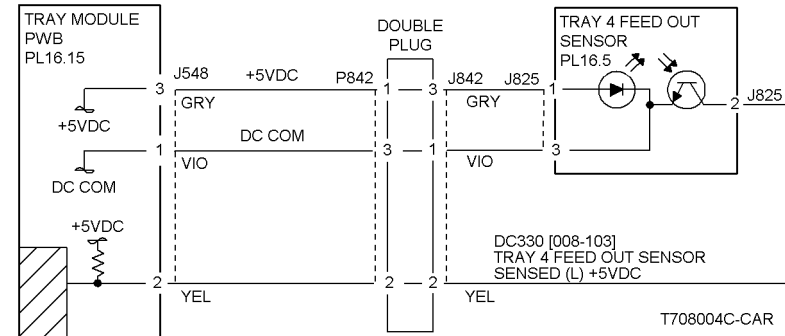
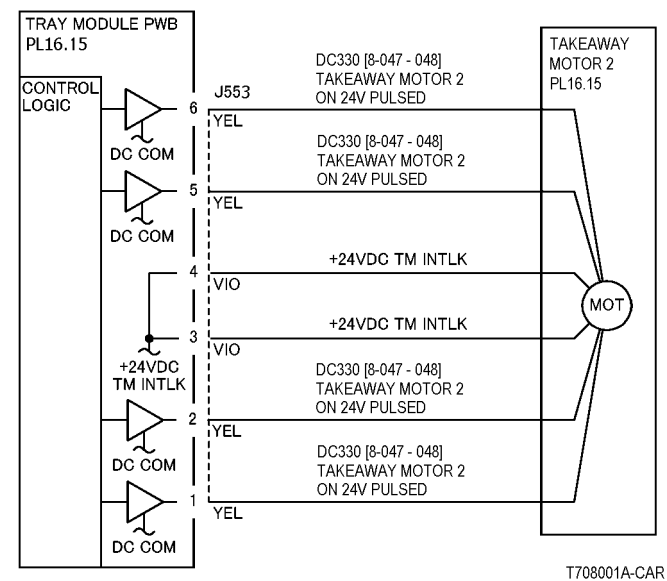
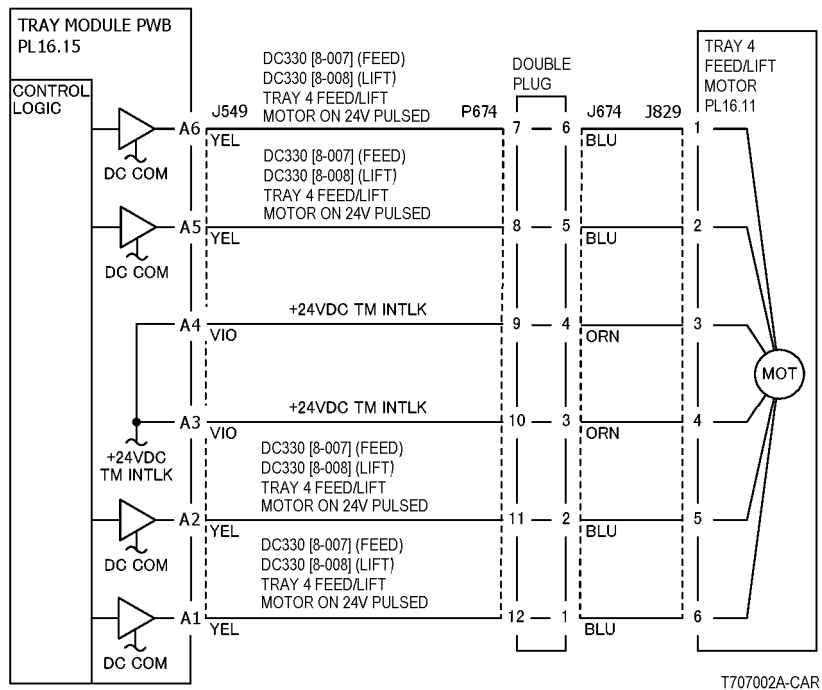


Figure 1 7-119 RAP Circuit Diagram - Tray 4 Feedout Sensor (TTM)







## 7-120 Tray 4 Misfeed (3TM)

The Tray 4 Feed Out Sensor does not detect paper after feeding from Tray 4.

### Initial Actions

- Check condition and specification of paper in Tray 4.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 4 Feeder Roll, Takeaway Roll and Pinch Roll.

### Procedure

Open the Left Cover and cheat the Left Cover Interlock Switch (PL 15.10). Enter dC330 [008-103] and press **Start**. Block and unblock the Tray 4 Feed Out Sensor (PL 15.10). The display changes.

Y N

Press **Stop**. Check the circuit of the Tray 4 Feed Out Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [008-007] and press **Start**. The Tray 4 Feed/Lift Motor (PL 15.7) energizes.

Y N

Press **Stop**. Check the circuit of the Tray 4 Feed/Lift Motor (Figure 2). Check the wires from the Tray Module PWB to the Tray 4 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 4 Feed/Lift Motor (PL 15.7). If the problem still exists, replace the Tray Module PWB (PL 15.9).

Press **Stop**. Enter dC330 [008-028] and press **Start**. All 3 Takeaway Rolls (PL 15.10) rotate.

Y N

Takeaway Motor 1 (PL 15.9) energizes.

Y N

Press **Stop**. +24 VDC is measured between P/J552-3 and GND on the Tray Module PWB.

Y N

+24 VDC is measured at P/J552-3 on the Tray Module PWB.

Y N

Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 15.9).

+24 VDC is measured at each of the following pins on P/J552: Pin 1, 2, 5, and 6.

Y N

Refer to Figure 3. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 15.9)

With [008-028] still entered, press **Start** and check that the voltage at P/J552 pins 1, 2, 5, and 6 each drop to approximately +22 VDC. The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-028] is entered.

Y N

Replace the Tray Module PWB (PL 15.9).

A

B

C

Replace the Takeaway Motor 1 (PL 15.9).

Press **Stop**. Check the Takeaway Motor 1 and its associated gears (PL 15.9) for damage, contamination and misalignment.

Press **Stop**.

- Check the Tray 4 Feed/Lift Motor and its associated gears (PL 15.7) for damage, contamination or misalignment.
- Ensure that the Tray 4 Chute (PL 15.10) is properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2, Figure 3) are securely connected and that wires are not damaged.
- If these checks are OK, replace the Tray Module PWB (PL 15.9).

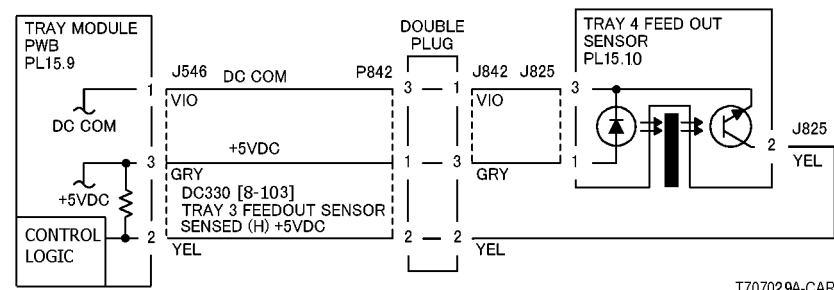


Figure 1 7-120 RAP Circuit Diagram - Tray 4 Feed Out Sensor (3TM)

A B C

Initial issue

DC 3535/2240/1632, WC M24

09/03

2-129



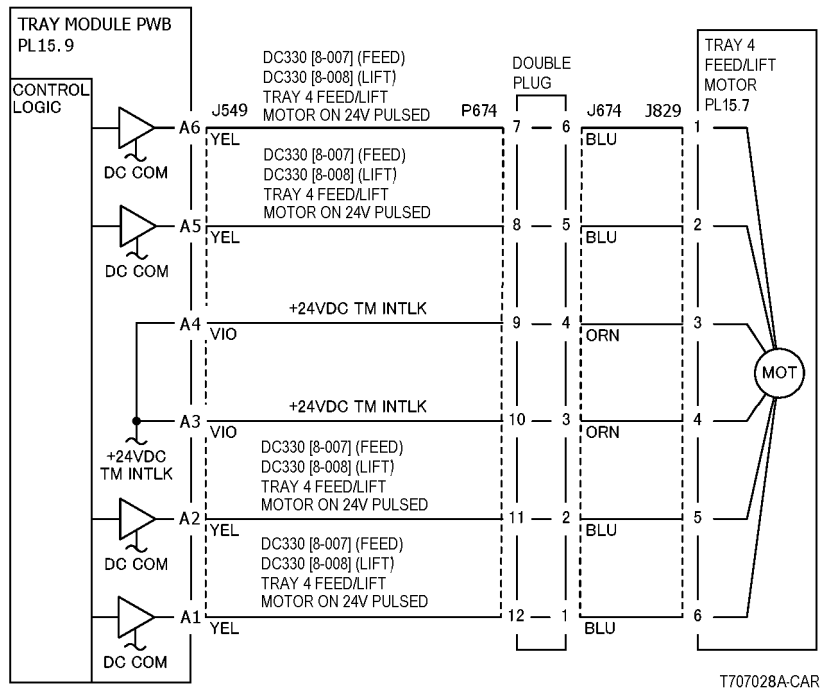


Figure 2 7-120 RAP Circuit Diagram - Tray 4 Feed/Lift Motor (3TM)

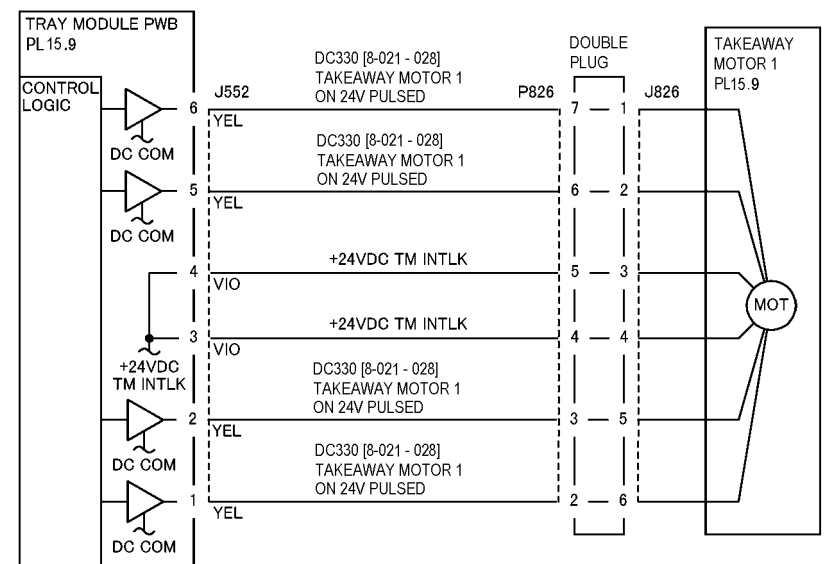


Figure 3 7-120 RAP Circuit Diagram - Takeaway Motor 1 (3TM)



### 7-122 Tray 4 Opened (TTM)

The Tray 4 Feed Out Sensor detected paper when Tray 4 is pulled out and pushed in during a print.

## Initial Actions

- Check condition and specification of paper in Tray 4.
- Check the paper path for obstructions and clean the Tray 4 Feed Out Sensor.
- Check the Tray 4 mechanical operation.
- Check that Tray 4 is properly closed.

## Procedure

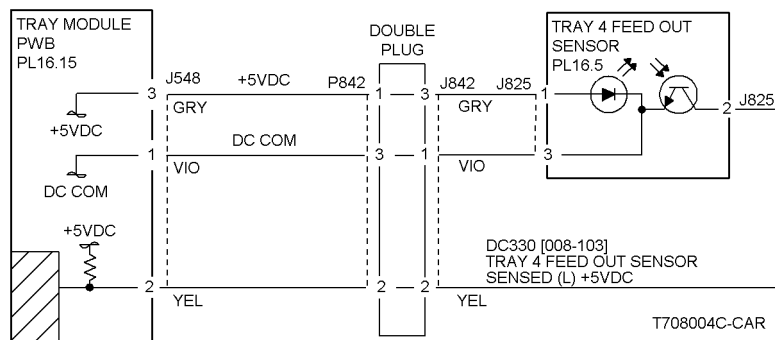
Enter **dC330** [008-103] and press **Start**. Block and unblock the Tray 4 Feed Out Sensor (PL 16.5) by sliding Tray 4 in and out of the machine. **The display changes.**

Y N

Press **Stop**. Check the circuit of the Tray 4 Feed Out Sensor (Figure 1). Refer to the **OF 99-1** RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagram ([Figure 1](#)) are securely connected and that the wires are not damaged.
- Check the machine Shutdown History Report. If there is a history of this failure, replace the Tray 4 Feed Out Sensor ([PL 16.5](#)).
- If the problem continues, replace the Tray Module PWB ([PL 16.15](#)).



**Figure 1 7-122 RAP Circuit Diagram - Tray 4 Feedout Sensor (TTM)**



## 7-250 Tray Communication

Communication fault between Tray Module PWB and MCU PWB.

### Procedure

**+5 VDC is measured at P/J541-9 on the Tray Module PWB.**

Y N

**0 VDC is measured at P/J541-9 on the Tray Module PWB.**

Y N

- Go to **Figure 1**. Check all of the wires between the Tray Module PWB and the MCU PWB for an open circuit. If the check is OK, replace the I/F PWB (PL 13.1).
- If the problem continues, replace the Tray Module PWB (PL 16.15, TTM) (PL 15.9, 3TM).
- If the problem continues, replace the MCU PWB (PL 13.1).
- If the problem continues, replace the ESS PWB (PL 13.1).

Go to **Figure 1**. Check for a shorted wire between the Tray Module PWB and the MCU PWB.

- Go to **Figure 1**. Check for an open circuit between P/J541-9 and the MCU PWB. If the check is OK, replace the I/F PWB (PL 13.1).
- If the problem continues, replace the Tray Module PWB (PL 16.15, TTM) (PL 15.9, 3TM).
- If the problem continues, replace the MCU PWB (PL 13.1).
- If the problem continues, replace the ESS PWB (PL 13.1).

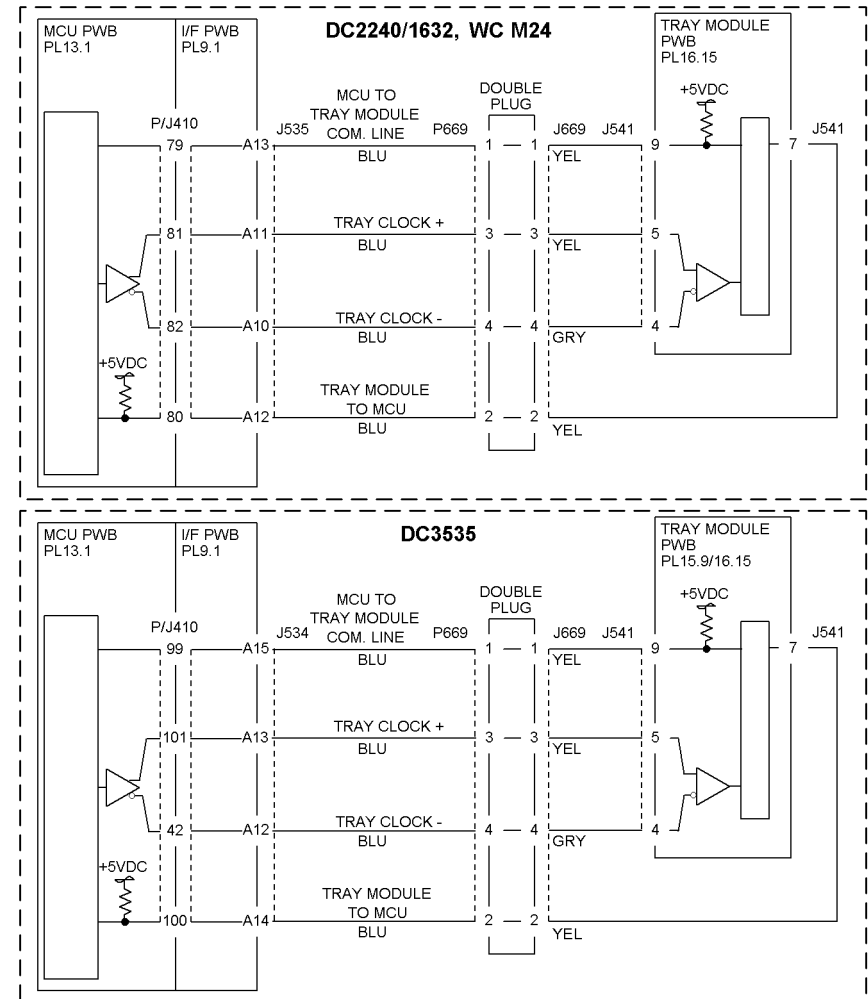


Figure 1 7-250 RAP Tray Communication Circuit Diagram



## 7-252 Out Module Logic

Incorrect software data was detected.

### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to Service Call Procedures.

Reinstall the software. If the problem continues, replace the MCU PWB (PL 13.1).



## 7-270 Tray 1 Paper Size Sensor Failure

An abnormal A/D value was detected by the Tray 1 Paper Size Sensor.

### Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 1 Paper Size Sensor (PL 2.1) for damage or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 1 (PL 2.1) for wear or damage. Repair or replace as required

### Procedure

Ensure Tray 1 is closed. The voltage measured at **P/J536-B9** on the I/F PWB corresponds to the paper size in **Table 1**.

Y N  
There is +3.3 VDC from **P/J115** pin 1 to **P/J115** pin 3 on the Tray 1 Size Sensor.  
Y N  
There is +3.3VDC from **P/J536-B10** to **P/J536-B8**.  
Y N  
Go to the 3.3 VDC Wirenet (Figure 1) to troubleshoot the power circuit.  
Go to Figure 1. Check the wires from J536 to J115.  
Go to Figure 1. Check the wire from J536-B9 to J115-2.

Check the connection between the I/F PWB and the MCU PWB. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).

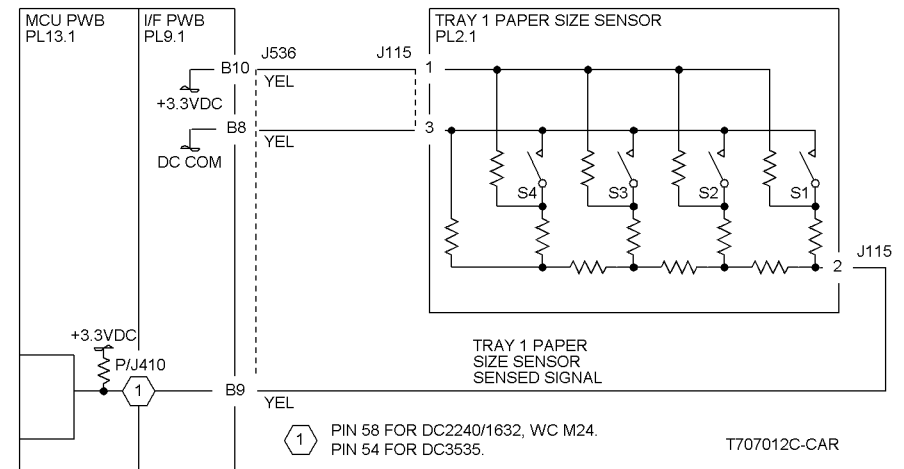


Figure 1 7-270 RAP Circuit Diagram - Tray 1 Size Sensing

Table 1 Tray 1 Size Sensor Values

Paper Size	S1 [007-100]	S2 [007-101]	S3 [007-102]	S3 [007-103]	Voltage (J536-B9)
No Tray	OFF	OFF	OFF	OFF	3.18
A3 SEF	OFF	OFF	OFF	ON	2.96
11x17 SEF	OFF	OFF	ON	OFF	2.75
8.5x13 SEF	OFF	OFF	ON	ON	2.55
B5 or 16K LEF	OFF	ON	OFF	ON	2.12
B5 or 8x10 SEF	OFF	ON	ON	OFF	1.92
8.5x11 SEF	OFF	ON	ON	ON	1.71
B4 or 8K SEF	ON	OFF	OFF	ON	1.32
A4 SEF	ON	OFF	ON	OFF	1.24
8.5x14 SEF	ON	OFF	ON	ON	0.92
A4 LEF	ON	ON	OFF	ON	0.51
8.5x11 LEF	ON	ON	ON	OFF	0.32
A5 or 5.5x8.5 SEF	ON	ON	ON	ON	0.12



## 7-271 Tray 2 Paper Size Sensor

An abnormal AD value was detected by the Tray 2 Paper Size Sensor.

### Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 2 Paper Size Sensor for damage or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 2 for wear or damage. Repair or replace as required

### Procedure

The machine is equipped with a 3TM.

**Y N**  
Ensure that Tray 2 is closed. The voltage measured a **P/J546-8** on the Tray Module PWB (PL 16.15) corresponds to the paper size in Table 1.

**Y N**  
There is +5 VDC from **P/J816-1** to **P/J816-3** on the Tray 2 Paper Size Sensor (PL 16.1).

**Y N**  
There is +5VDC from **P/J546-9** to **P/J546-7** on the Tray Module PWB.

**Y N**  
Go to the +5VDC Wirenets (Figure 4) to troubleshoot the power circuit.

Go to Figure 1. Check the wires from P/J546 to P/J816.

Go to Figure 1. Check the wire from P/J546-8 to P/J816-2. If the wire is OK, replace the Tray 2 Paper Size Sensor (PL 16.1).

- Replace the Tray 2 Paper Size Sensor (PL 16.1).
- If the problem continues, replace the Tray Module PWB (PL 16.15).

Ensure that Tray 2 is closed. The voltage measured at **P/J546-8** on the Tray Module PWB (PL 15.9) corresponds to the paper size in Table 1.

**Y N**  
There is +5VDC from **P/J816-1** to **P/J816-3** on the Tray 2 Paper Size Sensor (PL 15.1).

**Y N**  
There is +5VDC from **P/J546-9** to **P/J546-7** on the Tray Module PWB.

**Y N**  
Go to the +5VDC Wirenets (Figure 4) to troubleshoot the power circuit.

Go to Figure 2. Check the wires from **P/J546** to **P/J816**.

Go to Figure 2. Check the wire from P/J546-8 to P/J816-2. If the wire is OK, replace the Tray 2 Paper Size Sensor (PL 15.1).

- Replace the Tray 2 Paper Size Sensor (PL 15.1).
- If the problem continues, replace the Tray Module PWB (PL 15.9).

Table 1 Tray 2 Size Sensor Values

Paper Size	S1 [007-104]	S2 [007-105]	S3 [007-106]	S3 [007-107]	Voltage (J546-8)
No Tray	OFF	OFF	OFF	OFF	4.78
A3 SEF	OFF	OFF	OFF	ON	4.45
11x17 SEF	OFF	OFF	ON	OFF	4.12
8.5x13 SEF	OFF	OFF	ON	ON	3.81
B5 or 16K LEF	OFF	ON	OFF	ON	3.18
B5 or 8x10 SEF	OFF	ON	ON	OFF	2.87
8.5x11 SEF	OFF	ON	ON	ON	2.57
B4 or 8K SEF	ON	OFF	OFF	ON	1.98
A4 SEF	ON	OFF	ON	OFF	1.67
8.5x14 SEF	ON	OFF	ON	ON	1.37
A4 LEF	ON	ON	OFF	ON	0.77
8.5x11 LEF	ON	ON	ON	OFF	0.47
A5 or 5.5x8.5 SEF	ON	ON	ON	ON	0.17

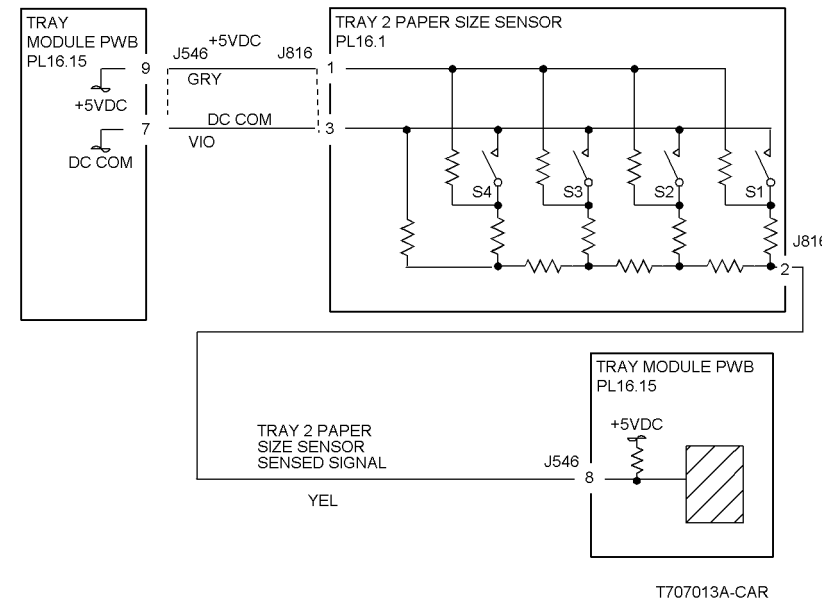


Figure 1 7-271 RAP Circuit Diagram - Tray 2 Paper Size Sensing



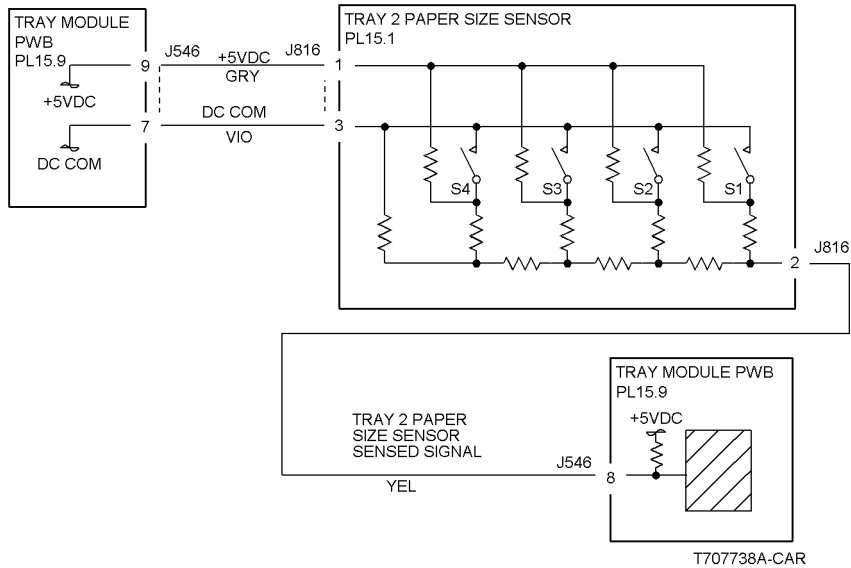


Figure 2 7-271 RAP Circuit Diagram - Tray 2 Paper Size Sensing



## 7-272 Tray 3 Paper Size Sensor (3TM)

An abnormal AD value was detected by the Tray 3 Paper Size sensor.

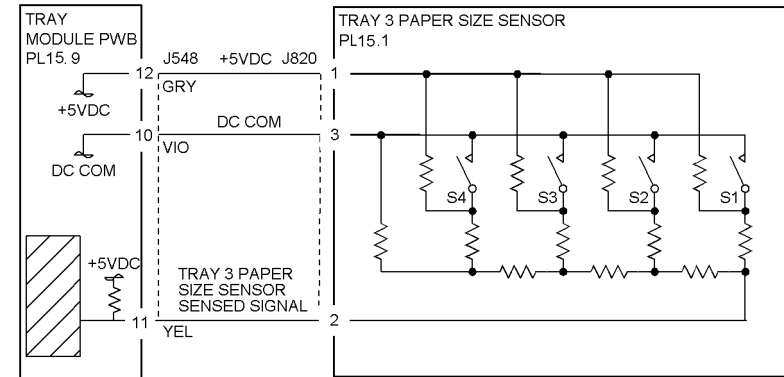
### Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 3 Paper Size Sensor (PL 15.1) for damage, or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 3 for wear or damage.

### Procedure

Ensure Tray 3 is properly closed. Measure the voltage at P/J548-11 on the Tray Module PWB (PL 15.9). The voltage measured corresponds with the paper size in Table 1.

- Y N
- There is +5 VDC between P/J820-1 and 3 on the Paper Size Sensor (PL 15.1).
- Y N
- There is +5 VDC between P/J548-12 and 10 on the Tray Module PWB.
- Y N
- Go to the +5VDC Wirenets (Figure 4) to troubleshoot the power circuit.
- Check the wires from P/J548 to P/J820 (Figure 1) for damage. Repair or replace as required.
- Check the wire from P/J548-11 to P/J820-2 for damage. Repair or replace as required. If the wire check out OK, replace the Tray 3 Paper Size Sensor (PL 15.1).
- Ensure that the connectors shown in the circuit diagram (Figure 1) are securely connected and that the wires are not damaged.
  - Replace the Tray 3 Paper Size Sensor (PL 15.1).
  - If the problem persists, replace the Tray Module PWB (PL 15.9).



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Figure 1 7-272 RAP Circuit Diagram - Tray 3 Paper Size Sensing (3TM)

Table 1 Tray 3 Paper Size Sensor Values

Paper Size	S1 [007-108]	S2 [007-109]	S3 [007-110]	S4 [007-111]	Voltage J548-11
No Tray	OFF	OFF	OFF	OFF	4.78
A3SEF	OFF	OFF	OFF	ON	4.45
11x17SEF	OFF	OFF	ON	OFF	4.12
8.5x13SEF	OFF	OFF	ON	ON	3.81
B5 or 16K LEF	OFF	ON	OFF	ON	3.18
B5 or 8 x 10 SEF	OFF	ON	ON	OFF	2.87
8.5x11SEF	OFF	ON	ON	ON	2.57
B4 or 8K SEF	ON	OFF	OFF	ON	1.98
A4SEF	ON	OFF	ON	OFF	1.67
8.5x14SEF	ON	OFF	ON	ON	1.37
A4LEF	ON	ON	OFF	ON	0.77
8.5x11LEF	ON	ON	ON	OFF	0.47
A5 or 5.5x8.5SEF	ON	ON	ON	ON	0.17



## 7-273 Tray 4 Paper Size Sensor (3TM)

An abnormal AD value was detected by the Tray 4 Paper Size Sensor.

### Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 4 Paper Size Sensor (PL 15.1) for damage, or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 4 for wear or damage. Repair or replace as required.

### Procedure

Ensure Tray 4 is properly closed. Measure the voltage at P/J548-5 on the Tray Module PWB (PL 15.9). The voltage measured corresponds with the paper size in Table 1.

Y N  
There is +5 VDC between P/J824-1 and 3 on the Paper Size Sensor (PL 15.1).

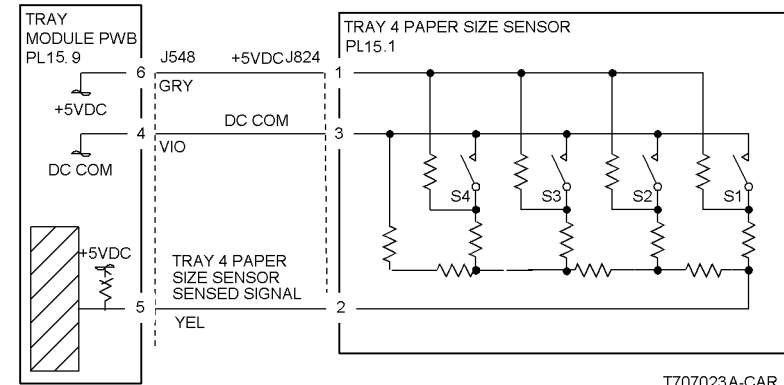
Y N  
There is +5 VDC between P/J548-6 and 4 on the Tray Module PWB.

Y N  
Go to the +5VDC Wirenets (Figure 4) to troubleshoot the power circuit.

Check the wires from P/J548 to P/J824 (Figure 1) for damage. Repair or replace as required.

Check the wire from P/J548-5 to P/J824-2 for damage. Repair or replace as required. If the wire check out OK, replace the Tray 4 Paper Size Sensor (PL 15.1).

- Ensure that the connectors shown in the circuit diagram (Figure 1) are securely connected and that the wires are not damaged.
- Replace the Tray 4 Paper Size Sensor (PL 15.1).
- If the problem persists, replace the Tray Module PWB (PL 15.9).



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Figure 1 7-273 RAP Circuit Diagram - Tray 4 Paper Size Sensing (3TM)

Table 1 Tray 4 Paper Size Sensor Values

Paper Size	S1 [007-112]	S2 [007-113]	S3 [007-114]	S4 [007-115]	Voltage J548-5
No Tray	OFF	OFF	OFF	OFF	4.78
A3SEF	OFF	OFF	OFF	ON	4.45
11x17SEF	OFF	OFF	ON	OFF	4.12
8.5x13SEF	OFF	OFF	ON	ON	3.81
B5 or 16K LEF	OFF	ON	OFF	ON	3.18
B5 or 8 x 10 SEF	OFF	ON	ON	OFF	2.87
8.5x11SEF	OFF	ON	ON	ON	2.57
B4 or 8K SEF	ON	OFF	OFF	ON	1.98
A4SEF	ON	OFF	ON	OFF	1.67
8.5x14SEF	ON	OFF	ON	ON	1.37
A4LEF	ON	ON	OFF	ON	0.77
8.5x11LEF	ON	ON	ON	OFF	0.47
A5 or 5.5x8.5SEF	ON	ON	ON	ON	0.17



## 7-274 Tray 5 Paper Size Sensor Failure

An abnormal A/D value was detected by the Tray 5 Paper Size Sensor.

### Initial Actions

Check the connectors between the Tray 5 Paper Size Sensor and the I/F PWB

### Procedure

Enter **dC140** [007-100] and press **Start**. Move the Tray 5 Paper Size Sensor (PL 2.15). **The A/D value changed.**

Y N

**+3.3 VDC is measured at P/J265-3 on the Tray 5 Paper Size Sensor.**

Y N

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1)

Enter **dC140** [007-100] and press **Start**. Move the Tray 5 Paper Size Sensor (PL 2.15). **The voltage at P/J265-2 changes.**

Y N

Check the wires and connectors. If the check is OK, replace the Tray 5 Assembly (PL 2.13).

Replace the MCU PWB (PL 13.1).

Replace the Tray 5 Paper Size Sensor (PL 2.15).

If the problem continues, replace the I/F PWB (PL 9.1).

Replace the MCU PWB (PL 13.1).

Replace the Tray 5 Paper Size Sensor (PL 2.15).

If the problem continues, replace the I/F PWB (PL 9.1).

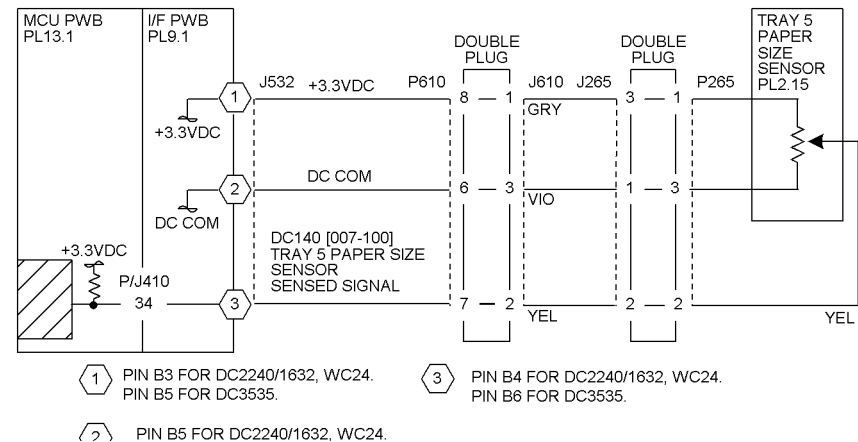


Figure 1 7-274 RAP Circuit Diagram - Tray 5 Paper Size Sensor



# 7-276 Tray 3 Paper Size Sensor (TTM)

An abnormal A/D value was detected by the Tray 3 Paper Size Sensor.

## Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 3 Paper Size Sensor (PL 16.1) for damage or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 3 (PL 16.1) for wear or damage. Repair or replace as required

## Procedure

Ensure Tray 3 is closed. The voltage measured at P/J548-11 on the Tray Module PWB (PL 16.15) corresponds to the paper size in Table 1.

Y

N

There is +5 VDC from P/J820-1 to P/J820-3 on the Tray 3 Size Sensor.

Y

N

There is +5VDC from P/J548-12 to P/J548-10.

Y

N

Go to the +5VDC Wirenets (Figure 4) to troubleshoot the power circuit

Y

N

Go to Figure 1. Check the wires from J548 to J820. If the check is OK, replace the Tray Module PWB (PL 16.15).

Y

N

Go to Figure 1. Check the wire from J548-11 to J820-2. If the wire is OK, replace the Tray 3 Paper Size Sensor (PL 16.1).

Y

N

Go to Figure 1. Check the wires and connectors for intermittent shorts or loose connections. If the check is OK, replace the Tray Module PWB (PL 16.15). If the problem continues, replace the Tray 3 Paper Size Sensor (PL 16.1).

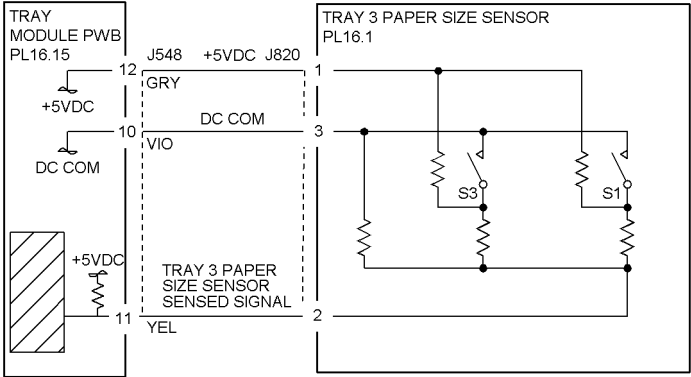


Figure 1 7-276 RAP Circuit Diagram - Tray 3 Size Sensing (TTM)

Table 1 Tray 3 Size Sensor Values

Paper Size	S1 [007-108]	S3 [007-109]	Voltage (J548-11)
No Tray	OFF	OFF	4.78
B5 LEF	OFF	ON	4.11
8.5x11 LEF	ON	OFF	2.23
A4 LEF	ON	ON	1.59



## 7-277 Tray 4 Paper Size Sensor (TTM)

An abnormal A/D value was detected by the Tray 4 Paper Size Sensor.

### Initial Actions

- Check that the paper size setting is correct.
- Check the Tray 4 Paper Size Sensor (PL 16.1) for damage or incorrect mounting. Repair or replace as required.
- Check the switch actuators on Tray 4 (PL 16.1) for wear or damage. Repair or replace as required

### Procedure

Ensure Tray 4 is closed. The voltage measured at P/J548-5 on the Tray Module PWB (PL 16.15) corresponds to the paper size in Table 1.

- Y N
- There is +5VDC from P/J824-1 to P/J824-3 on the Tray 4 Size Sensor.
- Y N
- There is +5VDC from P/J548-6 to P/J548-4.
- Y N
- Go to the +5VDC Wirenets (Figure 4) to troubleshoot the power circuit.  
Go to Figure 1. Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).
- Go to Figure 1. Check the wires from J548 to J824. If the check is OK, replace the Tray 2 Paper Size Sensor (PL 16.1).
- Go to Figure 1. Check the wire from J824-2 to J548-5. If the wire is OK, replace the Tray 2 Paper Size Sensor (PL 16.1).

Go to Figure 1. Check the wires and connectors for intermittent shorts or loose connections. If the check is OK, replace the Tray Module PWB (PL 16.15). If the problem continues, replace the Tray 4 Paper Size Sensor (PL 16.1).

Table 1 Tray 4 Size Sensor Values

Paper Size	S1 [007-112]	S3 [007-113]	Voltage (J548-5)
No Tray	OFF	OFF	4.78
B5 LEF	OFF	ON	4.11
8.5x11 LEF	ON	OFF	2.23
A4 LEF	ON	ON	1.59

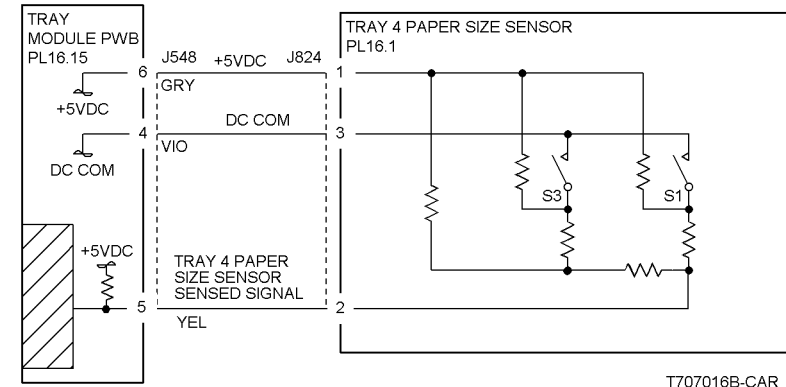


Figure 1 7-277 RAP Circuit Diagram - Tray 4 Size Sensing (TTM)



## 7-281 Tray 1 Lift

The Tray 1 Level Sensor does not detect tray lift.

### Initial Actions

Remove Tray 1 from the machine and empty the paper stock, then:

- Manually turn the gear at the rear of Tray 1 to check that the Bottom Plate moves up and down smoothly.
- Check that the Tray 1 Level Sensor Actuator (PL 2.4) is properly seated and operates smoothly.
- Gently push Tray 1 in to check that the drive transmission is firmly engaged.
- Ensure that Tray 1 is properly closed.

### Procedure

Enter **dC330** [008-002] and press **Start**. The Tray 1 Feed/Lift Motor (PL 2.4) energizes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 1 Feed/Lift Motor (Figure 1). Check the wires from the I/F PWB to the Tray 1 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 1 Feed/Lift Motor (PL 2.4). If the problem still exists, replace the I/F PWB (PL 9.1)

Press **Stop**. Enter **dC330** [007-116] and press **Start**. Open and close Tray 1. The display changes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 1 Level Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**.

- Check the Tray 1 Feed / Lift Motor and its associated gears (PL 2.4) for damage, contamination or misalignment.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Tray 1 Level Sensor (PL 2.4).
- If the problem persists, replace the I/F PWB (PL 9.1).

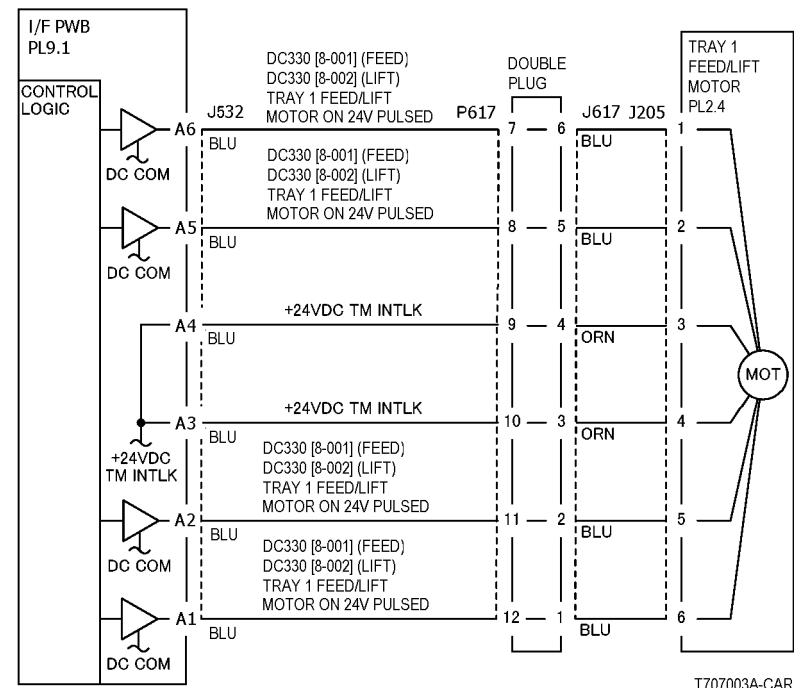


Figure 1 7-281 RAP Circuit Diagram - Tray 1 Lift/Feed Motor

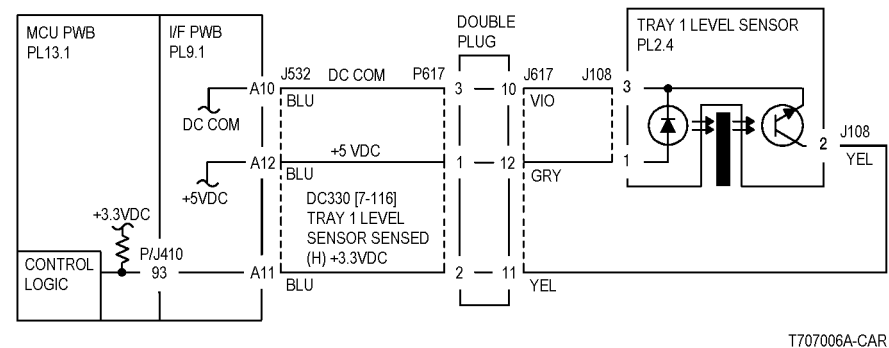


Figure 2 7-281 RAP Circuit Diagram - Tray 1 Level Sensor



## 7-282 Tray 2 Lift

The Tray 2 Level Sensor does not detect tray lift.

### Initial Actions

Remove Tray 2 from the machine and empty the paper stock, then:

- Manually turn the gear at the rear of Tray 2 to check that the Bottom Plate moves up and down smoothly.
- Check that the Tray 2 Level Sensor Actuator (PL 16.7) is properly seated and operates smoothly.
- Gently push Tray 2 in to check that the drive transmission is firmly engaged.
- Ensure that Tray 2 is properly closed.

### Procedure

The machine is equipped with a 3TM.

**Y N**  
Enter dC330 [008-004] and press **Start**. The Tray 2 Feed/Lift Motor (PL 16.7) energizes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 2 Feed/Lift Motor (Figure 1). Check the wires from the Tray Module PWB to the Tray 2 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 2 Feed/Lift Motor (PL 16.7). If the problem still exists, replace the Tray Module PWB (PL 16.15)

Press **Stop**. Enter dC330 [007-117] and press **Start**. Open and close Tray 2. The display changes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 2 Level Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**.

- Check the Tray 2 Feed / Lift Motor and its associated gears (PL 16.7) for damage, contamination or misalignment.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Tray 2 Level Sensor (PL 16.7).
- If these checks are OK, replace the Tray Module PWB (PL 16.15).

Enter dC330 [008-004] and press **Start**. The Tray 2 Feed/Lift Motor (PL 15.3) energizes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 2 Feed/Lift Motor (Figure 3). Check the wires from the Tray Module PWB to the Tray 2 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 2 Feed/Lift Motor (PL 15.3). If the problem still exists, replace the Tray Module PWB (PL 15.9)

Press **Stop**. Enter dC330 [007-117] and press **Start**. Open and close Tray 2. The display changes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 2 Level Sensor (Figure 4). Refer to the OF 99-2 RAP for troubleshooting procedure.

**A**  
Press **Stop**.

- Check the Tray 2 Feed / Lift Motor and its associated gears (PL 15.3) for damage, contamination or misalignment.
- Ensure that the connectors shown in the circuit diagrams (Figure 3, Figure 4) are securely connected and that the wires are not damaged.
- Replace the Tray 2 Level Sensor (PL 15.3).
- If these checks are OK, replace the Tray Module PWB (PL 15.9).

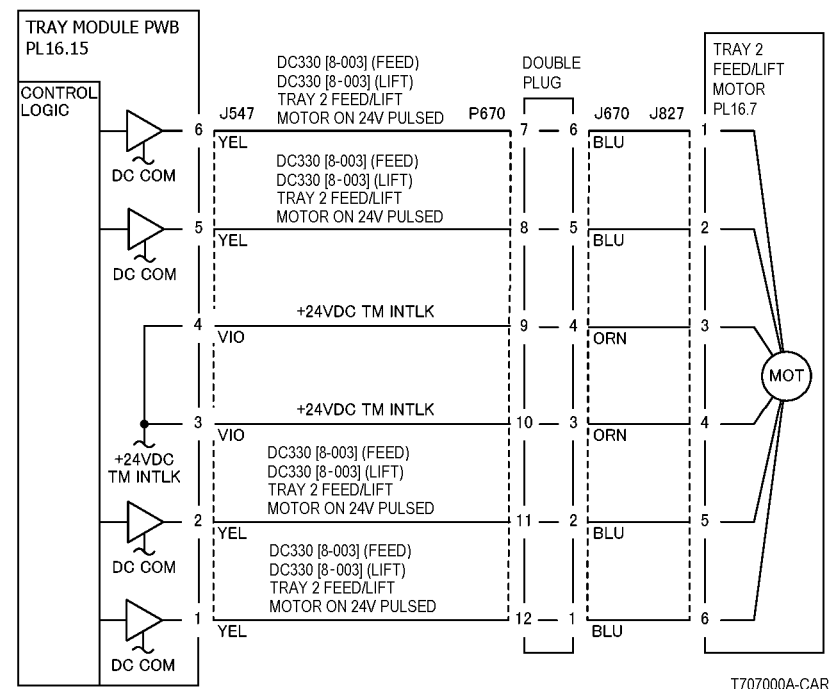


Figure 1 7-282 RAP Circuit Diagram - Tray 2 Lift/Feed Motor (TTM)



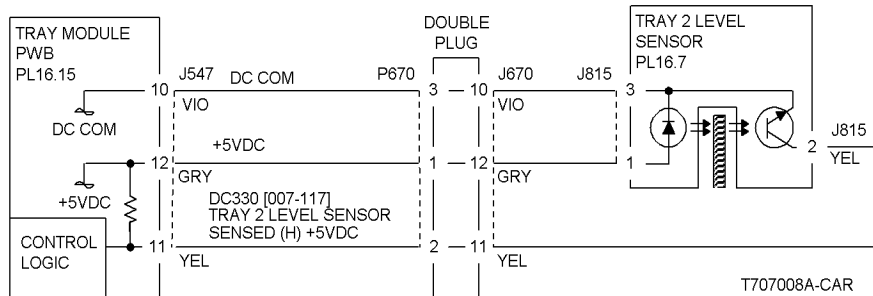


Figure 2 7-282 RAP Circuit Diagram - Tray 2 Level Sensor (TTM)

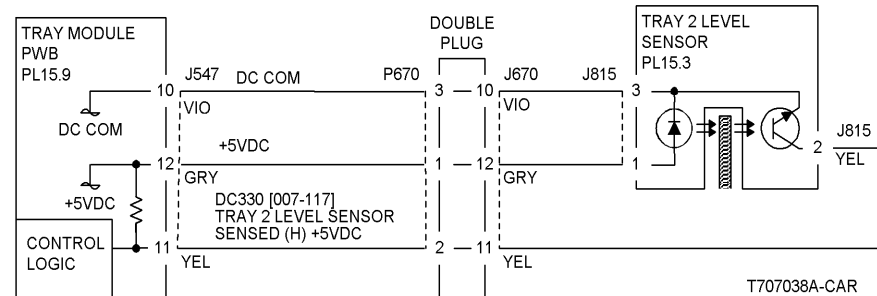


Figure 4 7-282 RAP Circuit Diagram - Tray 2 Level Sensor (3TM)

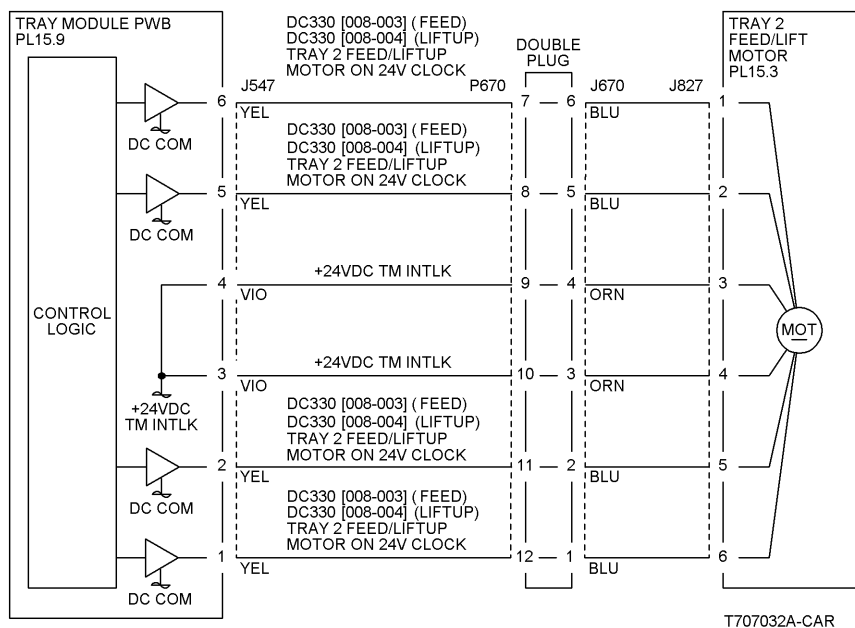


Figure 3 7-282 RAP Circuit Diagram - Tray 2 Feed Lift Motor (3TM)



## 7-283 Tray 3 Lift (3TM)

The Tray 3 Level Sensor does not detect tray lift.

### Initial Actions

Remove Tray 3 from the machine and empty the paper stock, then:

- Manually turn the gear at the rear of Tray 3 to check that the Bottom Plate moves up and down smoothly.
- Check that the Tray 3 Level Sensor Actuator (PL 15.5) is properly seated and operates smoothly.
- Gently push Tray 3 in to check that the drive transmission is firmly engaged.
- Ensure that Tray 3 is properly closed.

### Procedure

Enter **dC330** [008-006] and press **Start**. The Tray 3 Feed/Lift Motor (PL 15.5) energizes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 3 Feed/Lift Motor (Figure 1). Check the wires from the Tray Module PWB to the Tray 3 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 3 Feed/Lift Motor (PL 15.5). If the problem still exists, replace the Tray Module PWB (PL 15.9).

Press **Stop**. Enter **dC330** [007-118] and press **Start**. Open and close Tray 3. The display changes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 3 Level Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**.

- Check the Tray 3 Feed/Lift Motor and its associated gears (PL 15.5) for damage, contamination or misalignment.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Tray 3 Level Sensor (PL 15.5).
- If the problem persists, replace the Tray Module PWB (PL 15.9).

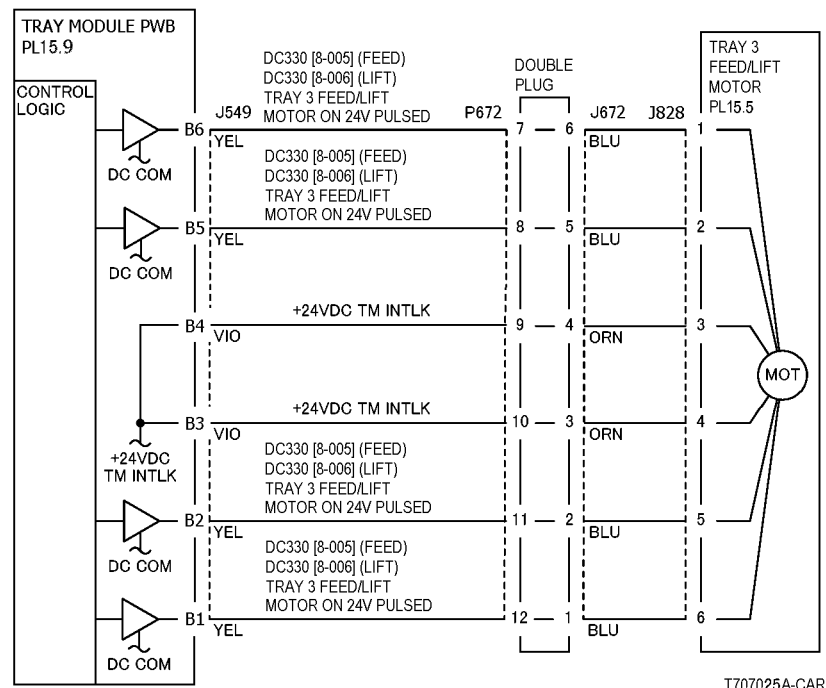


Figure 1 7-283 RAP Circuit Diagram - Tray 3 Feed/Lift Motor (3TM)

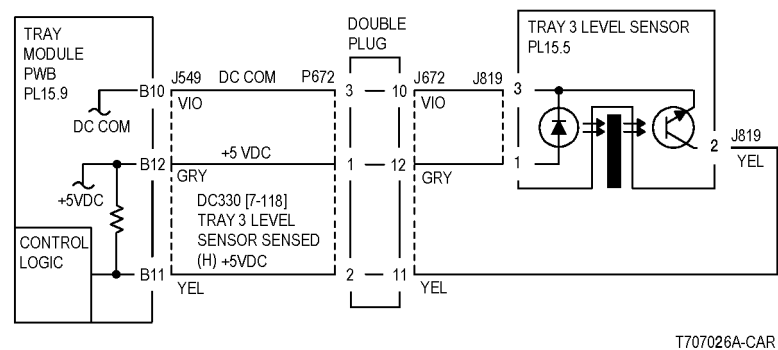


Figure 2 7-283 RAP Circuit Diagram - Tray 3 Level Sensor (3TM)



## 7-284 Tray 4 Lift (3TM)

The Tray 4 Level sensor does not detect tray lift.

### Initial Actions

Remove Tray 4 from the machine and empty the paper stock, then:

- Manually turn the gear at the rear of Tray 4 to check that the Bottom Plate moves up and down smoothly.
- Check that the Tray 4 Level Sensor Actuator (PL 15.7) is properly seated and operates smoothly.
- Gently push Tray 4 in to check that the drive transmission is firmly engaged.
- Ensure that Tray 4 is properly closed.

### Procedure

Enter **dC330** [008-008] and press **Start**. The Tray 4 Feed/Lift Motor (PL 15.5) energizes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 4 Feed/Lift Motor (Figure 1). Check the wires from the Tray Module PWB to the Tray 4 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 4 Feed/Lift Motor (PL 15.7). If the problem still exists, replace the Tray Module PWB (PL 15.9)

Press **Stop**. Enter **dC330** [007-119] and press **Start**. Open and close Tray 4. The display changes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 4 Level sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**.

- Check the Tray 4 Feed/Lift Motor and its associated gears (PL 15.7) for damage, contamination or misalignment.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Tray 4 Level Sensor (PL 15.7).
- If the problem persists, replace the Tray Module PWB (PL 15.9).

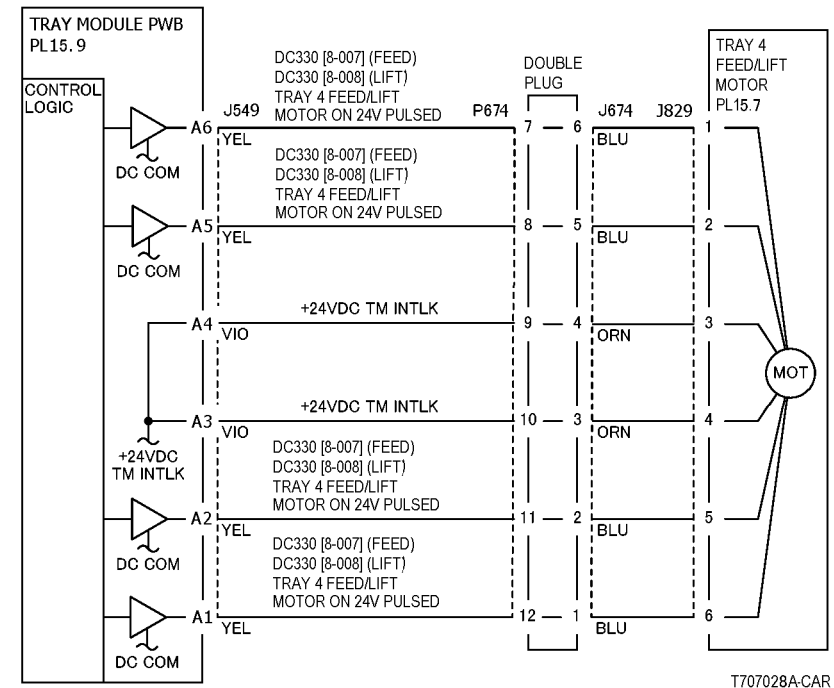


Figure 1 7-284 RAP Circuit Diagram - Tray 4 Feed/Lift Motor (3TM)

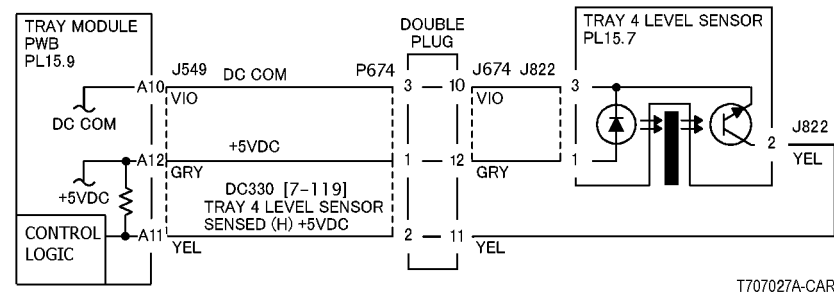


Figure 2 7-284 RAP Circuit Diagram - Tray 4 Level Sensor (3TM)



### 7-291 Tray 3 Lift (TTM)

The Tray 3 Level Sensor does not detect tray lift.

## Initial Actions

Pull out Tray 3 and empty the paper stock, then:

- Manually turn the gear on the left side of Tray 3 to check that the Bottom Plate moves up and down smoothly.
- Check that the Tray 3 Level Sensor Actuator (PL 16.9) is properly seated and operates smoothly.
- Gently push Tray 3 in to check that the drive transmission is firmly engaged.
- Ensure that Tray 3 is properly closed.

## Procedure

Enter **dC330** [008-006] and press **Start**. The Tray 3 Feed/Lift Motor (**PL 16.9**) energizes.

**Y      N**

Press **Stop**. Check the circuit of the Tray 3 Feed/Lift Motor (Figure 1). Check the wires from the Tray Module PWB to the Tray 3 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 3 Feed/Lift Motor (PL 15.7). If the problem still exists, replace the Tray Module PWB (PL 15.9)

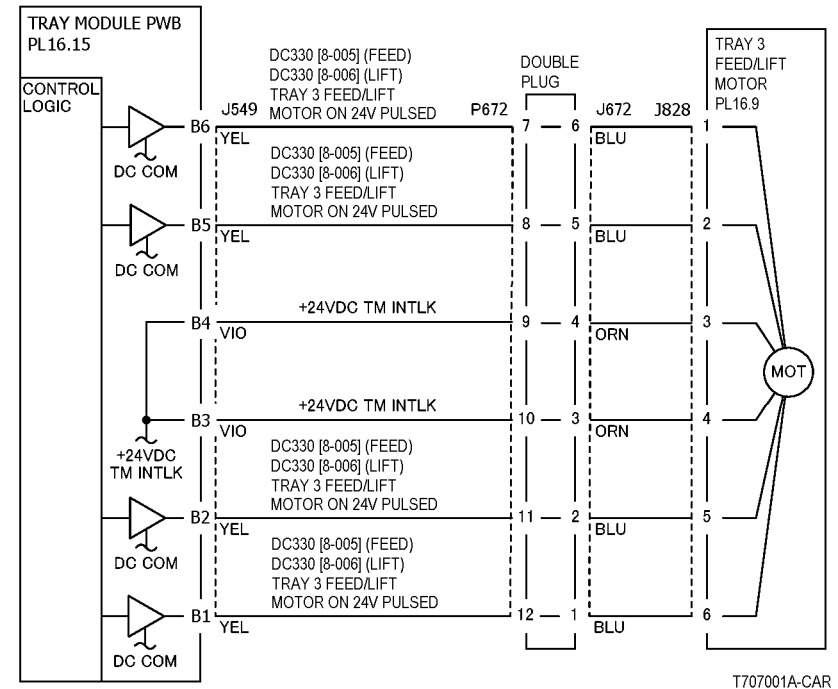
Press **Stop**. Enter **dC330** [007-118] and press **Start**. Open and close Tray 3. **The display changes.**

**Y      N**

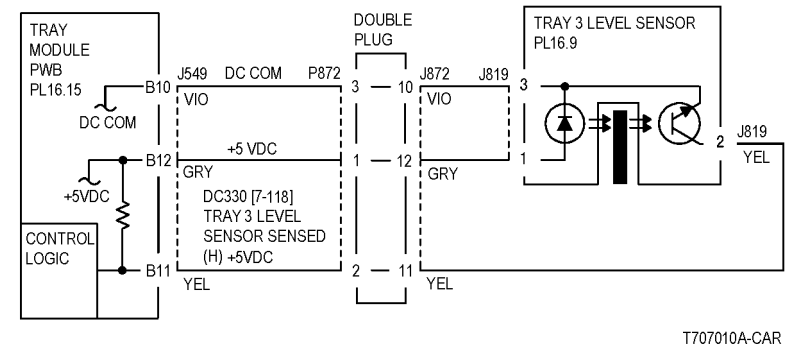
Press **Stop**. Check the circuit of the Tray 3 Level Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**.

- Check the Tray 3 Feed / Lift Motor and its associated gears (PL 16.9) for damage, contamination or misalignment.
- Check the Tray 3 Tray Cables, Pulleys and associated gears (PL 16.3) for damage, contamination or misalignment.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Tray 3 Level Sensor (PL 16.9).
- If these checks are OK, replace the Tray Module PWB (PL 16.15).



**Figure 1 7-291 RAP Circuit Diagram - Tray 3 Lift/Feed Motor (TTM)**



**Figure 2 7-291 RAP Circuit Diagram - Tray 3 Level Sensor (TTM)**



## 7-293 Tray 4 Lift (TTM)

The Tray 4 Level Sensor does not detect tray lift.

### Initial Actions

Pull out Tray 4 and empty the paper stock, then:

- Manually turn the gear underneath Tray 4 to check that the Bottom Plate moves up and down smoothly.
- Check that the Tray 4 Level Sensor Actuator (PL 16.11) is properly seated and operates smoothly.
- Gently push Tray 4 in to check that the drive transmission is firmly engaged.
- Ensure that Tray 4 is properly closed.

### Procedure

Enter **dC330** [008-008] and press **Start**. The Tray 4 Feed/Lift Motor (PL 16.11) energizes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 4 Feed/Lift Motor (Figure 1). Check the wires from the Tray Module PWB to the Tray 4 Feed/Lift Motor for an open circuit. If the wires are good, replace the Tray 4 Feed/Lift Motor (PL 16.11). If the problem still exists, replace the Tray Module PWB (PL 16.15)

Press **Stop**. Enter **dC330** [007-119] and press **Start**. Open and close Tray 4. The display changes.

**Y N**  
Press **Stop**. Check the circuit of the Tray 4 Level Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**.

- Check the Tray 4 Feed / Lift Motor and its associated gears (PL 16.11) for damage, contamination or misalignment.
- Check the Tray 4 Tray Cables, Pulleys and associated gears (PL 16.5) for damage, contamination or misalignment.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Tray 4 Level Sensor (PL 16.11).
- If these checks are OK, replace the Tray Module PWB (PL 16.15).

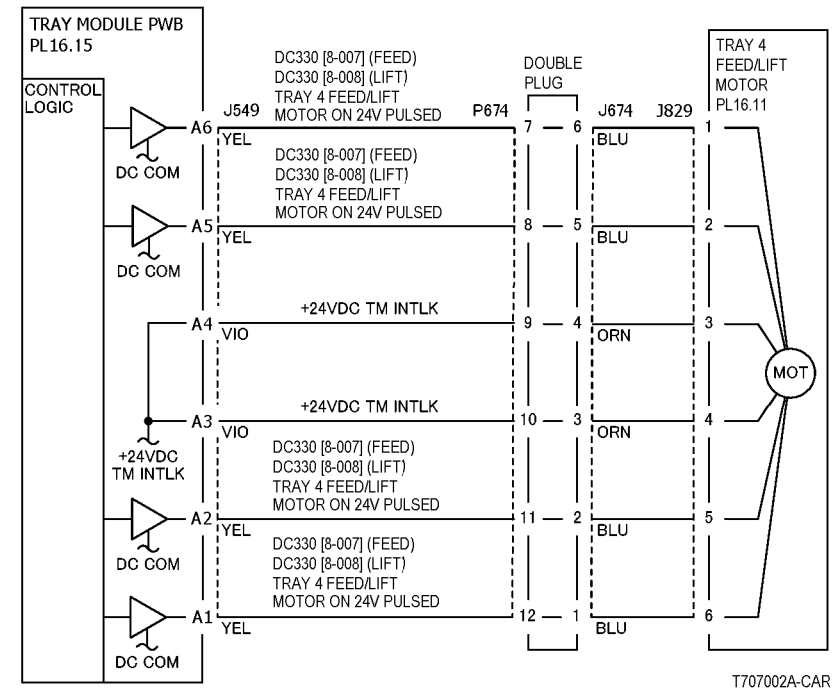


Figure 1 7-293 RAP Circuit Diagram - Tray 4 Lift/Feed Motor (TTM)

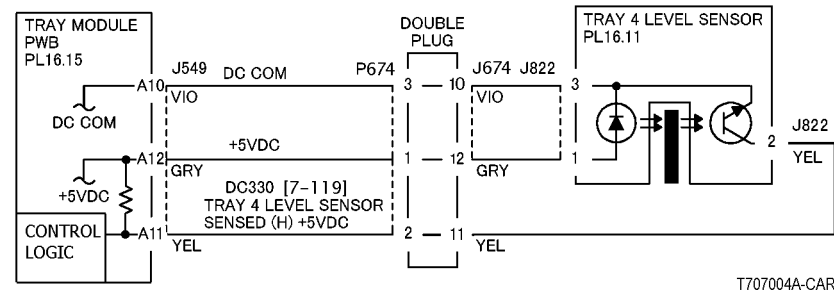


Figure 2 7-293 RAP Circuit Diagram - Tray 4 Level Sensor (TTM)



## 7-397 All Trays Lift Sensors

None of the Tray Level Sensors can be energized.

### Procedure

The machine is equipped with a 3TM.

**Y N**  
Check the dC122 Shutdown History. **A 7-281, 7-282, 7-291, or 7-293 fault has occurred.**

**Y N**  
**+24 VDC is measured at P/J555-3 on the Tray Module PWB (PL 16.15).**

**Y N**  
Refer to the +24VDC Circuit Diagram (Figure 1) to troubleshoot.

**+5 VDC is measured at P/J555-1 on the Tray Module PWB (PL 16.15).**

**Y N**  
Refer to the +5 VDC Circuit Diagram (Figure 2) to troubleshoot.

Replace the following in sequence:

- Tray Module PWB (PL 16.15)
- MCU PWB (PL 13.1, Tray 1 only)

Go to the appropriate RAP.

Check the dC122 Shutdown History. **A 7-281, 7-282, 7-283, or 7-284 fault has occurred.**

**Y N**  
**+24 VDC is measured at P/J555-3 on the Tray Module PWB (PL 15.9).**

**Y N**  
Refer to the +24VDC Circuit Diagram (Figure 1) to troubleshoot.

**+5 VDC is measured at P/J555-1 on the Tray Module PWB (PL 15.9).**

**Y N**  
Refer to the +5VDC Circuit Diagram (Figure 2) to troubleshoot.

Replace the following in sequence:

- Tray Module PWB (PL 15.9)
- MCU PWB (PL 13.1, Tray 1 only)

Go to the appropriate RAP.

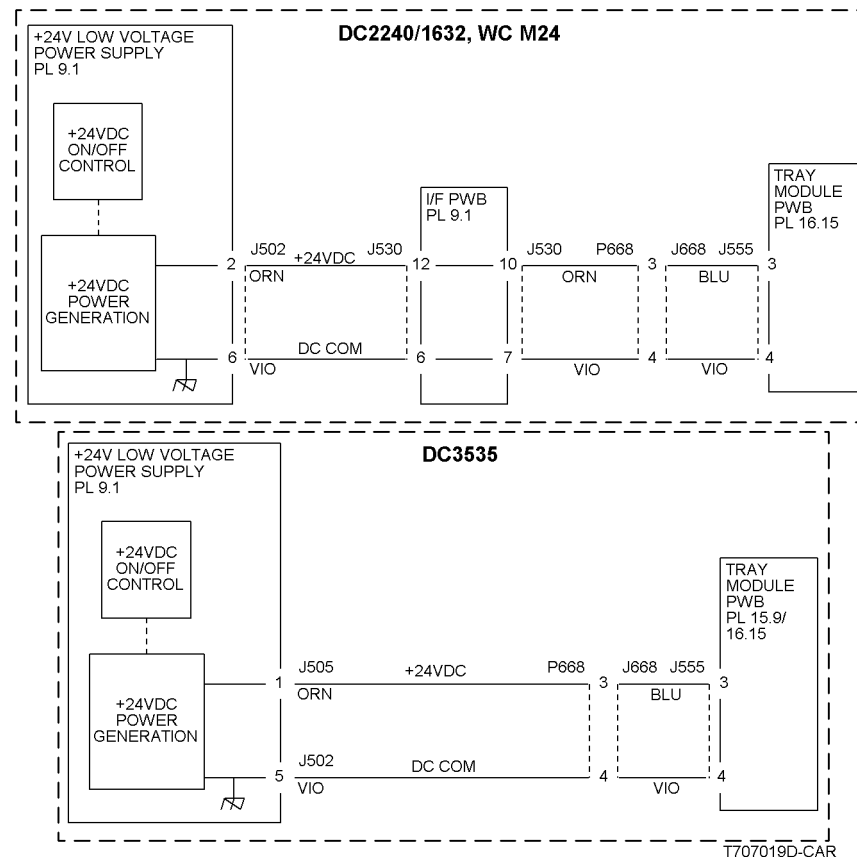


Figure 1 7-397 RAP Circuit Diagram +24 VDC to the Tray Module PWB



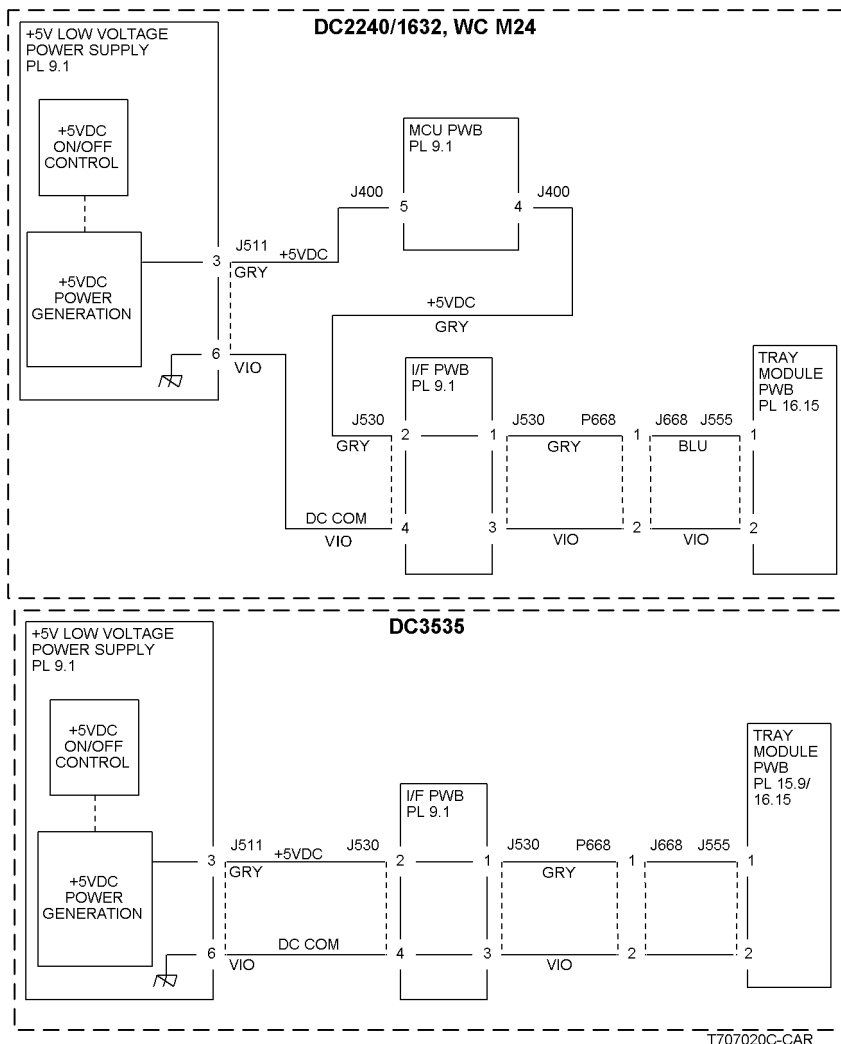


Figure 2 7-397 RAP Circuit Diagram +5 VDC to the Tray Module PWB



## 7-930 Tray 1 Paper Size Mismatch

The paper in Tray 1 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 1 and the paper guides are set correctly.

**Y** **N**

Load the correct size paper.

Go to the [7-270](#) RAP.



## 7-931 Tray 2 Paper Size Mismatch

The paper in Tray 2 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 2 and the paper guides are set correctly.

**Y** **N**

Ensure Paper Guides are correctly adjusted.

Load the correct size paper.

Go to the [7-271](#) RAP.

## 7-932 Tray 3 Paper Size Mismatch

The paper in Tray 3 does not match the paper size selected.

### Procedure

The machine is equipped with a 3TM.

**Y** **N**

The correct size paper is loaded in Tray 3 and the paper guides are set correctly.

**Y** **N**

Ensure Paper Guides are correctly adjusted.

Load the correct size paper.

Go to the [7-276](#) RAP.

The correct size paper is loaded in Tray 3 and the paper guides are set correctly.

**Y** **N**

Ensure Paper Guides are correctly adjusted.

Load the correct size paper.

Go to the [7-272](#) RAP.



## 7-933 Tray 4 Paper Size Mismatch

The paper in Tray 4 does not match the paper size selected.

### Procedure

The machine is equipped with a 3TM.

Y	N
The correct size paper is loaded in Tray 4 and the paper guides are set correctly.	
Y	N
Ensure Paper Guides are correctly adjusted.	
Load the correct size paper.	
Go to the 7-277 RAP.	

The correct size paper is loaded in Tray 4 and the paper guides are set correctly.

Y	N
Ensure Paper Guides are correctly adjusted.	
Load the correct size paper.	

Go to the 7-273RAP.

## 7-935 Job Continue Not Available

Automatic Tray switching cannot be continued because a tray was not programmed.

### Procedure

Program the appropriate tray. **The problem continues.**

Y	N
Return to Service Call Procedures.	

Refer to the User Guide, Section 2, Loading Paper for Auto Tray Switching.



## 7-954 Tray 5 Size Mismatch (Slow Scan Direction)

The paper in the slow scan direction is shorter than the specified paper size.

### Procedure

The correct size paper is loaded in the Tray 5.

**Y** **N**  
Load the correct size paper.

Replace the Registration Sensor (PL 2.6).

## 7-959 Tray 5 Paper Mismatch 1

Incorrect type of transparency detected by the OHP sensor.

### Initial Actions

- Ensure that only approved transparencies (no white strip) are used.
- Check that the transparencies are oriented correctly.
- Check for obstructions and clean the OHP Sensor.

### Procedure

Open the Left Cover Assembly (PL 2.9). Enter **dC330** [008-110] and press **Start**. Block the OHP Sensor R (PL 2.6) using a plain sheet of paper. **The display changes.**

**Y** **N**  
Press **Stop**. Check the circuit of the OHP Sensor (Figure 1). Refer to the **OF 99-1** RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagram (Figure 1) are securely connected and that the wires are not damaged.
- If the problem persists, replace the MCU PWB (PL 13.1).

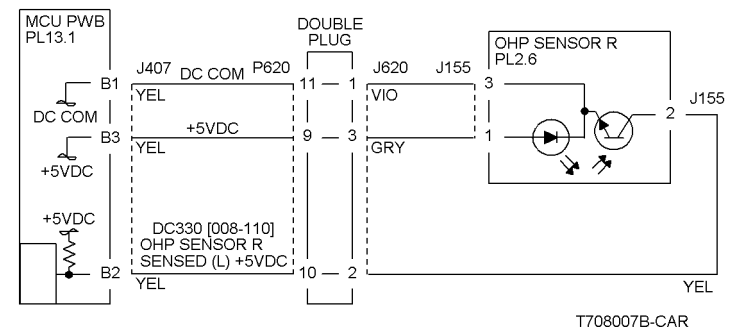


Figure 1 7-959 RAP Circuit Diagram - OHP Sensor R



## 7-960 Tray 5 Paper Mismatch 2

A different paper type or transparency was detected when plain/heavyweight paper was specified.

## Initial Actions

- Check that the loaded paper type matches the UI selection.
- Check the OHP sensor area for contamination or blockage.

## Procedure

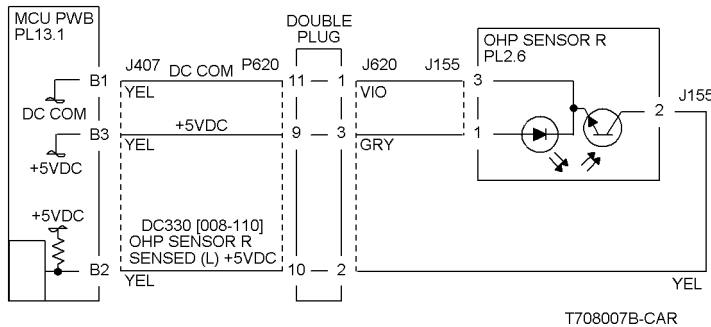
Open the Left Cover Assembly (PL 2.9). Enter **dC330** [008-110] and press **Start**. Block the OHP Sensor (PL 2.6) using a plain sheet of paper. **The display changes.**

**Y      N**

Press **Stop**. Check the circuit of the OHP Sensor (**Figure 1**). Refer to the **OF 99-1** RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagram (Figure 1) are securely connected and that the wires are not damaged.
- If the problem persists, replace the MCU PWB (PL 13.1).



**Figure 1 7-960 RAP Circuit Diagram - OHP Sensor R**

## 7-969 Full Paper Stack

The Full Paper Stack Sensor detects that Face Down Tray is full.

## Initial Actions

Check the Full Paper Stack Sensor for obstructions and actuator operation.

## Procedure

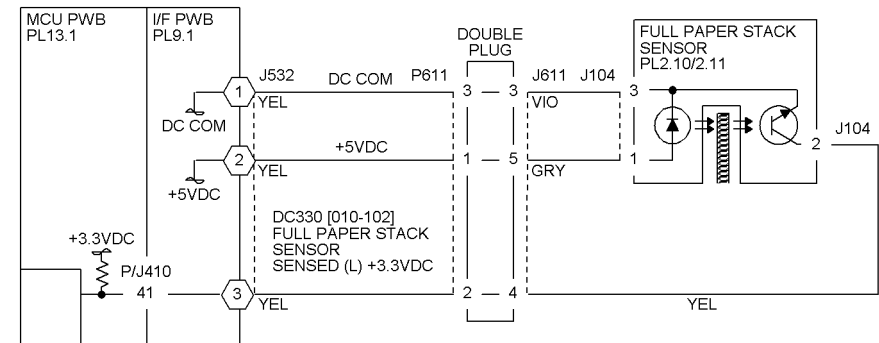
Enter **dC330** [010-102] and press **Start**. Move the Full Paper Stack Sensor Actuator (**PL 2.11**) up and down. **The display changes.**

**Y      N**

Press **Stop**. Check the circuit of the Full Paper Stack Sensor (**Figure 1**). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagram ([Figure 1](#)) are securely connected and that the wires are not damaged.
- If the connectors and wires check out OK, replace the Full Paper Stack Sensor ([PL 2.11](#)).
- If the problem continues, replace the MCU PWB ([PL 13.1](#)).
- If the problem persists, replace the I/F PWB ([PL 9.1](#)).



1 PIN B15 FOR DC2240/1632, WC M24.  
PIN B17 FOR DC3535.

3 PIN B16 FOR DC2240/1632, WC M24.  
PIN B18 FOR DC3535.

 PIN R17 FOR DC2240/1632 WC M24

T707018C-CAR

**Figure 1 7-969 RAP Circuit Diagram - Full Paper Stack Sensor**







## 8-149 Tray 3 Takeaway Sensor On (3TM)

The Takeaway Sensor does not detect paper fed from Tray 3.

### Initial Actions

- Check condition and specification of paper in Tray 3.
- Check the paper path and sensor area for obstructions.
- Check for wear and clean the Tray 3 Feeder Roll, Takeaway Roll and the Pinch Roll.
- Check that the Left Cover is properly latched and that the Interlock Actuator is not damaged.

### Procedure

Open the Left Cover and cheat the Left Cover Interlock Switch (PL 15.10). Enter dC330 [008-106] and press **Start**. Block and unblock the Takeaway Sensor (PL 15.10). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Takeaway Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [008-028] and press **Start**. All three Takeaway Rolls (PL 15.10) rotates.

Y N

Takeaway Motor 1 (PL 15.9) energizes.

Y N

Press **Stop**. +24 VDC is measured between P/J552-3 and GND on the Tray Module PWB.

Y N

+24 VDC is measured at P/J555-3 on the Tray Module PWB.

Y N

Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 15.9).

+24 VDC is measured at each of the following pins on P/J552 Pin 1, 2, 5, and 6.

Y N

Refer to Figure 2. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 15.9).

With dC330 [008-028] still entered, press Start and check that the voltage at P/J552 pins 1, 2, 5, and 6 each drop to approximately +22 VDC. The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-028] is entered.

Y N

Replace the Tray Module PWB (PL 15.9).

Replace the Takeaway Motor (PL 15.9).

Press **Stop**. Check the Takeaway Motor 1 and its associated gears (PL 15.9) for damage, contamination or misalignment.

A

Press **Stop**.

- Ensure that the Chutes (PL 15.10) are properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Takeaway Sensor (PL 15.10).
- If the problem persists, replace the Tray Module PWB (PL 15.9).

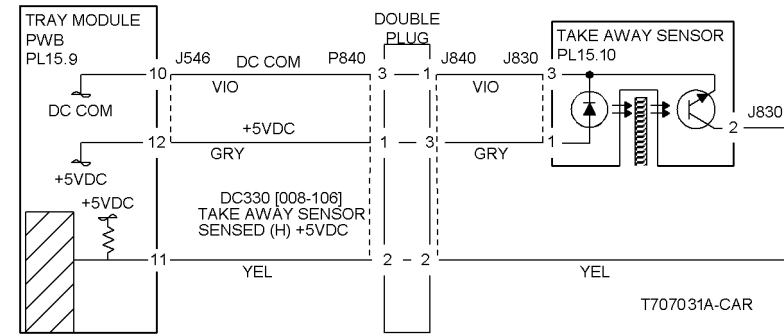


Figure 1 8-149 RAP Circuit Diagram - Takeaway Sensor

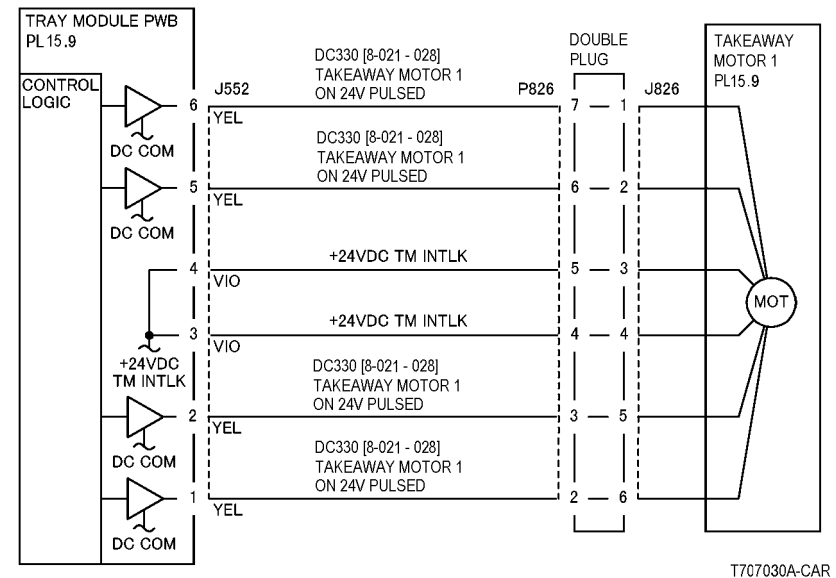


Figure 2 8-149 RAP Circuit Diagram - Takeaway Motor 1



## 8-150 Tray 4 Takeaway Sensor On (3TM)

The Takeaway Sensor does not detect paper fed from Tray 4.

### Initial Actions

- Check condition and specification of paper in Tray 4.
- Check the paper path and sensor area for obstructions.
- Check for wear and clean the Tray 4 Feeder Roll, Takeaway Roll and the Pinch Roll.
- Check that the Left Cover is properly latched and that the Interlock Actuator is not damaged.

### Procedure

Open the Left Cover and cheat the Left Cover Interlock Switch (PL 15.10). Enter dC330 [008-106] and press **Start**. Block and unblock the Takeaway Sensor (PL 15.10). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Takeaway Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [008-028] and press **Start**. All three Takeaway Rolls (PL 15.10) rotates.

Y N

Takeaway Motor 1 (PL 15.9) energizes.

Y N

Press **Stop**. +24 VDC is measured between P/J552-3 and GND on the Tray Module PWB.

Y N

+24 VDC is measured at P/J555-3 on the Tray Module PWB.

Y N

Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 15.9).

+24 VDC is measured at each of the following pins on P/J552 Pin 1, 2, 5, and 6.

Y N

Refer to Figure 2. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 15.9).

With dC330 [008-028] still entered, press **Start** and check that the voltage at P/J552 pins 1, 2, 5, and 6 each drop to approximately +22 VDC. The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-028] is entered.

Y N

Replace the Tray Module PWB (PL 15.9).

Replace the Takeaway Motor (PL 15.9).

Press **Stop**. Check the Takeaway Motor 1 and its associated gears (PL 15.9) for damage, contamination or misalignment.

A

Press **Stop**.

- Ensure that the Chutes (PL 15.10) are properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Takeaway Sensor (PL 15.10).
- If the problem persists, replace the Tray Module PWB (PL 15.9).

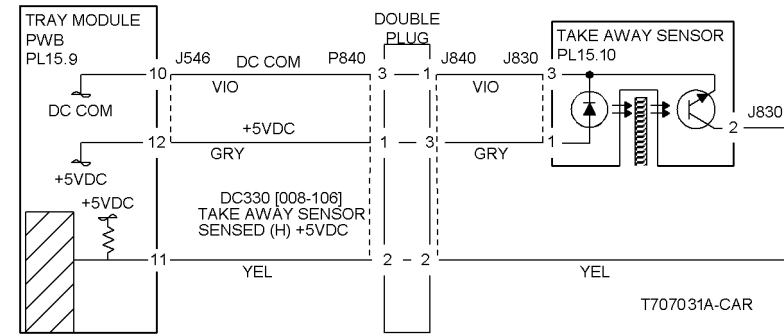


Figure 1 8-150 RAP Circuit Diagram - Takeaway Sensor

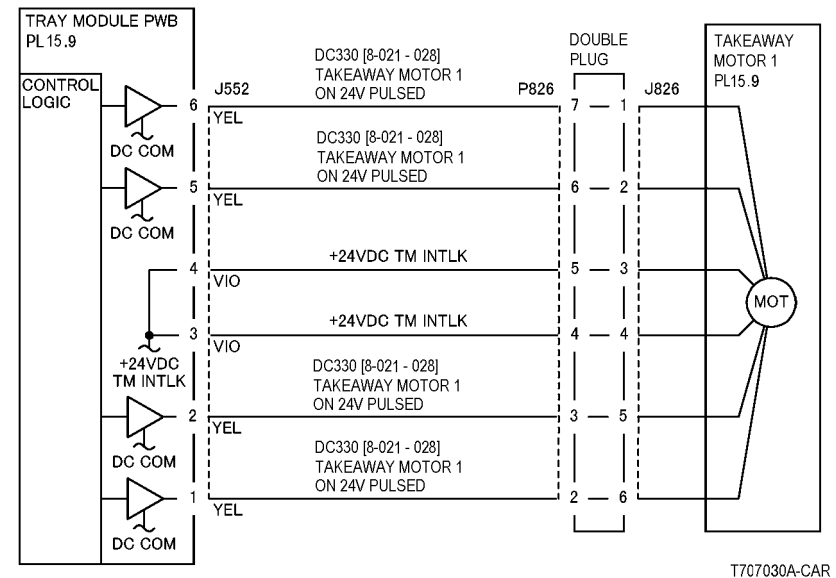


Figure 2 8-150 RAP Circuit Diagram - Takeaway Motor 1



### 8-151 Tray 3 Takeaway Sensor On (TTM)

The Takeaway Sensor does not detect paper fed from Tray 3.

## Initial Actions

- Check condition and specification of paper in Tray 3.
- Check the paper path and sensor area for obstructions.
- Check for wear and clean the Tray 3 Feeder Roll, Takeaway Roll and the Pinch Roll.
- Check that the Left Cover is properly latched and that the Interlock Actuator is not damaged.

## Procedure

Open the Left Cover and cheat the Left Cover Interlock Switch (PL 16.13). Enter **dC330** [008-106] and press **Start**. Block and unblock the Takeaway Sensor (PL 16.6). **The display changes state.**

Y N

Press **Stop**. Check the circuit of the Takeaway Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter **dC330** [008-036] and press **Start**. **Both Takeaway Rolls (PL 16.6)** rotate.

Y N

**Takeaway Motor 1 (PL 16.15) energizes.**

	Y	N
1. The respondent has been employed by the company for at least one year.	80	20
2. The respondent has received training from the company.	70	30
3. The respondent has received feedback from the company.	60	40
4. The respondent has received recognition from the company.	50	50
5. The respondent has received encouragement from the company.	40	60
6. The respondent has received support from the company.	30	70
7. The respondent has received resources from the company.	20	80
8. The respondent has received information from the company.	10	90
9. The respondent has received advice from the company.	5	95
10. The respondent has received guidance from the company.	5	95

Press **Stop**. +24 VDC is measured between **P/J552-3** and GND on the Tray Module PWB.

<b>Y</b>	<b>N</b>
----------	----------

**+24 VDC is measured at P/J555-3 on the Tray Module PWB.**

	Y	N
--	---	---

Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 16.15).

+24 VDC is measured at each of the following pins on **P/J552**: Pin 1, 2, 5, and 6.

Y N

Refer to **Figure 2**. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 16.15).

With **dC330** [008-036] still entered, press **Start** and check that the voltage at **P/J552** pins 1, 2, 5, and 6 each drop to approximately +22 VDC. **The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-036] is entered.**

Y N

Replace the Tray Module PWB (PL 16.15).

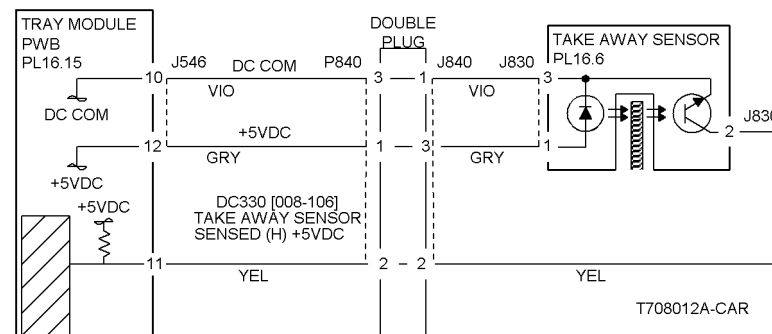
Replace the Takeaway Motor (PL 16.15).

Press **Stop**. Check the Takeaway Motor 1 and its associated gears (PL 16.15) for damage, contamination or misalignment.

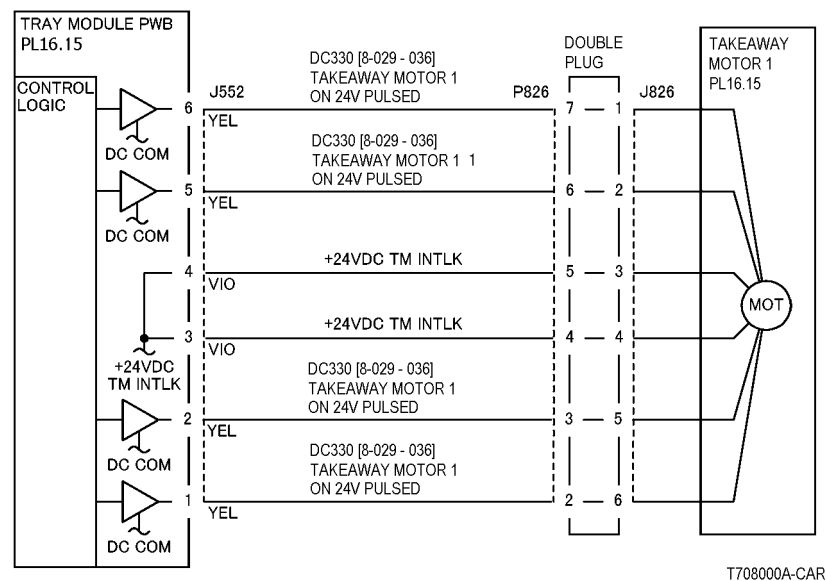
A

Press **Stop**.

- Ensure that the Chutes (PL 16.6) are properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Takeaway Sensor (PL 16.6).
- If the problem persists, replace the Tray Module PWB (PL 16.15).



### Figure 1 8-151 RAP Circuit Diagram - Takeaway Sensor



**Figure 2 8-151 RAP Circuit Diagram - Takeaway Motor 1**



## 8-152 Tray 4 Takeaway Sensor On (TTM)

The Takeaway Sensor does not detect paper fed from Tray 4.

### Initial Actions

- Check condition and specification of paper in Tray 4.
- Check the paper path and sensor area for obstructions.
- Check for wear and clean the Tray 4 Feeder Roll, Takeaway Roll and the Pinch Roll.
- Check that the Left Cover is properly latched and that the Interlock Actuator is not damaged.

### Procedure

Open the Left Cover and cheat the Left Cover Interlock Switch (PL 16.13). Enter dC330 [008-106] and press **Start**. Block and unblock the Takeaway Sensor (PL 16.6). **The display changes state.**

**Y N**  
Press **Stop**. Check the circuit of the Takeaway Sensor (Figure 1). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [008-036] and press **Start**. Both Takeaway Rolls (PL 16.6) rotate.

**Y N**  
**Takeaway Motor 1 (PL 16.15) energizes.**

**Y N**  
Press **Stop**. +24 VDC is measured between P/J552-3 and GND on the Tray Module PWB.

**Y N**  
+24 VDC is measured at P/J555-3 on the Tray Module PWB.

**Y N**  
Refer to the +24 VDC Wirenets (Figure 5). Check the +24 VDC to the Tray Module PWB.

Replace the Tray Module PWB (PL 16.15).

+24 VDC is measured at each of the following pins on P/J552: Pin 1, 2, 5, and 6.

**Y N**  
Refer to Figure 2. Check the wires from the Tray Module PWB to the Takeaway Motor 1 for an open circuit. If the wires are good, replace the Takeaway Motor 1 (PL 16.15).

With dC330 [008-036] still entered, press **Start** and check that the voltage at P/J552 pins 1, 2, 5, and 6 each drop to approximately +22 VDC. The voltage at P/J552 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-036] is entered.

**Y N**  
Replace the Tray Module PWB (PL 16.15).

Replace the Takeaway Motor (PL 16.15).

Press **Stop**. Check the Takeaway Motor 1 and its associated gears (PL 16.15) for damage, contamination and misalignment.

A

Press **Stop**. Remove the TTM Rear Cover. Enter dC330 [008-048] and press **Start**. The Takeaway Motor 2 (PL 16.15) energizes.

**Y N**  
Press **Stop**. +24 VDC is measured between P/J553-3 and GND on the Tray Module PWB.

**Y N**  
Replace the Tray Module PWB (PL 16.15).

+24 VDC is measured at each of the following pins on P/J553: Pin1 1, 2, 5, and 6.

**Y N**  
Refer to Figure 3. Check the wires from the Tray Module PWB to the Takeaway Motor 2 for an open circuit. If the wires are good, replace the Takeaway Motor 2 (PL 16.15).

With dC330 [008-048] still entered, press **Start** and check that the voltage at P/J553 pins 1, 2, 5, and 6 each drop to approximately +22 VDC. The voltage at P/J553 pins 1, 2, 5, and 6 all drop to approximately +22 VDC when [008-048] is entered.

**Y N**  
Replace the Tray Module PWB (PL 16.15).

Replace the Takeaway Motor (PL 16.15).

Press **Stop**.

- Check the Takeaway Motor 2 and its associated gears (PL 16.15) for damage, contamination and misalignment.
- Ensure that the Chutes (PL 16.6) are properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Replace the Takeaway Sensor (PL 16.6).
- If the problem persists, replace the Tray Module PWB (PL 16.15).

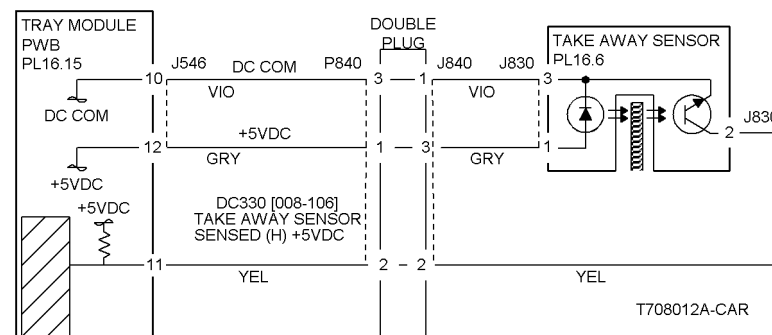


Figure 1 8-152 RAP Circuit Diagram - Takeaway Sensor



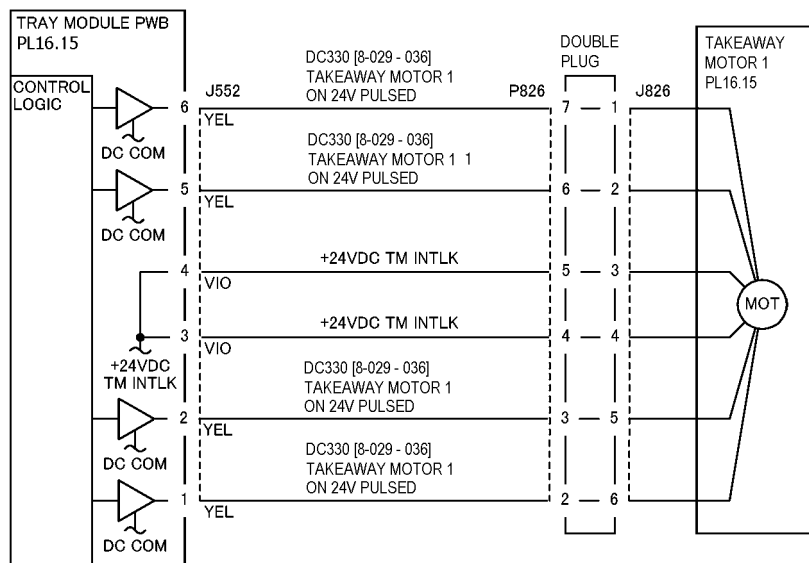


Figure 2 8-152 RAP Circuit Diagram - Takeaway Motor 1

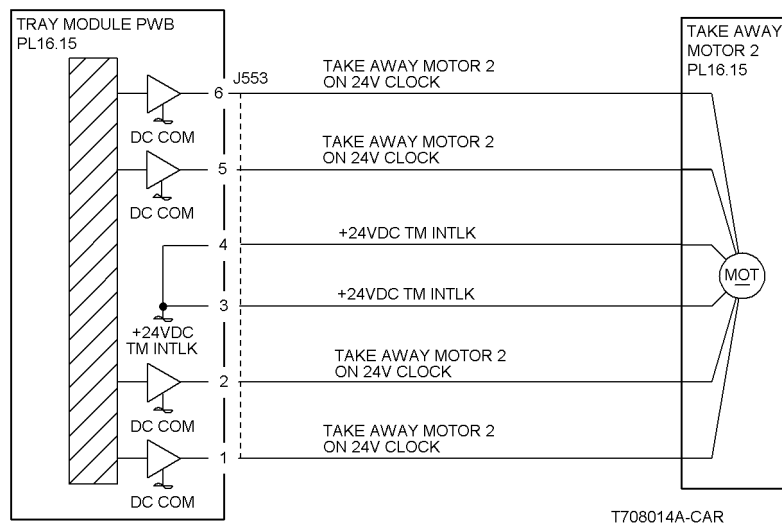


Figure 3 8-152 RAP Circuit Diagram - Takeaway Motor 2



## 8-164 POB Sensor

The POB Sensor did not detect paper after the Registration Clutch Energized.

## Initial Actions

- Check condition and specification of the paper supply.
- Check for paper on the IBT.
- Check for obstructions in the paper feed path.
- Clean the POB Sensor.
- Check the 2nd BTR transmission gears for wear.
- Clean the Registration Roll and check for damage or wear.

## Procedure

Open the Left Cover Assembly (PL 2.9). Enter **dC330** [009-201] and press **Start**. Block and unblock the POB Sensor (PL 2.9). **The display changes state.**

**Y      N**

Press **Stop**. Check the circuit of the POB Sensor (Figure 1). Refer to the OF 99-1 RAP for troubleshooting procedure.

Press **Stop**. Enter **dC330** [008-037] and press **Start**. The **Registration Clutch (PL 2.6)** energizes.

Y N

Press **Stop**. Check the circuit of the Registration Clutch (Figure 2). Refer to the OF 99-4 RAP for troubleshooting procedure.

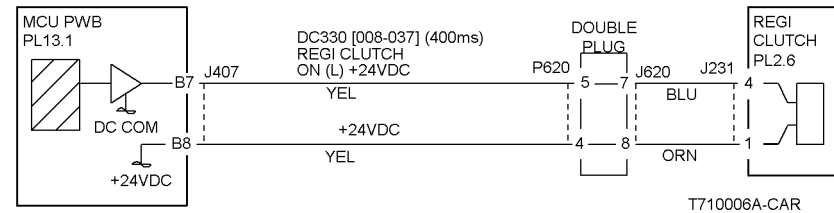
Close the Left Cover Assembly and press **Stop**. In sequence, enter the following: **dC330** [009-052] then **dC330** [009-051] and press **Start**. **The 2nd BTR contacts and retracts.**

Y N

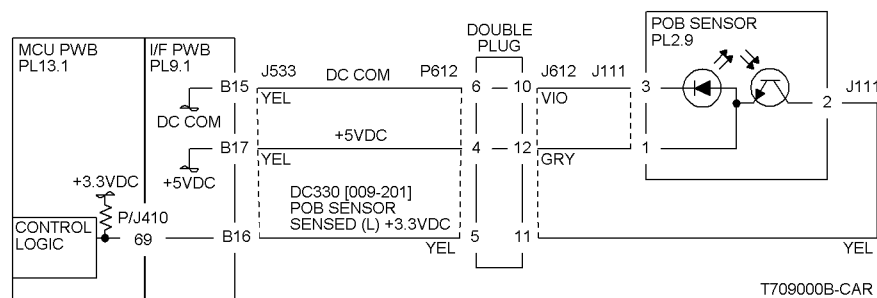
Press **Stop**. Go to the **9-342** RAP for a contact failure or go to the **9-343** RAP for a retract failure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the POB Sensor (PL 2.9).
- If the problem persists, replace the ESS PWB (PL 13.1).



**Figure 2 8-164 RAP Circuit Diagram - Registration Clutch**



**Figure 1 8-164 RAP Circuit Diagram - POB Sensor**



## 8-175 Registration Sensor On Jam Tray 5

The Registration Sensor does not detect paper fed from the MSI.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the MSI Feed Roll and check for wear.
- Clean the Takeaway Roll and check for wear.
- Check the drive transmissions for damage or wear.
- Push down on the Bottom Plate (PL 2.14) and release it, check that the springs return the Bottom Plate to its upper position. Check for weak or damaged spring/s.

### Procedure

Open the Left Cover Assembly (PL 2.9). Enter **dC330** [008-104] and press **Start**. Block and unblock the Registration Sensor (PL 2.6). **The display changes state.**

Y N

Press **Stop**. Check the circuit of the Registration Sensor (Figure 1). Refer to the OF 99-1 RAP for troubleshooting procedure.

The machine is a DC3535.

Y N

Close the Left Cover Assembly and press **Stop**. Enter **dC330** [007-003] and press **Start**. **The Tray 5 Feed Solenoid (PL 2.14) energizes.**

Y N

Press **Stop**. Check the circuit of the Tray 5 Feed Solenoid (Figure 2). Refer to the OF 99-4 RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Registration Sensor (PL 2.6).
- If the problem persists, replace the ESS PWB (PL 13.1).

Close the Left Cover Assembly and press **Stop**. Enter **dC330** [007-003] and press **Start**. **The Tray 5 Feed Solenoid (PL 2.14) energizes.**

Y N

Press **Stop**. Check the circuit of the Tray 5 Feed Solenoid (Figure 3). Refer to the OF 99-4 RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 3) are securely connected and that the wires are not damaged.
- Replace the Registration Sensor (PL 2.6).
- If the problem persists, replace the ESS PWB (PL 13.1).

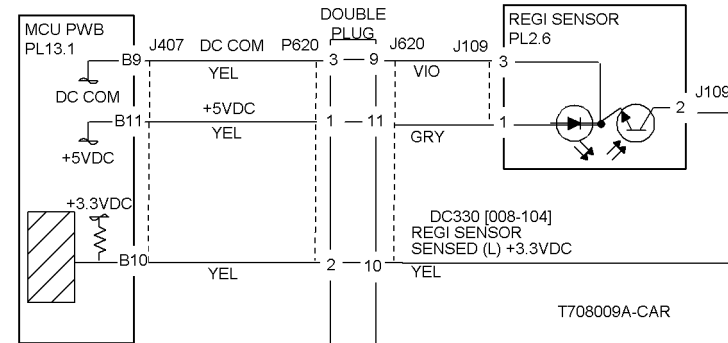


Figure 1 8-175 RAP Circuit Diagram - Registration Sensor

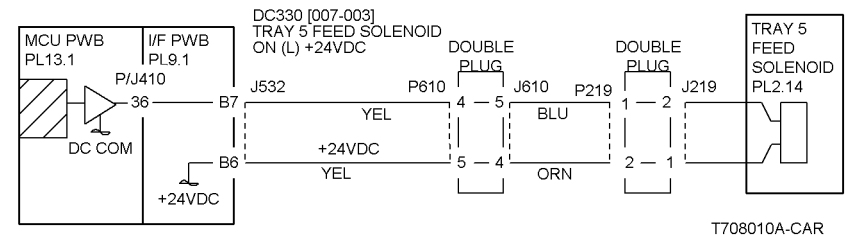


Figure 2 8-175 RAP Circuit Diagram - DC2240/1632, WC M24 Tray 5 Feed Solenoid

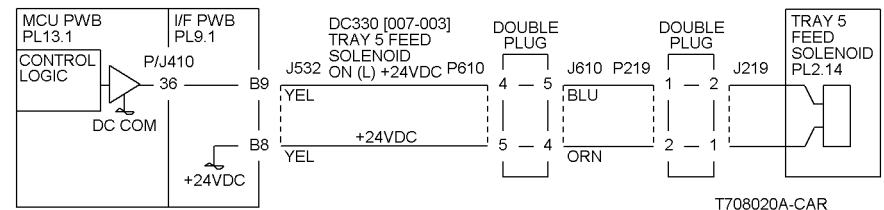


Figure 3 8-175 RAP Circuit Diagram - DC3535 Tray 5 Feed Solenoid



## 8-176 Registration Sensor On Jam Tray 1-4

The Registration Sensor does not detect paper fed from Tray 1 - 4.

### Initial Actions

- Ensure customer closes Left Lower Cover (PL 2.3) firmly if dog ears also occur.
- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path
- Clean the Takeaway Roll and Pinch Roll and check for wear.
- Check the drive transmissions for damage or wear.

### Procedure

Open the Left Cover Assembly (PL 2.9) Enter **dC330** [008-104] and press **Start**. Block and unblock the Registration Sensor. **The display changes state.**

**Y N**

Press **Stop**. Check the circuit of the Registration Sensor (Figure 1). Refer to the OF 99-1 RAP for troubleshooting procedure.

Close the Left Cover Assembly and press **Stop**. Enter **dC330** [008-038] and press **Start**. **The Takeaway Clutch (PL 1.2) energizes.**

**Y N**

Press **Stop**. Check the circuit of the Takeaway Clutch (Figure 2). Refer to the OF 99-4 RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the Chute (PL 2.3) is properly seated and not damaged.
- Check the Pinch Rolls (PL 2.3) for damage or contamination.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- Replace the Registration Sensor (PL 2.6).
- If the problem persists, replace the ESS PWB (PL 13.1).

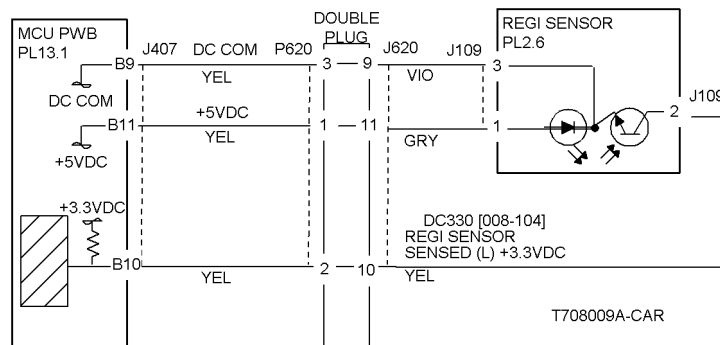


Figure 1 8-176 RAP Circuit Diagram - Registration Sensor

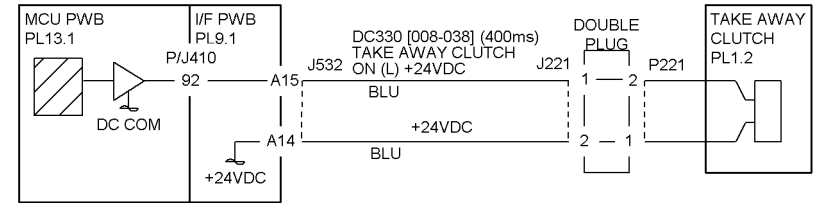


Figure 2 8-176 RAP Circuit Diagram - Takeaway Clutch



## 8-180 Registration Sensor On Duplex

The Registration Sensor does not detect paper after a duplex feed.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Registration Roll and check for wear.
- Clean the Exit Roll, Transport Roll, Wait Roll and check for wear.

### Procedure

Open the Left Cover Assembly (PL 2.9). Enter **dC330** [008-104] and press **Start**. Block and unblock the Registration Sensor (PL 2.6). **The display changes state.**

**Y N**

Press **Stop**. Check the circuit of the Registration Sensor (Figure 1). Refer to the **OF 99-1** RAP for troubleshooting procedure.

Press **Stop**. Close the Left Cover Assembly and remove the Left Upper Cover (PL 2.7). Enter **dC330** [008-056] and press **Start**. **The Duplex Transport Roll (PL 12.1) rotates.**

**Y N**

**The Duplex Motor (PL 12.2) energizes.**

**Y N**

Press **Stop**. Check the circuit of the Duplex Motor (Figure 2). Check the wires from the Duplex PWB to the Duplex Motor for an open circuit. If the wires are good, replace the Duplex Motor (PL 12.2). If the problem continues, replace the Duplex PWB (PL 12.2).

Press **Stop**. Check the Duplex Motor and its associated pulleys and belts (PL 12.2) for damage, contamination or misalignment.

Press **Stop**. Enter **dC330** [008-043] and press **Start**. **The Inverter Reverse Clutch (PL 11.2) energizes.**

**Y N**

Press **Stop**. Check the circuit of the Inverter Reverse Clutch (Figure 3). Refer to the **OF 99-4** RAP for troubleshooting procedure.

Press **Stop**.

- Check that the Duplex Chute (PL 2.8) is properly seated and not damaged.
- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- If the problem persists, replace the Duplex PWB (PL 12.2).

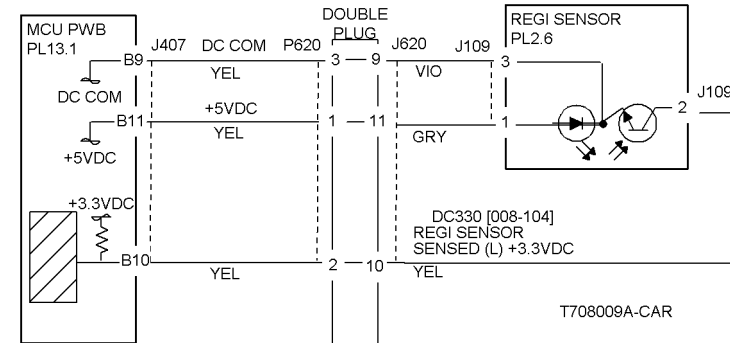


Figure 1 8-180 RAP Circuit Diagram - Registration Sensor



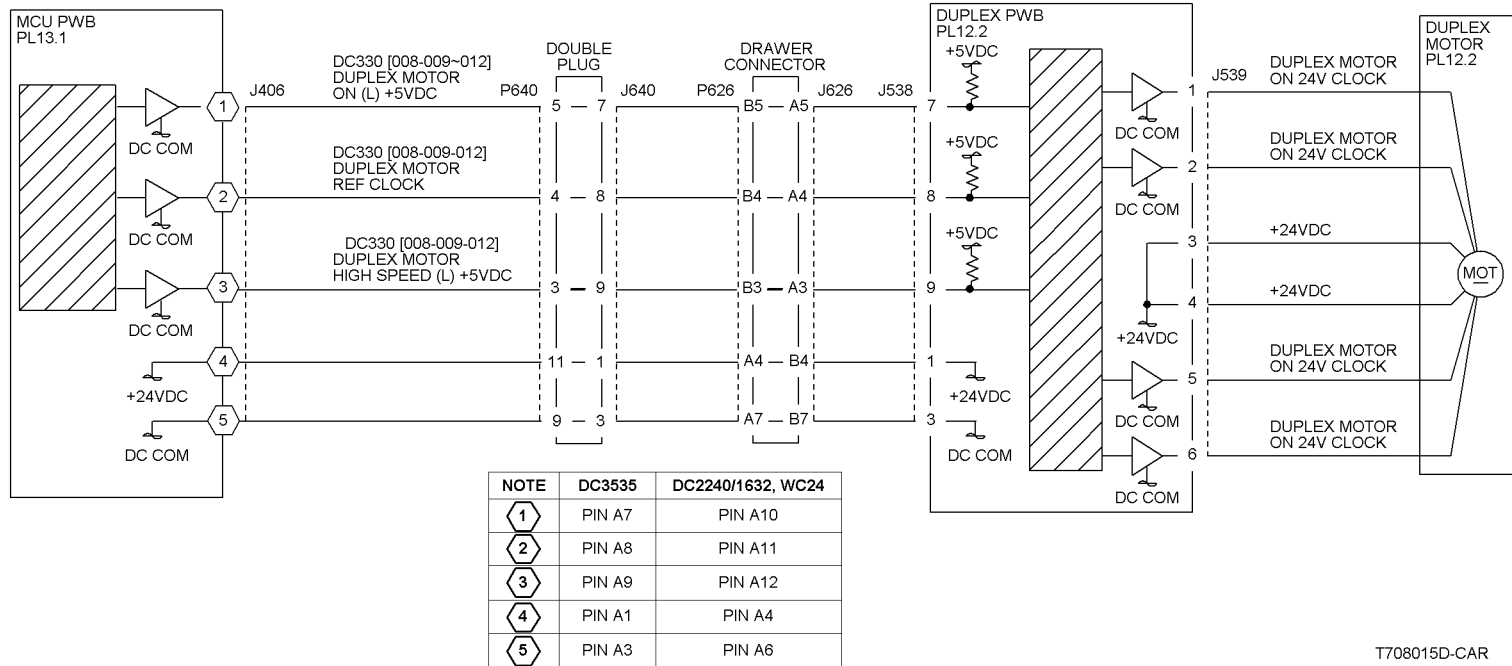


Figure 2 8-180 RAP Circuit Diagram - Duplex Motor

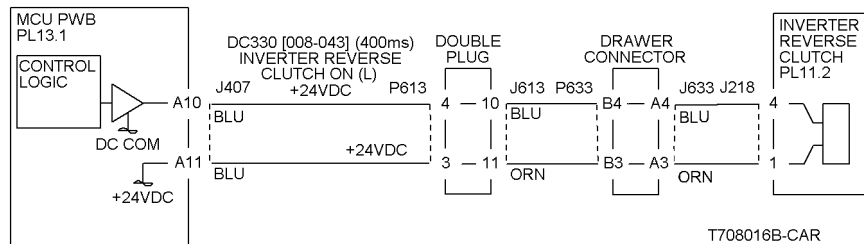


Figure 3 8-180 RAP Circuit Diagram - Inverter Reverse Clutch



## 8-181 Registration Sensor On Wait Sensor

The Registration Sensor does not detect paper after the Duplex Wait Sensor was energized.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Registration Roll and check for wear.
- Clean the Duplex Transport Roll and check for wear.

### Procedure

Open the Left Cover Assembly (PL 2.9). Enter dC330 [008-104] and press **Start**. Block and unblock the Registration Sensor (PL 2.6). **The display changes state.**

Y N

Press **Stop**. Check the circuit of the Registration Sensor (Figure 1). Refer to the OF 99-1 RAP for troubleshooting procedure.

Press **Stop**. Close the Left Cover Assembly and open the Duplex Module Cover. Enter dC330 [008-105] and press **Start**. Block and unblock the Duplex Wait Sensor (PL 12.2). **The display changes state.**

Y N

Press **Stop**. Check the circuit of the Duplex Wait Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Close the Duplex Module Cover and remove the Left Upper Cover (PL 2.7). Enter dC330 [008-056] and press **Start**. **The Duplex Transport Roll (PL 12.1) rotates.**

Y N

**The Duplex Motor (PL 12.2) energizes.**

Y N

Press **Stop**. Check the circuit of the Duplex Motor (Figure 3). Check the wires from the Duplex PWB to the Duplex Motor for an open circuit. If the wires are good, replace the Duplex Motor (PL 12.2). If the problem continues, replace the Duplex PWB (PL 12.2).

Press **Stop**. Check the Duplex Motor and its associated pulleys and belts (PL 12.2) for damage, contamination and misalignment.

Press **Stop**.

- Check the Duplex Wait Roll and Pinch Rolls (PL 12.2) for damage and contamination.
- Ensure that the connectors shown in circuit diagrams (Figure 1, Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Ensure that the Duplex Chute (PL 2.8) is properly seated and not damaged.
- If the problem persists, replace the Duplex PWB (PL 12.2).

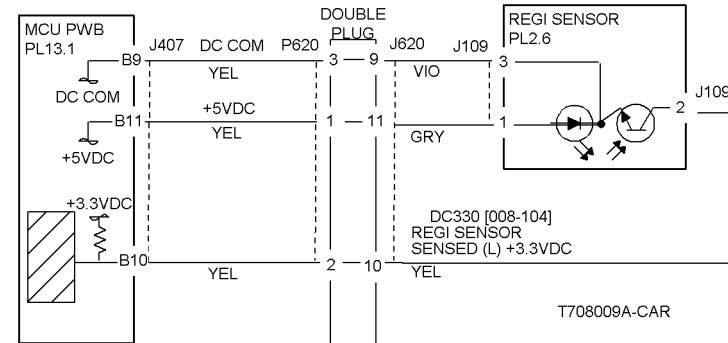
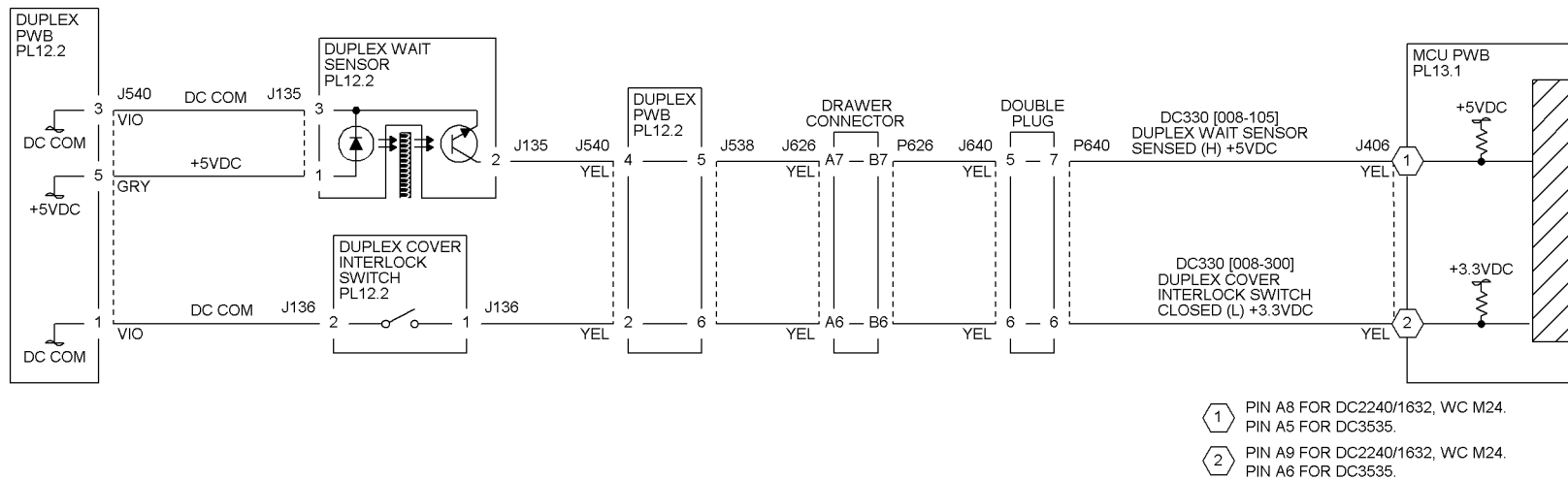


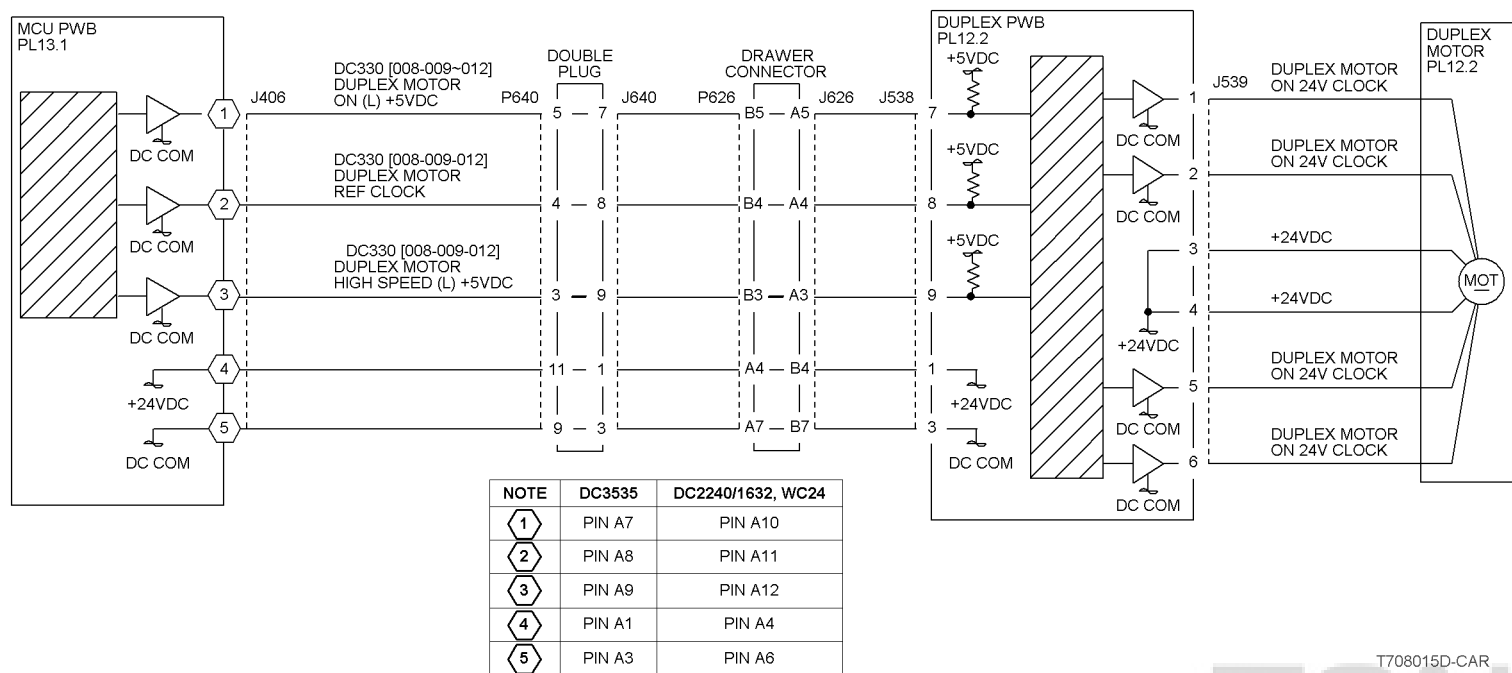
Figure 1 8-181 RAP Circuit Diagram - Registration Sensor





T708018C-CAR

Figure 2 8-181 RAP Circuit Diagram - Duplex Wait Sensor



T708015D-CAR

Figure 3 8-181 RAP Circuit Diagram - Duplex Motor



## 8-184 Registration Sensor Off

The Fuser Exit Switch did not detect paper after the Registration Clutch was energized.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Check the Fuser Belt and the Heat Roll for damage or wear.
- Clean the Registration Roll and check for wear.
- Clean the Duplex Transport Roll and check for wear.
- Check that the Fuser Exit Switch Actuator is properly seated and not damaged.

### Procedure

Open the Left Cover Assembly (PL 2.9). Enter **dC330** [010-101] and press **Start**. Actuate the Fuser Exit Switch (PL 2.8). **The display changes state.**

**Y N**

Press **Stop**. Check the circuit of the Fuser Exit Switch (Figure 1). Refer to the OF 99-3 RAP for troubleshooting procedure.

Press **Stop**. Enter **dC330** [008-037] and press **Start**. **The Registration Clutch (PL 2.6) energizes.**

**Y N**

Press **Stop**. Check the circuit of the Registration Clutch (Figure 2). Refer to the OF 99-4 RAP for troubleshooting procedure.

Close the Left Cover Assembly and press **Stop**. In sequence enter the following: **dC330** [009-052] then **dC330** [009-051] and press **Start**. **The 2nd BTR Retract Motor (PL 2.9) energizes.**

**Y N**

Refer to 9-342 for a contact failure or go to 9-343 for a retract failure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- If the problem persists, replace the Duplex PWB (PL 12.2).

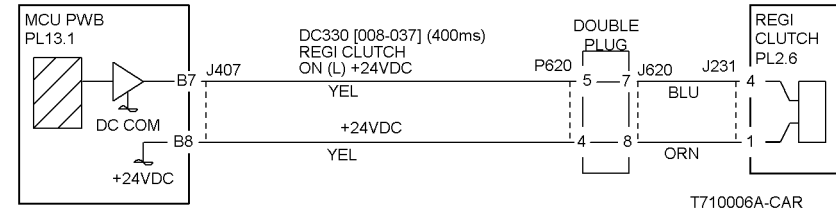


Figure 2 8-184 RAP Circuit Diagram - Registration Clutch

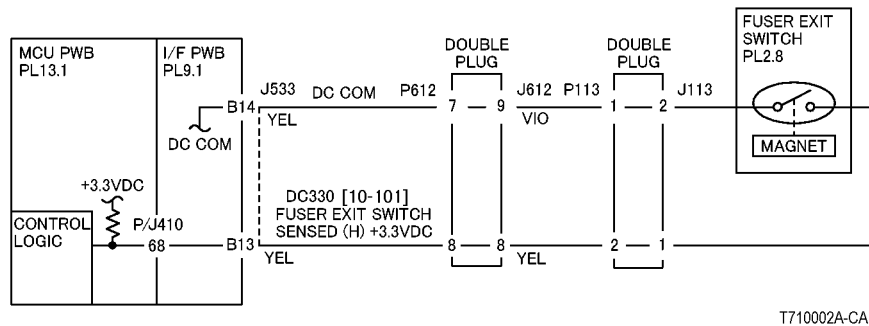


Figure 1 8-184 RAP Circuit Diagram - Fuser Exit Switch



## 8-620 Regicon Temp Sensor

Environment Sensor not in range.

### Procedure

**NOTE:** Machine operation continues. Status Code not displayed on UI. Status Code logged in History.

Turn the power off. Disconnect the Environment Sensor (PL 1.3).

Refer to Figure 1 and measure the resistance between the following:

- I/F PWB P/J536-B4 and P/J255-1
- I/F PWB P/J536-B2 and P/J255-3
- I/F PWB P/J536-B1 and P/J255-4

The Resistance is 1 ohm or less.

Y N

Check the wires and connectors. If the check is OK, replace the replace MCU PWB (PL 13.1).

Measure resistance between P/J255-3 and P/J255-4 on Environment Sensor. 6k ohms to 20k ohms is measured.

Y N

Replace Environment Sensor (PL 1.3).

Replace MCU PWB (PL 13.1). If problem continues, replace ESS PWB (PL 13.1).

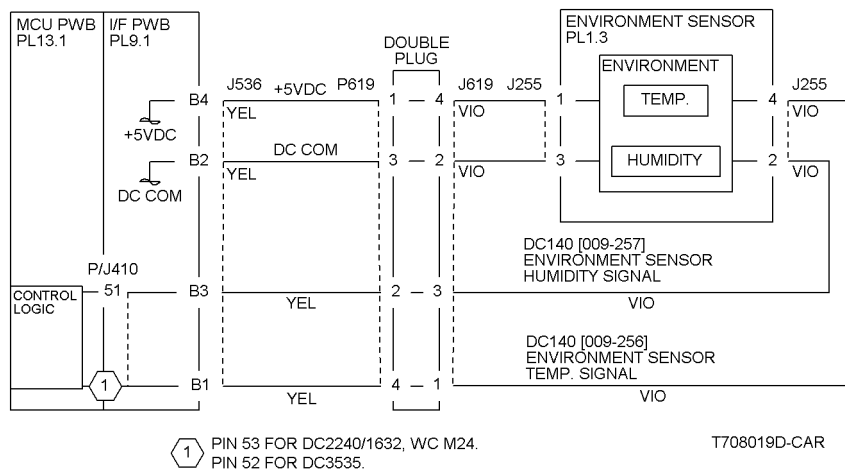


Figure 1 8-620 RAP Circuit Diagram - Environmental Sensor

## 8-622 Regicon Data Overflow (A1 Patch X)

At A1 patch detection, the XSO correction setting value for either Y, M, C, or K exceeds the setting range (NVM value 0 to 472).

**NOTE:** Status Code not displayed on UI. Machine operation continues.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

Y N

Replace as required.

Adjust the Color Registration (ADJ 9.6).



## 8-623 Regicon Data Overflow (A2 Patch Y)

At A2 patch detection, the YSO correction setting value of either Y, M, C, or K exceeds the setting range (NVM value 0 to 474).

**NOTE:** Status Code not displayed on UI. Machine operation continues.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

<b>Y</b>	<b>N</b>
	Replace as required.

Adjust the Color Registration (ADJ 9.6).

## 8-624 Regicon Data Overflow (Patch Magnification)

MAG Adjusted Set Point of operation results for each of Y,M,C exceeded the set range (NVM value: 0~1432).

**NOTE:** Status Code not displayed on UI. Machine operation continues.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

<b>Y</b>	<b>N</b>
	Replace as required.

Adjust the Color Registration dC685 (ADJ 9.6).



## 8-625 Regicon Sample Block (A1 Patch-rear)

At A1 (IN) patch detection, the number of the sample blocks does not reach the specified number.

**NOTE:** Status Code not displayed on UI. Machine operation continues.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

<b>Y</b>	<b>N</b>
	Replace as required.

Adjust the Color Registration ([ADJ 9.6](#)).

## 8-626 Regicon Sample Block (A1 Patch-front)

At A1 (OUT) patch detection, the number of the sample blocks does not reach the specified number.

**NOTE:** Status Code not displayed on UI. Machine operation continues.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

<b>Y</b>	<b>N</b>
	Replace as required.

Adjust the Color Registration ([ADJ 9.6](#)).



## 8-627 Regicon Sample Lateral (A1 Patch-rear)

At A1 (IN) patch detection, the Fast Scan scan position of CYAN color that is the standard for the rest is incorrect. (Against the MOB SENSOR, the center position of the CYAN pattern is shifted by  $\pm 500\mu\text{m}$  or more.)

**NOTE:** Status Code not displayed on UI. Machine operation continues.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

<b>Y</b>	<b>N</b>
	Replace as required.

Adjust the Color Registration ([ADJ 9.6](#)).

## 8-628 Regicon Sample Lateral (A1 Patch-front)

At A1 (OUT) patch detection, the scan position of CYAN color that is the standard for the rest is incorrect. (Against the MOB SENSOR, the center position of the CYAN pattern is shifted by  $\pm 500\mu\text{m}$  or more.)

**NOTE:** Status Code not displayed on UI. Machine operation continues.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

<b>Y</b>	<b>N</b>
	Replace as required.

Adjust the Color Registration ([ADJ 9.6](#)).



## 8-629 Regicon Skew (Patch Y)

During A1 Patch detection, skew deviation for Y exceeded tolerance.

**NOTE:** Machine operation continues. Status Code not displayed on UI. Status Code logged in History.

### Initial Actions

Clean MOB Sensor.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

<b>Y</b>	<b>N</b>
	Replace as required.

Adjust the Color Registration ([ADJ 9.6](#)).

## 8-630 Regicon Skew (Patch M)

During A1 Patch detection, skew deviation for M exceeded tolerance.

**NOTE:** Machine operation continues. Status Code not displayed on UI. Status Code logged in History.

### Initial Actions

Clean MOB Sensor.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

<b>Y</b>	<b>N</b>
	Replace as required.

Adjust the Color Registration ([ADJ 9.6](#)).



## 8-631 Regicon Skew (Patch K)

During A1 Patch detection, skew deviation for K exceeded tolerance.

**NOTE:** Machine operation continues. Status Code not displayed on UI. Status Code logged in History.

### Initial Actions

Clean MOB Sensor.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y   N**  
|     Replace as required.

Adjust the Color Registration ([ADJ 9.6](#)).

## 8-900 Static Jam

When the machine power is turned off then on before a paper path fault is cleared, an 8-900 fault will be displayed. A voltage drop or interruption can also cause this fault.

### Initial Actions

- Check the entire paper path for paper or obstructions.
- Clean all the paper path sensors.
- Check the Fault History for the last paper path fault. Go to that paper path fault RAP.

### Procedure

In sequence, enter the following [dC330](#) codes:

Block and unblock each sensor

- 8-100 Tray 1 Mis-feed, ([7-105](#) RAP).
- 8-106 Tray 2 Mis-feed, ([7-110](#) RAP).
- 8-102 Tray 3 Mis-feed TTM, ([7-115](#) RAP).
- 8-102 Tray 3 Mis-feed 3TM, ([7-117](#)RAP).
- 8-103 Tray 4 Mis-feed TTM, ([7-119](#) RAP).
- 8-103 Tray 4 Mis-feed 3TM, ([7-120](#)RAP).
- 8-104 Registration Sensor, ([8-175](#) RAP).
- 8-105 Duplex Transport Wait Sensor, ([10-125](#) RAP).
- 9-201 POB On Jam, ([8-164](#) RAP).
- 10-101 Fuser Exit Switch, ([10-111](#) RAP).

**The display for each code changes.**

**Y   N**  
|     Go to the appropriate paper path fault RAP.

Check the machine input voltage, if the problem continues, replace the ESS PWB ([PL 13.1](#)).







## 9-342 2nd BTR Contact

The 2nd BTR did not reach the contact position.

## Initial Actions

- Clean the 2nd BTR Retract Sensor (PL 2.9) and check for damage.
- Check the 2nd BTR gears (PL 2.8) for breakage.

## Procedure

Enter **dC330** [009-200]. Open the Left Cover and block and unblock the 2nd BTR Retract Sensor with a piece of paper. **The display changes state.**

Y	N
	Disconnect P/J140. There is +5VDC from J140-3 to J140-1 (Figure 1).

**Y N**  
Check the wires from P/J533 on the I/F PWB to the sensor (Figure 1). If the wires are OK, replace the I/F PWB (PL 9.1).

**There is +3.3VDC from J140-2 to GND.**

Y	N
	<p>Check the wire from P/J533-B19 on the I/F PWB to J140-2 for an open or a short circuit to GND. If the wires are OK, replace the I/F PWB (PL 9.1). If the problem is not solved, replace the MCU PWB (PL 13.1).</p>

Replace the 2nd BTR Retract Sensor (PL 2.9).

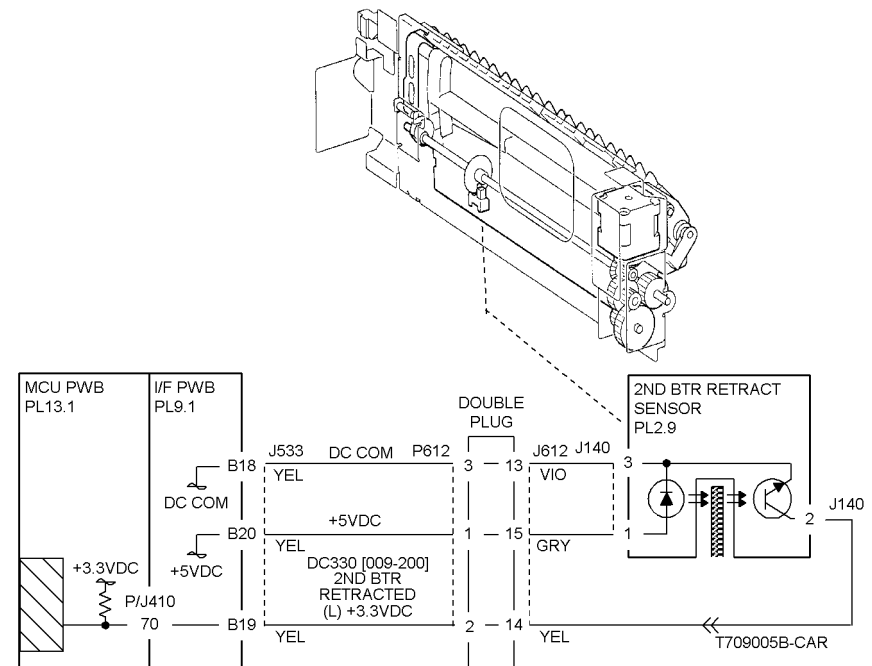
In sequence, enter the following: dC330 [009-051] then dC330 [009-052]. **The 2nd BTR contacts and retracts.**

Y	N
	There is +24VDC from P/J533-B9 on the I/F PWB to GND (Figure 2).

**Y** **N**  
Go to the +24 VDC Wirenets (Figure 2) and troubleshoot the problem.

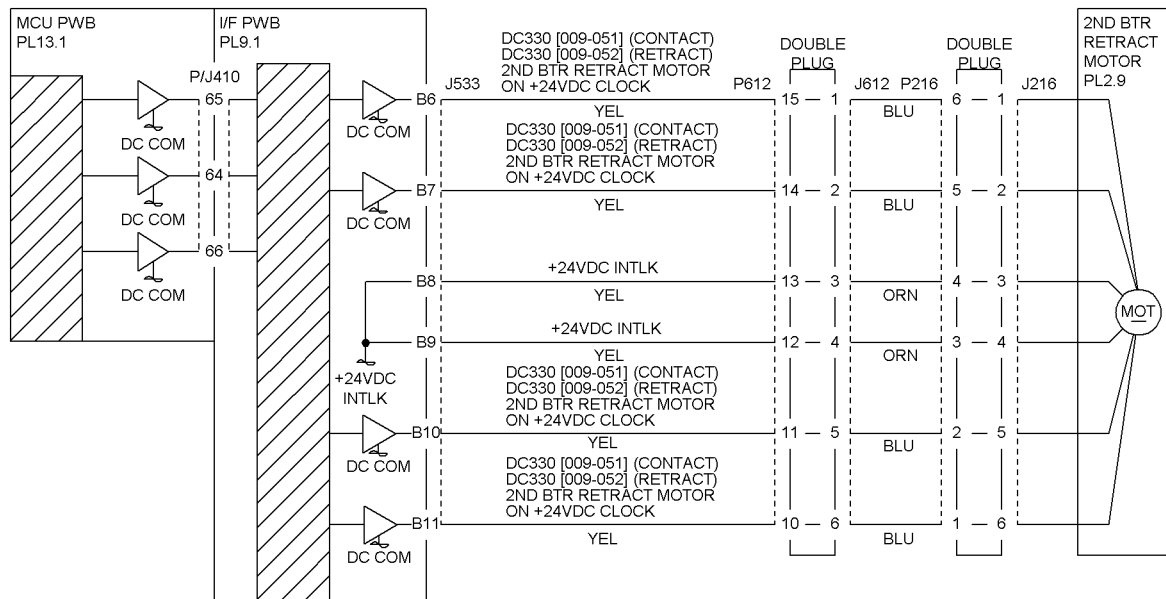
Check the wires between P/J533 and P/J216 (Figure 2) on the 2nd BTR Retract Motor for opens, shorts, or loose connections. If the wires are OK, replace the 2nd BTR Retract Motor (PL 2.9). If the problem continues, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

Check for mechanical problems preventing the movement of the assembly. Check for debris blocking the sensor.



**Figure 1 9-342 Rap Circuit Diagram - 2ND BTR Retract Sensor**





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Figure 2 9-342 Rap Circuit Diagram - 2ND BTR Retract Motor



## 9-343 2nd BTR Retract

The 2nd BTR did not reach the retract position.

### Initial Actions

- Clean the 2nd BTR Retract Sensor (PL 2.9) and check for damage.
- Check the 2nd BTR gears (PL 2.8) for breakage.

### Procedure

Enter dC330 [009-200]. Open the Left Cover and block and unblock the 2nd BTR Retract Sensor with a piece of paper. **The display changes state.**

**Y N**  
Disconnect P/J140. There is +5VDC from J140-3 to J140-1 (Figure 1).

**Y N**  
Check the wires from P/J533 on the I/F PWB to the sensor (Figure 1). If the wires are OK, replace the I/F PWB (PL 9.1).

**There is +3.3VDC from J140-2 to GND.**

**Y N**  
Check the wire from P/J533-B19 on the I/F PWB to J140-2 for an open or a short circuit to GND. If the wires are OK, replace the I/F PWB (PL 9.1). If the problem is not solved, replace the MCU PWB (PL 13.1).

Replace the 2nd BTR Retract Sensor (PL 2.9).

In sequence, enter the following: dC330 [009-051] then dC330 [009-052]. **The 2nd BTR contacts and retracts.**

**Y N**  
There is +24VDC from P/J533-B9 on the I/F PWB to GND (Figure 2).

**Y N**  
Go to the +24 VDC Wirenets (Figure 2) and troubleshoot the problem.

Check the wires between P/J533 and P/J216 (Figure 2) on the 2nd BTR Retract Motor for opens, shorts, or loose connections. If the wires are OK, replace the 2nd BTR Retract Motor (PL 2.9). If the problem continues, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

Check for mechanical problems preventing the movement of the assembly. Check for debris blocking the sensor.

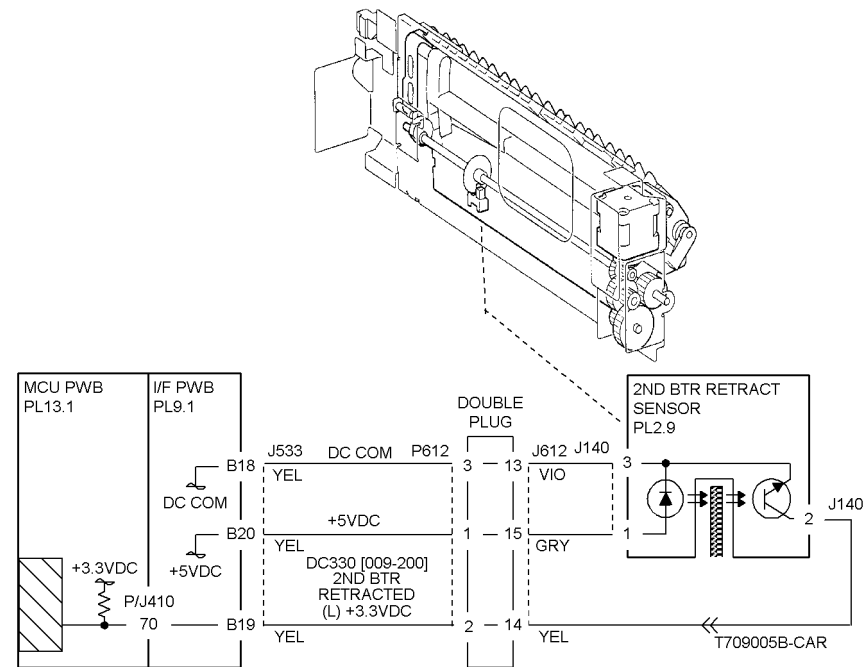
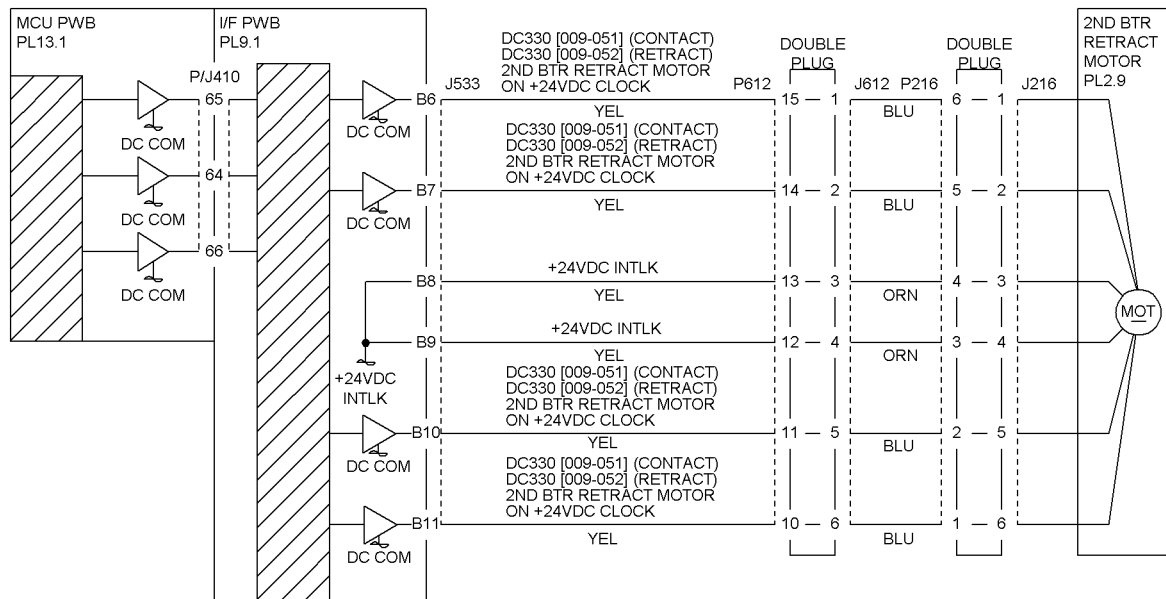


Figure 1 9-343 Rap Circuit Diagram - 2ND BTR Retract Sensor





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Figure 2 9-343 Rap Circuit Diagram - 2ND BTR Retract Motor



## 9-348 1st BTR Contact

The 1st BTR did not reach the contact position.

### Initial Actions

- Clean the 1st BTR Retract Sensor (PL 5.4) and check for damage
- Check the 1st BTR Worm Gear and Retract Shaft (PL 5.4) for breakage

### Procedure

In sequence, enter the following: dC330 [009-054] then dC330 [009-055]. **The 1st BTR contacts and retracts.**

Y N

There is +24VDC from P/J533-A16 on the I/F PWB to GND (Figure 2).

Y N

Go to the +24 VDC Wirenets (Figure 2) and troubleshoot the problem.

A B

A B

Check the wires between P/J533 and P/J237 (Figure 2) on the 1st BTR Retract Motor for opens, shorts, or loose connections. If the wires are OK, replace the 1st BTR Retract Motor (PL 5.4). If the problem continues, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

Stack dC330 input codes [004-014] (1st BTR Retract Sensor Power) and [009-203] (1st BTR Retract Sensor). Then, in sequence, enter the following: dC330 [009-054] then dC330 [009-055]. **The 1st BTR Retract Sensor changes state.**

Y N

Go to Figure 1. Check the circuit of the 1st BTR Retract Sensor (PL 5.4).

Replace the MCU PWB (PL 13.1).

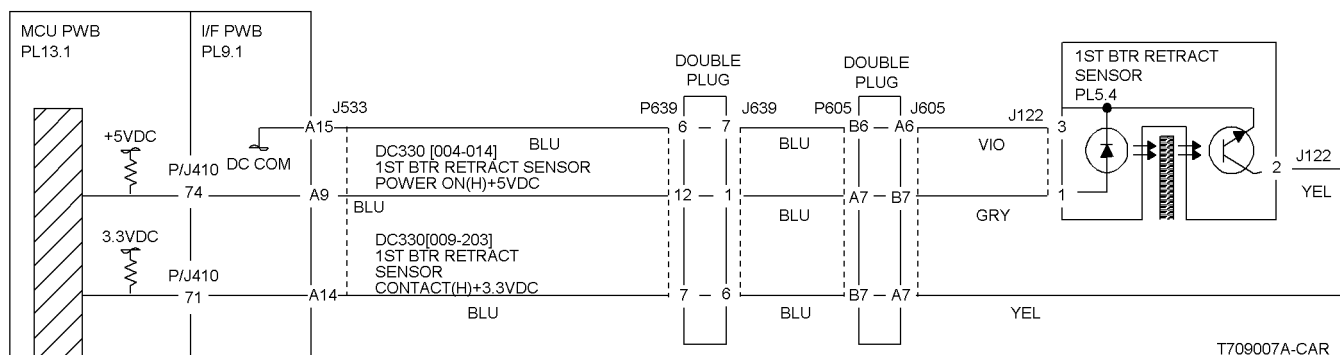


Figure 1 9-348 Rap Circuit Diagram - 1ST BTR Retract Sensor



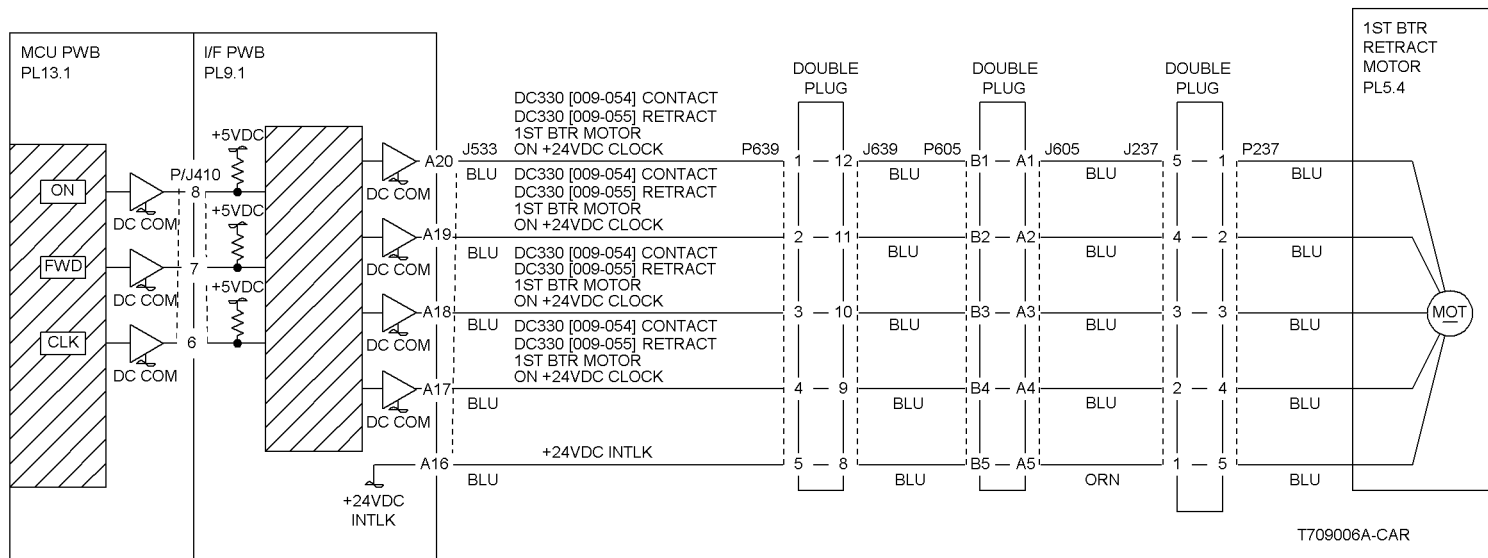


Figure 2 9-348 Rap Circuit Diagram - 1ST BTR Retract Motor



## 9-349 1st BTR Retract

The 1st BTR did not reach the retract position.

### Initial Actions

- Clean the 1st BTR Retract Sensor (PL 5.4) and check for damage.
- Check the 1st BTR Worm Gear and Retract Shaft (PL 5.4) for breakage.

### Procedure

In sequence, enter the following: dC330 [009-054] then dC330 [009-055]. **The 1st BTR contacts and retracts.**

Y N

There is +24VDC from P/J533-A16 on the I/F PWB to GND (Figure 2).

Y N

Go to the +24 VDC Wirenets (Figure 2) and troubleshoot the problem.

A B

A B

Check the wires between P/J533 and P/J237 (Figure 2) on the 1st BTR Retract Motor for opens, shorts, or loose connections. If the wires are OK, replace the 1st BTR Retract Motor (PL 5.4). If the problem continues, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

Stack dC330 input codes [004--014] (1st BTR Retract Sensor Power) and [009-203] (1st BTR Retract Sensor). Then, in sequence, enter the following: dC330 [009-054] then dC330 [009-055]. **The 1st BTR Retract Sensor changes state.**

Y N

Go to Figure 1. Check the circuit of the 1st BTR Retract Sensor (PL 5.4).

Replace the MCU PWB (PL 13.1).

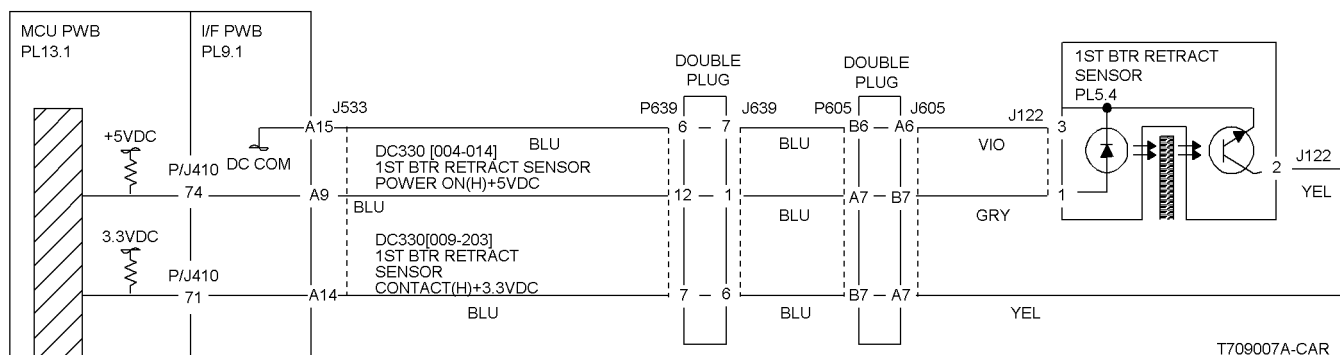


Figure 1 9-349 Rap Circuit Diagram - 1ST BTR Retract Sensor



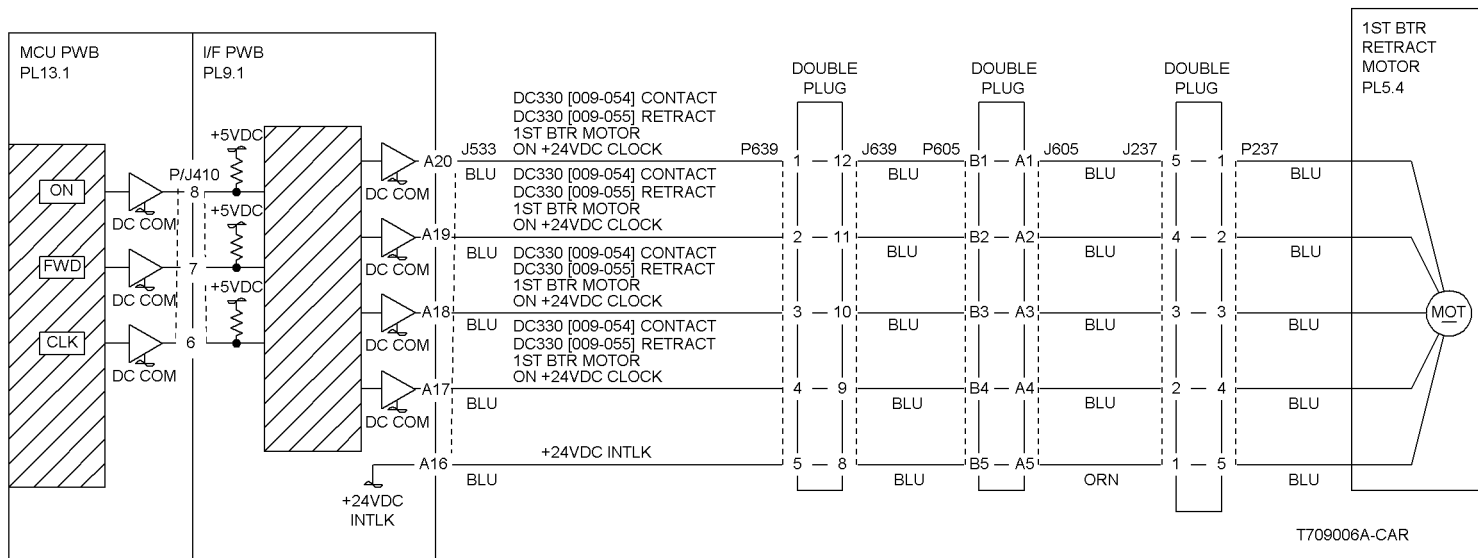


Figure 2 9-349 Rap Circuit Diagram - 1ST BTR Retract Motor



## 9-350 IBT Home Sensor

The IBT Home Sensor detected the IBT position strip before the IBT Belt made a complete revolution.

### Initial Actions

- Ensure that the Transfer Belt is installed correctly.
- Clean the IBT Home Sensor (PL 5.4) and check for damage
- Check the IBT drives for damage (PL 1.1).

### Procedure

Remove the IBT Assembly. Enter dC330 [004-002]. The IBT Motor operates.

Y N

There is +24VDC from P/J551-3 on the I/F PWB to GND (Figure 1).

Y N

Go to the +24 VDC Wirenets (Figure 2) and troubleshoot the problem.

Check the wires between P/J551 and the IBT Motor (Figure 1) for opens, shorts, or loose connections. If the wires are OK, replace the IBT Motor (PL 1.1). If the problem continues, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

Enter dC330 [004-014]. There is +5VDC from P/J533-A9 to A12 on the I/F PWB

Y N

Go to Figure 2 and check the wire from P/J533-A9 to P/J605 on the IBT Assembly for a short circuit. If the wire is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

There is +3.3VDC from P/J533-A13 to A12 on the I/F PWB.

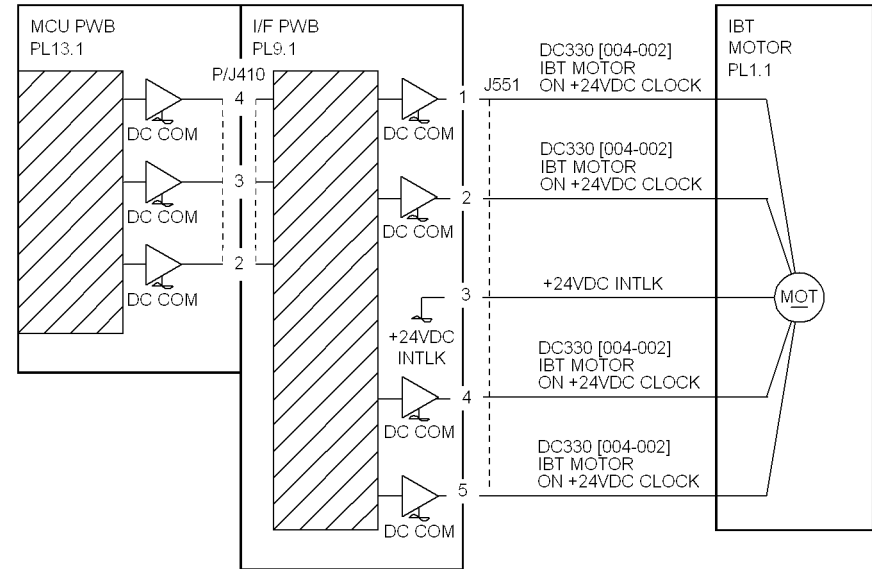
Y N

Go to Figure 2 and check the wire from P/J533-A13 to P/J605 on the IBT Assembly for a short circuit. If the wire is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

A

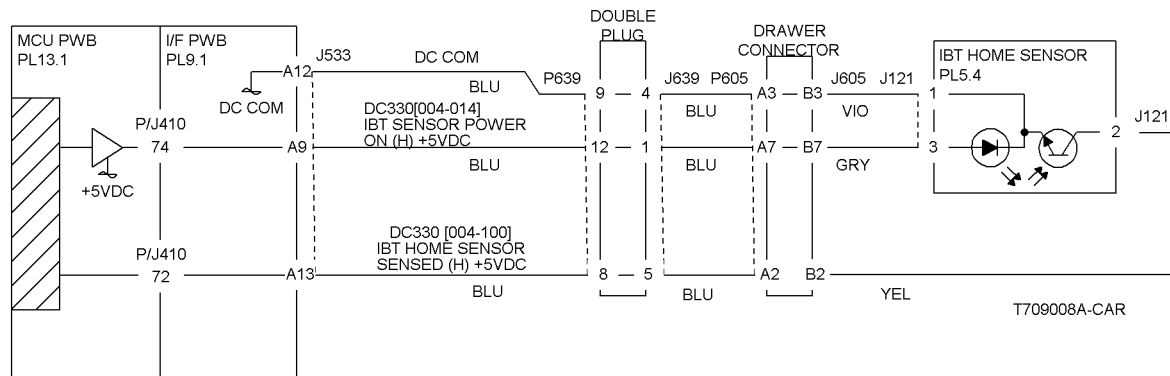
A

Go to Figure 2 and check the wires from P/J533 to the IBT Home Sensor for an open wire, loose connection, or a short circuit. If the wires are OK, replace the IBT Home Sensor (PL 5.4). If the problem continues, replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).



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Figure 1 9-350 Rap Circuit Diagram - IBT Motor



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Figure 2 9-350 Rap Circuit Diagram - IBT Home Sensor



## 9-351 Drive Logic

The IBT Edge Sensor detected that the IBT Belt is not tracking correctly.

### Initial Actions

- Check the IBT Edge Sensor for damage. Ensure that the actuator is touching the edge of the belt.
- Check the IBT steering drives for damage.

### Procedure

Switch on the power. **There is +1VDC to +3VDC from P/J533-A11 to GND.**

**Y N**  
There is +5VDC measured between P/J533-A10 and P/J533-A9 on the I/F PWB.

**Y N**  
Replace the MCU PWB (PL 13.1).

**There is +5VDC from P/J 533-A11 on the I/F PWB to GND.**

**Y N**  
Go to Figure 2. Check the connectors and wires. If the check is OK, replace the IBT Edge Sensor (PL 5.4). If the problem continues, replace the MCU PWB (PL 13.1).

Replace the IBT Sensor (PL 5.4).

Remove the IBT Assembly. Enter dC330 [004-001]. **The IBT Steering Motor rotates.**

**Y N**  
There is +24 VDC from P/J550 on the I/F PWB to GND.

**Y N**  
Go to the +24 VDC Wirenets (Figure 2) and troubleshoot the problem.

A

B

Check the wires (Figure 1) from P/J550 on the I/F PWB to P/J207 on the IBT Steering Motor for shorts, opens, or loose connections. If the wires are OK, replace the MCU PWB (PL 13.1). If the problem persists replace the I/F PWB (PL 9.1), then the IBT Steering Motor (PL 1.3).

Check the installation of the Transfer Belt and the IBT Assembly (PL 5.3). Repair or replace as required. If the check is good, replace the MCU PWB (PL 13.1).

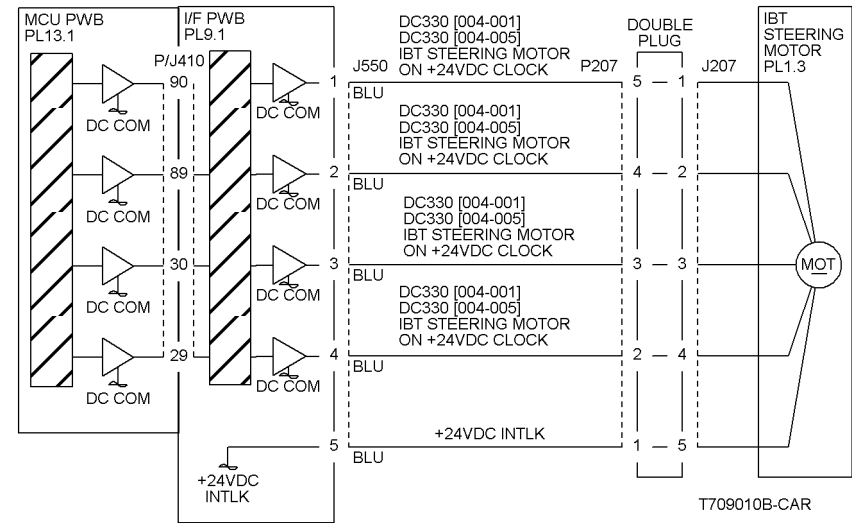


Figure 1 9-351 Rap Circuit Diagram - IBT Steering Motor

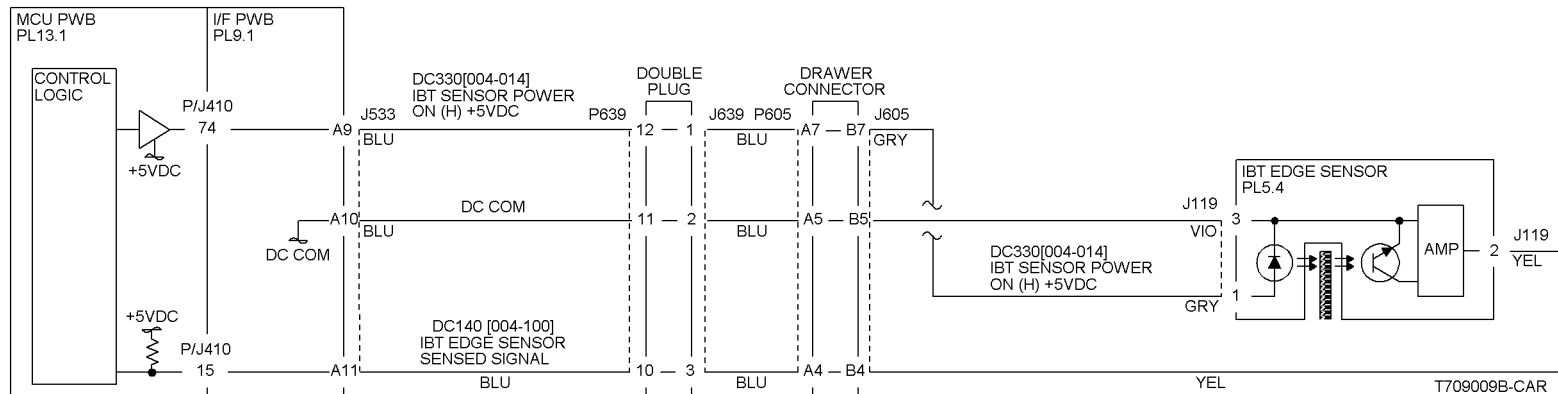


Figure 2 9-351 Rap Circuit Diagram - IBT Edge Sensor



## 9-358 Full Toner Sensor

The Full Toner Sensor detects a full toner condition.

### Initial Actions

- Ensure that the Waste Toner Cartridge is not full.
- Check the sensor for toner contamination and foreign substances.

### Procedure

Remove the Full Toner Sensor from the bottle. Enter dC330 [009-150]. Block and unblock the Full Toner Sensor (PL 4.1). **The display changes state.**

**Y N**  
Disconnect P/J133. **There is +5VDC from J133-1 to J133-3 (Figure 1).**

**Y N**  
Check the wires from J133, pins 1 and 3 to P/J407 on the MCU PWB for opens, shorts, or loose connections. (Figure 1) If the wires are OK, replace the MCU PWB (PL 13.1).

**There is +3.3VDC from J133-2 to GND.**

**Y N**  
Check the wire from J133-2 to P/J407 on the MCU PWB for opens, shorts, or loose connections. If the wire is OK, replace the MCU PWB (PL 13.1).

Replace the Full Toner Sensor (PL 4.1).

The problem may be intermittent. If the condition continues, replace the MCU PWB. (PL 13.1).

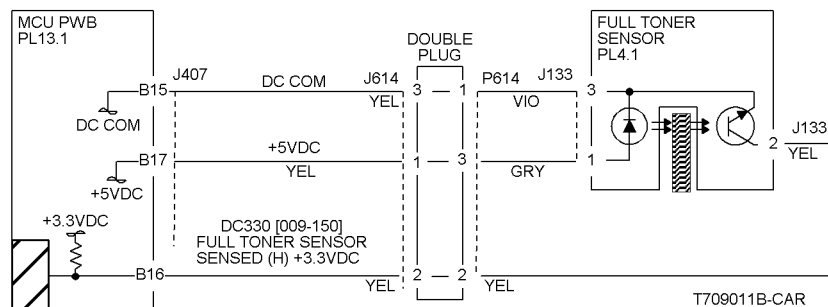


Figure 1 9-358 Rap Circuit Diagram - Full Toner Sensor

## 9-360 Yellow Drum Cartridge Communication

A communication failure with the Yellow Drum Cartridge was detected.

### Initial Actions

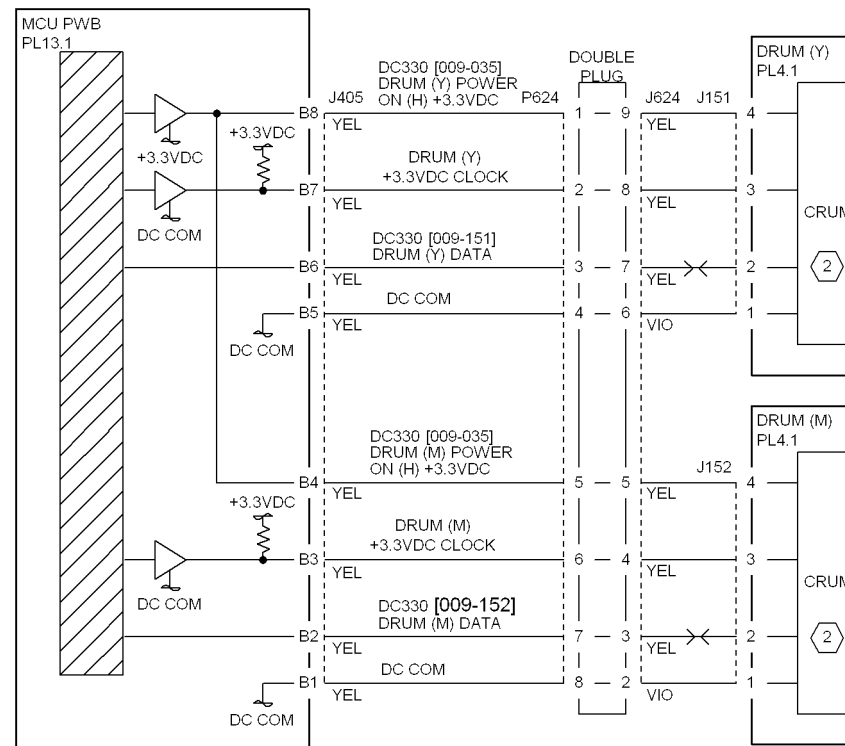
Check that the Yellow Drum Cartridge is seated correctly.

### Procedure

Enter dC330 [009-151]. **The display is H.**

**Y N**  
Go to Figure 1. Check the wires between P/J405 and P/J151. If the check is OK, replace the Yellow Drum Cartridge (refer to Section 6, Machine Consumables).

Replace the MCU PWB (PL 13.1).



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Figure 1 9-360 Rap Circuit Diagram - Yellow Drum Communication





## 9-361 Magenta Drum Cartridge Communication

A communication failure with Magenta Drum Cartridge was detected.

### Initial Actions

Check that the Magenta Drum Cartridge is seated correctly.

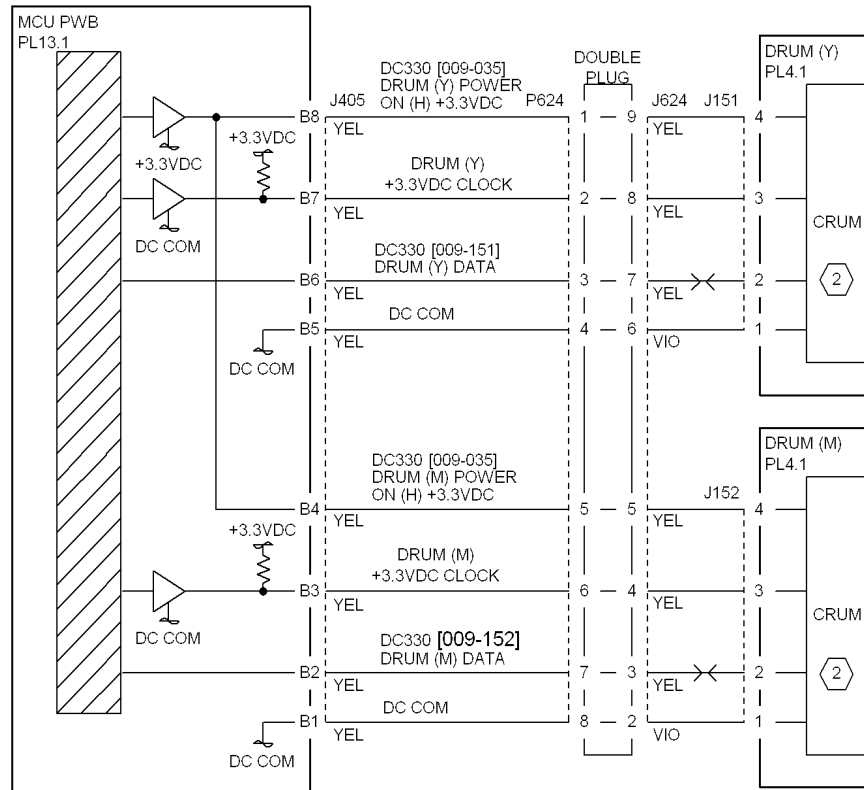
### Procedure

Enter **dC330** [009-152]. The display is **H**.

**Y N**

Go to **Figure 1**. Check the wires between **P/J405** and **P/J152**. If the check is OK, replace the Magenta Drum Cartridge (refer to Section 6, **Machine Consumables**).

Replace the MCU PWB. (**PL 13.1**).



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Figure 1 9-361 Rap Circuit Diagram - Magenta Drum Communication

## 9-362 Cyan Drum Cartridge Communication

A communication failure with the Cyan Drum Cartridge was detected.

### Initial Actions

Check that the Cyan Drum Cartridge is seated correctly.

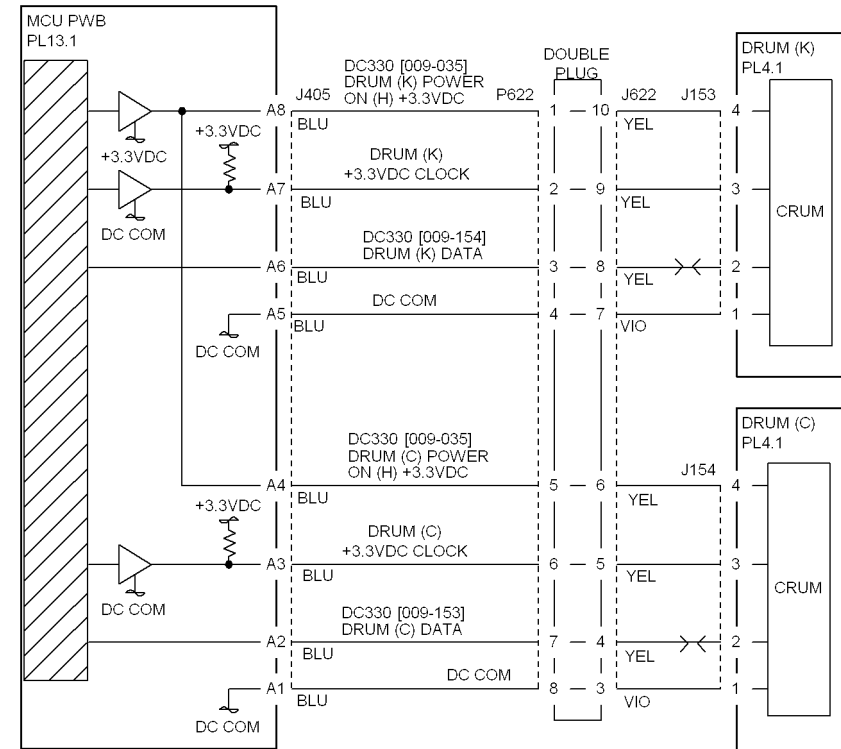
### Procedure

Enter **dC330** [009-153]. The display is **H**.

**Y N**

Go to **Figure 1**. Check the wires between **P/J405** and **P/J154**. If the check is OK, replace the Cyan Drum Cartridge (refer to Section 6, **Machine Consumables**).

Replace the MCU PWB (**PL 13.1**).



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Figure 1 9-362 Rap Circuit Diagram - Cyan Drum Communication



## 9-363 Black Drum Cartridge Communication

A communication failure with the Black Drum Cartridge was detected.

### Initial Actions

Check that the Black Drum Cartridge is seated correctly.

### Procedure

Enter **dC330** [009-154]. The display is **H**.

**Y N**

Go to **Figure 1**. Check the wires between **P/J405** and **P/J153**. If the check is OK, replace the Black Drum Cartridge (refer to Section 6, **Machine Consumables**).

Replace the MCU PWB (**PL 13.1**).

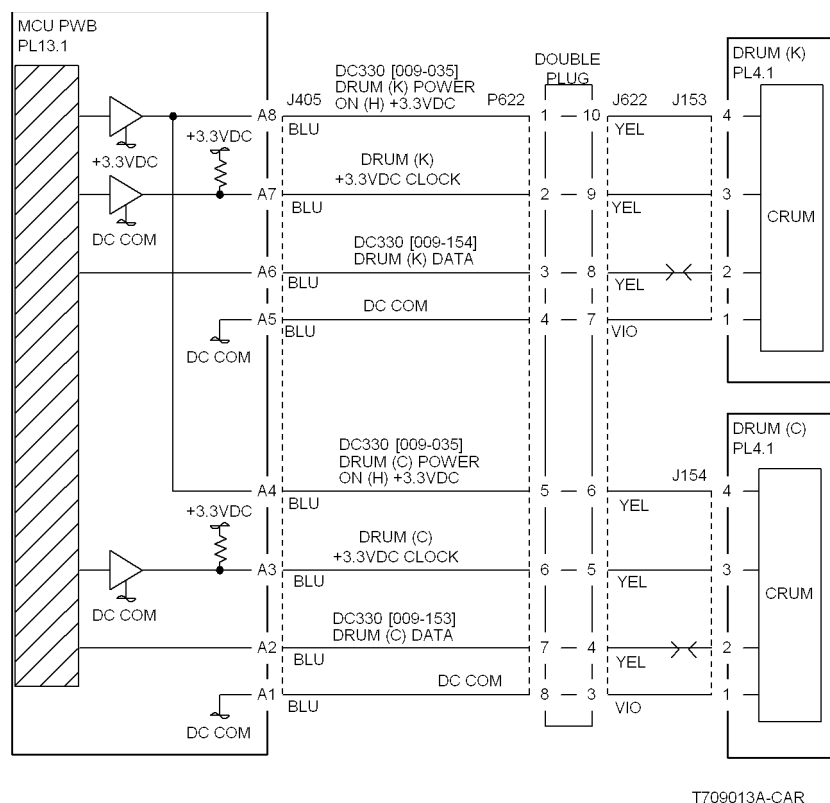


Figure 1 9-363 Rap Circuit Diagram - Black Drum Communication

## 9-380 ATC Sensor (Y)

The ATC Sensor (Y) detects a low TC (toner concentration).

### Initial Actions

- Go to the **9-410** RAP and verify the correct operation of the Yellow Dispense Motor and the Developer Motor.
- Check that Toner/Developer is present.
- Check the ATC Sensor (Y) for contamination. Ensure that the sensor is seated correctly.

### Procedure

**NOTE:** To clear this fault, enter **dC131** and set the value of NVM location 752-109 to 0.

Record the value in NVM location 752-324, then set the value to 1. Perform **ADJ 9.3**. After the measurement has completed, restore the value. **The ATC Sensor (Y) fail judgement is OK.**

**Y N**

Refer to **Figure 1** and check connector **P/J129**. If the check is OK, replace the ATC Sensor (Y) (**PL 6.2**).

If the problem continues, replace the MCU PWB (**PL 13.1**).

After checking that no failures are detected during normal operation, go to call close out.

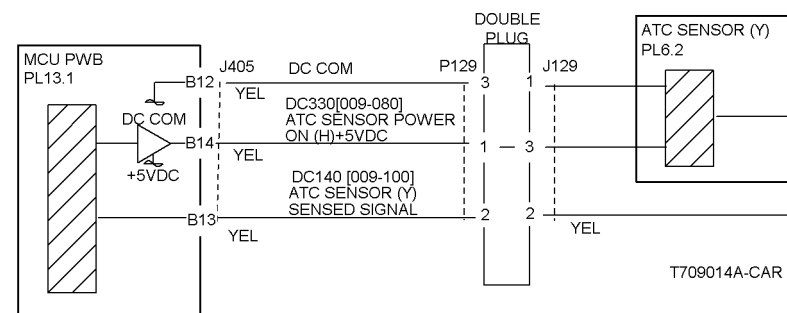


Figure 1 9-380 Rap Circuit Diagram - ATC Sensor



## 9-381 ATC Sensor (M)

The ATC Sensor (M) detects a low TC (toner concentration)

### Initial Actions

- Go to the 9-411 RAP and verify the correct operation of the Magenta Dispense Motor and the Developer Motor.
- Check that Toner/Developer is present.
- Check the ATC Sensor (M) for contamination. Ensure that the sensor is seated correctly.

### Procedure

**NOTE:** To clear this fault, enter **dC131** and set the value of NVM location 752-110 to 0.

Record the value in NVM location 752-324, then set the value to 1. Perform **ADJ 9.3**. After the measurement has completed, restore the value. **The ATC Sensor (M) fail judgement is OK.**

**Y N**

Refer to **Figure 1** and check connector **P/J130**. If the check is OK, replace the ATC Sensor (M) (**PL 6.2**). If the problem continues, replace the MCU PWB (**PL 13.1**).

After checking that no failures are detected during normal operation, go to call close out.

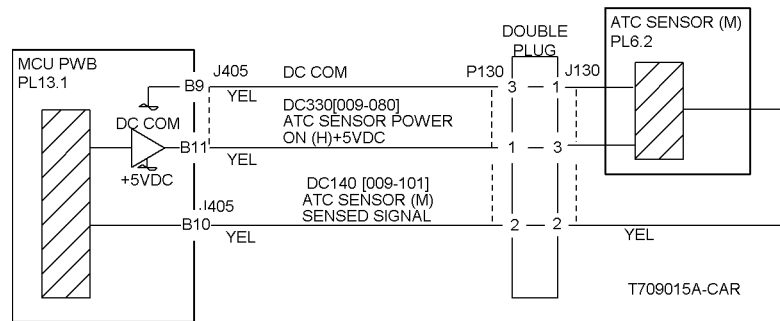


Figure 1 9-381 Rap Circuit Diagram - ATC Sensor M

## 9-382 ATC Sensor (C)

The ATC Sensor (C) detects a low TC (toner concentration)

### Initial Actions

- Go to the 9-412 RAP and verify the correct operation of the Cyan Dispense Motor and the Developer Motor.
- Check that Toner/Developer is present.
- Check the ATC Sensor (C) for contamination. Ensure that the sensor is seated correctly.

### Procedure

**NOTE:** To clear this fault, enter **dC131** and set the value of NVM location 752-111 to 0.

Record the value in NVM location 752-324, then set the value to 1. Perform **ADJ 9.3**. After the measurement has completed, restore the value. **The ATC Sensor (C) fail judgement is OK.**

**Y N**

Refer to **Figure 1** and check connector **P/J131**. If the check is OK, replace the ATC Sensor (C) (**PL 6.2**). If the problem continues, replace the MCU PWB (**PL 13.1**).

After checking that no failures are detected during normal operation, go to call close out.

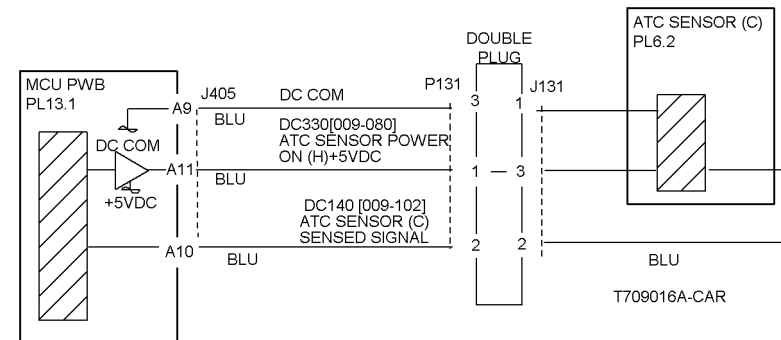


Figure 1 9-382 Rap Circuit Diagram - ATC Sensor C



## 9-383 ATC Sensor (K)

The ATC Sensor (K) detects an insufficient amount of developer material

### Initial Actions

- Go to the [9-413 RAP](#) and verify the correct operation of the Black Dispense Motor and the Developer Clutch (K).
- Check that Toner/Developer is present.
- Check the ATC Sensor (K) for contamination. Ensure that the sensor is seated correctly.

### Procedure

**NOTE:** To clear this fault, enter [dC131](#) and set the value of NVM location 752-112 to 0.

Record the value in NVM location 752-324, then set the value to 1. Perform [ADJ 9.3](#). After the measurement has completed, restore the value. **The ATC Sensor (K) Fail judgement is OK.**

**Y N**

Refer to [Figure 1](#) and check connector [P/J132](#). If the check is OK, replace the ATC Sensor (K) ([PL 6.2](#)). If the problem continues, replace the MCU PWB ([PL 13.1](#)).

After checking that no failures are detected during normal operation, go to call close out.

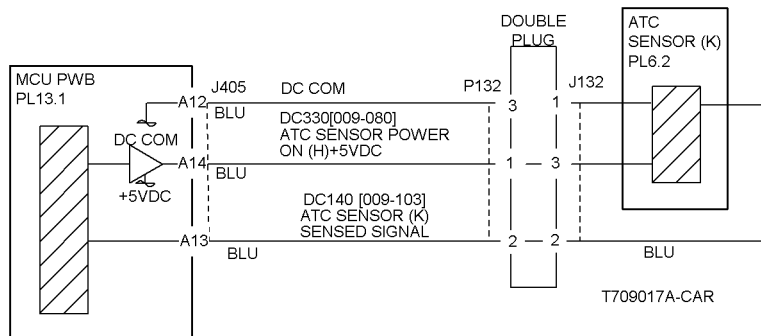


Figure 1 9-383 Rap Circuit Diagram - ATC Sensor K

## 9-390 New Toner Cartridge (K)

The New Cartridge Detect Switch (K) was not engaged to reset the Accumulative Dispense time NVM value to 0 when a new cartridge was installed.

### Initial Actions

- Re-install the Toner Cartridge ensuring that the Dispense Motor and the Toner Cartridge are engaged.
- Check that the New/Old Detection Switch (metal part) at the rear of the Toner Cartridge is raised. If the New/Old Detection Switch is not raised, lift it up, then set NVM location 752-686 (Accumulative Dispense Time Value K) to 0.
- Check that the Dispense Motor is operating; check [dC330](#) [009-004, Dispense Motor (K)]. If the motor energizes, even briefly, check for clumping in the cartridge. Turn the auger gear by hand and/or shake the cartridge to loosen the toner.

### Procedure

Disconnect [P/J405](#) from the MCU PWB. **The fault has cleared.**

**Y N**

Replace the MCU PWB. ([PL 13.1](#)).

Remove the black toner cartridge and check the Dispense Motor Assembly for wear or damage.

Disconnect [FS186/ FS187](#) at both edges of the New Cartridge Detect Switch (K).

Check continuity at both edges of the New Cartridge Detect Switch (K). **There is continuity when the Switch is not engaged.**

**Y N**

Check the wire between J405-A18 and [FS187](#) on the New Cartridge Detect Switch (K) for a short circuit to the frame ([Figure 1](#)).

Replace the New Cartridge Detect Switch (K). ([PL 16.1](#)).

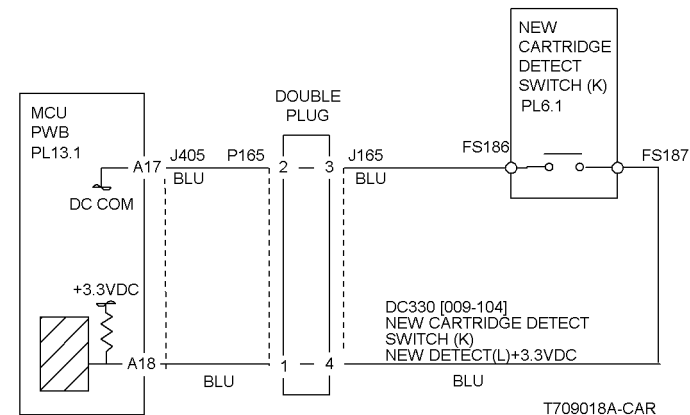


Figure 1 9-390 Rap Circuit Diagram - New Toner Cartridge



## 9-391 New Toner Cartridge (C)

The New Cartridge Detect Switch (C) was not engaged to reset the Accumulative Dispense time NVM value to 0 when a new cartridge was installed.

### Initial Actions

- Re-install the Toner Cartridge ensuring that the Dispense Motor and the Toner Cartridge are engaged.
- Check that the New/Old Detection Switch (metal part) at the rear of the Toner Cartridge is raised. If the New/Old Detection Switch is not raised, lift it up, then set the value of NVM location 752-685 (Accumulative Dispense Time Value C) to 0.
- Check that the Dispense Motor is operating; check dC330 [009-003], (Dispense Motor C)]. If the motor energizes, even briefly, check for clumping in the cartridge. Turn the auger gear by hand and/or shake the cartridge to loosen the toner.

### Procedure

Disconnect P/J405 from the MCU PWB. **The fault has cleared.**

**Y N**  
Replace the MCU PWB. (PL 13.1).

Remove the cyan toner cartridge and check the Dispense Motor Assembly for wear or damage.

Disconnect FS185/ FS184 at both edges of the New Cartridge Detect Switch (C).

Check continuity at both edges of the New Cartridge Detect Switch (C). **There is continuity when the Switch is not engaged.**

**Y N**  
Check the wire between the connector J405-A17 and the New Cartridge Detect Switch (C) FS185 for a short circuit to the frame.

Replace the New Cartridge Detect Switch (C) (PL 6.1).

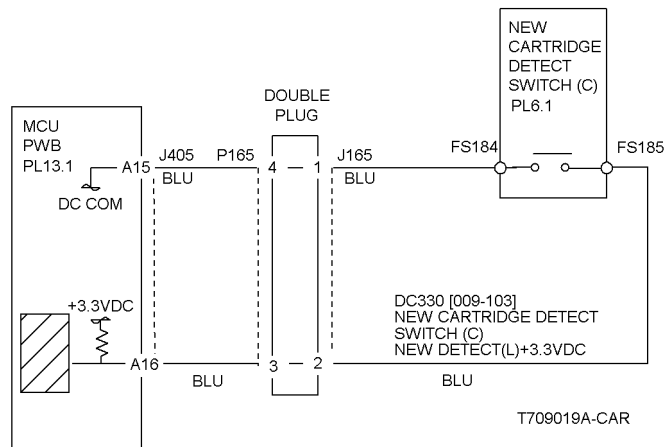


Figure 1 9-391 Rap Circuit Diagram - New Cartridge Detect Switch (C)

## 9-392 New Toner Cartridge (M)

When a new Toner Cartridge was installed, the level of the New Cartridge Detect Switch (M) remained L when it should be changed to H by the Dispense Motor drive.

### Initial Actions

- Re-install the Toner Cartridge ensuring that the Dispense Motor and the Toner Cartridge are engaged.
- Check that the New/Old Detection Switch (metal part) at the rear of the Toner Cartridge is raised. If the New/Old Detection Switch is not raised, lift it up, then set the value of NVM location 752-684 (Accumulative Dispense Time Value M) to 0.
- Check that the Dispense Motor is operating; check dC330 [009-002, Dispense Motor (M)]. If the motor energizes, even briefly, check for clumping in the cartridge. Turn the auger gear by hand and/or shake the cartridge to loosen the toner.

### Procedure

Disconnect P/J405 from the MCU PWB. **The fault has cleared.**

**Y N**  
Replace the MCU PWB. (PL 13.1).

Remove the magenta toner cartridge and check the Dispense Motor Assembly for wear or damage.

Disconnect FS182/ FS183 at both edges of the New Cartridge Detect Switch (M).

Check continuity at both edges of the New Cartridge Detect Switch (M). **There is continuity when the Switch is not engaged.**

**Y N**  
Check the wire between the connector J405-B16 and the New Cartridge Detect Switch (M) FS183 for a short circuit to the frame.

Replace the New Cartridge Detect Switch (M) (PL 6.1).

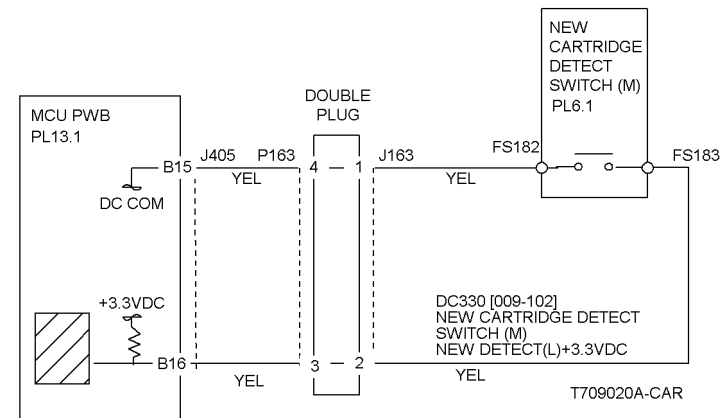


Figure 1 9-392 Rap Circuit Diagram - New Cartridge Detect Switch (M)



## 9-393 New Toner Cartridge (Y)

When a new Toner Cartridge was installed, the level of the New Cartridge Detect Switch (Y) remained L when it should be changed to H by the Dispense Motor drive.

### Initial Actions

- Re-install the Toner Cartridge ensuring that the Dispense Motor and the Toner Cartridge are engaged.
- Check that the New/Old Detection Switch (metal part) at the rear of the Toner Cartridge is raised. If the New/Old Detection Switch is not raised, lift it up, then set the value of NVM location 752-683 (Accumulative Dispense Time Value Y) to 0.
- Check that the Dispense Motor is operating; check dC330 [009-001, Dispense Motor (C)]. If the motor energizes, even briefly, check for clumping in the cartridge. Turn the auger gear by hand and/or shake the cartridge to loosen the toner.

### Procedure

Disconnect P/J405 from the MCU PWB. **The fault has cleared.**

**Y N**

Replace the MCU PWB. (PL 13.1).

Remove the yellow toner cartridge and check the Dispense Motor Assembly for wear or damage.

Disconnect FS180 and FS181 at both edges of the New Cartridge Detect Switch (Y).

Check continuity at both edges of the New Cartridge Detect Switch (Y). **There is continuity when the Switch is not engaged.**

**Y N**

Check the wire between the connector J405-B18 and FS181 on the New Cartridge Detect Switch (Y) for a short circuit to the frame (Figure 1).

Replace the New Cartridge Detect Switch (Y) (PL 6.1).

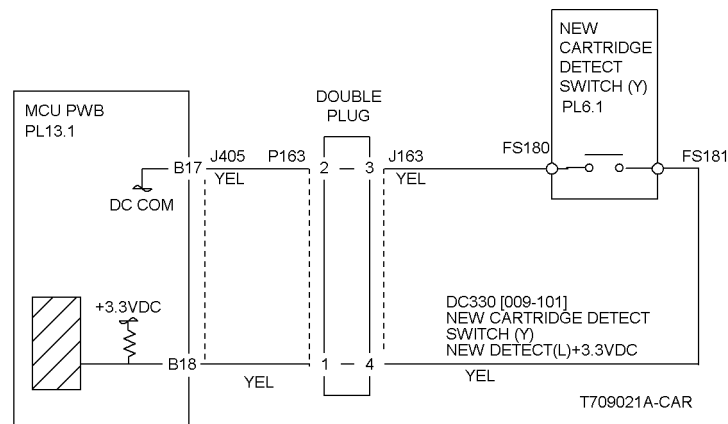


Figure 1 9-393 Rap Circuit Diagram - New Cartridge Detect Switch (Y)

## 9-408 Waste Toner Cartridge Near Full

The Waste Toner Cartridge is nearly full. This fault requires service only if the message appears before the Toner Cartridge is depleted.

### Initial Actions

Replace the Waste Toner Cartridge. Check the Full Toner Sensor for contaminants.

### Procedure

If the problem persists, go to the 9-358 RAP.



## 9-410 Toner Cartridge (Y) Near Empty

The Yellow Toner Cartridge is nearly empty/empty. This fault requires service only if the message appears before the Toner Cartridge is depleted.

**NOTE:** Continuous running of high density prints can temporarily deplete the toner supply.

### Initial Actions

- Ensure that there is toner and the toner is evenly distributed in the cartridge (Y).
- Check the ATC Sensor (Y) for blockage or contaminants.
- Check the drive system from the Developer Drive Motor to the Developer Housing (Y) for damage.

### Procedure

Enter **dC330** [009-001] and press **Start**. The **Yellow Toner Dispense Motor (PL 6.1)** energizes.

- Y N**  
Go to **Figure 1**. There is **+24 VDC** from **P/J533-A2** to **GND**.  
**Y N**  
Go to the **+24 VDC Wirenets (Figure 2)** and troubleshoot the problem.
- There is +24 VDC from P/J533-A1 to GND.**  
**Y N**  
Check the wires from **P/J533** to **P/J227** for an open circuit. If the wires are OK, replace the Yellow Toner Dispense Motor (**PL 6.1**).
- Enter **dC330** [009-001]. The voltage from **P/J533-A1** to **GND** drops to less than **1 VDC**.  
**Y N**  
Replace the MCU PWB (**PL 13.1**). If the problem continues, replace the I/F PWB (**PL 9.1**).
- Check the wires from **P/J533** to **P/J227** for an open circuit. If the wires are OK, replace the Yellow Toner Dispense Motor (**PL 6.1**).

The machine is a **DC3535**.

- Y N**  
Enter **dC330** [009-014] and press **Start**. The **Developer Motor** energizes (**PL 1.1**).  
**Y N**  
Go to **Figure 2**. There is **+24VDC** from **P/J534-A3** to **A4** on the **I/F PWB (PL 9.1)**.  
**Y N**  
Go to the **+24 VDC Wirenets (Figure 2)** and troubleshoot the problem.
- There is +5VDC from P/J534-A8 to A9 on the I/F PWB.**  
**Y N**  
Go to the **+5VDC Wirenets (Figure 3)** and troubleshoot the problem.
- Check the wires between **P/J534** on the **I/F PWB** and **P/J232** at the Developer Motor for opens, shorts, or loose connections. If the wires are OK, replace the Developer Motor (**PL 1.1**). If the problem continues, replace the MCU PWB (**PL 13.1**).
- Check **ADJ 9.3**. The **ATC Sensor (Y)** fail judgement is **OK**.

A

- Y N**  
Go to the **9-380 ATC Sensor Failure RAP**.
- After checking that no failures are detected during normal operation, go to call closeout.

Enter **dC330** [009-014] and press **Start**. The **Developer Motor (PL 1.1)** energizes.

- Y N**  
Go to **Figure 3**. There is **+24VDC** from **P/J535-A11** to **A10** on the **I/F PWB (PL 9.1)**.  
**Y N**  
Go to the **+24 VDC Wirenets (Figure 2)** and troubleshoot the problem.
- There is +5VDC from P/J535-A1 to A2 on the I/F PWB.**  
**Y N**  
Go to the **+5 VDC Wirenets (Figure 3)** to troubleshoot the problem.

Check the wires between **P/J535** on the **I/F PWB** and **P/J232** on the Developer Motor for opens, shorts, or loose connections. If the wires are OK, replace the Developer Motor (**PL 1.1**). If the problem continues, replace the MCU PWB (**PL 13.1**).

Check **ADJ 9.3**. The **ATC Sensor (Y)** fail judgement is **OK**.

- Y N**  
Go to the **9-380 ATC Sensor Failure RAP**.
- After checking that no failures are detected during normal operation, go to call closeout.

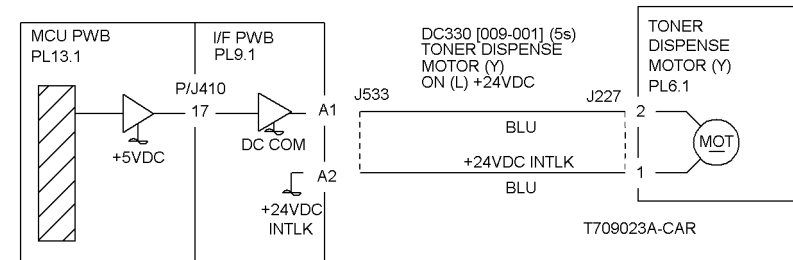


Figure 1 9-410 Rap Circuit Diagram - Toner Dispenser Motor Y



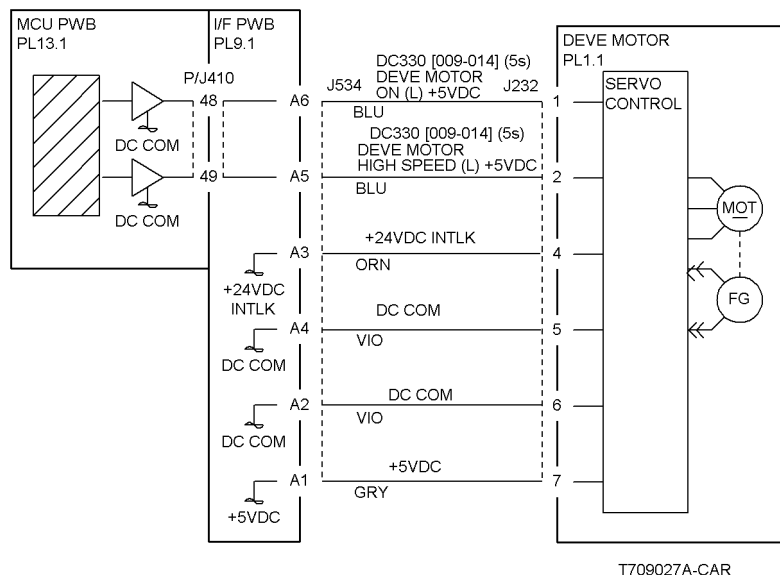


Figure 2 9-410 Rap Circuit Diagram - DC2240/1632, WC M24 Developer Motor

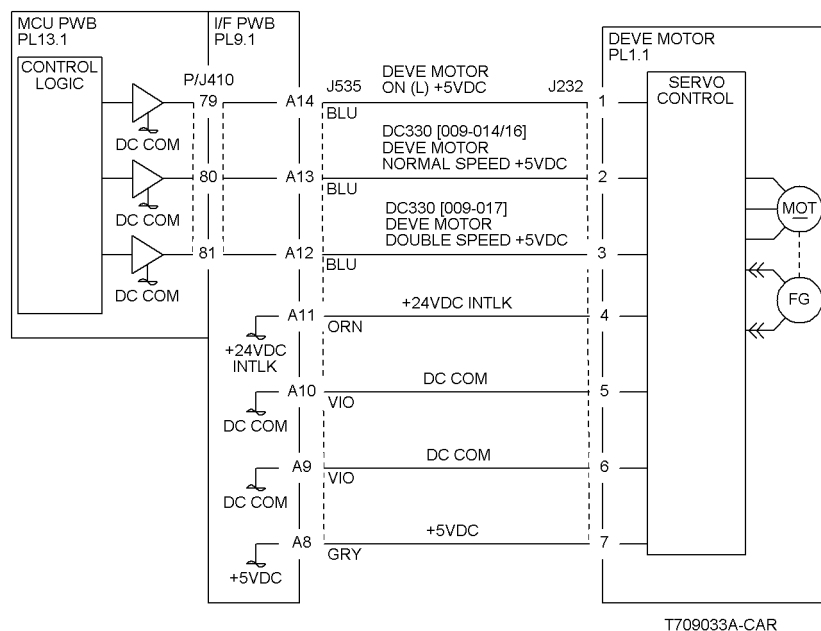


Figure 3 9-410 Rap Circuit Diagram - DC3535 Developer Motor

## 9-411 Toner Cartridge (M) Near Empty

The Magenta Toner Cartridge is nearly empty. This fault requires service only if the message appears before the Toner Cartridge is depleted.

**NOTE:** Continuous running of high density prints can temporarily deplete the toner supply.

### Initial Actions

- Ensure that there is toner and the toner is evenly distributed in the cartridge (M).
- Check the ATC Sensor (M) for blockage or contaminants.
- Check the drive system from the Developer Drive Motor to the Developer Housing (M) for damage.

### Procedure

Enter **dC330** [009-002] and press **Start**. The Magenta Toner Dispense Motor (**PL 6.1**) energizes.

Y N

Go to **Figure 1**. There is +24 VDC from **P/J533-A4** to GND.

Y N

Go to the +24 VDC Wirenets (**Figure 2**) and troubleshoot the problem.

There is +24 VDC from **P/J533-A3** to GND.

Y N

Check the wires from **P/J533** to **P/J228** for an open circuit. If the wires are OK, replace the Magenta Toner Dispense Motor (**PL 6.1**).

Enter **dC330** [009-002] and press **Start**. The voltage from **P/J533-A3** to GND drops to less than 1 VDC.

Y N

Replace the MCU PWB (**PL 13.1**). If the problem continues, replace the I/F PWB (**PL 9.1**).

Check the wires from **P/J533** to **P/J228** for an open circuit. If the wires are OK, replace the Magenta Toner Dispense Motor (**PL 6.1**).

The machine is a DC3535.

Y N

Enter **dC330** [009-014] and press **Start**. The Developer Motor energizes (**PL 1.1**).

Y N

Go to **Figure 2**. There is +24VDC from **P/J534-A3** to A4 on the I/F PWB (**PL 9.1**).

Y N

Go to the +24 VDC Wirenets (**Figure 2**) and troubleshoot the problem.

There is +5VDC from **P/J534-A2** to A1 on the I/F PWB.

Y N

Go to the +5VDC Wirenets (**Figure 3**) and troubleshoot the problem.

Check the wires between **P/J534** on the I/F PWB and **P/J232** at the Developer Motor for opens, shorts, or loose connections. If the wires are OK, replace the Developer Motor (**PL 1.1**). If the problem continues, replace the MCU PWB (**PL 13.1**).

Check **ADJ 9.3**. The ATC Sensor (M) fail judgement is OK.



A

Y N

Go to the 9-381, ATC Sensor Failure RAP.

After checking that no failures are detected during normal operation, go to call closeout.

Enter dC330 [009-014] and press Start. The Developer Motor (PL 1.1) energizes.

Y N

Go to Figure 3. There is +24VDC from P/J535-A11 to A10 on the I/F PWB (PL 9.1).

Y N

Go to the +24VDC Wirenets (Figure 2) and troubleshoot the problem.

There is +5VDC from P/J535-A8 to A9 on the I/F PWB.

Y N

Go to the +5VDC Wirenets (Figure 3) and troubleshoot the problem.

Check the wires between P/J535 on the I/F PWB and P/J232 on the Developer Motor for opens, shorts, or loose connections. If the wires are OK, replace the Developer Motor (PL 1.1). If the problem continues, replace the MCU PWB (PL 13.1).

Check ADJ 9.3. The ATC Sensor (M) fail judgement is OK.

Y N

Go to the 9-381 ATC Sensor Failure RAP.

After checking that no failures are detected during normal operation, go to call closeout.

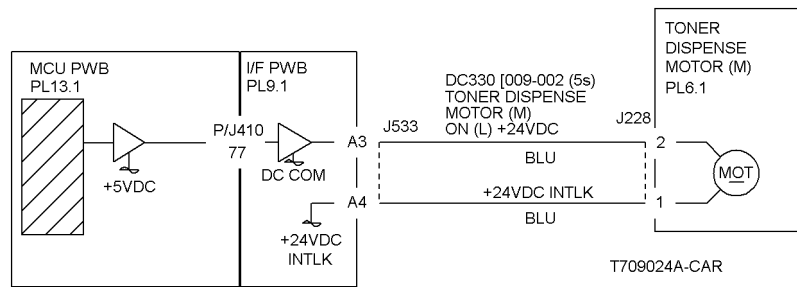
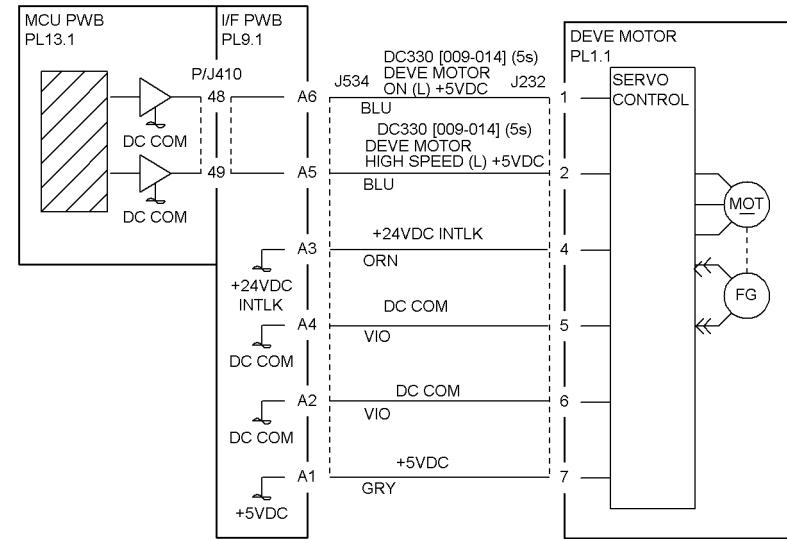
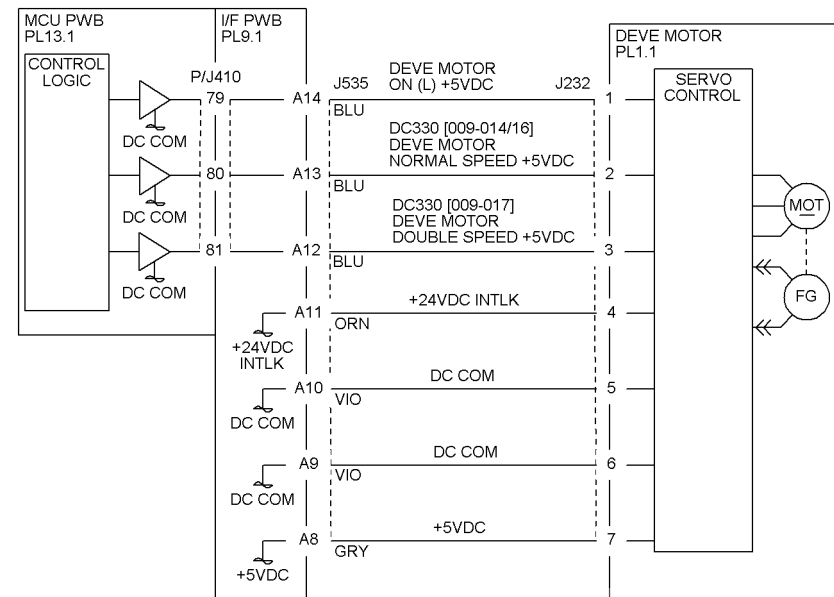


Figure 1 9-411 Rap Circuit Diagram - Toner Dispense Motor M



T709027A-CAR

Figure 2 9-411 Rap Circuit Diagram - DC2240/1632, WC M24 Developer Motor



T709033A-CAR

Figure 3 9-411 Rap Circuit Diagram - DC3535 Developer Motor



## 9-412 Toner Cartridge (C) Near Empty

The Cyan Toner Cartridge is nearly empty/empty. This fault requires service only if the message appears before the Toner Cartridge is depleted.

**NOTE:** Continuous running of high density prints can temporarily deplete the toner supply.

### Initial Actions

- Ensure that there is toner and the toner is evenly distributed in the cartridge (C).
- Check the ATC Sensor (C) for blockage or contaminants.
- Check the drive system from the Developer Drive Motor to the Developer Housing (C) for damage.

### Procedure

Enter **dC330** [009-003] and press **Start**. The **Cyan Toner Dispense Motor (PL 6.1)** energizes.

**Y N**  
Go to **Figure 1**. There is **+24 VDC** from **P/J533-A6** to **GND**.  
**Y N**  
Go to the **+24 VDC Wirenets (Figure 2)** and troubleshoot the problem.

**There is +24 VDC from P/J533-A5 to GND.**  
**Y N**  
Check the wires from **P/J533** to **P/J229** for an open circuit. If the wires are OK, replace the Cyan Toner Dispense Motor (PL 6.1).

Enter **dC330** [009-003] and press **Start**. The voltage from **P/J533-A5** to **GND** drops to less than **1 VDC**.  
**Y N**  
Replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

Check the wires from **P/J533** to **P/J229** for an open circuit. If the wires are OK, replace the Cyan Toner Dispense Motor (PL 6.1).

The machine is a **DC3535**.

**Y N**  
Enter **dC330** [009-014] and press **Start**. The **Developer Motor** energizes (PL 1.1).  
**Y N**  
Go to **Figure 2**. There is **+24VDC** from **P/J534-A3** to **A4** on the **I/F PWB (PL 9.1)**.  
**Y N**  
Go to the **+24 VDC Wirenets (Figure 2)** and troubleshoot the problem.

**There is +5VDC from P/J534-A2 to A1 on the I/F PWB.**  
**Y N**  
Go to the **+5VDC Wirenets (Figure 3)** and troubleshoot the problem.

Check the wires between **P/J534** on the **I/F PWB** and **P/J232** at the Developer Motor for opens, shorts, or loose connections. If the wires are OK, replace the Developer Motor (PL 1.1). If the problem continues, replace the MCU PWB (PL 13.1).

Check **ADJ 9.3**. The **ATC Sensor (C)** fail judgement is OK.

A

**Y N**  
Go to the **9-382 ATC Sensor Failure (C)** RAP.

After checking that no failures are detected during normal operation, go to call closeout.

Enter **dC330** [009-014] and press **Start**. The **Developer Motor (PL 1.1)** energizes.

**Y N**  
Go to **Figure 3**. There is **+24VDC** from **P/J535-A11** to **A10** on the **I/F PWB (PL 9.1)**.

**Y N**  
Go to the **+24VDC Wirenets (Figure 2)** and troubleshoot the problem.

**There is +5VDC from P/J535-A8 to A9 on the I/F PWB.**

**Y N**  
Go to the **+5VDC Wirenets (Figure 3)** and troubleshoot the problem.

Check the wires between **P/J535** on the **I/F PWB** and **P/J232** on the Developer Motor for opens, shorts, or loose connections. If the wires are OK, replace the Developer Motor (PL 1.1). If the problem continues, replace the MCU PWB (PL 13.1).

Check **ADJ 9.3**. The **ATC Sensor (C)** fail judgment is OK.

**Y N**  
Go to the **9-382 ATC Sensor Failure RAP**.

After checking that no failures are detected during normal operation, go to call closeout.

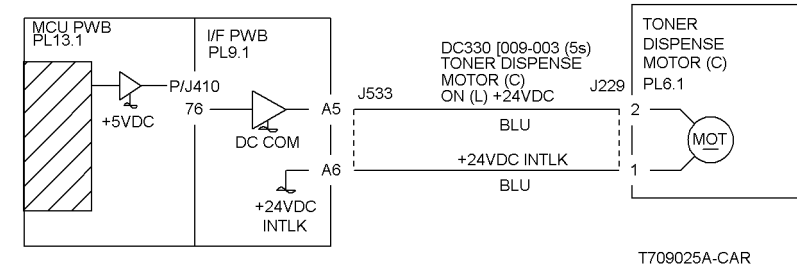


Figure 1 9-412 Rap Circuit Diagram - Toner Dispense Motor C



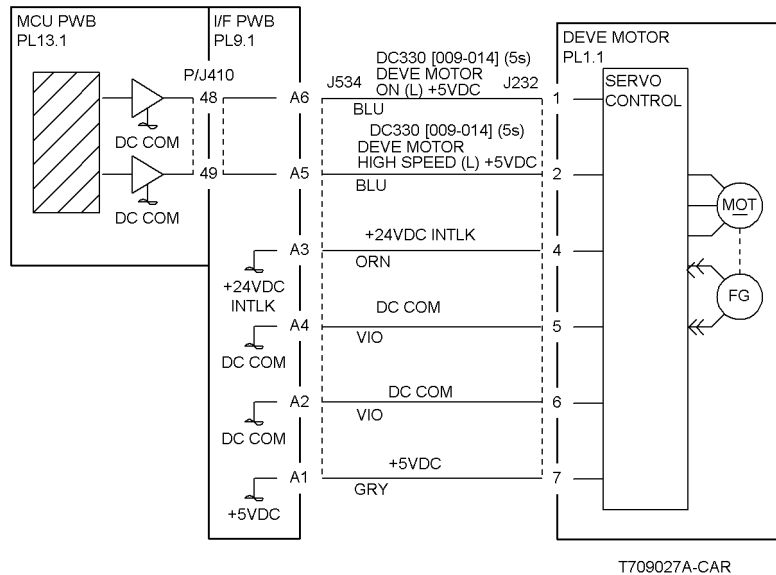


Figure 2 9-412 Rap Circuit Diagram - DC2240/1632, WC M24 Developer Motor

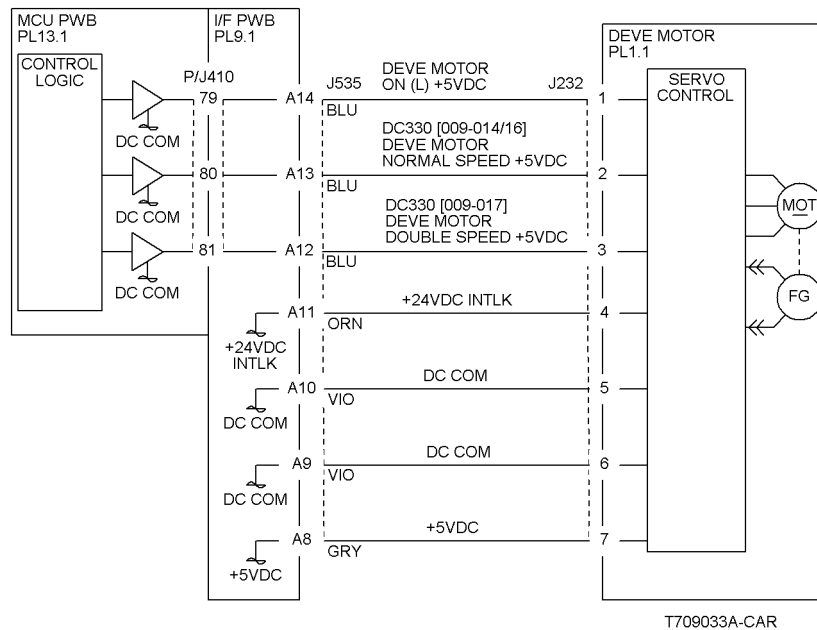


Figure 3 9-412 Rap Circuit Diagram - DC3535 Developer Motor



## 9-413 Toner Cartridge (K) Near Empty

The Black Toner Cartridge is nearly empty. This fault requires service only if the message appears before the Toner Cartridge is depleted.

**NOTE:** Continuous running of high density prints can temporarily deplete the toner supply.

### Initial Actions

- Ensure that there is toner and the toner is evenly distributed in the cartridge (K).
- Check the ATC Sensor (K) for blockage or contaminants.
- Check the drive system from the Main Drive Motor to the Developer Housing (K) for damage.

### Procedure

Enter **dC330** [009-004] and press **Start**. The Toner Dispense Motor (K) energizes (PL 6.1).

Y N

Go to **Figure 1**. There is +24 VDC from P/J533-A8 to GND.

Y N

Go to the +24 VDC Wirenets (Figure 2) and troubleshoot the problem.

There is +24 VDC from P/J533-A7 to GND.

Y N

Check the wires from P/J533 to P/J230 for an open circuit. If the wires are OK, replace the Cyan Toner Dispense Motor (PL 6.1).

Enter **dC330** [009-003]. The voltage from P/J533-A7 to GND drops to less than 1 VDC.

Y N

Replace the MCU PWB (PL 13.1). If the problem continues, replace the I/F PWB (PL 9.1).

Check the wires from P/J533 to P/J230 for an open circuit. If the wires are OK, replace the Cyan Toner Dispense Motor (PL 6.1).

The machine is a DC3535.

Y N

Enter **dC330**. Stack the codes [004-004, Main Motor] and [009-013, Dev. Clutch (K)] and press **Start**. The Black Developer Assy. energizes (PL 1.1).

Y N

Go to **Figure 2**. Check the circuit of the Developer Clutch (K) (PL 1.2).

Refer to BSD 4.1 (Figure 1) Check the mechanical drive to the Clutch.

Check **ADJ 9.3**. The ATC Sensor (K) fail judgement is OK.

Y N

Go to the 9-383, ATC Sensor Failure (K) RAP.

After checking that no failures are detected during normal operation, go to call closeout.

Enter **dC330**. Stack the codes [004-004, Main Motor] and [009-013, Dev. Clutch (K)] and press **Start**. The Black Developer Assy. (PL 1.1) energizes.

Y N

Go to **Figure 3**. Check the circuit of the Developer Clutch (K) (PL 1.2).

A

Refer to BSD 4.1 (Figure 1). Check the mechanical drive to the clutch.

Check **ADJ 9.3**. The ATC Sensor (K) fail judgement is OK.

Y N

Go to the 9-383 ATC Sensor Failure RAP.

After checking that no failures are detected during normal operation, go to call closeout.

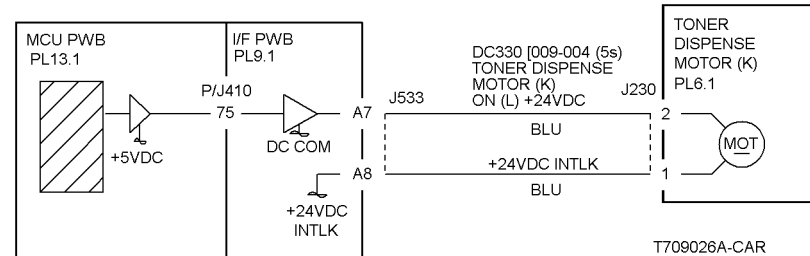


Figure 1 9-413 Rap Circuit Diagram - Toner Dispense Motor K

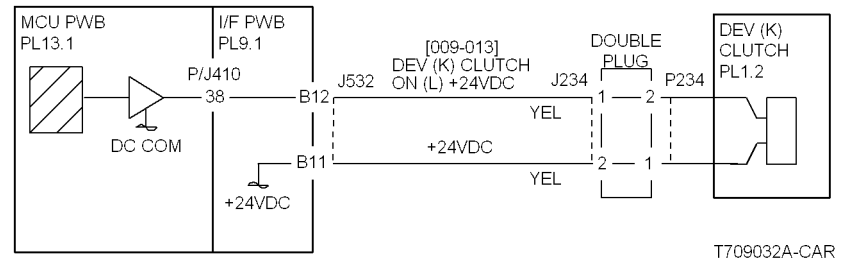


Figure 2 9-413 Rap Circuit Diagram - DC2240/1632, WC M24 Dev Clutch (K)

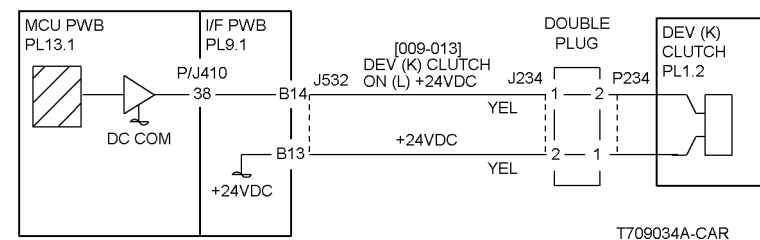


Figure 3 9-413 Rap Circuit Diagram - DC3535 Dev Clutch (K)



9-428 Change Drum Cartridge (K) Soon

The Drum Cartridge (K) needs to be replaced soon/reached end of life.

Procedure

Replace the Black Drum Cartridge (refer to Section 6, Machine Consumables). The problem is corrected.

Y N  
Replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

9-429 Change Drum Cartridge (Y) Soon

The Drum Cartridge (Y) needs to be replaced soon.

Procedure

Replace the Yellow Drum Cartridge (refer to Section 6, Machine Consumables). The problem is corrected.

Y N  
Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.



## 9-430 Change Drum Cartridge (M) Soon

The Drum Cartridge (M) needs to be replaced soon.

### Procedure

Replace the Magenta Drum Cartridge (refer to Section 6, Machine Consumables). The problem is corrected.

Y N  
Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-431 Change Drum Cartridge (C) Soon

The Drum Cartridge (C) needs to be replaced soon.

### Procedure

Replace the Cyan Drum Cartridge (refer to Section 6, Machine Consumables). The problem is corrected.

Y N  
Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.



## 9-654 ADC Sensor

The machine logic detected an ADC Sensor operation failure.

### Procedure

The machine is a DC3535.

Y N  
Check **ADJ 9.4. The fail judgement of the ADC Sensor is OK.**

Y N  
There is +5VDC from **P/J536-A13 on the I/F PWB (PL 9.1) to GND.**

Y N  
Go to **Figure 1.** Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues replace the MCU PWB (PL 13.1).

Enter **dC330** [009-078] and press **Start. The ADC Shutter Solenoid energized (PL 1.3).**

Y N  
Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues replace the MCU PWB (PL 13.1).

Enter **dC330** [009-078]. **There is 0VDC from P/J536-A8 on the I/F PWB to GND.**

Y N  
Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues replace the MCU PWB (PL 13.1).

Enter **dC330** [009-079]. **The voltage from P/J536-A6 to GND changed to 0VDC momentarily.**

Y N  
Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues replace the MCU PWB (PL 13.1).

Check the wires and connectors. If the check is OK, replace the ADC Sensor Assembly (PL 1.3).

After checking that no failures are detected during normal operation, go to call closeout.

Check **ADJ 9.4. The fail judgement of the ADC Sensor is OK.**

Y N  
There is +5VDC from **P/J536-A11 on the I/F PWB (PL 9.1) to GND.**

Y N  
Go to **Figure 2.** Check the wires and connectors. If the check is OK, replace the I/F U PWB (PL 13.1).

Enter **dC330** [009-078] and press **Start. The ADC Shutter Solenoid (PL 1.3) energized.**

Y N  
Check the wires and connectors. If the check is OK, replace the I/F PWB. If the problem continues, replace the MCU PWB (PL 13.1).

Enter **dC330** [009-078] and press **Start. There is 0VDC from P/J536-A6 on the I/F PWB.**

A

Y N  
Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).

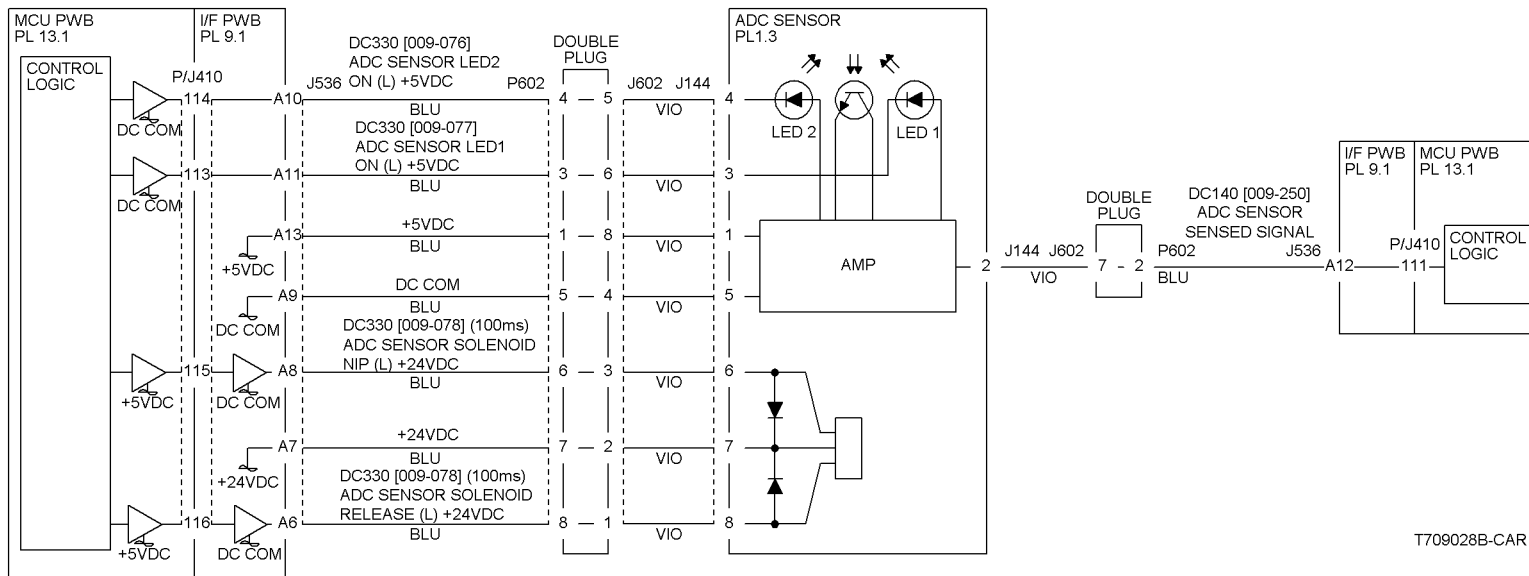
Enter **dC330** [009-079] and press **Start. The voltage from P/J536-A4 to GND changed to 0VDC momentarily.**

Y N  
Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).

Check the wires and connectors. If the check is OK, replace the ADC Sensor Assembly (PL 1.3).

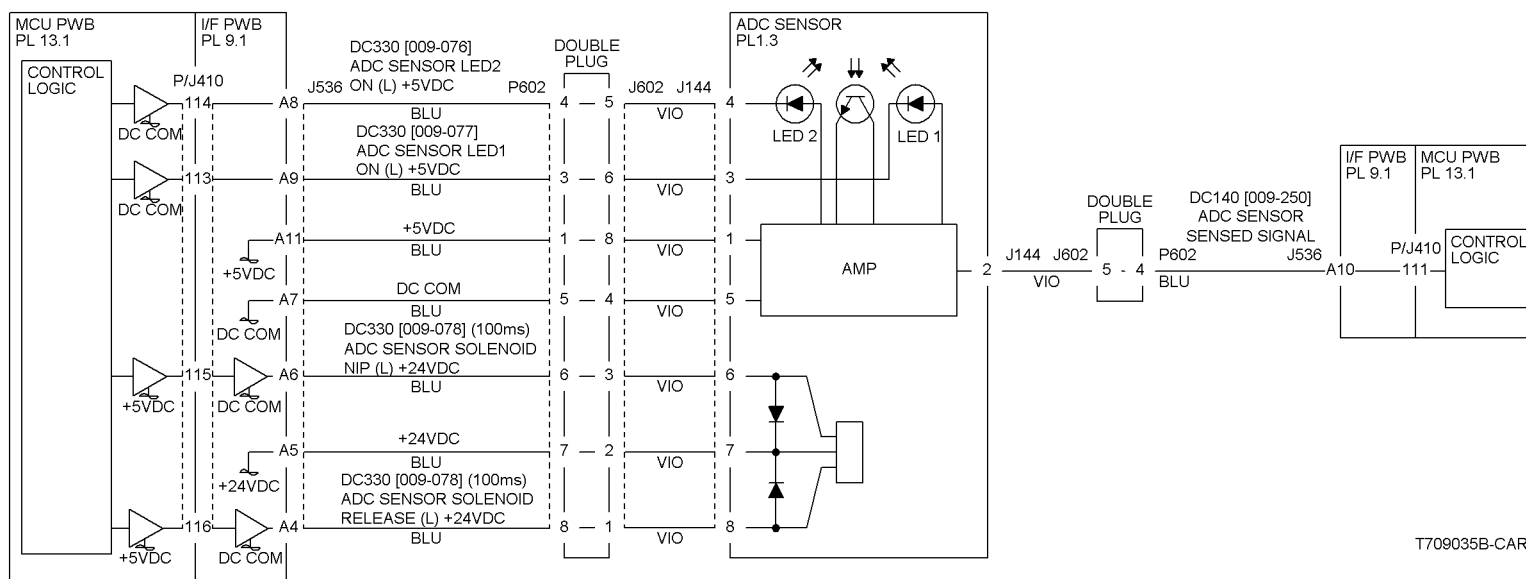
After checking that no failures are detected during normal operation, go to call closeout.





T709028B-CAR

Figure 1 9-654 Rap Circuit Diagram - DC2240/1632, WC M24 ADC Sensor



T709035B-CAR

Figure 2 9-654 Rap Circuit Diagram - DC3535 ADC Sensor



## 9-660 Environment Sensor Temperature

An incorrect value was detected by the Environment Sensor (Temperature).

### Procedure

Disconnect **P/J255**. There is 1 Ohm or less measured between P255-3 and P255-4 on the Environment Sensor (**Figure 1**).

Y N

Replace the Environment Sensor (**PL 1.3**).

Replace the I/F PWB (**PL 9.1**) and MCU PWB (**PL 13.1**) in sequence.

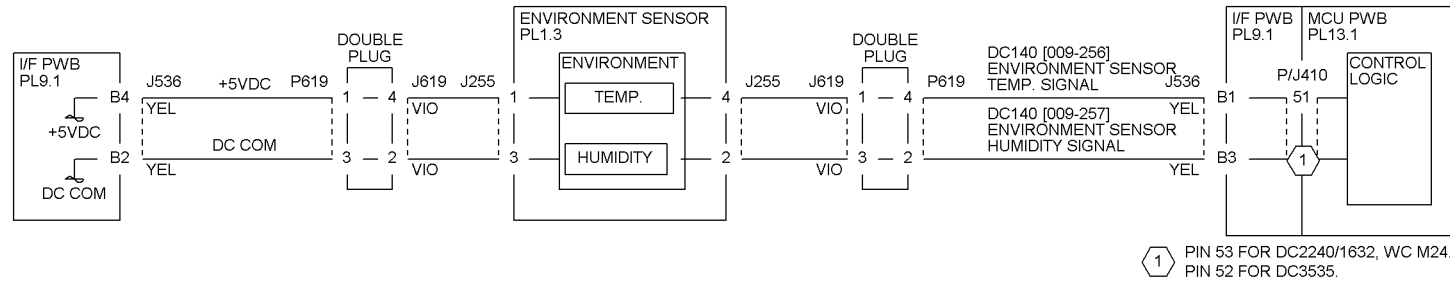


Figure 1 9-660 Rap Circuit Diagram - Environment Sensor



# 9-661 Environment Sensor Humidity

An incorrect value was detected by the Environment Sensor (Humidity).

## Procedure

There is +0.4VDC to +17VDC from P/J536-B3 on the I/F PWB to GND (Figure 1).

Y N

There is +5VDC from P/J536-B4 on the I/F PWB to GND.

A

Y

N

Go to Figure 1. Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Go to Figure 1. Check for an open circuit and poor contact if the check is OK replace the Environment Sensor (PL 1.3).

Replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).

A

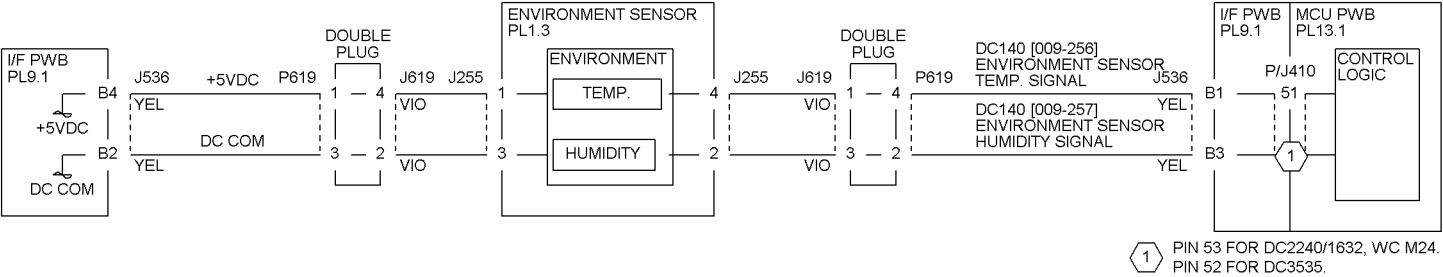


Figure 1 9-661 Rap Circuit Diagram - Environment Sensor



## 9-670 New Toner Cartridge (K) Detected

The machine logic detected that the Toner Cartridge has been replaced. This is a message fault only.

### Procedure

Switch the power off, then on. **The message fault clears.**

**Y   N**

Go to the 9-390 RAP.

Return to Service Call Procedures.

## 9-671 New Toner Cartridge (C) Detected

The machine logic detected that the Toner Cartridge has been replaced. This is a message fault only.

### Procedure

Switch the power off, then on. **The message fault clears.**

**Y   N**

Go to the 9-391 RAP.

Return to Service Call Procedures.



## 9-672 New Toner Cartridge (M) Detected

The machine logic detected that the Toner Cartridge has been replaced. This is a message fault only.

### Procedure

Switch the power off, then on. **The message fault clears.**

**Y   N**

Go to the 9-392 RAP.

Return to Service Call Procedures.

## 9-673 New Toner Cartridge (Y) Detected

The machine logic detected that the Toner Cartridge has been replaced. This is a message fault only.

### Procedure

Switch the power off, then on. **The message fault clears.**

**Y   N**

Go to the 9-393 RAP.

Return to Service Call Procedures.



## 9-684 ADC Shutter

The machine logic detected an ADC Shutter operation failure.

### Procedure

The machine is a DC3535.

- Y N**  
Enter **dC330** [009-078] and press **Start**. **The ADC Shutter Solenoid energized.**
- Y N**  
**There is +24VDC from P/J536-A7 on the I/F PWB to GND.**
- Y N**  
Go to **Figure 1**. Check the wires and connectors. If the check is OK, replace the I/F PWB (**PL 9.1**). If the problem continues, replace the ADC Sensor (**PL 1.3**).
- Enter **dC330** [009-078] and press **Start**. **There is 0VDC from P/J536-A8 on the I/F PWB (PL 9.1) to GND.**
- Y N**  
Check the wires and connectors. If the check is OK, replace the I/F PWB (**PL 9.1**). If the problem continues, replace the MCU PWB (**PL 13.1**). If the problem continues, replace the ADC Sensor (**PL 1.3**).
- Enter **dC330** [009-079] and press **Start**. **The voltage from P/J536-A6 on the I/F PWB to GND changed to 0VDC momentarily.**
- Y N**  
Go to **Figure 1**. Check the wires and connectors. If the check is OK, replace the I/F PWB (**PL 9.1**). If the problem continues, replace the MCU PWB (**PL 13.1**). If the problem continues, replace the ADC Sensor (**PL 1.3**).
- Go to **Figure 1**. Check the wires and connectors. If the check is OK, replace the ADC Sensor (**PL 1.3**).

After checking that no failures are detected during normal operation, go to call closeout.

Enter **dC330** [009-078] and press **Start**. **The ADC Shutter Solenoid energized.**

- Y N**  
**There is +24VDC from P/J536-A5 on the I/F PWB (PL 9.1) to GND.**
- Y N**  
Go to **Figure 2**. Check the wires and connectors. If the check is OK, replace the I/F PWB (**PL 9.1**). If the problem continues, replace the ADC Sensor (**PL 1.3**).
- Enter **dC330** [009-078] and press **Start**. **There is 0VDC from P/J536-A6 on the I/F PWB to GND.**
- Y N**  
Check the wires and connectors. If the check is OK, replace the I/F PWB (**PL 9.1**). If the problem continues, replace the MCU PWB (**PL 13.1**). If the problem continues, replace the ADC Sensor (**PL 1.3**).
- Enter **dC330** [009-079] and press **Start**. **The voltage from P/J536-A4 on the I/F PWB to GND changed to 0VDC momentarily.**

A

**Y N**

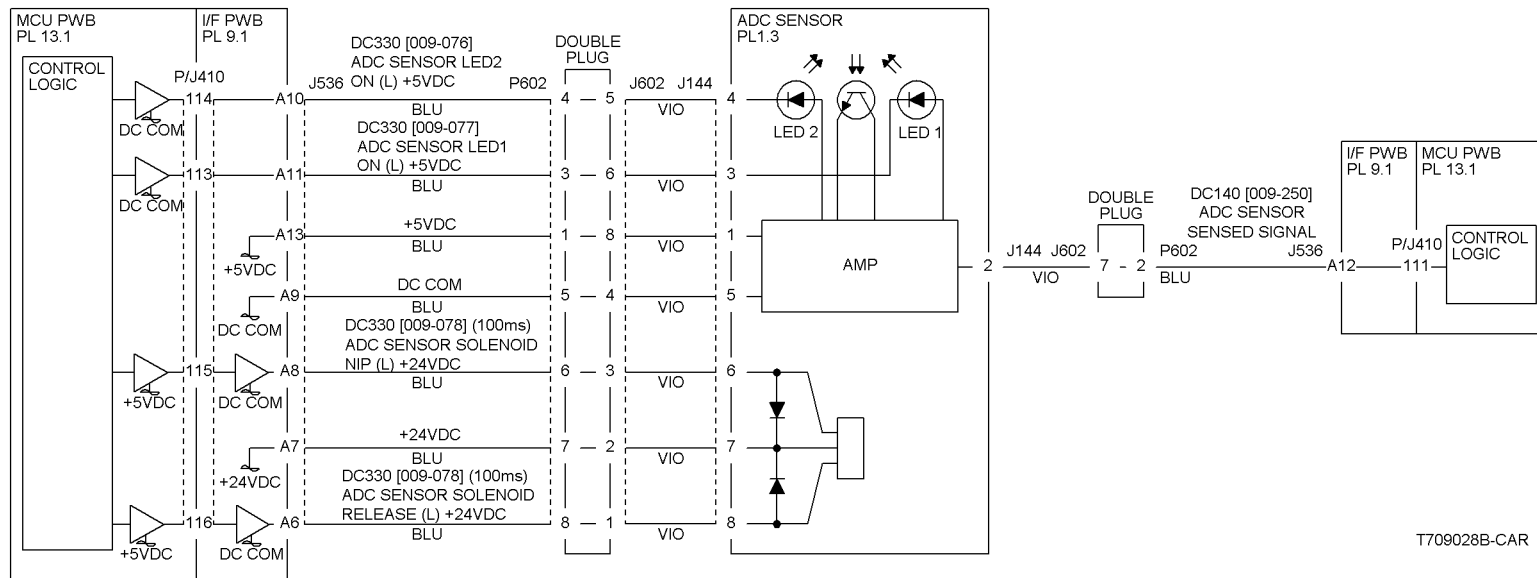
Go to **Figure 2**. Check the wires and connectors. If the check is OK, replace the I/F PWB (**PL 9.1**). If the problem continues, replace the MCU PWB (**PL 13.1**). If the problem continues, replace the ADC Sensor (**PL 1.3**).

Go to **Figure 2**. Check the wires and connectors. If the check is OK, replace the ADC Sensor (**PL 1.3**).

After checking that no failures are detected during normal operation, go to call closeout.

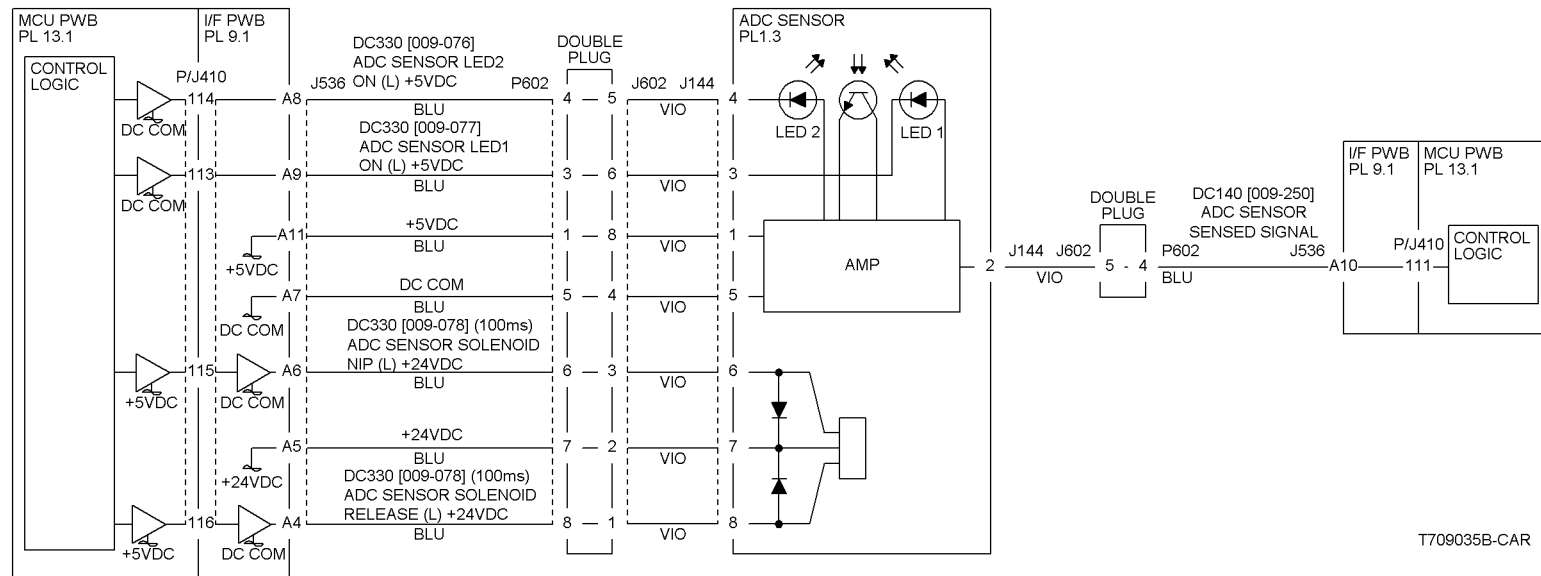
A





T709028B-CAR

Figure 1 9-684 Rap Circuit Diagram - DC2240/1632, WC M24 ADC Sensor



T709035B-CAR

Figure 2 9-684 Rap Circuit Diagram - DC3535 ADC Sensor



## 9-910 Drum (Y) Type Mismatch

Drum Type Mismatch

### Initial Actions

Ensure that the correct drum type is installed. Ensure that NVM loc. 751 -168 is set correctly (80 for XC, XE, DMO).

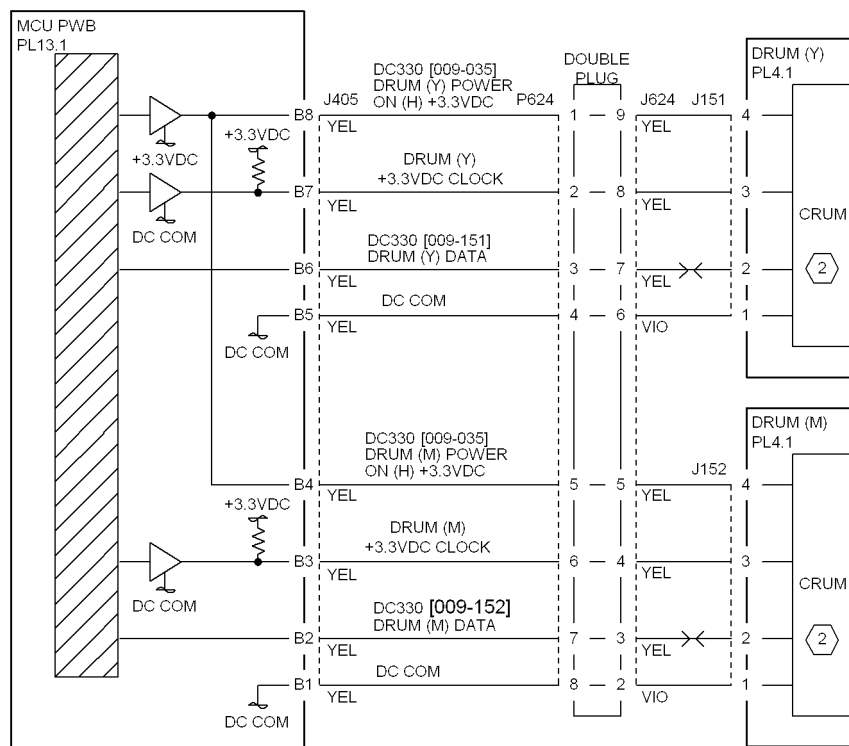
### Procedure

Enter **dC330** [009-151], (Drum (Y) Data). **The display is H.**

**Y N**

Go to **Figure 1**. Check the wires and connectors. If the check is OK, replace the Yellow Drum Cartridge (refer to Section 6, **Machine Consumables**).

Replace the MCU PWB (PL 13.1).



T709012A-CAR

Figure 1 9-910 Rap Circuit Diagram - Yellow Drum Communication

## 9-911 Drum (M) Type Mismatch

Drum Type Mismatch

### Initial Actions

Ensure that the correct drum type is installed. Ensure that NVM loc. 751 -168 is set correctly (80 for XC, XE, DMO).

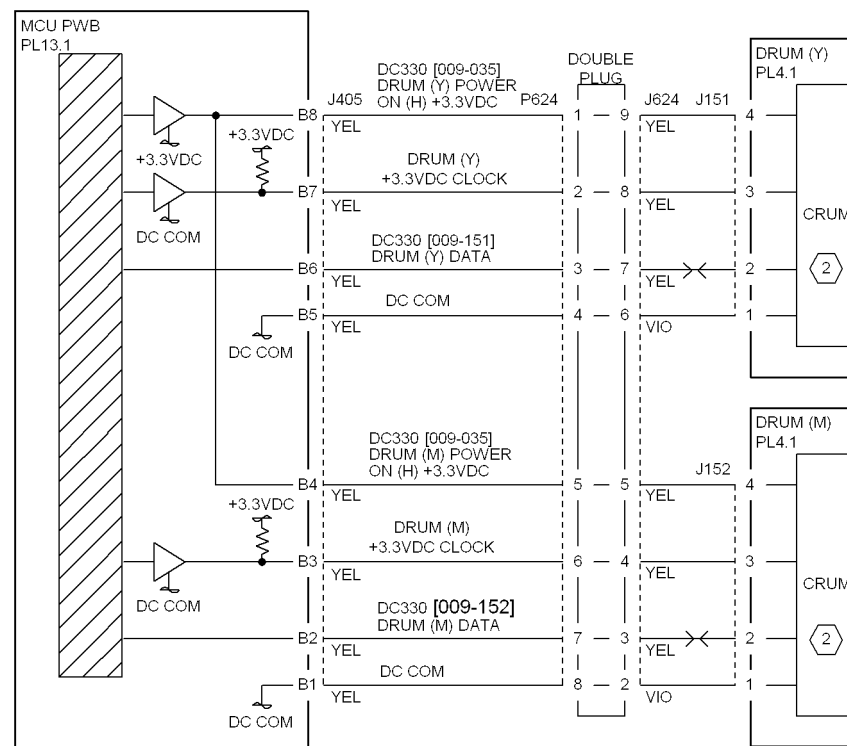
### Procedure

Enter **dC330** [009-152] (Drum (M) Data). **The display is H.**

**Y N**

Go to **Figure 1**. Check the wires and connectors. If the check is OK, replace the Magenta Drum Cartridge (refer to Section 6, **Machine Consumables**).

Replace the MCU PWB (PL 13.1).



T709012A-CAR

Figure 1 9-911 Rap Circuit Diagram - Magenta Drum Communication



## 9-912 Drum (C) Type Mismatch

Drum Type Mismatch

### Initial Actions

Ensure that the correct drum type is installed. Ensure that NVM loc. 751 -168 is set correctly (80 for XC, XE, DMO).

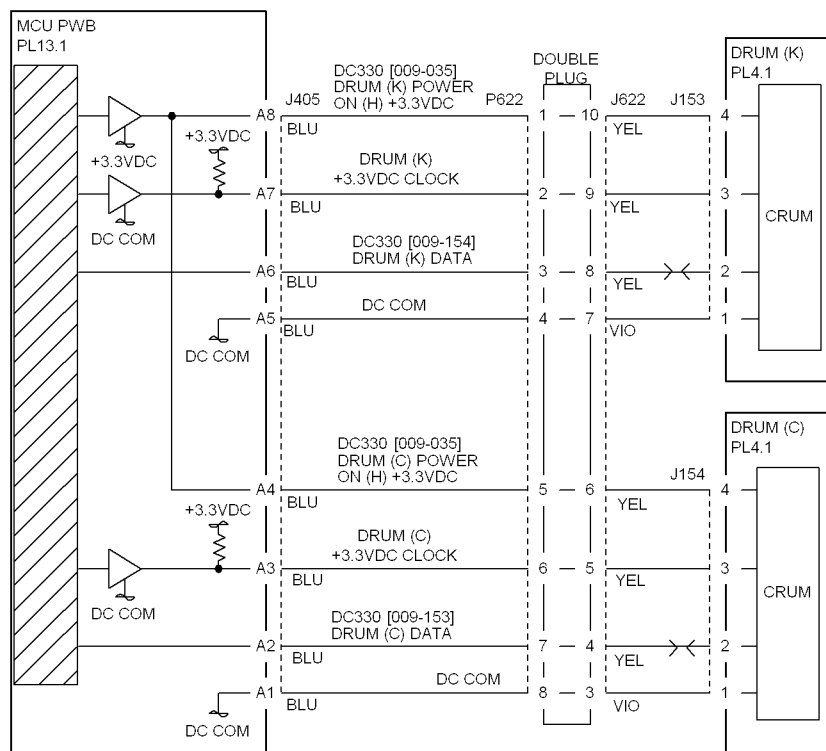
### Procedure

Enter **dC330** [009-153] (Drum (C) Data). **The display is H.**

**Y N**

Check the wires and connectors. If the check is OK, replace the Cyan Drum Cartridge (refer to Section 6, **Machine Consumables**).

Replace the MCU PWB. (PL 13.1).



T709013A-CAR

Figure 1 9-912 Rap Circuit Diagram - Cyan Drum Communication

## 9-913 Drum (K) Type Mismatch

Drum Type Mismatch

### Initial Actions

Ensure that the correct drum type is installed. Ensure that NVM loc. 751 -168 is set correctly (80 for XC, XE, DMO).

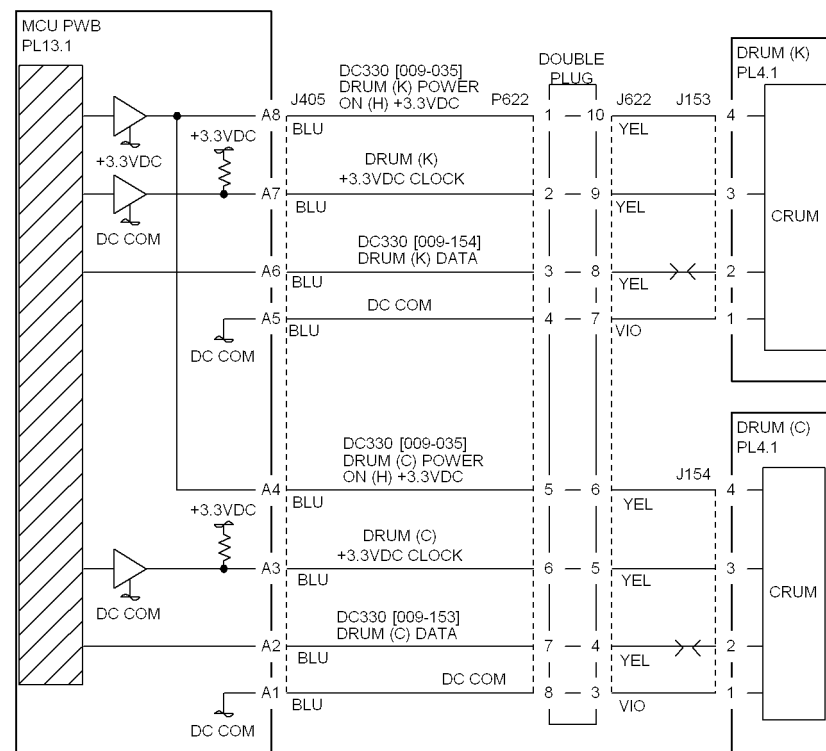
### Procedure

Enter **dC330** [009-154] (Drum (K) Data). **The display is H.**

**Y N**

Check the wires and connectors. If the check is OK, replace the Black Drum Cartridge (refer to Section 6, **Machine Consumables**).

Replace the MCU PWB. (PL 13.1).



T709013A-CAR

Figure 1 9-913 Rap Circuit Diagram - Black Drum Communication





## 9-920 Toner Cartridge (Y) Empty

The Yellow Toner Cartridge is empty. This fault requires service only if the message appears before the Toner Cartridge is depleted.

**NOTE:** Continuous running of high density prints can temporarily deplete the toner supply.

### Initial Actions

- Ensure that there is toner and the toner is evenly distributed in the cartridge (Y).
- Check the ATC Sensor (Y) for blockage or contaminants.
- Check the drive system from the Developer Drive Motor to the Developer Housing (Y) for damage.

### Procedure

Replace the Toner Cartridge. If the problem continues, go to the [9-410](#) RAP.

## 9-921 Toner Cartridge (M) Empty

The Yellow Toner Cartridge is empty. This fault requires service only if the message appears before the Toner Cartridge is depleted.

**NOTE:** Continuous running of high density prints can temporarily deplete the toner supply.

### Initial Actions

- Ensure that there is toner and the toner is evenly distributed in the cartridge (M).
- Check the ATC Sensor (M) for blockage or contaminants.
- Check the drive system from the Developer Drive Motor to the Developer Housing (M) for damage.

### Procedure

Replace the Toner Cartridge. If the problem continues, go to the [9-411](#) RAP.



## 9-922 Toner Cartridge (C) Empty

The Cyan Toner Cartridge is empty. This fault requires service only if the message appears before the Toner Cartridge is depleted.

**NOTE:** Continuous running of high density prints can temporarily deplete the toner supply.

### Initial Actions

- Ensure that there is toner and the toner is evenly distributed in the cartridge (C).
- Check the ATC Sensor (C) for blockage or contaminants.
- Check the drive system from the Developer Drive Motor to the Developer Housing (C) for damage.

### Procedure

Replace the Toner Cartridge. If the problem continues, go to the 9-412 RAP.

## 9-923 Toner Cartridge (K) Empty

The Black Toner Cartridge is empty. This fault requires service only if the message appears before the Toner Cartridge is depleted.

**NOTE:** Continuous running of high density prints can temporarily deplete the toner supply.

### Initial Actions

- Ensure that there is toner and the toner is evenly distributed in the cartridge (K).
- Check the ATC Sensor (K) for blockage or contaminants.
- Check the drive system from the Main Drive Motor to the Developer Housing (K) for damage.

### Procedure

Replace the Toner Cartridge. If the problem continues, go to the 9-413 RAP.



## 9-924 Waste Toner Cartridge Full

The Waste Toner Cartridge is full.

### Initial Actions

Replace the Waste Toner Cartridge. Check the Full Toner Sensor for contaminants.

### Procedure

If the problem persists, go to the 9-358 RAP.

## 9-925 Waste Toner Cartridge Not Set

The Waste Toner Cartridge was not installed correctly

### Initial Actions

Ensure that the Waste Toner Cartridge is installed correctly.

### Procedure

There is +5VDC from P/J535-A3 on the I/F PWB to GND.

Y N

There is +5VDC from FS135 on the Waste Toner Cartridge Interlock Switch to GND.

Y N

Go to Figure 1. Check the wire from P/J511 on the +5VDC LVPS to FS135 on the Waste Toner Cartridge Interlock Switch.

There is +5VDC from FS134 on the Waste Toner Cartridge Interlock Switch to GND.

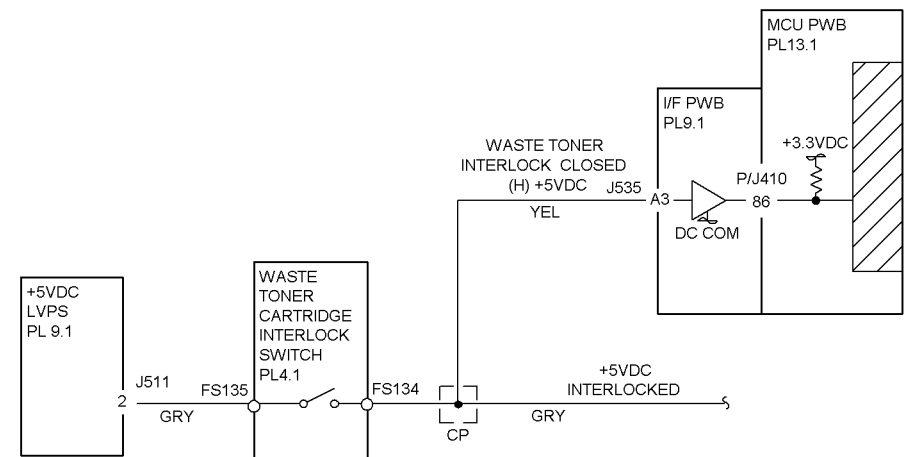
Y N

Replace the Waste Toner Cartridge Interlock Switch (PL 4.1).

Go to Figure 1. Check the wire between P/J511 on the +5VDC LVPS and FS134 on the Waste Toner Cartridge Interlock Switch and the I/F PWB P/J535-A3 for an open circuit or poor contact.

Check the connector P410 between the I/F PWB and the MCU PWB. If no problems are found, replace the MCU PWB. (PL 13.1).

If the problem persists, replace the I/F PWB. (PL 9.1).



T709030A-CAR

Figure 1 9-925 RAP Circuit Diagram



## 9-926 Drum Cartridge (K) End Of Life

The Drum Cartridge (K) needs to be replaced.

### Procedure

Replace the Black Drum Cartridge (refer to Section 6, Machine Consumables). The problem is corrected.

Y N

Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-927 Change Drum Cartridge (C) End Of Life

The Drum Cartridge (C) needs to be replaced.

### Procedure

Replace the Cyan Drum Cartridge (refer to Section 6, Machine Consumables). The problem is corrected.

Y N

Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.



## 9-928 Drum Cartridge (M) End Of Life

The Drum Cartridge (M) needs to be replaced.

### Procedure

Replace the Magenta Drum Cartridge (refer to Section 6, Machine Consumables). The problem is corrected.

Y	N
	Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-929 Drum Cartridge (Y) End Of Life

The Drum Cartridge (Y) needs to be replaced.

### Procedure

Replace the Yellow Drum Cartridge (refer to Section 6, Machine Consumables). The problem is corrected.

Y	N
	Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.



## 9-930 Black Drum Cartridge Not Detected

The machine logic detected that Black Drum Cartridge is not installed.

### Initial Actions

- Ensure Black Drum Cartridge is installed correctly.
- Switch the power off, then on.

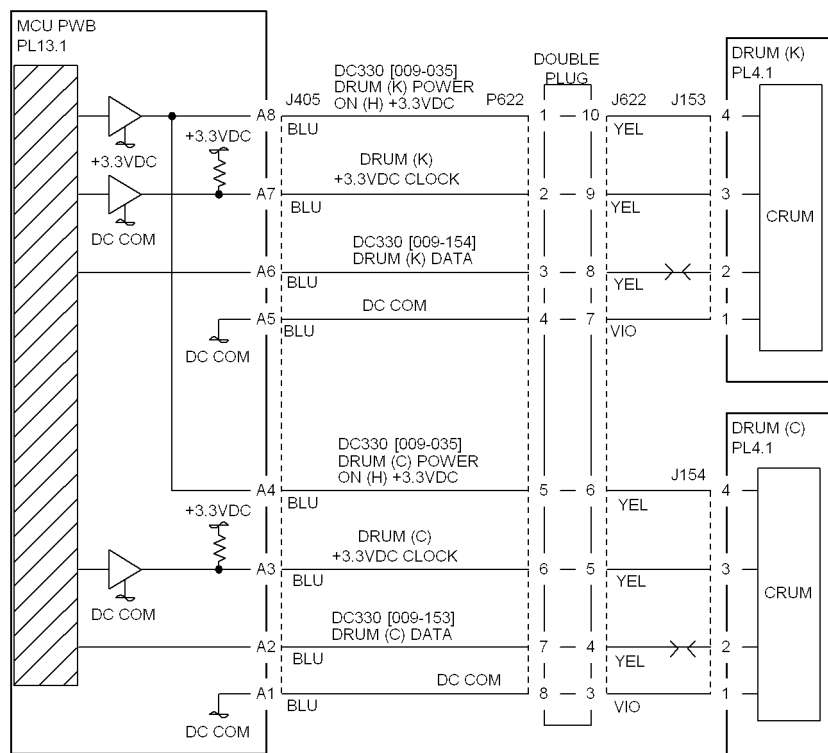
### Procedure

Swap Black Drum Cartridge with Drum (Y), (C) or (M). **The problem is corrected.**

Y N

Check that P/J405 on the MCU PWB and P/J622 are connected. Go to Figure 1 and check the wires for an open or short. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ESS PWB (PL 13.1).

Replace the defective Drum Cartridge (refer to Section 6, Machine Consumables).



T709013A-CAR

Figure 1 9-930 Rap Circuit Diagram - Drum K Communication

## 9-931 Cyan Drum Cartridge Not Detected

The machine logic detected that Cyan Drum Cartridge is not installed.

### Initial Actions

- Ensure Cyan Drum Cartridge is installed correctly.
- Switch the power off, then on.

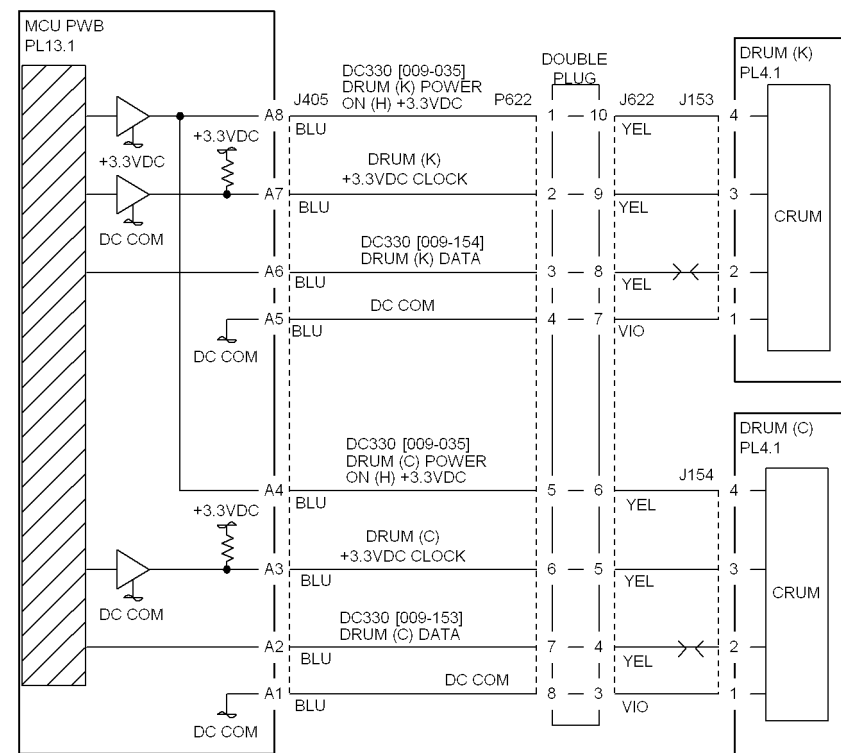
### Procedure

Swap Cyan Drum Cartridge with Drum (Y), (K) or (M). **The problem is corrected.**

Y N

Check that P/J405 on the MCU PWB and P/J622 are connected. Go to Figure 1 and check the wires for an open or short. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ESS PWB (PL 13.1).

Replace the defective Drum Cartridge (refer to Section 6, Machine Consumables).



T709013A-CAR

Figure 1 9-931 Rap Circuit Diagram - Drum C Communication



## 9-932 Magenta Drum Cartridge Not Detected

The machine logic detected that Magenta Drum Cartridge is not installed.

### Initial Actions

- Ensure Magenta Drum Cartridge is installed correctly.
- Switch the power off, then on.

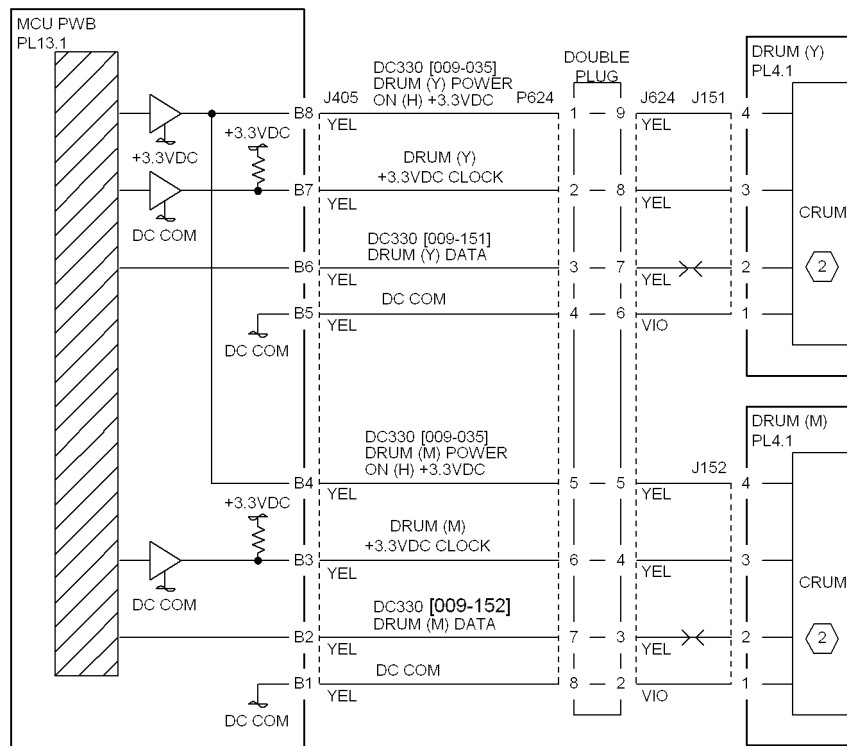
### Procedure

Swap Magenta Drum Cartridge with Drum (Y), (C) or (K). **The problem is corrected.**

Y N

Check that **P/J405** on the MCU PWB and **P/J624** are connected. Go to **Figure 1** and check the wires for an open or short. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ESS PWB (PL 13.1).

Replace the defective Drum Cartridge (refer to Section 6, **Machine Consumables**).



T709012A-CAR

Figure 1 9-932 Rap Circuit Diagram - Drum M Communication

## 9-933 Yellow Drum Cartridge Not Detected

The machine logic detected that the Yellow Drum Cartridge is not installed.

### Initial Actions

- Ensure Yellow Drum Cartridge is installed correctly.
- Switch the power off, then on.

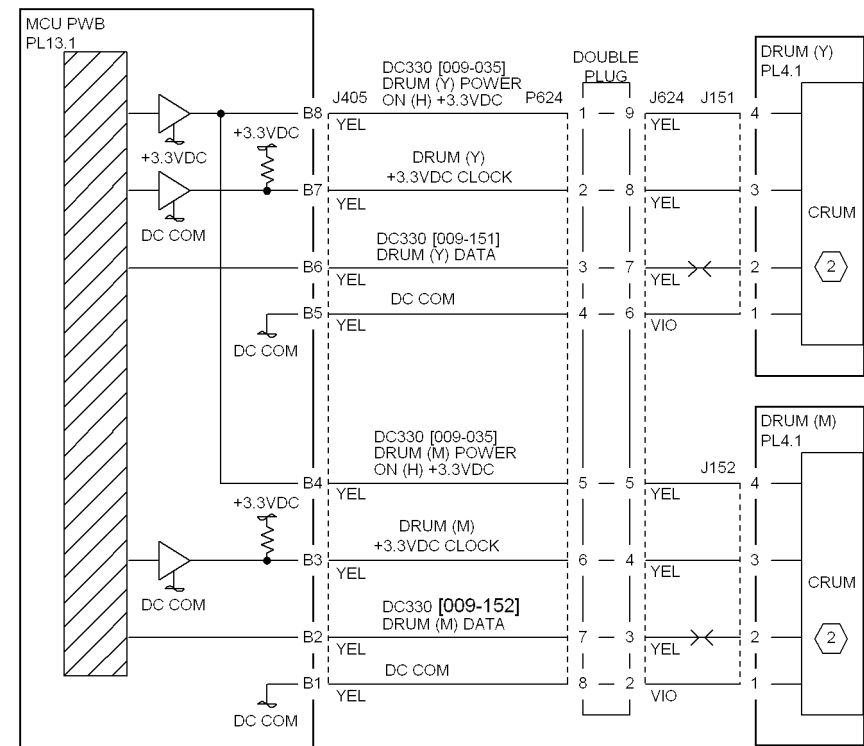
### Procedure

Swap Yellow Drum Cartridge with Drum (K), (C) or (M). **The problem is corrected.**

Y N

Check that **P/J405** on the MCU PWB and **P/J624** are connected. Go to **Figure 1** and check the wires for an open or short. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ESS PWB (PL 13.1).

Replace the defective Drum Cartridge (refer to Section 6, **Machine Consumables**).



T709012A-CAR

Figure 1 9-933 Rap Circuit Diagram - Drum Y Communication



## 10-110 Fuser Exit Switch On (Duplex)

The Fuser Exit Switch did not energize.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Fuser Exit Roll and check for wear.
- Check the drive transmissions for damage or wear. Ensure that the gear on the Fuser engages the drive gear smoothly.

### Procedure

Remove the Fuser Assembly from the machine and check Check the Fuser Stripper Fingers and Fuser Roll (PL 7.1) for dirt build up, wear or damage. **The check is OK.**

**Y N**  
Clean or replace the Fuser Assembly (PL 7.1).

Open the Left Cover Assembly (PL 2.8). Enter dC330 [010-101] and press **Start**. Actuate the Fuser Exit Switch (PL 2.8). **The display changes state.**

**Y N**  
Press **Stop**. Check the circuit of the Fuser Exit Switch (Figure 1). Refer to the OF 99-3 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [008-037] and press **Start**. **The Registration Clutch (PL 2.6) energizes.**

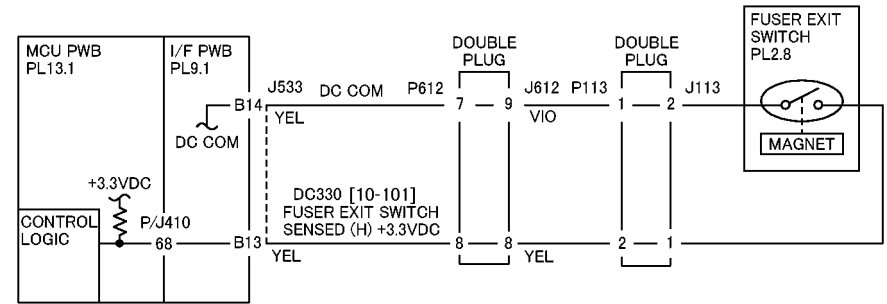
**Y N**  
Press **Stop**. Check the circuit of the Registration Clutch (Figure 2). Refer to the OF 99-4 RAP for troubleshooting procedure.

Close the Left Cover Assembly and press **Stop**. In sequence enter the following: dC330 [009-052] then dC330 [009-051] and press **Start**. **The 2nd BTR Retract Motor (PL 2.9) contacts and retracts.**

**Y N**  
Press **Stop**. Go to the 9-342 RAP for a contact failure or go to the 9-343 RAP for a retract failure.

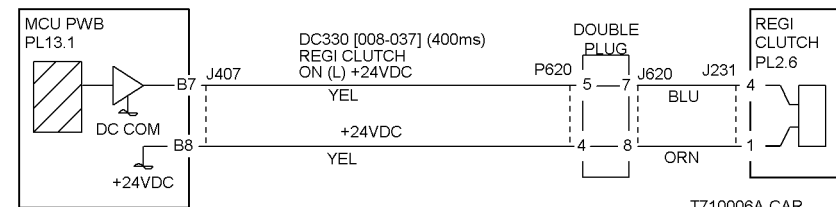
Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 1, Figure 2) are securely connected and that the wires are not damaged.
- If the problem persists, replace the MCU PWB (PL 13.1).



T710002A-CAR

Figure 1 10-110 RAP Circuit Diagram - Fuser Exit Switch



T710006A-CAR

Figure 2 10-110 RAP Circuit Diagram - Registration Clutch



## 10-111 Fuser Exit Switch Off

The Fuser Exit Switch did not de-energize.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Fuser Exit Roll and check for wear.
- Check the drive transmissions for damage or wear.

### Procedure

Remove the Fuser Assembly from the machine and check the Fuser Stripper Fingers and Fuser Roll (PL 7.1) for dirt build up, wear or damage. **The check is OK.**

**Y N**

Clean or replace the Fuser Assembly (PL 7.1).

Open the Left Cover Assembly (PL 2.8). Enter dC330 [010-101] and press **Start**. Actuate the Fuser Exit Switch (PL 2.8). **The display changes state.**

**Y N**

Press **Stop**. Check the circuit of the Fuser Exit Switch (Figure 1). Refer to the OF 99-3 RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams are securely connected and that the wires are not damaged.
- If the problem persists, replace the MCU PWB (PL 13.1).

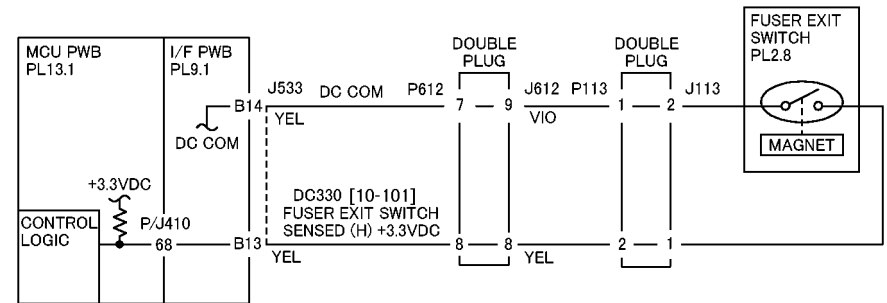


Figure 1 10-111 RAP Circuit Diagram - Fuser Exit Switch

T710002A-CAR



## 10-125 Duplex Wait Sensor On

Paper did not arrive at the Duplex Wait Sensor within the specified period of time.

### Initial Actions

- Check condition and specification of the paper supply.
- Check the paper path for obstructions. Ensure that the Mylar Fingers in the Inverter Chute Assembly are not bent or damaged.
- Check for wear and clean the Duplex Transport Roll.
- Check for wear and clean the Pinch Rolls.

### Procedure

The jam associated with this fault is accompanied by a grinding or rattling sound from the upper left rear.

**Y N**  
Enter **dC330** [008-105] and press **Start**. Open the Duplex Module Cover and block and unblock the Duplex Wait Sensor (PL 12.2). **The display changes state.**

**Y N**  
Press **Stop**. Check the circuit of the Duplex Wait Sensor (Figure 2). Refer to the OF 99-1 RAP for troubleshooting procedure.

Press **Stop**. Remove the Left Upper Cover (PL 2.7). Enter **dC330** [008-056] and press **Start**. The Duplex Transport Roll (PL 12.1) rotates.

**Y N**  
The Duplex Motor (PL 12.2) energizes.

**Y N**  
Press **Stop**. Refer to Figure 3. There is +24 VDC from pin A4 to pin A7 on **P626**

**Y N**  
Go to the +24 VDC (Figure 4), and 24V RTN (Figure 1) Wirenets to troubleshoot the missing voltage.

Refer to Figure 3. Check the 3 signal wires from the MCU PWB to **P626** for damage or open connections. If the wires are OK, Remove the Duplex Transport Assembly (REP 8.3). Check the wiring from **J626** to the Duplex PWB for damage or open connections. If the wires are OK, replace the Duplex Motor (PL 12.2). If the problem continues, replace the Duplex PWB (PL 12.2). If this does not resolve the problem, replace the MCU PWB (PL 13.1).

Press **Stop**. Remove the Duplex Transport Assembly (REP 8.3). Check the Duplex Motor and its associated pulleys and belts (PL 12.2) for damage, contamination and misalignment.

Press **Stop**. Enter **dC330** [008-042] and press **Start**. The Inverter Forward Clutch (PL 11.2) (CW) energizes.

**Y N**  
Press **Stop**. Check the circuit of the Inverter Forward Clutch (Figure 4). Refer to the OF 99-4 RAP for troubleshooting procedure.

Press **Stop**. Enter **dC330** [008-043] and press **Start**. The Inverter Reverse Clutch (PL 11.2) (CCW) energizes.

**Y N**  
Press **Stop**. Check the circuit of the Inverter Reverse Clutch (Figure 5). Refer to the OF 99-4 RAP for troubleshooting procedure.

Press **Stop**.

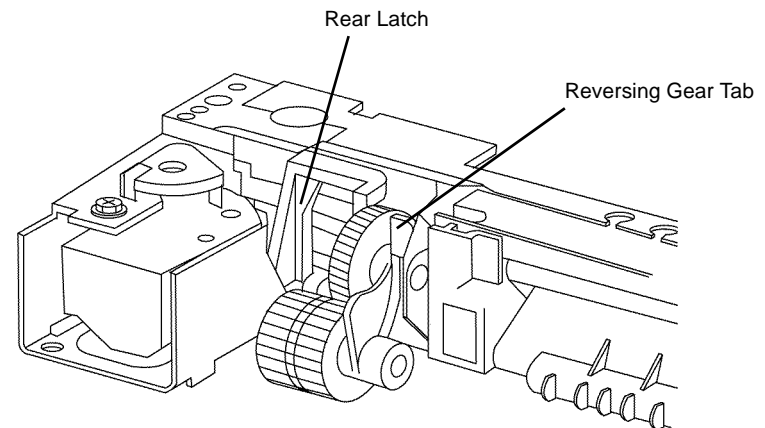
- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3, Figure 4, Figure 5) are securely connected and that the wires are not damaged.
- Remove the Clutch Assembly and clean the Forward and Reverse Clutch (PL 11.2).
- If the problem persists, replace the MCU PWB (PL 13.1).

There is an alignment problem between the Inverter Transport (PL 11.1) and the Exit Transport (PL 2.11). This can be caused by damage to the Rear Latch or the Reversing Gear Tab in the Exit Transport (refer to Figure 1), or by damage to the Actuator on the Inverter Transport (which engages the Reversing Gear Tab).

Examine the Exit Transport for damage to Rear Latch or the Reversing Gear Tab. Repair or replace as required (PL 2.11).

If the Exit Transport appears to be OK, check the Inverter Transport for damage. Repair or replace as required (PL 11.1).

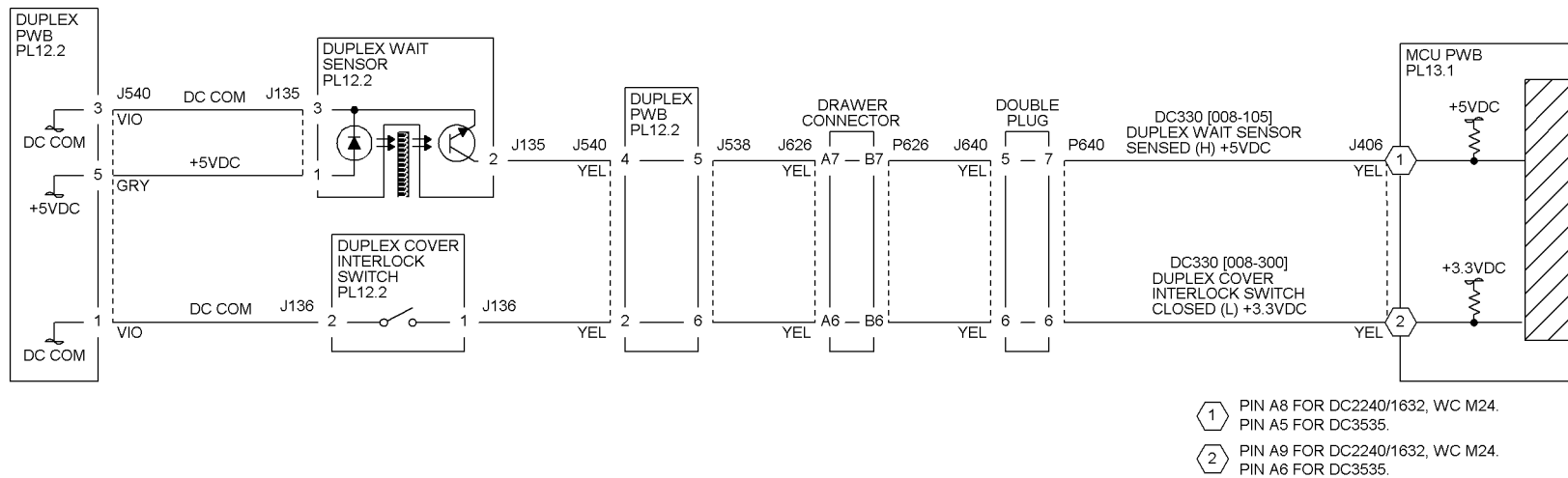
**NOTE:** For DC 3535 and later DC 2240/1632, WC M24 machines, the Interlock Actuator (PL 11.2) is a separate piece. Alignment may be improved by removing the Actuator and placing a piece of shim stock underneath it when reinstalling.



0102063A-CAR

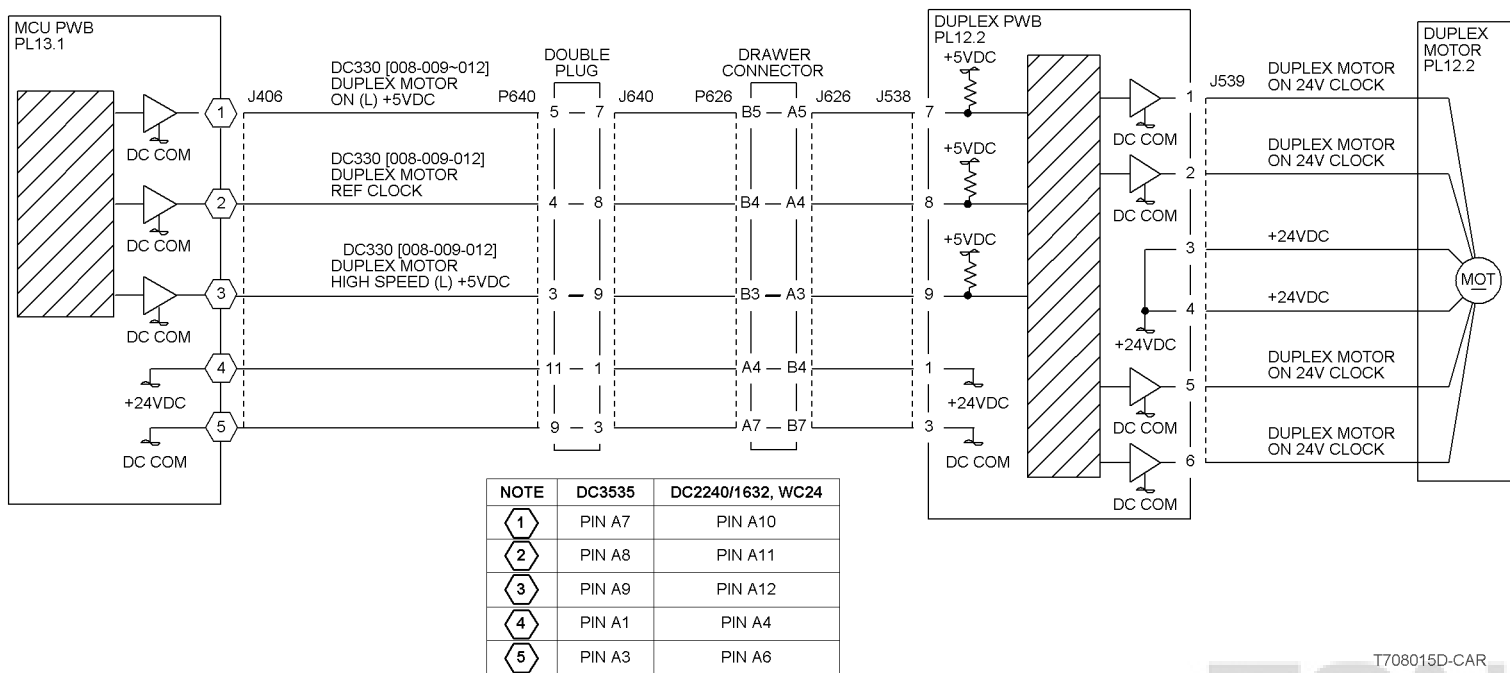
Figure 1 10-125 RAP Reversing Gear Detail





T708018C-CAR

Figure 2 10-125 RAP Circuit Diagram - Duplex Wait Sensor



T708015D-CAR

Figure 3 10-125 RAP Circuit Diagram - Duplex Motor



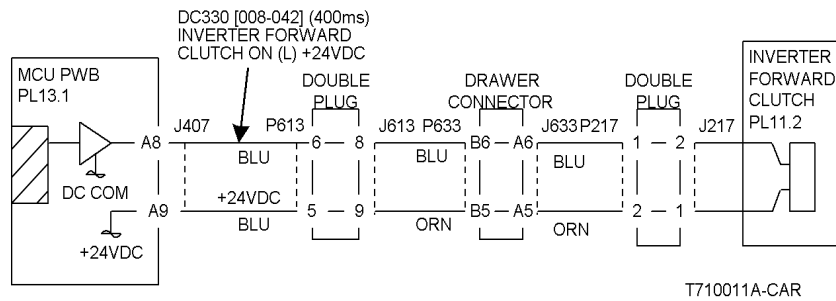


Figure 4 10-125 RAP Circuit Diagram - Inverter Forward Clutch

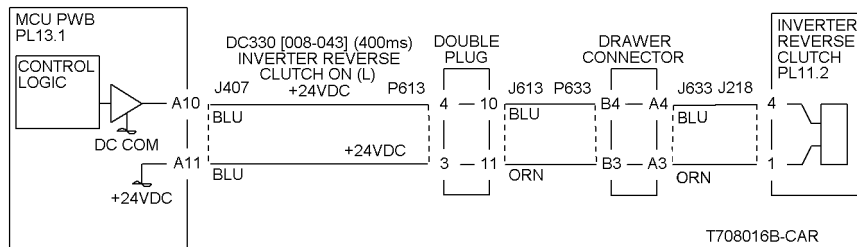


Figure 5 10-125 RAP Circuit Diagram - Inverter Reverse Clutch



## 10-348 Main Heater Over Heat

The Front Thermistor detected an overheat condition.

### Initial Actions

Turn off the power, remove the Fuser Assembly, and allow it to cool down.

### Procedure

**NOTE:** If this fault is declared 3 times in succession, print and copy mode will be disabled. In order to clear this condition, reset NVM location 744-003 to 0.

Measure the resistance between P600-4 and P600-6 on the Fuser Assembly (Figure 1). The resistance is between 30K and 190K Ohms.

**Y N**  
Check the wiring from P600 to P/J211 for an open circuit and poor contact. If the wires are OK, replace the Sensor Assembly (PL 7.2).

Reinstall the Fuser Assembly, turn the power ON. Enter dC140 [010-100] and press **Start**. The display value is between 678 and 699.

**Y N**  
Turn the power off. Refer to Figure 1 and check the wiring from P/J404 to J600 for an open circuit or poor contact. If the check is OK, replace the MCU PWB (PL 13.1).

**NOTE:** The voltage measurement mentioned in the next step must be made while the Fuser is warming up.

+2 - 3.5VDC is measured at P/J404-5 on the MCU PWB (Figure 2).

**Y N**  
Replace the MCU PWB (PL 13.1).

Check the wires and connectors (Figure 1, Figure 2). If the check is OK, replace the AC Drive PWB (PL 9.2).

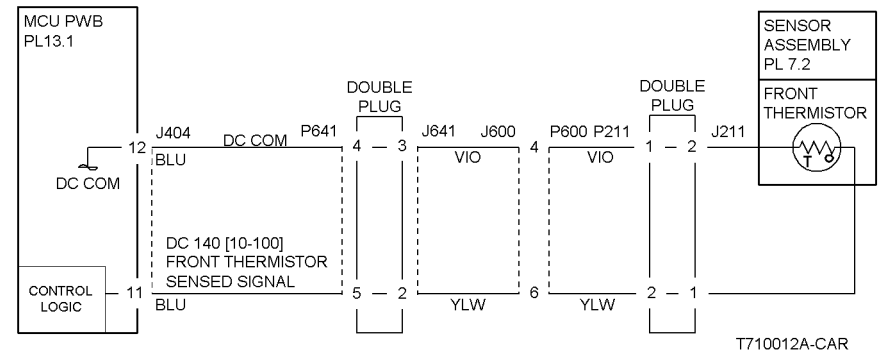


Figure 1 10-348 RAP Circuit Diagram - Front Thermistor

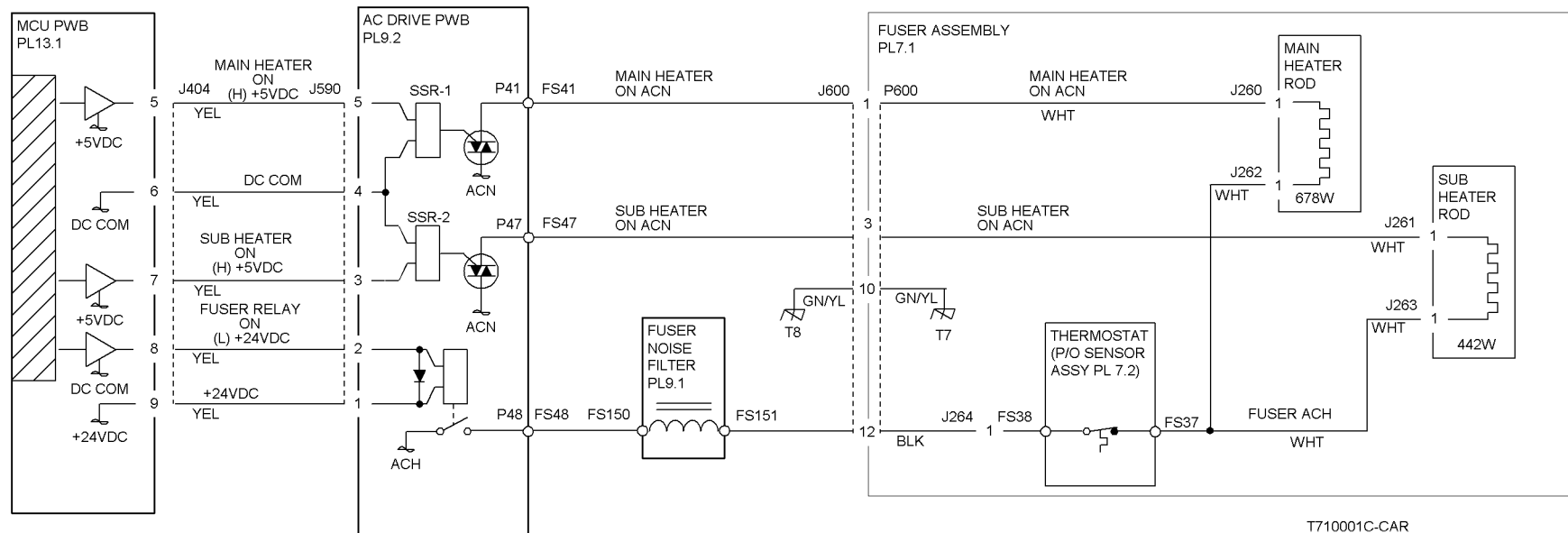


Figure 2 10-348 RAP Circuit Diagram - Main Heater and Sub Heater CD



## 10-349 Front Thermistor Open

The machine logic detected an open circuit in the Front Thermistor.

### Initial Actions

Turn off the power, remove the Fuser Assembly, and allow it to cool down.

### Procedure

Measure the resistance between **P600-4** and **P600-6** on the Fuser Assembly (**Figure 1**). **The resistance is between 30K and 190K Ohms.**

**Y N**

Check the wiring from **P600** to **P/J211** for an open circuit and poor contact. If the wires are OK, replace the Sensor Assembly (**PL 7.2**).

Reinstall the Fuser Assembly, turn the power ON. Enter **dC140** [010-100] and press **Start**. **The display value is between 678 and 699.**

**Y N**

Turn the power off. Refer to **Figure 1** and check the wiring from **P/J404** to **J600** for an open circuit or poor contact. If the check is OK, replace the MCU PWB (**PL 13.1**).

Replace the MCU PWB (**PL 13.1**).

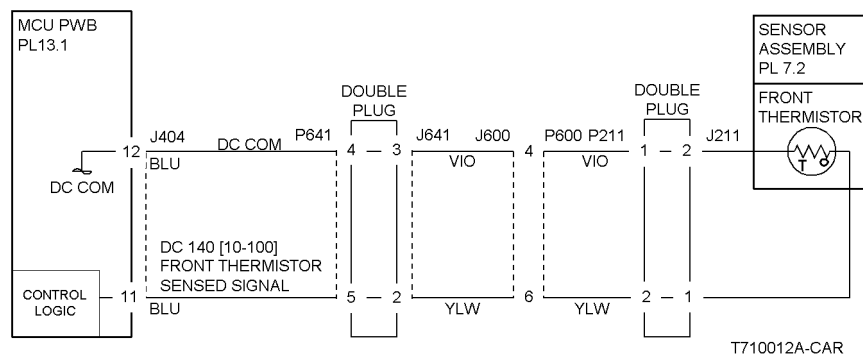


Figure 1 10-349 RAP Circuit Diagram - Front Thermistor

## 10-350 Sub Heater Over Heat

The Rear Thermistor detected an over heat condition.

### Initial Actions

Turn off the power, remove the Fuser Assembly and allow it to cool down.

### Procedure

**NOTE:** If this fault is declared 3 times in succession, print and copy mode will be disabled. In order to clear this condition, reset NVM location 744-003 to 0.

Measure the resistance between **P600-7** and **P600-9** on the Fuser Assembly (**Figure 1**). **The resistance is between 30K and 190K Ohms.**

**Y N**

Check the wiring from **P600** to **P/J212** for an open circuit and poor contact. If the wires are OK, replace the Sensor Assembly (**PL 7.2**).

Reinstall the Fuser Assembly, turn the power ON. Enter **dC140** [010-101] and press **Start**. **The display value is between 678 and 699.**

**Y N**

Turn the power off. Refer to **Figure 1** and check the wiring from **P/J404** to **J600** for an open circuit or poor contact. If the check is OK, replace the MCU PWB (**PL 13.1**).

**NOTE:** The voltage measurement mentioned in the next step must be made while the Fuser is warming up.

**+2 - 3.5VDC is measured at P/J404-7 on the MCU PWB (Figure 2).**

**Y N**

Replace the MCU PWB (**PL 13.1**).

Check the wires and connectors. If the check is OK, replace the AC Drive PWB (**PL 9.2**).

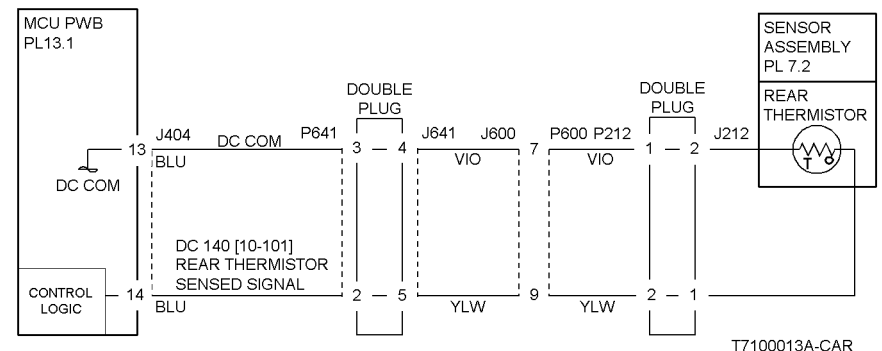


Figure 1 10-350 RAP Circuit Diagram - Rear Thermistor



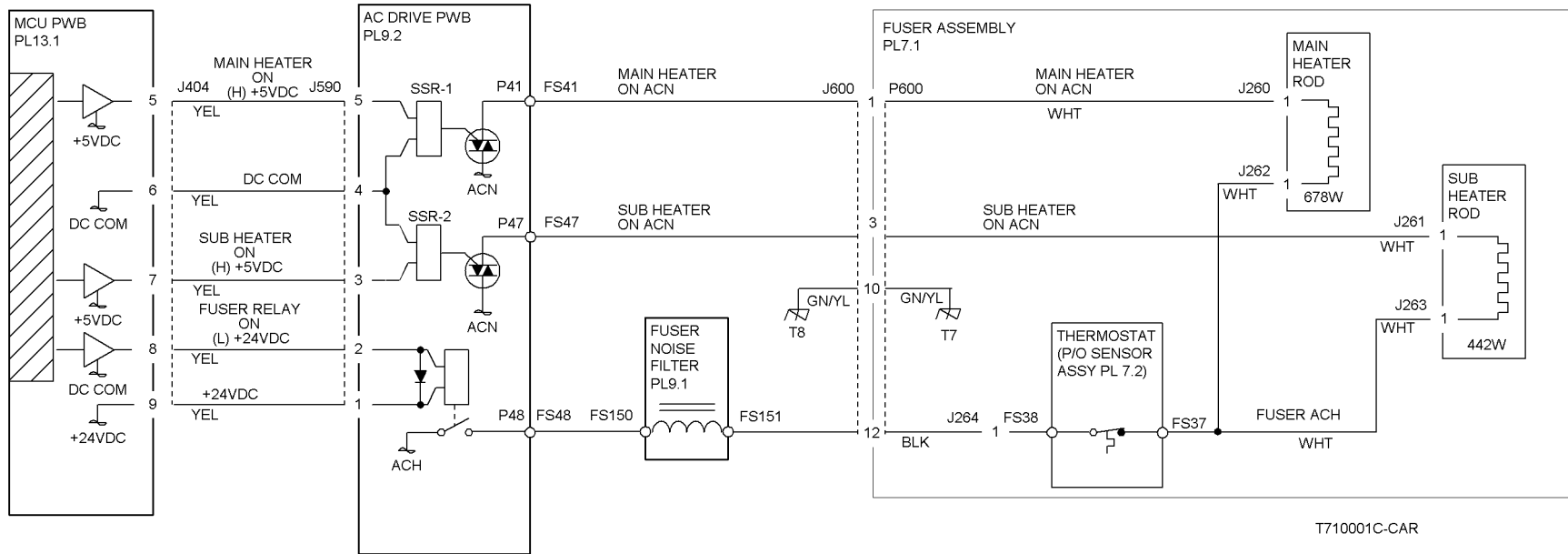


Figure 2 10-350 RAP Circuit Diagram - Main Heater and Sub Heater



## 10-351 Rear Thermistor Open

The machine logic detected an open circuit in the Rear Thermistor.

### Initial Actions

Turn off the power, remove the Fuser Assembly and allow it to cool down.

### Procedure

Measure the resistance between P600-7 and P600-9 on the Fuser Assembly (Figure 1). The resistance is between 30K and 190K Ohms.

**Y N**  
Check the wiring from P600 to P/J212 for an open circuit and poor contact. If the wires are OK, replace the Sensor Assembly (PL 7.2).

Reinstall the Fuser Assembly, turn the power ON. Enter dC140 [010-101] and press Start. The display is between 678 and 699.

**Y N**  
Turn the power off. Refer to Figure 1 and check the wiring from P/J404 to J600 for an open circuit or poor contact. If the check is OK, replace the MCU PWB (PL 13.1).

Replace the MCU PWB (PL 13.1).

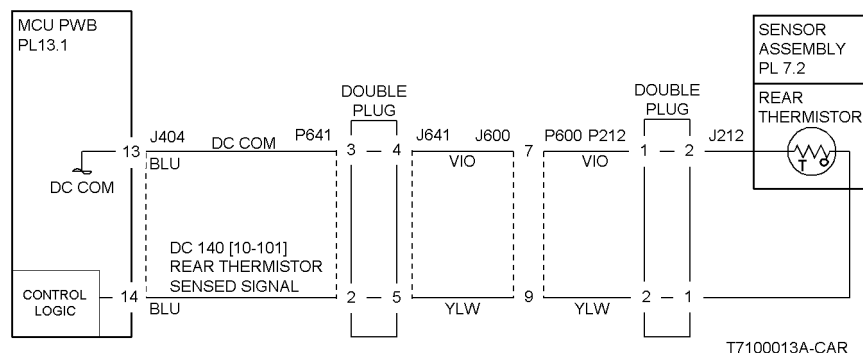


Figure 1 10-351 RAP Circuit Diagram - Rear Thermistor

## 10-352 Main Heater Warm Up

The temperature did not reach the READY temperature within the specified time.

### Initial Actions

Turn off the power, remove the Fuser Assembly and allow it to cool down.

### Procedure

Measure the resistance between P600-4 and P600-6 on the Fuser Assembly (Figure 1). The resistance is between 30K and 190K Ohms.

**Y N**  
Check the wiring from P600 to P/J211 for an open circuit and poor contact. If the wires are OK, replace the Sensor Assembly (PL 7.2).

Measure the resistance between P600-1 and P600-12 on the Fuser Assembly (Figure 2). The resistance is 20 Ohms or less.

**Y N**  
Replace the Fuser Assembly (PL 7.1).

Reinstall the Fuser Assembly, turn the power ON. Enter dC140 [010-100] and press Start. The display is between 678 and 699.

**Y N**  
Turn the power off. Refer to Figure 1 and check the wiring from P/J404 to J600 for an open circuit or poor contact. If the check is OK, replace the MCU PWB (PL 13.1).

**NOTE:** All voltage measurements mentioned below this point must be made while the Fuser is warming up.

Remove the Rear Cover (REP 14.2) and the cover over the 24V LVPS (3 screws). AC Line Voltage is measured at FS41 on the AC Drive PWB (PL 9.2).

**Y N**  
+2 - 3.5VDC is measured at P/J404-5 on the MCU PWB (PL 13.1).

**Y N**  
Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

+24VDC measured at P/J404-9 on the MCU PWB (PL 13.1).

**Y N**  
Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Check wiring from P/J404 to P/J590 for an open circuit or poor contact. If the check is OK, replace the AC Drive PWB (PL 9.2).

Check the wires and connectors. If the check is OK, replace the Fuser Assembly (PL 7.1).



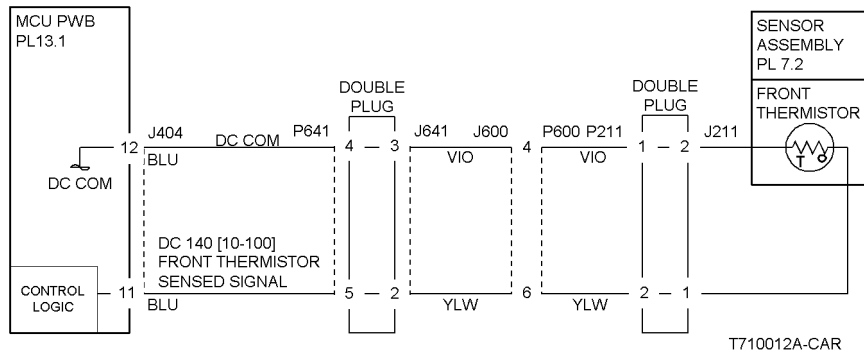


Figure 1 10-352 RAP Circuit Diagram - Front Thermistor

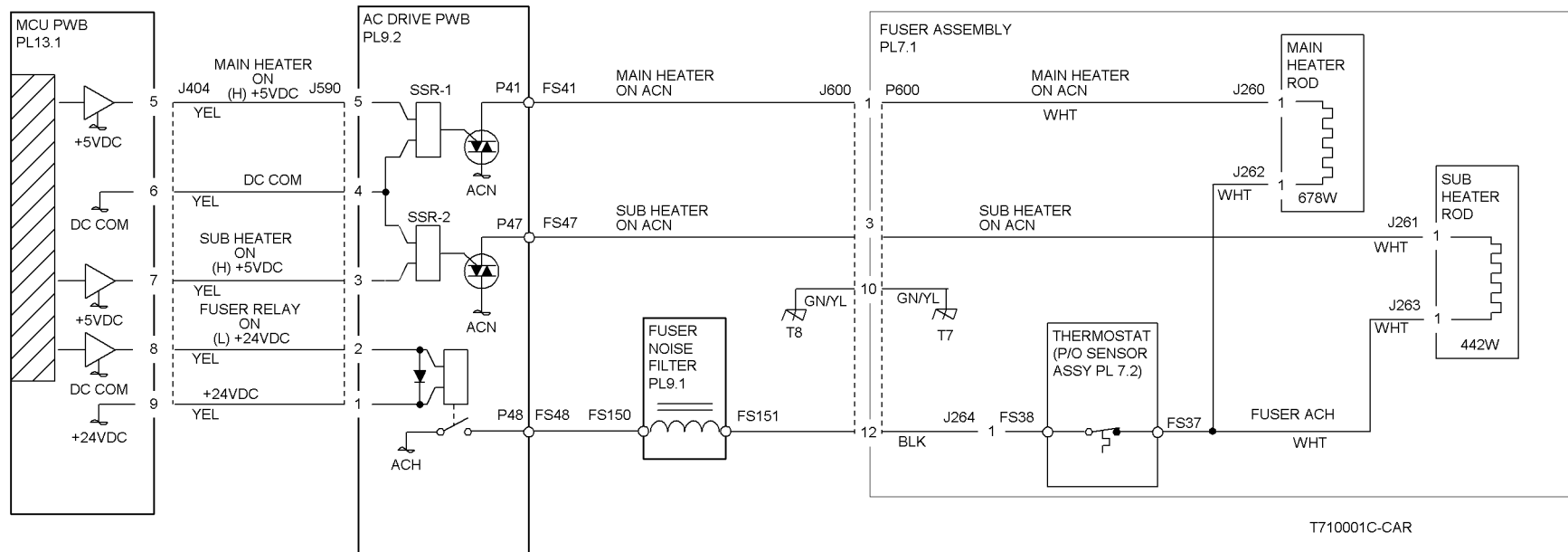


Figure 2 10-352 RAP Circuit Diagram - Main Heater and Sub Heater



## 10-353 Main Heater On Time

The Main Heater remained on for more than the specified time.

### Initial Actions

Turn off the power, remove the Fuser Assembly, and allow it to cool down.

### Procedure

Measure the resistance between **P600-4** and **P600-6** on the Fuser Assembly (**Figure 1**). **The resistance is between 30K and 190K Ohms.**

Y N

Check the wiring from **P600** to **P/J211** for an open circuit and poor contact. If the check is OK, replace the Sensor Assembly (**PL 7.2**).

Measure the resistance between **P600-1** and **P600-12** on the Fuser Assembly (**Figure 2**). **The resistance is 20 Ohms or less.**

Y N

Replace the Fuser Assembly (**PL 7.2**).

Reinstall the Fuser Assembly, turn the power ON. Enter **dC140** [010-100]. **The display is between 678 and 699.**

Y N

Turn the power off. Refer to **Figure 1** and check the wiring from **P/J404** to **J600** for an open circuit or poor contact. If the check is OK, replace the MCU PWB (**PL 13.1**).

**NOTE:** All voltage measurements mentioned below this point must be made while the Fuser is warming up.

Remove the Rear Cover (**REP 14.2**) and the cover over the 24V LVPS (3 screws). **AC Line Voltage is measured at FS41 on the AC Drive PWB (PL 9.2).**

Y N

**+2 - 3.5VDC measured at P/J404-5 on the MCU PWB (PL 13.1).**

Y N

Check the wires and connectors. If the check is OK, replace the MCU PWB (**PL 13.1**).

**+24VDC measured at P/J404-9 on the MCU PWB (PL 13.1).**

Y N

Check the wires and connectors. If the check is OK, replace the MCU PWB (**PL 13.1**).

Check wiring from **P/J404** to **P/J590** for an open circuit or poor contact. If the check is OK, replace the AC Drive PWB (**PL 9.2**).

Check the wires and connectors. If the check is OK, replace the Fuser Assembly (**PL 7.1**).

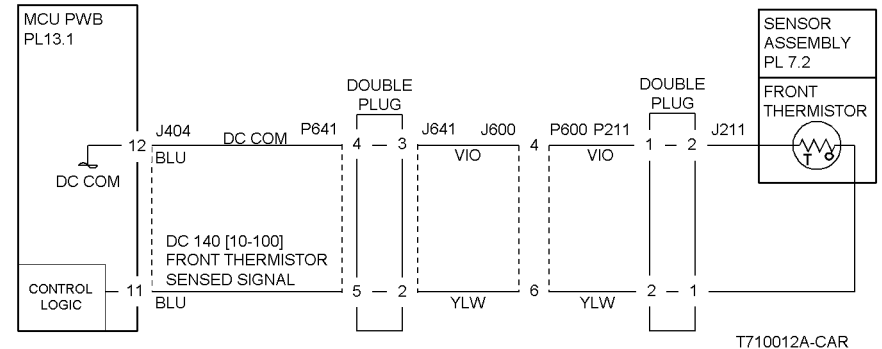


Figure 1 10-353 RAP Circuit Diagram - Front Thermistor



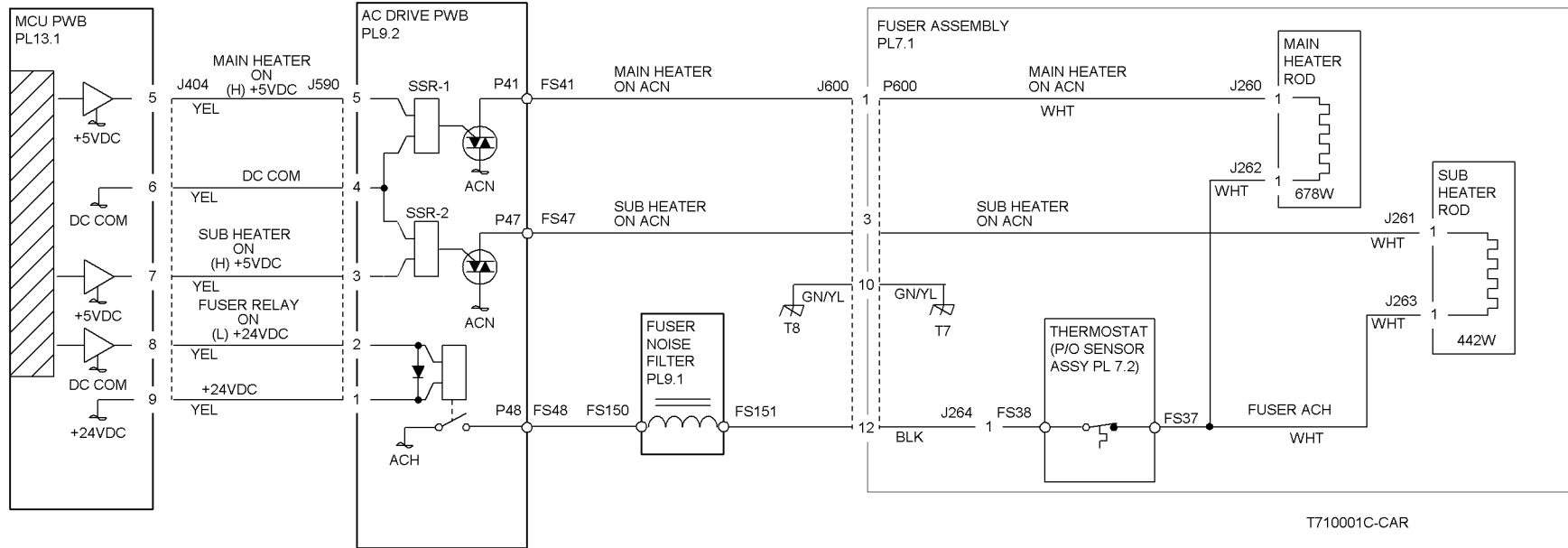


Figure 2 10-353 RAP Circuit Diagram - Main Heater and Sub Heater



## 10-354 Sub Heater Warm Up

The temperature did not reach the READY temperature.

### Initial Actions

Turn off the power, remove the Fuser Assembly, and allow it to cool down.

### Procedure

**NOTE:** If this fault is declared 3 times in succession, print and copy mode will be disabled. In order to clear this condition, reset NVM location 744-003 to 0.

Measure the resistance between P600-7 and P600-9 on the Fuser Assembly (Figure 1). The resistance is between 30K and 190K Ohms.

Y N

Check the wiring from P600 to P/J212 for an open circuit or poor contact. If the check is OK, replace the Sensor Assembly (PL 7.2).

Measure the resistance between P600, pins 3 and 12 on the Fuser Assembly (Figure 2). The resistance is 20 Ohms or less.

Y N

Replace the Fuser Assembly (PL 7.2).

Reinstall the Fuser Assembly, turn the power ON. Enter dC140 [010-101]. The display value is between 678 and 699.

Y N

Turn the power off. Refer to Figure 1 and check the wiring from P/J404 to J600 for an open circuit or poor contact. If the check is OK, replace the MCU PWB (PL 13.1).

**NOTE:** All voltage measurements mentioned below this point must be made while the Fuser is warming up.

Remove the Rear Cover (REP 14.2) and the cover over the 24V LVPS (3 screws). AC Line Voltage is measured at FS47 on the AC Drive PWB (PL 9.2).

Y N

+2 - 3.5VDC is measured at P/J404-7 on the MCU PWB (PL 13.1).

Y N

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

+24VDC is measured at P/J404-9 on the MCU PWB (PL 13.1).

Y N

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Check wiring from P/J404 to P/J590 for an open circuit or poor contact. If the check is OK, replace the AC Drive PWB.

Check the wires and connectors. If the check is OK, replace the AC Drive PWB (PL 9.2).

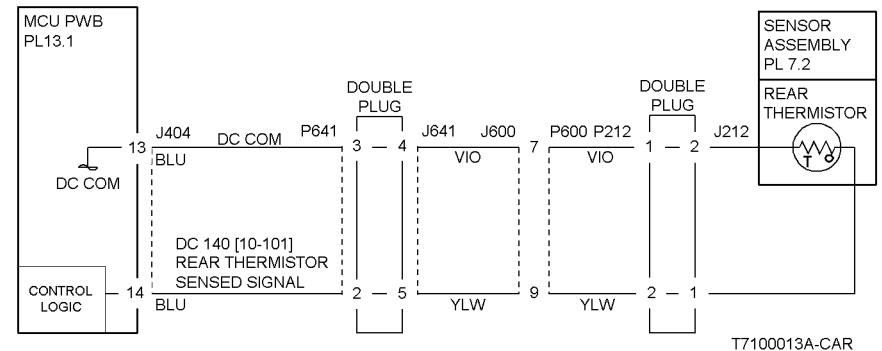


Figure 1 10-354 RAP Circuit Diagram - Rear Thermistor



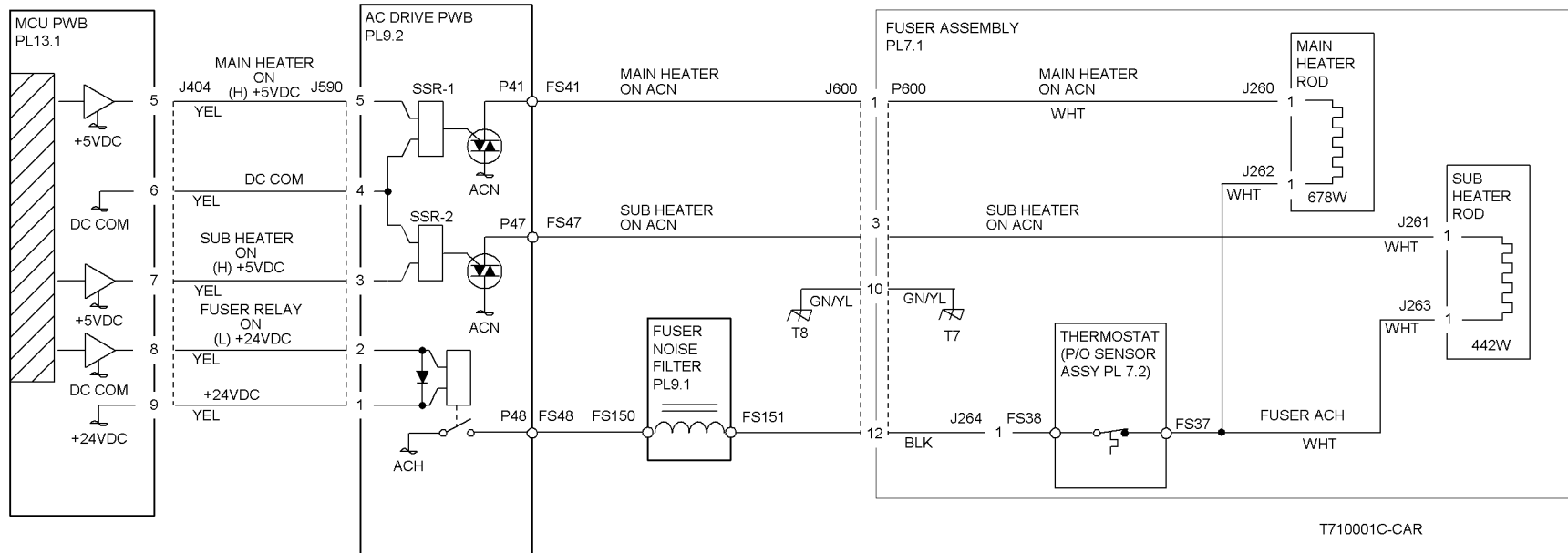


Figure 2 10-354 RAP Circuit Diagram - Main Heater and Sub Heater



## 10-356 Sub Heater On Time

The Sub Heater remained on for more than the specified time.

### Initial Actions

Turn off the power, remove the Fuser Assembly, and allow it to cool down.

### Procedure

Measure the resistance between P600-7 and P600-9 on the Fuser Assembly (Figure 1). The resistance is between 30K and 190K Ohms.

Y N

Check the wiring from P600 to P/J212 for an open circuit and poor contact. If the check is OK, replace the Sensor Assembly (PL 7.2).

Measure the resistance between P600-3 and P600-12 on the Fuser Assembly (Figure 2). The resistance is 20 Ohms or less.

Y N

Replace the Fuser Assembly (PL 7.1).

Reinstall the Fuser Assembly, turn the power ON. Enter dC140 [010-101]. The display is between 678 and 699.

Y N

Turn the power off. Refer to Figure 1 and check the wiring from P/J404 to J600 for an open circuit or poor contact. If the check is OK, replace the MCU PWB (PL 13.1).

**NOTE:** All voltage measurements mentioned below this point must be made while the Fuser is warming up.

Remove the Rear Cover (REP 14.2) and the cover over the 24V LVPS (3 screws). AC Line Voltage is measured at FS47 on the AC Drive PWB (PL 9.2).

Y N

+2 - 3.5VDC is measured at P/J404-7 on the MCU PWB (PL 13.1).

Y N

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

+24VDC is measured at P/J404-9 on the MCU PWB (PL 13.1).

Y N

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Check wiring from P/J404 to P/J590 for an open circuit or poor contact. If the check is OK, replace the AC Drive PWB (PL 9.2).

Check the wires and connectors. If the check is OK, replace the Fuser Assembly (PL 7.1).

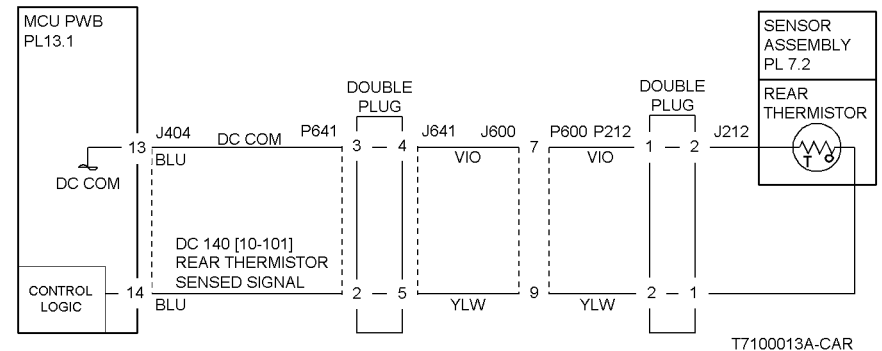


Figure 1 10-356 RAP Circuit Diagram - Rear Thermistor







## 10-398 Fan Lock

The machine logic detected a failure of the Fuser Fan, LVPS Fan or the Rear Fan.

### Procedure

Enter **dC330** [004-050]. Press **Start**. The Fuser Fan (PL 8.1) revolves at high speed.

Y N  
There is +24 VDC from P/J222 pin 1 to pin 4.  
Y N  
There is +24 VDC from P/J407 pin A14 to pin A17.  
Y N  
Replace the MCU PWB (PL 13.1)  
Refer to Figure 1. Check the wires from J407 pins A14 and A17 to the Fuser Fan for an open circuit.  
There is +24 VDC from P/J407 pin A15 to pin A14.  
Y N  
Replace the MCU PWB (PL 13.1)  
Press **Stop**. There is +24 VDC from P/J407 pin A15 to pin A17.  
Y N  
Refer to Figure 1. Check for an open circuit (greater than 30K ohms) from J407- A14 to J407-A15 (through the Fuser Fan). If the wires are OK, replace the Fuser Fan (PL 8.1).  
Replace the Fuser Fan (PL 8.1). If the problem continues, replace the MCU PWB (PL 13.1).

The Rear Fan (PL 8.1) revolves at high speed.

Y N  
There is +24 VDC from P/J552 pin 1 to pin 4.  
Y N  
Refer to Figure 2 (DC 2240/1632, WC M24) or Figure 3 (DC 3535) Check the wires and connectors for a short circuit. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues replace the I/F PWB (PL 9.1).  
There is +24 VDC from P/J552 pin 1 to pin 2.  
Y N  
Replace the MCU PWB (PL 13.1).  
Press **Stop**. There is +24 VDC from P/J552 pin 2 to pin 4.  
Y N  
Refer to Figure 2 (DC 2240/1632, WC M24) or Figure 3 (DC 3535) Check for an open circuit (greater than 30K ohms) from J552-1 to J552-2 (through the Rear Fan). If the wires are OK, replace the Rear Fan (PL 8.1).  
Replace the Rear Fan (PL 8.1). If the problem continues, replace the MCU PWB (PL 13.1).

The LVPS Fan revolves at high speed (PL 9.1).

Y N  
The machine is a DC 3535.  
Y N  
There is +24 VDC from P/J214 pin 1 to pin 4.  
Y N  
There is +24 VDC from P/J406 pin B11 to pin B14.  
Y N  
Replace the MCU PWB (PL 13.1)  
Refer to Figure 4. Check the wires from J406 pins B11 and B14 to the LVPS Fan for an open circuit.  
There is +24 VDC from P/J406 pin B12 to pin B11.  
Y N  
Replace the MCU PWB (PL 13.1)  
Press **Stop**. There is +24 VDC from P/J406 pin B12 to pin B14.  
Y N  
Refer to Figure 4. Check for an open circuit (greater than 30K ohms) from J406- B12 to J406-B14 (through the LVPS Fan). If the wires are OK, replace the LVPS Fan (PL 9.1).  
Replace the LVPS Fan (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).  
There is +24 VDC from P/J214 pin 1 to pin 4.  
Y N  
There is +24 VDC from P/J406 pin B10 to pin B13.  
Y N  
Replace the MCU PWB (PL 13.1)  
Refer to Figure 5. Check the wires from J406 pins B10 and B13 to the LVPS Fan for an open circuit.  
There is +24 VDC from P/J406 pin B11 to pin B10.  
Y N  
Replace the MCU PWB (PL 13.1)  
Press **Stop**. There is +24 VDC from P/J406 pin B11 to pin B13.  
Y N  
Refer to Figure 5. Check for an open circuit (greater than 30K ohms) from J406- B11 to J406-B13 (through the LVPS Fan). If the wires are OK, replace the LVPS Fan (PL 9.1).  
Replace the LVPS Fan (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).  
With **dC330** [004-050] entered, stack **dC330** [004-200] and press **Start**. The display is L.  
Y N  
Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).  
The Fans are operating correctly. If the problem continues replace the MCU PWB (PL 13.1).



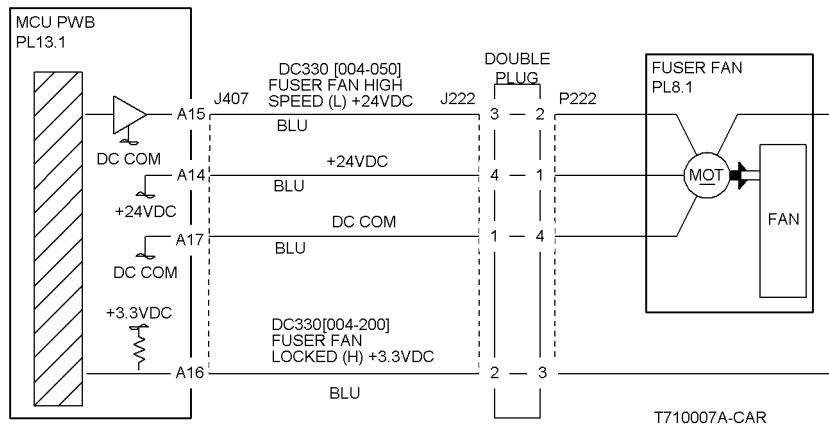


Figure 1 10-398 RAP Circuit Diagram - Fuser Fan

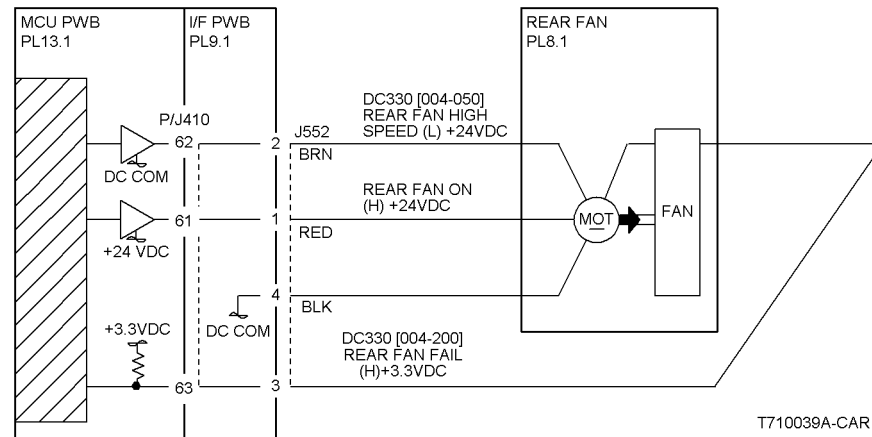


Figure 3 10-398 RAP Circuit Diagram - DC 3535 Rear Fan

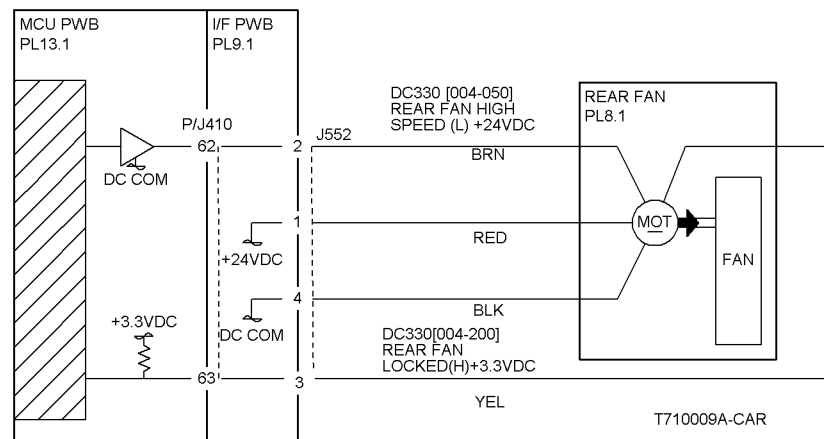


Figure 2 10-398 RAP Circuit Diagram - DC 2240/1632, WC M24 Rear Fan

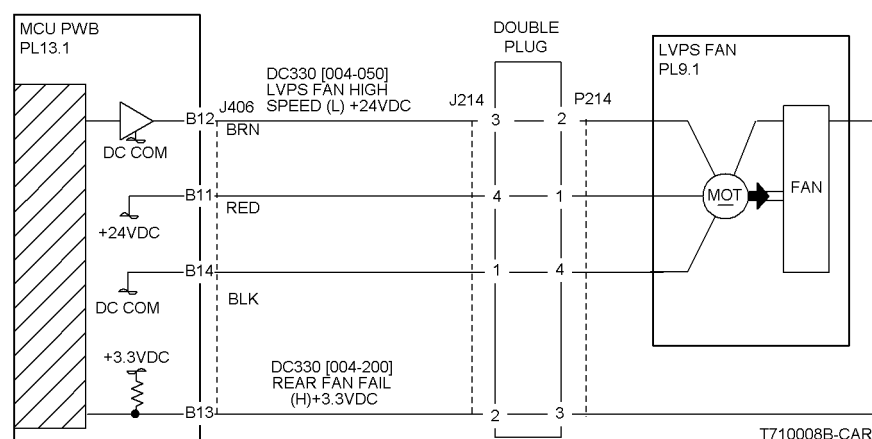


Figure 4 10-398 RAP Circuit Diagram - DC 2240/1632, WC M24 LVPS Fan



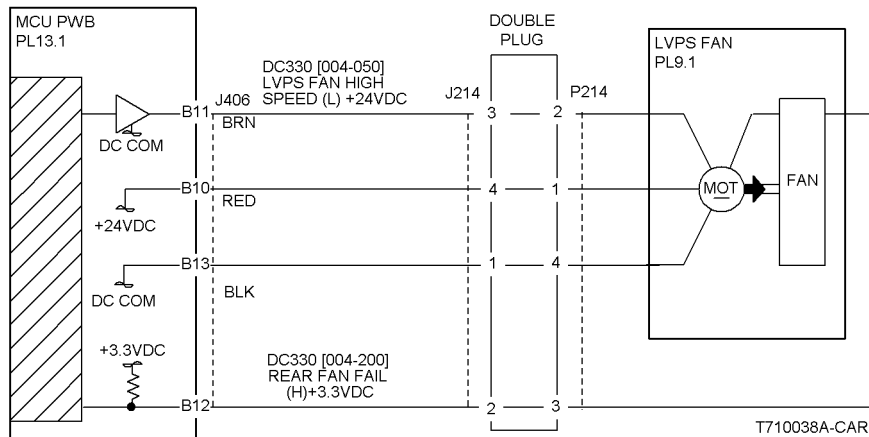


Figure 5 10-398 RAP Circuit Diagram - DC 3535 LVPS Fan

## 10-420 Fuser Near End Of Life

Replace the Fuser Assembly in X copies.

### Procedure

The Fuser Assembly was replaced.

Y N

Replace the Fuser Assembly (PL 7.2)

Run the dC135 [954-804]. The initial value is 0.

Y N

Replace the MCU PWB (PL 13.1).

Ensure that the LIFE setting value is 100K, switch power off then on.  
If the problem continues, replace the MCU PWB (PL 13.1).



## 10-421 Fuser End Of Life

Fuser at end of life.

### Procedure

The Fuser Assembly was replaced.

**Y   N**  
Replace the Fuser Assembly (PL 7.2).

Run the dC135 [954-804]. The initial value is 0.

**Y   N**  
Replace the MCU PWB (PL 13.1).

Ensure that the LIFE setting value is 100K, switch power off then on.  
If the problem continues, replace the MCU PWB (PL 13.1).



## 12-100 H Transport Entrance Sensor On

The H Transport Entrance Sensor does not detect paper after the Registration Clutch (in IOT) energized.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the H Transport Belt and check for wear.
- Check the Guides on the H Transport Cover for damage, wear or faulty installation.

### Procedure

Enter **dC330** [012-001] and press **Start**. The Finisher Drive Motor (PL 17.7) energizes (Figure 4).

**Y N**  
Remove the Rear Cover (PL 17.5). **+24 VDC** is measured between **P/J879-2** and **3** on the Finisher Drive Motor and GND.

**Y N**  
**+24 VDC** is measured between **P/J846 - 5** and **7** on the Finisher PWB and GND.

**Y N**  
Replace the Finisher PWB (PL 17.13).

Check the wires from P/J846-5 and 7 to J879-2 and 3 for damage or poor contact.

Enter **dC330** [012-001] and press **Start**. **Less than +1 VDC** is measured between **P/J879 -1** on the Finisher Drive Motor and GND.

**Y N**  
Replace the Finisher Drive Motor (PL 17.7).

Check wiring between **P/J879** and **P/J846** for damage or poor contact. If the check is OK, replace the Finisher PWB (PL 17.13).

Press **Stop**. Enter **dC330** [012-103] and press **Start**. Open the H Transport Cover (PL 17.3) and actuate the H Transport Entrance Sensor (PL 17.4). (Figure 1) The display changes.

**Y N**  
Press **Stop**. Check the circuit of the H Transport Entrance Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Close the H Transport Cover and press **Stop**. Enter **dC330** [012-060 or 061] and press **Start**. The Gate In Solenoid (PL 17.4) actuates (Figure 1).

**Y N**  
Press **Stop**. Check the circuit of the Gate In Solenoid. (Figure 3) Refer to the OF 99-4 RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3, Figure 4) are securely connected and that the wires are not damaged.
- Check the H Transport and Finisher for a docking failure (PL 17.1).
- Check the Finisher Drive Motor and its associated gears and belts (PL 17.4, PL 17.7) for damage, contamination or misalignment.
- Replace the H Transport Entrance Sensor (PL 17.4).

- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 5).

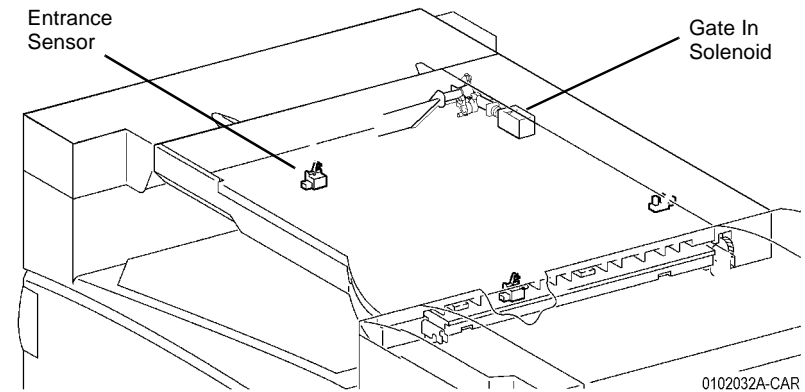


Figure 1 Component Location

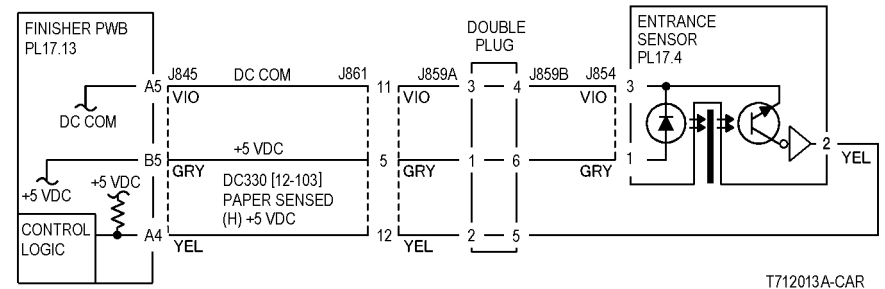


Figure 2 12-100 RAP Circuit Diagram - H Transport Entrance Sensor

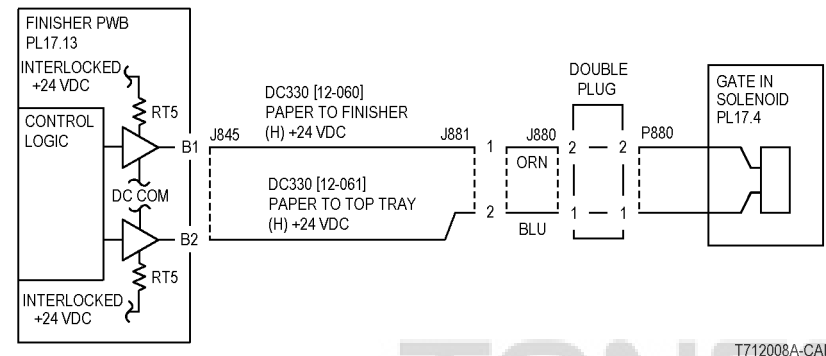


Figure 3 12-100 RAP Circuit Diagram - Gate In Solenoid



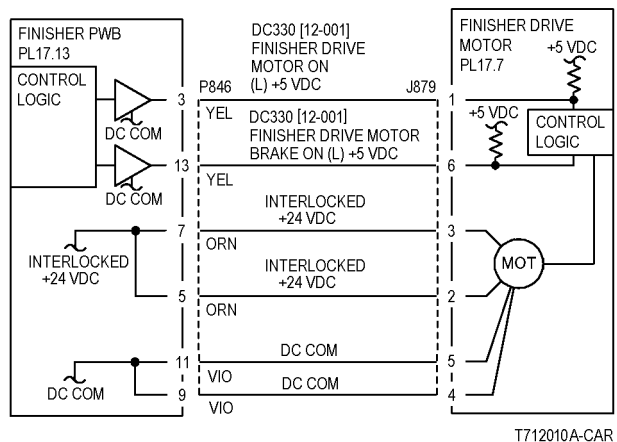


Figure 4 12-100 RAP Circuit Diagram - Finisher Drive Motor

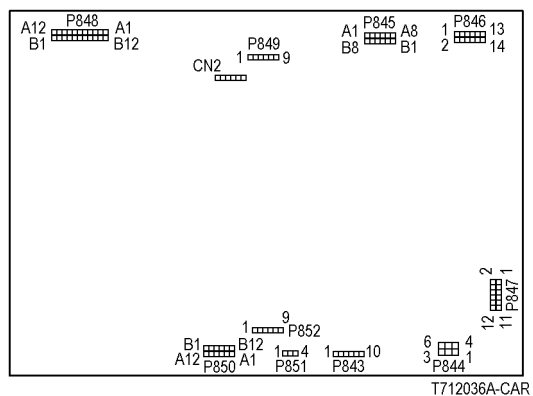


Figure 5 Finisher PWB



## 12-102 H Transport Entrance Sensor Off

Paper did not deactuate the H Transport Entrance Sensor.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the H Transport Belt and check for wear.
- Check the Guides on the H Transport Cover for damage, wear or faulty installation.

### Procedure

Open the H Transport Cover (PL 17.3). Check H Transport Belts, H Transport Belt Drive Rolls, and Guides on H Transport Cover for installation or damage problems (PL 17.3, PL 17.4). **The components are good.**

Y N  
Repair as required (PL 17.3, PL 17.4).

Enter dC330 [012-103] and press **Start**. Open the H Transport Cover (PL 17.3) and actuate the H Transport Entrance Sensor (PL 17.4) (Figure 1). **The display changes.**

Y N  
Press **Stop**. Check the circuit of the H Transport Entrance Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

**NOTE:** If the sensor fails H, 12-901 is declared after power is switched on.

Close the H Transport Cover and press **Stop**. Enter dC330 [012-001] and press **Start**. **The Finisher Drive Motor (PL 17.7) energizes (Figure 3).**

Y N  
Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J879-2 and 3 on the Finisher Drive Motor and GND.**

Y N  
**+24 VDC is measured between P/J846 -5 and 7 on the Finisher PWB and GND.**

Y N  
Replace the Finisher PWB (PL 17.13).

Check the wires from P/J846-5 and 7 to J879-2 and 3 for damage or poor contact.

Enter dC330 [012-001] and press **Start**. **Less than +1 VDC is measured between P/J879 -1 on the Finisher Drive Motor and GND.**

Y N  
Replace the Finisher Drive Motor (PL 17.7).

Check wiring between P/J879 and P/J846 for damage or poor contact. If the check is OK, replace the Finisher PWB (PL 17.13).

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Check the H Transport and Finisher for a docking failure (PL 17.1).
- Check the Finisher Drive Motor and its associated gears and belts (PL 17.4, PL 17.7) for damage, contamination or misalignment.
- Replace the H Transport Entrance Sensor (PL 17.4).

- If the problem persists, replace the Finisher PWB (PL 17.13).

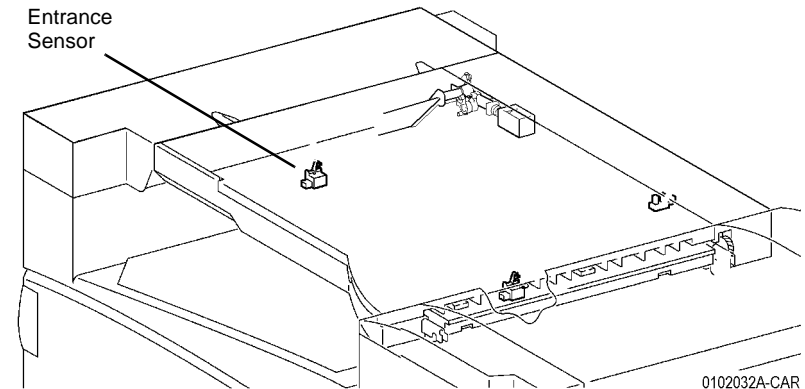


Figure 1 Component Location

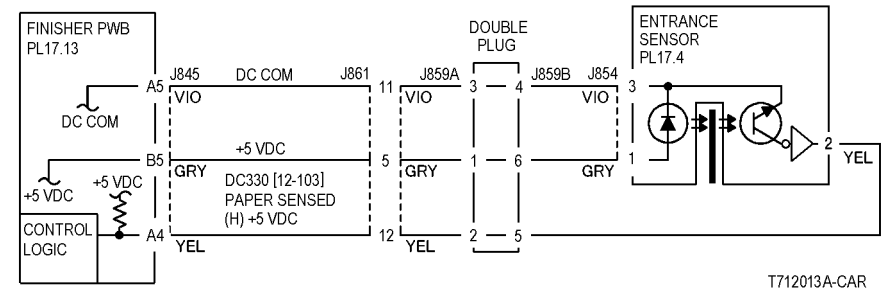
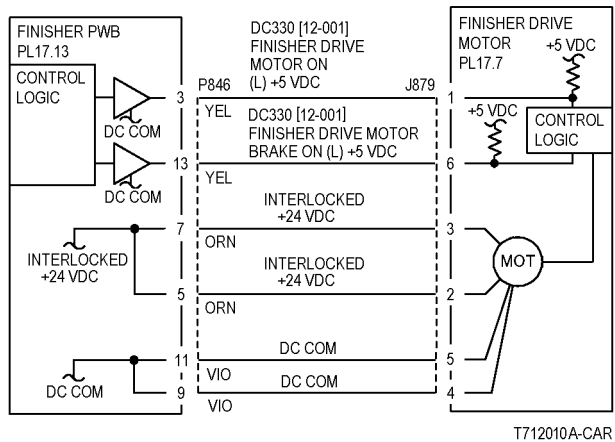


Figure 2 12-102 RAP Circuit Diagram - H Transport Entrance Sensor





**Figure 3 12-102 RAP Circuit Diagram - Finisher Drive Motor**



## 12-104 H Transport Exit Sensor On

The H Transport Exit Sensor did not detect paper within the specific time after the H Transport Entrance Sensor has detected the paper. (The specified time differs depending on the paper size.)

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the H Transport Belt and check for wear.
- Check the Guides on the H Transport Cover for damage, wear or faulty installation.

### Procedure

Enter **dC330** [012-104] and press **Start**. Open the H Transport Cover (PL 17.3) and actuate the H Transport Exit Sensor (PL 17.4) (Figure 1). **The display changes.**

Y N

Press **Stop**. Check the circuit of the H Transport Exit Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Close the H Transport Cover and press **Stop**. Enter **dC330** [012-001] and press **Start**. **The Finisher Drive Motor (PL 17.7) energizes (Figure 3).**

Y N

Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J879-2 and 3 on the Finisher Drive Motor and GND.**

Y N

**+24 VDC is measured between P/J846 -5 and 7 on the Finisher PWB and GND.**

Y N

Replace the Finisher PWB (PL 17.13).

Check the wires from P/J846-5 and 7 to J879-2 and 3 for damage or poor contact.

Enter **dC330** [012-001] and press **Start**. **Less than +1 VDC is measured between P/J879 -1 on the Finisher Drive Motor and GND.**

Y N

Replace the Finisher Drive Motor (PL 17.7).

Check wiring between P/J879 and P/J846 for damage or poor contact. If the check is OK, replace the Finisher PWB (PL 17.13).

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Check the H Transport and Finisher for a docking failure (PL 17.1).
- Check the Finisher Drive Motor and its associated gears and belts (PL 17.4, PL 17.7) for damage, contamination or misalignment.
- Replace the H Transport Exit Sensor (PL 17.4).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

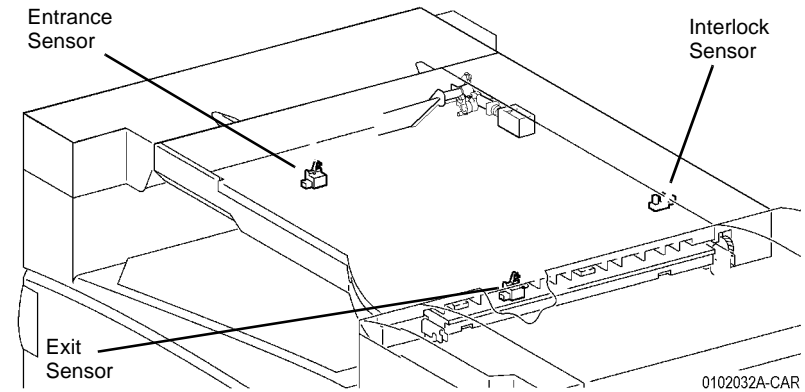


Figure 1 Component Location

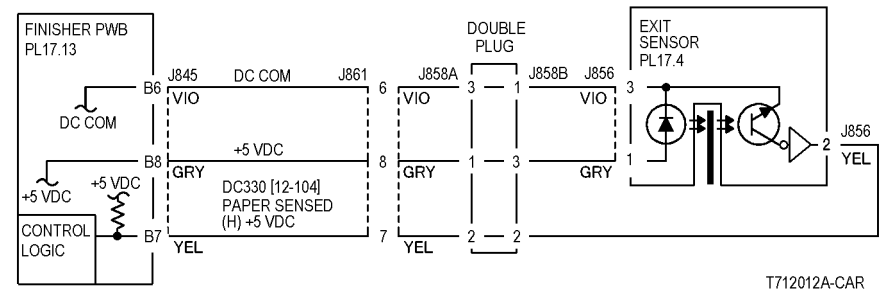
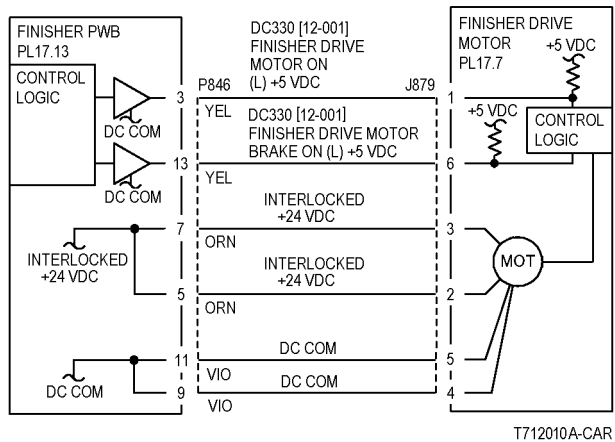
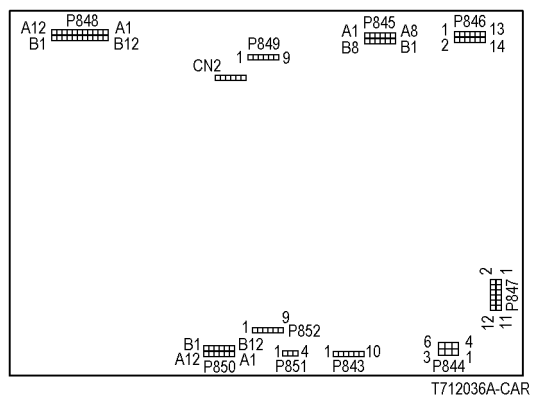


Figure 2 12-104 RAP Circuit Diagram - H Transport Exit Sensor





**Figure 3 12-104 RAP Circuit Diagram - Finisher Drive Motor**



**Figure 4 Finisher PWB**



## 12-106 H Transport Exit Sensor Off

Paper did not deactuate the H Transport Exit Sensor.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the H Transport Belt and check for wear.
- Check the Guides on the H Transport Cover for damage, wear or faulty installation.

### Procedure

Enter **dC330** [012-104] and press **Start**. Open the H Transport Cover (PL 17.3) and actuate the H Transport Exit Sensor (PL 17.4). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the H Transport Exit Sensor (Figure 2). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Close the H Transport Cover and press **Stop**. Enter **dC330** [012-001] and press **Start**. **The Finisher Drive Motor (PL 17.7) energizes (Figure 3).**

**Y N**  
Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J879-2 and 3 on the Finisher Drive Motor and GND.**

**Y N**  
**+24 VDC is measured between P/J846 -5 and 7 on the Finisher PWB and GND.**

**Y N**  
Replace the Finisher PWB (PL 17.13).

Check the wires from P/J846-5 and 7 to J879-2 and 3 for damage or poor contact.

Enter **dC330** [012-001] and press **Start**. **Less than +1 VDC is measured between P/J879 -1 on the Finisher Drive Motor and GND.**

**Y N**  
Replace the Finisher Drive Motor (PL 17.7).

Check wiring between **P/J879** and **P/J846** for damage or poor contact. If the check is OK, replace the Finisher PWB (PL 17.13).

Press **Stop**. Remove the Rear Cover (PL 17.5). Enter **dC330** [012-217] and press **Start**. Actuate the Decurler Cam Home Sensor (PL 17.8) (Figure 1). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Decurler Cam Home Sensor (Figure 4). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop**. Enter **dC330** [012-070] and press **Start**. **The Decurler Cam Clutch (PL 17.7) momentarily energizes.**

**Y N**  
Press **Stop**. Check the circuit of the Decurler Cam Clutch (Figure 5). Refer to **OF 99-4 RAP** for troubleshooting procedure.

**A**  
Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 4, Figure 5, Figure 4, Figure 5) are securely connected and that the wires are not damaged.
- Check the H Transport and Finisher for a docking failure (PL 17.1).
- Check the Finisher Drive Motor and its associated gears and belts (PL 17.4, PL 17.7) for damage, contamination or misalignment.
- Decurler Roll/Pinch Roll for a drive failure (PL 17.7).
- Compiler Entrance Roll for a drive failure (PL 17.10, PL 17.12).
- Replace the H Transport Exit Sensor (PL 17.4).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 6).

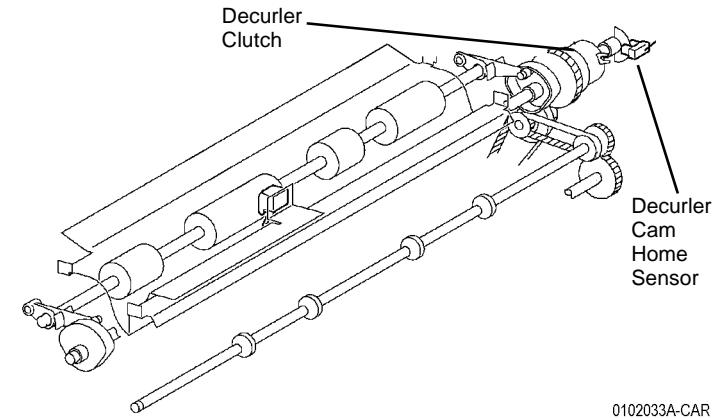


Figure 1 Component Location

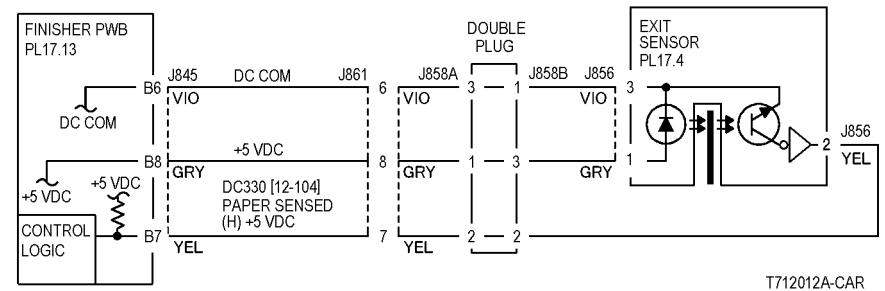
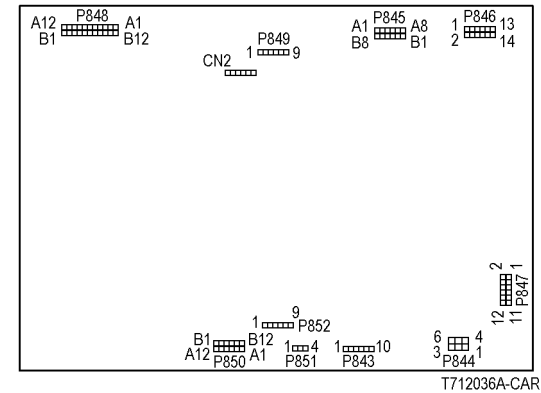
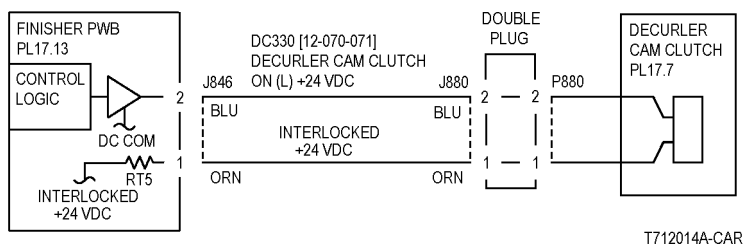
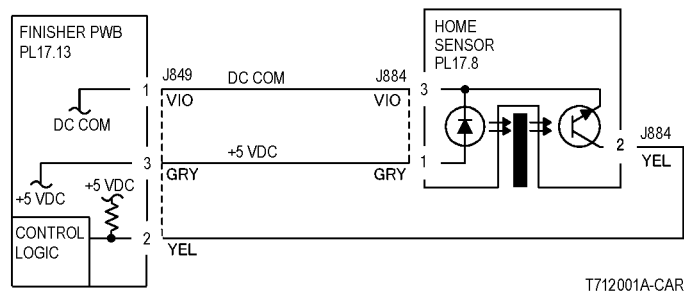
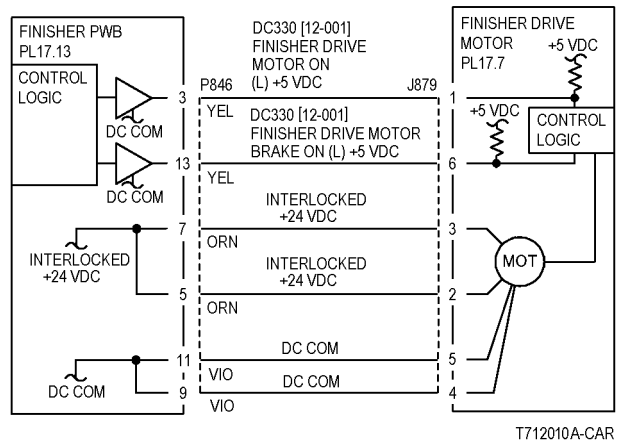


Figure 2 12-106 RAP Circuit Diagram - H Transport Exit Sensor







## 12-120 Compiler Entrance Sensor On

The Compiler Entrance Sensor did not detect paper.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the H Transport Belt and check for wear.
- Check the Guides on the H Transport Cover for damage, wear or faulty installation

### Procedure

Enter **dC330** [012-101] and press **Start**. Open the H Transport Cover and actuate the Compiler Entrance Sensor (PL 17.12) (Figure 1) by manually feeding a sheet of paper through the Finisher. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Compiler Entrance Sensor (Figure 2). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagram (Figure 2) are securely connected and that the wires are not damaged.
- Check the Finisher Drive Motor and its associated gears and belts (PL 17.4, PL 17.7) for damage, contamination or misalignment.
- Decurler Roll/Pinch Roll for a drive failure (PL 17.7).
- Replace the Compiler Entrance Sensor (PL 17.12).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 3).

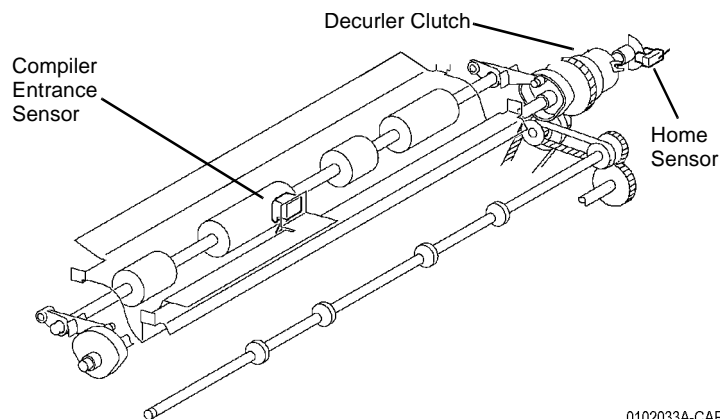


Figure 1 Component Location

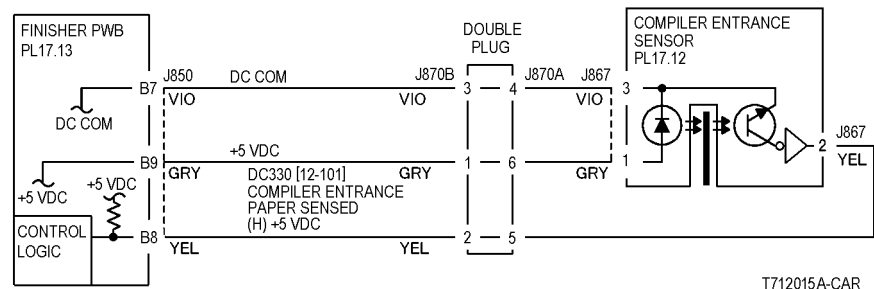


Figure 2 12-120 RAP Circuit Diagram - Compiler Entrance Sensor

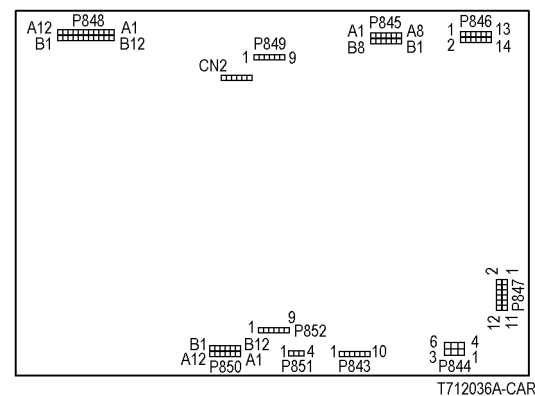


Figure 3 Finisher PWB



## 12-122 Compiler Entrance Sensor Off

Paper does not deactivate the Compiler Entrance Sensor.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the H Transport Belt and check for wear.

### Procedure

Make a copy and observe paper in the Compiler Tray. **The copy enters the Compiler Tray.**

**Y N**

There is a drives problem. Check the following:

- The Finisher Drive Motor and its associated gears and belts (PL 17.7) for damage, contamination or misalignment.
- The Decurler Roll/Pinch Roll (Shaft) (PL 17.7) for a drive or contact failure.
- The Exit Roll and Pinch Rolls (PL 17.12) for a drive or contact failure.

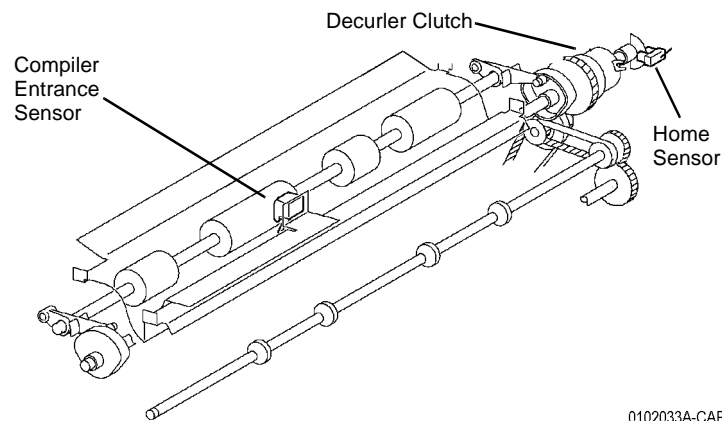
Enter **dC330** [012-101] and press **Start**. Open the H Transport Cover and actuate the Compiler Entrance Sensor (PL 17.12) (Figure 1) by manually feeding a sheet of paper through the Finisher. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Compiler Entrance Sensor (Figure 2). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

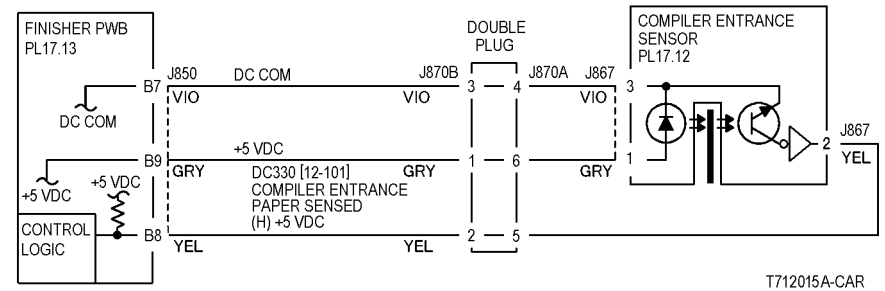
Press **Stop**.

- Ensure that the connectors shown in the circuit diagram (Figure 2) are securely connected and that the wires are not damaged.
- Replace the Compiler Entrance Sensor (PL 17.12).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 3).



0102033A-CAR

Figure 1 Component Location



T712015A-CAR

Figure 2 12-122 RAP Circuit Diagram - Compiler Entrance Sensor



## 12-170 Set Eject

The Compiler Paper Sensor did not deactuate after the Eject Motor energized.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Eject Roll and Eject Pinch Roll and check for wear.

### Procedure

Enter **dC330** [012-102] and press **Start**. Open the Top Cover (PL 17.6) and actuate the Compiler Paper Sensor (PL 17.10) (Figure 1). The display changes.

**Y N**

Press **Stop**. Check the circuit of the Compiler Paper Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter **dC330** [012-030] and press **Start**. The Eject Motor (PL 17.8) energizes (Figure 3).

**Y N**

Remove the Rear Cover (PL 17.5). +24 VDC is measured between P/J881 -2 and 5 on the Eject Motor and GND.

**Y N**

+24 VDC is measured between P/J846- 6 and 12 on the Finisher PWB and GND.

**Y N**

Replace the Finisher PWB (PL 17.13).

Check wiring between P/J846- 6 and 12 and P/J881- 2 and 5 for damage or poor contact.

+24 VDC is measured between P/J881- 1, 3, 4 and 6 on the Eject Motor and GND.

**Y N**

Replace the Eject Motor (PL 17.8).

Check the wires from P/J846 to P/J881 for damage or poor contact. If the check is OK, replace the Finisher PWB (PL 17.13).

Check the following:

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Check the Eject Motor and its associated gears, pulleys and belts (PL 17.8) for damage, contamination or misalignment.
- Eject Clamp for an up and down movement failure (PL 17.8).
- Stacker Tray for foreign substance (PL 17.1).
- Replace the Compiler Paper Sensor (PL 17.10).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

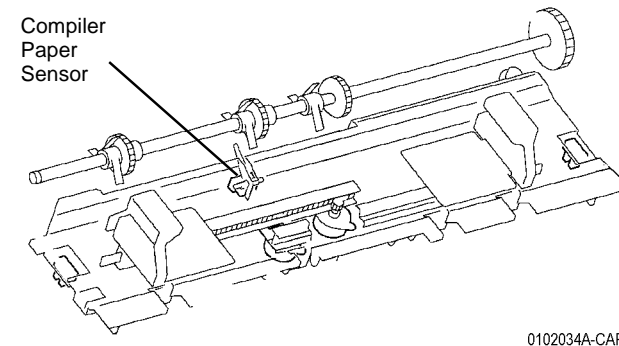


Figure 1 Component Location

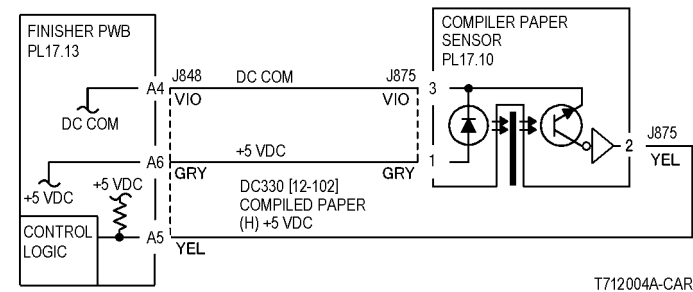
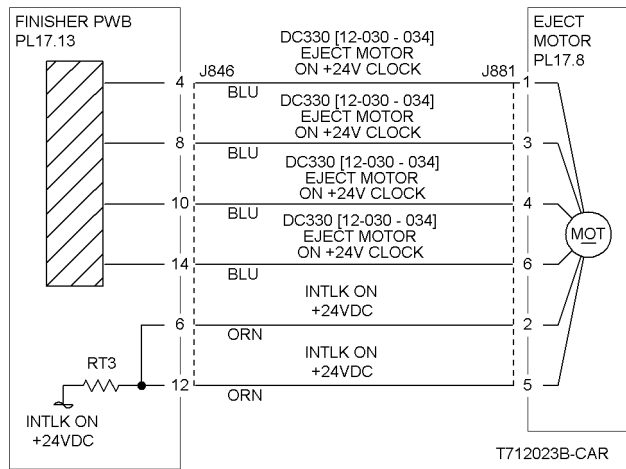
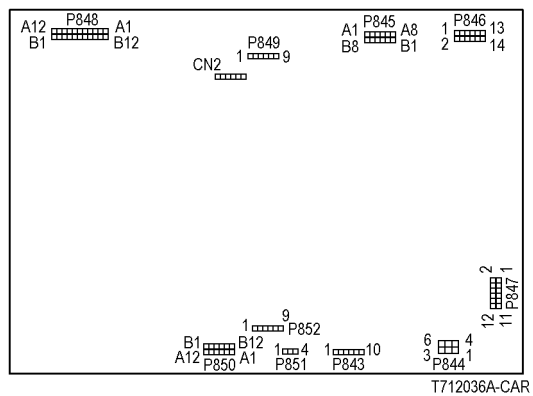


Figure 2 12-170 RAP Circuit Diagram - Compiler Paper Sensor





**Figure 3 12-170 RAP Circuit Diagram - Eject Motor**



**Figure 4 Finisher PWB**



## 12-241 Staple Move Sensor On

- The Staple Sensor did not turn on after the Stapler moved to the Staple Position.
- The Staple Sensor did not actuate after the Stapler is in position.

### Initial Actions

- Check for obstructions in the Stapler Unit Rail.
- Check the Rail for wear.

### Procedure

Open the Front Cover Door (PL 17.5) and manually move the Stapler toward rear and front. **The Stapler moves smoothly.**

**Y N**  
Repair the cause of Staple Head not moving, such as rail breakage, drag, or damaged gear.

Enter dC330 [012-224] and press **Start**. Actuate the Staple Move Sensor (PL 17.9) (Figure 1) by manually moving the Stapler toward the rear and front. **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Staple Move Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Manually move the Stapler to the middle of the Rail. Cheat the Front Cover Door Interlock Switch (PL 17.13). Enter dC330 [012-081] (front) or [012-083] (rear) and press **Start**. **The Staple Move Motor (PL 17.9) energizes.**

**Y N**  
Press **Stop**. Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J847- 3 and 4 and GND (Figure 3).**

**Y N**  
Replace the Finisher PWB (PL 17.13).

**+24 VDC is measured between P/J847- 1, 2, 5 and 6 and GND.**

**Y N**  
Check wiring between P/J847 and P/J888 for damage or poor contact. If the check is OK, replace the Staple Move Motor (PL 17.9).

Replace the Finisher PWB (PL 17.13).

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Ensure that the Stapler Harness (PL 17.9) does not obstruct the Staple Head and that the harness is properly secured.
- Replace the Staple Move Sensor (PL 17.9).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

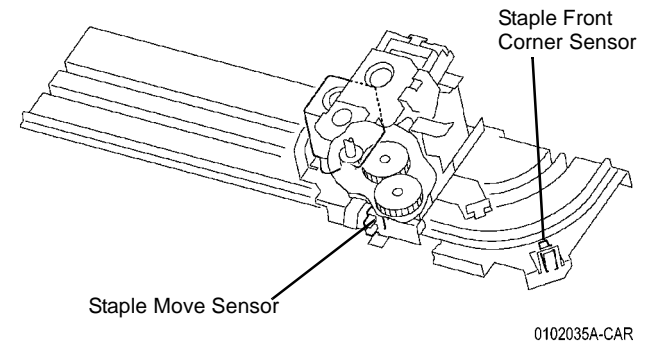


Figure 1 Component Location

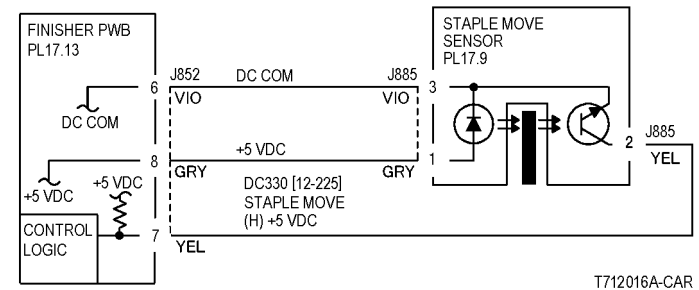


Figure 2 12-241 RAP Circuit Diagram - Staple Move Sensor



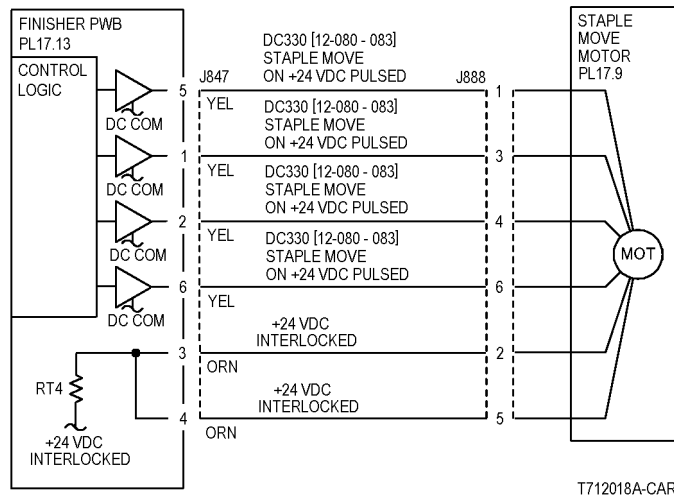


Figure 3 12-241 RAP Circuit Diagram - Staple Move Motor

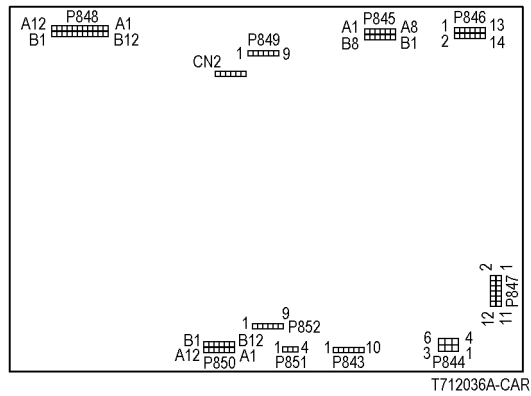


Figure 4 Finisher PWB



## 12-242 Staple Move Sensor Off

- The Staple Move Sensor did not turn off after the move to the Staple Position started.
- The Staple Move Sensor turned off after Staple Position has been fixed.
- The Staple Move Sensor did not turn off after it turned on when paper passed through the 1st position of the Dual Staple when moving to the Rear Staple Position.

### Initial Actions

- Check for obstructions in the Stapler Unit area.
- Check the Rail for wear.

### Procedure

Open the Front Cover Door (PL 17.5) and manually move the Stapler toward rear and front.

#### The Stapler moves smoothly

Y N

Repair the cause of Staple Head not moving, such as rail breakage, drag, or damaged gear.

Enter dC330 [12-224] and press **Start**. Actuate the Staple Move Sensor (PL 17.9) (Figure 1) by manually moving the Stapler toward the rear and front. **The display changes.**

Y N

Press **Stop**. Check the circuit of the Staple Move Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Manually move the Stapler to the middle of the Rail. Check the Front Cover Door Interlock Switch (PL 17.13). Enter dC330 [012-081] (front) or [012-083] (rear) and press **Start**.

#### The Staple Move Motor (PL 17.9) energizes.

Y N

Press **Stop**. Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J847- 3 and 4 and GND (Figure 3).**

Y N

Replace the Finisher PWB (PL 17.13).

**+24 VDC is measured between P/J847- 1, 2, 5 and 6 and GND.**

Y N

Check wiring between P/J847 and P/J888 for damage or poor contact. If the check is OK, replace the Staple Move Motor (PL 17.9).

Replace the Finisher PWB (PL 17.13).

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Ensure that the Stapler Harness (PL 17.9) does not obstruct the Staple Head and that the harness is properly secured.
- Replace the Staple Move Sensor (PL 17.9).
- Replace the Finisher PWB (PL 17.13) (Figure 4).

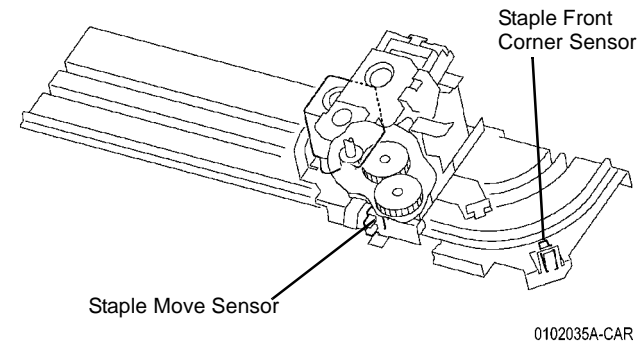


Figure 1 Component Location

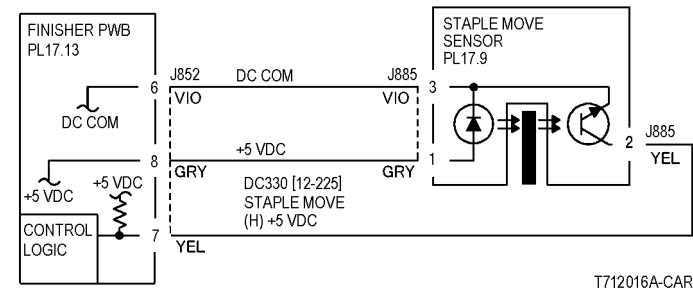


Figure 2 12-242 RAP Circuit Diagram - Staple Move Sensor



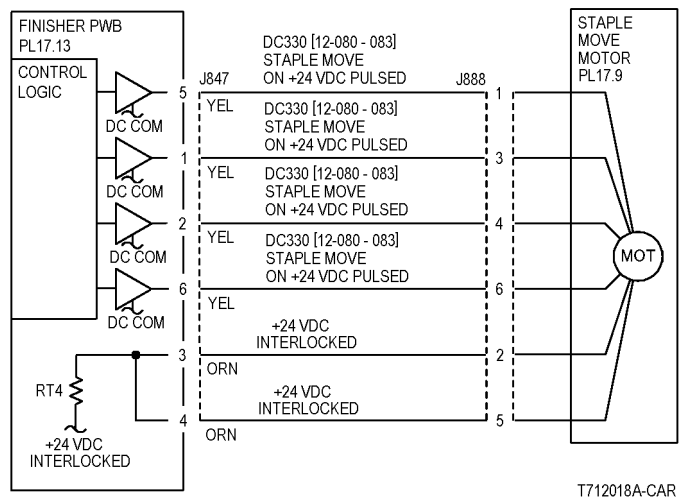


Figure 3 12-242 RAP Circuit Diagram - Staple Move Motor

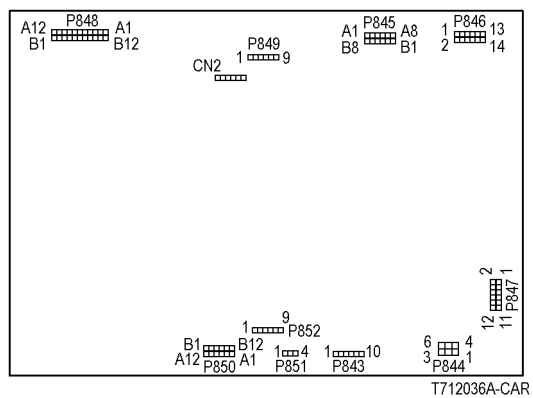


Figure 4 Finisher PWB



## 12-244 Staple Home Sensor

The Staple Head Home Sensor did not actuate after the Stapler Motor energized to open the Stapler.

### Procedure

Enter **dC330** [012-207] and press **Start**. Turn the Staple Motor Gear manually to actuate the Staple Head Home Sensor. **The display changes.**

Y N

**+5 VDC is measured at Stapler Assembly between P/J886-5 and P/J886-1.**

Y N

**+5 VDC is measured at the Finisher PWB between P/J852-1 and P/J852-5.**

Y N

Replace the Finisher PWB (PL 17.13) (Figure 4).

Check the wire between the Finisher PWB P/J852 and the Stapler Assembly P/J886 for an open circuit or poor contact.

Turn the Staple Motor Gear manually to deactivate and actuate the Staple Head Home Sensor. **The voltage changes between the Stapler P/J886-4 and Finisher Frame.**

Y N

Switch off the power. Disconnect P/J852 on the Finisher PWB. Switch the power on. **+5 VDC is measured at the Finisher PWB P852-2.**

Y N

Replace the Finisher PWB (PL 17.13).

Check the wires between the Finisher P/J852 and the Stapler Assembly P/J886 for obvious damage (Figure 2).

If the wires are good, replace the Stapler Assembly (PL 17.9).

Replace the Finisher PWB (PL 17.13).

Position paper in stapler (Figure 1). Enter **dC330** [012-020] and press **Start**. **The Staple Motor (PL 17.9) energizes (Figure 3).**

Y N

**With [012-020] running, +24 VDC is measured at the Finisher PWB P/J847-7.**

Y N

Replace the Finisher PWB (PL 17.13).

Check continuity between:

- The Finisher PWB P/J847-7 and Stapler Assembly P/J887-1
- The Finisher PWB P/J847-8 and Stapler Assembly P/J887-2
- The Finisher PWB P/J847-9 and Stapler Assembly P/J887-3
- The Finisher PWB P/J847-10 and Stapler Assembly P/J887-4

If no problems are found, replace the Stapler Assembly (PL 17.9).

If the problem continues, replace the Finisher PWB (PL 17.13).

Replace the Finisher PWB (PL 17.13).

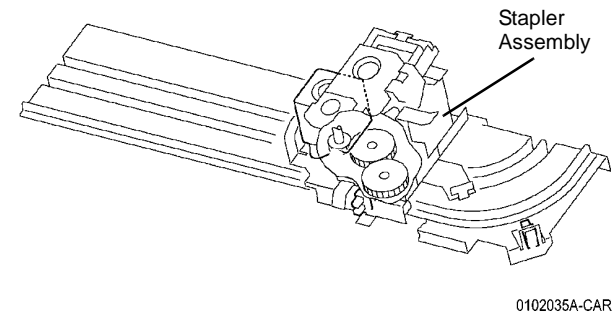


Figure 1 Component Location

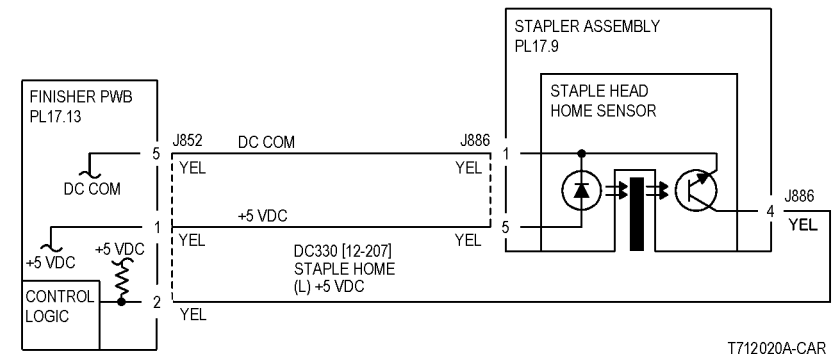


Figure 2 12-244 RAP Circuit Diagram - Staple Head Home Sensor

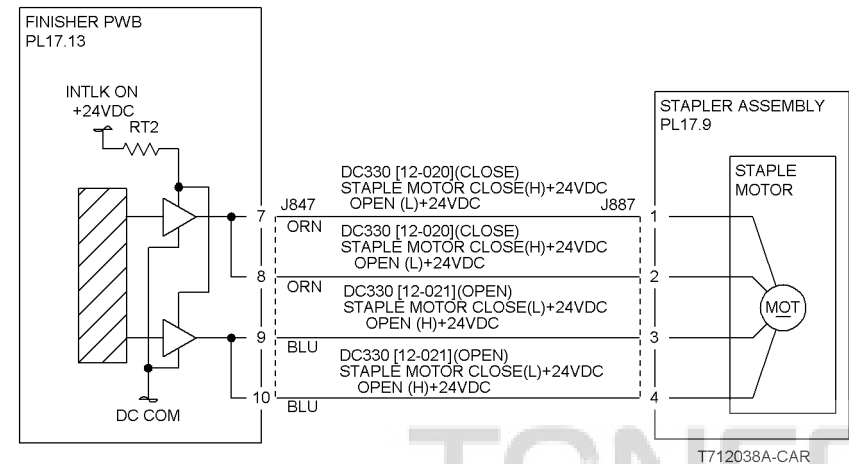
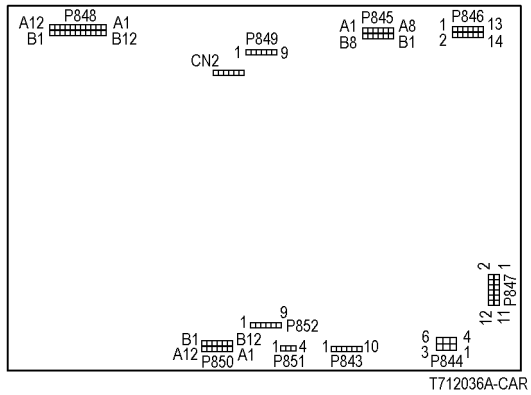


Figure 3 12-244 RAP Circuit Diagram - Staple Motor





**Figure 4 Finisher PWB**



## 12-252 Front Tamper

- With the Front Tamper Home Sensor off the Front Tamper Home Sensor did not turn on after move to the Front Tamper Home position began.
- With the Front Tamper Home Sensor on, the Front Tamper Sensor did not turn off when the Front Tamper Home Sensor deactuates.

### Initial Actions

Check for obstructions in the Compiler Tray Assembly.

### Procedure

Enter **dC330** [012-091] (front) or [12-094] (rear) and press **Start**. The **Front Tamper (PL 17.10)** moves.

**Y N**  
The **Front Tamper Motor (Figure 3)** energized.

**Y N**  
Press **Stop**. Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J848- B8 and B11 and GND.**

**Y N**  
Replace the Finisher PWB (PL 17.13).

**+24 VDC is measured between P/J848- B7, B9, B10 and B12 and GND.**

**Y N**  
Check wiring between **P/J848** and **P/J877** for damage or poor contact. If the check is OK, replace the Front Tamper Motor (PL 17.10).

Replace the Finisher PWB (PL 17.13).

Check the Front Tamper Motor and its associated gear and rack mechanism (PL 17.10) for load or drive transmission failure (gear wear or breakage). Repair or replace as required.

Press **Stop**. Enter **dC330** [012-216] and press **Start**. Open the Top Cover (PL 17.6) and move the Front Tamper manually to actuate the Front Tamper Home Sensor (PL 17.10). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Front Tamper Home Sensor (Figure 2). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Replace the Front Tamper Home Sensor (PL 17.10).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

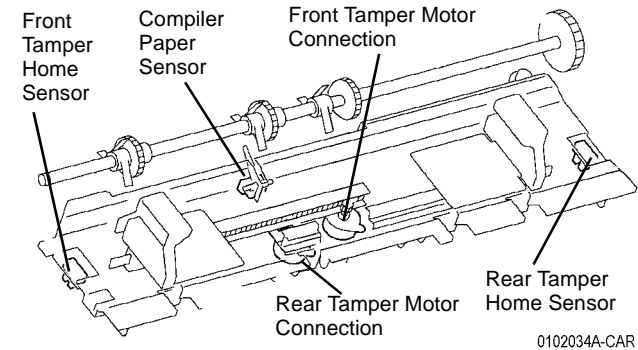


Figure 1 Component Location

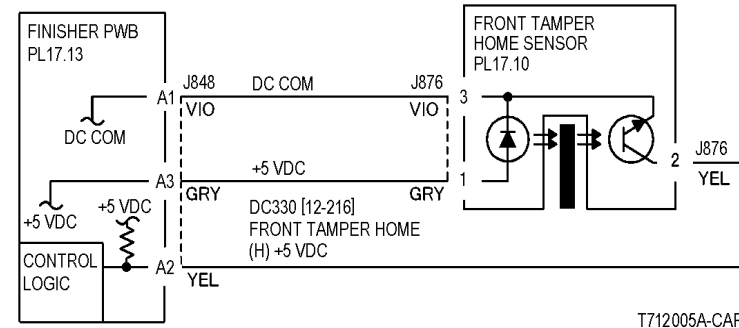


Figure 2 12-252 RAP Circuit Diagram - Front Tamper Home Sensor



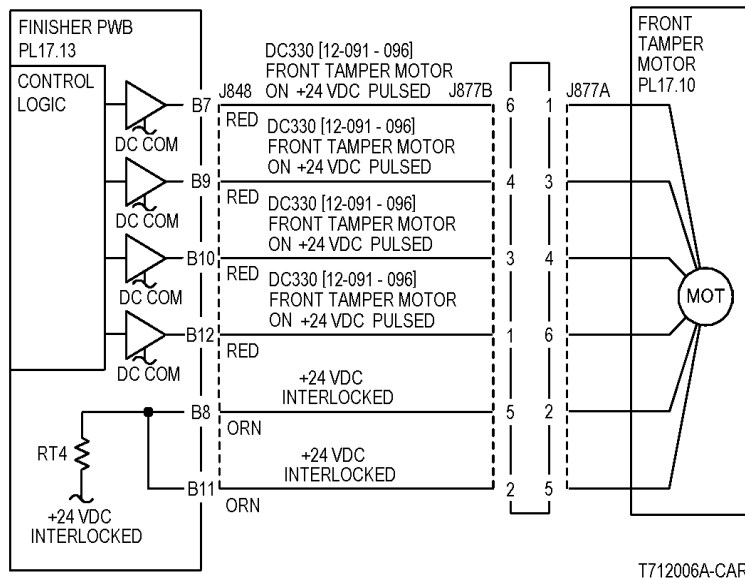


Figure 3 12-252 RAP Circuit Diagram - Front Tamper Motor

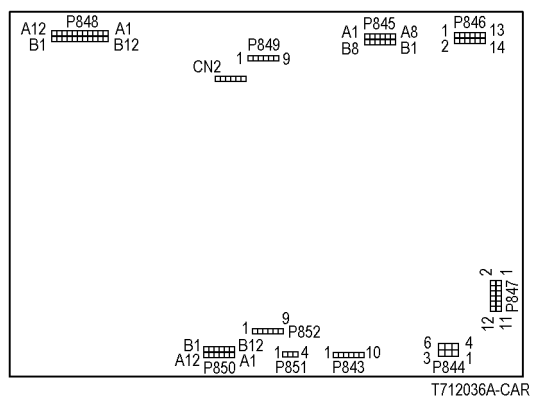


Figure 4 Finisher PWB



## 12-253 Rear Tamper

- With the Rear Tamper Home Sensor off The Rear Tamper Home Sensor did not turn on within 800ms after move to the Rear Tamper Home position has begun.
- With the Rear Tamper Home Sensor on: The Rear Tamper Home Sensor did not turn off when the Rear Tamper Home Sensor is deactuating.

### Initial Actions

Check for obstructions in the Compiler Tray Assembly.

### Procedure

Enter **dC330** [012-010] (front) or [12-013] (rear) and press **Start**. **The Rear Tamper (PL 17.10) moves.**

Y N

The Rear Tamper Motor (**Figure 3**) energized.

Y N

Press **Stop**. Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J848- B2 and B5 and GND.**

Y N

Replace the Finisher PWB (PL 17.13).

**+24 VDC is measured between P/J848- B1, B3, B4 and B6 and GND.**

Y N

Check wiring between **P/J848** and **P/J878** for damage or poor contact. If the check is OK, replace the Rear Tamper Motor (PL 17.10).

Replace the Finisher PWB (PL 17.13).

Check the Rear Tamper Motor and its associated gear and rack mechanism (PL 17.10) for load or drive transmission failure (gear wear or breakage). Repair or replace as required.

Press **Stop**. Enter **dC330** [012-212] and press **Start**. Open the Top Cover and move the Rear Tamper manually to actuate the Rear Tamper Home Sensor (PL 17.10). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Rear Tamper Home Sensor (**Figure 2**). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (**Figure 2**, **Figure 3**) are securely connected and that the wires are not damaged.
- Replace the Rear Tamper Home Sensor (PL 17.10).
- If the problem persists, replace the Finisher PWB (PL 17.13) (**Figure 4**).

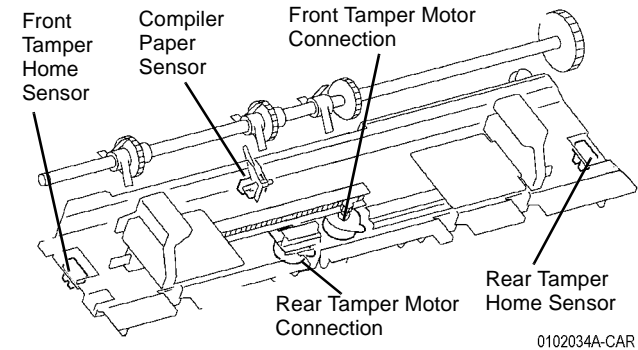


Figure 1 Component Location

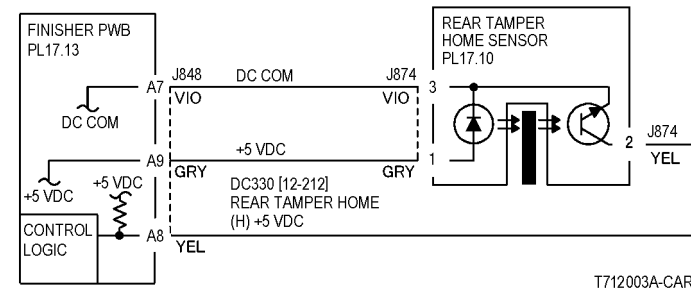


Figure 2 12-253 RAP Circuit Diagram - Rear Tamper Home Sensor

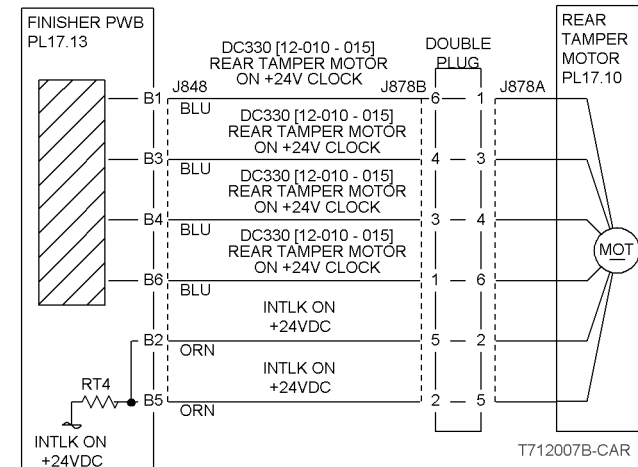
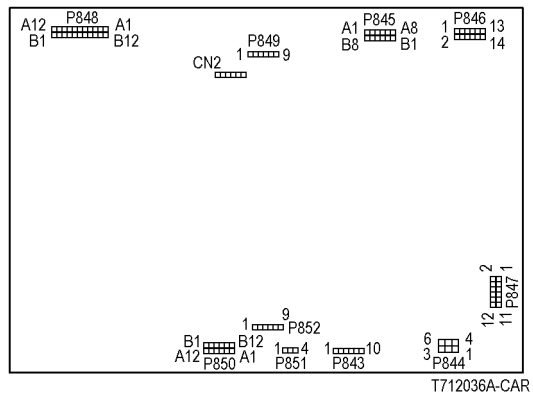


Figure 3 12-253 RAP Circuit Diagram - Rear Tamper Motor





**Figure 4 Finisher PWB**



## 12-254 Stacker Tray

- The Stack Height Sensor did not detect that the tray went down after the Stacker Tray lowered at initialization.
- The Stack Height Sensor did not detect that the tray went up after the Stacker Motor was energized.

### Initial Actions

- Make sure that P/J 800 between the IOT and Finisher is securely connected.
- Check the Stack Height Sensor Actuator for disengagement, bending, obstruction and breakage (Figure 1). Ensure that the return spring for the actuator is in place.
- Check the Stacker Tray for dragging and incorrect installation.

### Procedure

Release the Stacker Drive (REP 12.20) and manually move the Stacker Tray up and down. **The Stacker Tray slides smoothly up and down without obstruction.**

Y N

Check the Stacker Tray belts and pulleys (PL 17.11) for damage, contamination or misalignment. Repair or replace as required.

Enter dC330 [012-201] and press **Start**. Actuate the Stack Height Sensor (PL 17.6). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Stack Height Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [012-050] (up) or [012-051] (down) and press **Start**. **The Stacker Motor (PL 17.11) energizes.**

Y N

Press **Stop**. Check the circuit of the Stacker Motor (Figure 3). Refer to the OF 99-6 RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Check the Stacker Motor and its associated gears, pulleys and belts (PL 17.11) for damage, contamination or misalignment.
- Replace the Stack Height Sensor (PL 17.6).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

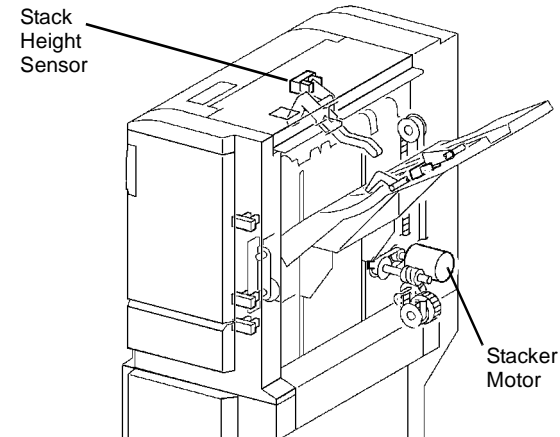
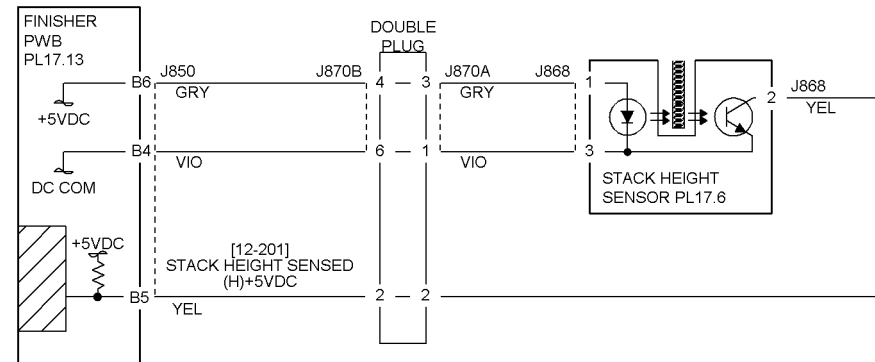


Figure 1 Component Location



T712027A-CAR

Figure 2 12-254 RAP Circuit Diagram - Stack Height Sensor



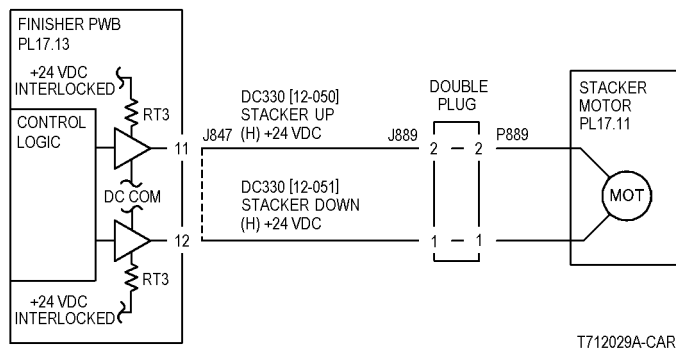


Figure 3 12-254 RAP Circuit Diagram - Stacker Motor

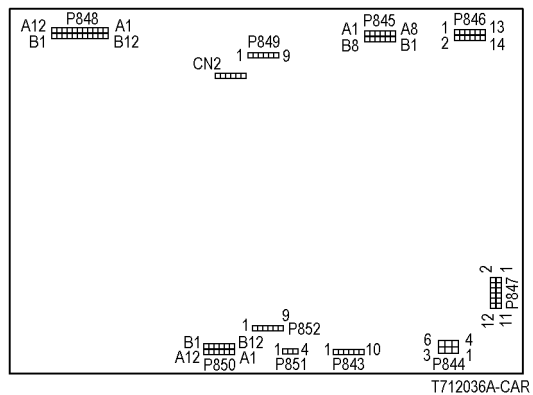


Figure 4 Finisher PWB



## 12-255 Stacker Tray Upper Limit

- The system detected that the Stacker Tray Upper Limit Sensor was turned on after the Stacker Tray had begun lifting up.
- The system detected that the Stacker Tray Upper Limit Sensor remained on when lowering down of the Stacker Tray has completed.

### Initial Actions

- Make sure that P/J 800 between the IOT and Finisher is securely connected.
- Check the Stack Height Sensor Actuator for disengagement, bending, obstruction and breakage (Figure 1). Ensure that the return spring for the actuator is in place.
- Stacker Tray for dragging and incorrect installation.

### Procedure

Release the Stacker Drive (REP 12.20) and manually move the Stacker Tray up and down. **The Stacker Tray slides smoothly up and down without obstruction.**

Y N

Check the Stacker Tray belts and pulleys (PL 17.11) for damage, contamination or misalignment. Repair or replace as required.

Remove the Front Cover (PL 17.5). Enter dC330 [012-202] and press **Start**. Actuate the Upper Limit Sensor (PL 17.11). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Upper Limit Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [012-201] and press **Start**. Actuate the Stack Height Sensor. **The display changes.**

Y N

Press **Stop**. Check the circuit of the Stack Height Sensor (Figure 3). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [012-050] (up) or [012-051] (down) and press **Start**. **The Stacker Motor (PL 17.11) energizes.**

Y N

Press **Stop**. Check the circuit of the Stacker Motor (Figure 4). Refer to the OF 99-6 RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3, Figure 4) are securely connected and that the wires are not damaged.
- Check the Stacker Motor and its associated gears, pulleys and belts (PL 17.11) for damage, contamination or misalignment.
- Replace the Stack Height Sensor (PL 17.6).
- Replace the Upper Limit Sensor (PL 17.11).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

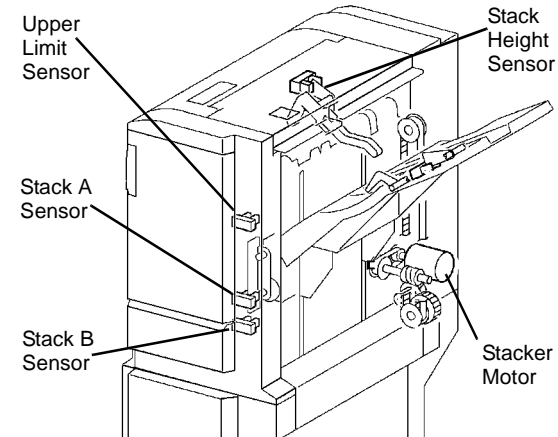
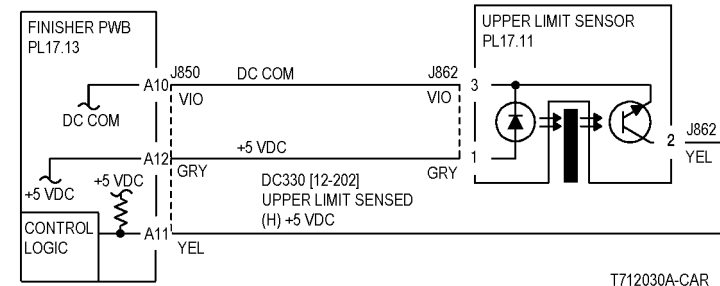


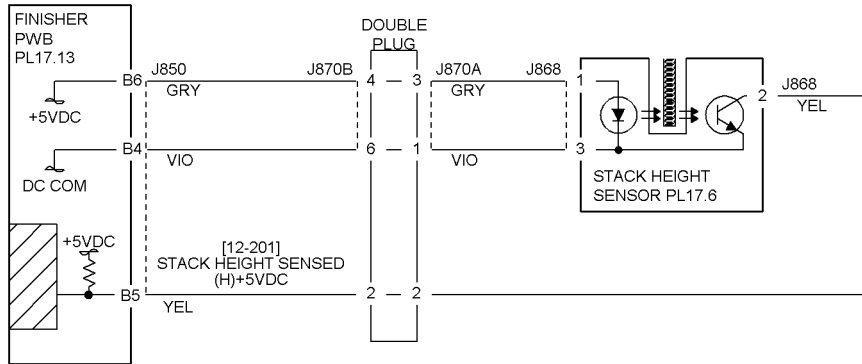
Figure 1 Component Location



T712030A-CAR

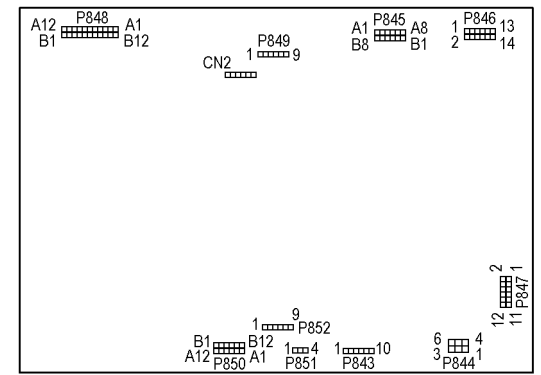
Figure 2 12-255 RAP Circuit Diagram - Upper Limit Sensor





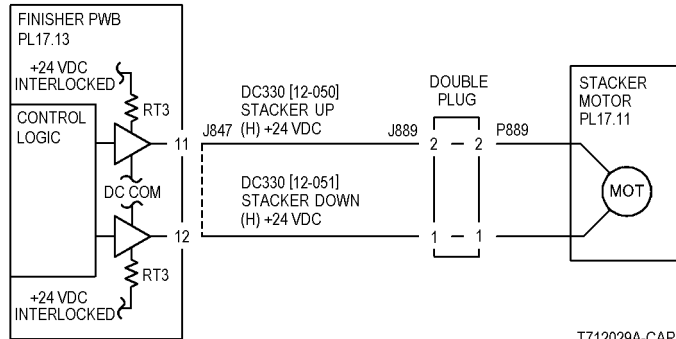
T712027A-CAR

Figure 3 12-255 RAP Circuit Diagram - Stack Height Sensor



T712036A-CAR

Figure 5 Finisher PWB



T712029A-CAR

Figure 4 12-255 RAP Circuit Diagram - Stacker Motor



## 12-256 Staple Front Corner Sensor On

- The Stapler Front Corner Sensor does not turn on within 2 sec. after starting to move to Front Corner.
- The Stapler Front Corner Sensor remained on when starting to move to Front Corner.

### Initial Actions

- Check for obstructions in the Stapler Unit area (Figure 1).
- Check the Rail for wear.

### Procedure

Open the Front Cover Door (PL 17.5) and manually move the Staple Head toward rear and front. **The Staple Head moves smoothly.**

**Y N**  
Repair the cause of Staple Head not moving, such as rail breakage, drag, or damaged gear.

Enter dC330 [012-225] and press **Start**. Actuate the Staple Front Corner Sensor (PL 17.9) by manually moving the Staple Head toward the front. **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Staple Front Corner Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Manually move the Stapler to the middle of the Rail. Cheat the Front Cover Door Interlock Switch (PL 17.13). Enter dC330 [012-081] (front) or [012-083] (rear) and press **Start**. **The Staple Move Motor (PL 17.9) energizes.**

**Y N**  
Press **Stop**. Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J847- 3 and 4 and GND (Figure 3).**

**Y N**  
Replace the Finisher PWB (PL 17.13).

**+24 VDC is measured between P/J847- 1, 2, 5 and 6 and GND.**

**Y N**  
Check wiring between P/J847 and P/J888 for damage or poor contact. If the check is OK, replace the Staple Move Motor (PL 17.9).

Replace the Finisher PWB (PL 17.13).

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Ensure that the Stapler Harness (PL 17.9) does not obstruct the Staple Head and that the harness is properly secured.
- Replace the Staple Front Corner Sensor (PL 17.9).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

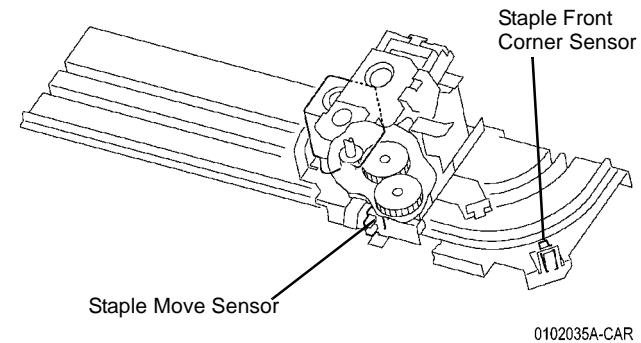


Figure 1 Component Location

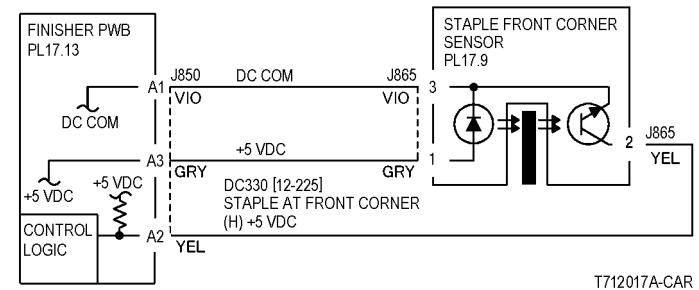


Figure 2 12-256 RAP Circuit Diagram - Staple Front Corner Sensor



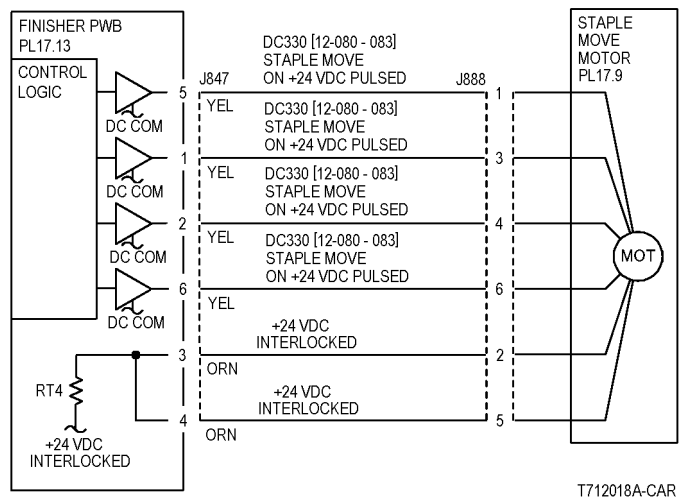


Figure 3 12-256 RAP Circuit Diagram - Stapler Move Motor

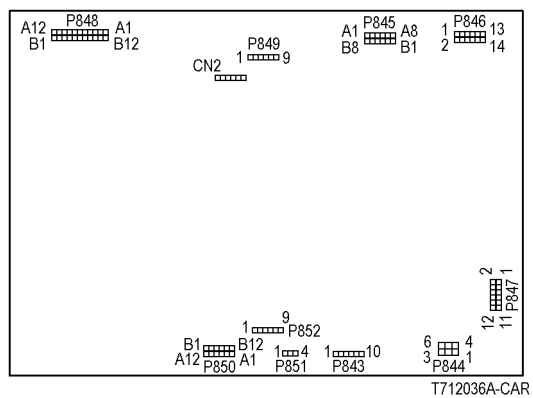


Figure 4 Finisher PWB



## 12-257 Staple Front Corner Sensor Off

- The Staple Front Corner Sensor does not turn off after the move from Front Corner has completed.
- The Staple Front Corner Sensor does not turn off after starting to move from Front Corner.

### Initial Actions

- Check for obstructions in the Stapler Unit area (Figure 1).
- Check the Rail for wear.

### Procedure

Open the Front Cover Door (PL 17.5) and manually move the Staple Head toward rear and front. **The Staple Head moves smoothly.**

**Y N**

Remove the cause of Staple Head not moving, such as rail breakage, drag, and gear damage.

Enter **dC330** [012-225] and press **Start**. Actuate the Staple Front Corner Sensor (PL 17.9) by manually moving the Staple Head toward the front. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Staple Front Corner Sensor (Figure 2). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop**. Manually move the Stapler to the middle of the Rail. Cheat the Front Cover Door Interlock Switch (PL17.13). Enter **dC330** [012-081] (front) or [012-083] (rear) and press **Start**.

**The Staple Move Motor (PL 17.9) energizes.**

**Y N**

Press **Stop**. Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J847- 3 and 4 and GND (Figure 3).**

**Y N**

Replace the Finisher PWB (PL 17.13).

**+24 VDC is measured between P/J847- 1, 2, 5 and 6 and GND.**

**Y N**

Check wiring between **P/J847** and **P/J888** for damage or poor contact. If the check is OK, replace the Staple Move Motor (PL 17.9).

Replace the Finisher PWB (PL 17.13).

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Ensure that the Stapler Harness (PL 17.9) does not obstruct the Staple Head and that the harness is properly secured.
- Replace the Staple Front Corner Sensor (PL 17.9).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

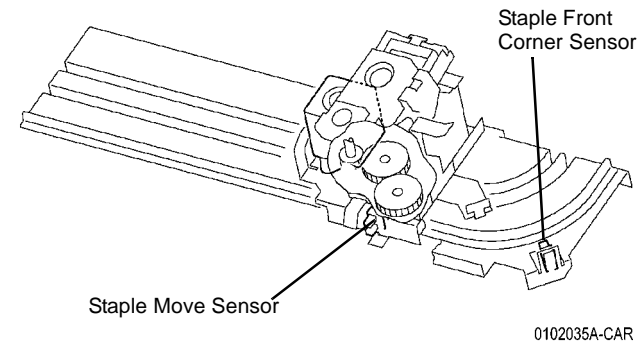


Figure 1 Component Location

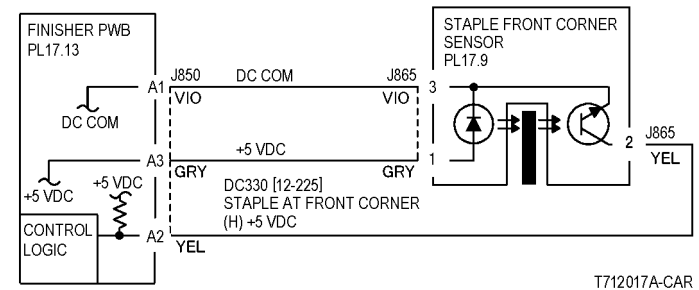


Figure 2 12-257 RAP Circuit Diagram - Stapler Front Corner Sensor



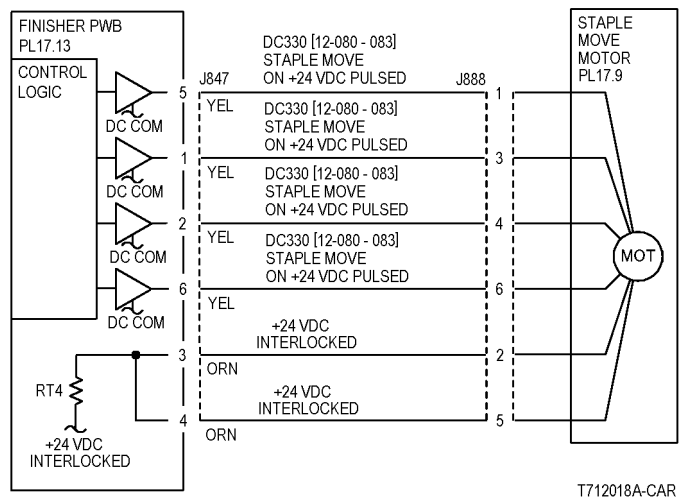


Figure 3 12-257 RAP Circuit Diagram - Staple Move Motor

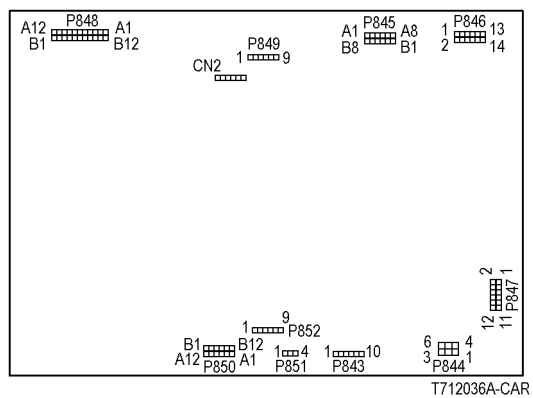


Figure 4 Finisher PWB



## 12-260 Eject Clamp Home Sensor On

The Eject Clamp Home Sensor does not turn on after the Eject Clamp up started.

### Initial Actions

- Check for obstructions in the Clamp area.

### Procedure

Remove the Rear Cover (PL 17.5) and the Eject Clamp Home Sensor bracket (PL 17.8) (leave sensor connected). Enter dC330 [012-210] and press **Start**. Actuate the Eject Clamp Home Sensor (PL 17.8) (Figure 1). **The display changes.**

Y N

Press **Stop**. Check the circuit of the Eject Clamp Home Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Restore mounting of the Eject Clamp Home Sensor. Enter dC330 [012-034] and press **Start**. **The Eject Clamp (PL 17.6) moves up.**

Y N

**The Eject Motor (Figure 3) energized.**

Y N

Remove the Rear Cover (PL 17.5). +24 VDC is measured between P/J881- 2 and 5 on the Eject Motor and GND.

Y N

+24 VDC is measured between P/J846- 6 and 12 on the Finisher PWB and GND.

Y N

Replace the Finisher PWB (PL 17.13).

Check wiring between P/J846- 6 and 12 and P/J881- 2 and 5 for damage or poor contact.

+24 VDC is measured between P/J881- 1, 3, 4 and 6 on the Eject Motor and GND.

Y N

Replace the Eject Motor (PL 17.8).

Check the wires from P/J846 to P/J881 for damage or poor contact. If the check is OK, replace the Finisher PWB (PL 17.13).

Check the Eject Motor and its associated gears, pulleys and belts (PL 17.8) for damage, contamination and misalignment.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Replace the Eject Clamp Home Sensor (PL 17.8).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

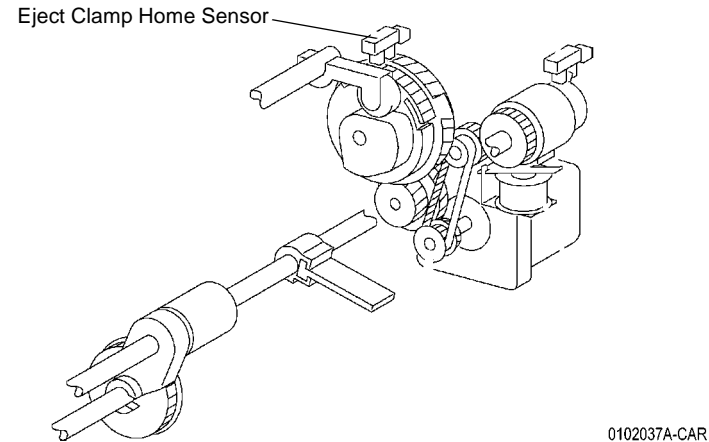


Figure 1 Component Location

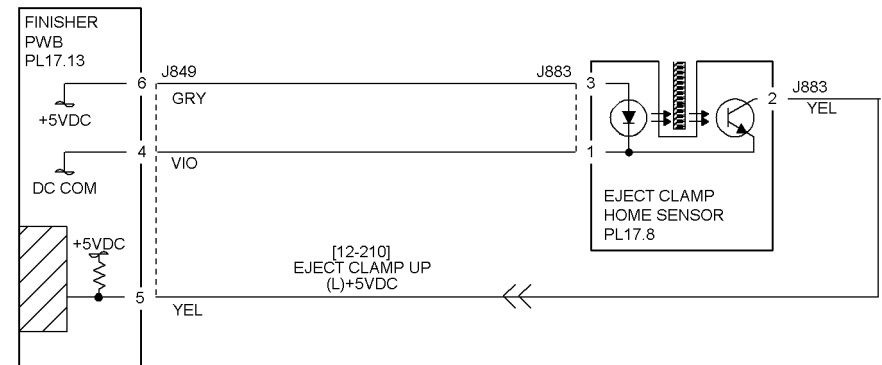


Figure 2 12-260 RAP Circuit Diagram - Eject Clamp Home Sensor



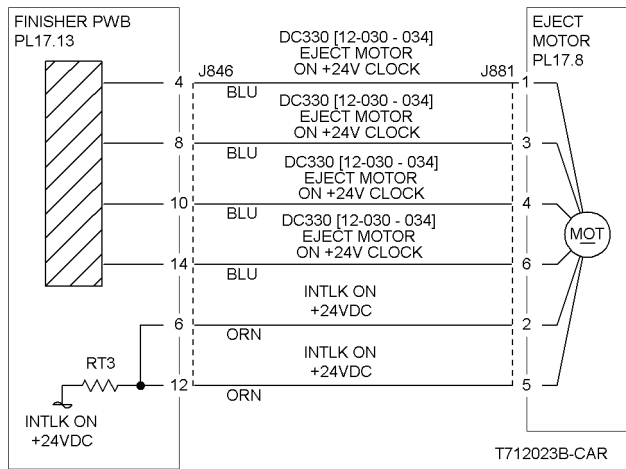


Figure 3 12-260 RAP Circuit Diagram - Eject Motor

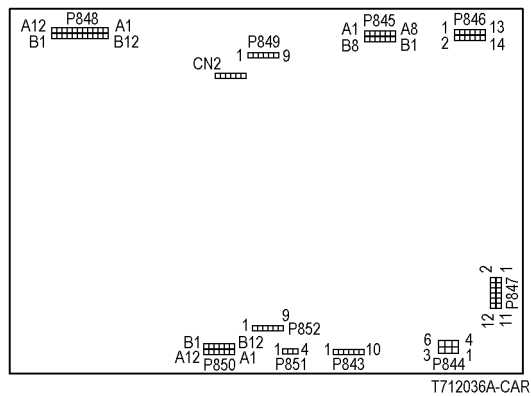


Figure 4 Finisher PWB



## 12-262 Eject Clamp Home Sensor Off

The Eject Clamp Home Sensor does not turn off within 200ms after the Eject Clamp DOWN has started.

### Procedure

Remove the Rear Cover (PL 17.5) and the Eject Clamp Home Sensor bracket (PL 17.8) (leave sensor connected). Enter dC330 [012-210] and press **Start**. Actuate the Eject Clamp Home Sensor (PL 17.8) (Figure 1). **The display changes.**

**Y N**  
Press **Stop**. Check the Eject Clamp Home Sensor components for mechanical problems. If the components are good, check the circuit of the Eject Clamp Home Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure

Press **Stop**. Restore mounting of the Eject Clamp Home Sensor. Enter dC330 [012-032] and press **Start**. **The Eject Clamp (PL 17.6) moves down.**

**Y N**  
**The Eject Motor (Figure 3) energized.**

**Y N**  
Remove the Rear Cover (PL 17.5). +24 VDC is measured between P/J881- 2 and 5 on the Eject Motor and GND.

**Y N**  
+24 VDC is measured between P/J846- 6 and 12 on the Finisher PWB and GND.

**Y N**  
Replace the Finisher PWB (PL 17.13).

Check wiring between P/J846- 6 and 12 and P/J881- 2 and 5 for damage or poor contact.

+24 VDC is measured between P/J881- 1, 3, 4 and 6 on the Eject Motor and GND.

**Y N**  
Replace the Eject Motor (PL 17.8).

Check the wires from P/J846 to P/J881 for an damage or poor contact. If the check is OK, replace the Finisher PWB (PL 17.13).

Check the Eject Motor and its associated gears, pulleys and belts (PL 17.8) for damage, contamination and misalignment.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3) are securely connected and that the wires are not damaged.
- Replace the Eject Clamp Home Sensor (PL 17.8).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 4).

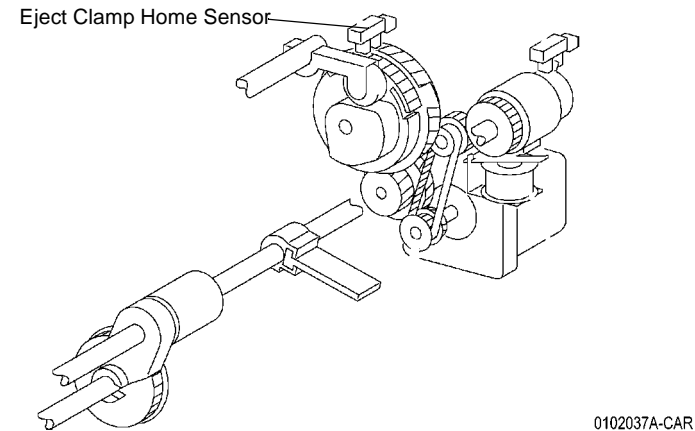


Figure 1 Component Location

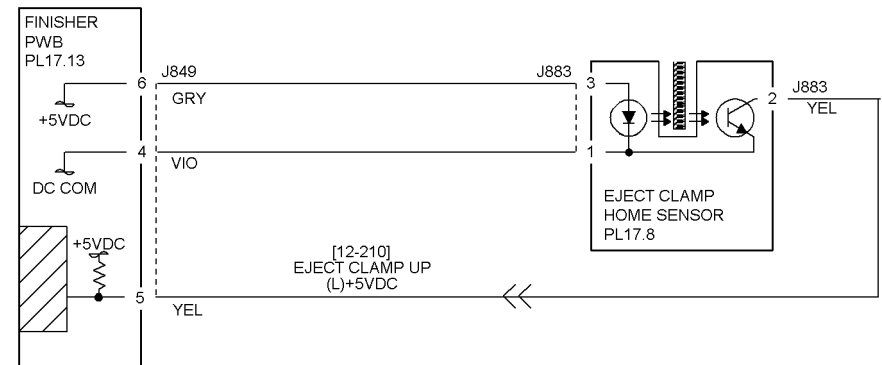


Figure 2 12-262 RAP Circuit Diagram - Eject Clamp Home Sensor



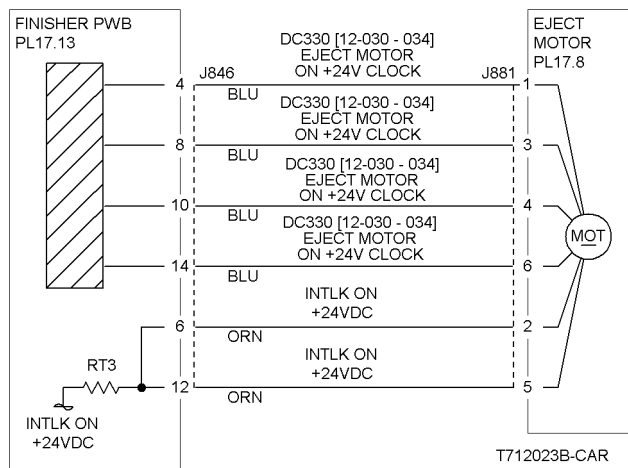


Figure 3 12-262 RAP Circuit Diagram - Eject Motor

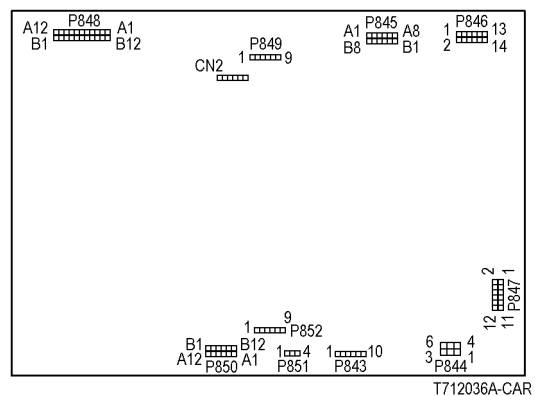


Figure 4 Finisher PWB



## 12-267 Decurler

The Decurler Cam Home Sensor did not actuate after the Decurler Cam Clutch energized.

### Procedure

Remove the Rear Cover (PL 17.5). Enter dC330 [012-217] and press **Start**. Actuate the Decurler Cam Home Sensor (PL 17.8) (Figure 1). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Decurler Cam Home Sensor (Figure 2). Refer to the OF 99-2 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [012-070] and press **Start**. **The Decurler Cam Clutch (PL 17.7) energized.**

**Y N**  
Press **Stop**. Check the circuit of the Decurler Cam Clutch (Figure 3). Refer to the OF 99-4 RAP for troubleshooting procedure.

Press **Stop**. Enter dC330 [012-071] and press **Start**. **The Decurler Cam (PL 17.7) energizes.**

**Y N**  
Press **Stop**. Check the following:

- The Decurler Cam Clutch for slippage.
- The Driver Gear for wear, a drive failure, and breakage.
- The belt for disengagement, breakage, and improper tension.

Remove the other mechanical causes of the Decurler Cam not operating.

Press **Stop**. Enter dC330 [012-001] and press **Start**. **The Finisher Drive Motor (PL 17.7) energizes.**

**Y N**  
Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J879-2 and 3 on the Finisher Drive Motor and GND (Figure 4).**

**Y N**  
**+24 VDC is measured between P/J846 -5 and 7 on the Finisher PWB and GND.**

**Y N**  
Replace the Finisher PWB (PL 17.13).

Check the wiring from P/J846-5 and 7 to J879-2 and 3 for damage or poor contact.

Enter dC330 [012-001] and press **Start**. **Less than +1 VDC is measured between P/J879 -1 on the Finisher Drive Motor and GND.**

**Y N**  
Replace the Finisher Drive Motor (PL 17.7).

Check wiring between P/J879 and P/J846 for damage or poor contact. If the check is OK, replace the Finisher PWB (PL 17.13).

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3, Figure 4) are securely connected and that the wires are not damaged.
- Replace the Decurler Cam Home Sensor (PL 17.8).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 5).

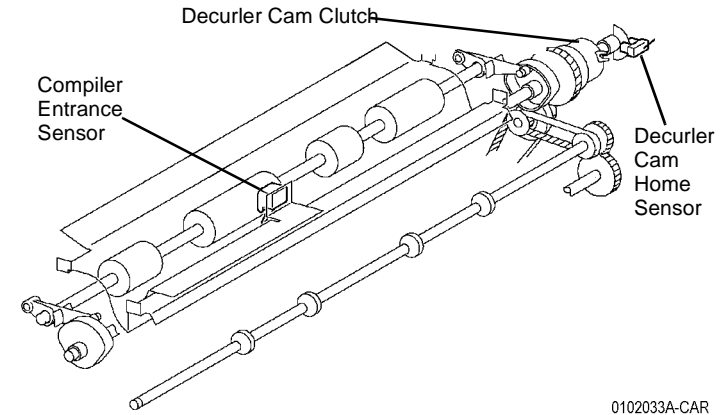


Figure 1 Component Location

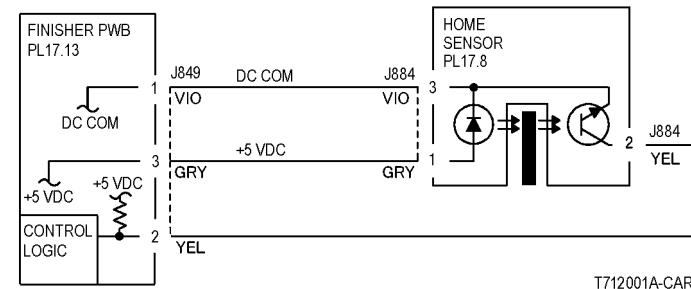


Figure 2 12-267 RAP Circuit Diagram - Decurler Cam Home Sensor

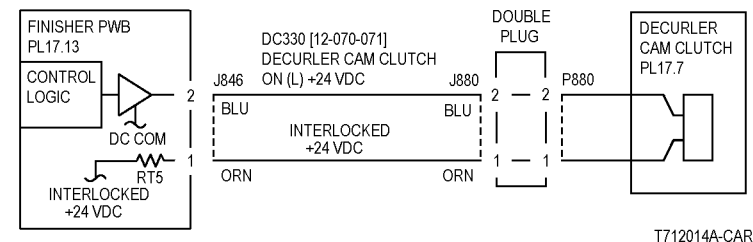


Figure 3 12-267 RAP Circuit Diagram - Decurler Cam Clutch



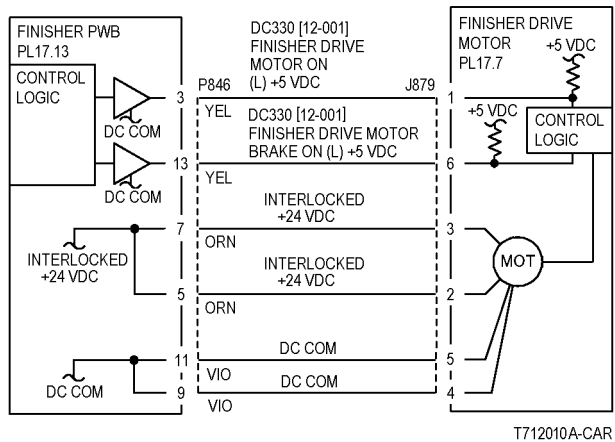


Figure 4 12-267 RAP Circuit Diagram - Finisher Drive Motor

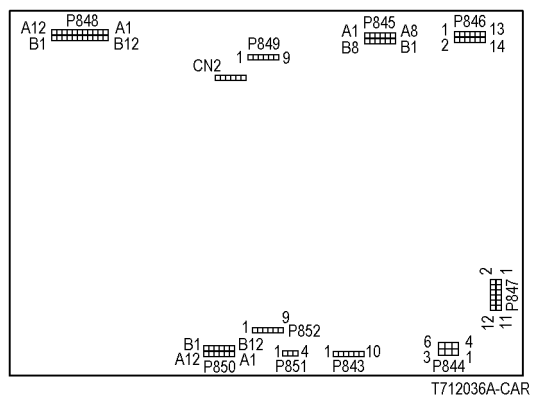


Figure 5 Finisher PWB



## 12-281 Set Clamp

The Set Clamp Home Sensor does not actuate after the Set Clamp started operation.

### Procedure

Remove the Rear Cover (PL 17.5). Enter **dC330** [012-211] and press **Start**. Actuate the Set Clamp Home Sensor (PL 17.8) (Figure 1). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Set Clamp Home Sensor (Figure 2). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop**. Enter **dC330** [012-040] and press **Start**. **The Set Clamp Solenoid (PL 17.8) energized.**

**Y N**  
Press **Stop**. Check the circuit of the Set Clamp Solenoid (Figure 3). Refer to the **OF 99-4 RAP** for troubleshooting procedure.

Press **Stop**. Enter **dC330** [012-034] and press **Start** to energize Eject Clamp up and then [12-032] and press **Start** to lower the Eject Clamp. Enter **dC330** [012-041] and press **Start**. **The Set Clamp (PL 17.12) rotated.**

**Y N**  
Enter **dC330** [012-030] and press **Start**. **The Eject Motor (PL 17.8) energized.**

**Y N**  
Remove the Rear Cover (PL 17.5). **+24 VDC is measured between P/J881- 2 and 5 on the Eject Motor and GND (Figure 4).**

**Y N**  
**+24 VDC is measured between P/J846- 6 and 12 on the Finisher PWB and GND.**

**Y N**  
Replace the Finisher PWB (PL 17.13).

Check wiring between P/J846- 6 and 12 and P/J881- 2 and 5 for damage or poor contact.

**+24 VDC is measured between P/J881- 1, 3, 4 and 6 on the Eject Motor and GND.**

**Y N**  
Replace the Eject Motor (PL 17.8).

Check the wires from **P/J846** to **P/J881** for damage or poor contact. If the check is OK, replace the Finisher PWB (PL 17.13).

Check the following:

- Eject Roll for wear and a drive failure (PL 17.8).
- Eject Shaft for wear and a drive failure (PL 17.8).
- Each Driver Gear for wear, a drive failure, and breakage (PL 17.8).
- Belt for disengagement, breakage, and improper tension (PL 17.8).

Press **Stop**.

- Ensure that the connectors shown in the circuit diagrams (Figure 2, Figure 3, Figure 4) are securely connected and that the wires are not damaged.

- Replace the Set Clamp Home Sensor (PL 17.8).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 5).

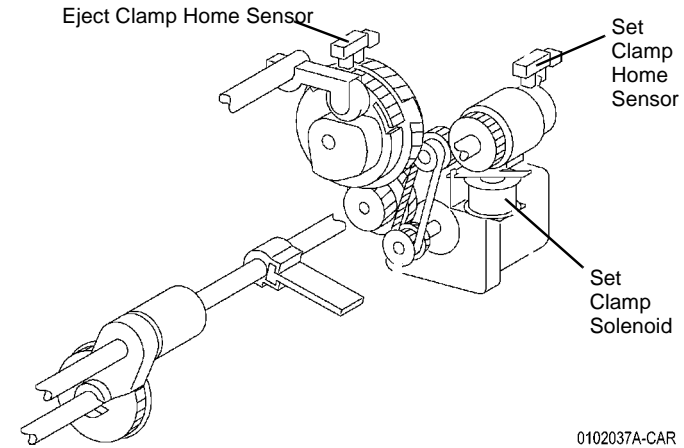


Figure 1 Component Location

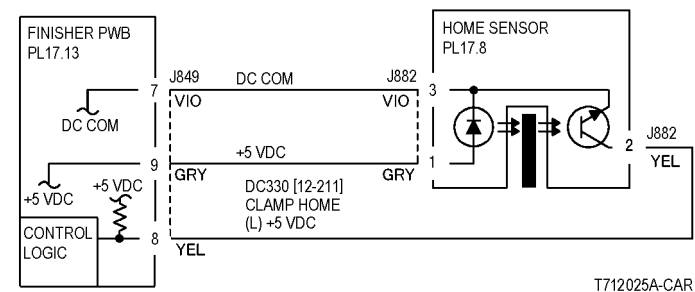


Figure 2 12-281 RAP Circuit Diagram - Set Clamp Home Sensor

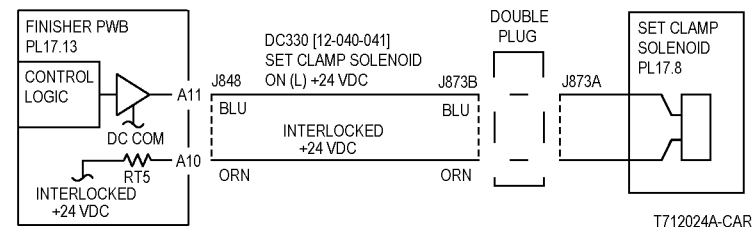


Figure 3 12-281 RAP Circuit Diagram - Set Clamp Solenoid



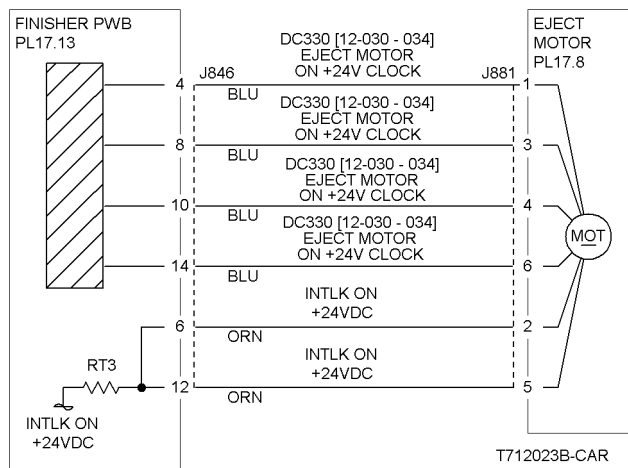


Figure 4 12-281 RAP Circuit Diagram - Eject Motor

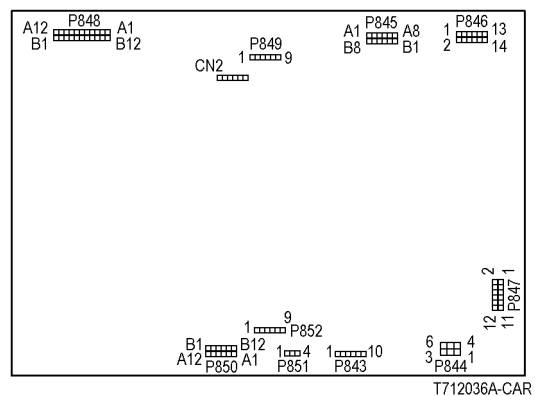


Figure 5 Finisher PWB



## 12-301 Top Cover Interlock

The Finisher Top Cover Interlock is open.

### Procedure

Cheat the Top Cover Interlock Switch (Figure 1). 12-301 is cleared.

**Y N**  
Disconnect P/J851 on the Finisher PWB. +5 VDC is measured between the Finisher PWB P/J851-1 and GND (Figure 2).

**Y N**  
Replace the Finisher PWB (PL 17.13) (Figure 3).

There is less than 5 ohms between P851-2 and the finisher metal frame.

**Y N**  
Replace the Finisher PWB (PL 17.13).

Check the wires between the Finisher PWB P/J851 and the Top Cover Interlock Switch P/J890 for an open circuit or poor contact (Figure 2).

If the wires are good, replace the Top Cover Interlock Switch (PL 17.13).

Check the misalignment between the Top Cover and the Top Cover Interlock Switch.

Check the Top Cover for correct installation and the actuator for breakage or bending (PL 17.6).

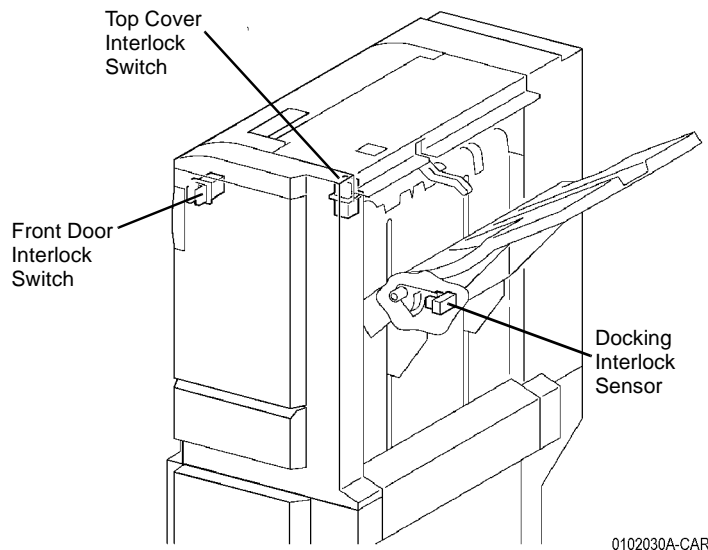


Figure 1 Component Location

0102030A-CAR

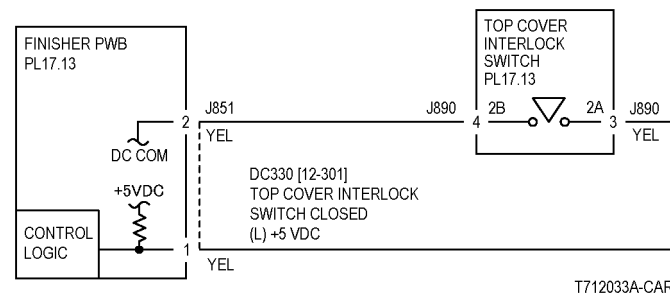


Figure 2 12-301 RAP Circuit Diagram - Top Cover Interlock Switch

T712033A-CAR

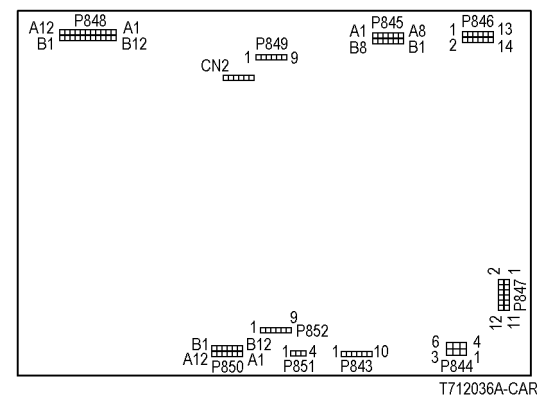


Figure 3 Finisher PWB

T712036A-CAR



## 12-302 Front Door Interlock Open

The Finisher Front Door Interlock is open.

### Procedure

Cheat the Front Door Interlock Switch (Figure 1). 012-302 is cleared.

**Y N**  
Disconnect P/J851 on the Finisher PWB. +5 VDC is measured between the Finisher PWB P/J851-3 and ground (Figure 2).

**Y N**  
Replace the Finisher PWB (PL 17.13) (Figure 3).

There is less than 5 ohms between P851-4 and the finisher metal frame.

**Y N**  
Replace the Finisher PWB (PL 17.13).

Check the wires between the Finisher PWB P/J851 and the Top Cover Interlock Switch P/J890 for an open circuit or poor contact (Figure 2).

If the wires are good, replace the Front Door Interlock Switch (PL 17.13).

Check for misalignment between the Front Door and the Front Door Interlock Switch.  
Check the Front Door and Front Cover for improper installation, the Actuator for breakage and bending, and the Magnet for improper mounting.

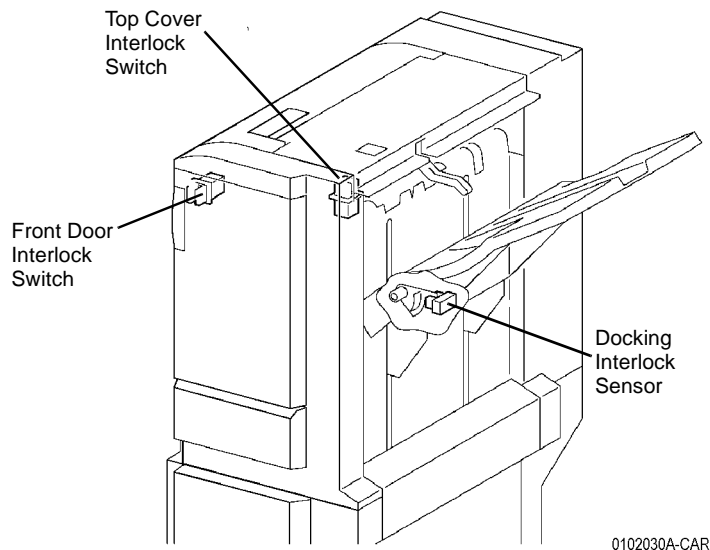


Figure 1 Component Location

0102030A-CAR

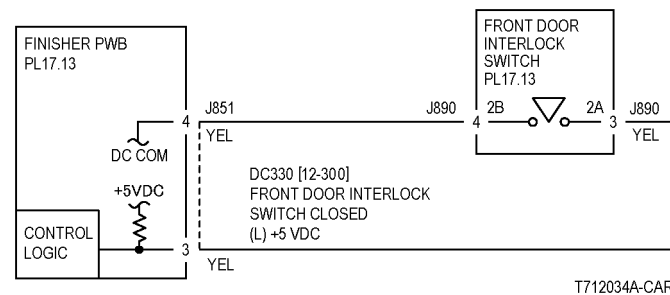


Figure 2 12-302 RAP Circuit Diagram - Front Door Interlock Switch

T712034A-CAR

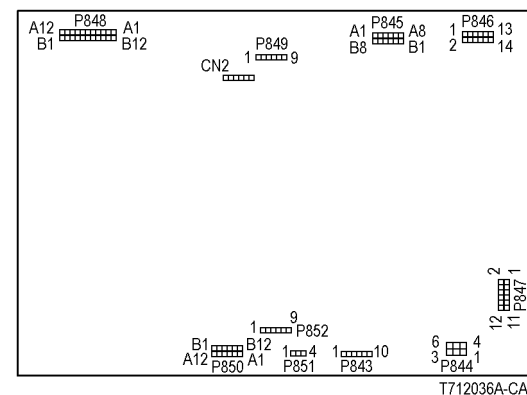


Figure 3 Finisher PWB

T712036A-CAR



## 12-303 H Transport Interlock Open

The H Transport Interlock Sensor detected open.

### Procedure

Block the H Transport Interlock Sensor with a sheet of paper (Figure 1). 012-303 is cleared.

**Y N**  
+5 VDC is measured between the H Transport Interlock Sensor P/J853-1 and -3 (Figure 2).

**Y N**  
Disconnect Finisher PWB P/J845. +5 VDC is measured between Finisher PWB P845-A1 and -A3.

**Y N**  
Replace the Finisher PWB (PL 17.13) (Figure 3).

Repair the open circuit between Finisher PWB J845-A1 and -A3 and H Transport Interlock Sensor J853-1 and -3.

+5 VDC is measured between Finisher PWB P/J845-A2 and ground.

**Y N**  
Replace the Finisher PWB (PL 17.13)

+5 VDC is measure between H Transport Interlock Sensor P/J853-2 and ground.

**Y N**  
Check the wire between the H Transport Interlock Sensor P/J853-2 and the Finisher PWB P/J845-A2 for an open circuit or poor contact.

Replace the H Transport Interlock Sensor (PL 17.4).

Check misalignment between the H Transport Cover and the H Transport Interlock Sensor.  
Check the H Transport Cover for improper installation, the Actuator for breakage and bending, and the Magnet for improper mounting.

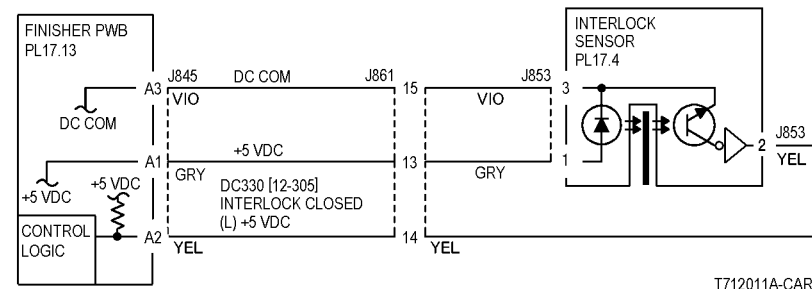


Figure 2 12-303 RAP Circuit Diagram - H Transport Interlock Sensor

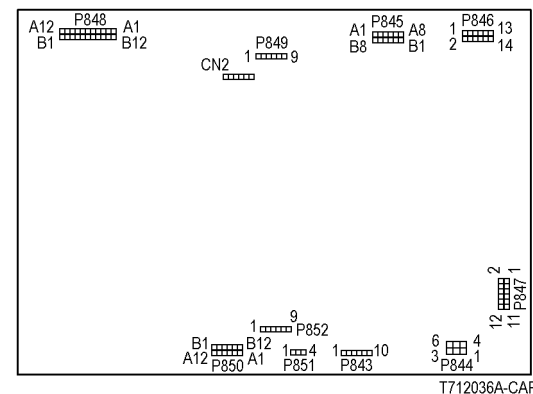


Figure 3 Finisher PWB

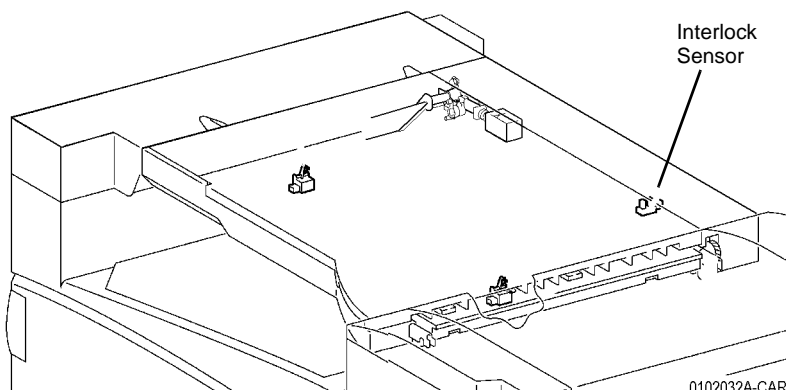


Figure 1 Component Location



## 12-305 Docking Interlock Open

The Docking Interlock is open.

### Procedure

Block the Docking Interlock Sensor with a sheet of paper (Figure 1). 012-305 is cleared.

- Y N  
+5 VDC is measured between the Docking Interlock Sensor P/J866-1 and -3 (Figure 2).  
Y N  
Disconnect Finisher PWB P/J850. +5 VDC is measured between Finisher PWB P850-B10 and -B12.  
Y N  
Replace the Finisher PWB (PL 17.13) (Figure 3).  
Repair the open circuit between Finisher PWB J850-B10 and -B12 and Docking Interlock Sensor J866-1 and -3.  
+5 VDC is measured between Finisher PWB P/J850-B11 and ground.  
Y N  
Replace the Finisher PWB (PL 17.13)  
+5 VDC is measure between Docking Interlock Sensor P/J866-2 and ground.  
Y N  
Check the wire between the Docking Interlock Sensor P/J866-2 and the Finisher PWB P/J850-A2 for an open circuit or poor contact.  
Replace the Docking Interlock Sensor (PL 17.13).

Mismatching between the Actuator and the Docking Interlock Sensor. Check the Sensor for improper installation, the Actuator for breakage and bending, and the Finisher and the Main Processor for the docking failure.

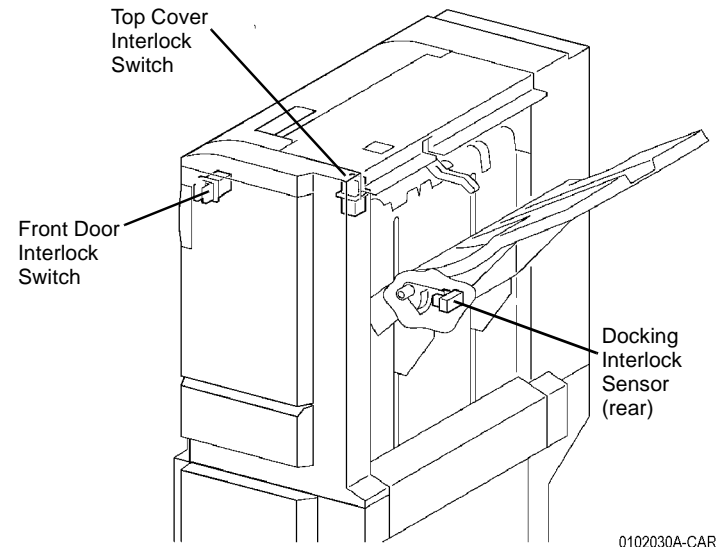


Figure 1 Component Location

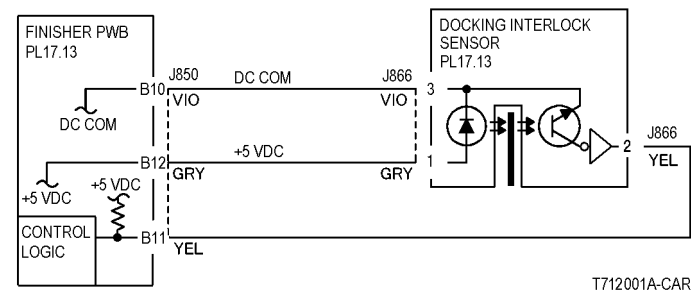
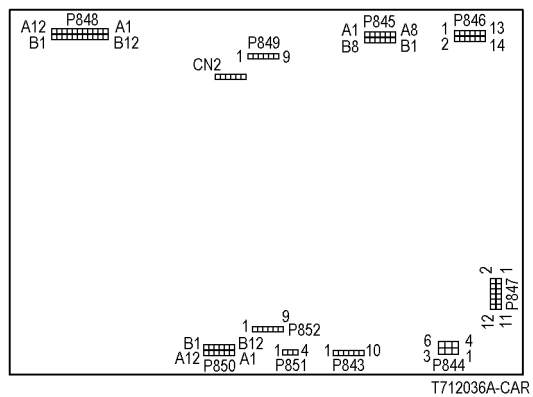


Figure 2 12-305 RAP Circuit Diagram - Docking Interlock Sensor





**Figure 3 Finisher PWB**



## 12-350 Finisher Communication

Communication cannot be established between the MCU PWB and the Finisher PWB.

### Procedure

Switch the power off then on. **CR7 on the Finisher PWB is lit.**

- |   |   |
|---|---|
| Y   | N |
| +24 VDC is measured between <b>P/J844-2</b> on the Finisher PWB and ground.   |   |
| Y   | N |
| Check the +24VDC circuit to the Finisher PWB <b>P/J844</b> by referring to the Finisher +24VDC wirenet ( <b>Figure 5</b> ). |   |
| Replace the Finisher PWB ( <b>PL 17.13</b> ).   |   |

Switch off the power. Check continuity of the following (refer to BSD 12.2 (**Figure 2**) for circuit):

- Between the MCU PWB **P/J403-B13** and the Finisher PWB **P/J843-3**
- Between the MCU PWB **P/J403-B12** and the Finisher PWB **P/J843-4**
- Between the MCU PWB **P/J403-B15** and the Finisher PWB **P/J843-1**
- Between the MCU PWB **P/J403-B14** and the Finisher PWB **P/J843-2**

**The resistance is 1 Ohm or less for all wires.**

- |   |   |
|---|---|
| Y   | N |
| Check wires with more than 1 Ohm for an open circuit or poor contact. |   |

Replace the following parts:

- Finisher PWB (**PL 17.13**).
- MCU PWB (**PL 13.1**).



## 12-399 Staple Mode Logic

Stapling cannot be selected for the size of paper in the tray.

### Procedure

Job can be reprogrammed with different staple setting or paper size.

<b>Y</b>	<b>N</b>
	Redesign Job.

Reprogram job.



## 12-901 Power On H Transport Entrance Sensor

The H Transport Entrance Sensor detected a paper at power on, when all the interlock were closed, or at initialization.

### Procedure

Enter **dC330** [012-103] and press **Start**. Actuate the H Transport Entrance Sensor (**Figure 1**). **The display changes.**

**Y N**

Disconnect **P/J845** from Finisher Control PWB. Measure voltage at **P/J845-A4. +5 VDC is measured.**

**Y N**

Replace Finisher PWB (**PL 17.13**) (**Figure 3**).

Check the wire from **P/J845-A4** to **P/J854-2** on the H Transport Entrance Sensor for an open circuit (**Figure 2**). If the wire is good, replace the H Transport Entrance Sensor (**PL 17.4**).

Check that the voltage at the customer outlet is in specification and does not drop during machine start.

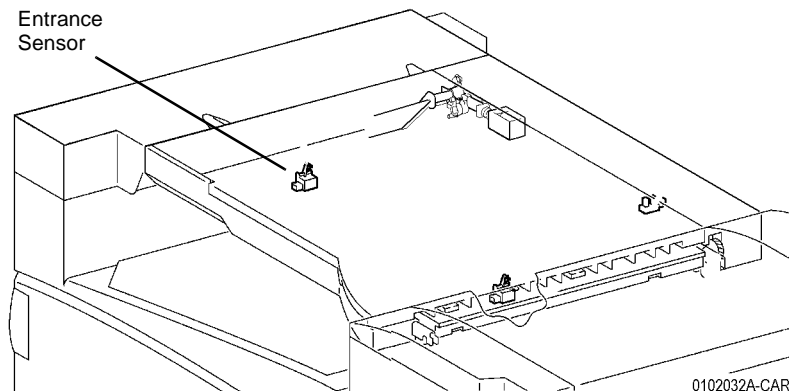
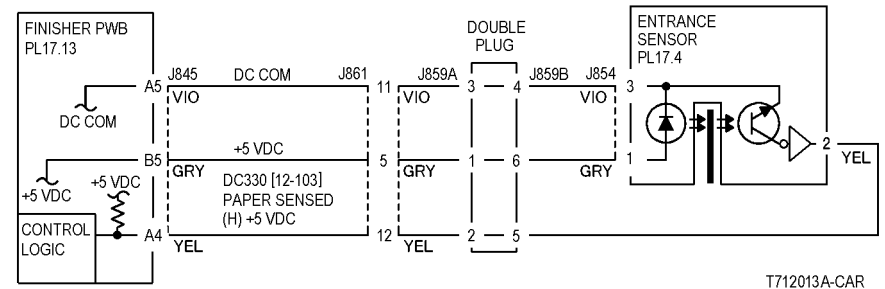


Figure 1 Component Location



T712013A-CAR

Figure 2 12-901 RAP Circuit Diagram - H Transport Entrance Sensor

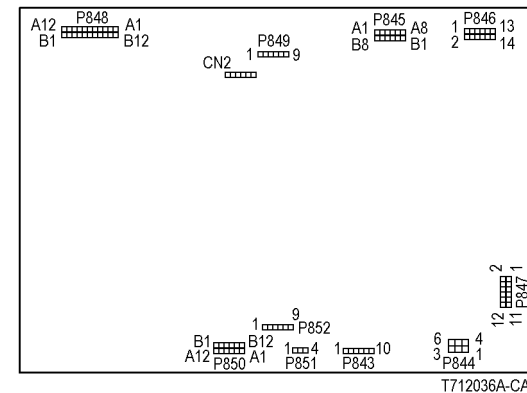


Figure 3 Finisher PWB



## 12-902 Power On H Transport Exit Sensor

The H Transport Exit Sensor detected a paper at power on, when all the Interlock were closed, or at initialization.

### Procedure

Enter **dC330** [012-104] and press **Start**. Actuate the H Transport Exit Sensor (**Figure 1**). The display changes.

Y N

Disconnect **P/J845** from Finisher Control PWB. Measure voltage at **P/J845-B7**. **+5 VDC** is measured (**Figure 2**).

Y N

Replace Finisher PWB (**PL 17.13**) (**Figure 3**).

Check the wire from **P/J845-B7** to **P/J856-2** on the H Transport Exit Sensor for an open circuit (**Figure 2**). If the wire is good, replace the H Transport Exit Sensor (**PL 17.4**).

Check that the voltage at the customer outlet is in specification and does not drop during machine start.

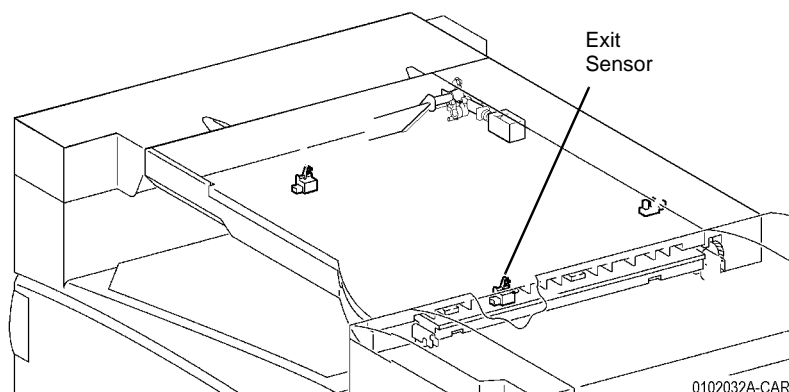


Figure 1 Component Location

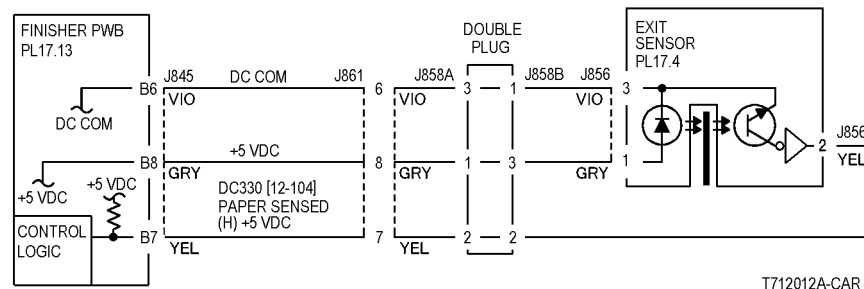


Figure 2 12-902 RAP Circuit Diagram - H Transport Exit Sensor

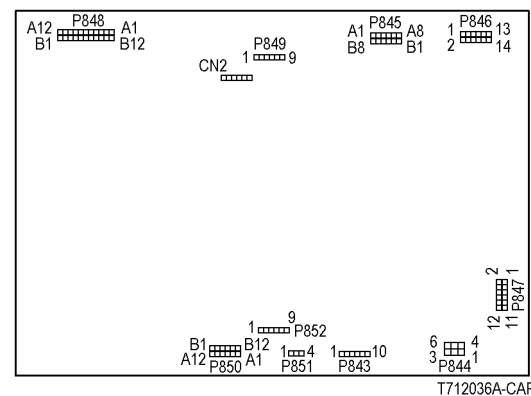


Figure 3 Finisher PWB



## 12-903 Power On Compiler Entrance Sensor

The Compiler Entrance Sensor detected a paper at power on, when all the Interlocks are closed, or at initialization.

### Procedure

Enter **dC330** [012-101] and press **Start**. Actuate the Compiler Entrance Sensor (**Figure 1**).

**The display changes.**

**Y N**

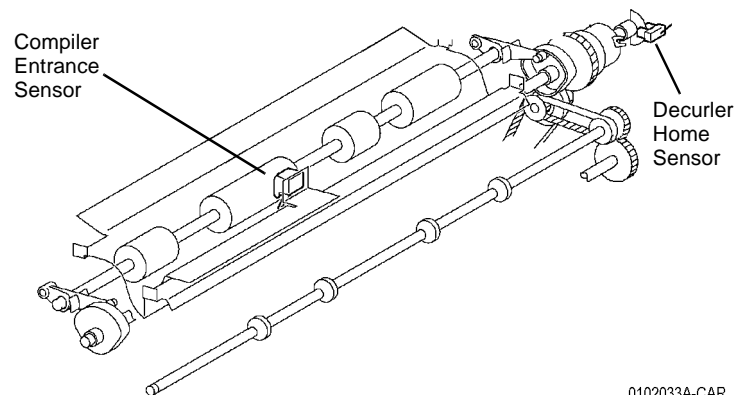
Disconnect **P/J850** from Finisher Control PWB. Measure voltage at **P/J850-B8. +5 VDC is measured.**

**Y N**

Replace Finisher PWB (**PL 17.13**) (**Figure 3**).

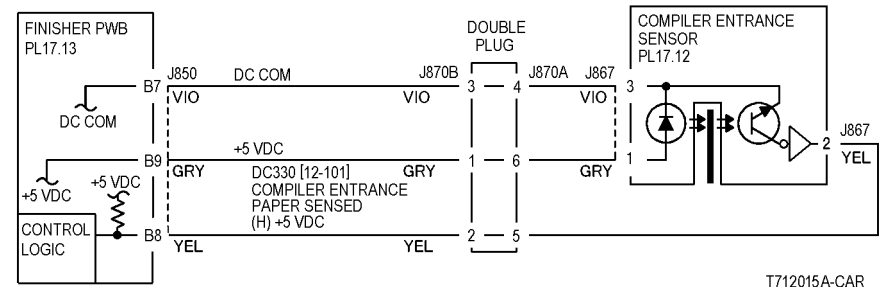
Check the wire from **P/J850-B8** to **P/J867-2** on the Compiler Entrance Sensor for an open circuit (**Figure 2**). If the wire is good, replace the Compiler Entrance Sensor (**PL 17.12**).

Check that the voltage at the customer outlet is in specification and does not drop during machine start.



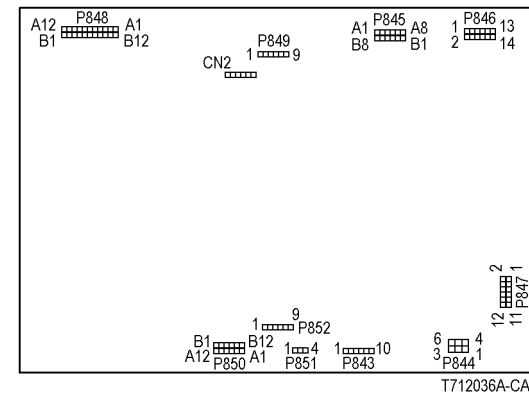
0102033A-CAR

**Figure 1 Component Location**



T712015A-CAR

**Figure 2 12-903 RAP Circuit Diagram - Compiler Entrance Sensor**



T712036A-CAR

**Figure 3 Finisher PWB**



## 12-904 Power On Compiler Paper Sensor

- The Compiler Paper Sensor continues to detect paper when the paper was output automatically due to the power on initialization.
- The Compiler Paper Sensor detected paper with no history of paper output to the Compiler Tray when all the interlocks were closed.

### Procedure

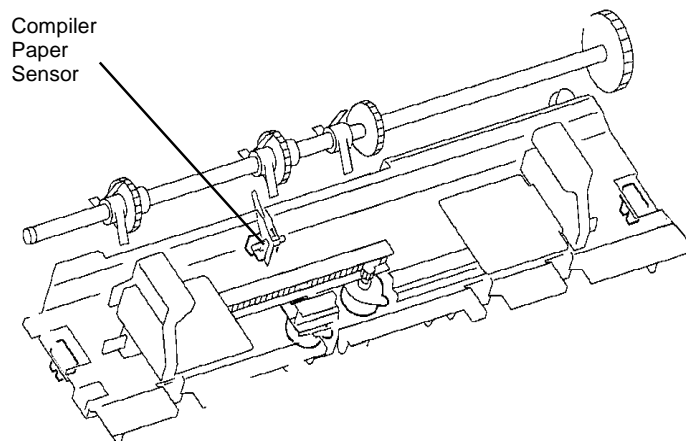
Enter **dC330** [012-102] and press **Start**. Actuate the Compiler Paper Sensor (Figure 1). The display changes.

**Y N**  
Disconnect **P/J848** from Finisher Control PWB. Measure voltage at **P/J848-A5**. **+5 VDC is measured.**

**Y N**  
Replace Finisher PWB (PL 17.13) (Figure 3).

Check the wire from **P/J848-A5** to **P/J875-2** on the Compiler Paper Sensor for an open circuit (Figure 2). If the wire is good, replace the Compiler Paper Sensor (PL 17.10).

Check that the voltage at the customer outlet is in specification and does not drop during machine start.



0102034A-CAR

Figure 1 Component Location

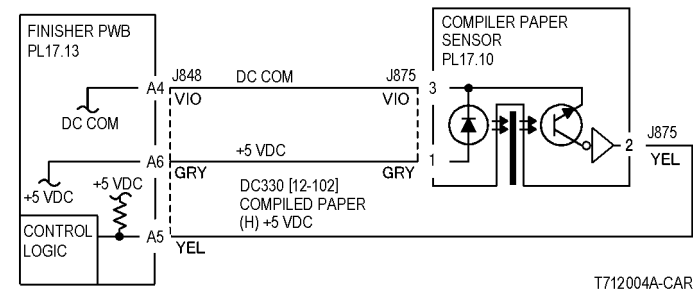


Figure 2 12-904 RAP Circuit Diagram - Compiler Paper Sensor

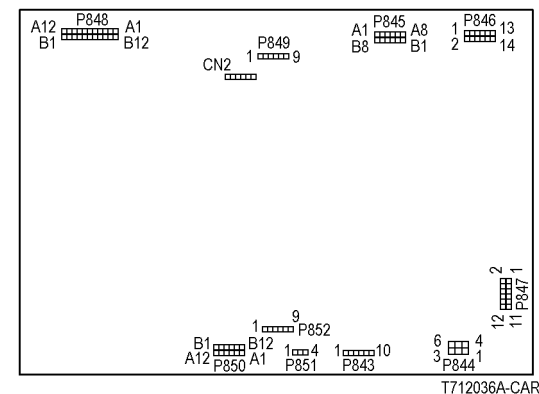


Figure 3 Finisher PWB



## 12-910 Staple Feed Ready

- At the staple preparation operation at initialization, the Staple Ready Sensor does not go to ready (L) status after 13 ready attempts.
- The Stapler Ready Sensor is turned off (H) just before the Staple.

### Procedure

Remove the Stapler Assembly with a connector connected (REP 12.11). Enter dC330 [012-209] and press **Start**. Actuate the Staple Ready Sensor. **The display changes.**

**Y N**  
+5 VDC is measured between the Stapler Assembly P/J886-5 and ground.

**Y N**  
+5 VDC is measured between the Finisher PWB P/J852-1 and ground.

**Y N**  
Replace the Finisher PWB (PL 17.13) (Figure 3).

Check the wire between the Finisher PWB P/J852-1 and the Stapler Assembly P/J886-5 for an open circuit or poor contact (Figure 1).

Pull out the staple cartridge. +5 VDC is measured between the Finisher PWB P/J852-3 and ground.

**Y N**  
Switch off the power. Disconnect P/J852 on the Finisher PWB. Switch the power on. +5 VDC is measured between the Finisher PWB P852-3 and ground.

**Y N**  
Replace the Finisher PWB (PL 17.13).

Check the circuit between the Finisher PWB P852 and the Stapler Assembly P/J for obvious damage (Figure 2).

If the wires are good, replace the Stapler Assembly (PL 17.9).

Replace the Finisher PWB (PL 17.13).

Restore the Staple Head to the original status and cheat the Front Interlock Switch. Position paper in stapler. Enter dC330 [012-020] and press **Start**. **The Staple Motor energizes.**

**Y N**  
With [12-020] running, +24 VDC is measured between the Finisher PWB P/J847-7 and ground.

**Y N**  
Replace the Finisher PWB (PL 17.13).

Check resistance of the following (Figure 2):

- Between the Finisher PWB P/J847-7 and Stapler Assembly P/J887-1
- Between the Finisher PWB P/J847-8 and Stapler Assembly P/J887-2
- Between the Finisher PWB P/J847-9 and Stapler Assembly P/J887-3
- Between the Finisher PWB P/J847-10 and Stapler Assembly P/J887-4

If no problems are found, replace the Stapler Assembly (PL 17.9).

If the problem continues, replace the Finisher PWB (PL 17.13).

A

Switch the power off. Remove the Stapler Assembly (REP 12.11). Rotate the Staple Motor Gear manually. **The staple needles fed.**

**Y N**

Replace the Stapler Assembly (PL 17.9).

Replace the Finisher PWB (PL 17.13).

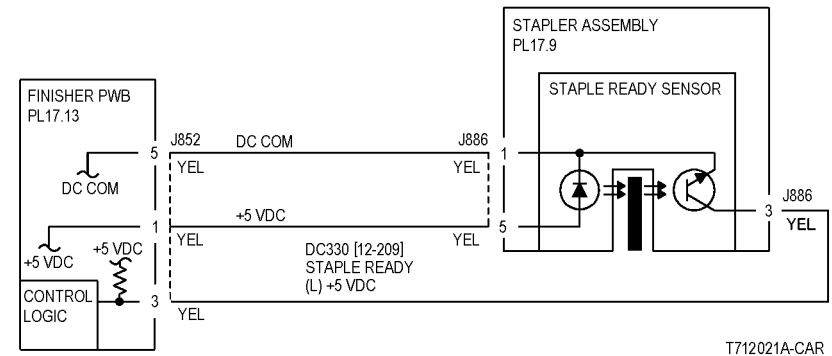


Figure 1 12-910 RAP Circuit Diagram - Staple Ready Sensor

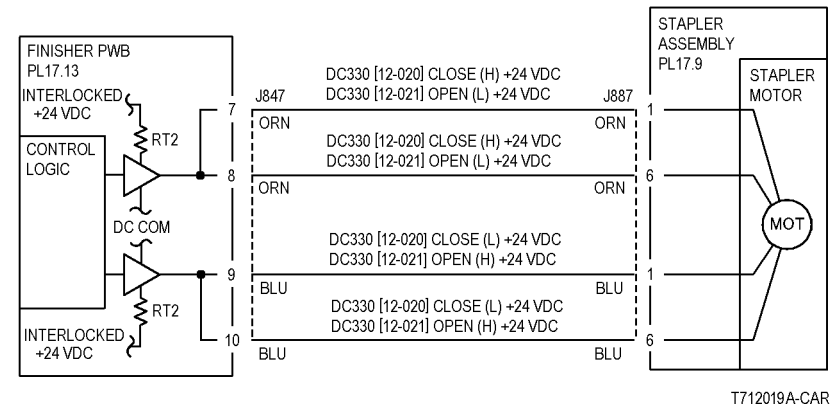
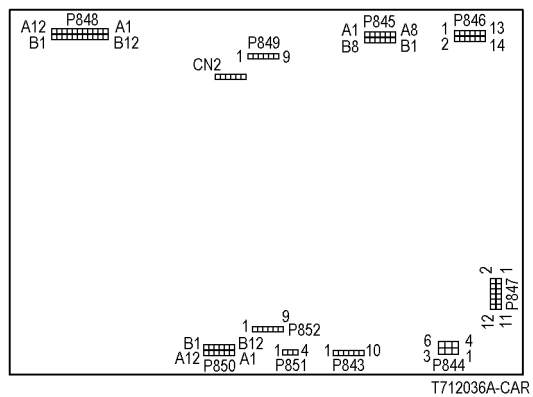


Figure 2 12-910 RAP Circuit Diagram - Staple Motor





### Figure 3 Finisher PWB



## 12-911 Stacker Lower Safety Warning

The Height Alignment was not successful during Stacker Tray lowering while stacking.

### Initial Actions

Check the Stack Height Sensor Actuator for disengagement, bending, obstruction and breakage (Figure 1).

### Procedure

Remove paper from Stacker Tray. **The problem continues.**

**Y N**  
Return to Service Call Procedures.

Enter **dC330** [012-201] and press **Start**. Actuate the Stack Height Sensor (PL 17.6). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Stack Height Sensor (Figure 2). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagram (Figure 2) are securely connected and that the wires are not damaged.
- Replace the Stack Height Sensor (PL 17.6).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 3).

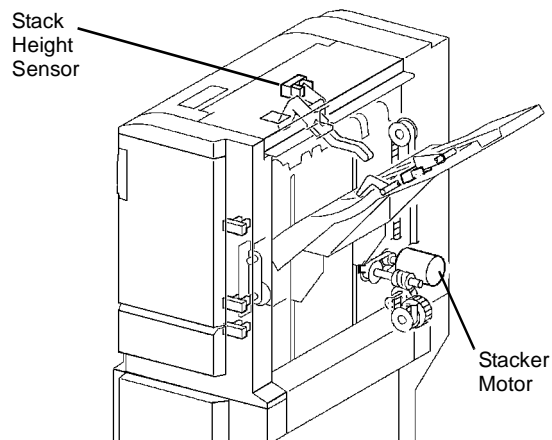
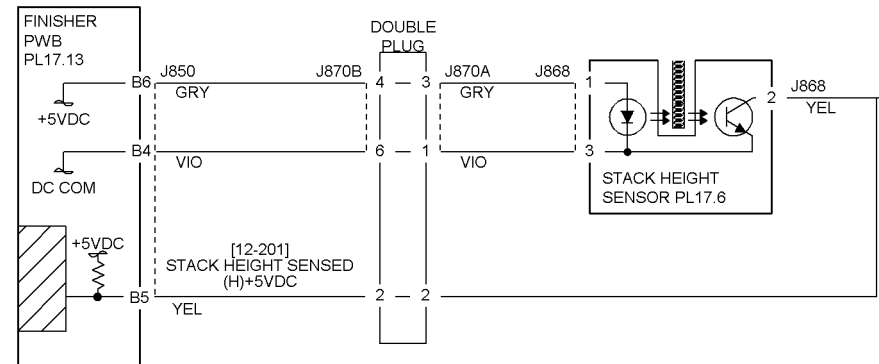
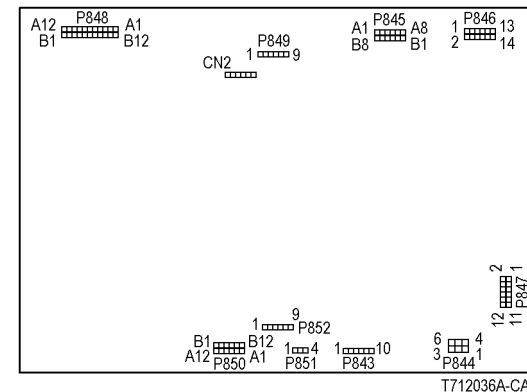


Figure 1 Component Location



T712027A-CAR

Figure 2 12-911 RAP Circuit Diagram - Stack Height Sensor



T712036A-CAR

Figure 3 Finisher PWB



## 12-914 Stacker Tray Staple Set

The Staple Set count of the Stacker Tray exceeded 50 sets at the Staple Set Eject operation.

### Initial Actions

Check the actuator of the Stacker Paper Sensor for smooth operation (Figure 1).

### Procedure

Remove the Stapled Sets. **The problem continues.**

**Y N**  
Return to Service Call Procedures.

Enter **dC330** [012-200] and press **Start**. Actuate the Stacker Paper Sensor (Figure 2). **The display changes.**

**Y N**  
Press **Stop**. Check the circuit of the Stacker Paper Sensor (Figure 2). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop**.

- Ensure that the connectors shown in the circuit diagram (Figure 2) are securely connected and that the wires are not damaged.
- Replace the Stacker Paper Sensor (PL 17.11).
- If the problem persists, replace the Finisher PWB (PL 17.13) (Figure 3).

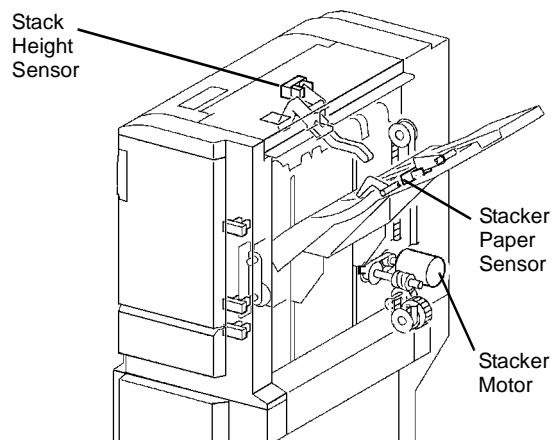
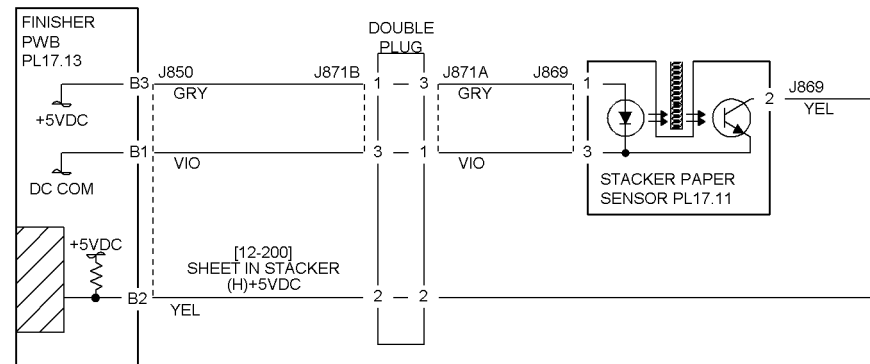
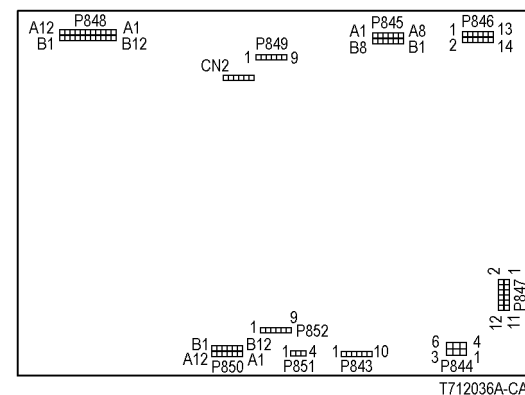


Figure 1 Component Location



T712028A-CAR

Figure 2 12-914 RAP Circuit Diagram - Stacker Paper Sensor



T712036A-CAR

Figure 3 Finisher PWB



## 12-916 Stapling

The Staple Head Home Sensor turned on by the open operation while the Sensor failed to turn on (stapling was not available due to an error) after the Staple Head began to close.

### Procedure

Position paper in stapler. Enter **dC330** [012-020] and press **Start**. The **Staple Motor** energizes.

Y N

With [12-020] running, +24 VDC is measured between the Finisher PWB **P/J847-7** and ground (**Figure 1**).

Y N

Replace the Finisher PWB (PL 17.13) (**Figure 3**).

Check resistance of the following (**Figure 1**):

- Between the Finisher PWB **P/J847-7** and Stapler Assembly **P/J887-1**
- Between the Finisher PWB **P/J847-8** and Stapler Assembly **P/J887-2**
- Between the Finisher PWB **P/J847-9** and Stapler Assembly **P/J887-3**
- Between the Finisher PWB **P/J847-10** and Stapler Assembly **P/J887-4**

If no problems are found, replace the Stapler Assembly (PL 17.9).

If the problem continues, replace the Finisher PWB (PL 17.13).

Turn the gear of the Staple Motor manually to drive the Actuator to block the Staple Head Home Sensor. **+5 VDC is measured between the Finisher PWB P/J852-2 and ground.**

Y N

Replace the Finisher PWB (PL 17.13).

**+5 VDC is measured between the Staple Head P/J886-4 and ground.**

Y N

Check the wire between the Staple Head **P/J886-4** and the Finisher PWB **P/J852-2** for an open circuit or poor contact (**Figure 2**).

Check resistance of the following:

- Between the Finisher PWB **P/J852-1** and the Staple Head **P/J886-5**
- Between the Finisher PWB **P/J852-5** and the Staple Head **P/J886-1**

**Resistance is 1 Ohm or less for both wires.**

Y N

Repair wires with more than 1 Ohm for an open circuit or poor contact.

Replace the Stapler Assembly (PL 17.9).

If the problem continues, replace the Finisher PWB (PL 17.13).

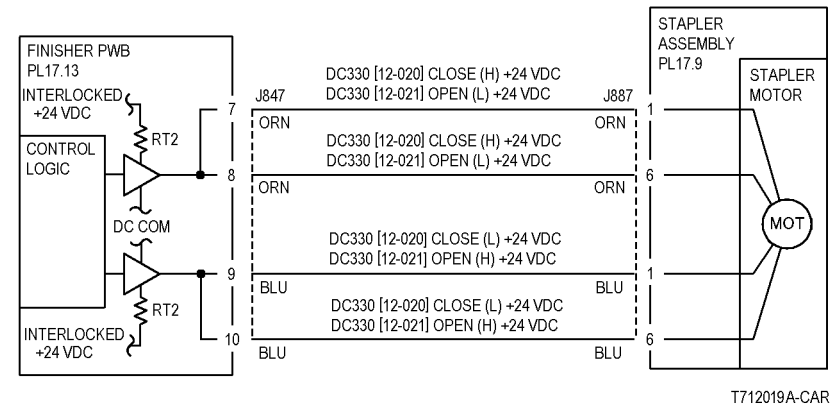


Figure 1 12-916 RAP Circuit Diagram - Stapler Motor

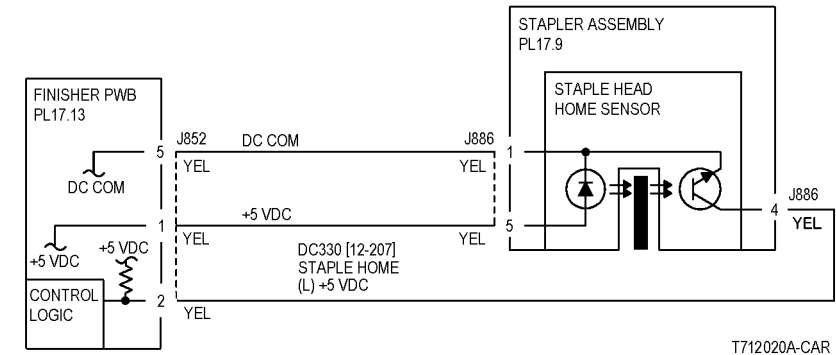
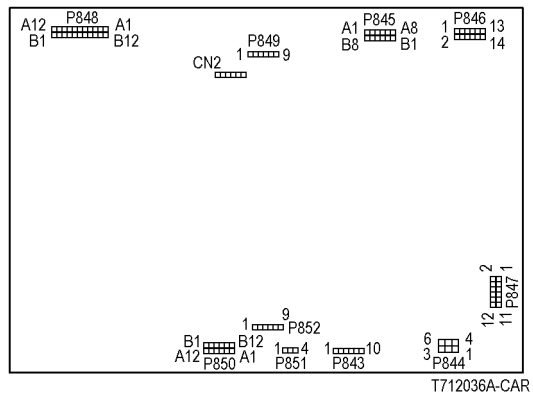


Figure 2 12-916 RAP Circuit Diagram - Staple Head Home Sensor





**Figure 3 Finisher PWB**



## 12-960 Stacker Tray Full Stack

- The system detected small size paper full during the Stacker Tray Height Adjustment operation during lowering.
- The system detected small size paper full during the Stacker Tray Height Adjustment operation (during lowering down) when the large size paper is ejected.
- The large size paper was ejected while the system already detected large size paper full (half).

### Procedure

Remove the Finisher Front Cover. Enter **dC330** [012-204] and press **Start**. Actuate the Stack A Sensor (**Figure 1**). **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Stack A Sensor (**Figure 2**). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop**. Enter **dC330** [012-205] and press **Start**. Actuate the Stack B Sensor. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Stack B Sensor (**Figure 3**). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Enter **dC330** [012-200] and press **Start**. Actuate the Stacker Paper Sensor. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Stacker Paper Sensor (**Figure 4**). Refer to the **OF 99-2 RAP** for troubleshooting procedure.

Press **Stop**. Rotate the Stacker Motor Drive Pulley manually by turning the Stacker Drive Motor Drive Gear (**PL 17.11**). **The pulley rotates smoothly.**

**Y N**

Check the following and repair the Stacker Drives as required (**PL 17.11**).

- Stacker Motor Gear for wear and damage.
- Stacker Tray for dragging and incorrect installation.
- Stacker Elevator Belt/rack/gear for wear and damage.

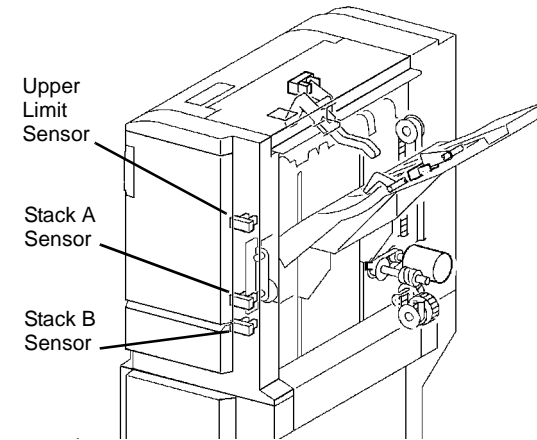
Disconnect Stacker Motor **P/J889**. Measure the resistance between pin 1 and pin 2 of the motor connector. **Between 12 to 40 ohms is measured while the pulley is rotated manually.**

**Y N**

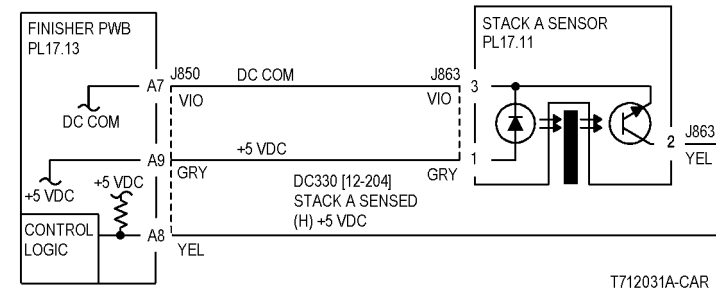
Replace the Stacker Motor (**PL 17.11**).

- Ensure that the connectors shown in the circuit diagrams (**Figure 2**, **Figure 3**, **Figure 4**, **Figure 5**) are securely connected and that the wires are not damaged.
- If the problem persists, replace Finisher PWB (**PL 17.13**) (**Figure 6**).

**NOTE:** The large white Stacker Drive Pulley can be pulled out to release the Stacker Drives to free the Stacker Tray (**REP 12.20**).



**Figure 1 Component Location**



T712031A-CAR

**Figure 2 12-960 RAP Circuit Diagram - Stack A Sensor**



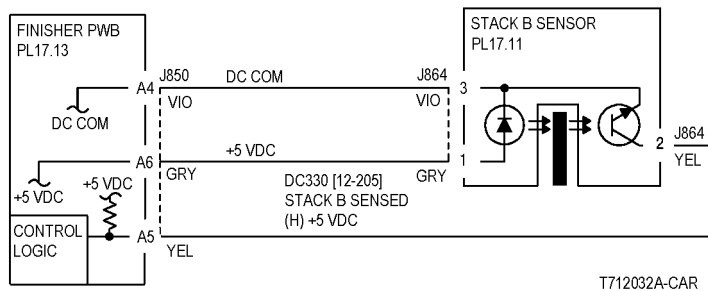


Figure 3 12-960 RAP Circuit Diagram - Stack B Sensor

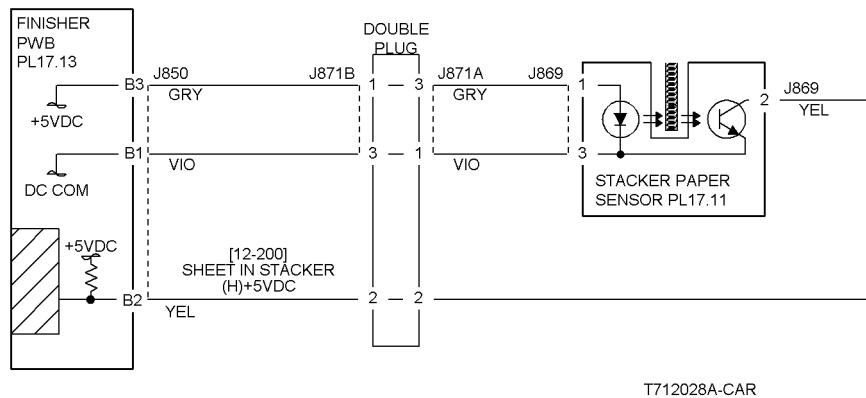


Figure 4 12-960 RAP Circuit Diagram - Stacker Paper Sensor

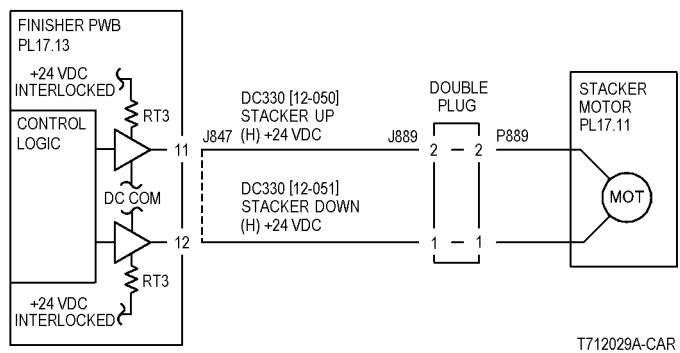


Figure 5 12-960 RAP Circuit Diagram - Stacker Motor

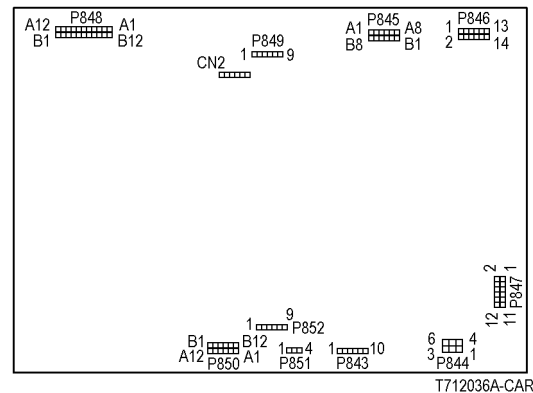


Figure 6 Finisher PWB



## 12-961 Mix Full Stack

- Compared to the maximum paper size that was loaded at the previous job, the paper size (either feed direction or width direction) of the next job is bigger.
- Staple mode has been changed while the width of the maximum paper size that was loaded at the previous job is less than 279.4mm.
- The maximum paper size that was loaded at the previous job is unknown.

### Procedure

Remove the Finisher Front Cover. Enter **dC330** [012-204] and press **Start**. Actuate the Stack A Sensor (**Figure 1**). **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Stack A Sensor (**Figure 2**). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Enter **dC330** [012-205] and press **Start**. Actuate the Stack B Sensor. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Stack B Sensor (**Figure 3**). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Enter **dC330** [012-200] and press **Start**. Actuate the Stacker Paper Sensor. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Stacker Paper Sensor (**Figure 4**). Refer to the **OF 99-2** RAP for troubleshooting procedure.

Press **Stop**. Rotate the Stacker Motor Drive Pulley manually by turning the Stacker Drive Motor Drive Gear (**PL 17.11**). **The pulley rotates smoothly.**

**Y N**

Check the following and repair the Stacker Drives as required (**PL 17.11**).

- Stacker Motor Gear for wear and damage.
- Stacker Tray for dragging and incorrect installation.
- Stacker Elevator Belt/rack/gear for wear and damage.

Disconnect Stacker Motor **P/J889**. Measure the resistance between pin 1 and pin 2 of the motor connector. **Between 12 to 40 ohms is measured while the pulley is rotated manually.**

**Y N**

Replace the Stacker Motor (**PL 17.11**).

- Ensure that the connectors shown in the circuit diagrams (**Figure 2**, **Figure 3**, **Figure 4**, **Figure 5**) are securely connected and that the wires are not damaged.
- If the problem persists, replace Finisher PWB (**PL 17.13**) (**Figure 6**).

**NOTE:** The large white Stacker Drive Pulley can be pulled out to release the Stacker Drives to free the Stacker Tray (**REP 12.20**).

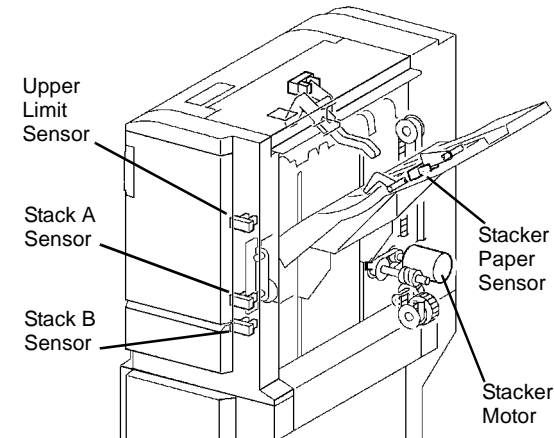
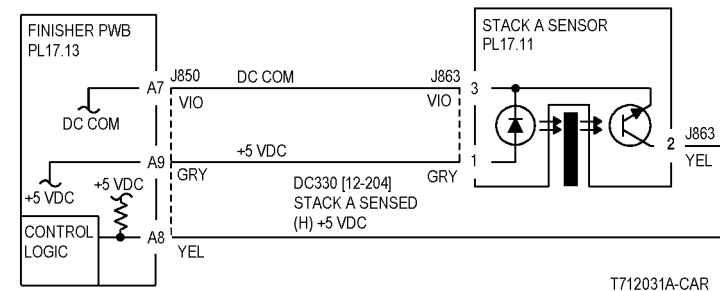


Figure 1 Component Location



T712031A-CAR

Figure 2 12-961 RAP Circuit Diagram - Stack A Sensor



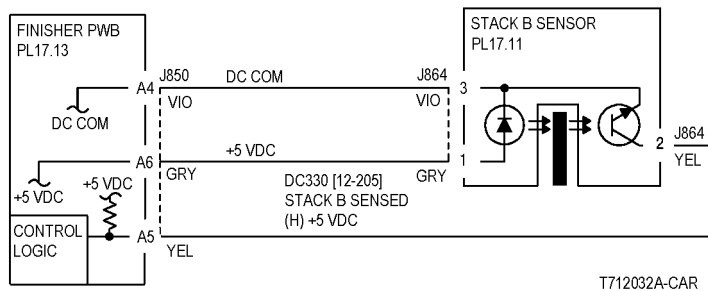


Figure 3 12-961 RAP Circuit Diagram - Stack B Sensor

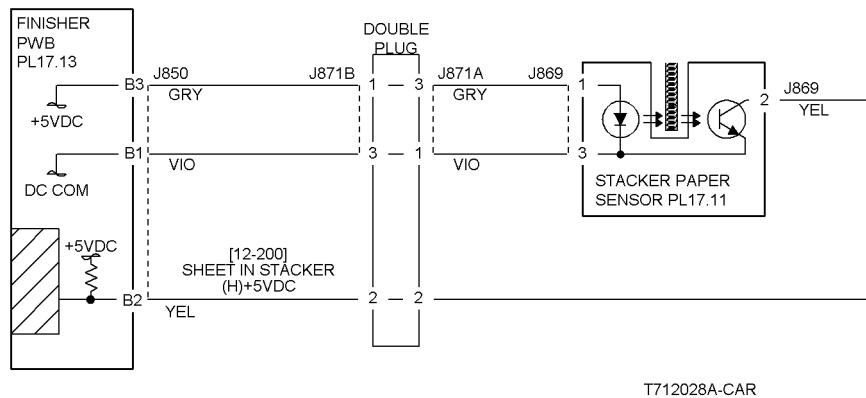


Figure 4 12-961 RAP Circuit Diagram - Stacker Paper Sensor

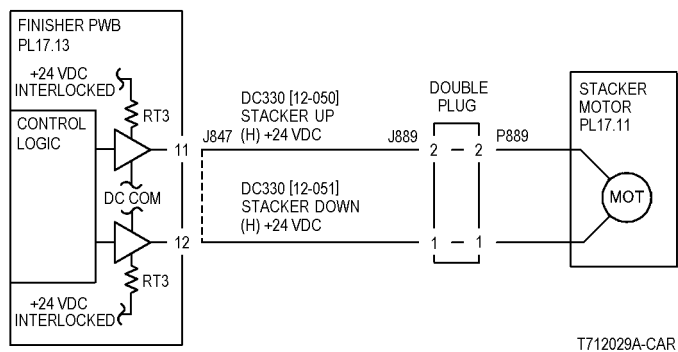


Figure 5 12-961 RAP Circuit Diagram - Stacker Motor

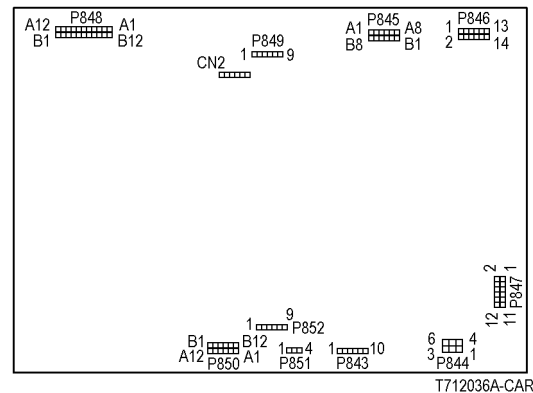


Figure 6 Finisher PWB



## 12-965 Staple Near Empty

- The Low Staple Switch detected Low Staple at Power On and Interlock Close.
- The Low Staple Switch detected Low Staple at Staple Head Close.

### Procedure

Install a new Staple Cartridge loaded with staples. **+5VDC measured between the Finisher PWB P/J852-4 and ground (Figure 1).**

Y N

Replace the Finisher PWB (PL 17.13).

**+5VDC measured between the Stapler Assembly P/J886-2 and ground).**

Y N

Check the wire between the Stapler Assembly P/J886 and the Finisher PWB P/J852 for an open circuit or poor contact.

Check the wire between the Stapler Assembly P/J886 and the Finisher PWB P/J852 for an open circuit or poor contact.

If no problems are found, replace the Stapler Assembly (PL 17.9).

If the problem continues, replace the Finisher PWB (PL 17.13) (Figure 2).

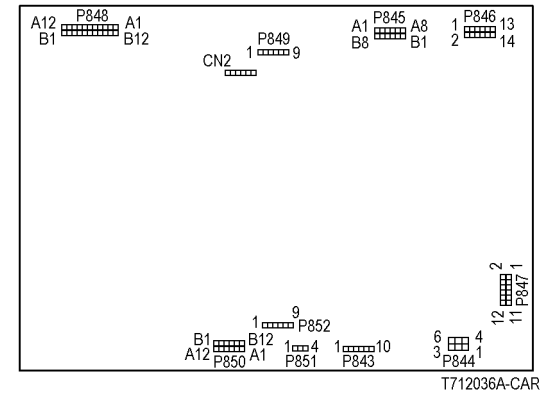


Figure 2 Finisher PWB

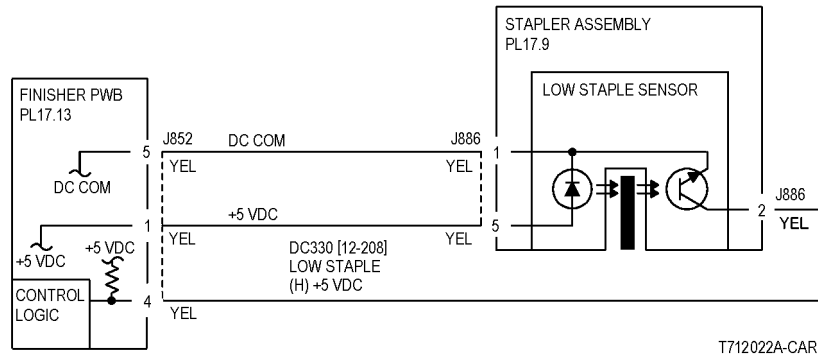


Figure 1 12-965 RAP Circuit Diagram - Low Staple Sensor



## 12-966 Scratch Sheet Compile

Paper is output to the compiler that is not part of a print or copy job.

### Procedure

Clear the sheets in the Stacker Tray. **The problem continues.**

**Y   N**  
|  
Return to service call procedures.

Rerun the job. If the problem continues, replace the Finisher PWB (PL 17.13).



## 12-969 IOT Top Tray Full

The Top Tray Full Sensor has detected full status for 10 sec.

### Procedure

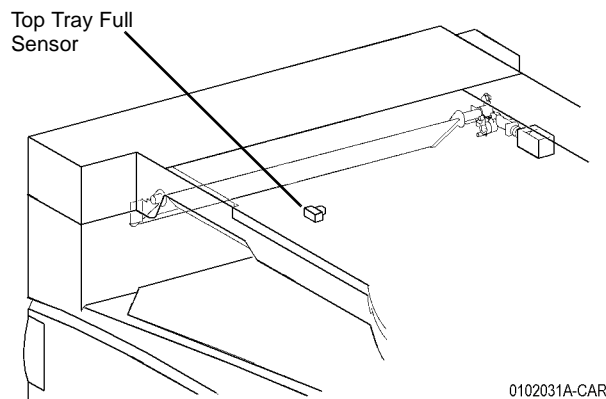
Enter **dC330** [012-215] and press **Start**. Position some paper near the Top Tray Full Sensor (**Figure 1**), then move the paper away. **The display changes.**

**Y N**

Press **Stop**. Check the circuit of the Top Tray Full Sensor (**Figure 2**). Refer to the **OF 99-1** RAP for troubleshooting procedure.

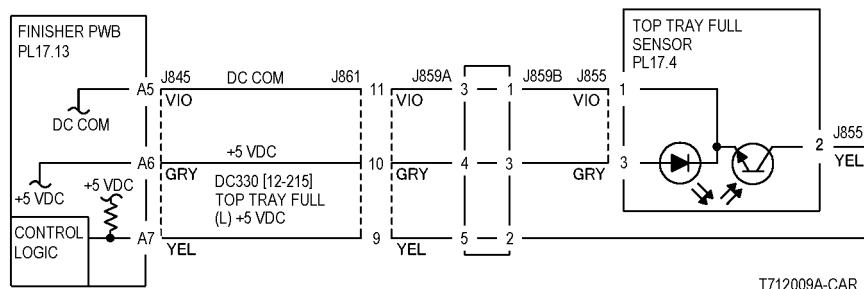
Press **Stop**.

- Ensure that the connectors shown in the circuit diagram (**Figure 2**) are securely connected and that the wires are not damaged.
- Replace the Top Tray Full Sensor (**PL 17.4**)
- If the problem persists, replace the Finisher PWB (**PL 17.13**) (**Figure 3**).



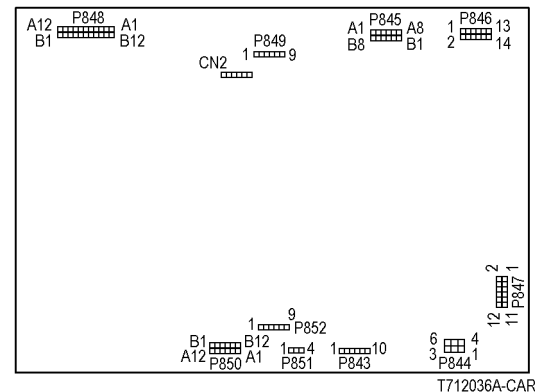
0102031A-CAR

**Figure 1 Component Location**



T712009A-CAR

**Figure 2 12-969 RAP Circuit Diagram - Top Tray Full Sensor**



**Figure 3 Finisher PWB**



## 15-362 X Hard Failure

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3). If the check is OK, replace the IIT/IPS PWB (PL 18.3).

## 15-367 X PIO Failure

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3). If the check is OK, replace the IIT/IPS PWB (PL 18.3).



## 15-370 X PIO Initialization Failure 1

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check is OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-371 X PIO Initialization Failure 2

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check is OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).



## 15-372 X PIO Initialization Failure 3

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check is OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-375 X PIO Before Scan Failure

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check is OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).



## 15-376 X PIO Non-match Failure 1

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check is OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-377 X PIO Non-match Failure 2

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**  
Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check is OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).



## 15-380 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 1 red failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Switch the power off, then on. **The fault code is still present.**

**Y N**

Intermittent faults can be caused by condensation on the optics components. If the machine is in a cold location, allow in to warm up for an extended period before operation.  
If the problem is persistent, replace the Exposure Lamp (PL 18.6).

Enter **DC330** [6-002] and press **Start**. **The Exposure Lamp illuminates.**

**Y N**

Go to the **6-371** RAP.

**The Exposure Lamp illumination is bright and steady.**

**Y N**

Go to **P/J722** (Figure 2) and **P/J724** (Figure 1) and check the wires for an open or short circuit.  
Verify that **P/J742** on the Lamp Ballast PWB and **P/J724** on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). **The white reference strip on frame under the Registration Gate is clean and undamaged.**

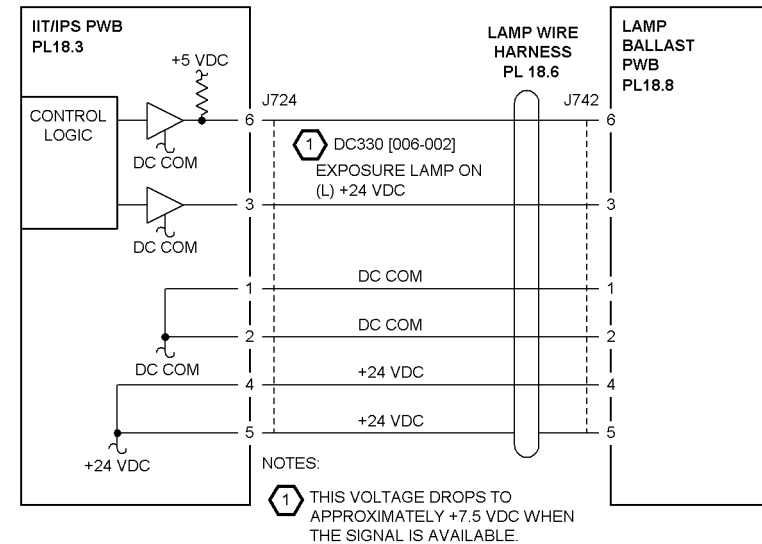
**Y N**

Clean the white reference strip.

Go to **P/J721** (Figure 3) and check the flat cable on the IIT/IPS PWB and **P/J741** on the CCD PWB for damage. Reseat the flat cable.

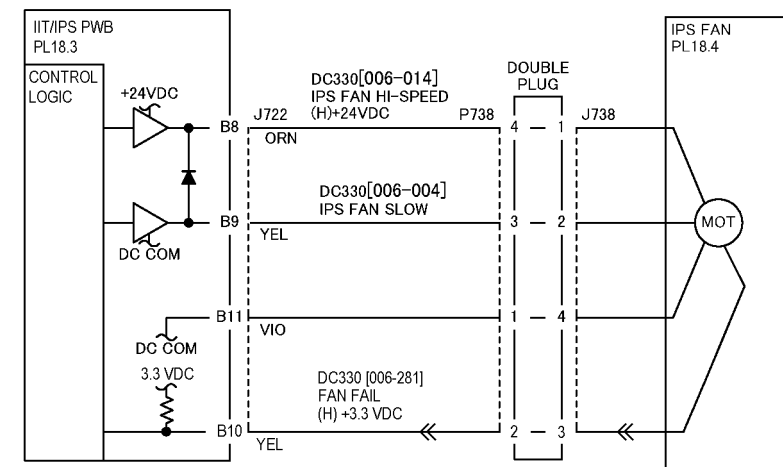
If the problem continues, replace the Lens Kit (PL 18.4).

If the problem continues, replace the IIT/IPS PWB (PL 18.3).



T706005B-CAR

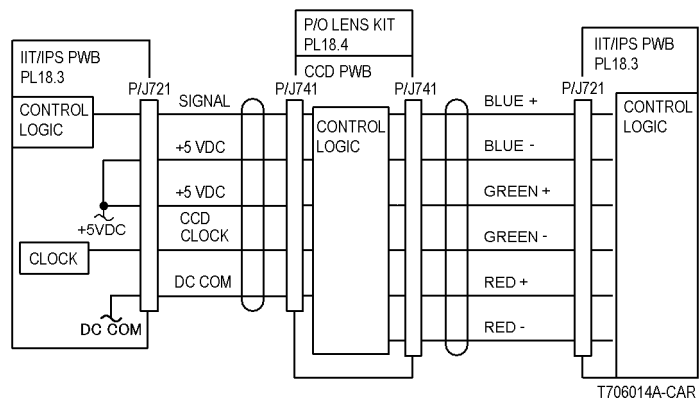
Figure 1 15-380 RAP Circuit Diagram - Lamp Ballast



T706001A-CAR

Figure 2 15-380 RAP Circuit Diagram - IPS Fan





**Figure 3 15-380 RAP Circuit Diagram - CCD**



## 15-381 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 2 red failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter **dC330** [6-002] and press **Start**. The Exposure Lamp illuminates.

**Y N**  
Go to the 6-371.

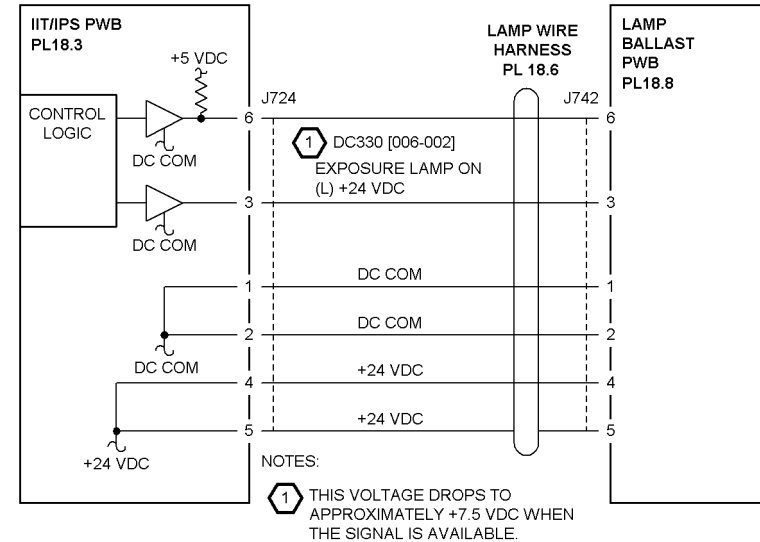
The Exposure Lamp illumination is bright and steady.

**Y N**  
Go to **P/J722** (Figure 2) and **P/J724** (Figure 1) and check the wires for an open or short circuit.  
Verify that **P/J742** on the Lamp Ballast PWB and **P/J724** on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

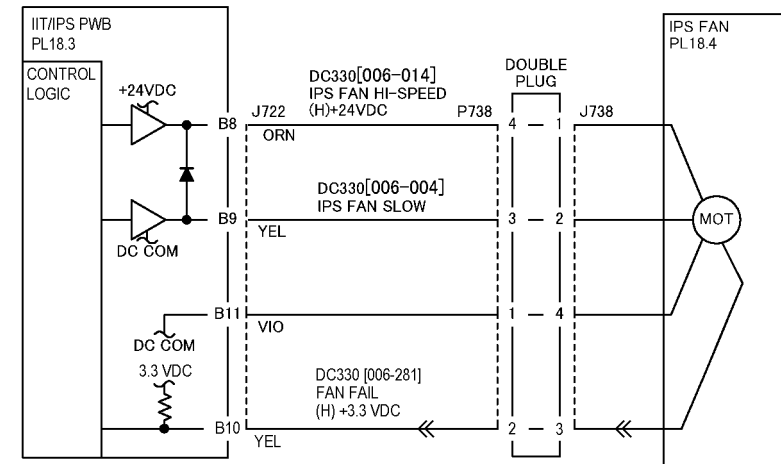
**Y N**  
Clean the white reference strip.

Go to **P/J721** (Figure 3) and check the flat cable on the IIT/IPS PWB and **P/J741** on the CCD PWB for damage. Reseat the flat cable.  
If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).



T706005B-CAR

Figure 1 15-381 RAP Circuit Diagram - Lamp Ballast



T706001A-CAR

Figure 2 15-381 RAP Circuit Diagram - IPS Fan



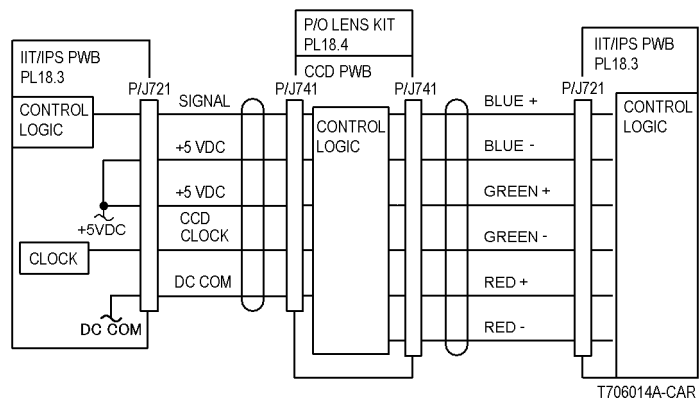


Figure 3 15-381 RAP Circuit Diagram - CCD



## 15-382 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 3 green failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter **dC330** [6-002] and press **Start**. The Exposure Lamp illuminates.

**Y N**  
Go to the **6-371** RAP.

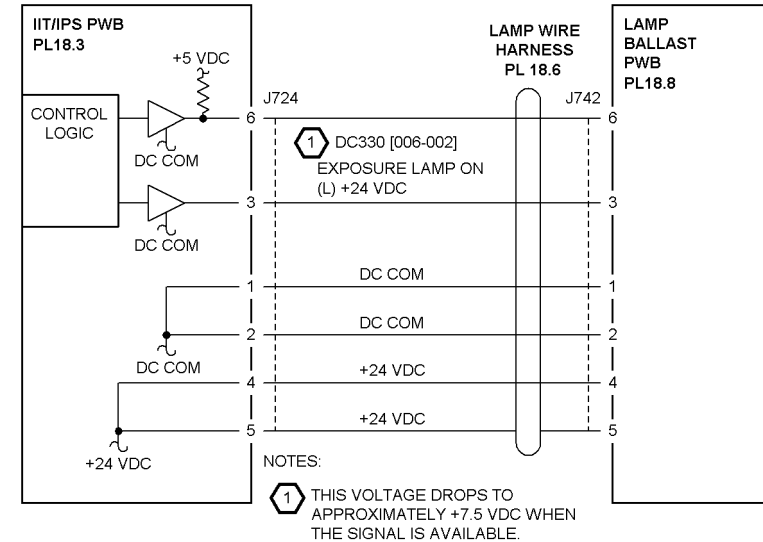
The Exposure Lamp illumination is bright and steady.

**Y N**  
Go to **P/J722** (Figure 2) and **P/J724** (Figure 1) and check the wires for an open or short circuit.  
Verify that **P/J742** on the Lamp Ballast PWB and **P/J724** on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

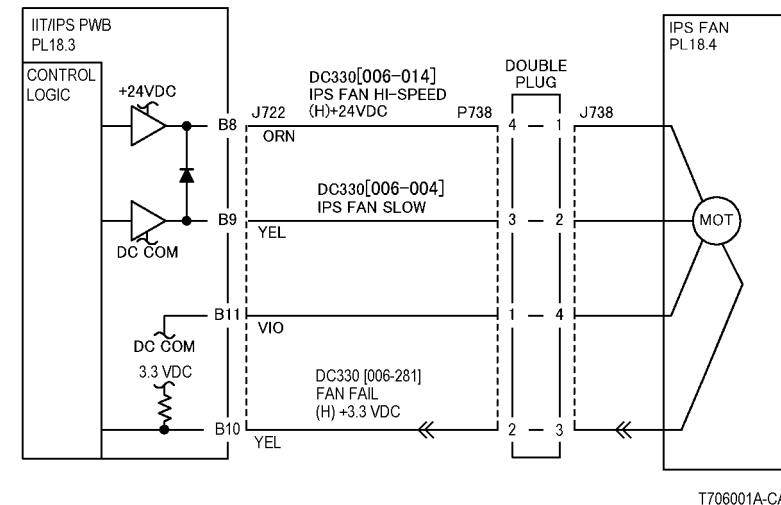
**Y N**  
Clean the white reference strip.

Go to **P/J721** (Figure 3) and check the flat cable on the IIT/IPS PWB and **P/J741** on the CCD PWB for damage. Reseat the flat cable.  
If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).



T706005B-CAR

Figure 1 15-382 RAP Circuit Diagram - Lamp Ballast



T706001A-CAR

Figure 2 15-382 RAP Circuit Diagram - IPS Fan



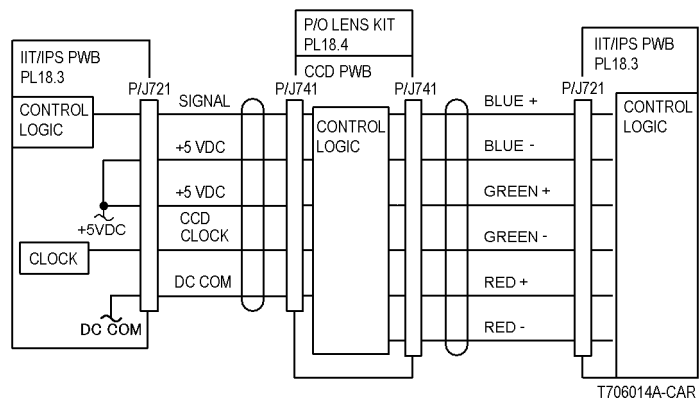


Figure 3 15-382 RAP Circuit Diagram - CCD



## 15-383 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 4 green failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter **dC330** [6-002] and press **Start**. The Exposure Lamp illuminates.

**Y N**  
Go to the **6-371** RAP.

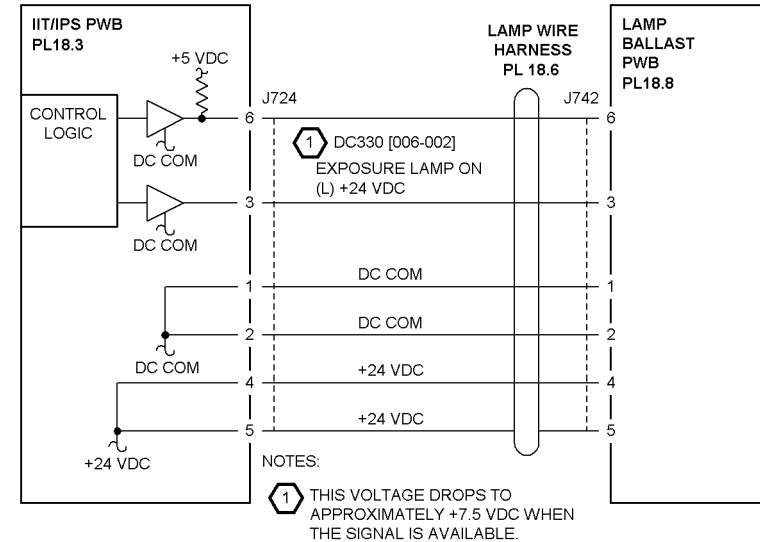
The Exposure Lamp illumination is bright and steady.

**Y N**  
Go to **P/J722** (Figure 2) and **P/J724** (Figure 1) and check the wires for an open or short circuit.  
Verify that **P/J742** on the Lamp Ballast PWB and **P/J724** on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

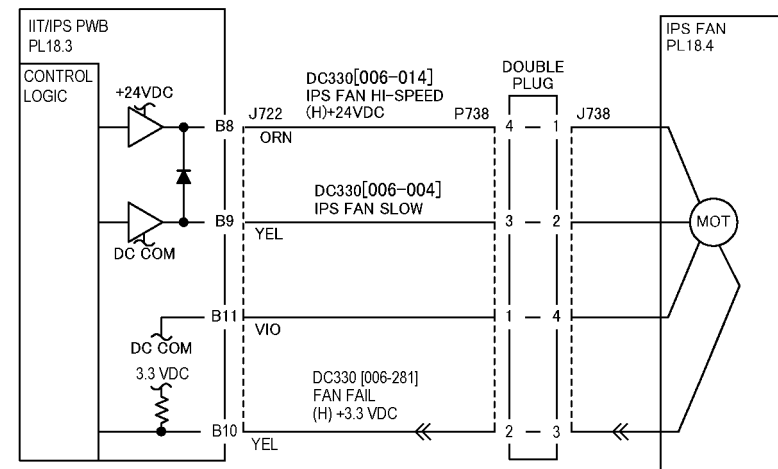
**Y N**  
Clean the white reference strip.

Go to **P/J721** (Figure 3) on 6.2 and check the flat cable on the IIT/IPS PWB and **P/J741** on the CCD PWB for damage. Reseat the flat cable.  
If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).



T706005B-CAR

Figure 1 15-383 RAP Circuit Diagram - Lamp Ballast



T706001A-CAR

Figure 2 15-383 RAP Circuit Diagram - IPS Fan



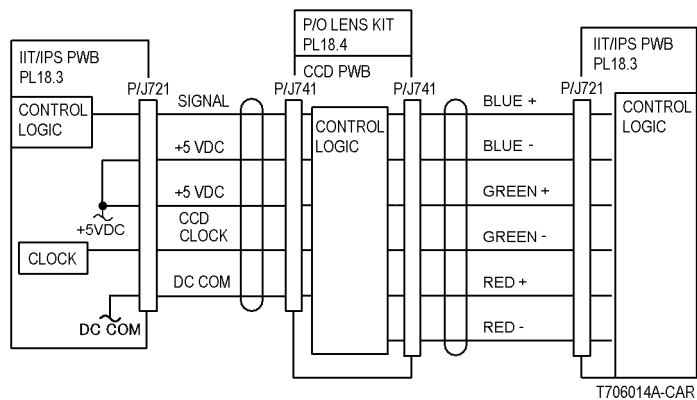


Figure 3 15-383 RAP Circuit Diagram - CCD



## 15-384 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 5 blue failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter **dC330** [6-002] and press **Start**. The Exposure Lamp illuminates.

**Y N**  
Go to the **6-371** RAP.

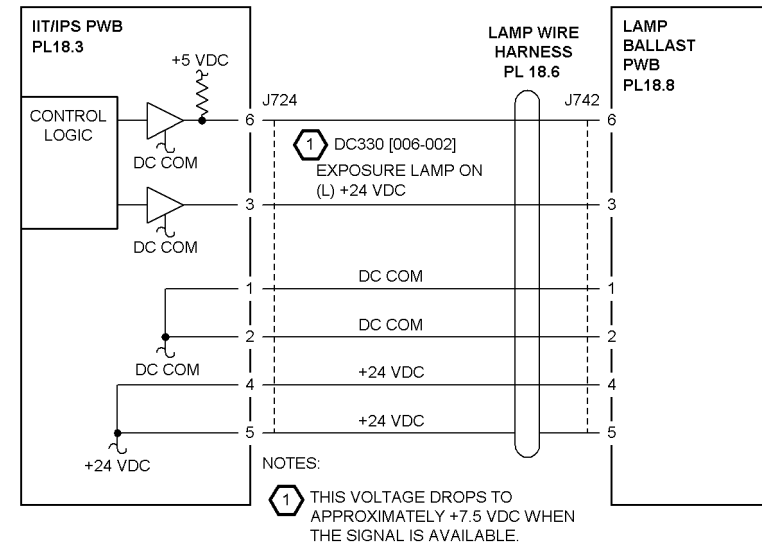
The Exposure Lamp illumination is bright and steady.

**Y N**  
Go to **P/J722** (Figure 2) and **P/J724** (Figure 1) and check the wires for an open or short circuit.  
Verify that **P/J742** on the Lamp Ballast PWB and **P/J724** on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

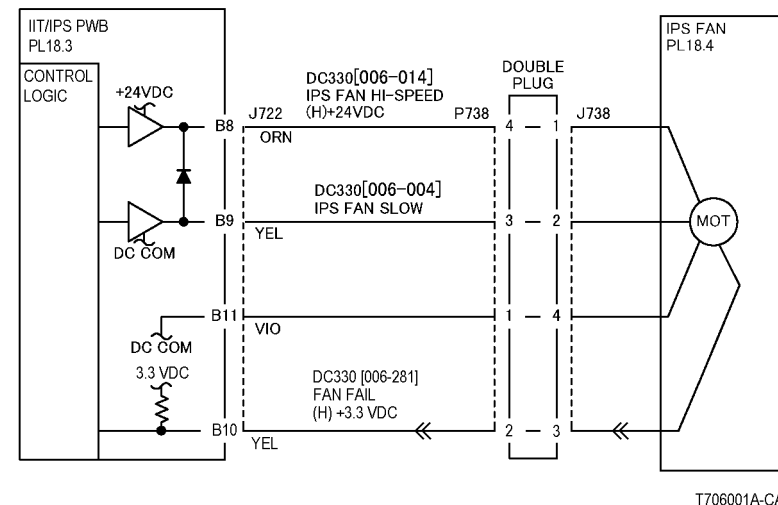
**Y N**  
Clean the white reference strip.

Go to **P/J721** (Figure 3) and check the flat cable on the IIT/IPS PWB and **P/J741** on the CCD PWB for damage. Reseat the flat cable.  
If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).



T706005B-CAR

Figure 1 15-384 RAP Circuit Diagram - Lamp Ballast



T706001A-CAR

Figure 2 15-384 RAP Circuit Diagram - IPS Fan



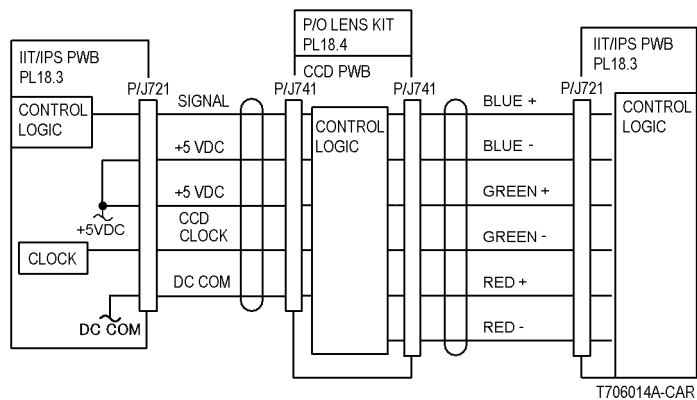


Figure 3 15-384 RAP Circuit Diagram - CCD



## 15-385 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 6 blue failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter **dC330** [6-002] and press **Start**. The Exposure Lamp illuminates.

**Y N**  
Go to the **6-371** RAP.

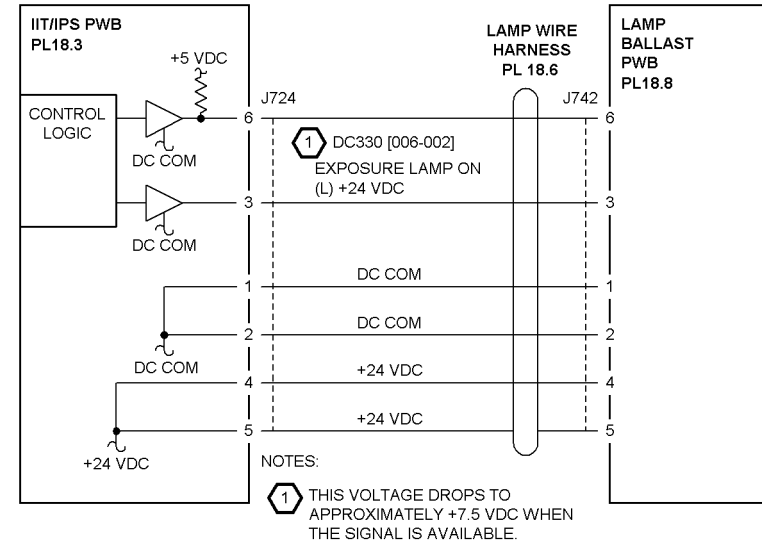
The Exposure Lamp illumination is bright and steady.

**Y N**  
Go to **P/J722** (Figure 2) and **P/J724** (Figure 1) and check the wires for an open or short circuit.  
Verify that **P/J742** on the Lamp Ballast PWB and **P/J724** on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

**Y N**  
Clean the white reference strip.

Go to **P/J721** (Figure 3) and check the flat cable on the IIT/IPS PWB and **P/J741** (Figure 3) on the CCD PWB for damage. Reseat the flat cable.  
If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).



T706005B-CAR

Figure 1 15-385 RAP Circuit Diagram - Lamp Ballast

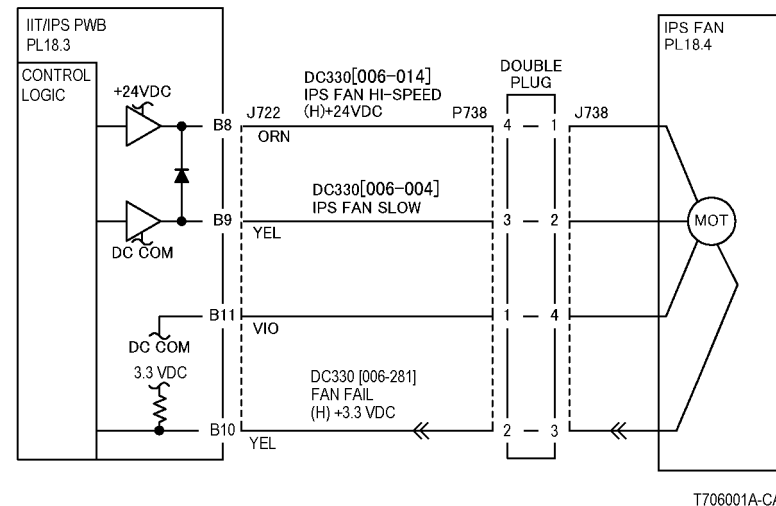


Figure 2 15-385 RAP Circuit Diagram - IPS Fan



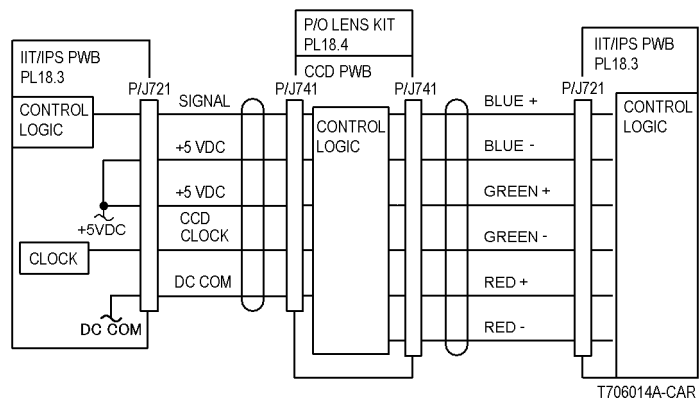


Figure 3 15-385 RAP Circuit Diagram - CCD



## 15-386 CCD AOC1

Automatic Offset Control (AOC) for CCD Channel 1 failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter dC330 [6-002] and press **Start**. The Exposure Lamp illuminates.

Y N  
Go to the 6-371 RAP.

The Exposure Lamp illumination is bright and steady.

Y N  
Go to Figure 1 and check P/J724 for an open or short circuit.  
Verify that P/J742 on the Lamp Ballast PWB and P/J724 on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

Y N  
Clean the white reference strip.

Go to Figure 2 and check the flat cables on the IIT/IPS PWB (P/J721) and the CCD PWB (P/J741) for damage. Reseat the flat cable.  
If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

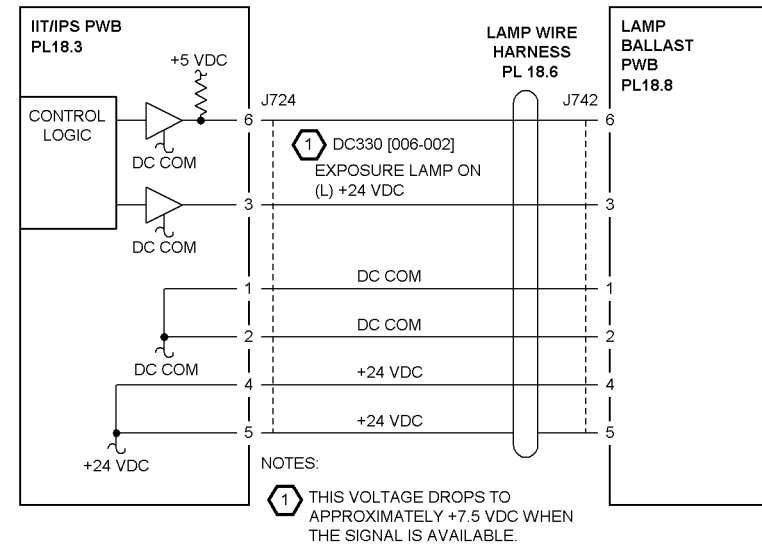


Figure 1 15-386 RAP Circuit Diagram - Lamp Ballast

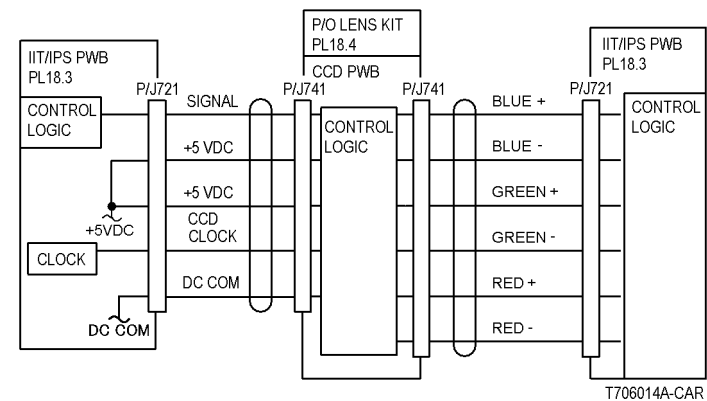


Figure 2 15-386 RAP Circuit Diagram - CCD



## 15-387 CCD AOC2

Automatic Offset Control (AOC) for CCD Channel 21 failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter dC330 [6-002] and press **Start**. The Exposure Lamp illuminates.

Y N  
Go to the 6-371 RAP.

The Exposure Lamp illumination is bright and steady.

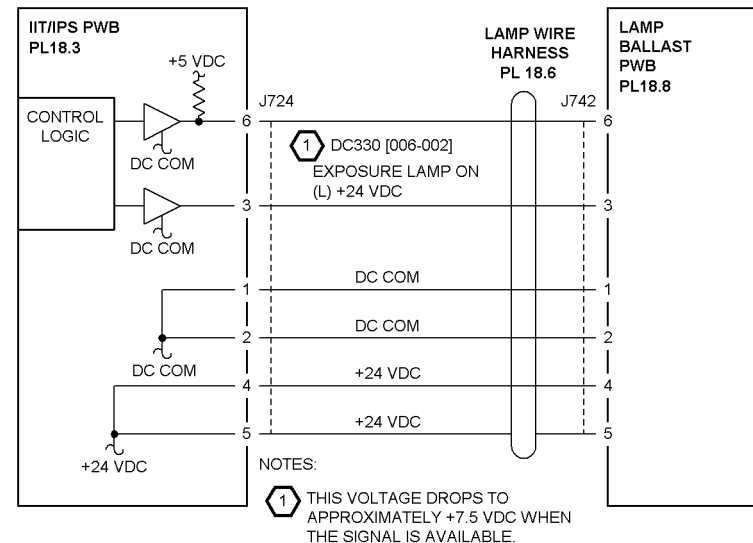
Y N  
Go to Figure 1 and check P/J724 for an open or short circuit.  
Verify that P/J742 on the Lamp Ballast PWB and P/J724 on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

Y N  
Clean the white reference strip.

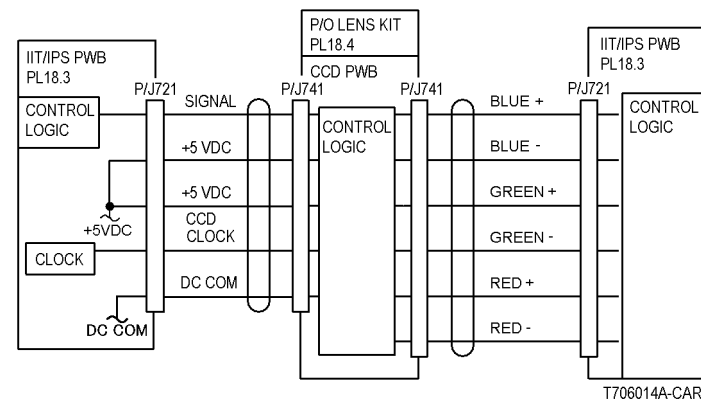
Go to Figure 2 and check the flat cables on the IIT/IPS PWB (P/J721) and the CCD PWB (P/J741) for damage. Reseat the flat cable.

If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).



T706005B-CAR

Figure 1 15-387 RAP Circuit Diagram - Lamp Ballast



T706014A-CAR

Figure 2 15-387 RAP Circuit Diagram - CCD



## 15-388 CCD AOC3

Automatic Offset Control (AOC) for CCD Channel 3 failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter dC330 [6-002] and press **Start**. The Exposure Lamp illuminates.

Y N  
Go to the 6-371 RAP.

The Exposure Lamp illumination is bright and steady.

Y N  
Go to Figure 1 and check P/J724 for an open or short circuit.  
Verify that P/J742 on the Lamp Ballast PWB and P/J724 on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

Y N  
Clean the white reference strip.

Go to Figure 2 and check the flat cables on the IIT/IPS PWB (P/J721) and the CCD PWB (P/J741) for damage. Reseat the flat cable.

If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

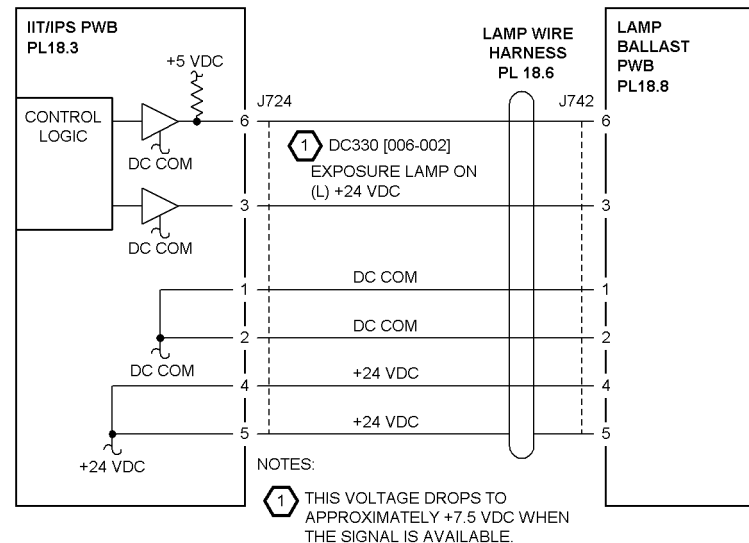


Figure 1 15-388 RAP Circuit Diagram - Lamp Ballast

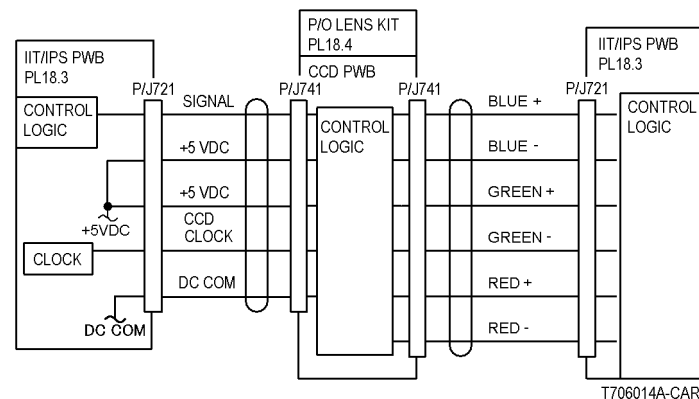


Figure 2 15-388 RAP Circuit Diagram - CCD



## 15-389 CCD AOC4

Automatic Offset Control (AOC) for CCD Channel 4 failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter dC330 [6-002] and press **Start**. The Exposure Lamp illuminates.

Y N  
Go to the 6-371 RAP.

The Exposure Lamp illumination is bright and steady.

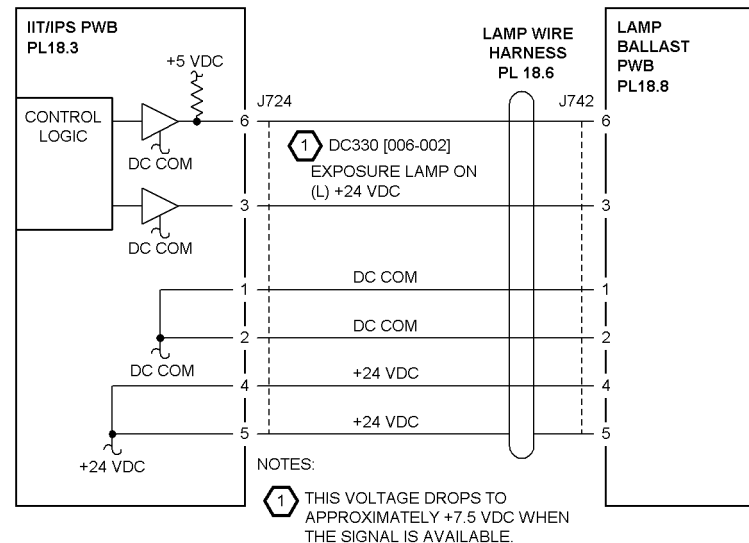
Y N  
Go to Figure 1 and check P/J724 for an open or short circuit.  
Verify that P/J742 on the Lamp Ballast PWB and P/J724 on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

Y N  
Clean the white reference strip.

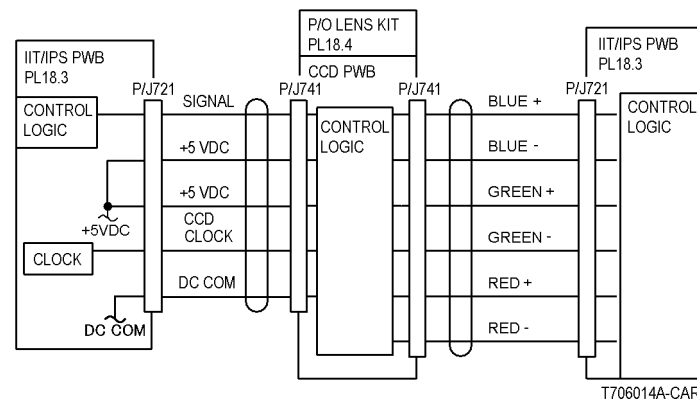
Go to Figure 2 and check the flat cables on the IIT/IPS PWB ( P/J721) and the CCD PWB ( P/J741) for damage. Reseat the flat cable.

If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).



T706005B-CAR

Figure 1 15-389 RAP Circuit Diagram - Lamp Ballast



T706014A-CAR

Figure 2 15-389 RAP Circuit Diagram - CCD



## 15-390 CCD AOC5

Automatic Offset Control (AOC) for CCD Channel 5 failed.

## Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

## Procedure

Enter **dC330** [6-002] and press **Start**. The **Exposure Lamp** illuminates.

Y	N
	Go to the 6-371 RAP.

**The Exposure Lamp illumination is bright and steady.**

**Y N**  
Go to **Figure 1** and check **P/J724** for an open or short circuit.  
Verify that **P/J742** on the Lamp Ballast PWB and **P/J724** on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (**PL 18.6**).  
If the problem continues, replace the Lamp Ballast PWB (**PL 18.6**).  
If the problem continues, replace the IIT/IPS PWB (**PL 18.3**).

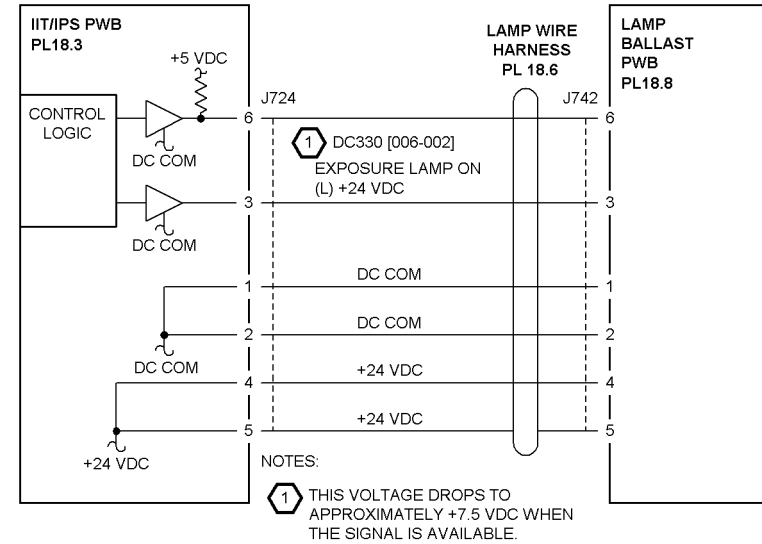
Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

Y	N
	Clean the white reference strip.

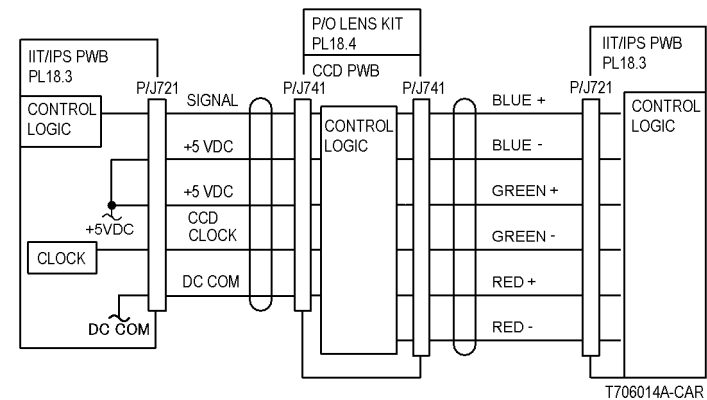
Go to [Figure 2](#) and check the flat cables on the IIT/IPS PWB ( [P/J721](#) ) and the CCD PWB ( [P/J741](#) ) for damage. Reseat the flat cable.

If the problem continues, replace the Lens Kit ([PL 18.4](#)).

If the problem continues, replace the IIT/IPS PWB ([PL 18.3](#)).



**Figure 1 15-390 RAP Circuit Diagram - Lamp Ballast**



**Figure 2 15-390 RAP Circuit Diagram - CCD**



## 15-391 CCD AOC6

Automatic Offset Control (AOC) for CCD Channel 6 failed.

### Initial Actions

- Verify that the Platen Glass is installed correctly (REP 6.2).
- Verify that NVM location 715-400 = 1

### Procedure

Enter dC330 [6-002] and press **Start**. The Exposure Lamp illuminates.

Y N  
Go to the 6-371 RAP.

The Exposure Lamp illumination is bright and steady.

Y N  
Go to Figure 1 and check P/J724 for an open or short circuit.  
Verify that P/J742 on the Lamp Ballast PWB and P/J724 on the IIT/IPS PWB are seated.  
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).  
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). The white reference strip on frame under the Registration Gate is clean and undamaged.

Y N  
Clean the white reference strip.

Go to Figure 2 and check the flat cables on the IIT/IPS PWB (P/J721) and the CCD PWB (P/J741) for damage. Reseat the flat cable.

If the problem continues, replace the Lens Kit (PL 18.4).  
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

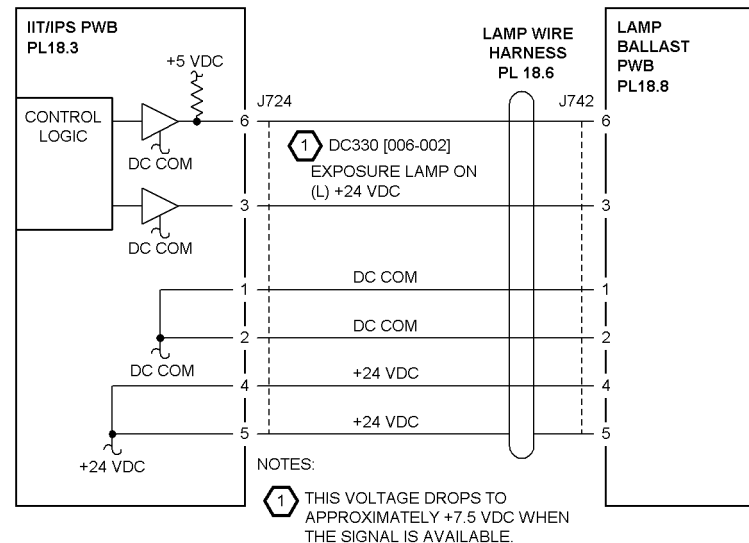


Figure 1 15-391 RAP Circuit Diagram - Lamp Ballast

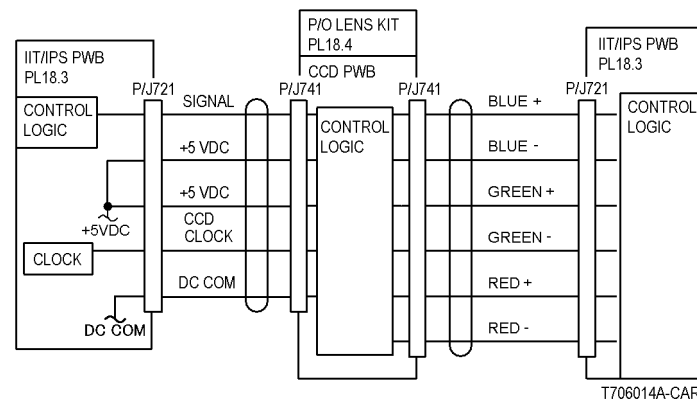


Figure 2 15-392 RAP Circuit Diagram - CCD



## 15-790 X Detail Failure

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y    N**

Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3). If the check is OK, replace the IIT/IPS PWB (PL 18.3)







## 16-311 Scanner

Scanner not detected during power up.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Check connections between Scanner and IOT. Service as required (PL 18.3) (PL 18.4).

## 16-315 IIT Interface

IIT interface error.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Pivot down the HVPS Chassis (REP 1.6) to access I/F PWB.

Check that connections on I/F PWB are secure (PL 9.1).

If problem continues, replace I/F PWB (PL 9.1).



## 16-316 Page Memory

Page memory not detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Check installation of Page Memory of the Scanner.

## 16-317 Page Memory

Page Memory error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Replace the Page Memory of the Scanner.



## 16-318 Optional Page Memory

Optional page memory error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Replace optional Page Memory of the Scanner.

## 16-361 IOT/ESS Communication Failure 1 (ExtPrt)

Incorrect parameter set

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

**Y** **N**  
Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.  
If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation.

- Reload IOT software.
- Replace the VSEL PWB (PL 13.1).
- Replace the ESS PWB (PL 13.1).
- Replace the MCU PWB (PL 13.1).

If the problem persists, replace the Network Controller.



## 16-362 IOT/ESS Communication Failure 2 (ExtPrt)

ACK not received after 2 resends because the sequence number of the message packet is incorrect.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

Y N

Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.  
If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation.

- Reload IOT software.
- Replace the VSEL PWB (PL 13.1).
- Replace the ESS PWB (PL 13.1).
- Replace the MCU PWB (PL 13.1).

If the problem persists, replace the Network Controller.

## 16-363 IOT/ESS Communication Failure 3 (ExtPrt)

ACK not received after 2 resends because the packet number of the message packet is incorrect.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

Y N

Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.  
If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation.

- Reload IOT software.
- Replace the VSEL PWB (PL 13.1).
- Replace the ESS PWB (PL 13.1).
- Replace the MCU PWB (PL 13.1).

If the problem persists, replace the Network Controller.



## 16-364 IOT/ESS Communication Failure 4 (ExtPrt)

ACK not received after 2 resends because the message length of the message packet is incorrect.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |  |   |
|--|---|
| <b>Y</b>   | <b>N</b>  |
|  | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| <ul style="list-style-type: none"><li>• Reload IOT software.</li><li>• Replace the VSEL PWB (PL 13.1).</li><li>• Replace the ESS PWB (PL 13.1).</li><li>• Replace the MCU PWB (PL 13.1).</li></ul> |   |

If the problem persists, replace the Network Controller.

## 16-365 IOT/ESS Communication Failure 5 (ExtPrt)

ACK not received after 2 resends because the checksum of the message packet is incorrect.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |  |   |
|--|---|
| <b>Y</b>   | <b>N</b>  |
|  | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| <ul style="list-style-type: none"><li>• Reload IOT software.</li><li>• Replace the VSEL PWB (PL 13.1).</li><li>• Replace the ESS PWB (PL 13.1).</li><li>• Replace the MCU PWB (PL 13.1).</li></ul> |   |

If the problem persists, replace the Network Controller.



## 16-366 IOT/ESS Communication Failure 6 (ExtPrt)

ACK not received after 2 resends because a parity error was declared by the IOT hardware.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.

## 16-367 IOT/ESS Communication Failure 7 (ExtPrt)

ACK not received after 2 resends because a parity error was declared by the IOT hardware.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.



16-368 IOT/ESS Communication Failure 8 (ExtPrt)

ACK not received after 2 resends because an overrun error was declared by the IOT hardware.

Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |  |   |
|--|---|
| <b>Y</b>   | <b>N</b>  |
|  | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| <ul style="list-style-type: none"><li>• Reload IOT software.</li><li>• Replace the VSEL PWB (PL 13.1).</li><li>• Replace the ESS PWB (PL 13.1).</li><li>• Replace the MCU PWB (PL 13.1).</li></ul> |   |

If the problem persists, replace the Network Controller.

16-369 IOT/ESS Communication Failure 9 (ExtPrt)

ACK not received after 2 resends because a receive abort signal is detected after header recognition.

Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |  |   |
|--|---|
| <b>Y</b>   | <b>N</b>  |
|  | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| <ul style="list-style-type: none"><li>• Reload IOT software.</li><li>• Replace the VSEL PWB (PL 13.1).</li><li>• Replace the ESS PWB (PL 13.1).</li><li>• Replace the MCU PWB (PL 13.1).</li></ul> |   |

If the problem persists, replace the Network Controller.



## 16-371 DFE/ESS Communication Failure 1

Incorrect parameter set

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

Y N

Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.  
If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation.

- Reload IOT software.
- Replace the VSEL PWB (PL 13.1).
- Replace the ESS PWB (PL 13.1).
- Replace the MCU PWB (PL 13.1).

If the problem persists, replace the Network Controller.

## 16-372 DFE/ESS Communication Failure 2

ACK not received after 2 resends because the sequence number of the message packet is incorrect.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

Y N

Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.  
If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation.

- Reload IOT software.
- Replace the VSEL PWB (PL 13.1).
- Replace the ESS PWB (PL 13.1).
- Replace the MCU PWB (PL 13.1).

If the problem persists, replace the Network Controller.



### 16-373 DFE/ESS Communication Failure 3

ACK not received after 2 resends because the packet number of the message packet is incorrect.

#### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

#### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |  |   |
|--|---|
| <b>Y</b>   | <b>N</b>  |
|  | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| <ul style="list-style-type: none"><li>• Reload IOT software.</li><li>• Replace the VSEL PWB (PL 13.1).</li><li>• Replace the ESS PWB (PL 13.1).</li><li>• Replace the MCU PWB (PL 13.1).</li></ul> |   |

If the problem persists, replace the Network Controller.

### 16-374 DFE/ESS Communication Failure 4

ACK not received after 2 resends because the message length of the message packet is incorrect.

#### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

#### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |  |   |
|--|---|
| <b>Y</b>   | <b>N</b>  |
|  | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| <ul style="list-style-type: none"><li>• Reload IOT software.</li><li>• Replace the VSEL PWB (PL 13.1).</li><li>• Replace the ESS PWB (PL 13.1).</li><li>• Replace the MCU PWB (PL 13.1).</li></ul> |   |

If the problem persists, replace the Network Controller.



## 16-375 DFE/ESS Communication Failure 5

ACK not received after 2 resends because the checksum of the message packet is incorrect.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.

## 16-376 DFE/ESS Communication Failure 6

ACK not received after 2 resends because a parity error was declared by the IOT hardware.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.



# 16-377 DFE/ESS Communication Failure 7

ACK not received after 2 resends because a framing error was declared by the IOT hardware.

## Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

## Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.

# 16-378 DFE/ESS Communication Failure 8

ACK not received after 2 resends because an overrun error was declared by the IOT hardware.

## Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

## Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.



## 16-379 DFE/ESS Communication Failure 9

ACK not received after 2 resends because an overrun error was declared by the IOT hardware.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

<b>Y</b>	<b>N</b>
	Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables. If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation.

- Reload IOT software.
- Replace the VSEL PWB (PL 13.1).
- Replace the ESS PWB (PL 13.1).
- Replace the MCU PWB (PL 13.1).

If the problem persists, replace the Network Controller.

## 16-380 DFE/ESS Communication Failure 10

NAK-generated sequence number error.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

<b>Y</b>	<b>N</b>
	Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables. If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation.

- Reload IOT software.
- Replace the VSEL PWB (PL 13.1).
- Replace the ESS PWB (PL 13.1).
- Replace the MCU PWB (PL 13.1).

If the problem persists, replace the Network Controller.



# 16-381 DFE/ESS Communication Failure 11

NAK-generated packet number error.

## Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

## Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.

# 16-382 DFE/ESS Communication Failure 12

NAK-generated message length error.

## Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

## Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.



# 16-383 DFE/ESS Communication Failure 13

NAK-generated checksum error.

## Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

## Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.

# 16-384 DFE/ESS Communication Failure 14

NAK-generated parity error.

## Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

## Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.



# 16-385 DFE/ESS Communication Failure 15

NAK-generated framing error.

## Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

## Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.

# 16-386 DFE/ESS Communication Failure 16

NAK-generated framing error.

## Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

## Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.



## 16-387 DFE/ESS Communication Failure 17

NAK-generated receive abort error.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.

## 16-389 DFE/ESS Communication Failure 19

NAK-generated packet number error.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

- |          |   |
|----------|---|
| <b>Y</b> | <b>N</b>  |
|          | Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.<br>If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation. |
| •        | Reload IOT software.  |
| •        | Replace the VSEL PWB (PL 13.1).   |
| •        | Replace the ESS PWB (PL 13.1).  |
| •        | Replace the MCU PWB (PL 13.1).  |

If the problem persists, replace the Network Controller.



## 16-390 DFE/ESS Communication Failure 20

Initialization request from DFE not received within the allotted time.

### Initial Actions

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage.

### Procedure

Switch off the power. Disconnect the DDI cables and the network cable from the NC to the IOT. Switch on the power. **The fault, or another DFE communications fault (16-361 through 16-390) is still present.**

Y N

Reload DFE software. If the problem persists, Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.  
If the problem continues, verify that the NC is functioning correctly. Refer to the NC service documentation.

- Reload IOT software.
- Replace the VSEL PWB (PL 13.1).
- Replace the ESS PWB (PL 13.1).
- Replace the MCU PWB (PL 13.1).

If the problem persists, replace the Network Controller.

## 16-399 DFE Not Detected

External controller is not connected or is not functioning.

### Procedure

Switch the power off, then on. If the problem continues, check the connections at the MCU PWB and the I/F PWB. Check that the DDI cables from the Network Controller (NC) to the IOT are secured and are free from damage. Reinstall DFE software.

If this does not resolve the problem, perform the following checks in the sequence presented, until the problem is resolved:

- Ensure that a live network cable is connected to the NC. Verify that the AC power connector is connected to the NC and that AC line voltage is present. If the voltage is not present, go to the OF 1-4 RAP.
- Verify that the NC is functioning correctly. Refer to the NC service documentation.
- Switch the DDI cables from the NC to the IOT (switch both ends). If the problem changes, replace the cables.
- Replace the VSEL PWB (PL 13.1).
- Replace the ESS PWB (PL 13.1).
- Replace the MCU PWB (PL 13.1).

If the problem persists, replace the Network Controller.



## 16-450 SMB Host Name

PC of the same host name is duplicated on a network.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Change the host name.

## 16-452 IP Address Duplicated

PC of the same IP address exists on a network.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Change the IP address.



## 16-453 IP Address Acquisition

The IP address failed to be granted from the DHCP server.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Set the IP address.

## 16-454 Dynamic DNS Update

Dynamic DNS update failed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Again, switch power off then on



## 16-460 Full Status Detected

Full Status Detected at HDD Access.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Again, switch power off then on

## 16-590 Read Error (Partition A)

A verify error occurred in the HDD partition A at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Set up the HDD (ADJ 9.8) partition A and perform the verify test again.



## 16-591 Read Error (Partition B)

A verify error occurred in the HDD partition B at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Set up the HDD partition B (ADJ 9.8) and perform the verify test again.

## 16-592 Read Error (Partition C)

A verify error occurred in the HDD partition C at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Set up the HDD partition C (ADJ 9.8) and perform the verify test again.



## 16-593 Read Error (Partition D)

A verify error occurred in the HDD partition D at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Set up the HDD partition D (ADJ 9.8) and perform the verify test again.

## 16-594 Read Error (Partition E)

A verify error occurred in the HDD partition E at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Set up the HDD partition E (ADJ 9.8) and perform the verify test again.



## 16-595 Read Error (Partition H)

A verify error occurred in the HDD partition H at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Set up the HDD partition H (ADJ 9.8) and perform the verify test again.

## 16-701 PLW Memory

An insufficient memory is detected while using the ART EX.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Decrease the resolution.

**NOTE:** Decreasing the resolution may have affect of reducing the PLW memory.



## 16-702 PLW Memory

System detected insufficient buffer for the print page that cannot be compressed.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Decrease the resolution.

**NOTE:** Decreasing the resolution may have affect of reducing the PLW memory.

## 16-703 E-mail To Invalid Box

System detected an unopened or invalid Mailbox and aborted a job when receiving an Email.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Open the appropriate Mailbox.

Send an Email to a valid Mailbox.



## 16-704 Security Box

The system detected that a Mailbox was full (it exceeded the maximum number of documents per Box) and aborted a job. Full status was detected at access and a job was aborted.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Delete unwanted documents and retry the job.

## 16-705 Security Storage without HD

Registry for Secure Print has failed because Security Storage cannot be done due to no HDD available.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Check HDD (PL 13.1) harness connection.

If the problem occurred at installation, check whether the operations for Secure Print are correct.



## 16-706 Maximum User Number

The system detected that a job exceeded the maximum number of users for Secure and Proof Prints and aborted the job. Full status was detected at HDD access and a job was aborted.

### Procedure

Switch power off then on. **The problem continues.**

**Y**   **N**  
|     Return to service call procedures.

Delete unwanted documents/users and retry printing.

## 16-709 PLW Command

An ART EX Command error has occurred during PLW processing.

### Procedure

Switch power off then on. **The problem continues.**

**Y**   **N**  
|     Return to service call procedures.

Cancel the job and execute the command again.



## 16-716 Spool TIFF Data

Unable to spool TIFF files because disk capacity is exceeded.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Check HDD (PL 13.1) harness connection.

## 16-721 Other Errors

An error occurred during printing that is not defined.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Run the same job again to check the error status. Elevate the call.



## 16-726 Decomposer Auto Judgement

Cannot switch decomposer; a print Language auto judgement error occurred.

Auto Judgement Error

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Fix and select the Decomposer from the Operation Panel or with a command.

## 16-728 TIFF Data

The data contains a Tag that is not set in the Image File Expansion Library.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Delete the unsupported Tag from the data and retry printing.



## 16-729 TIFF Data

The specified settings exceed the upper limit of the valid number of colors and pixels.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Correct the valid range.

## 16-730 ART Command

ART IV Command Invalid.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Delete the unsupported command from the data and retry printing.



## 16-731 TIFF Data

Invalid TIFF Data. The TIFF data is broken or cut halfway.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Resend the data.

## 16-735 Job Template

The system tried to output the Job Template List while the Job Template was being updated.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Run the job again after the Job Template update has completed.



## 16-737 Server Read

Read error from the Job Template Pool Server

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Check that "Authorization to read" is established for the storage destination server directory set as resource.

## 16-739 Job Template Path

The specified path of the Job Template Pool Server cannot be found.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Set the resource of the storage destination path from a client PC on the CentreWare.



## 16-740 Job Template Login

Job Template Server Login Error. Cannot log in to the Job Template Pool Server.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Set the log-in name and password in the Job Template file storage destination.

From some other PC connected to the network, check that you can log in with the above account.

Set the log-in name and password as a resource from the CentreWare client PC.

## 16-741 Job Template Connection

Cannot connect to the Job Template Pool Server.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Connect the cable from the M/C to a network correctly.

From the destination server, check that you can identify the M/C with "ping."

Perform the "ping" test on the destination server from a client PC to check that the FTP connection to the destination server is possible.



## 16-742 HDD File

File system was full when the Job Template was stored into the local HDD.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Because the scanned images may exceed HDD capacity, rerun the job.

If the problem continues, Initialize the HDD (ADJ 9.8).

If the problem continues, replace the HDD (PL 13.1).

## 16-743 Job Template Installation

Job template pool server installation error or job template pool server setting failure

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Set the Spool Server related parameters again.



## 16-744 Job Template Address

The Job Template Pool Server address cannot be solved (Response to the DNS library error)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Check the connection to the DNS. Check that the Job Template Pool Server domain name is the one that has been registered in the DNS.

## 16-745 Job Template Definition

The Job Template Pool Server address cannot be solved (The DNS address is not set)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Set the DNS address. Or set the Job Template Pool Server address by the IP address.



## 16-748 HDD Full

Full status was detected at HDD access and a job was aborted.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Go to ADJ 9.8. Perform **Setup** on Partition 6 (F). Resend the job.

## 16-749 XJCL Syntax

Syntax error of the JCL command was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Correct the command.



## 16-757 Auditron User

Invalid Auditron User

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Set a correct account and retry.

## 16-758 Auditron Function

An auditron function is disabled.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Consult the account administrator to add a right.

Set the new function that is allowed for that account and retry.



## 16-759 Auditron Limit

Auditron reached limit.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Consult the account administrator to set the number of copies.

## 16-760 Decomposer

Error during decompose processing.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Resend the job. The execution environment/data check are required if the problem persists.



## 16-761 FIFO

Image Enlargement Error, FIFO EMPTY Error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Print in fast print mode.

If problem continues, use print guarantee mode.

## 16-762 Decomposer

The print language is not installed or an unsupported function (print language, print utility.) was required. The Decomposer specified with PjL or Auto SW is not installed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Fix and select the Decomposer from the Operation Panel or with a command.



## 16-763 Patch

Original patch does not exist.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Place the Auto Gradation Correction Chart correctly.

## 16-764 Server Transmission

SMTP Server Connection Error, result code: 421/451

### Initial Actions

Could not connect to the SMTP server. Contact the SMTP server administrator.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Retrieve E-mail in the Server HD. Restart the SMTP service.



## 16-765 Server Storage

SMTP Server HD Full, Result code: 452

### Initial Actions

Could not send mail as the hard disk on the SMTP server was full. Contact the SMTP server administrator.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|  
Return to service call procedures.

Retrieve emails in the Server HD. Rearrange the server capacity.

## 16-766 Server Storage

SMTP Server File System has a problem, result code: 552.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|  
Return to service call procedures.

Contact the SMTP Server administrator. Rearrange the server capacity limit.



## 16-767 Mailbox

Mailbox not found, or no access. E-mail destination address Incorrect, result code: 550/551.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Check the destination of the email.

## 16-768 Mail From Command

Mail From Command, Sending Address Incorrect, Login Error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Check the settings of the self-email address. Check whether it is a valid email address in the domain.



## 16-769 DSN Unsupported

SMTP Server Not Applicable to DSN

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Enable the ESMTP function of nearest SMTP Server. Or disable the Sending/Receiving Confirmation function when sending an email.

## 16-770 Template Processing

The system aborted a job due to insufficient HDD capacity at Job Template processing.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Create free space on the HDD.



## 16-771 Scan Data Repository

The Scanned Data Repository Address cannot be solved. DNS Address is not set.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Set the DNS address. Or set the Scan Data Repository address by the IP address.

## 16-772 Scan Data Repository

The Scan Data Repository address cannot be solved (Response to the DNS library error)

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Check the connection to the DNS. Or check that the Scanned Data Repository domain name is the one that has been registered in the DNS.



## 16-773 IP Address

Self-machine IP address invalid, DHCP Lease Expired.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Check the DHCP environment. Set the fixed IP address for the self-machine.

## 16-774 HDD Compression

HDD Full has occurred when the S-Formatter did the compression type conversion of the JBIG compressed images into the MH system (partition #1).

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Create free space on the HDD and retry.



## 16-775 HDD Capacity

Image Conversion Error. Insufficient HDD capacity is detected during image conversion process by S-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Create free space on the HDD and retry

## 16-776 Image Conversion

An error has occurred due to other causes than HDD Access during image conversion process by S-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform the operation again.



## 16-777 HDD Access

The HDD Access Error has occurred during image conversion process by S-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Replace the HDD (PL 13.1) and perform the operation again.

## 16-778 HDD Capacity

The insufficient HDD capacity was detected during scanned image conversion process by I-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Check HDD (PL 13.1) harness connections and retry scanning.



## 16-779 Scan Image Conversion

An error has occurred due to other causes than HDD Access during scanned image conversion process by I-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Again, switch power off then on and perform the operation again.

## 16-780 HDD Access

The HDD Access Error has occurred during scanned image conversion process by I-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Replace the HDD (PL 13.1) and retry scanning.



## 16-781 Scan Server

Net Connection Error during Scanning. Connection to the Server cannot be established during Scan to Server file transfer operation.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Set "Sub-net Mask" and "Gateway" of the main processor correctly.

From the destination server, check that you can identify the M/C with "ping."

From a Windows95 or UNIX machine to check that the FTP connection to the destination server is possible.

If the machine is a DC 3535, check that the Ethernet Crossover Cable from the ESS to the Network Controller is connected and is free from damage. Refer to the Network Controller service documentation for repair procedures.

## 16-782 Scan Server Login

Server Login Error during Scanning. Cannot log in to the Server during Scan to Server file transfer operation.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Set the log-in name and password in the destination server.

Make correct settings for the attributes of the Job Template file.

From a client PC, set the same account as the above as a resource in CW.



## 16-783 Server Path

Server Path Error at Scanning. The specified path cannot be found at Scan to Server file transfer operation.

### Procedure

Switch power off then on. **The problem continues.**

**Y**   **N**  
|     Return to service call procedures.

Make correct settings for the attributes of the Job Template file.

## 16-784 Server Write

Write Error at Scanning. The Server cannot be written to at the Scan to Server file transfer.

### Procedure

Switch power off then on. **The problem continues.**

**Y**   **N**  
|     Return to service call procedures.

Check that there is "Write Authorization:" in the server directory.  
Create free space on the server disk.



## 16-785 Server HDD Full

Server File Full at Scanning. The Server File System became full during the Scan to Server file transfer.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Check that there is "Write Authorization" in the server directory.  
Create free space on the server disk.

## 16-786 HDD Scan Write

Internal HDD Write Error at Scanning. A temporary file cannot be written to the internal HDD at the Scan to Server file transfer.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

HDD may be filled with print jobs. Allow time and retry.  
If the problem continues, format the HDD (ADJ 9.8).  
If the problem continues, replace the HDD (PL 13.1).



## 16-787 Job Template Syntax

This is a syntax error in the Job Template during Scan to Server operation and limited to the following cases (because of Redirector detection): Server IP Address Incorrect (IP Syntax Error)

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Check the contents of the attributes (string RepositoryName) in the Job Template file.

## 16-788 Mailbox to PC

Retrieval Failed at Scan to PC (via Web Browser).

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Improve the connection status to a network.

Check for problem such as duplicated IP addresses.



## 16-793 I/O HD Full

### Procedure

Switch power off then on. **The problem continues.**

Y N

Return to service call procedures.

Create free space on the HDD and retry.

## 16-950 Tray 1 Empty

Tray 1 Empty

### Procedure

Switch power off then on. Add paper. **The problem continues.**

Y N

Return to service call procedures.

Go to the 3-950 RAP.



## 16-951 Tray 2 Empty

Tray 2 Empty

### Procedure

Switch power off then on. Add paper. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Go to the 3-951 RAP.

## 16-952 Tray 3 Empty

Tray 3 Empty

### Procedure

Switch power off then on. Add paper. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Go to the 3-952 RAP.



## 16-953 Tray 4 Empty

Tray 4 Empty

### Procedure

Switch power off then on. Add paper. **The problem continues.**

**Y N**

Return to service call procedures.

Go to the 3-953 RAP.

## 16-954 Tray 5 Empty

Tray 5 Empty

### Procedure

Switch power off then on. Add paper. **The problem continues.**

**Y N**

Return to service call procedures.

Go to the 3-954 RAP.



## 16-958 Tray 5 Size

Tray 5 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Load correct paper in the tray. If problem continues, go to the 7-959 RAP or the 7-960 RAP.

## 16-959 Tray 1 Size

Tray 1 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Load proper paper in the tray. If the problem continues, go to the 7-270 RAP.



## 16-960 Tray 2 Size

Size Mismatch Tray 2 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Load proper paper in the tray. If the problem continues, go to the 7-271 RAP.

## 16-961 Tray 3 Size

Tray 3 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Load proper paper in the tray. If the problem continues, go to the 7-276 RAP (TTM) or the 7-272 RAP (3TM).



## 16-962 Tray 4 Size

Tray 4 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Load proper paper in the tray. If the problem continues, go to the 7-277 RAP (TTM) or the 7-273 RAP (3TM).

## 16-965 ATS/APS No Paper

APS/ATS NG No Paper.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Add paper.



## 16-966 ATS/APS No Destination

ATS/APS No Destination, other than No Paper.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Change the settings and replace the Trays.

## 16-981 Full HDD

Full status was detected at HDD access. Full status was not cleared even during waiting for timing. One or more pages are already stored.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

If the problem continues, reload software.

If the problem continues, replace the HDD (PL 13.1).



## 16-982 Full HDD

Full status was detected at HDD access. Full status was not cleared even during waiting for timing. No pages can be stored.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Check the HDD harness connection (PL 13.1). If the problem continues, replace the HDD (PL 13.1).







## 17-310 Network Controller Software Fail

Fatal error in NC software.

### Procedure

Refer to the Network Controller service documentation.

## 17-941 Tray 1 not in position

The Network Controller reports that Tray 1 is not in a ready condition.

### Procedure

Check that Tray 1 is closed, and that the paper guides are set correctly. If this does not resolve the problem, go to the [3-946](#) RAP.



## 17-942 Tray 2 not in position

The Network Controller reports that Tray 2 is not in a ready condition.

### Procedure

Check that Tray 2 is closed, and that the paper guides are set correctly. If this does not resolve the problem, go to the [3-947](#) RAP.

## 17-943 Tray 3 not in position

The Network Controller reports that Tray 3 is not in a ready condition.

### Procedure

Check that Tray 3 is closed, and that the paper guides are set correctly. If this does not resolve the problem, go to the [3-948](#) RAP.



## 17-944 Tray 4 not in position

The Network Controller reports that Tray 1 is not in a ready condition.

### Procedure

Check that Tray 4 is closed, and that the paper guides are set correctly. If this does not resolve the problem, go to the 3-949 RAP.

## 17-946 Tray 1 Empty

The Network Controller reports Tray 1 empty.

### Procedure

Load Tray 1. If this does not resolve the problem, go to the 3-950 RAP



## 17-947 Tray 2 Empty

The Network Controller reports Tray 2 empty.

### Procedure

Load Tray 2. If this does not resolve the problem, go to the [3-951](#) RAP

## 17-948 Tray 3 Empty

The Network Controller reports Tray 3 empty.

### Procedure

Load Tray 3. If this does not resolve the problem, go to the [3-952](#) RAP



## 17-949 Tray 4 Empty

The Network Controller reports Tray 4 empty.

### Procedure

Load Tray 4. If this does not resolve the problem, go to the 3-953 RAP

## 17-950 Tray 5 Empty

The Network Controller reports Tray 5 empty.

### Procedure

Load Tray 5. If this does not resolve the problem, go to the 3-954 RAP



## 17-951 Tray 1 Size Mismatch

The Network Controller reports that the paper detected in Tray 1 does not match the size designated for the print job.

### Procedure

Check the paper in Tray 1. If it does not match the selected paper, choose a different tray or load the correct size paper. If the paper size matches the selected size, ensure that the paper guides are set correctly. If the problem continues, go to the [7-270](#) RAP.

## 17-952 Tray 2 Size Mismatch

The Network Controller reports that the paper detected in Tray 2 does not match the size designated for the print job.

### Procedure

Check the paper in Tray 2. If it does not match the selected paper, choose a different tray or load the correct size paper. If the paper size matches the selected size, ensure that the paper guides are set correctly. If the problem continues, go to the [7-271](#) RAP.



## 17-953 Tray 3 Size Mismatch

The Network Controller reports that the paper detected in Tray 3 does not match the size designated for the print job.

### Procedure

Check the paper in Tray 3. If it does not match the selected paper, choose a different tray or load the correct size paper. If the paper size matches the selected size, ensure that the paper guides are set correctly. If the problem continues, go to the Go to the 7-272 RAP (3TM) or the 7-276 RAP (TTM), as appropriate.

## 17-954 Tray 4 Size Mismatch

The Network Controller reports that the paper detected in Tray 3 does not match the size designated for the print job.

### Procedure

Check the paper in Tray 3. If it does not match the selected paper, choose a different tray or load the correct size paper. If the paper size matches the selected size, ensure that the paper guides are set correctly. If the problem continues, go to the Go to the 7-273 RAP (3TM) or the 7-277 RAP (TTM), as appropriate.



## 17-955 ATS/APS Mismatch

The Network Controller reports that, in Auto Tray Select or Auto Paper Select, no paper of the designated size could be located.

### Procedure

Check the paper in the trays. Ensure that the correct paper is loaded in the appropriate trays, or deselect ATS/APS mode and manually select a tray. If the problem continues, go to the [3-965](#) RAP.

## 17-960 Tray 5 Size Mismatch

The Network Controller reports that the paper in Tray 5 is different than the specified paper size.

### Procedure

Check the paper guides. Ensure that the specified paper is **loaded**. **If the problem persists**, replace the Registration Sensor ([PL 2.6](#)).



## 17-961 Incorrect Transparency Type

Incorrect type of transparency detected by the OHP sensor.

### Initial Actions

- Ensure that only approved transparencies (no white strip) are used.
- Check that the transparencies are oriented correctly.
- Check for obstructions and clean the OHP Sensor.

### Procedure

Go to the [7-959](#) RAP.

## 17-963 Full Stack

The Network Controller reports that the Top Tray is full.

### Procedure

Empty the Top Tray. If the problem continues, go to the [7-969](#) RAP.



## 17-965 Stacker Tray Full

The Network Controller reports that the Stacker Tray in the Finisher is full.

### Procedure

Empty the Stacker Tray. If the problem continues, go to the [12-960](#) RAP.

## 17-966 Mix Full Stack

The Network Control reports one of the following conditions:

- Compared to the maximum paper size that was loaded at the previous job, the paper size (either feed direction or width direction) of the next job is bigger.
- Staple mode has been changed while the width of the maximum paper size that was loaded at the previous job is less than 279.4mm.
- The maximum paper size that was loaded at the previous job is unknown.

### Procedure

Empty the Stacker Tray. If the problem continues, go to the [12-961](#) RAP.



## 17-967 Staple Near Empty

The Network Controller reports one of the following conditions:

- The Low Staple Switch detected Low Staple at Power On and Interlock Close.
- The Low Staple Switch detected Low Staple at Staple Head Close.

### Procedure

Replace the Staple Cartridge. If the fault continues, go to the 12-965 RAP.

## 17-968 Extra Sheet in Compiler

### Procedure

Go to the 12-966 RAP.



## 17-969Top Tray Full (Finisher)

The Network Controller reports that the Top Tray Full Sensor in the H-Transport has detected that the IOT Top Tray is full, for longer than 10 sec.

### Procedure

Empty the Top Tray. If the problem continues, go to the [12-969](#) RAP.



## 20-211 Option Slot 1 Failure

Board failure of option slot 1.

### Procedure

Switch power off then on.

## 20-212 Option Slot 2 Failure

Board failure of option slot 2.

### Procedure

Switch power off then on.



## 20-340 Fax Control Parameter Invalid

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-342 Fax PWB Failure

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-500 Dial Data Invalid

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-501 Invalid Extension Request

A non-existing extension was dialed.

### Initial Actions

Check that the phone-line is properly connected and not damaged.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-502 Fax Parameter Error

A required parameter (incoming call number, high layer consistency, ICM board specification) is not set.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-503 Fax Parameter Error

A non-supported (other than TEL, G2/G3, or G4) high layer consistency command is present in the calling request.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-504 Fax Memory Full

Control Logic detects insufficient memory space for job.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-505 Fax Memory Overrun

Control Logic detects working memory overflow during job.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-506 Unsupported Function at Destination

The recipient machine does not have remote sort copy function.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-507 Password Check Error

Password check error or Mailbox number error. No reserved document for polling.

### Initial Actions

Communication could not take place because the ID of the remote machine and the password specified are not correct.

- Verify that the password and the phone number are correct.
- Verify that the remote machine is set up to receive ID from other parties.

**NOTE:** This fault code could also be displayed when a polling request is rejected.

### Procedure

Switch power off then on. Re-try the Fax job.



## 20-508 DTMF Protocol Error

Procedure-cancel signal is sent and communication is stopped.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-509 DTMF Protocol Error

Command rejection signal is sent and communication is stopped.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-510 DTMF Protocol Error

Command rejection signal is received and communication is stopped.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-511 No File Transfer Ability at Destination

File transfer function is not available at remote terminal.

### Initial Actions

A relay broadcast cannot be transmitted.

- Verify that relay broadcast is correctly registered in the address number by printing the address book and checking for proper registration.
- Check the contents of the address number registered at the relay station.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-512 Endless Loop Detected

Infinite loop is detected in remote relay broadcast.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-513 Receive Command Error

Illegal command is received from remote terminal during remote maintenance.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-514 Requested Function Unsupported

Remote maintenance function requested by remote terminal is not available.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-515 Illegal Command Received

DIS received from calling terminal. DSC received in spite of receiving incapacity.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-519 Destination Overflow

Total requested number of destinations has exceeded the specified limit (full dial request has exceeded 200 terminals).

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-520 Services Overflow

Control Logic detects that the total requested number of services has exceeded the specified limit.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-522 No Line Available

No connected line available for manual communication

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-523 Fax Service Disabled

Operation is disabled; service cannot be accepted.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-524 Unable to Cancel Operation

Operation cannot be inhibited as applicable service is operating.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-525 Chain-Link Number Invalid

Specified Chain-Link does not exist.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-526 Illegal Chain-Link Number

Chain-Link value is out of scope.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-527 Dial Control Error

Dialing request overflow.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-528 Cannot Perform Manual Send

Manual communication was requested while dialing.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-529 No Printable Paper Size

The paper set during polled-data printing/receive print does not match original size.

### Procedure

Select/load the correct paper

Re-try the Fax job



## 20-530 DTMF I/F Time-out

Operation was not conducted within specified time.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-700 GCP Locked

- (Data task noRTC ACK);
- G3 Dicep time-out before idle status;
- Codec hang up.

### Procedure

Switch power off then on.

Re-try the Fax job

Hardware failure; software I/F error



## 20-701 Software Reset

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-702 No destination specified

Unable to initiate call without address specified.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-703 D Channel Link Disconnected

DL-link open display received, link disconnected from the network.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-704 ISDN D Channel Data Link Error

- D channel link disconnected (DL-link open display received), TEI allocation error.
- DISC command received in multi-frame setting/timer recovery status.
- UA response received in timer recovery status.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-705 ISDN Layer 1 Stopped-Power On

ISDN layer 1 deactivated, power supply on.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-706 ISDN Layer 1 Stopped-Power Off

ISDN layer 1 deactivated, power supply off.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-707 FRMR Received

FRMR received.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-708 Illegal Frame Received N(R)

Frame received with N(R) error.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-709 Illegal Frame Received

Illegal frame received.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-710 DL Link Establishment Received

DL-Link establish display received (Link set from the network). DM of F=1 received while waiting for Link setting/re-setting.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-711 Wait Data Link Establishment Time-out

Time-out during wait status for link establishment;

Link setting failure; T.200 time-out has occurred N.200 times during wait status of link setting/re-setting.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-712 Internal Error (Interrupt)

Primitive transmission error (internal interrupt error).

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-713 Wait Call Process Time-out

Time-out during wait for calling acceptance (T303 2nd time).

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-714 Wait Release Time-out

Time-out during wait for line release (T305).

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-715 Wait Release Complete Time-out

Time-out during wait for line release completion (T308 2nd time).

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-716 Connection Time-out

Time-out during wait for call response (T313).

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-717 Resume Time-out

Time-out during wait for restart (T318).

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-718 Normal Disconnection

Disconnection is recovered on receiving status display;

normal disconnection.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-719 No Channel Available

No channel available, or channel not usable.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-720 Guard Timeout

Timeout of 60sec-guard timer:

- T.330 Timeout (timeout of receiving response message);
- T.309 Timeout (Link re-setting error);
- T.301 Timeout (Timeout of receiving response message);
- T.310 Timeout (Timeout of receiving calling/response message).

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-721 Format Error

Upper layer primitive format error, content error.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-722 Suspension Timeout

Timeout in receiving the suspension check message.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-723 No Timer Assigned

No timer assigned.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-724 Illegal Sequence

Error sequence (Unconformity of local terminal ID setting).

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-725 L3 Task Internal Error

L3 task internal error.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-726 HD81501 I/F Buffer Busy

HD81501 I/F buffer busy.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-727 No Reply

No response obtained from Task after 3 sec or more from incoming 1300Hz.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-728 Invalid Destination

Call cannot be completed due to dialing error.

### Initial Actions

Check the phone number of the remote machine and transmit again.

### Procedure

Switch power off then on.

Re-try the Fax job

**NOTE:** Customers using G3 DP (Dial Pause) should check if the dialed number contains \* or #.



## 20-729 Disconnected Line

Line disconnected during transmission of In-Channel PB.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-730 Call Conflict

Conflict between outgoing call and incoming call.

### Procedure

- Delete outgoing call and re-try the fax job after incoming call is completed.
- Switch power off then on.
- Re-try the Fax job



## 20-731 Set-up Error

Set-up was disconnected by network.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-732 Fax Network Timeout

Timeout of F-Net disconnection monitor.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-733 Sequence Error

Message incompatible with status of call.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-734 HI Task Internal Error

HI task internal error.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-735 Connect only to D Channel

Connection completion received after service of only D Channel service.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-736 Illegal Network Message

Incorrect message from fax network.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-737 Incoming Call Response Error

No selection for incoming call response.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-738 Layer 1 Start Up Error

Timeout while waiting for startup.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-739 Layer 1 Not Synchronized

Timeout of synchronization monitor timer.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-740 Frame Transmission Error

Timeout of monitor timer for frame transmission completion.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-741 Unable to Send Frame

Frame transmission disabled (Frame transmission retry over).

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-742 Frame Send Underrun

Frame transmission underrun detected.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-743 Abnormal Frame

Error at end of Frame transmission DMA.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-744 Unacceptable Channel

Unacceptable channel.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-745 Duplicate Call Initiation

Calling initiated for channel which is already set.

### Procedure

Switch power off then on.

Re-try the Fax job.

## 20-746 No Channel Available

No circuit/channel available.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-747 Switching Equipment Congestion

Switching equipment congestion.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-748 Channel Not Available

Requested line/channel cannot be used .

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-749 Network Congestion Error

Network congestion error.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-750 Network Error

Network error.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-751 Temporary Network Error

Temporary failure, network out of order.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-752 User Busy

Destination terminal busy.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-753 Destination Not Responding

No response from remote user.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-754 No Response From Destination

No response during remote user calling.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-755 Call Rejected

Remote terminal rejects communication.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-756 Destination Fault

Remote terminal in failure.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-757 Other Fault

Others (normal, semi-normal classes).

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-758 Incorrect Destination

Missing, unassigned, invalid, or incorrect dial number.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-759 No Relay Network Route

No route to specified transit network.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-760 No Line to Destination

No route to destination.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-761 Incorrect Destination

Invalid number format (incomplete number).

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-762 Facility Rejected

Facility rejected.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-763 Communication Disallowed

Communication capability not authorized.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-764 Capability Not Configured

Communication capability presently not available.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-765 Unspecified Service

Resource unavailable. Request facility not contracted.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-766 Capability Not Implemented

Undefined communication capability is selected.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-767 Channel Type Not Implemented

Undefined channel type is selected.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-768 Restricted Digital Info.

Only restricted digital information is available.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-769 Unspecified Service

Service not implemented, Requested facility not implemented.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-771 Access Information Discarded

Access information discarded.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-772 Unspecified

Inter-working connection error.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-773 Invalid Dial Number

Invalid call number is used.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-774 Invalid Line Specified

Invalid channel number is used. Identified channel does not exist.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-775 Invalid Message Class

Invalid Message Class.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-776 Insufficient Required Info.

Mandatory information element is missing.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-777 Undefined Message Type

Message type not available or not implemented.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-778 Incorrect Message or Type

Call status and message are not identical, or message type is not defined.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-779 No Information

Information element not available or not defined.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-780 Invalid Information

Invalid information element.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-781 Call Status/Message Mismatch

Message not compatible with call status.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-782 Recovery by Timeout

Error cleared due to timeout.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-783 Protocol Error

Unspecified Protocol error.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-784 Destination Number Changed

Remote terminal number changed.

### Initial Actions

Check the phone number of the remote machine and transmit again.

### Procedure

Switch power off then on.

Re-try the Fax job

**NOTE:** Customers using G3 DP (Dial Pause) should check if the dialed number contains \* or #.

## 20-785 Incompatible Destination

Incompatible terminal attributes.

### Initial Actions

Check the phone number of the remote machine and transmit again.

### Procedure

Switch power off then on.

Re-try the Fax job

**NOTE:** Customers using G3 DP (Dial Pause) should check if the dialed number contains \* or #.



## 20-786 Call Identity Not In Use

Disconnection call identity number not in use is specified.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-787 Call Identity In Use

Disconnection call identity number currently in use is specified.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-788 Other Causes

Display other causes

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-789 CG Conversion Timeout

G4 Presentation has received illegal event.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-790 Line 1 Not Connected

Channel 1 external line is not connected.

### Initial Actions

Check that the phone-line is properly connected and not damaged.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-791 Line 0 (Extension) Not Connected

Channel 1 internal line is not connected.

### Initial Actions

Check that the phone-line is properly connected and not damaged.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-792 Channel 2 Not Connected

Channel 2 not connected.

### Initial Actions

Check that the phone-line is properly connected and not damaged.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-793 Channel 3 Not Connected

Channel 3 not connected.

### Initial Actions

Check that the phone-line is properly connected and not damaged.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-794 Channel 4 Not Connected

Channel 4 not connected.

### Initial Actions

Check that the phone-line is properly connected and not damaged.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-795 Channel 5 Not Connected

Channel 5 not connected.

### Initial Actions

Check that the phone-line is properly connected and not damaged.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-796 Dial Error

Incorrect Fax number.

### Initial Actions

Check the phone number of the remote machine and transmit again.

### Procedure

Switch power off then on.

Re-try the Fax job

**NOTE:** Customers using G3 DP (Dial Pause) should check if the dialed number contains \* or #.

## 20-797 Communication Parameter Error

Job error - communication option parameter has error.

### Procedure

Switch power off then on.

Re-try the Fax job



## 20-798 Data Parameter Error

Job error - communication data parameter has error.

### Procedure

Switch power off then on.

Re-try the Fax job

## 20-799 Auto Dial Error

Auto dial is activated without dial data

### Procedure

Switch power off then on.

Re-try the Fax job







## 021-360 Foreign Device Failure

The Foreign Device (3rd-party device such as vend station or mechanical Auditron) failed its internal self-test, or the self-test result has not been returned from the Foreign Device at power-on.

### Procedure

#### CAUTION

*Do not attempt to troubleshoot this circuit by jumpering the Transmit Data or Receive Data lines (P343 pins 4 ~ 6 on the ESS PWB). This will destroy the serial port on the ESS PWB.*

**NOTE:** Refer to [Figure 1](#) (Circuit Diagram).

Switch the power off, then on. **The problem continues.**

**Y N**

Check for loose connections or dirty contacts between the ESS PWB and the Foreign Interface, and between the FI and the attached device.

Switch off the power. Disconnect the device from the FI. Connect a jumper from pin 1 to pin 3 on J940 on the Foreign Interface. Switch on the power. **The fault code is still present.**

**Y N**

Repair or replace the Foreign Device.

Replace the Foreign Interface ([PL 10.3](#)). If the problem continues, replace the ESS PWB ([PL 13.1](#)).

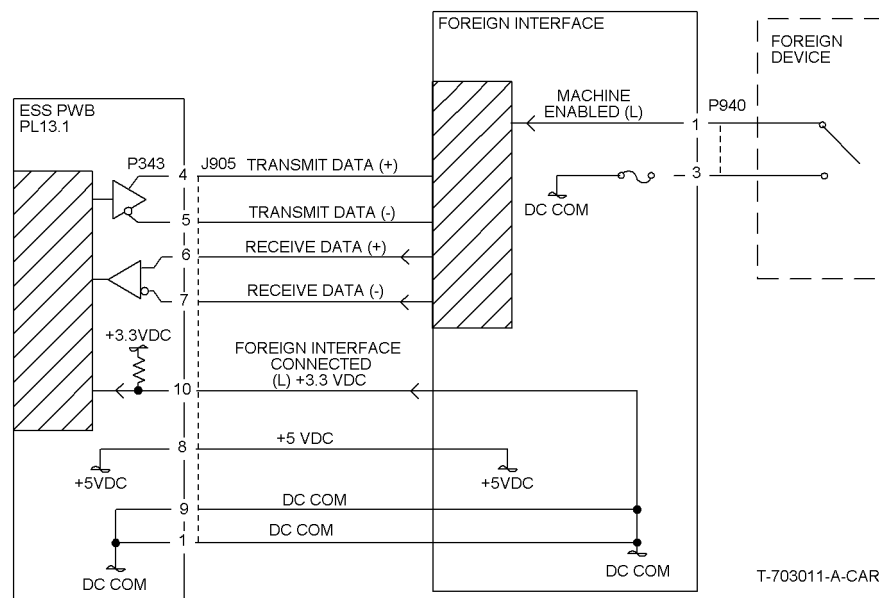


Figure 1 21-360 RAP Circuit Diagram







### 33-340 Fax Parameter Invalid

Parameter value is not appropriate (such as excessive length).

#### Procedure

Switch the power off then on. Re-try the Fax job

### 33-341 Fax Parameter Value Invalid

Parameter value exceeds the specified range.

#### Procedure

Switch the power off then on. Re-try the Fax job

Replace Fax PWB (PL 9.4).



## 33-342 Fax Read Error

Designated data invalid (incorrect number or channel etc.)

### Procedure

Switch the power off then on. Re-try the Fax job

Replace Fax PWB [PL 9.4](#)

## 33-343 Fax Read Error- Invalid Data

Data read error

### Procedure

Switch the power off then on. Re-try the Fax job

Replace:

- Fax I/F PWB [PL 13.1](#)
- Fax PWB [PL 9.4](#)
- USB Cable [PL 9.4](#)



## 33-350 USB Open Failure

USB open failure at initialization.

### Procedure

Switch the power off then on. Re-try the Fax job

Replace:

- Fax I/F PWB [PL 13.1](#)
- Fax PWB [PL 9.4](#)
- USB Cable [PL 9.4](#)

## 33-351 USB Device Fatal Error

### Procedure

Switch the power off then on. Re-try the Fax job

Replace:

- Fax I/F PWB [PL 13.1](#)
- Fax PWB [PL 9.4](#)
- USB Cable [PL 9.4](#)



## 33-352 USB Host Fatal Error

USB host fatal error

### Procedure

Switch the power off then on. Re-try the Fax job

Replace:

- Fax I/F PWB [PL 13.1](#)
- Fax PWB [PL 9.4](#)
- USB Cable [PL 9.4](#)

## 33-353 Fax Manager Memory Low

Fax Manager memory low.

### Procedure

Switch the power off then on. Re-try the Fax job



## 33-354 Message Library Memory Low

Fax message library short of memory

### Procedure

Switch the power off then on. Re-try the Fax job

## 33-355 Working Memory Low

Memory required for processing cannot be secured due to insufficient memory capacity.

### Procedure

Switch the power off then on. Re-try the Fax job



### 33-360 Fax Controller S/W Fail

A problem in Fax software processing prevents further processing.

#### Procedure

Switch the power off then on. Re-try the Fax job. If the problem continues reload system software.

### 33-361 No Response at Initialization

Fax does not respond within the required period of time while system is booting.

#### Procedure

Switch the power off then on. Re-try the Fax job. If the problem continues replace the Fax PWB (PL 13.1).



## 33-362 No Response

Fax does not respond within the required period of time.

### Procedure

Switch the power off then on. Re-try the Fax job. If the problem continues replace the Fax PWB (PL 13.1).

## 33-363 Fax PWB Reset

Fax PWB reset

### Initial Actions

Ensure that the USB Cable is properly connected and not damaged.

### Procedure

Switch the power off then on. Re-try the Fax job.



### 33-364 Version Mismatch

Software level on Fax PWB not compatible with System software

#### Procedure

Switch the power off then on. Re-try the Fax job. If the problem continues, reload software.

### 33-710 Document Error

Specified document does not exist.

#### Procedure

Switch the power off then on. Re-try the Fax job.



### 33-711 Page Error

Specified page does not exist; or specified page has data error.

#### Procedure

Switch the power off then on. Re-try the Fax job.

### 33-712 Host Memory Full

Host memory full.

#### Procedure

Switch the power off then on. Re-try the Fax job.



### 33-713 Chain-Link Fault

No specified Chain Link; applicable Chain-Link does not exist.

#### Procedure

Switch the power off then on. Re-try the Fax job.

### 33-714 Scan Error

Scan Error (no specified doc). Data is not registered.

#### Procedure

Switch the power off then on. Re-try the Fax job.



### 33-715 Cannot Start Job

Host status restriction. Not in the correct state to enable a job operation.

#### Procedure

Switch the power off then on. Re-try the Fax job.

### 33-716 No Mailbox

Specified mailbox does not exist.

#### Procedure

Switch the power off then on. Re-try the Fax job.



## 33-717 Incorrect Password

Verification result of specified password is NG.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 33-718 No Document in Mailbox

No document exists in Polled Send box or specified mailbox.

### Initial Actions

Ensure that a document has been stored for polling on the WC 24.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 33-720 Document Create Failure

Specified document cannot be generated.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 33-721 Page Create Failure

Specified page cannot be created.

### Procedure

Switch the power off then on. Re-try the Fax job.



### 33-725 Hard Drive Full

Insufficient disk space for Fax receiving, formatting, report generating.

#### Procedure

Switch the power off then on. Re-try the Fax job.

### 33-726 Duplex Print Error

Duplex print is disabled on Fax receive (mixed size).

#### Procedure

Switch the power off then on. Re-try the Fax job.



### 33-727 Rotation Error

Rotation disabled on Fax receive (memory shortage).

#### Procedure

Switch the power off then on. Re-try the Fax job.

### 33-728 Auto Print Canceled

Fax manual print is input while formatting Fax Auto print; Fax Auto print formatting is interrupted.

#### Procedure

Switch the power off then on. Re-try the Fax job.



## 33-730 Fax Recovery Error

Fax job recovery error.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 33-731 Inconsistent Instructions

Communication start from Fax PWB and communication stop from Controller occurred simultaneously.

### Procedure

Switch the power off then on. Re-try the Fax job.



### 33-732 Forced Polling

Receive print job cancelled by forced polling.

#### Procedure

Switch the power off then on. Re-try the Fax job.

### 33-733 Document Number Error

Cannot obtain the number of documents related to a job.

#### Procedure

Switch the power off then on. Re-try the Fax job.



## 33-734 Fax Print Suspension

Job stop due to simultaneous starts of Fax print and Fax auto report.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 83-700 HDLC Frame Transmission Error

CS is not Off on modem control;

### Procedure

Switch the power off then on. Re-try the Fax job. If the problem persists, replace the modem?

## 83-701 T1 Transmission Time-out

DIS is not sent after non-establishment of conversation reservation from remote terminal.

### Procedure

Switch the power off then on. Ensure that the correct number is dialed. Re-try the Fax job.

**NOTE:** Customers using G3 DP (Dial Pause) should check if the dialed number contains \* or #.



## 83-702 Destination Receive Rejected

DCN received for NSS/DTC; receiving is rejected due to remote terminal selection receiving, etc.

### Initial Actions

The transmission was terminated by the other party. Contact the other party and check the status of the other machine.

### Procedure

This call was terminated by the receiving station. Re-try the Fax job

## 83-703 DCN Receive at Phase B Send

DCN detected at sending Phase-B.

### Procedure

Switch the power off then on. Re-try the Fax job



## 83-704 Destination Polling Error

No polling function on sender side; polled documents are not set;

No sending capability on remote terminal; no sending ability on remote terminal on polling; no stored documents.

### Procedure

- Verify that the dialed number is correct.
- Verify that the remote fax is fully operational.
- Verify that the job is properly stored at the remote fax.
- Re-try the Fax job

## 83-705 DCS/NSS Re-transmission Error

No response after three attempts of NSS transmission or DCN detected;

### Procedure

Switch the power off then on. Re-try the Fax job

Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4). This fault may indicate that the line on the remote terminal was disconnected while receiving NSS (DCS).



## 83-706 Fallback Error

Unable to fallback on NSS transmission; waiting for auto resend.

### Procedure

Switch the power off then on. Re-try the Fax job

## 83-707 Password Error

Password not identical; or select-receive number not identical.

### Procedure

Switch the power off then on. Re-try the Fax job



## 83-708 Post-message Re-transmission Error

No response to three attempts at post-message command, or DCN received.

### Procedure

Switch the power off then on. Re-try the Fax job

Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).

## 83-709 RTN Received

RTN received on G3 transmission.

### Procedure

Switch the power off then on. Re-try the Fax job. Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).



## 83-710 Receive PIN

Received PIN

### Procedure

Switch the power off then on. Re-try the Fax job

Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4). This fault may indicate a receiver side failure.

## 83-711 DCN at PHASE-D

DCN received at PHASE-D / invalid command is received;

### Procedure

Switch the power off then on. Re-try the Fax job



## 83-712 No NSC Response

No response after transmitting NSC 3 times

### Procedure

Switch the power off then on. Re-try the Fax job

Incorrect password. No polled document on remote terminal; jam on remote terminal.

## 83-713 T2 Time-out

No NSS/DCS sent from remote terminal after transmitting FTT.

### Procedure

Switch the power off then on. Re-try the Fax job

This fault may indicate a sender side failure. If the problem persists, replace the Fax PWB (PL 9.4).



## 83-714 DCN Received after NSC/DTC

DCN received after transmitting NSC/DTC.

### Initial Actions

The transmission was terminated by the other party. Contact the other party and check the status of the other machine.

### Procedure

Switch the power off then on. Re-try the Fax job

Bad password, no polled document on remote terminal; jam.

## 83-715 Password-Polling Error

Polling error due to incorrect password.

### Initial Actions

Communication could not take place because the ID of the remote machine and the password specified are not correct.

- Verify that the password and the phone number are correct.
- Verify that the remote machine is set up to receive ID from other parties.

**NOTE:** This fault code could also be displayed when a polling request is rejected.

### Procedure

Switch the power off then on. Re-try the Fax job



## 83-716 Post-message T2 Time-out

T2 Time-out on T.30 receiver side timer waiting for command

### Procedure

Switch the power off then on. Re-try the Fax job

Sender side failure; check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).

## 83-717 Transmit RTN

RTN sent on G3 receive.

### Procedure

Switch the power off then on. Re-try the Fax job

Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).



## 83-718 Receive T1 Time-out

T1 Time-out in receiving at phase B.

### Procedure

Switch the power off then on. Re-try the Fax job

## 83-719 Busy Tone

Busy tone detected at Phase B.

### Procedure

Re-try the Fax job



## 83-720 Remote Unable to Receive

NSF/DIS NSC/DTC contents are invalid; no receiving capability on remote terminal.

### Initial Actions

A relay broadcast cannot be transmitted.

- Verify that relay broadcast is correctly registered in the address number by printing the address book and checking for proper registration.
- Check the contents of the address number registered at the relay station.

### Procedure

Re-try the Fax job

## 83-721 DCN at Phase-B

DCN detected at receiving Phase B; No compatibility on remote terminal.

### Procedure

Re-try the Fax job



## 83-722 Frame Length Error

Frame length has exceeded 3.45 sec. (300bps command / response)

### Procedure

Remote terminal failure. Re-try the Fax job

## 83-723 CD Time-out

CD not received within 3 minutes after receiving flag.

### Procedure

Remote terminal failure. Re-try the Fax job



## 83-724 DCN Received after FTT

DCN received after transmitting FTT.

### Procedure

Switch the power off then on. Re-try the Fax job

Sender side failure; line quality no good

## 83-725 No Mailbox/Relay

Destination has no Mailbox or relay-broadcast capability

### Initial Actions

A relay broadcast cannot be transmitted.

- Verify that relay broadcast is correctly registered in the address number by printing the address book and checking for proper registration.
- Check the contents of the address number registered at the relay station.

### Procedure

Remote terminal failure (no equivalent ability); Re-try fax job.



## 83-726 Phase C Time-out

Cannot receive Phase C training within 10 secs

### Procedure

Switch the power off then on. Re-try the Fax job

Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).

## 83-727 50% Error During G3 Receive

Decode error over 50% detected during G3 receiving mode.

### Procedure

Switch the power off then on. Re-try the Fax job

Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).



## 83-728 Phase C EOL Time-out

EOL cannot be received within 10 sec.;

Normal line cannot be detected in 1min from the start of receiving image information in G3;

EOL cannot be detected for 13 sec. (Default) while image information is being received in G3.

### Procedure

Switch the power off then on. Re-try the Fax job

Sender side failure; Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).

## 83-729 Carrier Down Detected

Carrier is down. T2 Time-out after carrier down while receiving image data.

### Procedure

Re-try the Fax job



## 83-730 HDLC Frame Send Error

Modem CS is not turned on in response to RS request during command transmission/high-speed training.

### Procedure

Switch the power off then on. Re-try the Fax job. If the problem persists, replace the NCU PWB (PL 9.4).

## 83-731 V.8 Error

V.8 parameter N.G.

### Procedure

Switch the power off then on. Re-try the Fax job



## 83-732 V.34 PCH CD Off

V.34 PCH CD off.

### Procedure

Switch the power off then on. Re-try the Fax job

## 83-733 No V.34 C/P-CH CS

No V.34 C/P-CH CS.

### Procedure

Switch the power off then on. Re-try the Fax job



## 83-734 Polling Error

Remote terminal has no document to be polled with V.8 protocol. Polled Send operation was wrong on the remote terminal.

### Procedure

Switch the power off then on. Re-try the Fax job

## 83-735 No Document in Polling Box Step V.8

Polling is requested without polled document on V.8 protocol;

### Procedure

Switch the power off then on. Re-try the Fax job

Misoperation on the remote terminal; wrong setting for Polled Send setting on the local terminal.



## 83-736 No Response to CTC

No response is sent back to CTC transmission, or DCN is received.

### Procedure

Switch the power off then on. Re-try the Fax job. Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).

## 83-737 No Response to CTC

No response is sent back to EOR transmission, or DCN is received (CTC/EOR resends).

### Procedure

Switch the power off then on. Re-try the Fax job. Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).



## 83-738 No Response to RR

No response is sent back to RR transmission, or DCN is received with RR.

### Procedure

Switch the power off then on. Re-try the Fax job. Remote terminal failure.

## 83-739 T5 Time-out

T5 sec. has passed without MCF.

### Procedure

Switch the power off then on. Re-try the Fax job. Remote terminal failure.



## 83-740 Abort Sending After EOR

Sending suspended after EOR transmission; EOR-Q sent in ECM;

### Procedure

Switch the power off then on. Re-try the Fax job. Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4). NCU board failure.

## 83-741 ECM Phase C Flag Time-out

Time-out between frames with ECM; Time-out between image information frames.

### Procedure

Switch the power off then on. Re-try the Fax job



## 83-742 EOR Send or Receive Error

Response sent back with ERR after ECM EOR send; EOR-Q is received at ECM reception.

### Procedure

Switch the power off then on. Re-try the Fax job. line quality no good.

## 83-743 Destination Receive Error

Receive terminal has no function to receive SUB.

### Procedure

Switch the power off then on. Re-try the Fax job



## 83-744 Destination Password Error

Destination has no ability to receive password.

### Procedure

Switch the power off then on. Re-try the Fax job

## 83-745 Destination SEP Error

PTX terminal has no SEP ability.

### Procedure

Switch the power off then on. Re-try the Fax job



## 83-746 Dial Tone Error

One of the following has occurred:

- Dial tone cannot be detected before dialing. DT1 cannot be detected.
- Busy tone is detected before dialing. BT1 detected.
- Busy tone is detected before dialing. BT2 detected.
- Congestion tone is detected before dialing. Switch board busy. CT1 detected.
- Congestion tone is detected before dialing. Switch board busy. CT2 detected.
- Dial tone cannot be detected during dialing. DT1 cannot be detected. May occur when outside line is used by dialing 0 from PBX.
- Busy tone is detected during dialing. BT1 detected.
- Busy tone is detected during dialing. BT2 detected.
- Congestion tone is detected during dialing. Switch board busy. CT1 detected.
- Congestion tone is detected during dialing. Switch board busy. CT2 detected.
- The second dial tone cannot be detected during dialing. DT2 cannot be detected.
- Busy tone is detected after dialing. BT1 detected.
- Busy tone is detected after dialing. BT2 detected.
- Congestion tone is detected after dialing. CT1 detected.
- Congestion tone is detected after dialing. CT2 detected.

### Procedure

Switch the power off then on. Re-try the Fax job

## 83-747 Abort Error

Pause during dialing.

### Procedure

Switch the power off then on. Re-try the Fax job



### 83-748 Post-message Re-transmission Error

No response to three attempts at post-message command, or DCN received.

#### Procedure

Switch the power off then on. Re-try the Fax job

Check that the telephone connection is working correctly. If the problem continues, replace the NCU PWB (PL 9.4). If this does not resolve the problem, replace the Fax PWB (PL 9.4).

### 83-749 No Destination Response

Busy, no response (Redial over)

#### Initial Actions

- Verify that the entered fax number is correct and that the receiving fax is operating normally.
- Check that the phone-line is properly connected and not damaged.

#### Procedure

Remove the Rear Cover (Tray Module) (REP 14.9) and the Fax Module Cover (PL 9.4). There is 24 VDC between CNP357-7 and GND (Figure 1).

Y

N

There is 24 VDC between P/J561-7 and GND.

Y

N

Replace the Tray Module PWB (PL 15.9 / PL 16.15).

Replace the Fax PWB (PL 9.4).

Switch the power off then on. Re-try the Fax job.  
Try to send the Fax job to another fax.  
Replace the Fax PWB (PL 9.4).

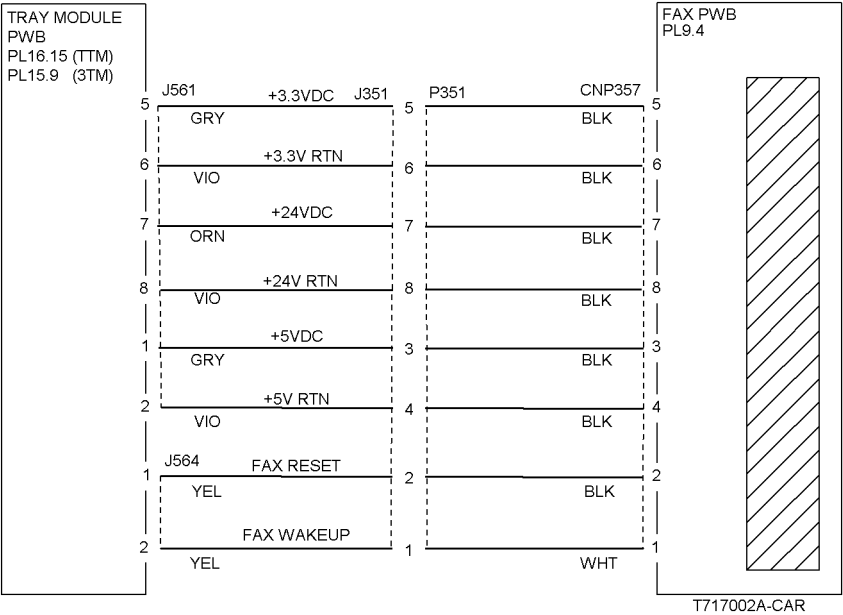


Figure 1 RAP 83-749 No Destination Response CD



## 83-750 Power Off Error

Power off error during communication. The power switch was turned off, or the system was reset.

### Procedure

Re-try the Fax job.

## 83-751 Stop Key Error

The Stop key was pressed while a document was being sent.

### Procedure

Re-try the Fax job.



## 83-752 Job Number Limit Error

Limited Number of Jobs Error

### Procedure

Switch the power off then on. Re-try the Fax job.

## 83-753 Document Image Memory full

Image information memory full (file full, append record error)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 83-754 File Management Area Full

File management area full

### Procedure

Switch the power off then on. Re-try the Fax job.

## 83-755 File Append Record Error

File append record error

### Procedure

Switch the power off then on. Re-try the Fax job.



## 83-756 File No Additional Data

No additional file

### Procedure

Switch the power off then on. Re-try the Fax job.

## 83-757 No Received Page

No received page

### Procedure

Switch the power off then on. Re-try the Fax job.



## 83-758 File or Page Not Specified

No specified file or page

### Procedure

Switch the power off then on. Re-try the Fax job.

## 83-759 No Job Error

No appropriate job when the communication reservation was cleared.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 83-760 File Error

Invalid file. Time-out has occurred due to the COMM file access, or the file handler did not return an error code momentarily when an error occurred.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 83-761 File Unspecified Error

Other file errors

### Procedure

Switch the power off then on. Re-try the Fax job.



## 83-762 Disconnect During ISDN Link Establishment

- The link is disconnected during its establishment.
- The line has been disconnected during communication. (Error only for ISDN)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-500 PDRP Illegal Parameter

RDRP Incorrect Parameter

### Procedure

Switch power off then on. Re-try the Fax job.

## 84-501 PDPBP Illegal Parameter

RDRP Incorrect Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-502 PDPBN Illegal Parameter

RDPBN Incorrect Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-503 RDCLP Illegal Parameter

RDCLP Incorrect Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-504 RDCLP Illegal Parameter

RDGR Incorrect Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-505 Undefined Response

Undefined response

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-506 Negotiation Disabled

Negotiation Not Available

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-507 Receive Capability Limit

RDPBP received (receive capability limit) No record paper at the destination machine, etc.

### Initial Actions

The transmission was terminated by the other party. Contact the other party and check the status of the other machine.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-508 Terminal Error

RDPBN received. (terminal failure)

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-509 Unspecified Error

RDPBN received. Unspecified error (other than terminal failure).

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-510 Received RDGR

RDGR received.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-511 Illegal Procedure

Incorrect procedure

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-512 CDS Illegal Parameter

CDS incorrect parameter

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-513 CDC Illegal Parameter

CDC Incorrect Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-514 CDE Illegal Parameter

CDE Incorrect Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-515 CDD Illegal Parameter

CDD Incorrect Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-516 CDR Illegal Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-517 CDPB Illegal Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-518 CDCL Illegal Parameter

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-519 Undefined Command

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-520 Negotiation Not Available

Negotiation not available (CDS indicating Fax feature mismatch was received).

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-521 Negotiation Not Available

Negotiation not available (CDS indicating Fax feature mismatch was received).

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-522 Terminal Error

CDD received (Terminal failure).

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-523 Unspecified Error

CDD received (other than terminal failure).

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-524 Terminal Error

CDR received (Terminal failure).

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-525 Unspecified Error

CDR received (other than terminal failure).

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-526 CDUI Illegal Parameter

CDUI incorrect parameter (normal document)

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-527 CDUI Illegal Parameter

CDUI incorrect parameter (operator document)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-528 CDUI Illegal Parameter

CDUI incorrect parameter (control document)

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-529 CDUI Illegal Parameter

CDUI incorrect parameter (monitor document)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-530 Illegal Document

CDS was received (Control document) indicating the mismatch of the recipient/sender of an illegal document.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-531 DMA Channel 1 Abnormal End

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-532 DMA Channel 2 Abnormal End

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-533 Data Conversion Error

Data conversion resource acquisition not available.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-534 Decode Error

Decoding failure while data conversion in progress,

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-535 Data Conversion Error

While data conversion was in progress, white line transfer error to the encode DICEP occurred.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-536 Data Conversion Error

While data conversion was in progress, white line transfer error to the decode DICEP occurred.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-537 Data Conversion Error

While data conversion was in progress, RTC was not detected.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-538 Document Descriptor Analysis Error

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-539 Page Descriptor Analysis Error

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-540 Text Unit Analysis Error

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-541 No Text Unit

Page Boundary without TU was received.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-701 Receive Status Error

Receive status variable N (R) error

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-702 NI Over

Information Frame Size Over (NI Over)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-703 Supervisory/Un-numbered Frame Error

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-704 Undefined Command/Response

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-705 Receive Confirmation Time-out

Successive time-out of the receive check timer (N2 time-out)

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-709 Forced Link Termination

Forced termination of the link (DISC was received before session end).

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-710 Receive FRMR (Z=1)

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-711 Receive FRMR (Y=1)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-712 Receive FRMR (X=1)

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-713 Receive FRMR (W=1)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-714 Received Global Address

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-716 Transmit Busy Time-out

LSI Transmit Error (Sending Busy, time-out)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-717 Illegal Action

LSI Operation Error

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-718 Wait Disconnect Time-out

Time-out while waiting for notification of disconnection (10sec.)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-719 C-Line On Error

Line C was turned On, but line I was not.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-720 C-Line Off Error

Line C was turned Off, but line I was not.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-721 I-Line Off Error

During communication, the line I was turned Off.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-722 Disconnected Call

Calling was disconnected during detection of the flag from the destination terminal.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-723 Disconnected Call

After sending SABM, calling was disconnected at wait time for UA.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-724 Disconnected Call

Calling was disconnected at wait time for SABM

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-725 Disconnected Call

DISC was received before the session was established.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-726 Illegal Header

Illegal header received (line switching), incorrect procedures (Packet switching)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-727 Illegal Parameter - CC Packet

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-728 Illegal Parameter - CN Packet

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-729 Illegal Parameter - DT Packet

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-730 Illegal Parameter - RI Packet

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-731 Illegal Parameter - IT Packet

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-732 Illegal Parameter - CI Packet

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-733 Illegal Parameter - CF Packet

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-734 Undefined Packet Received

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-735 Wait CC Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-736 Wait CF Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-738 DT Packet Error

P (S), P (R) error in the DT packet

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-739 RR/RNR Packet Error

P (S) error in the RR or RNR packet

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-740 Busy Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-741 Receive SI Error

SI received during communication

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-742 Receive SF Error

SF received during communication

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-743 D-bit Error in DT Packet

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-747 Receive Fast Select

Fast Select Receive that limits the responses.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-748 Remote Charge Request Received

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-749 LCGN Error

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-750 Illegal Procedure

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-751 Illegal Parameter - TCA

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-752 Illegal Parameter - TCR

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-753 Illegal Parameter - TCC

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-754 Illegal Parameter - TBR

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-755 Illegal Parameter - TDT

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-756 Undefined Transport Block Received

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-757 Wait TCA Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-758 Wait TCR Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-759 Wait TCC Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-760 Wait TBR Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-761 TDT Block Size Error

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-763 Illegal Procedure

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-764 Illegal Parameter - CSS

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-765 Illegal Parameter - CSE

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-766 Illegal Parameter - CSA

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-767 Illegal Parameter - CSUI

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-768 Illegal Parameter - CSCC

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-769 Illegal Parameter - RSSP

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-770 Illegal Parameter - RSSN

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-771 Illegal Parameter - RSEP

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-772 Illegal Parameter - RSAP

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-773 Illegal Parameter - RSUI

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-774 Illegal Parameter - RSCCP

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-775 Undefined Command/Response

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-776 Received RSSN

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-777 Wait Disconnect Time-out

Time-out after waiting for notification of disconnection (10sec)

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-778 Terminal Error

CSA received. (Terminal failure).

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-779 Unspecified Error

CSA received (other than terminal failure).

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-780 Wait CSS Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-781 Wait RSSP Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-782 Wait RSAP Time-out

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-783 Wait RSEP Time-out

Time-out after waiting for RSEP

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-784 Wait RSCCP Time-out

Time-out after waiting for RSCCP

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-785 Wait CSUI/RSUI Time-out

Time-out after waiting for CSUI/RSUI

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-786 Receive RSSN (Password Mismatch)

The destination machine returned "Mismatch of password" with RSSN.

### Initial Actions

Communication could not take place because the ID of the remote machine and the password specified are not correct.

- Verify that the password and the phone number are correct.
- Verify that the remote machine is set up to receive ID from other parties.

**NOTE:** This fault code could also be displayed when a polling request is rejected.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-787 Receive RSSP (polling password mismatch)

The destination machine returned "Mismatch of polling password" with RSSP.

### Initial Actions

Communication could not take place because the ID of the remote machine and the password specified are not correct.

- Verify that the password and the phone number are correct.
- Verify that the remote machine is set up to receive ID from other parties.

**NOTE:** This fault code could also be displayed when a polling request is rejected.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-788 Receive RSSP (No Document)

The destination machine returned "No polling sending document" with RSSP.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-789 Receive RSSP (No Password)

RSSP indicating No Password was returned as a response of the CSS containing the PA password.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-790 Receive RSSP (Sending Rights)

RSSP indicating that Sending Right is not required was received at polling receive operation.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-791 Receive RSSN (Password Receive)

RSSN was sent at the password receive setting.

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-792 Received CSE After Transmitting RSSP

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-793 Select Communication Error

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-795 Disconnected Call

Disconnected because the destination machine does not have multi-copying capability.

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-796 Normal Sending Alert

Normal sending was performed because the destination machine does not have multi-copying capability.

### Procedure

No Action.



## 84-797 Illegal Procedure

### Procedure

Switch the power off then on. Re-try the Fax job.

## 84-798 Illegal Parameter - RDEP

### Procedure

Switch the power off then on. Re-try the Fax job.



## 84-799 Illegal Parameter - RDDP

### Procedure

Switch the power off then on. Re-try the Fax job.



## 102-200 Receive Buffer Overflow

The data received from the Controller exceeded the buffer amount of the destination in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the ESS PWB (PL 13.1)

## 102-201 Send Buffer Overflow

The data to be sent from the Panel exceeded the buffer amount of the destination in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the ESS PWB (PL 13.1)



## 102-202 Request Queue Full

The event that requires more than the processing capability for the request arising in the Panel has occurred.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the ESS PWB (PL 13.1)

## 102-203 Send Request Queue Full Debug

Data cannot be sent from the Panel to the Controller.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the ESS PWB (PL 13.1)



## 102-204 SIO Parameter

Serial communication failure. Incorrect message size at SIO receiving request, or incorrect Mailbox ID when a message is sent.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Perform re-installation of the software.

## 102-205 SIO Command

Serial communication failure. A command error has occurred at SIO receiving request.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Perform re-installation of the software.



## 102-206 SIO Status

Serial communication failure. A header status error of the RX packet or a message status error of the RX packet has occurred.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Perform re-installation of the software.

## 102-207 Communication Manager Target

Serial communication failure. Incorrect Mailbox value on the cm\_send\_msg statement, or the target is not SYS when receiving from SIO.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Perform re-installation of the software.



## 102-208 Communication Manager Command

Serial communication failure. A command error has occurred when receiving from SIO.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.

## 102-209 EVM Returns Wrong Value

Return value error from EVM. Panel-SW failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.



## 102-310 Send Queue Full

Over the upper limit of the processing capability to send data from the Panel to the Controller.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.

## 102-311 Receive Queue Full

The data received from the Controller exceeded the upper limit of the processing capability in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.



## 102-312 EVM Uses Wrong API

Illegal use of API by EVM.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-313 AS Uses Wrong API

Illegal use of API by AS

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-314 Wait Event Time Out

Time-Out of the event waiting timer. The response message from the Controller was not notified for a specified time.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

## 102-315 CTS Internal

CTS Internal Error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.



## 102-316 Send Request Queue Full SIO

Over the upper limit of the processing capability to send data from the Panel to the Controller.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.

## 102-317 Receive Message Queue Full

The data received from the Controller exceeded the upper limit of the processing capability in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.



## 102-318 Receive Finish Queue Full

The data received from the Controller exceeded the upper limit of the processing capability in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-319 Send with No ACK

Serial communication failure. Sending failure, ACK was not returned.

### Procedure

Switch power off then on. **Status code 116-325 is displayed temporarily, then 102-319 is displayed.**

**Y** **N**  
**Status Code 102-319 is displayed.**  
**Y** **N**  
Return to service call procedures.  
Perform re-installation of the software.

Go to the **116-325** RAP.



## 102-320 Polling

Serial communication failure. Communication failure (polling error)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-321 Send Message

Serial communication failure. Sending message error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-322 Target

Serial communication failure. Target error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-323 Address

Serial communication failure. Address error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-324 Size

Serial communication failure. Size error

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Perform re-installation of the software.

## 102-325 Object Creation

Object creation error. The specified object failed to be created due to a setting or specifying error on gm\_create.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Perform re-installation of the software.



## 102-326 Memory Overflow

Memory overflow. The memory in the GUAM exceeded the upper limit.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Expand the memory in the GUAM.

If the problem continues, perform re-installation of the software.

## 102-327 Button Overflow

Button overflow. The memory for the (synchronous display) button in the GUAM exceeded the upper limit.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Expand the memory for the button in the GUAM.

If the problem continues, perform re-installation of the software.



## 102-328 UI Internal with Out of Area

I/F failure in the UI. The coordination value out of the area of the displayed screen was detected (W x H = 640 x 240)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Check the D-RAM and ROM.

If the problem continues, perform re-installation of the software.

## 102-329 UI Internal with Invalid Coordinates

I/F failure in the UI. The coordination value that cannot be displayed was detected (X = 4 times number position)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Check the D-RAM and ROM.

If the problem continues, perform re-installation of the software.



## 102-330 Interface with Invalid Parameter LCD

Interface failure. Incorrect parameter was detected at the Drv. I/F between the DM and LCD.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Check the D-RAM and ROM.

If the problem continues, perform re-installation of the software.

## 102-331 UI Internal with Invalid LED Request

I/F failure in the UI. The request for lighting up an incorrect LED was received.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Check the D-RAM and ROM.

If the problem continues, perform re-installation of the software.



## 102-332 Interface with Invalid Parameter CP

Interface failure. Incorrect parameter was detected at the Drv. I/F between the DM and CP.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Check the D-RAM and ROM.

If the problem continues, perform re-installation of the software.

## 102-333 Interface with Impossible Communication

Interface failure. Impossible communication with the Control Panel was detected. H/W connection failure in the Panel, or the internal connection was unable to be detected correctly.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.



## 102-334 Interface with Receiving Error Key Code

Interface failure. Invalid Key Code was received from the Control Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Repair the Control Panel (PL 18.2)

## 102-335 Interface with Receiving Invalid Coordinates

Interface failure. Invalid coordination value was received from the Control Panel with a parameter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Repair the Control Panel (PL 18.2)



## 102-336 Interface DM - ACD Drv. I/F

Interface failure. Incorrect parameter was detected at the Drv. I/F between the DM and ACD.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Check the D-RAM and ROM.

If the problem continues, perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-337 Frame Data Error with Invalid Data Type

Invalid frame data was detected. The incorrect value of the Data Type detected by Frame ID was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Check the D-RAM and ROM.

If the problem continues, perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)



## 102-338 Frame Data Error Offset Address Out of Scope

Invalid frame data was detected. The Offset Address out of range was extracted from the Frame ID.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Check the D-RAM and ROM. Replace the Control Panel ([PL 18.2](#))

If the problem continues, perform re-installation of the software.

## 102-339 Display Request Code Invalid

Text Code failure. The system detected that the Code requested to be displayed was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Check the D-RAM and ROM. Replace the Control Panel ([PL 18.2](#))

If the problem continues, perform re-installation of the software.



## 102-340 Interface GUAM - DM I/F

Interface failure. Incorrect parameter was detected at the I/F between the GUAM and DM.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Check the D-RAM and ROM. Replace the Control Panel (PL 18.2)  
If the problem continues, perform re-installation of the software.

## 102-341 Event Queue Full

Event queue full

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.  
If the problem continues, replace the Control Panel (PL 18.2)



## 102-342 Event Queue Empty

Event queue empty

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-343 Invalid Class

Invalid class

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-344 Invalid Type

Invalid type

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-345 Timer Queue Full

Timer queue full

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-346 Invalid Timer Number

Invalid timer number

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-347 Undefined Trap

Undefined trap

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-348 Command Access Exception

Exceptional command access

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-349 Invalid Command

Illegal command

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)



## 102-350 Privilege Command

Privilege command

### Procedure

Switch power off then on. **The problem continues.**

**Y N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-351 No FPU Exception

Exceptional FPU non-existence

### Procedure

Switch power off then on. **The problem continues.**

**Y N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-352 Address Alignment

Address mis-alignment

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-353 Data Access Exception

Exceptional data access

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)



## 102-354 Tag Overflow

Tag overflow

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-355 No Co Processor Exception

Exceptional Co Processor non-existence

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-356 Short of Area

Insufficient area

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-357 Cancel Wait Status

Forced cancellation of the wait status

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-358 Time Out

Time-Out

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-359 Queue Overflow

Queue overflow

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Switch power off then on.



## 102-360 Context

Context error

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-361 Object

Object error

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-362 No Object

Object non-existence

### Procedure

Switch power off then on. **The problem continues.**

**Y N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-363 Invalid ID

Incorrect ID

### Procedure

Switch power off then on. **The problem continues.**

**Y N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-364 Parameter

Parameter error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-365 Reserve Attribute

Reserve attribute

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-366 Reserve Function Code

Code number for reserve function

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))

## 102-367 Unsupported Function

Unsupported function

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-368 Short of UI Memory

Insufficient memory, or connection failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-369 Invalid Interface Value

Invalid interface value. Panel-SW failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-370 Interface Length

Interface length failure. The parameter notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-371 Interface Parameter

Interface parameter failure. The parameter notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-372 Interface Sequence

Interface sequence failure. The initial command from the Controller was not notified within a specified time.

### Initial Actions

- Switch power off then on.
- Remove and reseat the NVM PWBs, PS-1 and PS-2 ROM PWBs, the RAM PWBs, and the ESS PWB. Make sure that all of the PWBs on the ESS PWBs are in the correct slot.
- Perform all of [GP 3](#).

### Procedure

Switch off the power. Remove the HDD ([PL 13.1](#)). Switch on the power. **Fault code 102-372 is still declared**

Y N

If a HDD fault (usually 116-201) is declared, replace the HDD ([PL 13.1](#)).

Reinstall the HDD. **There is +3.3 VDC from P/J300 pin on the ESS PWB to GND.**

Y N

Go to the 3.3VDC wirenet, [Figure 1](#) (2240/1632), or [Figure 2](#) (3535) and check for +3.3 VDC between [P/J510](#) on LVPS 1 and P/J300 on the ESS PWB. Repair or replace as required. Refer to the [OF 1-1](#) RAP.

### CAUTION

*GP10 is used to maintain the integrity of the serial number and billing data when one or more serialized PWBs must be replaced. Never replace all three listed PWBs at the same time. If any of the PWBs needs replacing, only replace them **one at a time**.*

- *ESS NVM PWB ([PL 13.1](#)).*
- *MCU NVM PWB ([PL 13.1](#)).*
- *ESS PWB ([PL 13.1](#)).*

*Failure to comply with [GP 10](#) could result in catastrophic NVM corruption.*

Check the cable ([PL 18.3](#)) from [P/J344](#) on the ESS PWB to [P/J727](#) on the IIT/IPS PWB. If the wires are OK, replace the ESS NVM PWB ([PL 13.1](#)). If the problem persists, reinstall the original NVM PWB, then replace the PS-1 and/or PS-2 ROMs ([PL 13.1](#)). If the problem remains, replace the ESS PWB ([PL 13.1](#)).

## 102-373 Channel

Channel failure. The channel notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

Y N

Return to service call procedures.

Perform re-installation of the software.



## 102-374 Invalid User Job ID

Incorrect User Job ID. The Job ID parameter notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-375 Internal Resource

Internal resource failure. Panel-SW failure.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-376 Internal Memory

Internal memory failure. Panel-SW failure.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-377 UI Timer

Timer failure. Panel-SW failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-378 Interface Format

Interface format failure. The data format notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.

## 102-379 Dispatch

Dispatch failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.



## 102-380 Copy Interface

Copy interface failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-382 Scanner Interface

Scanner interface failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-383 Report Interface

Report interface failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-384 Server Access

Server access failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-385 Service Object Overflow

Service object overflow

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Perform re-installation of the software.

## 102-386 Invalid Service Object

Invalid service object

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Perform re-installation of the software.



## 102-387 Invalid Service Object Attribute

Invalid service object attribute

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Perform re-installation of the software.

## 102-388 Attribute

Attribute Error

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Perform re-installation of the software.



## 102-389 Argument

Argument Error

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Perform re-installation of the software.

## 102-390 Job Parameter

Job parameter argument error

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Perform re-installation of the software.



## 102-391 Job Actual Parameter

Job execution argument error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Again, switch power off then on.

## 102-392 Auditron

Invalid Auditron

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Perform re-installation of the software.



## 102-393 EP

Software failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-394 File Access

Invalid file access

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.



## 102-395 NVM

NVM failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-396 FF

FF error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software. If the problem persists, replace the ESS PWB (PL 13.1).



## 102-397 MGR

MGR error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

## 102-398 Delay Release Queue Full

Delay release queue full.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



## 102-399 Internal

Internal error.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel ([PL 18.2](#))



# 103-203 Machine Code Failure

Product Number Failure (Not initialized).

## Procedure

### CAUTION

During this procedure, do not make any prints or any copies until clear the fault. If the configuration sheet is enabled, disable it before starting this procedure.

Switch the power off then on. **The fault is cleared.**

Y N

### CAUTION

Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.

Replace the MCU NVM PWB (PL 13.1). Switch the power on. A 103-208 should occur. Perform GP 10. **The problem continues.**

Y N

Return to Service Call Procedures.

Reinstall the original MCU NVM PWB.

### CAUTION

Careful replacement of the ESS PWB (REP 1.12) is important to avoid serious machine failure.

Replace the ESS PWB (PL 13.1). Switch the power on. A 103-208 should occur. Perform GP 10. **The problem continues.**

Y N

Return to Service Call Procedures.

Follow the service call escalation process.

Return to Service Call Procedures.

# 103-204 Serial Number Failure

Serial Number Failure (Not initialized).

## Procedure

### CAUTION

During this procedure, do not make any prints or any copies until clear the fault. If the configuration sheet is enabled, disable it before starting this procedure.

Switch the power off then on. **The fault is cleared.**

Y N

### CAUTION

Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.

Replace the MCU NVM PWB (PL 13.1). Switch the power on. A 103-208 should occur. Perform GP 10. **The problem continues.**

Y N

Return to Service Call Procedures.

Reinstall the original MCU NVM PWB (REP 1.2).

### CAUTION

Careful replacement of the ESS PWB (REP 1.12) is important to avoid serious machine failure.

Replace the ESS PWB (PL 13.1). Switch the power on. A 103-208 should occur. Perform GP 10. **The problem continues.**

Y N

Return to Service Call Procedures.

Follow the service call escalation process.

Return to Service Call Procedures.



103-207 All Machine Codes Mismatch

At least one of the three Product codes are mismatched.

Procedure

CAUTION

During this procedure, do not make any prints or any copies until clear the fault. If the configuration sheet is enabled, disable it before starting this procedure.

Switch the power off then on. The fault is cleared.

Y N

CAUTION

Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.

Replace the MCU NVM PWB (PL 13.1). Switch the power on. A 103-208 should occur. Perform GP 10. The problem continues.

Y N

Return to Service Call Procedures.

Reinstall the original MCU NVM PWB.

CAUTION

Careful replacement of the ESS PWB (REP 1.12) is important to avoid serious machine failure.

Replace the ESS PWB (PL 13.1). Switch the power on. A 103-208 should occur. Perform GP 10. The problem continues.

Y N

Return to Service Call Procedures.

Follow the service call escalation process.

Return to Service Call Procedures.

103-208 All Serial Numbers Mismatch

At least one of the three Serial Numbers are mismatched.

Procedure

Switch the power off then on. The fault is cleared.

Y N

Perform GP 10. Serial numbers and billing data on all three PWBs matches.

Y N

Synchronize the serial numbers. The problem continues.

Y N

Return to Service Call Procedures.

CAUTION

Careful replacement of the MCU NVM PWB (REP 1.15) is important to avoid serious machine failure.

Replace the MCU NVM PWB (PL 13.1). Perform GP 10. The problem continues.

Y N

Return to Service Call Procedures.

Reinstall the original MCU NVM PWB.

CAUTION

Careful replacement of the ESS PWB (REP 1.12) is important to avoid serious machine failure.

Replace the ESS PWB (PL 13.1). Perform GP 10. The problem continues.

Y N

Return to Service Call Procedures.

Follow the service call escalation process.

Return to Service Call Procedures.

Return to Service Call Procedures.



## 103-320 ROM Failure

A write error has occurred in the ROM on the ESS PWB.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y** **N**  
Replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-321 Backup SRAM Failure

A write error has occurred in the NVM on the ESS PWB.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y** **N**  
Replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.



## 103-330 ESS ROM DIMM #3 Check Failure

An ESS ROM DIMM #3 check failure was detected.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**

Remove and replace the ESS ROM DIMM #3.

If the problem continues, replace the ESS ROM DIMM #3

Return to Service Call Procedures.

## 103-331 ESS ROM DIMM #1 Not Found

The system detected that the ESS ROM DIMM #1 was not installed.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**

Remove and replace the ESS ROM DIMM #1.

If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.



## 103-332 ESS Standard ROM Error

An error was detected in the ESS built-in standard ROM.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**

Remove and replace the ESS built-in standard ROM.

If the problem continues, replace the ESS built-in standard ROM.

Return to Service Call Procedures.

## 103-333 ASIC Failure (Panther-t)

An error was detected in the Panther.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**

Replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.



## 103-334 Standard Post Script Font ROM Error

An error was detected in the standard built-in Post Script Font ROM.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y** **N**  
| Replace the Post Script Font ROM (PL 13.1).

Return to Service Call Procedures.

## 103-335 Post Script Font ROM Not Found

Post Script Font ROM installation was detected.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y** **N**  
| Replace the Post Script Font ROM (PL 13.1).

Return to Service Call Procedures.



### 103-336 ESS RAM DIMM #3 W/r Check Failure

A failure was detected during Read/Write Check of the ESS RAM DIMM #3.

#### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**

- Remove and replace the ESS RAM DIMM #3.
- If the problem continues, replace the ESS ROM DIMM #3

Return to Service Call Procedures.

### 103-337 ESS Standard RAM Error

An error was detected in the ESS built-in standard RAM.

#### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**

- Replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.



## 103-338 Same Post Script Font ROMs Found

The system detected that the same Post Script Font ROM was installed.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**

Install the appropriate Post Script Font ROM.

If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-339 ROM DIMM Of Another Product Found

The system detected that the ROM DIMM for another machine was installed.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**

Install the appropriate ROM DIMM.

If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.



## 103-372 IOT Sc Soft Failure

IOT Controller software failure was detected.

### Initial Actions

Check Fault History (dC122) for faults (especially **Tray Module faults**) that occurred at the same time as this fault. Troubleshoot the other fault(s) before this one.

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**

Reinstall the ESS software.

If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-701 Changed Output Bin: Side To Center

The output tray was changed (Side Tray to Center Output Tray).

### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Again, switch the power off then on.



## 103-702 Changed Output Bin: Finisher To Center

The output tray was changed (Finisher Tray to Center Output Tray).

### Procedure

Switch the power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Again, switch the power off then on.



## 116-200 Main PWBA IC

An error was detected in the IC in the ESS PWB.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, replace the ESS PWB ([PL 13.1](#)).

## 116-201 HDD

The HDD was not booted due to a HDD error detected on booting

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Run the HDD Diag ([ADJ 9.8](#)).

If the problem continues, replace the HDD ([PL 13.1](#))

If the problem continues, replace the ESS PWB ([PL 13.1](#))



## 116-206 Timer

A timer error was detected.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-207 Ethernet Board

A timer error was detected in the Ethernet board.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-209 ESS PS-1 ROM Check

A failure was detected when the ESS PS-1 ROM was checked.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Pull out and insert the PS-1 ROM (PL 13.1). Perform GP 3. If the problem continues, replace PS-1 ROM (PL 13.1).

## 116-310 ESS PS-2 ROM Check

A failure was detected when the ESS PS-2 ROM was checked.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Pull out and insert the PS-2 ROM (PL 13.1). Perform GP 3. If the problem continues, replace PS-2 ROM (PL 13.1).



## 116-311 ESS Font ROM DIMM #3 Check

A failure was detected when the ESS FONT ROM DIMM #3 was checked.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Pull out and insert the ESS FONT ROM DIMM #3.

If the problem continues, replace the ESS FONT ROM DIMM #3.

## 116-314 Ethernet Address

A Ethernet error was detected.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform **GP 3**. If the problem continues, reload system software. If the problem persists, replace the ESS PWB (**PL 13.1**).



## 116-315 ESS RAM DIMM #1 W/R Check

A failure was detected during W/R of the ESS RAM DIMM #1.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Pull out and insert the ESS RAM DIMM #1.

If the problem continues, replace the ESS RAM DIMM #1.

## 116-316 ESS RAM DIMM #2 W/R Check

A failure was detected during W/R of the ESS RAM DIMM #2.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Pull out and insert the ESS RAM DIMM #2.

If the problem continues, replace the ESS RAM DIMM #2.



## 116-317 Standard ROM DIMM Check

An error was detected when the standard ROM DIMM was checked.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Pull out and insert the standard ROM DIMM.

If the problem continues, replace the standard ROM DIMM.

## 116-318 Option ROM DIMM Check

An error was detected when the optional ROM DIMM was checked.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Pull out and insert the optional ROM DIMM.

If the problem continues, replace the optional ROM DIMM.



## 116-319 Serial

There is no serial board at the serial board initialization failure.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Reinstall the serial board.

## 116-320 STREAMZ Software

Fatal error of the STREAMZ. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform **GP 3**. If the problem continues, reload system software. If the problem persists, replace the ESS PWB (**PL 13.1**).



## 116-321 System Software

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-323 ESS NVRAM W/R Check

An error was detected at the W/R check of the NVM in the ESS PWB.

### Procedure

Switch power off then on. **The problem continues.**

**Y    N**

Return to service call procedures.

Switch off the power. Reseat the ESS PWB and the connector for the ESS Fan ([PL 13.1](#)). If the problem remains go to the [116-323](#) RAP.



# 116-324 Exception Error

CPU exceptional error.

## Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

## Procedure

Perform GP 3. If the problem continues, reload system software. If the problem persists, replace the ESS PWB (PL 13.1).

# 116-325 ESS Fan

ESS Fan failure is detected or +24 VDC is failed.

## Procedure

- Remove Rear Cover (REP 14.2).
- Remove cover from +24V LVPS (PL 9.1).
- Disconnect P502 on +24V LVPS (Figure 1).

Check that power is switched off. Measure resistance of fuse on +24V LVPS. **Resistance is 1 ohm or less.**

Y N  
Replace +24V LVPS (PL 9.1).

Switch on the power. Measure the AC voltage between the white and black wires in P/J2 on the +24 VDC. **Line Voltage AC is measured.**

Y N  
Go to the OF 1-4 RAP.

Connect the black meter lead to ground (-). Measure DC voltage at P/J505 on the +24V LVPS (Figure 1). **Voltages are measured as shown (Figure 1).**

Y N  
There is a problem with the +24 VDC enable circuit. Go to OF 1-3.

Ensure P/J502 is still disconnected on the +24V LVPS. Measure the DC voltage at P/J502 on the +24V LVPS (Figure 1). **Voltages are measured as shown.**

Y N  
Replace the 24V LVPS (PL 9.1).

Connect P/J502 on the +24V LVPS. Measure the DC voltage at P/J502 on the +24V LVPS (Figure 1). **Voltages are measured as shown.**

Y N  
There is a short circuit in +24 VDC distribution. Refer to Section 7 wirenets for +24 VDC distribution. Disconnect the connectors in the distribution network. Switch the power on. Connect the connectors while monitoring +24 VDC. The +24 VDC supply will shut down when the P/J with the shorted circuit is connected.

Replace the ESS Fan (PL 13.1).  
If the problem continues, replace the ESS PWB (PL 13.1).

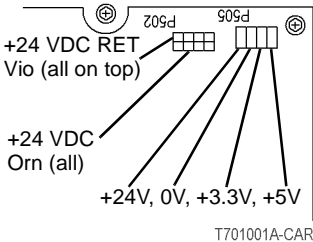


Figure 1 P502, P505 on +24V LVPS



## 116-326 ESS ROM DIMM #1 Flash

A failure was detected in the ESS ROM DIMM #1 Flash.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Pull out and insert the ESS ROM DIMM #1.

If the problem continues, replace the ESS ROM DIMM #1.

## 116-327 ESS ROM DIMM #2 Flash

A failure was detected in the ESS ROM DIMM #2 Flash.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Pull out and insert the ESS ROM DIMM #2.

If the problem continues, replace the ESS ROM DIMM #2.



## 116-328 L2 Cache

A L2 Cache failure was detected.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-329 Serial I/F Software

The system call error related to the serial I/F was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y    N**

Return to service call procedures.

Again, switch the power off then on.



## 116-330 HDD File System

The system detected that the an error has occurred or the HDD was not formatted during HDD check at power on.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Run the HDD Diag (ADJ 9.8).

If the problem continues, replace the HDD (PL 13.1).

If the problem continues, replace the ESS PWB (PL 13.1).

## 116-332 Invalid Log Info

A failure related to log was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Go to GP 3 and perform the Log Initialization portion of the routine.

If the problem continues, run the HDD Diag (ADJ 9.8).

If the problem continues, switch off the power and disconnect the HDD. Switch on the power. If the original fault code (116-332) is now gone, replace the HDD. If the code is still present, replace the ESS PWB (PL 13.1).



## 116-333 LocalTalk Software

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-335 MFIO HD

HD failure to be detected by MFIO

### Procedure

Switch power off then on. **The problem continues.**

**Y    N**

Return to service call procedures.

Set up the HDD ([ADJ 9.8](#)).

If the problem continues, replace the HDD ([PL 13.1](#)).

If the problem continues, replace the ESS PWB ([PL 13.1](#)).



## 116-336 Redirector HD

HD failure to be detected by Redirector

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Set up the HDD ([ADJ 9.8](#)).

If the problem continues, replace the HDD ([PL 13.1](#)).

If the problem continues, replace the ESS PWB ([PL 13.1](#)).

## 116-337 Template HDD Write Error

<Write error in obtaining JT>

An error has occurred when the Job Template was stored in the local HD.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Set up the HDD ([ADJ 9.8](#)).

If the problem continues, replace the HDD ([PL 13.1](#)).

If the problem continues, replace the ESS PWB ([PL 13.1](#)).



## 116-340 Short of Memory

When the system detected that the memory was insufficient.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Add memory

Pull out PostScript option.

## 116-341 ROM DIMMs Mismatch

several invalid ROM DIMM versions that are installed The combination of the installed ROM DIMMs is invalid for use at the same time. When installing multiple ROM DIMMs, it is necessary to match the major version with the minor version.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Replace PS-1 and PS-2 ROM (PL 13.1).



## 116-342 JT Monitor

Fatal errors to be detected by the JT monitor

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-344 MF IO

Fatal errors to be detected by MFIO

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-345 Token Ring Board

Token Ring Control IC Access error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Go to the 116-900 RAP.

## 116-346 Formatter

Fatal errors to be detected by the Formatter were detected.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform GP 3. If the problem continues, reload system software. If the problem persists, replace the ESS PWB (PL 13.1).



## 116-348 Redirector

Fatal errors detected by Redirector

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-349 SIF on Calling Pflite Function

An error has occurred when calling the Pflite function with SIF.

### Procedure

Switch power off then on. **The problem continues.**

**Y    N**

Return to service call procedures.

Go to [GP 3](#) and perform **Spool Initialization**. If this does not resolve the problem, replace the ESS PWB ([PL 13.1](#)).



## 116-350 AppleTalk Software

Overall fatal errors of the AppleTalk

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-351 EtherTalk Software

Fatal error related to the EtherTalk

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-352 NetWare Software

Fatal error related to the NetWare

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-353 lpd Software

Fatal error related to the lpd

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-355 SNMP Agent Software

Fatal error related to the SNMP Agent

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-356 EWS Software

Fatal error related to the EWS

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-357 PS Software

PS Fatal System Error

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-358 Salutation Software

Fatal error related to the Salutation

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-359 PLW Software

Fatal error in PLW

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-360 SMB Software

Fatal error related to the SMB

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-361 Spool Fatal HD

Fatal error of the SPL HD

The spool Cont detected an error at HDD access.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Run the HDD Diag (dC355).

Replace the HDD (PL 13.1).

If the problem continues, replace the ESS PWB (PL 13.1).

## 116-365 Spool Fatal

Fatal error of the SPL

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform GP 3. If the problem continues, reload system software. If the problem persists, replace the ESS PWB (PL 13.1).



## 116-366 Report Generator Software

An operation failure of the Report Generator. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-367 Parallel I/F Software

Overall fatal errors of the Parallel I/F. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-368 Dump Print

Fatal error of Dump Print. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-370 XJCL

Fatal error of XJCL. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-372 P-Formatter

Fatal error of P-Formatter. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-373 Dynamic DNS Software

Fatal error related to DDNS. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-374 Auto Switch

Fatal error of Auto SW. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-375 I-Formatter

Formatter problem.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-376 Port 9100 Software

[Port 9100 Software Fail

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-377 Video DMA

[Video DMA failure was detected.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-378 MCR Software

Fatal error of MCR (Mail Contents Requester)

### Procedure

Switch power off then on. **The problem continues.**

**Y N**  
Return to service call procedures.

Again, switch power off then on.

## 116-379 MCC Software

Fatal error of MCC (Mail Contents Creator)

### Procedure

Switch power off then on. **The problem continues.**

**Y N**  
Return to service call procedures.

Switch power off then on.



## 116-380 MF UI Cont Software

Fatal error of MF UI Cont

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-381 Data Link Layer Error between Cont and UI Panel

Controller - MF UI panel: Communication error on the Data Link layer

At the communication between the ESS and Panel, the ESS detected an initialization error of SCOPE, a message sending error, or retrieve error of the received data.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Perform re-installation of the ESS or Panel software.

If the problem continues, replace the ESS PWB ([PL 13.1](#)).

If the problem continues, replace the Control Panel ([PL 18.2](#)).



## 116-382 Panel Application Layer Command Error on UI

Controller - MF UI panel: Command error at the application level

A necessary parameter was not sent from the Panel, an length error was detected in a variable parameter, or the confirmation message was not returned for a specified time after the request message had been sent to the Panel.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-388 HDD Not Connected

The necessary HDD was not installed.

Though the system has the configuration requiring the installation of the HDD (with Fax), it detected that the HDD was not installed.

### Procedure

Switch power off then on. **The problem continues.**

**Y    N**

Return to service call procedures.

Check HDD harness connections ([PL 13.1](#)).



## 116-389 No Add-On RAM

The necessary expansion RAM was not installed.

Though the system has the configuration requiring the installation of the expansion RAM (with the HD), it detected that the expansion RAM was not installed.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Install the expansion RAM.

## 116-390 Standard ROM and NVM Version Mismatch

A mismatch of the versions between the standard ROM and NVM was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Initialize the NVM by following the instructions on the LCD display.

(When the NVM is not to be initialized, use the standard ROM whose version is applicable.)



## 116-395 USB Software

Fatal error related to USB. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-396 Mail IO Software

Fatal error related to Mail IO. Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-398 IPP Software

Fatal error related to IPP

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).

## 116-399 JME Software

Fatal error related to JME

Due to an error during the software processing, the subsequent processes cannot be performed.

### Initial Actions

Switch power off then on. If the problem persists, continue with the procedure.

### Procedure

Perform [GP 3](#). If the problem continues, reload system software. If the problem persists, replace the ESS PWB ([PL 13.1](#)).



## 116-701 Execute forced separation of two sides

Due to insufficient memory, 2-Sided print is impossible.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Expand the memory or install the HDD if the HDD is not installed.

## 116-702 Perform printing by using a substitution font

[Printed with a substitution font.]

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
| Return to service call procedures.

Again, switch power off then on.



## 116-703 PS Interpret error

An error has occurred in language analysis

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Correct the job data.

## 116-710 HP-GL spool file overflow

[HP-GL/2 memory overflow]

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**  
|     Return to service call procedures.

Increase the HP-GL spool size. Or install the HD.



## 116-711 PLW form synthesis error

Synthesis is impossible because the size/orientation of the PLW form's drawing is different from that of the paper.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Select the paper with the size and orientation of the registered form.

## 116-712 Insufficient PLW form capacity

The PLW form/logo data cannot be registered because of the insufficient RAM or Hard Disk space.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
|  
Return to service call procedures.

Use the Operation Panel to check the registered forms/logos, and delete unnecessary ones.  
Or increase the allocated capacity of the RAM disk.



## 116-714 A HP-GL command error was detected

[HP-GL/2 command error]

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Correct or remove the data in the print data that causes the error.

## 116-715 PLW form registry error

The PLW form data cannot be registered because of the restriction of the number of forms.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**  
Return to service call procedures.

Use the Operation Panel to check the registered forms, and delete unnecessary ones. Or delete unnecessary forms.



## 116-718 PLW form synthesis error

The specified form is not registered.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Use a registered form, or register a necessary form.

## 116-737 Insufficient ART user defined area

The user defined data (external characters, patterns, etc.) cannot be registered because of insufficient RAM capacity.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Delete registered user defined data. Or increase the allocated capacity of the RAM.



## 116-738 Form synthesis error

Synthesis is impossible because the size/orientation of the form's drawing is different from that of the paper.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Select the paper with the size and orientation of the registered form.

## 116-739 Insufficient form/logo capacity

The form/logo data cannot be registered because of the insufficient RAM or Hard Disk space.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Use the Operation Panel to check the registered forms, and delete unnecessary ones. Or increase the allocated capacity of the RAM disk.



## 116-740 Value Calculation Error

The number calculated in the interpreter exceeded the limit value.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Remove the data that exceeds the limit value of the printer from the print data.

## 116-741 Form registry error

The form data cannot be registered because of the restriction of the number of forms.

### Procedure

Switch power off then on. **The problem continues.**

<b>Y</b>	<b>N</b>
	Return to service call procedures.

Use the Operation Panel to check the registered forms, and delete unnecessary ones. Or delete unnecessary forms.



## 116-742 Logo registry error

The logo data cannot be registered because of the restriction of the number of logos.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Use the Operation Panel utility to check the registered logos, and delete unnecessary ones. Or delete unnecessary logos with the Print command.

## 116-743 Form/logo size overflow

The received data (forms/logos) indicating that forms/logos cannot be registered (due to insufficient area) exceeded the registered buffer size.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Increase the form registry area size from the Operation Panel. Or install the HD.



## 116-745 Art Command Error

The decomposer checks the syntax error and excess of each limit value at decomposing.

### Procedure

Switch power off then on. **The problem continues.**

**Y N**  
Return to service call procedures.

Correct the command.

Change the ART command where an error has occurred.

## 116-746 Form synthesis error

The specified form is not registered.

### Procedure

Switch power off then on. **The problem continues.**

**Y N**  
Return to service call procedures.

Use a registered form, or register a necessary form.



## 116-747 White page detected

After subtracting the paper margin from the valid coordinate area, the result of the calculation will be negative.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Again, switch power off then on. No actions required.

## 116-748 White page detected

There is no drawing data in the page data.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Again, switch power off then on. No actions required



## 116-780 Attached document failure of E-mail to XXX

Attached document E-mail failure.

### Initial Actions

Verify that the incoming attachment is a TIFF or a PDF file.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Attached document failure of E-mail to XXX

No actions required.

## 116-790 Printed without stapling

Printed without stapler.

### Procedure

Switch power off then on. **The problem continues.**

**Y   N**

Return to service call procedures.

Printed without the stapler

No actions required.



## 116-900 Token Ring RAP

### Initial Actions

- Ensure that the Token Ring PWBA is connected to a good wall drop using a good network cable.
- Print a System Settings List. With the assistance of the Systems Administrator verify that the network settings are correct.

### Procedure

Token Ring connectivity problems can be caused by:

- A bad connection to the network.
- A defective Token Ring PWBA.
- The Token Ring PWBA cannot sense the speed of the Token Ring Network.

**NOTE:** For TCP/IP, ensure that there is not a duplicate IP address on the customer's network.

- An address conflict with the Token Ring PWBA.
- The Novell File Servers are not referenced to on the network.
- An improperly seated Token Ring PWBA.
- An improperly seated Chassis Assembly Riser PWBA.

Verify the network connections and network setup. If the external factors all check OK, ensure that the Token Ring PWB is correctly seated in the Chassis Assembly Riser PWB connector and that the Chassis Assembly Riser PWBA is correctly seated in the ESS PWB connector.

If the problem persists, replace the Token Ring PWB (PL 13.1).







## 121-310 Foreign Interface/Foreign Device Communication Fail

Communication cannot be established between the Foreign Interface and the Foreign Device (3rd-party device such as vend station or mechanical Auditron).

### Procedure

#### CAUTION

*Do not attempt to troubleshoot this circuit by jumpering the Transmit Data or Receive Data lines (P343 pins 4 ~ 6 on the ESS PWB). This will destroy the serial port on the ESS PWB.*

**NOTE:** Refer to [Figure 1](#) (Circuit Diagram).

Switch the power off, then on. **The problem continues.**

**Y N**

Check for loose connections or dirty contacts between the ESS PWB and the Foreign Interface, and between the FI and the attached device.

Switch off the power. Disconnect the device from the FI. Connect a jumper from pin 1 to pin 3 on J940 on the Foreign Interface. Switch on the power. **The fault code is still present.**

**Y N**

Repair or replace the Foreign Device.

Reinstall the ESS software.

If the problem continues, replace the Foreign Interface ([PL 10.3](#))

If the problem continues, replace the ESS PWB ([PL 13.1](#)).

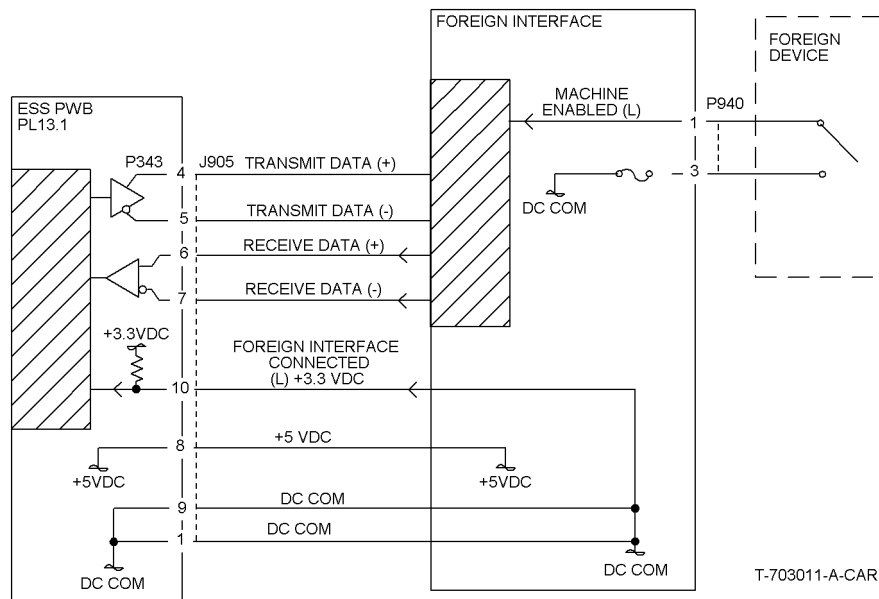


Figure 1 121-310 RAP Circuit Diagram

## 121-333 Foreign Interface/ESS Communication Fail

Communication cannot be established between the Foreign Interface and the ESS PWB.

### Initial Actions

If an external Auditron-type device is connected to the Foreign Interface, ensure that the machine's internal Auditron is disabled.

### Procedure

#### CAUTION

*Do not attempt to troubleshoot this circuit by jumpering the Transmit Data or Receive Data lines (P343 pins 4 ~ 6 on the ESS PWB). This will destroy the serial port on the ESS PWB.*

**NOTE:** Refer to [Figure 1](#) (Circuit Diagram).

Switch the power off, then on. **The problem continues.**

**Y N**

Check for loose connections or dirty contacts between the ESS PWB and the Foreign Interface, and between the FI and the attached device.

Switch off the power. Disconnect the device from the FI. Connect a jumper from pin 1 to pin 3 on J940 on the Foreign Interface. Switch on the power. **The fault code is still present.**

**Y N**

Repair or replace the Foreign Device.

Reinstall the ESS software.

If the problem continues, replace the Foreign Interface ([PL 10.3](#))

If the problem continues, replace the ESS PWB ([PL 13.1](#)).



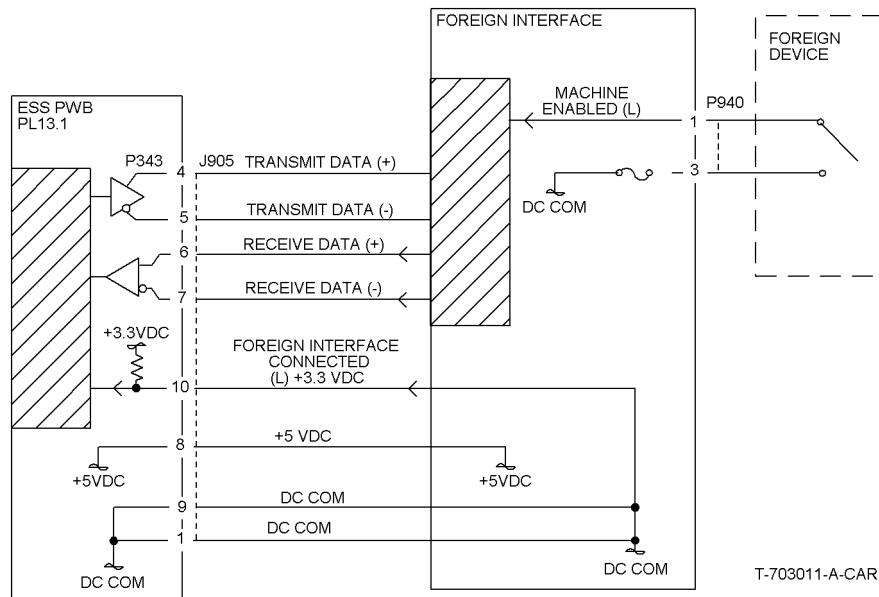


Figure 1 121-333 RAP Circuit Diagram

## 121-334 Foreign Interface Login Fail

The enquiry result of the login information was an error at WAKE UP ANSWER.

### Procedure

#### CAUTION

*Do not attempt to troubleshoot this circuit by jumpering the Transmit Data or Receive Data lines (P343 pins 4 ~ 6 on the ESS PWB). This will destroy the serial port on the ESS PWB.*

**NOTE:** Refer to [Figure 1 \(Circuit Diagram\)](#).

Switch the power off, then on. **The problem continues.**

**Y N**

Check for loose connections or dirty contacts between the ESS PWB and the Foreign Interface, and between the FI and the attached device.

Switch off the power. Disconnect the device from the FI. Connect a jumper from pin 1 to pin 3 on J940 on the Foreign Interface. Switch on the power. **The fault code is still present.**

**Y N**

Repair or replace the Foreign Device.

Reinstall the ESS software.

If the problem continues, replace the Foreign Interface ([PL 10.3](#))

If the problem continues, replace the ESS PWB ([PL 13.1](#)).

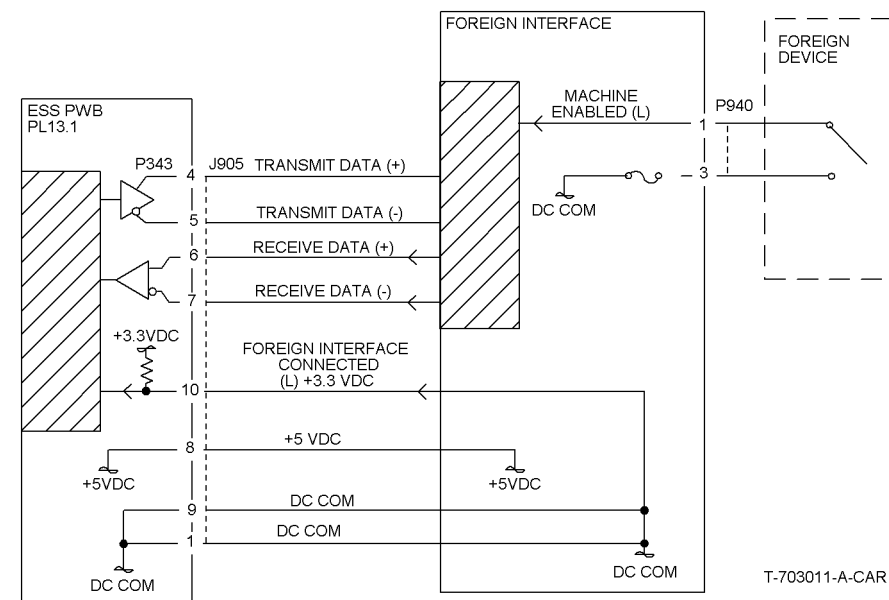


Figure 1 121-334 RAP Circuit Diagram



## 121-335 Foreign Interface Wake Up Answer Fail

The WAKE UP ANSWER cannot be received.

### Procedure

#### CAUTION

*Do not attempt to troubleshoot this circuit by jumpering the Transmit Data or Receive Data lines (P343 pins 4 ~ 6 on the ESS PWB). This will destroy the serial port on the ESS PWB.*

**NOTE:** Refer to [Figure 1](#) (Circuit Diagram).

Switch the power off, then on. **The problem continues.**

**Y N**

Check for loose connections or dirty contacts between the ESS PWB and the Foreign Interface, and between the FI and the attached device.

Switch off the power. Disconnect the device from the FI. Connect a jumper from pin 1 to pin 3 on J940 on the Foreign Interface. Switch on the power. **The fault code is still present.**

**Y N**

Repair or replace the Foreign Device.

Reinstall the ESS software.

If the problem continues, replace the Foreign Interface ([PL 10.3](#))

If the problem continues, replace the ESS PWB ([PL 13.1](#)).

## 121-336 Unknown Foreign Device

The connected Foreign Device type was unknown at WAKE UP ANSWER.

### Procedure

Switch the power off, then on. **The problem continues.**

**Y N**

Check for loose connections or dirty contacts between the ESS PWB and the Foreign Interface, and between the FI and the attached device.

Replace the Foreign Device.

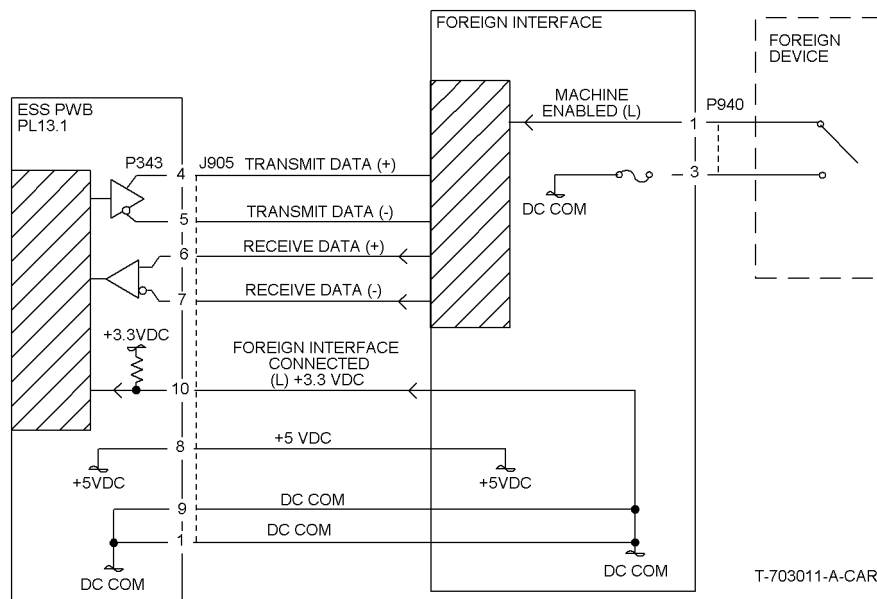


Figure 1 121-335 RAP Circuit Diagram



## 121-337 Foreign Device Self Diag Fail

The self diagnostics result of the connected Foreign Device was an error at WAKE UP ANSWER.

### Procedure

Switch the power off, then on. **The problem continues.**

Y N

Check for loose connections or dirty contacts between the ESS PWB and the Foreign Interface, and between the FI and the attached device.

Replace the Foreign Device.

## 121-338 Foreign Interface Answer Time Out

The answer from the Foreign Interface excluding WAKE UP ANSWER cannot be received.

### Procedure

#### CAUTION

*Do not attempt to troubleshoot this circuit by jumpering the Transmit Data or Receive Data lines (P343 pins 4 ~ 6 on the ESS PWB). This will destroy the serial port on the ESS PWB.*

**NOTE:** Refer to [Figure 1](#) (Circuit Diagram).

Switch the power off, then on. **The problem continues.**

Y N

Check for loose connections or dirty contacts between the ESS PWB and the Foreign Interface, and between the FI and the attached device.

Switch off the power. Disconnect the device from the FI. Connect a jumper from pin 1 to pin 3 on J940 on the Foreign Interface. Switch on the power. **The fault code is still present.**

Y N

Repair or replace the Foreign Device.

Reinstall the ESS software.

If the problem continues, replace the Foreign Interface ([PL 10.3](#))

If the problem continues, replace the ESS PWB ([PL 13.1](#)).

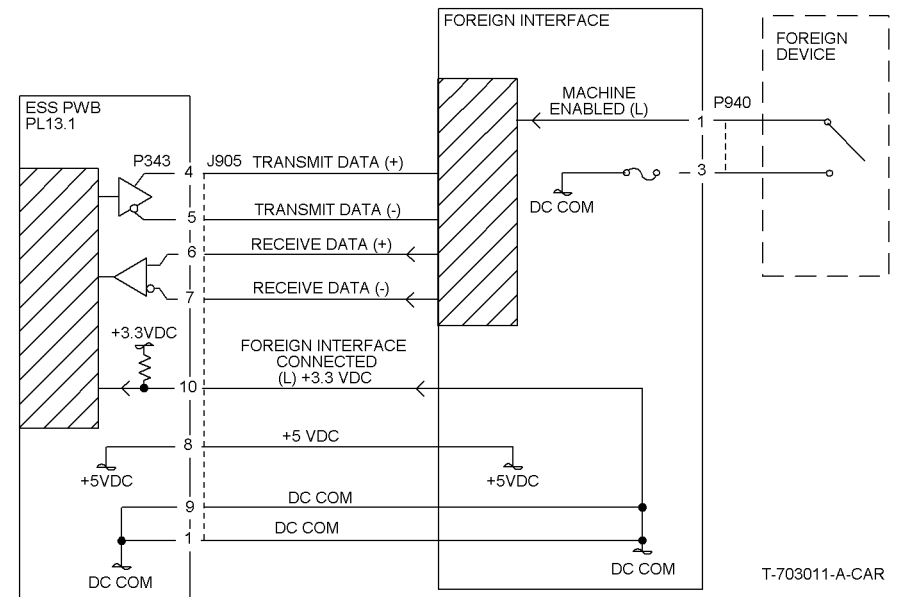


Figure 1 121-338 RAP Circuit Diagram



## 121-350 Foreign Interface Logic Fail

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

#### CAUTION

*Do not attempt to troubleshoot this circuit by jumpering the Transmit Data or Receive Data lines (P343 pins 4 ~ 6 on the ESS PWB). This will destroy the serial port on the ESS PWB.*

**NOTE:** Refer to *Figure 1* (Circuit Diagram).

Switch the power off, then on. **The problem continues.**

**Y N**

Check for loose connections or dirty contacts between the ESS PWB and the Foreign Interface, and between the FI and the attached device.

Switch off the power. Disconnect the device from the FI. Connect a jumper from pin 1 to pin 3 on J940 on the Foreign Interface. Switch on the power. **The fault code is still present.**

**Y N**

Repair or replace the Foreign Device.

Reinstall the ESS software.

If the problem continues, replace the Foreign Interface ([PL 10.3](#))

If the problem continues, replace the ESS PWB ([PL 13.1](#)).

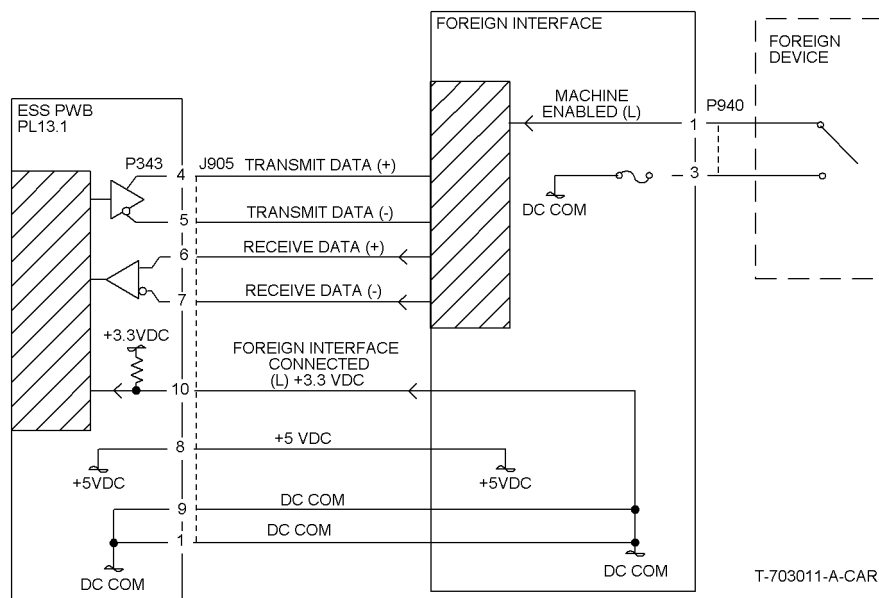


Figure 1 121-350 RAP Circuit Diagram







## 202-399 Internal Timer

### Procedure

Switch the power off then on. **The fault is cleared.**

**Y   N**  
|   Reload system software.

Return to Service Call Procedures.







## OF 1-1 +3.3 VDC

Use this RAP to troubleshoot a failure with the +3.3 VDC.

### Procedure

Perform the following:

- Remove the Rear Cover (REP 14.2).
- Tilt out the HVPS Chassis (REP 1.6).

Check that power is switched off. Measure the resistance of the fuse on the +3.3V LVPS (Figure 1). **The resistance is 1 ohm or less.**

**Y N**  
Replace the +3.3V LVPS (PL 9.1).

Disconnect P/J510 on the 3.3V LVPS. Switch on the power. Measure the AC voltage between the white and black wires in P/J15A on the +3.3V LVPS (Figure 1). **AC Line Voltage is measured.**

**Y N**  
Go to OF 1-4.

Connect the black meter lead to ground. Measure the DC voltage at P/J510 on the +3.3 V LVPS (Figure 1). **Voltages are measured as shown (Figure 1).**

**Y N**  
Replace the 3.3V LVPS (PL 9.1).

There is a short circuit in +3.3 VDC distribution.

Refer to Section 7 wirenets for +3.3 VDC distribution.

Disconnect the P/J's in the distribution network. Switch the power on. Connect the P/J's while monitoring +3.3 VDC. The +3.3 VDC supply will shut down when the P/J with the shorted circuit is connected.

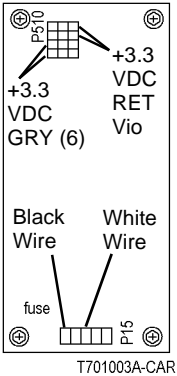


Figure 1 P15, P510 on +3.3V LVPS

## OF 1-2 +5 VDC

Use this RAP to troubleshoot a failure with the +5 VDC.

### Procedure

Perform the following:

- Remove the Rear Cover (REP 14.2).
- Tilt out the HVPS Chassis (REP 1.6).

Check that power is switched off. Measure the resistance of the fuse on the +5V LVPS (Figure 1). **The resistance is 1 ohm or less.**

**Y N**  
Replace the +5V LVPS (PL 9.1).

Disconnect P/J511 on the +5V LVPS. Switch on the power. Measure the AC voltage between the black and white wires in P/J16 on the +5V LVPS (Figure 1). **AC Line Voltage is measured.**

**Y N**  
Go to OF 1-4.

Connect the black meter lead to ground. Measure the DC voltage at P/J511 on the +5V LVPS (Figure 1). **Voltages are measured as shown.**

**Y N**  
Replace the +5V LVPS (PL 9.1).

There is a short circuit in +5 VDC distribution.

Refer to Section 7 wirenets for +5 VDC distribution.

Disconnect the P/J's in the distribution network. Switch the power on. Connect the P/J's while monitoring +5 VDC. The +5 VDC supply will shut down when the P/J with the shorted circuit is connected.



Figure 1 P16, P511 on +5V LVPS



## OF 1-3 +24 VDC Enable

Use this RAP to determine why the +24V LVPS is not enabled.

### Procedure

The machine is a DC 3535.

- Y N**  
Refer to **Figure 1**. +3.3 VDC is measured between **P/J505-3 (+)** on the 24V LVPS and **GND (-)**.  
**Y N**  
+3.3 VDC is measured between **P/J534-B4 (+)** on the I/F PWB and **GND**.  
**Y N**  
Go to **Flag 1**. Repair the open circuit.  
  
Replace the MCU PWB (PL 13.1).  
If the problem continues, replace the ESS PWB (PL 13.1).  
  
+5 VDC is measured between **P/J505-4 (+)** on the 24V LVPS and **GND (-)**.  
**Y N**  
+5 VDC is measured between **P/J511-3 (+)** on the 5V LVPS and **GND (-)**.  
**Y N**  
Replace the 5V LVPS (PL 9.1).  
  
Go to **Flag 2**. Repair the open circuit between the 24V LVPS and 5V LVPS.  
  
Switch off the power. Less than 5 ohms is measured between **P/J505-2** on the 24V LVPS and **GND**.  
**Y N**  
Go to **Flag 3**. Repair the open circuit between the 24V LVPS and 5V LVPS.  
  
Replace the 24V LVPS (PL 9.1).  
  
Refer to **Figure 2**. +5 VDC is measured between **P/J505-3** on the 24V LVPS and **GND (-)**.  
**Y N**  
Go to **Flag 4**. Check the wire for an open circuit. If the wire is good, replace the MCU PWB (PL 13.1).  
  
+5 VDC is measured between **P/J505-4 (+)** and **P/J505-2 (-)**.  
**Y N**  
Go to **Flag 5** and **Flag 6**. Check the wires for an open circuit. If the wires are good, replace the MCU PWB (PL 13.1).  
  
Replace the 24V Low Voltage Power Supply (PL 9.1).

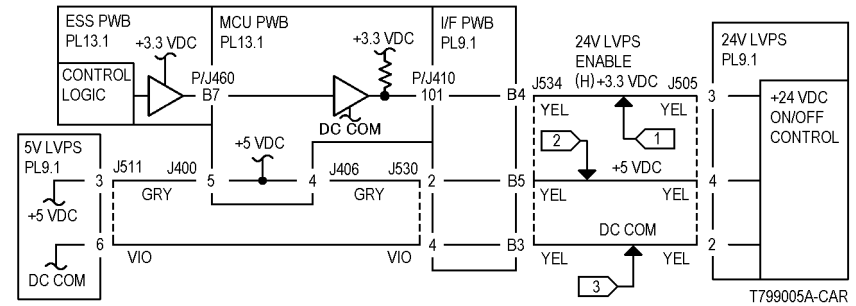


Figure 1 OF1-3 RAP Circuit Diagram - DC 2240/1632, WC M24 +24V LVPS Enable

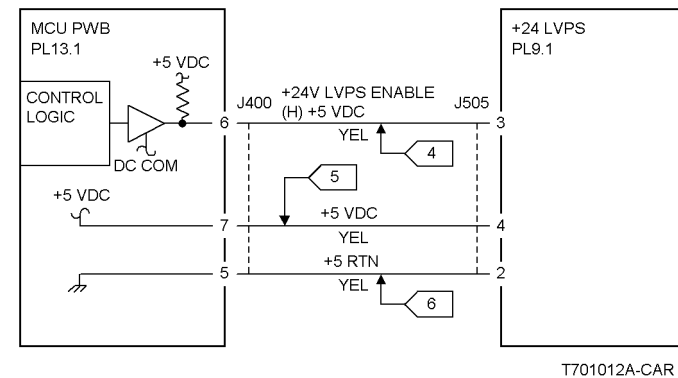


Figure 2 OF1-3 RAP Circuit Diagram - DC 3535 +24 LVPS Enable



## OF 1-4 AC Power

AC Power Failure

### Initial Actions

Check Circuit Breaker.

### Procedure

Refer to **Figure 1. AC Line Voltage** is measured between the Noise Filter PWB FS75 and FS74 (PL 9.2).

Y N

AC Line Voltage is measured between the Circuit Breaker P/J72-2 and P/J72-1.

Y N

Disconnect power cord from power outlet. **The voltage of the power outlet is AC Line Voltage.**

Y N

Inform customer power is not available.

Check the Power Cord for an open circuit. If no problems are found, replace the Circuit Breaker (PL 9.2).

Go to **Flag 1**. Check wires between Circuit Breaker P/J72 and Noise Filter PWB for an open circuit and poor contact.

AC Line Voltage is measured between the Noise Filter PWB FS77 and FS76.

Y N

If the Circuit Protector on the Noise Filter PWB is tripped, reset it. If it is not tripped, replace the Noise Filter PWB (PL 9.2).

AC Line Voltage is measured between the Main Power Switch FS57 and Noise Filter PWB FS76.

Y N

Go to **Flag 2**. Check the wire between the Main Power Switch and the Noise Filter PWB for an open circuit and poor contact.

AC Line Voltage is measured between the Main Power Switch FS69 and Noise Filter PWB FS76.

Y N

Replace the Main Power Switch (PL 10.2).

AC Line Voltage is measured between the AC Drive PWB FS40 and the FS39.

Y N

Go to **Flag 3**. Check the following:

- wire between the AC Drive PWB (PL 9.2) and the Main Power Switch (PL 10.2) for an open circuit and poor contact.
- wire between FS76 on the Noise Filter and the AC Drive PWB for an open circuit or poor contact.

AC Line Voltage is measured between the AC drive PWB P/J43-9 and the P/J43-1.

Y N

Replace the AC Drive PWB (PL 9.2).

A

Check the AC voltage distribution by referring to Chapter 7 Wiring Data.

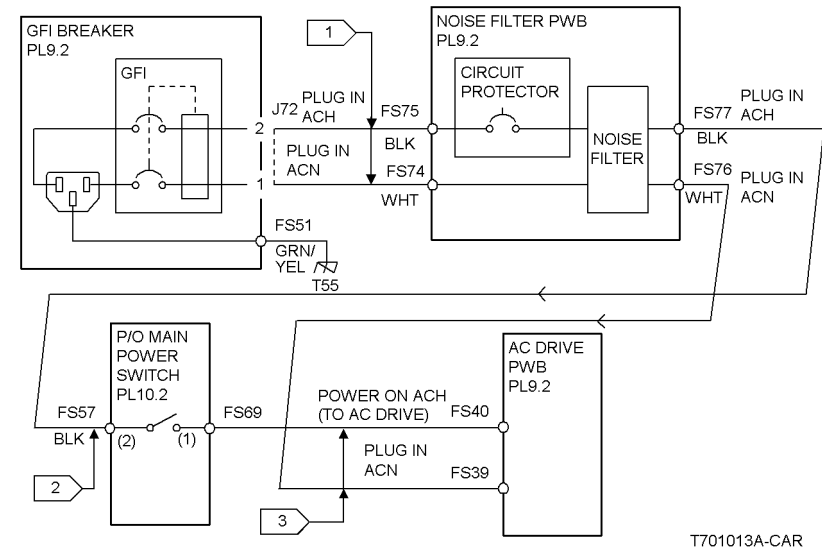


Figure 1 OF1-4 RAP Circuit Diagram - AC Power CD



## OF 1-5 AC Power Off RAP

**NOTE:** Normal operation for the printer when the power is switched off is for AC power to remain applied to all power supplies for approximately 6 seconds for DC 2240/1632, WC M24 and 25 seconds for the DC 3535

Use this RAP to troubleshoot problems with the machine when one of the following occurs:

- The machine does not switch off
- The machine switches off instantly when the power switch is switched off

### Initial Actions

Remove the Top Cover (REP 14.1). Ensure that the linkage for the Main Power Switch is functioning correctly (PL 10.2).

### Procedure

Switch on the power and allow the printer to reach the Ready state. Switch off the power. **The printer shuts down immediately. (Refer to Figure 1.)**

Y N

Check the following:

- Go to **Flag 4** and **Flag 5**. Check the wires for an open circuit.
- If the wires are good, go to **Flag 1** and check the wire for a short circuit to ground.
- Check for continuity across the Main Power Switch (FS68 to FS56) Replace the Main Power Switch if it is defective (PL 10.2).
- Replace the Relay PWB (PL 9.2).
- If the problem continues, replace the MCU PWB (PL 13.1).

Check the following:

- Go to **Flag 4** and **Flag 5**. Check the wires for a short circuit to ground.
- Go to **Flag 2** and **Flag 3**. Check the wires for an open circuit.
- Go to **Flag 1** and **Flag 6**. Check the wires for an open circuit.
- Replace the Relay PWB (PL 9.2).
- If the problem continues, replace the MCU PWB (PL 13.1).

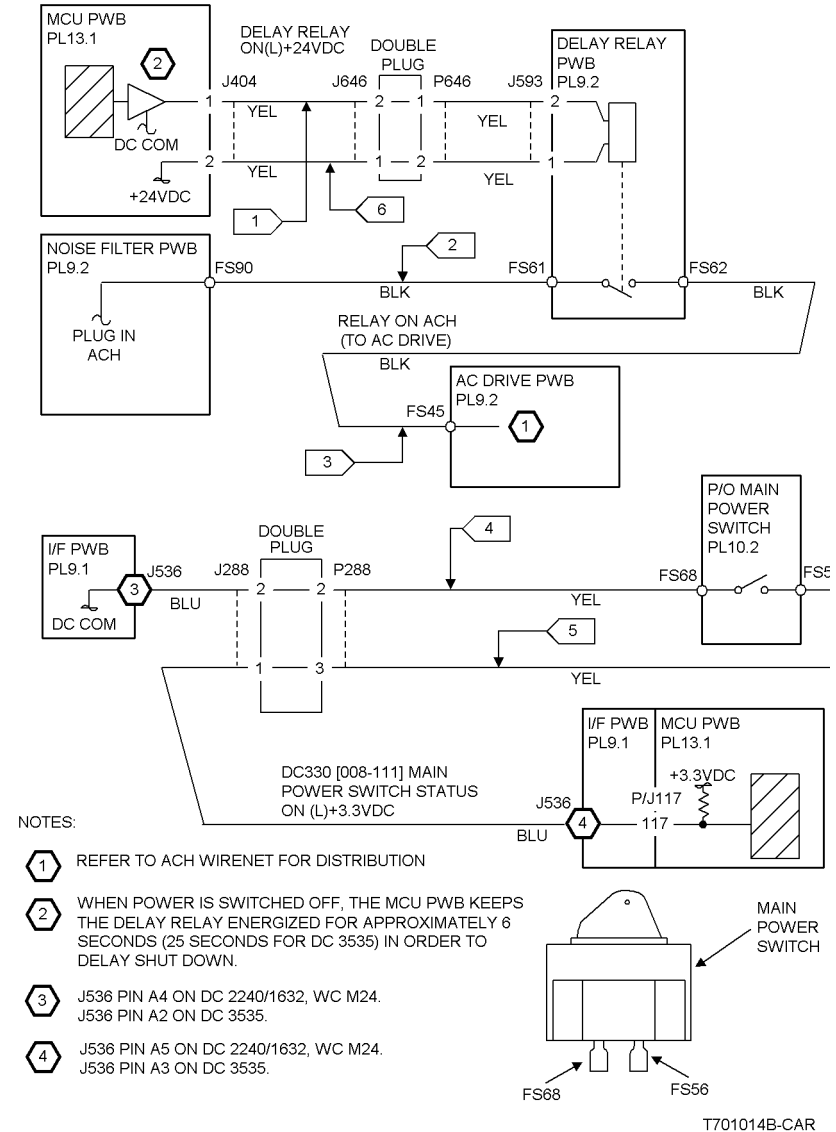


Figure 1 OF 1-5 RAP Circuit Diagram - AC Power ON



# OF 2-1 Dark / Blank Display

UI Display is dark with minimal legibility, or no text or graphics are visible.

## Initial Actions

Ensure all external cables and power cords are connected.

## Procedure

**NOTE:** If a Status Code is displayed, go to status code RAP.

There is some luminance in the UI display.

Y

N

Switch off the power. Listen to the cooling fans on the right side and at the rear of the machine and switch on the power. **Cooling fans are audible either momentarily or continuously.**

Y

N

There is a +5 VDC failure. Go to the [OF 1-2](#) RAP.

Y

N

Switch off the power. Remove the Platen Glass ([REP 6.2](#)) and the IPS Cover ([PL 18.3](#)). Switch on the power. **+24 VDC is measured between P/J720-1 and -5 on the IIT/IPS PWB.**

Y

N

Remove the IIT Top Cover ([REP 6.3](#)). **+24 VDC is measured between J702-1 and -5 on the IIT LVPS.**

Y

N

Y

N

Approximately **+3.7 VDC is measured between J705-3 on the IIT LVPS and GND.**

Y

N

Go to [Flag 7](#). Check the wire for an open circuit. If the wire is good, replace the ESS PWB ([PL 13.1](#)).

Y

N

**+5 VDC is measured between J705-4 and GND.**

Y

N

Go to [Flag 1](#). Check the wire for an open circuit. If the wire is good, replace the ESS PWB ([PL 13.1](#)).

Y

N

**AC Line Voltage is measured between P700/J2 on the IIT LVPS.**

Y

N

Ensure that the AC Harness ([PL 18.4](#)) between the IOT and the IIT is connected properly. If ok, go to [Flag 2](#). Check the wires for an open circuit.

Y

N

Go to [Flag 3](#). Check the wires for a short circuit. If the wires are OK, replace the IIT LVPS ([PL 18.4](#)).

Y

N

Go to [Flag 3](#). Check the wires for an open circuit.

Y

N

**+24 VDC is measured between J726-A2 and -A4 on the IIT/IPS PWB.**

Y

N

Replace the IIT/IPS PWB ([PL 18.3](#)).

Y

N

**+3.3 VDC is measured between J726-A6 and A8.**

A

Y

N

Go to [Flag 5](#). Check the wires for a short circuit. If the wires are OK, replace the IIT/IPS PWB ([PL 18.3](#)).

Y

N

**+5 VDC is measured between J726-A10 and -A9.**

Y

N

Go to [Flag 6](#). Check the wires for a short circuit. If the wires are OK, replace the IIT/IPS PWB ([PL 18.3](#)).

Y

N

Go to [Flag 4](#), [Flag 5](#), and [Flag 6](#). Check the wires for an open or short circuit. If the wires are good, replace the UI Assembly ([PL 18.2](#)).

Y

N

Replace the UI PWB ([PL 18.2](#)). If the problem continues, replace the VR PWB ([PL 18.2](#)).

Initial issue  
DC 3535/2240/1632, WC M24

09/03  
2-701

TONER

Status Indicator RAPs

www.tonerplus.com.ua

OF 2-1



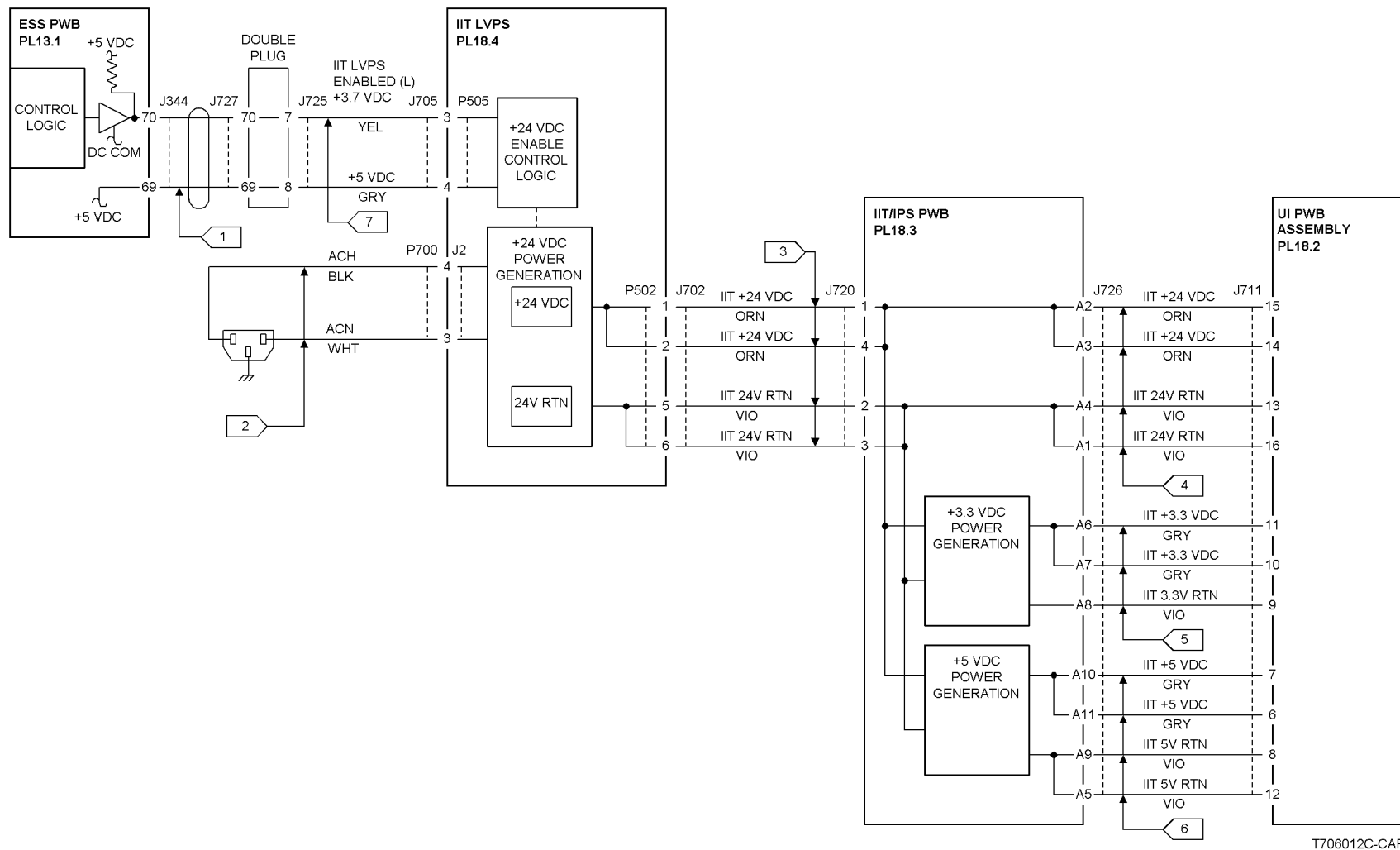


Figure 1 OF 2-1 RAP Circuit Diagram



## OF 17-1 Fax Module Checkout RAP

Use this RAP to troubleshoot failures on the Fax Module.

### Initial Actions

- Ensure that all cables are properly connected.
- Check cables for wear or damage.
- Ensure that the machine is not out of paper or toner and that there is no fault code displayed on the UI.

**NOTE:** Some fax related faults are not displayed on the UI. Print a Error History Report and check dC122 for faults not displayed. Troubleshoot any faults found in the Error History Report or dC122 before proceeding with this RAP.

### Procedure

On the UI, select **Menu**. The **Fax Icon** is visible.

**Y N**  
Remove the Rear Cover (Tray Module) (REP 14.9). **There is 5 VDC between CNP357-3 and GND (Figure 1).**

**Y N**  
**There is 5 VDC between P/J561-1 and GND.**

**Y N**  
Replace the Tray Module PWB (PL 15.9, PL 16.15).

Check connection between P/J561 and CNP357. Repair or replace as required.

**There is 3.3 VDC between CNP357-1 and 2 and GND.**

**Y N**  
**There is 3.3 VDC between P/J564-1 and 2 and GND.**

**Y N**  
Replace the Tray Module PWB (PL 15.9, PL 16.15).

Check connection between P/J564 and CNP357. Repair or replace as required.

- Replace the USB Cable (PL 9.4)
- Replace the Fax PWB (PL 9.4).
- Replace the Fax Interface (I/F) PWB (PL 13.1).
- Replace the Program ROM (PL 9.4).
- Replace the Data ROM (PL 9.4).

The **Fax Icon** is selectable.

**Y N**  
Remove the Rear Cover (Tray Module) (REP 14.9). **There is 3.3 VDC between CNP357-5 and GND (Figure 1).**

**Y N**  
**There is 3.3 VDC between P/J561-5 and GND.**

**Y N**  
Replace the Tray Module PWB (PL 15.9, PL 16.15).

Check connection between P/J561 and CNP357. Repair as required.

**A B**  
Replace the Fax PWB (PL 9.4).

Send a fax job to an operational fax machine. **The WC 24 transmits the fax.**

**Y N**  
Remove the Rear Cover (Tray Module) (REP 14.9). **There is 24 VDC between CNP357-7 and GND (Figure 1).**

**Y N**  
**There is 24 VDC between P/J561-7 and GND.**

**Y N**  
Replace the Tray Module PWB (PL 15.9, PL 16.15).

Check connection between CNP357 and P/J561. Repair or replace as required.

- If possible, connect a regular phone to the modular jack and check if you get a tone.
- Print the Expanded Features Settings list and check that the dial is appropriate. Correct settings as required.
- Perform GP 5 Relay On/Off test. If relay does not turn on, replace the NCU PWB (PL 9.4).

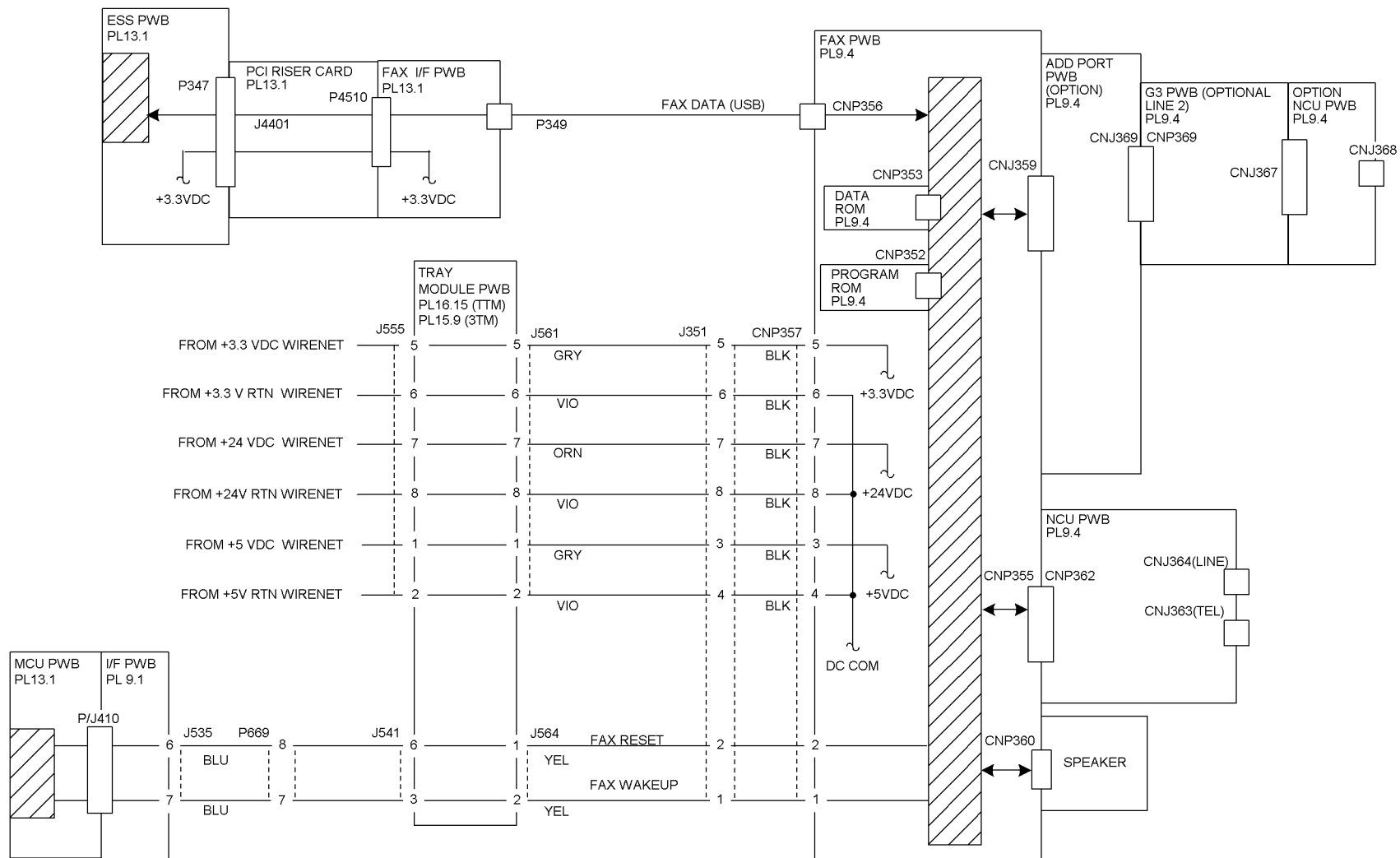
Send a fax from an operational fax machine to the WC 24. **The WC 24 receives the fax.**

- Y N**
- Ensure that the WC 24 is not in the System Administration Mode.
  - Ensure that the WC 24 Fax Receiving Mode is set to Auto Receive.
  - Check for intermittent connections.

The Fax Module appears to operate normally.

- Ensure that all cables are properly connected.
- Try to re send the customer job.
- Check for intermittent connections.
- Tell the customer to have the phone-line checked by their phone company.





T717003A-CAR

Figure 1 Fax Module RAP CD



## OF 99-1 Reflective Sensor RAP

Sensors consist of a light-emitting diode and a photo transistor. When energized, the light from the LED causes the photo transistor to conduct, drawing current through a pull-up resistor. The voltage drop across the resistor causes the input signal to the control logic to change from a high to a low.

Reflective sensors operate by light from the LED being reflected off the paper to the photo transistor, causing the output of the sensor to go to the low (L) state.

### Initial Actions

Ensure that the sensor is not actuated.

### Procedure

Enter the component control code indicated in the Procedure and/or Circuit Diagram of the RAP that sent you here. Actuate the sensor using a sheet of paper. **The display changes with each actuation.**

**Y N**  
Clean the sensor and then block and unblock it. **The display changes with each actuation.**

**Y N**  
Access to some sensors in this machine is difficult. Follow the **Y** leg if you can access the sensor connector. Follow the **N** leg if access is not possible. **The sensor connector is accessible.**

**Y N**  
Check the voltage at the output of the PWB or power supply (refer to the Circuit Diagram). In the example for this generic procedure (Figure 1), voltage is provided from J533 on the I/F PWB. Check for pull-up voltage for the output signal. This voltage will be either +5 VDC or +3.3 VDC depending on the circuit (refer to the Circuit Diagram for the correct voltage). **The voltage corresponds with the voltage shown in the Circuit Diagram.**

**Y N**  
Check for short circuit(s) that may be loading down the line. Check the power input to the PWB(s). If this does not resolve the problem, replace the PWB.

Refer to the Circuit Diagram. Check the wires from the PWB to the sensor for opens, shorts, or loose contacts. If the wires are OK, replace the sensor. If this does not resolve the problem, replace the PWB

**The display indicates a constant L.**

**Y N**  
Check for +5VDC to the sensor (typically pins 1 and 3 on a 3 pin connector). +5 VDC is present.

**Y N**  
Use the circuit diagram and/or the wirenets in Section 7 to trace the problem.

Disconnect the sensor. Use a jumper wire to connect the output wire from the sensor (typically pin 2 on a 3 pin connector) to DC COM or GND. **The display changes from H to L.**

**A B C**  
**Y N**  
There is either an open circuit or a failed PWB. Use the Circuit Diagram to trace the output wire to the PWB. If the wire is OK, replace the PWB.  
Replace the sensor.  
Disconnect the sensor. **The display indicates H.**  
**Y N**  
When sensors are unplugged, the input at the PWB should always be high if there is no harness short or PWB failure. Check the output wire from the sensor (typically pin 2 on a 3 pin connector) to the PWB for a short circuit. If the wire is good, replace the PWB. Figure 1 represents a typical sensor for this machine.  
The sensor is shorted. Replace the sensor.  
Look for unusual sources of contamination.

The sensor and the circuit appear to operate normally. Check the adjustment of the sensor. Clean the sensor. Check for intermittent connections, shorts, or open wires. If the problem continues, replace the sensor.

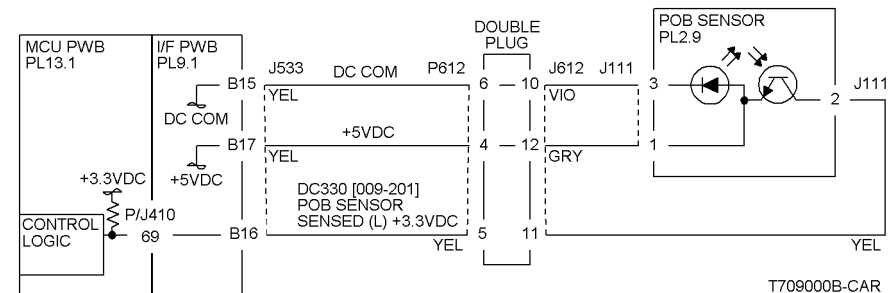


Figure 1 OF 99-1 RAP Circuit Diagram - Typical Reflective Sensor

**A B C**

Initial issue

DC 3535/2240/1632, WC M24

09/03

2-705







## OF 99-3 Switch

### Procedure

Enter **dC330** [XXX-XXX]. Actuate the switch. **The display changed.**

**Y N**  
Refer to **Figure 1**. There is **+3.5 / 5VDC** measured between Pin 2(+) of the Switch and **GND(-)**.

**Y N**  
Check the wire between the switch Pin 2 and the PWB Pin 3 for an open circuit and poor contact. If the check is OK, replace the PWB.

There is **+3.5 / 5VDC** measured between Pin 1(+) of the Switch and **GND(-)**.

**Y N**  
Replace the switch.

Check the wire between the PWB Pin 4 and the switch Pin 1 for an open circuit and poor contact. If the check is OK, replace the PWB.

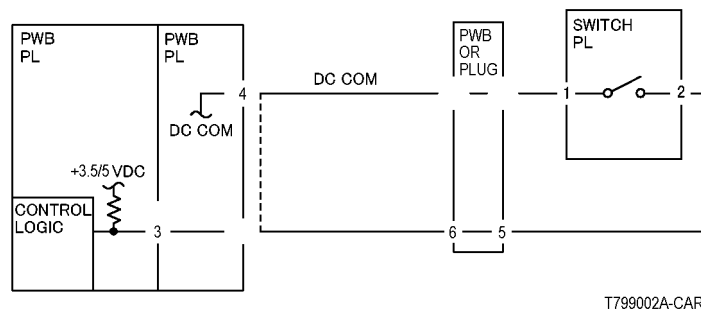
De-actuate the switch. **The display changed.**

**Y N**  
Disconnect the connector on the switch. **The display changed.**

**Y N**  
Check for a short between the switch Pin 2 and the PWB Pin 3. If the check is OK, replace the PWB.

Replace the switch.

Replace the switch.





## OF 99-4 Generic Solenoid/Clutch RAP

Solenoids and electric clutches are essentially electromagnets. Typically, a positive voltage is applied to one end of a coil, and a current driver is connected to the other end. Control Logic switches this driver to GND potential, actuating the magnet. Bi-directional solenoids have a bipolar driver connected to each end. One leg is switched to 24 VDC and the other to GND.

Figure 1 is a circuit diagram of a typical solenoid.

### Initial Actions

Ensure that there is no damage or binding in the solenoid or in any mechanical linkage. If there is an Adjustment for the clutch or solenoid, make sure that the procedure was performed correctly

### Procedure

The clutch/solenoid is always energized.

Y N

Enter the component control code (dC330) given in the RAP or the Circuit Diagram. Press the **Start** button **The Clutch or solenoid energizes.**

Y N

Press the **Stop** button **There is +24 VDC between the switched leg (J407 pin A6 in the example, Figure 1) of the control PWB and GND.**

Y N

**There is +24 VDC between the powered leg (J407 pin A7 in the example, Figure 1) of the control PWB and GND.**

Y N

Disconnect the connector (J407 in the example, Figure 1). **There is +24 VDC between the powered leg of the control PWB and GND.**

Y N

Refer to the 24 VDC wirenets. check the input power to the control PWB. **+24 VDC is present.**

Y N

Use the 24 VDC wirenets to troubleshoot the problem.

Replace the control PWB.

Check the wire in the powered leg of the circuit, (J407 pin A7 in the example, Figure 1) for a short circuit to GND. If the wire is OK, replace the clutch or solenoid.

Disconnect the connector (J407 in the example, Figure 1). Check continuity through the two wires and the clutch or solenoid. **There is less than 100 ohms between the two legs of the circuit.**

Y N

Disconnect the clutch or solenoid. Check continuity through the two wires and the clutch or solenoid. **There is less than 100 ohms across the clutch or solenoid.**

Y N

Replace the clutch or solenoid.

A

B

C

D

E

One of the two wires between the control PWB and the clutch or solenoid is open. Repair or replace the wiring as required.

Replace the control PWB.

Press the **Start** button. **There is less than 1 VDC between the switched leg of the control PWB and GND.**

Y N

Replace the PWB.

Replace the clutch or solenoid.

The clutch or solenoid appears to be functioning correctly. Refer to the Circuit Diagram for the RAP that sent you here. Check the wires for loose connections or damage that may cause intermittent operation. Perform any required adjustments.

There is a short circuit on the switched leg (J407 pin A6 in the example) from the solenoid or clutch. Check the wire for a short circuit to GND. If the wire is OK, replace the solenoid. If the problem persists, replace the controlling PWB.

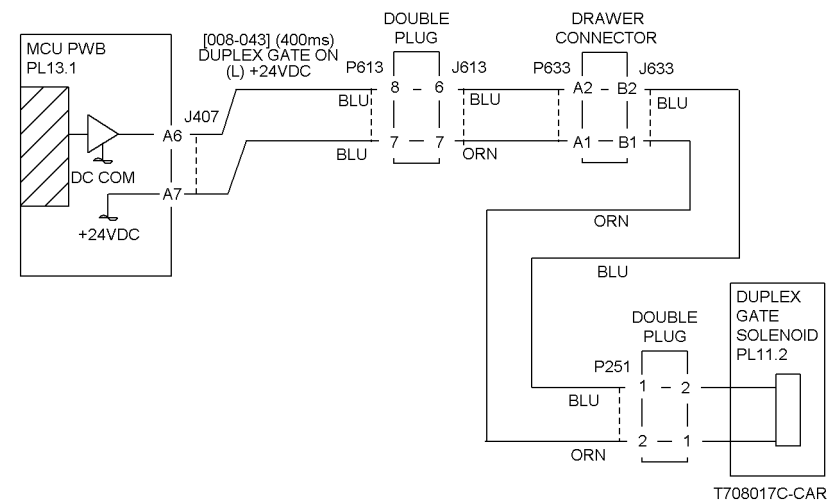


Figure 1 OF 99-4 RAP Circuit Diagram - Typical Solenoid/Clutch



## OF 99-6 2 Wire Motor Open

### Procedure

**NOTE:** Before performing this RAP, ensure that the motor is free to rotate.

Enter **dC330** [XXX-XXX].

Refer to **Figure 1**. There is **+24VDC** measured between **Pin 3(+)** of the **PWB** and **GND(-)**.

**Y** **N**

There is **+24VDC** measured between the **Motor Pin 2(+)** of the **Motor** and **GND(-)**.

**Y** **N**

There is **+24VDC** measured between the **Motor Pin 1(+)** of the **Motor** and **GND(-)**.

**Y** **N**

There is **+24VDC** measured between the **PWB Pin 4(+)** of the **PWB** and **GND(-)**.

**Y** **N**

Replace the **PWB**.

Check the wire between the **PWB Pin 4** and the **Motor Pin 1** for an open circuit or poor contact.

Replace the **motor**.

Check the wire between the **PWB Pin 3** and the **Motor Pin 2** for an open circuit or poor contact.

Replace the **PWB**.

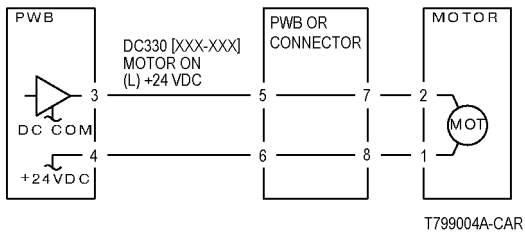


Figure 1 OF 99-6 RAP Circuit Diagram - Motor

## OF 99-7 2 Wire Motor On

### Procedure

Turn off the power. Remove the **PWB** connector. Refer to **Figure 1**. There is **10 Ohm's** or **less** measured between the **connector Pin 3** and the **frame**.

**Y** **N**

Replace the **PWB**.

Check the wire between the **connector Pin 3** and the **motor Pin 2** for a short circuit.

If the check is **OK**, replace the **motor**.

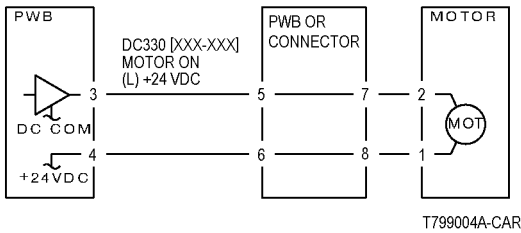


Figure 1 OF 99-7 RAP Circuit Diagram - Motor



## OF 99-8 Set Gate Solenoid Open

### Procedure

Refer to [Figure 1](#). There is +24VDC measured between the Nip/Release Solenoid Pin 1 (+) and GND (-).

Y N

There is +24VDC measured between the PWB Pin 5 (+) and GND(-).

Y N

Check +24VDC inputs on the PWB. If the check is OK, replace the PWB.

Check the wire between the PWB Pin 5 and the **Nip/Release Solenoid** Pin 1 for an open circuit or poor contact.

Enter [dC330](#) [XXX-XXX]. There is +24VDC measured between the PWB Pin 4 (+) and GND(-).

Y N

There is +24VDC measured between the Nip/Release Solenoid Pin 3 and GND

Y N

Replace the Nip/Release Solenoid.

Check the wire between the PWB Pin 4 and the **Nip/Release Solenoid** Pin 3 for an open circuit and poor contact.

Follow the following when the release caused a problem.

Go to the [dC330](#) [XXX-XXX]. There is +24VDC measured between the PWB Pin 6 (+) and GND(-).

Y N

There is +24VDC measured between the Nip/Release Solenoid Pin 2 (+) and GND (-)

Y N

Replace the Nip/Release Solenoid.

Check the wire between the PWB Pin 6 and the Nip/Release Solenoid Pin 2 for an open circuit or poor contact.

Replace the PWB.

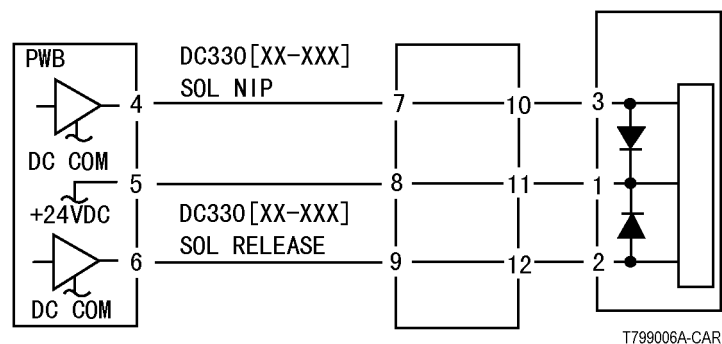


Figure 1 OF 99-8 RAP Circuit Diagram - Nip Solenoid



### Image Quality RAPs

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IBT Cleaner Streak .....	3-39







## IQ1 IOT Image Quality Entry RAP

The purpose of this RAP is to serve as the entrance vehicle into the Image Quality RAPs section. All Image Quality RAPs must be accessed through this RAP.

The RAP will have you evaluate the copies made during the Call Flow procedure for image quality defects. It will refer you to the Image Quality Analysis RAPs, the Image Quality Defect section in order to diagnose and repair any image quality problems.

### Initial Actions

Ask the customer SA to perform the Auto Gradation Adjustment if any of the following problems are reported for both copy and print:

- Incorrect colors
- Poor gray balance
- Colors have shifted over time
- Color densities too high or low

**NOTE:** Auto Gradation Adjustment (refer to **Machine Administration User Guide**) is a color calibration for the copier and printer. An Auto Gradation Adjustment compensates for differences between the actual and the expected (target) toner densities for each color. An Auto Gradation Adjustment should be performed whenever there is a noticeable change in the appearance (quality) of the output, particularly changes in color tones or densities. Performing an Auto Gradation Adjustment on a regular basis will help to maintain consistent color quality over time.

Since an Auto Gradation Adjustment can affect all jobs for all users, it is recommended that this procedure be performed only by the Machine Administrator.

If the customer is dissatisfied with machine output image quality, check machine customer selectable image quality settings on the UI and the Print Driver. Determine if adjustments to these settings should be made to tune image output to meet customer IQ requirements.

Refer the customer to user documentation to review the following image quality settings:

- Original Type
- Sharpness / saturation
- Image Quality Presets
- Auto Exposure
- Color Shift
- Light / Dark / Contrast
- Color Balance

Ensure that the correct image quality settings are selected for the paper type that the customer is using. Different image quality settings can be selected for Bond Paper, Plain Paper, Recycled Paper, and Custom Paper 1 to 5. Setting the correct image quality setting will produce the best quality of the output. Refer the customer SA to User Documentation to review the image quality settings on p 4-18 and 4-19.

Continue with the procedure if the problem remains.

### Procedure

Check for the presence of the defect in Copy mode and in Print mode. If the problem occurs in Copy mode only, go to the **IQ2** RAP.

For Image Quality Defects that exists on both copies and prints, go to **Table 1**. Examine the output for any of the listed defects. Perform the corrective action that is listed.

**Table 1 Image Quality Defects**

Defect - green indicates hotlink to image samples	Description	Corrective Action
<a href="#">Background</a>	Undesirable toner deposits on the copy or print. The toner deposits can be localized or may cover the entire copy or print. Depending on the density of the background, it is referred to as low, medium, high, or very high background. It may occur in all colors, single colors, or any combination of single colors.	Go to the <a href="#">IQ6</a> RAP
<a href="#">Cloud Defect</a>	Light areas in print that resemble clouds. May be accompanied by Wrinkled Image defect	Go to the <a href="#">IQ4</a> RAP
<a href="#">Color Misregistration</a>	Multi-colored images that should be superimposed are offset. This offset may be in the process direction or perpendicular to process direction.	Go to the <a href="#">IQ8</a> RAP
<a href="#">Deletions</a> <ul style="list-style-type: none"><li>• <a href="#">Debris-Centered Deletions</a></li><li>• <a href="#">Streak Deletion in Process Direction</a></li><li>• Spot Deletions</li></ul>	The undesirable absence of toner from the copy or print. May show as white, light, or untrue colored areas. The most common causes are "tenting" of paper from mishandling or moisture, or defects in the Transfer Belt. <ul style="list-style-type: none"><li>• <a href="#">Debris-Centered</a>: Deletions in the areas surrounding toner agglomerates.</li><li>• <a href="#">Process Direction Streak</a>: A deletion in the form of a single streak that runs from the lead edge to the trail edge of the copy.</li><li>• Spot Deletion: Deletion caused by system contamination, typically from paper.</li></ul>	Go to the <a href="#">IQ7</a> RAP  (For process direction streak deletion, go to the <a href="#">IQ12</a> RAP) Go to the <a href="#">IQ7</a> RAP
Fuser Offset	Areas of poorly-fused toner are lifted from one area of a print and deposited on a different area, or onto a subsequent print.	Go to the <a href="#">IQ16</a> RAP



Table 1 Image Quality Defects

Defect - green indicates hotlink to image samples	Description	Corrective Action
<a href="#">High Frequency Bands</a>	Repeating interval bands that are most noticeable in low density (20-30%) halftone areas of the copy. These bands run perpendicular to process direction.	Go to the <a href="#">IQ14</a> RAP
<a href="#">IBT Cleaner Streak</a>	Multi-color streaks, sometimes LE-TE, sometimes shorter. May have registration chevron pattern visible.	Go to the <a href="#">IQ12</a> RAP
<a href="#">Irregular Process Direction Streak</a>	Streaks: Usually medium-width streaks of (or shifts in) color most noticeable in low density 20-30%) halftone areas of the copy. A deletion in the form of a single streak that runs from the lead edge to the trail edge of the copy.	Go to the <a href="#">IQ12</a> RAP
Lead Edge Toner Smear (fused)	Smears of fused toner on the lead edge of prints	Go to the <a href="#">IQ12</a> RAP
Lead Edge Toner Smear (unfused)	Smears of unfused toner on the lead edge of prints	Go to the <a href="#">IQ13</a> RAP
<a href="#">Low Image Density</a>	A condition that results when too little toner of a single color or combination of colors is developed on the copy or print. This results in lighter copies or prints for the single-color toner or the color that results from the combination of color toners.	For hardware related problems, go to the <a href="#">IQ3</a> RAP. For setup related problems, go to <a href="#">ADJ 9.15</a> .
Misregistration/Skew	The position and/or alignment of the image relative to the top edge and side edge of the paper is not within specification.	Go to the <a href="#">IQ9</a> RAP
Missing Colors	One or more of the primary colors are missing from the image.	Go to the <a href="#">IQ17</a> RAP
<a href="#">Mottle</a>	Areas of solid, or high density coverage that are reproduced with a blotchy, non-uniform appearance.	Go to the <a href="#">IQ15</a> RAP
<a href="#">Regular (Repeating) Bands, Streaks, Spots, or Smears</a>	A defect that repeats at an interval from 14 to 264 mm, is most noticeable in low density (20-40%) halftone areas of the copy, and runs perpendicular to process direction. Lines and bands are generally uniform in shape from one end to the other. Streaks are generally shorter than lines and are of nonuniform width along their length. They may have a more ragged or fuzzy appearance than lines.	Go to the <a href="#">IQ14</a> RAP
<a href="#">Residual Image</a>	A toner image that remains on the photoreceptor or Transfer Belt after cleaning. The next image is placed on top of the residual image and both images are transferred to the next copy.	Go to the <a href="#">IQ5</a> RAP
Spots	Generally circular in shape, these defects can be caused by an absence of toner in a desired area, or a deposit of toner in an undesired area	Go to the <a href="#">IQ16</a> RAP
Unfused prints	Image can be rubbed off with little or no pressure	Go to the <a href="#">IQ13</a> RAP
<a href="#">Wrinkled Image</a>	Areas of prints (usually 11x17 in./A3) have distinctive "worm track" patterns, and/or wrinkles in the paper itself	Go to the <a href="#">IQ4</a> RAP



## IQ2 IIT Image Quality Entry RAP

This RAP is for troubleshooting IIT (Scanner/ADF) problems only. Before proceeding, verify that the defect is present in Copy mode only. If the defect is present in Print mode, go to the [IQ1](#) RAP.

### Initial Actions

Clean the Lens, the top and bottom surface of the Platen Glass, and all Mirrors with Lens and Mirror Cleaner and a soft, lint-free cloth.

### Procedure

Compare the defective copies with the descriptions listed in [Table 1](#). Perform the corrective action listed for that defect.

Table 1

Defect	Corrective Action
Background	Clean the Platen Belt. Calibrate the IIT ( <a href="#">ADJ 9.7</a> ).
Blurred or Streaked Copy	Ensure that the Platen Glass is installed correctly. Check/adjust the carriage alignment ( <a href="#">ADJ 6.1</a> ).
R/E error	Check/adjust IIT magnification ( <a href="#">ADJ 9.12</a> ).
Deletions	Clean the Lens, the top and bottom surface of the Platen Glass, and all Mirrors with Lens and Mirror Cleaner and a soft, lint-free cloth. If the problem persists, replace the Lens Kit ( <a href="#">PL 18.4</a> ).
Misregistration/Skew	Go to the <a href="#">IQ9</a> RAP.
Moire Patterns in the image areas of the print that have the appearance of a screen or grid overlaying the image. The pattern may be uniform or nonuniform in area or shape.	<ul style="list-style-type: none"><li>• Switch between photo modes and, if necessary, original types, to determine which mode minimizes the defect.</li><li>• Decrease the <b>Sharpness</b> level.</li><li>• Reduce or enlarge the copy slightly.</li><li>• Rotate the original on the platen by 90 degrees.</li></ul>
Newton Rings Repetitive, irregular-shaped marks that occur when making copies of glossy photographs. These marks are most noticeable in large low-density or highlight areas.	Clean the Document Glass Place a transparency between the document and the glass



## IQ3 Low Image Density RAP

This RAP troubleshoots hardware-related causes of output images showing image density lower than specification. For Light images due to setup problems, refer to [ADJ 9.15](#).

### Initial Actions

- Perform [IQ1](#) IOT Image Quality Entry RAP first.
- Clean the ROS windows.
- Replace the paper in use with fresh, dry paper of the correct specification.
- Determine if the Drum Cartridge or any of the Toner Cartridges are approaching end-of-life. Replace if necessary.
- If the problem occurs with black images or text only, check that the value in NVM location 752-324 is 0.
- If the problem occurs in Copy mode only, check that the DADF is functional. Ensure that NVM loc. 715-400 = 1.
- Perform Max Setup ([ADJ 9.1](#)). If this does not resolve the problem, continue with this RAP.

### Procedure

Go to [dC612](#). Print Test pattern 12. **The defect involves a single color.**

Y N

Go to [dC612](#). Print Test pattern 12. Open the Front Door in the middle of the print job (approximately 7 seconds after selecting Start). Extend the IBT. **There is a good toner image on the Transfer Belt.**

Y N

Go to the [IQ21](#) RAP to troubleshoot the Developer Bias circuit. If this does not resolve the problem, go to the [IQ20](#) RAP to check the 1st BTR bias.  
If the problem continues, check the ROS for contamination of the windows or misalignment.

Check the 2nd BTR for damage or incorrect installation. Go to the [IQ22](#) RAP to check the Backup Roll bias. If the problem continues, replace 2nd BTR Assembly ([PL 7.1](#)). If this does not resolve the problem, replace the Transfer Belt ([PL 5.3](#)).

Swap the affected Drum Cartridge with an adjacent unit. Print Test Pattern 12. **The defect moved to the new color.**

Y N

Go to the [IQ21](#) RAP to check the Developer Bias. If this does not resolve the problem, go to the [IQ20](#) RAP to check the 1st BTR bias. If the problem continues, replace the Developer for the affected color ([PL 6.2](#)). If this does not resolve the problem, replace the ATC Sensor for the affected color ([PL 6.2](#)).

Replace the Drum Cartridge (see [Machine Consumables](#) in Section 6).

## IQ4 Wrinkled Image/Paper RAP

Areas of prints (usually 11x17 in./A3) have distinctive “worm track” patterns or light “cloudy” areas in the image. Actual wrinkles in the paper itself can also occur.

### Initial Actions

**NOTE:** The following factors will increase the likelihood of this problem:

- *Lighter weight papers.*
- *Larger papers.*
- *Short-grain 11x17 in / A3 papers.*
- *Old (not freshly opened) paper.*
- *2 sided printing*
- *Fuser with 1100 or more hours of operating life.*

Make the following modifications to the copy/print jobs if possible:

- Ensure that the paper is dry and fresh.
- Use heavier weight paper
- Use long-grain paper.

### Procedure

If the problem persists after performing the Initial Actions, set NVM locations 746-409 (Output Remote for DTS normal-speed Side2) and 746-413 (Output Remote for DTS high-speed Side2) to 0, to attempt to cause more uniform paper stripping. If the problem remains, replace the Fuser ([PL 7.1](#)).



## IQ5 Residual Image (Ghosting) RAP

### Initial Actions

- Check the end-of-life counter for the Drum Cartridge. If the unit is at or near end-of-life, replace the Drum Cartridge (see [Machine Consumables](#) in Section 6).

**NOTE:** Some ghosting on transparencies is unavoidable.

- If the problem occurs only with certain types of media, ensure that the media in use is within specification, and that the customer is aware of correct operation of print driver.
- If the distance between the intended image and the residual image has a fixed rate of repetition, go to the [IQ14](#) RAP. Return to this procedure if the problem persists.

### Procedure

The problem is with a single primary color

Y N

Remove the Fuser. Examine the Heat Roll and Pressure Roll for evidence of toner offsetting. **There is Toner adhering to the Heat Roll.**

Y N

#### CAUTION

*Do not attempt to clean the cleaning blade. It WILL be damaged if any wiping or excessive pressure is applied.*

Check for a residual image on the Transfer Belt. Repair or replace the IBT Cleaner Assembly ([PL 5.3](#)) as required.

Check the 2nd BTR for contamination. Clean/replace as required

Clean the Heat Roll. If the problem persists, replace the Fuser ([PL 7.1](#)).

Check the Erase Lamp for the affected color:

- Enter dC330 [009-045] (C, Y, or M), or [009-042] (K), as appropriate.
- Remove the Drum cartridge for the affected color.
- check for light along the mounting rail left side

The Erase lamp is lit.

Y N

Go to [Flag 1](#) (C), [Flag 2](#) (Y), [Flag 3](#) (M), or [Flag 4](#) (K). Check for an open circuit. If the wires are OK, replace the Erase Lamp ([PL 4.2](#)) for the affected color. If the problem persists, Replace the MCU PWB ([PL 13.1](#)).

Go to the [IQ21](#) RAP. Check for a short circuit in the Developer bias circuit of the affected color.



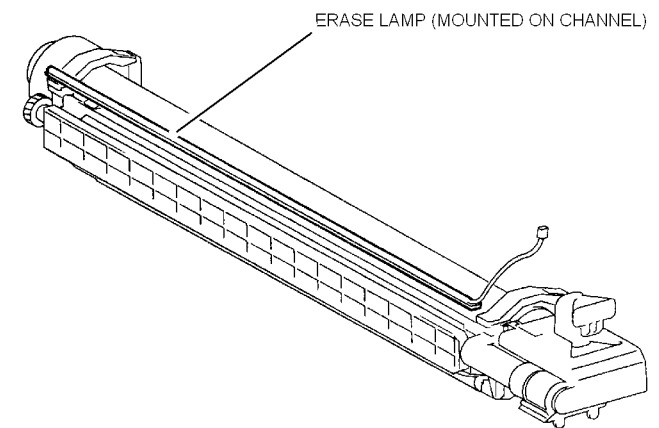
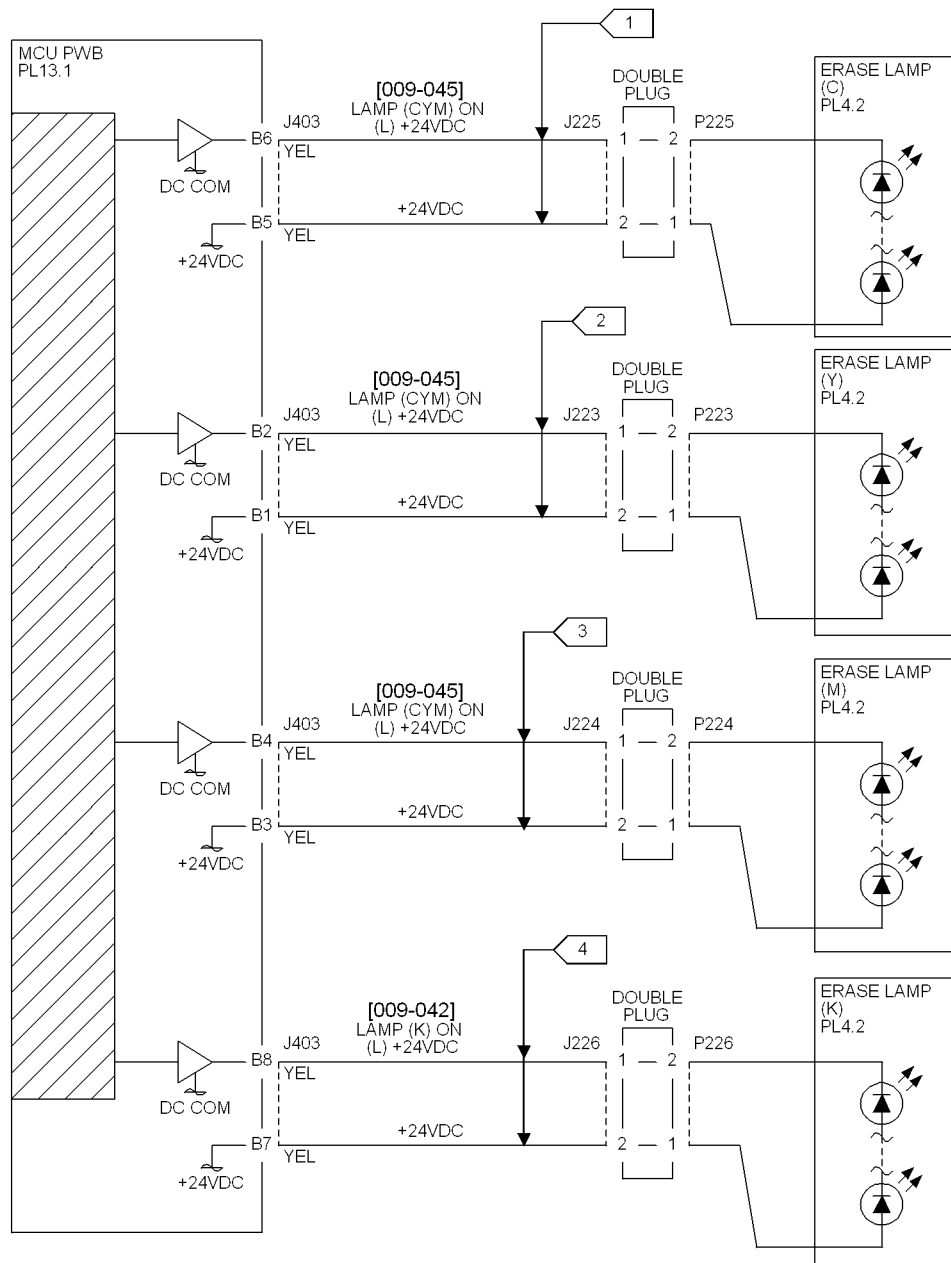


Figure 1 IQ5 RAP Circuit Diagram



## IQ6 IOT Background RAP

### Initial Actions

- Perform [IQ1](#) IOT Image Quality Entry RAP first.
- Perform Max Setup ([ADJ 9.1](#)). If this does not resolve the problem, continue with this RAP.

**NOTE:** Some background is unavoidable on certain media, such as heavyweight paper and transparencies. Ensure that the customer selects the correct settings on the UI and print driver.

### Procedure

The problem is a yellow or green background that started after Auto Gradation was performed.

Y N

The problem is high density, single-color background.

Y N

Examine the face of the ADC Sensor. **The ADC Sensor is clean.**

Y N

Go to the [9-684](#) RAP to troubleshoot the ADC Sensor Solenoid.

Examine the Transfer Belt for excessive dirt, damage, or uncleaned toner. **The Belt is clean.**

Y N

#### CAUTION

*Do not attempt to clean the cleaning blade. It WILL be damaged if any wiping or excessive pressure is applied.*

Check the IBT Cleaner Assembly for damage or wear. Clean or replace as required ([PL 7.1](#)).

#### WARNING

##### HIGH VOLTAGE!

**Exercise care when making the voltage check in the following steps.**

Enter [dC140](#) [09-026]. Measure the voltage from P/J 580, pins 1, 3, 5, and 7. **The voltage is approximately -540 VDC on all pins.**

Y N

Go to the [IQ21](#) RAP to troubleshoot the Developer bias circuit.

Replace the Transfer Belt ([PL 5.3](#)). If this does not resolve the problem, replace the 2nd BTR ([PL 2.8](#)). If the problem persists, replace the MCU PWB ([PL 13.1](#)).

The background is very high and even density, and covers the entire sheet (no edge erase).

Y N

Check the following:

- Check the end-of-life counter for the Toner Cartridge and Drum Cartridge for the affected color. Replace if at or near end-of-life (see [Machine Consumables](#) in Section 6).
- If the problem continues, examine the Developer Housing for the affected color. Check for toner bridging, uneven brush, or loose High Voltage terminals. Clean, repair, or replace as required ([PL 6.2](#)).

A

B

- If the problem persists, replace the ESS PWB ([PL 13.1](#)).

Go to the [IQ23](#) RAP.

Perform the following:

- Check the following NVM locations:
  - 700-397 = 44 for XC (8.5x11 paper); 5 for XE (A4 paper)
  - 701-912 = 1
  - 701-924 = 0
  - 701-929 = 0
  - 715-144 = 2 for XC (Color Expressions paper); 4 for XE (ColorTech+ paper)
  - 715-400 = 1
- Perform Max Setup ([ADJ 9.1](#)). Ensure that the IIT Calibration ([ADJ 9.7](#)) is performed per the instructions, and that the specified paper (XC = Color Expressions paper; XE = ColorTech+ paper), and correct Color Test Pattern ([Product Tools and Test Patterns](#)) are used.

A B

Initial issue

DC 3535/2240/1632, WC M24

09/03

3-9



## IQ7 Deletions RAP

### Initial Actions

Reload with fresh, dry paper of the correct specifications. Paper contaminants (such as fibers or other particles) may cause spot deletions by interfering with the second transfer. If the problem occurs with heavyweight paper, ensure that the correct selections are being made on the print driver and/or UI. If the problem is not resolved, continue with this RAP.

**NOTE:** Small white deletions with a sharp edge are usually caused by Fuser offsetting. Go to the [IQ16 Spots RAP](#).

### Procedure

The problem is **Debris-Centered Deletions**.

- Y N**  
Enter [dC612](#). Print Test Pattern 2 at 70% coverage for each color. **The defect is present for all colors.**
- Y N**  
Make several prints of the Test Pattern in the affected color. **The defect is present in approximately the same location on all letter-size prints.**
- Y N**  
Remove the Drum cartridge for the affected color. Check for light from the Erase Lamp along the mounting rail left side **The Erase lamp is lit.**
- Y N**  
Examine the surface of the Drum Cartridge. Check for dents, scratches, or contamination such as fingerprints, etc. **The drum is free from damage.**
- Y N**  
Clean or replace the Drum Cartridge ([Machine Consumables](#)).
- Switch the affected Drum Cartridge with an adjacent unit. **The problem moves with the cartridge.**
- Y N**  
Go to the [IQ20](#) RAP and check Flags 1 through 3 for a loose, corroded, or damaged connection.  
Replace the Developer ([PL 6.2](#)) for the affected color.
- Replace the Drum Cartridge (see [Machine Consumables](#) in Section 6).
- Go to [Flag 1](#) (C), [Flag 2](#) (Y), [Flag 3](#) (M), or [Flag 4](#) (K). Check for a short circuit. If the wires are OK, replace the Erase Lamp for the affected color. If the problem persists, Replace the MCU PWB ([PL 13.1](#)).
- Remove the ROS. Examine the ROS windows for dirt or damage. Clean or replace as required [PL 3.1](#)).
- Check the Transfer Belt ([PL 5.3](#)) for dirt, damage, or contamination. Clean/replace as required.
- Check the 2nd BTR ([PL 2.8](#)) for damage, wear or surface contamination. Clean or replace if required.
- Examine the spot in the center of the DCD. Replace the Developer ([PL 6.2](#)) and Toner Cartridge for the affected color. If the problem persists, replace the Developer Housing for the affected color ([PL 6.2](#)).



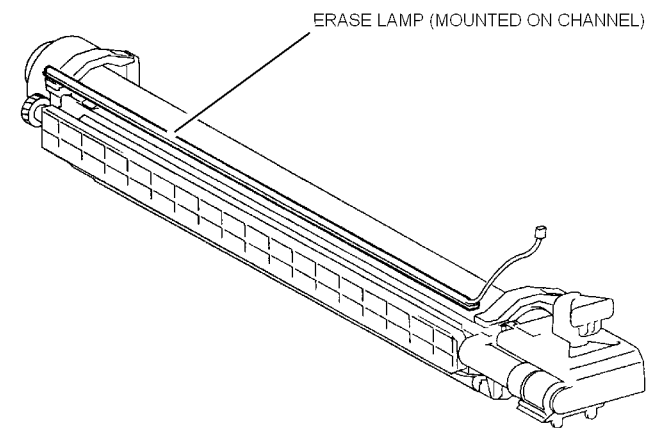
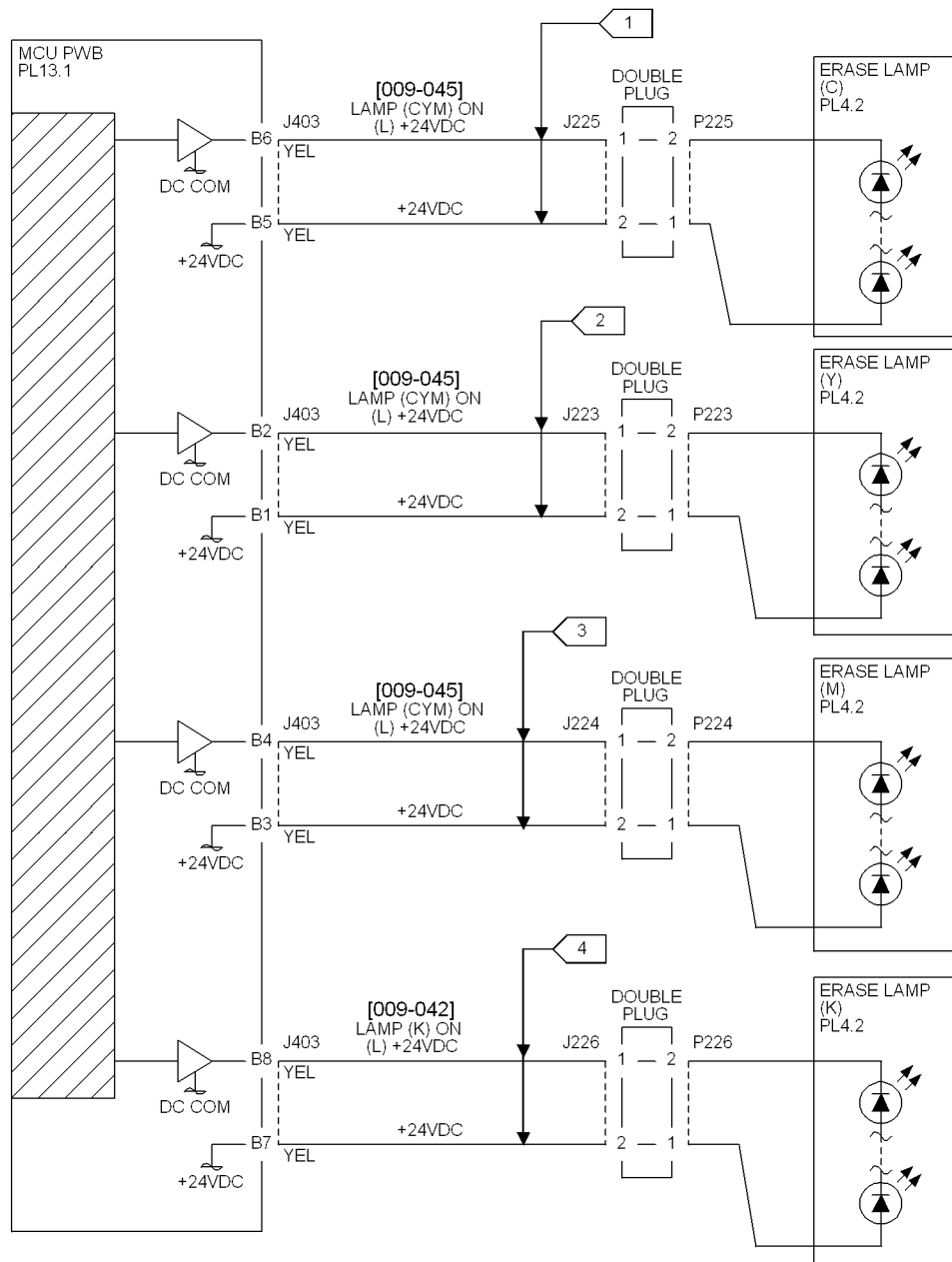


Figure 1 IQ7 RAP Circuit Diagram



## IQ8 Color-to-Color Misregistration RAP

### Initial Actions

Adjust the color registration ([ADJ 9.6](#)). If the problem remains, continue with this procedure.

Check the fault history for [4-640](#), [4-641](#), or [4-642](#) faults.

### Procedure

**The problem is an incorrect horizontal and/or vertical positioning of one or more of the four colors.**

Y   N

Check that the ROS is securely mounted and that the ROS window is not dirty or damaged. If the problem persists, replace the ROS ([PL 3.1](#)).

Check the mounting of the Developer Housing for the affected color. Ensure that it is installed correctly and that it is free from damage. Repair or replace as required ([PL 6.2](#)).



## IQ9 Skew/Misregistration RAP

This RAP is used when Skew, System Registration, or Magnification are out of specification. For Color-to-Color-Misregistration, go to the [IQ8 RAP](#).

### Initial Actions

Load some new, dry 24 lb. 11X17/A3 Xerox COLOR Xpressions (NASG), or 90 GSM Colortech + (ESG) into each paper tray (use 8.5X11/A4 in Tray 1). Make 3 full color copies from each paper tray. Mark the appropriate paper tray on these copies.

### Procedure

**The problem is still present when using the proper paper.**

Y N

Explain to the customer that new, dry, 24 lb. Xerox COLOR Xpressions (NASG), or 90 GSM Colortech + (ESG) paper is the specified paper for use in the DocuColor 3535/1632/2240, WC M24.

**The problem occurs only in the printer mode.**

Y N

**The defect occurs when the document is manually registered on the platen glass.**

Y N

Ensure that the Document Transport Belt is clean. Check the Document Handler Adjustments ([ADJ 5.1](#) through [ADJ 5.7](#)). If the problem continues, check the DADF drive rolls and pinch rolls for wear or glossing.

**The problem is Skew**

Y N

**The problem is Misregistration**

Y N

Adjust the IIT Vertical/Horizontal Magnification ([ADJ 9.12](#)) and the IOT Lead Edge/Side Edge Registration ([ADJ 9.9](#)).

Enter [dC612](#). Select Pattern 3. **Misregistration is present on the copy**

Y N

Adjust the IOT Lead Edge/Side Edge Registration ([ADJ 9.9](#)), then the IIT Lead Edge and Side Edge Registration ([ADJ 9.10](#) and [ADJ 9.11](#)).

**The defect occurred on copies from all five paper trays.**

Y N

Check the IOT Lead Edge/Side Edge Registration ([ADJ 9.9](#)) for that tray. Check the feeder for the affected tray for wear, slipping, damage, or contamination.

- Tray 1 Feeder ([PL 2.4](#))
- Tray 2 Feeder ([PL 16.7](#))
- Tray 3 Feeder ([PL 16.9](#))
- Tray 4 Feeder ([PL 16.11](#))
- Tray 5 Feed Assembly ([PL 2.14](#))

Registration varies from copy to copy.

A B

Y N

Go to [ADJ 9.9](#), Lead/Side Edge Adjustment.

Check the components in the Registration Transport Assembly ([PL 2.6](#)) for wear, slipping, damage, or contamination. Clean/replace as required

**The defect occurred on copies from all five paper trays.**

Y N

Check the feeder for the affected tray for wear, slipping, damage, or contamination.

- Tray 1 Feeder ([PL 2.4](#))
- Tray 2 Feeder ([PL 16.7](#))
- Tray 3 Feeder ([PL 16.9](#))
- Tray 4 Feeder ([PL 16.11](#))
- Tray 5 Feed Assembly ([PL 2.14](#))

Check the IOT Lead Edge/Side Edge Registration ([ADJ 9.9](#)) for that tray.

Check the components in the Registration Transport Assembly ([PL 2.6](#)) and Left Cover ([PL 2.8](#)) for wear, slipping, damage, or contamination. Ensure that the Registration Chute ([PL 2.8](#)) is not binding. Clean/replace as required.

**The problem occurs on all jobs.**

Y N

Have the customer re-evaluate affected jobs and resend.

DC 3535: Refer to the DFE Service Guide.

A B

Initial issue

DC 3535/2240/1632, WC M24

09/03

3-13



## IQ12 Process Direction Bands, Streaks, and Smears RAP

### Initial Actions

- Clean the Fuser. Check the metal stripper baffle in the Fuser for contamination.
- Check the 2nd BTR and the Detack Sawtooth for Toner contamination.

### Procedure

**NOTE:** The repetition rate for Transfer Belt defects varies considerably, depending on paper size and mode of operation. The defect may appear as frequently as every 3rd sheet, or may only occur every 14 sheets.

The defect occurs in approximately the same position IB to OB on multiple prints.

Y N

If the defect occurs intermittently, examine the Developer Housings for evidence of toner clumping. If clumping is found, replace the Developer (PL 6.2). If this does not resolve the problem, replace the Developer Housing (PL 6.2).

The defect resembles the IBT Cleaner Streak defect.

Y N

The defect is a full-width (LE - TE) Streak Deletion in Process Direction.

Y N

Check the following:

- Remove the Fuser Assembly. Examine the Heat Roll for damage or contamination. Clean or replace as required (PL 7.1).
- Check the Developer Housing (PL 6.2). Repair or replace as required.
- If the problem is related to a single color, replace the Drum Cartridge (see Machine Consumables in Section 6).

Enter dC612. Print Test Pattern 2 (halftone) at 40% coverage for each color. The defect is present for all colors.

Y N

- Check the ROS window for damage or contamination. Clean or replace as required.
- Check Drum Cartridge for affected color. Check for damage or contamination to the BCR.
- Go to the IQ20 RAP to check the 1st BTR bias circuit for the affected color
- Replace the Developer (PL 6.2) for the affected color. Check the housing for damage or toner clumping.

### CAUTION

*Do not attempt to clean the cleaning blade. It WILL be damaged if any wiping or excessive pressure is applied.*

Remove the IBT Cleaner Assembly (PL 5.3). Inspect the cleaning blade and Mylar seal for damage. Clean Mylar shield, or replace assembly as required.

If the IBT Cleaner Assembly is OK, check the Transfer Belt (PL 5.3) for damage or contamination. Ensure that there is no debris or loose wiring, etc. in contact with the belt. Clean or replace as required.

A

Check the IBT Cleaner Assembly; check for toner buildup on the top side of the Cleaner Blade that contacts the IBT Belt. Replace the IBT Cleaner Assy if required (PL 5.3). Ensure that the blade and the Mylar backing are free from damage. Check that the auger turns freely. Clean, repair or replace as required.

A



## IQ13 Unfused Copy/Toner Offset RAP

### Initial Actions

- Replace the paper in use with fresh, dry paper of the correct specification.
- Check the post-Fuser transport areas for dirt.
- Ensure that the media being used matches the settings on the UI screen or print driver. Using the next heavier setting may resolve the problem.
- If the Key Operator/Administrator has configured certain trays for a specific type of media, ensure that the specified media is actually loaded in those trays.

### Procedure

Check the following:

- Check the Sensor Assembly (PL 7.2) for contamination or incorrect mounting. Clean, repair, or replace as required.
- Check the Fuser (PL 7.1) for damage, toner offsetting, paper wrap, or incorrect installation. Clean or replace as required.

After resolving the problem, make 10 blank copies (letter size, Black mode) to clean residual toner from the Fuser Heat Roll and Fuser Belt. If the problem persists, or if Lead Edge contamination is present, remove the Fuser Exit Chute (PL 7.2) and clean any toner or paper residue from the Exit Chute and the metal stripper baffle.

## IQ14 Repeating Bands, Streaks, Spots, and Smears RAP

### Procedure

Measure the distance between the repeating defects. Locate the distance on the table below. Perform the indicated repair actions

Table 1 Repeating Defects

Repetition spacing	Component(s)	Repair Actions
<4 mm.	High Frequency Banding	<ul style="list-style-type: none"><li>• Check the seating of all NVM and RAM PWBs.</li><li>• Check for loose connections at ESS PWB (PL 13.1) and HDD.</li><li>• If the problem occurs in Copy mode, check for loose connections between the IIT/IPS PWB and the ESS PWB. Refer to BSD 6.2 (Figure 2)</li><li>• If the problem persists, replace the ROS</li></ul>
28.3 mm.	Developer Mag Roll	Check Developer roll bias for floating or shorting out. Replace Developer Housing (PL 6.2) or Developer Material if required.
44 mm.	Drum Cartridge (BCR)	Check for damage or contamination on BCR. Clean or replace the Drum Cartridge (see Machine Consumables in Section 6).
84 mm.	Fuser Heat Roll	Remove the Fuser Assembly. Check the Heat Roll for damage (nicks, wear, or cuts) or contamination. Clean or replace as required (PL 7.1).
88 mm.	BTR 2 Backup Roll BTR 2 Roll	Check the 2nd BTR Assembly for damage or contamination. Clean, repair or replace as required (PL 2.8). Replace the Transfer Belt (PL 5.3).
94 mm.	Drum Cartridge Fuser Belt	Single Color - Replace the Drum Cartridge (see Machine Consumables in Section 6). All Colors - Remove the Fuser Assembly. Check the Heat Roll for damage (nicks, wear, or cuts) or contamination. Clean or replace as required (PL 7.1).



## IQ15 Mottle RAP

This RAP troubleshoots the causes of output images showing image density that varies from inboard to outboard edges, or randomly throughout the print.

### Initial Actions

- Replace the paper in use with fresh, dry paper of the correct specification. Ensure that the loaded media matches the UI or print driver settings.
- Determine if the Drum Cartridge or any of the Toner Cartridges are approaching end-of-life. Replace if necessary.
- Perform Max Setup ([ADJ 9.1](#)). If this does not resolve the problem, continue with this RAP.
- **For DC 2240/1632, WC M24only:** If mottle occurs mostly on heavyweight (HW1) or extra-heavyweight (HW2) paper stock, go to [Table 1](#). Verify with the customer what type of paper they use (HW1 and/or 2, Coated and/or Uncoated) and choose the applicable adjustment from the table. If the problem persists, continue with this RAP.

### Procedure

Enter [dC612](#). Make a print of Test Pattern 22. **The defect involves a single color.**

Y N

**The problem occurs with a specific type or weight of paper only.**

Y N

Make a print of the Test Page. Open the Front Door when the lead edge of the print begins to protrude from the Fuser Exit nip. Open the Fuser and examine the partially-fused sheet. **The defect is present in both the fused and unfused portion of the sheet.**

Y N

Clean or replace the Fuser ([PL 7.1](#)).

Enter [dC612](#). Make a print of Test Pattern 22. As the print is being processed, open the Front Door. Examine the image on the Transfer Belt. **The image on the belt has acceptable density.**

Y N

Replace the Transfer Belt ([PL 5.3](#)).

Go to the [IQ22](#) RAP to check 2nd BTR Backup Roll bias/contacts.

Clean/replace the 2nd BTR Assembly ([PL 2.8](#)).

If the problem continues, replace the Transfer Belt ([PL 5.3](#)).

### CAUTION

*Performing the adjustments in the following step may not eliminate mottle completely, and/or may introduce other IQ problems; the intent is to reach the best compromise.*

It may be possible to fine-tune the 2nd BTR transfer bias for a specific problem paper by varying the secondary transfer remote for that paper.

The secondary transfer bias is a target value (based on temperature, humidity, 2nd BTR resistance, and other Xerographic inputs) that represents what control logic has computed to be the optimum transfer bias. Each paper type has an NVM location for remote manual control of this target. The default for these "remote" locations is 100 (representing 100% of computed transfer bias target). The bias can be shifted from 0% to 200% of target.

A

**NOTE:** If a paper type has a **User IQ Default** listed for it in Tables 2 or 3, ensure that the customer has not changed the IQ setting before attempting this process; reset to the default if necessary. Refer to **Paper Tray Attributes** in section 4 of the **User Guide**.

Refer to [Table 2](#) (DC 2240/1632, WC M24) or [Table 3](#) (DC 3535). Change the value of the remote for the affected paper type to 150. Adjust the remote up or down to achieve the best IQ compromise. If the results are not satisfactory, set the remote value to 75 and adjust the remote up or down to achieve the best IQ compromise.

Switch Drum Cartridges. **The problem moves with the cartridge.**

Y N

Check the following:

- Clean the HV contact for the developer in question.
- Replace the Toner Cartridge if not done previously.
- Replace the Developer ([PL 6.2](#)). Examine the housing for damage, wear, or contamination. If the problem persists, replace the ATC Sensor ([PL 6.2](#)).

Replace the Drum Cartridge (see [Machine Consumables](#) in Section 6).

A



**NOTE:** Performing the adjustments in the following table may not eliminate mottle completely, and/or may introduce other IQ problems; the intent is to reach the best compromise.

**Table 1 Heavyweight Mottle Options (DC 2240/1632, WC M24)**

Weight	Customer Paper Type	Adjustment
HW1	Coated only	Set NVM location 746-980 (BTR2 Transfer Bias for HW1) to 1 (default).
HW1	Uncoated only	Set NVM location 746-980 to 0.
HW1	Coated and uncoated	<p>Option 1</p> <ul style="list-style-type: none"> <li>Set NVM location 746-980 to 1 (default).</li> <li>Set locations 746-074 (HW1 side 1 remote) and/or 746-087 (HW1 side 2 remote) to 150% (default is 100). This increases coated paper transfer bias towards uncoated. Adjust the remote up or down to achieve the best IQ compromise.</li> </ul> <p>Option 2: If option 1 does not produce satisfactory results</p> <ul style="list-style-type: none"> <li>Set NVM location 746-980 to 0.</li> <li>Set locations 746-067 (HW1 side 1 remote) and/or 746-082 (HW2 side 2 remote) remote to 75% (default is 100). This decreases uncoated paper transfer bias towards coated. Adjust this remote up or down to achieve the best IQ compromise.</li> </ul>
HW2	Coated only	Set NVM location 746-981 (BTR2 Transfer Bias for HW2) to 1 (default).
HW2	Uncoated only	Set NVM location 746-981 to 0.
HW2	Coated and uncoated	<p>Option 1</p> <ul style="list-style-type: none"> <li>Set NVM location 746-981 to 1 (default).</li> <li>Set locations 746-075 (HW2 side 1 remote) and/or 746-088 (HW2 side 2 remote) to 150% (default is 100). This increases coated paper transfer bias towards uncoated. Adjust this remote up or down to achieve the best IQ compromise.</li> </ul> <p>Option 2: If option 1 does not produce satisfactory results</p> <ul style="list-style-type: none"> <li>Set NVM location 746-981 to 0.</li> <li>Set locations 746-068 (HW2 side 1 remote) and/or 746-083 (HW2 side 2 remote) to 75% (default is 100). This decreases uncoated paper transfer bias towards coated. Adjust this remote up or down to achieve the best IQ compromise.</li> </ul>



Table 2 2nd BTR Transfer Remote locations - DC 2240/1632, WC M24

Default Paper Name	User IQ default	NVM (Side 1)	NVM (Side 2)
Plain Paper A (Bond)	1	746-059	746-076
Plain Paper B (Plain)	2	746-060	746-076
Plain Paper C (Recycled)	4	746-061	746-076
Plain Paper D/E	8, 16	746-062	746-076
Plain Paper F/G	32, 64	746-063	746-076
Plain Paper S	128	746-064	746-076
Label stock		746-065	---n/a---
Lightweight Paper		746-066	---n/a---
Transparency		746-072	---n/a---
Heavyweight 1 (uncoated - loc. 746-980=0)		746-067	746-082
Heavyweight 2 (uncoated - loc. 746-981=0)		746-068	746-083
Heavyweight 1 (coated - loc. 746-980=1)		746-074	746-087
Heavyweight 2 (coated - loc. 746-981=1)		746-075	746-088
Plain Paper A~G Normal speed B/W	1, 2, 4, 8, 16, 32, 64	746-971	746-973
Plain Paper A~G High speed B/W	1, 2, 4, 8, 16, 32, 64	746-972	746-974
Plain Paper S Normal speed B/W (Bond S)	128	746-975	746-977
Plain Paper S High speed B/W (Bond S)	128	746-976	746-978

Table 3 2nd BTR Transfer Remote locations DC 3535

Default Paper Name	User IQ default	NVM (Side 1)	NVM (Side 2)
Plain Paper A (Bond)	1	747-428	747-435
Plain Paper B	2	747-429	747-436
Plain Paper C	4	747-430	747-437
Plain Paper D/E (Plain)	8, 16	747-431	747-438
Plain Paper F/G (Recycled)	32, 64	747-432	747-439
Plain Paper S (Bond S)	128	747-433	747-440
Label stock		746-065	---n/a---
Lightweight Paper		747-434	---n/a---
Transparency		746-072	---n/a---
Heavyweight 1A	19 (side 1) 23 (side 2)	746-067	746-082
Heavyweight 1B	20 (side 1) 24 (side 2)	747-441	746-083
Heavyweight 1S	22 (side 1) 26 (side 2)	747-442	747-445
Heavyweight 1C	21 (side 1) 25 (side 2)	747-449	747-446
Heavyweight 2A	27 (side 1) 200 (side 2)	746-068	747-452
Gloss 1C	28 (side 1) 33 (side 2)	747-443	747-447
Heavyweight 2S	31 (side 1) 36 (side 2)	747-444	747-448
Gloss 1A	29 (side 1) 34 (side 2)	747-450	747-453
Coated 1 Gloss	30 (side 1) 35 (side 2)	747-451	747-454
Coated 1		746-074	746-087
Coated 2		746-075	746-088
Plain Paper A~G Normal speed B/W	1, 2, 4, 8, 16, 32, 64	746-971	746-973
Plain Paper A~G High speed B/W	1, 2, 4, 8, 16, 32, 64	746-972	746-974
Plain Paper S Normal speed B/W (Bond S)	128	746-975	746-977
Plain Paper S High speed B/W (Bond S)	128	746-976	746-978



## IQ16 Spots RAP

### Initial Actions

Ensure that the paper in use is fresh, dry, and within specification for weight and quality.

Check print driver and copier control panel settings to ensure the media is being run in the proper mode.

Compare the spots against the samples in the Image Quality Defects supplement. If the defect matches the Debris Centered Deletions sample, go to the [IQ9 RAP](#).

### Procedure

The defect occurs in Copy mode only.

Y N

The spots occur at a fixed interval on each print.

Y N

**NOTE:** The repetition rate for Transfer Belt defects varies considerably, depending on paper size and mode of operation. The defect may appear as frequently as every 3rd sheet, or may only occur every 14 sheets.

The defect occurs in approximately the same position IB to OB on multiple prints.

Y N

The problem is Fuser offset and/or lead edge smears or spots.

Y N

#### CAUTION

*Do not use a vacuum cleaner or any solvents in the following step. Damage to the IBT Cleaner Assembly will result.*

*Do not attempt to clean the cleaning blade. It WILL be damaged if any wiping or excessive pressure is applied.*

Remove the IBT Cleaner Assembly ([REP 9.16](#)). Carefully clean the cleaning blade and the Mylar shield with a soft brush or a lint free cloth. Brush away any accumulation of toner on the foam seal and the outside surfaces. Wipe the surface of the Transfer Belt with a lint free cloth.

If the problem continues, replace the IBT Cleaner Assembly ([PL 5.3](#)).

Go to the [IQ13 RAP](#).

Check the Transfer Belt ([PL 5.3](#)) for dirt or damage. Clean or replace as required.

Go to the [IQ14 RAP](#).

Ensure that the original is free from the defect.

Clean the Platen Glass and Lens.

## IQ17 Missing Colors RAP

One or more of the primary (YMCK) colors is missing from the image.

### Initial Actions

Determine if the problem is in copy or print mode.

If the problem occurs in print mode only, check the troubleshooting portion of the Network Controller Service Documentation.

If the problem is in copy mode and print mode, or if the problem persists continue the RAP.

### Procedure

Enter [dC612](#). Make a print of Test Pattern 22 to determine which colors are missing. Make a print of Test Pattern 2 (Halftone IOT) 50% for the missing colors. **Color is still missing.**

Y N

Replace the IIT/IPS PWB ([PL 18.3](#)).

Go to [IQ21 Developer Bias RAP](#) and check the Developer Bias circuit. If the circuits are OK, check the ROS for damage or contamination. Clean, repair or replace as required ([PL 3.1](#)).



## IQ20 1st BTR Checkout RAP

### Procedure

Make a copy of the Color Test Pattern. If the high density gradation patches (100%, 85%, and 70%) for one or more of C, Y, M, or K appear to be light, perform the following:

- Refer to [Figure 1](#). Check the wiring between the BTR1 HVPS ([PL 9.1](#)) and the HV contact on the Drum Cartridges.
- Check the 1st BTR Monitor values as follows:

#### CAUTION

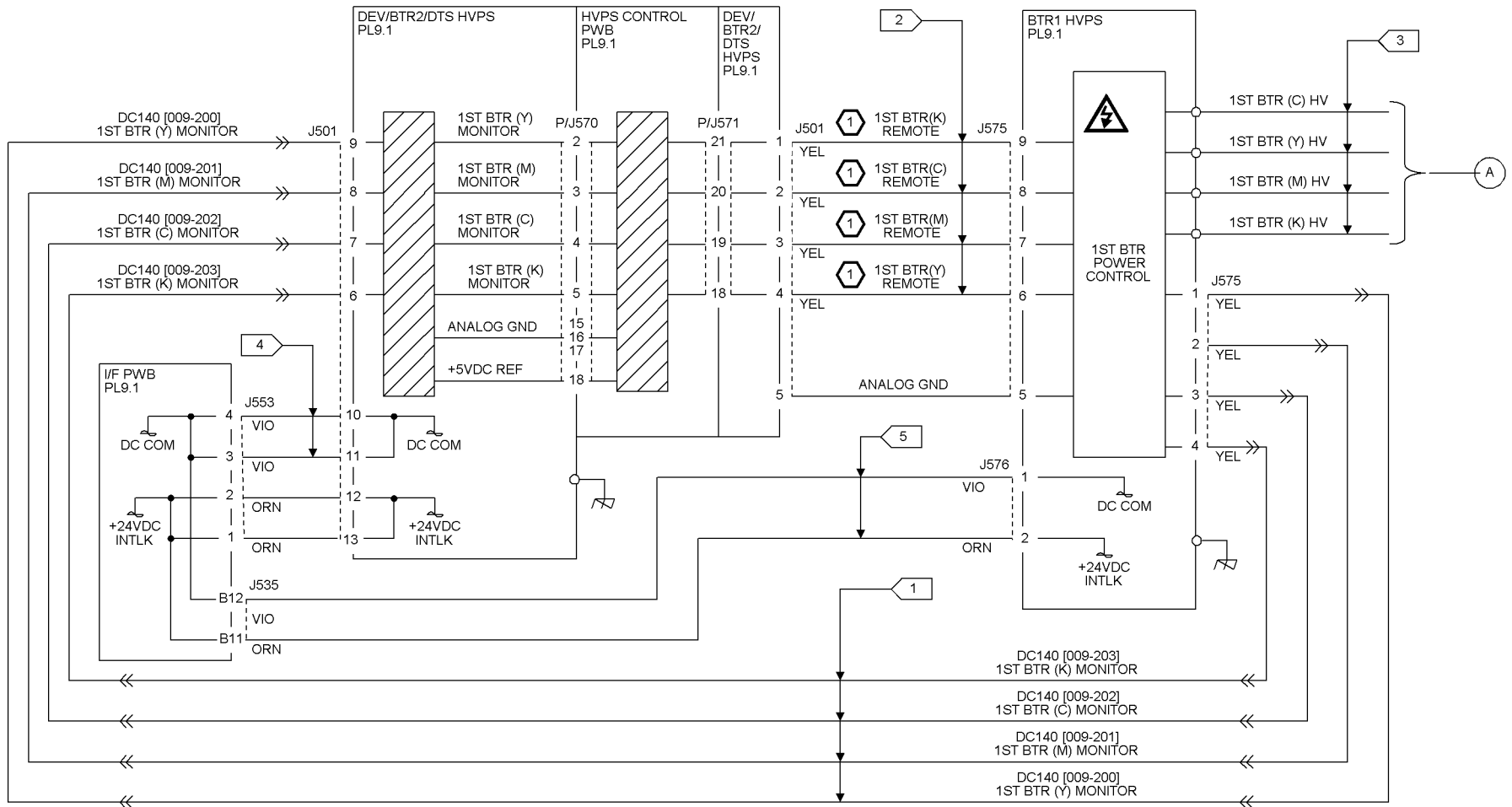
*Do not allow the IBT to run longer than 10 seconds. Damage to the Transfer Belt may occur because the automatic belt-walk adjustments are not performed while in dC140.*

1. Enter [dC140](#) [009-200]. Press **Start**. The monitor value should be low (typically 0 - 3)
2. Enter [009-051]. Press **Start**. After a few seconds, the value should jump significantly.
3. Press **Stop All**.

**NOTE:** *Do not enable more than one color at a time. Attempting to run more than one monitor without clearing the previous code may cause the PWS to lock up.*

4. Repeat steps 1 through 3, using 009-201, 009-202, and 009-203 as the input code. If the value fails to increase significantly for one or more monitor codes, replace the BTR1 HVPS ([PL 9.1](#)).
- Refer to [Figure 1](#). Check the connectors and wires shown for damage, contamination, or loose connections.





1 DC140 [009-051] ENABLES 1ST BTR FOR ALL COLORS.

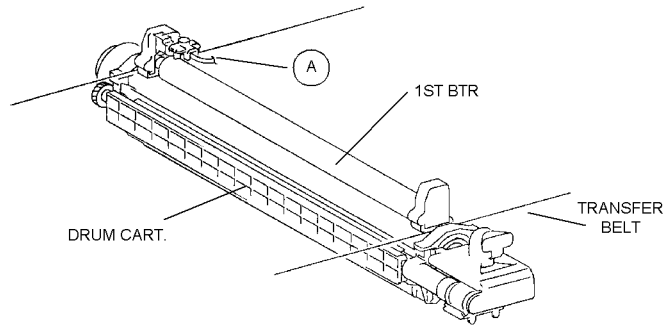


Figure 1 IQ20 RAP Circuit Diagram



## IQ21 Developer Bias RAP

### Procedure

#### WARNING

##### HIGH VOLTAGE!

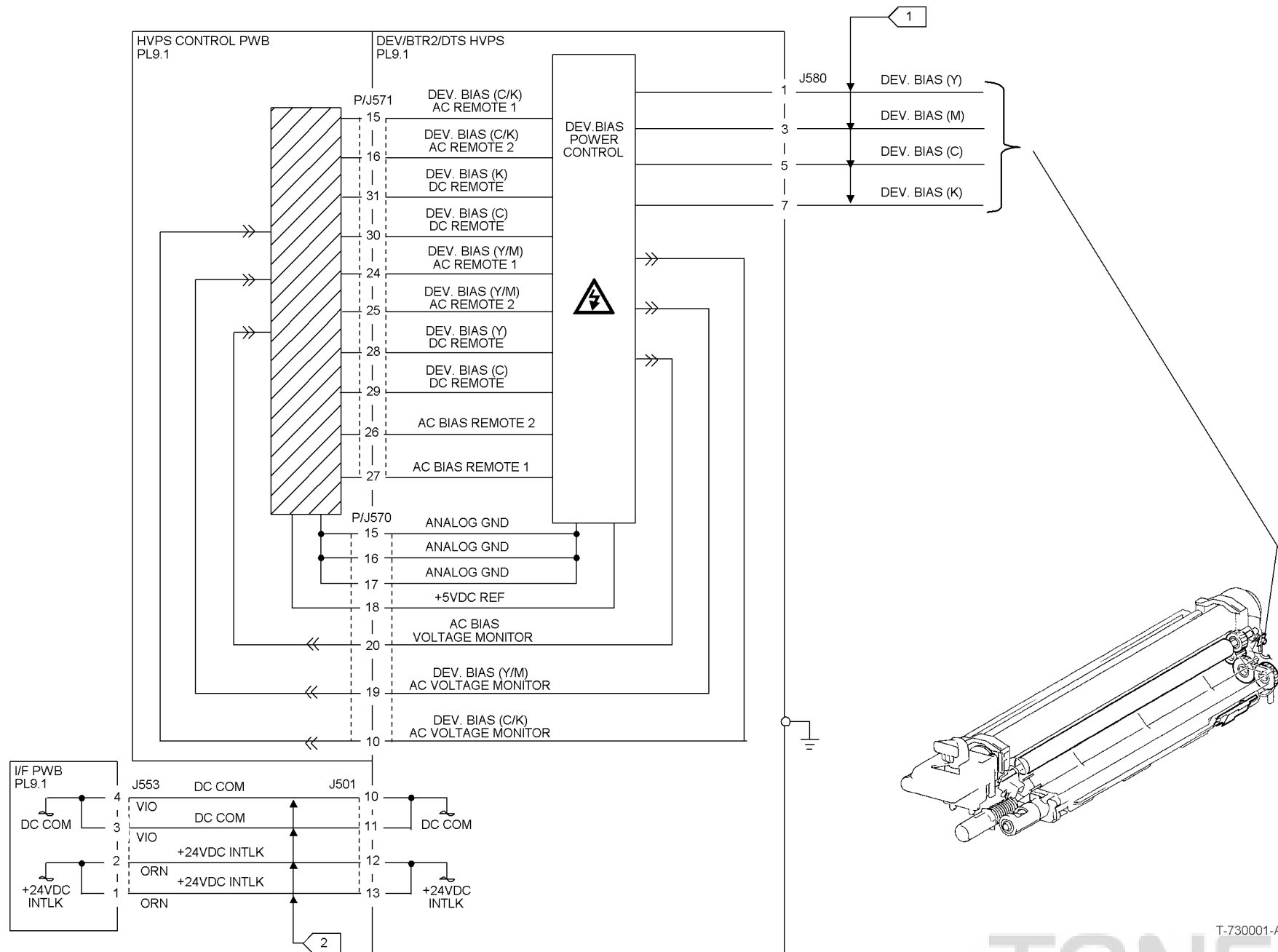
Exercise caution when performing the voltage checks in this procedure.

Enter dC140 [09-026]. Check the voltage at P/J580 for the affected color(s). There should be approximately 370 VAC and -540 VDC (+/- 10%) present. **The voltages are within range.**

Y N  
There is +24 VDC from P/J501 pin 13 to P/J501 pin 10 on the DEV/BTR2/DTS HVPS.  
Y N  
There is +24 VDC from P/J553 pin 2 to P/J553 pin 4 on the I/F PWB  
Y N  
Go the +24 VDC Wirenets to troubleshoot this problem.  
Go to Flag 2. Check for an open circuit  
Check that the HVPS Control PWB is seated correctly. If the problem continues, replace the DEV/BTR2/DTS HVPS (PL 9.1).

Go to Flag 1. Check for an open circuit or a short circuit to ground. Check P/J580 and the HV terminals on the Developer Housing(s). for damage or loose connections. If the checks are good, return the RAP from which you came.







## IQ22 2nd BTR Checkout RAP

To isolate mechanical failure and out-of range voltages/current for the 2nd BTR assembly.

### CAUTION

#### HIGH VOLTAGE!

*Exercise caution when performing the voltage checks in this procedure.*

### Initial Actions

- Perform **dC140** (009-051) 2nd BTR Retract Motor contact. The status value should read high until the 2nd BTR contacts (approx 800ms).
- Perform **dC140** (009-052) 2nd BTR Retract Motor retract. The status value should read low until the 2nd BTR retracts (approx 60ms). If the 2nd BTR does not respond, check the Retract Motor and the 2nd BTR Retract Sensor (**PL 2.9**). Replace the 2nd BTR if needed.
- Replace the 2nd BTR if the roll surface is severely damaged (excessive wear).

### Procedure

Disconnect **T502** on the DEV/BTR2/DTS HVPS (**Figure 1**). Set the meter to read microamps. Connect the meter with one lead connected to the connector on the board and the other lead to the red wire. **Approximately 20-30 microamps are measured at Flag 3.**

- Y N**  
**Approximately 10-15 microamps are measured at Flag 3.**
- Y N**  
**Approximately 0 microamps are measured at Flag 3.**
- Y N**  
Current is out of operating range. Check wire harness for damage. Check for bad connection or open circuit on the DEV/BTR2/DTS HVPS (**PL 9.1**). Repair or replace as required.
- Reconnect T502. Set the meter to read VDC. Check for +24VDC on **P/J501**-12 and 13 while the machine is in standby mode. **+24VDC is measured at Flag 1.**
- Y N**  
Check wire harness for damage. Check for bad connection or open circuit on the I/F PWB (**PL 9.1**). Repair or replace as required.
- Check wire harness for damage. Check for bad connection or open circuit on the DEV/BTR2/DTS HVPS (**PL 9.1**). Repair or replace as required.
- Reconnect T502 on the DEV/BTR2/DTS HVPS. Set the meter to read VDC. Check for +5VDC at **P/J574**-3 while making a full color copy of the standard test pattern. **+5VDC is measured at Flag 2.**
- Y N**  
Check wire harness for damage. Check for bad connection or open circuit on the MCU PWB (**PL 13.1**). Repair or replace as required.
- Check wire harness for damage. Check for bad connection or open circuit on the DEV/BTR2/DTS HVPS (**PL 9.1**). Repair or replace as required.
- Check the 2nd BTR for any damage, repair or replace as required.
  - Ensure that the 2nd BTR is correctly installed in both the IB and OB holders.







## IQ23 BCR Checkout RAP

Use this procedure to troubleshoot edge-to-edge, very dense, single-color background

### Procedure

Swap the Drum Cartridge that creates the high single-color background with any of the other Drum Cartridges and make a test print. **The background color remains the same.**

Y N

Replace the Drum Cartridge causing the single-color background (see [Machine Consumables](#) in Section 6) (PL 4.1).

Go to [Flag 3](#). Check the wires associated with the problem color for an open circuit. **The wires check out OK.**

Y N

Repair or replace harness as required (PL 9.3).

Check for a loose connection at BCR HVPS PWB, [P/J581](#) (Figure 1). **The connection is good.**

Y N

Reconnect, repair or replace as required.

**NOTE:** The actual BCR bias voltage involves a high-frequency AC signal at a negative DC offset. The AC and DC values vary constantly, depending on run mode, Drum age, and several environmental variables. Measured voltages will vary from machine to machine and job to job.

Program a Full Color copy job. While the job is running, check the pin on [P/J581](#) that is associated with the problem color for -400 VDC to -900 VDC:

K: pin 1

C: pin 4

M: pin 6

Y: pin 8

**The voltages check out OK.**

Y N

Replace the BCR HVPS PWB (PL 9.1).

Inspect the contact ([Figure 1](#)) at the Drum Cartridge associated with the problem. **The contact checks out OK.**

Y N

Repair or replace as required (PL 9.3).

- Check the Wire Harness (PL 9.3, item 2) between the BCR HVPS PWB and the Drum Cartridge for an open circuit. Repair or replace as required.
- Replace the affected Drum Cartridge (see [Machine Consumables](#) in Section 6) (PL 4.1).
- Replace the BCR HVPS PWB (PL 9.1).



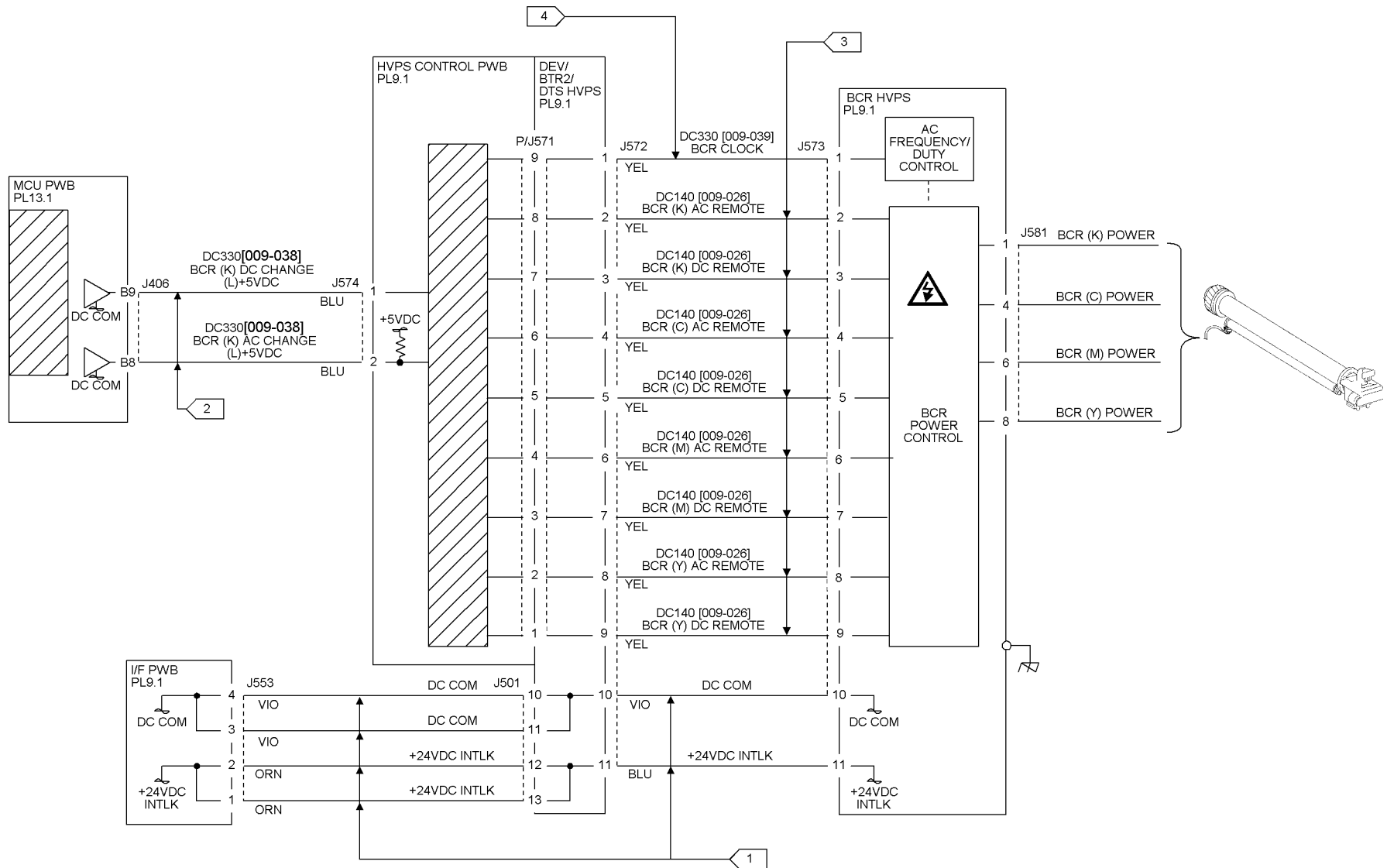


Figure 1 IQ23 RAP Circuit Diagram

T730003 A-CAR



## Image Quality Specifications

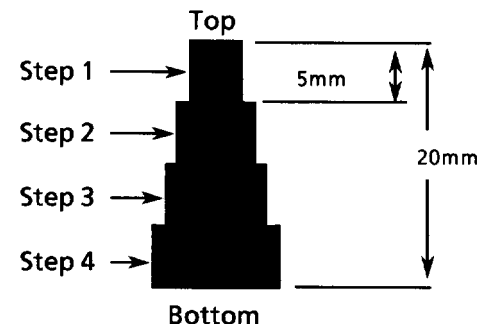
The following steps are used to set up the machine for the purpose of making test pattern copies to judge output image color density, balance, and registration.

1. Set the following Customer Mode Settings to the positions listed:
  - a. Output Color - Full Color
  - b. Original Type - Photo & Text / Halftone
  - c. Lighter/Darker - Auto Contrast
  - d. Variable Color Balance - Normal
  - e. Color Saturation - Normal
  - f. Sharpness - Normal
2. Place the Color Test Pattern on the platen. Load 11x17" or A3 paper into Tray 1. Make a copy of the test pattern.
3. Compare the copy to the test pattern. Refer to [Figure 2](#) and [Table 1](#) for this evaluation.

**Table 1 Color Specifications Check Locations**

AREA ( <a href="#">Figure 2</a> )	Check for the Following Results
A	Text Reproduction. Each of the seven sentences in this area are fully reproduced with no missing letters or portions of letters. The sentences are reproduced in Black, Cyan, Magenta, Yellow, Red, Green and Blue.
B	Color Registration. The patterns in location B should be properly registered to provide Black, Red, Green and Blue lines.
C	Front to Rear Density. The density of both the low density and high density bands should be uniform from front to rear. This can be tested by folding the copy in the center and comparing the front side of the copy to the rear side of the copy at location C. Both the high density and low density locations should exhibit even front to rear density.
D	Color Gradation. This area should exhibit a decreasing density of each of the colors from 100% density to 5% density. In a properly adjusted machine, the 10% patches should be visible and the 5% patches should be barely visible or not visible on the test pattern copy (except for the bottom row).
E	Routine Color. Location E represents three general tests for the machine to reproduce colors common to customer originals. Location A is a general skin tone test. Location B represents the color of grass or other common foliage. Location C represents the color of the sky.
F	Photo Gradation. Location F is not used for any copy quality evaluation on this product.
G	IIT Calibration Patches. These patches are scanned for IIT Calibration during the DC945 IIT Calibration portion of Max Setup.
H	100 Lines/Inch Image. A Moire defect will show on this image. Moire on a 100 Line/Inch image is within specification.
I	175 Lines/Inch Image. This image is used to test for Moire. Depending on the degree of the defect, moire seen on this image should be considered out of specification.

Registration and border deletions are checked using the Step Scales on the Geometric Test Pattern, an example of which is shown in [Figure 1](#). All of the scales are 20mm in height, and are made up of four 5mm steps. Step 1 will be described as at the top of the Step Scale, and Step 4 will be described as at the bottom.



**Figure 1 Step Scales**

Each Step Scale is positioned for a particular paper size and orientation. [Table 2](#) indicates the appropriate Step Scales to use for the various paper sizes, orientations and measurement locations.

**Table 2 Geometric Checkout - Step Scale Data.**

Paper Size	Orientation	To check:	Step Scales to use (refer to <a href="#">Figure 2</a> )
11x17	SEF	Lead Edge Side Edge Trail Edge	LE1 through LE3 SE1 through SE4 (top); SE5 and SE8 (bottom) TE3
A3	SEF	Lead Edge Side Edge Trail Edge	LE 1 through LE3 SE1 through SE4 (top); SE6 and SE7 (bottom) TE4
8.5x11	SEF	Lead Edge Side Edge Trail Edge	LE 1 and LE2 SE1 through SE3 (top); SE9 (bottom) TE5
A4	LSEF	Lead Edge Side Edge Trail Edge	LE 1 and LE2 SE1 through SE3 (top); SE10 (bottom) TE6
8.5x11	LEF	Lead Edge Side Edge Trail Edge	LE1 through SE3 SE1 and 2 (bottom) SE6 and SE7 (top) TE 2
A4	LEF	Lead Edge Side Edge Trail Edge	LE1 through SE3 SE5 (top); SE1 and SE2 (bottom) TE1

1. Set the following Customer Mode Settings to the positions listed:
  - Output Color - Full Color



- Original Type - Photo & Text / Halftone
  - Lighter/Darker - Auto Contrast
  - Color Saturation - Normal
  - Variable Color Balance - Normal
  - Sharpness - Normal
2. Place Test Pattern 82E8220 on the platen and 24# Xerox Color Xpressions 11x 17" or 90 GSM Colotech A3 paper in Tray 1. Make a copy of the test pattern.
  3. Follow the directions in [Table 3](#) to determine if the machine registration is within specification.

**Table 3 Test Pattern Image Data Locations for Geometric Specifications**

GEOMETRIC AREA	CHECK PERFORMED
Magnification	Locate the 300mm line running from near LE1 to the trail edge of the 1.8 lp ladder. Locate the 200mm line running from near LE1 to near LE3. Make a copy. The measurements should be: <ul style="list-style-type: none"> <li>• Left to Right: 300mm <math>\pm</math> 1.8mm</li> <li>• Front to Rear: 200mm <math>\pm</math> 1.2mm</li> </ul>
Resolution	Observing the targets on the test pattern copy at locations R1 through R8, the line pairs specified below are clearly visible for the magnification value indicated: <ul style="list-style-type: none"> <li>• 70%: 3.0 lp/mm</li> <li>• 100% through 400%: 4.3 lp/mm</li> </ul>
Lead Edge Registration	Measure from the lead edge of the paper to the top of Step 3 on the LE2 Step Scale. The measurement should be: <ul style="list-style-type: none"> <li>• Trays 1 through 4: 10mm <math>\pm</math> 1.5mm (<math>\pm</math> 1.9mm for 2nd side of duplex job)</li> <li>• Tray 5: 10mm <math>\pm</math> 2.2mm</li> </ul>
Side Edge Registration	Measure from the side edge of the paper to the top of Step 3 on the SE2 and SE3 Step Scales. The distance should be within the following tolerance: <ul style="list-style-type: none"> <li>• Trays 1 through 4: 10mm <math>\pm</math> 2.0mm (<math>\pm</math> 2.4mm for 2nd side of duplex job)</li> <li>• Tray 5: 10mm <math>\pm</math> 2.4mm</li> </ul>
Lead Edge Skew	For skew from front to rear, the distance from the lead edge of the paper to the targets at LE1 and LE3 are measured. The measurements must match each other to within the tolerance below. <ul style="list-style-type: none"> <li>• Trays 1 through 4: within <math>\pm</math> 1.5mm (<math>\pm</math> 2.0mm for 2nd side of duplex job)</li> <li>• Tray 5: within <math>\pm</math> 2.0mm</li> </ul>
Side Edge Skew	For skew from left to right, the distance from the side edge of the paper to the targets at SE1 and SE4 are measured. They must match each other to within the tolerance below: <ul style="list-style-type: none"> <li>• Trays 1 through 4: within <math>\pm</math> 3.0mm (<math>\pm</math> 4.0mm for 2nd side of duplex job)</li> <li>• Tray 5: within <math>\pm</math> 4.0mm</li> </ul>
Line Density	This parameter is measured on the two 0.7G Text Blocks on the test pattern copy. The machine should reproduce all of the characters shown in the block on the output copy.
Solid Reproduction	This specifies the desired standard for reproduction of solid gray images at 1.0 K. The 1.0 K blocks on the output copy should reproduce with minimal mottle or graininess.

**Table 3 Test Pattern Image Data Locations for Geometric Specifications**

GEOMETRIC AREA	CHECK PERFORMED
Low Contrast Reproduction	This specifies the desired standard for reproduction of low density images. The machine should reproduce all of the text in the 0.2 G Text Blocks on the output copy.
ROS Borders (Image Loss)	Measure from the lead edge of the paper at LE2, the side edge of the paper at SE2 and SE7, and the trail edge at TE4, to the top edge of the step scales in those locations. The measurements should conform to the following specifications: <ul style="list-style-type: none"> <li>• Lead Edge 4mm <math>\pm</math> 1 mm</li> <li>• Side Edges 2 mm <math>\pm</math> 1 mm</li> <li>• Trail Edge 2 mm <math>\pm</math> 1 mm</li> </ul>



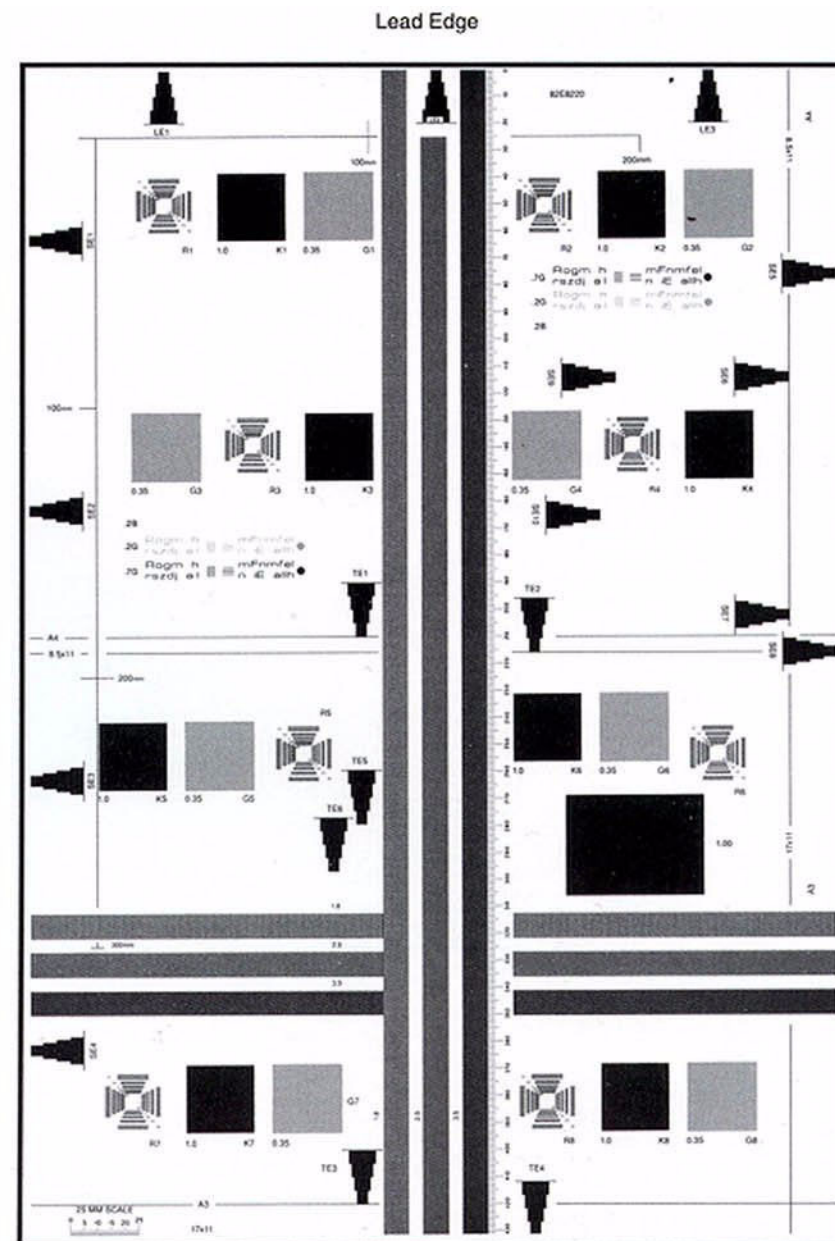
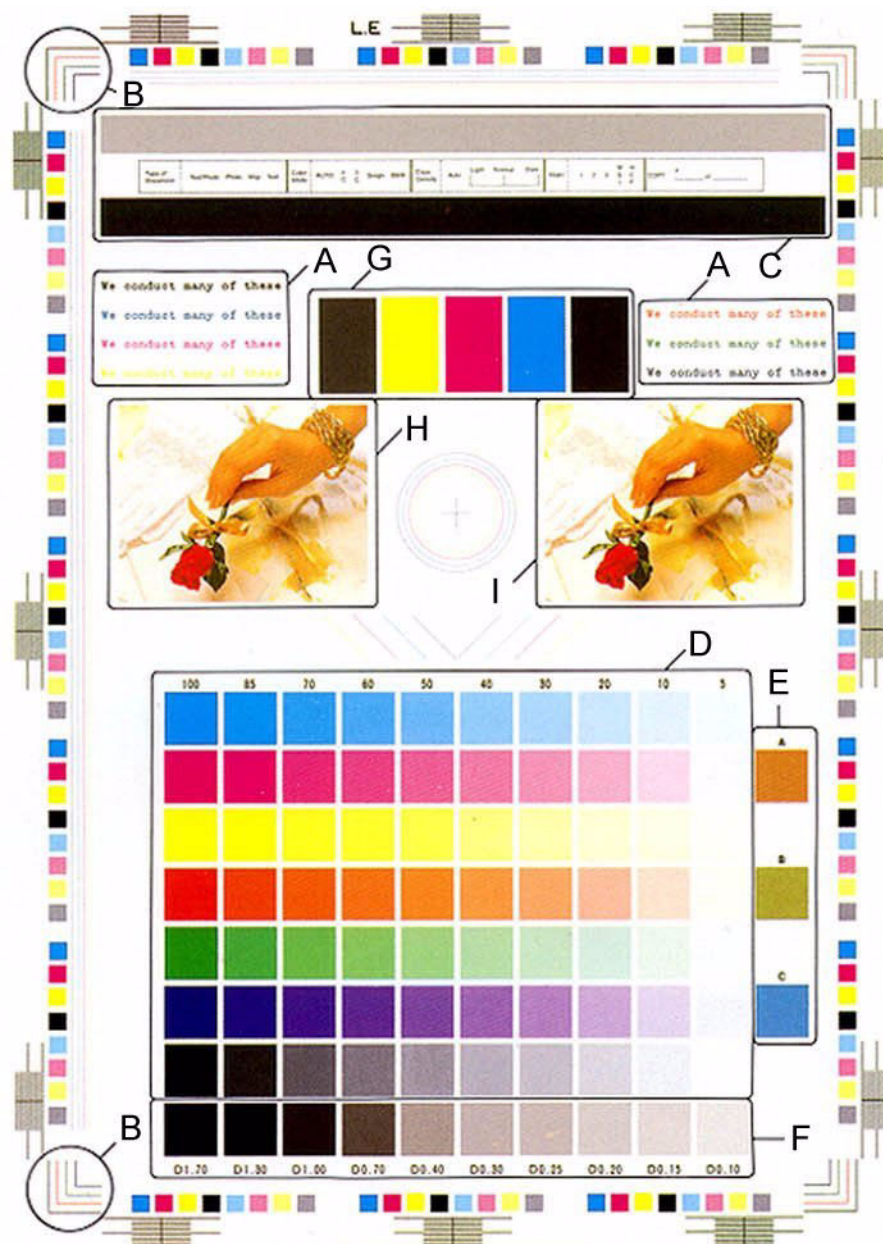


Figure 2 Color and Geometric Test Patterns



## Image Defect Samples

The following figures contain examples of defects and their possible causes.

- Background
- Color Misregistration
- Debris-Centered Deletions
- Deletions
- High Frequency Bands
- Irregular Process Direction Streak
- Low Image Density
- Moire
- Mottle
- Newton Rings
- Regular (Repeating) Bands, Streaks, or Smears
- Residual Image
- Streak Deletion in Process Direction
- Wrinkled Image

## Background

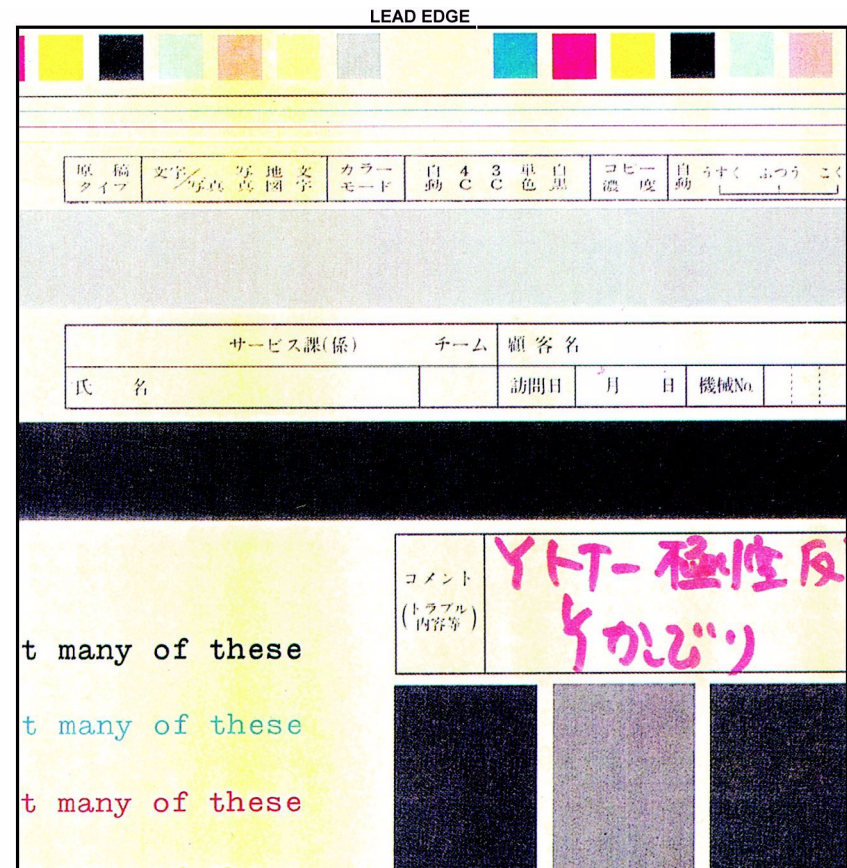


Figure 1 Background Defect Sample

### Cause

Incorrect Electrostatics, high TC, faulty ADC Sensor

### Corrective Action

Go to the **IQ6** RAP.



## Color Misregistration

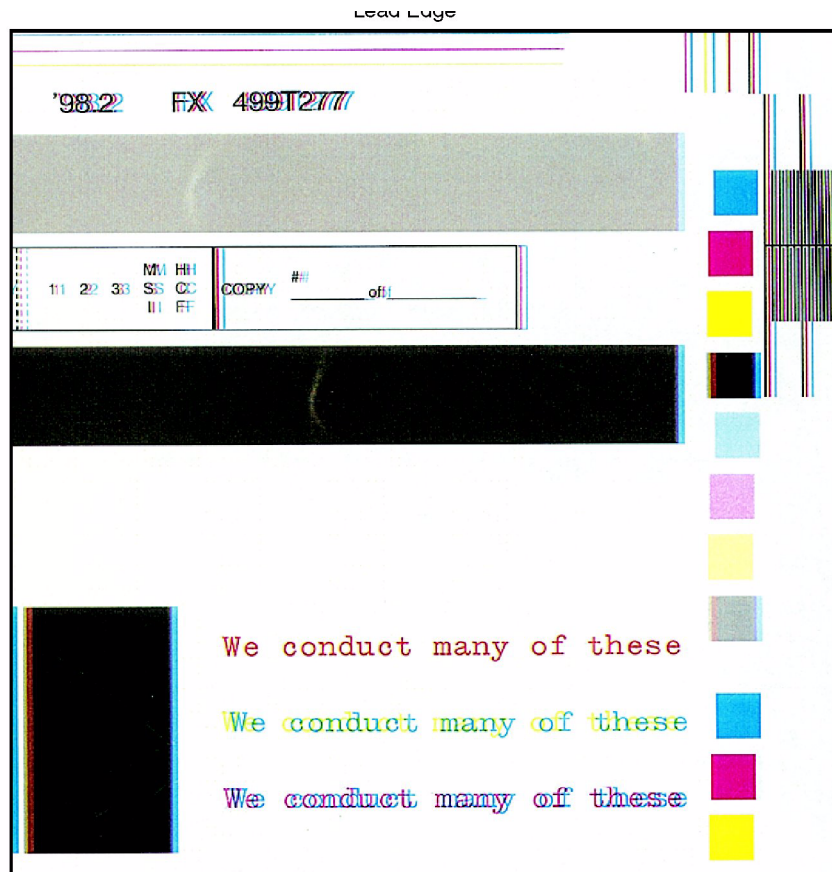


Figure 1 Color Misregistration Defect Sample

### Cause

Failure of the ROS or IBT “walking” from rear to front or front to rear.

Mechanical problem in the IBT Assembly.

### Corrective Action

Adjust Color Registration (ADJ 9.6).

Go to the IQ8 RAP.

## Debris-Centered Deletions

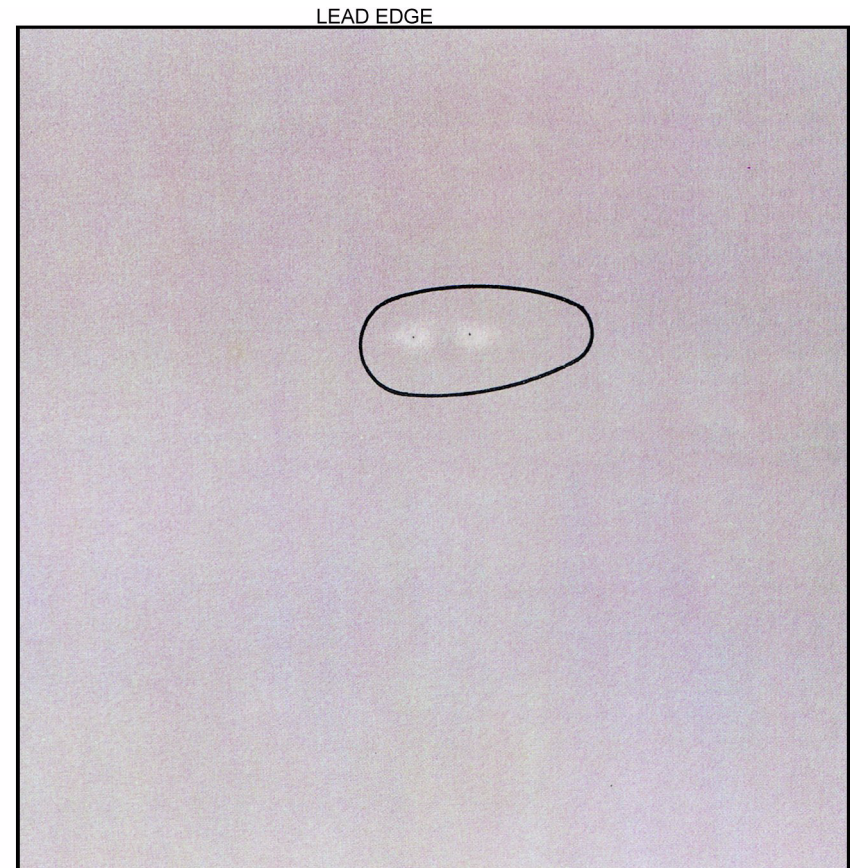


Figure 1 DCD Defect Sample

### Cause

Toner agglomerates cause deletions in the areas surrounding them during transfer.

### Corrective Action

Go to the IQ7 RAP.



## Deletions

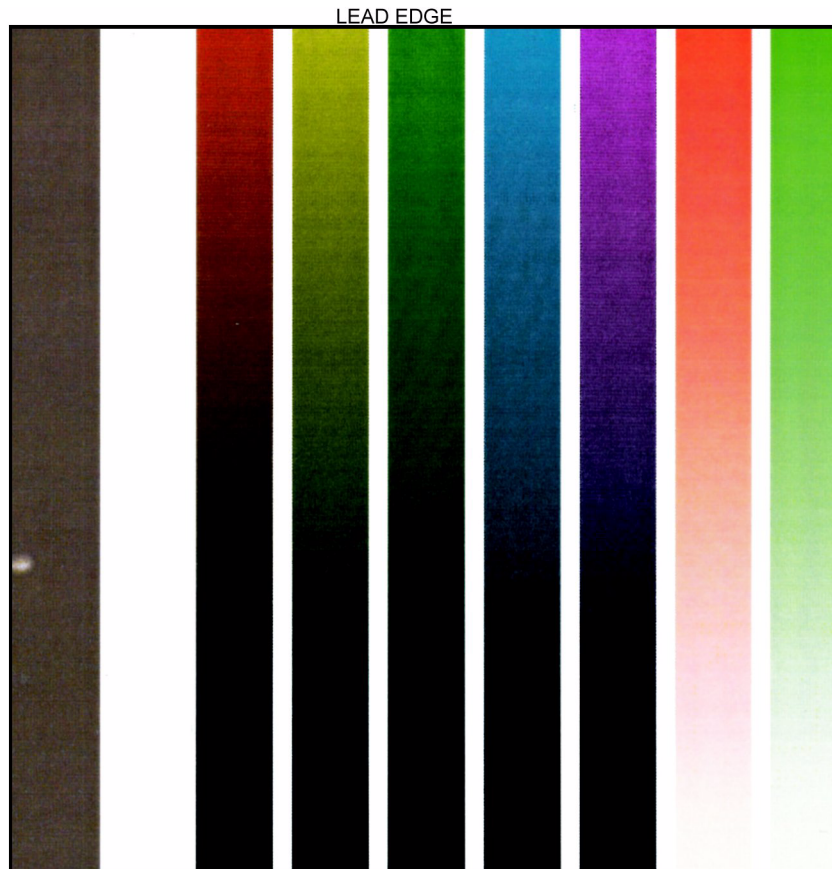


Figure 1 Deletions Defect Sample

### Cause

Defective IBT Belt, damp paper, uneven charge.

### Corrective Action

Go to the IQ7 RAP.

## High Frequency Bands



Figure 1 High Freq. Bands Defect Sample

### Cause

Faulty ROS Assembly or Photoreceptor/Developer Housing gear or bearing problem.

### Corrective Action

Go to the IQ14 RAP.



## Irregular Process Direction Streak

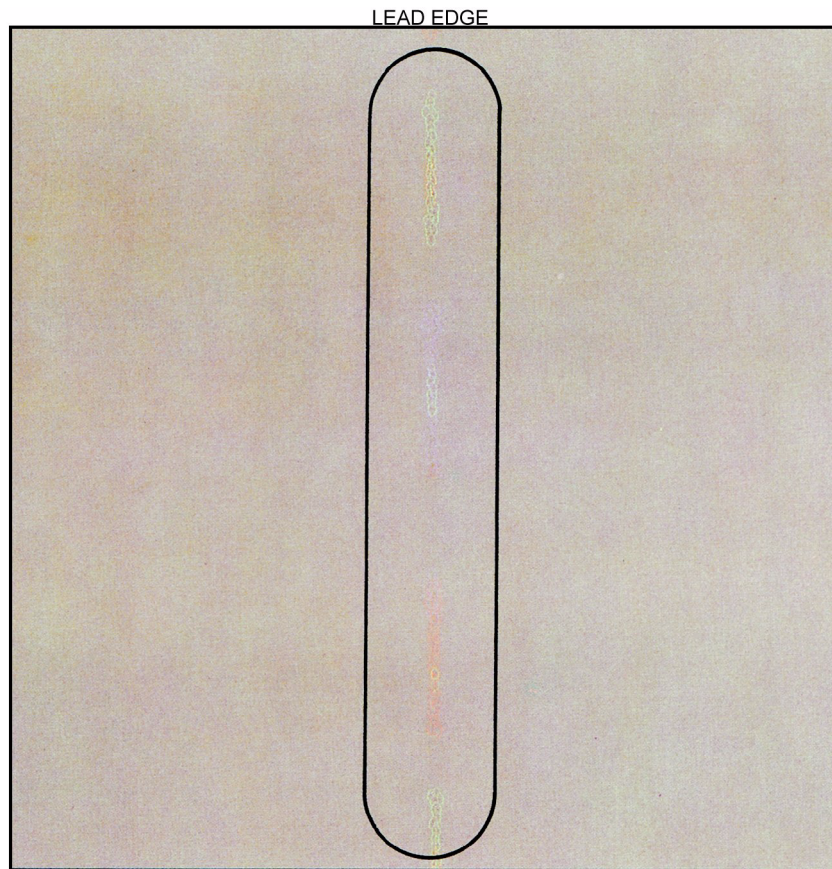


Figure 1 Streak Defect Sample

### Cause

Clog in Developer Housing Trim Bar, malfunction of IBT Cleaner Assembly, contaminated ROS window.

### Corrective Action

Go to the [IQ12](#) RAP.

## Low Image Density

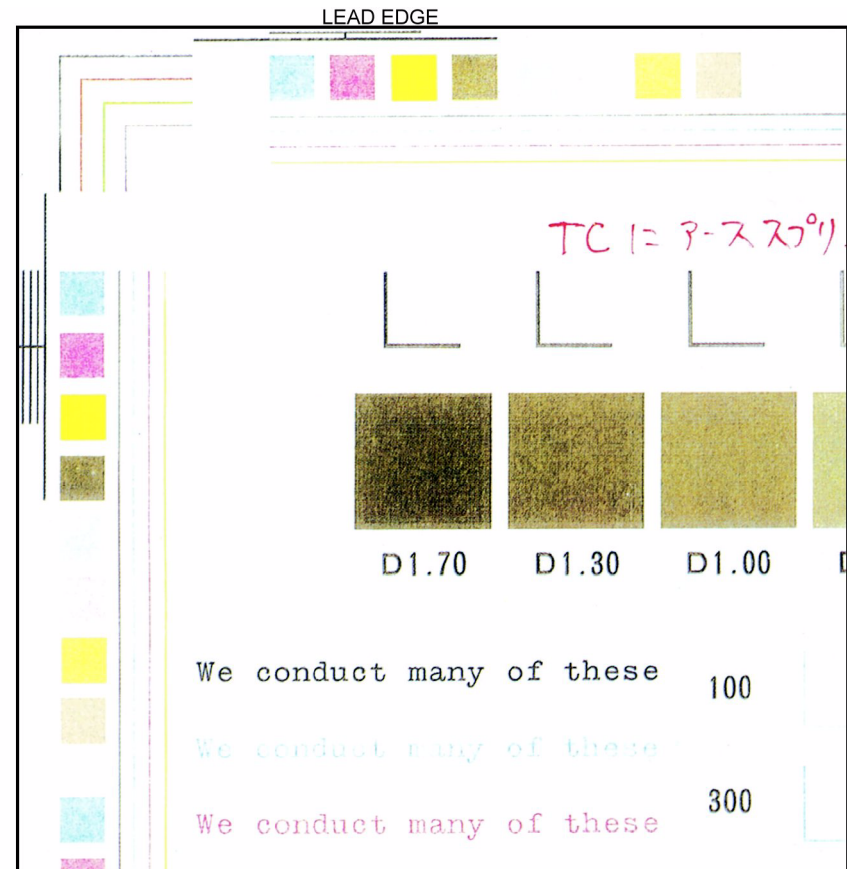


Figure 1 Low Density Defect Sample

### Cause

Incorrect electrostatics, defective ADC Sensor, low toner concentration or out-of-specification paper (especially low quality or heavy weight paper).

### Corrective Action

Go to the [IQ3](#) RAP.



## Moire



Figure 1 Moire Defect Sample

### Cause

The halftone screen used on the original interferes with the halftone screen used by the copier.

### Corrective Action

Go to the [IQ2](#) RAP.

## Mottle

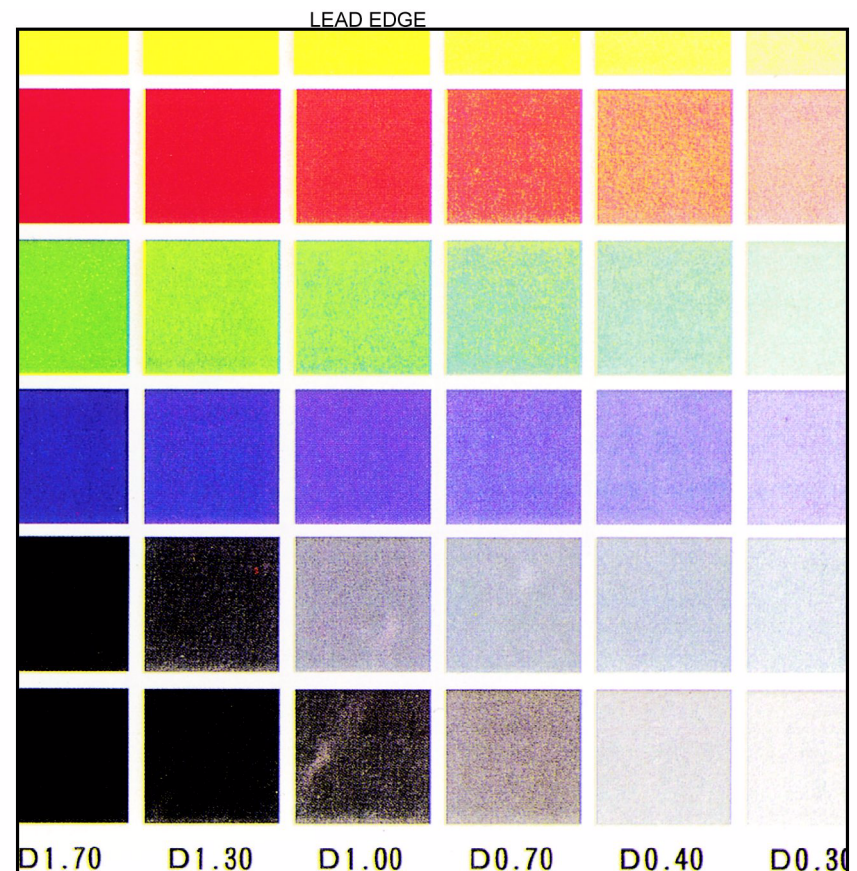


Figure 1 Mottle Defect Sample

### Cause

Damp or low quality paper, aged developer, low toner concentration

### Corrective Action

Go to the [IQ15](#) RAP.



## Newton Rings



Figure 1 Newton Rings Defect Sample

### Cause

Highly reflective surfaces on a glossy photograph.

### Corrective Action

Perform the following:

- Clean the Document Glass
- Place a transparency between the document and the glass

## Regular (Repeating) Bands, Streaks, Spots, or Smears

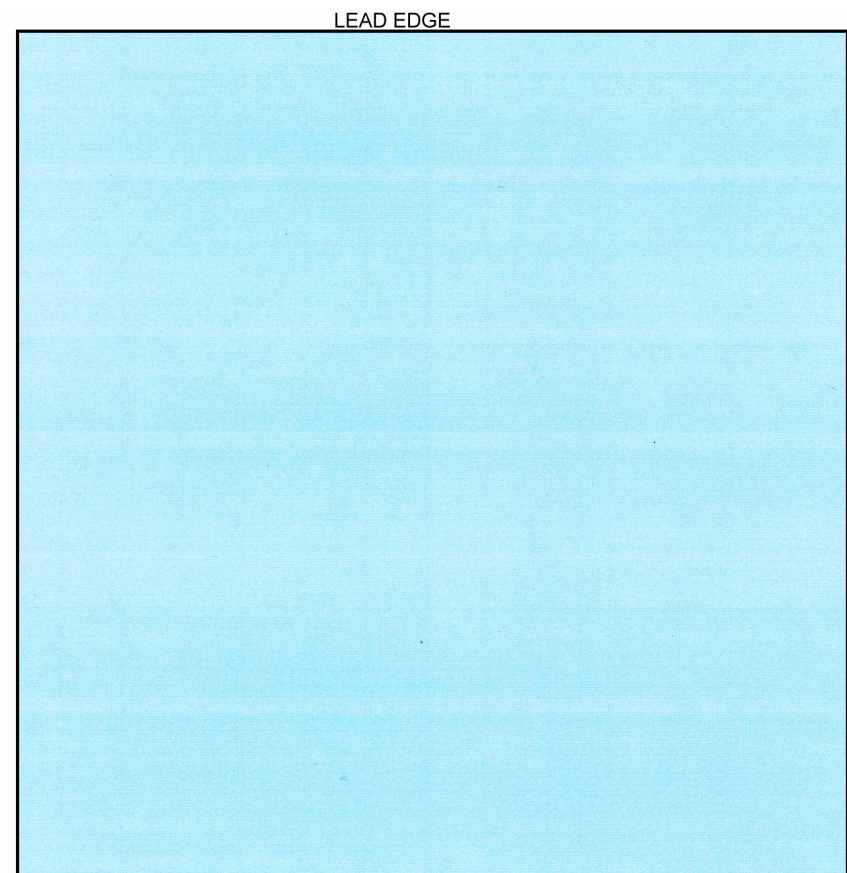


Figure 1 Repeating Defects Sample Image

### Cause

Damage, density variation, or deletions caused by rotating component. Spacing equal to effective circumference of part.

### Corrective Action

Go to the [IQ14](#) RAP.



## Residual Image

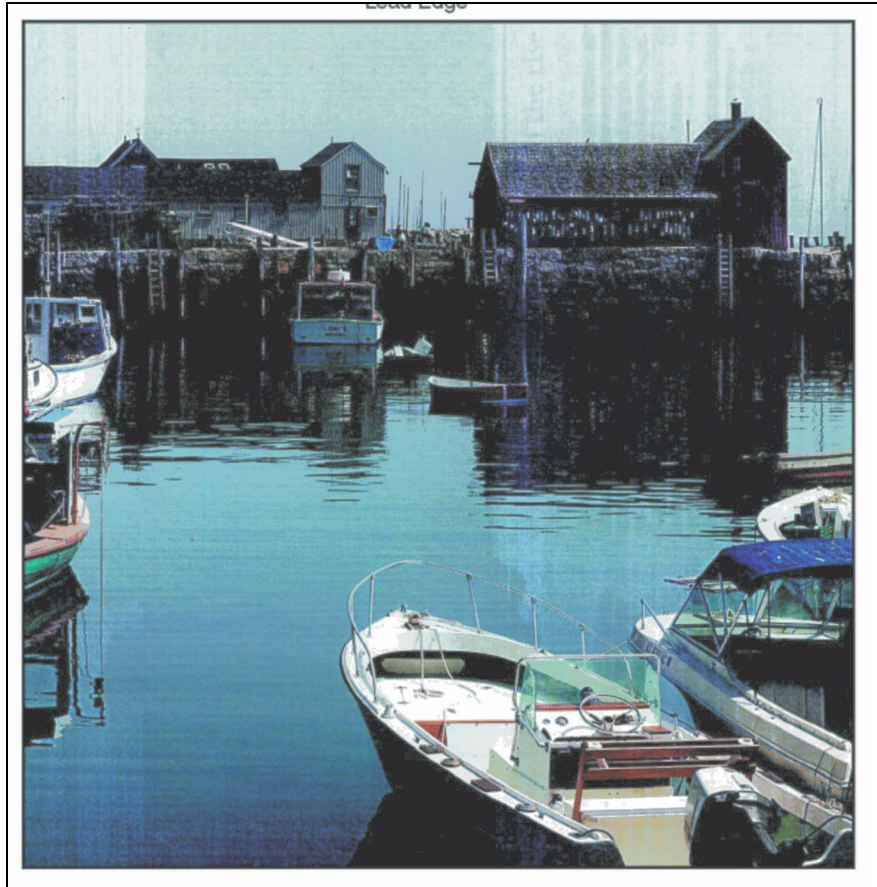


Figure 1 Residual Image Defect Sample

### Cause

Improper IBT cleaning and/or defective IBT Belt.

### Corrective Action

Go to the **IQ5** RAP.

## Streak Deletion in Process Direction



Figure 1 Streak Deletion Defect Sample

### Cause

Contamination of ROS window, damage to or contact with Transfer Belt or Drum Cartridge

### Corrective Action

Go to the **IQ12** RAP.



## Wrinkled Image

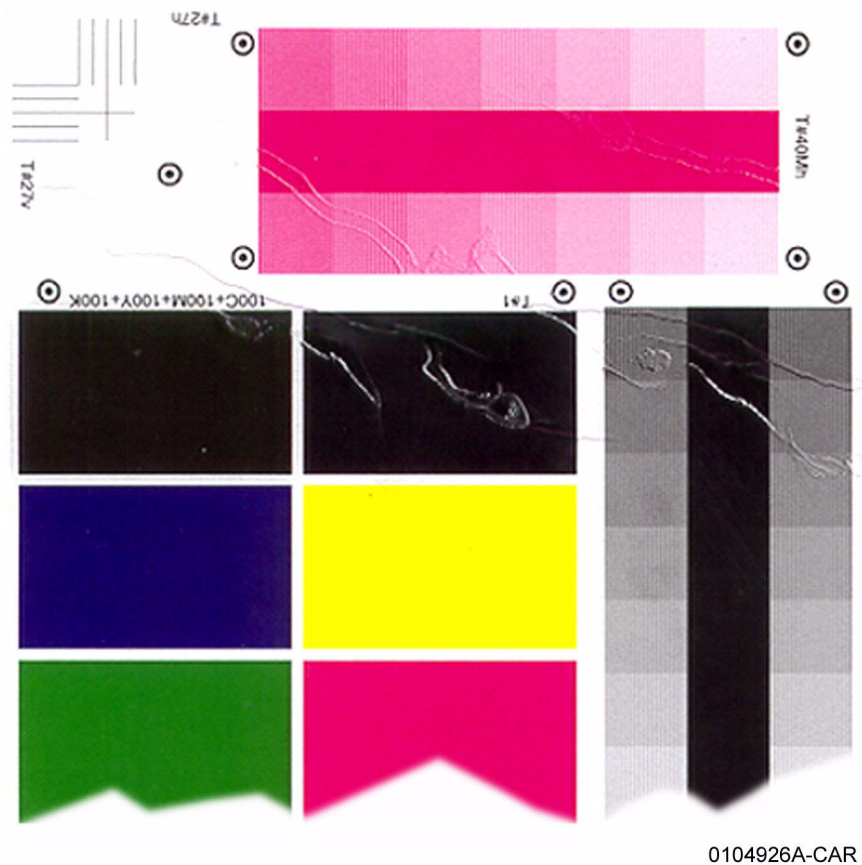


Figure 1 Wrinkled Image Defect Sample

### Cause

Non-uniform paper buckle between IBT and Fuser; Fuser "tenting" of paper. Actual wrinkling of the paper itself can also occur.

### Corrective Action

Go to the [IQ4](#) RAP.

## Cloud Defect

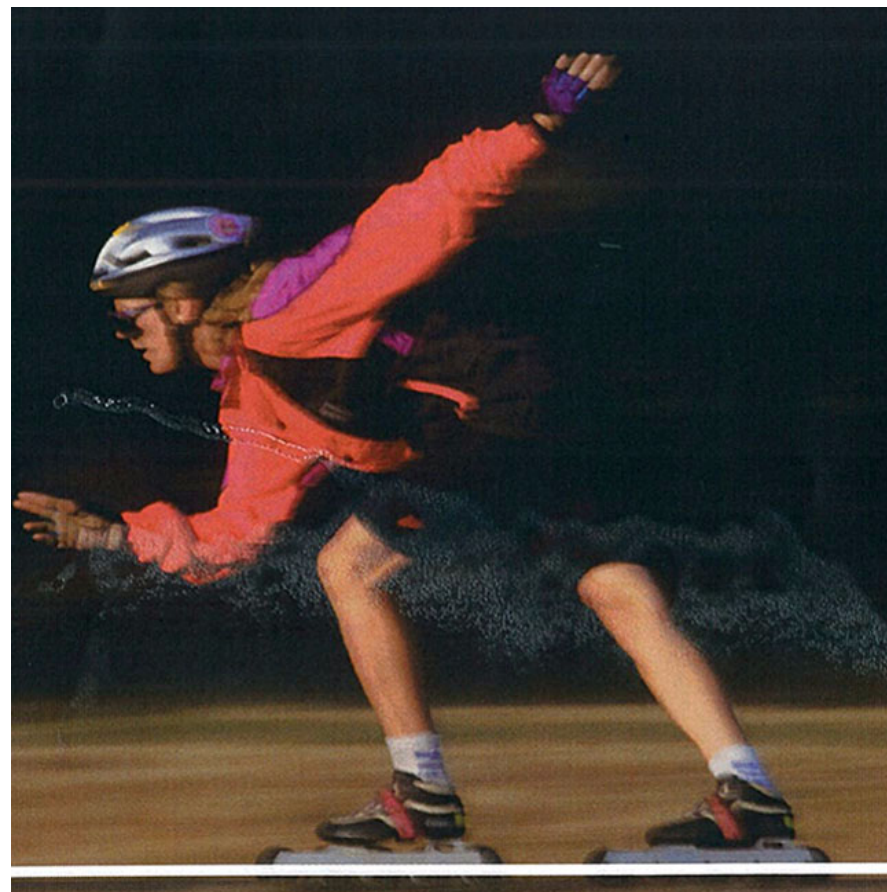


Figure 1 Cloud Defect Sample

### Cause

Non-uniform paper buckle between IBT and Fuser; Fuser "tenting" of paper

### Corrective Action

Go to the [IQ4](#) RAP.



## IBT Cleaner Streak

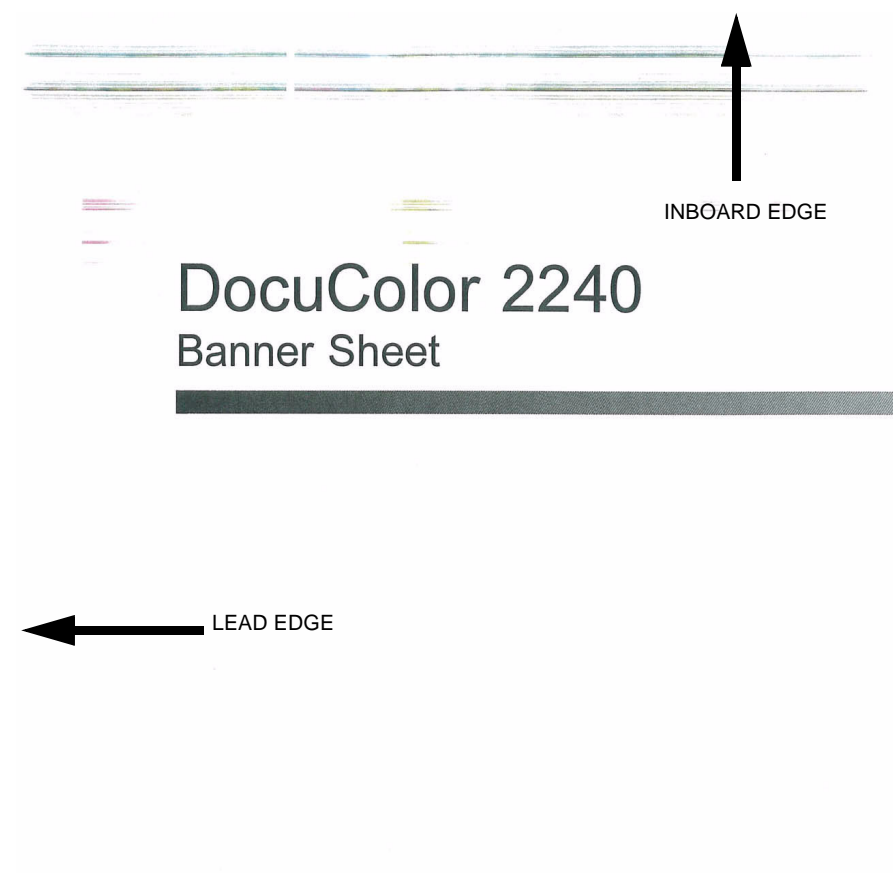


Figure 1 IBT Cleaner Streak Defect Sample

### Cause

Damage or wear to IBT Cleaner Assembly

### Corrective Action

Go to the [IQ12](#) RAP.







## 4 Repairs & Adjustments

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## REP 1.1 LVPS Bracket

Parts List on **PL 9.1**

### Removal

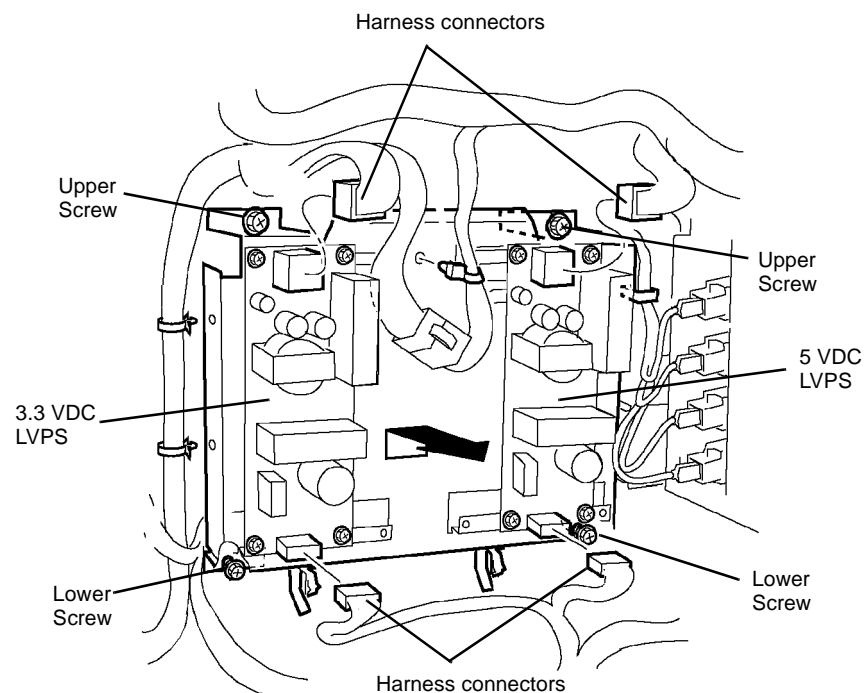
#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

PWBs can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.

1. Remove Rear Cover (**REP 14.2**).
2. Remove the High Voltage Power Supply Chassis (**REP 1.6**).
3. Release 6 harness clips.
4. Remove the LVPS Bracket (**Figure 1**).
  - a. Disconnect harness connectors (4).
  - b. Loosen Lower screws (2).
  - c. Remove the upper screws (2) and remove the LVPS Bracket.



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Figure 1 Removing the LVPS Bracket



## REP 1.2 MCU PWB

Parts List on **PL 13.1**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Gather all available settings information. This includes the machine NVM log, the Machine Settings floppy disk, copies of the Configuration Report, etc. If possible save the current Machine Settings to the floppy.

#### CAUTION

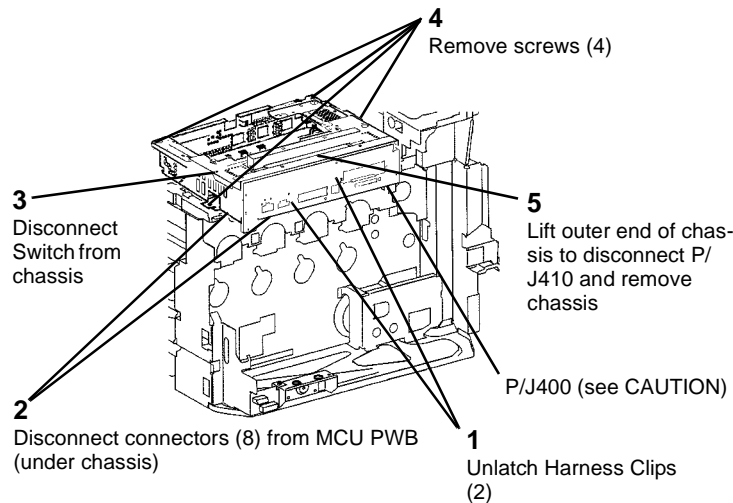
PWBs can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.

2. Remove Right Cover (REP 14.3).
3. Remove Top Cover (REP 14.1).
4. Remove Rear Cover (REP 14.2).
5. Remove ESS DIMM cover (PL 13.1, item 4).
6. Disconnect J300 (DC2240/1632, WC M24) or NJ300 (DC3535) from the ESS PWB.

#### CAUTION

Disengage locking tab on P/J400 before disconnecting.

7. Remove the ESS Chassis Assembly (Figure 1).



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Figure 1 Removing ESS Chassis

8. Remove the screws (9) securing the MCU PWB Cover (PL 13.1) and remove the cover.
9. Remove and retain the MCU NVM PWB.

10. Remove the screws (5) securing the MCU PWB and remove the MCU PWB.

### Replacement

1. Install the existing MCU NVM PWB onto the new MCU PWB. Install the new MCU PWB and reassemble the machine.
2. Connect the PWS and switch on the power.
3. Check the IOT software version to ensure that it matches the system software configuration. Refer to the SW Configuration Table in the System Software Upgrade Instructions contained on the S/W Update CD.  
If the software version does not match, reload the software in accordance with the instructions on the CD.
4. If a good Machine Settings floppy is available, exit, then reenter the PWS Tool. Select **Read from Floppy** when starting the tool. If no floppy is available, or if the data on the existing floppy is questionable, go to step 6.
5. Go to dC351 and select **Restore Machine Settings**. When the restoration is complete, go to step 8.
6. If a good Machine Settings floppy is not available, or if the data on the existing floppy is questionable, go to dC351. In the Special Batch Write area, select the appropriate market region, then press the **Batch Write NVM** button.
7. Using the resources gathered in step 1 of the removal procedure, reenter NVM data to restore the machine configuration.
8. Ensure that the network information (IP address, etc.) is correct. Contact the customer's system administrator to configure, if necessary.
9. Go to dC351 and select **Save Machine Settings**. Save the settings to floppy disk per the procedure.



## REP 1.4 3.3 V LVPS or 5 V LVPS

Parts List on [PL 9.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

PWBs can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.

1. Remove the Rear Cover ([REP 14.2](#)).
2. Remove the High Voltage Power Supply Chassis ([REP 1.6](#)).
3. Remove the appropriate LVPS ([Figure 1](#)).
  - a. Disconnect appropriate harness connectors (2).
  - b. Remove the appropriate screws (4) and remove LVPS.

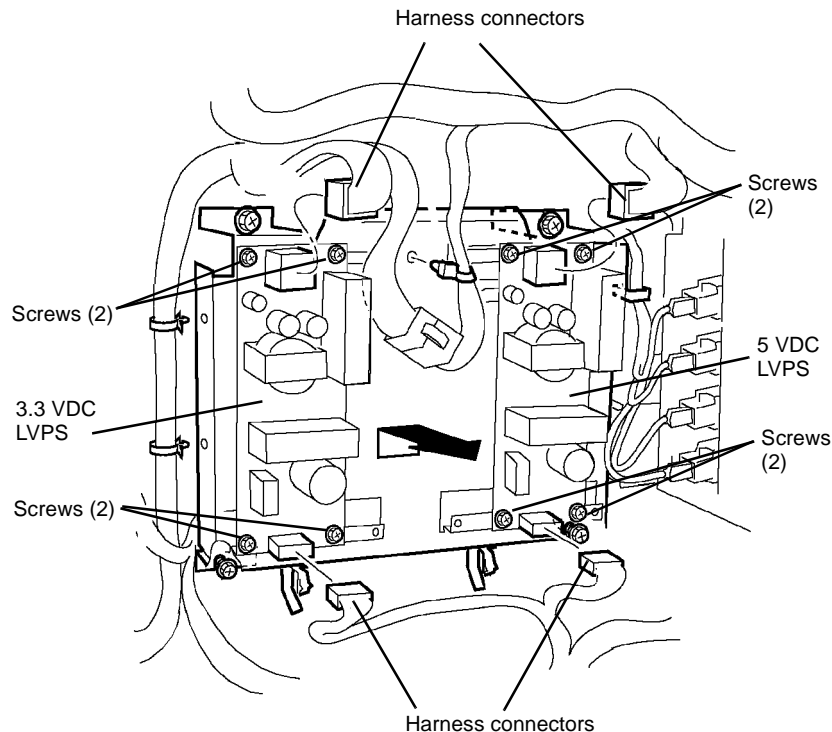


Figure 1 Removing LVPS

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## REP 1.5 24 V LVPS

Parts List on [PL 9.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover ([REP 14.2](#)).

#### CAUTION

PWBs can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.

2. Remove the 24 V LVPS ([Figure 1](#)).
  - a. Remove metal cover over power supply (3 screws)
  - b. Disconnect harness connectors (3).

#### CAUTION

5 screws with red marks secure LVPS to heat sink. Do not remove them.

- c. Loosen screws (2) and remove LVPS.

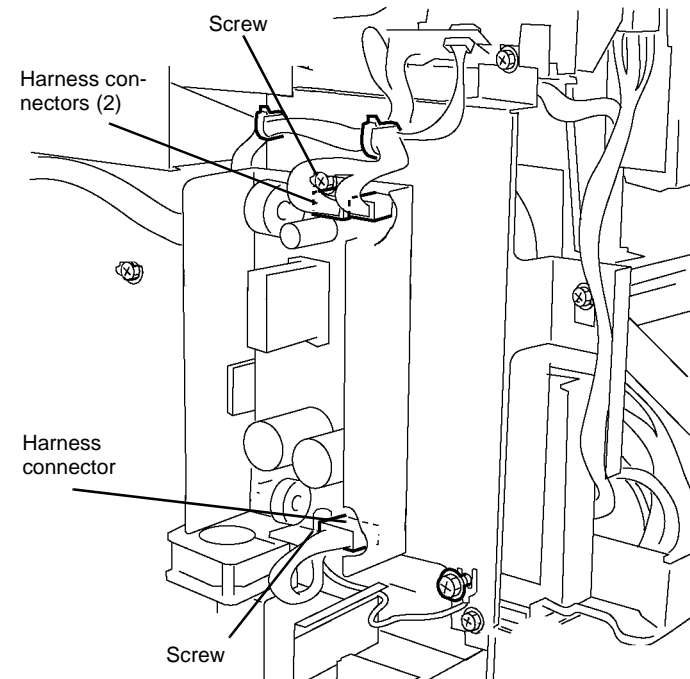


Figure 1 Removing 24 VDC Power Supply



## REP 1.6 High Voltage Power Supply Chassis

Parts List on [PL 9.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

*HVPS can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

1. Remove the Rear Cover ([REP 14.2](#)).
2. Remove the High Voltage Power Supply Chassis ([Figure 1](#)).
  - a. Loosen screw and disconnect ground wire.

#### CAUTION

*Do not attempt to disconnect soldered connection.*

- b. Disconnect harness connectors (2).
- c. Disconnect High Voltage connectors (3).
- d. Remove the screws (3).
- e. Pivot HVPS down and engage stop strap with frame tab (not shown).
- f. Disconnect High Voltage connector (1) from inner PWB (not shown).

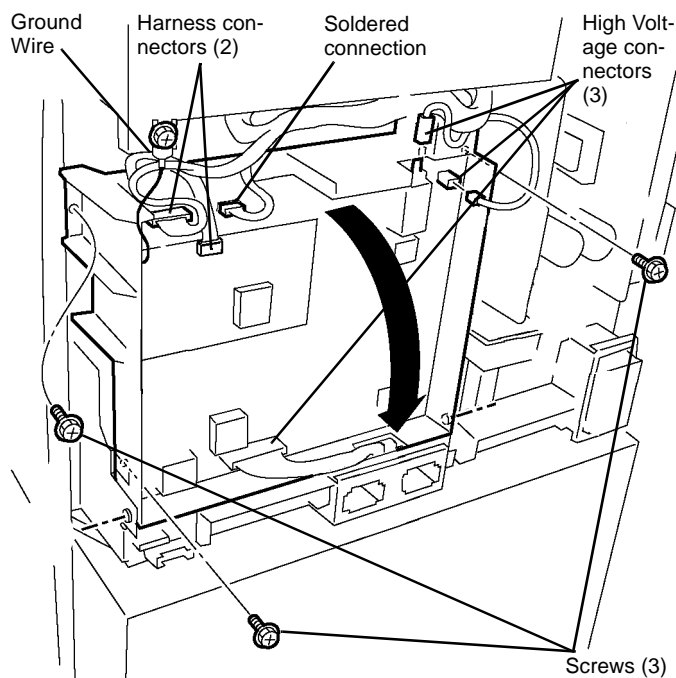


Figure 1 Removing High Voltage Power Supply Chassis

## REP 1.7 DEV/BTR2/DTS HVPS; BCR HVPS

Parts List on [PL 9.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover ([REP 14.2](#)).

#### CAUTION

*PWBs can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

2. Remove the High Voltage Power Supply Chassis ([REP 1.6](#)).
3. Remove the High Voltage Power Supplies from Chassis:
  - DEV/BTR2/DTS HVPS is PWB toward machine rear.
  - BCR HVPS is PWB toward machine front.



## REP 1.8 I/F (Interface) PWB

### Parts List on PL 9.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Right Cover (REP 14.3).
2. Remove the Top Cover (REP 14.1).
3. Remove the Rear Cover (REP 14.2).
4. Pivot down HVPS Chassis (REP 1.6).
5. Remove ESS DIMM cover (PL 13.1, item 4).
6. Disconnect J300 (DC2240/1632, WC M24) or NJ300 (DC3535) from the ESS PWB

#### CAUTION

Disengage locking tab on P/J400 before disconnecting.

#### CAUTION

PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.

7. Remove the ESS Chassis Assembly (Figure 1).

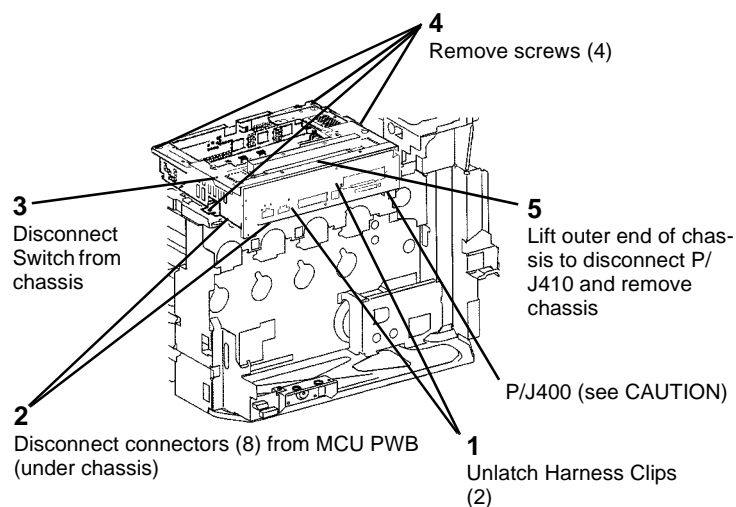


Figure 1 Removing ESS Chassis

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8. Remove the Interface PWB (Figure 2).
  - a. Loosen screws (2).
  - b. Lift the Interface PWB until harness connectors (11) can be disconnected.
  - c. Remove the Interface PWB from chassis

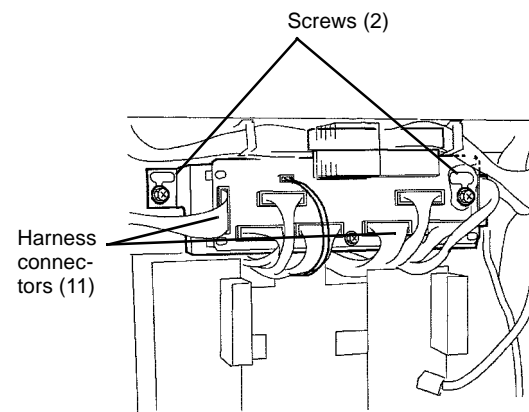


Figure 2 Removing Interface PWB

#### Replacement

Ensure screws (2) are positioned in slots as shown before tightening (Figure 3).

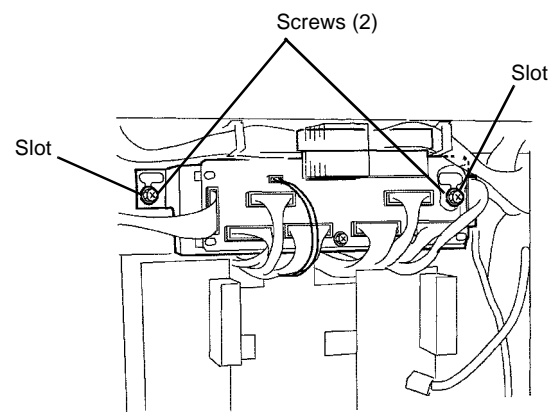


Figure 3 Installing Interface PWB



## REP 1.9 24 V LVPS Chassis

Parts List on **PL 9.1**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover (REP 14.2).
2. Remove the Rear Left Middle Cover (REP 14.4).
3. Remove the 24 V LVPS (REP 1.5).
4. Remove the 24 VDC LVPS Chassis (Figure 1).
  - a. Remove the Top screw.
  - b. Remove upper harnesses from Harness Clips (2).
  - c. Disconnect Fan connector and remove harness from Harness Clip.
  - d. Loosen Screws (4).
  - e. Remove the 24 VDC LVPS Chassis.

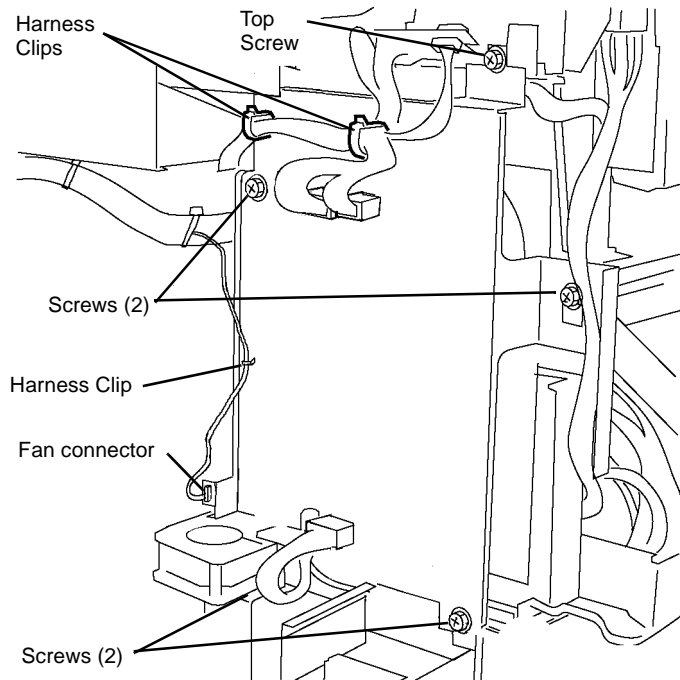


Figure 1 Removing 24 VDC LVPS Chassis Assembly

## REP 1.10 BTR1 HVPS

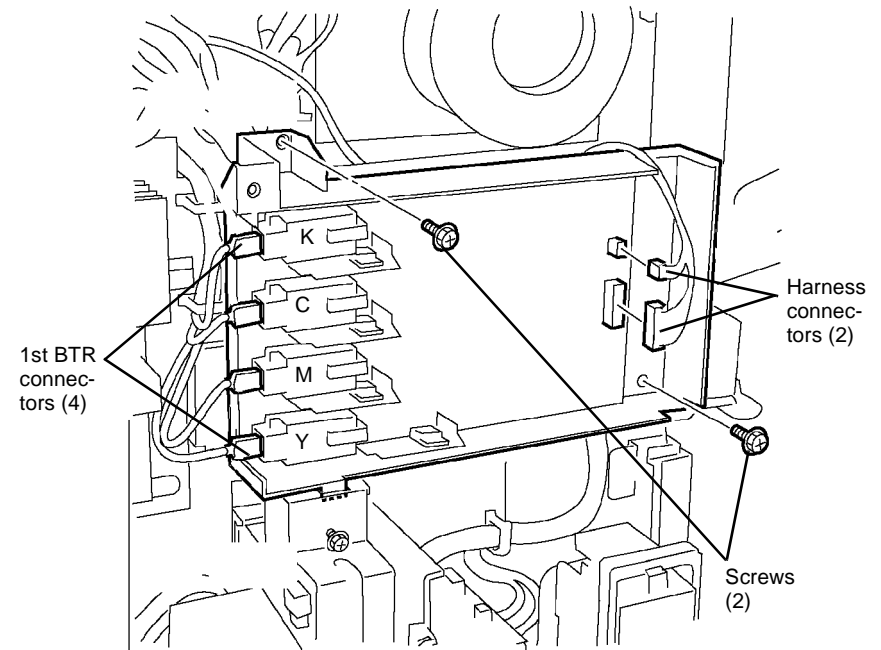
Parts List on **PL 9.1**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover (REP 14.2).
2. Remove the 24 VDC LVPS Chassis (REP 1.9).
3. Remove the BTR1 HVPS (Figure 1).
  - a. Disconnect connectors (4).
  - b. Disconnect harness connectors (2).
  - c. Remove the Screws (2) and remove High Voltage Power Supply with chassis.
  - d. Remove the High Voltage Power Supply from chassis.



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Figure 1 Removing BTR1 HVPS



## REP 1.11 AC Drive PWB

Parts List on **PL 9.2**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover (REP 14.2).
2. Remove the 24 VDC LVPS Chassis (REP 1.9).
3. Remove BTR1 HVPS (REP 1.10).
4. Remove the AC Drive PWB (Figure 1).
  - a. Remove Screws (2) and Bracket.
  - b. Carefully observe position of wiring harnesses and AC wires for later reinstallation
  - c. Disconnect AC harness connectors (3), DC connectors (2), and AC Wires (6).
  - d. Release harness from Harness Clip.
  - e. Remove Mounting Screws (3). Disengage rear clip (not shown) and remove AC Drive PWB.

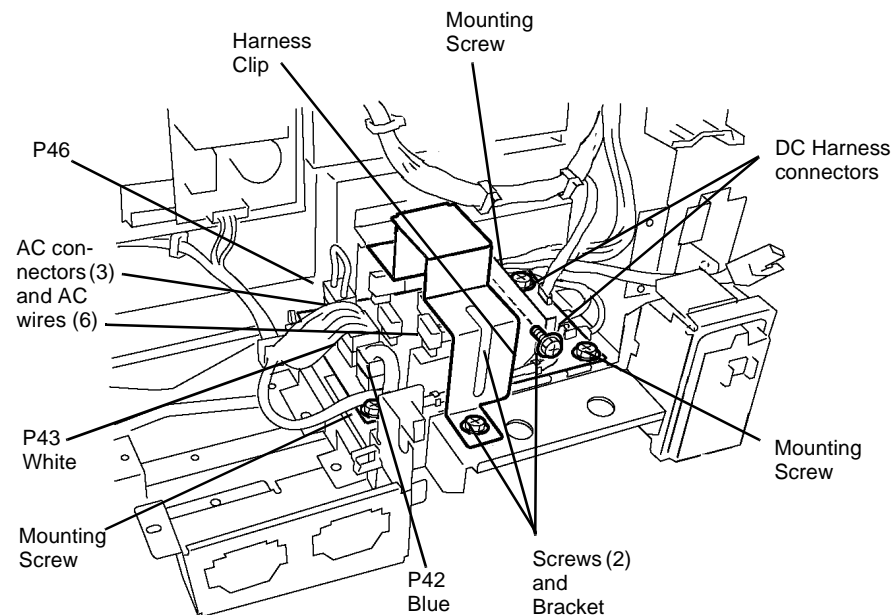


Figure 1 Removing AC Drive PWB

### Replacement

#### CAUTION

Ensure that White connector is P43 and the Blue connector is P42. Other connectors are different sizes to ensure correct connection.



## REP 1.12 ESS PWB

Parts List on [PL 13.1](#)

### Removal

1. Gather all available settings information. This includes the NVM log, the Machine Settings floppy, Configuration Report, etc. If possible save the current Machine Settings to disk.

#### WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

2. Remove the Right Cover ([REP 14.3](#)).
3. Remove the Top Cover ([REP 14.1](#)).
4. Remove the Rear Cover ([REP 14.2](#)).
5. Remove the ESS Top Cover ([PL 13.1](#)).

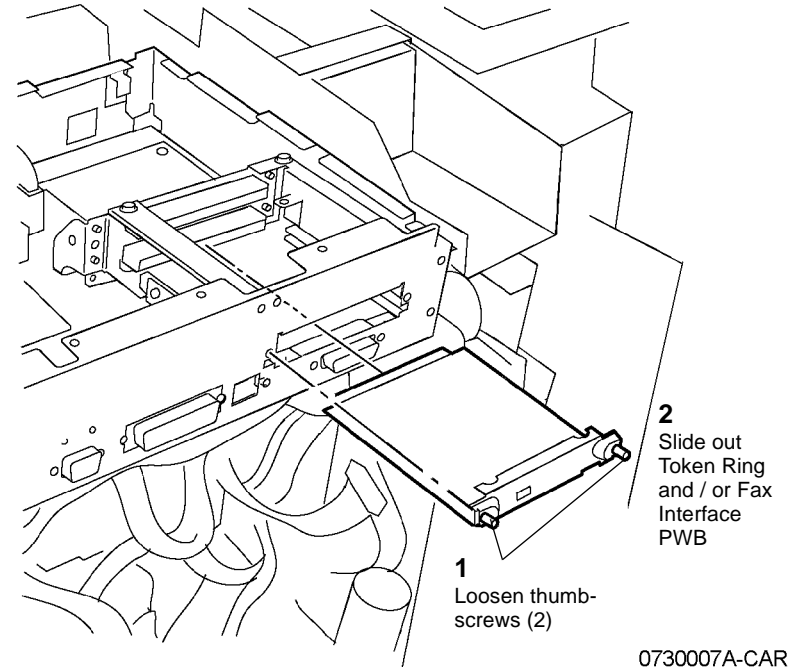
#### CAUTION

*Protect the Hard Drive harness. The Hard Drive is mounted to ESS Top Cover; the harness remains connected to the ESS PWB while removing the cover.*

- a. Remove screws (11) from ESS Top Cover.
- b. Lift ESS Top Cover and place it upside down on Toner Cartridges.
- c. Disconnect the Hard Drive harness from the ESS PWB.

**NOTE:** If the machine is equipped with a Token Ring and / or Fax Module, (DC2240/1632 and WC24 only) proceed with steps [6](#) - [9](#). If the machine is not equipped with Token Ring / Fax Module, proceed with step [9](#).

6. Remove the Token Ring and / or Fax Interface PWB ([Figure 1](#)).



**Figure 1 Removing Token Ring / Fax Interface PWB**

7. Remove the Guide Bracket and the Plate ([Figure 2](#)).



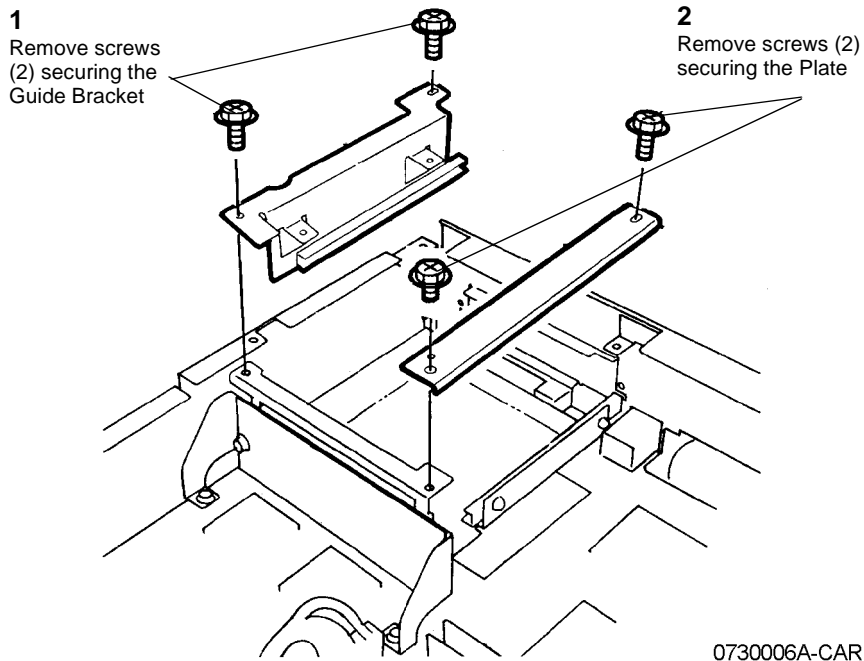


Figure 2 Removing Guide Bracket and Plate

8. Remove the Chassis Assembly Riser (Figure 3).

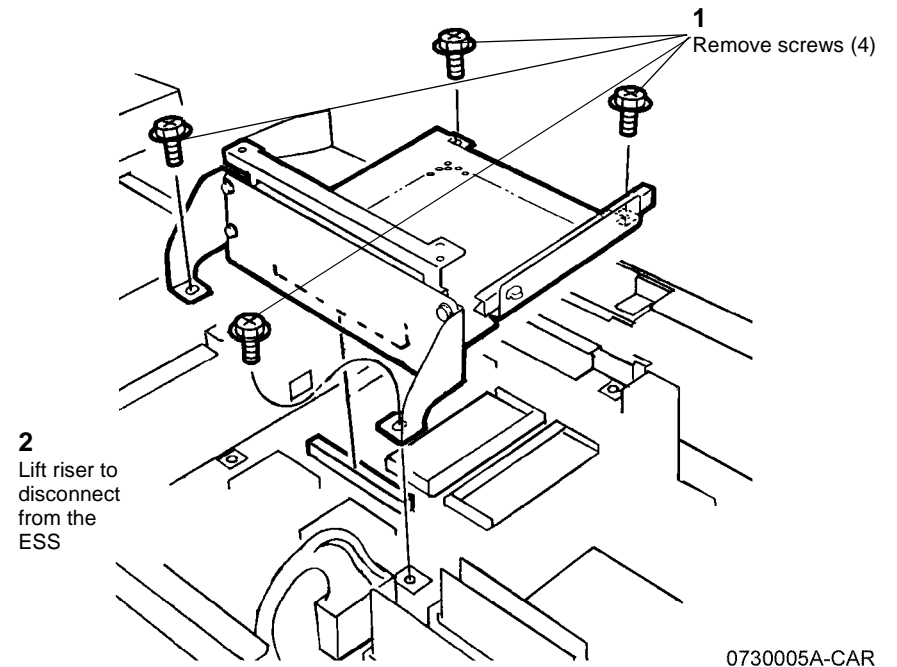


Figure 3 Removing the Chassis Assembly Riser

**CAUTION**

*PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.*

9. Remove the ESS PWB (Figure 4).



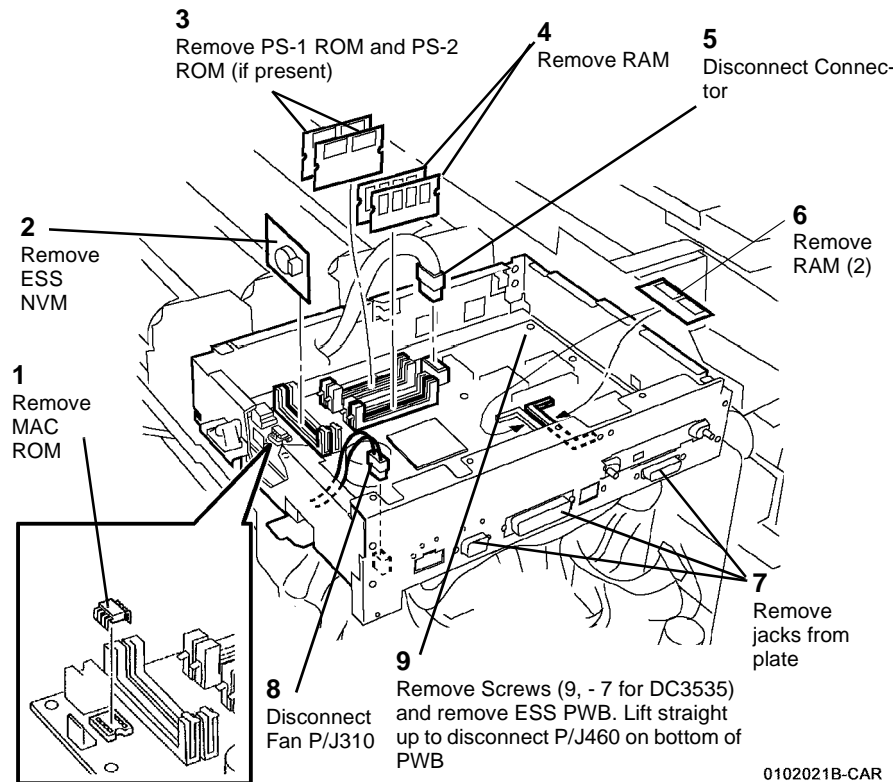


Figure 4 Removing ESS PWB

## Replacement

1. Reinstall the NVM PWB and the ROM/RAM/EPROMs that were removed from the original PWB. Discard the MAC ROM from the new ESS PWB and install the MAC ROM removed from the old ESS PWB.

### CAUTION

*GP10 is used to maintain the integrity of the serial number and billing data when one or more serialized PWBs must be replaced. Never replace all three listed PWBs at the same time. If any of the PWBs needs replacing, only replace them **one at a time**.*

- ESS NVM PWB (PL 13.1).
- MCU NVM PWB (PL 13.1).
- ESS PWB (PL 13.1).

*Failure to comply with GP 10 could result in catastrophic NVM corruption.*

2. Follow the procedure in GP 10, to verify that the serial numbers and billing information is correct.

3. If a good Machine Settings floppy is available, exit, then reenter the PWS Tool. Select **Read from Floppy** when starting the tool. If no floppy is available, or if the data on the existing floppy is questionable, go to step 5.
4. Go to dC351 and select **Restore Machine Settings**. When restoration is complete, go to step 7.
5. If a good Machine Settings floppy is not available, or if the data on the existing floppy is questionable, go to dC351. In the Special Batch Write area, select the appropriate market region, then press the **Batch Write NVM** button.
6. Using the resources gathered in step 1 of the removal procedure, reenter NVM data to restore the machine configuration.
7. Ensure that the network information (IP address, etc.) is correct. Contact the customer's system administrator to configure, if necessary.
8. Go to dC351 and select **Save Machine Settings**. Save the settings to floppy disk per the procedure.



## REP 1.13 ESS NVM PWB

### Parts List on PL 13.1

#### Removal

1. Gather all available settings information. This includes the machine NVM log, the Machine Settings floppy disk, copies of the Configuration Report, etc. If possible save the current Machine Settings to the floppy.

#### WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

2. Remove the Connector Cover (PL 10.2).
3. Remove the DIMM Cover (PL 13.1).

#### CAUTION

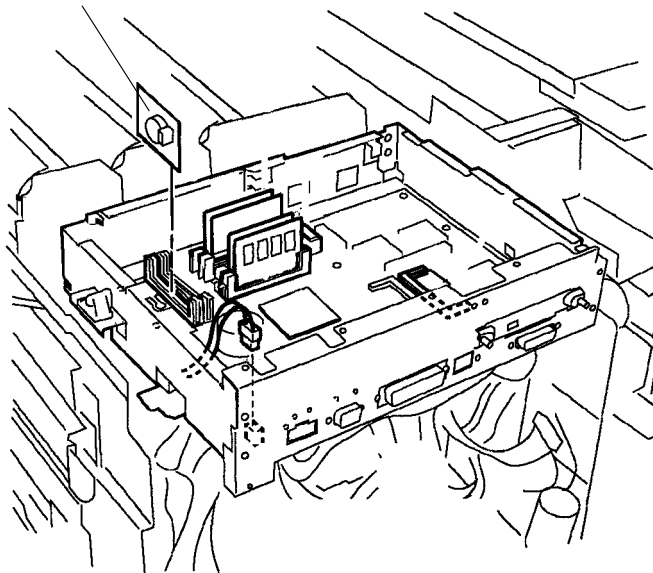
*The ESS NVM PWB has a lithium battery. Dispose of the used battery following the manufacturers' instructions after replacing. Do not throw it away at customer's site.*

#### CAUTION

*PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.*

4. Remove the ESS NVM PWB (Figure 1).

Remove ESS NVM PWB



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Figure 1 Removing the ESS NVM PWB

#### Replacement

1. Install the new ESS NVM PWB and reassemble the machine. Connect the PWS and switch on the power.

#### CAUTION

*GP10 is used to maintain the integrity of the serial number and billing data, when one or more serialized PWBs must be replaced.*

*To maintain the integrity of the serial number and billing data, never replace all three listed PWBs at the same time. If any of the following billing data PWBs needs replacing, only replace them one at a time.*

- ESS NVM PWB (PL 13.1).
- MCU PWB (PL 13.1).
- ESS PWB (PL 13.1).

*Failure to comply with the board replacement procedure in GP 10 could result in catastrophic NVM corruption.*

2. Follow the procedure in GP 10. If two or more serial numbers DO NOT match the M/C label serial number, escalate the service call to Field Engineering or the NTC.
3. Go to dC301 on the PWS. Initialize SYS-System, then initialize SYS-User.
4. If a good Machine Settings floppy is available, exit, then reenter the PWS Tool. Select **Read from Floppy** when starting the tool. If no floppy is available, or if the data on the existing floppy is questionable, go to step 6.
5. Go to dC351 and select **Restore Machine Settings**. When restoration is complete, go to step 8.
6. If a good Machine Settings floppy is not available, or if the data on the existing floppy is questionable, go to dC351. In the Special Batch Write area, select the appropriate market region, then press the **Batch Write NVM** button.
7. Using the resources gathered in step 1 of the removal procedure, reenter NVM data to restore the machine configuration.
8. Ensure that the network information (IP address, etc.) is correct. Contact the customer's system administrator to configure, if necessary.
9. Go to dC351 and select **Save Machine Settings**. Save the settings to floppy disk per the procedure.



## REP 1.14 PS-1 ROM, PS-2 ROM

### Parts List on PL 13.1

#### Removal

1. Gather all available settings information. This includes the machine NVM log, the Machine Settings floppy disk, copies of the Configuration Report, etc. If possible save the current Machine Settings to the floppy.

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

2. Remove the Connector Cover (PL 10.2).
3. Remove the DIMM Cover (PL 13.1).

#### CAUTION

PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.

4. Remove the PS-1 ROM and PS-2 ROM (if present) (Figure 1).

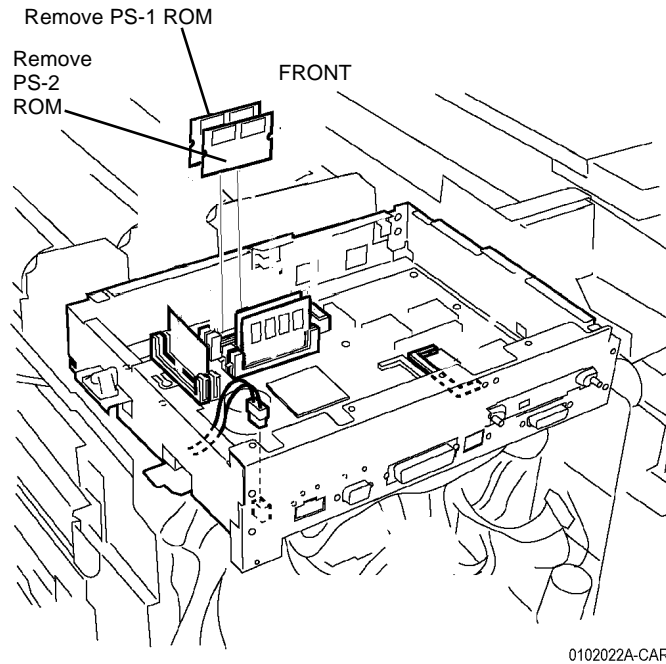


Figure 1 Removing PS-1 ROM and PS-2 ROM

#### Replacement

#### CAUTION

PS-1 ROM must be installed in R1 slot (front slot) Figure 1.

1. Install the new ROM PWB(s) and reassemble the machine
2. Switch on the power and connect the PWS.

3. If the machine declares a software-related (Chains 102, 103 or 116) fault, there may be an incompatible version of ESS software in the new ROM PWBs. Reload the correct ESS software in accordance with the instructions on the s/w upgrade CD.
4. If the machine successfully boots without a fault code, print the Configuration Page. Check the ESS software version (Standard+PostScript ROM) to ensure that it matches the system software configuration. Refer to the SW Configuration Table in the system software upgrade instructions contained on the s/w upgrade CD.  
If the software version does not match, reload the software in accordance with the instructions on the CD.



## REP 1.15 MCU NVM PWB

### Parts List on PL 13.1

#### Removal

1. Gather all available settings information. This includes the machine NVM log, the Machine Settings floppy disk, copies of the Configuration Report, etc. If possible save the current Machine Settings to the floppy.

#### CAUTION

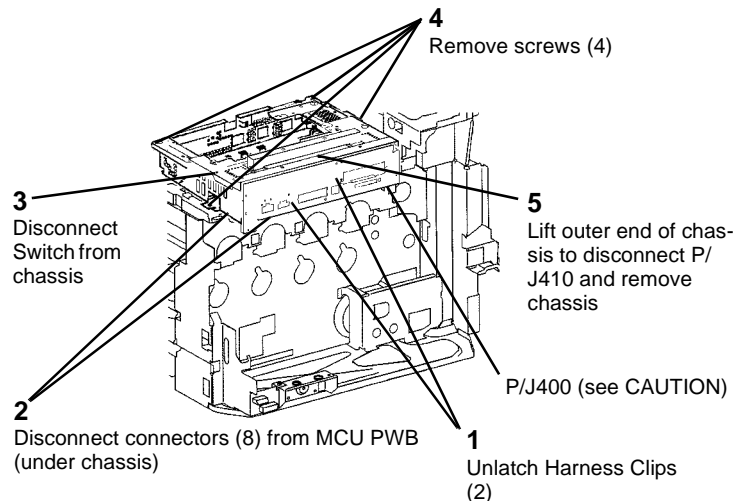
*PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.*

2. Remove Right Cover (REP 14.3).
3. Remove Top Cover (REP 14.1).
4. Remove Rear Cover (REP 14.2).
5. Remove ESS DIMM cover (PL 13.1, item 4).
6. Disconnect J300 (DC2240/1632, WC M24) or NJ300 (DC3535) from the ESS PWB

#### CAUTION

*Disengage locking tab on P/J400 before disconnecting.*

7. Remove the ESS Chassis Assembly (Figure 1).



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Figure 1 Removing ESS Chassis

#### CAUTION

*The MCU NVM PWB has a lithium battery. Dispose of the used battery following the manufacturers' instructions after replacing. Do not throw it away at customer's site.*

8. Remove the screws (9) securing the MCU PWB Cover (PL 13.1) and remove the cover.
9. Remove the MCU NVM PWB (PL 13.1).

#### Replacement

1. Install the new MCU NVM PWB and reassemble the machine. Connect the PWS and switch on the power.

#### CAUTION

*GP10 is used to maintain the integrity of the serial number and billing data, when one or more serialized PWBs must be replaced.*

*To maintain the integrity of the serial number and billing data, never replace all three listed PWBs at the same time. If any of the following billing data PWBs needs replacing, only replace them one at a time.*

- ESS NVM PWB (PL 13.1).
- MCU PWB (PL 13.1).
- ESS PWB (PL 13.1).

*Failure to comply with the board replacement procedure in GP 10 could result in catastrophic NVM corruption.*

2. Follow the procedure in GP 10. If two or more serial numbers DO NOT match the M/C label serial number, escalate the service call to Field Engineering or the NTC.
3. If a good Machine Settings floppy is available, exit, then reenter the PWS Tool. Select **Read from Floppy** when starting the tool. If no floppy is available, or if the data on the existing floppy is questionable, go to step 5.
4. Go to dC351 and select **Restore Machine Settings**. When restoration is complete, go to step 7.
5. If a good Machine Settings floppy is not available, or if the data on the existing floppy is questionable, go to dC351. In the Special Batch Write area, select the appropriate market region, then press the **Batch Write NVM** button.
6. Using the resources gathered in step 1 of the removal procedure, reenter NVM data to restore the machine configuration.
7. Ensure that the network information (IP address, etc.) is correct. Contact the customer's system administrator to configure, if necessary.



## REP 1.17 VSEL PWB

### Parts List on PL 13.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine

#### CAUTION

PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.

1. Remove Right Cover (REP 14.3).
2. Remove Top Cover (REP 14.1).
3. Remove Rear Cover (REP 14.2).
4. Remove the ESS Top Cover (PL 13.1).

#### CAUTION

Protect the Hard Drive Harness. The Hard Drive is mounted to the ESS Top Cover; the harness remains connected to the ESS PWB while removing the cover.

- a. Remove screws (11) from the ESS Top Cover.
  - b. Lift ESS Top Cover and place it upside down on the toner cartridges.
  - c. Disconnect the Hard Drive Harness from the ESS PWB.
5. Remove the mating connector screws (8) and screws (2) securing the jacks to the plate (Figure 1).

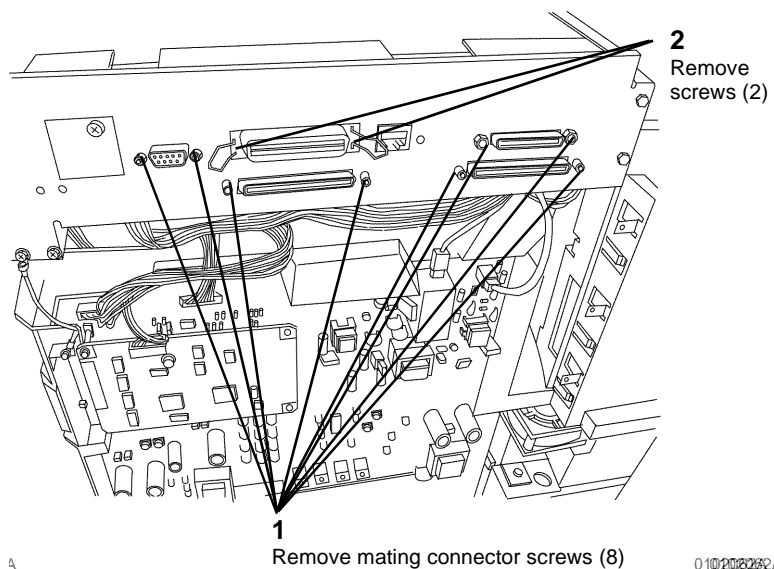


Figure 1 Removing mating connector screws and screws.

6. Remove the ESS PWB (Figure 2).

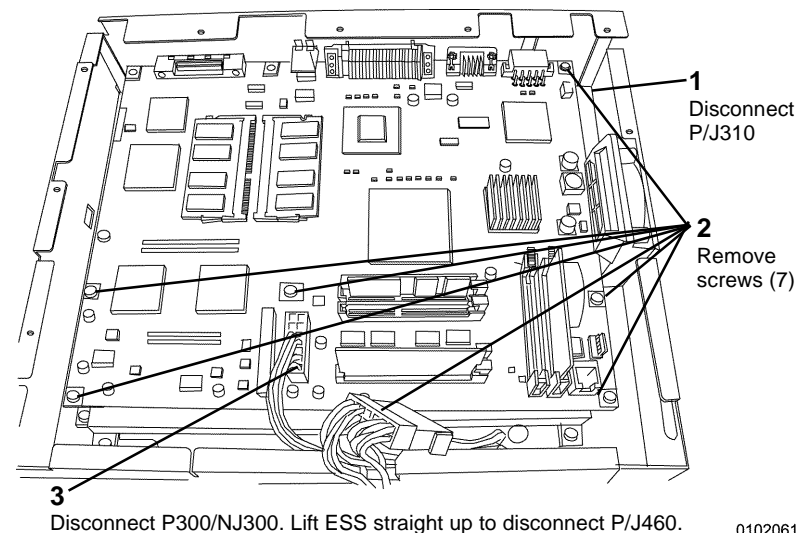


Figure 2 Removing the ESS PWB

7. Remove the bracket over the VSEL PWB (Figure 3).

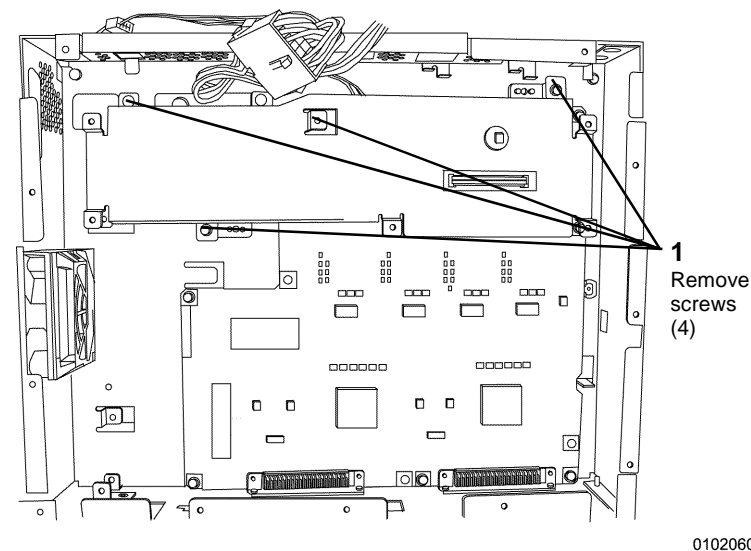


Figure 3 Removing Bracket

8. Remove the VSEL PWB (Figure 4).



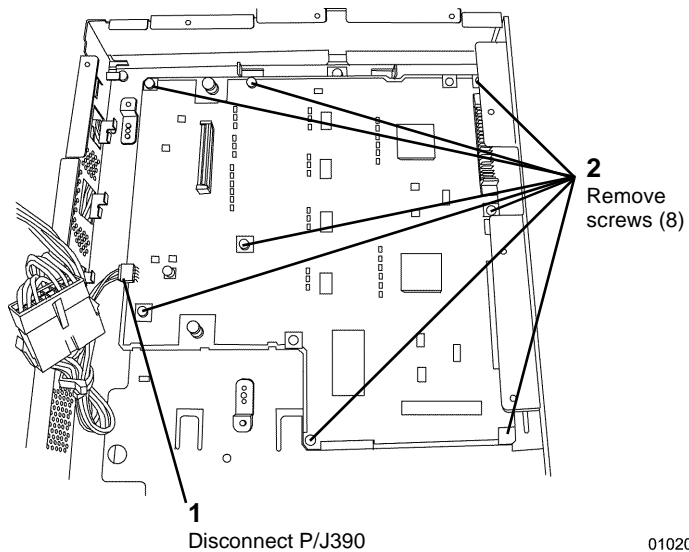


Figure 4 Removing the VSEL PWB

## REP 1.18 Fax Module

Parts List on [PL 9.4](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.

1. Remove the Rear Cover (Tray Module) ([REP 14.9](#)).
2. Remove the Fax Module ([Figure 1](#)).

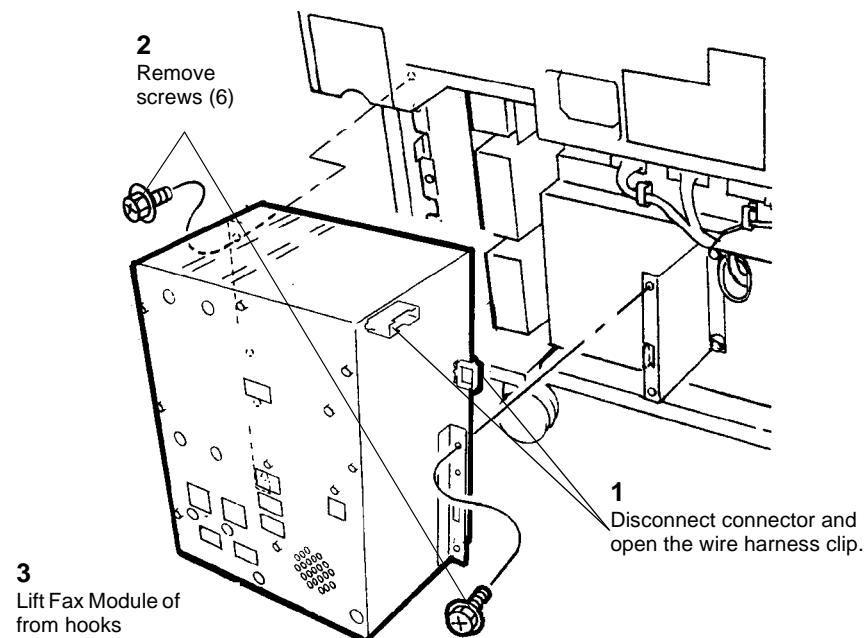


Figure 1 Removing the Fax Module



## REP 1.19 One-Touch Panel

Parts List on [PL 18.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Switch the Main Power off.
2. Remove the Control Panel ([Figure 1](#)).

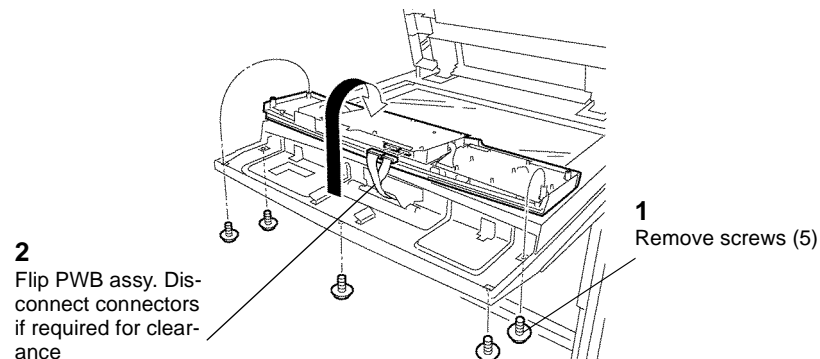


Figure 1 Removing the Control Panel

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3. Remove the One-Touch Panel ([Figure 2](#)).

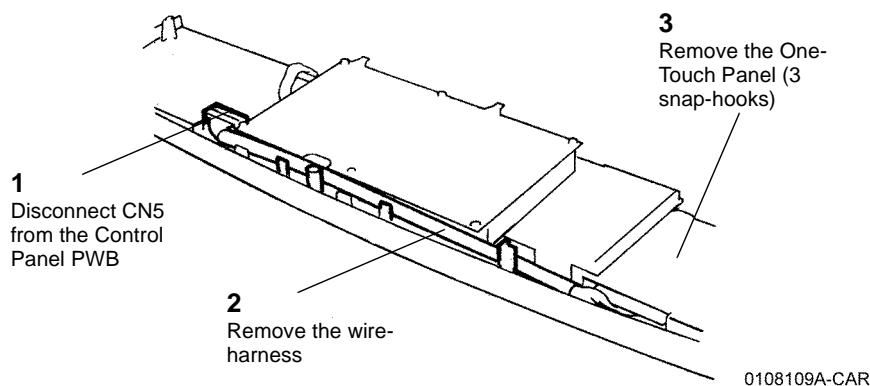


Figure 2 Removing the One-Touch Panel connector

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### Replacement

1. Install the new One-Touch Panel on the Control Panel ([Figure 3](#)).

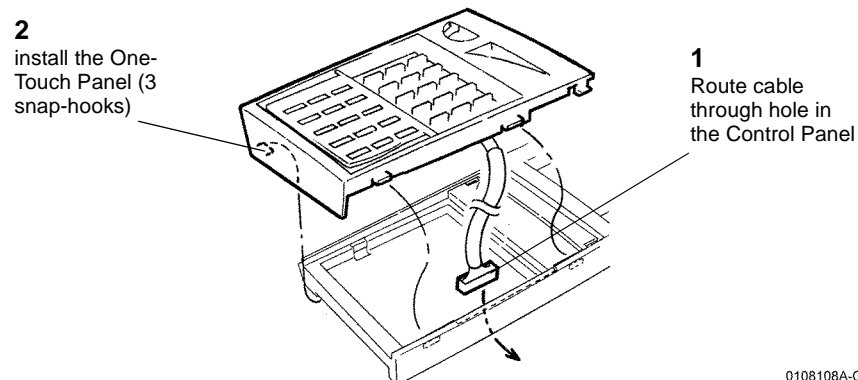


Figure 3 Installing the One-Touch Panel

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2. Connect the One-Touch Panel wireharness to the Control Panel PWB ([Figure 4](#)).

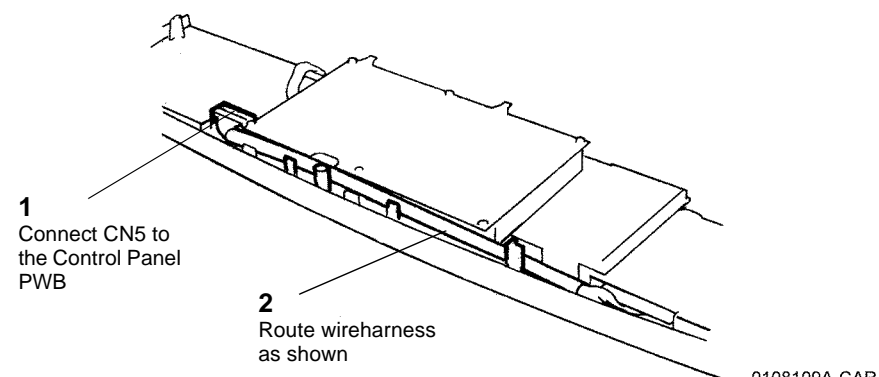


Figure 4 Connecting the One-Touch Panel

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3. Reinstall the Control Panel.



## REP 4.1 Main Drive Motor Assembly

Parts List on [PL 1.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Fuser Module ([REP 10.1](#)).
2. Remove Tray 5 ([REP 7.1](#)).
3. Remove Rear Cover ([REP 14.2](#)).
4. Remove 24 VDC LVPS Chassis ([REP 1.9](#)).
5. Remove BTR1 High Voltage Power Supply ([REP 1.10](#)).
6. Remove AC Drive PWB ([REP 1.11](#)).

**NOTE:** Carefully observe position of wiring harnesses for later reinstallation

**NOTE:** In next step, do not remove small round head screws that appear to secure Main Drive Motor Assembly to machine.

7. Remove Main Drive Motor Assembly ([Figure 1](#)).

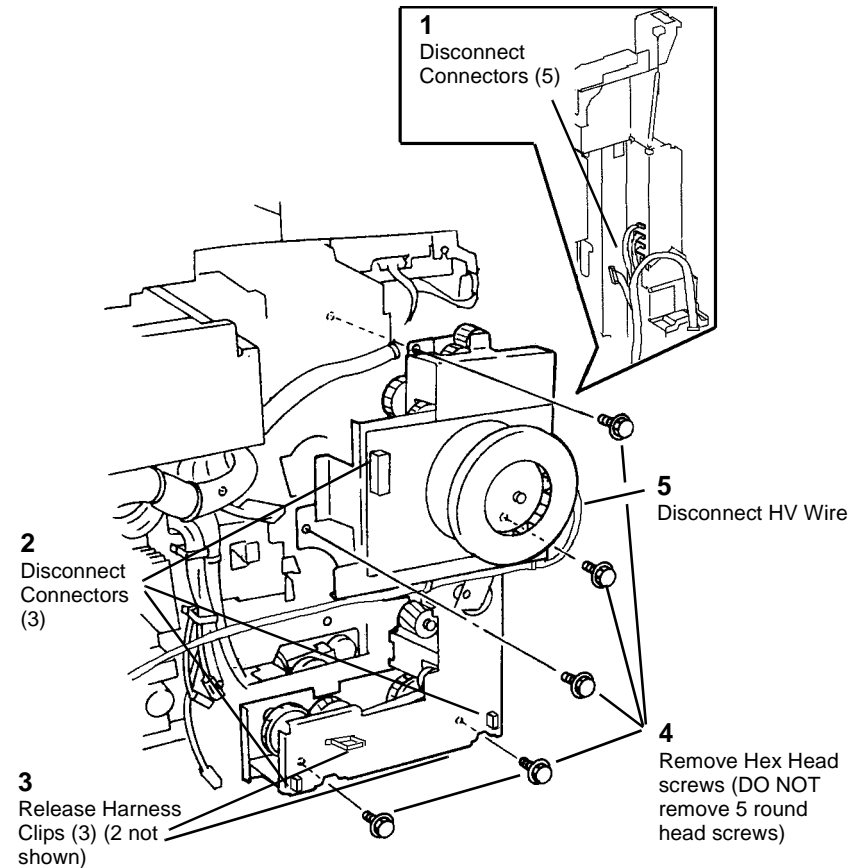


Figure 1 Removing Main Drive Motor Assembly



## REP 4.2 IBT Motor Assembly

Parts List on [PL 1.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover ([REP 14.2](#)).
2. Pivot down High Voltage Power Supply Chassis ([REP 1.6](#)).
3. Disconnect Rear Fan connector ( [P/J552](#)).
4. Remove screws (2) and remove the Rear Fan ([PL 8.1](#)).
5. Disconnect IBT Motor Assembly connector ( [P/J551](#)).
6. Remove screws (3) and remove the IBT Motor Assembly ([PL 1.1](#)).

## REP 4.3 Developer Drive Motor Assembly

Parts List on [PL 1.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover ([REP 14.2](#)).
2. Remove the High Voltage Power Supply Chassis ([REP 1.6](#)).
3. Remove LVPS Bracket ([REP 1.1](#)).
4. Remove Developer Drive Motor Assembly ([Figure 1](#)).

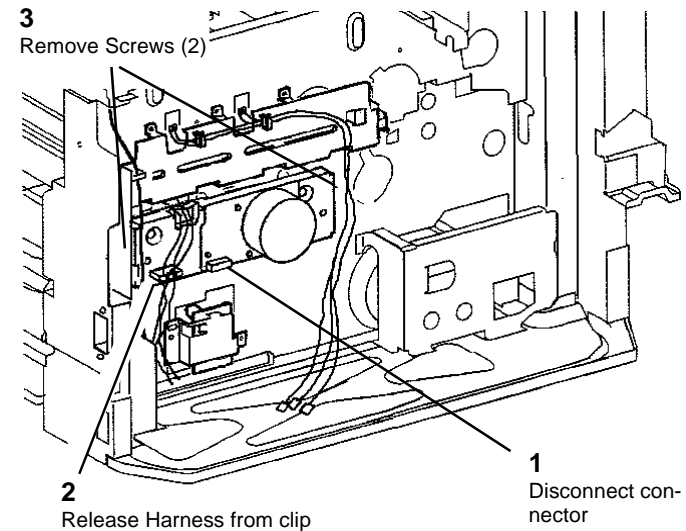


Figure 1 Removing Developer Drive Motor Assembly



## REP 4.4 Drum Motor Assembly

### Parts List on PL 1.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

Machine problems will result from careless harness routing during reassembly. Carefully observe position of wiring harnesses for later reinstallation.

1. Remove the 24 VDC LVPS Chassis (REP 1.9).
2. Remove the Right Cover (REP 14.3).
3. Remove the Top Cover (REP 14.1).
4. Remove the Rear Cover (REP 14.2).
5. Remove the ESS DIMM cover (PL 13.1, item 4).
6. Disconnect J300 (DC2240/1632, WC M24) or NJ300 (DC3535) from the ESS PWB.

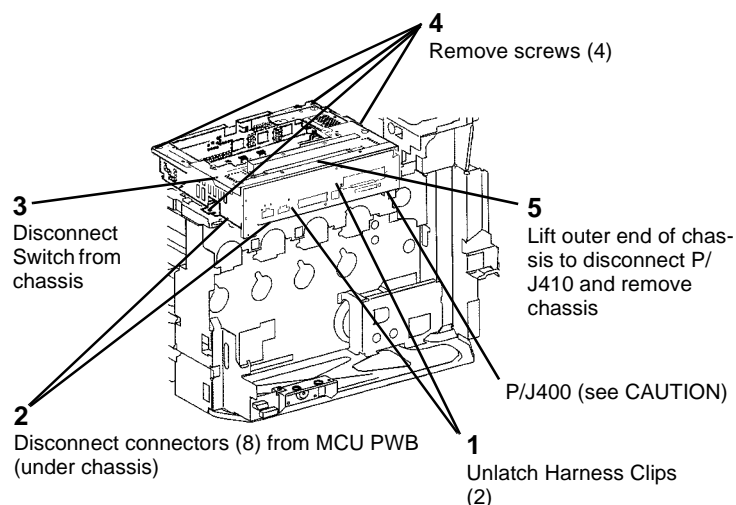
#### CAUTION

Disengage locking tab on P/J400 before disconnecting.

#### CAUTION

PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.

7. Remove the ESS Chassis Assembly (Figure 1).



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Figure 1 Removing ESS Chassis

8. Remove the High Voltage Power Supply Chassis (REP 1.6).

**NOTE:** In next step, do not disconnect connectors.

9. Loosen the I/F PWB chassis mounting screws (2) and move chassis up (REP 1.8).
10. Remove the IBT Motor Assembly (REP 4.2).
11. Remove the BTR1 HVPS (REP 1.10).
12. Remove the LVPS Bracket (REP 1.1).
13. Remove the Drum Motor Assembly (Figure 2).

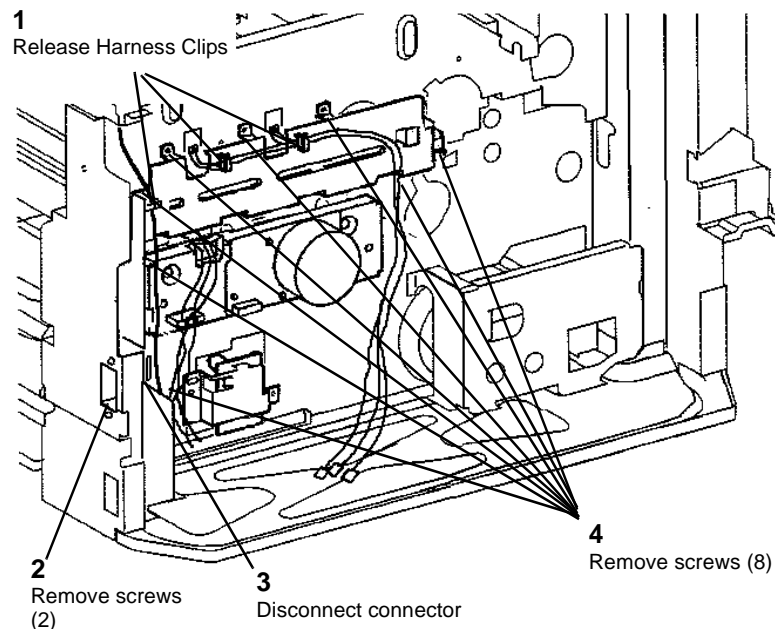


Figure 2 Removing Drum Motor Assembly







## REP 5.1 DADF

Parts List on [PL 20.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Disconnect connector ([Figure 1](#)).

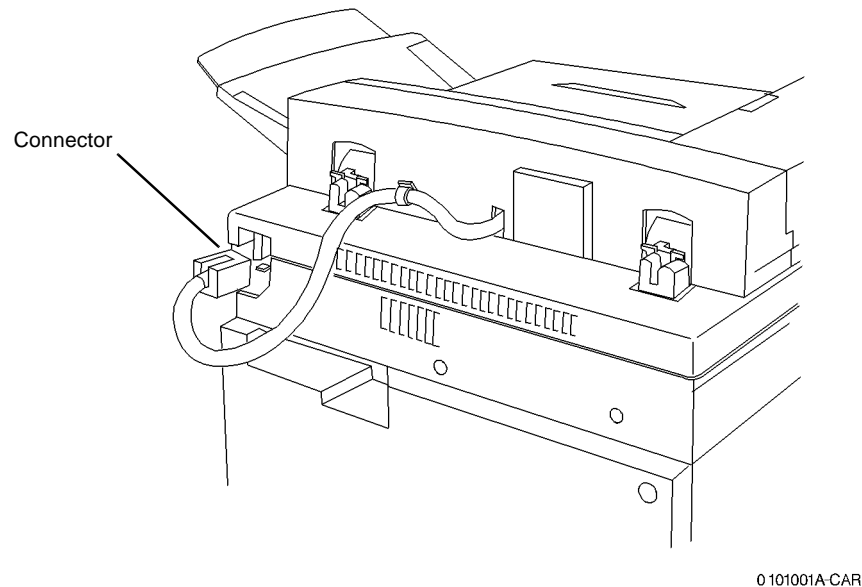


Figure 1 Disconnecting Connector

2. Remove Screws (2) and remove DADF ([Figure 2](#)).

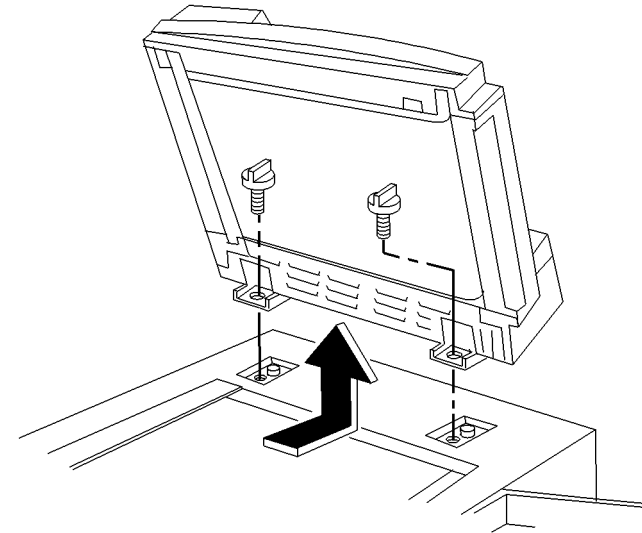


Figure 2 Removing DADF

### Replacement

1. Check DADF Side Registration ([ADJ 5.1](#)).  
Check DADF Top Registration ([ADJ 5.5](#)).



## REP 5.2 Registration Gate Solenoid

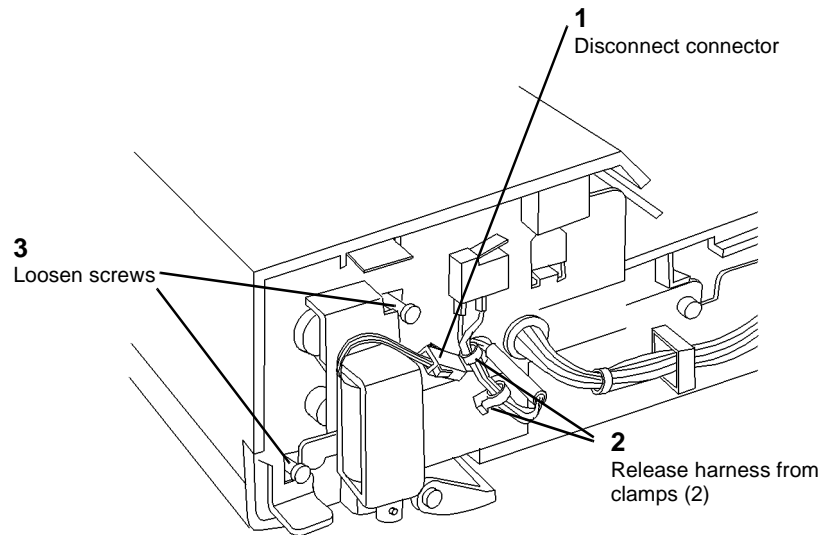
Parts List on [PL 20.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover ([PL 20.1](#)).
2. Remove Registration Gate Solenoid ([Figure 1](#)).



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Figure 1 Removing Registration Gate Solenoid



## REP 5.3 Left/Right Counterbalance

Parts List on [PL 20.3](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove DADF ([REP 5.1](#)).
2. Remove Rear Cover ([REP 5.18](#)).
3. To remove Left Counterbalance, go to step 5.
4. To remove Right Counterbalance, go to step 6.

**NOTE:** If counterbalance is to be reinstalled, mark as "Left" before removing.

5. Remove Left Counter Balance ([Figure 1](#)).

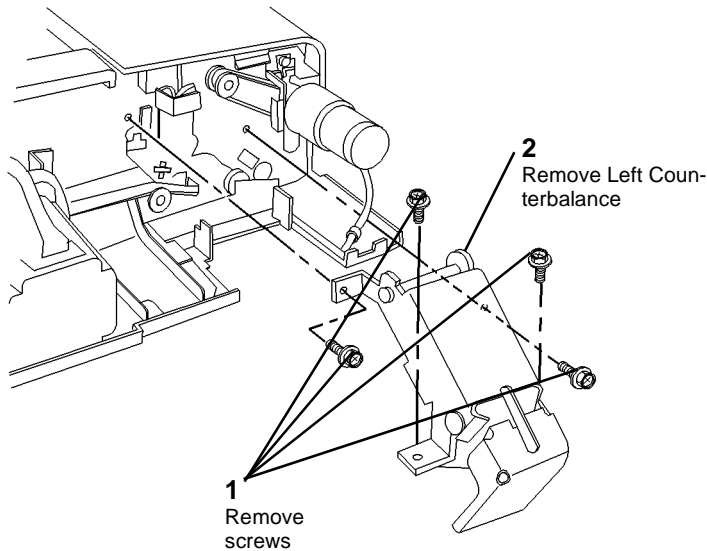


Figure 1 Removing Left Counterbalance

**NOTE:** If counterbalance is to be reinstalled, mark as "Right" before removing.

6. Remove Right Counterbalance ([Figure 2](#)).

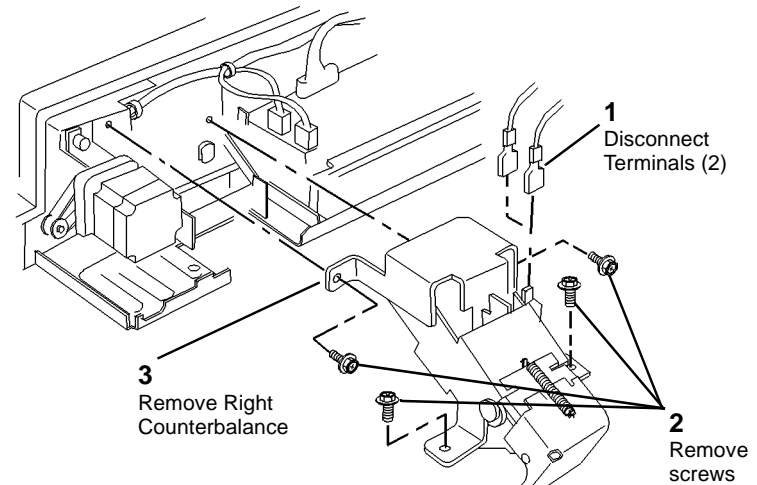


Figure 2 Removing Right Counterbalance

### Replacement

1. If existing counterbalances are reinstalled, install according to marks made in steps 4 or 5.



## REP 5.4 DADF Control PWB

Parts List on PL [PL 20.3](#)

### Removal

#### WARNING

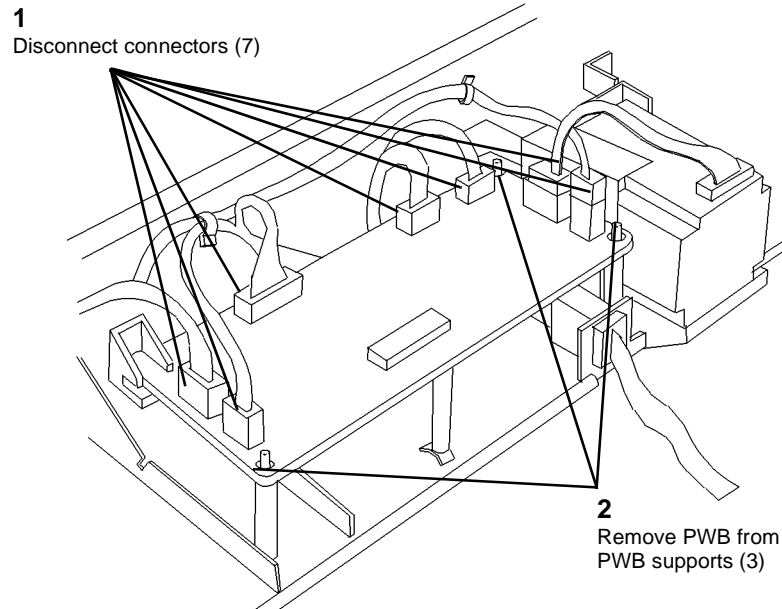
To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 5.18](#)).

#### CAUTION

*PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.*

2. Remove DADF Control PWB ([Figure 1](#)).



0 101007A CAR

Figure 1 Removing DADF Control PWB

## REP 5.5 Feed Motor Assembly

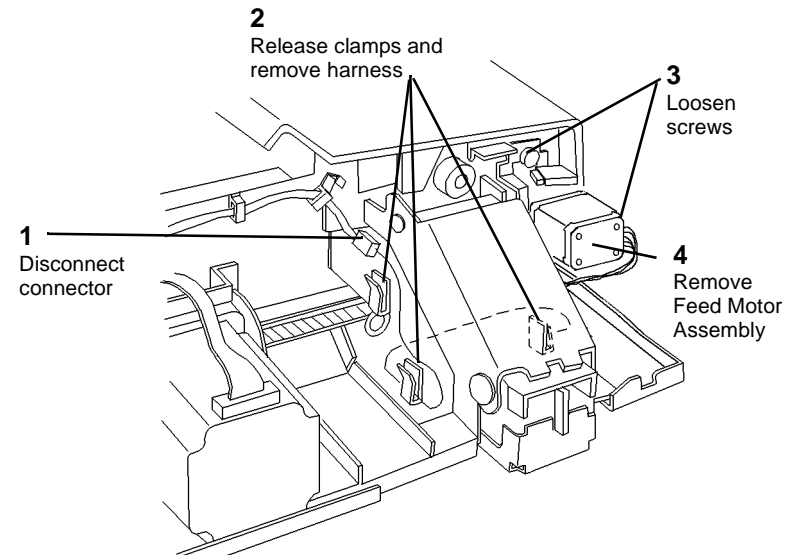
Parts List on [PL 20.4](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 5.18](#)).
2. Remove Feed Motor Assembly ([Figure 1](#)).



0 101008A-CAR

Figure 1 Removing Feed Motor Assembly



## REP 5.6 Nudger Roll

Parts List on [PL 20.4](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove DADF Inner Cover ([Figure 1](#)).

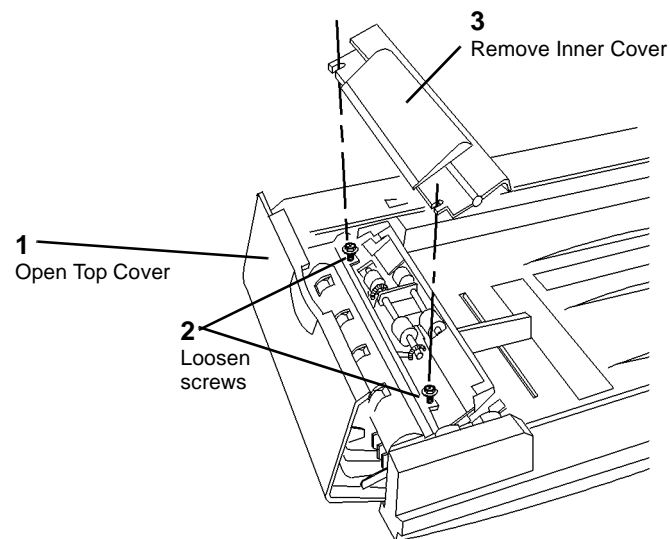
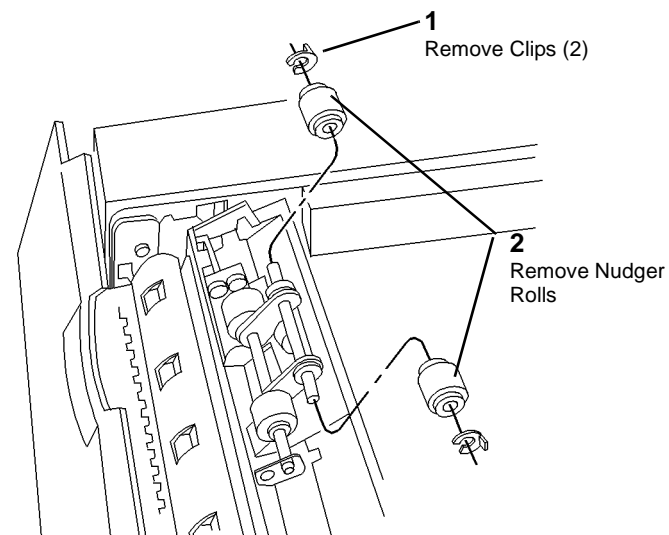


Figure 1 Removing Inner Cover

0101010A-CAR

2. Remove Nudger Rolls ([Figure 2](#)).



0101011A-CAR

Figure 2 Remove Nudger Rolls

### Replacement

Ensure that both Nudger Rolls rotate freely in the direction of document movement.



## REP 5.7 Feed Roll Assembly

Parts List on [PL 20.4](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Inner Cover ([Figure 1](#)).

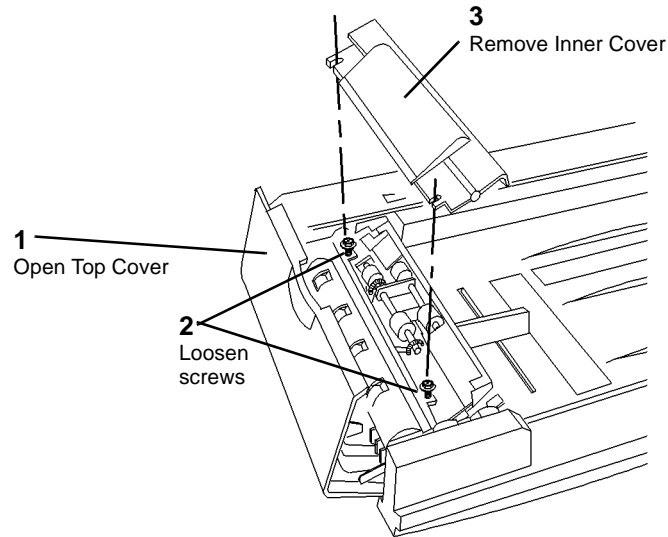
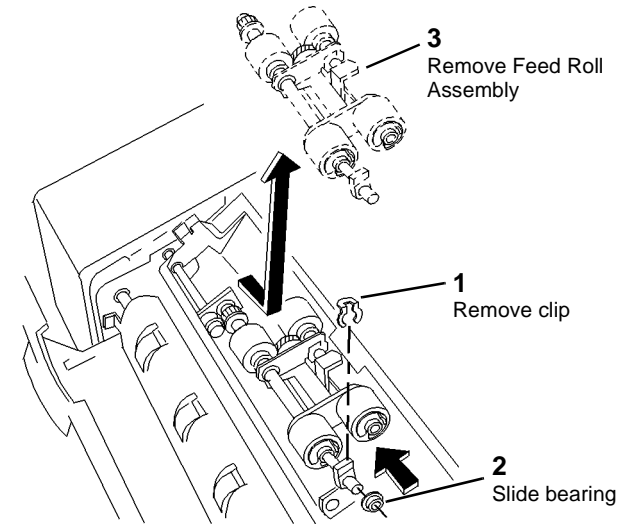


Figure 1 Removing Inner Cover

0 101010A-CAR

2. Remove Feed Roll Assembly ([Figure 2](#)).



0 101013A-CAR

Figure 2 Removing Feed Roll Assembly

### Replacement

Ensure Feed Rolls rotate freely in direction of document movement.



## REP 5.8 Lower Chute Assembly

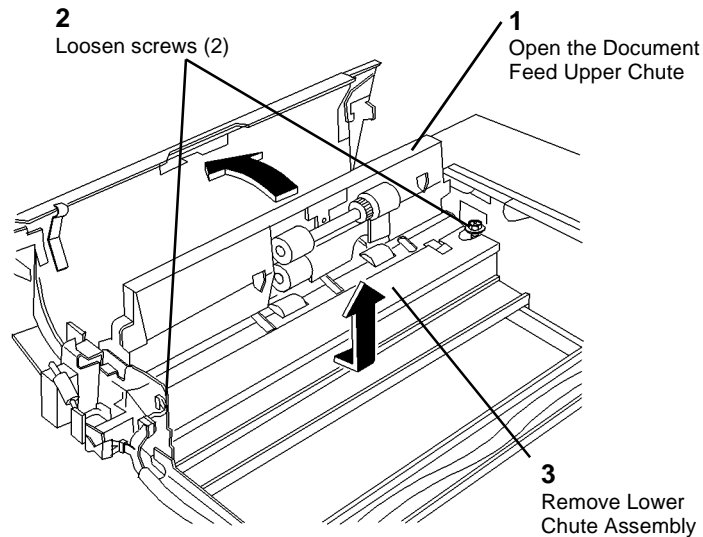
Parts List on [PL 20.5](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open the DADF Top Cover.
2. Remove the DADF Front Cover ([PL 20.1](#)).
3. Remove the Entrance Tray ([PL 20.1](#)).
4. Remove the Lower Chute Assembly ([Figure 1](#)).



0101015A-CAR

Figure 1 Removing Lower Chute Assembly

## REP 5.9 Retard Roll

Parts List on [PL 20.5](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Top Cover.
2. Remove the DADF Front Cover ([PL 20.1](#)).
3. Remove the Entrance Tray ([PL 20.1](#)).
4. Remove Lower Chute Assembly ([REP 5.8](#)).
5. Remove Retard Roll ([Figure 1](#)).

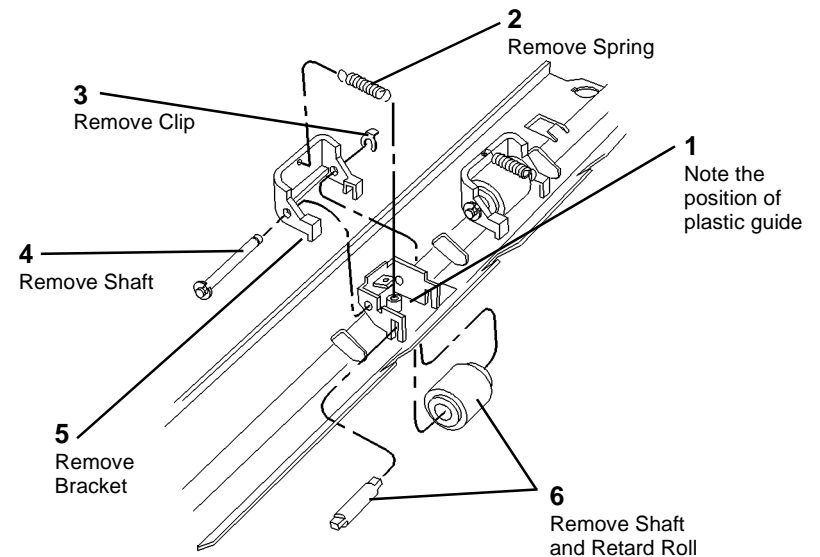


Figure 1 Removing Retard Roll

### Replacement

#### CAUTION

While replacing Retard Roll, make sure that Retard Roll Plastic Guide is in correct position.



## REP 5.10 Set Gate Solenoid Assembly

Parts List on **PL 20.5**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open DADF Top Cover.
2. Remove the DADF Front Cover (PL 20.1).
3. Remove the Entrance Tray (PL 20.1).
4. Remove Lower Chute Assembly (REP 5.8).
5. Remove Set Gate Solenoid Assembly (Figure 1).

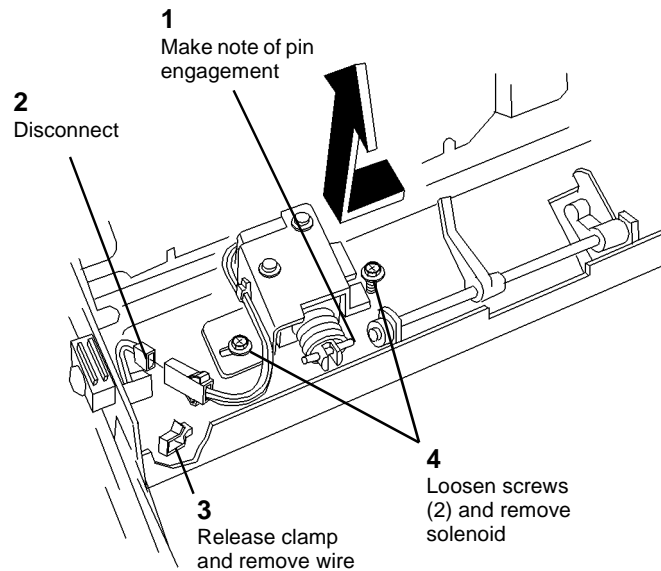


Figure 1 Removing Set Gate Solenoid Assembly

0 101017A-CAR

### Replacement

1. Engage pin with slot (Figure 2).

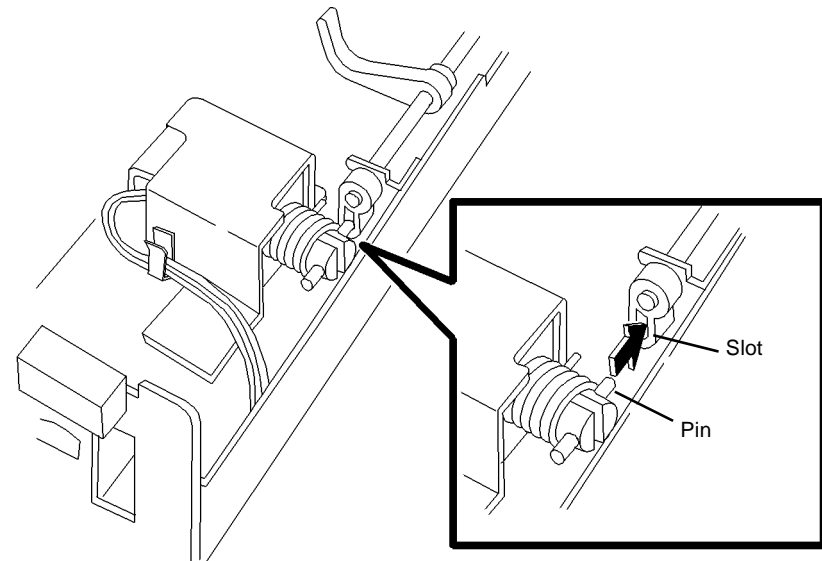
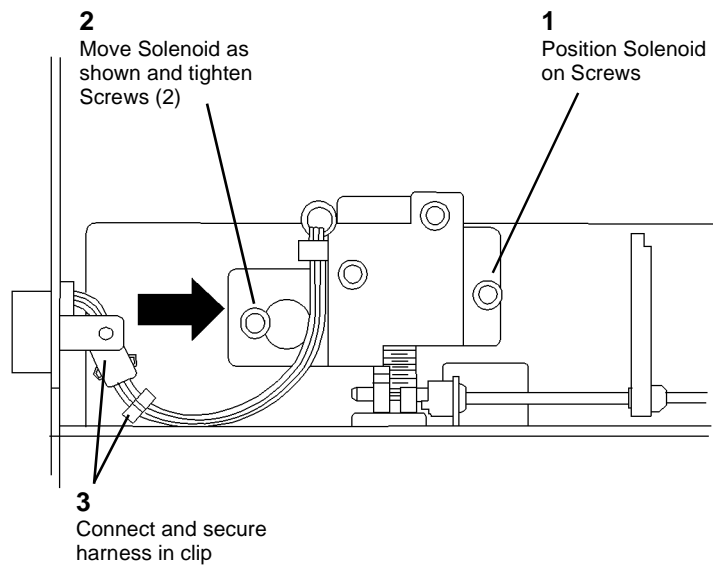


Figure 2 Engaging Pin with Slot

0 101018A-CAR



2. Install Set Gate Solenoid Assembly (Figure 3).



0 101019A-CAR

**Figure 3 Installing Set Gate Solenoid Assembly**



## REP 5.11 Registration Sensor

Parts List on **PL 20.5**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Top Cover.
2. Remove the DADF Front Cover (PL 20.1).
3. Remove the Entrance Tray (PL 20.1).
4. Remove Lower Chute Assembly (REP 5.8).
5. Disconnect P/J580 and remove Registration Sensor (Figure 1).

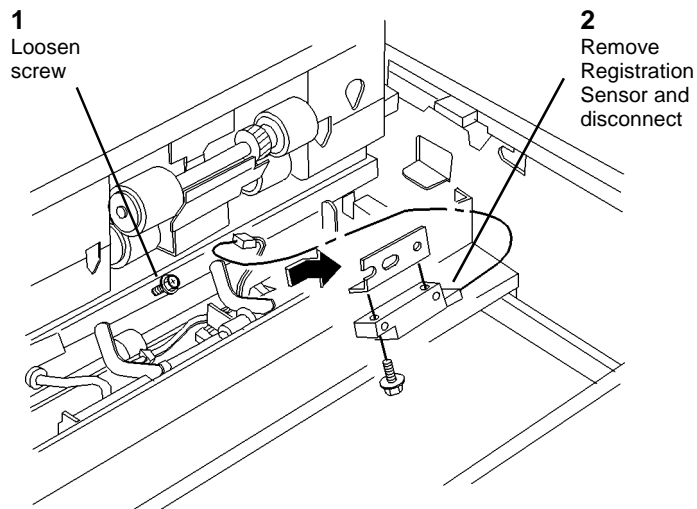


Figure 1 Removing Registration Sensor

0 101020A-CAR

### Replacement

1. When installing Registration Sensor align holes with alignment pins and tighten screw (Figure 2).

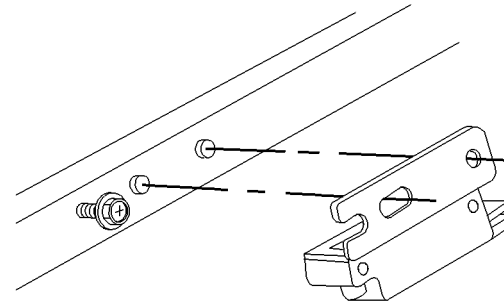


Figure 2 Installing Registration Sensor

0 101021A-CAR



## REP 5.12 Size Sensors 1/2 (Rear/Front)

Parts List on [PL 20.5](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open the DADF Top Cover.
2. Remove the DADF Front Cover ([PL 20.1](#)).
3. Remove the Entrance Tray ([PL 20.1](#)).
4. Remove Lower Chute Assembly ([REP 5.8](#)).
5. Remove Set Gate Solenoid Assembly ([REP 5.10](#)).
6. Remove Size Sensors 1/2 ([Figure 1](#)).

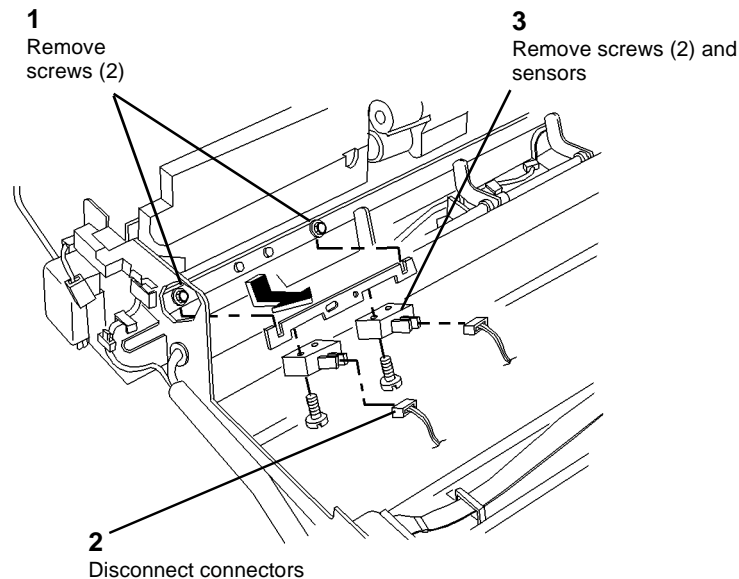


Figure 1 Removing Size Sensors 1/2

0 101022A-CAR

## REP 5.13 DADF Belt Motor Assembly

Parts List on [PL 20.6](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 5.18](#)).
2. Remove DADF Belt Motor Assembly ([Figure 1](#)).

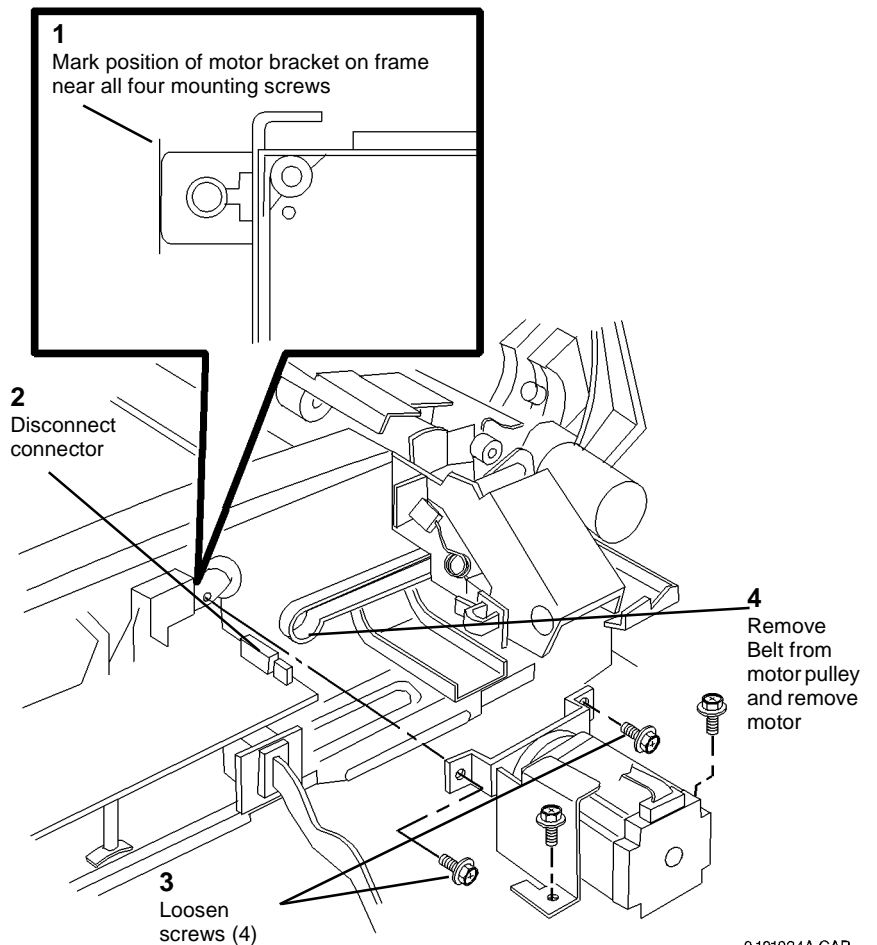


Figure 1 Removing DADF Belt Motor Assembly

0 101024A CAR

### Replacement

Align motor bracket with marks on frame before tightening screws.



## REP 5.14 Duplex Sensor

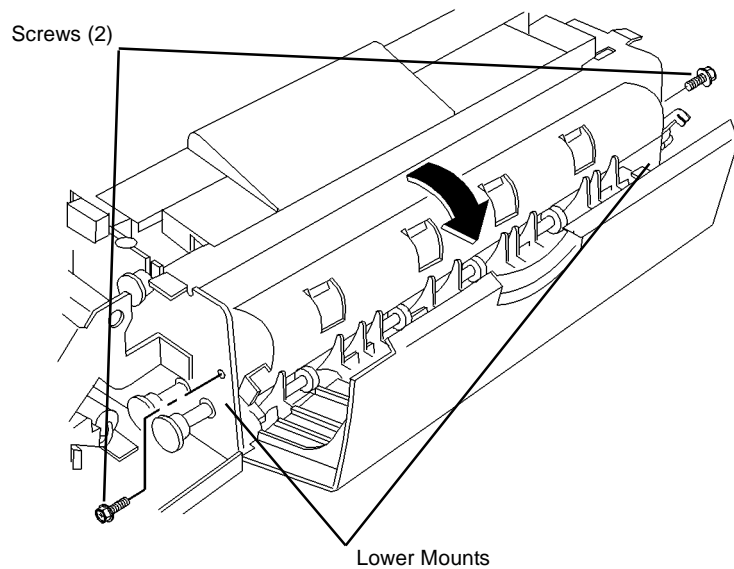
Parts List on [PL 20.7](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove following:
  - a. Front Cover ([PL 20.1](#)).
  - b. Rear Cover ([REP 5.18](#)).
  - c. Top Cover ([PL 20.2](#)).
2. Remove Feed Motor ([REP 5.5](#)).
3. Remove Duplex Sensor ([Figure 1](#)).
  - a. Remove screws (2).
  - b. Lift Duplex Chute to disengage lower mounts.
  - c. Lift rear end of Duplex Chute so that Duplex Sensor is visible. Harness remains connected.
  - d. Remove screw and remove Duplex Sensor.



0101026A-CAR

Figure 1 Removing Duplex Sensor



## REP 5.15 Registration Pinch Roll

Parts List on [PL 20.8](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

*Do not damage or scratch surface of Registration Pinch Roll. (Scratches may cause skewing.)*

1. Remove the following:
  - a. Front Cover ([PL 20.1](#))
  - b. Rear Cover ([REP 5.18](#)).
  - c. Registration Gate Solenoid ([REP 5.2](#)).

2. Prepare to remove the Gate ([Figure 1](#)).

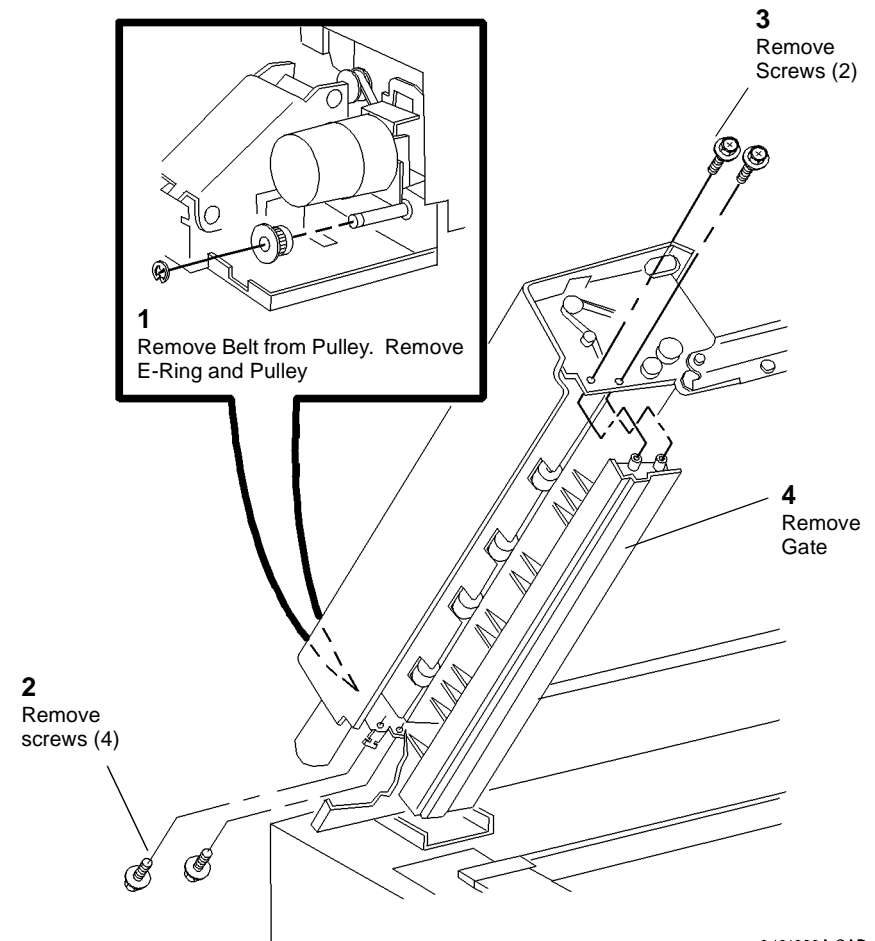


Figure 1 Preparing to remove the Gate

0 101029A CAR



3. Remove Gate (Figure 2).

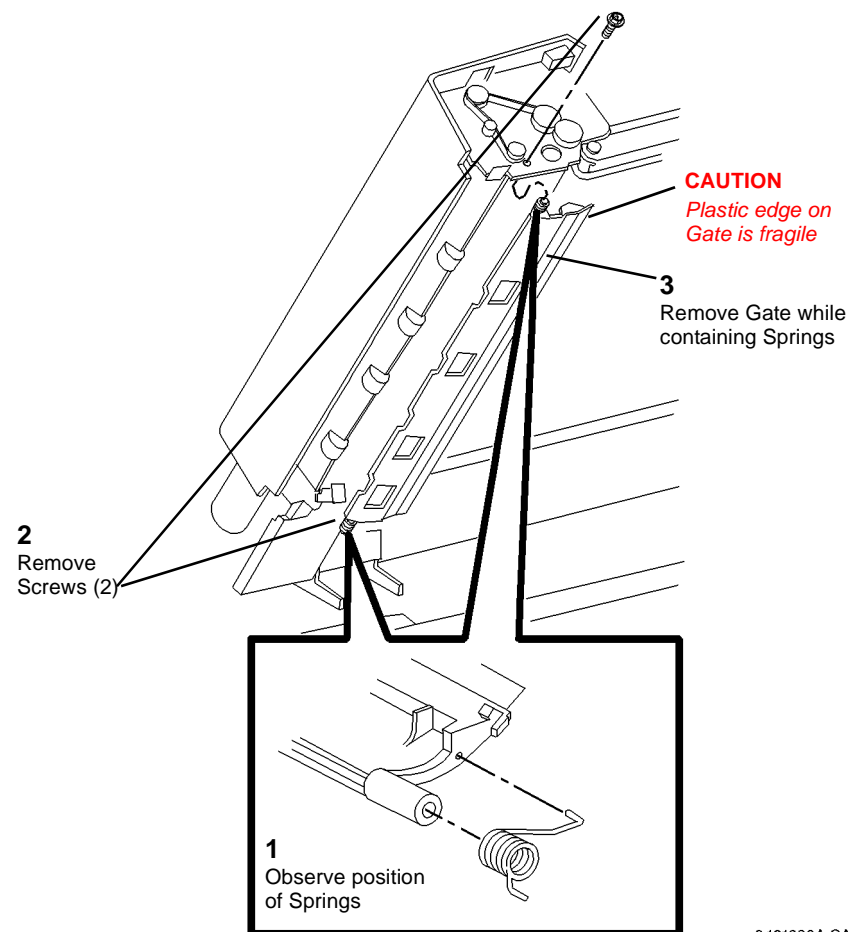


Figure 2 Removing Gate

4. Remove Registration Pinch Roll (Figure 3).

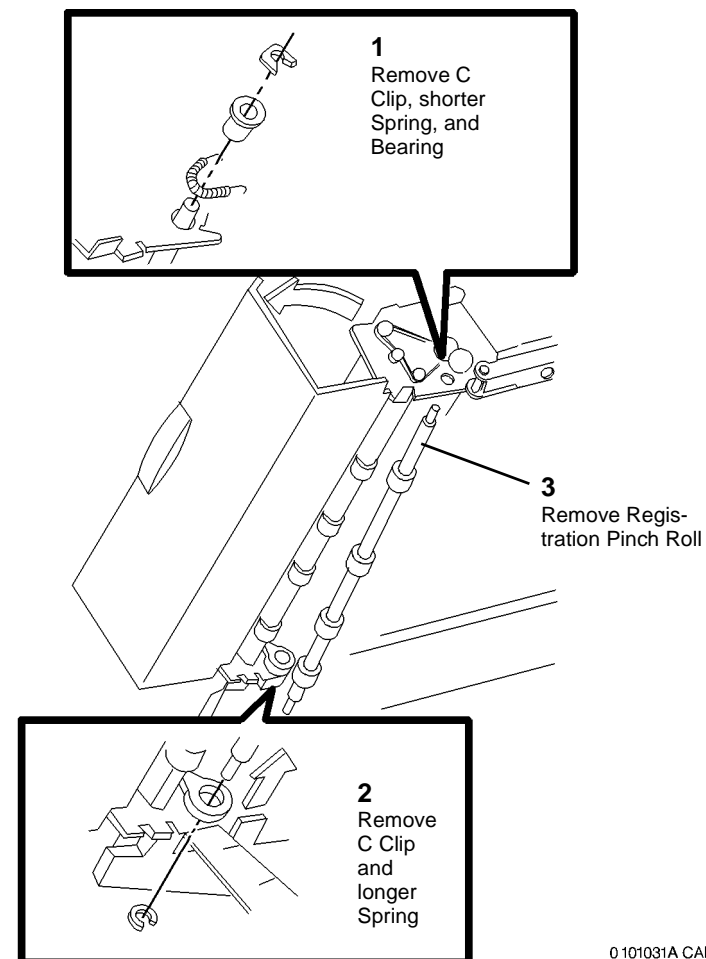


Figure 3 Removing Registration Pinch Roll



## REP 5.16 Exit Motor Assembly

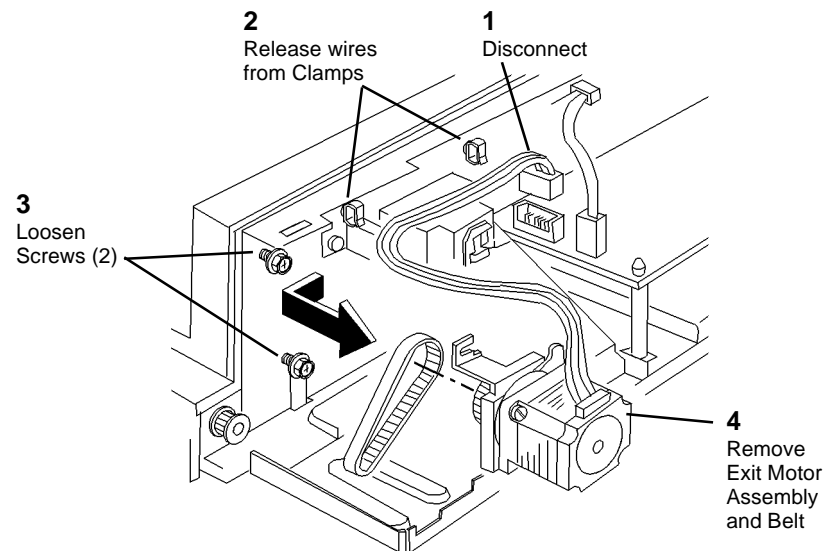
Parts List on [PL 20.9](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 5.18](#)).
2. Remove Exit Motor Assembly ([Figure 1](#)).



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Figure 1 Removing Exit Motor Assembly

### Replacement

Belt should be tight but not stretched before tightening motor mounting screws.

## REP 5.17 Document Transport

Parts List on [PL 20.10](#)

### Removal

#### WARNING

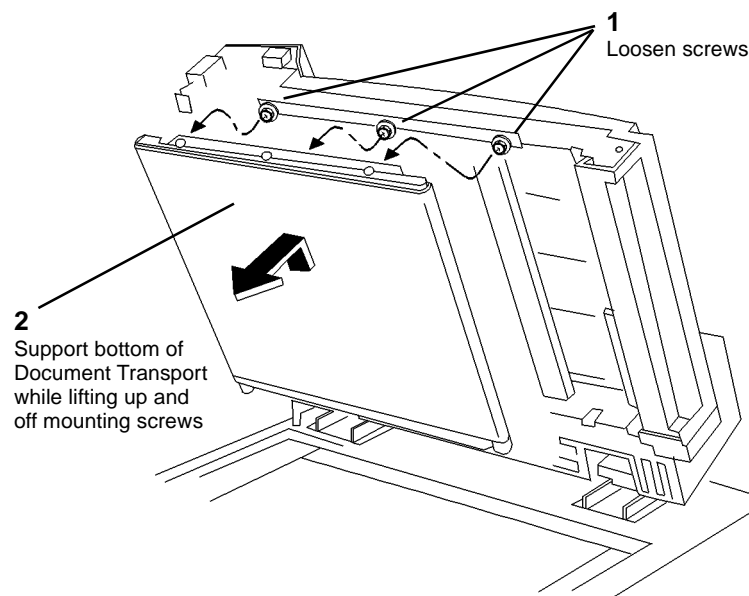
To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover ([PL 20.1](#)).

#### CAUTION

*Document Handler rises quickly after lowering when Document Transport is removed.*

2. Remove Document Transport ([Figure 1](#)).



0 101034A-CAR

Figure 1 Removing Document Transport



## REP 5.18 Rear Cover

Parts List on [PL 20.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

*LED harness breakage occurs if Rear Cover is removed without disconnecting LED plug*

1. Loosen Screws (3) and remove Rear Cover enough to disconnect LED harness from DADF Control PWB.



## REP 5.19 Platen Belt

Parts List on [PL 20.10](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover ([PL 20.1](#)).
2. Remove Document Transport ([REP 5.17](#)).
3. Remove Platen Belt ([Figure 1](#)).

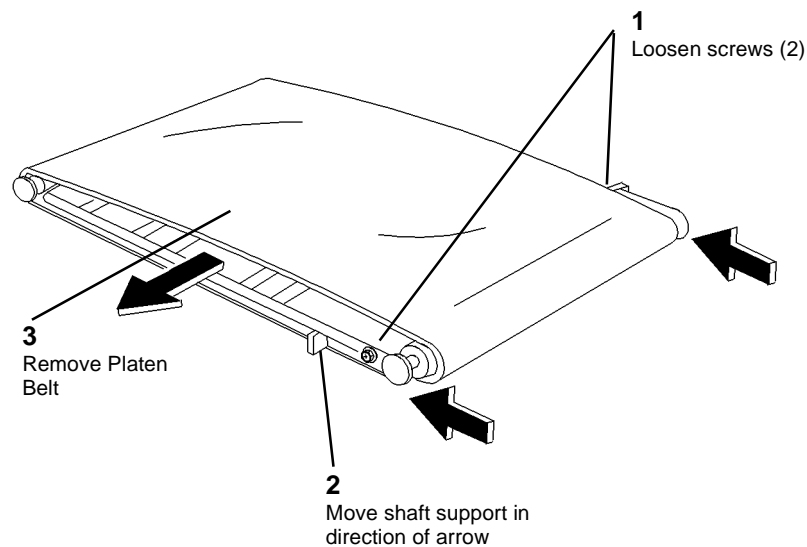
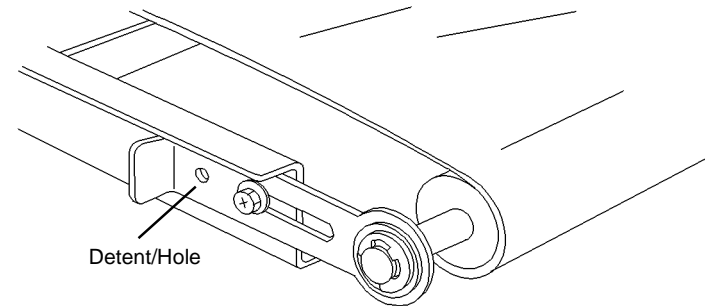


Figure 1 Removing Platen Belt

0 101035A-CAR

### Replacement

1. Lock shaft support by matching hole with frame's detent ([Figure 2](#)).

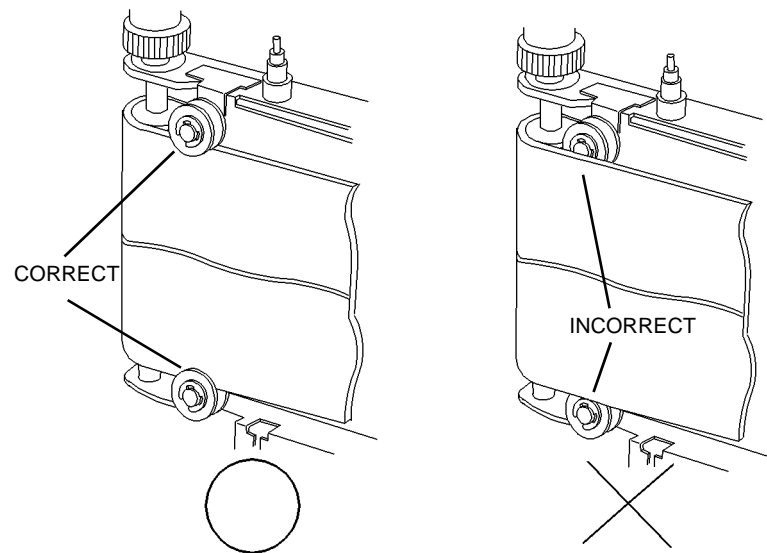


0 101036A-CAR

Figure 2 Locking shaft support

2. Make sure that both sides of Platen Belt are correctly set in pulley ([Figure 3](#)).





0 101037A-CAR

**Figure 3 Install Platen Belt**

3. Connect power cord and switch on power.
4. Enter **dC330** [005-055]. Press **Start**. Rotate Platen Belt for 15 seconds. Press **Stop**. Check the Belt position. If the belt moved to either side, check the installation of the Shaft Supports.



## REP 6.1 ROS

### Parts List on PL 3.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Right Cover (REP 14.3).
2. Remove Rear Cover (REP 14.2).

#### CAUTION

Do not remove the covers on the ROS cleaning openings. Image quality defects could result.

3. Remove ROS (Figure 1).

**NOTE:** Carefully observe position of wiring harness for later reinstallation.

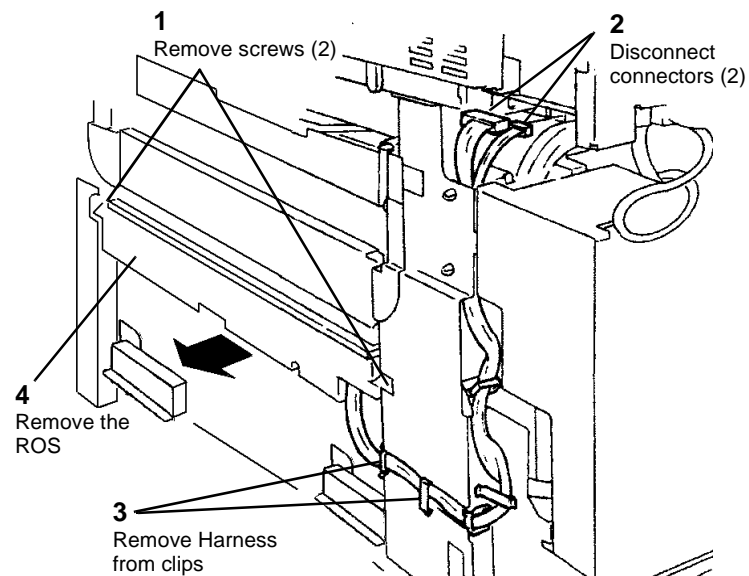


Figure 1 Removing ROS

#### Replacement

After machine reassembly, adjust the Color Registration (ADJ 9.6).



## REP 6.2 Platen Glass

Parts List on **PL 18.3**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open DADF.
2. Remove Platen Glass (Figure 1).

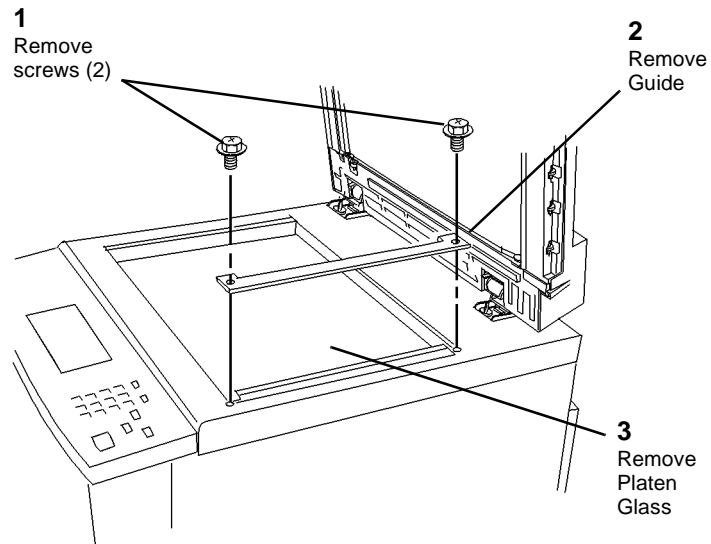
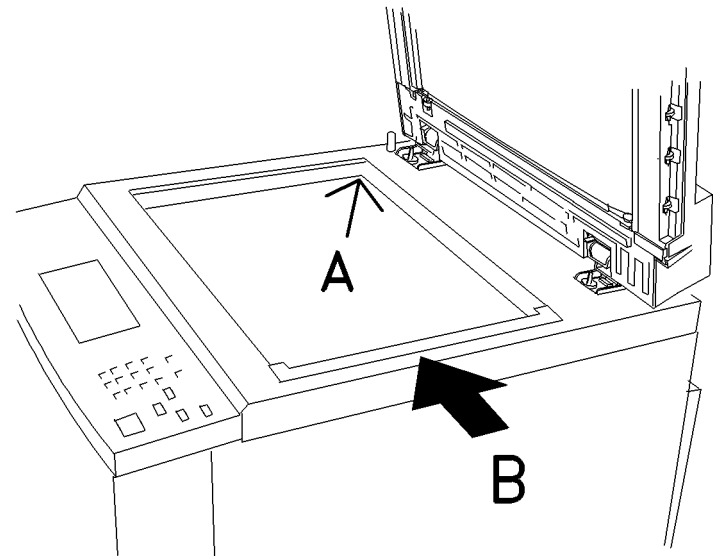


Figure 1 Removing Platen Glass

0101052A-CAR

### Replacement

Press Platen Glass in direction of arrow A; Press Right Side Plate in direction of arrow B (Figure 2).



0101053A-CAR

Figure 2 Positioning Platen Glass



## REP 6.3 IIT Top Cover

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove DADF (REP 5.1).
2. Remove Screws (2) from the top front of IIT Top Cover.
3. Loosen Screws (2) under Control Panel (one each end towards the machine rear).
4. Remove the Screw from the rear of the IIT Top Cover, left side.
5. Remove the Document Output Tray.
6. Remove the Document Output Tray support bracket Screws (4) and Brackets (2).
7. Lift the IIT Top Cover to access harness connectors (2). Disconnect P/J's and remove IIT Top Cover.

## REP 6.4 Lens Kit

### Parts List on PL 18.4

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Platen Glass (REP 6.2).

#### CAUTION

In the following, do not remove any screws with red markings.

2. Remove the Lens/CCD Chassis (Figure 1).

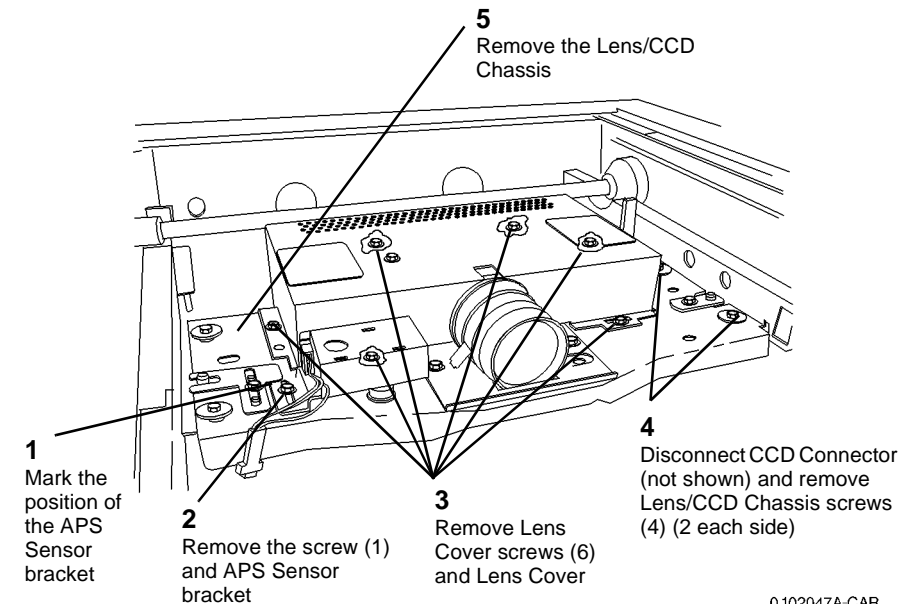


Figure 1 Removing Lens Cover

### Replacement

1. Align APS Sensor with marks made during the removal procedure before tightening the mounting screw.
2. Adjust the IIT Calibration (ADJ 9.7).



## REP 6.5 IIT/IPS PWB

### Parts List on PL 18.3

#### Removal

1. Gather all available settings information. This includes the machine NVM log, the Machine Settings floppy disk, copies of the Configuration Report, etc. If possible save the current Machine Settings to the floppy.

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.

2. Remove the Platen Glass (REP 6.2).
3. Remove the IPS Cover (PL 18.3).
  - a. Manually move the Full Rate Carriage (PL 18.6) toward the left.
  - b. Remove front screws (2), left screws (2), and right screws (2) from IPS Cover (PL 18.3).
  - c. Loosen rear screw and remove cover.
4. Disconnect IOT/IIT Cable and remove Screws from IIT (Figure 1).

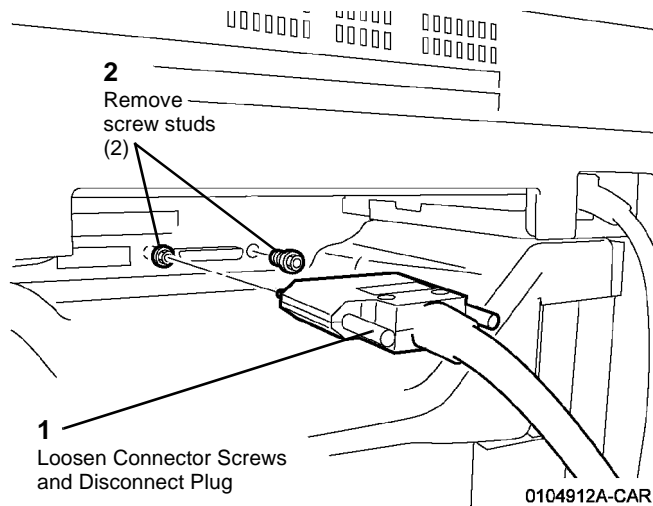


Figure 1 Disconnecting Cable and Removing Screws from IIT

5. Remove IIT/IPS PWB (Figure 2).

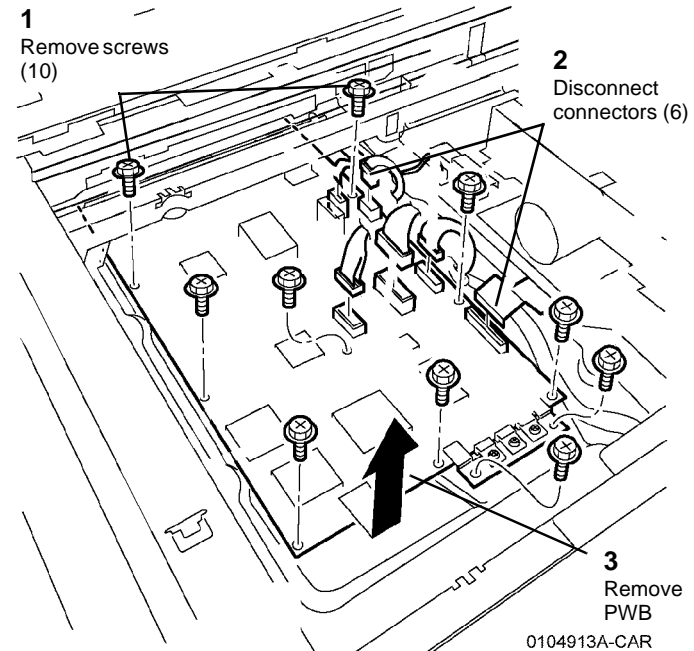


Figure 2 Removing IIT/IPS PWB

#### Replacement

1. Install the new IIT/IPS PWB. Switch on the power and connect the PWS.
2. Check the IIT/ISS software version to ensure that it matches the system software configuration. Refer to the Software Configuration table in the system software upgrade instructions contained on the S/W update CD. If the version does not match, reload the software in accordance with the instructions on the CD.
3. If a good Machine Settings floppy is available, exit, then reenter the PWS Tool. Select **Read from Floppy** when starting the tool. If no floppy is available, or if the data on the existing floppy is questionable, go to step 5.
4. Go to dC351 and select **Restore Machine Settings**. After completion, go to step 7.
5. If a good Machine Settings floppy is not available, or if the data on the existing floppy is questionable, go to dC351. In the Special Batch Write area, select the appropriate market region, then press the **Batch Write NVM** button.
6. Using the resources gathered in step 1 of the removal procedure, reenter NVM data to restore the machine configuration.
7. Ensure that the customer settings are correct. Contact the customer's system administrator to configure, if necessary.
8. Perform the IIT Calibration (ADJ 9.7).
9. Go to dC351 and select **Save Machine Settings**. Save the settings to floppy disk per the procedure.



## REP 6.6 UI PWB

Parts List on [PL 18.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

*PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.*

1. Remove the five screws securing the Control Panel Assembly to the IIT.
2. Lift and pull the Control Panel Assembly forward to access the harnessing to the Control Panel.
3. Disconnect [P711](#) and [P712](#). Remove the Control Panel Assembly.
4. Turn the Control Panel upside down and remove the 6 screws securing the metal plate to access the UI PWB. Remove the metal plate.
5. Remove the 6 screws securing the UI PWB and disconnect [P/J713](#), [P/J714](#), and [P/J715](#). Remove the UI PWB.

### Replacement

1. Install the new UI PWB. Ensure that the DIP switches on the new PWB are set to the same positions as those on the original PWB.
2. Check the UI software version for both UI files (UI Control ROM and UI Frame ROM) to ensure that it matches the system software configuration. Refer to the Software Configuration table in the system software upgrade instructions contained on the S/W update CD. If the version does not match, reload the software in accordance with the instructions on the CD.
3. Calibrate the UI Display ([ADJ 9.13](#)).



## REP 6.11 Carriage Cables

Parts List on [PL 18.5](#)

### Removal

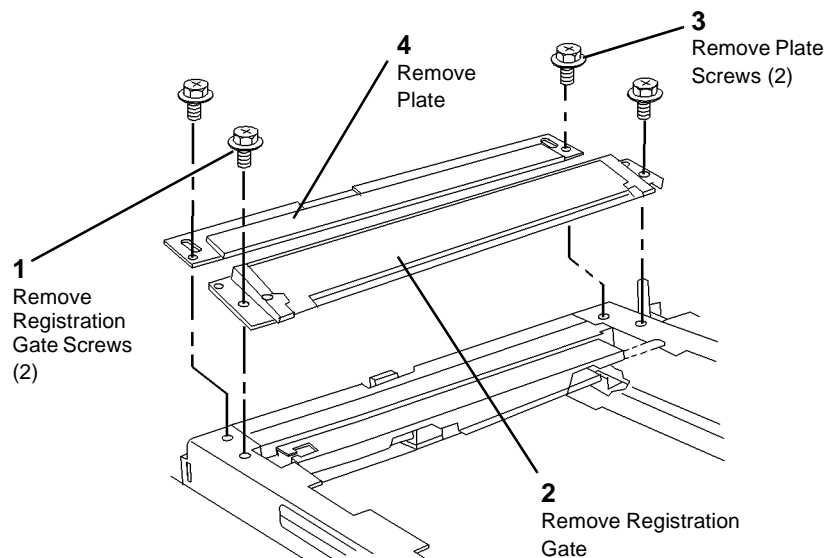
#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**NOTE:** This page describes how to remove Rear Carriage Cable. The Front Carriage Cable is replaced in the same fashion.

**NOTE:** Do not replace both cables at same time. Remove front and rear cables separately.

1. Remove DADF ([REP 5.1](#)).
2. Remove Platen Glass ([REP 6.2](#)).
3. Remove IIT Top Cover ([REP 6.3](#)).
4. Remove Registration Gate and Plate ([Figure 1](#)).

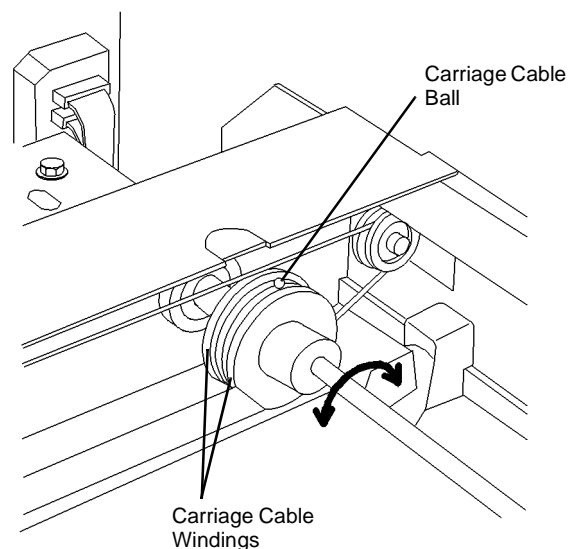


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Figure 1 Removing Registration Gate and Plate

5. Remove Full Rate Carriage from IIT Frame ([REP 6.14](#)). Keep lamp wire harness connector connected.

6. Position the Carriage Cable Ball so that it is directly at the top of the Capstan ([Figure 2](#)). Verify that there are 2.5 Carriage Cable windings on both sides of the Ball.



0 101063A-CAR

Figure 2 Positioning Half Rate Carriage



7. Remove the Carriage Cable (Figure 3).

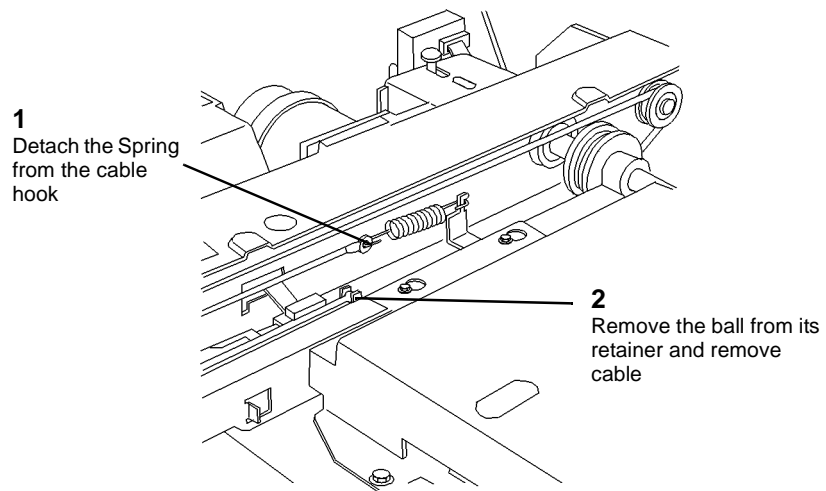


Figure 3 Removing Carriage Cable

0 101064A-CAR

## Replacement

1. Install the Carriage Cable.
  - a. Orient the cable as shown and insert the middle Carriage Cable Ball into the detente in the Capstan (Figure 4).

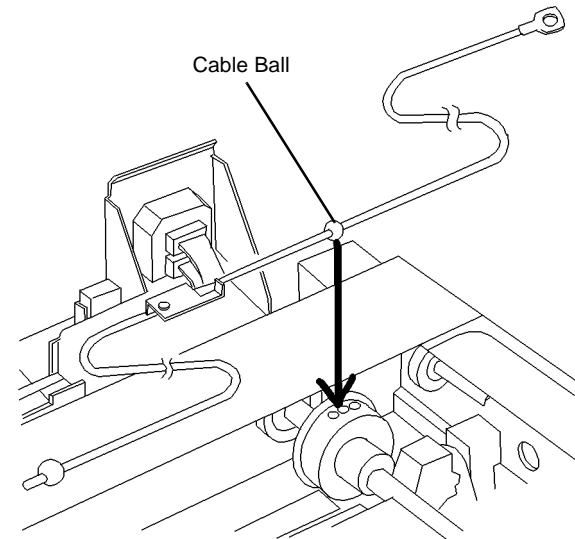


Figure 4 Winding Carriage Cable

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b. Prepare the spring/hook end for installation (Figure 5).

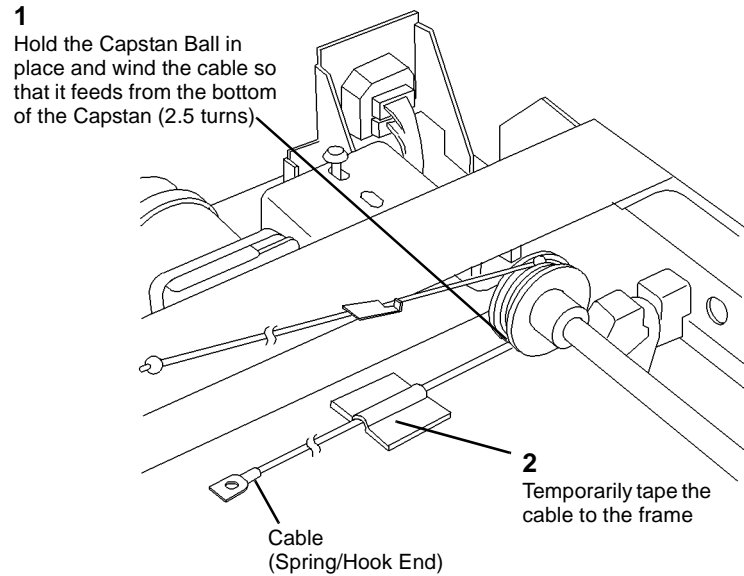


Figure 5 Preparing the Spring/Hook End

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c. Prepare the ball end for installation (Figure 6).

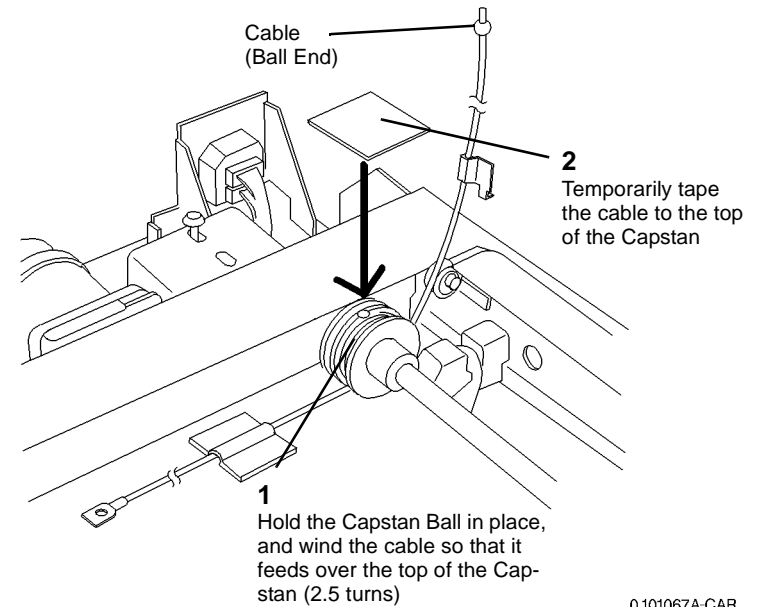


Figure 6 Preparing the Ball End

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- d. Check orientation of the ends and number of carriage cable windings (Figure 7). Reconfigure as required.
2. Install Carriage Cable (ball end) (Figure 8).

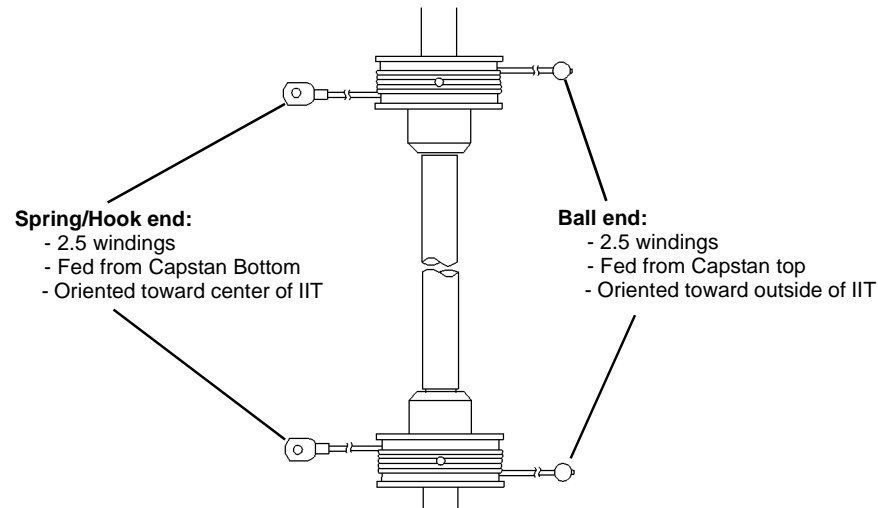


Figure 7 Carriage Cable Orientation

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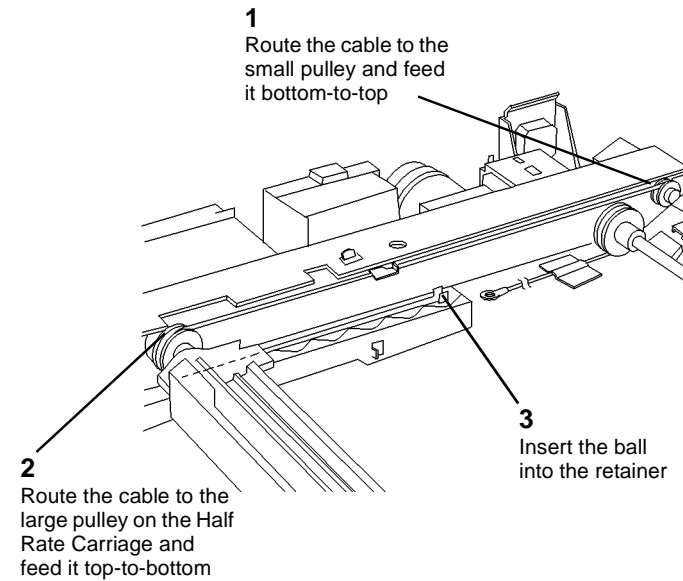


Figure 8 Installing Carriage Cable (ball end)

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3. Install Carriage Cable (spring/hook end) (Figure 9).

**NOTE:** Cable orientation for all pulleys used at the spring/hook end are fed across the pulleys from bottom-to-top.

- 2  
Route the cable to the top (small) pulley
  - 1  
Route the cable, first to the bottom pulley, then to the small pulley on the Half Rate Carriage
  - 3  
Attach the spring to the cable hook
4. If still present, remove any previously installed tape.
  5. Install Full Rate Carriage in IIT Frame.
  6. Adjust positions of Full Rate/Half Rate Carriages (ADJ 6.1).
  7. Manually move Full Rate Carriage to make sure it moves smoothly.
  8. Install remaining parts.

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**Figure 9 Installing Carriage Cable (spring/hook end)**



## REP 6.12 Carriage Motor

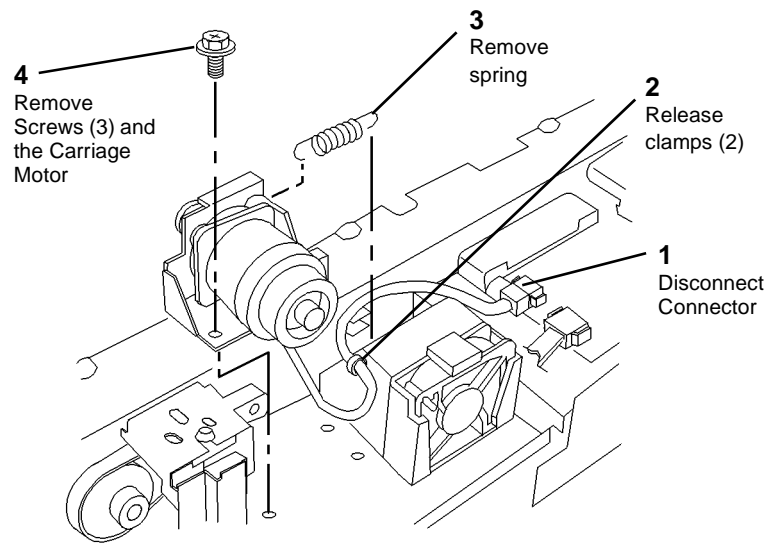
Parts List on [PL 18.5](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove DADF ([REP 5.1](#)).
2. Remove Platen Glass ([REP 6.2](#)).
3. Remove IIT Top Cover ([REP 6.3](#)).
4. Remove Carriage Motor ([Figure 1](#)).



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Figure 1 Removing Carriage Motor



## REP 6.13 Exposure Lamp

Parts List on [PL 18.6](#)

### Removal

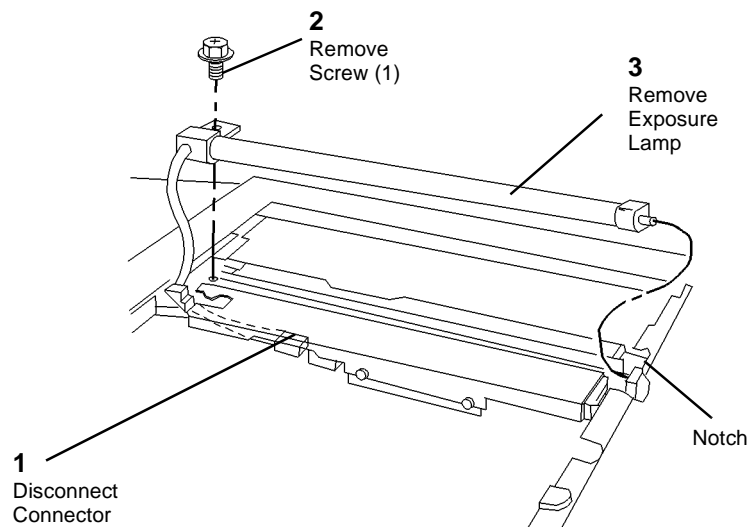
#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

Avoid touching exposure lamp with your bare hands during removal or installation. Oil from your hands will contaminate surface of lamp.

1. Open DADF ([REP 5.1](#)).
2. Remove Platen Glass ([REP 6.2](#)).
3. Position the Full Rate Carriage adjacent to the notch in the IIT frame.
4. Remove Exposure Lamp ([Figure 1](#)).



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Figure 1 Removing Exposure Lamp



## REP 6.14 Lamp Wire Harness

Parts List on [PL 18.6](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove DADF ([REP 5.1](#)).
2. Remove Platen Glass ([REP 6.2](#)).
3. Remove IIT Top Cover ([REP 6.3](#)).
4. Disconnect Lamp Wire Harness connector and release Clamp Hook ([Figure 1](#)).

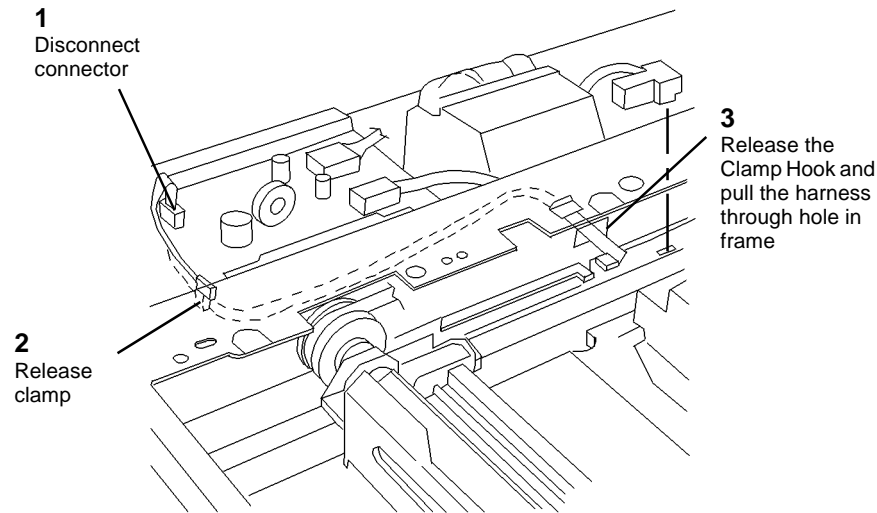


Figure 1 Disconnecting Lamp Wire Harness

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5. Remove Full Rate Carriage ([Figure 2](#)).

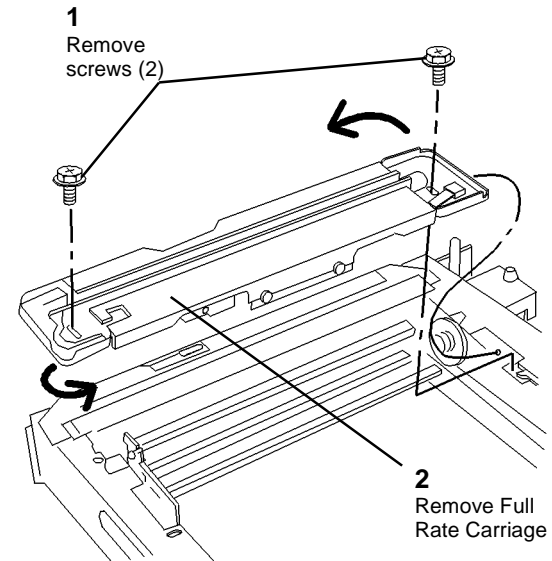


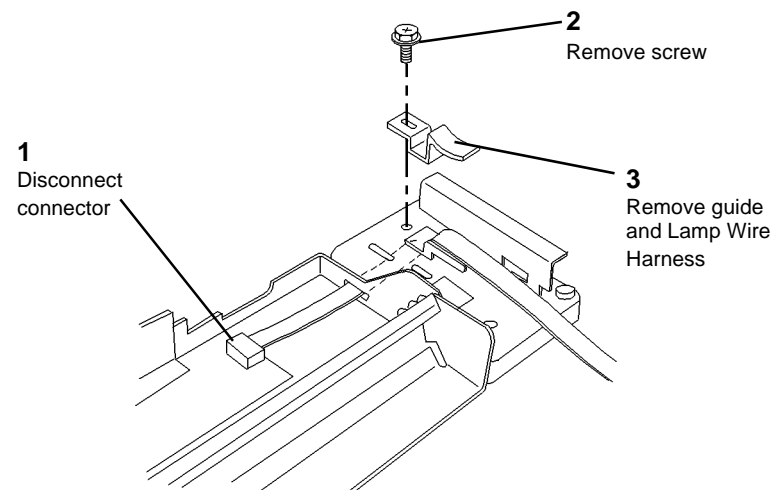
Figure 2 Removing Full Rate Carriage

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6. Remove Lamp Wire Harness from Full Rate Carriage (**Figure 3**).

- a. Turn the Full Rate Carriage upside down.



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**Figure 3 Removing Lamp Wire Harness**

**Replacement**

After reinstalling parts, adjust positions of Full Rate/Half Rate Carriages (**ADJ 6.1**).



## REP 7.1 Tray 5

Parts List on **PL 2.12**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover (REP 14.2).
2. Remove the Rear Left Upper Cover (REP 14.5).
3. Remove the Rear Left Middle Cover (REP 14.4).
4. Close the Left Cover Assembly.
5. Remove Tray 5 (Figure 1).
  - a. Observe the position of harness for later reinstallation.
  - b. Disconnect Tray 5 connector.
  - c. Disconnect harness Clip from frame.
  - d. Remove Screws (2).
  - e. Pull out Tray 5 while applying a small amount of lifting force to right side.

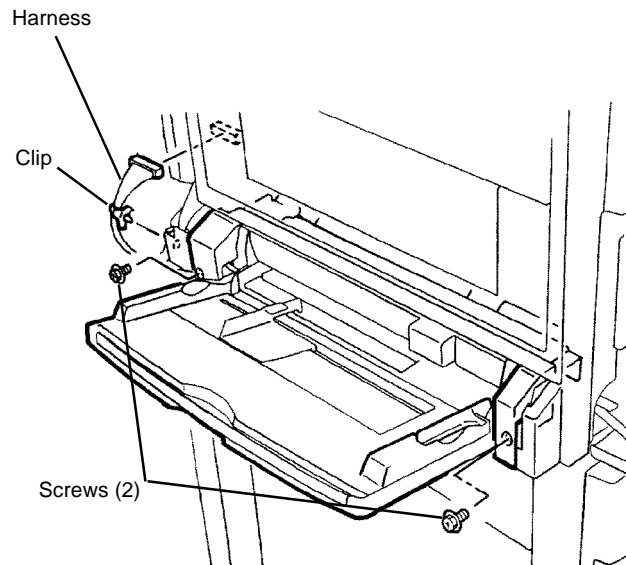


Figure 1 Removing Tray 5

### Replacement

#### CAUTION

The Duplex Paper Guide must be in the up position before installing Tray 5.

1. Open the Left Cover Assembly. Pivot and hold the Duplex Paper Guide against the Left Cover Assembly and then close the Left Cover Assembly.



## REP 7.2 Tray 5 Feed Roll

Parts List on [PL 2.14](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 14.2](#)).
2. Remove the Rear Left Upper Cover ([REP 14.5](#)).
3. Remove the Rear Left Middle Cover ([REP 14.4](#)).
4. Close the Left Cover Assembly.
5. Remove Tray 5 ([REP 7.1](#)).
6. Remove the Chute ([Figure 1](#)).
  - a. Remove Screws (3).
  - b. Lift to remove Chute.

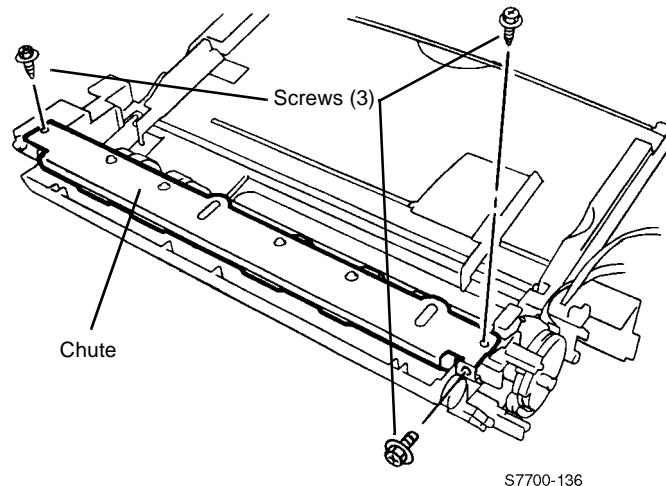


Figure 1 Removing Chute

7. Remove the Feed Roll ([Figure 2](#)).
  - a. Release Locking Tab from groove on shaft and slide Lock Roll away from Feed Roll.
  - b. Slide Feed Roll to disengage drive pin and remove Feed Roll.

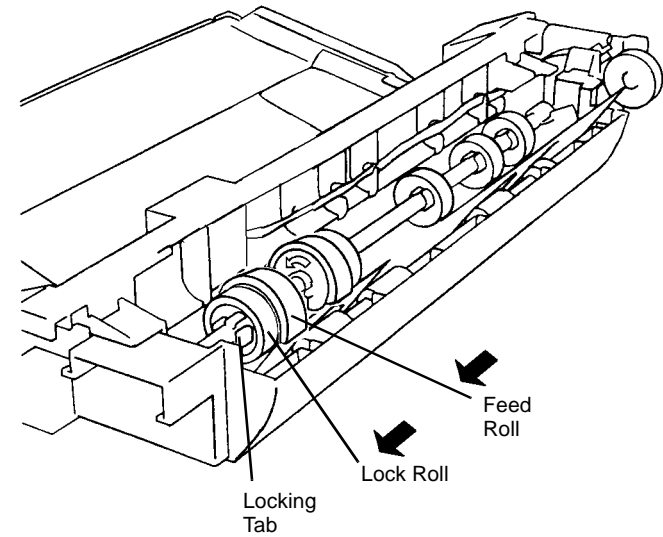


Figure 2 Removing Feed Roll

### Replacement

Ensure Arrow is positioned as shown ([Figure 3](#)).

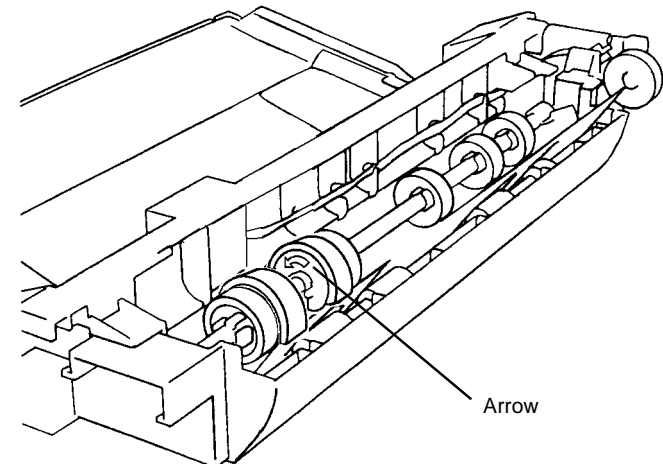


Figure 3 Installing Feed Roll



## REP 7.3 Tray 1 Feeder

Parts List on [PL 2.3](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 1 to paper loading position.
2. Open the Left Lower Cover.
3. Remove Tray 1 Feeder ([Figure 1](#)).

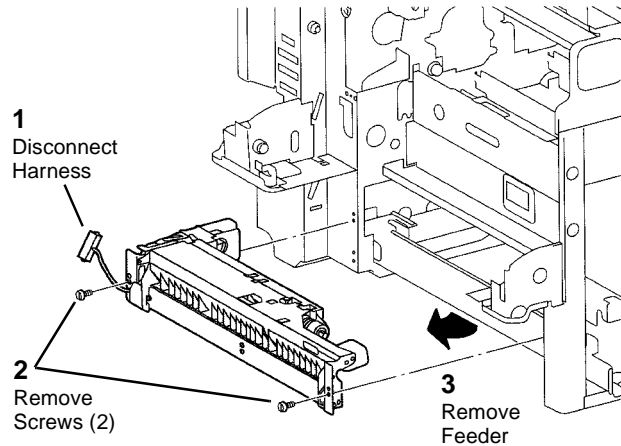


Figure 1 Removing Tray 1 Feeder

## REP 7.4 Tray 1 Feed/Lift Motor

Parts List on [PL 2.4](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 1 to paper loading position.
2. Open Left Lower Cover.
3. Remove Tray 1 Feeder ([REP 7.3](#)).
4. Remove Tray 1 Feed Motor ([Figure 1](#)).

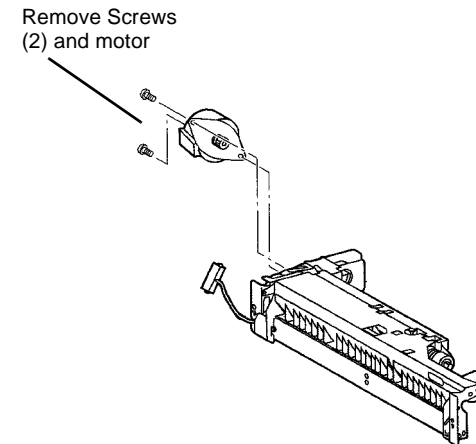


Figure 1 Removing Tray 1 Feed Motor



## REP 7.5 Tray 1 Paper Size Sensor

Parts List on [PL 2.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 14.2](#)).
2. Remove High Voltage Power Supply Chassis ([REP 1.6](#)).

**NOTE:** Step 3 can be omitted if Low Voltage Power Supply P/J's are disconnected before performing step 4.

3. Remove 3.3 VDC and 5 VDC Low Voltage Power Supply ([REP 1.4](#)).
4. Remove Chassis for 3.3 VDC and 5 VDC Low Voltage Power Supply.
  - a. Release harnesses from harness clips (3).
  - b. Remove screws (4) and remove Chassis.
5. Remove Developer Drive Module ([REP 4.3](#)).
6. Remove Tray 1 Paper Size Switch ([Figure 1](#)).
  - a. Disconnect P/J.
  - b. Remove Screws (2) and remove Tray 1 Paper Size Switch.

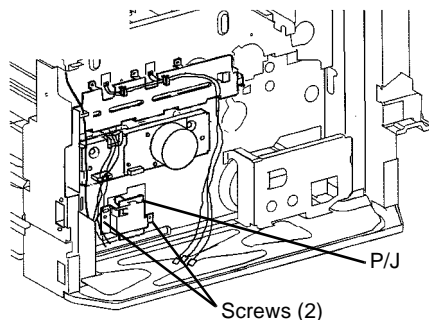


Figure 1 Removing Tray Paper Size Switch

## REP 7.6 Tray 3 (TTM)

Parts List on [PL 16.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open the Left Cover Assembly.
2. Remove Tray 3 ([Figure 1](#)).
  - a. Pull out Tray 3.
  - b. Remove Screw.
  - c. Pivot bottom of Tray Lock away from Tray 3 and pull out Tray 3 to remove it.

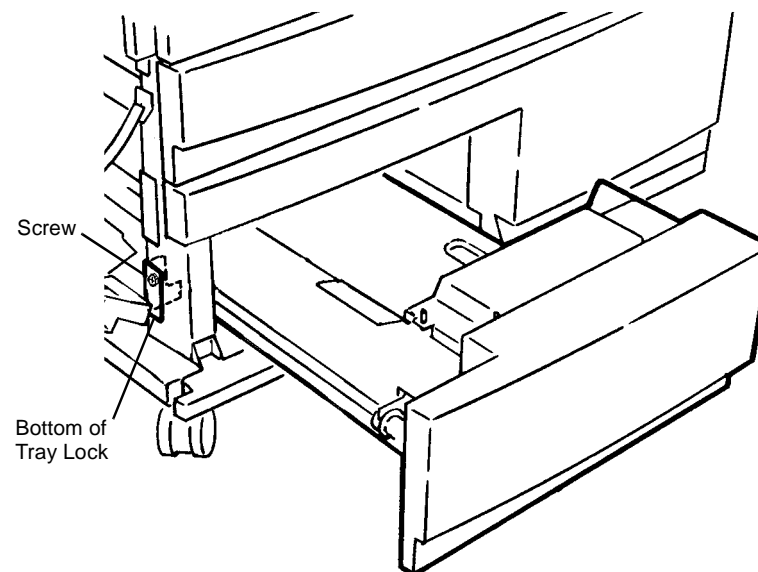


Figure 1 Removing Tray 3



## REP 7.7 Tray 4 (TTM)

Parts List on [PL 16.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 4.
2. Remove Tray 4 ([Figure 1](#)).
  - a. Pull out Tray 4.
  - b. Remove Transport Screws (2).
  - c. Remove Tray Lock Screws (2).
  - d. Remove Tray Lock.
  - e. Pull out Tray 4 to remove it.

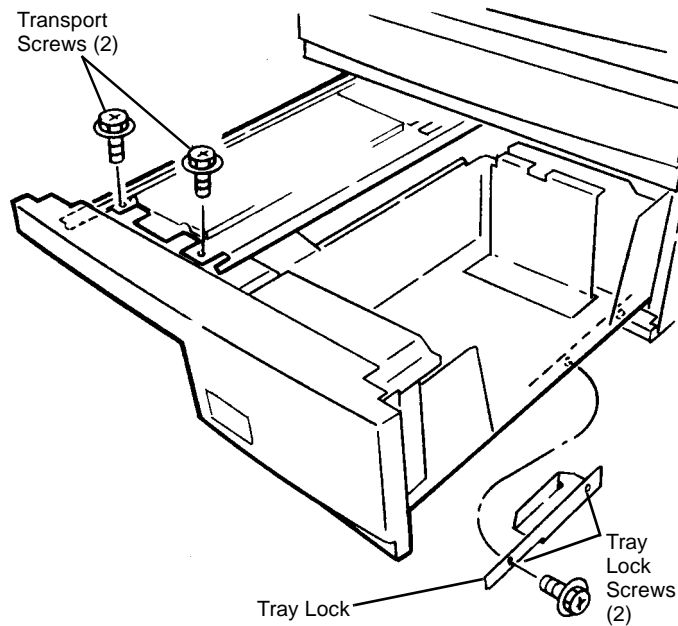


Figure 1 Removing Tray 4

## REP 7.8 Tray 1

Parts List on [PL 2.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 1.
2. Lift end of tray to disengage lock on rail (not visible) and remove tray.



## REP 7.9 Tray 2 (TTM)

Parts List on [PL 16.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 2.
2. Lift end of tray to disengage lock on rail (not visible) and remove tray.



## REP 7.10 Tray 2 Feeder (TTM)

Parts List on [PL 16.6](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 2.
2. Remove the Left Cover Assembly ([REP 14.11](#))
3. Remove the Tray 2 Feeder ([Figure 1](#)).

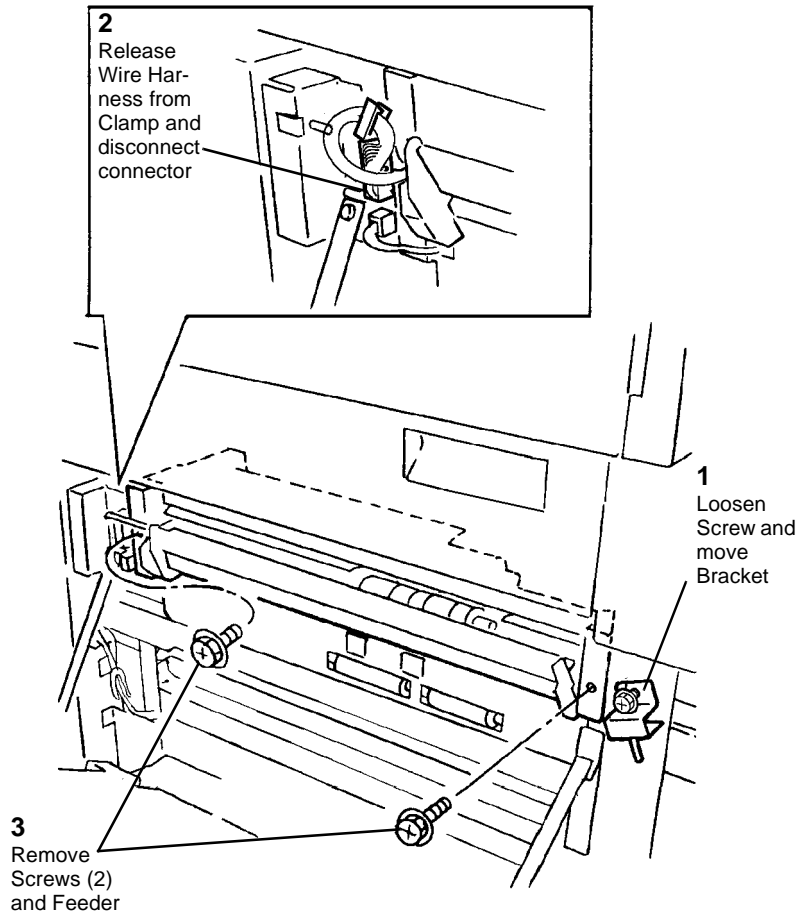


Figure 1 Removing the Tray 2 Feeder



## REP 7.11 Tray 3 Feeder (TTM)

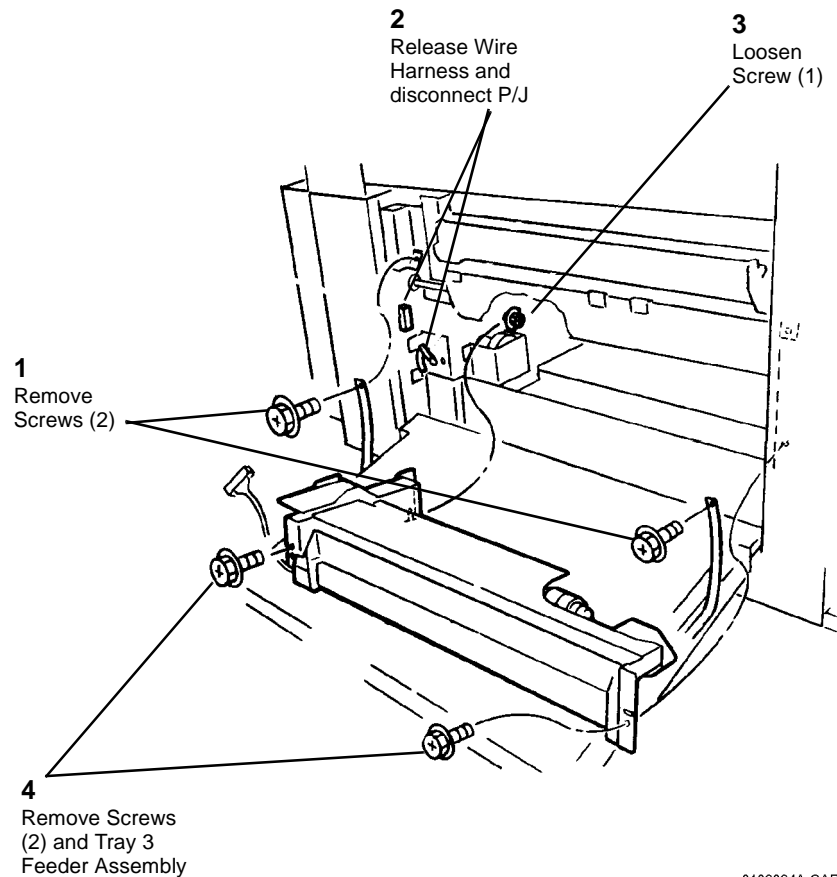
Parts List on [PL 16.6](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

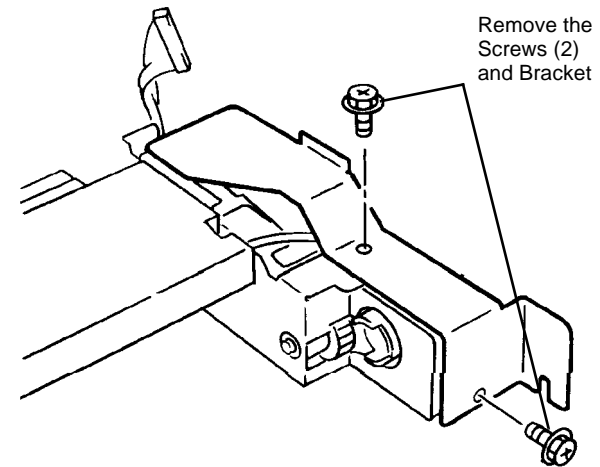
1. Remove Tray 2.
2. Pull out Tray 3 and Tray 4.
3. Open the Left Cover.
4. Remove the Lower Chute.
5. Remove the Tray 3 Feeder Assembly ([Figure 1](#)).



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Figure 1 Removing the Tray 3 Feeder Assembly

6. Remove the Tray 3 Feeder from mounting bracket ([Figure 2](#)).



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Figure 2 Removing Tray 3 Feeder from Bracket



## REP 7.12 Tray 4 Feeder (TTM)

Parts List on [PL 16.5](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Tray 2.
2. Pull out the Tray 3/4.
3. Remove the Stud Bracket ([Figure 1](#)).

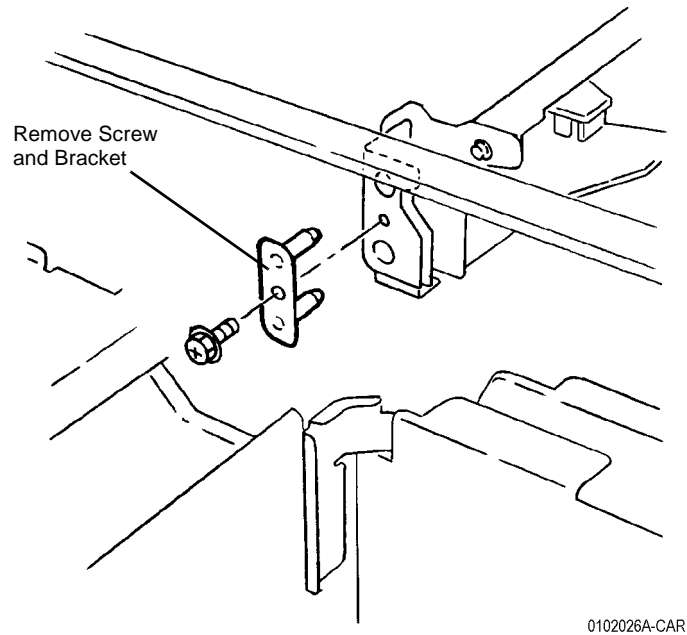


Figure 1 Removing Stud Bracket

4. Remove the Tray 4 Feeder Assembly ([Figure 2](#)).

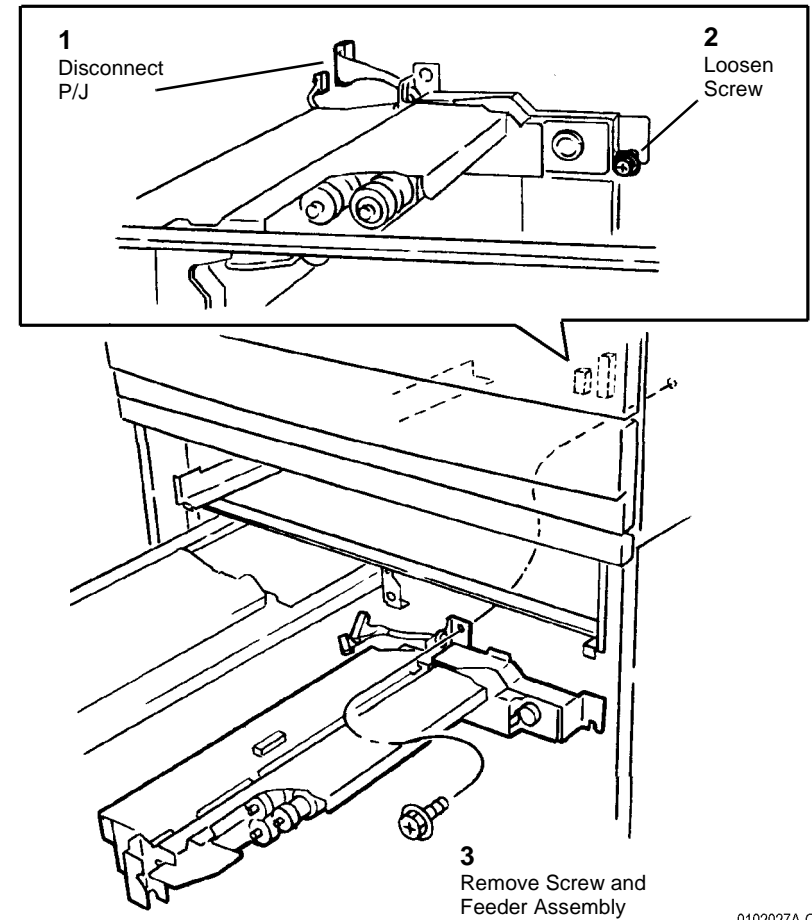


Figure 2 Removing the Tray 4 Feeder Assembly



5. Remove the Tray 4 Feeder Guides (Figure 3).

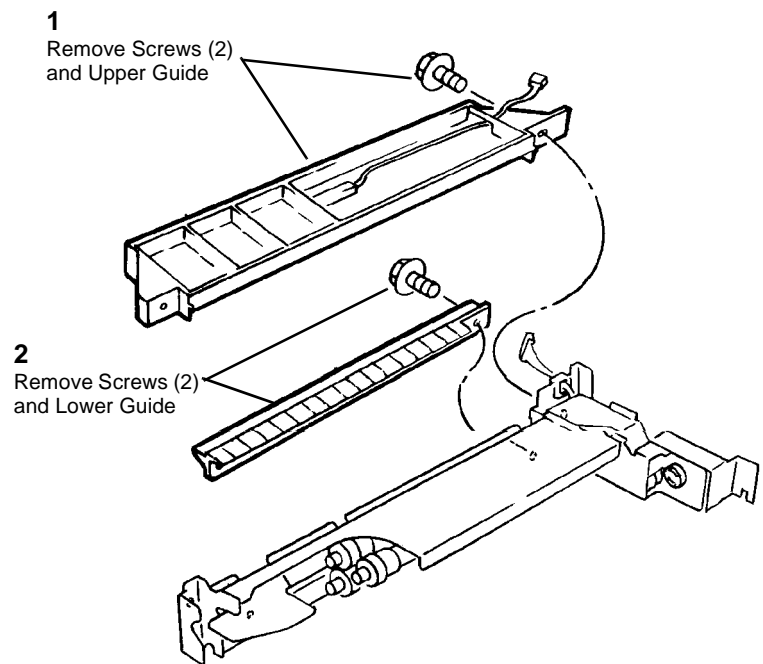


Figure 3 Removing the Guides

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6. Remove Brackets from Tray 4 Feeder Assembly (Figure 4).

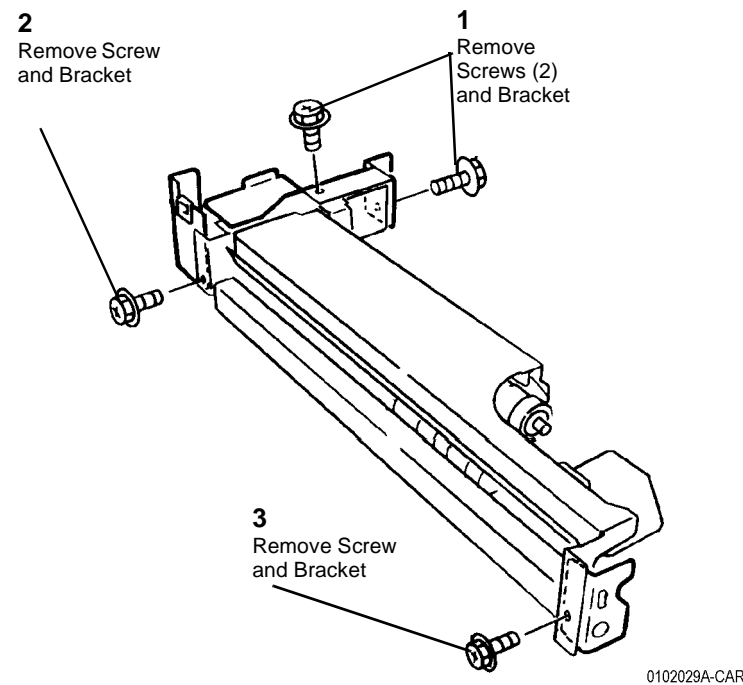


Figure 4 Removing the Brackets

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## REP 7.13 Tray 2 (3TM)

Parts List on [PL 15.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 2.
2. Lift end of tray to disengage lock on rail (not visible) and remove tray.

## REP 7.14 Tray 3 (3TM)

Parts List on [PL 15.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 3.
2. Lift end of tray to disengage lock on rail (not visible) and remove tray.



## REP 7.15 Tray 4 (3TM)

Parts List on [PL 15.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 4.
2. Lift end of tray to disengage lock on rail (not visible) and remove tray.

## REP 7.16 Tray 2 Feeder (3TM)

Parts List on [PL 15.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 2.
2. Open the Left Cover ([PL 15.10](#)) and remove the Left Lower Cover ([REP 14.12](#)).
3. Remove the Tray 2 Feeder ([Figure 1](#)).

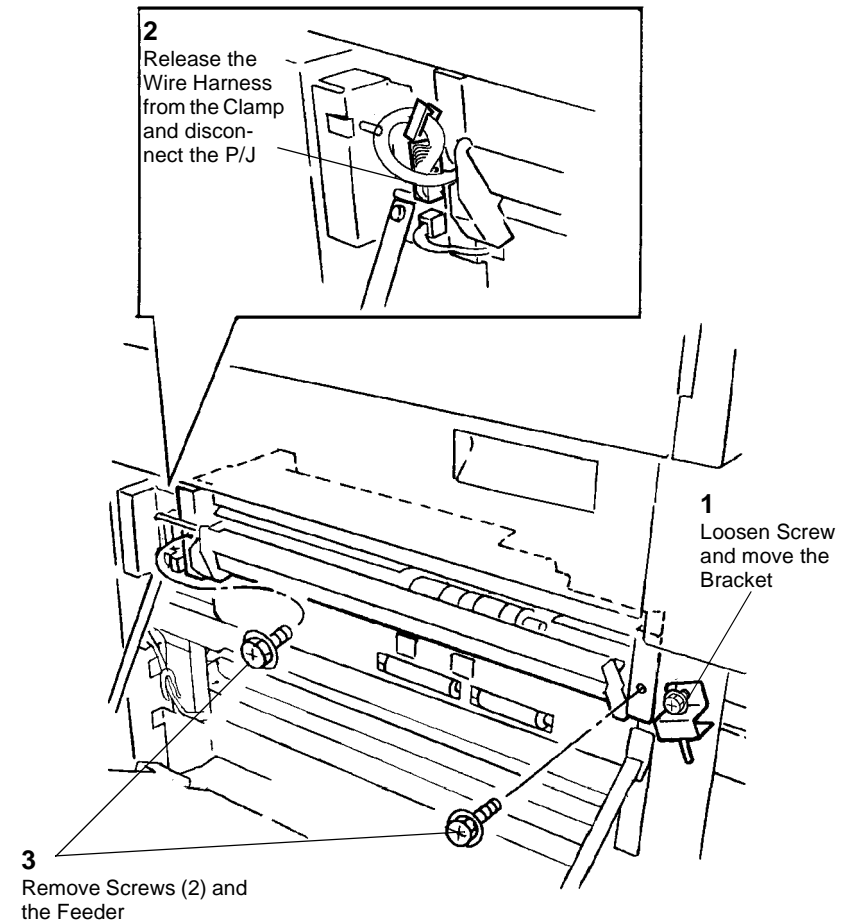


Figure 1 Removing the Tray 2 Feeder



## REP 7.17 Tray 3 Feeder (3TM)

Parts List on [PL 15.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 3.
2. Open the Left Cover ([PL 15.10](#)).
3. Remove the Tray 3 Feeder ([Figure 1](#)).

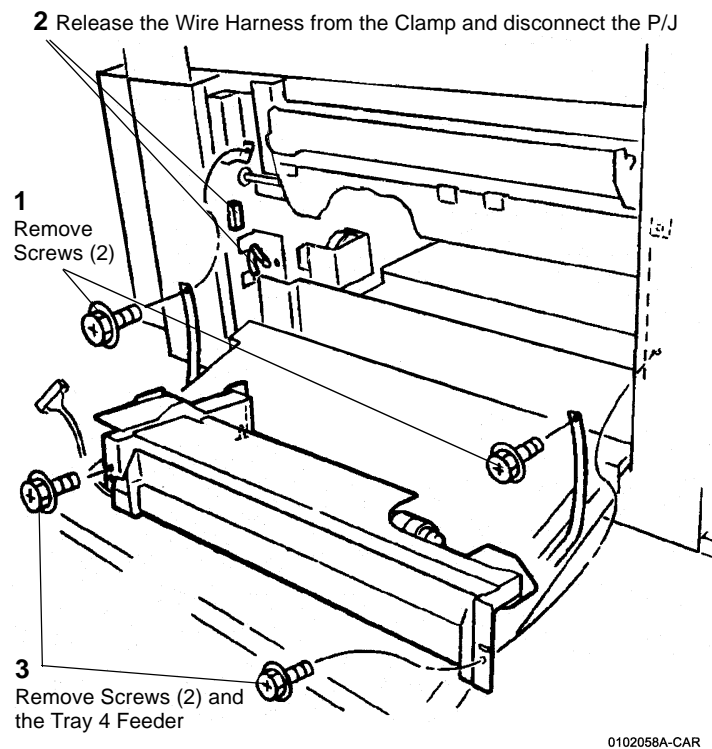


Figure 1 Removing the Tray 3 Feeder

## REP 7.18 Tray 4 Feeder (3TM)

Parts List on [PL 15.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Pull out Tray 4.
2. Open the Left Cover ([PL 15.10](#)) and remove the Left Lower Cover ([REP 14.12](#)).
3. Remove the Tray 4 Feeder ([Figure 1](#)).

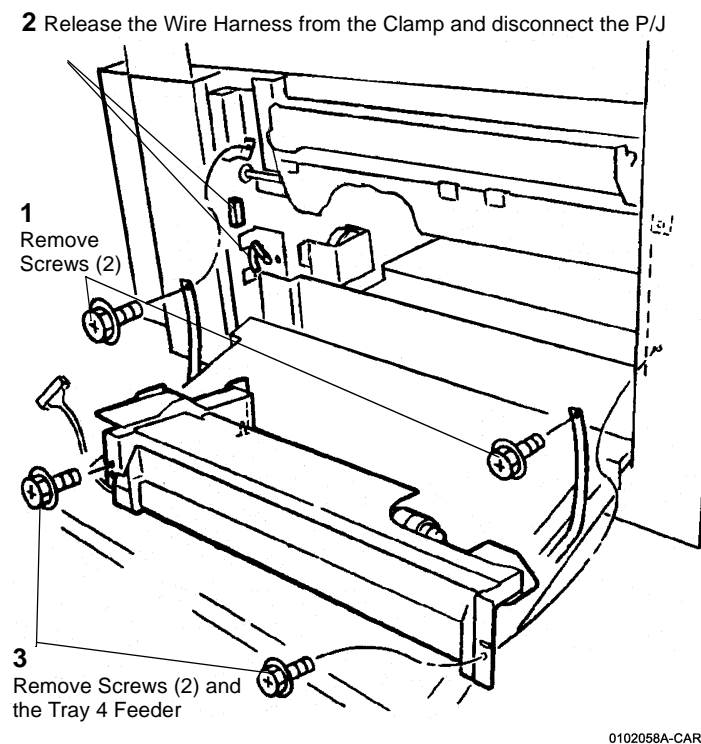


Figure 1 Removing the Tray 4 Feeder



## REP 7.19 Tray Module PWB

Parts List on [PL 15.9](#) (3TM), [PL 16.15](#) (TTM)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover (Tray Module) ([REP 14.9](#)).
2. If installed, remove Fax Module ([REP 1.18](#)) (WC24 only).
3. Disconnect connectors.
4. Remove screws (4).



## REP 8.1 Left Cover Assembly

Parts List on [PL 2.9](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 14.2](#)).
2. Remove Rear Left Upper Cover ([REP 14.5](#)).
3. Remove Rear Left Middle Cover ([REP 14.4](#)).
4. Close Left Cover Assembly.
5. Remove Tray 5 ([REP 7.1](#)).
6. Remove Fuser Cover ([REP 14.8](#)).
7. Disconnect connectors (3) ([Figure 1](#)).

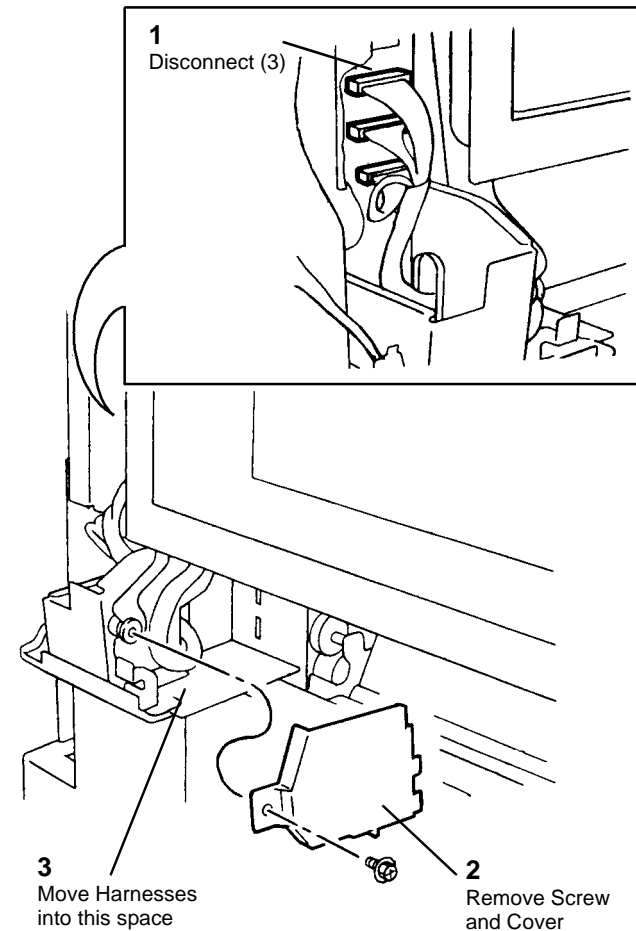


Figure 1 Disconnecting Electrical Connectors (3)



8. Remove Left Cover Assembly (Figure 2).

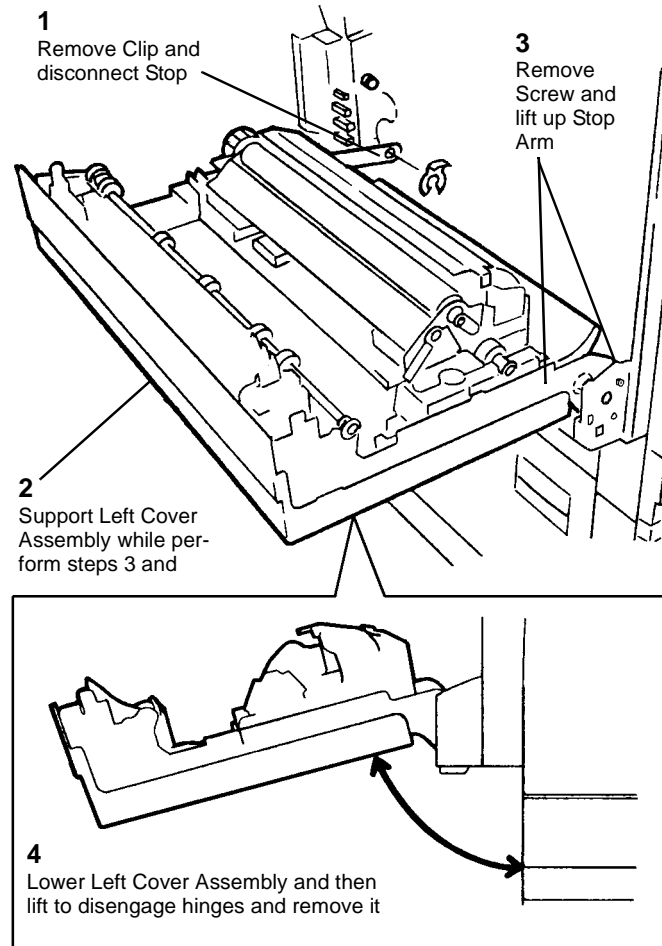


Figure 2 Removing Left Cover Assembly

### Replacement

Install Left Cover Assembly on hinge pins, manually align marks on Motion Damper, then tip up transport to engage Motion Damper gears and connect stop arm on Stop Pin (Figure 3).

### CAUTION

Before closing Left Cover Assembly to connect harness, hold up black plastic Duplex Baffle while closing transport.

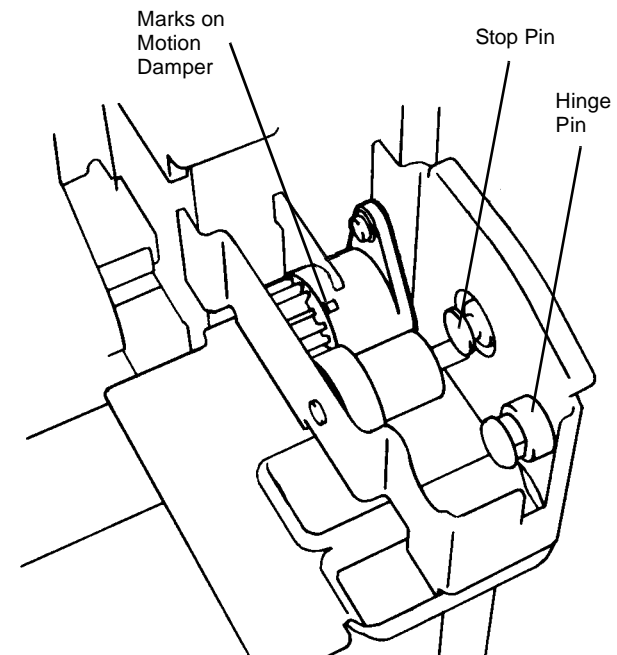


Figure 3 Aligning Marks on Motion Damper



## REP 8.2 Duplex Chute

Parts List on [PL 2.8](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 14.2](#)).
2. Remove Rear Left Upper Cover ([REP 14.5](#)).
3. Remove Rear Left Middle Cover ([REP 14.4](#)).
4. Close Left Cover Assembly.
5. Remove Tray 5 ([REP 7.1](#)).
6. Open and close Left Cover Assembly to allow Duplex Paper Guide to swing down.
7. Swing Duplex Paper Guide back and forth while carefully pushing Duplex Paper Guide toward rear. Key in front hinge pin will enter hinge pin slot and front hinge pin will disengage hinge pin hole. Move Duplex Paper Guide toward front to disengage rear hinge pin.

### Replacement

Install Left Cover Assembly on hinge pins, manually align marks on Motion Damper, then tip up transport to engage Motion Damper gears and connect stop arm on Stop Pin ([Figure 1](#)).

#### CAUTION

Before closing Left Cover Assembly to connect harness, hold up black plastic Duplex Baffle while closing transport.

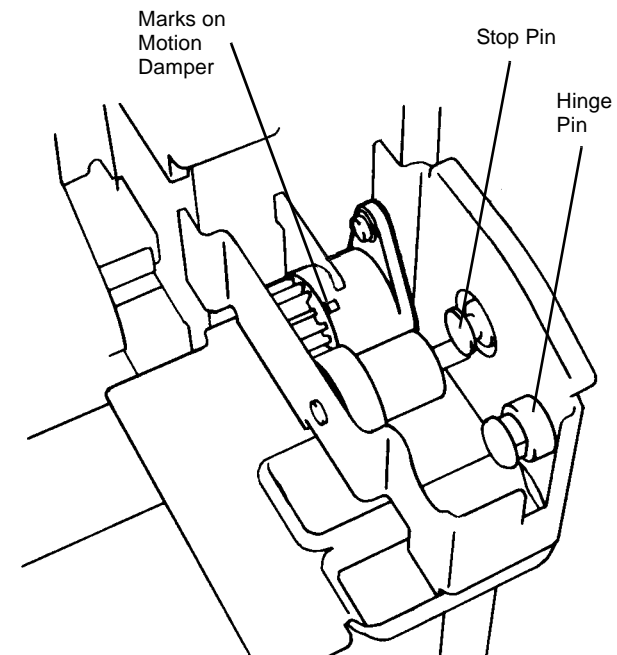


Figure 1 Aligning Marks on Motion Damper



## REP 8.3 Duplex Transport Assembly

Parts List on [PL 12.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Duplex Transport Assembly ([Figure 1](#)).
  - a. Remove Clip and Left Upper Cover.
  - b. Loosen Screws and remove Duplex Transport Assembly.

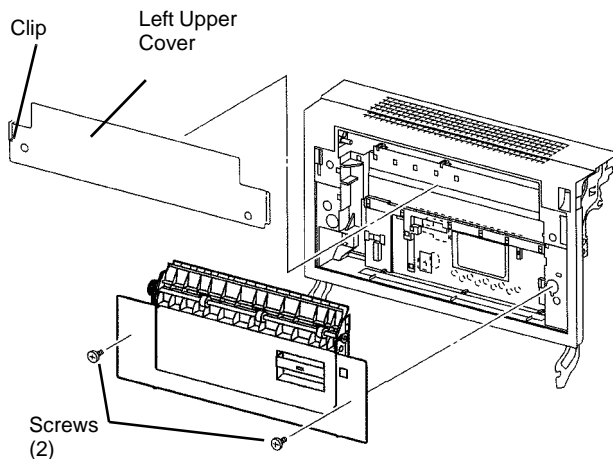


Figure 1 Removing Duplex Transport Assembly

## REP 8.5 Inverter Transport

Parts List on [PL 11.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Left Cover Assembly.
2. Remove Inverter Transport ([Figure 1](#)).
  - a. Remove E-rings (2), Bearings (2), and Transport Shaft.
  - b. Remove Screws (2).
  - c. Remove Inverter Transport.

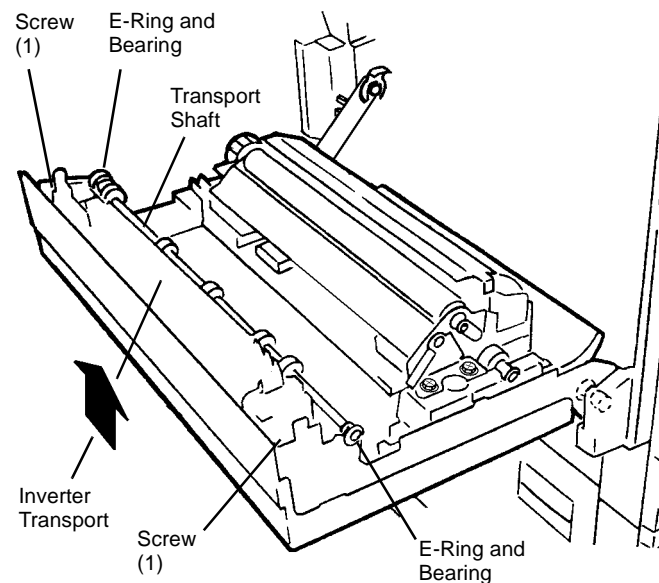


Figure 1 Removing Inverter Transport



## REP 8.6 Registration Transport Assembly

Parts List on **PL 2.6**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover (REP 14.2).
2. Remove Rear Left Upper Cover (REP 14.5).
3. Remove Rear Left Middle Cover (REP 14.4).
4. Close Left Cover Assembly.
5. Remove Tray 5 (REP 7.1).
6. Remove Left Cover Assembly (REP 8.1).
7. Remove Registration Transport Assembly (Figure 1).
  - a. Observe position of harness for later reinstallation.
  - b. Remove Screws (2).
  - c. Pivot top of Registration Transport out and disconnect Harness.
  - d. Lift to remove Registration Transport.

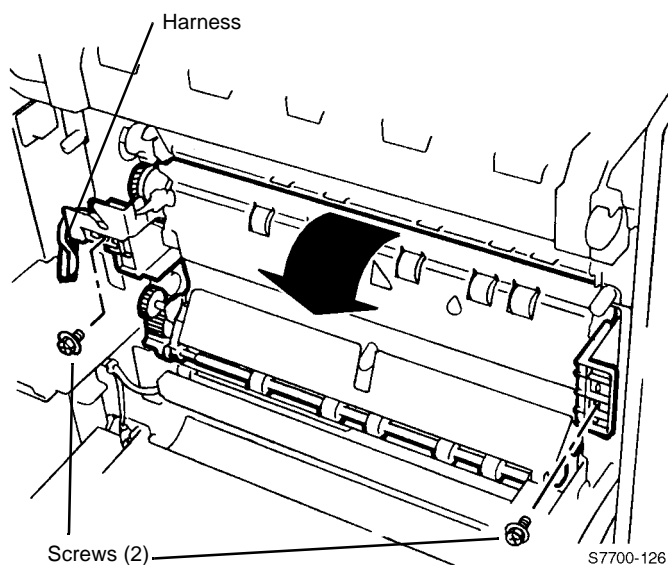


Figure 1 Removing Registration Transport Assembly

### Replacement

**NOTE:** bearing is equipped with two Anti-rotation Tabs. If one breaks during removal, install bearing so other tab is employed.

**NOTE:** Check that ground spring is pressing against bronze bushing after installing it.



## REP 8.7 Exit Transport Assembly

Parts List on [PL 2.11](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Fuser Cover ([REP 14.8](#)).
3. Remove Rear Cover ([REP 14.2](#)).
4. Remove Rear Left Upper Cover ([REP 14.5](#)).
5. Remove Exit Transport ([Figure 1](#)).
  - a. Disconnect connectors (2).
  - b. Remove Screws (3)
  - c. Rotate Exit Transport slightly to disengage Tab and then lift to remove Exit Transport.

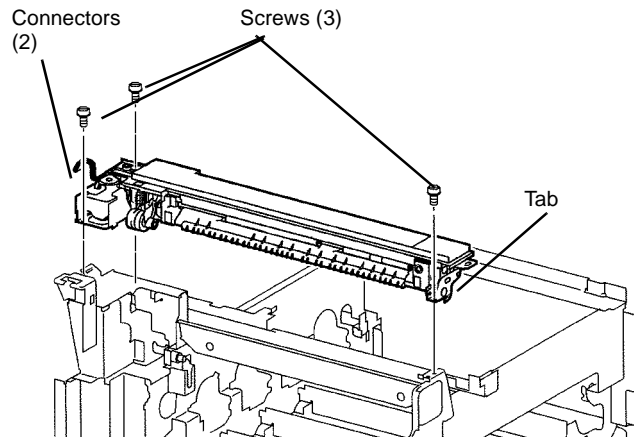


Figure 1 Removing Exit Transport



## REP 9.1 Drum Cartridge

Parts List on [PL 4.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Drum Cartridge.
  - a. Open Front Cover.
  - b. Lower the Lever.
  - c. Actuate orange release and pull out Drum Cartridge.

#### CAUTION

*Drum Cartridge photoreceptor damage is likely if Drum Cartridge is handled carelessly or exposed to light. This results in image quality defects. Use caution when Drum Cartridge is removed from machine.*

- d. Place Drum Cartridge in a black bag.

## REP 9.2 ROS Shutter Motor

Parts List on [PL 8.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 14.2](#)).
2. Remove Rear Left Upper Cover ([REP 14.5](#)).
3. Remove Rear Left Middle Cover ([REP 14.4](#)).
4. Close Left Cover Assembly.
5. Remove Tray 5 ([REP 7.1](#)).
6. Remove Left Cover Assembly ([REP 8.1](#)).
7. Remove Registration Transport Assembly ([REP 8.6](#)).
8. Remove Shutter Motor ([Figure 1](#)).

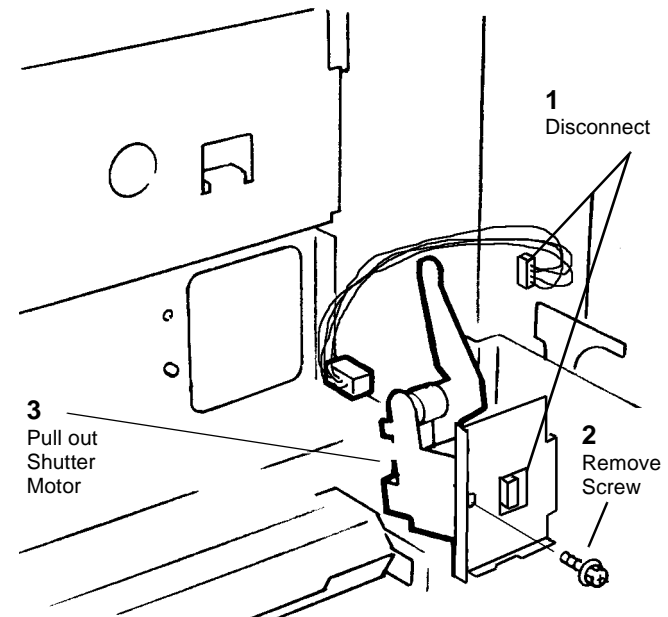


Figure 1 Removing Shutter Motor

### Replacement

Ensure solenoid arm engages



## REP 9.3 Waste Toner Cartridge Cover

Parts List on [PL 4.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Waste Toner Cartridge Cover ([Figure 1](#)).
  - a. Open Waste Toner Cartridge Cover.
  - b. Remove Screw.
  - c. Remove Waste Toner Cartridge Cover.

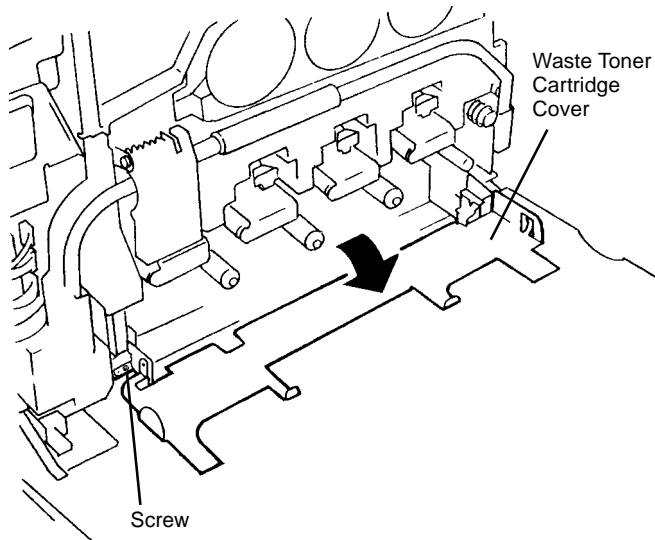


Figure 1 Removing Waste Toner Cartridge Cover

## REP 9.4 Waste Toner Cartridge

Parts List on [PL 4.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Waste Toner Cartridge ([Figure 1](#)).
  - a. Open Waste Toner Cartridge Cover.
  - b. Release Lever and move half way down.
  - c. Pull out to remove Waste Toner Cartridge.

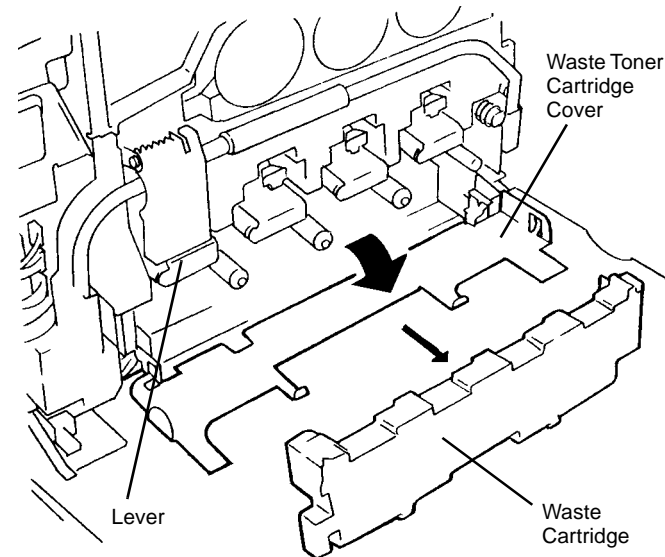


Figure 1 Removing Waste Toner Cartridge



## REP 9.5 Full Toner Sensor

Parts List on [PL 4.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Waste Toner Cartridge ([REP 9.4](#)).
3. Remove Waste Cartridge Toner Cover ([REP 9.3](#)).
4. Access Full Toner Sensor ([Figure 1](#)).
  - a. Lift left end slightly and pull left to disengage mounting tabs.
  - b. Rotate Sensor Support and remove. Left end harness connection limits movement.

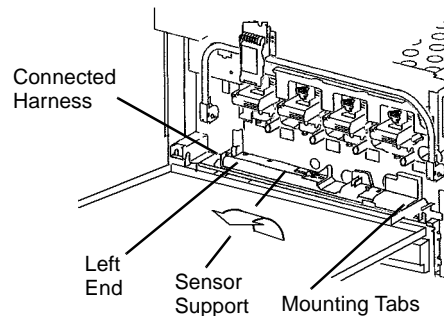


Figure 1 Accessing Full Toner Sensor

5. Remove Full Toner Sensor ([Figure 2](#)).
  - a. Push against sensor head while releasing locking tabs.
  - b. Disconnect sensor from harness.

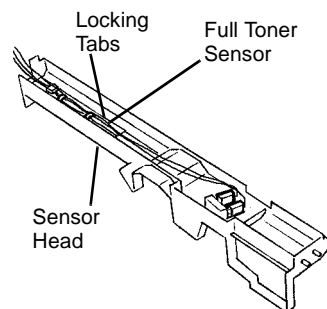


Figure 2 Removing Full Toner Sensor

## REP 9.6 Dispenser Cover

Parts List on [PL 10.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Open Left Cover Assembly.
3. Remove the Waste Toner Cartridge ([REP 9.4](#)).
4. Remove all four Drum Cartridges ([REP 9.1](#)).
5. Remove Fuser Cover ([REP 14.8](#)).
6. Release Lever and move half way down.
7. Remove Dispenser Cover ([Figure 1](#)).
  - a. Remove Screws (4).
  - b. Remove Dispenser Cover.

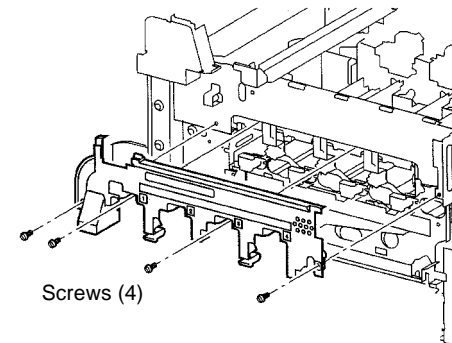


Figure 1 Removing Dispenser Cover



## REP 9.7 Toner Dispenser

### Parts List on PL 6.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Fuser Front Cover (REP 14.8).
3. Release Lever and move half way down.
4. Remove Dispenser Cover (REP 9.6).
5. Remove Drum Cartridges (REP 9.1).

#### CAUTION

Yellow dispenser must be removed first, followed in order by Magenta, Cyan, then Black. They must be reinstalled in reverse order of removal.

6. Prepare to remove Toner Dispenser (Figure 1).
  - a. Carefully pull out toner outlet door while holding housing back to shut off toner outlet.

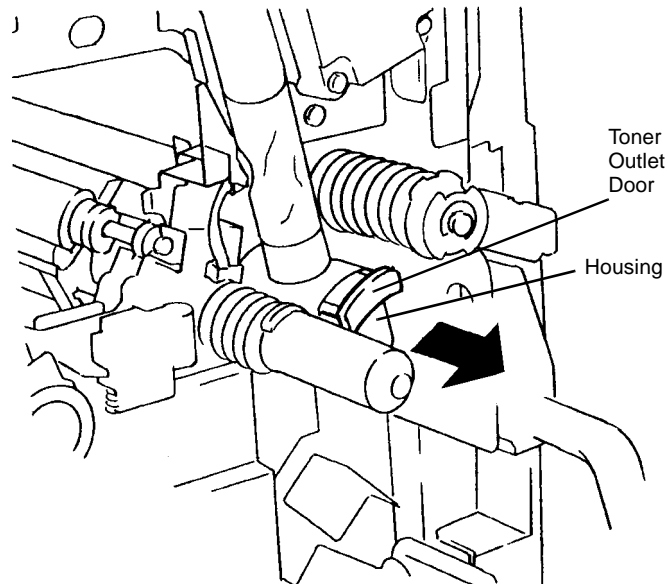


Figure 1 Closing Toner Outlet

7. Remove Toner Dispenser (Figure 2).
  - a. Remove Screw,

#### CAUTION

Connection tube may separate from upper or lower housing.

Agitator may disconnect if flex coupling is compressed enough so agitator hits inside bottom of lower housing

- b. Pull out Upper and Lower Housings together while ensuring flexible connection tube remains connected.

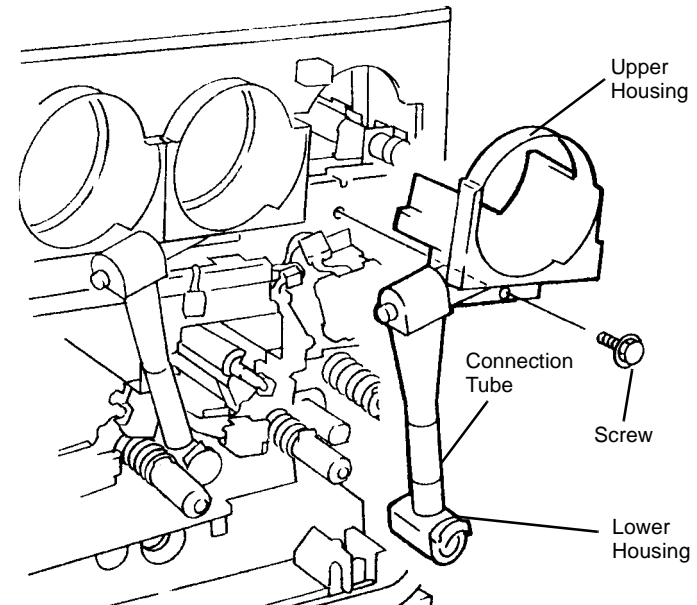


Figure 2 Removing Toner Dispenser



## REP 9.8 Plate Assembly

### Parts List on PL 4.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover (REP 14.7).
2. Remove Drum Cartridges (REP 9.1).
3. Remove Waste Toner Cartridge (REP 9.4).
4. Remove Waste Toner Cartridge Cover (REP 9.3).
5. Remove Fuser Cover (REP 14.8).
6. Remove Dispenser Cover (REP 9.6).
7. Remove all Toner Dispenser (REP 9.7).

#### CAUTION

Note position of harnesses. Correct harness routing is required for assembly.

**NOTE:** In next step, do not remove sensor.

8. Remove housing for Full Toner Sensor (REP 9.5).

9. Disconnect Developer housing connectors, 4 large and 4 small (small not shown). Position wires straight out from machine. Wires remain stationary while removing Plate Assembly (Figure 1).

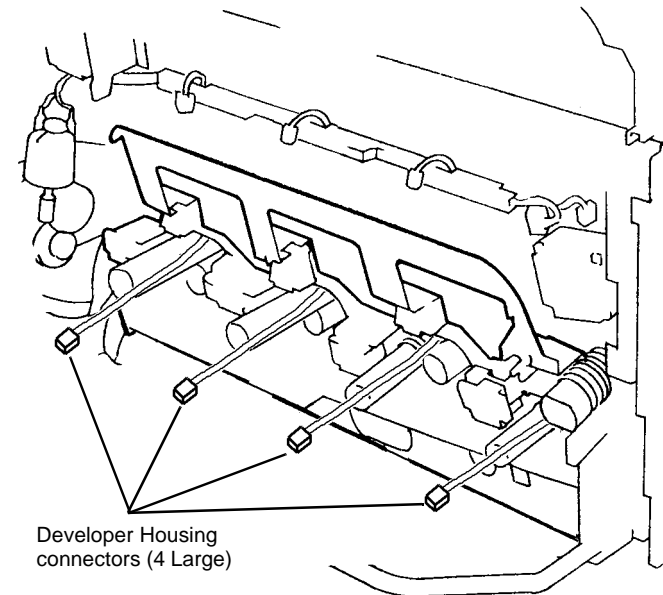


Figure 1 Disconnecting Developer Housing Connectors



10. Disconnect Developer Housing Harnesses (Figure 2).
  - a. Open harness clip and remove harness from clip.
  - b. Disconnect Harness P/J's (3).
  - c. Remove screw from Inner Cover and remove cover.
  - d. Remove Developer Housing harnesses from additional harness clips (not shown, under Inner Cover).

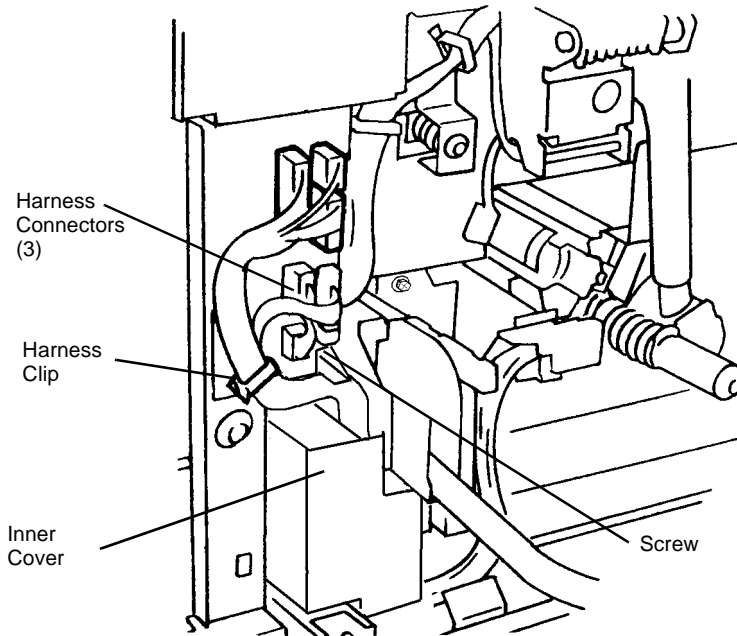


Figure 2 Disconnecting Developer Harnesses

11. Remove Plate Assembly (Figure 3).
  - a. Remove Screws (6).
  - b. Pull Plate Assembly toward front to remove it. Ensure that harnesses are not damaged.

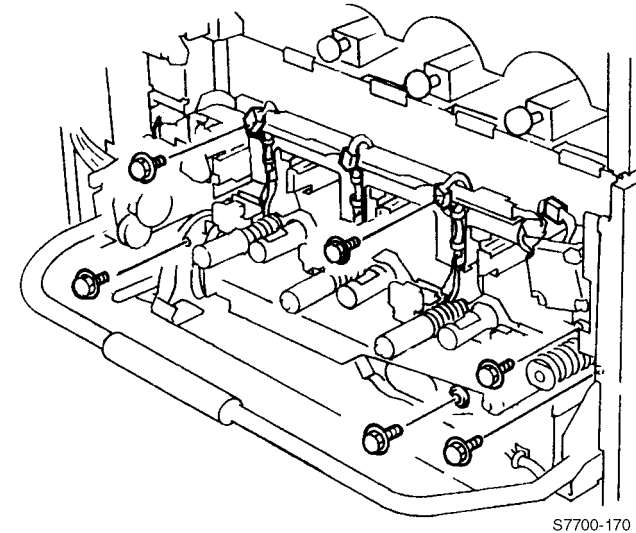


Figure 3 Removing Plate Assembly



## REP 9.9 Developer Housing

### Parts List on PL 6.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover (REP 14.7).
2. Remove Drum Cartridges (REP 9.1).
3. Remove Waste Toner Cartridge (REP 9.4).
4. Remove Waste Toner Cartridge Cover (REP 9.3).
5. Remove Fuser Cover (REP 14.8).
6. Move Xerographic Release Lever up to a mid position.
7. Remove Dispenser Cover (REP 9.6).
8. Remove all Toner Dispensers (REP 9.7).

**NOTE:** In next step, do not remove sensor.

9. Remove housing for Full Toner Sensor (REP 9.5).

**NOTE:** In next step, it may not be necessary to disconnect harnesses for Plate Assembly (PL 4.2) to remove a developer housing.

10. Remove Plate Assembly (REP 9.8).

#### CAUTION

IBT belt damage results when Developer Housing is removed carelessly.

11. Remove Developer Housing (Figure 1).

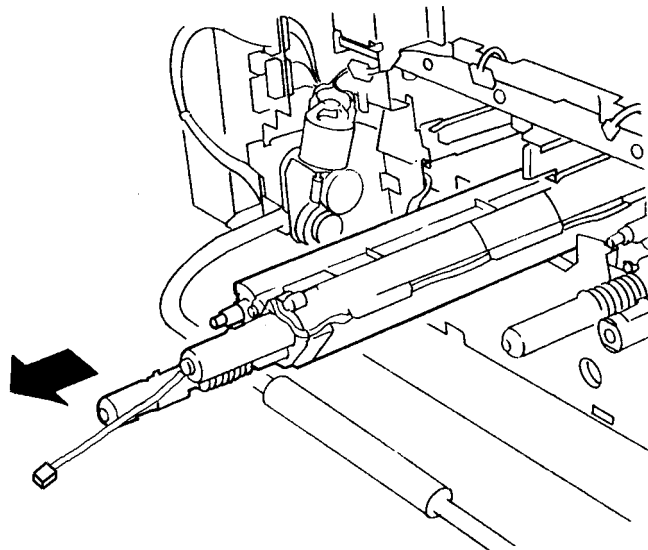


Figure 1 Removing Developer Housing

#### Replacement

**NOTE:** If installing a new Developer Housing, go to step 1. If reinstalling existing developer housing, go to step 5.

1. Install new Developer (REP 9.10) as required.
2. Remove ATC Sensor Setup Data Tag from new Developer Housing. On tag, highlight K, C, M, or Y as required for color of developer housing. Tag will be installed during machine reassembly.
3. During machine assembly, install ATC Sensor Setup Data Tag as shown (Figure 2).

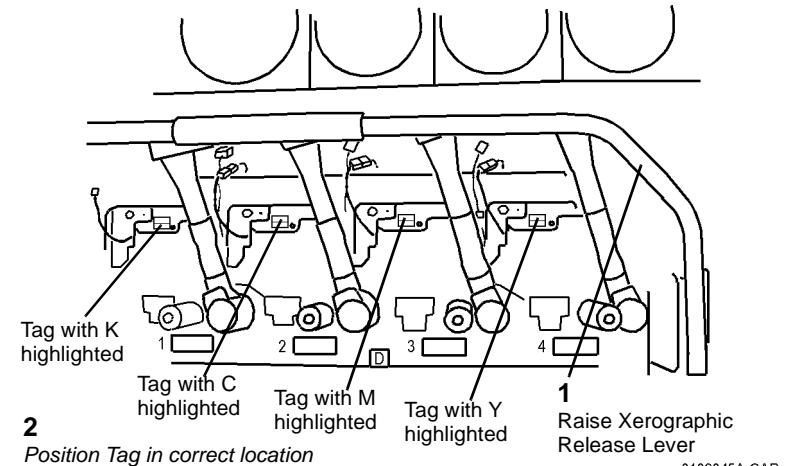


Figure 2 Installing ATC Sensor Setup Data Tag

4. Perform ATC Sensor Setup (ADJ 9.2).
5. While reinstalling Developer Housing ensure pin at rear of Developer Housing engages hole in rear frame of machine.



## REP 9.10 Developer

### Parts List on PL 6.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover (REP 14.7).
2. Remove Drum Cartridges (REP 9.1).
3. Remove Waste Toner Cartridge (REP 9.4).
4. Remove Waste Cartridge Toner Cover (REP 9.3).
5. Remove Fuser Cover (REP 14.8).
6. Remove Dispenser Cover (REP 9.6).
7. Remove all Toner Dispensers (REP 9.7).

**NOTE:** In next step, do not remove sensor.

8. Remove housing for Full Toner Sensor (REP 9.5).

**NOTE:** In next step, it may not be necessary to disconnect harnesses for Plate Assembly (PL 4.2) to remove a developer housing.

9. Remove Plate Assembly (REP 9.8).
10. Remove Developer Housing (REP 9.9).
11. Remove Developer. (Figure 1).
- a. Carefully observe position of wiring harness for later reinstallation.

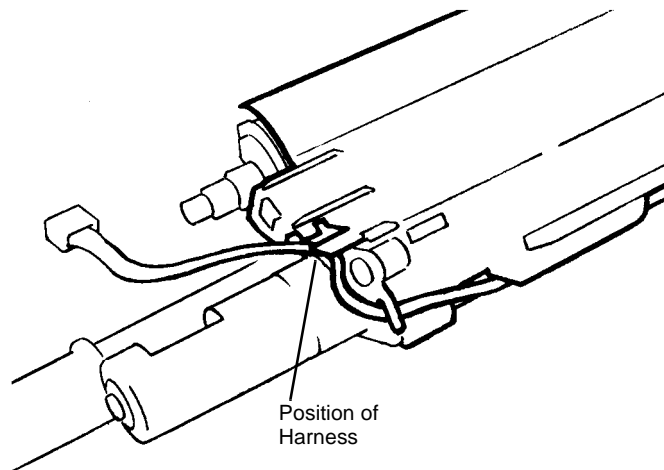


Figure 1 Observing position of Harness

- b. Remove Housing Cover (Figure 2).

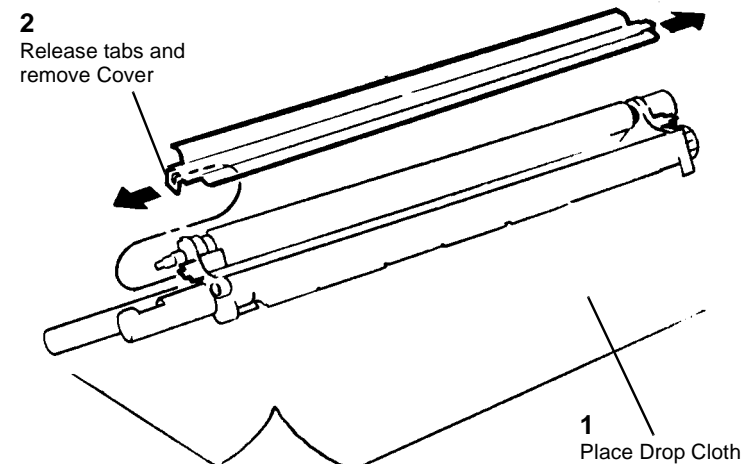


Figure 2 Removing Housing Cover

- c. Rotate Drive Gear to remove Developer (Figure 3).

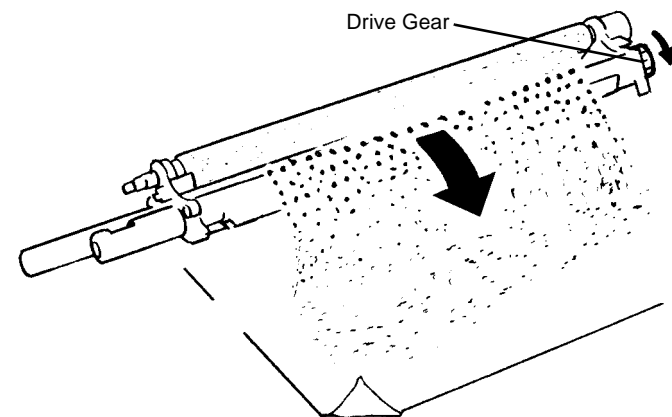
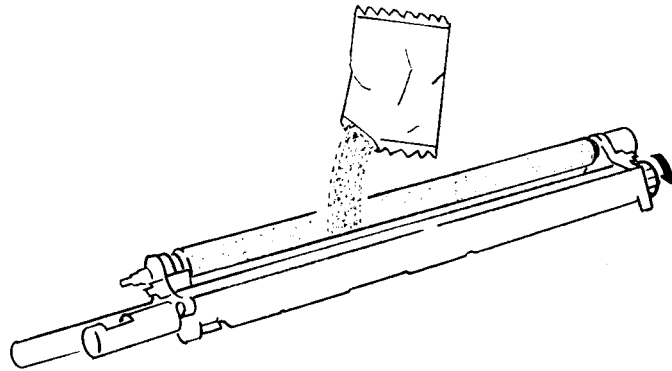


Figure 3 Removing Developer

#### Replacement

1. Rotate Drive Gear while installing new Developer (Figure 4).





**Figure 4 Installing Developer**

2. Install Developer Housing.
  - a. Ensure pin at rear of Developer Housing engages hole in rear frame of machine.
  - b. Reassemble machine.
  - c. Perform dC921 ATC Sensor Setup (ADJ 9.2).

## REP 9.11 Toner Dispenser Base Assembly

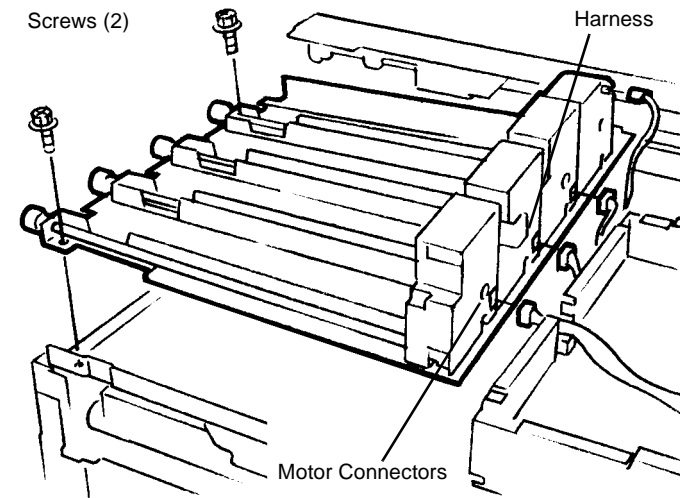
Parts List on [PL 6.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Drum Cartridges ([REP 9.1](#)).
3. Remove Fuser Cover ([REP 14.8](#)).
4. Remove Dispenser Cover ([REP 9.6](#)).
5. Remove all Toner Dispensers ([REP 9.7](#)).
6. Remove Top Cover ([REP 14.1](#)).
7. Remove Right Cover ([REP 14.3](#)).
8. Remove Toner Dispenser Base Assembly ([Figure 1](#)).
  - a. Remove screws (2).
  - b. Carefully observe position of wiring harness for later reinstallation
  - c. Disconnect motor connectors (4).
  - d. Lift to remove.



**Figure 1 Removing Toner Dispense Module**



## REP 9.12 IBT Steering Motor Assembly

Parts List on [PL 1.3](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Fuser Cover ([REP 14.8](#)).
3. Remove Dispenser Cover ([REP 9.6](#)).
4. Remove Steering Motor ([Figure 1](#)).
  - a. Disconnect connector.
  - b. Remove screws (3).
  - c. Pull out to remove using care to avoid damage to steering gear.

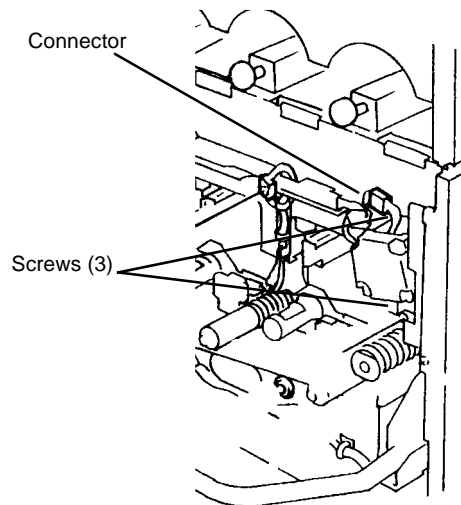


Figure 1 Removing Steering Motor

## REP 9.13 Agitator Motor Assembly

Parts List on [PL 4.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Waste Toner Cartridge ([REP 9.4](#)).
3. Remove Fuser Cover ([REP 14.8](#)).
4. Remove Dispenser Cover ([REP 9.6](#)).
5. Remove Agitator Motor Assembly ([Figure 1](#)).
  - a. Disconnect connector.
  - b. Remove screws (2) and remove Agitator Motor Assembly.

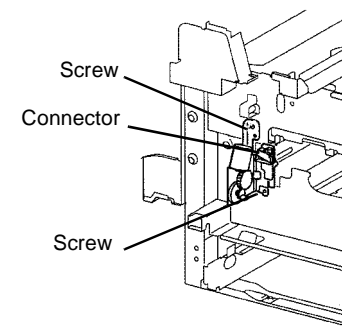


Figure 1 Removing Waste Toner Agitator



## REP 9.14 MOB Sensor Assembly

Parts List on [PL 1.3](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Waste Toner Cartridge ([REP 9.4](#)).
3. Remove Fuser Cover ([REP 14.8](#)).
4. Remove Dispenser Cover ([REP 9.6](#)).
5. Remove Agitator Motor Assembly ([REP 9.13](#)).
6. Remove MOB Sensor Assembly ([Figure 1](#)).
  - a. Open harness clip and remove harness from clip.
  - b. Remove screw and remove Inner Cover.
  - c. Disconnect connectors (3)
  - d. Remove MOB Sensor Assembly Harnesses (violet) from additional harness clips (not shown).
  - e. Remove MOB Sensor Screw and pull out to remove MOB Sensor Assembly. Xerographic Release Lever must be down as shown.

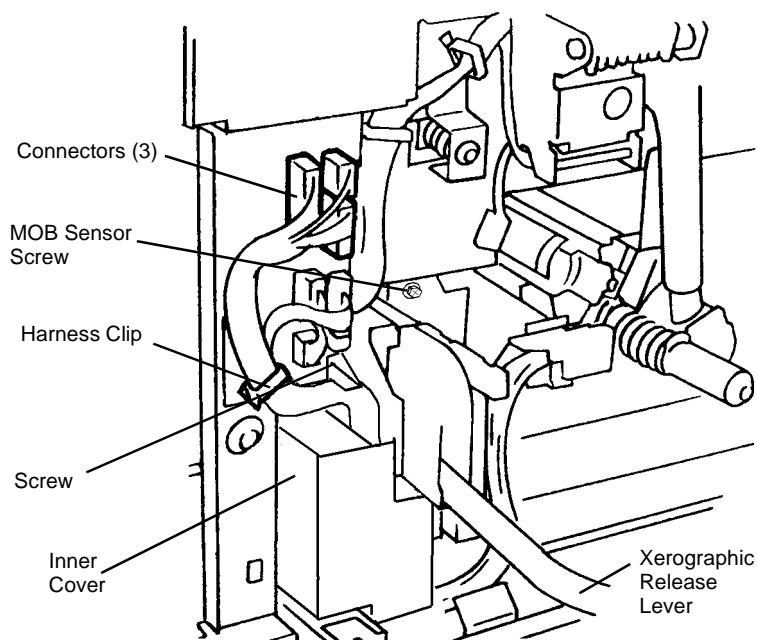


Figure 1 Removing MOB Sensor Assembly

## REP 9.15 IBT Belt Assembly

Parts List on [PL 5.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Release and move Xerographic Release Lever down.
3. Open Right Side Door.
4. Remove IBT Belt Assembly ([Figure 1](#)).
  - a. Lift to release Slide Lock.
  - b. Pull out IBT Belt Assembly to remove it. Use handle to transport.

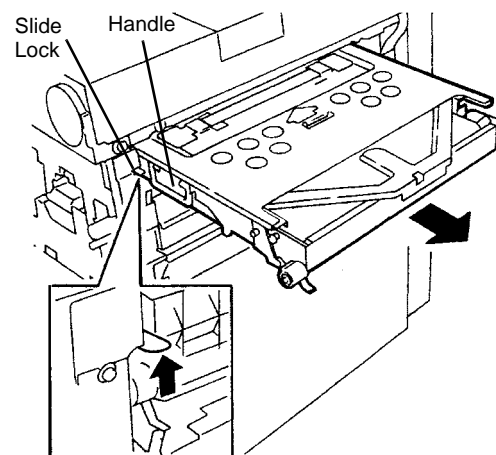


Figure 1 Removing IBT Belt Assembly

### Replacement

Go to [Detailed Maintenance Activities](#) and reset the HFSI counter for IBT Belt Assembly.



## REP 9.16 IBT Cleaner Assembly

Parts List on [PL 5.3](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Release and move Xerographic Release Lever down.
3. Remove Right Cover ([REP 14.3](#)).
4. Remove IBT Belt Assembly just enough to access IBT Cleaner Assembly ([REP 9.15](#)).

#### CAUTION

*In next step, toner may spill out of Belt Cleaner if cleaner is handled carelessly.*

5. Remove Screws and remove IBT Cleaner Assembly ([Figure 1](#)).

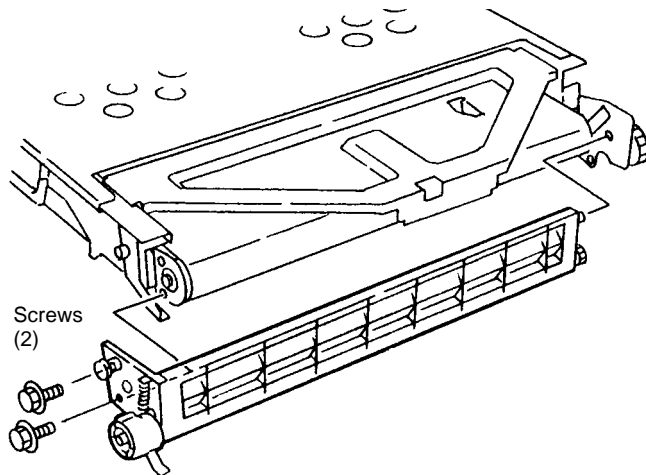


Figure 1 Removing IBT Cleaner Assembly

### Replacement

1. Ensure both rear locating pins engage holes in IBT Belt Assembly frame during installation of IBT Cleaner Assembly.
2. Go to [Detailed Maintenance Activities](#) and reset the HFSI counter for IBT Cleaner.

## REP 9.17 Auger Assembly

Parts List on [PL 5.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Waste Toner Cartridge ([REP 9.4](#)).
3. Remove Right Cover ([REP 14.3](#)).
4. Remove IBT Belt Assembly ([REP 9.15](#)).
5. Move Xerographic Release Lever to up position.
6. Remove Auger Assembly ([Figure 1](#)).
  - a. Remove screws (2).
  - b. Move Auger Assembly toward bearing to disengage cutout from bearing.
  - c. Remove Auger Assembly.

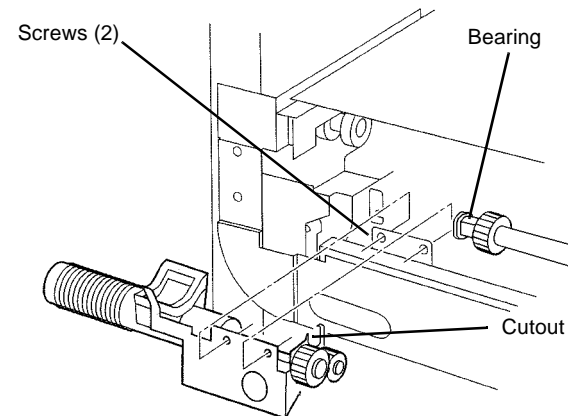


Figure 1 Removing Waste Toner Agitator

### Replacement

Move Xerographic Release Lever to down position before reinstalling IBT Belt Assembly.



## REP 9.18 Lever Assembly

### Parts List on PL 5.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Fuser Cover (REP 14.8).
3. Remove Waste Toner Cartridge (REP 9.4).
4. Remove Waste Toner Cartridge Cover (REP 9.3).
5. Remove Inner Cover (REP 14.10).
6. Remove Drum Cartridges (REP 9.1).
7. Remove Right Cover (REP 14.3).
8. Remove IBT Belt Assembly (REP 9.15).
9. Remove Lever Assembly (Figure 1).

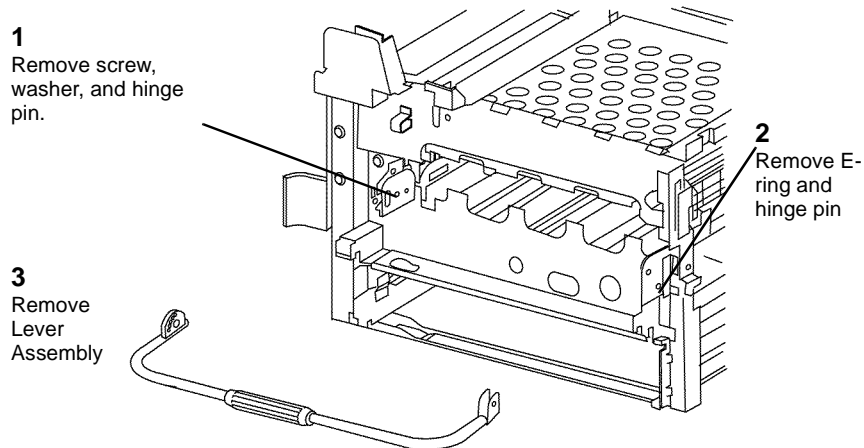


Figure 1 Removing Lever Assembly

#### Replacement

1. Make sure that the Right and Left Lift Assemblies are fully extended, and that the index marks on both ends of the Lever are aligned with the index marks on the Lift Assemblies (Figure 2).

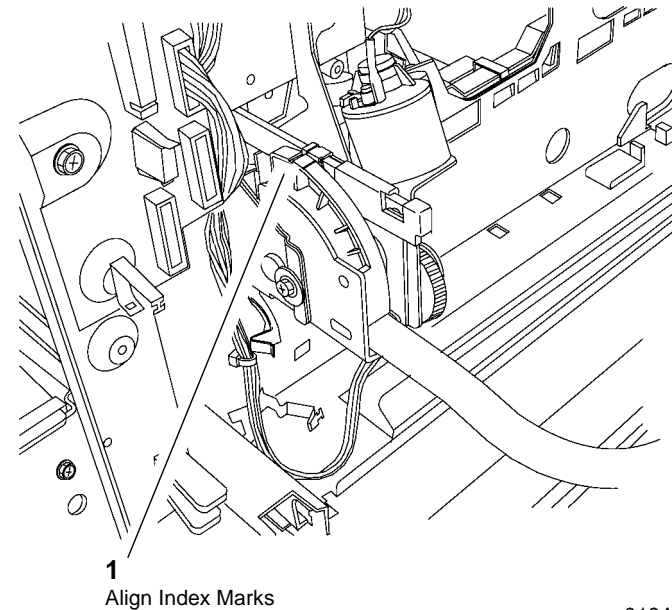


Figure 2 Index Marks

2. Move Lever to down position before reinstalling IBT Belt Assembly.

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## REP 9.19 Left Hinge/Right Hinge

Parts List on [PL 5.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Fuser Cover ([REP 14.8](#)).
3. Remove Waste Toner Cartridge ([REP 9.4](#)).
4. Remove Waste Toner Cartridge Cover ([REP 9.3](#)).
5. Remove Inner Cover ([REP 14.10](#)).
6. Remove Drum Cartridges ([REP 9.1](#)).
7. Remove Right Cover ([REP 14.3](#)).
8. Remove IBT Belt Assembly ([REP 9.15](#)).
9. Remove Lever Assembly ([REP 9.18](#)).
10. Remove Left and/or Right Hinges ([Figure 1](#)).
  - a. Remove screws (2) and remove Hinge.
  - b. Remove screws (2) and remove Hinge.

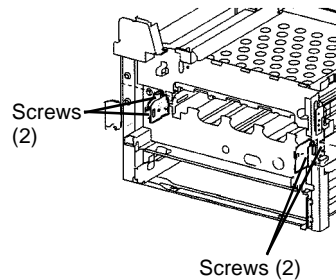


Figure 1 Removing Left and Right Hinges

### Replacement

Move Lever to down position before reinstalling IBT Belt Assembly.

## REP 9.20 Right Lift Assembly

Parts List on [PL 5.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Fuser Cover ([REP 14.8](#)).
3. Remove Waste Toner Cartridge ([REP 9.4](#)).
4. Remove Waste Toner Cartridge Cover ([REP 9.3](#)).
5. Remove Inner Cover ([REP 14.10](#)).
6. Remove Drum Cartridges ([REP 9.1](#)).
7. Remove Right Cover ([REP 14.3](#)).
8. Remove IBT Belt Assembly ([REP 9.15](#)).
9. Remove Lever Assembly ([REP 9.18](#)).
10. Remove Plate ([Figure 1](#)).
  - a. Remove e-rings (2) and washers (2).
  - b. Remove screws (4) and remove Plate.
  - c. Remove bearings (2) and washers (2).

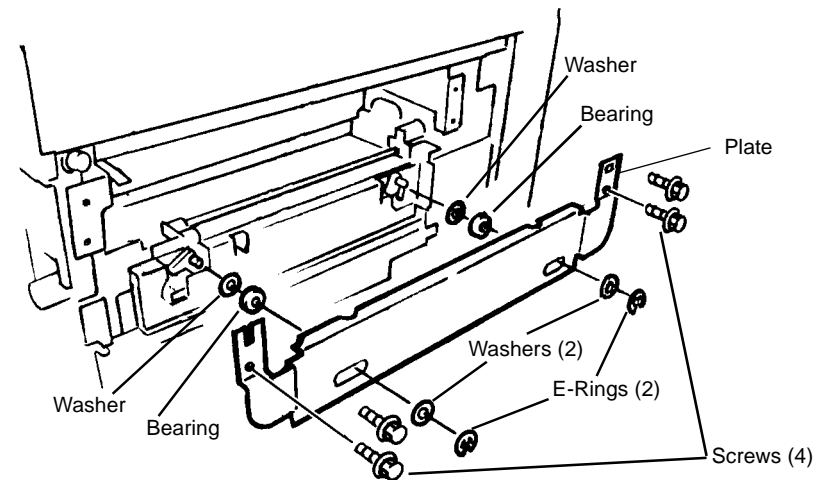


Figure 1 Removing Plate



11. Remove Right Lift Assembly (Figure 2).
  - a. Remove Auger mounting screws (2).
  - b. Remove lift position screw.
  - c. Remove secondary position screw.
  - d. Remove lower screws (2).
  - e. Remove Right Lift Assembly.

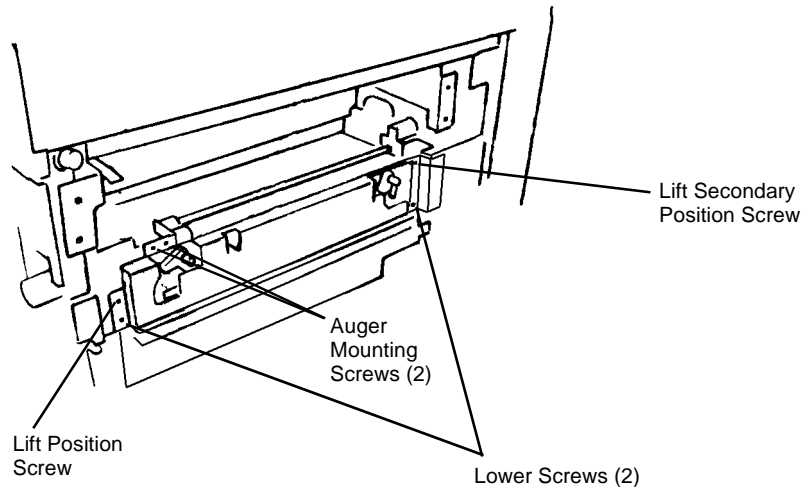


Figure 2 Removing Right Lift Assembly

## Replacement

Move Lever to down position before reinstalling IBT Belt Assembly.

## REP 9.21 Left Lift Assembly

### Parts List on PL 5.1

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover (REP 14.7).
2. Remove Lever (REP 9.18).
3. Remove Rear Cover (REP 14.2).
4. Remove Left Lower Cover Assembly (REP 14.6).
5. Remove Tray 5 (REP 7.1).
6. Remove Left Cover Assembly (REP 8.1).
7. Optional for improved visibility: Remove Fuser (REP 10.1).
8. Remove Registration Transport Assembly (REP 8.6).
9. Remove MOB Sensor (REP 9.14).
10. Remove the Duct (PL 8.1, item 7).
11. Remove Left Hinge (REP 9.19).
12. Remove Cyan and Black Toner Cartridges.
13. Remove Cyan and Black Toner Dispensers (REP 9.7).

**NOTE:** In next step, do not remove the Full Toner Sensor from the sensor housing

In next step, it may not be necessary to disconnect harnesses for Plate Assembly (PL 4.2) to remove a developer housing.

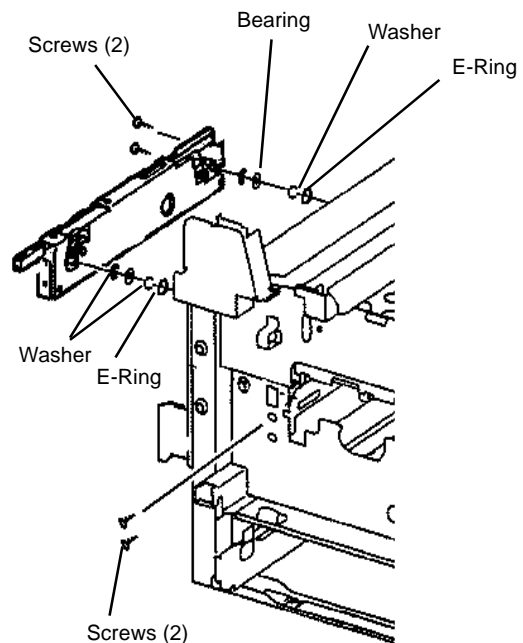
14. Remove Plate Assembly (REP 9.8).
15. Remove Cyan and Black Developer Housings (REP 9.9).
16. Remove Left Lift Assembly (Figure 1).

**NOTE:** In next step, use a magnet to capture E-Ring and Washer while removing them.

- a. From inside Developer Housing cavity, remove e-ring and washer from each end of Left Lift.
- b. Remove screws (4).
- c. Remove Left Lift Assembly.

**NOTE:** Maintain orientation to ensure bearings (2) and washers (2) do not fall off posts.





**Figure 1 Removing Left Lift Assembly**

## **Replacement**

1. Install Lift Assembly.
  - a. Position Lift Assembly in frame.
  - b. Raise or lower xerographic frame as required and push in or pull out Lift Assembly actuator as required to engage lift bearings with slots in xerographic frame.
  - c. Install front top screw, then front bottom screw, then rear screws (2).
  - d. Install washers (2) and e-rings (2).
2. Assemble remaining machine components.



## REP 9.22 Transfer Belt

Parts List on [PL 5.3](#)

### Removal

#### WARNING

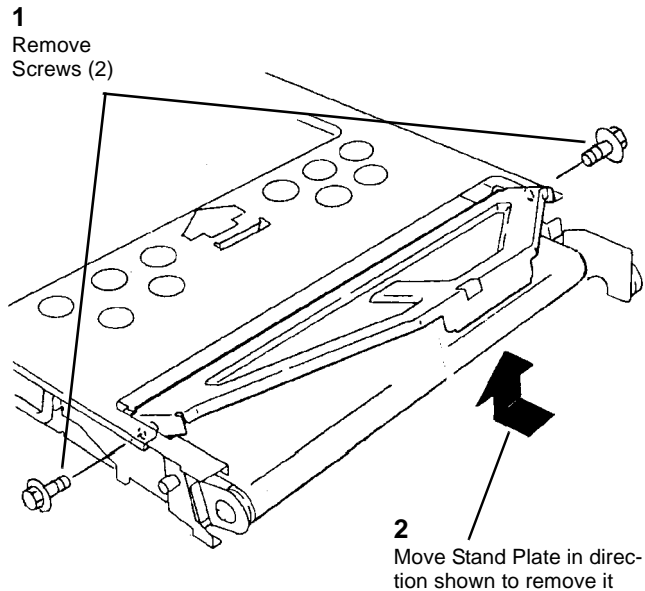
To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

Cover Transfer Belt in a black bag.

**NOTE:** Keep your hand off Transfer Belt.

1. Remove IBT Belt Assembly ([REP 9.15](#)).
2. Remove IBT Cleaner Assembly ([REP 9.16](#)).
3. Remove Stand Plate ([Figure 1](#)).
  - a. Remove screw (2).
  - b. Remove Stand Plate in direction of arrow. Stand Plate will be installed in new location in step 7.



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Figure 1 Removing Stand Plate

4. Remove Handle ([Figure 2](#)).

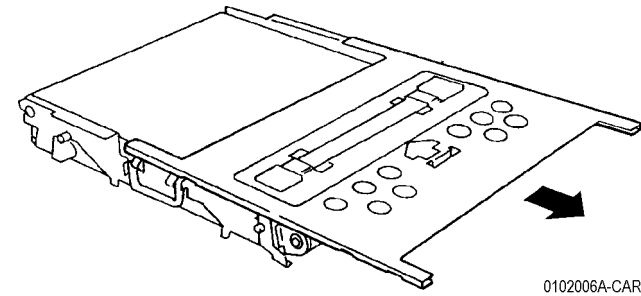


Figure 2 Removing Handle

5. Remove screws on both sides ([Figure 3](#)).

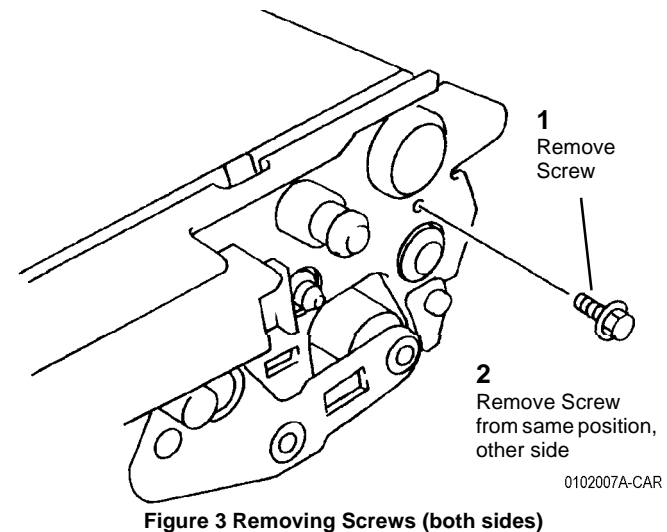


Figure 3 Removing Screws (both sides)



6. Position Support (Figure 4)

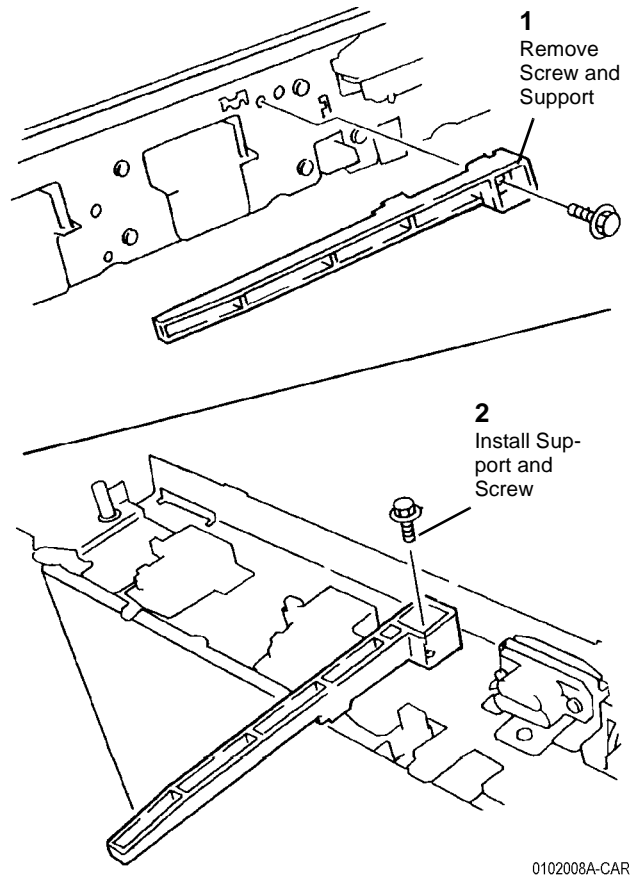


Figure 4 Positioning Latch

7. Install Stand Plate (Figure 5).

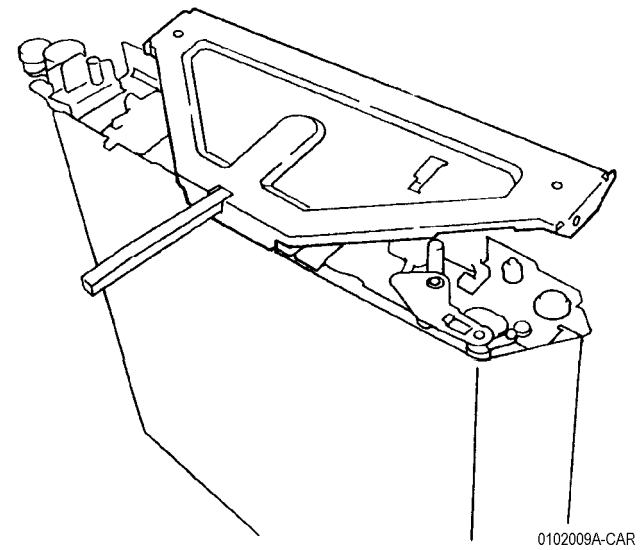
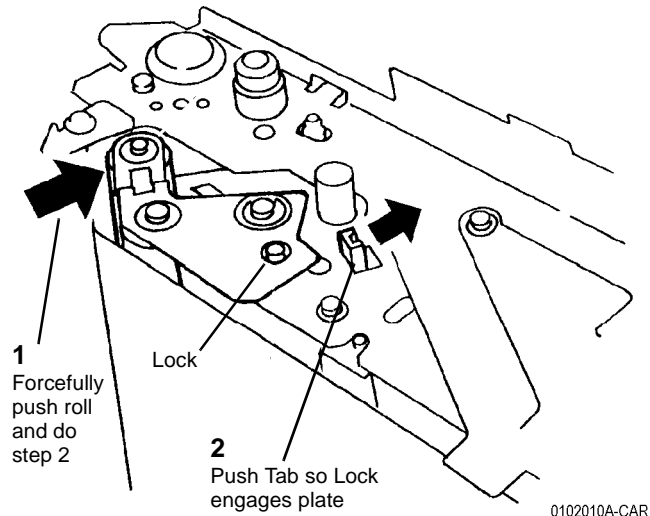


Figure 5 Installing Stand Plate

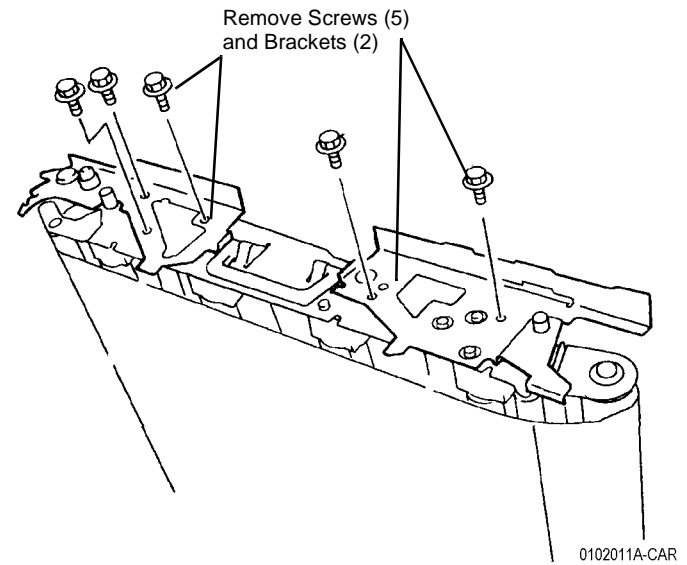


8. Place Stand Plate below and stand IBT Belt Assembly.
9. Relax tension of Belt on both sides (Figure 6).



**Figure 6 Relaxing Belt Tension**

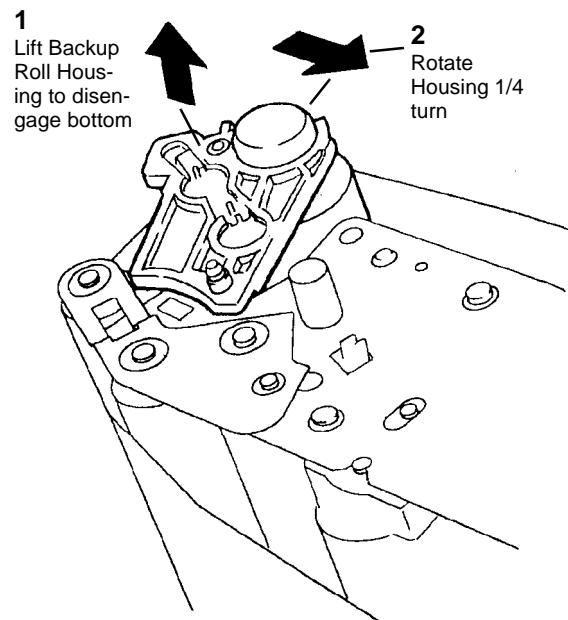
10. Remove Brackets (Figure 7).



**Figure 7 Removing Bracket**



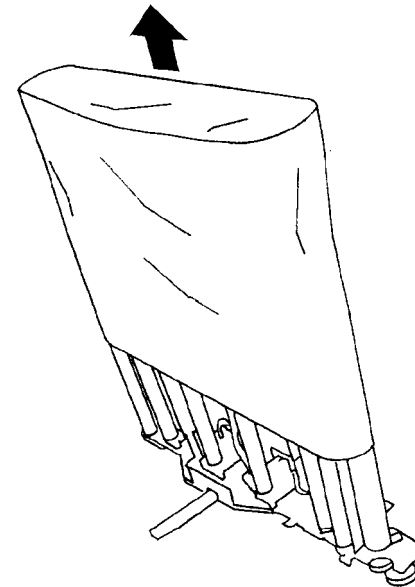
11. Pull out Backup Roll Housing from hole below and rotate (Figure 8).



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Figure 8 Pulling Out Backup Roll Housing

12. Remove Transfer Belt (Figure 9).



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Figure 9 Removing Transfer Belt



## Replacement

1. Install Transfer Belt with Reflector at rear (Figure 10).

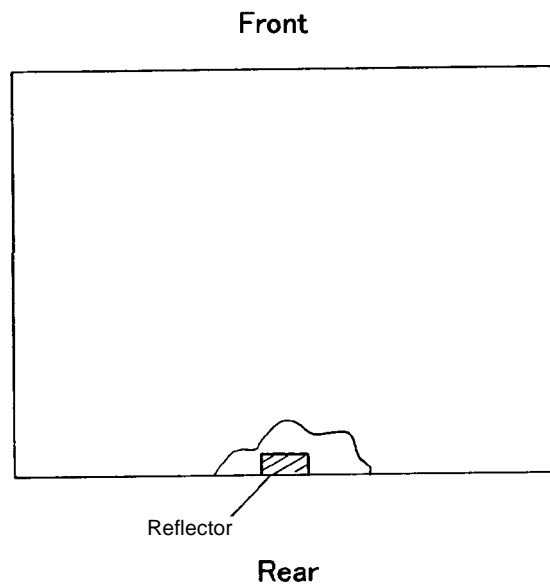


Figure 10 Installing Transfer Belt

0102014A-CAR

2. After installing Transfer Belt, move it to center of IBT Frame so that exposed parts of IBT Drive Roll should be equal (Figure 11).

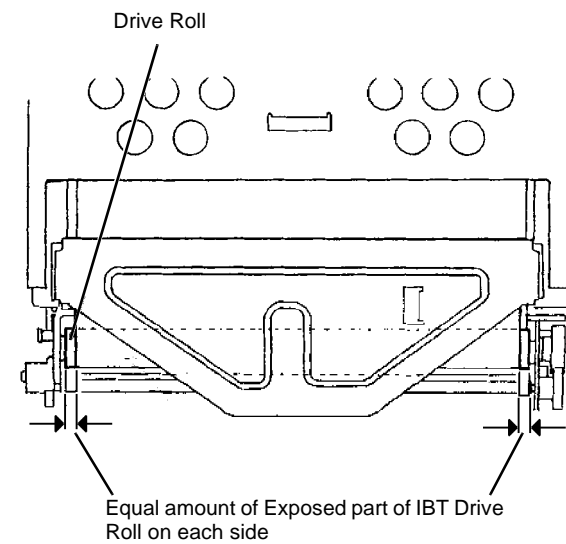
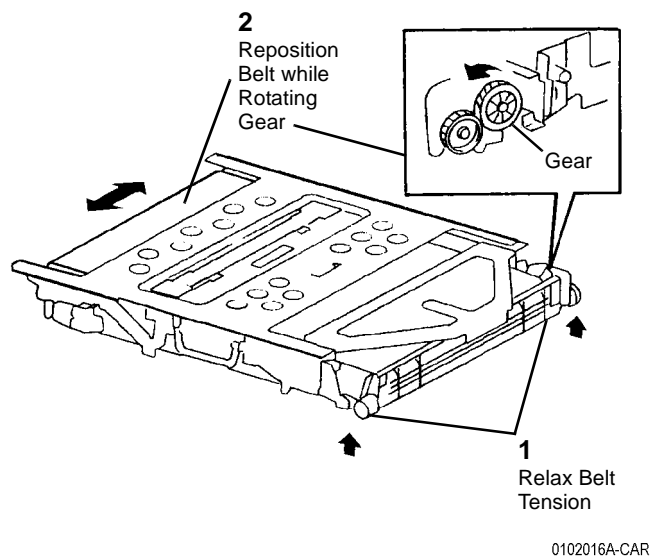


Figure 11 Positioning Transfer Belt

0102015A-CAR



3. If Transfer Belt is skewed or wrinkled, perform following steps: (Figure 12).
  - a. Relax tension of Belt.
  - b. Rotate Gear in arrow direction and move Transfer Belt.



**Figure 12 Re-positioning Transfer Belt**



## REP 9.23 1st BTR Roll

Parts List on [PL 5.4](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Release Lever and move down.
3. Open Right Side Door.
4. Remove IBT Assembly ([REP 9.15](#)).
5. Remove Transfer Belt ([REP 9.22](#)).
6. Remove 1st BTR Roll ([Figure 1](#)).

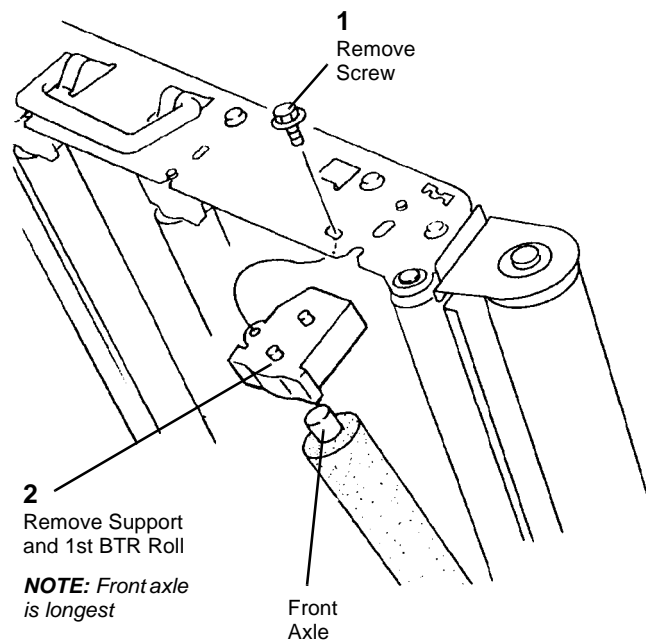


Figure 1 Removing 1st BTR Roll

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## REP 9.24 2nd BTR Roll

Parts List on [PL 2.8](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove 2nd BTR ([Figure 1](#)).
  - a. Open Left Cover Assembly.
  - b. Remove screws (4).
  - c. Remove 2nd BTR with Support Brackets

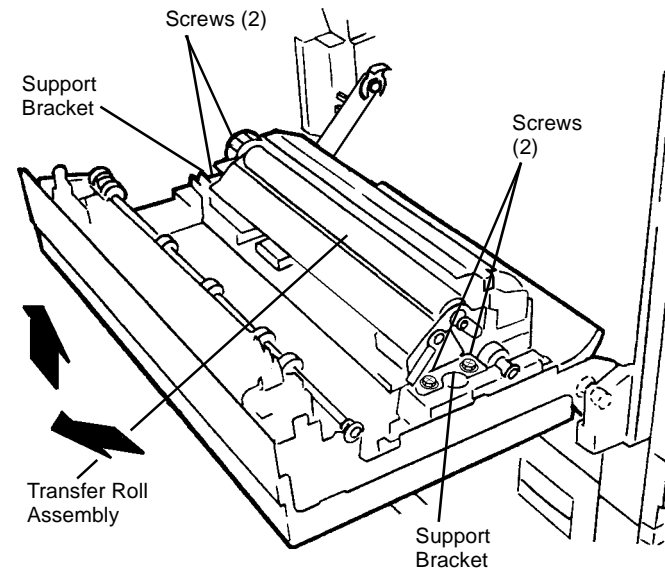


Figure 1 Removing 2nd BTR

### Replacement

Go to [Detailed Maintenance Activities](#) and reset the HFSI counter for 2nd BTR.



## REP 9.25 Erase Lamp/Rail (K,Y,M,C)

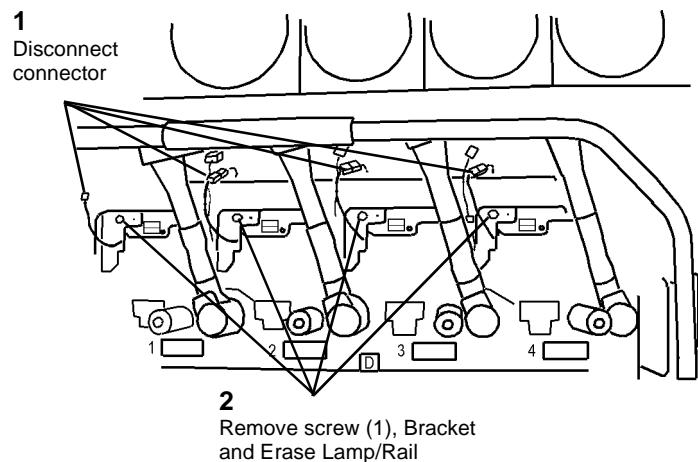
Parts List on [PL 4.2](#)

### Replacement

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Dispenser Cover ([REP 9.6](#)).
2. Raise the Lever.
3. Remove the Bracket and Erase Lamp/Rail ([Figure 1](#)).



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Figure 1 Removing the Erase Lam/Rail

## REP 9.26 ATC Sensor

Parts List on [PL 6.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

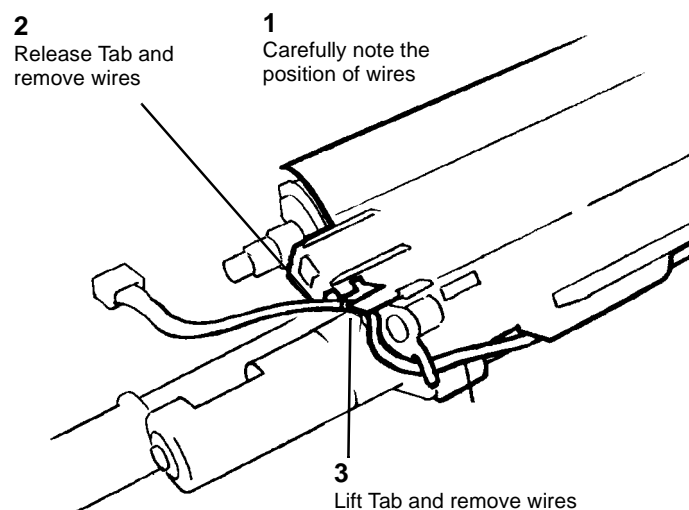
1. Remove the Front Cover ([REP 14.7](#)).
2. Remove the Drum Cartridges ([REP 9.1](#)).
3. Remove the Waste Toner Cartridge ([REP 9.4](#)).
4. Remove the Waste Toner Cartridge Cover ([REP 9.3](#)).
5. Remove the Fuser Cover ([REP 14.8](#)).
6. Remove the Dispenser Cover ([REP 9.6](#)).
7. Remove all Toner Dispensers ([REP 9.7](#)).

**NOTE:** In next step, do not remove sensor.

8. Remove the housing for the Full Toner Sensor ([REP 9.5](#)).

**NOTE:** In next step, it may not be necessary to disconnect harnesses for Plate Assembly ([PL 4.2](#)) to remove a developer housing.

9. Remove Plate Assembly ([REP 9.8](#)).
10. Remove Developer Housing ([REP 9.9](#)).
11. Release Harness from Harness Clips ([Figure 1](#)).

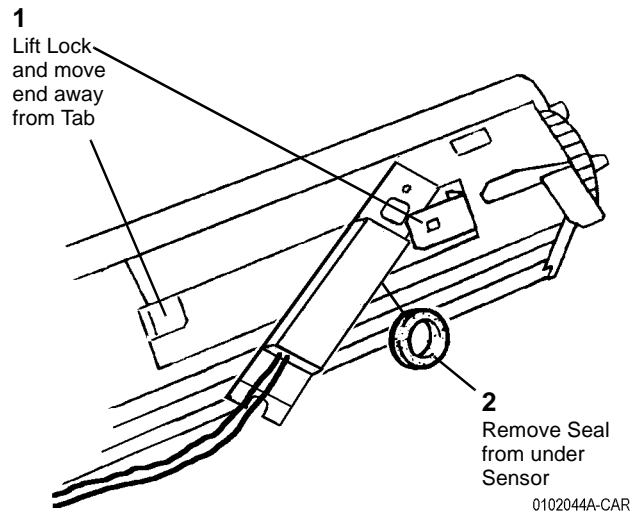


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Figure 1 Removing Harness from Clips



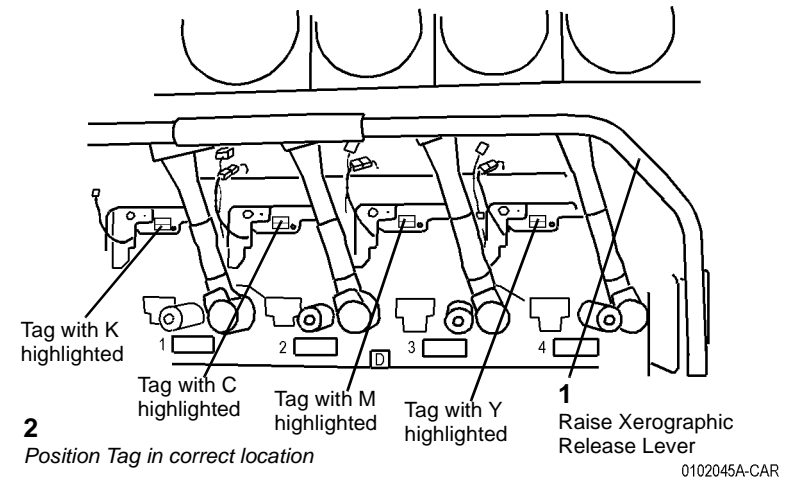
12. Remove ATC Sensor (Figure 2).



**Figure 2 Removing ATC Sensor**

## Replacement

1. Remove ATC Sensor Setup Data Tag from new sensor. On tag, highlight K, C, M, or Y as required for color of developer housing. Raise Xerographic Release Lever and install Tag in position shown (Figure 3).



**Figure 3 Installing ATC Sensor Setup Data Tag**

2. Perform ATC Sensor Setup (ADJ 9.2).



## REP 9.27 Retract Shaft

Parts List on [PL 5.4](#)

### Replacement

Align Cam and Flag as shown (both on the same side) ([Figure 1](#)).

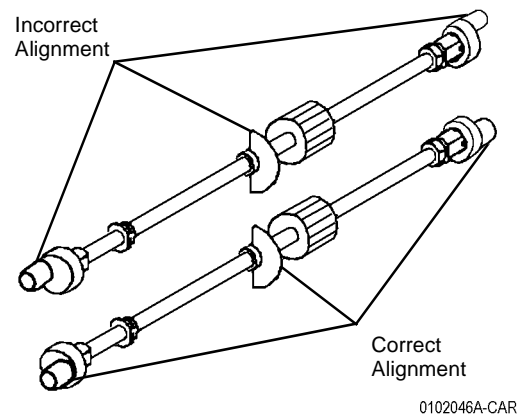


Figure 1 Cam and Flag Alignment



## REP 10.1 Fuser

Parts List on [PL 7.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### WARNING

Personal injury may result from grasping hot areas of Fuser Module. If a hot Fuser Module must be removed, grasp Fuser Module by Grip Rings ([Figure 1](#)).

#### CAUTION

Damage to work surface may result if a hot Fuser Module is removed and positioned on an unprotected work surface. Place a hot fuser on ten sheets of paper.

1. Open Left Cover Assembly.
2. Remove Fuser Module ([Figure 1](#)).

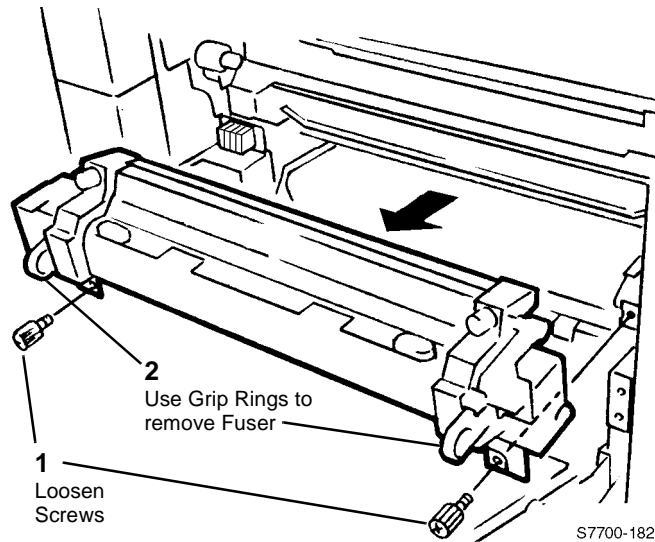


Figure 1 Removing Fuser Module

## REP 10.2 Fuser Fan

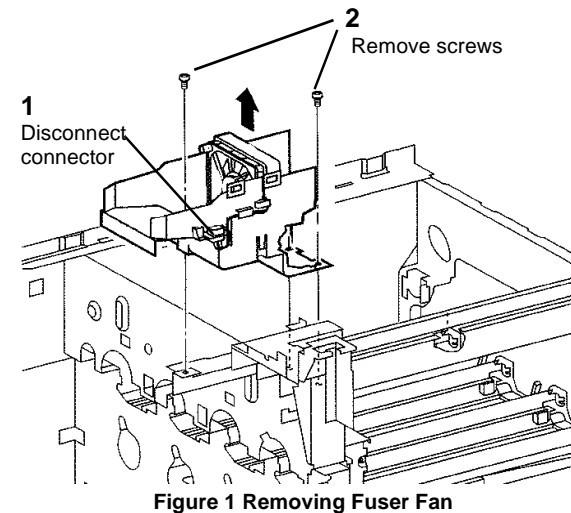
Parts List on [PL 8.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Right Cover ([REP 14.3](#)).
3. Remove Top Cover ([REP 14.1](#)).
4. Remove Rear Cover ([REP 14.2](#)).
5. Remove Fuser Fan ([Figure 1](#)).





## REP 10.3 Main/Sub Heater Rod

Parts List on [PL 7.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

Wait until the Fuser cools down before performing this procedure.

#### CAUTION

Do not touch the glass surface of the Heater Rod. If the glass is accidentally touched, wipe it with a dry cloth.

1. Remove the Fuser Assembly ([REP 10.1](#)).
2. Remove the following parts:
  - Front Cover ([PL 7.2](#))
  - Handle ([PL 7.2](#))
  - Rear Cover ([PL 7.2](#))
  - Handle ([PL 7.2](#))
3. Disconnect connectors (2) at rear of Fuser ([Figure 1](#)).

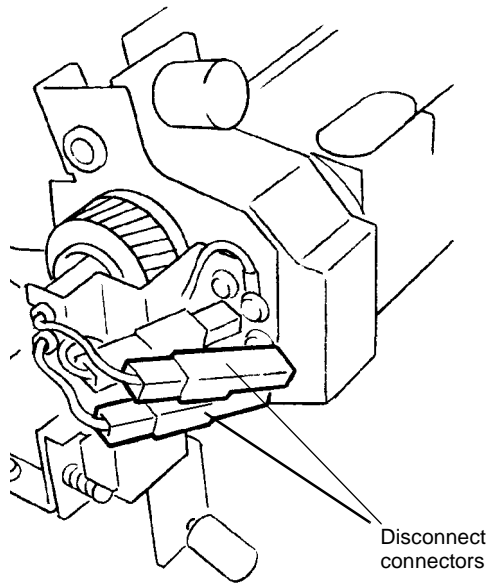


Figure 1 Disconnecting Connectors

4. Remove Heater Rods ([Figure 2](#)).

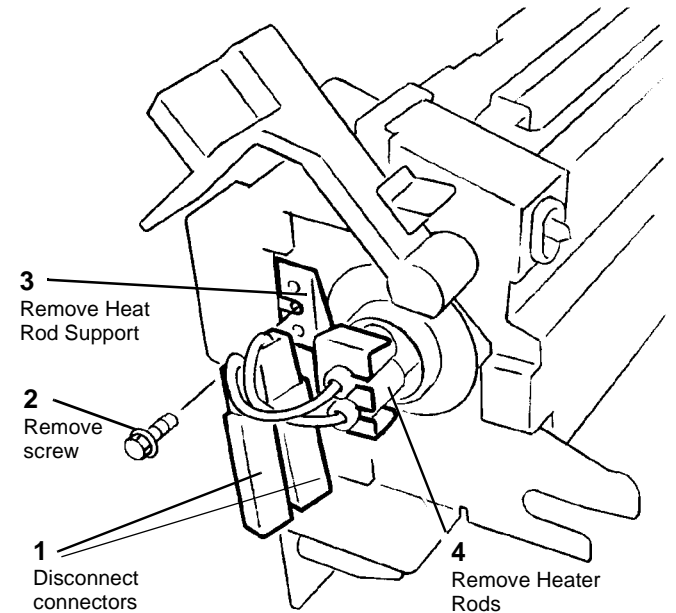


Figure 2 Removing Heater Rods



## REP 12.1 H Transport Assembly

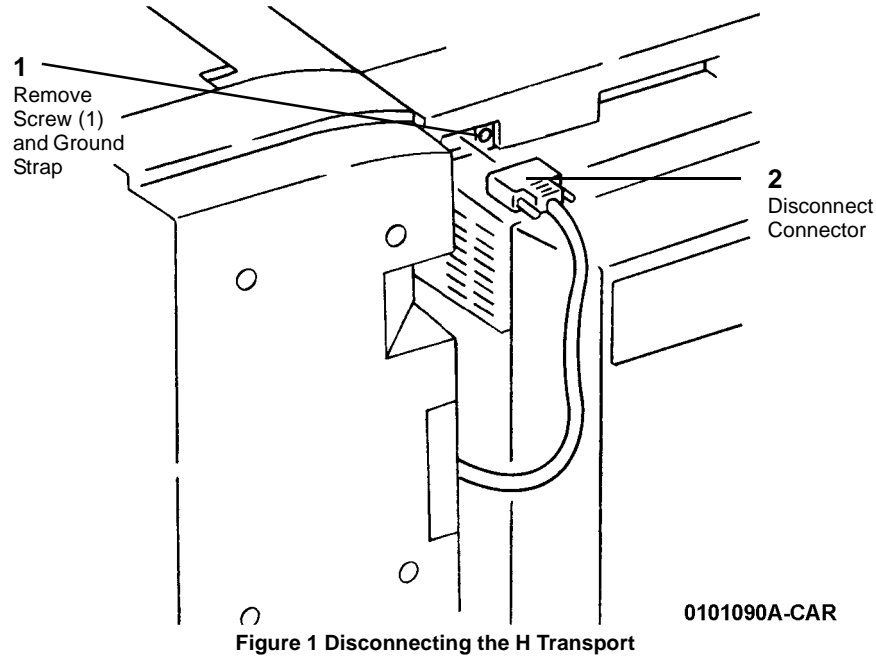
Parts List on [PL 17.1](#)

### Removal

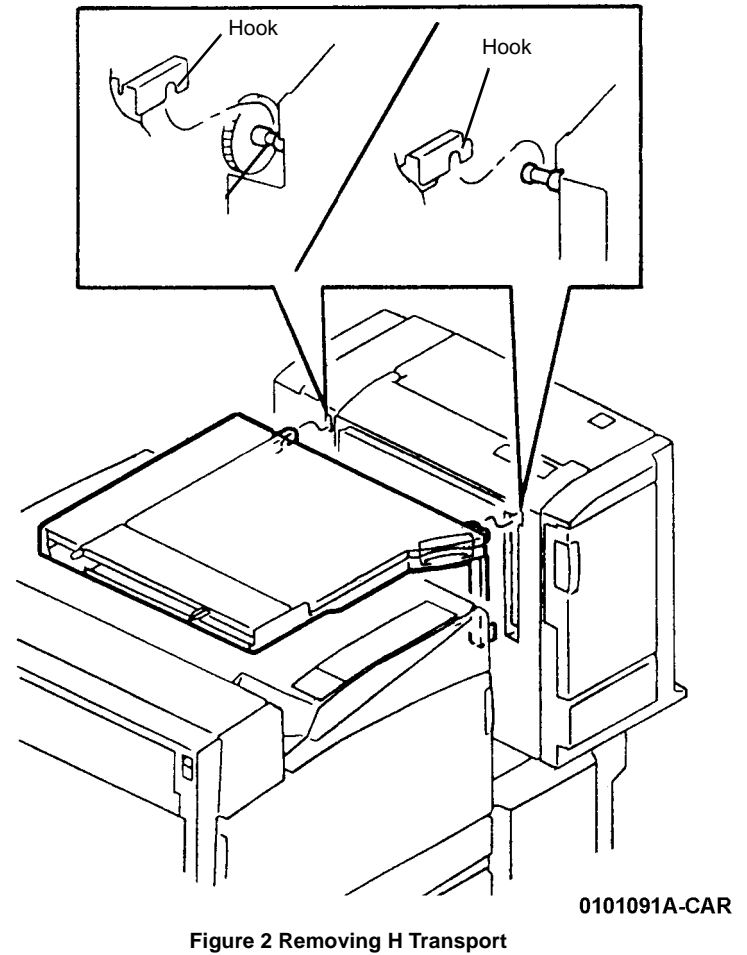
#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Disconnect the H Transport ([Figure 1](#)).



2. Disengage Hook (2) from the Stud on both sides and remove H Transport Assembly ([Figure 2](#)).





## REP 12.2 H Transport Belt

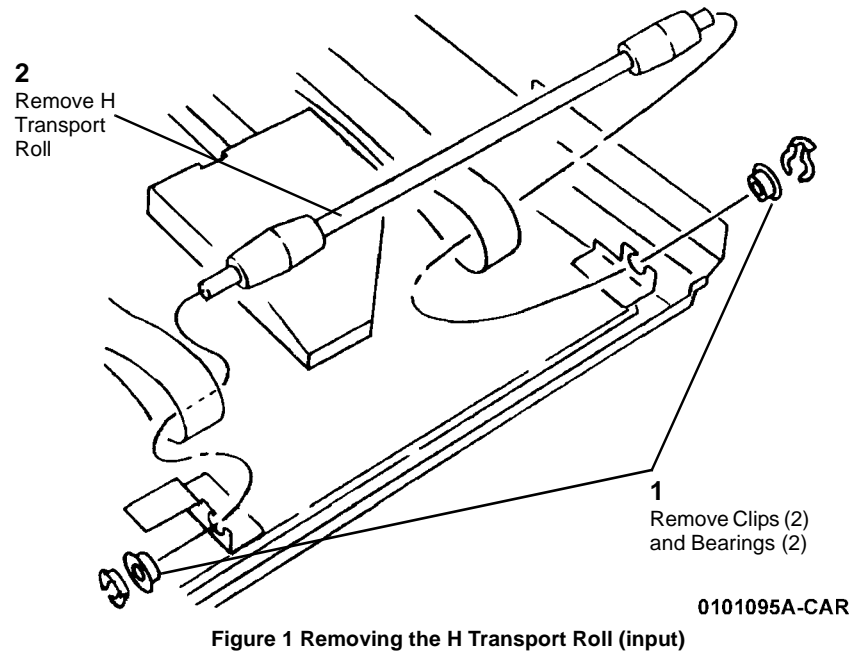
Parts List on [PL 17.4](#)

### Removal

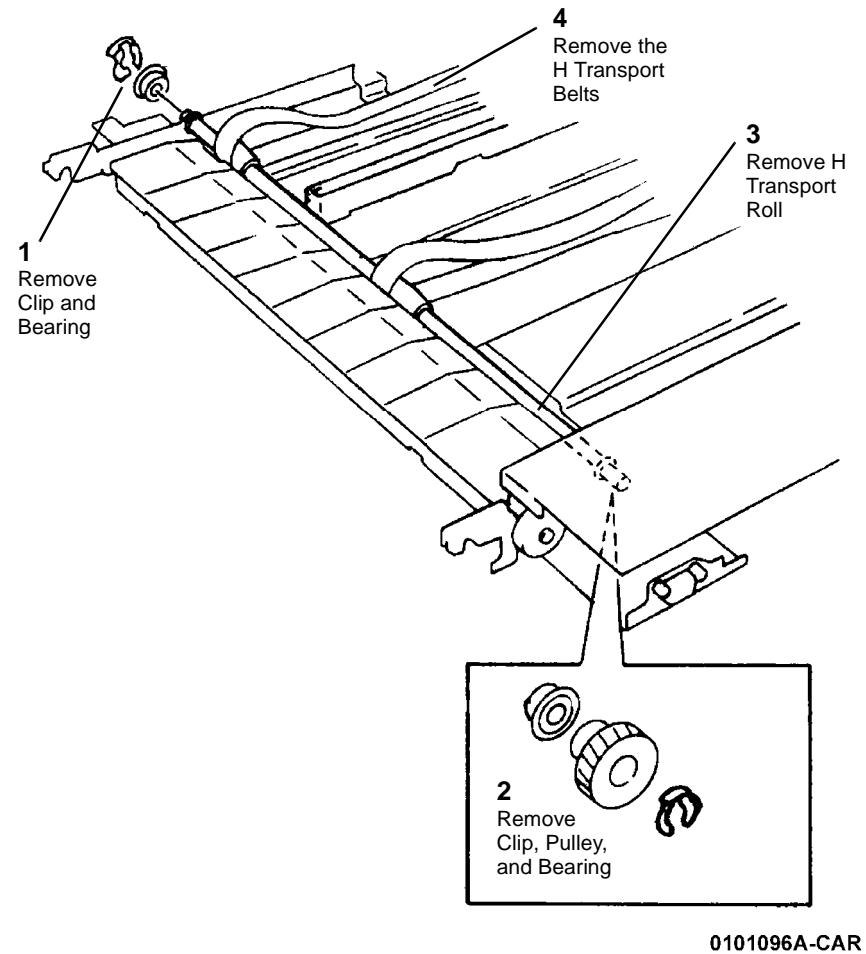
#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the H Transport Assembly ([REP 12.1](#)).
2. Remove the Entrance Upper Cover ([REP 12.17](#)).
3. Remove the input H Transport Roll ([Figure 1](#)).



4. Remove the output H Transport Roll ([Figure 2](#)).





## REP 12.3 Entrance Sensor and Top Tray Full Sensor

Parts List on [PL 17.4](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the H Transport Assembly ([REP 12.1](#)).
2. Remove the Entrance Upper Cover ([REP 12.17](#)).
3. Remove the Cover ([Figure 1](#)).

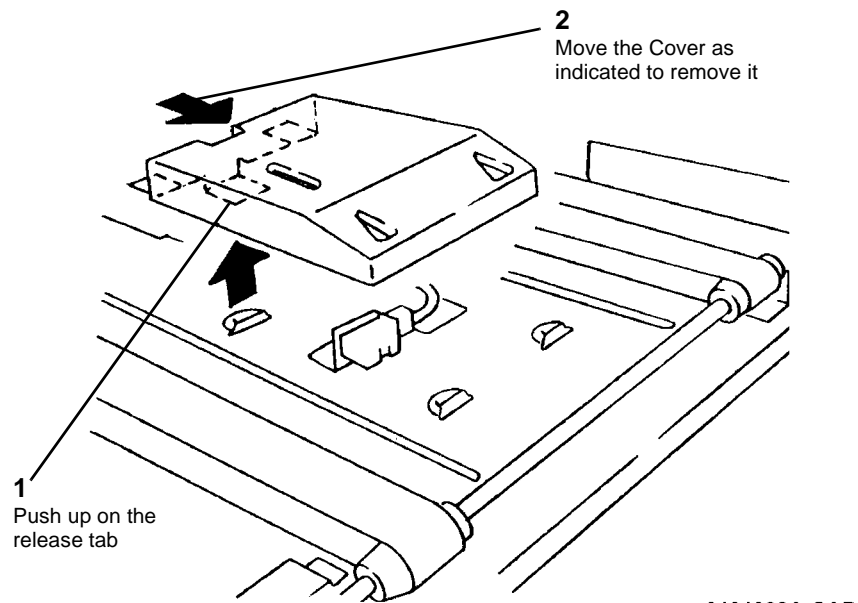


Figure 1 Removing the Cover

4. Remove the H Transport Entrance Sensor or Top Tray Full Sensor ([Figure 2](#)).

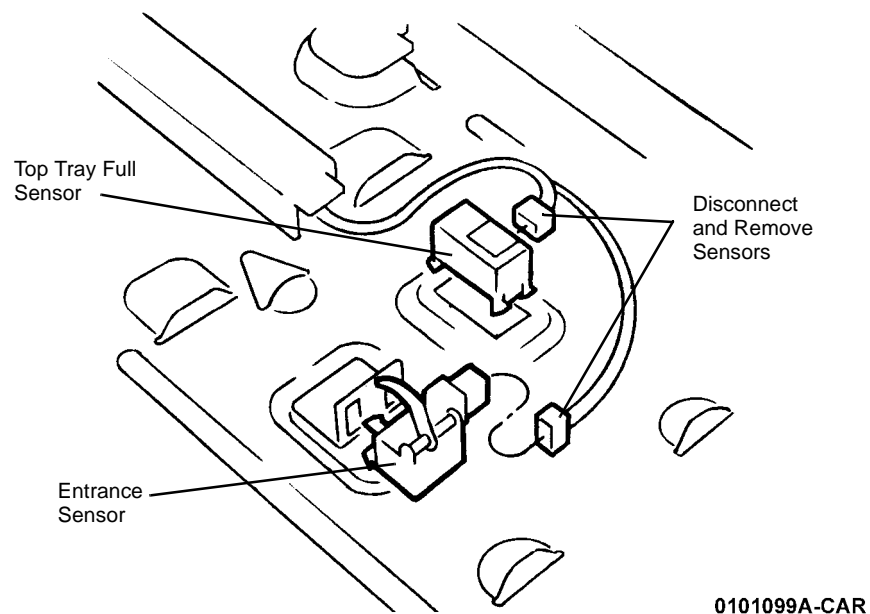


Figure 2 Removing Entrance Sensor and Top Tray Full Sensor



## REP 12.4 Finisher

### Parts List on PL 17.5

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

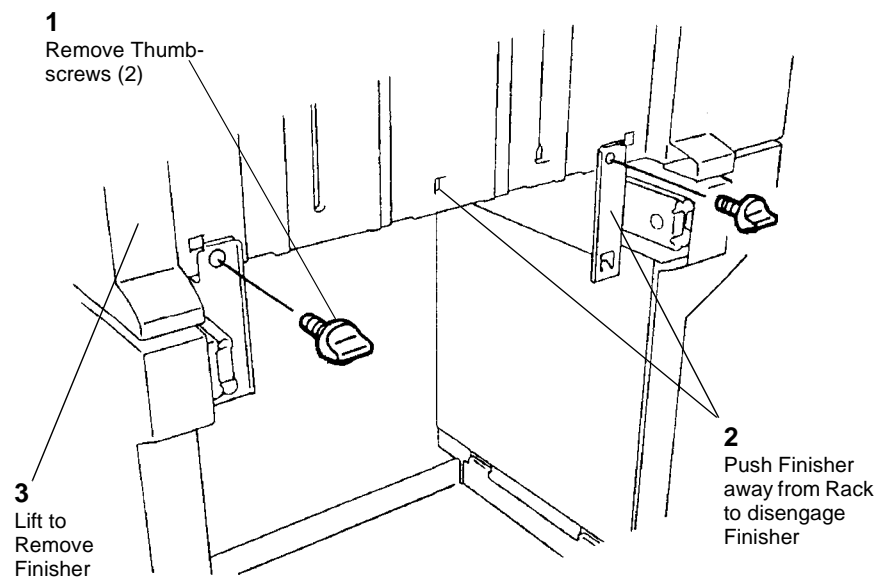
1. Separate IIT and IOT.
2. Remove the following parts:
  - a. H Transport Assembly (REP 12.1)
  - b. Stacker Tray (PL 17.1)
  - c. Right Cover (PL 17.1)
3. Disconnect the Finisher power and signal cable.

#### CAUTION

*It is recommended to have two people available to remove the Finisher. The Finisher Unit weighs more than 16Kg.*

*When only one person is available, take extreme care to avoid lower back injury.*

4. Remove the Finisher from the Rack (Figure 1).



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Figure 1 Removing Finisher from Rack



## REP 12.5 Stack Height Sensor Assembly

Parts List on **PL 17.6**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

The Stack Height Sensor actuator is fragile and prone to breakage. Use care when working in this area.

1. Remove the Links from the Top Cover Assembly (Figure 1).

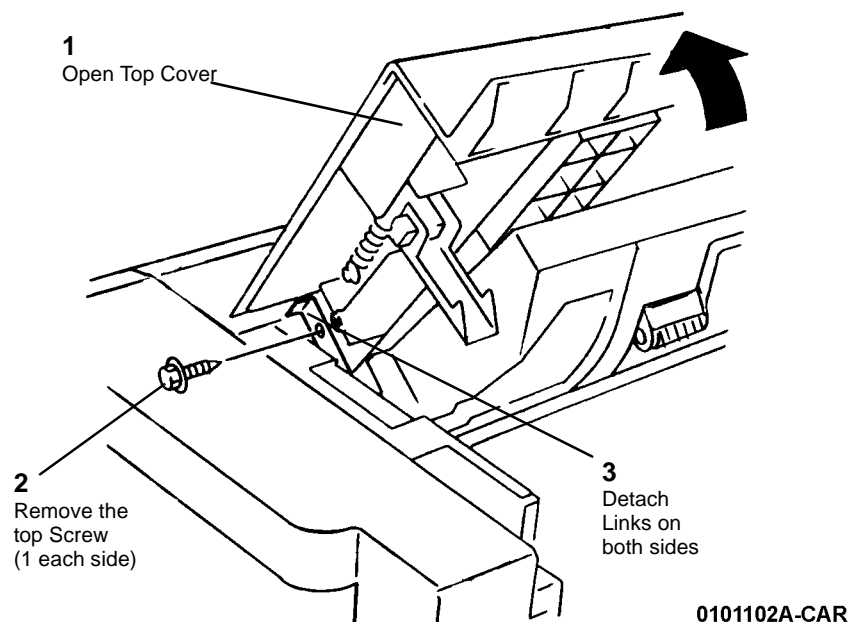


Figure 1 Detaching the Links from Top Cover Assembly

**NOTE:** It may be necessary to prop the Top Cover open during the next step.

2. Open the Top Cover and remove the Stack Height Sensor Assembly (Figure 2).

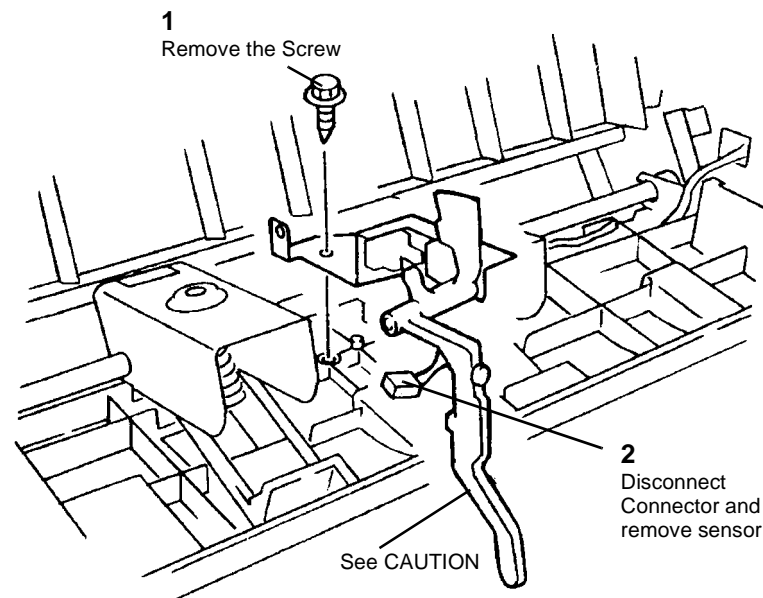


Figure 2 Removing Stack Height Sensor Assembly



## REP 12.6 Eject Roll Assembly

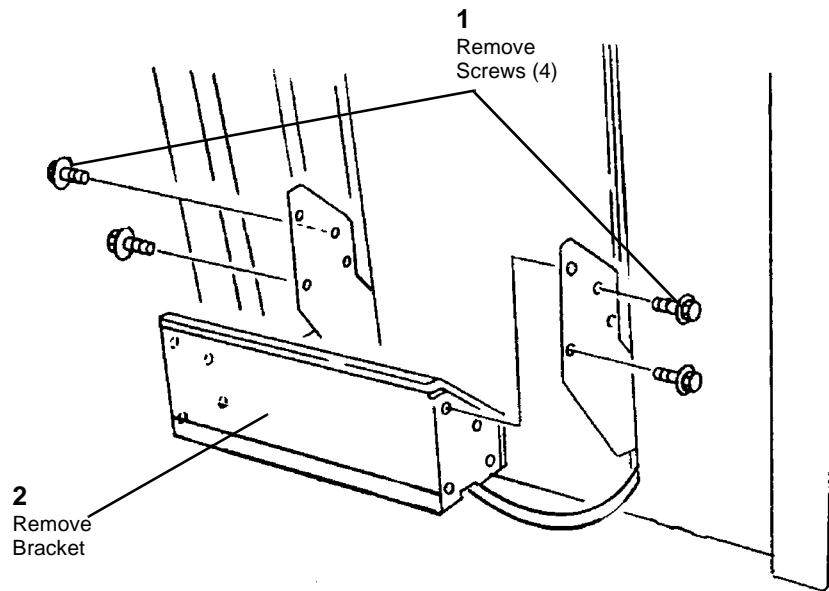
Parts List on **PL 17.6**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

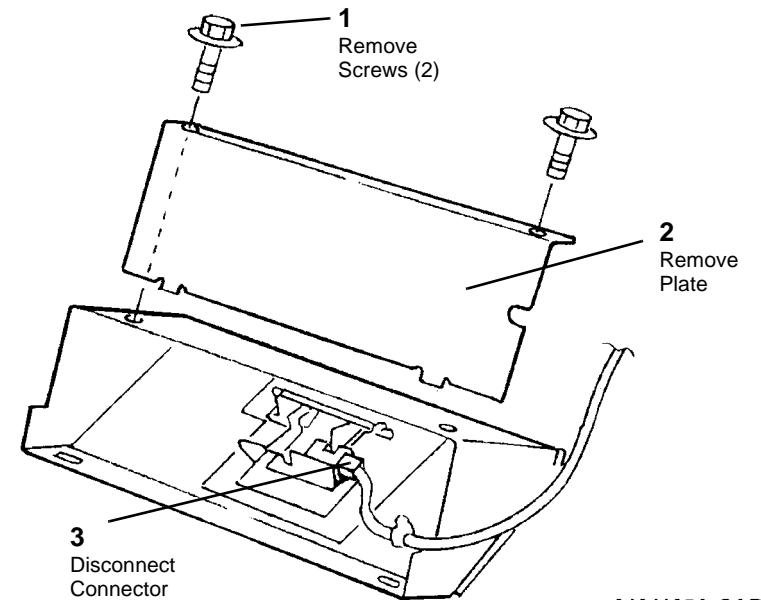
1. Remove the following parts:
  - a. Rear Cover (PL 17.5)
  - b. Stacker Tray (PL 17.1)
  - c. Right Cover (PL 17.1)
  - d. Front Cover (PL 17.5)
2. Remove the Bracket (Figure 1).



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Figure 1 Remove the Bracket

3. Disconnect the connector (Figure 2).



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Figure 2 Disconnecting the Connector



4. Remove the Thumbscrews (2) (Figure 3).

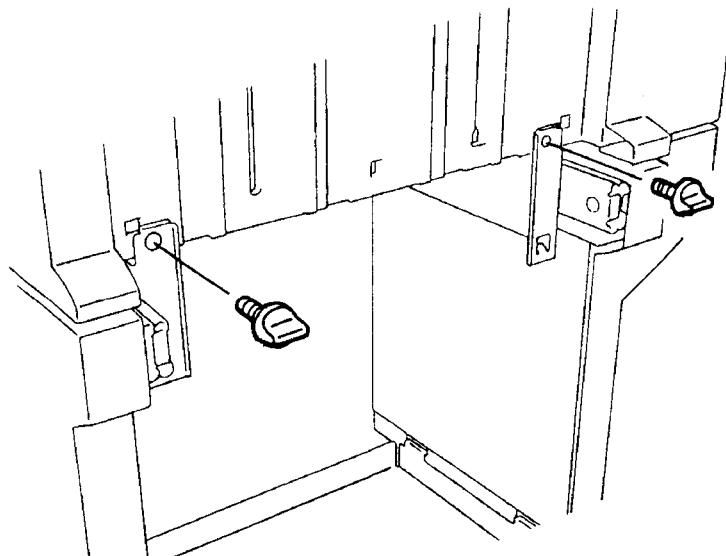


Figure 3 Removing Thumbscrews

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5. Remove the Tray Guide (Figure 4).

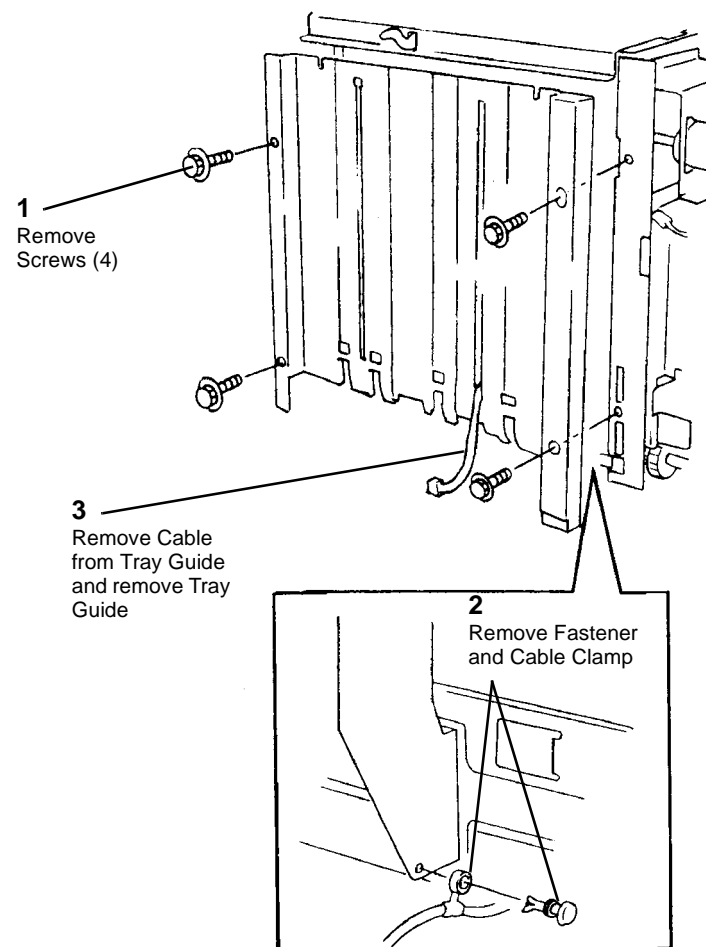
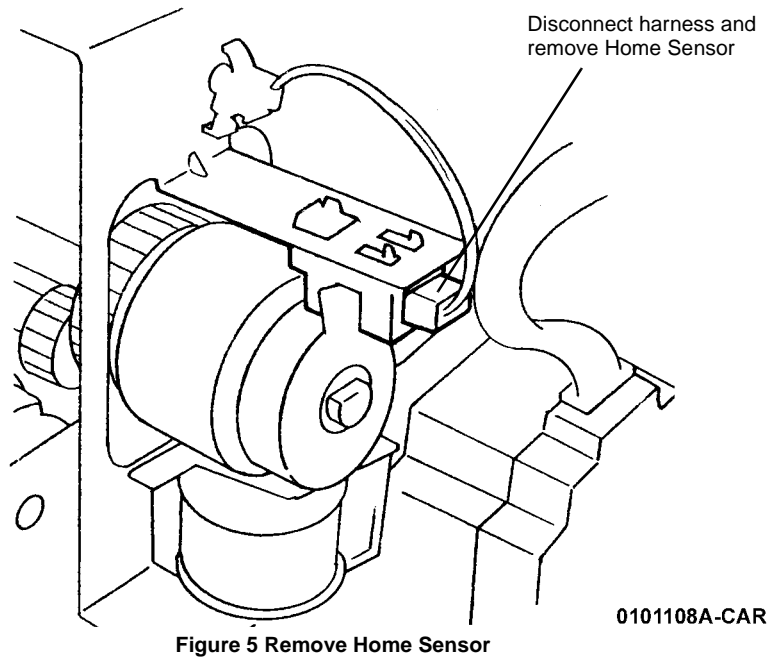


Figure 4 Removing Tray Guide

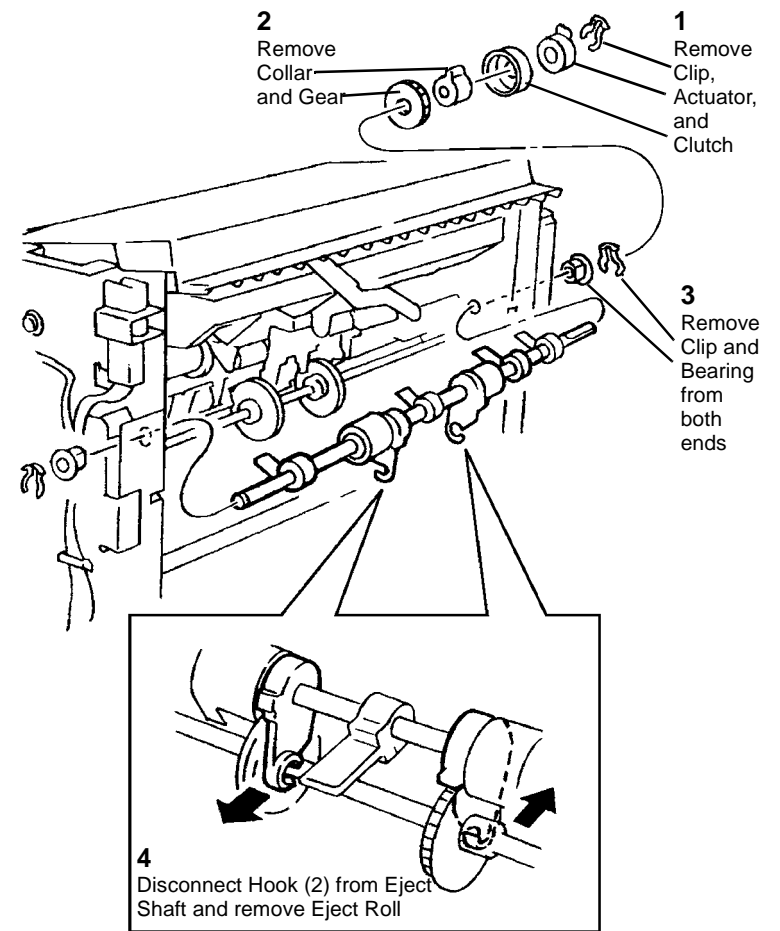
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6. Remove the Home Sensor (Figure 5).



7. Remove Eject Roll (Figure 6).





8. Remove Eject Shaft (Figure 7).

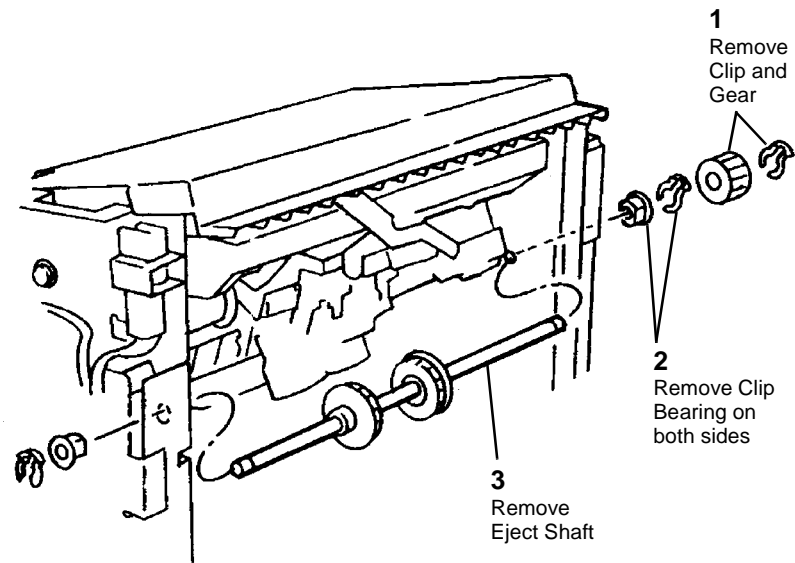


Figure 7 Removing Eject Shaft

0101110A-CAR

## Replacement

1. When replacing Feed Roll or Eject Shaft, replace them simultaneously.
2. When installing the Clutch, be sure to insert the Pawl into Clutch grooves (Figure 8).

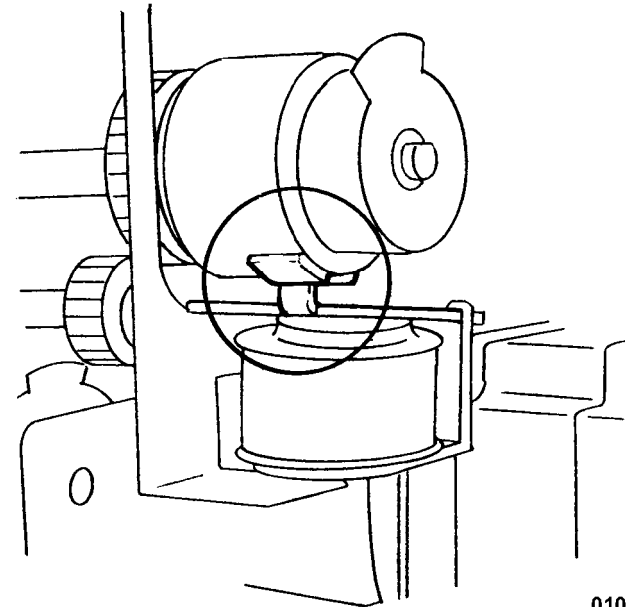


Figure 8 Inserting Pawl into Clutch Grooves

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3. Make sure when installing the Plate, that the Cable Tie (Strain Relief) is inside the Bracket and the cable is routed through the notch (Figure 9).

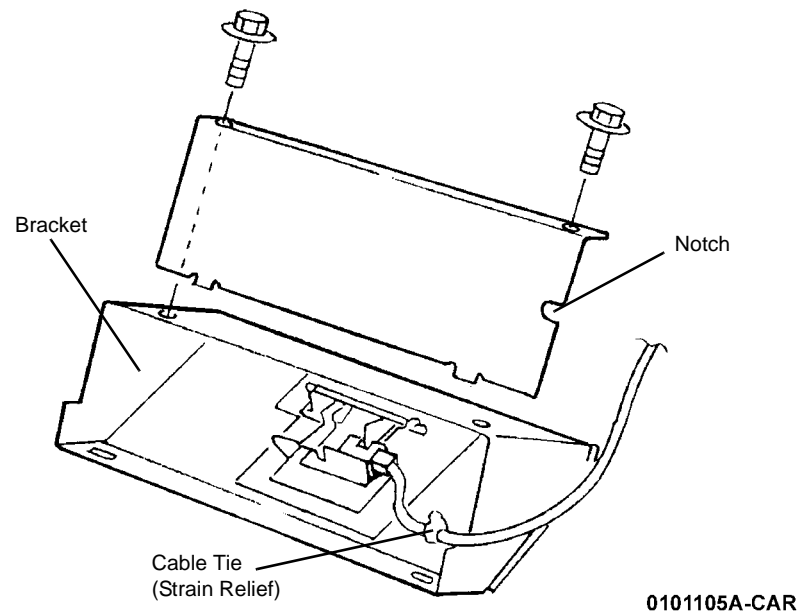


Figure 9 Routing the Cable



## REP 12.7 Decurler Roll

Parts List on **PL 17.7**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the following parts:
  - a. Front Cover (PL 17.5)
  - b. Rear Cover (PL 17.5)
  - c. Top Cover (PL 17.5)
2. Remove the Arm (Figure 1).

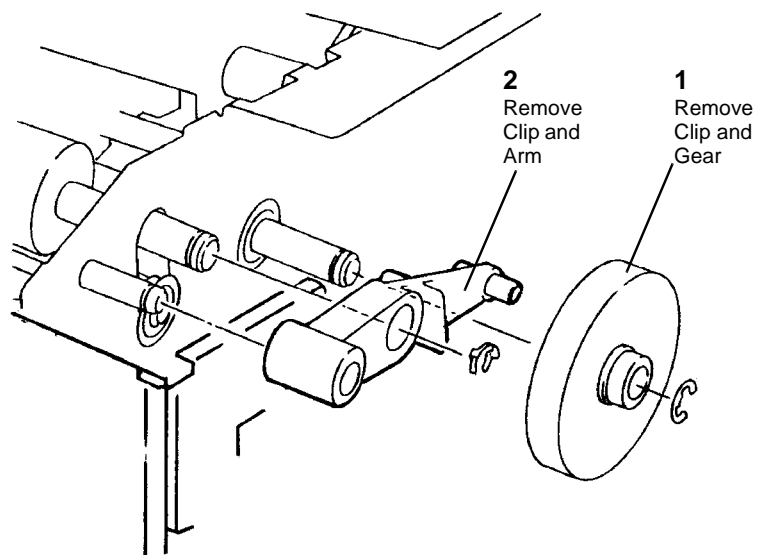


Figure 1 Removing the Arm

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3. Remove the Decurler Roll (Figure 2).

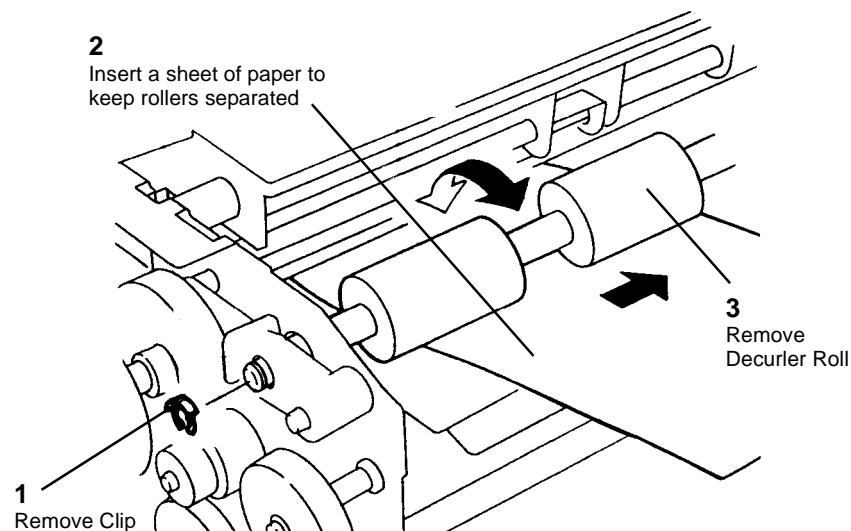


Figure 2 Removing the Decurler Roll

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## REP 12.8 Finisher Drive Motor

Parts List on [PL 17.7](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover ([PL 17.5](#)).
2. Remove the Finisher Drive Motor ([Figure 1](#)).

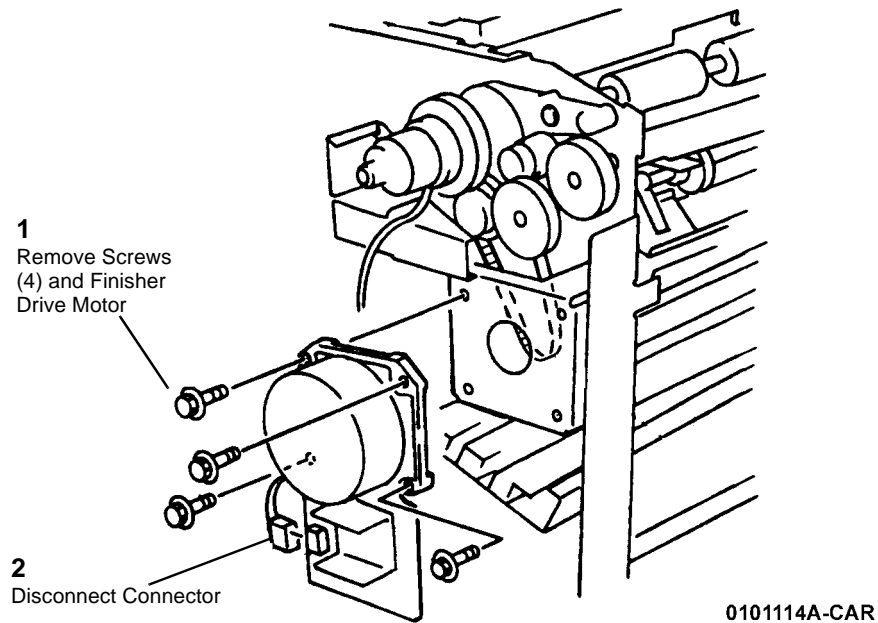


Figure 1 Removing the Finisher Drive Motor

### Replacement

Position the Belt to the Guide when installing the Drive Motor.



## REP 12.9 Belt

Parts List on [PL 17.7](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover ([PL 17.5](#))
2. Remove the Cam Bracket ([REP 12.18](#)).
3. Remove the Belt ([Figure 1](#)).

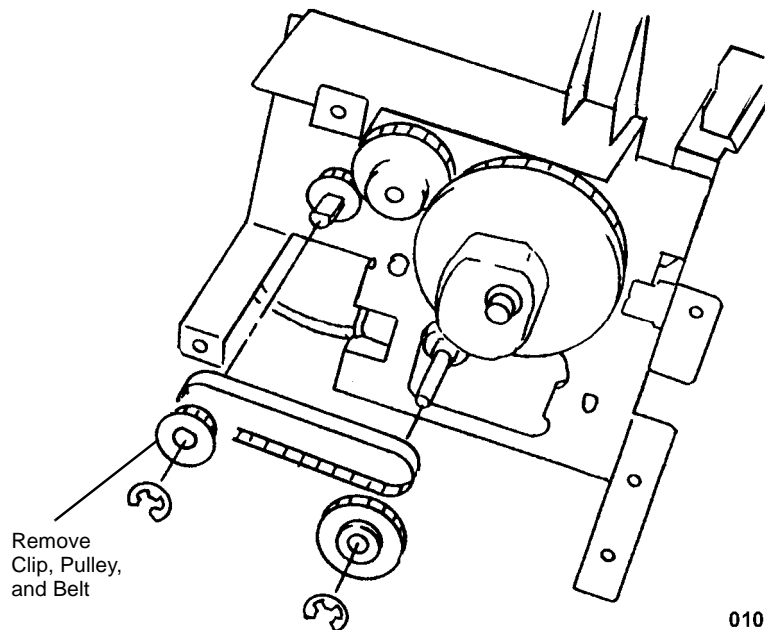


Figure 1 Removing the Belt

## REP 12.10 Rail

Parts List on [PL 17.9](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the following:
  - a. Front Cover ([PL 17.5](#))
  - b. Rear Cover ([PL 17.5](#))
2. Remove Harness from Stapler ([Figure 1](#)).

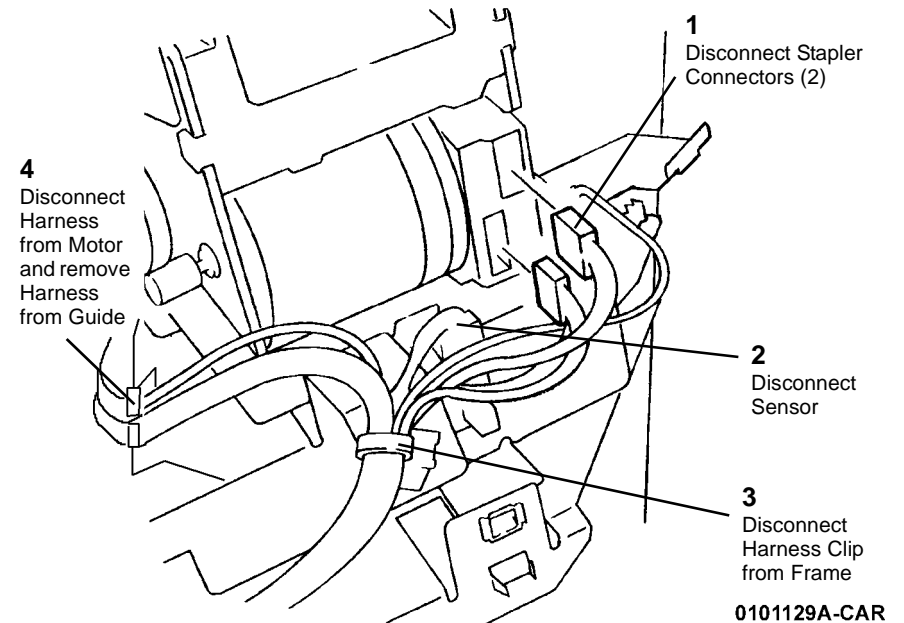


Figure 1 Removing Harness from Stapler



3. Remove Stapler Assembly (Figure 2).

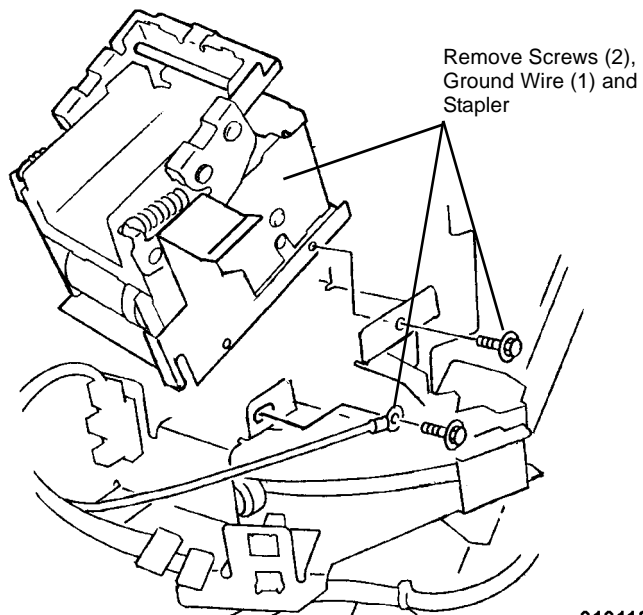


Figure 2 Removing Stapler Assembly

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4. Remove the PWB Cover (Figure 3).

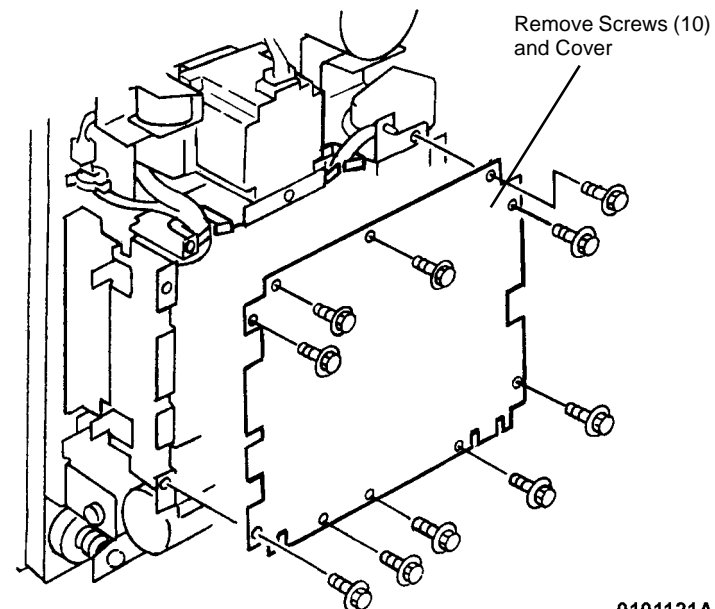


Figure 3 Removing the PWB Cover

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5. Move the PWB Chassis down (Figure 4).

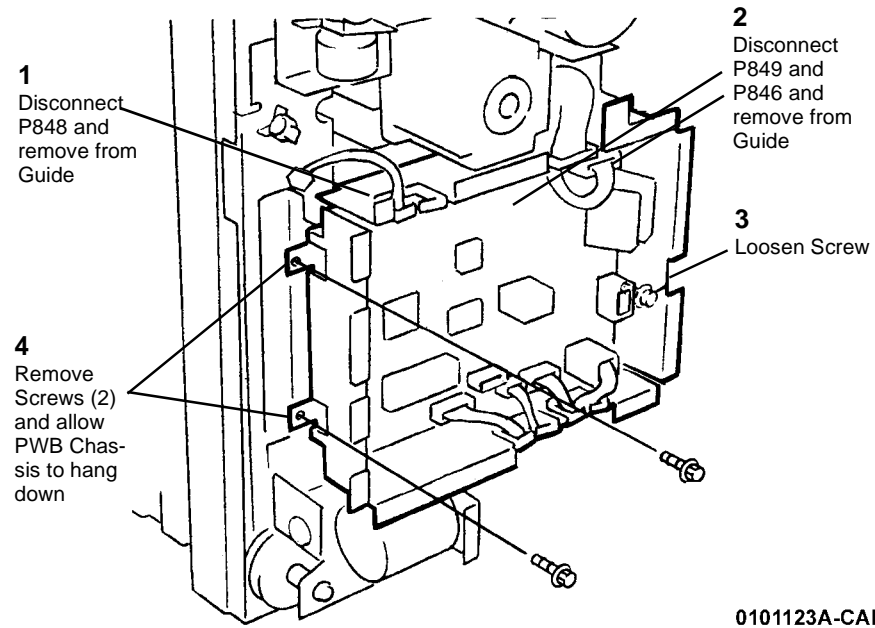


Figure 4 Moving PWB Chassis Down

6. Remove Rear Rail Mounting Screws (2) (Figure 5).

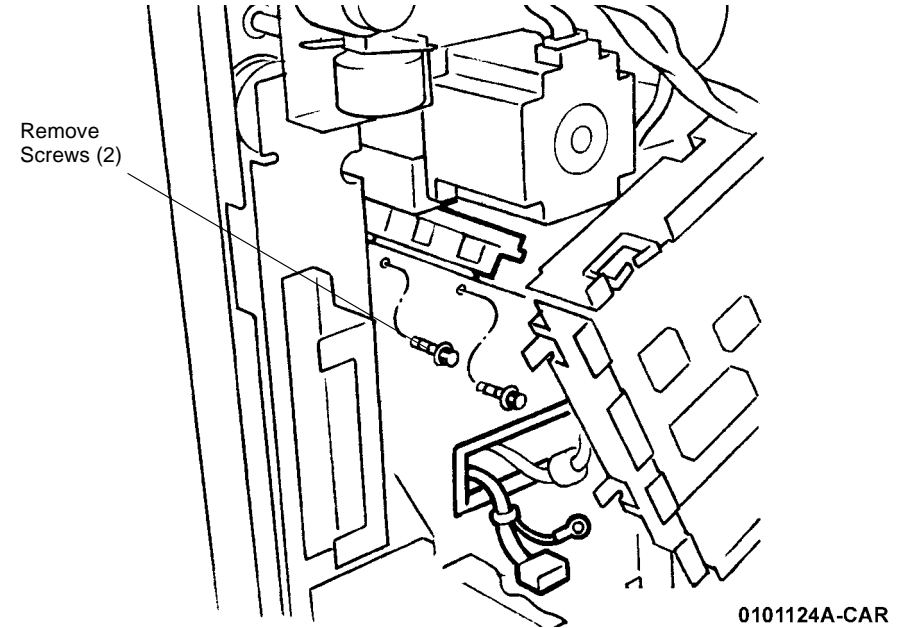


Figure 5 Removing Rear Rail Mounting Screws



7. Remove Front Rail Mounting Screws (2) (Figure 6).

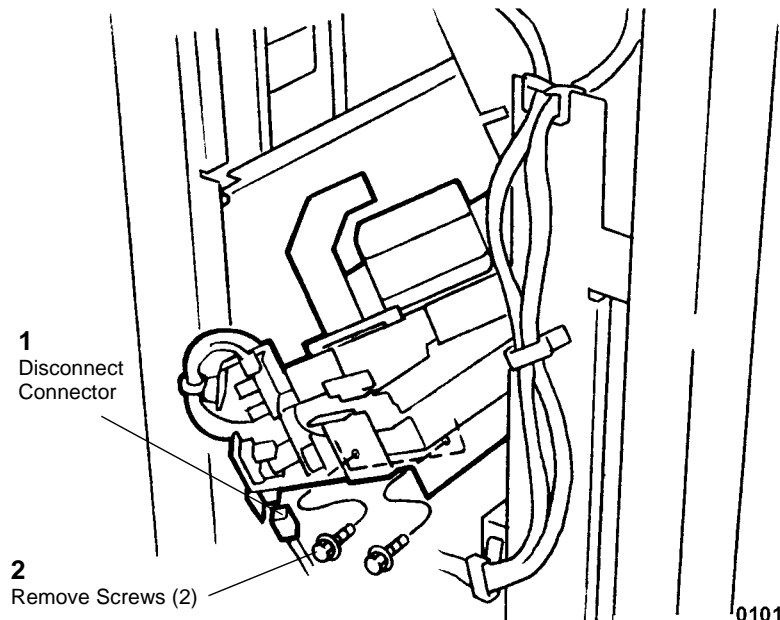


Figure 6 Removing Front Rail Mounting Screws

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8. Remove the Rail Assembly (Figure 7).

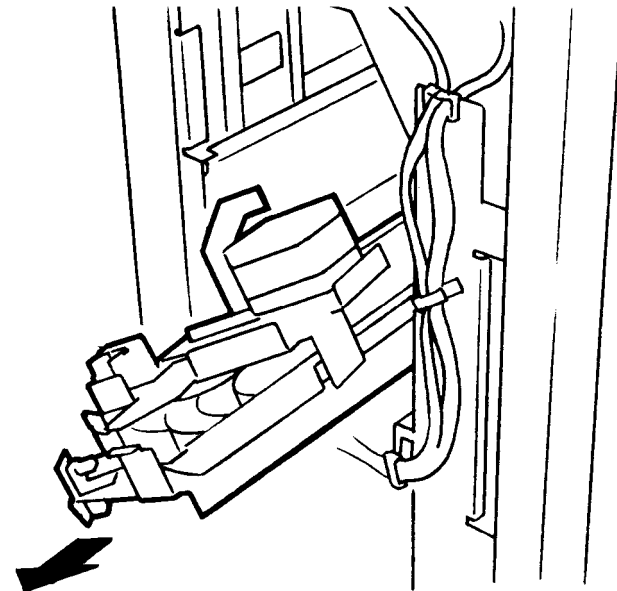
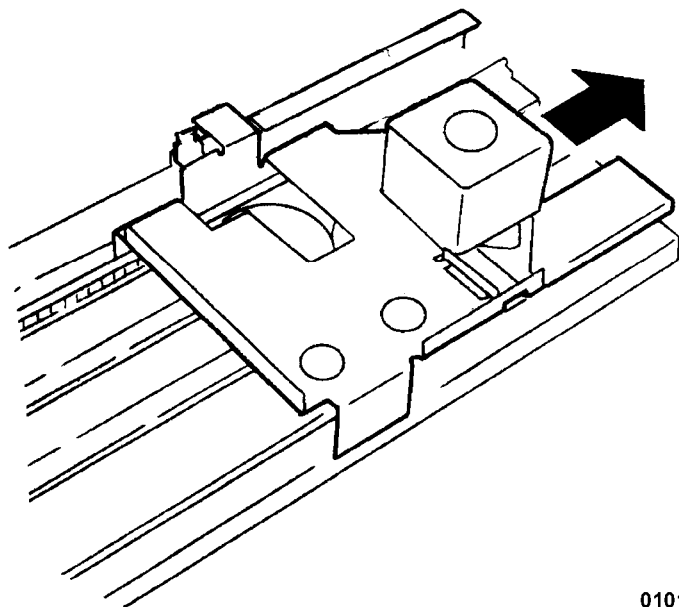


Figure 7 Removing Rail Assembly



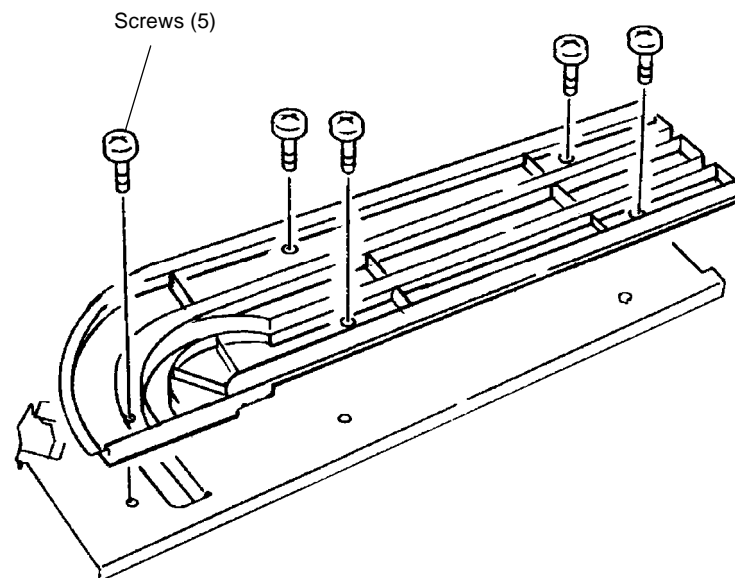
9. Remove the Carriage Assembly (Figure 8).



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Figure 8 Removing the Carriage Assembly

10. Remove Screws (5) and remove Rail (Figure 9).



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Figure 9 Removing Rail



## REP 12.11 Stapler Assembly

Parts List on [PL 17.9](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open the Front Cover.
2. Disconnect Stapler Connectors (2) ([Figure 1](#)).

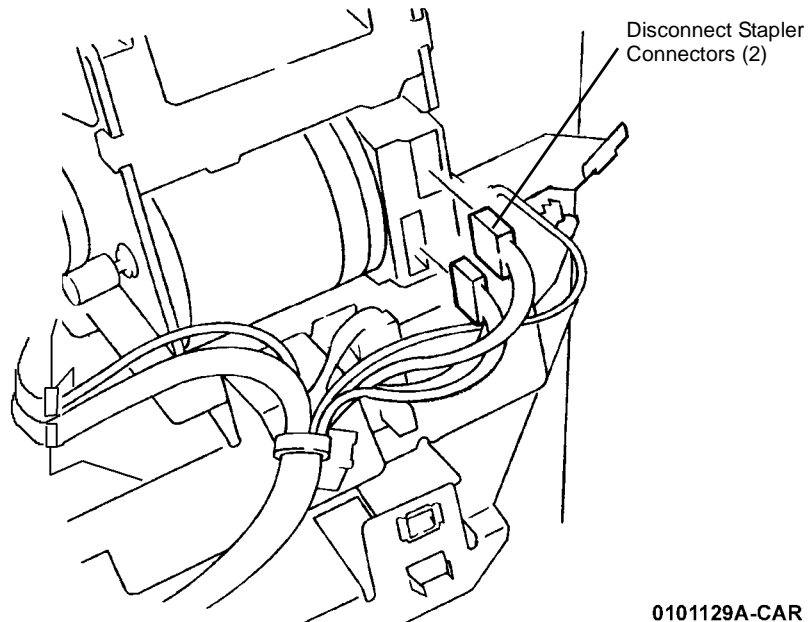


Figure 1 Disconnecting Connectors

3. Remove the Stapler Assembly ([Figure 2](#)).

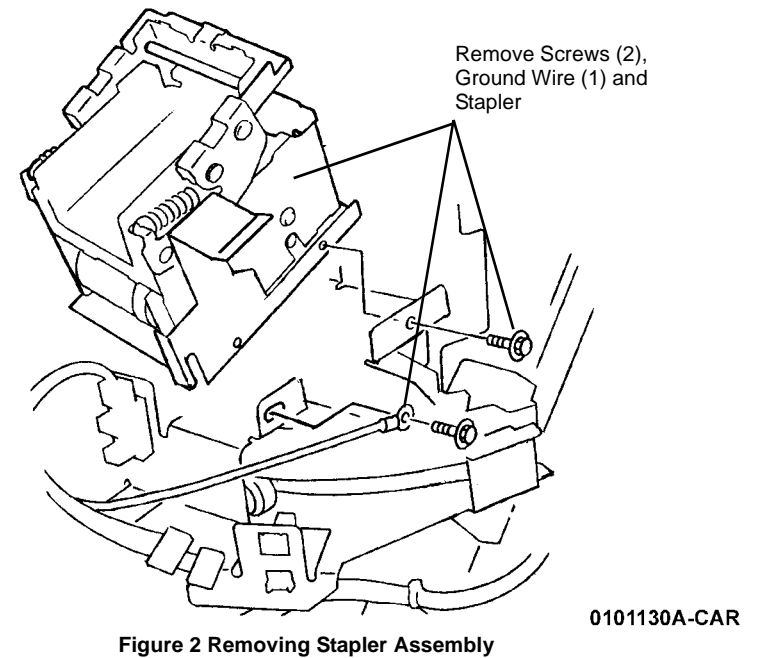
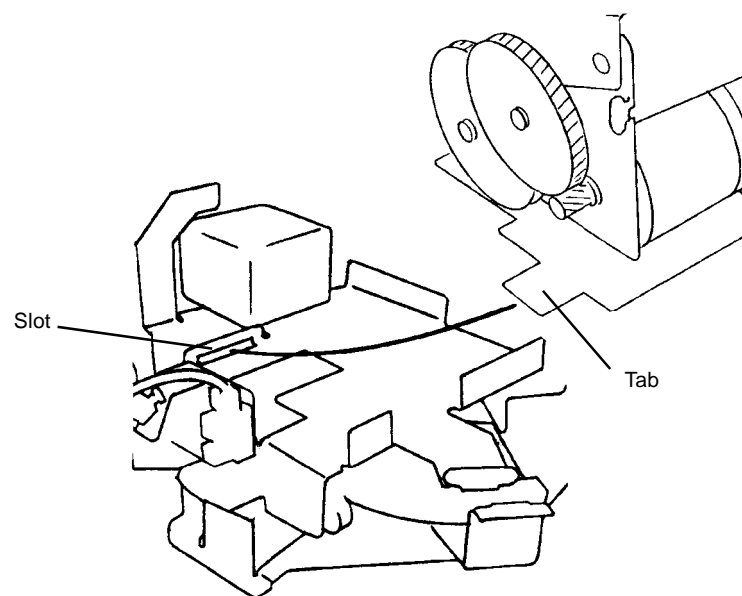


Figure 2 Removing Stapler Assembly



## Replacement

Insert Stapler Assembly Tab into Slot (Figure 3).



0101131A-CAR

Figure 3 Inserting Tab into Slot



## REP 12.12 Compiler Tray Assembly

Parts List on **PL 17.10**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the following parts:
  - a. Rear Cover (PL 17.5)
  - b. Stacker Tray (PL 17.1)
  - c. Front Cover (PL 17.5)
2. Remove the Bracket (Figure 1).

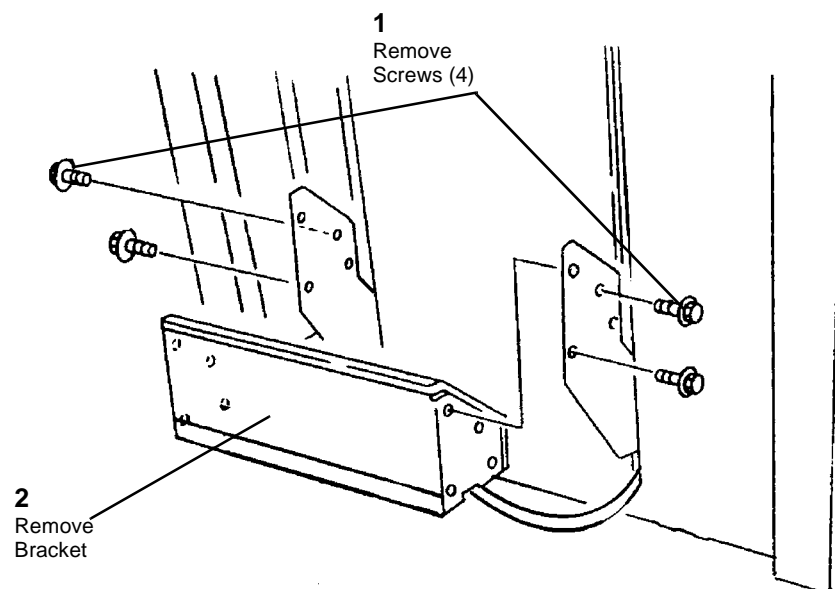


Figure 1 Remove the Bracket

0101104A-CAR

3. Disconnect Connector (Figure 2).

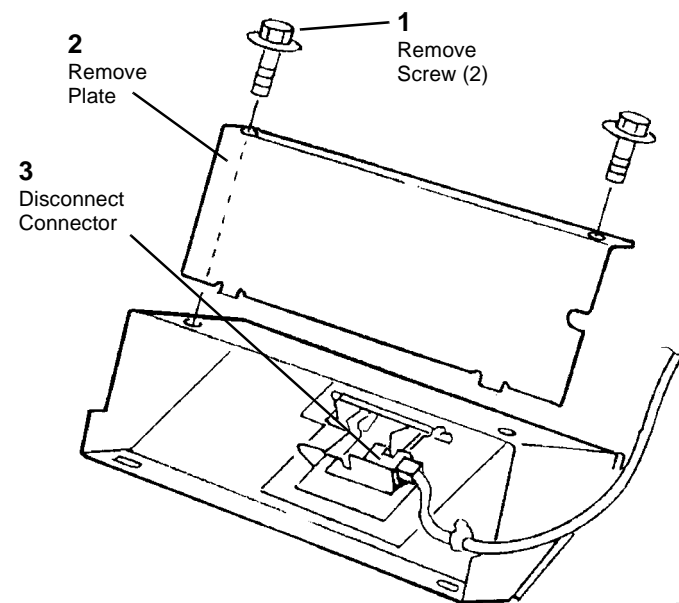


Figure 2 Disconnecting Connector

0101105A-CAR



4. Remove Thumbscrews (2) (Figure 3).

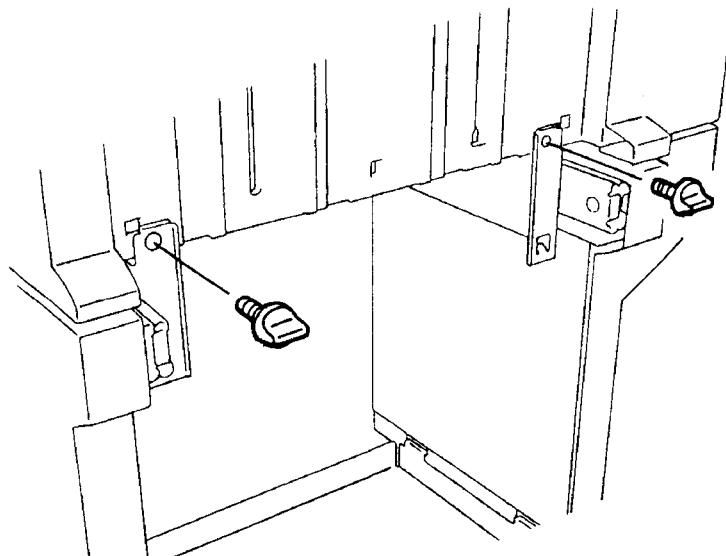


Figure 3 Removing Thumbscrews (2)

0101100A-CAR

5. Remove the Tray Guide (Figure 4).

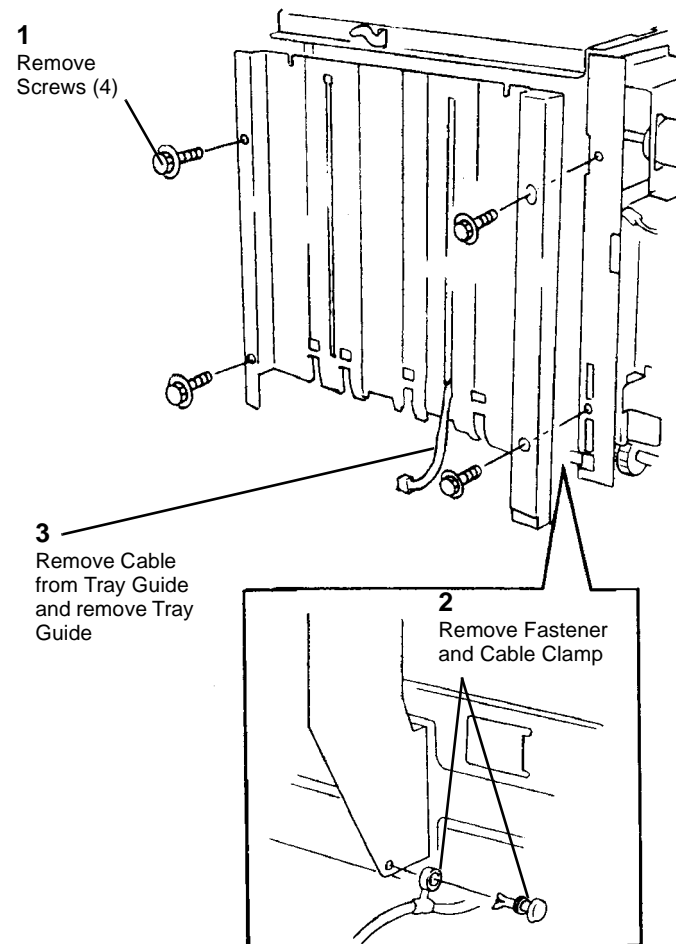


Figure 4 Removing Tray Guide

0101107A-CAR



6. Release Compiler Tray Harness (Figure 5).

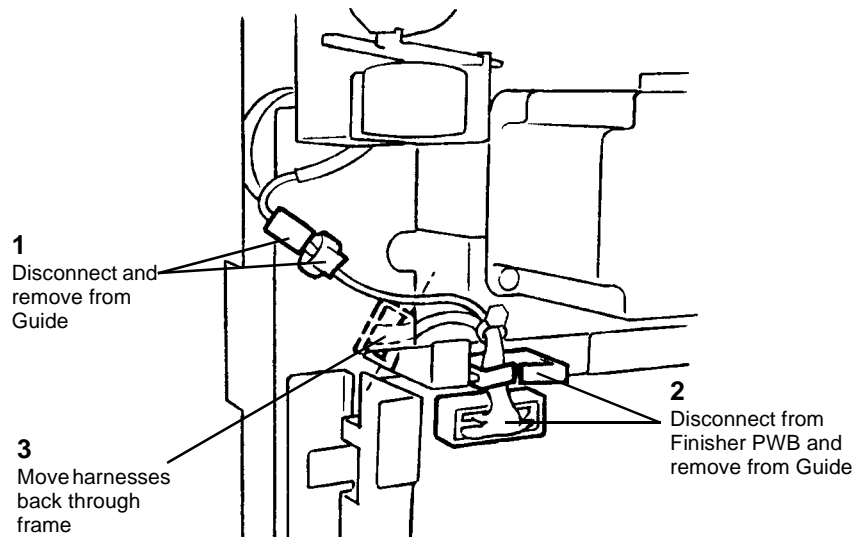


Figure 5 Releasing Compiler Tray Harness

0101132A-CAR

7. Remove the Screw on the Inboard side (Figure 6).

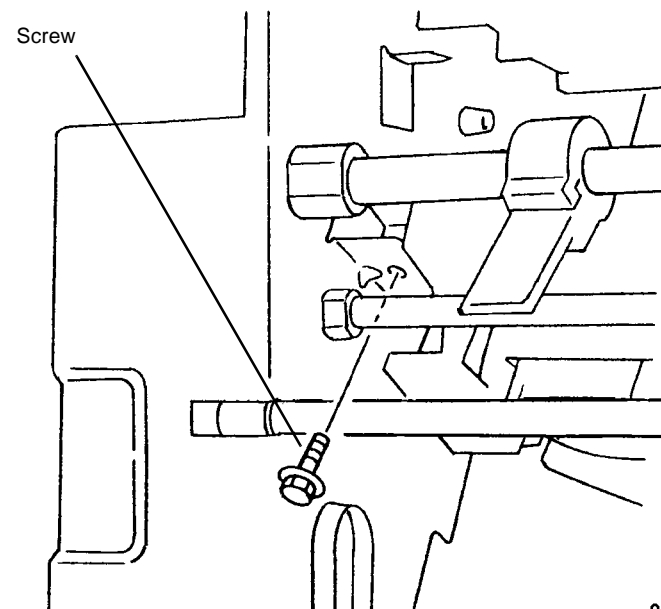
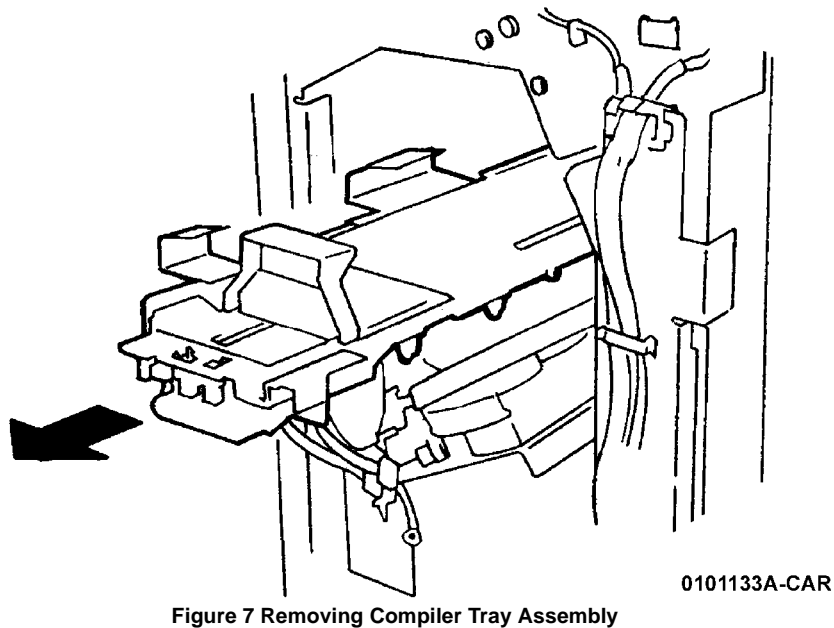


Figure 6 Removing Screw on Inboard Side

0101133A-CAR

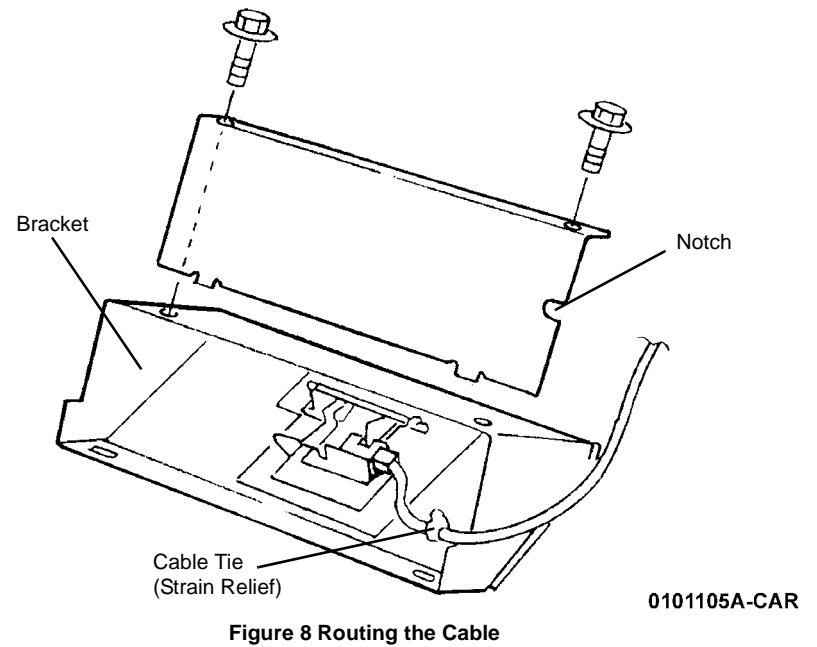


8. Remove the Compiler Tray Assembly (Figure 7).



## Replacement

1. Make sure when installing the Plate, that the Cable Tie (Strain Relief) is inside the Bracket and the cable is routed through the notch (Figure 8).





## REP 12.13 Stacker Motor Assembly

Parts List on [PL 17.11](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover ([PL 17.5](#)).
2. Lower the Stack Tray ([REP 12.20](#)).
3. Remove the screws on PWB Chassis ([Figure 1](#)).

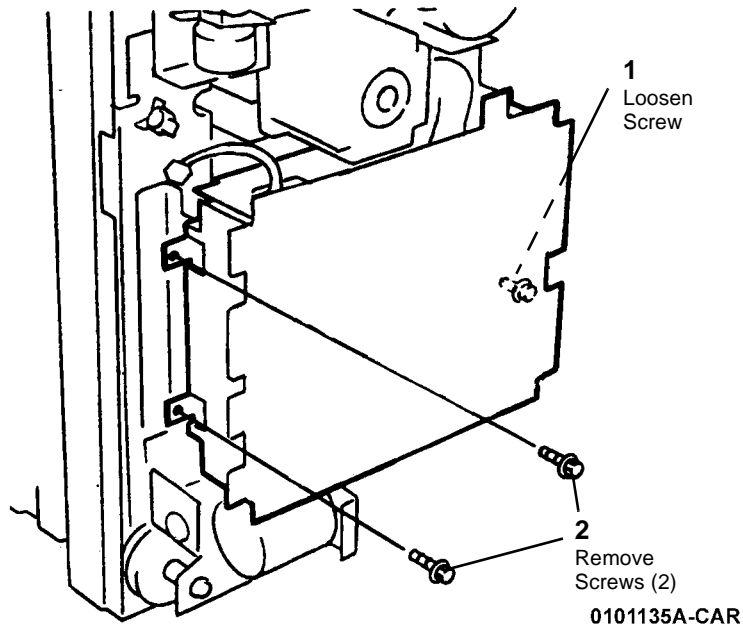


Figure 1 Removing Screws on PWB Chassis

4. Remove the Stacker Motor Assembly ([Figure 2](#)).

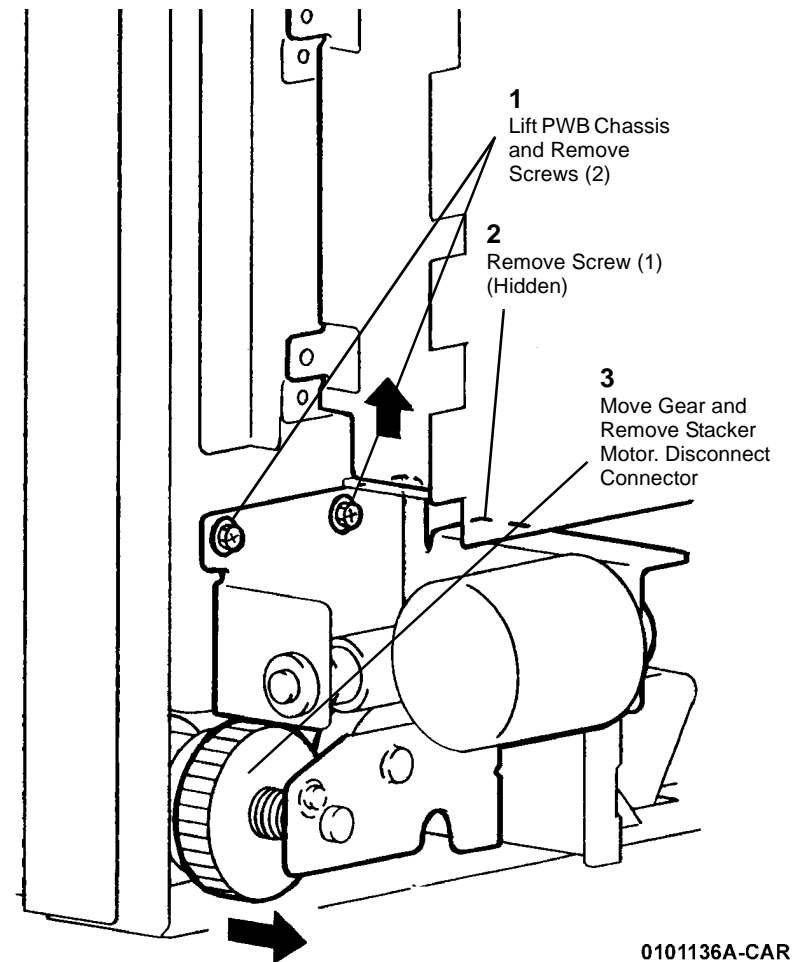


Figure 2 Removing Stacker Motor Assembly



## REP 12.14 Front Elevator Bracket

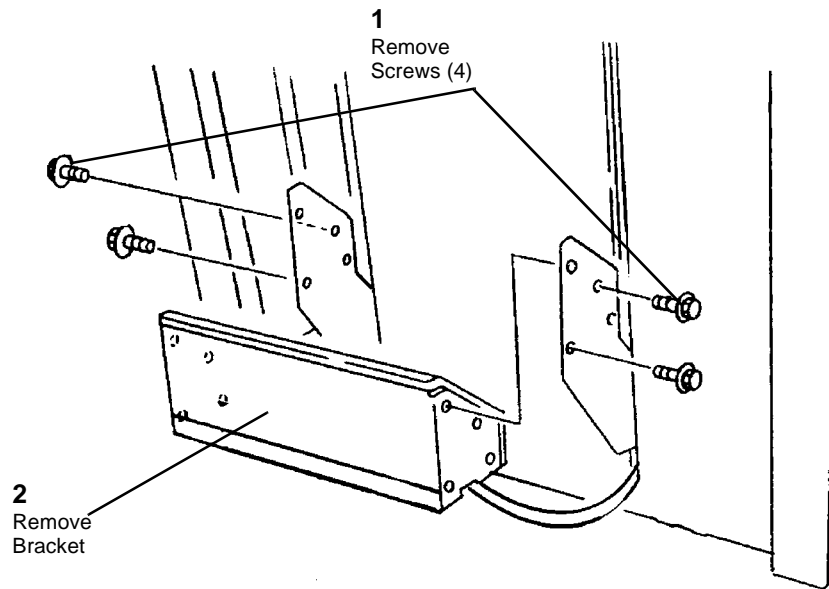
Parts List on [PL 17.11](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

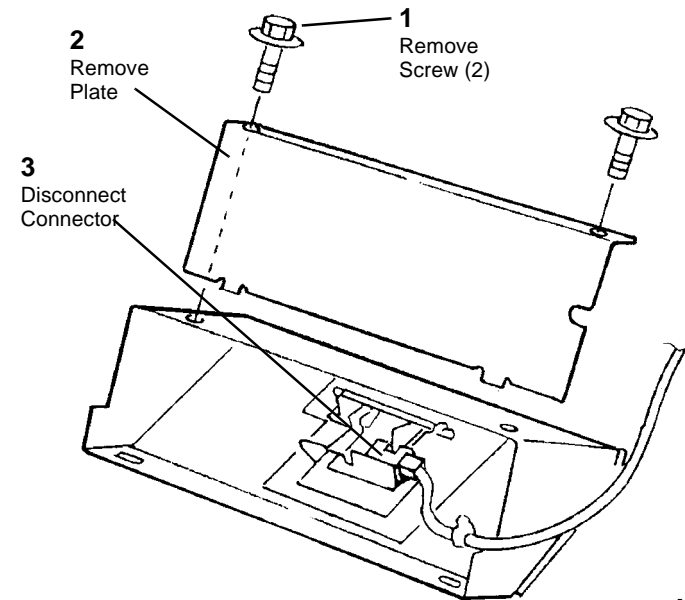
1. Remove the following parts:
  - a. Rear Cover ([PL 17.5](#))
  - b. Stacker Tray ([PL 17.1](#))
  - c. Right Cover ([PL 17.5](#))
  - d. Front Cover ([PL 17.5](#))
2. Remove the Bracket ([Figure 1](#)).



0101104A-CAR

Figure 1 Remove the Bracket

3. Disconnect Connector ([Figure 2](#)).



0101105A-CAR

Figure 2 Disconnecting Connector



4. Remove the Thumbscrews (2) (Figure 3).

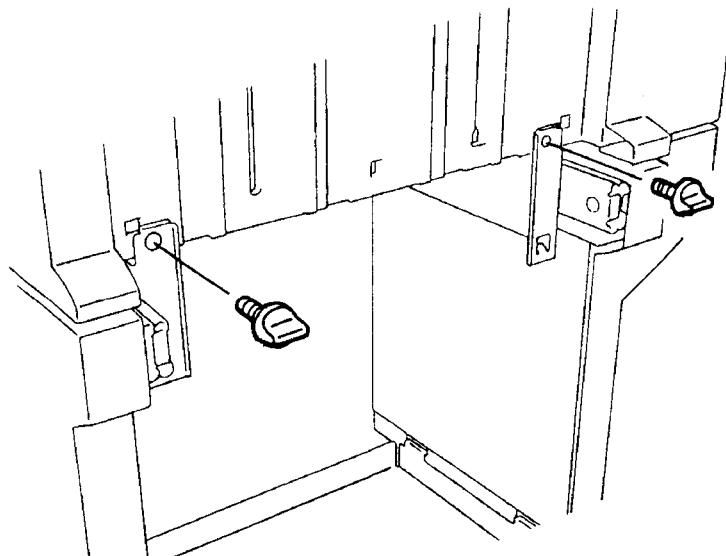


Figure 3 Removing Thumbscrews

0101100A-CAR

5. Remove the Tray Guide (Figure 4).

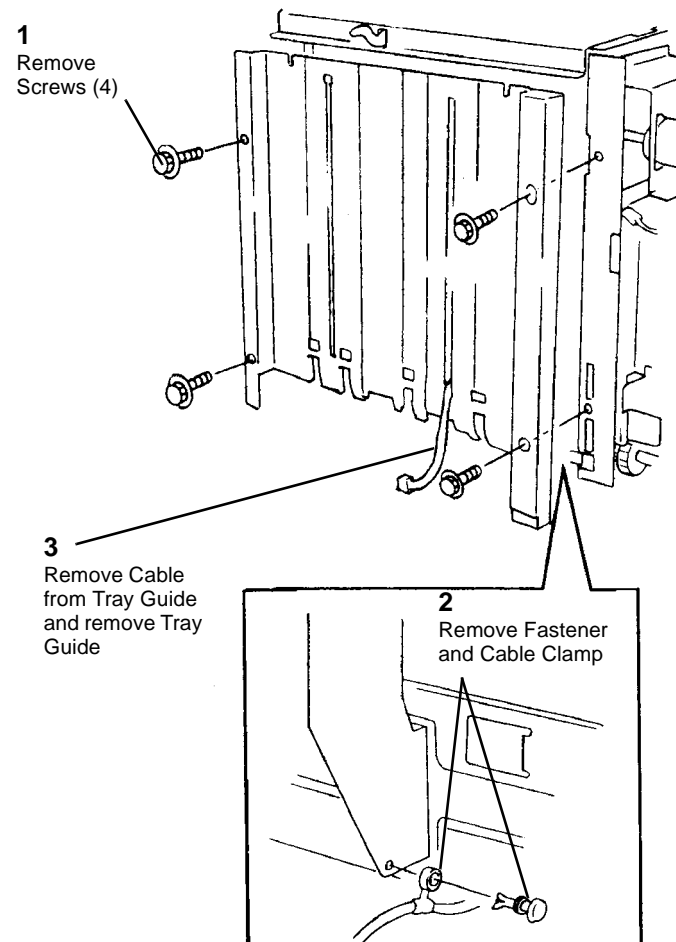


Figure 4 Removing Tray Guide

0101107A-CAR



6. Move PWB Chassis (Figure 5).

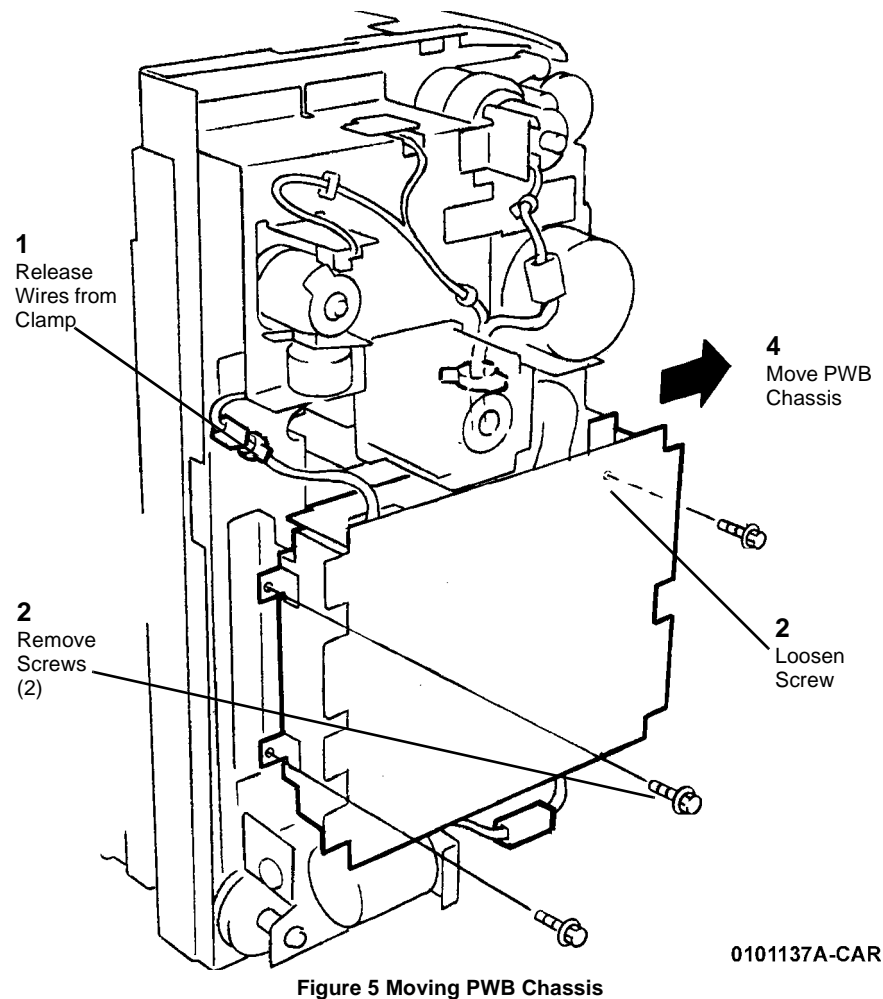


Figure 5 Moving PWB Chassis

7. Remove Front Elevator Bracket (Figure 6).

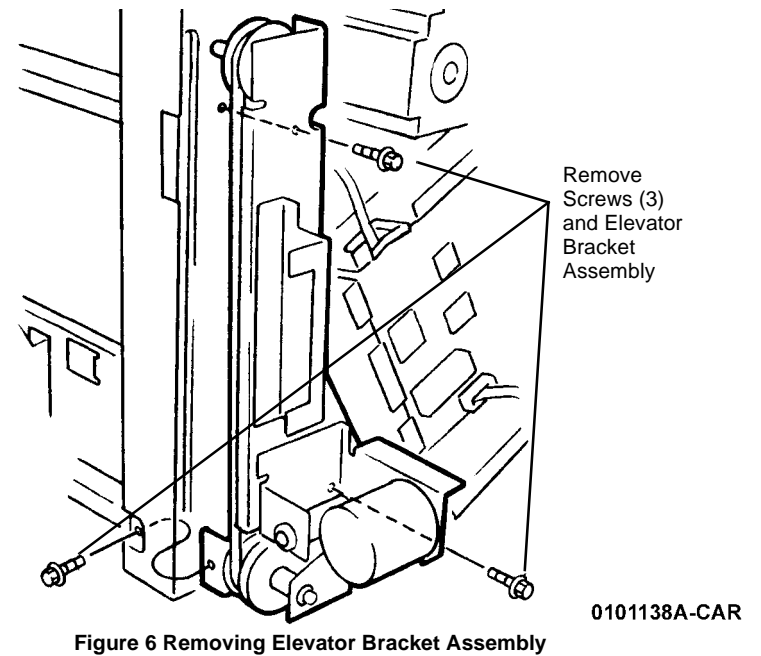
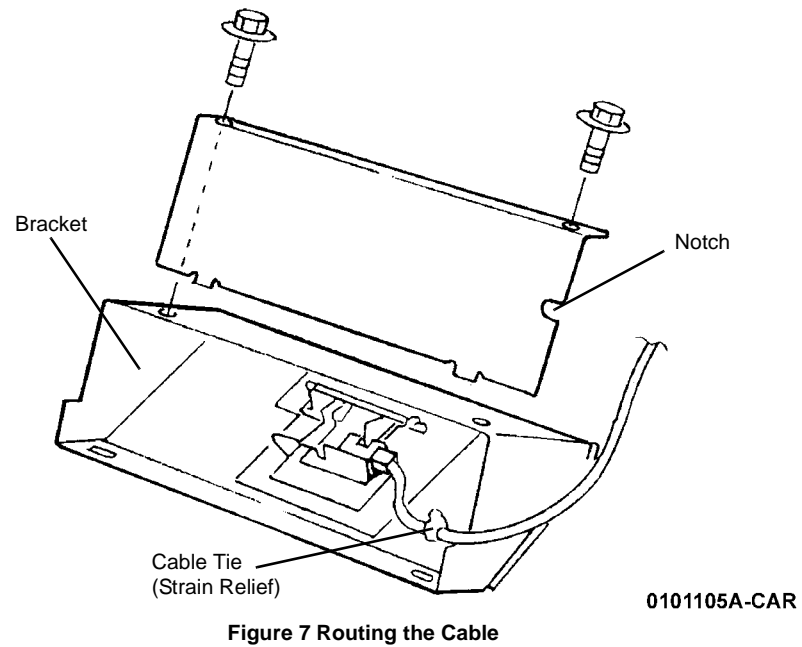


Figure 6 Removing Elevator Bracket Assembly



## Replacement

1. Make sure when installing the Plate, that the Cable Tie (Strain Relief) is inside the Bracket and the cable is routed through the notch (Figure 7).





## REP 12.15 Paddle Gear Shaft

Parts List on **PL 17.12**

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the following parts:
  - a. Stapler Assembly (**REP 12.11**).
  - b. Rear Cover (**PL 17.5**).
2. Remove the Cam Bracket Assembly (**REP 12.18**).
3. Remove the Bearing (**Figure 1**).

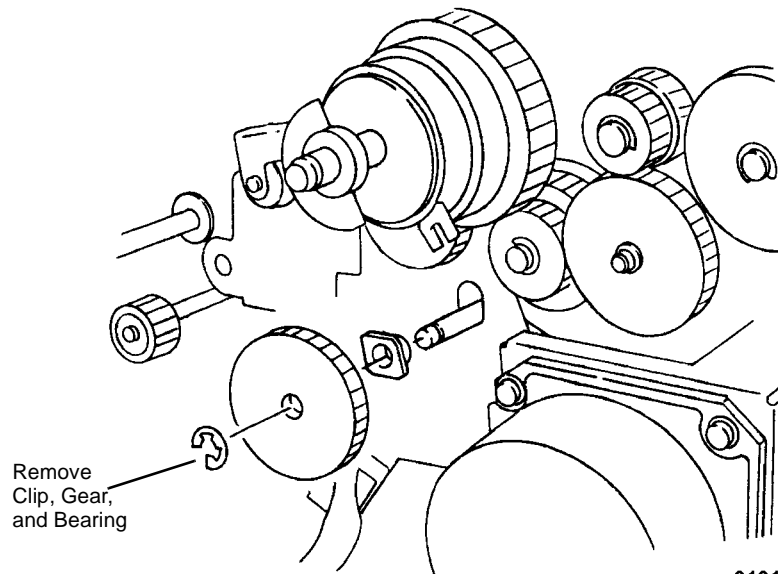


Figure 1 Removing Bearing

0101139A-CAR

4. Remove Screw on Paddle Gear Shaft (**Figure 2**).

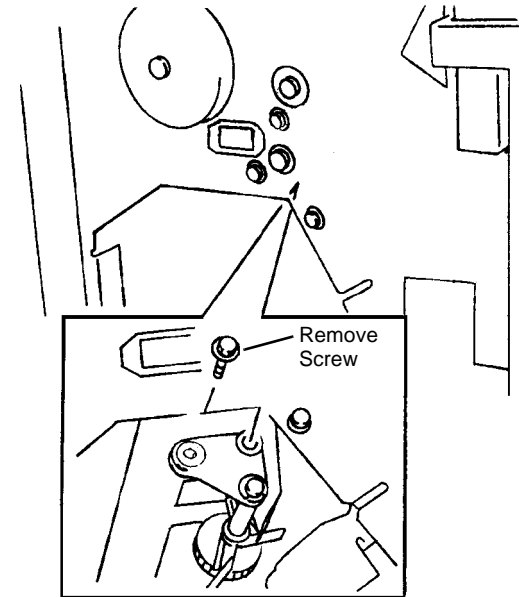
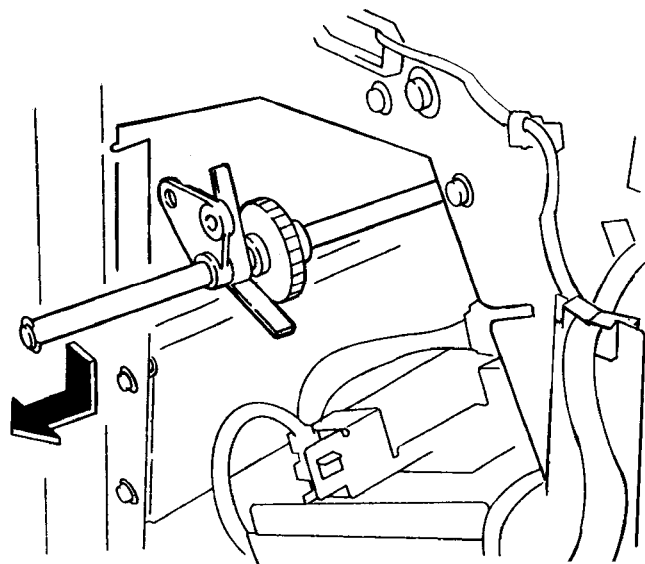


Figure 2 Removing Screw on Paddle Gear Shaft

0101140A-CAR



5. Remove the Paddle Gear Shaft (Figure 3).



0101141A-CAR

Figure 3 Removing Paddle Gear Shaft



## REP 12.16 Finisher PWB

Parts List on [PL 17.13](#)

### Removal

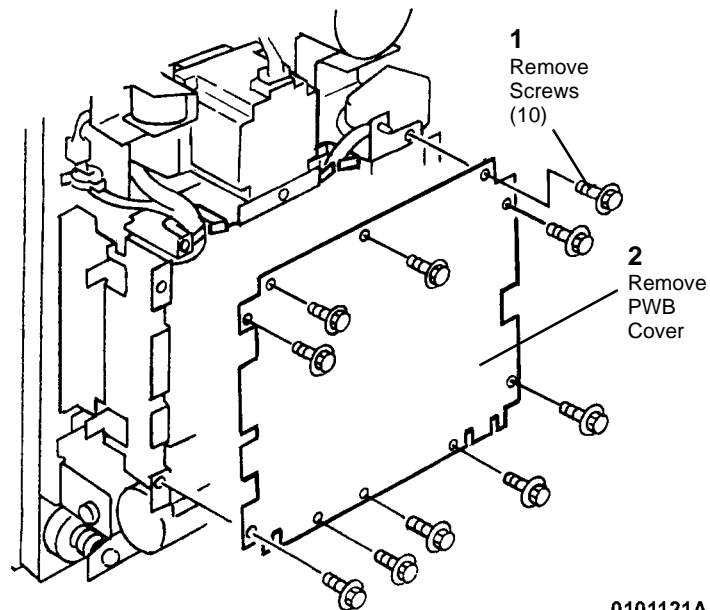
#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

PWBs can be damaged by electrostatic discharge. Observe all ESD procedures.

1. Remove Rear Cover ([PL 17.5](#)).
2. Remove the PWB Cover ([Figure 1](#)).



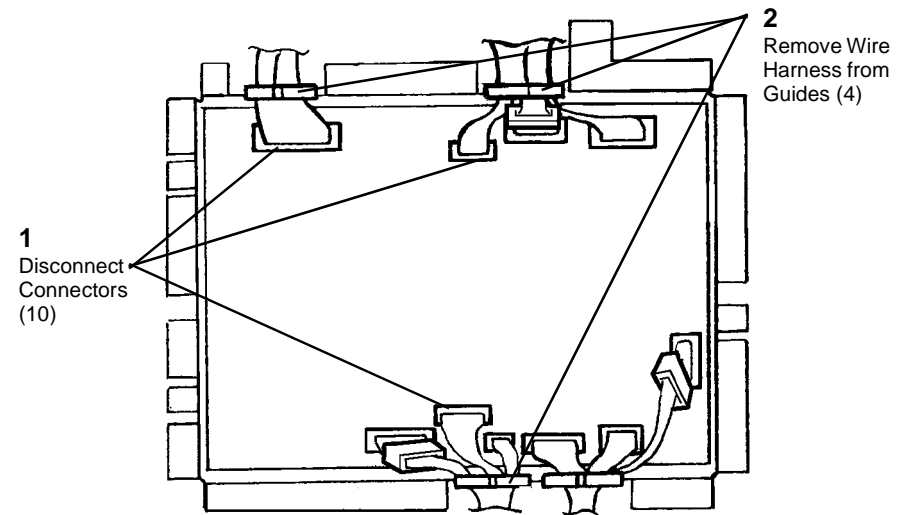
0101121A-CAR

Figure 1 Removing PWB Cover

3. Remove and retain the ROM from the Finisher PWB ([PL 17.13](#)).

**NOTE:** The ROM and the Finisher PWB are spared separately. When replacing the Finisher PWB you will need to install the old ROM on the new PWB.

4. Disconnect Connectors ([Figure 2](#)).



0101120A-CAR

Figure 2 Disconnecting Connectors



5. Remove the Finisher PWB (Figure 3).

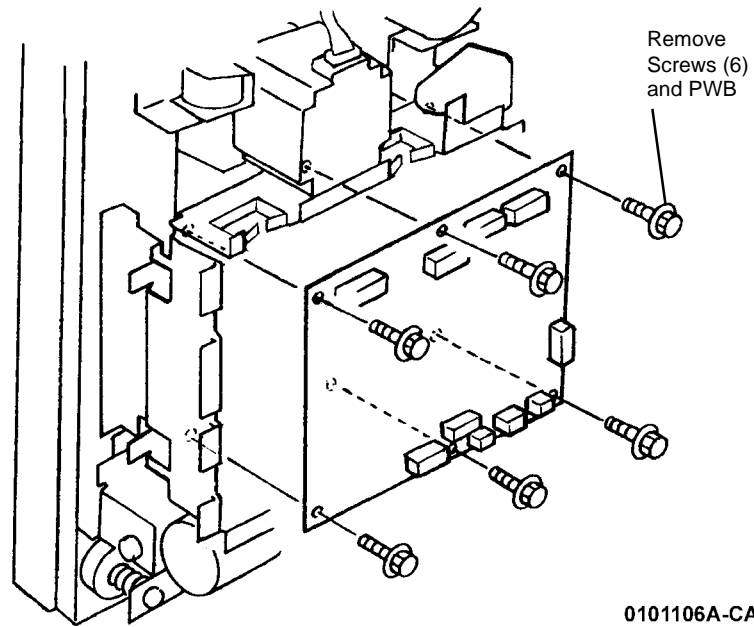


Figure 3 Removing Finisher PWB

### Replacement

Install the retained ROM removed in step 3 of the removal procedure on the new Finisher PWB.

Before attempting to install the PWB Cover, make sure the ceramic Cores, installed to the wires, are dressed properly inside the PWB Box.

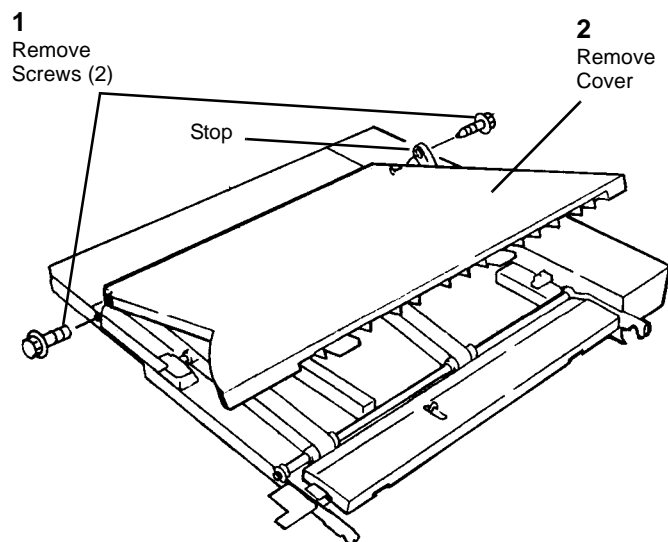


## REP 12.17 Entrance Upper Cover

### Parts List on PL 17.3

#### Removal

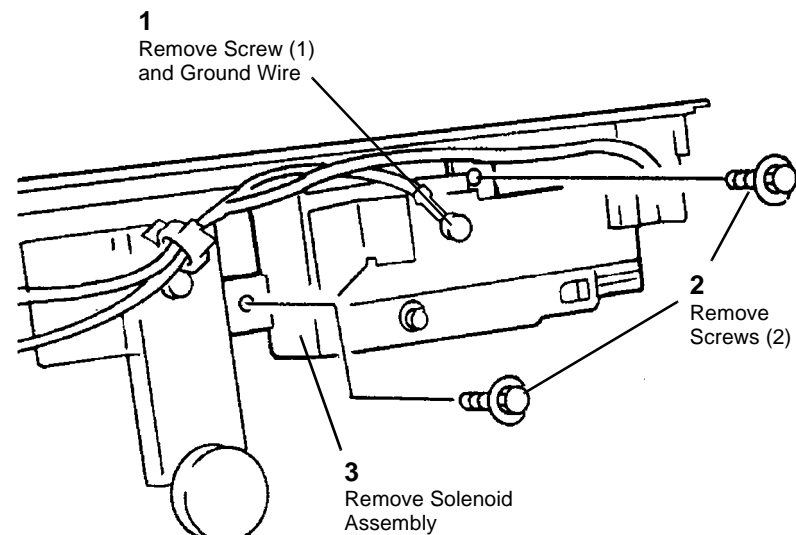
1. Remove the H Transport Assembly (REP 12.1).
2. Remove the following:
  - a. H Transport Front Cover (PL 17.3)
  - b. H Transport Rear Cover (PL 17.3)
3. Remove the H Transport Cover and cover Stop (Figure 1).



0101092A-CAR

Figure 1 Removing the H Transport Cover

4. Remove the Gate In Solenoid Assembly (Figure 2).

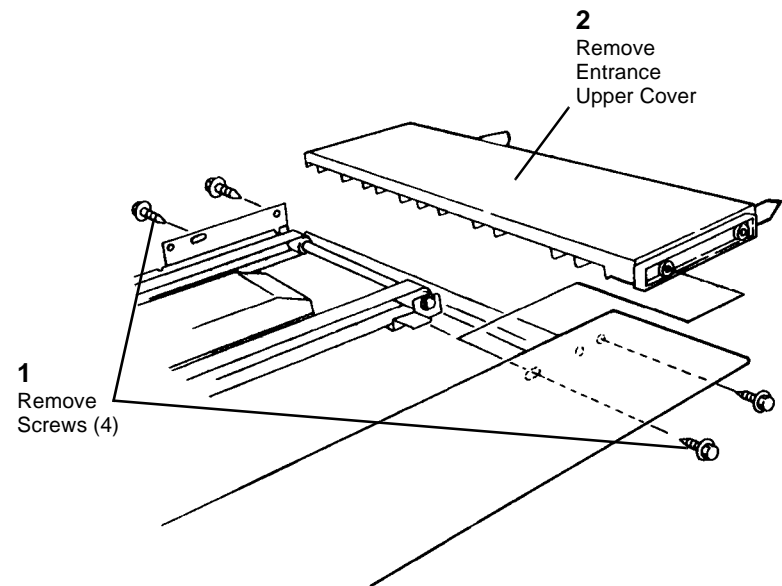


0101093A-CAR

Figure 2 Removing the Gate In Solenoid Assembly



5. Remove the Entrance Upper Cover (Figure 3)



0101094A-CAR  
Figure 3 Removing the Entrance Upper Cover



## REP 12.18 Cam Bracket Assembly

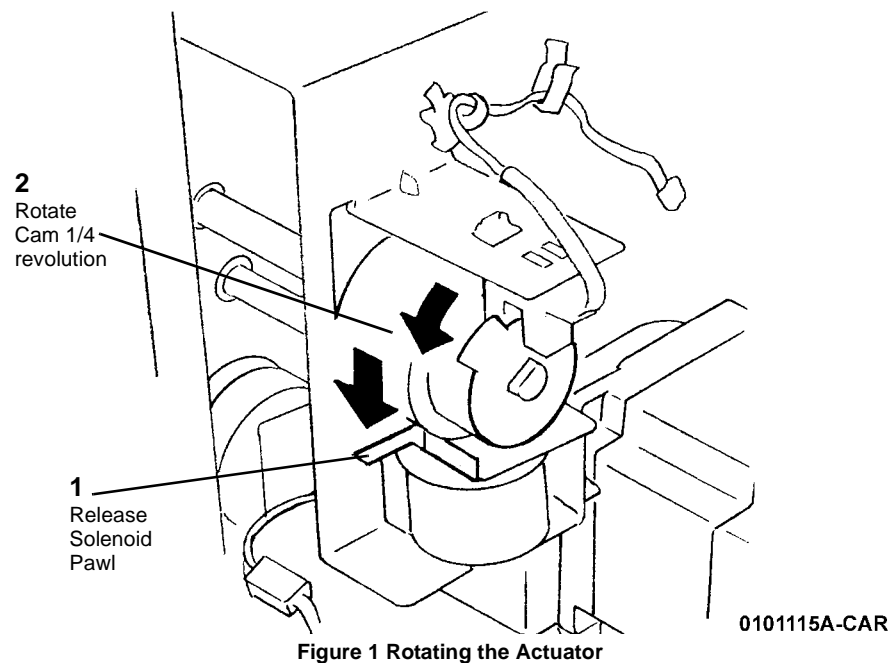
Parts List on **PL 17.8**

### Removal

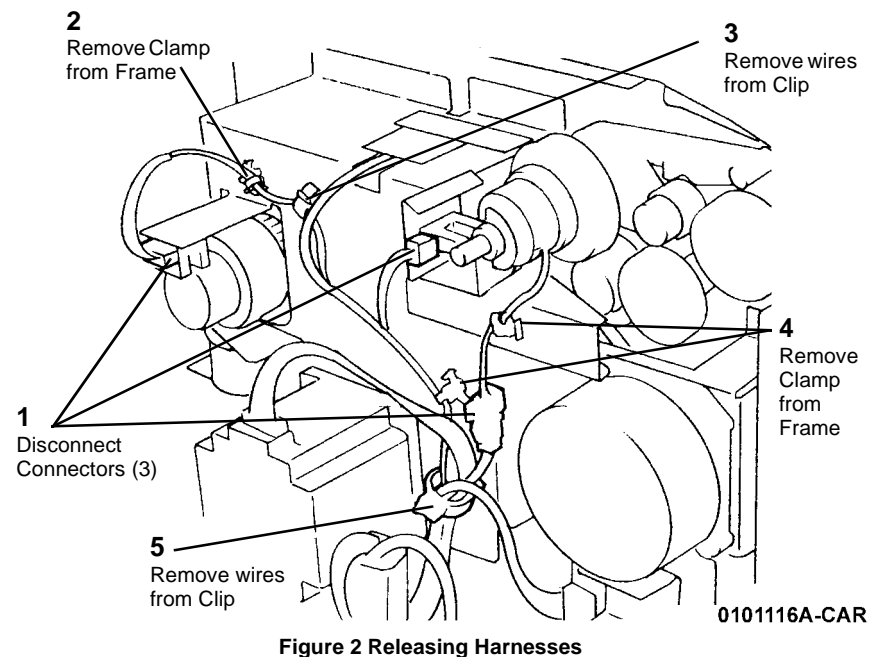
#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Rear Cover (PL 17.5)
2. Position the Actuator (Figure 1).

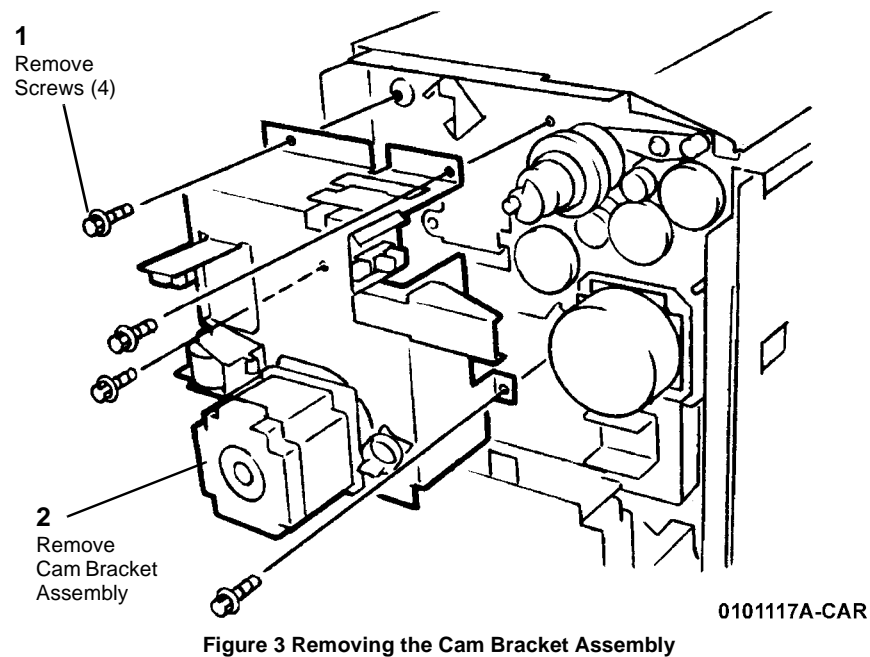


3. Release Harnesses (Figure 2).



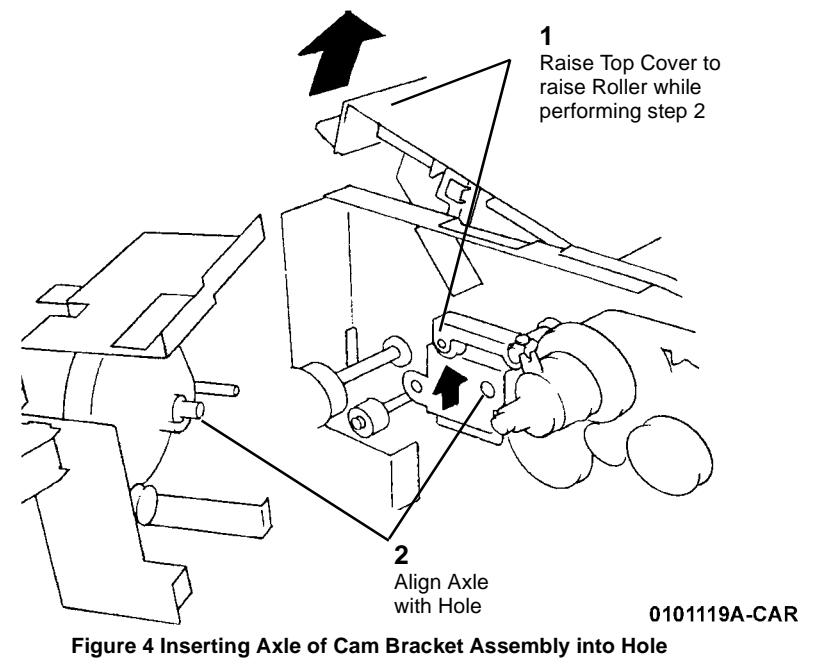


4. Remove the Cam Bracket Assembly (Figure 3).



## Replacement

1. Reinstall the Cam Bracket Assembly (Figure 4).





- Engage the solenoid pawl (**Figure 5**).

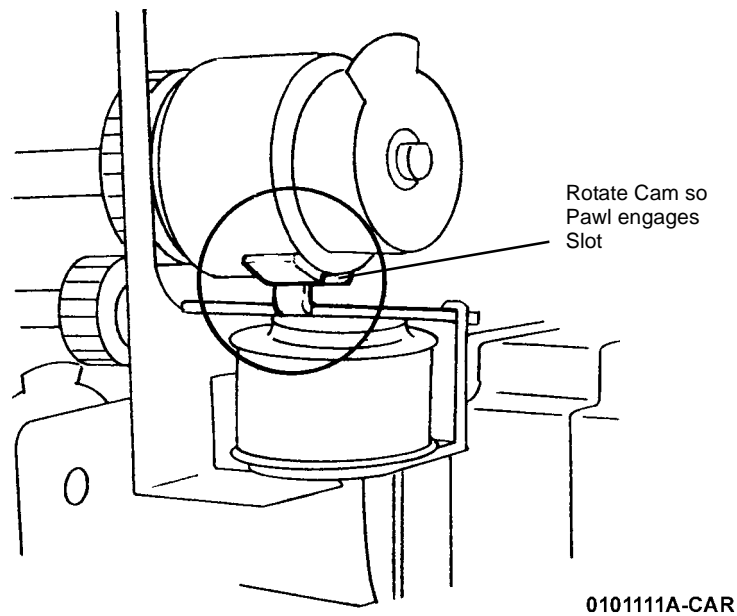


Figure 5 Engaging Pawl with Slot



## REP 12.19 Finisher Rack Assembly

Parts List on [PL 17.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Finisher ([REP 12.4](#)).
2. Loosen Feet ([Figure 1](#)).

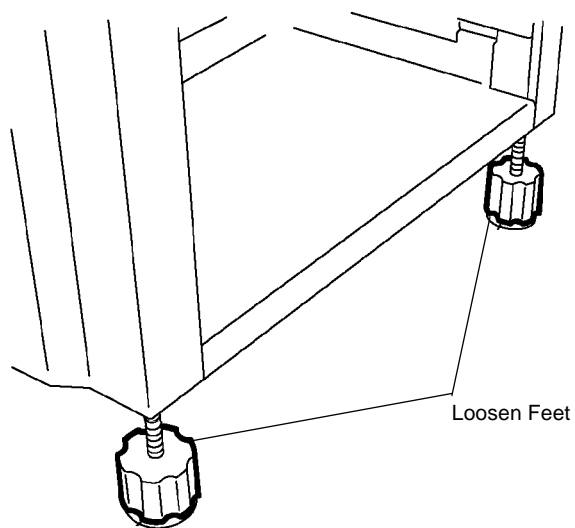


Figure 1 Loosening Feet

0102050A-CAR

3. Remove Bottom Plate ([Figure 2](#)).

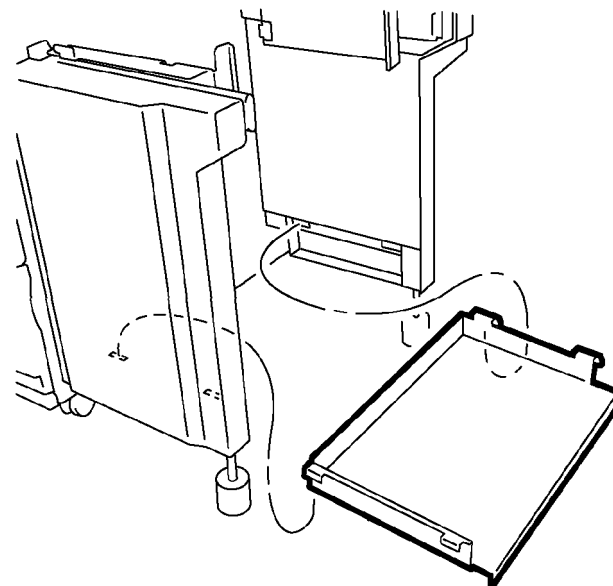


Figure 2 Removing Bottom Plate

0102051A-CAR



4. Remove Rear Rack (Figure 3).

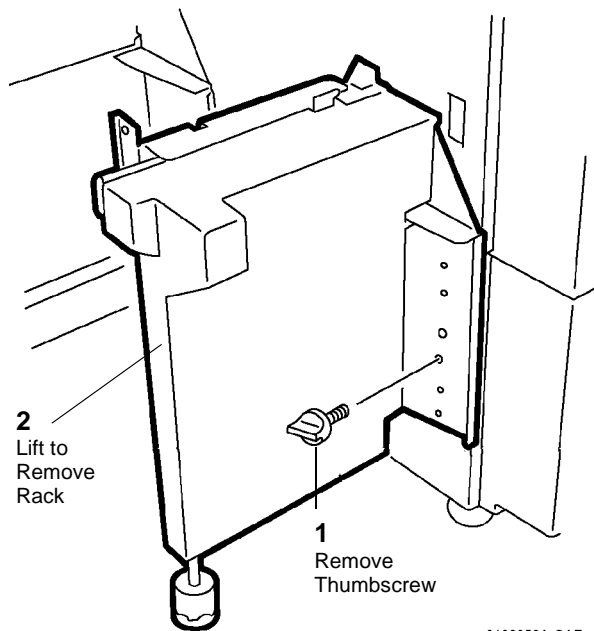


Figure 3 Removing Rear Rack

5. Remove Front Rack (Figure 4).

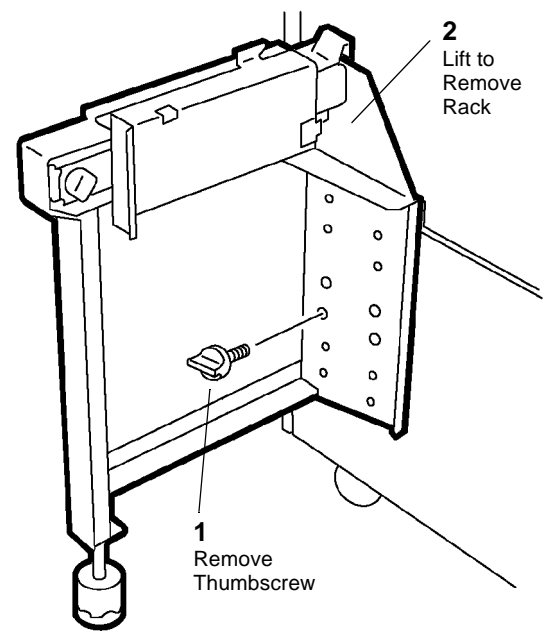


Figure 4 Removing Front Rack



## REP 12.20 Lowering Stacker Tray

Parts List on [PL 17.11](#)

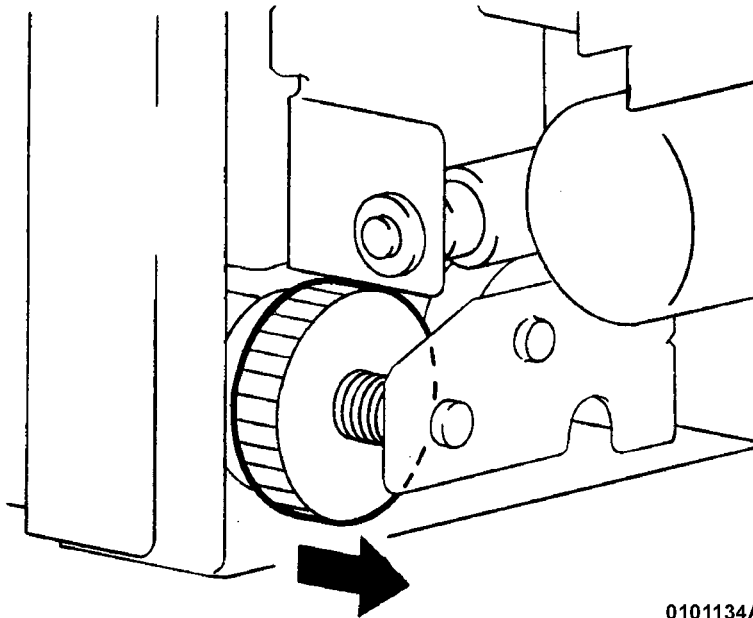
### Removal

If the need arises to lower the Stacker Tray quickly or without power applied perform following:

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Finisher Rear Cover ([PL 17.5](#)).
2. While holding the Stacker Tray, move the gear outward and the Stacker Tray is released ([Figure 1](#)).



0101134A-CAR

Figure 1 Moving Gear to Lower Stack Tray



## REP 14.1 Top Cover

Parts List on [PL 10.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Without Finisher, go to step 6.  
With Finisher, go to step 2.
2. Remove Finisher H Transport ([REP 12.1](#)).
3. Remove Finisher ([REP 12.4](#)).
4. Remove Finisher Rack Assembly ([REP 12.19](#)).
5. Remove Gate Cover ([Figure 1](#)).

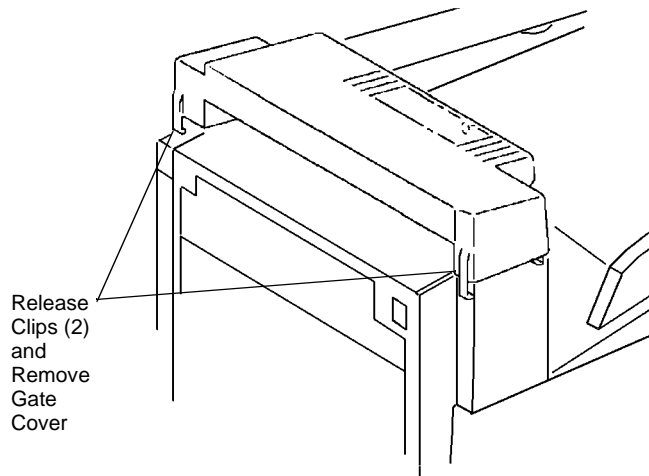


Figure 1 Removing Gate Cover

6. Remove Right Cover ([REP 14.3](#)).
7. Remove Top Cover ([Figure 2](#)).
  - a. Open Front Cover.
  - b. Remove Screws (3).
  - c. Remove Top Cover.

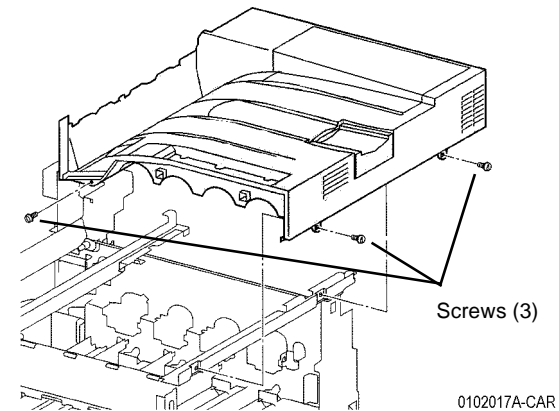


Figure 2 Removing Top Cover



## REP 14.2 Rear Cover (IOT)

Parts List on [PL 10.3](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([Figure 1](#)).
  - a. Open Harness Cover and disconnect Harnesses
  - b. Remove Screws (4).
  - c. Remove Rear Cover.

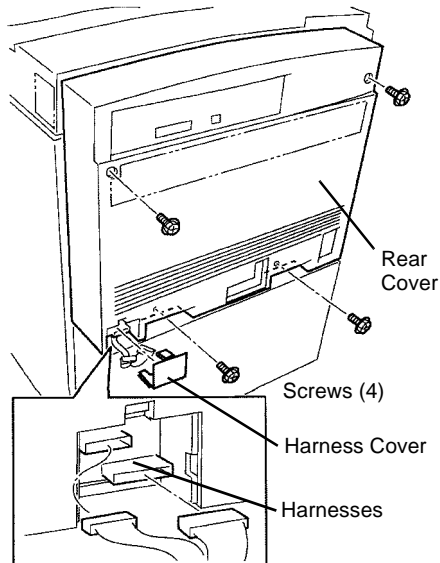


Figure 1 Removing Rear Cover (IOT)

## REP 14.3 Right Cover

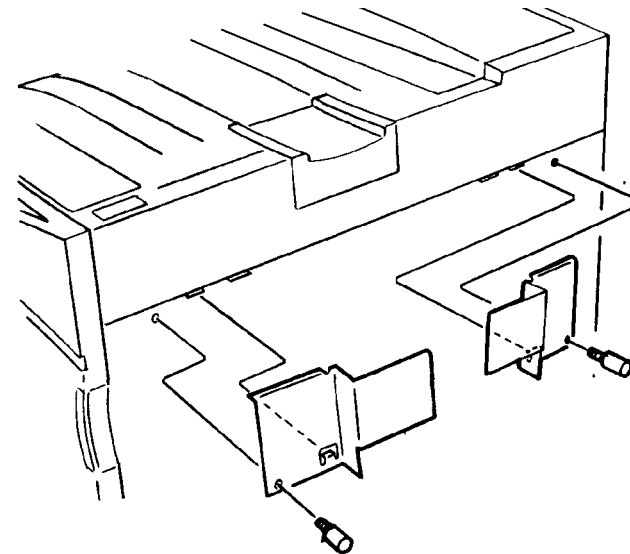
Parts List on [PL 10.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Without Finisher, go to step 4.  
With Finisher, Remove Finisher ([REP 12.4](#)) and remove Finisher Rack Assembly ([REP 12.19](#)).
3. Remove the Front and Rear Brackets ([Figure 1](#)).



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Figure 1 Front and Rear Brackets

4. Remove Right Cover ([Figure 2](#)).
  - a. Open Right Door.
  - b. Remove Screws (3).
  - c. Push cover down, or allow cover to drop slightly to release Hidden Tabs, then pull cover away and remove it.



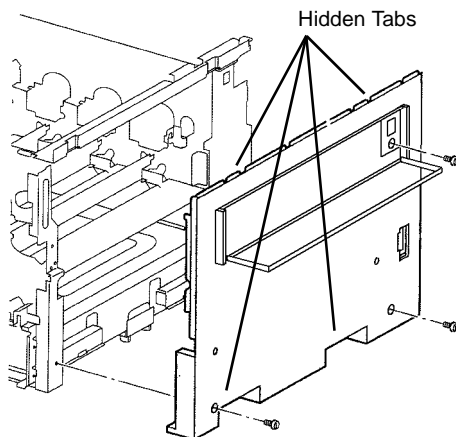


Figure 2 Removing Right Cover

## REP 14.4 Rear Left Middle Cover

Parts List on [PL 10.3](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 14.2](#)).
2. Open Left Cover Assembly.
3. Remove Rear Left Upper Cover ([REP 14.5](#)).
4. Remove Rear Left Middle Cover ([Figure 1](#)).
  - a. Remove Screw (1).
  - b. Lift slightly to disengage hidden tab and remove Rear Left Middle Cover.

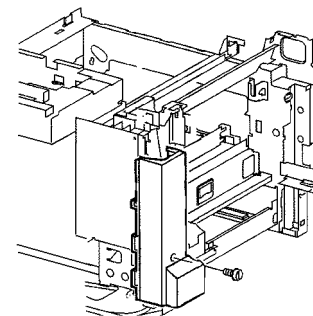


Figure 1 Removing Rear Left Middle Cover



## REP 14.5 Rear Left Upper Cover

Parts List on [PL 10.3](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Rear Cover ([REP 14.2](#)).
2. Open Left Cover Assembly.
3. Remove Rear Left Upper Cover ([Figure 1](#)).
  - a. Remove Screw (1).
  - b. Push end of cover in direction shown to release Hidden Tabs (2).
  - c. Pull up to release Hidden Tab (1) and remove Rear Left Upper Cover.

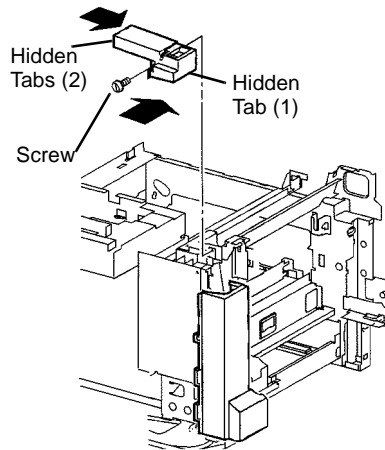


Figure 1 Removing Rear Left Upper Cover

## REP 14.6 Left Lower Cover Assembly

Parts List on [PL 2.3](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Left Lower Cover Assembly ([Figure 1](#)).
  - a. Open Left Lower Cover Assembly.
  - b. Carefully observe position of wiring harness for later reinstallation.
  - c. Disconnect harness connector and remove harness from harness guide.
  - d. Use flat tipped screwdriver to pry out Pivot Lock.
  - e. Remove Pivot Pin Sleeve.
  - f. Remove Lower Left Cover.

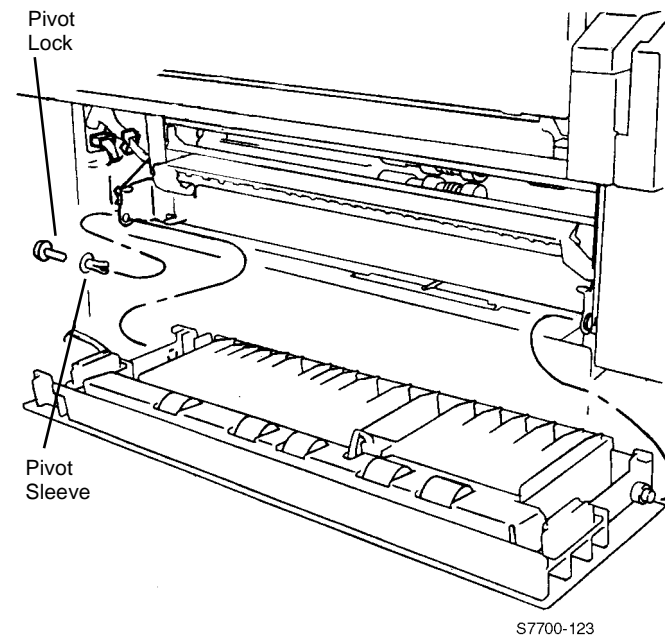


Figure 1 Removing Left Lower Cover Assembly

### Replacement

**NOTE:** Partially install Pivot Sleeve. Then install Left Lower Cover Assembly and push in Pivot Sleeve.



## REP 14.7 Front Cover Assembly

Parts List on **PL 10.1**

### Removal

#### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover (Figure 1).
  - a. Open Tray 1 approximately 100 mm for possible cover support.
  - b. Open Front Cover.
  - c. Remove screw to disconnect Support Strap from cover.
  - d. Repeat step c. for the other strap.
  - e. Remove screws (2) on Hinge Pin Locks and remove hinge pin locks.
  - f. Remove Front Cover.

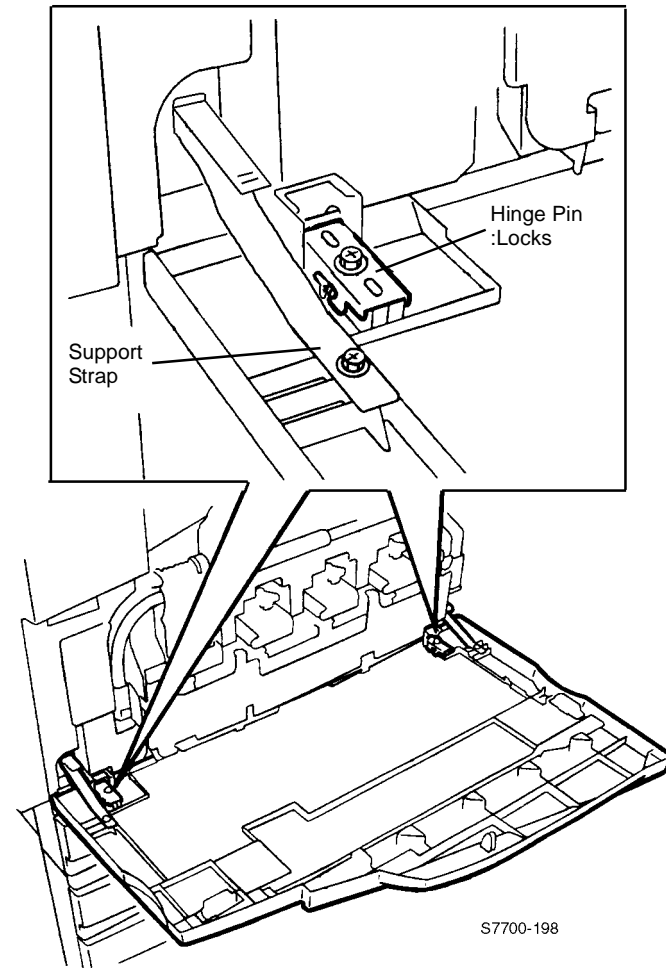


Figure 1 Removing Front Cover



## REP 14.8 Fuser Cover

Parts List on [PL 10.2](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Fuser Cover ([Figure 1](#)).
  - a. Remove Screws (2).
  - b. Move cover up to release Hidden Tabs (3) and pull out to remove cover.

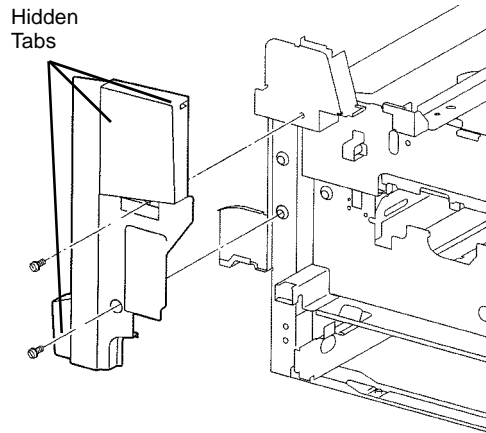


Figure 1 Removing Fuser Cover

## REP 14.9 Rear Cover (Tray Module)

Parts List on [PL 16.16](#) (TTM), [PL 15.11](#) (3TM)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. DC3535 only: Remove the Network Controller (refer to the Network Controller Service Documentation for removal procedure).
2. If equipped with a Fax Module, unplug phoneline/s and USB Cable.
3. Remove Screws (4) and remove Rear Cover (Tray Module).



## REP 14.10 Inner Cover

Parts List on [PL 8.1](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Open Front Cover.
2. Remove Fuser Cover ([REP 14.8](#)).
3. Remove Waste Cartridge Cover ([REP 9.3](#)).
4. Remove Inner Cover ([Figure 1](#)).
  - a. Open Harness Clip and remove harness from Clip.
  - b. Remove Screw and remove Harness Cover.

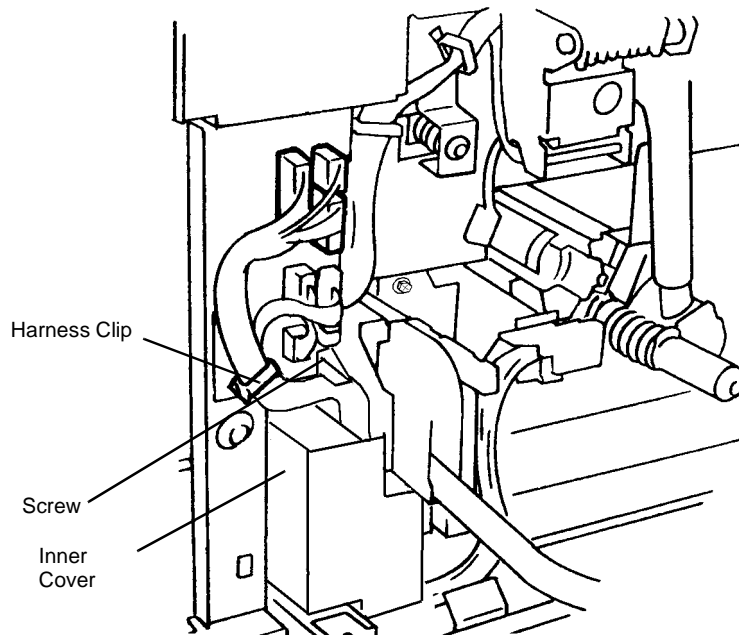


Figure 1 Removing Inner Cover

## REP 14.11 Left Cover Assembly

Parts List on [PL 16.13](#) (TTM), [PL 15.10](#) (3TM)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Left Lower Cover ([REP 14.12](#)).
2. Remove Left Cover Assembly ([Figure 1](#)).
  - a. Remove Screws (2) and Straps (2) from frame.
  - b. Remove Screw (1) and Pivot Support and remove Left Cover Assembly.

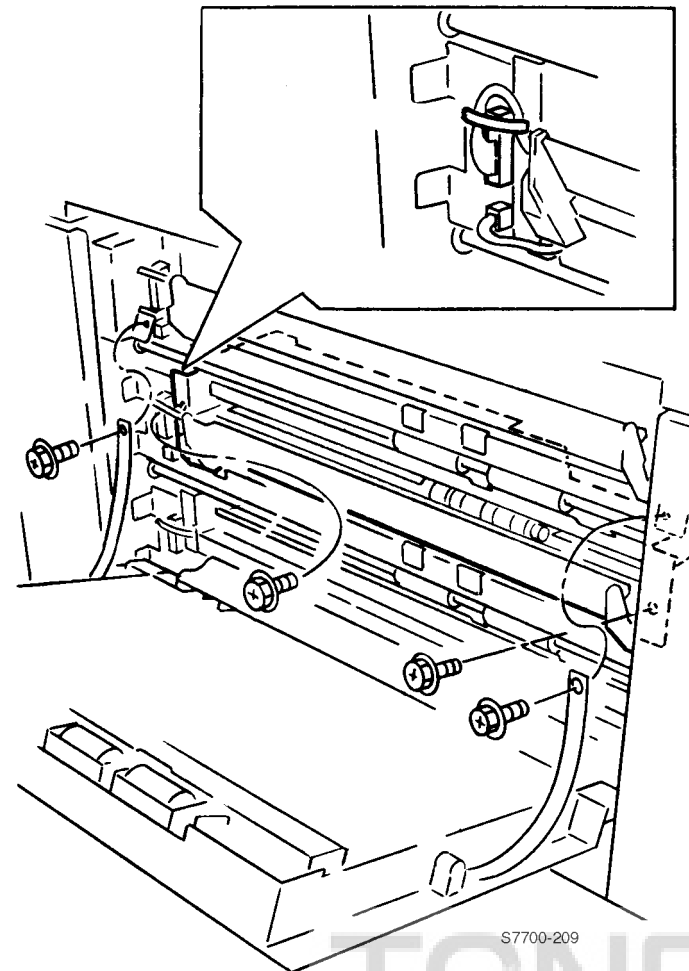


Figure 1 Removing Left Cover Assembly



## REP 14.12 Left Lower Cover

Parts List on [PL 16.16 \(TTM\)](#), [PL 15.11 \(3TM\)](#)

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove the Left Lower Cover ([Figure 1](#)).

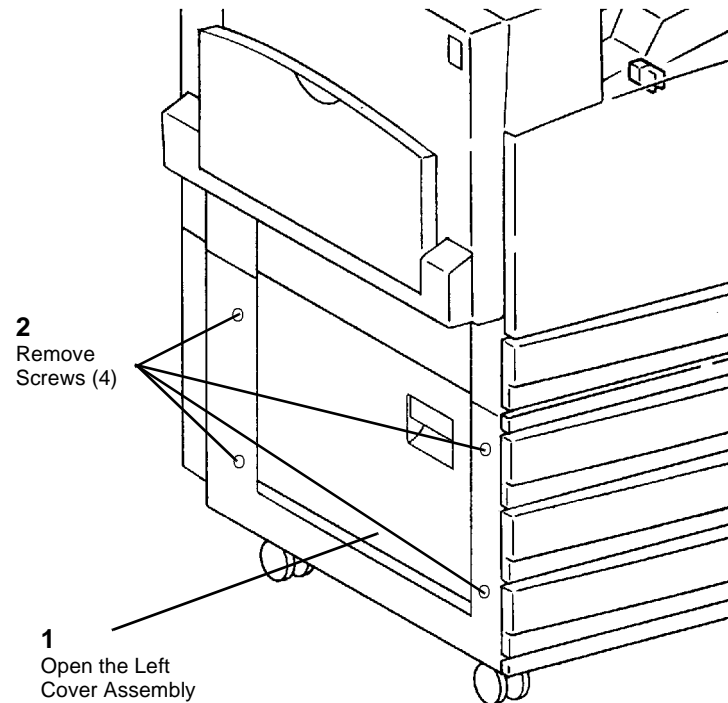


Figure 1 Removing the Left Lower Cover



## ADJ 5.1 DADF Side Registration

### Purpose

Align image scanned from document with left side edge of paper.

### Check

1. Make two copies from the Platen Glass to be used as DADF originals.
  - a. Register Test Chart 82E8220 on Platen with side edge metrics SE1 through SE4 against rear registration guide.
  - b. Select the following:
    - 1 to 1 sided
    - A3 or 11 x 17 Paper Supply
    - 100% Reduce/Enlarge
    - 2 Copies
  - c. Press Start and write DADF Original 1 on first copy and DADF Original 2 on second copy.
2. Verify side edge registration of DADF Originals.
  - a. On DADF Original 2 measure and record the distance between the side edge and the reference line and write **A** next to this measurement (Figure 1).
  - b. Check that **A** is  $10.0 \pm 0.5$  mm. If **A** is  $10.0 \pm 0.5$  mm, go to step 3.  
If **A** is not  $10.0 \pm 0.5$  mm, check both of the following and then return to the beginning of this procedure.
    - i. dC129 IOT Lead Edge/Side Edge Registration (ADJ 9.9).
    - ii. IIT Side Edge Registration (ADJ 9.11)

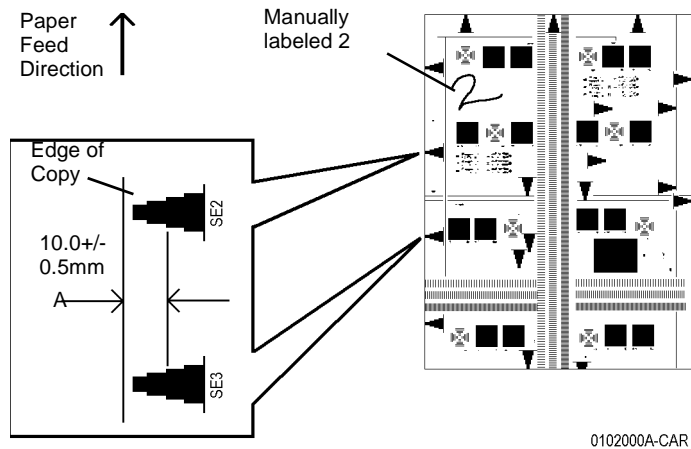


Figure 1 Verifying Side Edge Registration of DADF Originals

3. Check DADF Side Edge Registration for Side 1.
  - a. Load both DADF Originals in DADF, 1 on top, with side edge metrics SE1 through SE4 against rear registration guide. Check that side guide touches documents.
  - b. Select the following:

- 1 to 1-sided
  - A3 or 11 x 17 Paper Supply
  - 100% Reduce/Enlarge
  - 2 Copies
- c. Press Start and discard the first copy.
  - d. On side 1 of copy 2 measure and record the distance between the side edge and the reference line and write **B** next to this measurement (Figure 2).

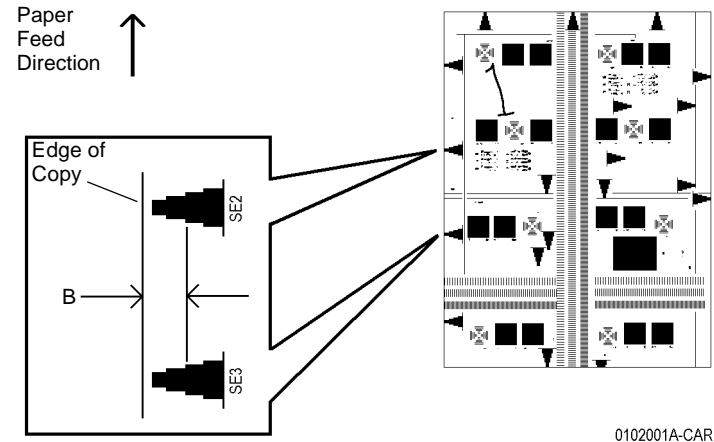


Figure 2 Checking Side Edge Registration of DADF

- e. Compare **B** to **A**. **B** must be within  $\pm 1.1$  mm of **A**.  
If the difference between **B** and **A** is greater than 1.1 mm, go to step 1 of the adjustment.  
Otherwise go to step 4.
4. Check DADF Side Edge Registration for Side 2.
    - a. Make a 2-sided test pattern.
      - i. Load DADF originals 1 and 2 face up, 1 on top, with side edge metrics toward rear of DADF.
      - ii. Select 1 to 2-sided and press Start to make the 2-sided test pattern
    - b. Make test copies.
      - i. Load 2-sided test pattern with side 1 edge metrics up and toward rear of DADF.
      - ii. Select the following:
        - 2 to 1 sided
        - A3 or 11 x 17 Paper Supply
        - 100% Reduce/Enlarge
        - 1 Copy
      - iii. Press the Start button.
    - c. Check that side edge metrics are same distance from edge of paper for both copies.  
If the difference is greater than  $\pm 1.1$  mm, go to step 2 of the adjustment.  
Otherwise DADF Side Registration is good.



## Adjustment

### 1. Adjust Side 1 DADF Side Registration.

- a. Enter NVM Rear/Write (dC131) [715-015].

*NOTE: Increasing value moves side edge metrics SE1 through SE4 toward edge.*

- b. If B is more than A, increase the NVM value (15 = approx. 1 mm).  
If B is less than A, decrease the NVM value (15 = approx. 1 mm).
- c. Check results of adjustment and adjust if required.

### 2. Adjust Side 2 DADF Side Registration.

- a. Enter NVM Rear/Write (dC131) [715-128].

*NOTE: Increasing value moves side edge metrics SE1 through SE4 toward edge.*

- b. If copy 2 edge metric is farther away from edge than copy 1, increase the NVM value (15 = approx. 1 mm).  
If copy 2 edge metric is closer to edge than copy 1, decrease the NVM value (15 = approx. 1 mm).
- c. Check results of adjustment and adjust as required.

**NOTE:** 2 to 2-sided or 2 to 1-sided must be selected to view a change in [715-128].  
[715-128] produces no change in 1 to 2-sided copying.

**NOTE:** Total lead edge deviation for DADF is  $\pm 1.6$  mm. Total lead edge deviation for IIT is  $\pm 0.5$  mm. This leaves  $\pm 1.1$  mm for DADF when a copy paper test pattern is made for use in DADF.



## ADJ 5.2 DADF Counterbalance

### Purpose

Correct DADF opening and closing action.

### Check

1. Check DADF opening and closing action.
  - a. Raise DADF and check that it remains in fully raised position.
  - b. Check that the DADF closes from a height of  $100 \pm 50$  mm by its own weight without excessive noise (Figure 1).

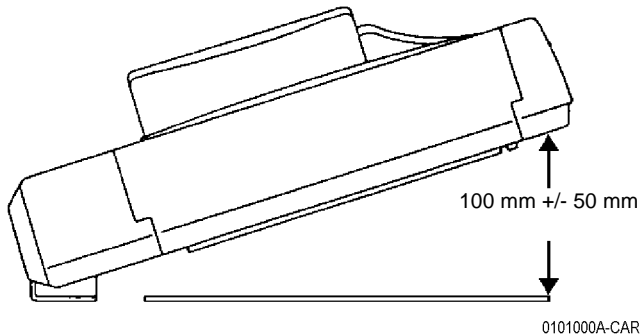


Figure 1 Checking DADF Height

### Adjustment

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

#### CAUTION

When removing the Rear Cover, disconnect LED Connector on DADF PWB.

1. Remove the Rear Cover. (REP 5.18)
2. Adjust the Left Counterbalance (Figure 2).

**NOTE:** Rotate in A direction for stronger spring pressure

Rotate in B direction for weaker spring pressure

- a. Loosen the nut.
- b. Rotate the Set Screw for the adjustment.
- c. Tighten the nut.

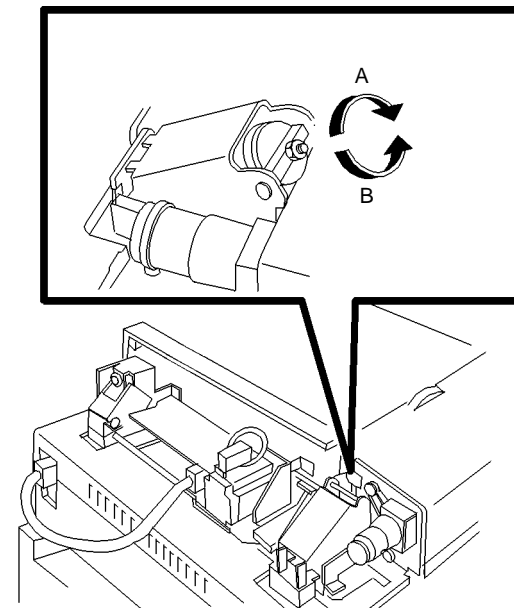


Figure 2 Adjusting Left Counterbalance



## ADJ 5.3 DADF Parallelism

### Purpose

Enable parallel Document placement and image scan.

### Check

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover. (PL 20.1)
2. Remove Entrance Tray. (PL 20.1)
3. Remove the Document Transport. (REP 5.17)
4. Check DADF Parallelism.
  - a. Manually hold down the DADF.
  - b. Check that the distance between the DADF Rear Frame and the Rear Registration Edge is  $20 \pm 1$  mm (Figure 1).
  - c. Perform the same check at the left end of the DADF.If  $20 \pm 1$  mm is not measured in each check, or the measurements are different, go to the adjustment.  
Otherwise DADF Parallelism is good.

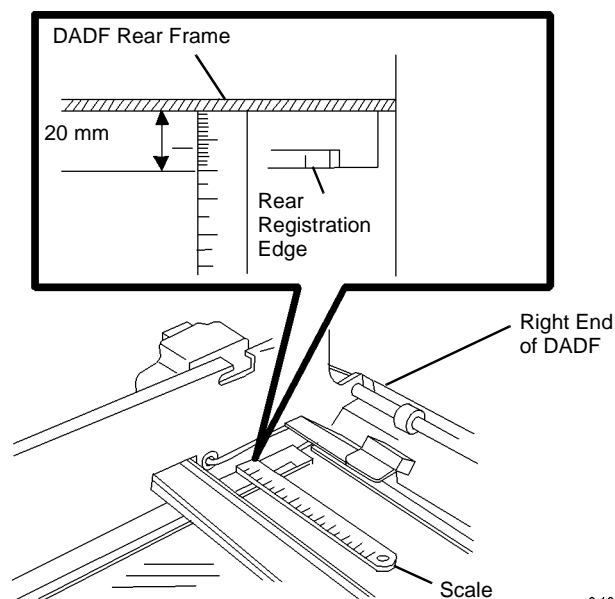


Figure 1 Checking DADF Parallelism

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### Adjustment

#### CAUTION

The DADF Parallelism must be made within  $\pm 1$  mm of the specified range.

#### CAUTION

When removing the Rear Cover, disconnect LED Connector on DADF PWB.

1. Remove Rear Cover (REP 5.18).
2. Adjust DADF Parallelism (Figure 2).

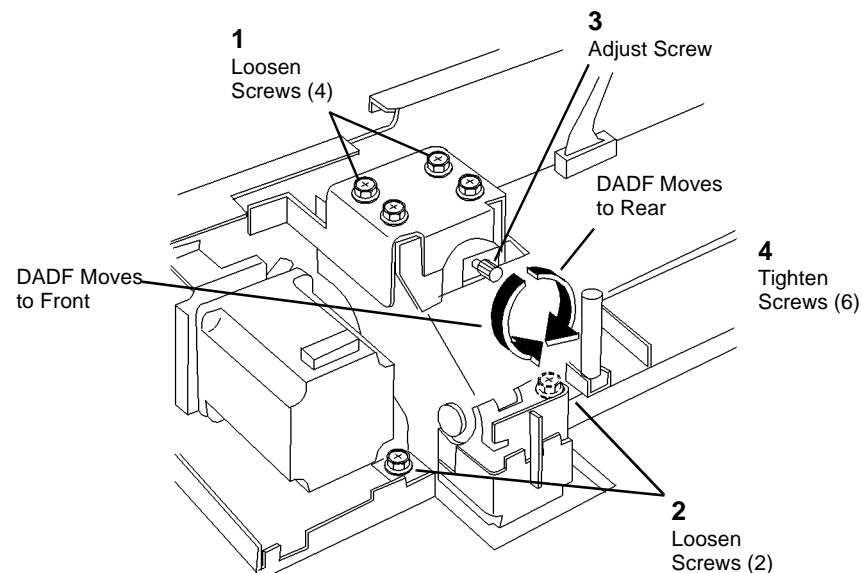


Figure 2 Adjusting DADF Parallelism

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3. Adjust Left Counterbalance if required.
4. Repeat the check.



## ADJ 5.4 Document Transport Height

### Purpose

Enable document feed at the correct speed and free of skew.

### Check

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Remove Front Cover (PL 20.1).
2. Entrance Tray (PL 20.1).
3. Check Document Transport Height (Figure 1).
  - a. At left end of Document Transport, check that there is  $24.5 \pm 0.3$  mm between top of Document Transport Frame and Top of Rear Registration Edge.
  - b. At Right end of Document Transport, check that there is  $24.5 \pm 0.3$  mm between top of Document Transport Frame and Top of Rear Registration Edge.
  - c. If there is more or less than specified, perform the adjustment on the counterbalance for the side that is not in specification. Adjust both counterbalances if required. Otherwise, Document Transport Height is good.

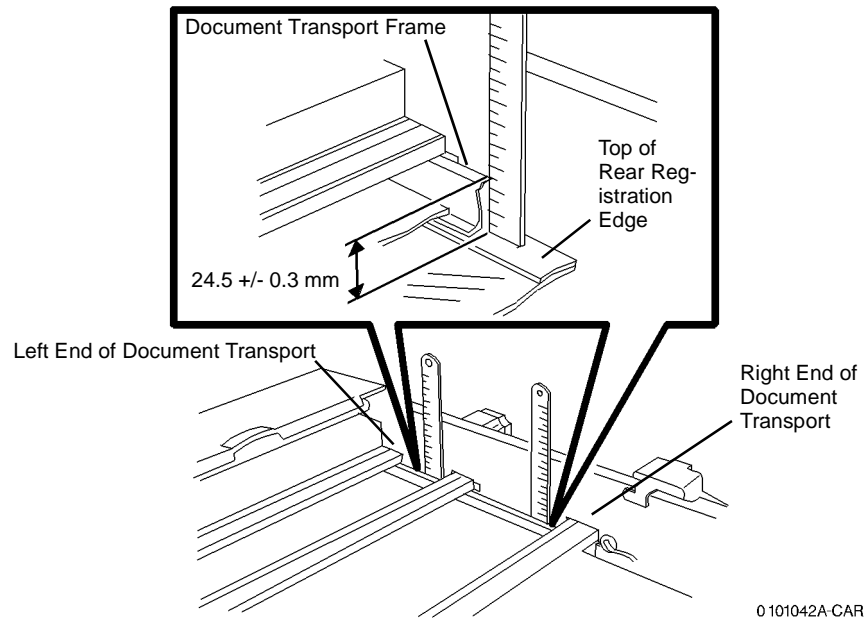


Figure 1 Checking Document Transport Height

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### Adjustment

#### CAUTION

When removing the Rear Cover, disconnect LED Connector on DADF PWB.

1. Remove Rear Cover (REP 5.18).
2. Raise DADF and loosen the Screws (2) (Figure 2).

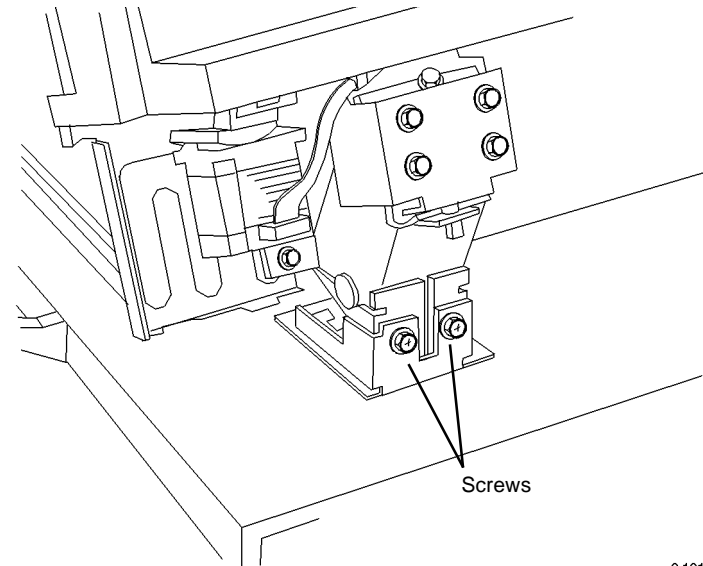
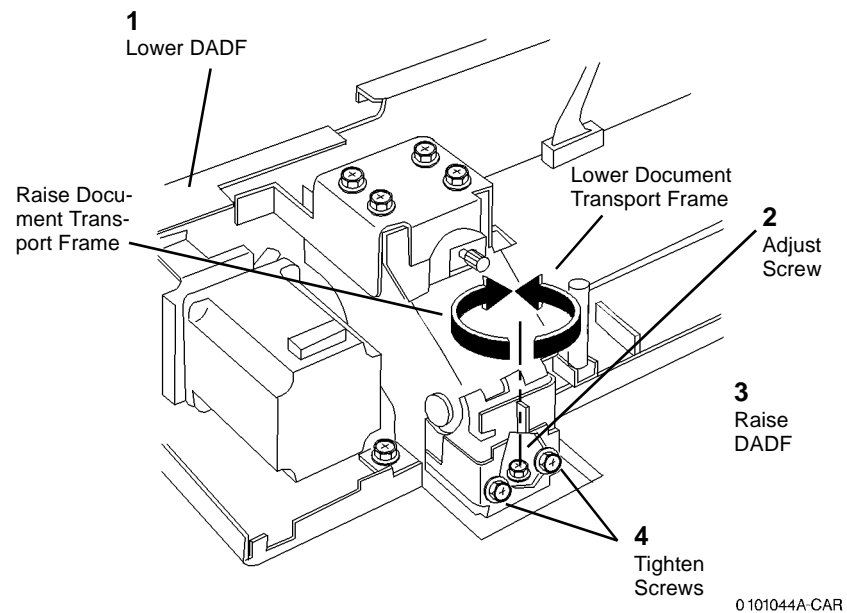


Figure 2 Loosening Screws

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3. Adjust Document Transport Height (Figure 3).



**Figure 3 Adjusting Document Transport Height**

4. Repeat check.



## ADJ 5.5 DADF Top Registration

### Purpose

Align image scanned from document with top edge of paper.

### Check

1. Make two DADF originals.
  - a. Register Test Chart 82E8220 on Platen with lead edge metrics LE1 through LE3 against left registration guide.
  - b. Select the following:
    - 1 to 1 sided
    - A4 or 8.5 x 11 Long Edge Feed Paper Supply
    - 100% Reduce/Enlarge
    - 2 Copies
  - c. Press Start and write DADF Original 1 on first copy and DADF Original 2 on second copy.
2. Verify top edge registration of DADF Originals.
  - a. On copy 2 measure and record the distance between the top edge and the reference line and write **A** next to this measurement (Figure 1).
  - b. Check that **A** is  $10.0 \pm 0.5$  mm. If **A** is  $10.0 \pm 0.5$  mm, go to step 3.  
If **A** is not  $10.0 \pm 0.5$  mm, check both of the following and then return to the beginning of this procedure.
    - i. IOT Lead Edge/Side Edge Registration (ADJ 9.9).
    - ii. IIT Side Edge Registration (ADJ 9.11)

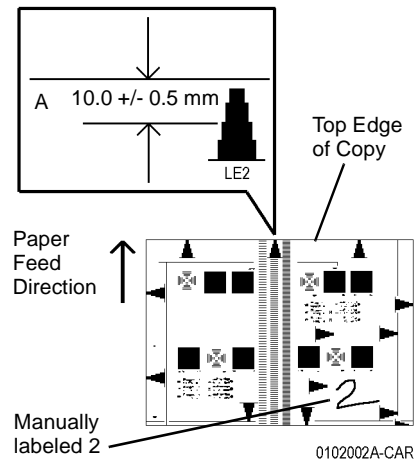


Figure 1 Verifying Top Edge Registration of DADF Originals

3. Check DADF Top Edge Registration for Side 1.
  - a. Load both DADF Originals in DADF, 1 on top, with top edge metrics LE1 through LE3 toward right.
  - b. Select the following:
    - 1 to 1-sided
    - A4 or 8.5 x 11 Long Edge Feed Paper Supply
    - 100% Reduce/Enlarge
    - 2 Copies
  - c. Press Start and discard the first copy.
  - d. On side 1 of copy 2 measure and record the distance between the top edge and the reference line and write **B** next to this measurement (Figure 2).

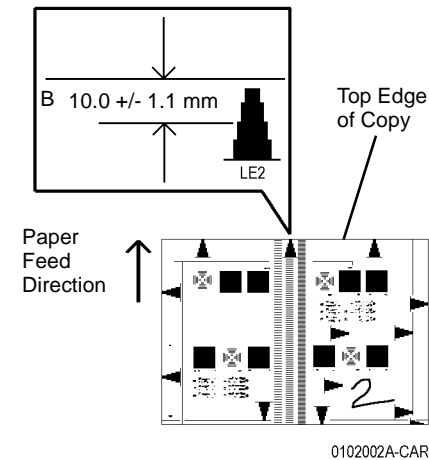


Figure 2 Checking Top Edge Registration of DADF

- e. Compare **A** to **B**. **B** must be within  $0 \pm 1.1$  mm of **A**.  
If the difference between **A** and **B** is greater than 1 mm, go to step 1 of the adjustment.  
Otherwise go to step 4.
4. Check DADF Side Edge Registration for Side 2.
  - a. Make a 2-sided test pattern.
    - i. Load DADF originals 1 and 2 face up, 1 on top, with top edge metrics toward right.
    - ii. Select 1 to 2-sided and press Start to make the 2-sided test pattern
  - b. Make test copies.
    - i. Load 2-sided test pattern with side 1 edge metrics up and toward right of DADF.
    - ii. Select the following:
      - 2 to 1 sided and press Start.
      - A4 or 8.5 x 11 Long Edge Feed Paper Supply
      - 100% Reduce/Enlarge



- 1 Copy
- iii. Press the Start button.
- c. Check that top edge metrics are same distance from edge of paper for both copies.  
If the difference is greater than 1 mm, go to step 2 of the adjustment.  
Otherwise DADF Side Registration is good.

## Adjustment

1. Adjust Side 1 DADF Side Registration.
  - a. Enter NVM Rear/Write (dC131) [710-005].  
*NOTE: Increasing value moves lead edge metrics LE1 through LE3 toward edge.*
  - b. If B is more than A, increase the NVM value (5 = approx. 1 mm).  
If B is less than A, decrease the NVM value (5 = approx. 1 mm).
  - c. Check results of adjustment and adjust if required.
2. Adjust Side 2 DADF Side Registration.
  - a. Enter following NVM Rear/Write (dC131)  
[710-025] for B5 SEF or smaller  
[710-026] for B5 LEF, A4 SEF/LEF, 8.5x11 SEF/LEF  
[710-027] for 8.5 x 14, B4, A3, 11x17  
*NOTE: Decreasing value moves lead edge metrics LE1 through LE3 toward edge.*
  - b. If copy 2 edge metric is farther away from edge than copy 1, decrease the NVM value ( 5 = approx. 1 mm).  
If copy 2 edge metric is closer to edge than copy 1, increase the NVM value (5 = approx. 1 mm).
  - c. Check results of adjustment and adjust as required.  
*NOTE: 2 to 2-sided or 2 to 1-sided must be selected to view A change in [710-02X].  
[710-02X] produces no change in 1 to 2-sided copying.*

**NOTE:** Total lead edge deviation for DADF is  $\pm 1.6$  mm. Total lead edge deviation for IIT is  $\pm 0.5$  mm. This leaves  $\pm 1.1$  mm for DADF when a copy paper test pattern is made for use in DADF.



## ADJ 5.6 DADF Document Calibration

### Purpose

This procedure calibrates the document size detection circuitry in the DADF.

Perform this adjustment whenever any the following occur:

- Replacement of the DADF.
- When an error is detected after replacing Registration Roll, Feed Roll, and Retard Roll.
- When a size detection error is reported.

### Adjustment

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)). Select **dC527** from the **dC Quick** menu
2. Set three documents to be transported in the DADF:

XE: A4 LEF

XC: 8.5 x 11 in. LEF

#### CAUTION

*After this routine has started, it cannot be stopped or interrupted until it completes, irrespective of success or failure.*

3. Click **Start**. The DADF starts feeding the documents and calculating the correction value. At this point, the [Entering] message appears.
4. When the corresponding NVM data is updated (location 710-003), the PWS screen indicates that the process has been completed.



## ADJ 5.7 DADF Non-standard Document Custom Registration

### Purpose

Preliminary-Document sizes other than DADF detectable document size (non-standard size) are registered and transported as standard document size. Hence, special document sizes specified by a user can be transported.

### Check

Document size detection is performed based on custom-registered data and the DADF process is performed by making the specified document sizes as scanning size. Only one custom-registration is available. If the registered data is valid, document size detection is performed, placing priority over the existing detection table.

Preparation:

1. Borrow the non-standard document to be custom- registered from the customer.
2. Check which direction (LEF or SEF) the customer wants to run in.
3. Check which paper size and direction the customer wants to make copies of.
4. Check the length of Fast Scan direction (X) and Slow Scan direction (Y) in Scale etc. of the borrowed document accurately and write them down.

### Adjustment

1. Enter the UI Diag and change the NVM Read/Write.
2. Set the following NVM Data to be custom-registered detection.

**NOTE:** Set Fast Scan direction max. value - Fast Scan direction min. value are 200 or below. (within 20mm)

**NOTE:** Set slow scan direction max. value - slow scan direction min. value are 200 or below. (within 20mm)

**NOTE:** The following sizes cannot be entered in order to prevent mis-detection of the size sensor.

- Fast Scan direction Max.:2190~2290
- Fast Scan direction Min.:2810~2910

For the X and Y obtained at Preparation:

- Set the 710-024 data to 1. (Have the custom-registration valid.)
- Store (X+10) x 10 in the 710-018 data. (Set the Fast Scan direction Max. value)
- Store (X-10) x 10 in the 710-019 data. (Set the Fast Scan direction Min. value)
- Store (Y+10) x 10 in the 710-020 data. (Set the Slow scan direction Max. value)
- Store (Y-10) x 10 in the 710-021 data. (Set the Slow scan direction Min. value)
- Enter the 710-022 data. (Select the paper size that the customer specifies from the table below, and enter it.)
- Enter the 710-023 data. (Select the paper direction that the customer specifies from the table below, and enter it.)

Enter the 710-023 data. (Select the paper direction that the customer specifies from the table below, and enter it.)

Enter the 710-023 data. (Select the paper direction that the customer specifies from the table below, and enter it.)

The following are information regarding the NVM entered above.

Table 1

Chain-Link	Indicated Data Name	Remarks
710-018	Fast Scan direction Max. value Note1)	Setup Range=1297~3070 Set by 0.1mm (initial value=2970)
710-019	Fast Scan direction Min. value Note1)	Setup Range=1297~3070 Set by 0.1mm (initial value=2970)
710-020	Slow Scan direction Max. value Note2)	Setup Range=1297~4418 Set by 0.1mm (initial value=2100)
710-021	Slow Scan direction Min. value Note2)	Setup Range=1297~4418 Set by 0.1mm (initial value=2100)
710-022	Specified paper code for custom-registration	03: 5.5 x 8.5 04: A5 05: B5 08: A4 09: 8x10 10: 8.5x11 11: 8.5x12.4 12: 8.5x13 13: 8.5x14 14: B4 15: A3 16: 11x17 17: 8K (267x388mm) 20: ILLEGAL SIZE (Initial Value=08)
710-023	Feed direction of document size	0: LEF, 1:SEF (Initial Value=0)

3. Check the settings of the NVM Data again.
4. Set the document that was custom-registered for the size detection table in the DADF and feed it. -> Check that the document size is detected as specified.

**NOTE:** Be careful with scan data image missing since the non-standard document size is handled as standard document size.



## ADJ 6.1 Full/Half Rate Carriage

### Purpose

Establish Full Rate and Half Rate Carriage position.

### Check

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

**NOTE:** The Half Rate Carriage is checked, and adjusted if required by repositioning a pulley. Then the Full Rate Carriage is checked, and adjusted if required by repositioning the carriage on the cable.

1. Remove Platen Glass (REP 6.2).
2. Remove Alignment Tools (2) from Storage (Figure 1).

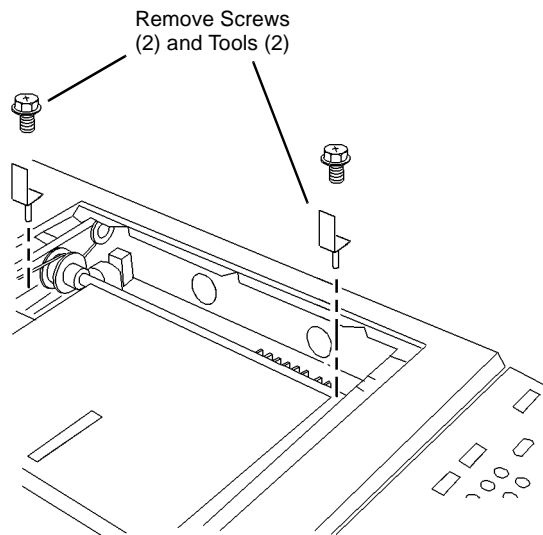
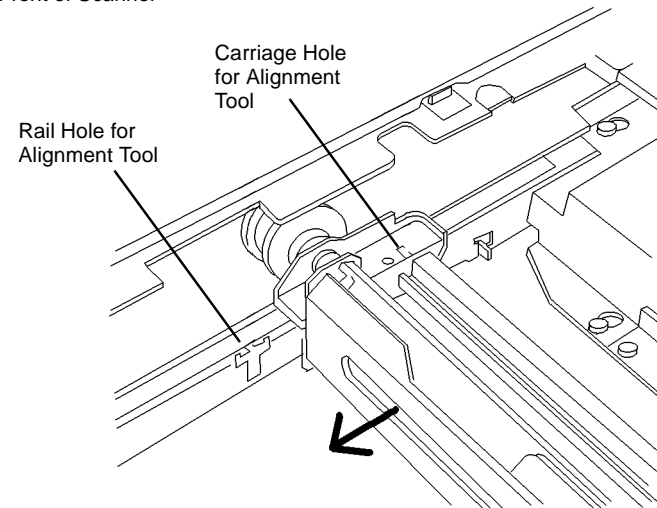


Figure 1 Removing Tools

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3. Align Half Rate Carriage with Rail Hole (Figure 2).
  - a. Manually move Full Rate Carriage away from home position approximately 105 mm while observing Rail Tool Hole to align with Carriage Tool Hole in Half Rate Carriage.

Front of Scanner

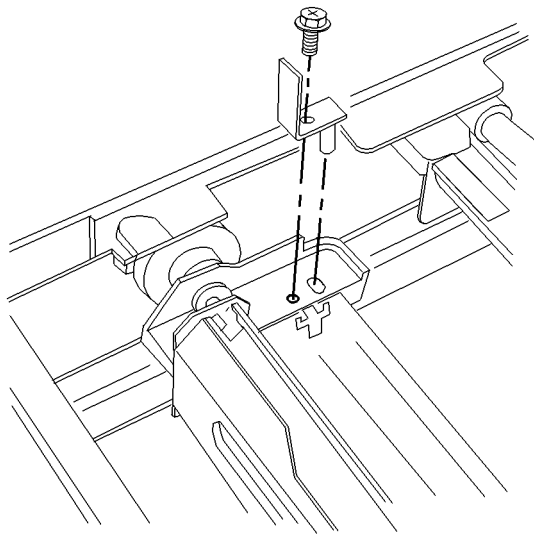


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Figure 2 Aligning Half Rate Carriage with Rail Hole



4. Install Alignment Tool in front end of Half Rate Carriage (Figure 3).

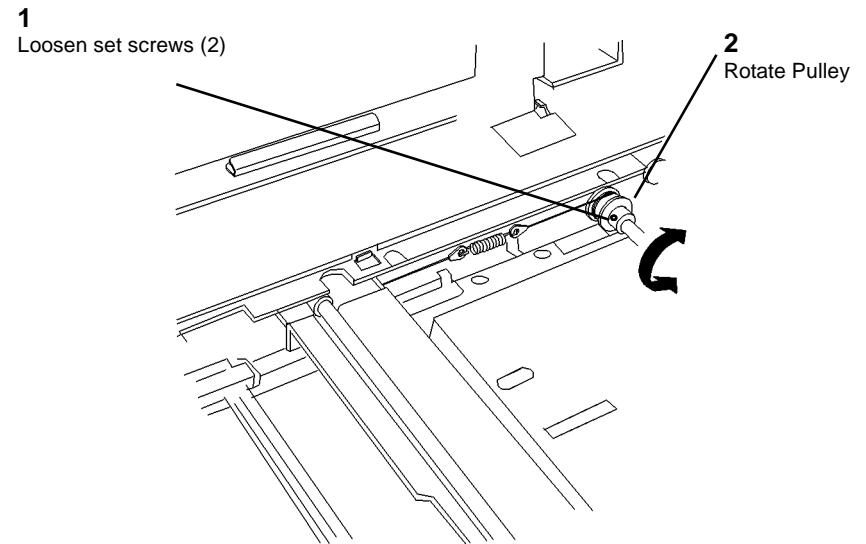


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**Figure 3 Installing Alignment Tool in Front End of Half Rate Carriage**

5. Check that tool will install in other end of carriage.  
If the tool installs, go to step 6.

If tool does not install, loosen the set screws (2) and turn the pulley to align the tool holes with each other (Figure 4).



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**Figure 4 Loosening the Set Screws**



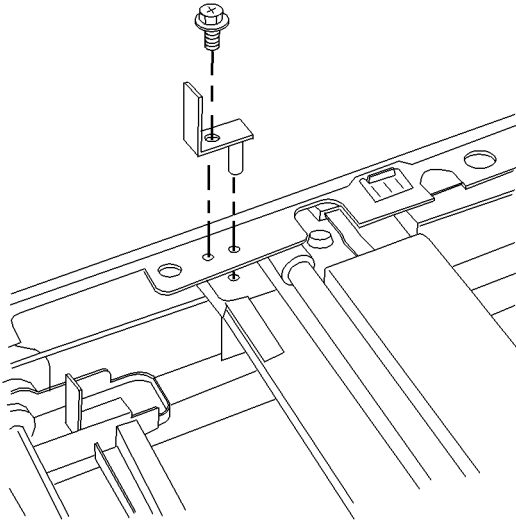
6. Check that Alignment Tool can be installed through frame into alignment hole in Full Rate Carriage (Figure 5).

If Alignment Tool fits through frame hole into Full Rate Carriage Alignment Hole, perform the same check at the rear of the carriage.

If the rear of the carriage is aligned, the check is good.

If the rear of the carriage is not aligned, go to the adjustment.

If Alignment Tool does not fit through frame hole into Full Rate Carriage Alignment Hole, go to the adjustment.



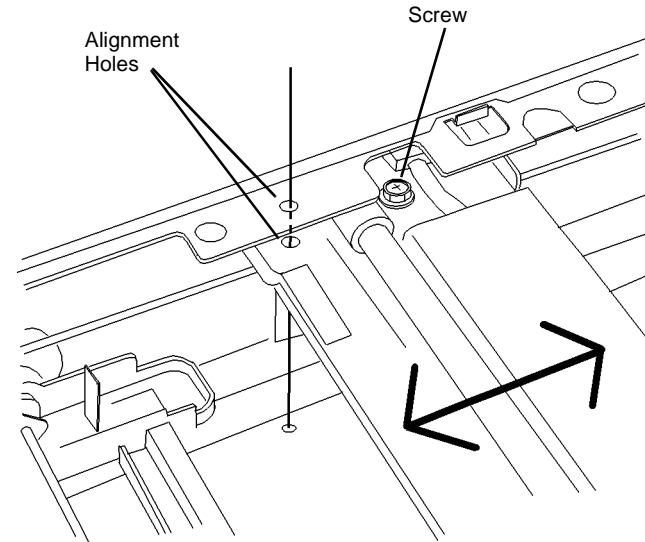
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Figure 5 Checking Alignment Tool in Full Rate Carriage

## Adjustment

**NOTE:** Front of Full Rate Carriage shown. Adjustment steps are same for rear of Full Rate Carriage.

1. Adjust Full Rate Carriage (Figure 6).
  - a. Loosen Screw.
  - b. Move carriage so that Alignment Tool will drop into Alignment Holes.
  - c. Tighten Screw.



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Figure 6 Adjust Full Rate Carriage







## ADJ 9.1 Max Setup

### Purpose

To conduct a check of the machine and set it up so that excellent copy quality can be consistently obtained by stabilizing the development potential and copy density.

### Adjustment

Max Setup consists of 5 separate adjustments that should be performed in the following sequence:

1. [ADJ 9.7](#), IIT Calibration (dC945)

**NOTE:** Perform [ADJ 9.2](#) **only** when replacing the ATC Sensor or Developer Housing.

2. [ADJ 9.2](#), ATC Sensor Setup (dC921)
3. [ADJ 9.3](#), TRC Control/Toner Density Setup (dC922)
4. [ADJ 9.4](#), ADC Output (dC934)

**NOTE:** Perform [ADJ 9.5](#) **only** when the customer requests.

5. [ADJ 9.5](#), Manual TRC Adjust (dC924)



## ADJ 9.2 ATC Sensor Setup (dC921)

### Purpose

#### CAUTION

*This procedure should only be performed when the ATC Sensor or Developer Housing is being replaced, **OR** when there is reason to believe that the calibration values in NVM are incorrect.*

To set the calibration values [ATC Correction Coefficient], [ATC Correction Offset] in NVM to calibrate the new ATC Sensor.

### Check

1. If the ATC Sensor or Developer Housing was replaced, perform the first procedure listed in **Adjustment**
2. If there is reason to believe that the calibration values in NVM are incorrect, perform the following:
  - a. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)).
  - b. Under the **Adjustments** tab, select **Max Setup**.
  - c. Select the **TC/ATC Sensor** Setup tab.
  - d. Check the values in the bottom 4 rows of numbers in the window. The default values for the NVM locations represented by these rows are:
    - Initial Value of Sensitivity Gradient -753
    - Initial Output Value at Standard TC - 160
    - ATC Correction Coefficient - 1000
    - ATC Correction Offset - 10000
  - e. If any row or any column on the screen displays all default values, perform second procedure listed in **Adjustment**

### Adjustment

#### Procedure for new ATC Sensors

Perform these steps if you have just replaced an ATC Sensor or Developer Housing:

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)).
2. Under the **Adjustments** tab, select **Max Setup**.
3. Select the **TC/ATC Sensor** Setup tab.
4. Locate the ATC Sensor calibration code on the ATC Sensor. This is the 3-digit number in the 3rd line of text on the label (it will always start with a zero).
5. Enter the last 2 digits of this code into the appropriate column of the first row.
6. Select the **Read** button.
7. Proceed to [ADJ 9.3](#), TRC Control/Toner Density Setup (dC922)

#### Procedure to restore ATC Calibration values

Perform 1, 2, or 3 as appropriate if you need to restore ATC Sensor NVM calibration values:

1. If a known good Machine Settings floppy exists, use [dC351](#) to restore Machine Settings.
2. If a known good floppy is not available, but the original (as delivered) ATC Sensors are still in the machine, check the NVM Setting Value List in the Tray 1 pocket. Go to [dC131](#) and reenter the values for

- 752-069 through 752-072 (YMCK ATC Correction Coefficient)
  - 752-073 through 752-076 (YMCK ATC Correction Offset)
  - 752-709 through 752-712 (YMCK Initial Value of Sensitivity Gradient)
  - 752-703 through 752-716 (YMCK Initial Output Value at Standard TC)
3. If one or more ATC Sensors have been replaced, or if you are not sure of the replacement status, perform the following
    - a. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)).
    - b. Under the **Adjustments** tab, select **Max Setup**.
    - c. Select the **TC/ATC Sensor** Setup tab.

**NOTE:** If the ATC Sensor or Developer Housing was replaced per the procedure, the Calibration tags will have been installed as shown in [Figure 3 of REP 9.26](#). This will eliminate the need to remove the Developer Housings in the following step, to access the tag on the ATC Sensors

- d. Remove the Developer Housings ([REP 9.9](#)).
- e. Locate the ATC Sensor calibration code on the ATC Sensors. This is the 3-digit number in the 3rd line of text on the label (it will always start with a zero).
- f. Enter the last 2 digits of this code into the appropriate column of the first row.
- g. Select the **Read** button.



## ADJ 9.3 TRC Control/Toner Density Setup (dC922)

### Purpose

To check the output of ATC Sensor and to determine if TC Control performed normally.

Allows manual adjustment of TC if control is not functioning.

### Check

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)).
2. Under the **Adjustments** tab, select **Max Setup**.
3. Select the **TRC Control** tab.
4. Load letter size paper (8.5 x 11 or A4) into Tray 1.
5. Select the **Start** button. The machine will read the output of the ATC Sensor and display the results in the row labeled **ATC Mean Detected Value**. If the routine is unable to read the ATC Sensor correctly, this fact will be displayed in the row labeled **ATC Sensor Fail Determination**.
6. If the row labeled **ATC Sensor Fail Determination** displays OK for all colors, continue with the check. If any color is not OK, go to the appropriate RAP (9-380 for yellow, 9-381 for magenta, 9-382 for cyan, or 9-383 for black) to fix the problem before continuing with this procedure.
7. Compare the data in the row labeled **ATC Mean Detected Value** with the data in the row labeled **ATC Control Environment Correction Standard**. If the measured value for any color is more than 50 bits higher or lower than the target (correction standard) value, perform the Adjustment.
8. If the Check is OK, proceed to [ADJ 9.4](#), ADC Output Check.

### Adjustment

The **Tone Judge** window in the upper right portion of the screen shows the result of the ATC Sensor read. Perform the following steps to adjust the toner density.

1. Select **Run**. The control logic will automatically tone up or tone down each color per the display.
2. When the tone up/down cycle is complete, select **Start** to re-run the check.

**NOTE:** It is not necessary to repeat the tone up/down procedure until the match is exact.

3. Repeat steps 2 and 3 until the **ATC Mean Detected Value** is within 50 bits of the **ATC Control Environment Correction Standard** for all colors.
4. Proceed to [ADJ 9.4](#), ADC Output Check.

## ADJ 9.4 ADC Output Check (dC934)

### Purpose

- To check the following functions
- ADC (2 gradation) patch for Potential Control on the IBT
- ADC Sensor output
- Laser Diode light output

### Check

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)).
2. Under the **Adjustments** tab, select **Max Setup**.
3. Select the **ADC AGC Setup** tab.
4. Select the **Start** button. The machine will read the output of the ADC Sensor, The Laser Diode, and Developer bias, and display the results on the screen.
5. Check for unsatisfactory results:
  - If a fault code is declared, go to the RAP for that code. Resolve the problem, then repeat the Check.
  - If **ADC Shutter Fail** is NG go to the 9-654 RAP and troubleshoot the shutter solenoid circuits
  - If **ADC Sensor Fail** is NG go to the 9-654 RAP and troubleshoot the sensor circuits.



## ADJ 9.5 TRC Adjust (dC924)

### Purpose

#### CAUTION

*Perform this adjustment only to correct a strong customer complaint. Altering the setpoints will affect both Print and Copy modes. Also, there is quite a bit of overlap among the low, medium, and high densities. For these reasons, it is recommended that this procedure not be used unless absolutely necessary.*

To adjust image quality (TRC) to meet the user's preference, by increasing or decreasing the center value of gradation correction for each (YMCK) color, in low density, medium density, and high density ranges.

### Adjustment

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)).
2. Under the **Adjustments** tab, select **Max Setup**.
3. Select the **TRC Adjust** tab.
4. Type in the desired value; the default is 128, and the range is from 0 to 255. the results on the screen.
5. Select **Save**.
6. Perform a Temporary Call Closeout, then switch the machine power off then on
7. Make 2 prints or copies; the changes are not implemented until the 2nd print is made.
8. Repeat steps 4 through 7 until the customer is satisfied with the image quality.



## ADJ 9.6 Color Registration (dC685)

### Purpose

To establish correct horizontal and vertical positioning of the four primary color images

The procedure consists of the following steps, which must be performed in the listed sequence:

1. **Belt Edge Learn** - to align the Transfer Belt positioning system.
2. **Fine Skew Setup** - automatically performs horizontal and vertical alignment, and reports any skew in the various images caused by ROS misalignment. This skew must be corrected through manual adjustment
3. **IN/OUT Setup** - automatically performs magnification adjustment so that scan lines are the same length for all four colors. Also checks for skew.
4. **Center Setup** - Aligns the midpoints of scan lines for all colors, for magnification balance.

There is also a **Rough Skew Setup** for cases where the skew is outside the measurement parameters of the Fine Skew test.

This procedure is required if any of the following occur:

- ROS removal
- NVM Initialization
- An Image Quality RAP directed performance of this procedure.

### Check

**NOTE:** Excessive toner on the Transfer Belt will prevent completion of the adjustment. Make sure that there are no Image Quality problems, and that the IBT Cleaner is functioning correctly. Resolve any Image Quality problems before attempting this adjustment.

1. Open the Front door and cheat the interlock.
2. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)).
3. Under the **Adjustments** tab, select **RegiCon**.

### Set the Belt Edge Alignment

1. Select the **Belt Edge Learn Mode** tab.
2. Select the **Edge Learn Mode** button.
3. Select **Start**.
4. If Edge Learn fails, check:
  - Installation of IBT Belt Assembly ([REP 9.15](#)).
  - Installation of IBT Edge Sensor ([PL 5.4](#)).
  - Installation of IBT Home Sensor ([PL 5.4](#)).Perform Edge Learn again. If it fails, replace the IBT Edge Sensor ([PL 5.4](#)). If it fails again, replace IBT Home Sensor ([PL 5.4](#)).
5. When Edge Learn is successful, select the **RegiCon Setup Cycle (dC685)** tab.

### Check the Fine Skew Setup

1. Select the **Skew (Fine) Setup** button.
2. Select **Start**.

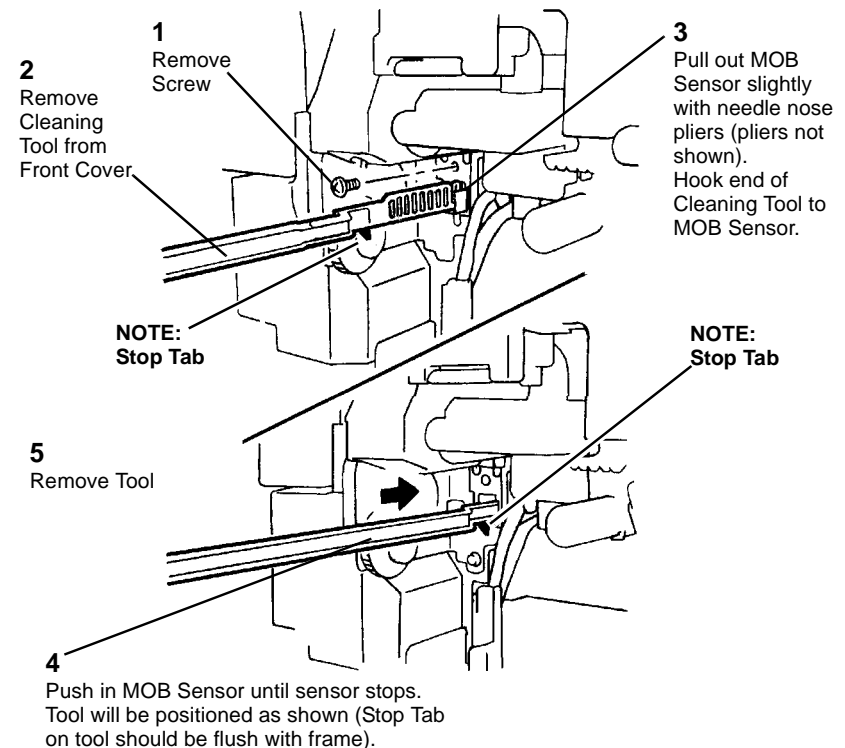
3. Check the **Judgement** window. If NG is displayed, perform the Rough Skew Setup then repeat the Fine Skew check.
4. If **OK** is displayed in the **Judgement** window, check the **Skew Correction** row in the **Skew Values** window. If a value greater than 1 is displayed for any color, perform the Adjustment, then perform the IN/OUT Setup check.

### Check the IN/OUT Setup

1. Select the **IN/OUT Setup** button.
2. Select **Start**.
3. Check the **Judgement** window. If NG is displayed, perform the Adjustment, then perform the Center Registration check.
4. If IN/OUT Setup is **OK**, check the Center Registration.

### Check the Center Registration

1. Remove the Waste Toner Cartridge.
2. Move MOB sensor to the center position ([Figure 1](#)).



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Figure 1 Moving MOB Sensor to Center Position

3. Reinstall the Waste Toner Cartridge.



4. Select the **Center Setup** button.
5. Select **Start**.

#### CAUTION

*Make sure not to hook the wiring harness when moving the MOB Sensor.*

6. If Center Setup is OK, dC685 is complete. Use the Cleaning Tool to pull the MOB Sensor back to the original position, and fasten the screw.  
If Center Setup fails, ensure MOB Sensor is positioned to the rear. Go back to step 1 of the Center check.

#### Check the Rough Skew Setup

1. Select the **Skew (Rough) Setup** button.
2. Select **Start**.
3. Check the **Judgement** window. If NG is displayed, set the values in NVM locations 760-019 through 760-022 to either the default value (236) or the value recorded on the NVM list in Tray 1 if available. Repeat steps 1 and 2.  
If NG is still displayed, there is a problem with the ROS, the IBT Assembly, or the MOB Sensor.
4. If **OK** is displayed in the **Judgement** window, check the **Skew Correction** row in the **Skew Values** window. If a value greater than 1 is displayed for any color, perform the Adjustment, then repeat the Fine Skew Setup check.

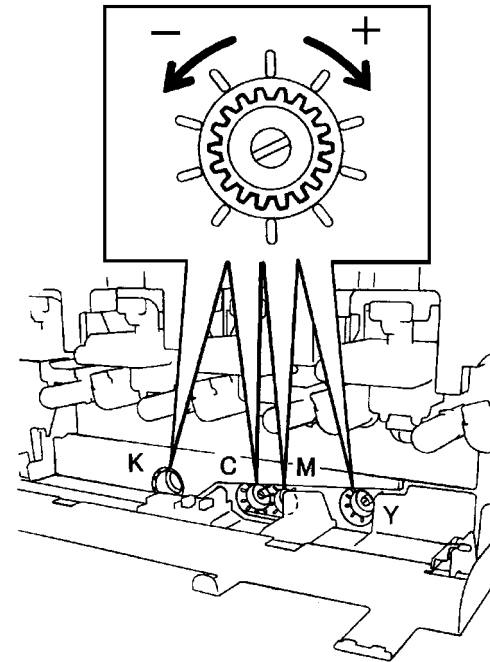
#### Adjustment

1. In the **Skew Values** window, record the value for each color in the **Skew Correction** row. This is the required number of rotations of the adjustment screw.

#### WARNING

**To avoid exposure to laser light, reinstall the Waste Cartridge before attempting to recheck the adjustment.**

2. Remove the Waste Toner Cartridge (REP 9.4).
3. For each color, rotate the appropriate (CYMK) adjustment screw (Figure 2) in + (CW), or - (CCW) direction the number of clicks recorded in step 1.



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Figure 2 Adjusting Skew

4. Reinstall Waste Toner Cartridge (REP 9.4).

Check IOT Lead Edge/Side Edge (ADJ 9.9) after performing this adjustment.



## ADJ 9.7 IIT Calibration (dC945)

### Purpose

- To calculate and set up the White Reference Correction Coefficient.
- To correct the IIT sensitivity dispersion (CCD Calibration).
- Adjust the light axis correction data when replacing the Lens unit.

### Adjustment

1. Clean the Optics:
  - a. Switch off the power and allow the Exposure Lamp to cool off.
  - b. Using the optical Cleaning Cloth, clean the front and rear of the Document Glass, Document Cover, White Reference Strip, Reflector, and Mirror.
  - c. Clean the Exposure Lamp with a clean cloth and Film Remover.
  - d. Clean the Lens with Lens and Mirror Cleaner and lint free cloth.
2. **DC 2240/1632 only:** Check the Tag Matrix for the installed software version (P3 and below; or P4 and above).
3. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)).
4. Under the **Adjustments** tab, select **Max Setup**.
5. Select the **IIT Calibration** tab.
6. **DC 2240/1632 only:** In the **b\* Calibration Coefficients** window, select the correct software version for the machine.
7. Select the **White Reference Adjustment** button.
8. Press **Start**.
9. Follow the instructions on the PWS screen, then select OK.
10. Select the **Read** button.
11. The setup values are displayed on the **White Reference Setup Value** screen.
12. When White Reference setup is done, select the CCD Calibration button.
13. Press **Start**.
14. Follow the instructions on the screen, then select OK.
15. The obtained data is displayed in the **b\* Calibration Coefficients** window.
16. Select **Close** to return to the Color Image Quality Adjustment screen.

**NOTE:** Do not select Optical Axis Calibration unless replacing the Lens Kit ([PL 18.4](#)). Refer to [REP 6.4](#).

## ADJ 9.8 Hard Disk Diagnostics/Setup (dC355)

### Purpose

To perform diagnostics and setup (initialization) of each partition in the hard disk.

**NOTE:** Perform this procedure only after the customer's approval is obtained. Check what kind of data are stored in each partition according to the list below since some partitions store fonts etc. that the customer has installed.

### Adjustment

1. Connect the PWS to the machine and enter Diagnostic Mode.
2. Under the **Diagnostics** tab, select **System Test**.
3. Select the **Hard Disk Diag. Program** tab.
4. Select the appropriate **Partition** (see [Table 1](#) for DC 2240/1632, WC M24 or [Table 2](#) for DC 3535).

**Table 1 Partition Content- DC 2240/1632, WC M24**

Partition	Size (GB)	Stored information and usages
MP All	All	All the items in Partitions 1~6
MP Partition 1 (A)	2.0	Font, Form/Logo, SMB Folder Job Template
Partition 2 (B)	2.0	Printing range
Partition 3 (C)	1.2	Scan, Report, Mailbox, Security - Print
Partition 4 (D)	2.0	PLD, Others
Partition 5 (E)	2.0	Copying range
Partition 6 (F)	0.5	Spool Cont Control Information, Log

**Table 2 Partition Content- DC 3535**

Partition	Size (GB)	Stored information and usages
MP All	All	All the items in Partitions 1~6
MP Partition 1 (A)	0.1	not used
Partition 2 (B)	0.1	not used
Partition 3 (C)	4.0	Scan, Mailbox,
Partition 4 (D)	0.1	not used
Partition 5 (E)	4.0	Copying range
Partition 6 (F)	0.5	Spool Cont Control Information, Log

5. Select the Diag Type (see [Table 3](#)) then press **Start**.

**Table 3 Diagnostic Routines**

Diag Type	Details
Setup	Initialize the file system. It is required when the management data of the file system corrupts and when read errors occur.
HDD Read Verification	Performs Read verify diagnostics of all sectors in designated partitions. Sector numbers where a read error is occurring will appear.
HDD Diagnostic	Perform the hard disk ROM check and controller diagnostics.



Table 3 Diagnostic Routines

Diag Type	Details
HDD Error Table Init	Initialize the Error Table.

## ADJ 9.9 IOT Registration Series (dC129)

### Purpose

The purpose is to adjust the position of the printed image on the page. This is done by changing the value in the appropriate NVM location in dC129. This controls where the ROS writes the image.

### Introduction

This series consists of 4 procedures:

- Lead Edge Registration (All Trays)
- Side Edge Registration (Trays 1-5)
- Duplex (Side 2) Registration
- Lead Edge Registration for Tray 5

All procedures must be checked.

### Lead Edge Registration (All Trays)

#### Purpose

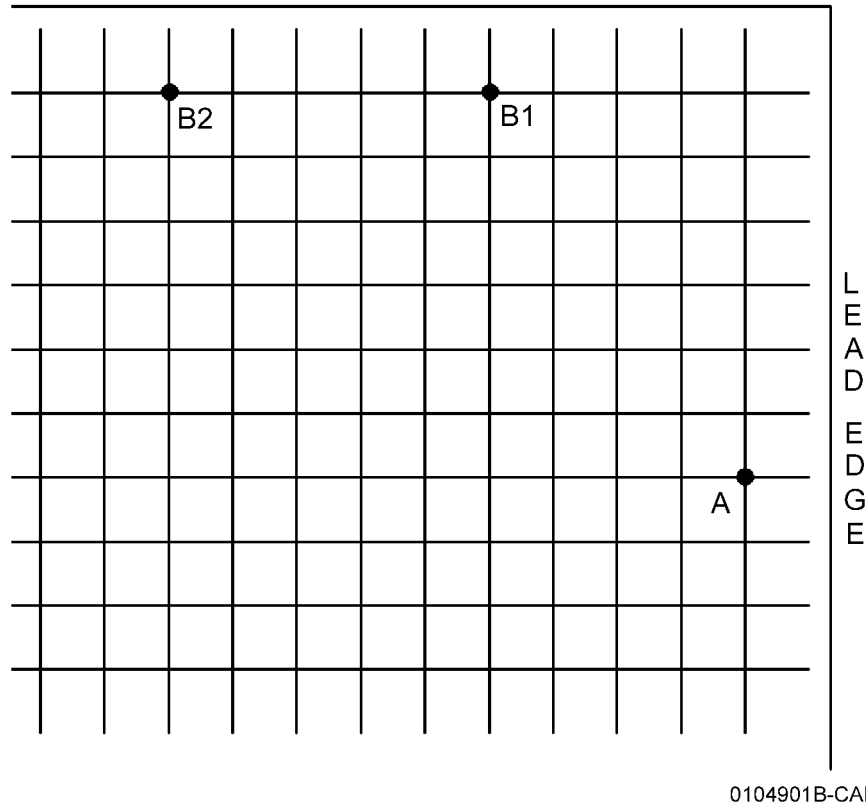
To correctly set the lead edge of the image in relation to the edge of the paper. There is one lead edge setting for Trays 1 - 5. The test pattern will print from Tray 1.

#### Check

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to [Entering Diagnostic Mode using the PWS](#)). Select dC129 from the **DC Quick** menu.
2. Load Tray 1 with the largest paper used by the customer. Use 11x17/A3 if available.
3. Select **ALL** in the **Lead Edge** column.
4. Press the **Start** button on the screen. As the prints are made, mark each to indicate the lead edge (flip the sheets from face down to face up without rotating).
5. Take the third print and measure from the lead edge to point 'A' on [Figure 1](#) (the intersection of the 7th line from the left edge and the first line from the lead edge).
6. If the measured value is not  $21.6\text{mm} \pm 0.5$ , perform the Adjustment.



## SIDE EDGE



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Figure 1 Test Pattern Measurement Points

### Adjustment

1. Use the Right and Left Arrow buttons to increase or decrease the amount of lead edge spacing. Use the right arrow to increase the spacing (moves the grid pattern to the left). Each click moves the image 0.25mm. The cumulative amount of shift is indicated in the **Lead Reg.** box.
2. After adjusting the registration, click **Set Adjust Value**.

**NOTE:** Changes made to the NVM for LE registration are not implemented unless the machine exits Diagnostic Mode.

3. Go to the **Service Exit** tab and select **Temporary Closeout**.
4. After the machine reboots and is ready to copy, reconnect the PWS.
5. Repeat the check/adjustment until the specifications are met.
6. Proceed to **Side Edge Registration for Paper Trays 1 - 5**.

## Side Edge Registration for Paper Trays 1 - 5

### Purpose

**NOTE:** Each Paper Tray has a separate setting for side edge registration.

To correctly position the side edge of the image in relation to the outboard edge of the paper.

### Check

1. Check that paper is loaded in all trays, and that the paper guides are adjusted correctly. For Tray 1 and Tray 2, use 11 x 17 in. or A3 paper if available.

**NOTE: Tray 5 paper requirements:** For DC2240/1632 and DC35335 W/out Tag 6 (v 1.1) or later software, use only 8.5x11" LEF paper, set the Reg guide to the A4 position and register the paper to the front.

For WC M24 and DC 3535 with Tag 6 or later ESS software, you may use 11x17"/A3 paper.

2. Select **Tray 1** in the **Side Edge** column.
3. Press the **Start** button on the screen. As the prints are made, mark each to indicate the lead edge (flip to sheets from face down to face up without rotating; with the lead edge to the right, the side edge to be checked will be at the top).

**NOTE:** Print All prints from each tray in numerical sequence from Tray 1 through Tray 5. Make sure to keep the sheets in the correct sequence.

4. Take the third pattern that was printed and measure the following:  
For paper larger than letter size: from the intersection between the 1st line from the left top edge and the 10th line from the lead edge of the paper (point 'B2' on Figure 1).  
For paper letter size (A4/8.5 x 11) or smaller: from the intersection between the 1st line from the left top edge and the 5th line from the lead edge of the paper (point 'B1' on Figure 1).
5. If the measured value is not 21.6mm±0.5, perform the Adjustment.
6. If the measurement is within specifications, repeat the Check for Trays 2 - 5. Perform the Adjustment for any tray that is not within specifications.
7. If all trays are within specifications, proceed to **Duplex (Side 2) Registration**.

### Adjustment

1. Select the paper tray to be adjusted from the **Side Edge** column.
2. Use the Up and Down Arrow buttons to move the image toward or away from the outboard (top edge when face up with lead edge to right) edge of the paper. Each click on the button moves the image 0.21 mm. The cumulative amount of shift is indicated in the **Side Reg.** box.
3. After adjusting the registration, click **Set Adjust Value**.
4. Select **Start**.
5. Repeat the check/adjustment until the specifications are met.
6. Repeat steps 1 through 5 for each tray that requires adjustment.
7. Proceed to **Duplex (Side 2) Registration**.



## Duplex (Side 2) Registration

### Purpose

The purpose of this procedure is to correctly position the lead edge and side edge of the image in relation to the edge of the paper.

### Check

1. Ensure that Paper Tray 1 contains paper and that the paper guides are adjusted correctly. If available, load the tray with 11 x 17 in. or A3 paper.
2. Select **Duplex (Side 2)** in the **Lead Edge** column.

**NOTE:** Side 2 will be face down in the output tray.

3. Press the **Start** button on the screen. As the prints are made, mark each to indicate the lead edge.
4. **Check Lead Edge:**  
Check the Side 2 Lead Edge Registration (Figure 1). If the measured value is not  $21.6\text{mm} \pm 0.5$ , perform the Adjustment.
5. **Check Side Edge:**  
Check the Side Edge Registration (Figure 1). If the measured value is not  $21.6\text{mm} \pm 0.5$ , perform the Adjustment.

### Adjustment

#### Duplex Lead Edge:

1. Use the Right and Left Arrow buttons to move the image toward or away from the lead edge of the paper. Each click on the button moves the image 0.25mm. The cumulative amount of shift is indicated in the **Lead Reg.** box.
2. After adjusting the registration, click **Set Adjust Value**.

**NOTE:** Changes made to the NVM for LE registration are not implemented unless the machine exits Diagnostic Mode.

3. Go to the **Service Exit** tab and select **Temporary Closeout**.
4. After the machine reboots and is ready to copy, reconnect the PWS.
5. Select **Start**.
6. Repeat the check/adjustment until the specifications are met.

#### Duplex Side Edge:

1. Select **Duplex (Side 2)** in the **Side Edge** column.
2. Use the Up and Down Arrow buttons to move the image toward or away from the out-board edge (top edge when face up with lead edge to right) of the paper. Each click on the button moves the image 0.21mm. The cumulative amount of shift is indicated in the **Side Reg.** box.
3. After adjusting the registration, click **Set Adjust Value**.
4. Select **Start**.
5. Repeat the check/adjustment until the specifications are met.

## Lead Edge Registration for Tray 5 (MSI)

### Purpose

To correctly set the lead edge of the image in relation to the edge of the paper.

### Check

1. For DC2240/1632 and DC35335 W/out Tag 6 (v 1.1) or later software, use only 8.5x11" LEF paper, set the Reg guide to the A4 position and register the paper to the front. For WC M24 and DC 3535 with Tag 6 or later ESS software, you may use 11x17"/A3 paper.
2. Select **Tray 5 (MSI)** in the **Lead Edge** column.
3. Press the **Start** button on the screen. As the prints are made, mark each to indicate the lead edge.
4. Take the third pattern that was printed and measure from the lead edge to point 'A' on Figure 1 (the intersection of the 7th line from the left edge and the first line from the lead edge).
5. If the measured value is not  $21.6\text{mm} \pm 0.5$ , perform the Adjustment.

### Adjustment

1. Use the Right and Left Arrow buttons to move the image toward or away from the lead edge of the paper. Each click on the button moves the image 0.25mm. The cumulative amount of shift is indicated in the **Lead Reg.** box.
2. After adjusting the registration, click **Set Adjust Value**.

**NOTE:** Changes made to the NVM for LE registration are not implemented unless the machine exits Diagnostic Mode.

3. Go to the **Service Exit** tab and select **Temporary Closeout**.
4. After the machine reboots and is ready to copy, reconnect the PWS.
5. Select **Start**.
6. Repeat the check/adjustment until the specifications are met.



## ADJ 9.10 IIT Lead Edge Registration

### Purpose

To adjust the IIT scan timing in the Slow Scan direction and to correct the copy position.

### Check

#### CAUTION

*Perform this adjustment only if absolutely required; the IIT Lead Edge Registration affects the precision of the document size detection.*

**NOTE:** Before performing this procedure, make sure that the IOT Lead Edge Registration is correct. Refer to [ADJ 9.9, IOT Side/Lead Edge Registration](#).

1. Place the Geometric Test Pattern on the Platen Glass correctly and make a copy with the following settings:
  - Copy Mode: Black
  - Paper Size: 11 x 17 in or A3
  - Magnification: 100%
  - No. of Copies: 2
2. On the 2nd copy, check that the distance from the lead edge to the top of Step 3 on the LE2 scale is 10.0mm +/- 2.1mm ([Figure 1](#)).

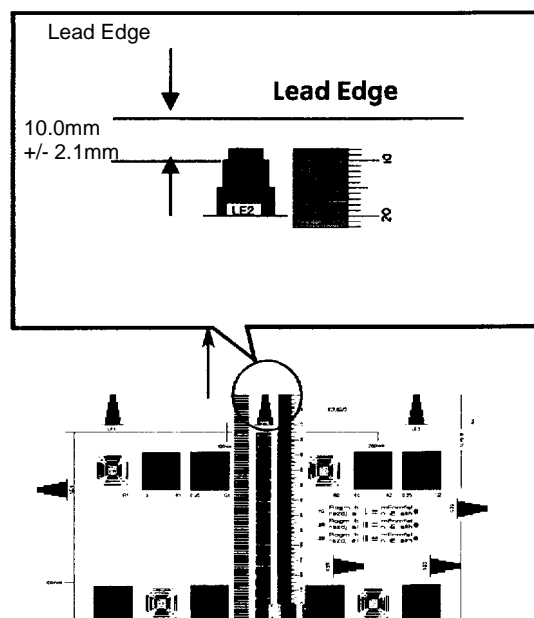


Figure 1 Checking IIT Side Registration

3. If the value is not within the specified range, Perform the Adjustment:

### Adjustment

1. Enter **dC131** [715-301].
2. Change the value:
  - Each bit represents 0.036 mm
  - Increase the value to move the image toward the lead edge.
  - Decrease the value to move the image away from the lead edge.



## ADJ 9.11 IIT Side Edge Registration

### Purpose

To adjust the IIT scan timing in the Fast Scan direction and to correct the copy position.

### Check

#### CAUTION

*Perform this adjustment only if absolutely required; the IIT Lead Edge Registration affects the precision of the document size detection.*

**NOTE:** Before performing this procedure, make sure that the IOT Side Edge Registration is correct. (Refer to [ADJ 9.9](#), IOT Side/Lead Edge Registration.)

1. Load 11 x 17 in. or A3 paper into Tray 2.
2. Place the Geometric Test Pattern on the Platen Glass correctly and make a copy with the following settings:
  - Copy Mode: Black
  - Paper Tray: Tray 2
  - Magnification: 100%
  - No. of Copies: 2
3. On the 2nd copy, check that the distance from the lead edge to the top of Step 3 on the SE2 and SE3 scales is 10.0mm +/- 1.6mm ([Figure 1](#)).

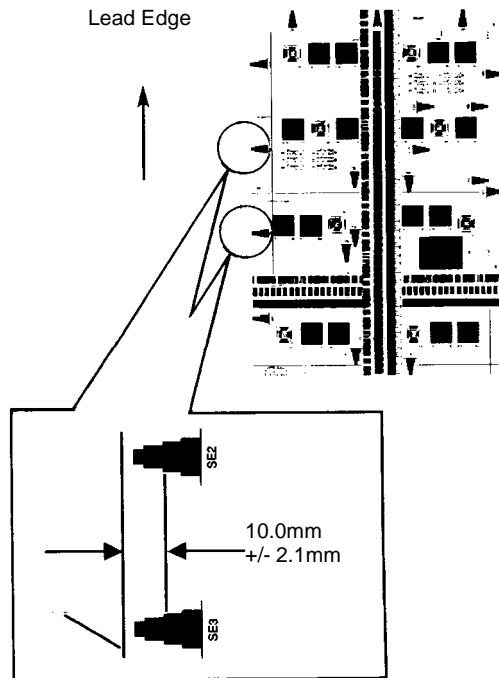


Figure 1 Checking IIT Side Edge Registration

4. If the value is not within the specified range, perform the Adjustment:

### Adjustment

1. Enter **dC131** [715-014].
2. Change the value:
  - Each bit represents 0.036 mm
  - Increase the value to move the image toward the edge.
  - Decrease the value to move the image away from the edge.



## ADJ 9.12 IIT Vertical/Horizontal Magnification

### Purpose

To correct the horizontal (fast scan)/vertical (slow scan) magnification ratio for a 100% copy.

### Check

#### CAUTION

*Perform this procedure only if absolutely required; changing IIT magnification may adversely affect resolution due to ASIC shift, and may cause a color shift.*

**NOTE:** Before performing this procedure, make sure that the IOT horizontal/vertical magnification ratios are correct.

1. Place the Geometric Test Pattern on the Platen Glass and make a copy using the following copy mode settings:
  - Copy Mode: Black
  - Document Type: Text/Photo
  - Paper: 11 x17 in. or A3
  - Magnification: 100%
  - No. of Copies: 2
2. Check the 2nd copy for the following:
3. **Check horizontal magnification (Figure 1):**  
Measure the 200mm line running from near LE1 to near LE3. If the dimension is not 200mm  $\pm$ 1mm, perform the Adjustment.

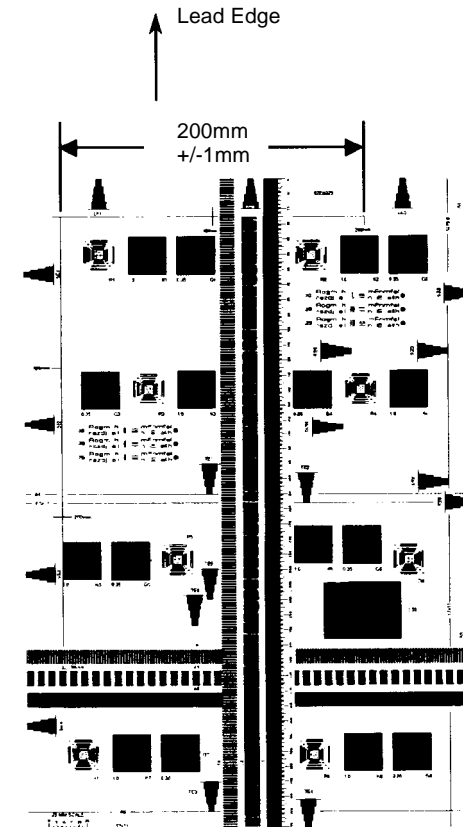


Figure 1 Checking Horizontal Magnification



4. **Check vertical magnification (Figure 2):**

Measure the 300mm line running from near LE1 to the trail edge of the 1.8lp ladder. If the dimension is not 300mm  $\pm$ 1.5mm, perform the Adjustment.

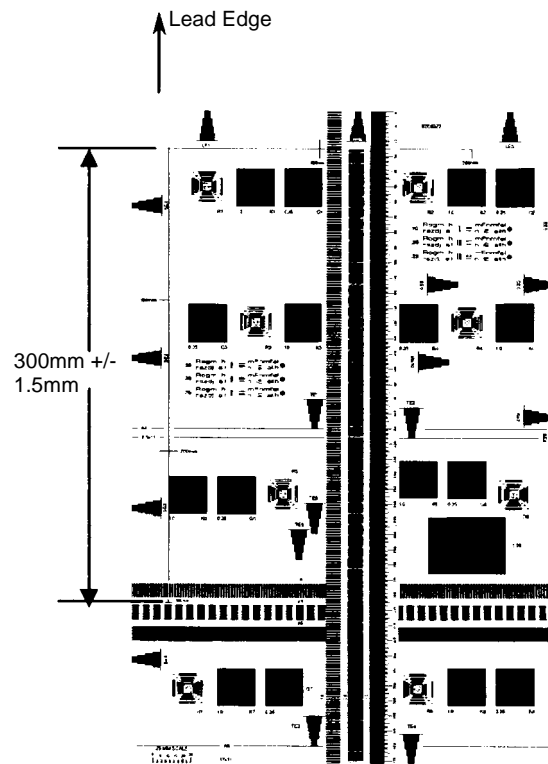


Figure 2 Checking Vertical Magnification

## Adjustment

1. **Horizontal Magnification Adjustment**

- Enter **dC131** [715-234]
- Each bit represents 0.1% change:  
Increase the value to lengthen the line  
Decrease the value to shorten the line

2. **Vertical Magnification Adjustment**

- Enter **dC131** [715-302]
- Each bit represents 0.1% change:  
Increase the value to lengthen the line  
Decrease the value to shorten the line



# ADJ 9.13 UI Display Calibration

## Purpose

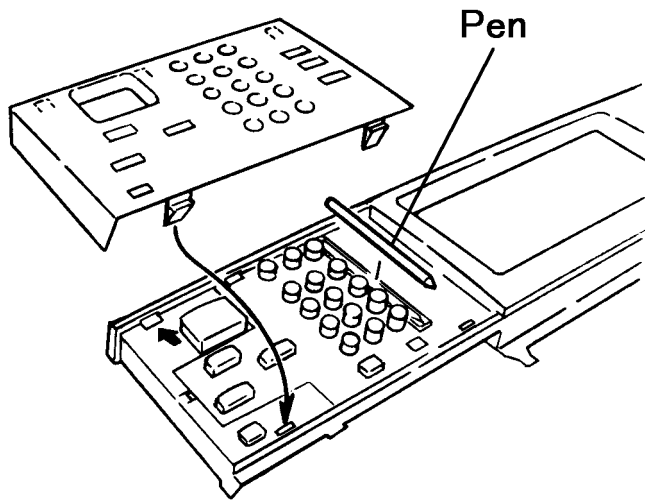
Adjust the display by making the buttons on the display correspond to the Touch Panel, so that users can correctly select the content indicated on the display.

Perform this adjustment when UI PWB or the Control Panel are replaced.

## Adjustment

**NOTE:** Use the stylus installed under the UI Control Panel for the adjustment. A tapered substitute can be replaced if the pen has been lost. In this case, care should be taken not to scratch the UI surface.

1. Switch off the power and remove the Control Panel Cover.
2. Remove the stylus (Figure 1).



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Figure 1 Accessing the Stylus

3. Switch on the power while simultaneously holding down the numerical keys 0, 1, and 3 on the Control Panel.  
Calibration Screen 1 will be displayed (Figure 2).

P1	P2	P3
P4	P5	P6
P7	P8	P9

Figure 2 Calibration Screen 1

4. In numeric sequence (P 1 to P 9), touch the intersections of the vertical and horizontal lines with the stylus. A message is displayed on the screen after each touch.  
After pressing down all the buttons, the machine will calculate the deviation and the correction value on the coordinates. This automatic calculation takes about 0.1 second.
5. Calibration Screen 2 will be displayed (Figure 3).
6. Apply the stylus to each of the four line intersections. A black square should appear at the point of contact, and a beep should sound.
  - If four beeps are heard, adjustment is OK.
  - If you don't hear four beeps, repeat the adjustment from step 3.

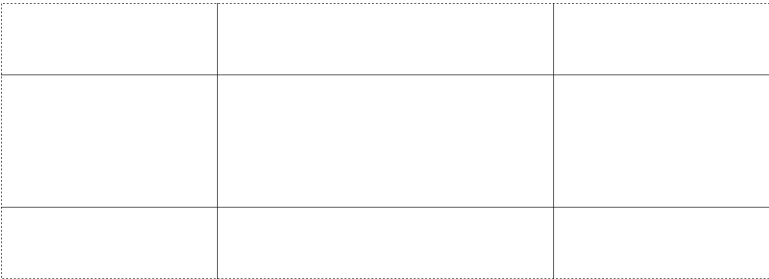


Figure 3 Adjustment Screen #2

7. Switch off the power. Restore the stylus to its original place and reinstall the Control Panel Cover.



## ADJ 9.14 Inboard/Outboard Density

### Purpose

#### CAUTION

*Perform this adjustment only to correct a customer complaint. Altering settings to correct for a specific condition may have unintended effects in other situations. Make as small a correction as possible to satisfy the complaint.*

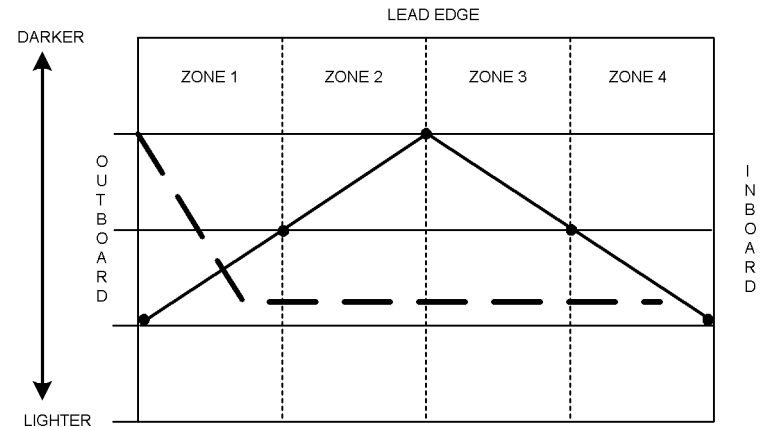
To perform the ROS In/Out light quantity correction with this adjustment, when IN/Out densities are different but the parameters other than ROS light quantity judges that all is normal.

### Adjustment

1. Load 8.5 x 11" or A4 (LEF) paper into Tray 1.
2. Enter **dC612**.
3. Select the Test Pattern as follows:
  - Pattern: 2 (IOT Halftone)
  - Cin (%): 30 or 40%; whichever shows the greatest density variation
  - Print Count: 1
  - Tray: Tray 1
  - Paper Type: Normal
  - Resolution: None
  - Paper: Simplex
  - Color Mode: You will print one or more test patterns of each color (C, Y, M, and K)
4. Select **B/W** and print out the test pattern. Analyze the density variation as follows:

**NOTE:** The terms **Inboard** and **Outboard** refer to the orientation of the sheet as fed into the facedown tray. When the sheet is flipped over and rotated so that the lead edge is at the top, **Outboard** will be to the left and **Inboard** will be to the right.

- Divide the print into four zones from outboard to inboard
- Determine the relative density between the four zones. Qualify the density on a 1-to-five scale with 5 being good density, and 1 being "very light" density. This is a relative comparison - you are comparing one area of the page to another, not to a standard density
- Refer to **Figure 1**. This example shows two different conditions. The solid line represents the condition where the density is light on both inboard and outboard edges, and darker in the center. The dotted line indicates a non-linear condition wherein the density is darker at the outboard edge, and is light for the rest of the sheet.



0104903B-CAR

**Figure 1** Density Pattern Example

- Compare the results of the printed test pattern with the 19 patterns in Figures 2–20. Pick the pattern that most closely represents the printed pattern.
  - For conditions where the density is darker on the inboard edge and becomes progressively lighter towards the outboard edge, choose between **Figure 2**, **Figure 3**, **Figure 4**, or **Figure 5**.
  - For conditions where the density is darker on the outboard edge and becomes progressively lighter towards the inboard edge, choose between **Figure 6**, **Figure 7**, **Figure 8**, or **Figure 9**.
  - For conditions where the density is darker in the center and becomes progressively darker towards both edges, choose between **Figure 14**, **Figure 15**, **Figure 16**, or **Figure 17**.
  - For conditions where the density is light in the center and becomes progressively darker towards both edges, choose between **Figure 18**, **Figure 19**, or **Figure 20**.
  - For non-linear density variations choose between **Figure 10**, **Figure 11**, **Figure 12**, or **Figure 13**.

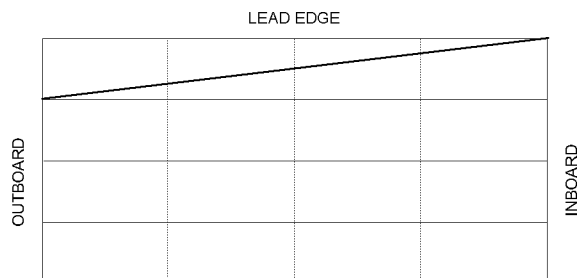
#### CAUTION

*Use only the values listed in the tables. Do not try to interpolate values!*

**NOTE:** Use this routine with caution. The routine works by lowering the density of the area determined to be darker; it cannot darken light areas. It is possible to get the density even, but objectionably light.

5. Change the values in the appropriate NVM locations to the values listed for that pattern.
6. Print the test pattern again and confirm the change. Repeat as necessary until the density is even from inboard to outboard.
7. Repeat Steps 3–6 for Cyan, Magenta, then Yellow.
8. Verify the solution using the images that caused the customer complaint.





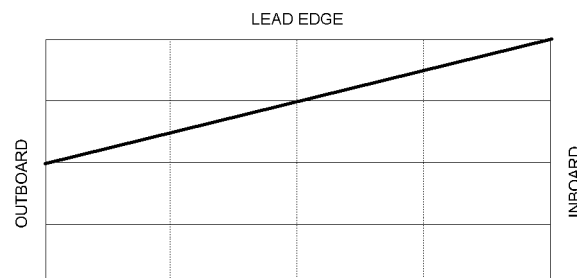
**DESCRIPTION :**

DENSITY IS "SLIGHTLY LIGHT" AT OUTBOARD EDGE;BECOMES DARKER TOWARDS INBOARD EDGE. TO LIGHTEN THE INBOARD SIDE,SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	973	753-805	1
MAGENTA	753-802	973	753-806	1
CYAN	753-803	1024	753-807	1
BLACK	753-804	1024	753-808	1

0104904B-CAR

**Figure 2 Pattern #1**

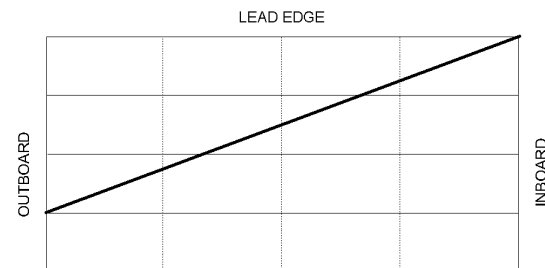


**DESCRIPTION :** DENSITY IS "LIGHT" AT OUTBOARD EDGE;BECOMES DARKER TOWARDS INBOARD EDGE. TO LIGHTEN THE INBOARD SIDE,SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	922	753-805	2
MAGENTA	753-802	922	753-806	2
CYAN	753-803	1024	753-807	2
BLACK	753-804	1024	753-808	2

0104905B-CAR

**Figure 3 Pattern #2**

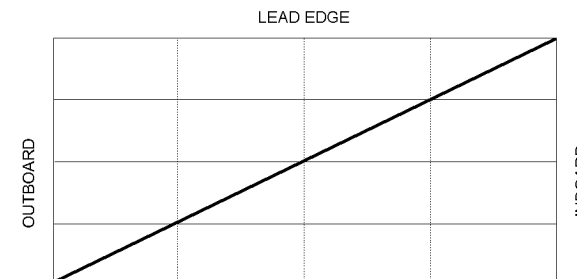


**DESCRIPTION :** DENSITY IS "LIGHTER" AT OUTBOARD EDGE;BECOMES DARKER TOWARDS INBOARD EDGE. TO LIGHTEN THE INBOARD SIDE,SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	922	753-805	2
MAGENTA	753-802	922	753-806	2
CYAN	753-803	1024	753-807	2
BLACK	753-804	1024	753-808	2

0104906A-CAR

**Figure 4 Pattern #3**



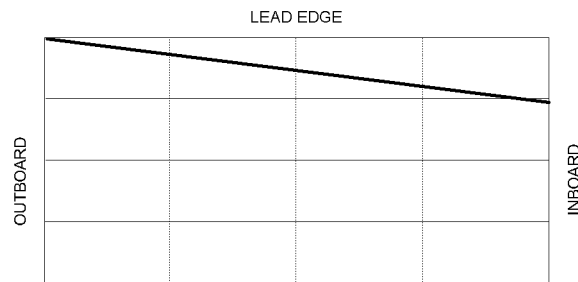
**DESCRIPTION :** DENSITY IS MUCH LIGHTER AT OUTBOARD EDGE;THAN AT INBOARD EDGE. TO LIGHTEN THE INBOARD SIDE,SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	819	753-805	4
MAGENTA	753-802	819	753-806	4
CYAN	753-803	1024	753-807	4
BLACK	753-804	1024	753-808	4

0104907A-CAR

**Figure 5 Pattern #4**



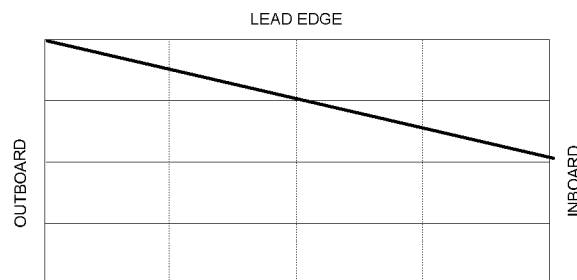


**DESCRIPTION:** DENSITY IS OK AT OUTBOARD EDGE; "SLIGHTLY LIGHT" AT INBOARD EDGE. TO LIGHTEN THE OUTBOARD SIDE, SET THE NVM AS FOLLOWS::

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	5
MAGENTA	753-802	1024	753-806	5
CYAN	753-803	973	753-807	5
BLACK	753-804	973	753-808	5

0104908A-CAR

Figure 6 Pattern #5

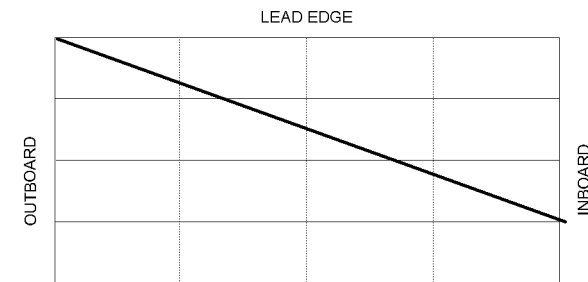


**DESCRIPTION:** DENSITY IS OK AT OUTBOARD EDGE; "LIGHT" AT INBOARD EDGE. TO LIGHTEN THE OUTBOARD SIDE, SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	6
MAGENTA	753-802	1024	753-806	6
CYAN	753-803	922	753-807	6
BLACK	753-804	922	753-808	6

0104939A-CAR

Figure 7 Pattern #6

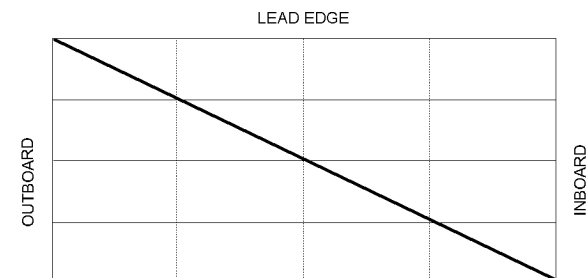


**DESCRIPTION:** DENSITY IS MUCH LIGHTER AT INBOARD EDGE THAN AT OUTBOARD EDGE. TO LIGHTEN THE OUTBOARD SIDE, SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	7
MAGENTA	753-802	1024	753-806	7
CYAN	753-803	870	753-807	7
BLACK	753-804	870	753-808	7

0104940A-CAR

Figure 8 Pattern #7



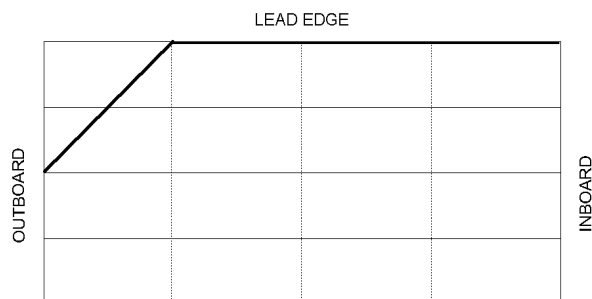
**DESCRIPTION:** DENSITY IS VERY MUCH LIGHTER AT INBOARD EDGE THAN AT OUTBOARD EDGE. TO LIGHTEN THE OUTBOARD SIDE, SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	8
MAGENTA	753-802	1024	753-806	8
CYAN	753-803	819	753-807	8
BLACK	753-804	819	753-808	8

0104941A-CAR

Figure 9 Pattern #8



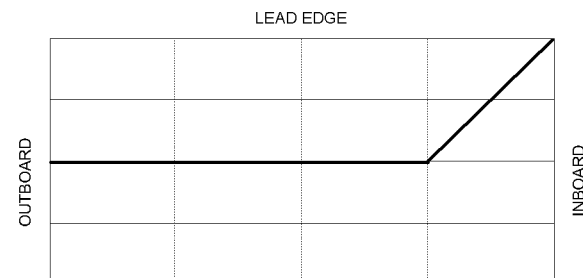


**DESCRIPTION:**  
DENSITY IS "LIGHT" AT OUTBOARD EDGE; DARKER FROM ZONE 2 TO INBOARD EDGE. SET THE NVM AS FOLLOWS TO CORRECT:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	922	753-805	9
MAGENTA	753-802	922	753-806	9
CYAN	753-803	1024	753-807	9
BLACK	753-804	1024	753-808	9

0104942A-CAR

Figure 10 Pattern #9

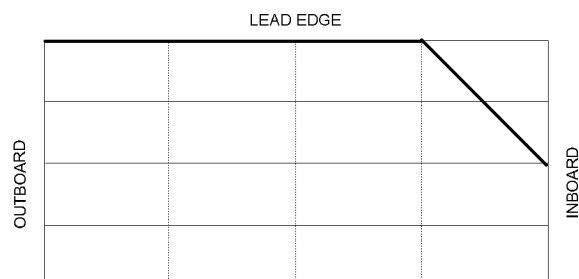


**DESCRIPTION:**  
DENSITY IS LIGHT AT OUTBOARD EDGE THROUGH ZONE 3; THEN BECOMES DARKER NEAR INBOARD EDGE. SET THE NVM AS FOLLOWS TO CORRECT:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	922	753-805	11
MAGENTA	753-802	922	753-806	11
CYAN	753-803	1024	753-807	11
BLACK	753-804	1024	753-808	11

0104944A-CAR

Figure 12 Pattern #11

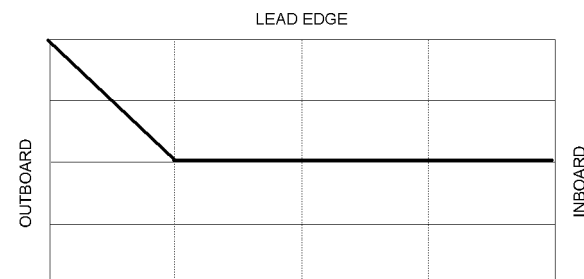


**DESCRIPTION:**  
DENSITY IS "LIGHT" AT INBOARD EDGE, DARKER FROM OUTBOARD EDGE THROUGH ZONE 3. SET THE NVM AS FOLLOWS TO CORRECT:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	10
MAGENTA	753-802	1024	753-806	10
CYAN	753-803	922	753-807	10
BLACK	753-804	922	753-808	10

0104943A-CAR

Figure 11 Pattern #10



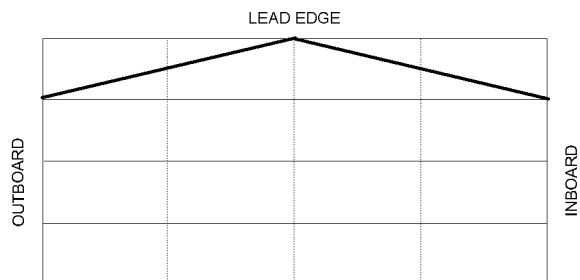
**DESCRIPTION:**  
DENSITY IS DARKER AT OUTBOARD EDGE; LIGHT FROM ZONE 2 TO INBOARD EDGE. SET THE NVM AS FOLLOWS TO CORRECT:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	12
MAGENTA	753-802	1024	753-806	12
CYAN	753-803	922	753-807	12
BLACK	753-804	922	753-808	12

0104945A-CAR

Figure 13 Pattern #12





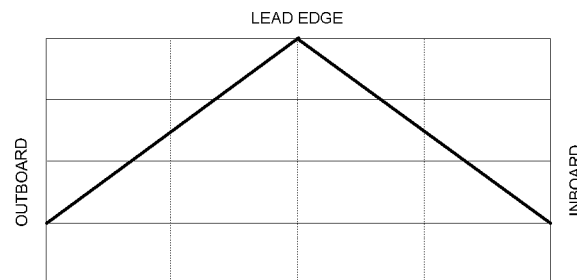
**DESCRIPTION:**

DENSITY IS DARKER IN CENTER, "SLIGHTLY LIGHT" AT BOTH OUTBOARD AND INBOARD EDGES. SET THE NVM AS FOLLOWS LIGHTEN THE CENTER:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	13
MAGENTA	753-802	1024	753-806	13
CYAN	753-803	1024	753-807	13
BLACK	753-804	1024	753-808	13

0104946A-CAR

**Figure 14 Pattern #13**



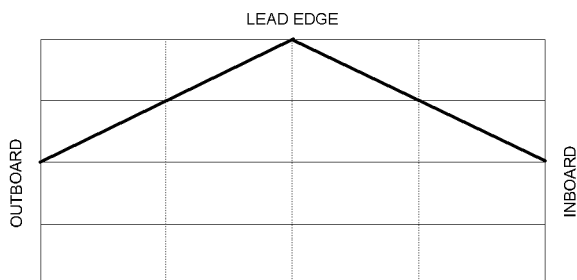
**DESCRIPTION:**

DENSITY IS DARKER IN CENTER, MUCH LIGHTER AT BOTH OUTBOARD AND INBOARD EDGES. SET THE NVM AS FOLLOWS LIGHTEN THE CENTER:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	15
MAGENTA	753-802	1024	753-806	15
CYAN	753-803	1024	753-807	15
BLACK	753-804	1024	753-808	15

0104948A-CAR

**Figure 16 Pattern #15**



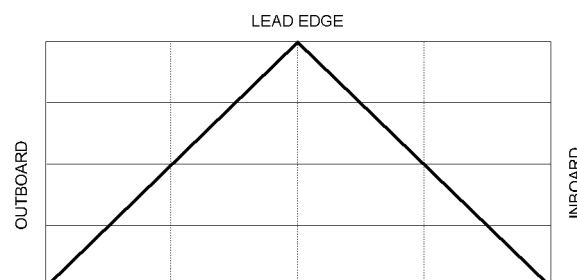
**DESCRIPTION:**

DENSITY IS DARKER IN CENTER, "LIGHT" AT BOTH OUTBOARD AND INBOARD EDGES. SET THE NVM AS FOLLOWS LIGHTEN THE CENTER:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	14
MAGENTA	753-802	1024	753-806	14
CYAN	753-803	1024	753-807	14
BLACK	753-804	1024	753-808	14

0104947A-CAR

**Figure 15 Pattern #14**



**DESCRIPTION:**

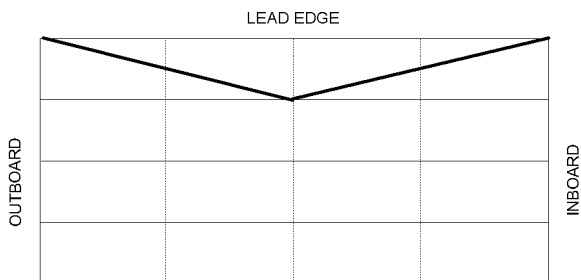
DENSITY IS DARKER IN CENTER, VERY MUCH LIGHTER AT BOTH OUTBOARD AND INBOARD EDGES. SET THE NVM AS FOLLOWS LIGHTEN THE CENTER:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	1024	753-805	16
MAGENTA	753-802	1024	753-806	16
CYAN	753-803	1024	753-807	16
BLACK	753-804	1024	753-808	16

0104949A-CAR

**Figure 17 Pattern #16**





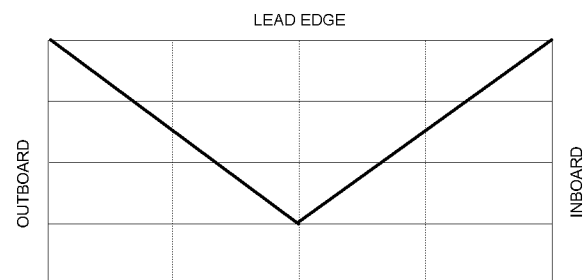
**DESCRIPTION :**

DENSITY IS "SLIGHTLY LIGHT" IN CENTER, DARKER AT BOTH OUTBOARD AND INBOARD EDGES. TO LIGHTEN THE INBOARD AND OUTBOARD SIDES, SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	973	753-805	17
MAGENTA	753-802	973	753-806	17
CYAN	753-803	973	753-807	17
BLACK	753-804	973	753-808	17

0104950A-CAR

**Figure 18 Pattern #17**



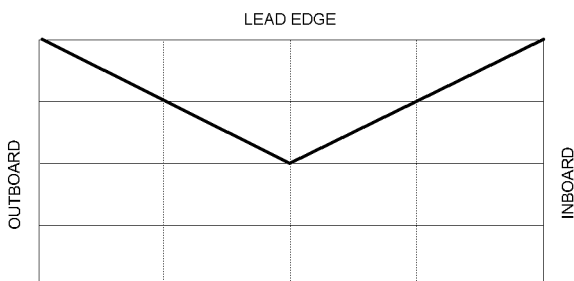
**DESCRIPTION :**

DENSITY IS MUCH LIGHTER IN CENTER THAN AT BOTH OUTBOARD AND INBOARD EDGES. TO LIGHTEN THE INBOARD AND OUTBOARD SIDES, SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	870	753-805	19
MAGENTA	753-802	870	753-806	19
CYAN	753-803	870	753-807	19
BLACK	753-804	870	753-808	19

0104952A-CAR

**Figure 20 Pattern #19**



**DESCRIPTION :**

DENSITY IS "LIGHT" IN CENTER, DARKER AT BOTH OUTBOARD AND INBOARD EDGES. TO LIGHTEN THE INBOARD AND OUTBOARD SIDES, SET THE NVM AS FOLLOWS:

COLOR	ADDRESS	VALUE	ADDRESS	VALUE
YELLOW	753-801	922	753-805	18
MAGENTA	753-802	922	753-806	18
CYAN	753-803	922	753-807	18
BLACK	753-804	922	753-808	18

0104951A-CAR

**Figure 19 Pattern #18**



## ADJ 9.15 Light Image Setup

### Purpose

#### CAUTION

*Perform this adjustment only to correct a customer complaint. Altering settings to correct for a specific condition may have unintended effects in other situations. Make as small a correction as possible to satisfy the complaint.*

The following procedure addresses the issue of "light" copies and / or prints.

### Check

1. If the reported problem involves print mode only ("Case 1"), perform step 2. If the reported problem involves copy mode only ("Case 2"), perform Step 2. If both modes are affected ("Case 3"), perform both steps.
2. recopy the customer's job. If customer copy job is not available, make initial copies of the 82E13120 test pattern on the specified paper (XC - Digital Color Expression; XE - Chor-tled+) 24lb 11x17/A3 paper. Compare copy output samples to the original.
3. Re-send customers print job. If customer print job is not available, go to dC612 and print ten copies of pattern 35-1 on the specified paper. Observe output print samples for density mottle defects or "washed out" densities.
4. If either or both jobs exhibit density mottle defects or "washed out" densities, perform the Verification and Adjustment

### Verify/record machine settings

1. Check that IOT, ESS, IIT, etc. are at the most recent software revision levels. Upgrade if necessary.
2. Ensure that the most recent release of the PWS Tool is in use
3. Print a system setting list from the UI.
4. Record the IIT serial number.
5. Check the following NVM values:
  - 700-397 = 44 for inch size paper; 5 for metric (A size) paper
  - 701-912 = 1 (ADC LUT ON)
  - 701-924 = 1 (CTRACS LUT PRINT ON)
  - 701-929 = 1 (CTRACS LUT COPY ON)
  - 715-144 = 2 (XC - Digital Color Xpression); 4 (XE - ColorTech+)
  - 715-400 = 1 (ADF INSTALLED)
6. Record machine meter count.
7. For **Case 1**, check that all settings in print driver are correct (paper type, image quality...)

### Adjustment

1. (**Case 1 only**;) Calibrate the controller (Auto Gradation, Auto-Cal, Color Wise Pro Tools)
2. (**Case 2 and Case 3**;) Check/clean the White Reference strip located to the left of the Registration Edge.
3. (**All**;) Perform [ADJ 9.1](#) (Max Setup). Observe the special requirements listed below:
  - [ADJ 9.7](#) (dC945 IIT Calibration)
    - White Reference - use specified paper for market. White Reference result values should be in the range of 130 ~ 145. If values are not within range, clean/repair the IIT and white reference strip as required and repeat the step.

- CCD Calibration - Use the correct color test pattern (82E13120). The Reflection values for YMCK vs. RGB marked "X" in [Table 1](#) should be between 200 and 250. If not perform procedure to clean IIT optics and repeat the step.

Table 1 CCD Calibration

	R	G	B
Y:			X
M:		X	
C:	X		
K:	X	X	X

- [ADJ 9.3](#) TRC Control (dC922)
    - For each color, check that the values for **ATC Mean** are within 40bits of the values for **ATC Control Environment Correction**. If values are not within 40bits, perform dC922 again. If values are not within 40bits, exit diagnostics and run approximately 60 ~ 100, full color 11" copies of the 82E13120 test pattern, then repeat dC922. If values are not within 40bits, tone up or down, if the tone interval is < 15.
  - [ADJ 9.4](#) ADC AGC Setup (dC934)
    - For each color, check that the values for **Radc Measured** are within 40bits of the values for **Radc Target** (for each of the colors Y, M, C, K). If values are not within 40-bits, perform dC934 again.
  - [ADJ 9.5](#) TRC Adjust (dC924)
    - Ensure that all values for L, M, H (Y, M, C, K) are set to 128
4. Repeat the **Check**. If the problem remains for print mode only, go to step 5. If the problem remains for copy mode only, go to step 6. If the density is too low in both modes, go to step 7.
  5. Check that all settings in print driver are correct (paper type, image quality...) Calibrate the controller (Auto Gradation, Auto Cal, Color Wise Pro Tools)
  6. (Light Copies only;) Perform an Auto Gradation for Copy-Text and Copy-Photo only. If copies do not improve do the following:
    - Adjust Color Balance on the UI until copies in default / walk-up modes are acceptable to the customer. Start the adjustment with the settings in [Table 2](#):

Table 2 Color Balance

	Low	Medium	High
Y:	0	+1	+1
M:	0	+1	+1
C:	0	+1	+1
K:	0	+1	+2

- Set the desired Color Balance final settings as defaults in Tools mode

**NOTE:** These settings will affect copies only and not prints. Performing Auto Gradation will NOT change the Color Balance default settings. Customer can continue to manually change the Color Balance settings on the UI.



7. Perform an Auto Gradation for Copy-Text, Copy-Photo, Print-Text and Print-Photo (For DC3535, Copy Text, Copy-Photo, Print, Network Controller 1). Check for the following:
  - Prints improved but copies did not - adjust Color Balance as described in step 6 above
  - Copies improved but prints did not - Recheck all print driver settings. Calibrate the controller (Auto Gradation, Auto-Cal, Color Wise Pro Tools).
  - If both modes are still too light, go to [ADJ 9.5 TRC Adjust \(dC924\)](#) and adjust the TRC adjustment values until output is acceptable to customer. Start the adjustment with the settings in [Table 3](#):

**Table 3 TRC Settings**

	Low	Medium	High
Y:	128	138	143
M:	128	138	143
C:	128	138	143
K:	128	138	143

- Adjustment to dC924 will affect copies and prints. Check output of the prints and copies in Photo modes; if the output is too dark, perform a Print-Text, Print-Photo, and / or Copy-Photo Auto Gradation adjustment. (DC3535 perform Copy-Photo, Print, Network Controller1)
- NOTE:** *Performing a Copy-Text Auto Gradation will automatically reset the dc924 TRC adjustments for the walk-up mode copies back to 128. If an Auto Gradation is performed after this point, the output prints and/or copies may be perceived "light" in densities. Please instruct customer not to perform a Copy-Text Auto Gradation adjustment, or disable the Copy mode (Copy-Text and Copy-Photo) Auto Gradation LUTs by setting NVM 701-929 = 0*
8. After completing the above procedure print a new machine system settings list using the UI. Store this new list in tray #1 with the machine service log.







## ADJ 12.1 Finisher Alignment

### Purpose

Align IOT copy output with entrance to Finisher H Transport.

### Adjustment

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.

1. Ensure H Transport is set correctly (Figure 1) and (Figure 2).

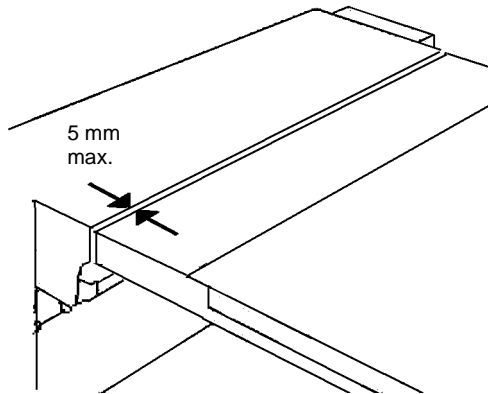


Figure 1 H Transport Clearance

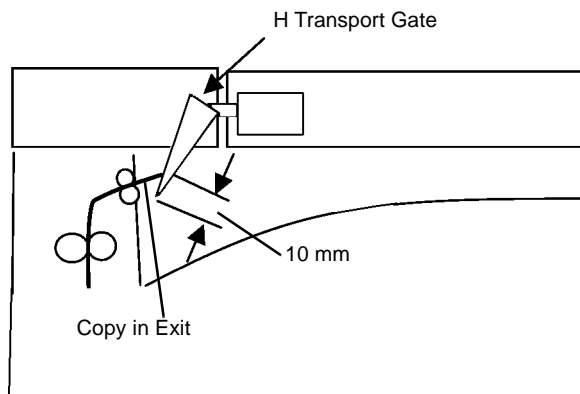


Figure 2 H Transport Gate Clearance







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# Introduction

## Overview

The Parts List section identifies all part numbers and the corresponding location of all spared subsystem components.

## Organization

### Parts Lists

Each item number in the part number listing corresponds to an item number in the related illustration. All the parts in a given subsystem of the machine will be located in the same illustration or in a series of associated illustrations.

### Electrical Connectors and Fasteners

This section contains the illustrations and descriptions of the plugs, jacks, and fasteners used in the machine. A part number listing of the connectors is included.

### Common Hardware

The common hardware is listed in alphabetical order by the letter or letters used to identify each item in the part number listing and in the illustrations. Dimensions are in millimeters unless otherwise identified.

### Part Number Index

This index lists all the spared parts in the machine in numerical order. Each number is followed by a reference to the parts list on which the part may be found.

## Other Information

### Abbreviations

Abbreviations are used in the parts lists and the exploded view illustrations to provide information in a limited amount of space. The following abbreviations are used in this manual:

Table 1

Abbreviation	Meaning
A3	297 x 594 Millimeters
A4	210 x 297 Millimeters
A5	148 x 210 Millimeters
AD	Auto Duplex
AWG	American Wire Gauge
EMI	Electro Magnetic Induction
GB	Giga Byte
KB	Kilo Byte
MB	Mega Byte
MM	Millimeters
MOD	Magneto Optical Drive
NOHAD	Noise Ozone Heat Air Dirt
PL	Parts List
P/O	Part of
R/E	Reduction/Enlargement
REF:	Refer to
SCSI	Small Computer Systems Interface
W/	With
W/O	Without

Table 2

Operating Companies	
Abbreviation	Meaning
AO	Americas Operations
NASG - US	North American Solutions Group - US
NASG - Canada	North American Solutions Group - Canada
XE	Xerox Europe

## Symbology

Symbology used in the Parts List section is identified in the Symbology section.

## Service Procedure Referencing

If a part or assembly has an associated repair or adjustment procedure, the procedure number will be listed at the end of the part description in the parts lists e.g. (REP 5.1, ADJ 5.3)



## Subsystem Information

### Use of the Term “Assembly”

The term “assembly” will be used for items in the part number listing that include other itemized parts in the part number listing. When the word “assembly” is found in the part number listing, there will be a corresponding item number on the illustrations followed by a bracket and a listing of the contents of the assembly.

### Brackets

A bracket is used when an assembly or kit is spared, but is not shown in the illustration. The item number of the assembly or kit precedes the bracket; the item numbers of the piece parts follow the bracket.

### Tag

The notation “W/Tag” in the parts description indicates that the part configuration has been updated. Check the change Tag index in the General Information section of the Service Data for the name and purpose of the modification.

In some cases, a part or assembly may be spared in two versions: with the Tag and without the Tag. In those cases, use whichever part is appropriate for the configuration of the machine on which the part is to be installed. If the machine does not have a particular Tag and the only replacement part available is listed as “W/Tag”, install the Tag kit or all of the piece parts. The Change Tag Index tells you which kit or piece parts you need.

Whenever you install a Tag kit or all the piece parts that make up a Tag, mark the appropriate number on the Tag matrix.



Symbology

A Tag number within a circle pointing to an item number shows that the part has been changed by the tag number within the circle (Figure 1). Information on the modification is in the Change Tag Index.

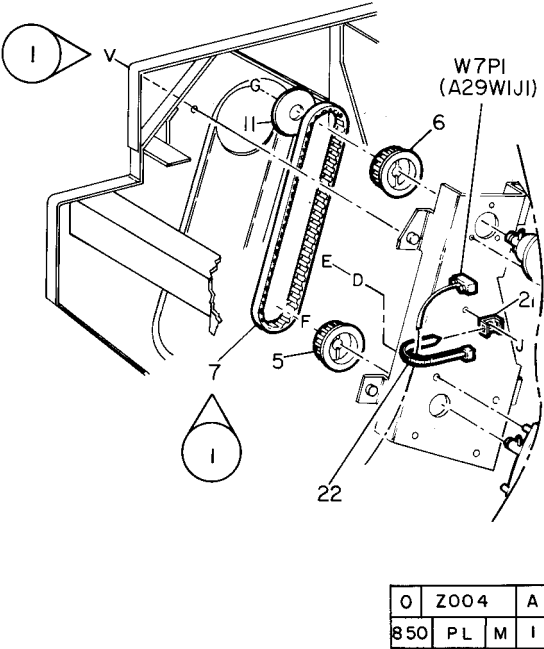


Figure 1 With Tag Symbol

A Tag number within a circle having a shaded bar and pointing to an item number shows that the configuration of the part shown is the configuration before the part was changed by the Tag number within the circle (Figure 2).

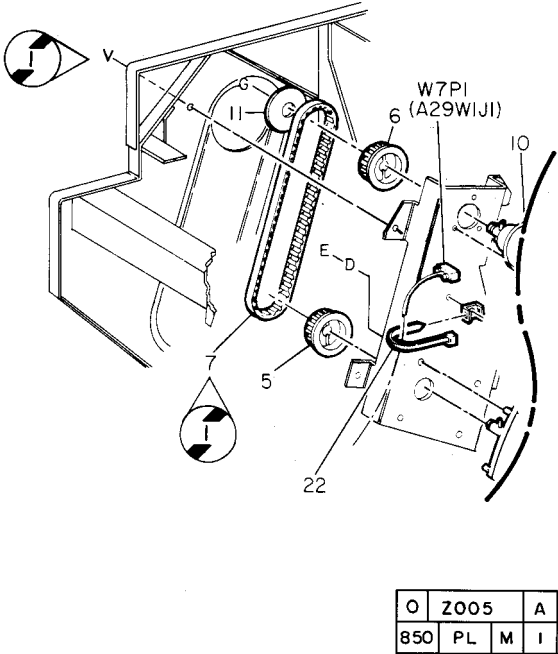


Figure 2 Without Tag Symbol



A tag number within a circle with no apex shows that the entire drawing has been changed by the tag number within the circle (Figure 3). Information on the modification is in the Change Tag Index.

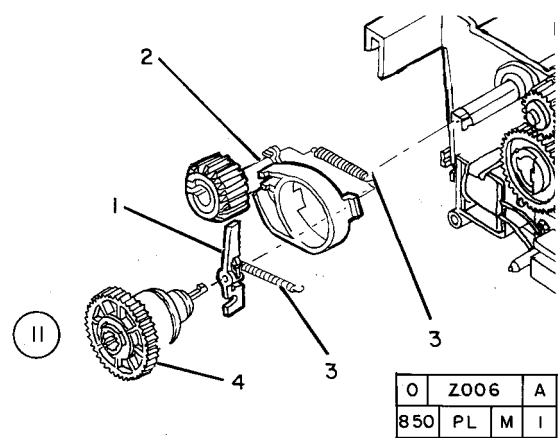


Figure 3 Entire Drawing With Tag Symbol

A tag number within a circle with no apex and having a shaded bar shows that the entire drawing was the configuration before being changed by the tag number within the circle (Figure 4).

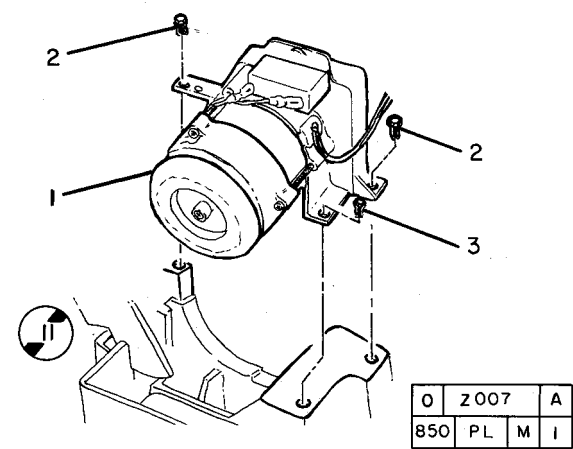


Figure 4 Entire Drawing Without Tag Symbol



## PL 1.1 Drive Unit

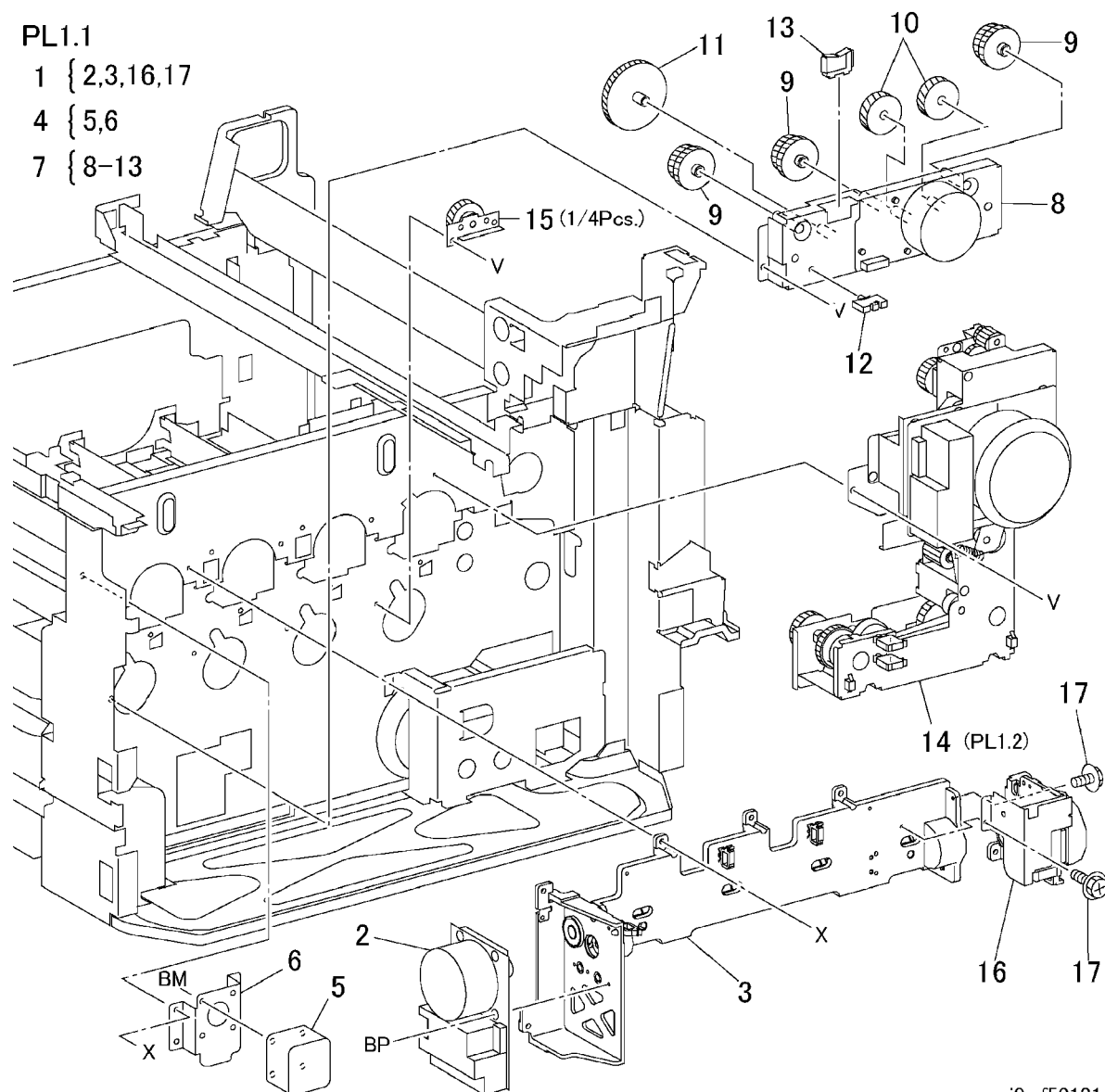
Item	Part	Description
1	007K87370	Drum Motor Assembly (DC3535) (REP 4.4)
—	007K85750	Drum Motor Assembly (DC2240/1632/WC24) (REP 4.4)
2	—	Drum Motor (P/O PL 1.1 Item 1)
3	—	Gear Bracket (P/O PL 1.1 Item 1)
4	007K87600	IBT Motor Assembly (REP 4.2)
5	—	IBT Motor (P/O PL 1.1 Item 4)
6	—	Gear Bracket (P/O PL 1.1 Item 4)
7	007K86400	Developer Drive Motor Assembly (DC2240/1632/WC24) (REP 4.3)
—	007K87360	Developer Drive Motor Assembly (DC3535) (REP 4.3)
8	—	Developer Drive Motor (P/O PL 1.1 Item 7)
9	—	Gear (47/38T) (P/O PL 1.1 Item 7)
10	—	Gear (51/25T) (P/O PL 1.1 Item 7)
11	—	Gear (P/O PL 1.1 Item 7) (76T)
12	—	Clamp (P/O PL 1.1 Item 7)
13	—	Edge Saddle (P/O PL 1.1 Item 7)
14	007K86921	Main Drive Motor Assembly (REP 4.1)
15	007K87220	Developer Gear
16	—	Drum Motor (P/O PL 1.1 Item 1)
17	—	Screw (P/O PL 1.1 Item 1)

### PL1.1

1 { 2,3,16,17

4 { 5,6

7 { 8-13



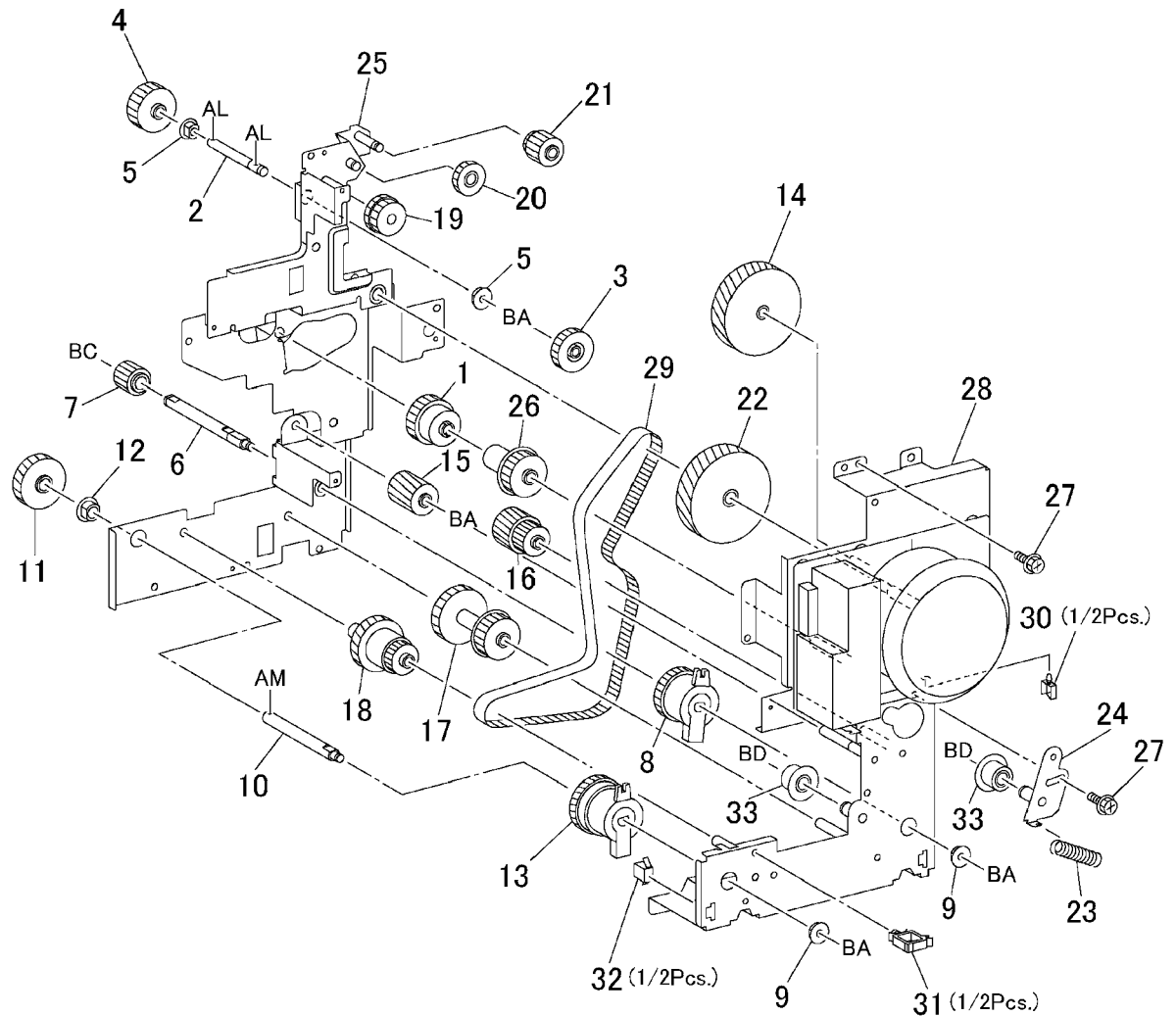
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## PL 1.2 Main Drive Motor Assembly

Item	Part	Description
1	—	Friction Clutch (Not Spared)
2	—	Shaft (Not Spared)
3	—	Gear (32T) (Not Spared)
4	—	Gear (28T) (Not Spared)
5	—	Bearing (Not Spared)
6	—	Shaft (Not Spared)
7	—	Gear (20T) (Not Spared)
8	121K22470	Takeaway Clutch
9	—	Bearing (Not Spared)
10	—	Shaft (Not Spared)
11	—	Gear (39T) (Not Spared)
12	—	Bearing (Not Spared)
13	121K23270	Developer K Clutch
14	—	Gear (69/27T) (Not Spared)
15	—	Gear (23T) (Not Spared)
16	—	Gear (28/22T) (Not Spared)
17	—	Gear (45/30T) (Not Spared)
18	—	Gear (41/21T) (Not Spared)
19	—	Gear (24/20T) (Not Spared)
20	—	Gear (19T) (Not Spared)
21	—	Gear (18T) (Not Spared)
22	—	Gear (73/23T) (Not Spared)
23	—	Spring (Not Spared)
24	—	Tension Bracket (Not Spared)
25	—	Bracket (Not Spared)
26	—	Pulley (Not Spared)
27	—	Screw (Not Spared)
28	—	Main Motor (Not Spared)
29	—	Belt (Not Spared)
30	—	Clamp (Not Spared)
31	—	Clamp (Not Spared)
32	—	Connector (Not Spared)
33	—	Pulley (Not Spared)

PL1.2



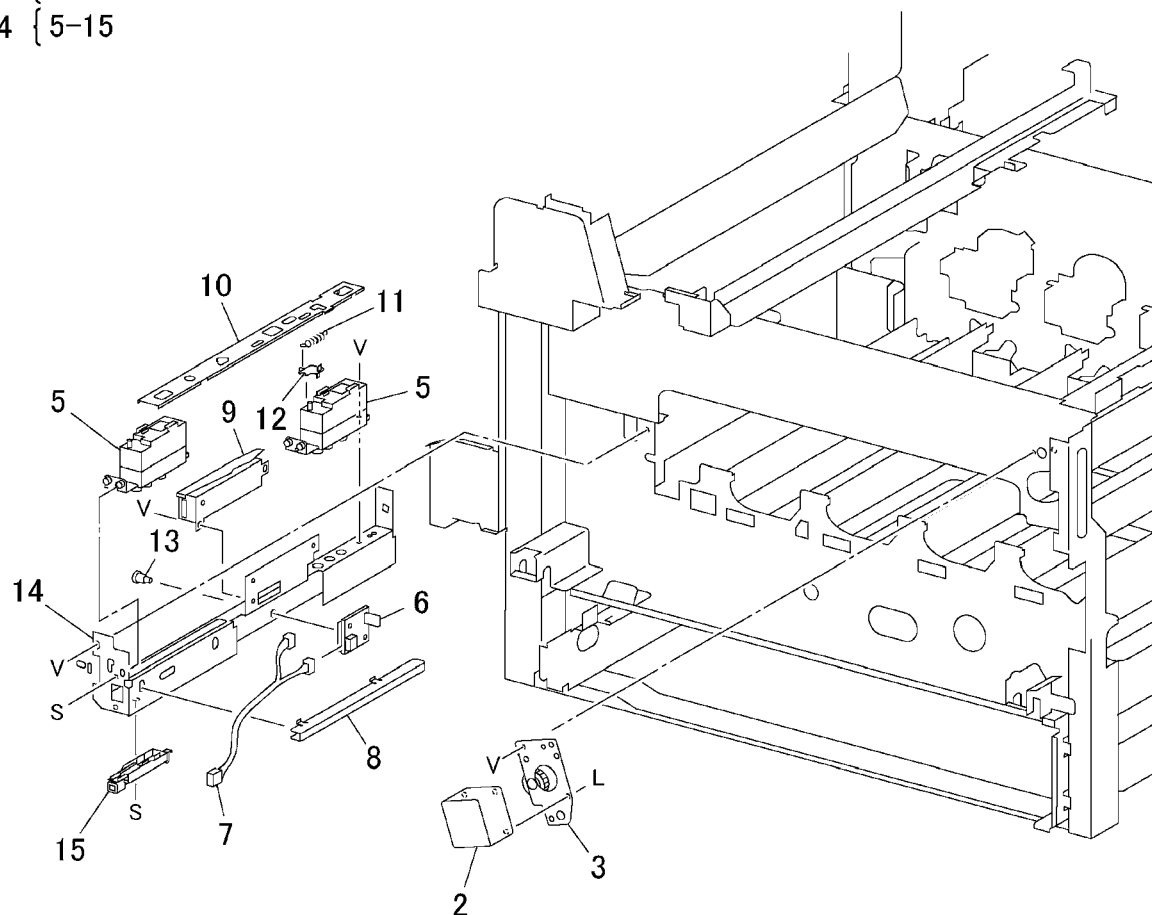
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## PL 1.3 IBT Steering Motor and MOB Sensor

Item	Part	Description
1	007K85580	IBT Steering Drive Assembly (REP 9.12)
2	—	IBT Steering Motor (P/O PL 1.3 Item 1)
3	—	Plate (P/O PL 1.3 Item 1)
4	130K60865	MOB Sensor Assembly (REP 9.14,ADJ 9.6)
5	—	MOB Sensor (P/O PL 1.3 Item 4)
6	—	Environment Sensor (P/O PL 1.3 Item 4)
7	—	Wire Harness (P/O PL 1.3 Item 4)
8	—	Cover (P/O PL 1.3 Item 4)
9	—	ADC Sensor (P/O PL 1.3 Item 4)
10	—	Shutter (P/O PL 1.3 Item 4)
11	—	Spring (P/O PL 1.3 Item 4)
12	—	Link (P/O PL 1.3 Item 4)
13	—	Spacer (P/O PL 1.3 Item 4)
14	—	MOB Bracket (P/O PL 1.3 Item 4)
15	—	Slide (P/O PL 1.3 Item 4)

PL1.3  
1 { 2,3  
4 { 5-15



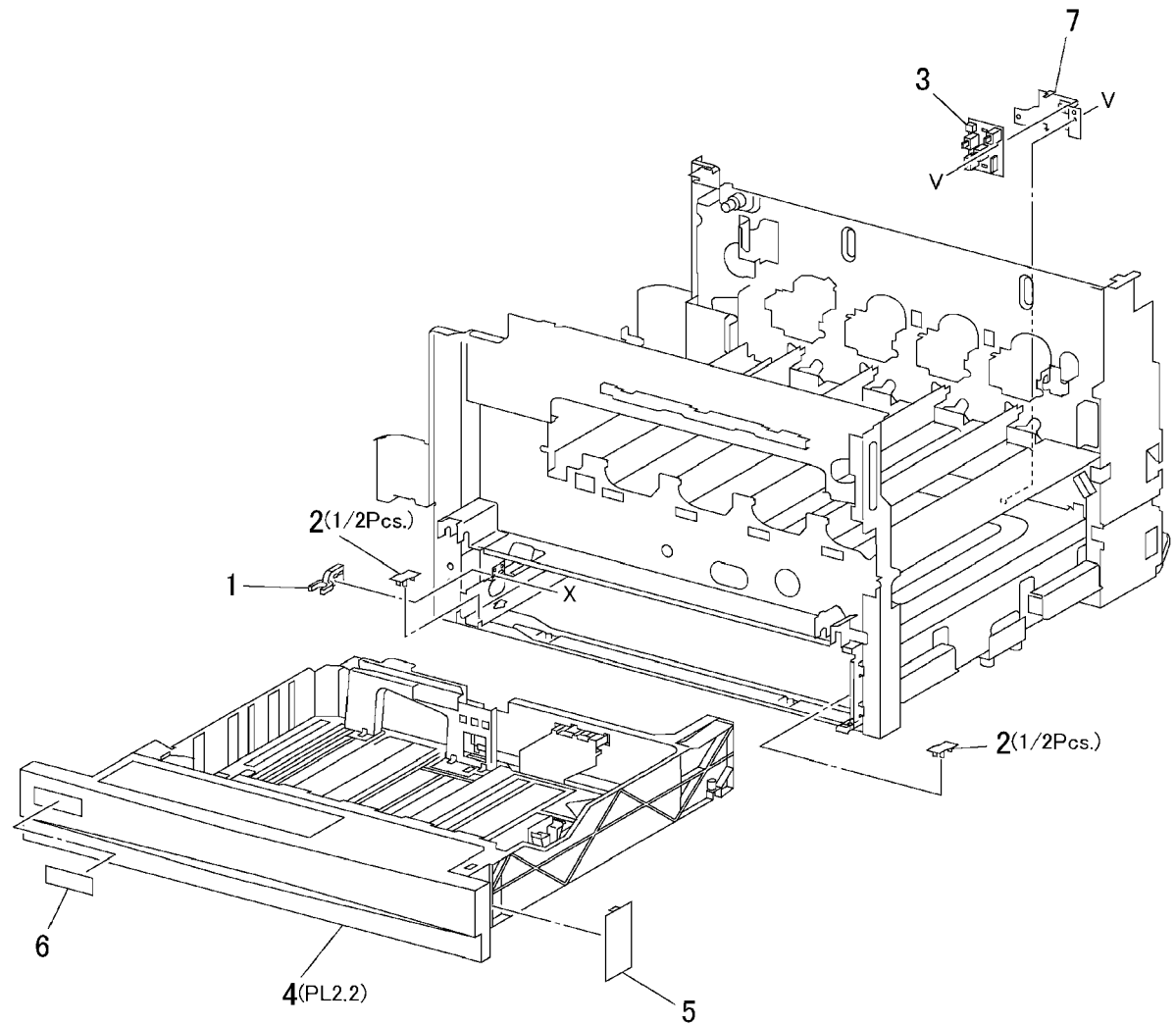
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## PL 2.1 Tray 1: 1 of 2

Item	Part	Description
1	003E23672	Stop
2	014E42850	Spacer
3	110K08541	Tray 1 Paper Size Sensor (REP 7.5)
4	050K48981	Tray 1 (DC3535/WC24) (REP 7.8)
—	050K48171	Tray 1 (DC2240/1632) (REP 7.8)
5	—	Cover (Not Spared)
6	892E41110	Label (1) (DC2240/1632)
—	892E87140	Label (1) (DC3535/WC24)
7	—	Bracket (Not Spared)

PL2.1



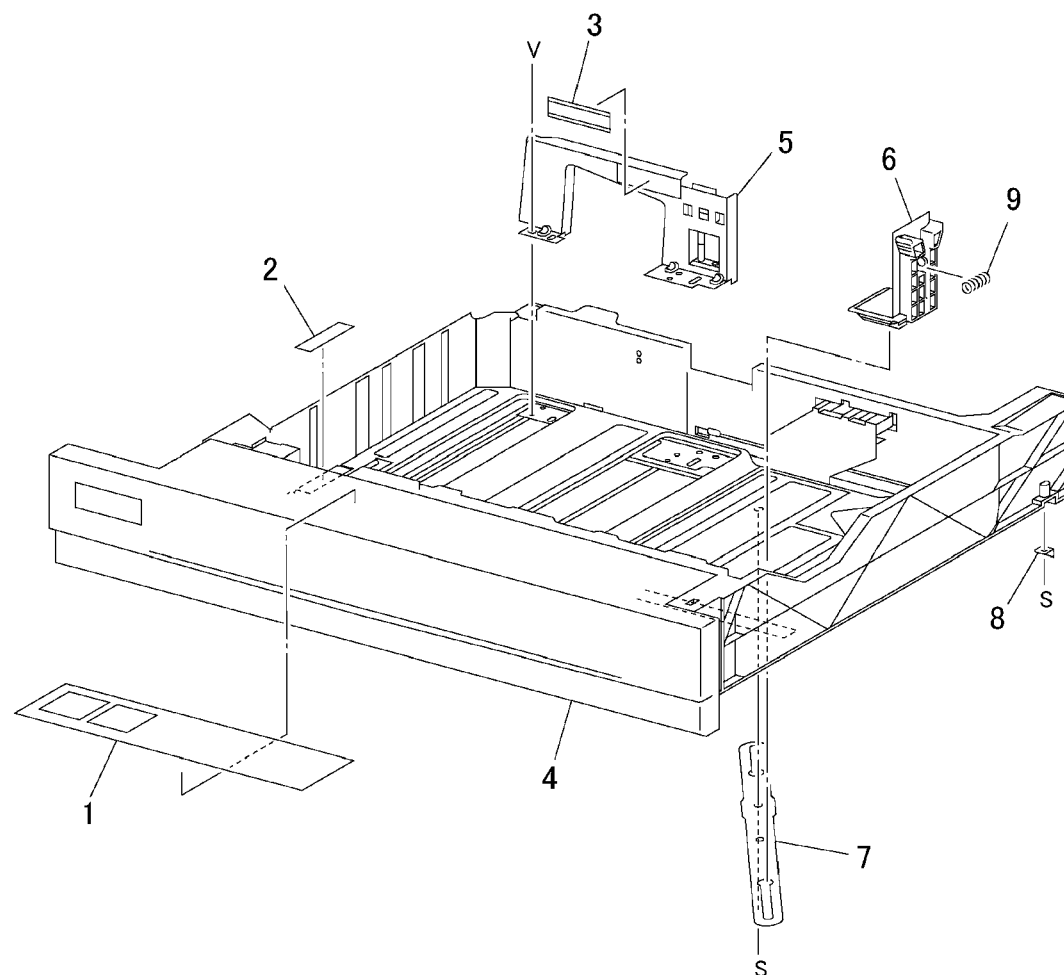
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## PL 2.2 Tray 1: 2 of 2

Item	Part	Description
1	892E90351	Instruction Label (DC3535/WC24)
—	892E13310	Instruction Label (DC2240/1632)
2	—	Pad (Not Spared)
3	—	Max Label (Not Spared)
4	—	Tray (Not Spared)
5	—	Side Guide (Not Spared)
6	—	End Guide (Not Spared)
7	—	Link (Not Spared)
8	—	Stop (Not Spared)
9	—	Spring (Not Spared)

PL2.2



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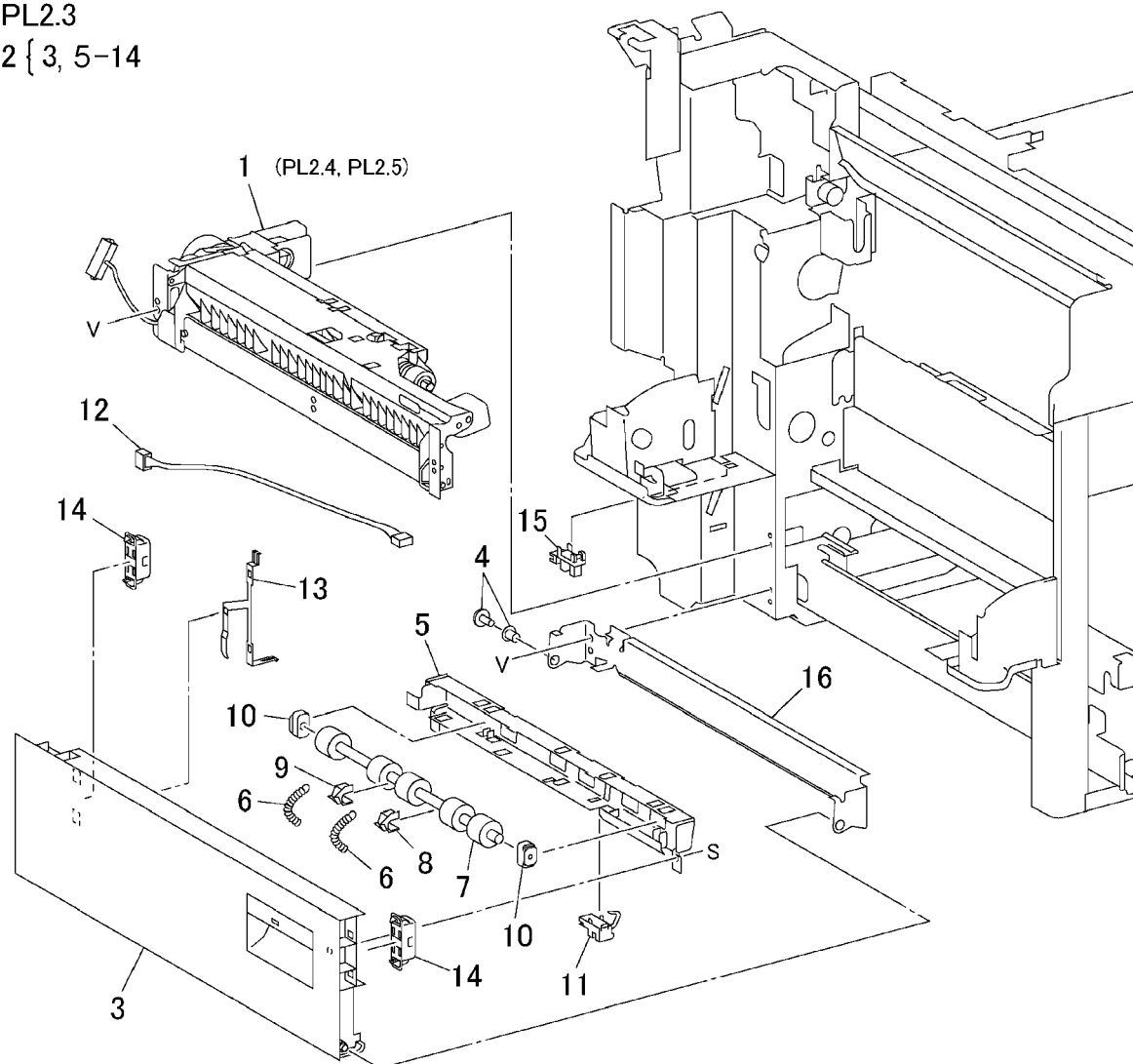


## PL 2.3 Tray 1 Feeder and Left Lower Cover Assembly

Item	Part	Description
1	059K15573	Tray 1 Feeder (REP 7.3)
2	802K13193	Left Lower Cover Assembly (REP 14.6)
3	—	Left Lower Cover (P/O PL 2.3 Item 2)
4	029E31600	Rivet
5	—	Bracket (P/O PL 2.3 Item 2)
6	—	Spring (P/O PL 2.3 Item 2)
7	—	Pinch Roll (P/O PL 2.3 Item 2)
8	—	Bearing (P/O PL 2.3 Item 2)
9	—	Bearing (P/O PL 2.3 Item 2)
10	—	Bearing (P/O PL 2.3 Item 2)
11	130K60851	Tray 1 Feedout Sensor
12	—	Wire Harness (P/O PL 2.3 Item 2)
13	—	Ground Plate (P/O PL 2.3 Item 2)
14	—	Magnet (P/O PL 2.3 Item 2)
15	130E82190	LH Lower Cover Interlock Switch
16	—	Bracket (Not Spared)

PL2.3

2 { 3, 5-14



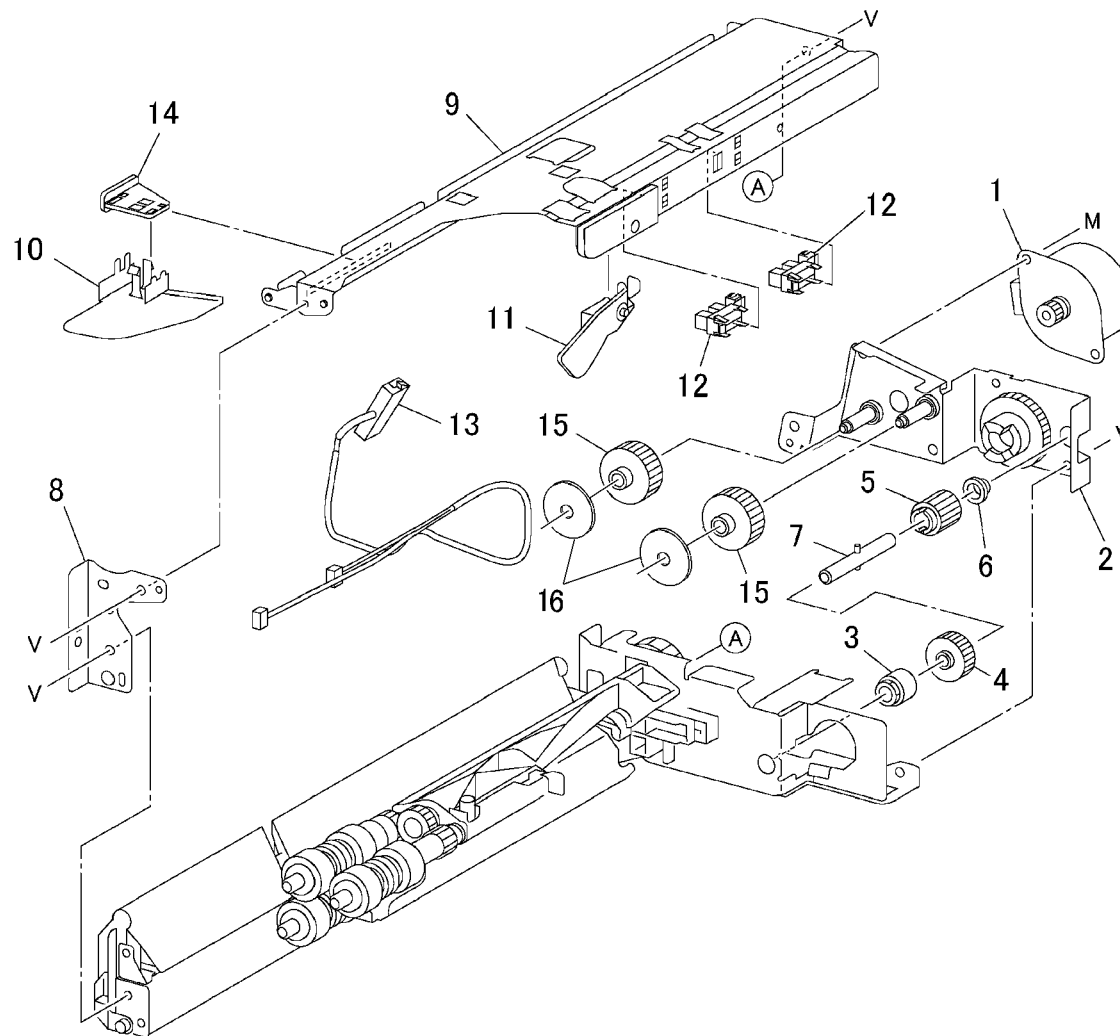
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## PL 2.4 Tray 1 Feeder: 1 of 2

Item	Part	Description
1	127K23230	Tray 1 Feed/Lift Motor (REP 7.4)
2	—	Bracket (Not Spared)
3	005K83081	One-way Clutch
4	007K85730	One-way Gear
5	—	Gear (13T) (Not Spared)
6	—	Bearing (Not Spared)
7	—	Shaft (Not Spared)
8	—	Front Frame (Not Spared)
9	—	Upper Frame (Not Spared)
10	—	Front Chute (Not Spared)
11	—	Actuator (Not Spared)
12	130E82190	Tray 1 Level / No Paper Sensor
13	—	Wire Harness (Not Spared)
14	—	Support (Not Spared)
15	—	Gear (15T) (Not Spared)
16	—	Washer (Not Spared)

PL2.4



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Initial issue

DC 3535/2240/1632, WC M24

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5-13

Parts List  
PL 2.4

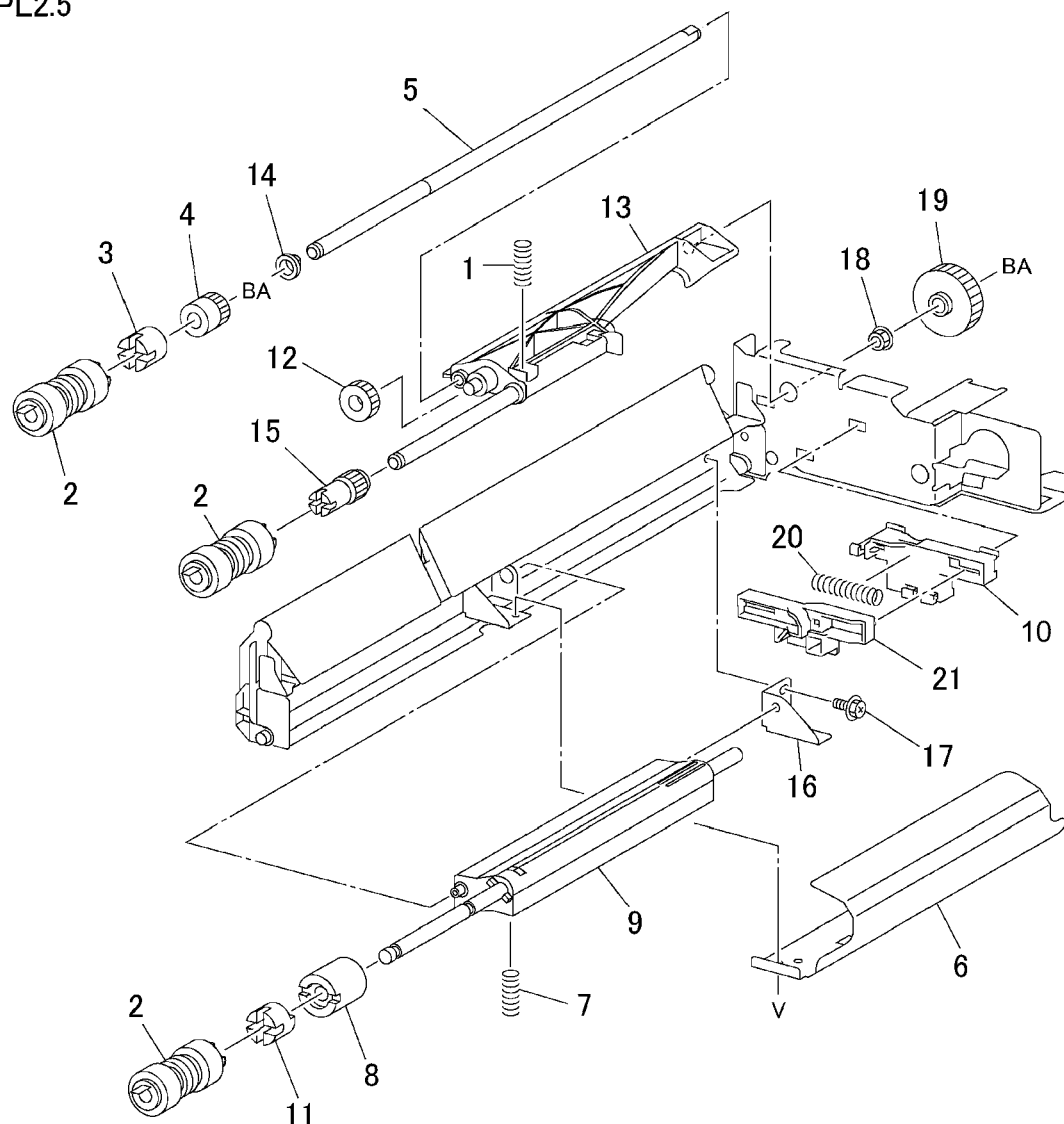
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## PL 2.5 Tray 1 Feeder: 2 of 2

Item	Part	Description
1	—	Spring (Not Spared)
2	600K78460	Roll Kit (3 Rolls/Kit)
3	005K05890	One-way Clutch
4	—	Gear (Not Spared)
5	—	Shaft (Not Spared)
6	—	Chute (Not Spared)
7	—	Spring (Not Spared)
8	—	Friction Clutch (Not Spared)
9	—	Support (Not Spared)
10	—	Holder (Not Spared)
11	—	Spacer (Not Spared)
12	—	Gear (31T) (Not Spared)
13	—	Support (Not Spared)
14	—	Bearing (Not Spared)
15	—	Gear (Not Spared)
16	—	Support (Not Spared)
17	—	Screw (Not Spared)
18	—	Bearing (Not Spared)
19	—	Gear (35T) (Not Spared)
20	—	Spring (Not Spared)
21	—	Lever (Not Spared)

PL2.5



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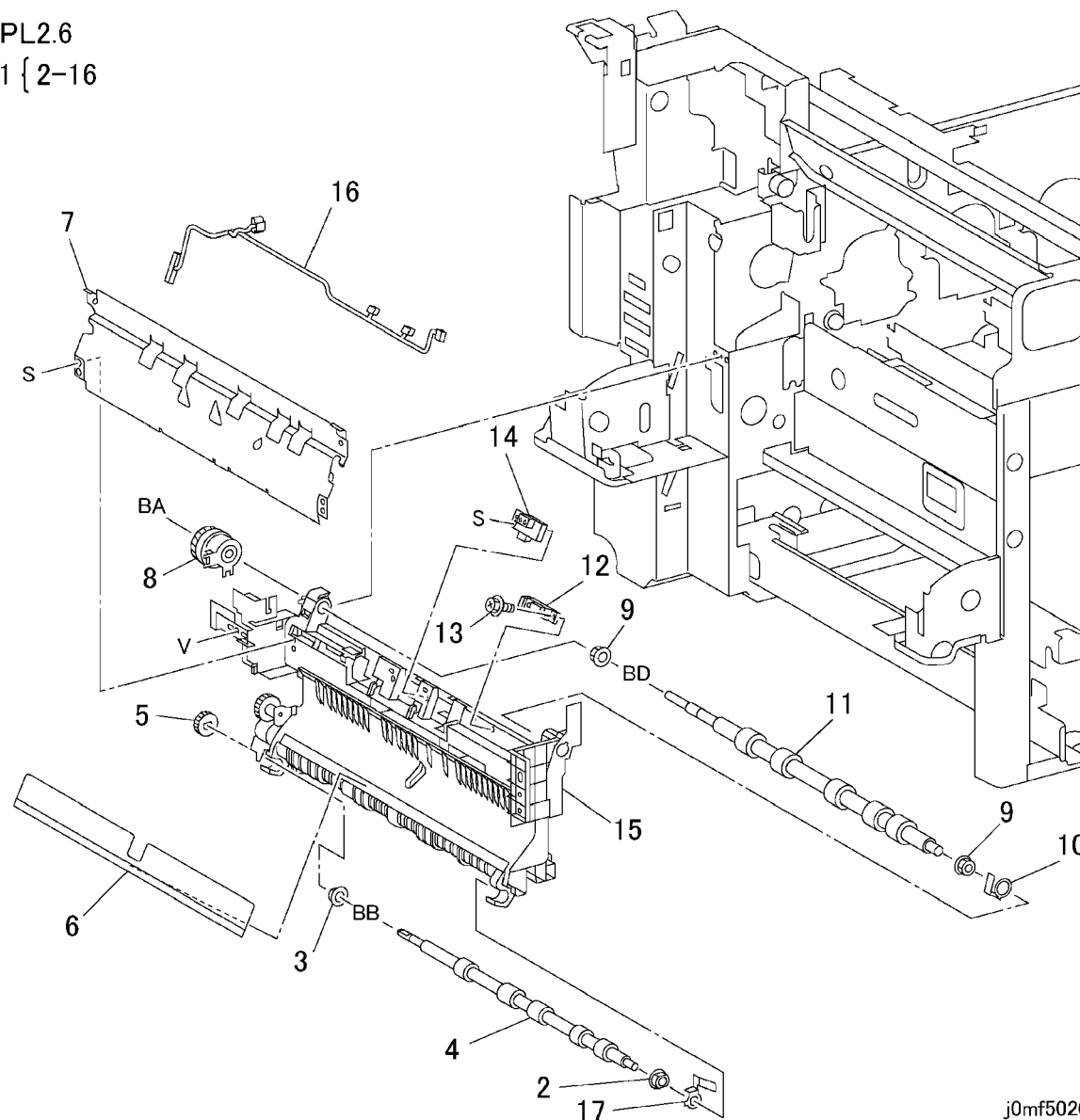


## PL 2.6 Registration Transport

Item	Part	Description
1	059K24661	Registration Transport Assembly (REP 8.6)
2	—	Bearing (P/O PL 2.6 Item 1)
3	—	Bearing (P/O PL 2.6 Item 1)
4	—	Takeaway Roll (P/O PL 2.6 Item 1)
5	—	Gear (22T) (P/O PL 2.6 Item 1)
6	—	Paper Guide (P/O PL 2.6 Item 1)
7	—	Registration Chute (P/O PL 2.6 Item 1)
8	121K22220	Registration Clutch
9	—	Bearing (P/O PL 2.6 Item 1)
10	—	Ground Plate (P/O PL 2.6 Item 1)
11	—	Registration Roll (P/O PL 2.6 Item 1)
12	130E82650	Registration Sensor
13	—	Screw (P/O PL 2.6 Item 1)
14	160K46290	OHP Sensor
15	—	Registration Support (P/O PL 2.6 Item 1)
16	—	Wire Harness (P/O PL 2.6 Item 1)
17	—	Ground Plate (Not Spared)

PL2.6

1 { 2-16



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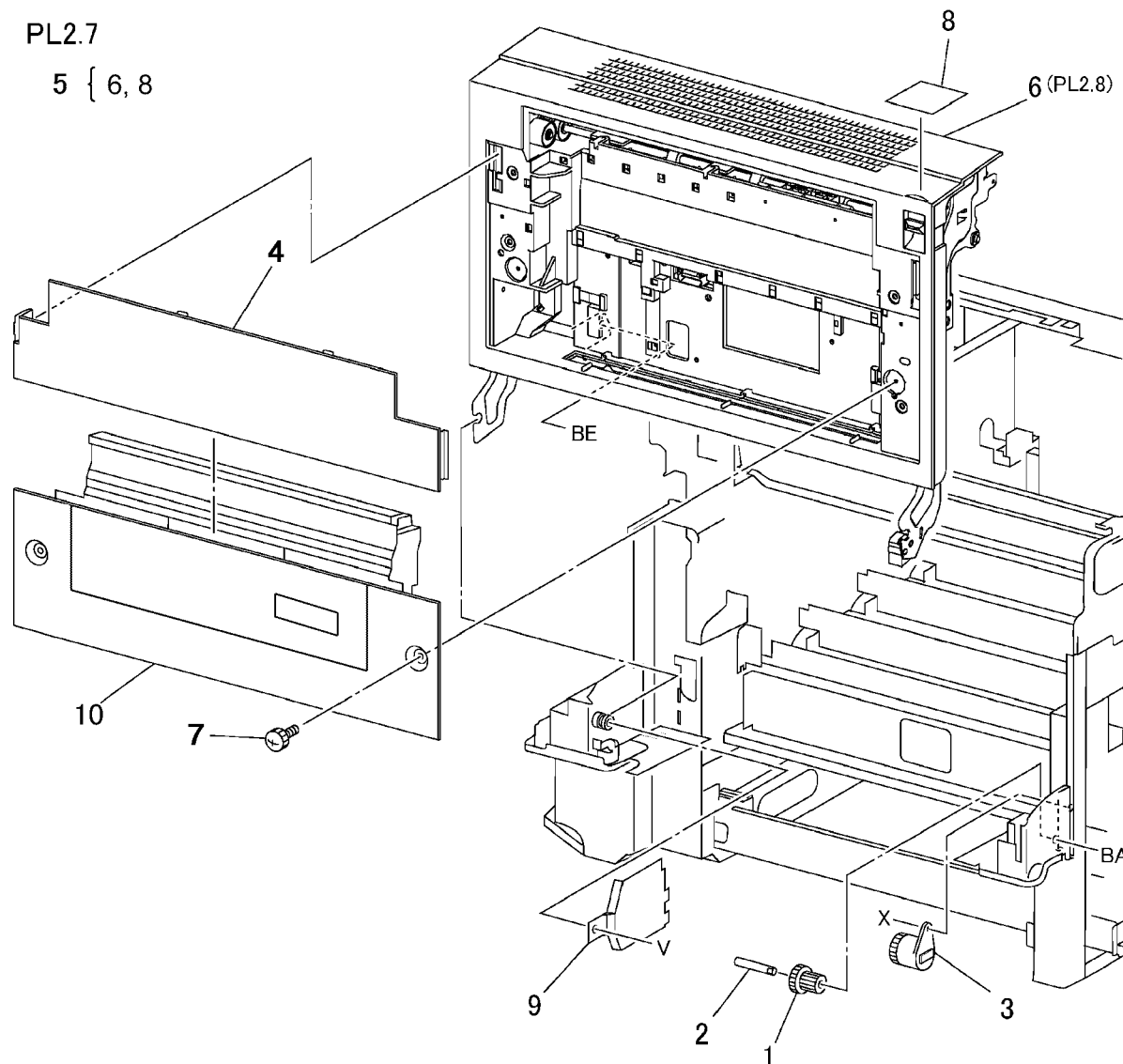


## PL 2.7 Left Cover Unit

Item	Part	Description
1	007E64740	Damper Gear (11/23T)
2	—	Stud (Not Spared)
3	004E11831	Damper (White)
4	—	Left Upper Cover (Not Spared)
5	802K45492	Left Cover Assembly
6	—	Left Cover (P/O PL 2.7 Item 5)
7	—	Screw (Not Spared)
8	—	Label (P/O PL 2.7 Item 5)
9	—	Cover (Not Spared)
10	—	Lower Cover (Not Spared)

PL2.7

5 { 6, 8



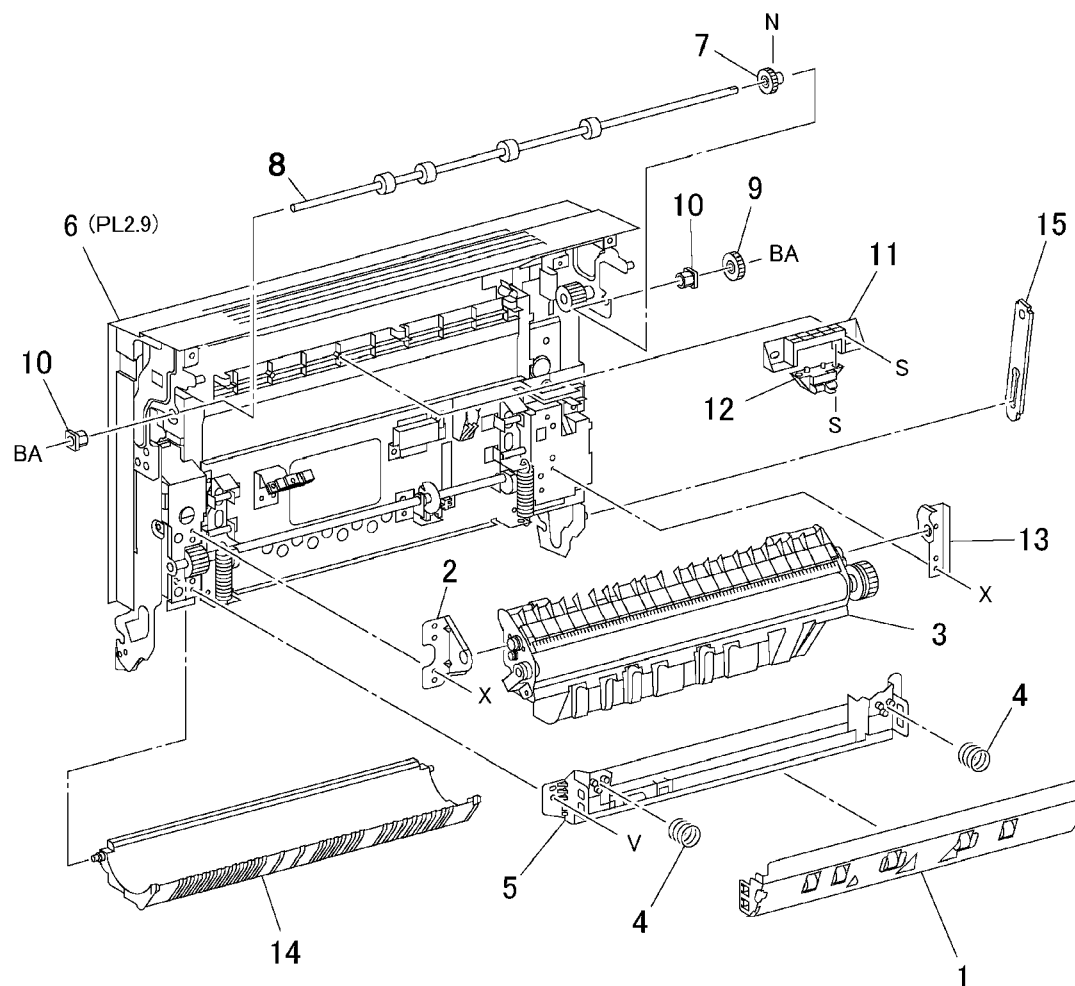
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## PL 2.8 Left Cover Assembly: 1 of 2

Item	Part	Description
1	054K22410	Registration Chute
2	—	Holder (Not Spared)
3	604K07070	2nd BTR (REP 9.24)
4	809E26070	Spring
5	015K48381	Support
6	—	Left Cover (Not Spared)
7	007E62630	Gear (22T)
8	059K15612	Exit Roll
9	007E75201	Gear
10	—	Bearing (Not Spared)
11	—	Holder (Not Spared)
12	110K10651	Fuser Exit Switch
13	—	Holder (Not Spared)
14	054K16130	Duplex Chute (REP 8.2)
15	—	Stop (Not Spared)

PL2.8



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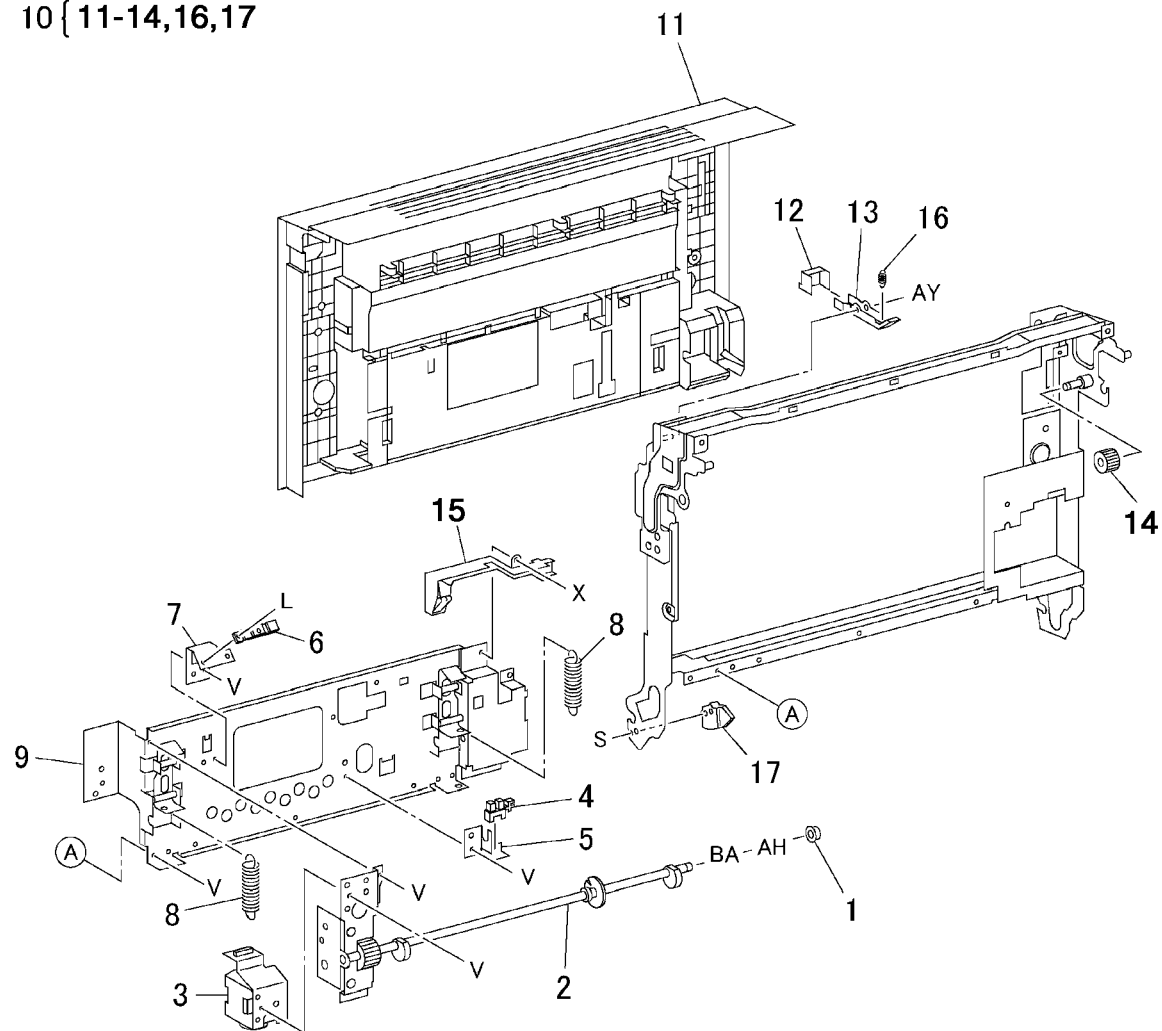


## PL 2.9 Left Cover Assembly: 2 of 2

Item	Part	Description
1	—	Bearing (Not Spared)
2	007K87440	Gear
3	127K29511	2nd BTR Retract Motor
4	130E82190	2nd BTR Retract Sensor
5	—	Bracket (Not Spared)
6	130E84300	POB Sensor
7	—	Bracket (Not Spared)
8	—	Spring (Not Spared)
9	—	Bracket (Not Spared)
10	802K27073	Left Cover Assembly (REP 8.1)
11	—	Left Cover (P/O PL 2.9 Item 10)
12	—	Lever (P/O PL 2.9 Item 10)
13	—	Bracket (P/O PL 2.9 Item 10)
14	—	Gear (21T) (P/O PL 2.9 Item 10)
15	—	Connector Assembly (Not Spared)
16	—	Spring (P/O PL 2.9 Item 10)
17	007K86931	Damper Gear (45T)

PL2.9

10 { 11-14,16,17



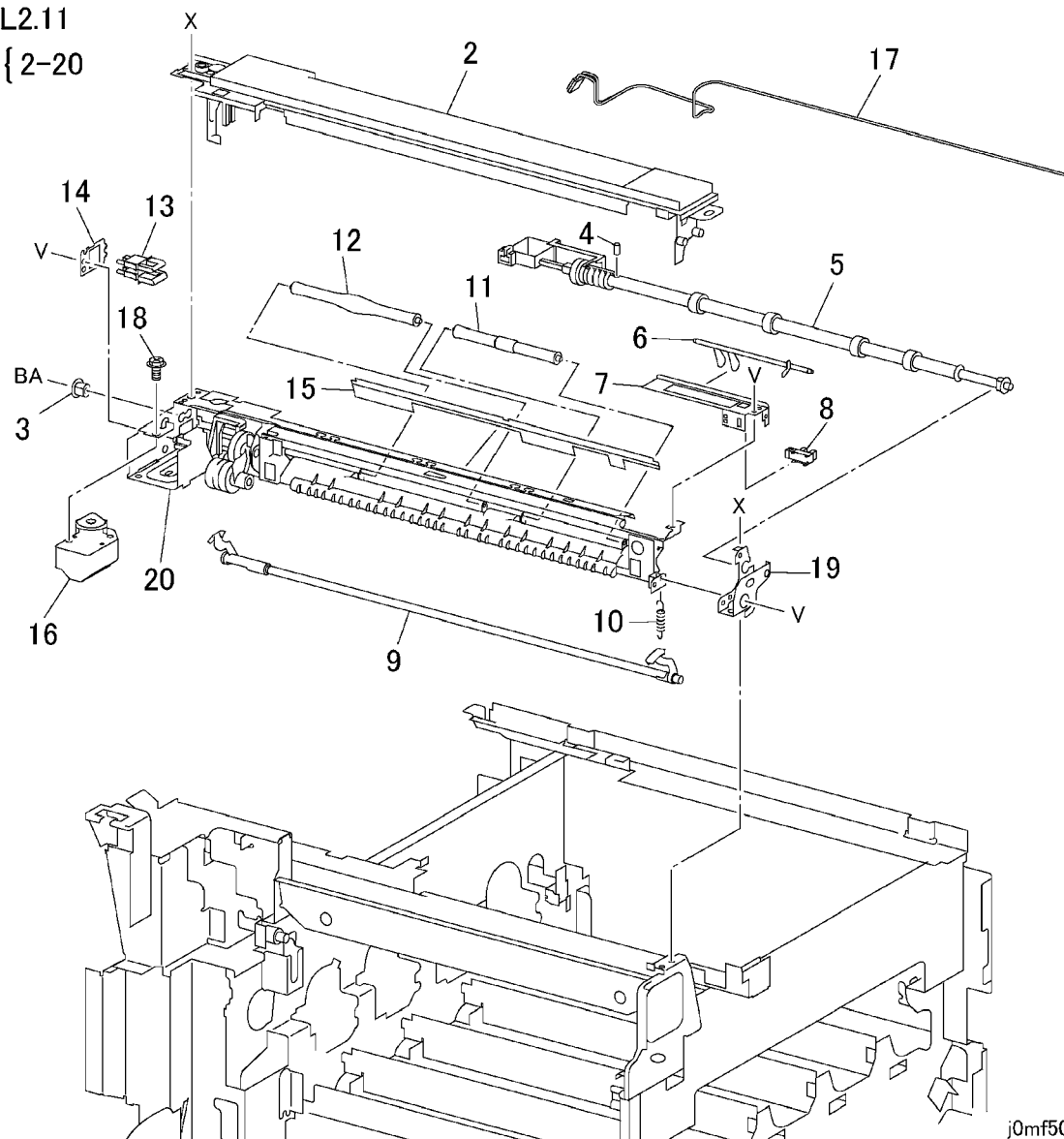
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## PL 2.11 Exit Transport Assembly

Item	Part	Description
1	059K29560	Exit Transport Assembly (REP 8.7)
2	—	Exit Transport Cover (Part of Item 1)
3	—	Bearing (Part of Item 1)
4	—	Pin (Part of Item 1)
5	—	Exit Roll (Part of Item 1)
6	120E18160	Actuator
7	—	Bracket (Part of Item 1)
8	130E82190	Full Paper Stack Sensor
9	—	Latch (Part of Item 1)
10	—	Spring (Part of Item 1)
11	—	Pinch Roll (Part of Item 1)
12	—	Pinch Roll (Part of Item 1)
13	—	LH Cover Interlock Switch (Part of Item 1)
14	—	Bracket (Part of Item 1)
15	—	Static Eliminator (Part of Item 1)
16	—	Offset Motor (Part of Item 1)
17	—	Wire Harness (Part of Item 1)
18	—	Screw (Part of Item 1)
19	—	Front Bracket (Part of Item 1)
20	—	Frame (Part of Item 1)

PL2.11  
1 { 2-20



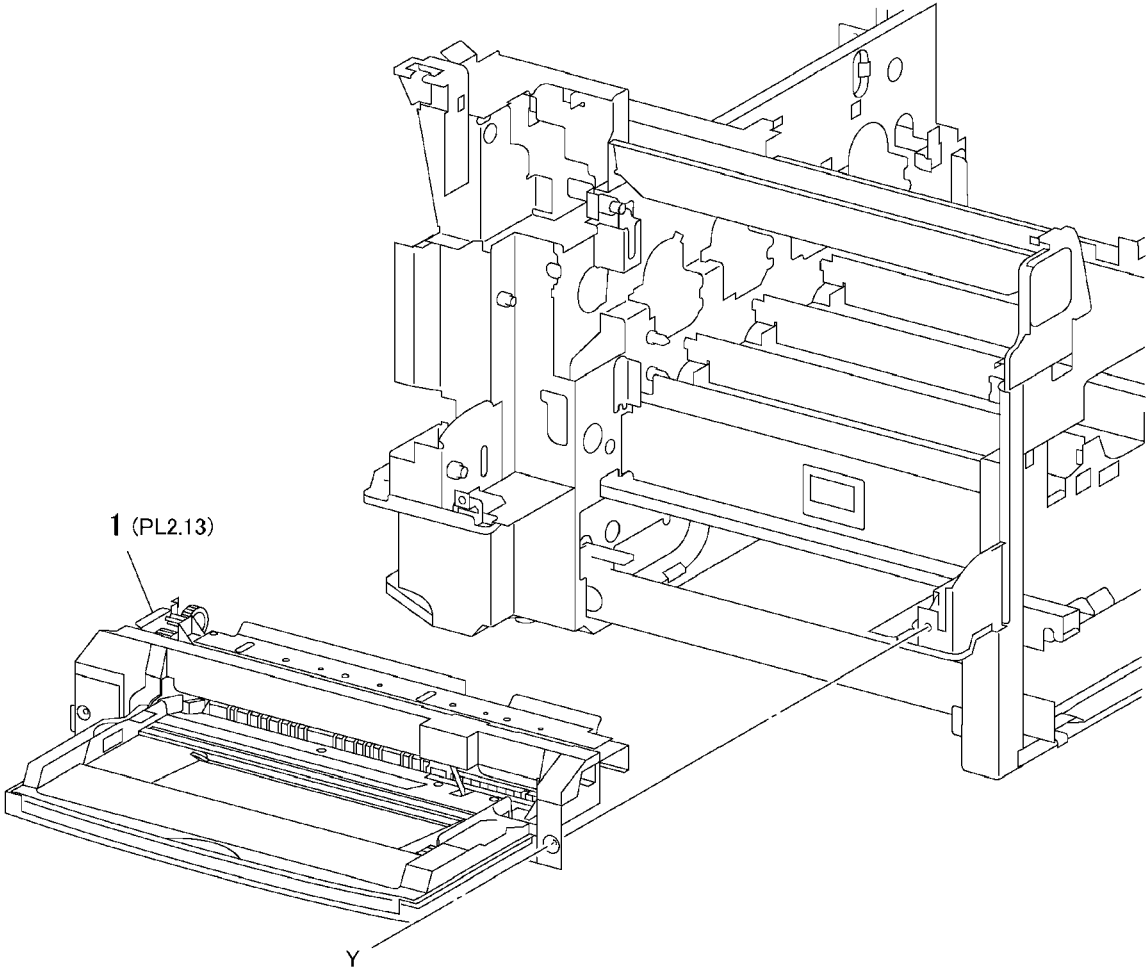
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PL 2.12 Tray 5: 1 of 2

Item	Part	Description
1	059K24802	Tray 5 (DC2240/1632) (REP 7.1)
—	059K25581	Tray 5 (DC3535, WC24) (REP 7.1)

PL2.12



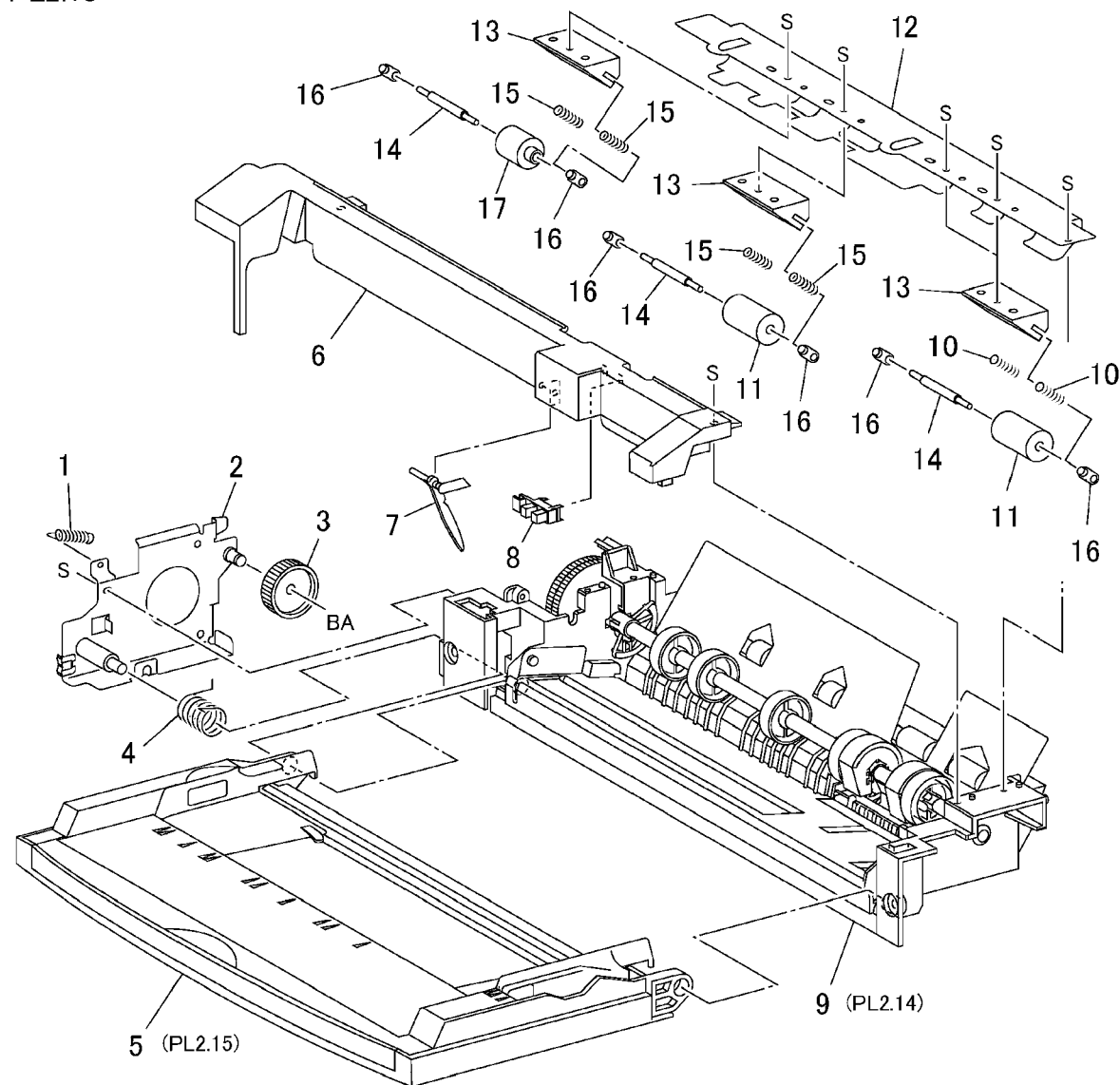
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## PL 2.13 Tray 5: 2 of 2

Item	Part	Description
1	—	Spring (Not Spared)
2	—	Bracket (Not Spared)
3	—	Gear (Not Spared)
4	—	Spring (Not Spared)
5	050K48182	Tray 5 Assembly (DC2240/1632)
—	050K48861	Tray 5 Assembly (DC3535, WC24)
6	—	Upper Frame (Not Spared)
7	120E11971	Actuator
8	130E82190	Tray 5 No Paper Sensor
9	—	Tray 5 Feed Assembly (Not Spared)
10	—	Spring (Not Spared)
11	—	Pinch Roll 1/2 (Not Spared)
12	—	Chute (Not Spared)
13	—	Guide (Not Spared)
14	—	Shaft (Not Spared)
15	—	Spring (Not Spared)
16	—	Spacer (Not Spared)
17	—	Pinch Roll 3 (Not Spared)

PL2.13

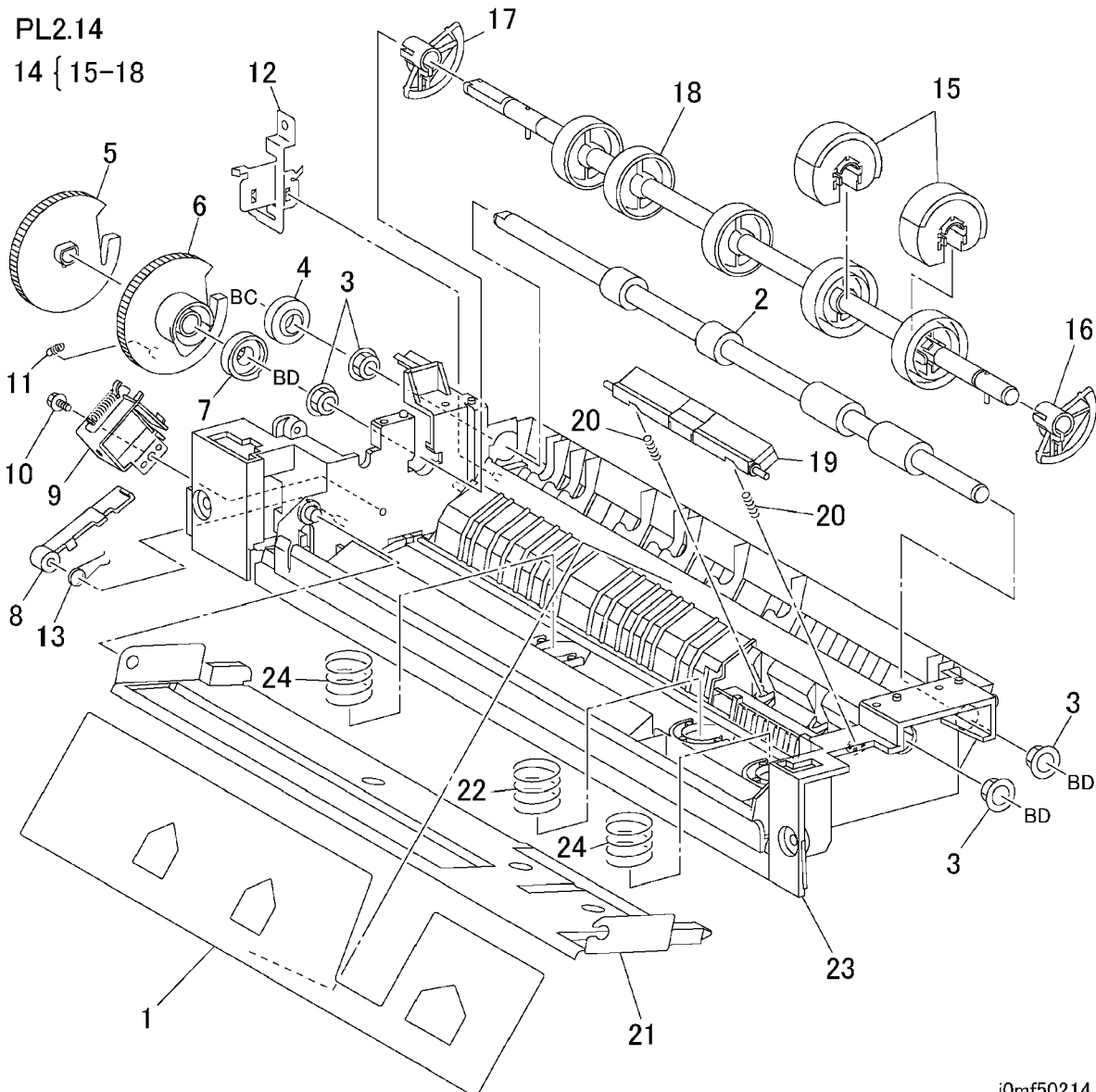


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## PL 2.14 Tray 5 Feed Assembly

Item	Part	Description
1	038E23560	Paper Guide
2	—	Takeaway Roll (Not Spared)
3	—	Bearing (Not Spared)
4	—	Gear (Not Spared)
5	—	Pick-up Gear (Not Spared)
6	—	Cam Gear (Not Spared)
7	—	Stop Lever (Not Spared)
8	—	Gear Lever (Not Spared)
9	121E87830	Tray 5 Feed Solenoid
10	—	Screw (Not Spared)
11	—	Spring (Not Spared)
12	—	Ground Plate (Not Spared)
13	—	Spring (Not Spared)
14	059K24020	Feed Roll Assembly
15	059K24010	Feed Roll (REP 7.2)
16	—	Cam (P/O PL 2.14 Item 14)
17	—	Cam (P/O PL 2.14 Item 14)
18	—	Shaft (P/O PL 2.14 Item 14)
19	019K97130	Retard Pad
20	—	Spring (Not Spared)
21	—	Bottom Plate (Not Spared)
22	—	Spring (Not Spared)
23	—	Lower Frame (Not Spared)
24	—	Spring (Not Spared)



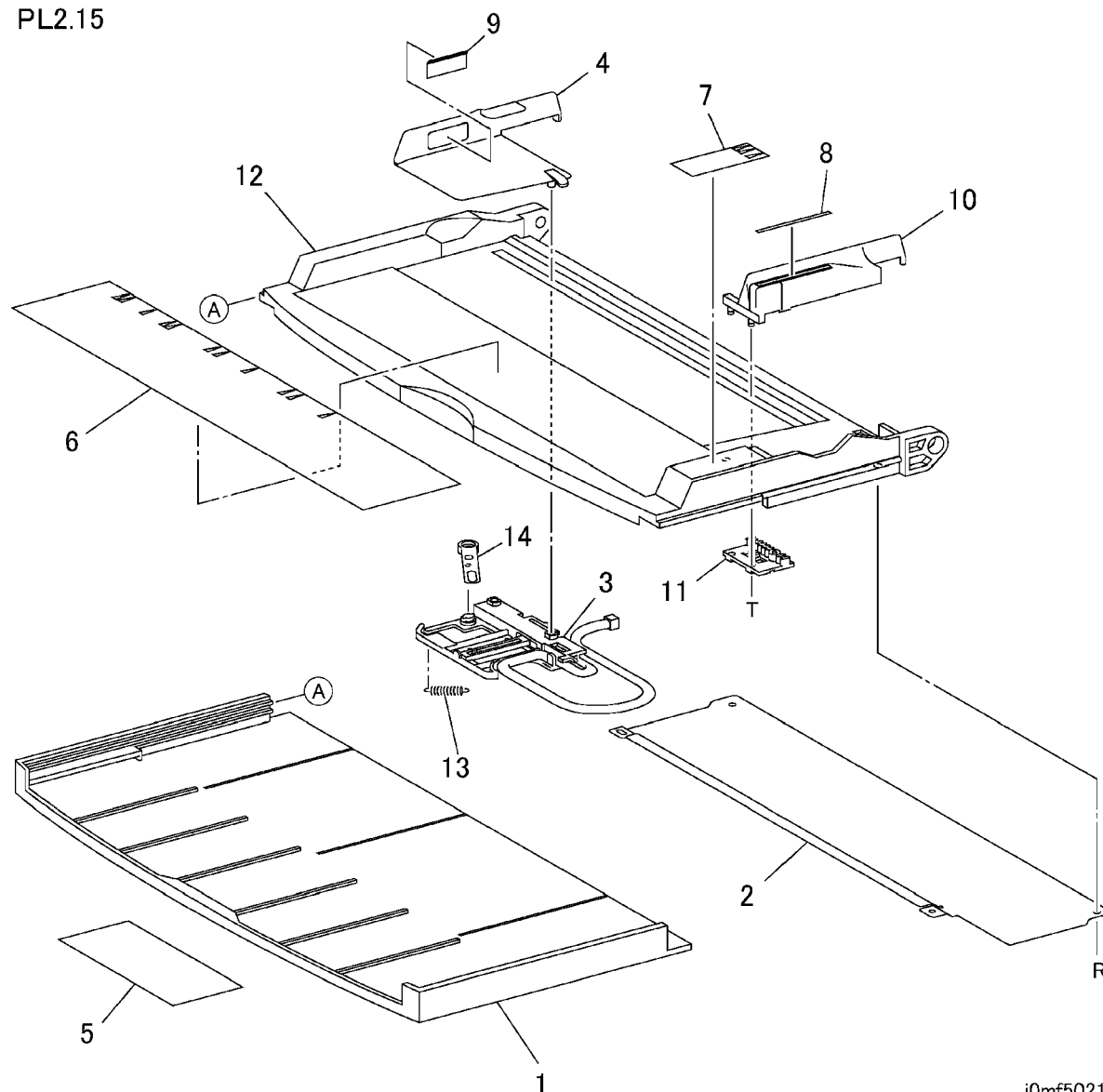
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## PL 2.15 Tray 5 Assembly

Item	Part	Description
1	—	Lower Tray (Not Spared)
2	—	Cover (Not Spared)
3	—	Paper Size Sensor (Not Spared)
4	—	Side Guide (Not Spared)
5	—	Attention Label (Not Spared)
6	—	Instruction Label (Not Spared)
7	—	Label (Not Spared)
8	—	Label (Not Spared)
9	—	Max Label (Not Spared)
10	—	Registration Guide (Not Spared)
11	—	Holder (Not Spared)
12	—	Tray (Not Spared)
13	—	Spring (Not Spared)
14	—	Link (Not Spared)

PL2.15



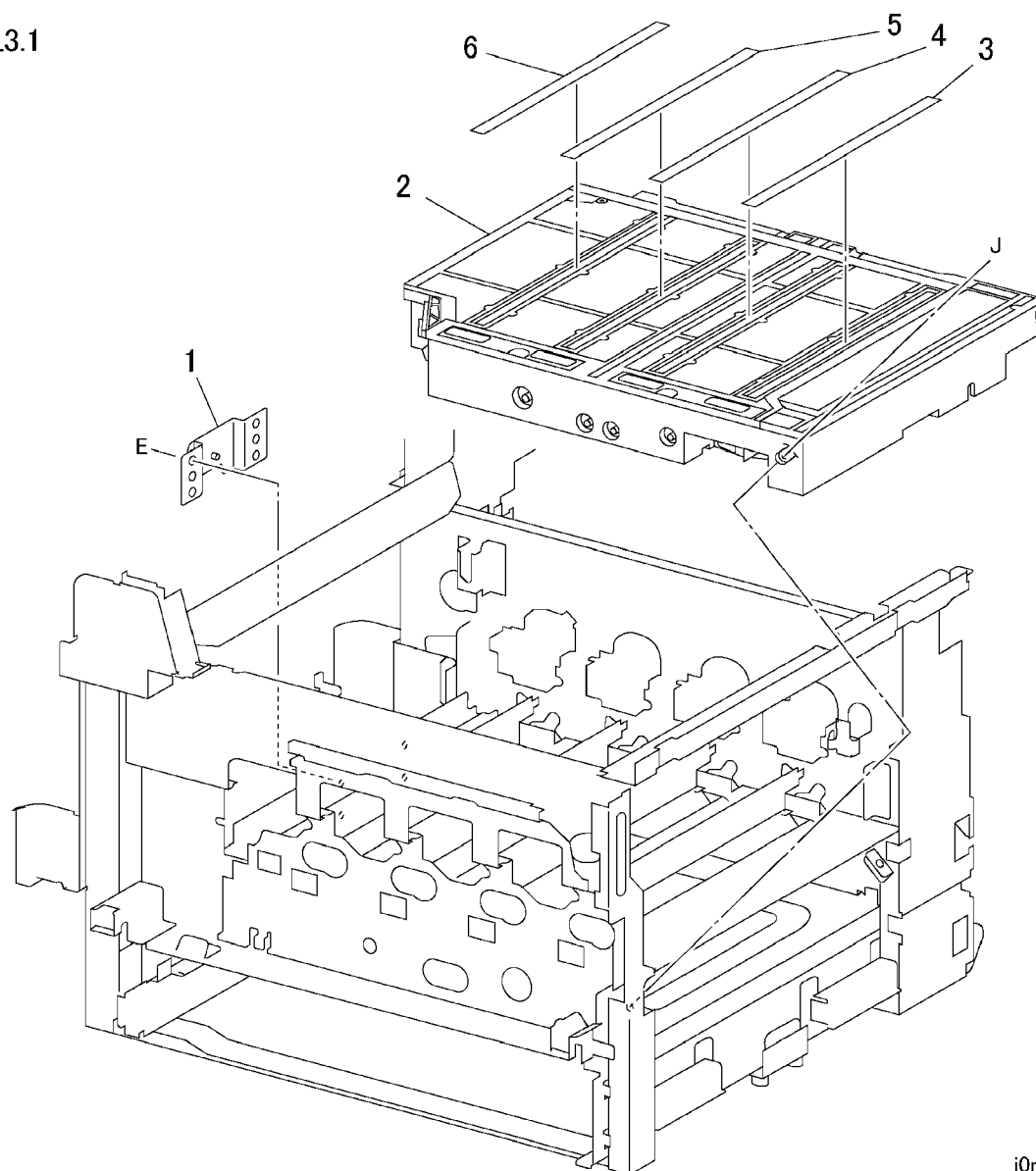
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## PL 3.1 ROS Assembly

Item	Part	Description
1	—	Bracket (Not Spared)
2	062K10881	ROS (DC2240/1632/WC24) (REP 6.1,ADJ 9.6)
—	062K11421	ROS (DC3535) (REP 6.1,ADJ 9.6)
3	—	Seal Glass (Y) (Not Spared)
4	—	Seal Glass (M) (Not Spared)
5	—	Seal Glass (C) (Not Spared)
6	—	Seal Glass (K) (Not Spared)

PL3.1



j0mf50301



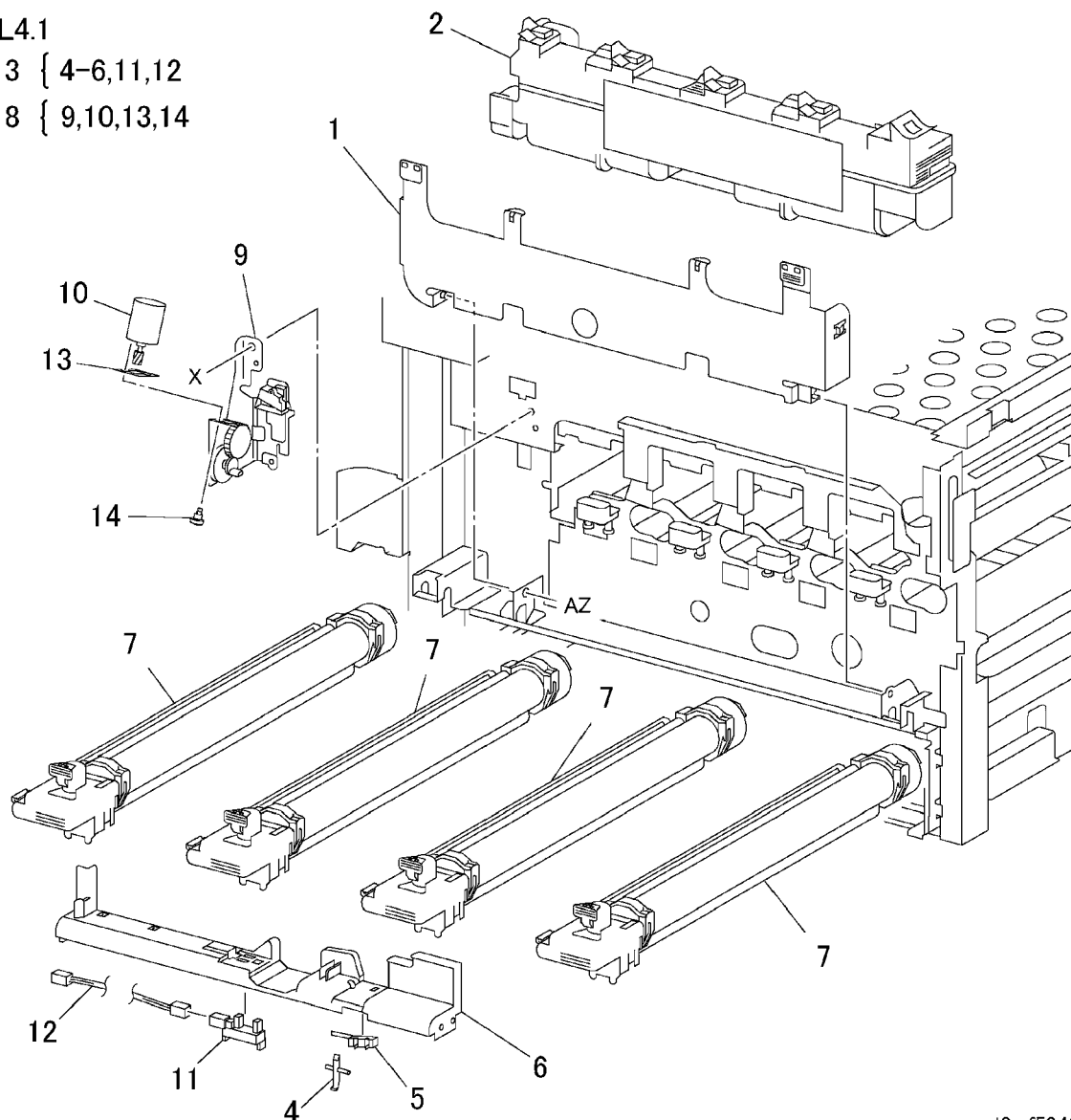
## PL 4.1 Xerographic Module: 1 of 2

Item	Part	Description
1	802K47090	Waste Toner Cartridge Cover (REP 9.3)
2	—	Waste Toner Cartridge (Not Spared) (REP 9.4)
3	003K86122	Sensor Holder Assembly
4	—	Lever (P/O PL 4.1 Item 3)
5	—	Waste Toner Cartridge Interlock Switch (P/O PL 4.1 Item 3)
6	—	Holder (P/O PL 4.1 Item 3)
7	—	Drum Cartridge (Not Spared) (REP 9.1)
8	127K29243	Agitator Motor Assembly (REP 9.13)
9	—	Bracket (P/O PL 4.1 Item 8)
10	—	Agitator Motor (P/O PL 4.1 Item 8)
11	130E91010	Full Toner Sensor (REP 9.5)
12	—	Wire Harness (P/O PL 4.1 Item 3)
13	—	Damper (P/O PL 4.1 Item 8)
14	—	Screw (P/O PL 4.1 Item 8)

PL4.1

3 { 4-6,11,12

8 { 9,10,13,14



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Initial issue

DC 3535/2240/1632, WC M24

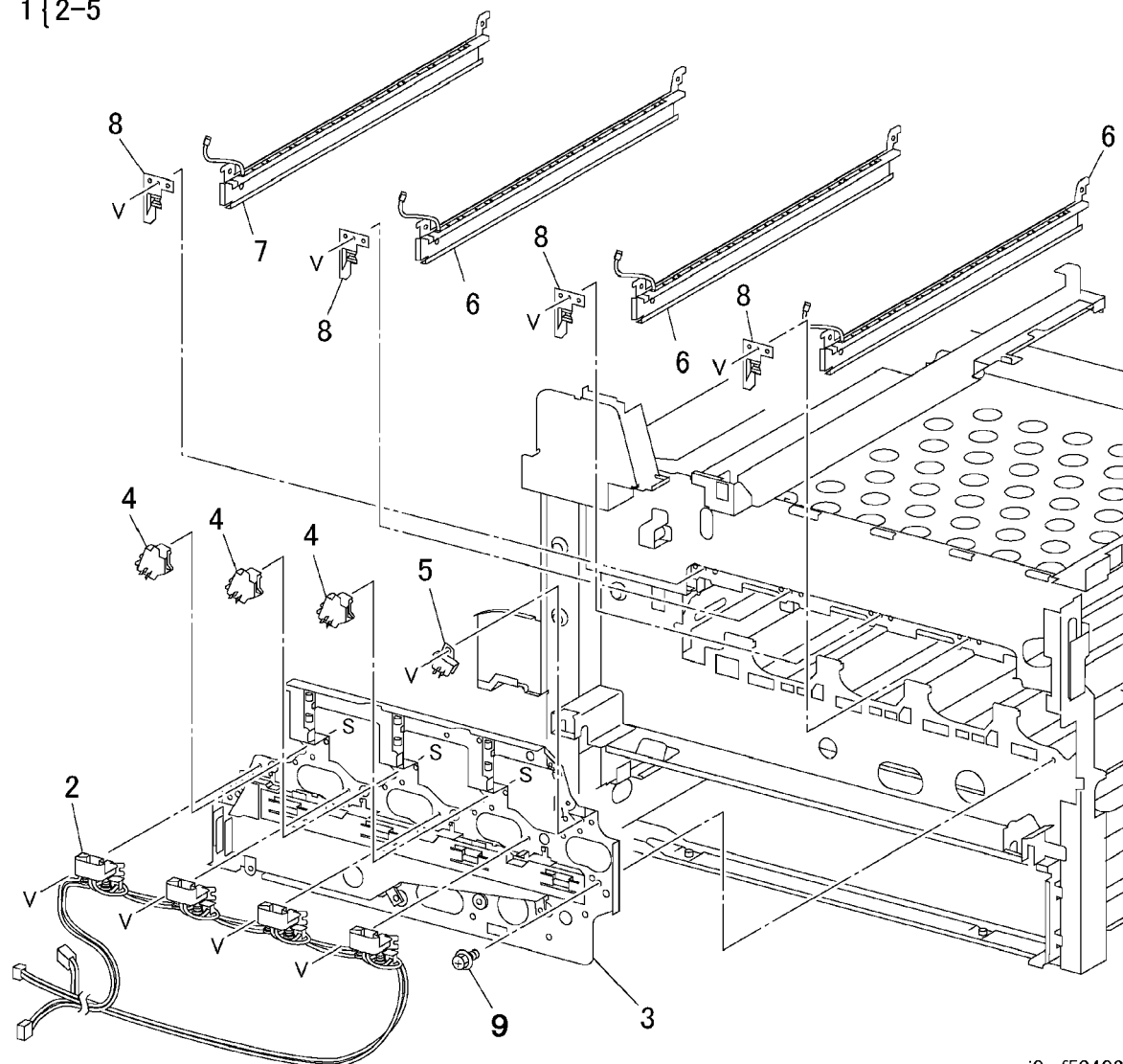
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## PL 4.2 Xerographic Module: 2 of 2

Item	Part	Description
1	015K52320	Plate Assembly (REP 9.8)
2	—	Wire Harness (P/O PL 4.2 Item 1)
3	—	Xero PLate (P/O PL 4.2 Item 1)
4	—	Block (M, C, K) (P/O PL 4.2 Item 1)
5	—	Block (Y) (P/O PL 4.2 Item 1)
6	122K93330	Erase Lamp w/Rail (Y, M, C) (REP 9.25)
7	122K93340	Erase Lamp w/Rail (K) (REP 9.25)
8	—	Bracket (Not Spared)
9	—	Screw (Not Spared)

PL4.2  
1 {2-5

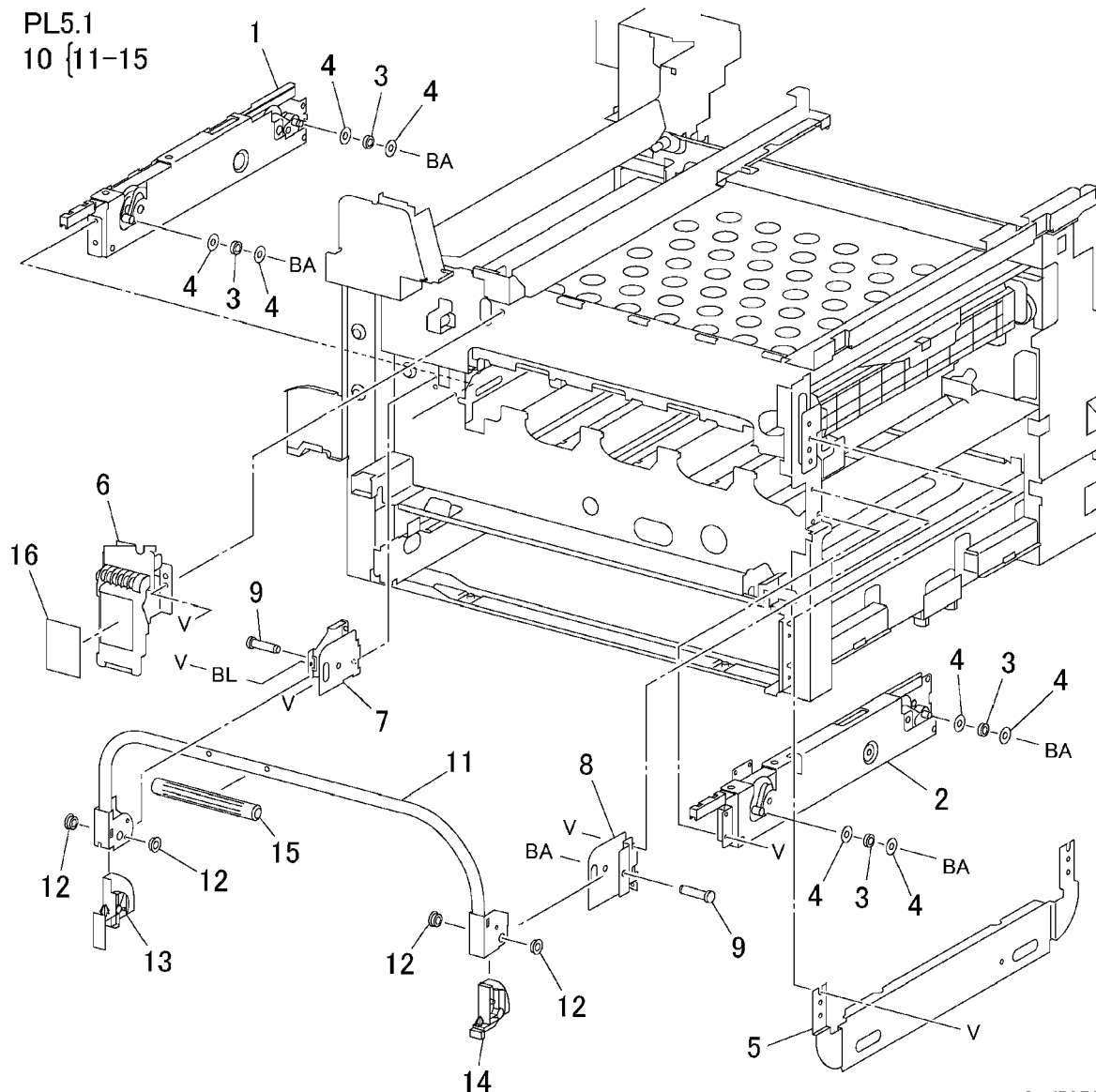


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## PL 5.1 Lift Unit

Item	Part	Description
1	001K70542	Left Lift Assembly (REP 9.21)
2	001K70551	Right Lift Assembly (REP 9.20)
3	—	Bearing (Not Spared)
4	—	Washer (Not Spared)
5	—	Plate (Not Spared)
6	003K12881	Latch Assembly
7	003E52290	Left Hinge (REP 9.19)
8	003E52300	Right Hinge (REP 9.19)
9	006E71740	Shaft
10	011K94970	Lever Assembly
11	—	Lever (P/O PL 5.1 Item 10) (REP 9.18)
12	—	Bearing (P/O PL 5.1 Item 10)
13	—	Left Cap (P/O PL 5.1 Item 10)
14	—	Right Cap (P/O PL 5.1 Item 10)
15	—	Grip (P/O PL 5.1 Item 10)
16	—	Label (Not Spared)



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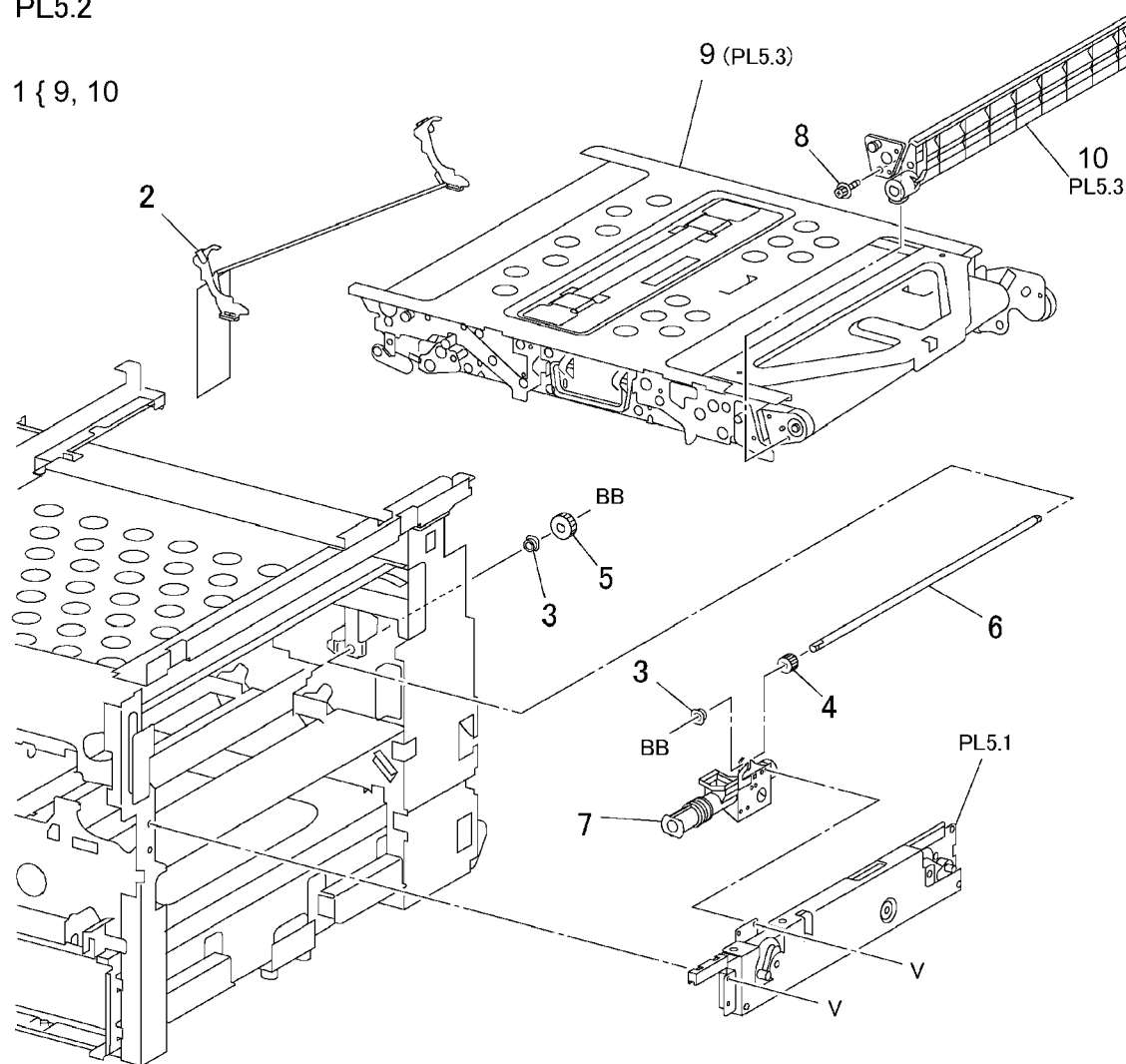


## PL 5.2 IBT Unit

Item	Part	Description
1	604K07052	IBT Belt Assembly (REP 9.15,ADJ 9.6)
2	003K12650	Removal Support
3	—	Bearing (Not Spared)
4	007E61910	Gear (14T)
5	007E61890	Gear (18T)
6	—	Shaft (Not Spared)
7	802K12950	Auger Assembly (REP 9.17)
8	—	Screw (Not Spared)
9	—	IBT Belt Assembly (P/O PL 5.2 Item 1)
10	604K07061	IBT Belt Cleaner Assembly

PL5.2

1 { 9, 10



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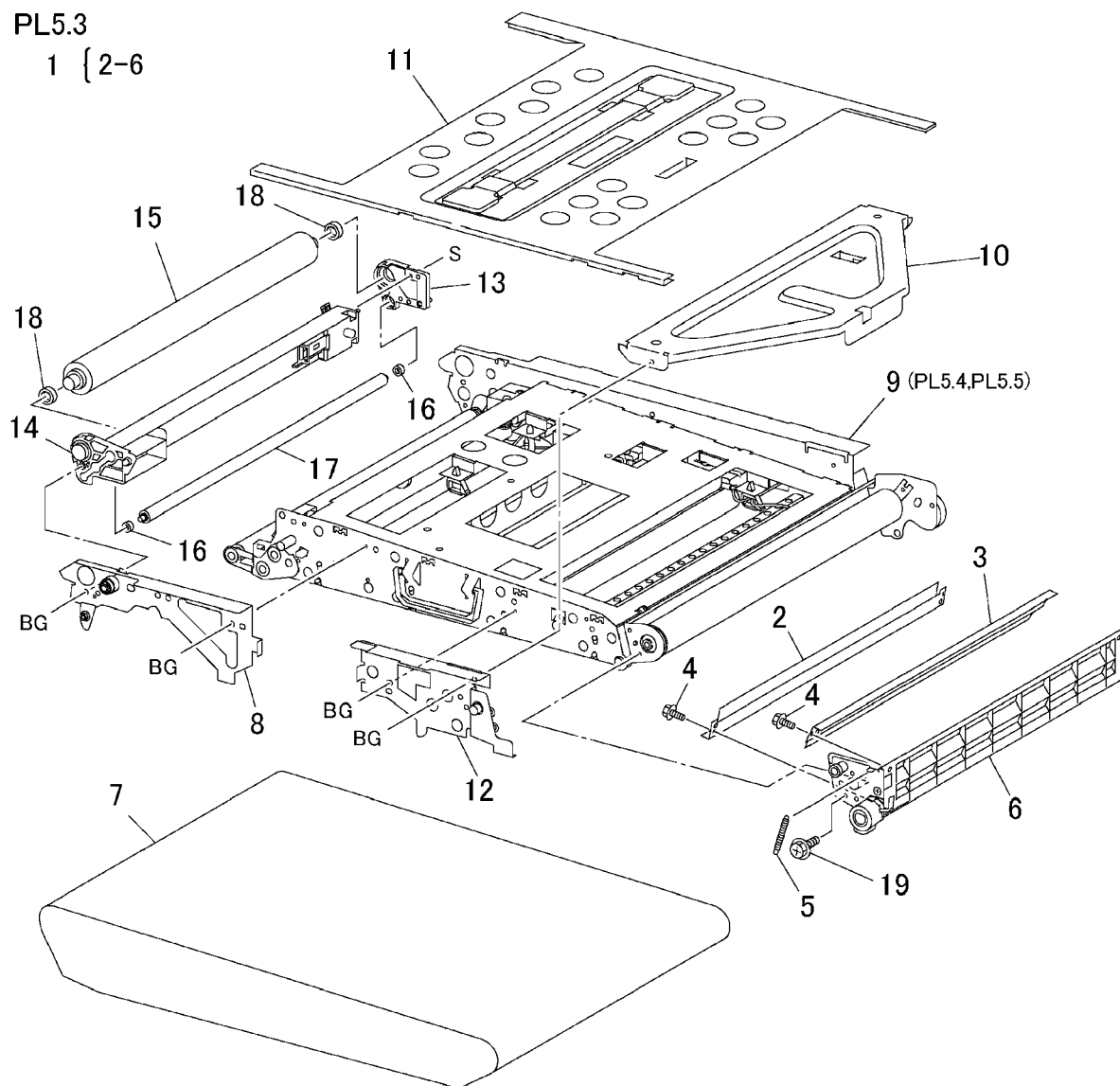


## PL 5.3 IBT Belt Assembly

Item	Part	Description
1	—	IBT Belt Cleaner Assembly (P/O PL 5.2 Item 1) (REP 9.16)
2	—	Blade (P/O PL 5.3 Item 1)
3	—	Seal (P/O PL 5.3 Item 1)
4	—	Screw (P/O PL 5.3 Item 1)
5	—	Spring (P/O PL 5.3 Item 1)
6	—	Housing (P/O PL 5.3 Item 1)
7	064K91451	Transfer Belt (REP 9.22,ADJ 9.6)
8	—	Support (P/O PL 5.2 Item 9)
9	—	IBT Frame (P/O PL 5.2 Item 9)
10	—	Right Handle (P/O PL 5.2 Item 9)
11	—	Left Handle (P/O PL 5.2 Item 9)
12	—	Bracket (P/O PL 5.2 Item 9)
13	—	Housing (P/O PL 5.2 Item 9)
14	—	Housing (P/O PL 5.2 Item 9)
15	059K23150	Backup Roll
16	—	Bearing (P/O PL 5.2 Item 9)
17	—	Pre Roll (P/O PL 5.2 Item 9)
18	013E18980	Bearing
19	—	Screw (P/O PL 5.2 Item 1)

PL5.3

1 { 2-6



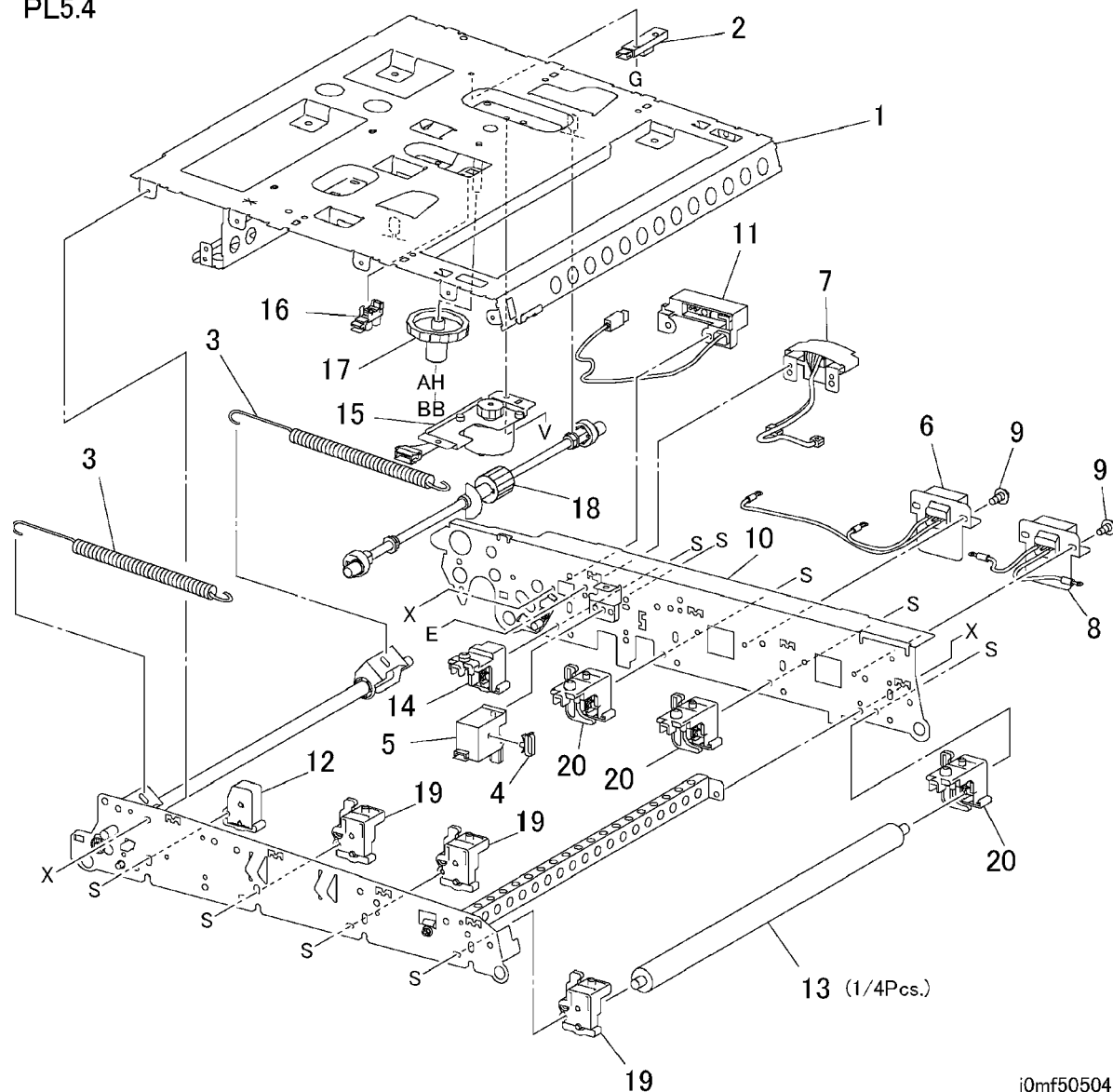
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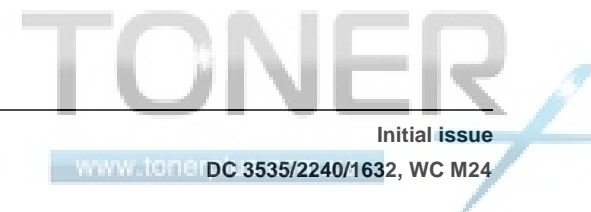
## PL 5.4 IBT Frame Assembly: 1 of 2

Item	Part	Description
1	—	Frame (Not Spared)
2	130E84270	IBT Home Sensor (ADJ 9.6)
3	—	Spring (Not Spared)
4	—	Clamp (Not Spared)
5	130K60830	IBT Edge Sensor (ADJ 9.6)
6	162K56020	Connector (C, K)
7	—	Connector (Not Spared)
8	162K61090	Connector (Y, M)
9	—	Screw (Not Spared)
10	—	Rear Frame (Not Spared)
11	—	Connector (Not Spared)
12	019K98200	Front Holder
13	059K21260	1st BTR Roll (REP 9.23)
14	019K98190	Rear Holder
15	127K33950	Retract Motor
16	130E82190	Retract Sensor
17	—	Worm Gear (Not Spared)
18	—	Retract Shaft (Not Spared) (REP 9.27)
19	019K97550	Front Holder
20	019K97540	Rear Holder

PL5.4



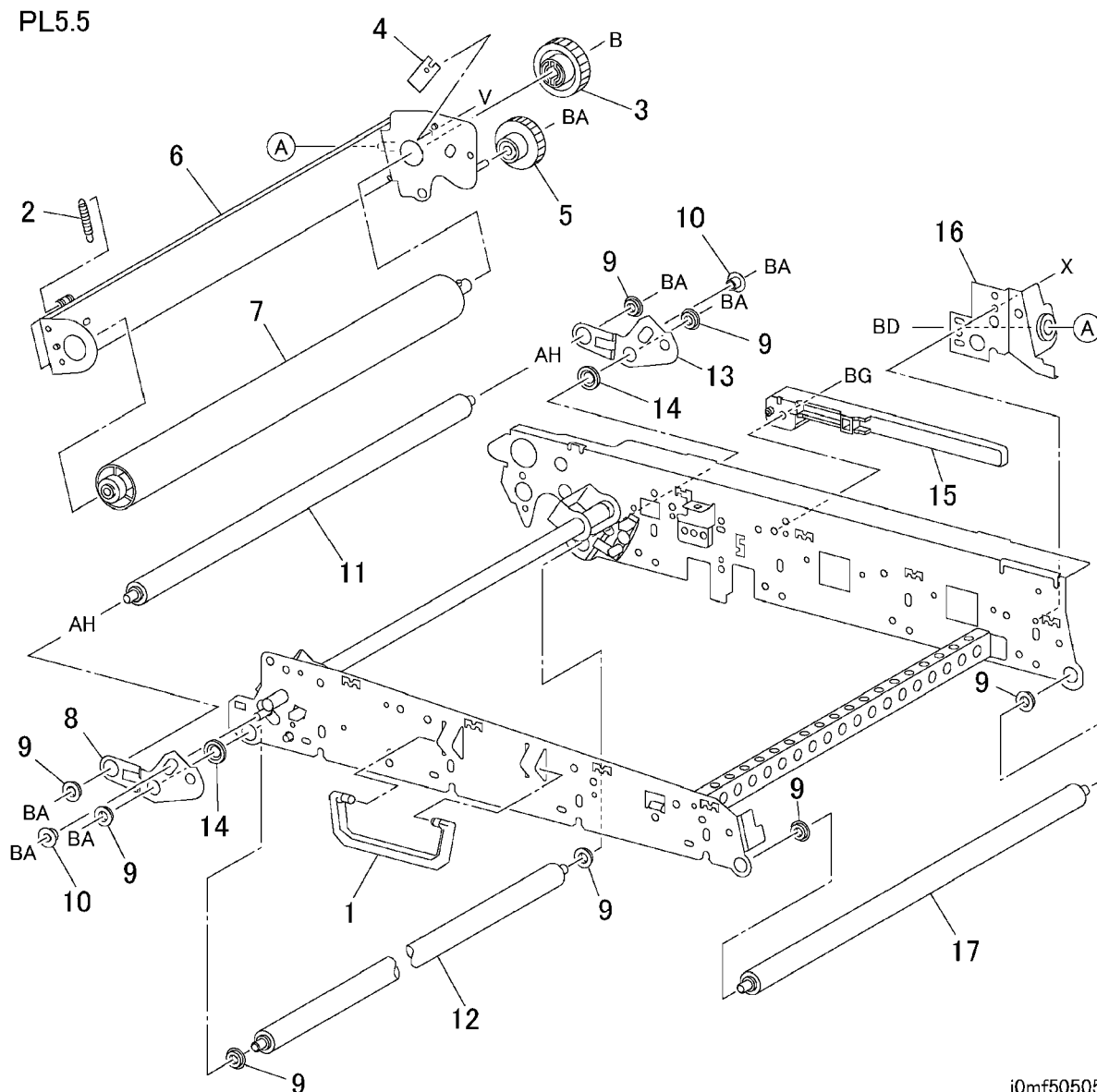
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## PL 5.5 IBT Frame Assembly: 2 of 2

Item	Part	Description
1	—	Handle (Not Spared)
2	—	Spring (Not Spared)
3	—	Gear (Not Spared)
4	—	Plate (Not Spared)
5	—	Gear (Not Spared)
6	—	Bracket (Not Spared)
7	—	Top Roll (Not Spared)
8	—	Front Bracket (Not Spared)
9	—	Bearing (Not Spared)
10	—	Bearing (Not Spared)
11	—	Roll (Not Spared)
12	—	Roll (Not Spared)
13	—	Rear Bracket (Not Spared)
14	—	Collar (Not Spared)
15	—	Latch (Not Spared)
16	—	Bracket (Not Spared)
17	—	Roll (Not Spared)



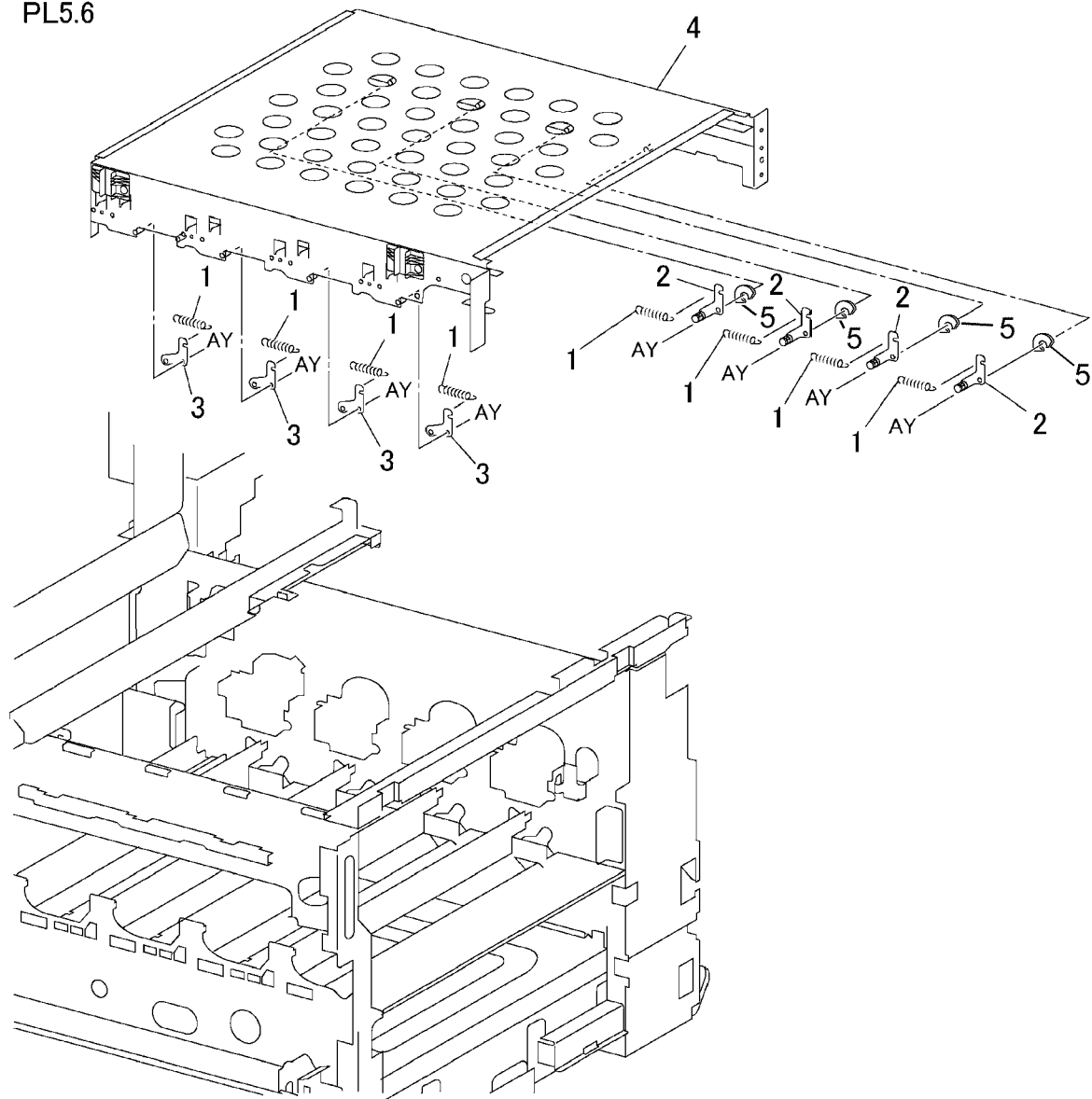
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## PL 5.6 IBT Elevator

Item	Part	Description
1	809E26330	Spring
2	015K49480	Rear Plunger
3	015K49310	Front Plunger
4	—	Frame (Not Spared)
5	014E43150	Spacer

PL5.6



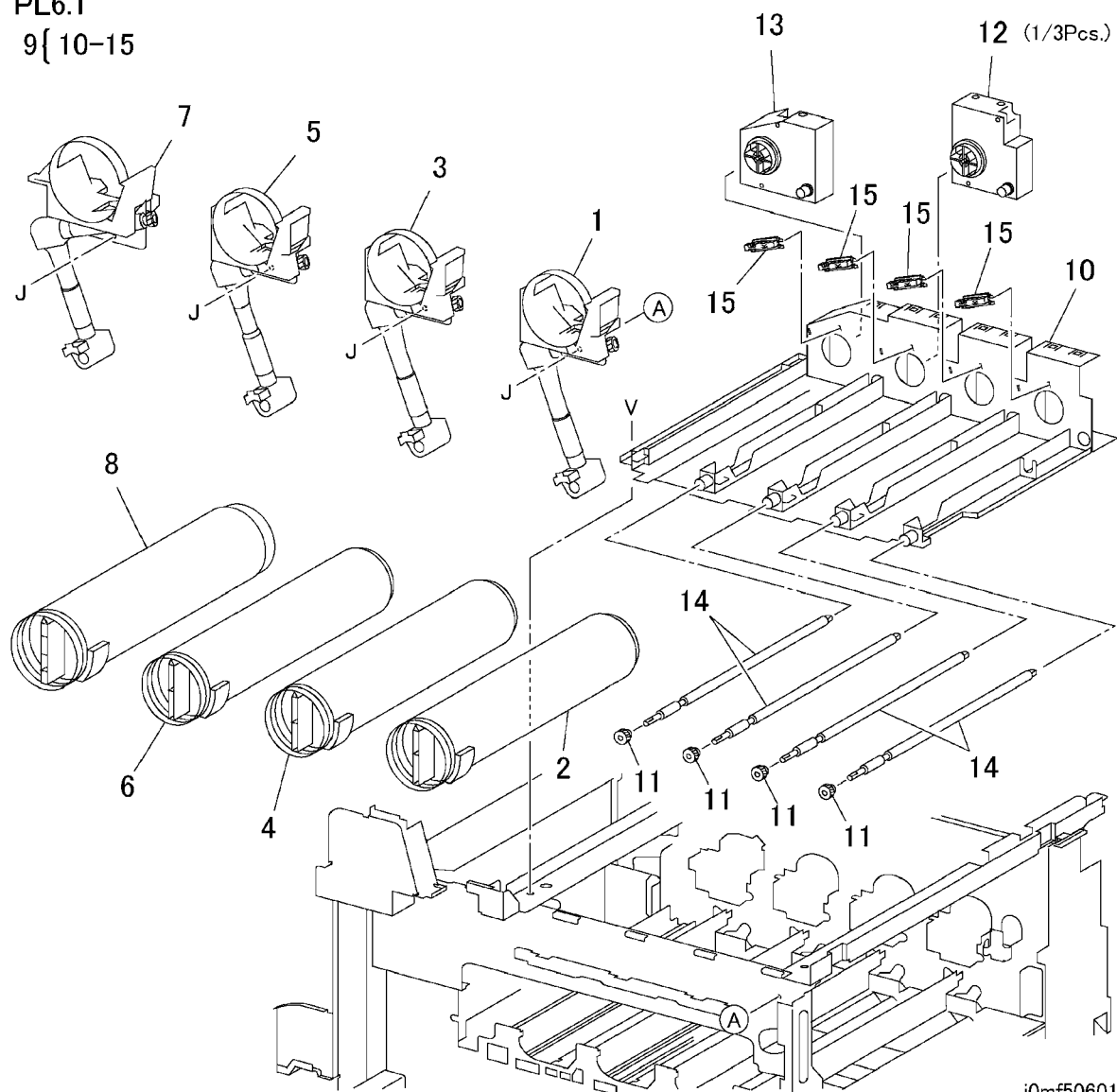
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## PL 6.1 Developer Unit: 1 of 2

Item	Part	Description
1	802K28810	Toner Dispenser (WC24) (REP 9.7)
—	802K45910	Toner Dispenser (Y) (DC3535/2240/1632) (REP 9.7)
2	—	Toner Cartridge (Not Spared)
3	802K28820	Toner Dispenser (WC24) (REP 9.7)
—	802K45920	Toner Dispenser (M) (DC3535/2240/1632) (REP 9.7)
4	—	Toner Cartridge (Not Spared)
5	802K28830	Toner Dispenser (WC24) (REP 9.7)
—	802K45930	Toner Dispenser (C) (DC3535/2240/1632) (REP 9.7)
6	—	Toner Cartridge (Not Spared)
7	802K28840	Toner Dispenser (WC24) (REP 9.7)
—	802K45940	Toner Dispenser (K) (DC3535/2240/1632) (REP 9.7)
8	—	Toner Cartridge (Not Spared)
9	802K33090	Toner Dispenser Base Assembly (REP 9.11)
10	—	Toner Dispenser Base (P/O PL 6.1 Item 9)
11	—	Gear (P/O PL 6.1 Item 9)
12	127K33930	Toner Dispenser Motor (Y, M, C)
13	127K33940	Toner Dispenser Motor (K)
14	—	Shaft (P/O PL 6.1 Item 9)
15	116K90810	New Cartridge Detect Switch

PL6.1  
9{ 10-15

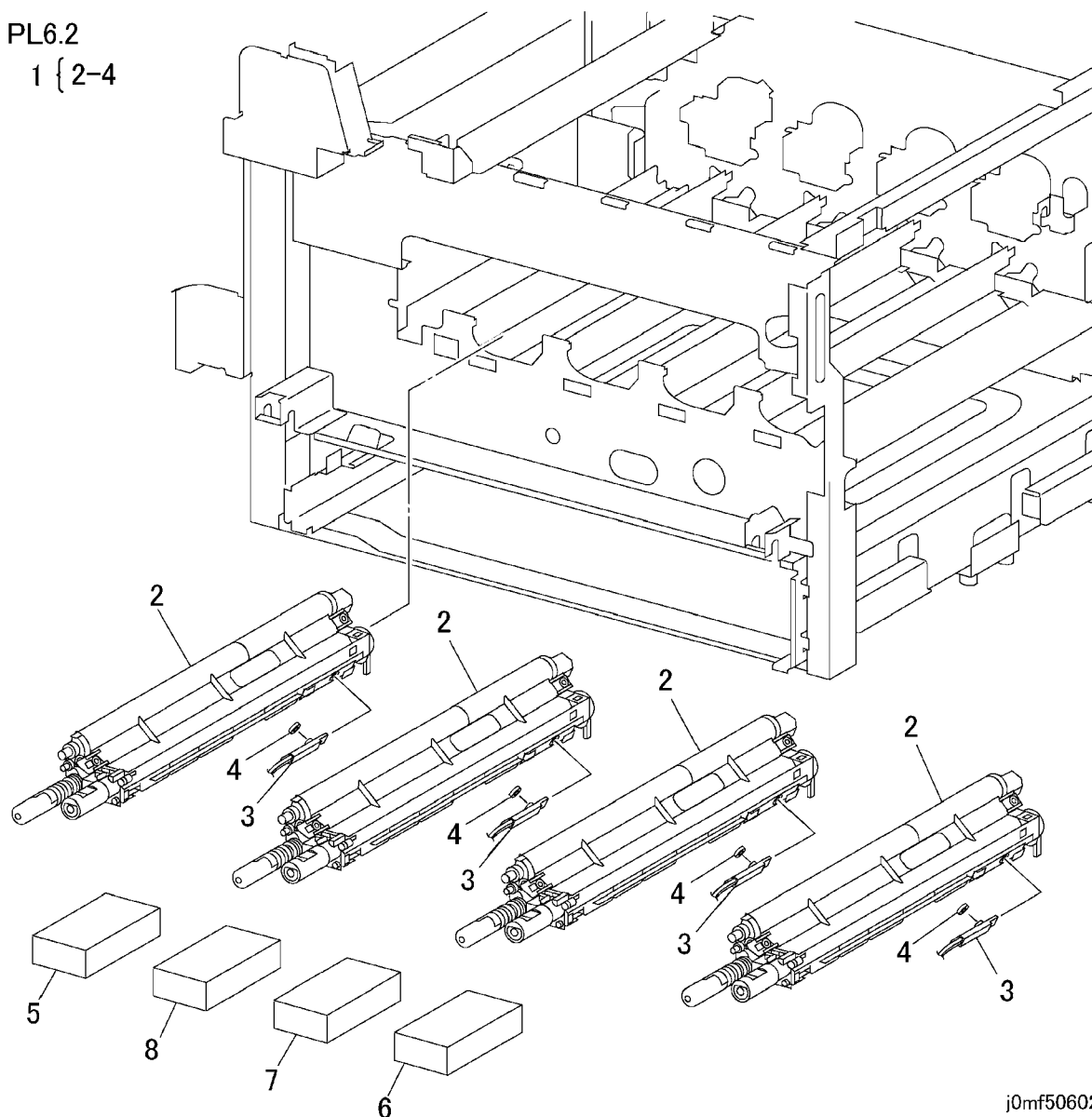




## PL 6.2 Developer Unit: 2 of 2

Item	Part	Description
1	802K28891	Developer Housing (Y, M, K, C) (REP 9.9,ADJ 9.1)
2	—	Developer Housing (P/O PL 6.2 Item 1)
3	130K63000	ATC Sensor (Y, M, K, C) (REP 9.26,ADJ 9.1)
4	035E65010	Seal
5	604K07520	Developer (K) (REP 9.10,ADJ 9.1)
6	604K07490	Developer (Y) (REP 9.10,ADJ 9.1)
7	604K07500	Developer (M) (REP 9.10,ADJ 9.1)
8	604K07510	Developer (C) (REP 9.10,ADJ 9.1)

PL6.2  
1 { 2-4



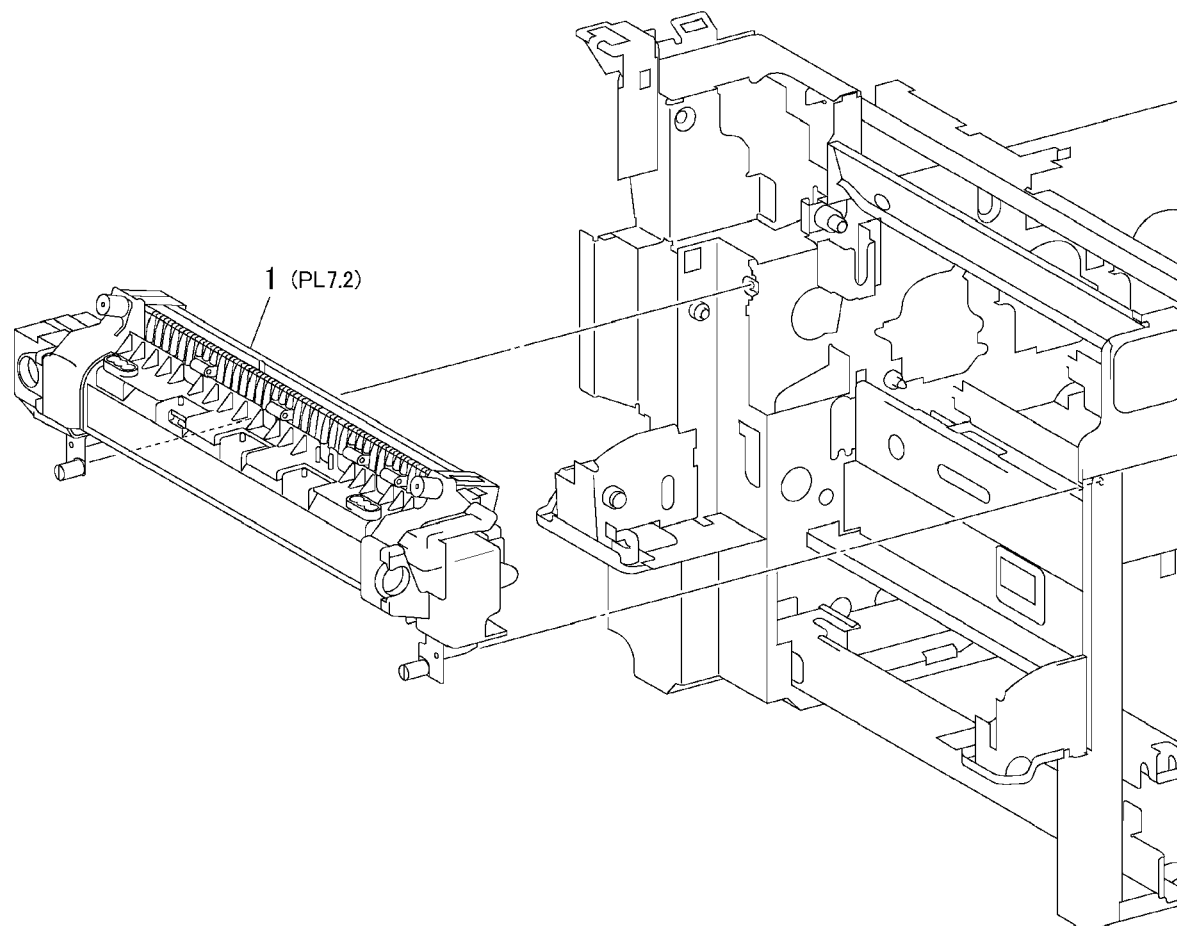
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## PL 7.1 Fuser Assembly: 1 of 2

Item	Part	Description
1	126K14893	Fuser (220V) (DC2240/1632) (REP 10.1)
–	126K13943	Fuser (120V) (DC2240/1632) (REP 10.1)
–	008R12904	Fuser (110V) (DC3535/WC24) (REP 10.1)
–	008R12905	Fuser (220V) (DC3535/WC24) (REP 10.1)

PL7.1



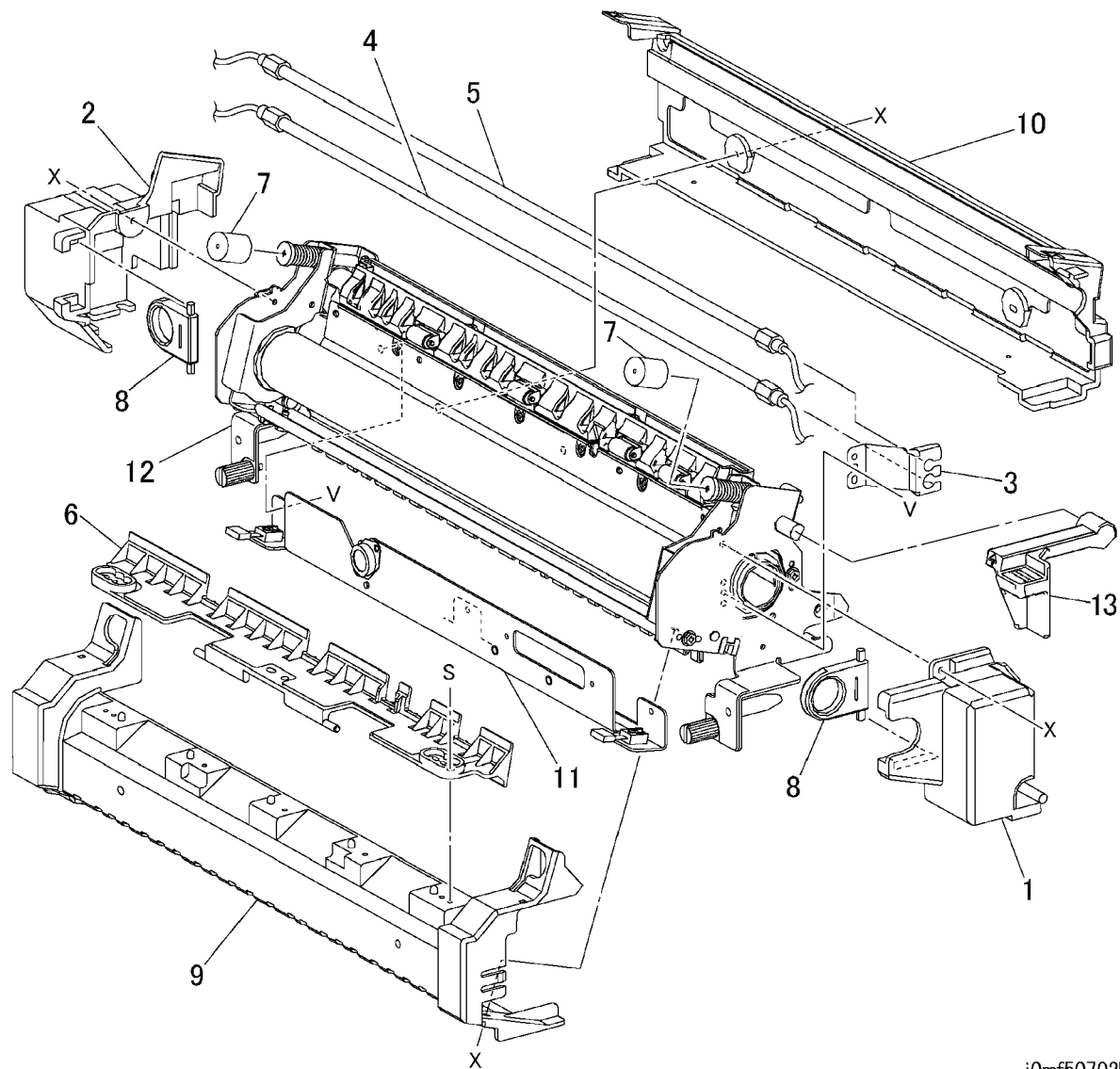
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## PL 7.2 Fuser Assembly: 2 of 2

Item	Part	Description
1	—	Front Cover (Not Spared)
2	—	Rear Cover (Not Spared)
3	—	Front Lamp Bracket (Not Spared)
4	126K13950	Main Heater Rod (110V) (REP 10.3)
—	126K13980	Main Heater Rod (220V) (REP 10.3)
5	126K13990	Sub Heater Rod (220V) (REP 10.3)
—	126K13960	Sub Heater Rod (110V) (REP 10.3)
6	—	Exit Chute (Not Spared)
7	—	Cap (Not Spared)
8	—	Handle (Not Spared)
9	—	Upper Cover (Not Spared)
10	—	Lower Cover (Not Spared)
11	130K61020	Sensor Assembly
12	—	Fuser (Not Spared)
13	003E51861	Fuser Nip Handle

PL7.2



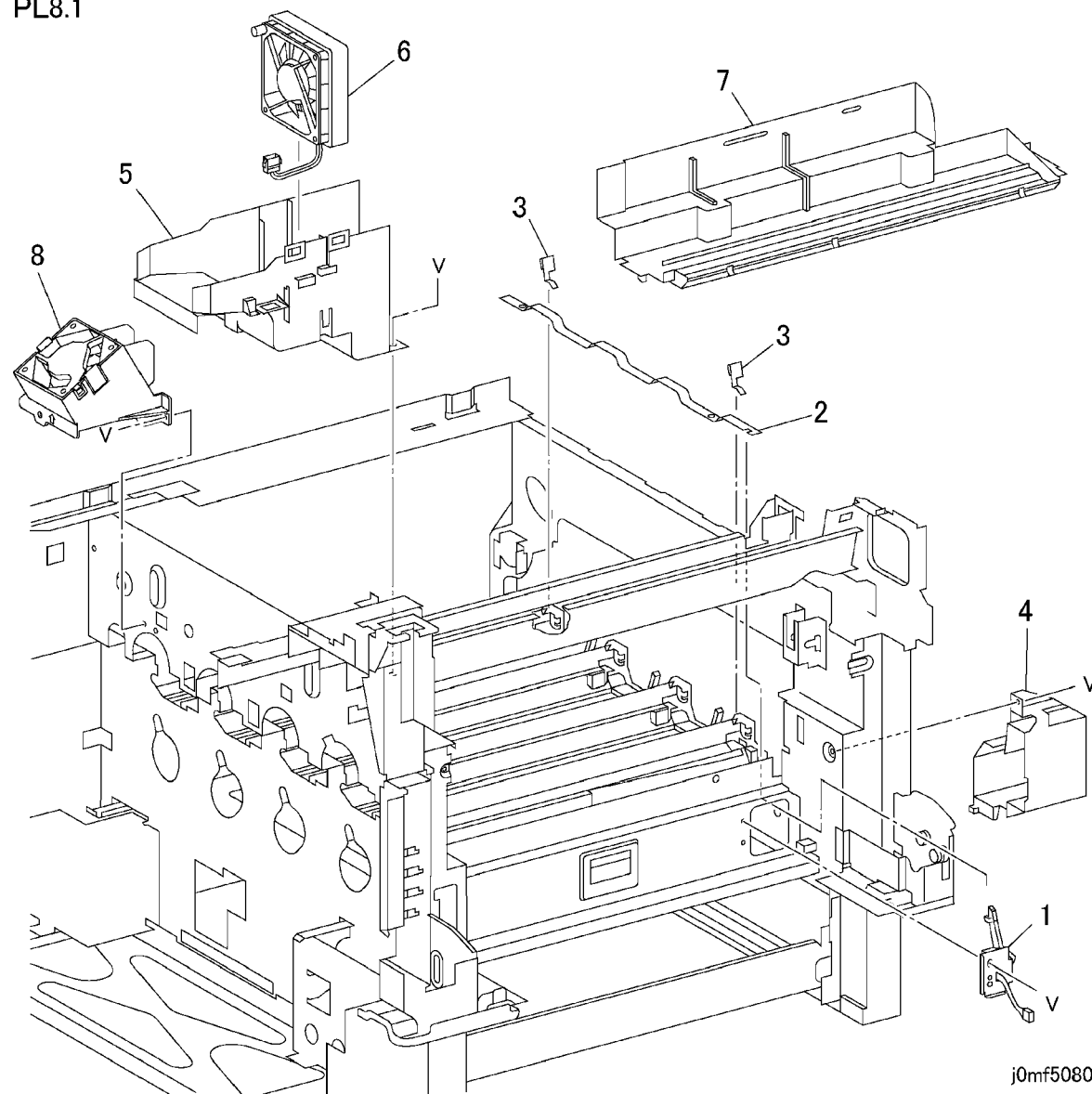
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## PL 8.1 Air System

Item	Part	Description
1	127K32730	ROS Shutter Motor (REP 9.2)
2	—	Link (Not Spared)
3	—	Spring (Not Spared)
4	—	Inner Cover (Not Spared) (REP 14.10)
5	—	Duct (Not Spared)
6	127K29340	Fuser Fan (REP 10.2)
7	—	Duct (Not Spared)
8	127K36640	Rear Fan

PL8.1

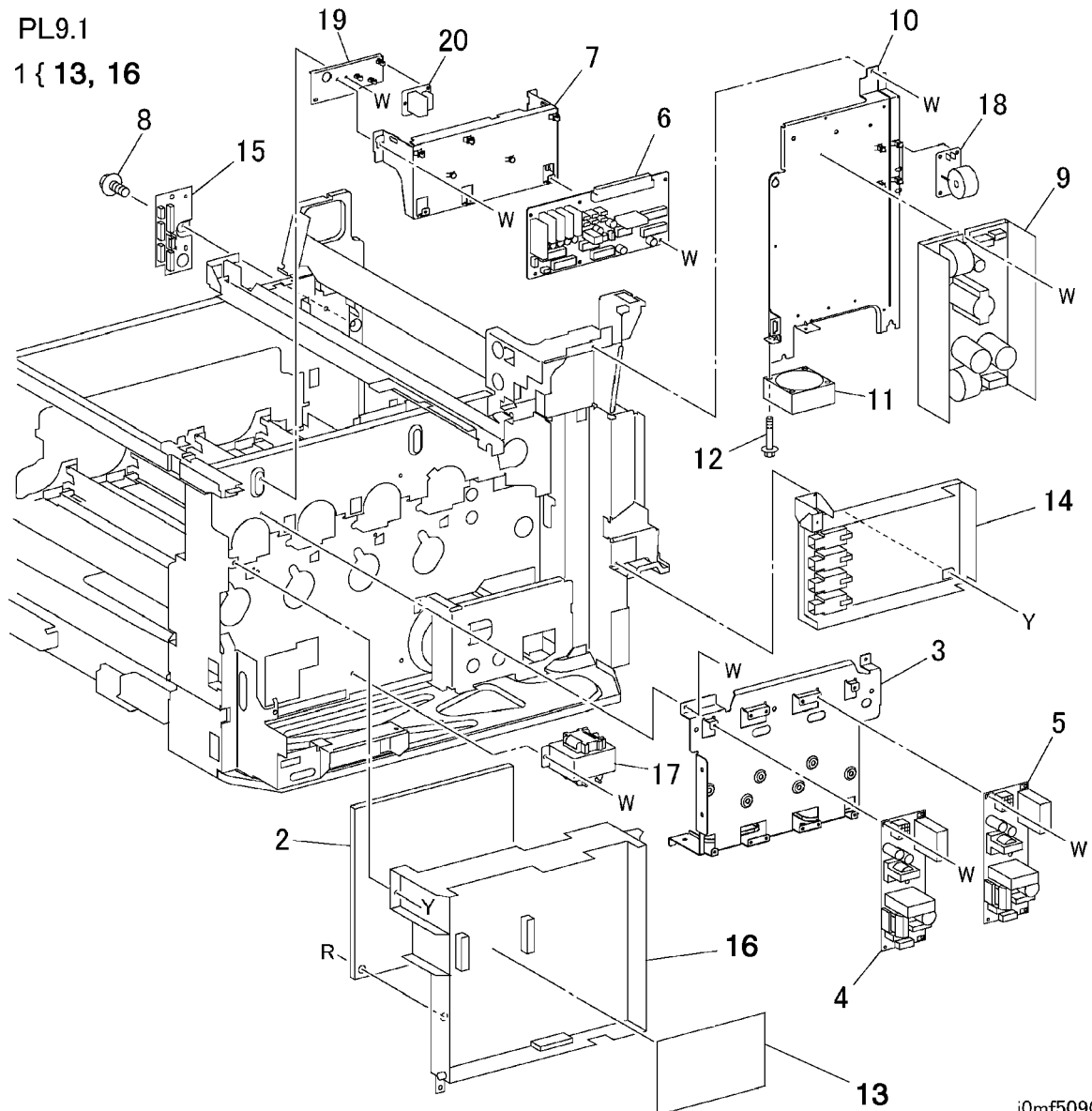


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## PL 9.1 Electrical Components: 1 of 3

Item	Part	Description
1	105K18772	DEV/BTR2/DTS HVPS (DC2240/1632/WC24) (REP 1.6 REP 1.7)
–	105K20061	DEV/BTR2/DTS HVPS (DC3535) (REP 1.6 REP 1.7)
2	105E09981	BCR HVPS (DC2240/1632/ WC24) (REP 1.6 REP 1.7)
–	105E11341	BCR HVPS (DC3535) (REP 1.6 REP 1.7)
3	–	LVPS Bracket (Not Spared) (REP 1.1)
4	105E11131	3.3V LVPS (110V) (REP 1.4)
–	105E09811	3.3V LVPS (220V) (REP 1.4)
5	105E09821	5V LVPS (110V) (REP 1.4)
–	105E09831	5V LVPS (220V) (REP 1.4)
6	160K76803	Interface (I/F) PWB (DC2240/1632/WC24) (REP 1.8)
–	160K87480	Interface PWB (DC3535) (REP 1.8)
7	–	Bracket (Not Spared) (MEXICO)
8	–	Screw (Not Spared)
9	105E09761	24V LVPS (220V) (REP 1.5)
–	105K18642	24V LVPS (110V) (REP 1.5)
10	–	24V LVPS Chassis (Not Spared) (REP 1.9)
11	127K29330	LVPS Fan
12	–	Screw (Not Spared)
13	–	HVPS Control PWB (P/O PL 9.1 Item 1)
14	105E09971	BTR1 HVPS (REP 1.10)
15	–	Connector Chassis (Not Spared)
16	–	HVPS Chassis (P/O PL 9.1 Item 1)
17	103E27220	Resistor (220V)
–	104E93610	Choke Coil (110V)
18	160K84400	Fuser Noise Filter
19	–	Plate (Not Spared)
20	160K87730	Interlock Relay PWB (DC2240/1632/WC24)
–	160K88291	Interlock Relay PWB (DC3535)

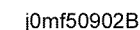


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PL9.2  
1 { 2-12, 15-18

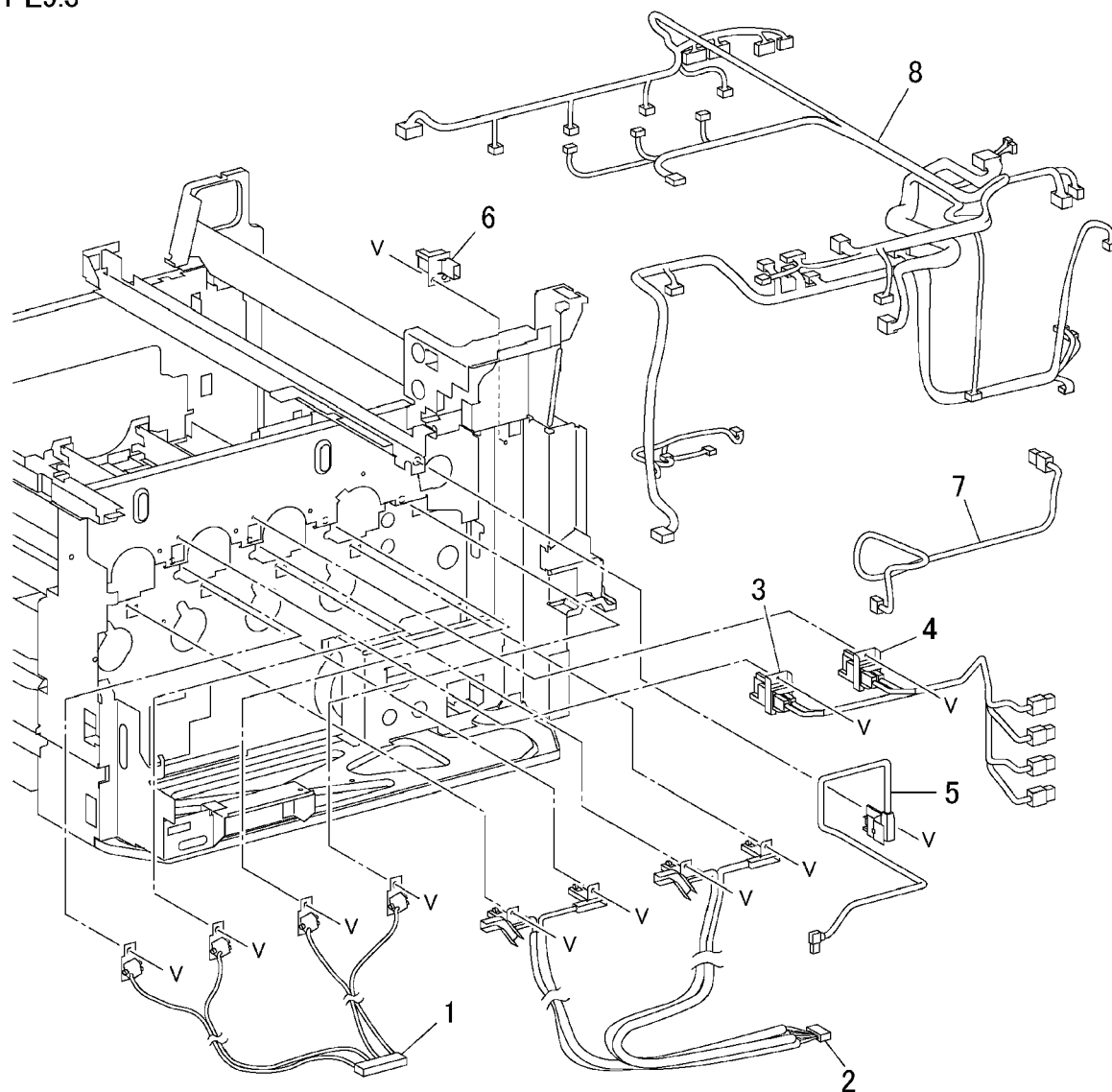




## PL 9.3 Electrical Components: 3 of 3

Item	Part	Description
1	014K81604	Developer Block
2	162K62110	Wire Harness
3	162K55941	Wire Harness (Y, M)
4	162K55971	Wire Harness (C, K)
5	162K56000	2nd Wire Harness
6	113K82310	DTS Connector
7	162K56031	DTS Wire Harness
8	962K09800	DC Wire Harness (DC2240/1632/WC24)
—	962K09140	DC Wire Harness (DC3535)

PL9.3

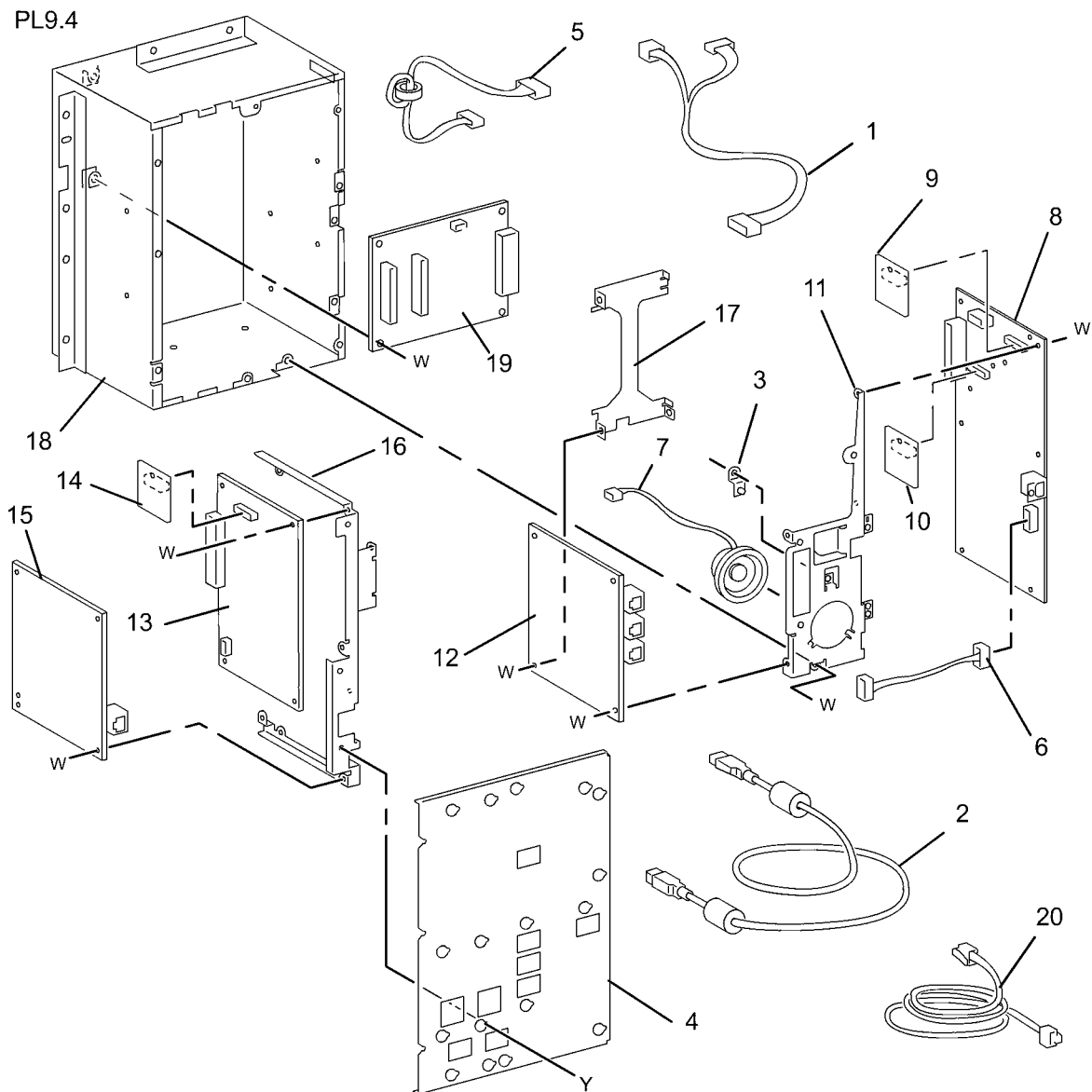


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## PL 9.4 Fax Module

Item	Part	Description
1	962K03981	Wire Harness
2	117K34640	USB Cable
3	—	Stopper (Not Spared)
4	—	Fax Module Cover (Not Spared)
5	962K03500	Wire Harness
6	962K03490	Wire Harness
7	130K62980	Speaker
8	160K88150	Fax PWB
9	537K63930	Program ROM
10	537K61030	Data ROM
11	—	Bracket Assembly (Not Spared)
12	160K88140	NCU PWB (XC)
—	160K89890	NCU PWB (XE)
13	160K88160	G3 PWB (Option)
14	537K63950	G3 Program ROM (Option)
15	160K90520	Option NCU PWB (Option)
16	—	Bracket (Option) (Not Spared)
17	—	Bracket (Not Spared)
18	—	Fax Module (Not Spared)
19	160K78660	Add Port PWB (Option)
20	—	PSTN Cable (Option) (Not Spared)

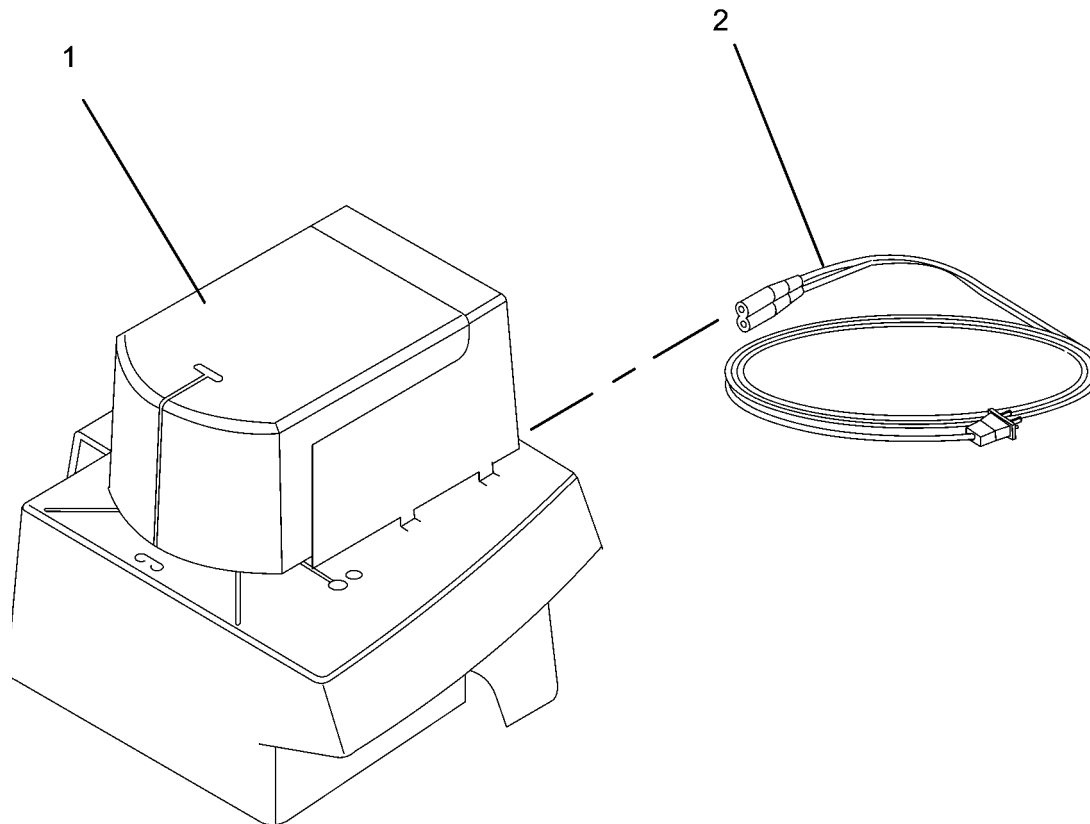


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## PL 9.5 Convenience Stapler Assembly

Item	Part	Description
1	029K03880	Convenience Stapler Assembly
2	117E25980	Power Cord



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## PL 10.1 Front Cover

Item	Part	Description
1	891E75951	Logo Plate (DC2240/1632)
—	892E89060	Logo PLate (DC3535/WC24)
2	892E78280	Name Plate (16/32) (DC1632)
—	892E78290	Name Plate (22/40) (DC2240)
3	802K46050	Front Cover Assembly (DC2240/1632) (REP 14.7)
—	802K47590	Front Cover Assembly (WC24) (REP 14.7)
—	802K52450	Front Cover Assembly (DC3535) (REP 14.7)
4	—	Front Cover (P/O PL 10.1 Item 3)
5	—	Magnet (P/O PL 10.1 Item 3)
6	—	Strip (P/O PL 10.1 Item 3)
7	042K91990	ROS Cleaner Assembly
8	—	ROS Cleaner (P/O PL 10.1 Item 7)
9	—	Cleaner Base (P/O PL 10.1 Item 7)
10	110E94770	Front Interlock Switch (DC2240/1632/WC24), Right Interlock Switch (DC3535/2240/1632/WC24)
11	110E97990	Front Interlock Switch (DC3535)
12	802K46060	Right Cover (DC2240/1632/WC24) (REP 14.3)
—	802K50160	Right Cover (DC3535) (REP 14.3)
13	—	Hinge (Not Spared)
14	802K62050	Logo Badge (DC3535)

### PL10.1

3 { 1, 4 - 9

7 { 8, 9

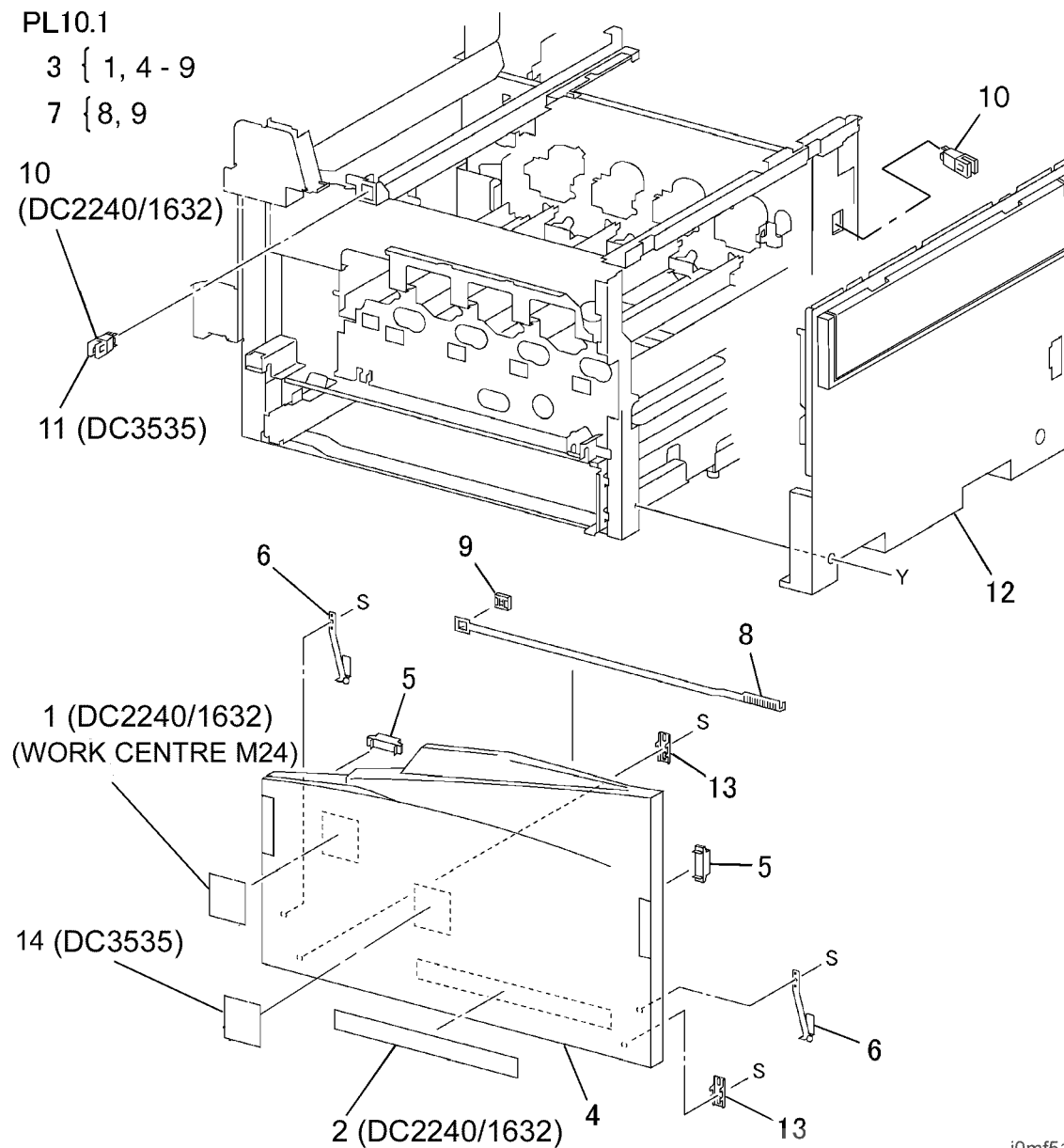
10  
(DC2240/1632)

11 (DC3535)

1 (DC2240/1632)  
(WORK CENTRE M24)

14 (DC3535)

2 (DC2240/1632)

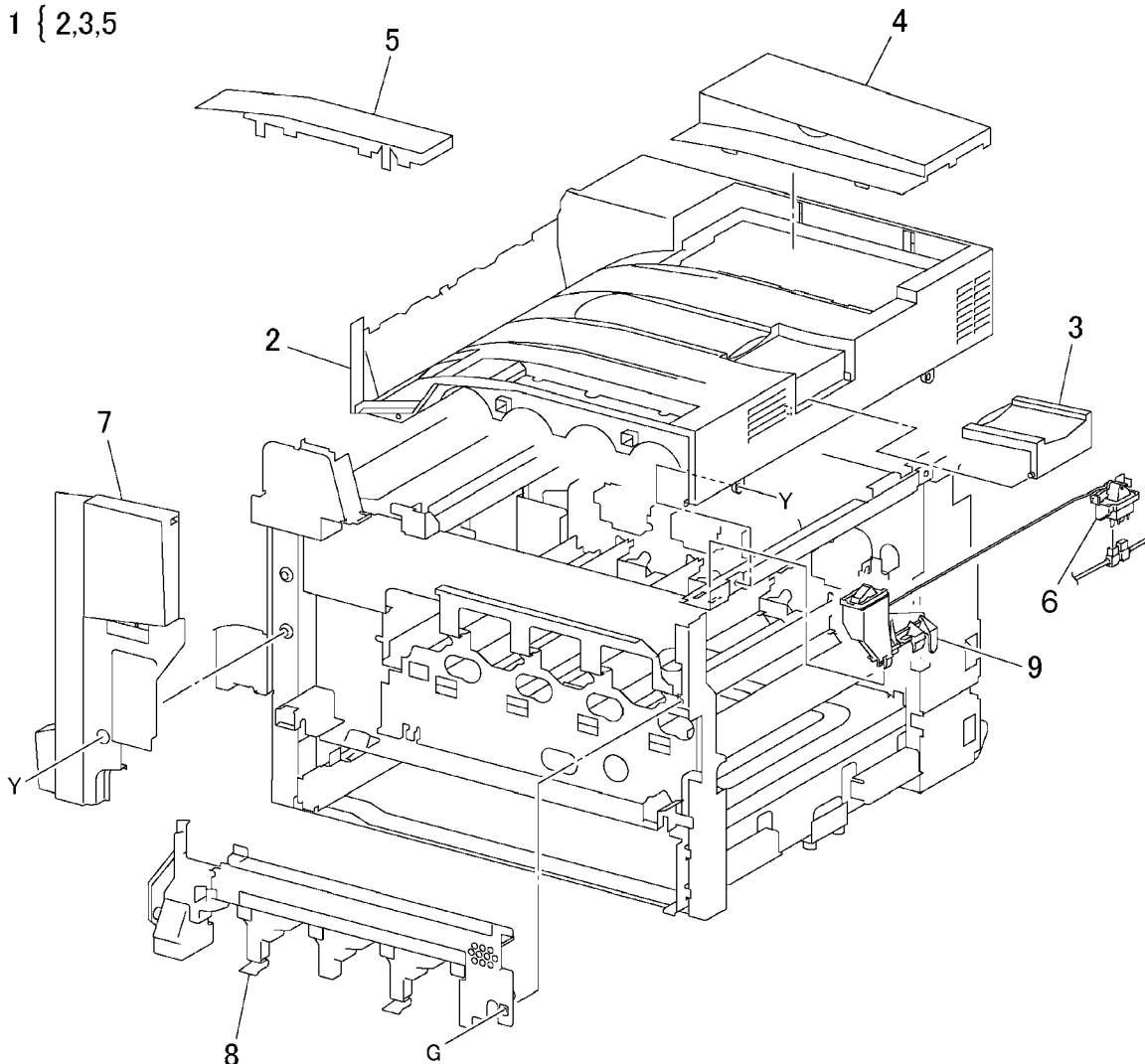




## PL 10.2 Top Covers and Inner Covers

Item	Part	Description
1	802K29611	Top Cover Assembly (DC2240/1632) (REP 14.1)
–	802K49801	Top Cover Assembly (DC3535) (REP 14.1)
–	802K49800	Top Cover Assembly (WC24) (REP 14.1)
2	–	Top Cover (P/O PL 10.2 Item 1)
3	–	Stop (P/O PL 10.2 Item 1)
4	802E12400	Connector Cover
5	–	Panel (P/O PL 10.2 Item 1)
6	110K11211	Main Power Switch
7	802E12430	Fuser Cover (REP 14.8)
8	802K46070	Dispenser Cover (REP 9.6)
9	012K94260	Link

PL10.2  
1 { 2,3,5



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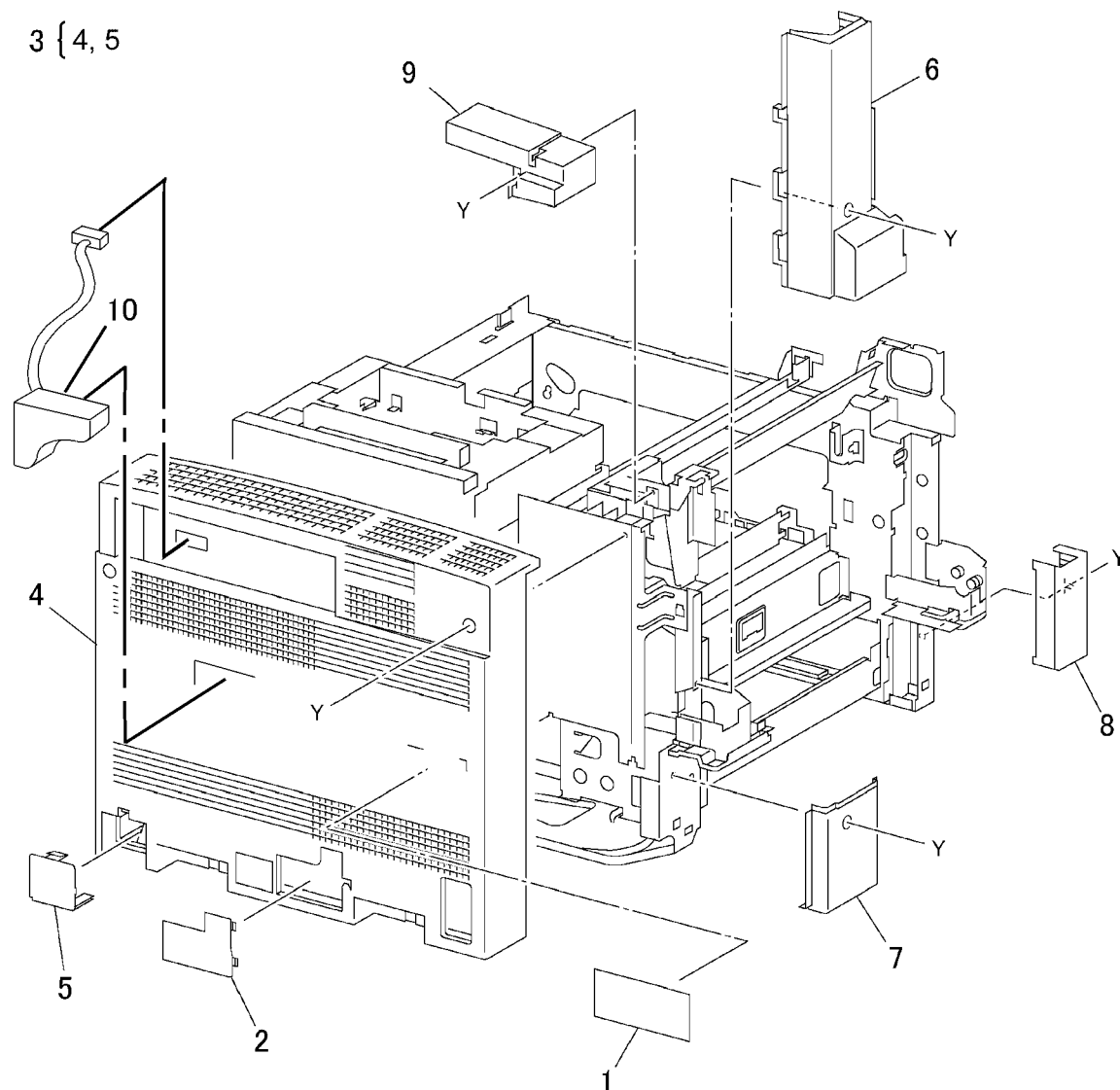


## PL 10.3 Rear Cover

Item	Part	Description
1	—	Data Plate (Not Spared)
2	802E12480	Blind Cover (DC2240/1632/WC24)
—	802E33910	Blind Cover (DC3535)
3	802K28110	Rear Cover Assembly
4	—	Rear Cover (P/O PL 10.3 Item 3) (REP 14.2)
5	802E12490	Blind Cover
6	802E12500	Rear Left Middle Cover (REP 14.4)
7	—	Rear Left Lower Cover (Not Spared)
8	—	Front Left Cover (Not Spared)
9	802E27860	Rear Left Upper Cover (REP 14.5)
10	960K11380	Foreign Interface

PL10.3

3 { 4, 5



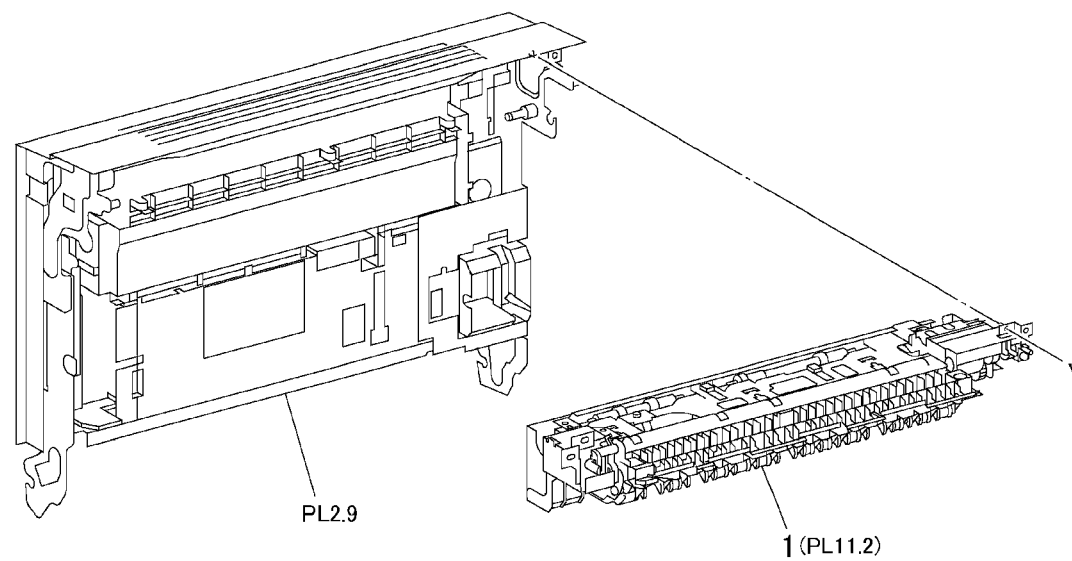
j0mf51003B



## PL 11.1 Inverter Transport: 1 of 2

Item	Part	Description
1	059K16742	Inverter Transport (REP 8.5)

PL11.1



j0mf51101B



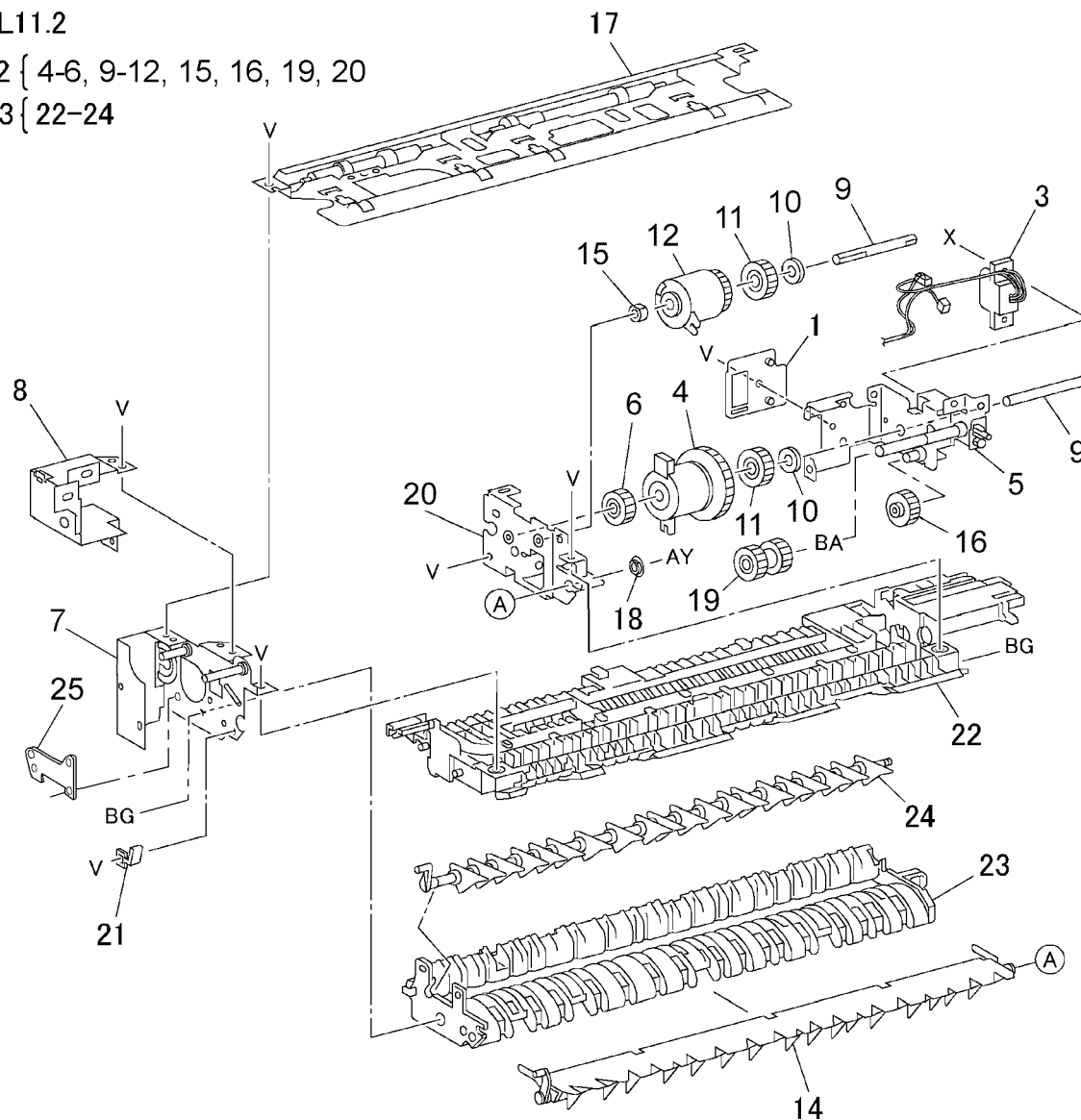
## PL 11.2 Inverter Transport: 2 of 2

Item	Part	Description
1	—	Cover (Not Spared)
2	015K45802	Clutch Assembly
3	—	Wire Harness (Not Spared)
4	121K22870	Reverse Clutch
5	011E10711	Interlock Actuator
6	—	Gear (23T) (P/O PL 11.2 Item 2)
7	—	Bracket (Not Spared)
8	—	Bracket (Not Spared)
9	—	Shaft (P/O PL 11.2 Item 2)
10	—	Bearing (P/O PL 11.2 Item 2)
11	—	Gear (23T) (P/O PL 11.2 Item 2)
12	121K22860	Forward Clutch
13	054K17241	Inverter Chute Assembly
14	—	Exit Gate (Not Spared)
15	—	Spacer (P/O PL 11.2 Item 2)
16	—	Gear (P/O PL 11.2 Item 2)
17	—	Tie Plate (Not Spared)
18	—	Bearing (Not Spared)
19	—	Gear (P/O PL 11.2 Item 2)
20	—	Bracket (P/O PL 11.2 Item 2)
21	—	Holder (Not Spared)
22	—	Upper Chute (P/O PL 11.2 Item 13)
23	—	Lower Chute (P/O PL 11.2 Item 13)
24	—	Duplex Gate (P/O PL 11.2 Item 13)
25	830E97760	Gate Plate

### PL11.2

2 { 4-6, 9-12, 15, 16, 19, 20

13 { 22-24



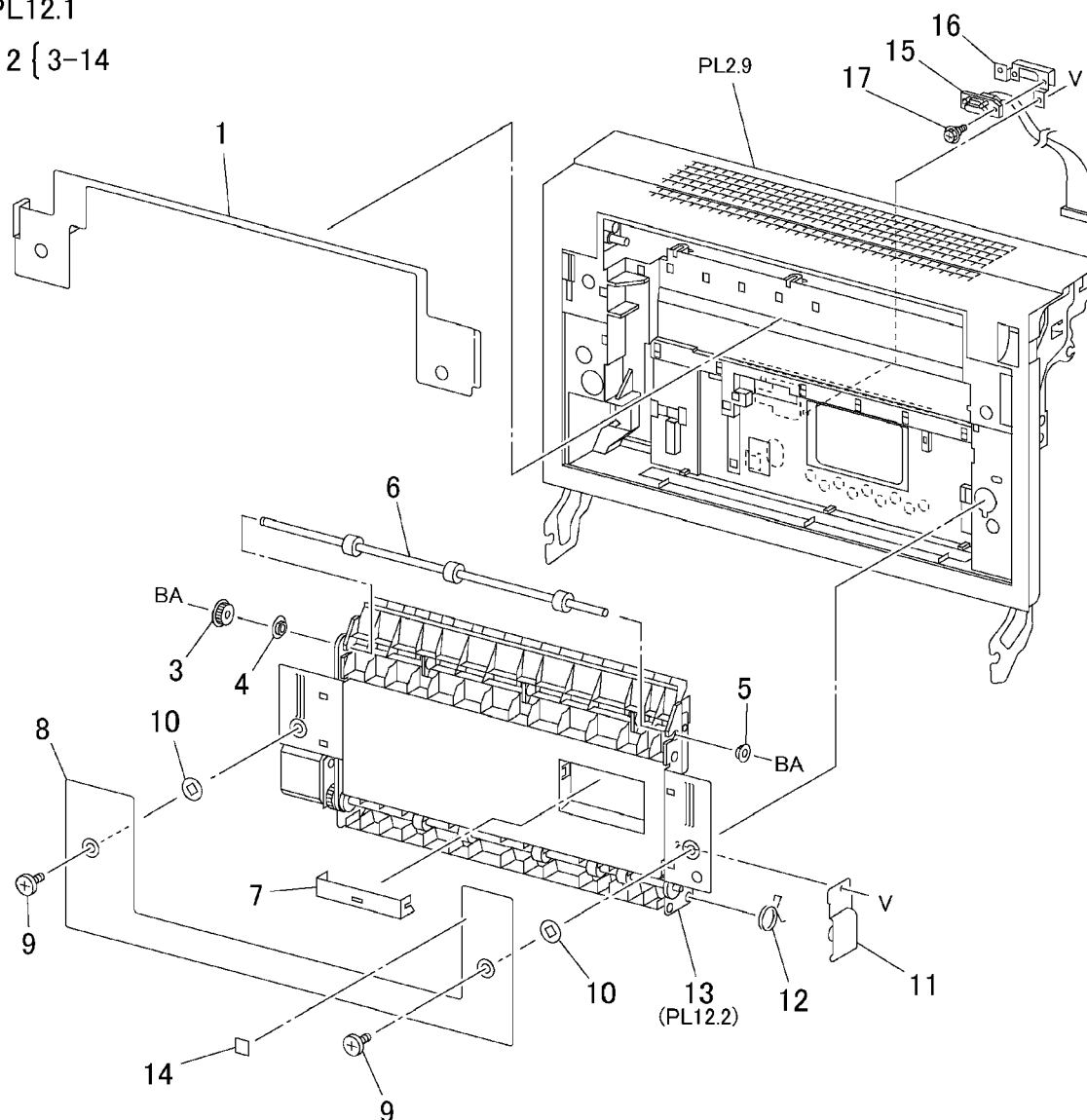
j0mf51102B



## PL 12.1 Duplex Transport Assembly: 1 of 2

Item	Part	Description
1	—	Duplex Transport Upper Cover (Not Spared)
2	059K18714	Duplex Transport Assembly (REP 8.3)
3	—	One-way Pulley (P/O PL 12.1 Item 2)
4	—	Bearing (P/O PL 12.1 Item 2)
5	—	Bearing (P/O PL 12.1 Item 2)
6	059K23960	Duplex Transport Roll
7	—	Handle (P/O PL 12.1 Item 2)
8	—	Lower Cover (P/O PL 12.1 Item 2)
9	—	Screw (P/O PL 12.1 Item 2)
10	—	Nylon Washer (P/O PL 12.1 Item 2)
11	—	Cover (P/O PL 12.1 Item 2)
12	—	Spring (P/O PL 12.1 Item 2)
13	—	Duplex Transport (P/O PL 12.1 Item 2)
14	—	Label (P/O PL 12.1 Item 2)
15	—	Wire Harness (Not Spared)
16	—	Bracket (Not Spared)
17	—	Screw (Not Spared)

PL12.1  
2 { 3-14



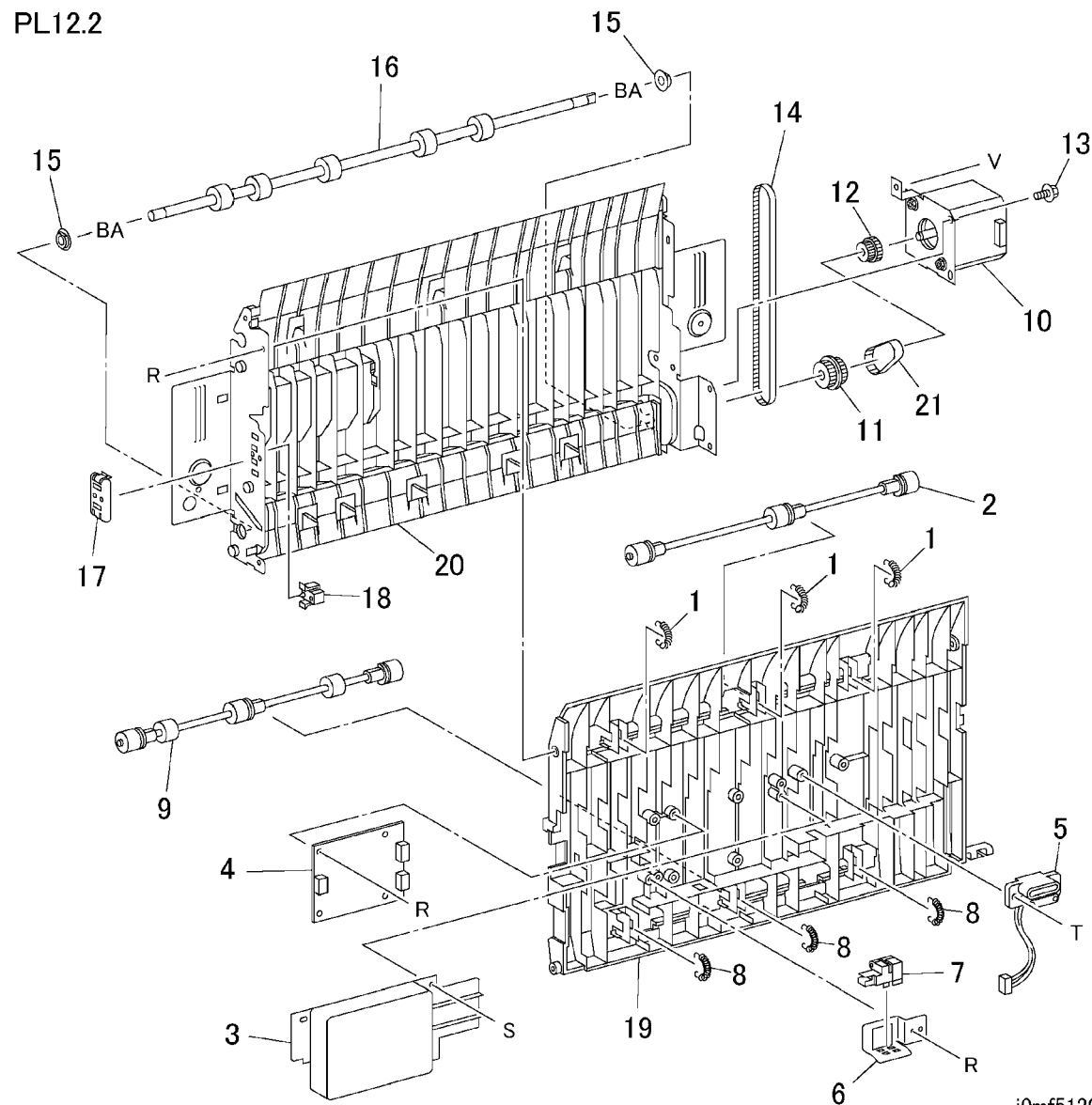
j0mf51201



## PL 12.2 Duplex Transport Assembly: 2 of 2

Item	Part	Description
1	—	Spring (Not Spared)
2	059K23470	Pinch Roll
3	—	Cover (Not Spared)
4	160K66860	Duplex Transport PWB
5	—	Wire Harness (Not Spared)
6	—	Bracket (Not Spared)
7	130K61250	Duplex Transport Wait Sensor
8	—	Spring (Not Spared)
9	059K23980	Pinch Roll
10	127K29930	Duplex Transport Motor
11	—	Pulley (20/21T) (Not Spared)
12	—	Pulley (16T) (Not Spared)
13	—	Screw (Not Spared)
14	—	Belt (Not Spared)
15	—	Bearing (Not Spared)
16	059K23970	Wait Roll
17	—	Cover (Not Spared)
18	110E93440	Interlock Switch
19	—	Inner Chute (Not Spared)
20	—	Outer Chute (Not Spared)
21	—	Belt (Not Spared)

PL12.2

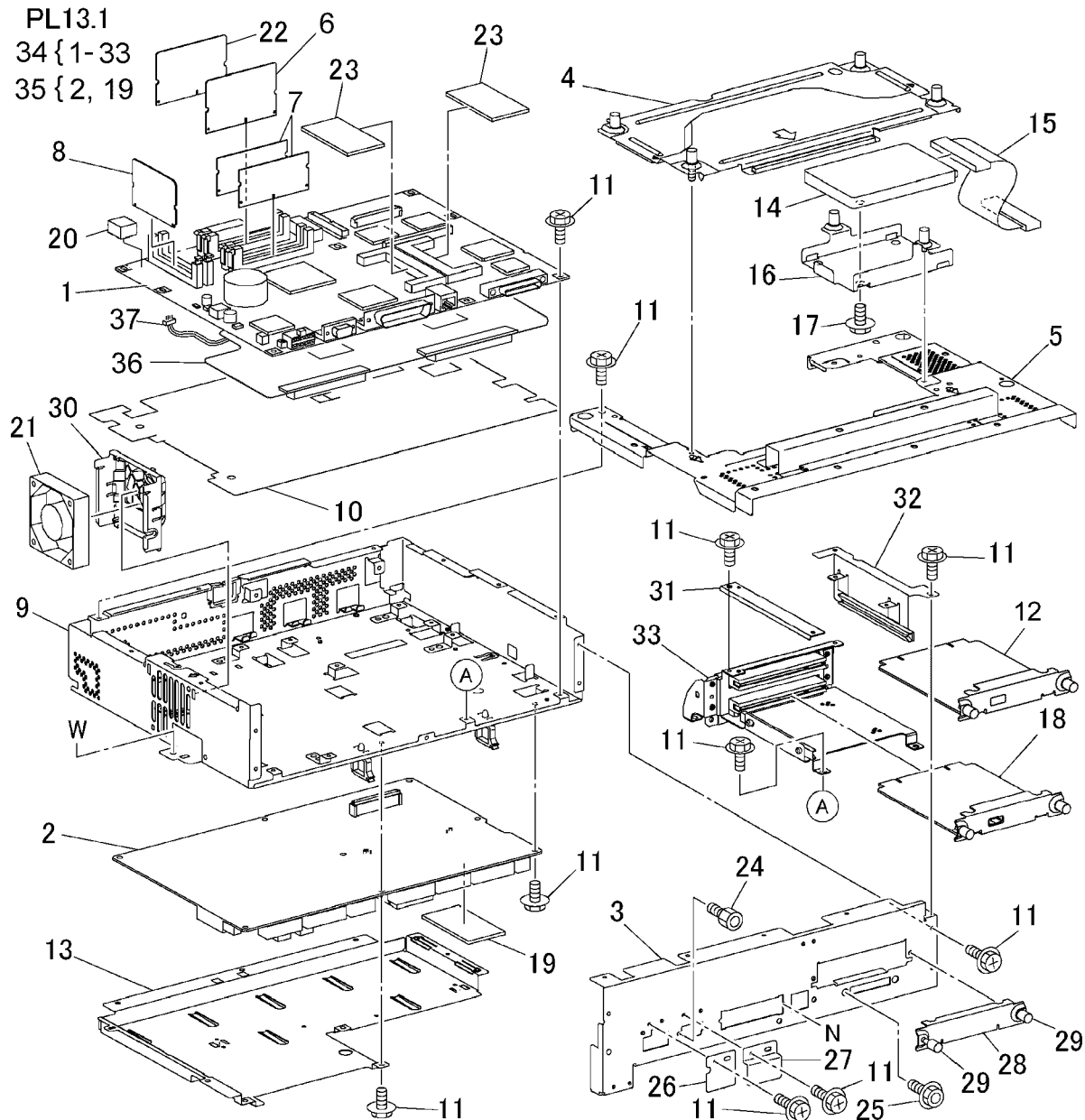


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# PL 13.1 ESS

Item	Part	Description
1	160K74231	ESS PWB (DC2240/1632/WC24) (REP 1.12)
—	160K90570	ESS PWB (DC3535) (REP 1.12)
2	160K99070	MCU PWB (WC24) (REP 1.2)
—	—	MCU PWB (P/O PL 13.1 Item 35) (DC2240/1632) (REP 1.2)
—	160K91963	MCU PWB (DC3535) (REP 1.2)
3	—	Rear Panel (Not Spared)
4	—	DIMM Cover (Not Spared)
5	—	ESS Top Cover (Not Spared)
6	537K64436	PS-2 ROM (DC2240/1632) (W/Tag P6) (REP 1.14)
—	537K67720	ESS (PCL2) ROM (WC24)
7	133K22400	SDRAM 256MB (DC3535/WC24)
8	160K82224	ESS NVM PWB (REP 1.13)
9	—	ESS Chassis (Not Spared)
10	—	Seal (Not Spared)
11	—	Screw (Not Spared)
12	160K82460	Fax Interface (I/F) PWB (WC24)
13	—	Cover (Not Spared)
14	121K27751	HDD (DC2240/1632/WC24) (ADJ 9.8)
—	121K30550	HDD (DC3535) (ADJ 9.8)
15	962K08641	HDD Harness (DC2240/1632/WC24)
—	962K14080	HDD Harness (DC3535)
16	—	Bracket (Not Spared)
17	—	Screw (Not Spared)
18	160K88080	Token Ring PWB (DC2240/1632/WC24)
19	160K76651	MCU NVM PWB (REP 1.15)
20	537K61180	MAC ROM
21	127K32920	ESS Fan
22	537K64426	PS-1 ROM (DC2240/1632) (W/Tag P6) (REP 1.14)
—	537K64252	PS-1 ROM (DC3535) (REP 1.14)
—	537K67710	ESS (PCL1) ROM (WC24)
23	133K21200	SDRAM 128MB
24	—	Screw (Not Spared)
25	—	Screw (Not Spared)
26	—	Blind Panel (Not Spared)
27	—	Blind Panel (Not Spared)
28	—	Option Panel (Not Spared)
29	—	Screw (Not Spared)
30	—	Fan Guard (Not Spared)
31	—	Support Bracket (Not Spared)
32	—	Side Support (Not Spared)
33	101K37940	PCI Riser PWB (WC24)
34	—	ESS Chassis (Not Spared)
35	160K91716	MCU PWB Assembly (DC2240/1632) (REP 1.2)
36	160K89980	VSEL PWB (DC3535)
37	962K10230	VSEL Harness (DC3535)



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Initial issue

Parts List

PL 13.1

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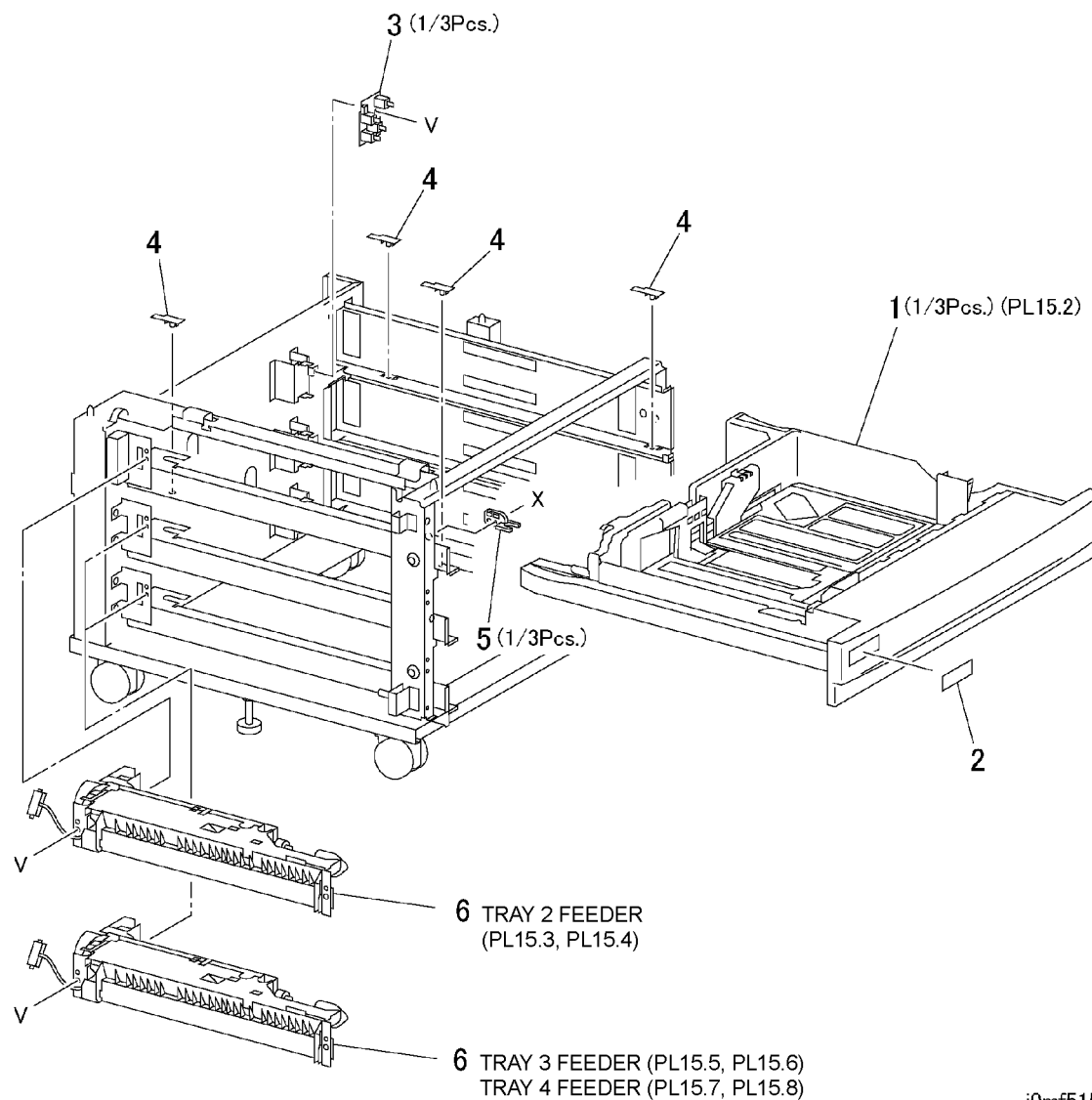
www.toner DC 3535/2240/1632, WC M24



## PL 15.1 Tray 2/3/4 Feeder

Item	Part	Description
1	050K48840	Tray 2/3/4 (REP 7.13 REP 7.14 REP 7.15)
—	050K48980	Tray 2 (WC24) (REP 7.13 REP 7.14 REP 7.15)
2	892E89190	Label (Tray 2)
—	892E89200	Label (Tray 3)
—	892E89210	Label (Tray 4)
3	110K08541	Paper Size Sensor (Tray 2/3/4)
4	—	Spacer (Not Spared)
5	003E23672	Stop
6	059K15573	Feeder (Tray 2/3/4) (REP 7.16 REP 7.17 REP 7.18)

### PL15.1



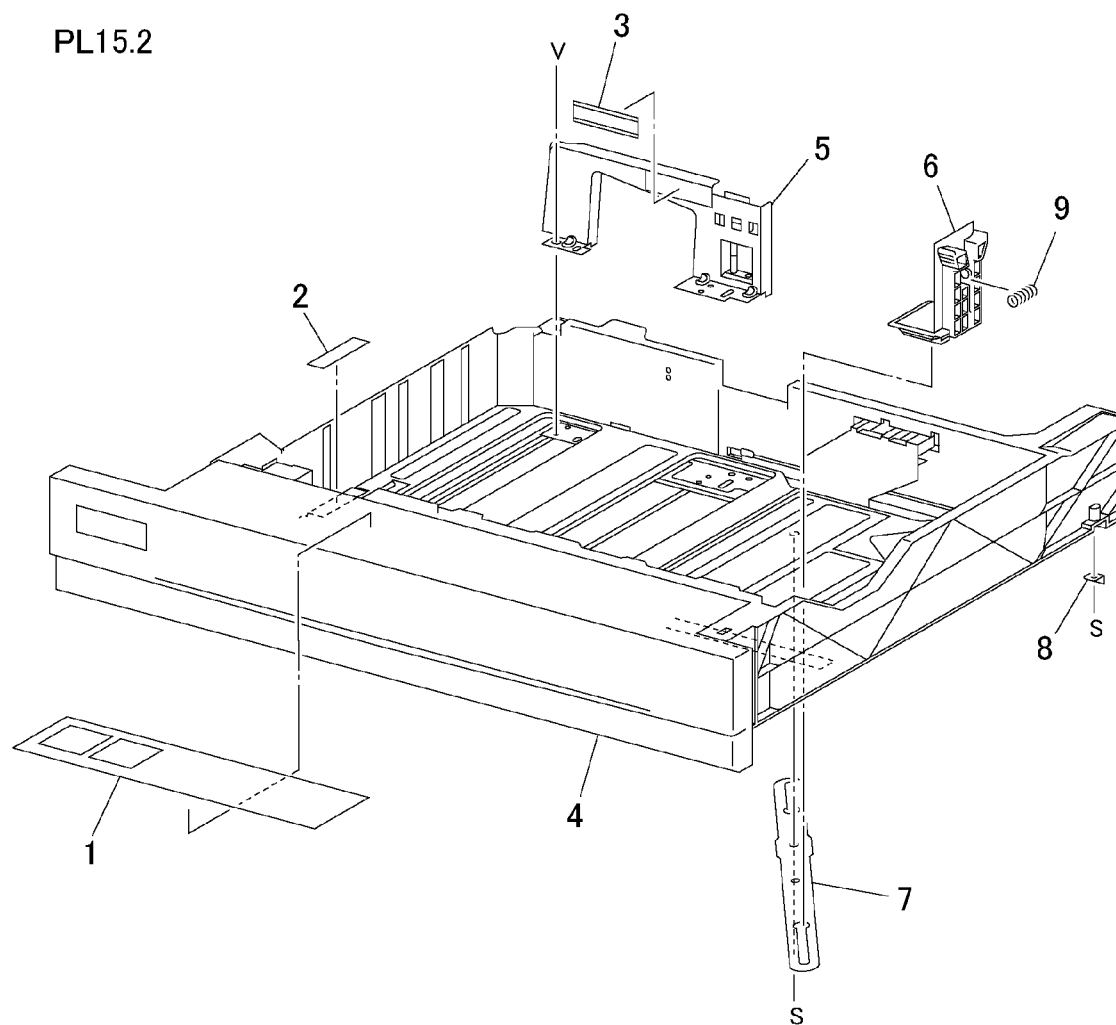
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## PL 15.2 Tray Assembly

Item	Part	Description
1	892E90351	Instruction Label (DC3535/WC24)
—	892E13310	Instruction Label (DC2240/1632)
2	—	Pad (Not Spared)
3	—	Max Label (Not Spared)
4	—	Tray (Not Spared)
5	—	Side Guide (Not Spared)
6	—	End Guide (Not Spared)
7	—	Link (Not Spared)
8	—	Stop (Not Spared)
9	—	Spring (Not Spared)

PL15.2



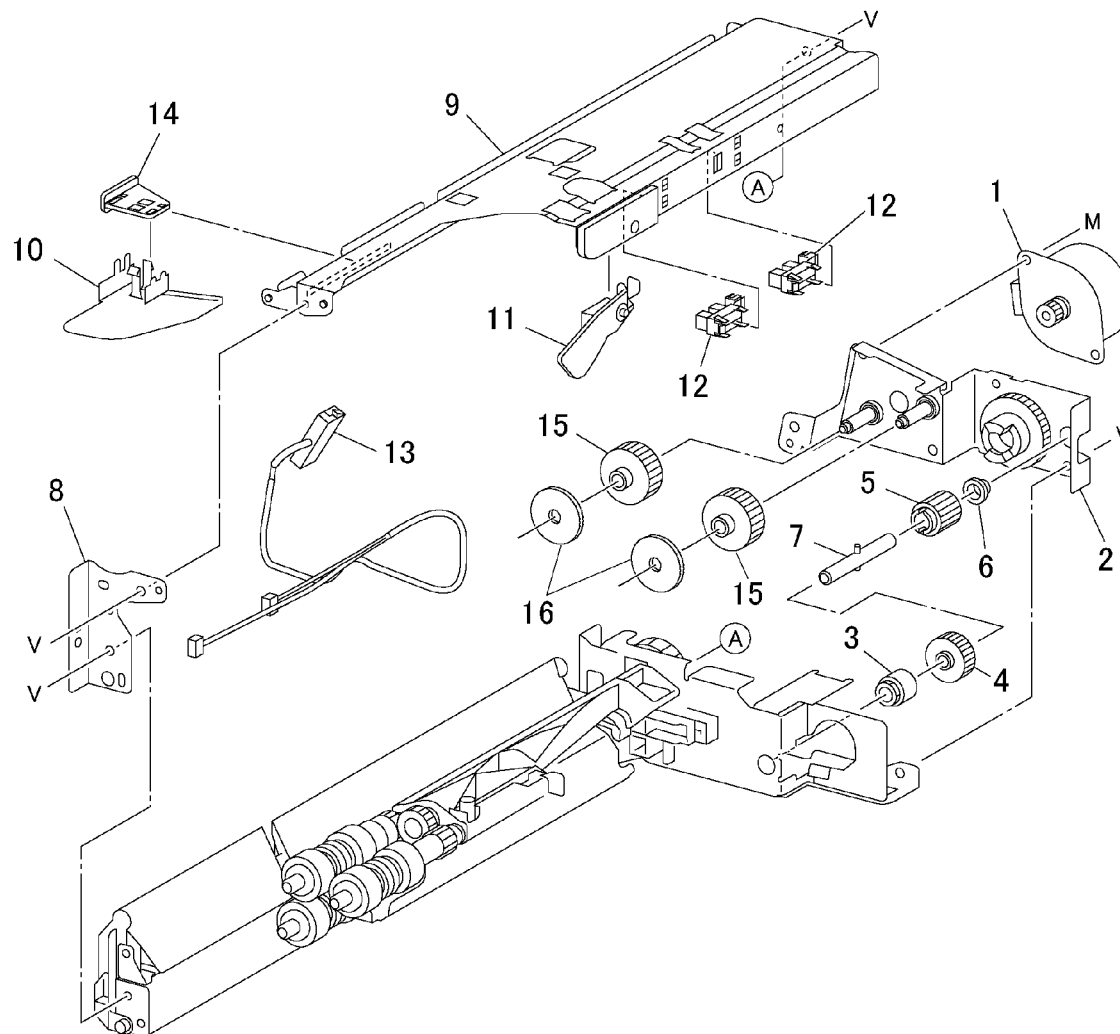
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## PL 15.3 Tray 2 Feeder: 1 of 2

Item	Part	Description
1	127K23230	Tray 2 Feed/Lift Motor (REP 7.4)
2	—	Bracket (Not Spared)
3	005K83081	One-way Clutch
4	007K85730	One-way Gear
5	—	Gear (13T) (Not Spared)
6	—	Bearing (Not Spared)
7	—	Shaft (Not Spared)
8	—	Front Frame (Not Spared)
9	—	Upper Frame (Not Spared)
10	—	Front Chute (Not Spared)
11	120E18141	Actuator
12	130E82190	Tray 2 Level / No Paper Sensor
13	—	Wire Harness (Not Spared)
14	—	Support (Not Spared)
15	—	Gear (15T) (Not Spared)
16	—	Washer (Not Spared)

PL15.3



j0mf51503

Initial issue

DC 3535/2240/1632, WC M24

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5-53

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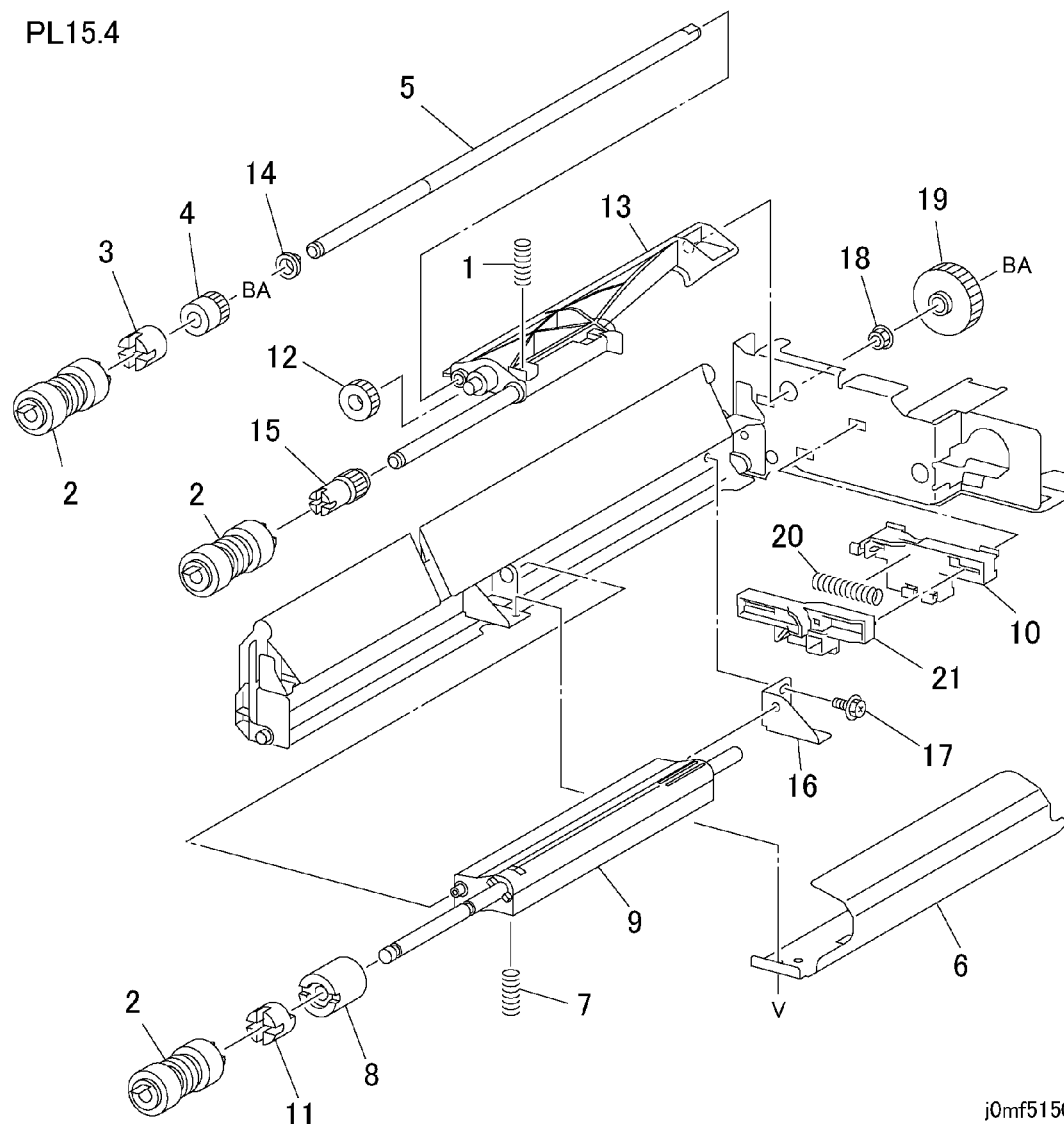
Parts List  
www.tonerplus.com.ua PL 15.3



## PL 15.4 Tray 2 Feeder: 2 of 2

Item	Part	Description
1	—	Spring (Not Spared)
2	600K78460	Roll Kit (3 Rolls/Kit)
3	005K05890	One-way Clutch
4	—	Gear (Not Spared)
5	—	Shaft (Not Spared)
6	—	Chute (Not Spared)
7	—	Spring (Not Spared)
8	—	Friction Clutch (Not Spared)
9	—	Support (Not Spared)
10	—	Holder (Not Spared)
11	—	Spacer (Not Spared)
12	—	Gear (31T) (Not Spared)
13	—	Support (Not Spared)
14	—	Bearing (Not Spared)
15	—	Gear (Not Spared)
16	—	Support (Not Spared)
17	—	Screw (Not Spared)
18	—	Bearing (Not Spared)
19	—	Gear (35T) (Not Spared)
20	—	Spring (Not Spared)
21	—	Lever (Not Spared)

PL15.4

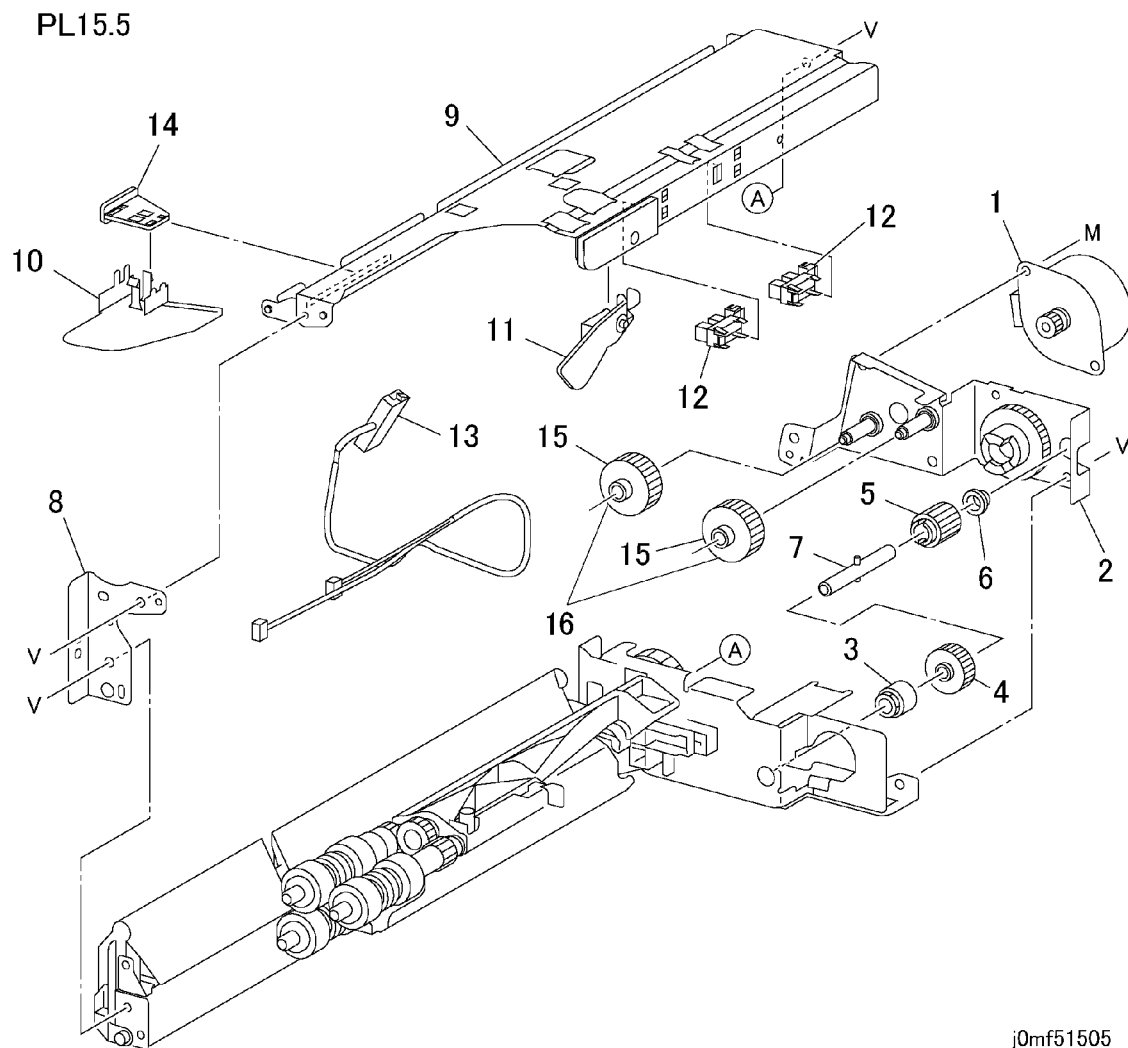


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## PL 15.5 Tray 3 Feeder: 1 of 2

Item	Part	Description
1	127K23230	Tray 3 Feed/Lift Motor (REP 7.4)
2	—	Bracket (Not Spared)
3	005K83081	One-way Clutch
4	007K85730	One-way Gear
5	—	Gear (13T) (Not Spared)
6	—	Bearing (Not Spared)
7	—	Shaft (Not Spared)
8	—	Front Frame (Not Spared)
9	—	Upper Frame (Not Spared)
10	—	Front Chute (Not Spared)
11	120E18141	Actuator
12	130E82190	Tray 3 Level / No Paper Sensor
13	—	Wire Harness (Not Spared)
14	—	Support (Not Spared)
15	—	Gear (15T) (Not Spared)
16	—	Washer (Not Spared)



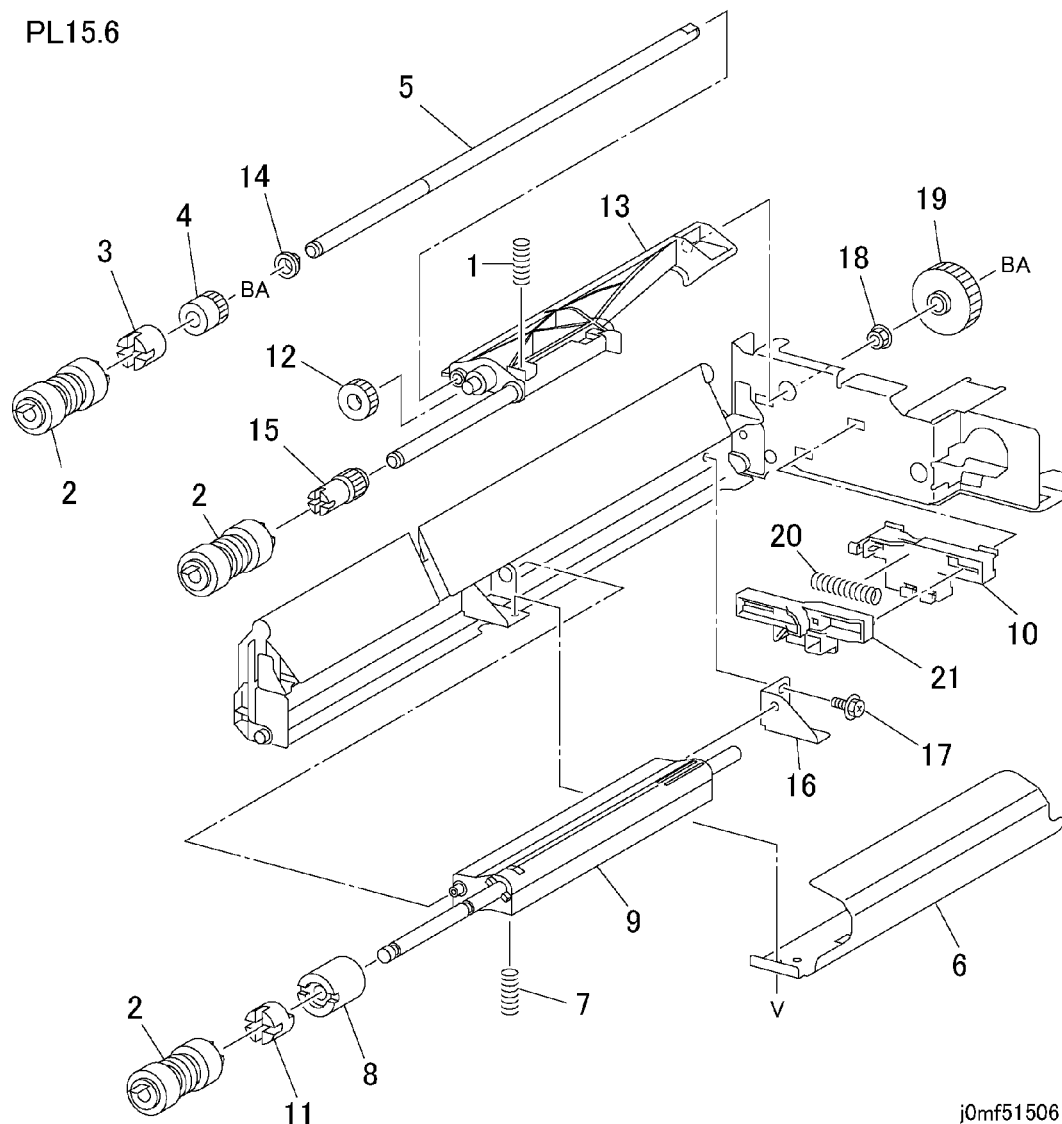
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## PL 15.6 Tray 3 Feeder: 2 of 2

Item	Part	Description
1	—	Spring (Not Spared)
2	600K78460	Roll Kit (3 Rolls/Kit)
3	005K05890	One-way Clutch
4	—	Gear (Not Spared)
5	—	Shaft (Not Spared)
6	—	Chute (Not Spared)
7	—	Spring (Not Spared)
8	—	Friction Clutch (Not Spared)
9	—	Support (Not Spared)
10	—	Holder (Not Spared)
11	—	Spacer (Not Spared)
12	—	Gear (31T) (Not Spared)
13	—	Support (Not Spared)
14	—	Bearing (Not Spared)
15	—	Gear (Not Spared)
16	—	Support (Not Spared)
17	—	Screw (Not Spared)
18	—	Bearing (Not Spared)
19	—	Gear (35T) (Not Spared)
20	—	Spring (Not Spared)
21	—	Lever (Not Spared)

PL15.6



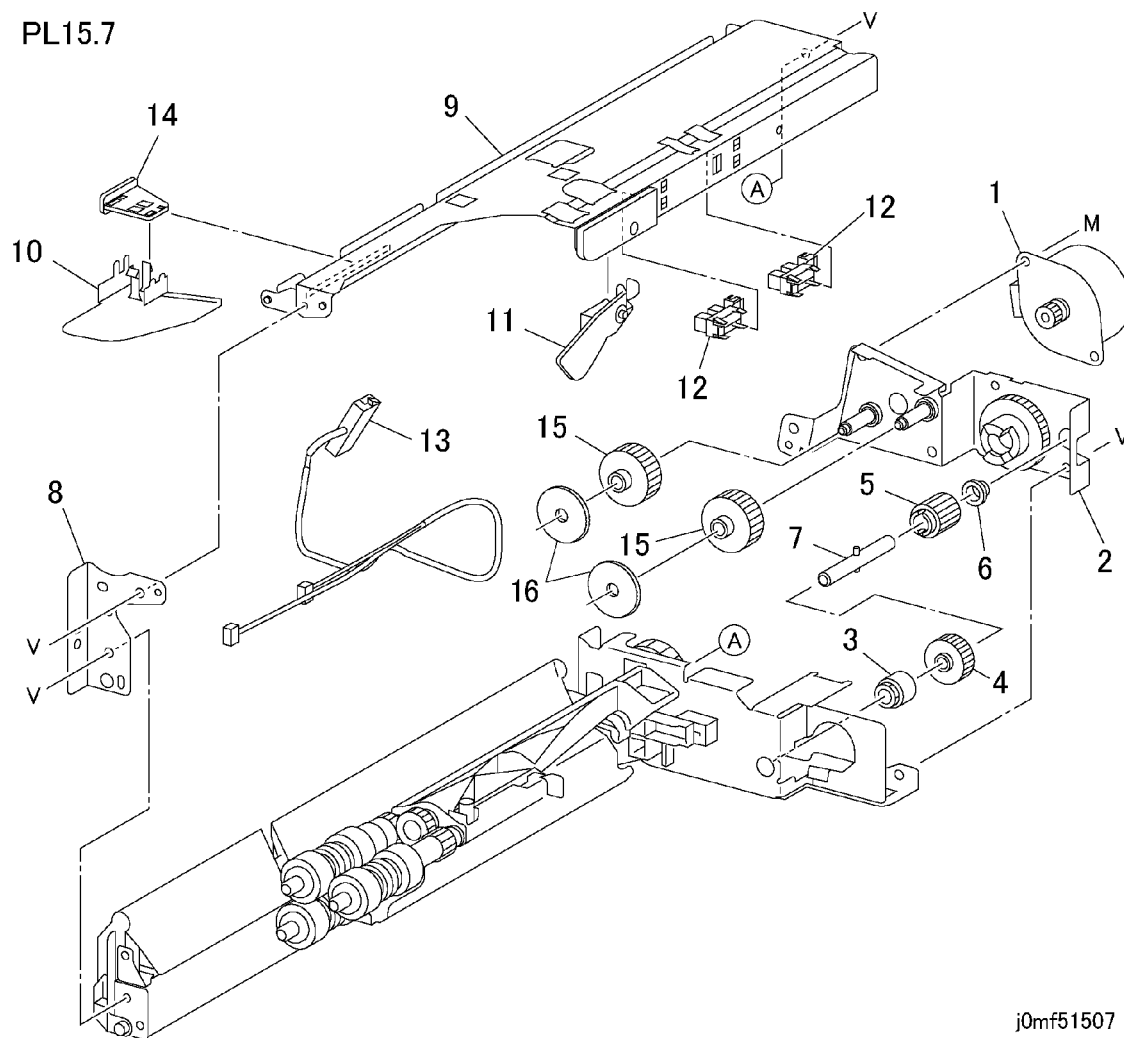
j0mf51506



## PL 15.7 Tray 4 Feeder: 1 of 2

Item	Part	Description
1	127K23230	Tray 4 Feed/Lift Motor (REP 7.4)
2	—	Bracket (Not Spared)
3	005K83081	One-way Clutch
4	007K85730	One-way Gear
5	—	Gear (13T) (Not Spared)
6	—	Bearing (Not Spared)
7	—	Shaft (Not Spared)
8	—	Front Frame (Not Spared)
9	—	Upper Frame (Not Spared)
10	—	Front Chute (Not Spared)
11	120E18141	Actuator
12	130E82190	Tray 4 Level / No Paper Sensor
13	—	Wire Harness (Not Spared)
14	—	Support (Not Spared)
15	—	Gear (15T) (Not Spared)
16	—	Washer (Not Spared)

PL15.7



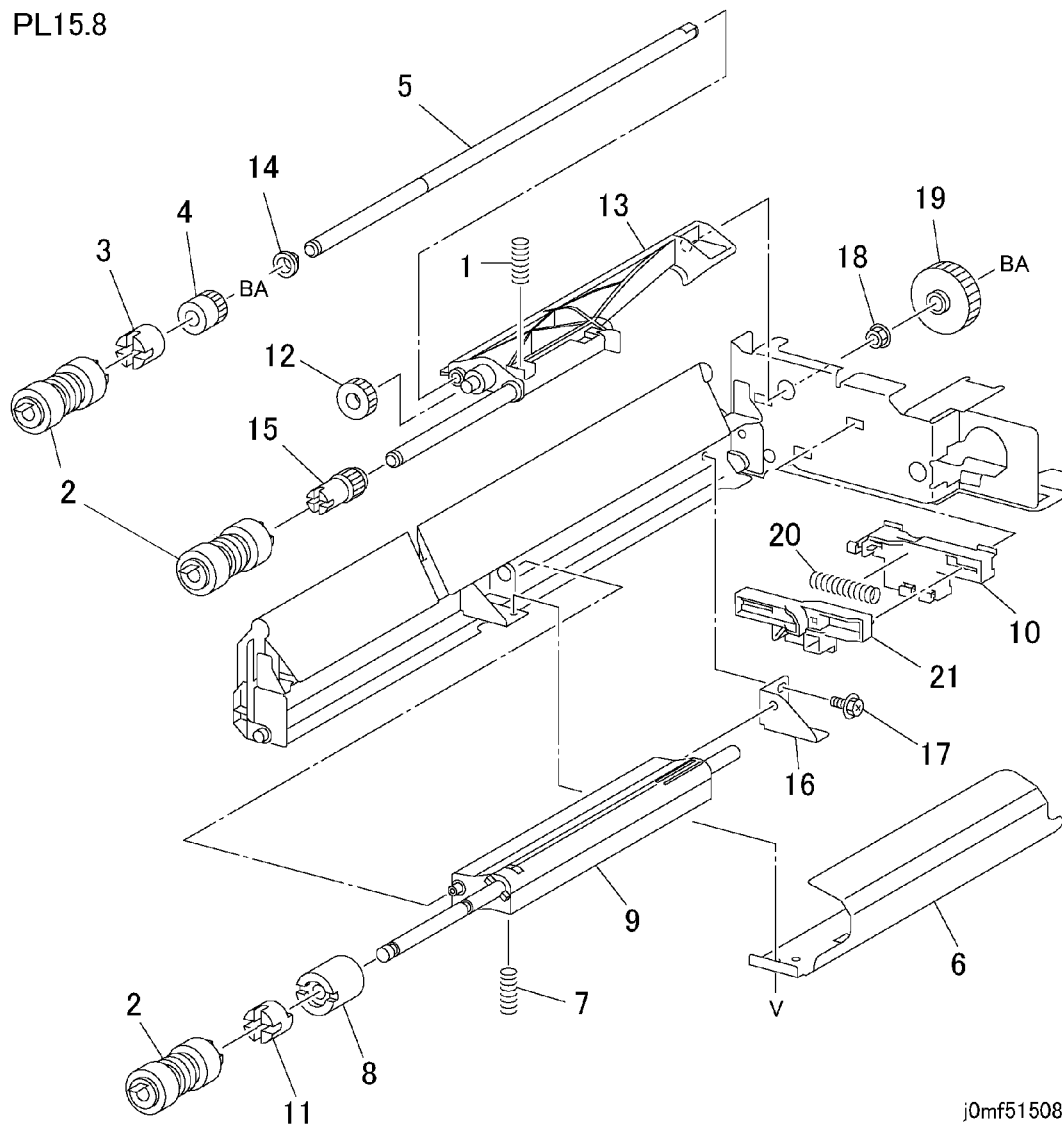
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## PL 15.8 Tray 4 Feeder: 2 of 2

Item	Part	Description
1	—	Spring (Not Spared)
2	600K78460	Roll Kit (3 Rolls/Kit)
3	005K05890	One-way Clutch
4	—	Gear (Not Spared)
5	—	Shaft (Not Spared)
6	—	Chute (Not Spared)
7	—	Spring (Not Spared)
8	—	Friction Clutch (Not Spared)
9	—	Support (Not Spared)
10	—	Holder (Not Spared)
11	—	Spacer (Not Spared)
12	—	Gear (31T) (Not Spared)
13	—	Support (Not Spared)
14	—	Bearing (Not Spared)
15	—	Gear (Not Spared)
16	—	Support (Not Spared)
17	—	Screw (Not Spared)
18	—	Bearing (Not Spared)
19	—	Gear (35T) (Not Spared)
20	—	Spring (Not Spared)
21	—	Lever (Not Spared)

PL15.8



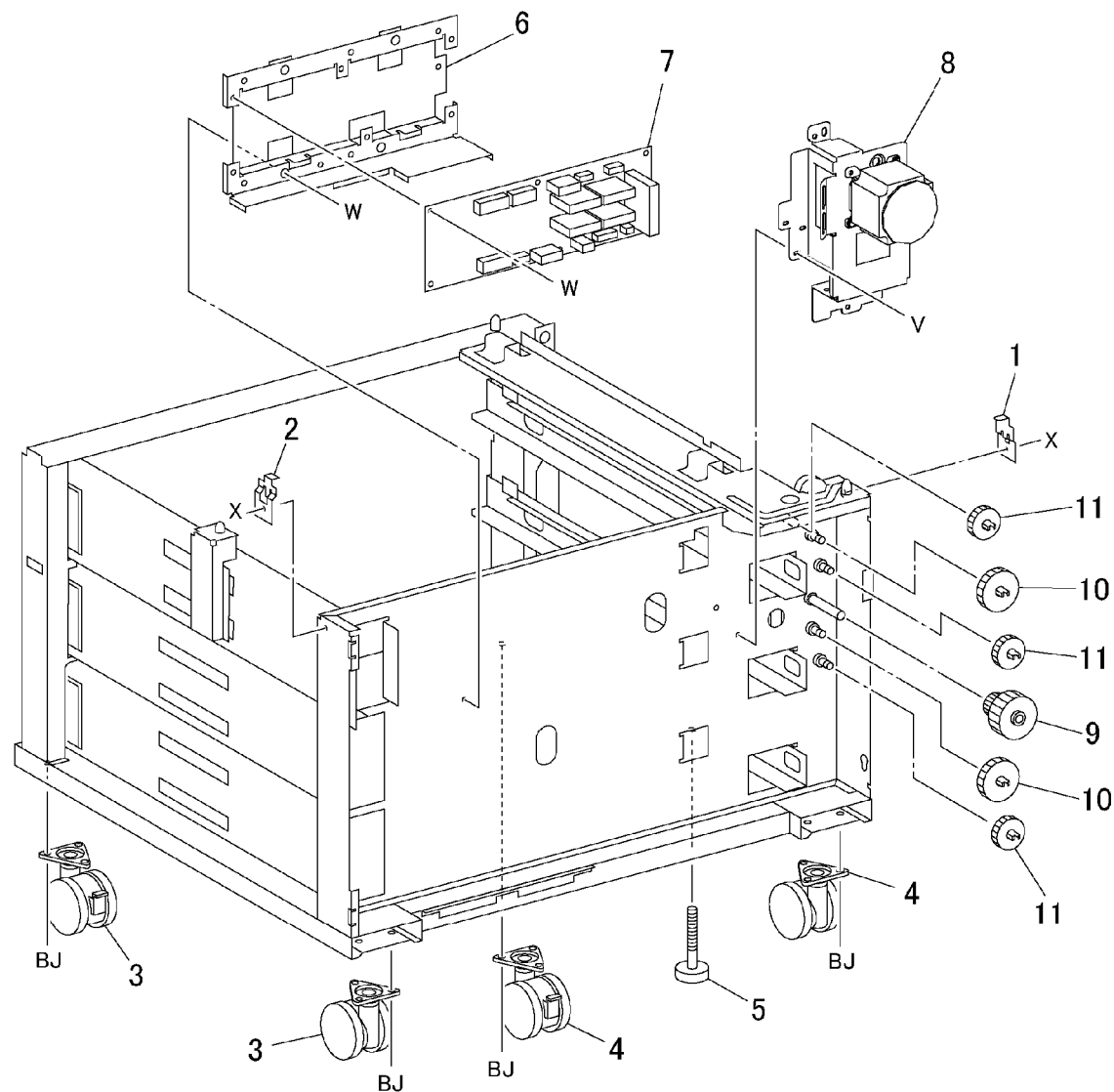
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## PL 15.9 Electrical Components and Casters

Item	Part	Description
1	—	Left Connecting Bracket (Not Spared)
2	—	Right Connecting Bracket (Not Spared)
3	017K92350	Caster
4	017K92360	Caster
5	—	Foot (Not Spared)
6	—	Bracket (Not Spared)
7	160K85970	Tray Module PWB (WC24)
—	160K91001	Tray Module PWB (DC3535)
8	127K36020	Takeaway Motor 1
9	007E66060	Gear (23/46T)
10	007E66070	Gear (46T)
11	007E66050	Gear (33T)

PL15.9



j0mf51509



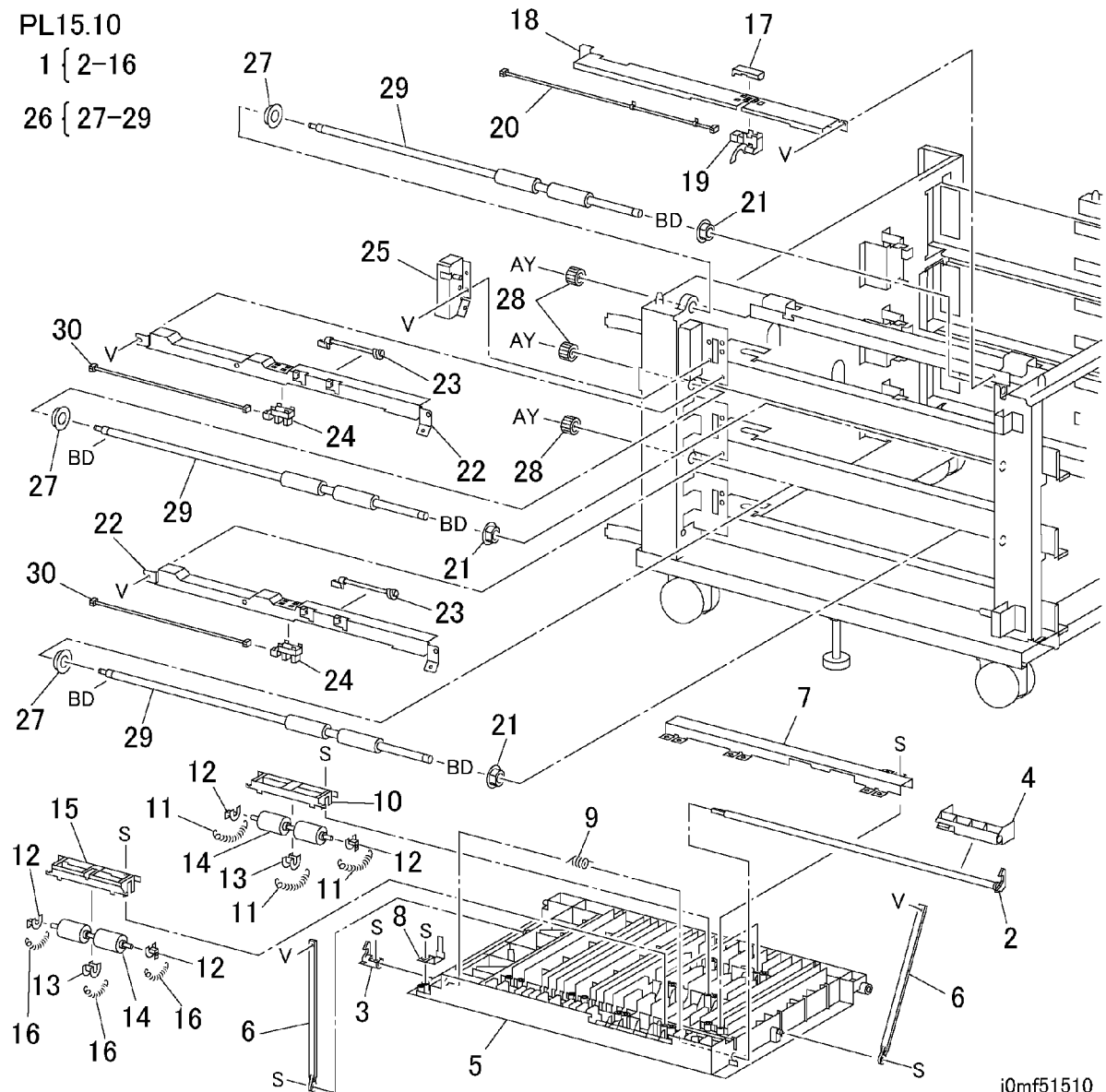
## PL 15.10 Left Cover Assembly

Item	Part	Description
1	802K25721	Left Cover Assembly (REP 14.11)
2	003E53700	Shaft
3	003E53710	Hook
4	011E10800	Handle
5	—	Left Cover (P/O PL 15.10 Item 1)
6	—	Support (P/O PL 15.10 Item 1)
7	—	Cover (P/O PL 15.10 Item 1)
8	—	Actuator (P/O PL 15.10 Item 1)
9	809E28970	Spring
10	—	Bearing (P/O PL 15.10 Item 1)
11	809E28960	Spring
12	—	Bearing (P/O PL 15.10 Item 1)
13	—	Bearing (P/O PL 15.10 Item 1)
14	—	Roll (P/O PL 15.10 Item 1)
15	—	Bracket (P/O PL 15.10 Item 1)
16	809E28980	Spring
17	—	Cover (Not Spared)
18	—	Chute (Not Spared)
19	130K61510	Takeaway Sensor
20	162K62810	Wire Harness
21	—	Bearing (Not Spared)
22	—	Chute (Not Spared)
23	120E18820	Actuator
24	130E81600	Feedout Sensor (Tray 3/4)
25	015K49470	Interlock Switch
26	059K18900	Takeaway Roll Assembly
27	—	Bearing (P/O PL 15.10 Item 26)
28	—	Gear (P/O PL 15.10 Item 26)
29	—	Takeaway Roll (P/O PL 15.10 Item 26)
30	—	Wire Harness (Not Spared)

PL15.10

1 { 2-16

26 { 27-29



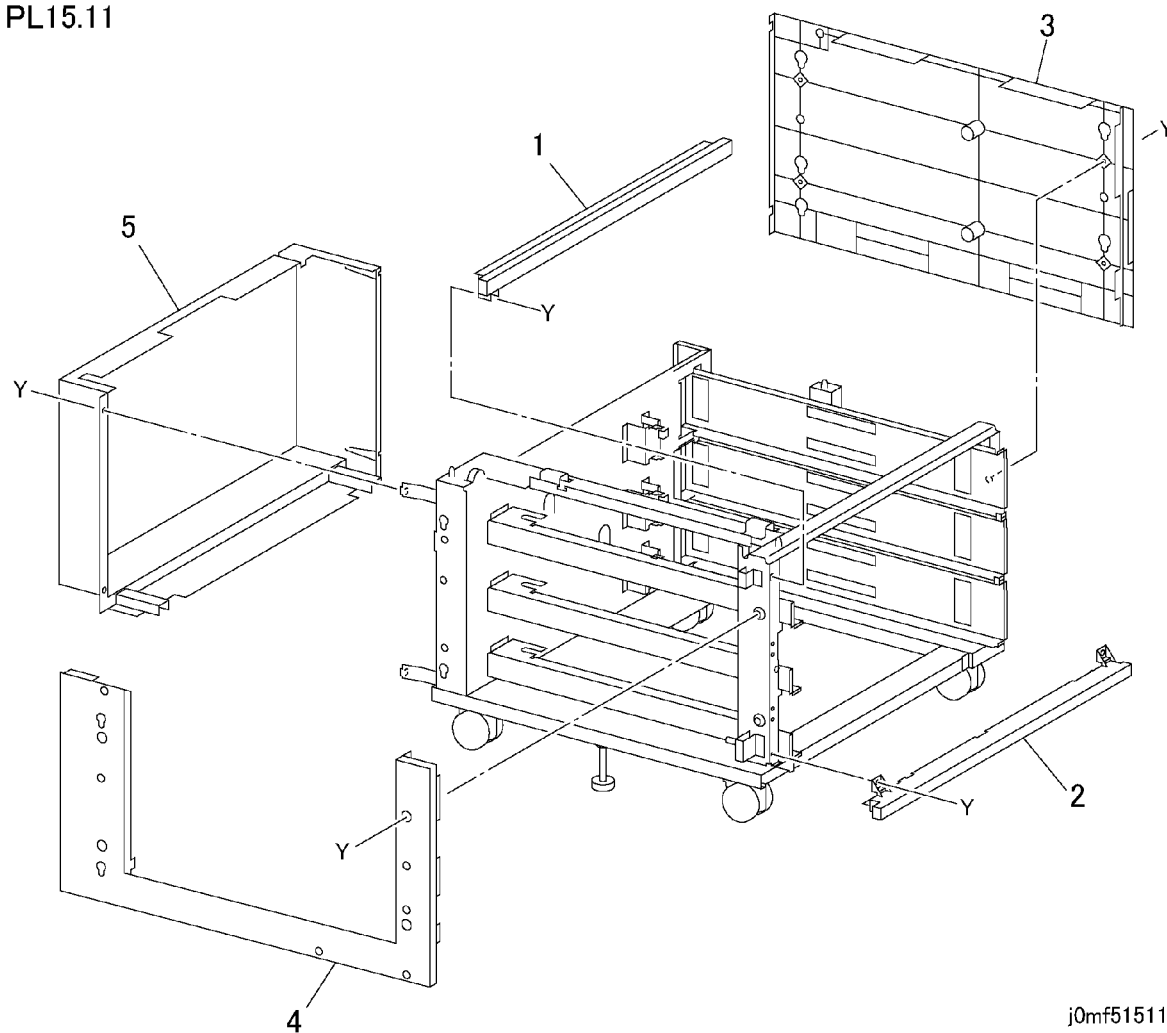
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## PL 15.11 Covers

Item	Part	Description
1	802E23950	Front Upper Cover
2	802E23960	Front Lower Cover
3	802E23941	Right Cover
4	802E23930	Left Lower Cover (REP 14.12)
5	802K50490	Rear Cover (REP 14.9)

PL15.11



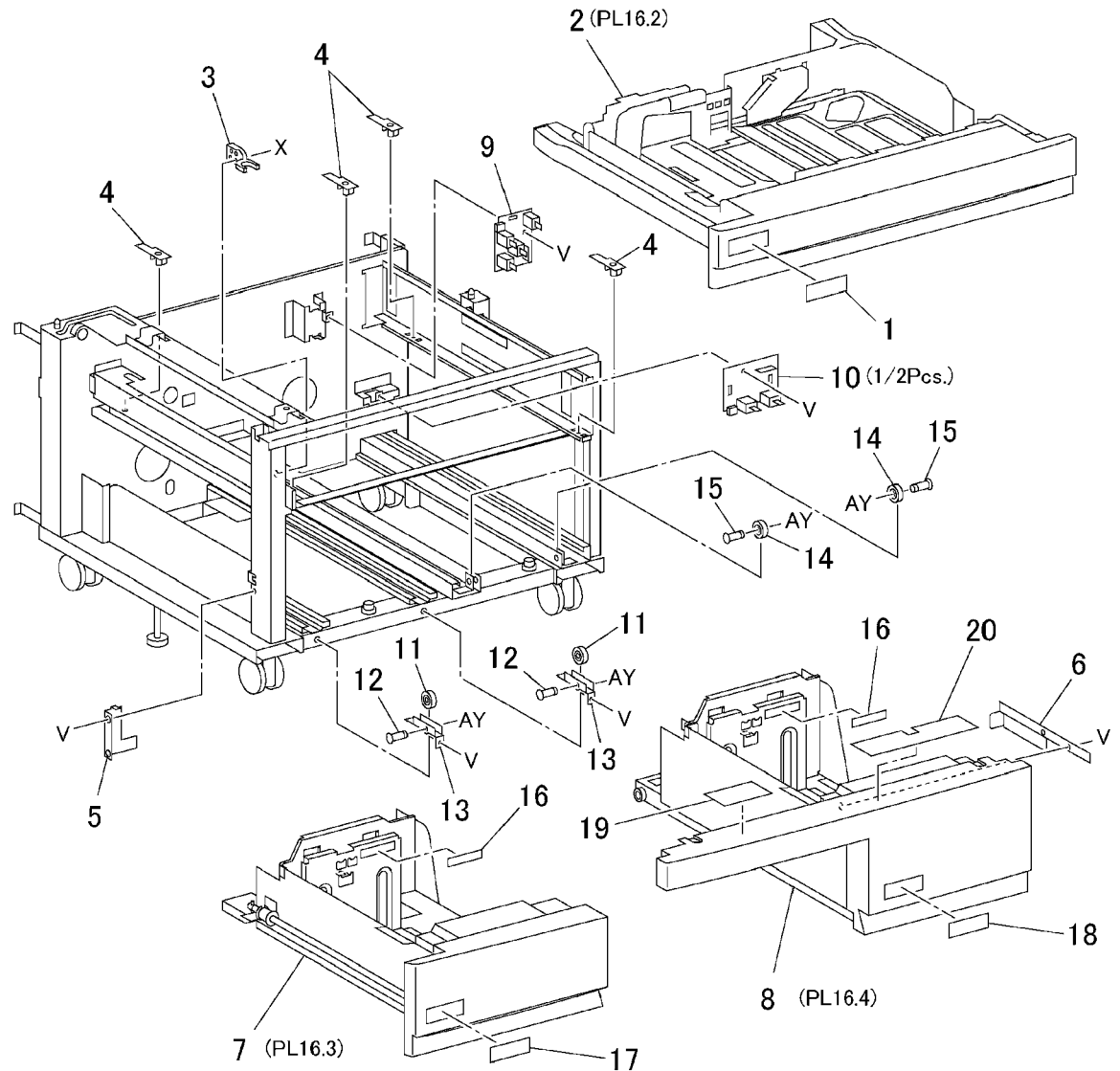
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## PL 16.1 Tray 2/3/4 Assembly

Item	Part	Description
1	891E49060	Label (Tray 2) (DC2240/1632)
—	892E89190	Label (Tray 2) (DC3535/WC24)
2	050K48171	Tray 2 (DC2240/1632) (REP 7.9)
—	050K48981	Tray 2 (DC3535/WC24) (REP 7.9)
3	003E23672	Stop (Tray 2)
4	014E42850	Spacer (Tray 2)
5	—	Stop (Not Spared) (Tray 3)
6	—	Stop (Not Spared) (Tray 4)
7	050K49050	Tray 3 (DC3535/WC24) (REP 7.6)
—	050K43130	Tray 3 (DC2240/1632) (REP 7.6)
8	050K49060	Tray 4 (DC3535/WC24) (REP 7.7)
—	050K43120	Tray 4 (DC2240/1632) (REP 7.7)
9	110K08541	Tray 2 Paper Size Sensor
10	110K10880	Tray 3/4 Paper Size Sensor
11	059E95930	Roll
12	—	Shaft (Not Spared)
13	—	Bracket (Not Spared)
14	—	Roll (Not Spared)
15	—	Shaft (Not Spared)
16	—	Max Label (Not Spared)
17	891E49510	Label (Tray 3) (DC2240/1632)
—	892E89200	Label (Tray 3) (DC3535/WC24)
18	891E49520	Label (Tray 4) (DC2240/1632)
—	892E89210	Label (Tray 4) (DC3535/WC24)
19	892E28491	Label
20	—	Instruction Label (Not Spared)

PL16.1



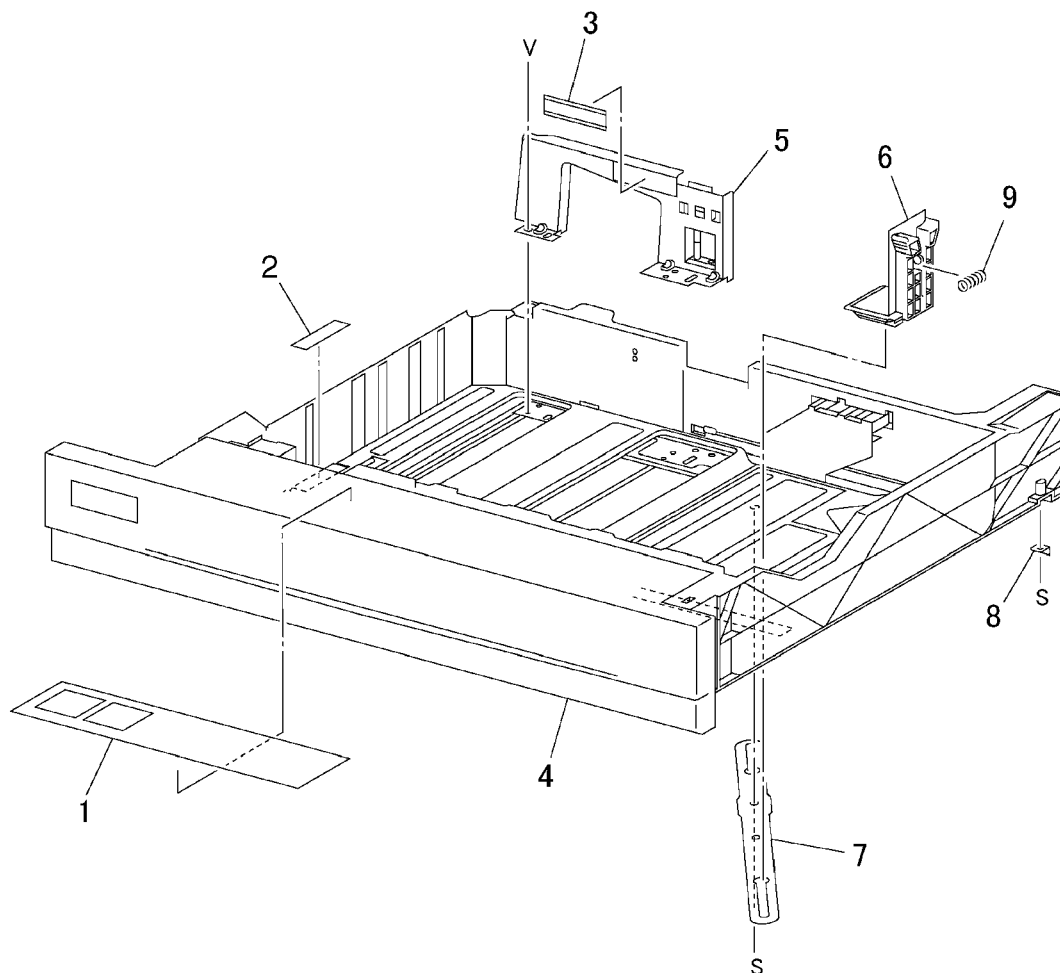
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## PL 16.2 Tray 2

Item	Part	Description
1	892E74500	Instruction Label
2	—	Pad (Not Spared)
3	—	Max Label (Not Spared)
4	—	Tray (Not Spared)
5	—	Side Guide (Not Spared)
6	—	End Guide (Not Spared)
7	—	Link (Not Spared)
8	—	Stop (Not Spared)
9	—	Spring (Not Spared)

PL16.2



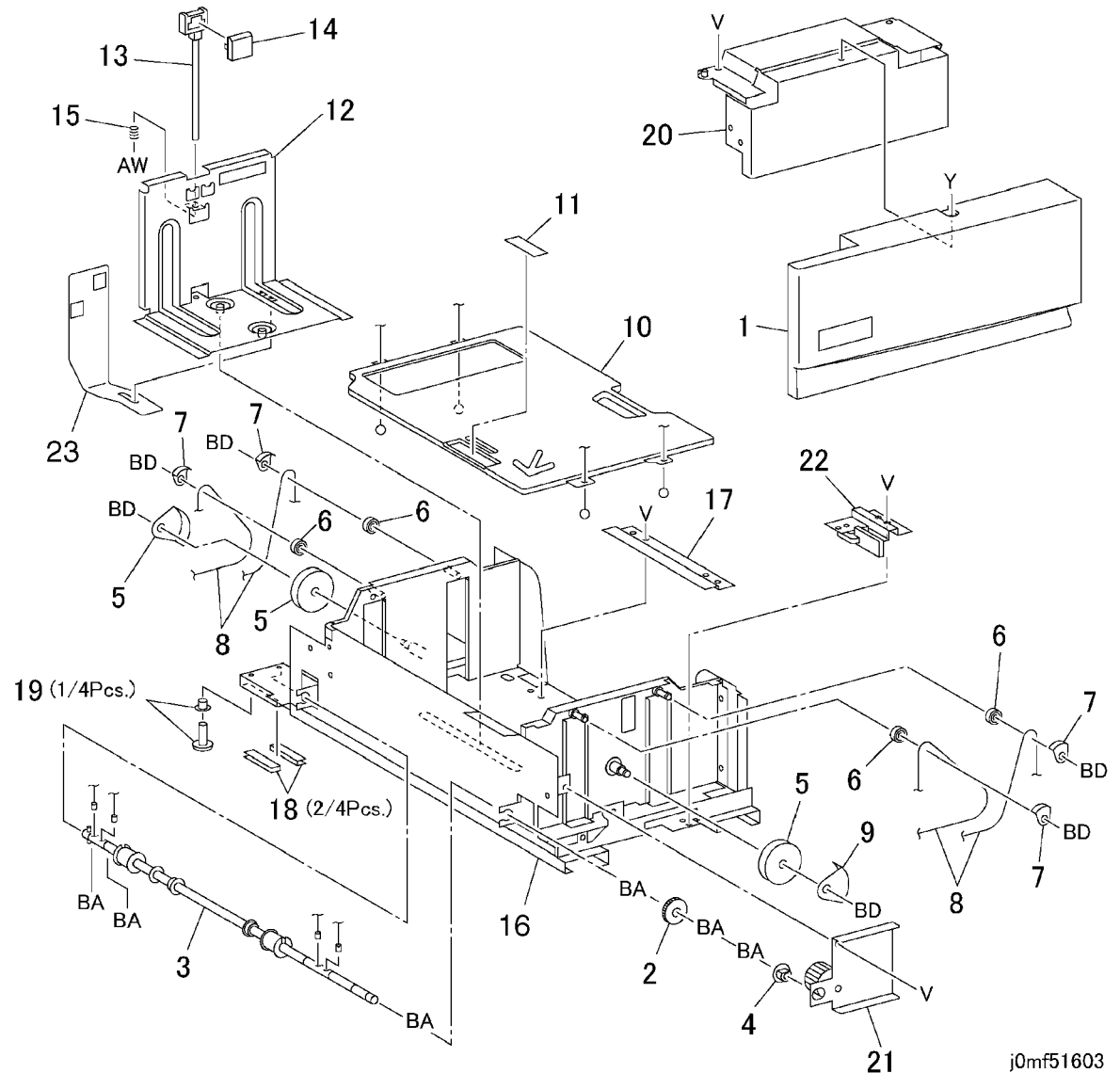
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## PL 16.3 Tray 3

Item	Part	Description
1	802E23990	Tray 3 Cover
2	—	Pulley (Not Spared)
3	—	Lift Shaft (Not Spared)
4	—	Bearing (Not Spared)
5	—	Pulley (Not Spared)
6	—	Pulley (Not Spared)
7	—	Cable Guide (Not Spared)
8	020E93120	Pulley Cable
9	—	Cable Guide (Not Spared)
10	—	Bottom Plate (Not Spared)
11	—	Pad (Not Spared)
12	—	Side Guide (Not Spared)
13	—	Knob (Not Spared)
14	—	Knob (Not Spared)
15	009E26970	Spring
16	—	Frame (Not Spared)
17	—	Bracket (Not Spared)
18	—	Spacer (Not Spared)
19	—	Spacer (Not Spared)
20	—	Bracket (Not Spared)
21	—	Brake (Not Spared)
22	—	Latch (Not Spared)
23	—	Actuator (Not Spared)

PL16.3

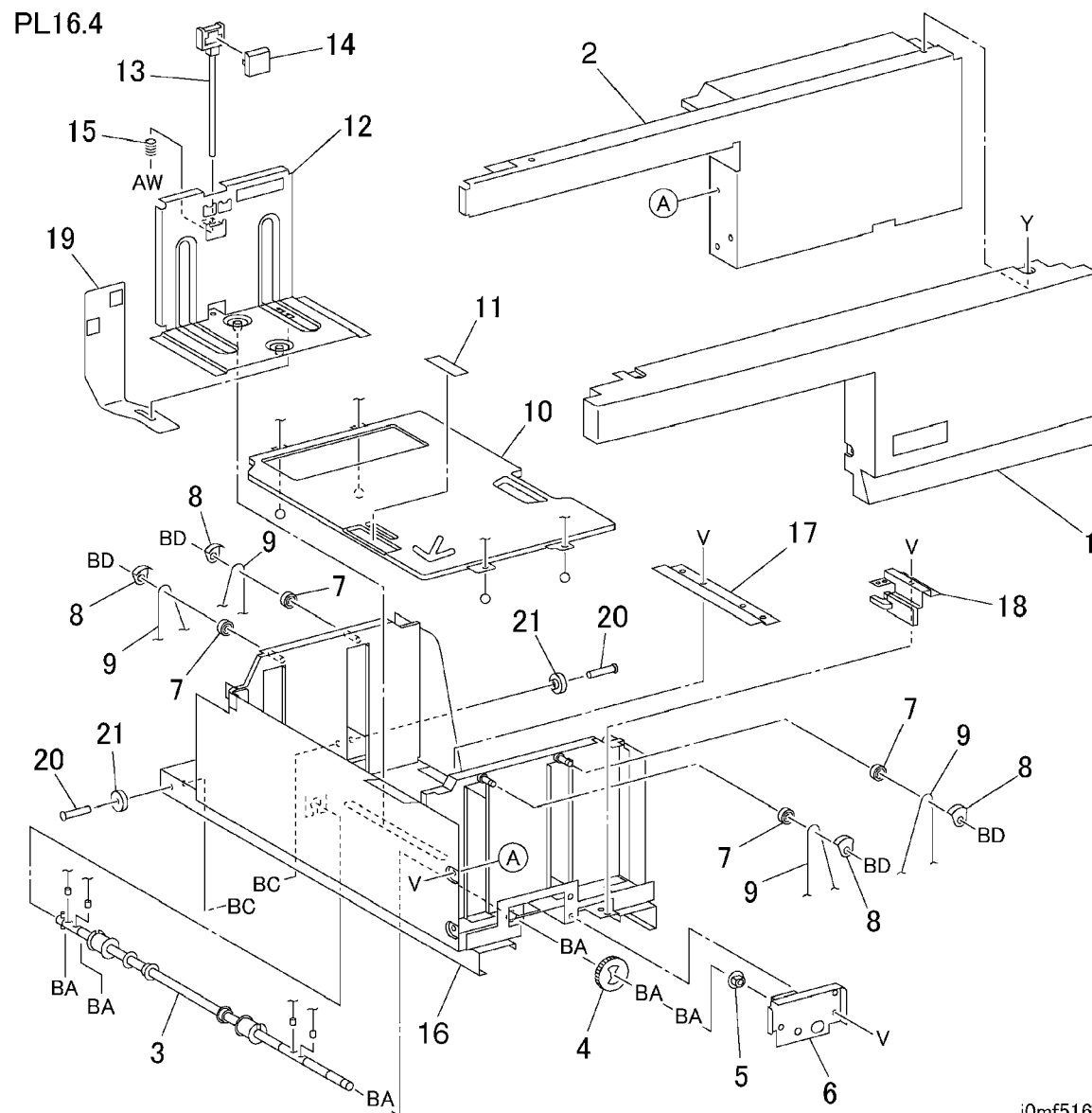


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## PL 16.4 Tray 4

Item	Part	Description
1	802E23980	Tray 4 Cover
2	—	Tray Front Frame (Not Spared)
3	—	Lift Shaft (Not Spared)
4	—	Lift Gear (Not Spared)
5	—	Bearing (Not Spared)
6	—	Brake (Not Spared)
7	—	Pulley (Not Spared)
8	—	Cable Guide (Not Spared)
9	012E10070	Tray Cable
10	—	Bottom Plate (Not Spared)
11	—	Pad (Not Spared)
12	—	Side Guide (Not Spared)
13	—	Knob (Not Spared)
14	—	Knob (Not Spared)
15	009E26970	Spring
16	—	Tray Frame (Not Spared)
17	—	Bracket (Not Spared)
18	—	Latch (Not Spared)
19	—	Actuator (Not Spared)
20	—	Shaft (Not Spared)
21	059E95920	Roll



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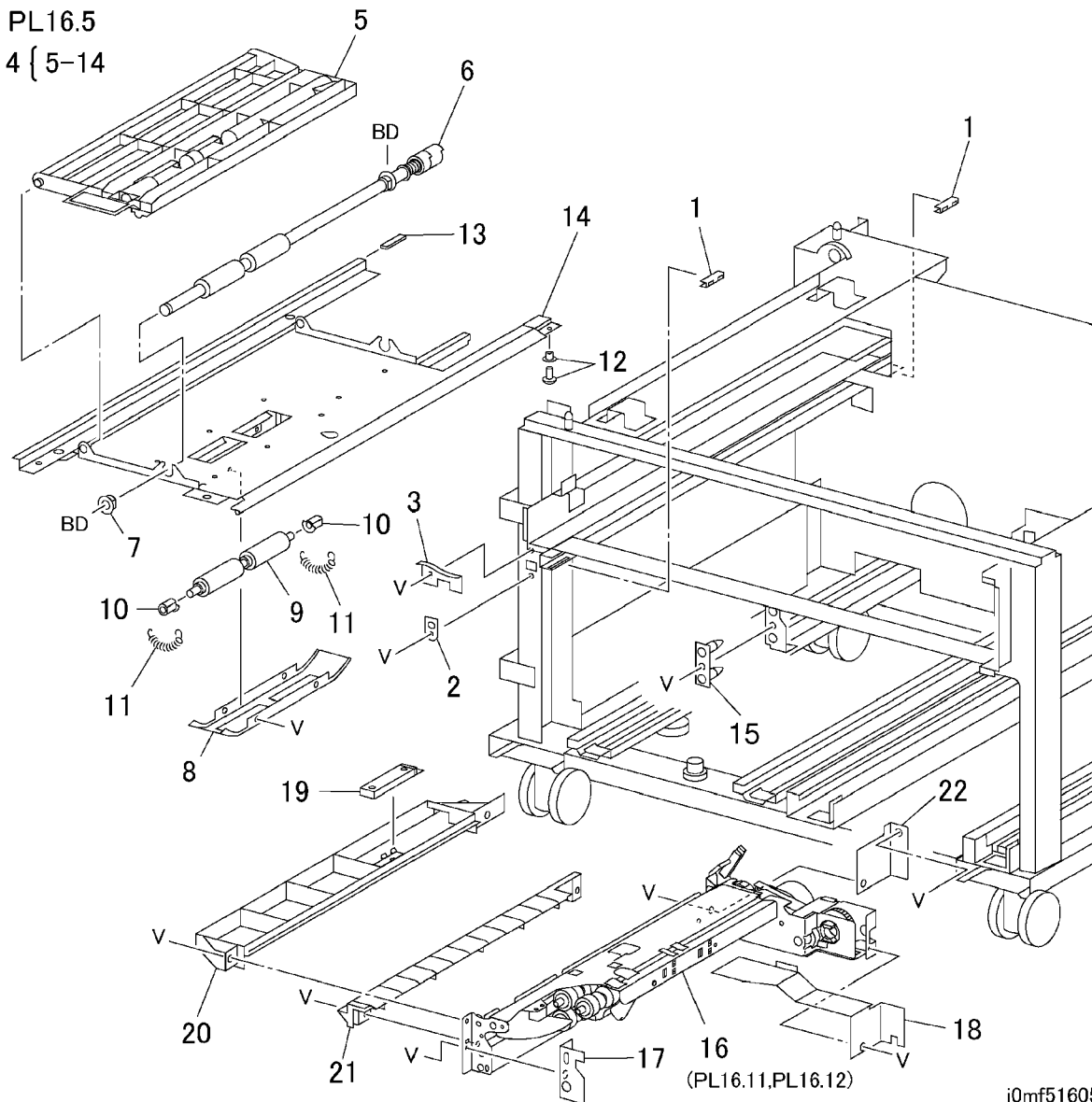
Parts List  
www.tonerplus.com.ua PL 16.4



## PL 16.5 Paper Feeder: 1 of 2

Item	Part	Description
1	—	Spacer (Not Spared)
2	—	Guide (Not Spared)
3	—	Stop (Not Spared)
4	059K21790	Tray 4 Transport Assembly
5	—	Upper Chute (P/O PL 16.5 Item 4)
6	—	Takeaway Roll (P/O PL 16.5 Item 4)
7	—	Bearing (P/O PL 16.5 Item 4)
8	—	Cover (P/O PL 16.5 Item 4)
9	—	Pinch Roll (P/O PL 16.5 Item 4)
10	—	Bearing (P/O PL 16.5 Item 4)
11	—	Spring (P/O PL 16.5 Item 4)
12	—	Spacer (P/O PL 16.5 Item 4)
13	—	Spacer (P/O PL 16.5 Item 4)
14	—	Lower Chute (P/O PL 16.5 Item 4)
15	—	Bracket (Not Spared)
16	059K18283	Tray 4 Feeder
17	—	Bracket (Not Spared)
18	—	Bracket (Not Spared)
19	130E82650	Tray 4 Feedout Sensor
20	054E18540	Upper Chute
21	054E18530	Lower Chute
22	—	Bracket (Not Spared)

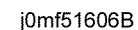
PL16.5  
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Item	Part	Description
1	059K18900	Takeaway Roll
2	—	Bearing (Not Spared)
3	—	Chute (Not Spared)
4	—	Cover (Not Spared)
5	130K61510	Takeaway Sensor
6	162K62810	Wire Harness
7	059K15573	Tray 2/Tray 3 Feeder (REP 7.10 REP 7.11)
8	054K18270	Chute Assembly
9	—	Actuator (P/O PL 16.6 Item 8)
10	130E81600	Tray 3 Feedout Sensor
11	—	Wire Harness (P/O PL 16.6 Item 8)
12	—	Chute (P/O PL 16.6 Item 8)
13	054E18520	Lower Chute
14	—	Bracket (Not Spared)

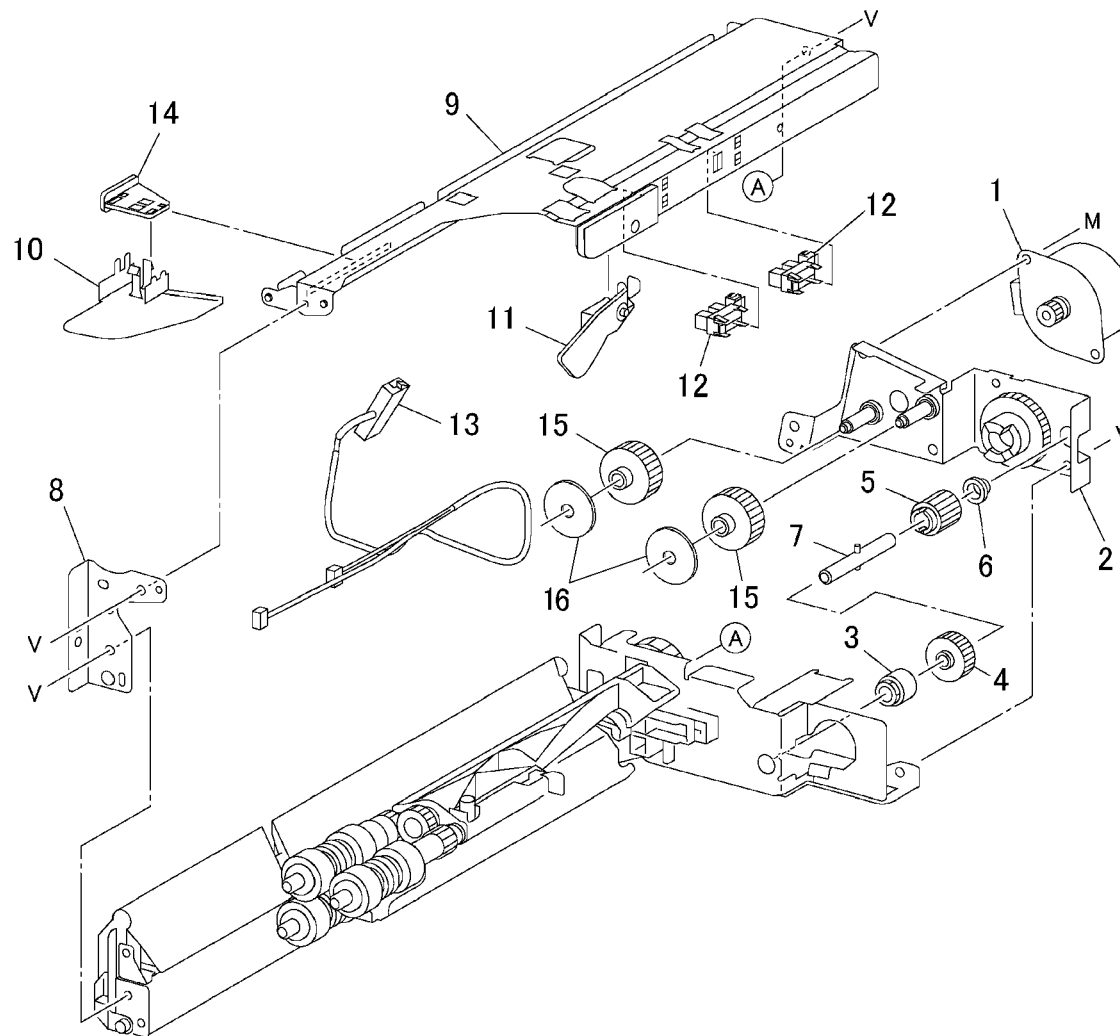




## PL 16.7 Tray 2 Feeder: 1 of 2

Item	Part	Description
1	127K23230	Tray 2 Feed/Lift Motor
2	—	Bracket (Not Spared)
3	005K83081	One-way Clutch
4	007K85730	One-way Gear
5	—	Gear (13T) (Not Spared)
6	—	Bearing (Not Spared)
7	—	Shaft (Not Spared)
8	—	Front Frame (Not Spared)
9	—	Upper Frame (Not Spared)
10	—	Front Chute (Not Spared)
11	—	Actuator (Not Spared)
12	130E82190	Tray 2 Level Sensor
13	—	Wire Harness (Not Spared)
14	—	Support (Not Spared)
15	—	Gear (29T) (Not Spared)
16	—	Washer (Not Spared)

PL16.7



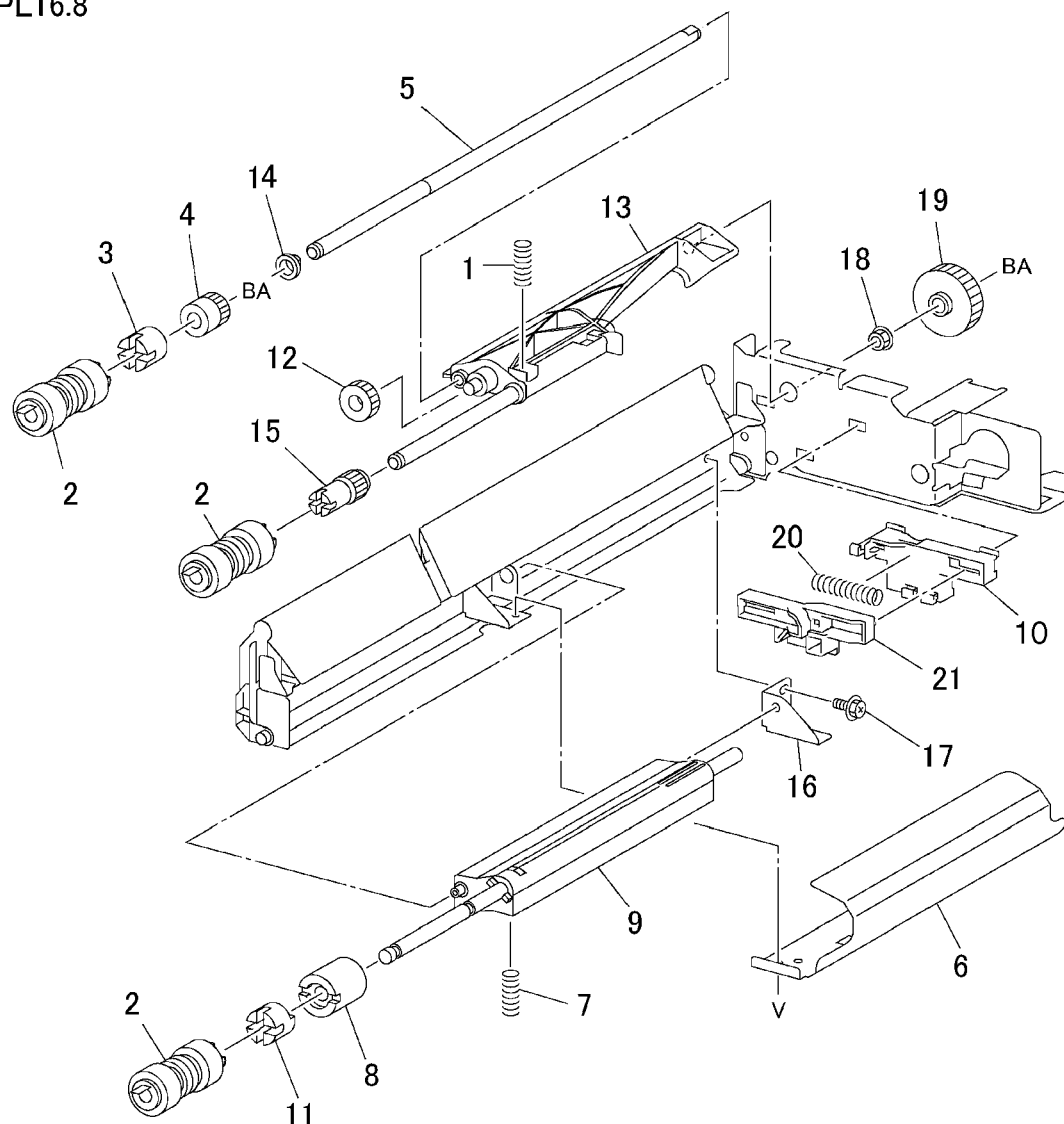
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## PL 16.8 Tray 2 Feeder: 2 of 2

Item	Part	Description
1	—	Spring (Not Spared)
2	600K78460	Roll Kit (3 Rolls/Kit)
3	005K05890	One-way Clutch
4	—	Gear (Not Spared)
5	—	Shaft (Not Spared)
6	—	Chute (Not Spared)
7	—	Spring (Not Spared)
8	—	Friction Clutch (Not Spared)
9	—	Support (Not Spared)
10	—	Holder (Not Spared)
11	—	Spacer (Not Spared)
12	—	Gear (31T) (Not Spared)
13	—	Support (Not Spared)
14	—	Bearing (Not Spared)
15	—	Gear (Not Spared)
16	—	Support (Not Spared)
17	—	Screw (Not Spared)
18	—	Bearing (Not Spared)
19	—	Gear (35T) (Not Spared)
20	—	Spring (Not Spared)
21	—	Lever (Not Spared)

PL16.8



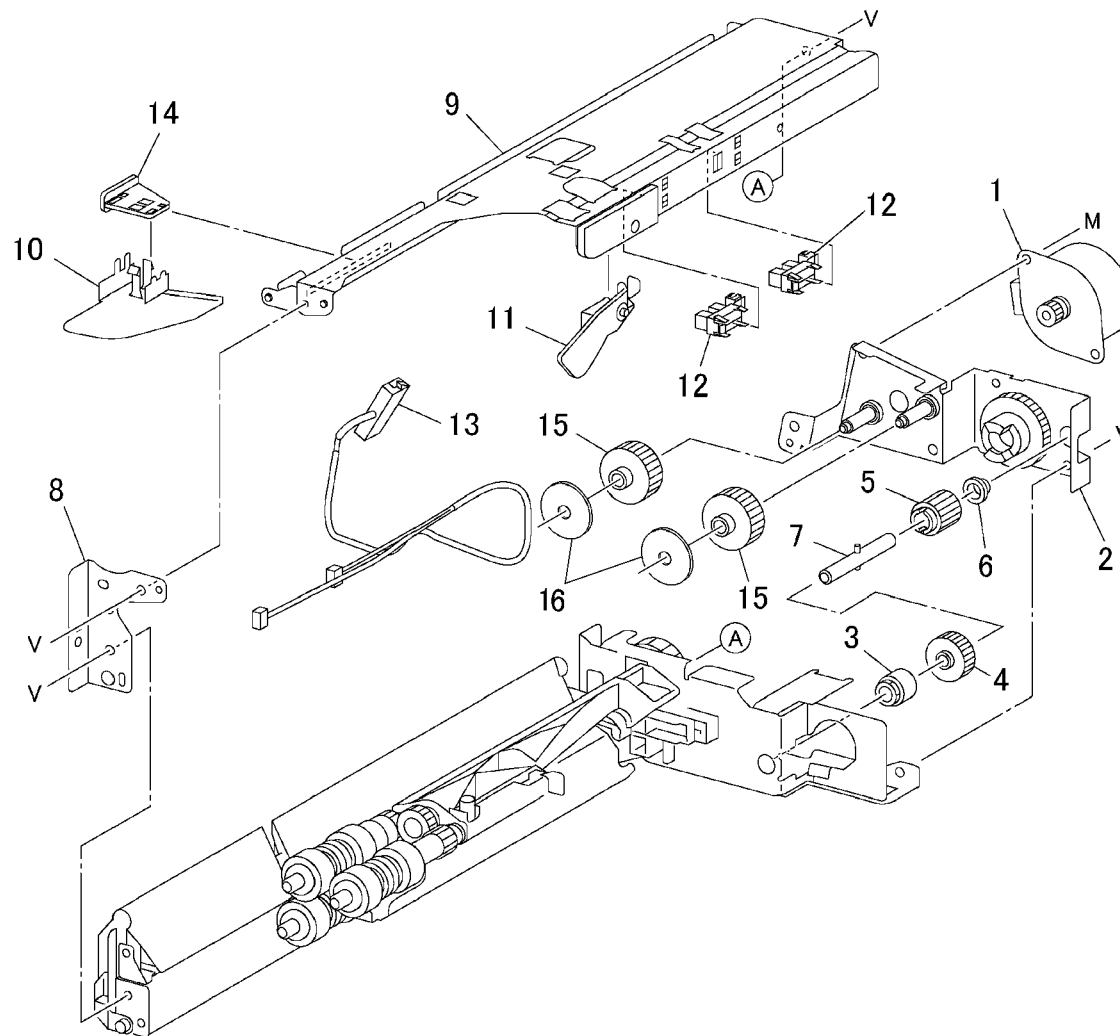
j0mf51608



## PL 16.9 Tray 3 Feeder: 1 of 2

Item	Part	Description
1	127K23230	Tray 3 Feed/Lift Motor
2	—	Bracket (Not Spared)
3	005K83081	One-way Clutch
4	007K85730	One-way Gear
5	—	Gear (13T) (Not Spared)
6	—	Bearing (Not Spared)
7	—	Shaft (Not Spared)
8	—	Front Frame (Not Spared)
9	—	Upper Frame (Not Spared)
10	—	Front Chute (Not Spared)
11	—	Actuator (Not Spared)
12	130E82190	Tray 3 Level/No Paper Sensor
13	—	Wire Harness (Not Spared)
14	—	Support (Not Spared)
15	—	Gear (29T) (Not Spared)
16	—	Washer (Not Spared)

PL16.9



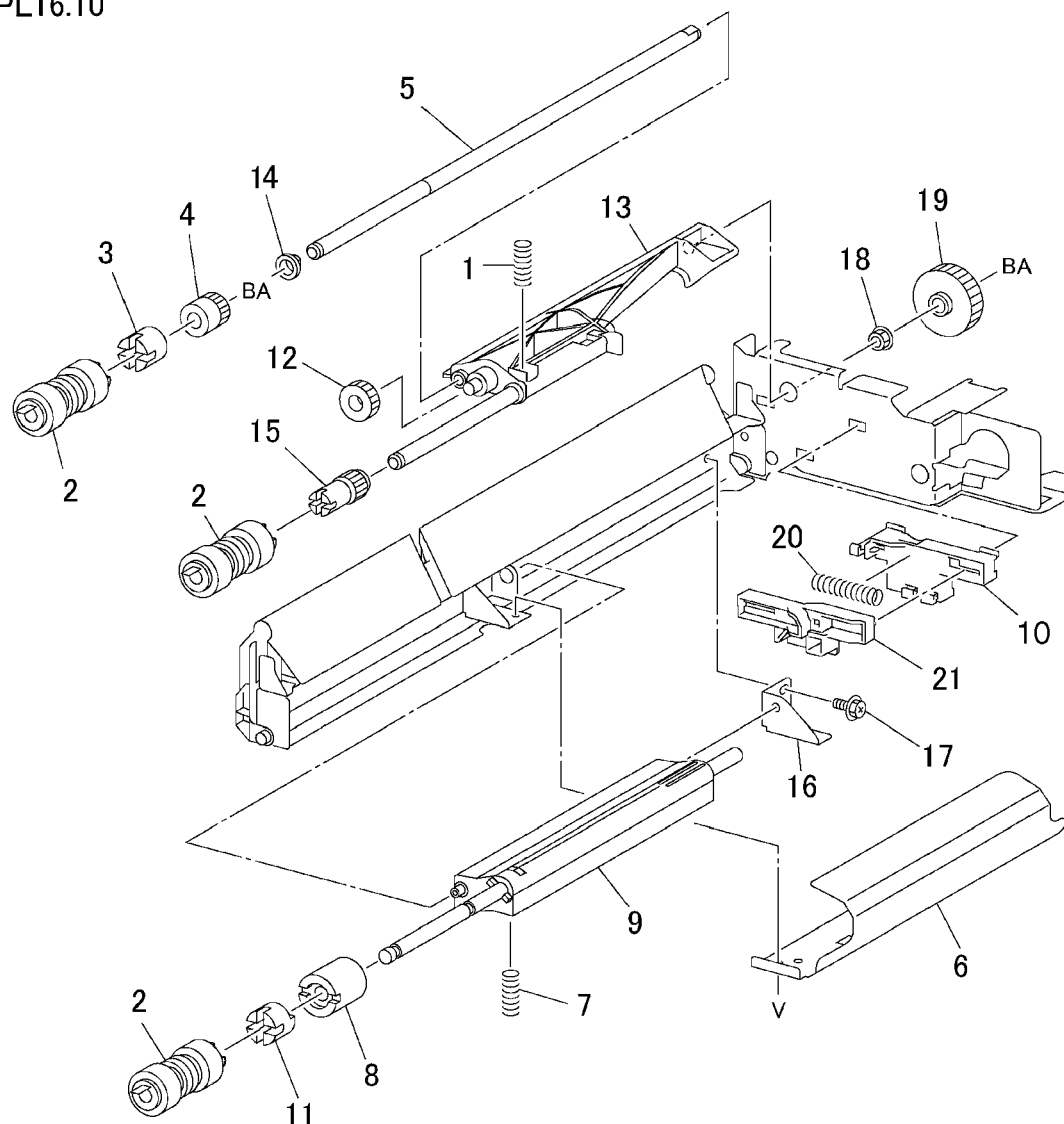
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## PL 16.10 Tray 3 Feeder: 2 of 2

Item	Part	Description
1	—	Spring (Not Spared)
2	600K78460	Roll Kit (3 Rolls/Kit)
3	005K05890	One-way Clutch
4	—	Gear (Not Spared)
5	—	Shaft (Not Spared)
6	—	Chute (Not Spared)
7	—	Spring (Not Spared)
8	—	Friction Clutch (Not Spared)
9	—	Support (Not Spared)
10	—	Holder (Not Spared)
11	—	Spacer (Not Spared)
12	—	Gear (31T) (Not Spared)
13	—	Support (Not Spared)
14	—	Bearing (Not Spared)
15	—	Gear (Not Spared)
16	—	Support (Not Spared)
17	—	Screw (Not Spared)
18	—	Bearing (Not Spared)
19	—	Gear (35T) (Not Spared)
20	—	Spring (Not Spared)
21	—	Lever (Not Spared)

PL16.10



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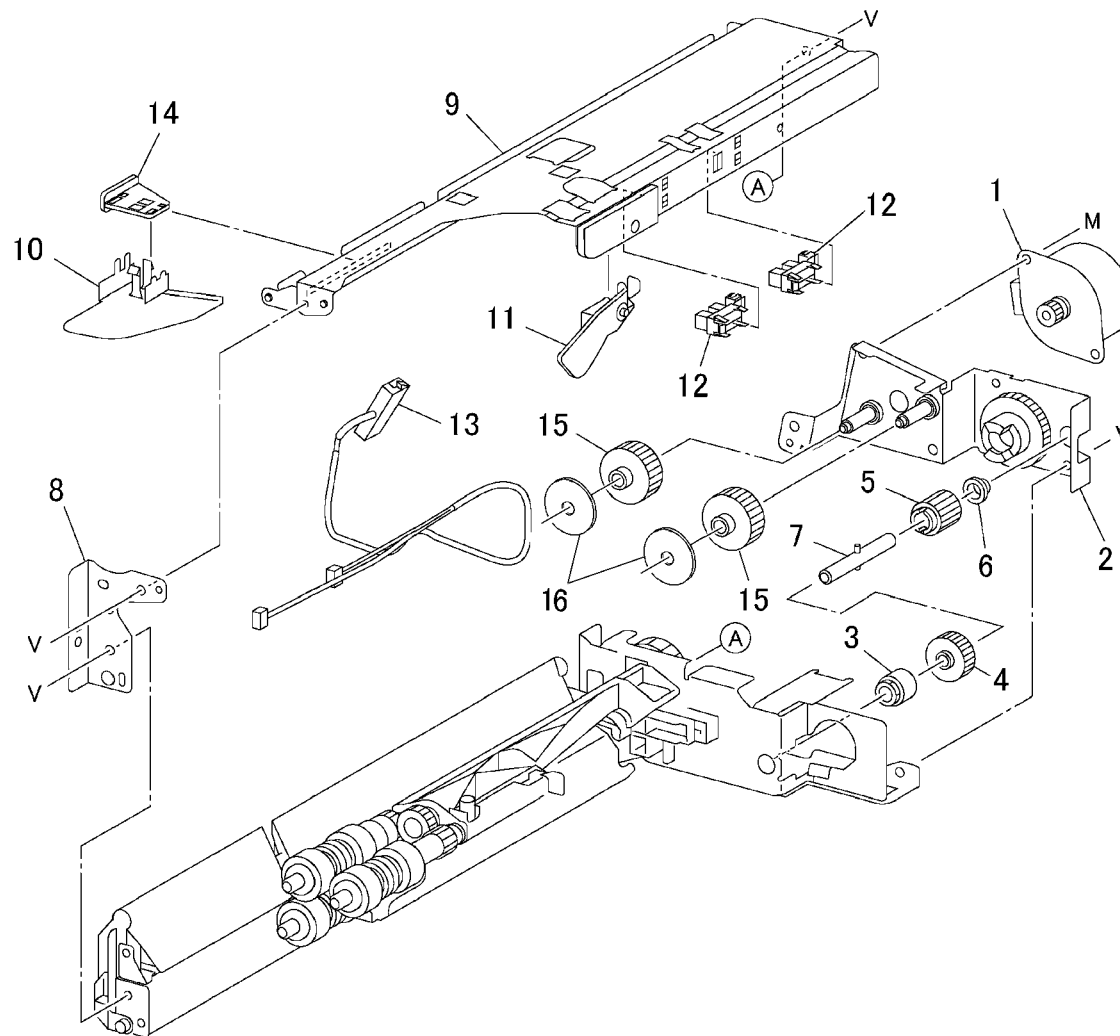
Parts List  
www.tonerplus.com.ua PL 16.10



## PL 16.11 Tray 4 Feeder: 1 of 2

Item	Part	Description
1	127K23230	Tray 4 Feed/Lift Motor
2	—	Bracket (Not Spared)
3	005K83081	One-way Clutch
4	007K85730	One-way Gear
5	—	Gear (13T) (Not Spared)
6	—	Bearing (Not Spared)
7	—	Shaft (Not Spared)
8	—	Front Frame (Not Spared)
9	—	Upper Frame (Not Spared)
10	—	Front Chute (Not Spared)
11	—	Actuator (Not Spared)
12	130E82190	Tray 4 Level/No Paper Sensor
13	162K56590	Wire Harness
14	—	Support (Not Spared)
15	—	Gear (29T) (Not Spared)
16	—	Washer

PL16.11



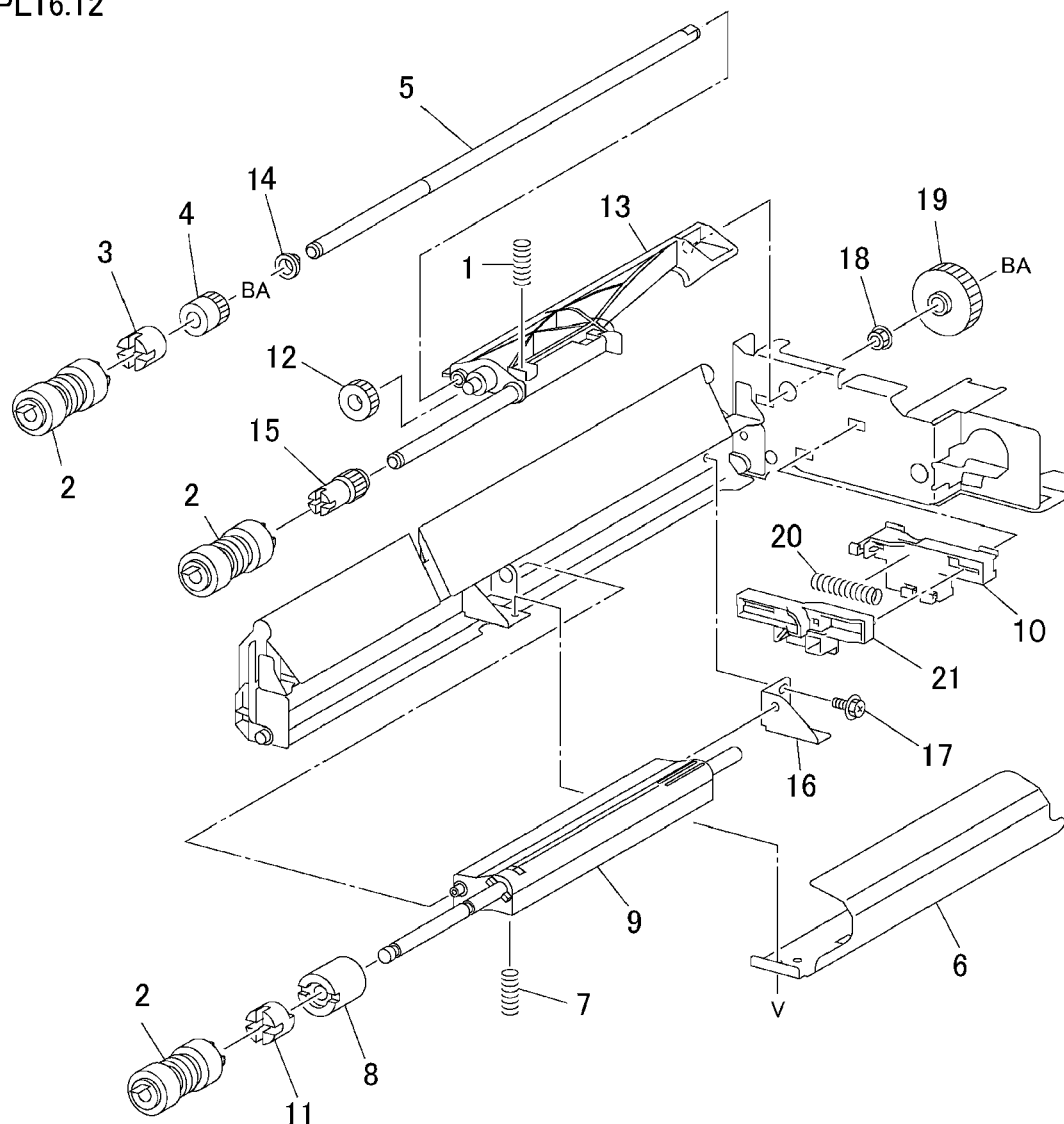
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## PL 16.12 Tray 4 Feeder: 2 of 2

Item	Part	Description
1	—	Spring (Not Spared)
2	600K78460	Roll Kit (3 Rolls/Kit)
3	005K05890	One-way Clutch
4	—	Gear (Not Spared)
5	—	Shaft (Not Spared)
6	—	Chute (Not Spared)
7	—	Spring (Not Spared)
8	—	Friction Clutch (Not Spared)
9	—	Support (Not Spared)
10	—	Holder (Not Spared)
11	—	Spacer (Not Spared)
12	—	Gear (31T) (Not Spared)
13	—	Support (Not Spared)
14	—	Bearing (Not Spared)
15	—	Gear (Not Spared)
16	—	Support (Not Spared)
17	—	Screw (Not Spared)
18	—	Bearing (Not Spared)
19	—	Gear (35T) (Not Spared)
20	—	Spring (Not Spared)
21	—	Lever (Not Spared)

PL16.12



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Initial issue

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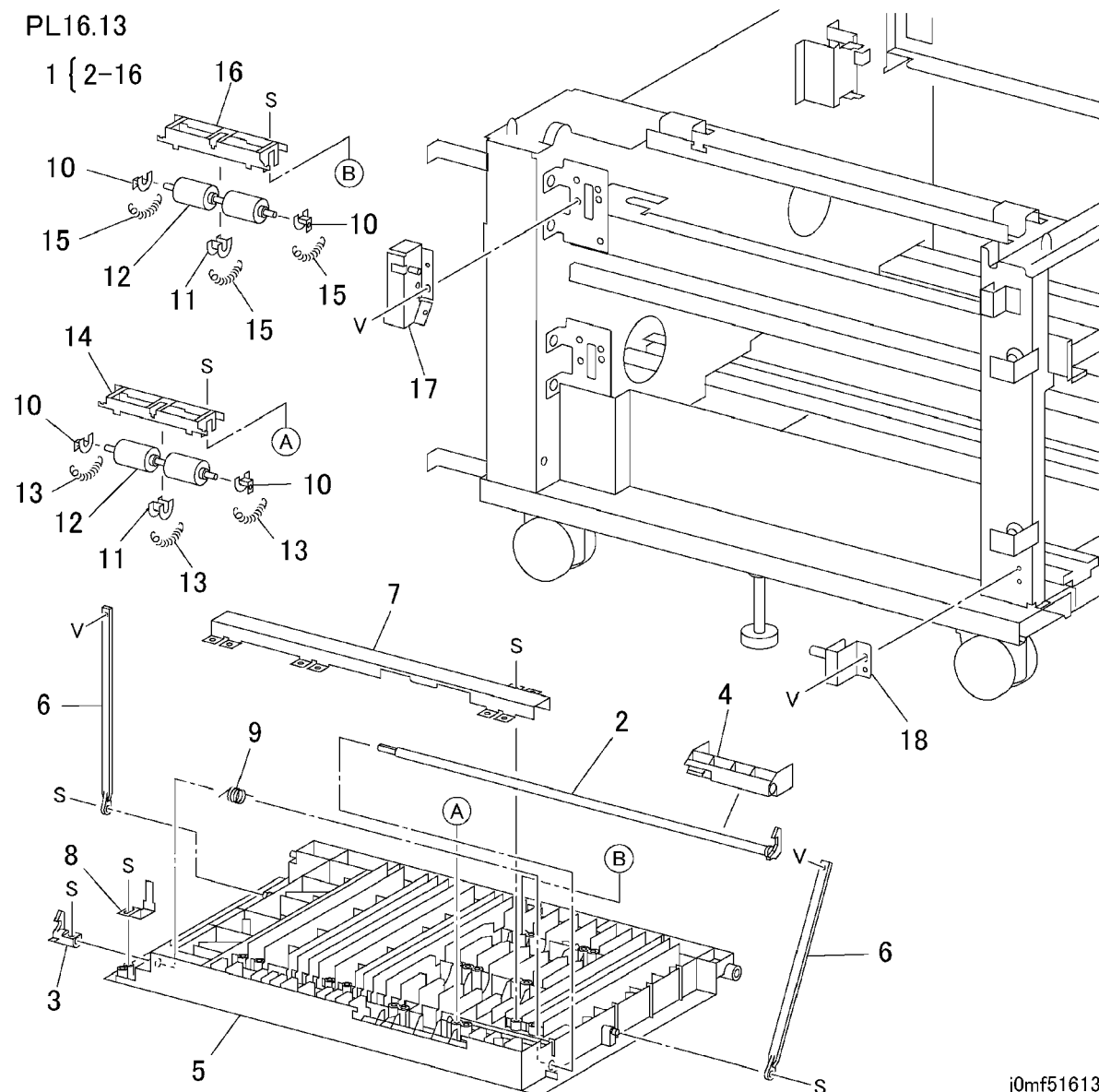
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## PL 16.13 Left Cover Assembly

Item	Part	Description
1	802K25731	Left Cover Assembly (REP 14.11)
2	003E53700	Shaft
3	003E53710	Hook
4	011E10800	Handle
5	—	Left Cover (P/O PL 16.13 Item 1)
6	—	Support (P/O PL 16.13 Item 1)
7	—	Cover (P/O PL 16.13 Item 1)
8	—	Actuator (P/O PL 16.13 Item 1)
9	—	Spring (P/O PL 16.13 Item 1)
10	—	Bearing (P/O PL 16.13 Item 1)
11	—	Bearing (P/O PL 16.13 Item 1)
12	—	Pinch Roll (P/O PL 16.13 Item 1)
13	809E28960	Spring
14	—	Bracket (P/O PL 16.13 Item 1)
15	809E28980	Spring
16	—	Bracket (P/O PL 16.13 Item 1)
17	015K49470	Interlock Switch
18	—	Bracket (Not Spared)

### PL16.13



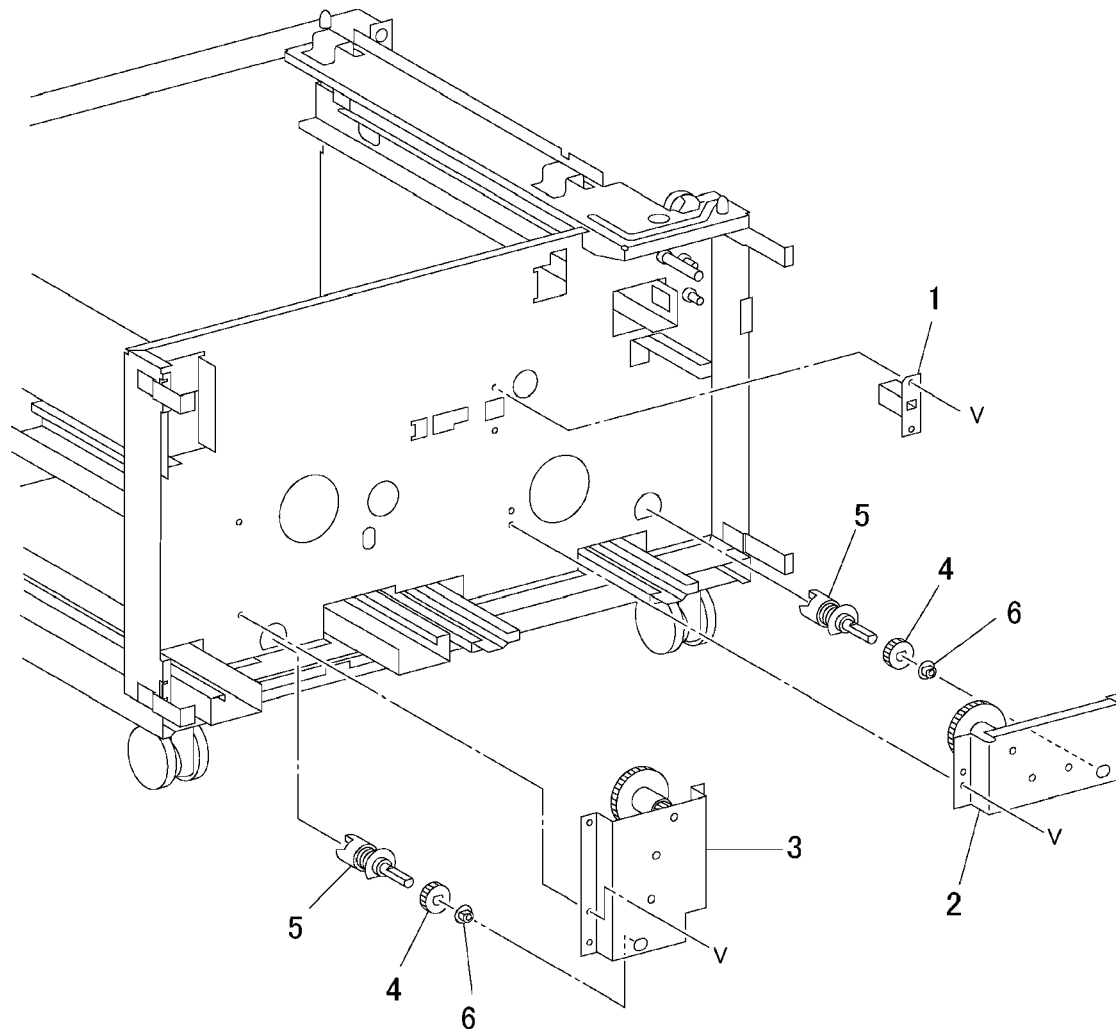
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## PL 16.14 Tray 3/4 Lift Gear Assembly

Item	Part	Description
1	—	Transport Guide (Not Spared)
2	015K49460	Gear Assembly (Tray 3)
3	015K49450	Gear Assembly (Tray 4)
4	007E66080	Lift Gear
5	011K96790	Coupling
6	—	Bearing (Not Spared)

PL16.14



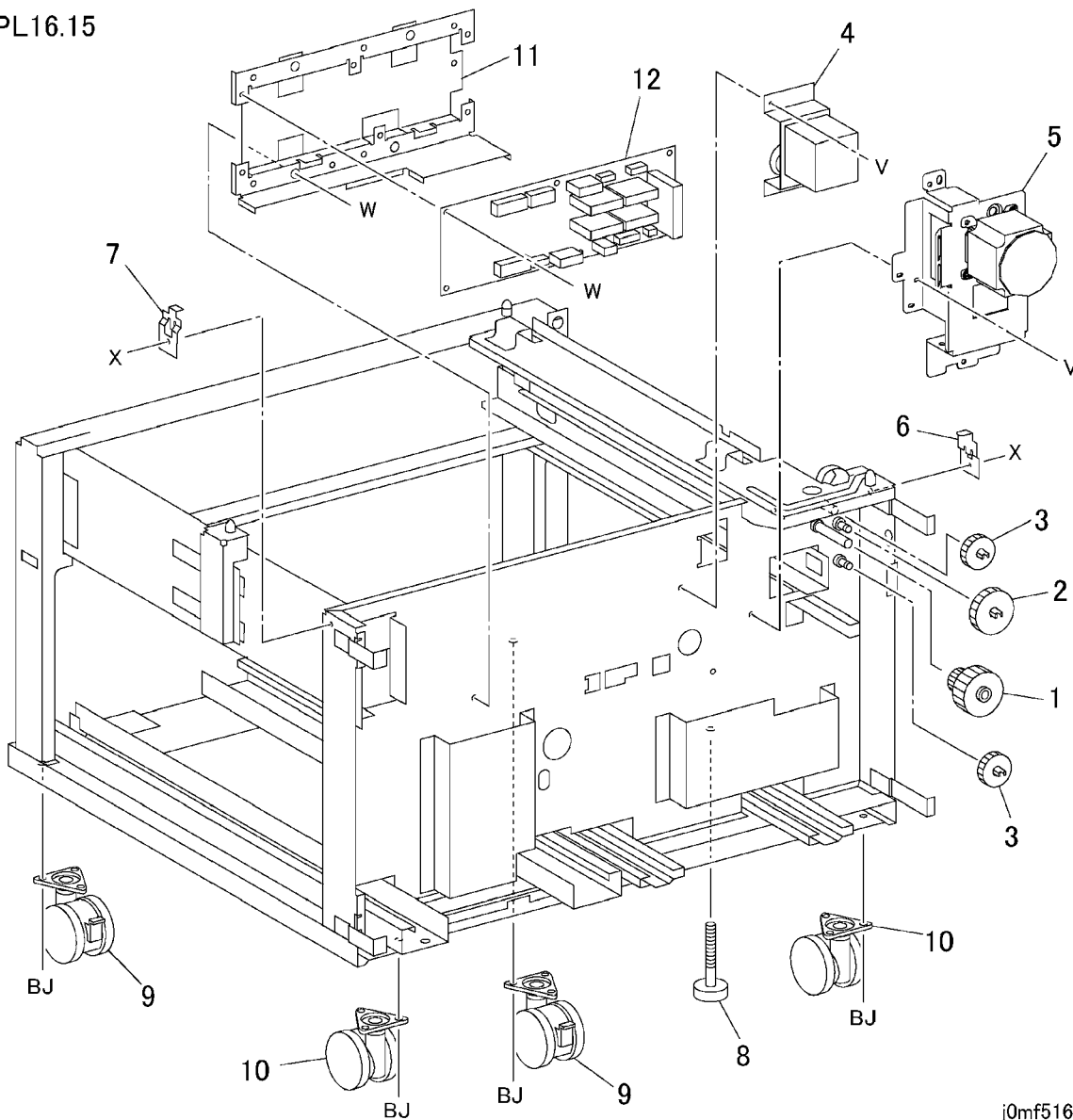
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## PL 16.15 Electrical Components and Casters

Item	Part	Description
1	007E66060	Gear (23/46T)
2	007E66070	Gear (46T)
3	007E66050	Gear (33T)
4	127K31840	Takeaway Motor 2
5	127K36020	Takeaway Motor 1
6	—	Left Coupling (Not Spared)
7	—	Right Coupling (Not Spared)
8	—	Foot (Not Spared)
9	017K92350	Caster
10	017K92360	Caster
11	—	Bracket (Not Spared)
12	160K85980	Tray Module PWB (DC2240/1632/WC24)
—	160K91011	Tray Module PWB (DC3535)

PL16.15



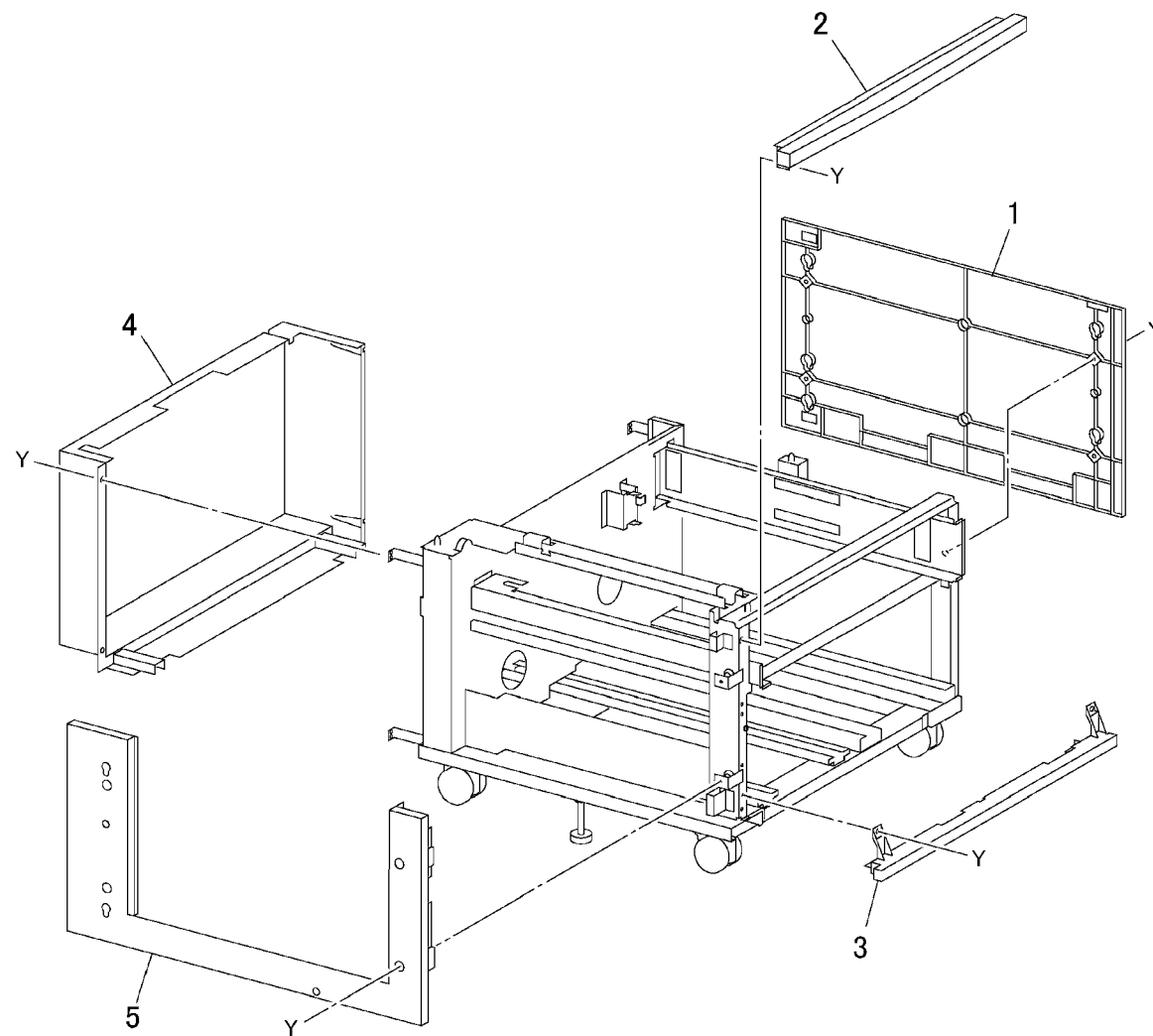
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## PL 16.16 Covers

Item	Part	Description
1	—	Right Cover (Not Spared)
2	802E23950	Front Upper Cover
3	802E23960	Front Lower Cover
4	802K36580	Rear Cover (REP 14.9)
5	802E23930	Left Lower Cover (REP 14.12)

PL16.16



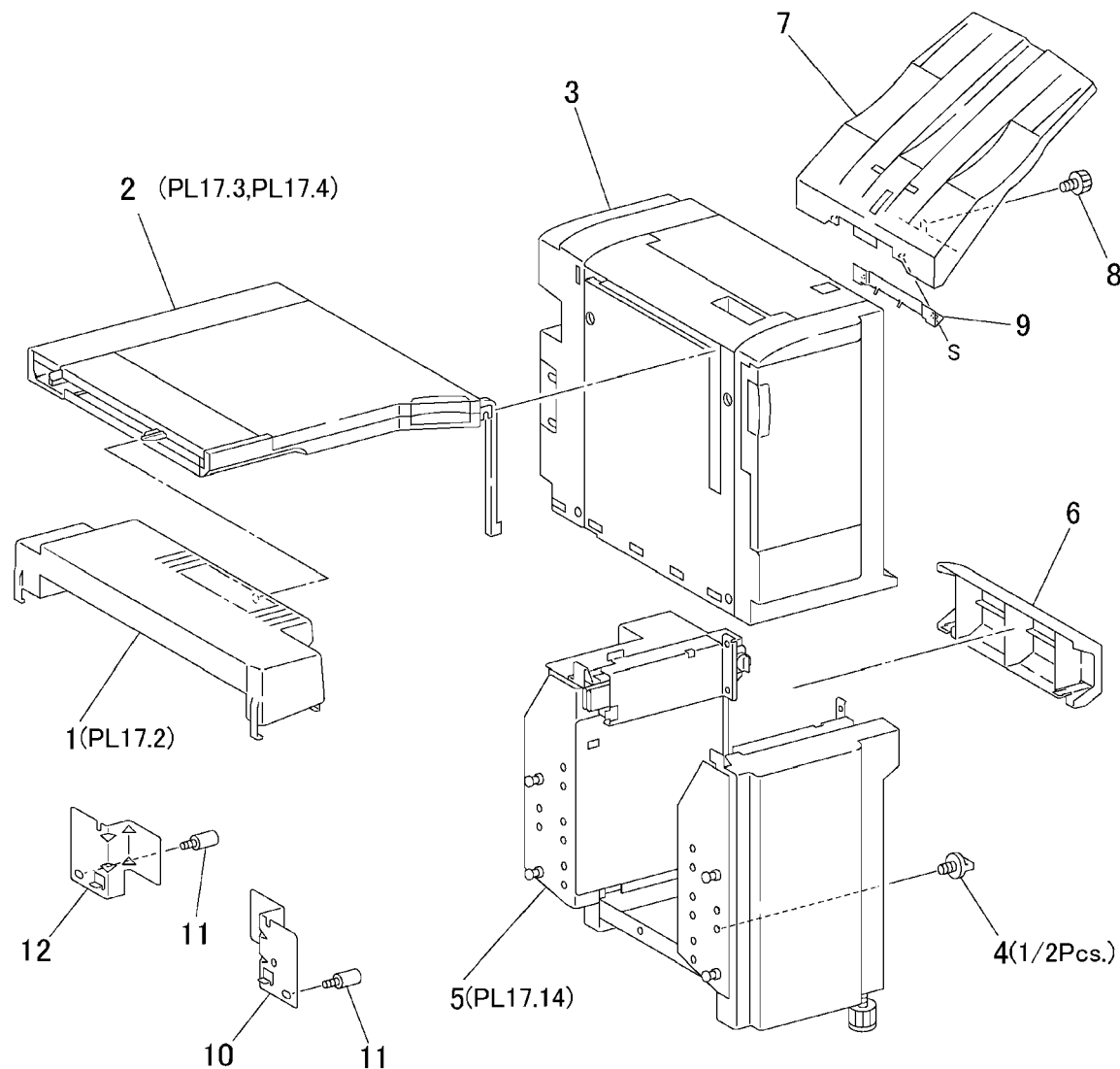
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## PL 17.1 Finisher

Item	Part	Description
1	802K49900	Gate Assembly
2	801K03600	H-Transport Assembly (REP 12.1)
3	—	Stapler Finisher (Not Spared)
4	003K12090	Thumbscrew
5	—	Rack Assembly (Not Spared) (REP 12.19)
6	—	Right Cover (Not Spared)
7	050E19480	Stacker Tray (REP 12.20)
8	026E93560	Screw
9	—	Bracket (Not Spared)
10	—	Front Bracket (Not Spared)
11	—	Stud Screw (Not Spared)
12	—	Rear Bracket (Not Spared)

### PL17.1



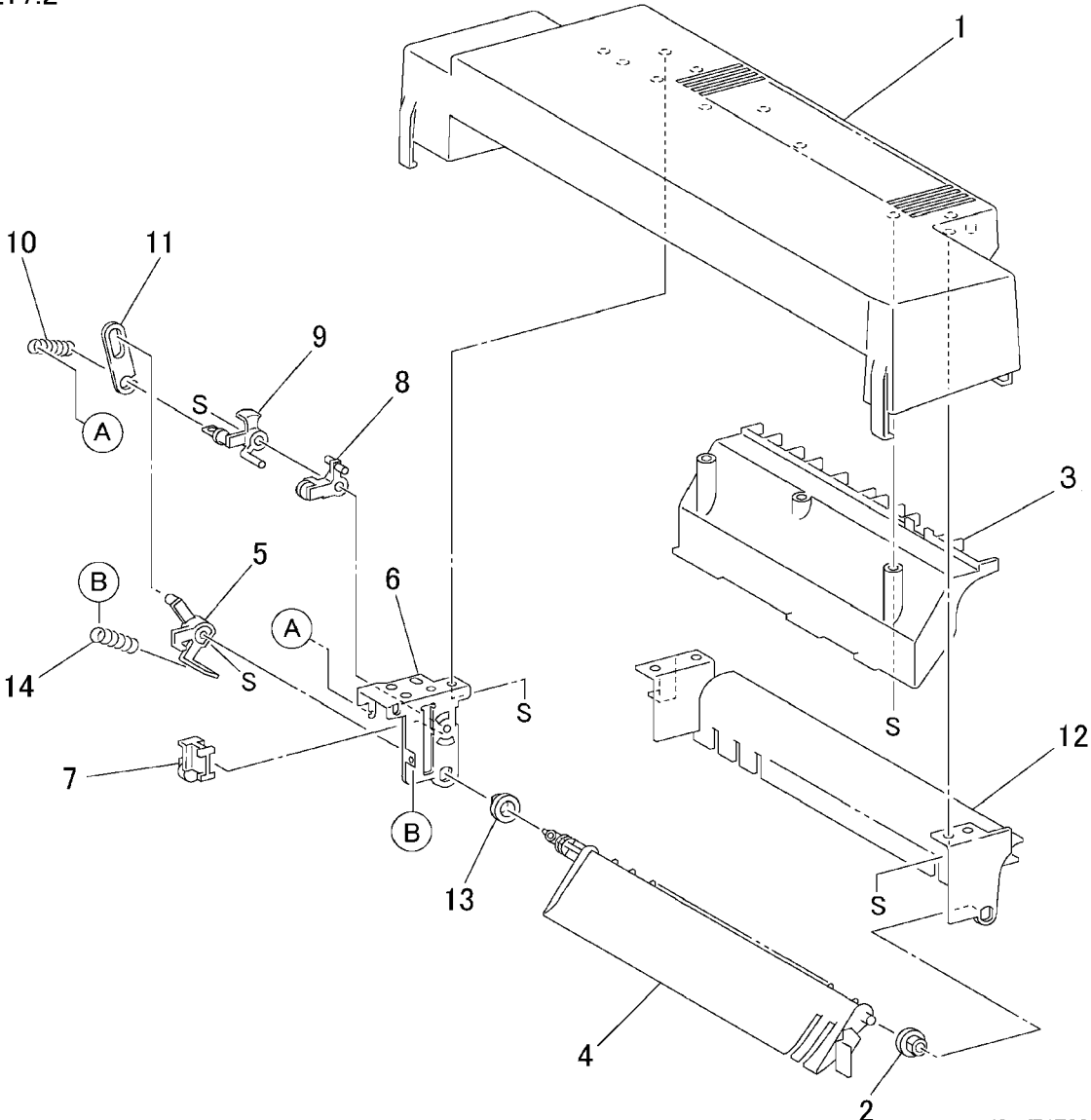
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Item	Part	Description
1	—	Gate Cover (Not Spared)
2	—	Bearing (Not Spared)
3	—	Chute (Not Spared)
4	—	In Gate (Not Spared)
5	—	In Gate Lever (Not Spared)
6	—	Gate Bracket (Not Spared)
7	—	Link Assembly (Not Spared)
8	—	Lever Assembly (Not Spared)
9	—	Lever (Not Spared)
10	—	Spring (Not Spared)
11	—	Gate Link (Not Spared)
12	—	Exit Chute (Not Spared)
13	—	Bearing (Not Spared)
14	—	Spring (Not Spared)

## PL17.2

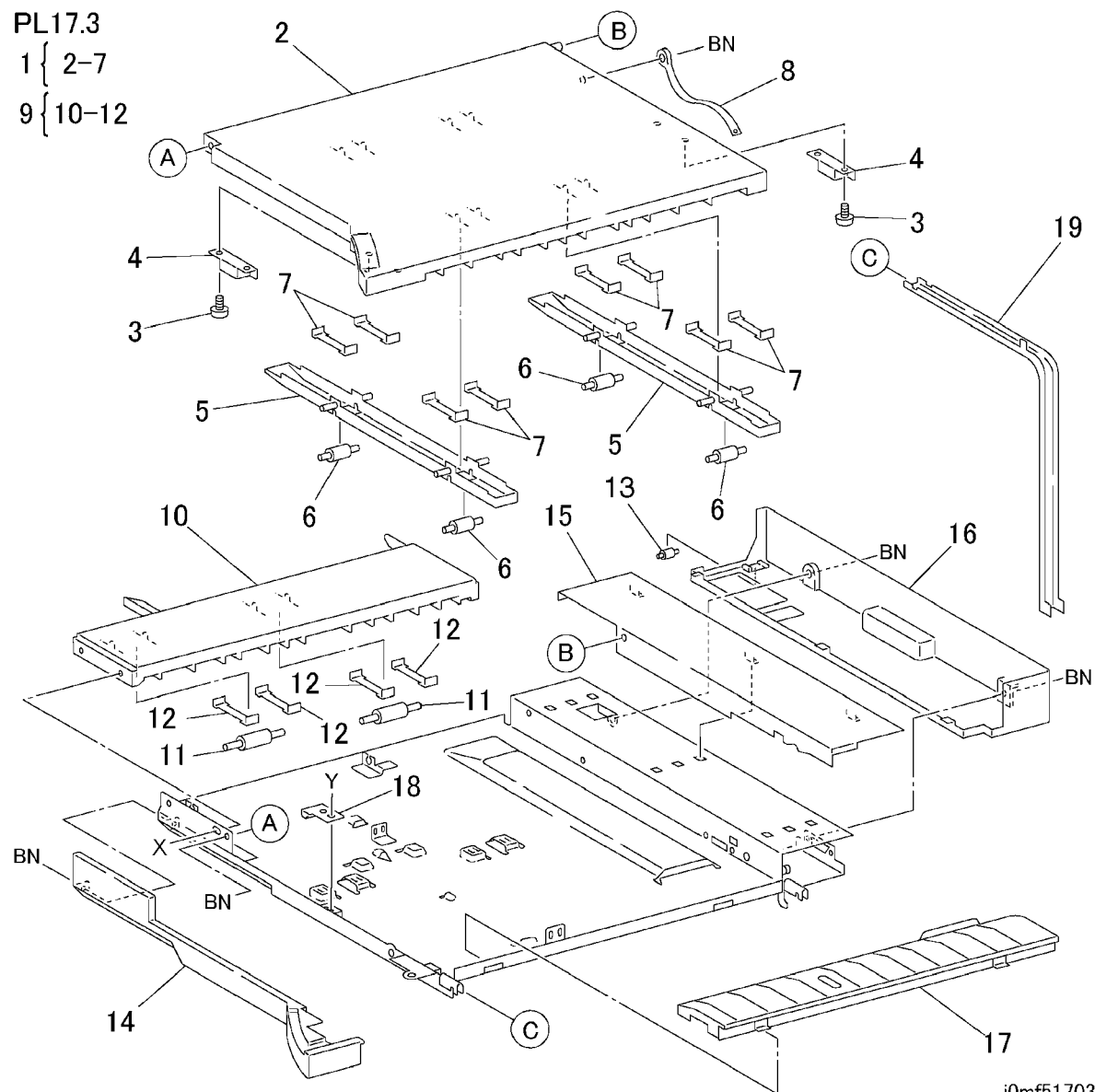


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## PL 17.3 H-Transport Assembly: 1 of 2

Item	Part	Description
1	802K28600	H-Transport Cover Assembly
2	—	H-Transport Cover (P/O PL 17.3 Item 1)
3	—	Screw (P/O PL 17.3 Item 1)
4	121E89780	Magnet
5	—	Guide (P/O PL 17.3 Item 1)
6	—	Roll (P/O PL 17.3 Item 1)
7	—	Spring Plate (P/O PL 17.3 Item 1)
8	—	Stop (Not Spared)
9	802K28590	Entrance Upper Cover Assembly
10	—	Entrance Upper Cover (P/O PL 17.3 Item 9)
11	—	Roll (P/O PL 17.3 Item 9)
12	—	Spring Plate (P/O PL 17.3 Item 9)
13	—	Roll (Not Spared)
14	—	Front Cover (Not Spared)
15	—	Upper Rear Cover (Not Spared)
16	—	Rear Cover (Not Spared)
17	—	Exit Guide (Not Spared)
18	—	Stop (Not Spared)
19	849E04830	Support



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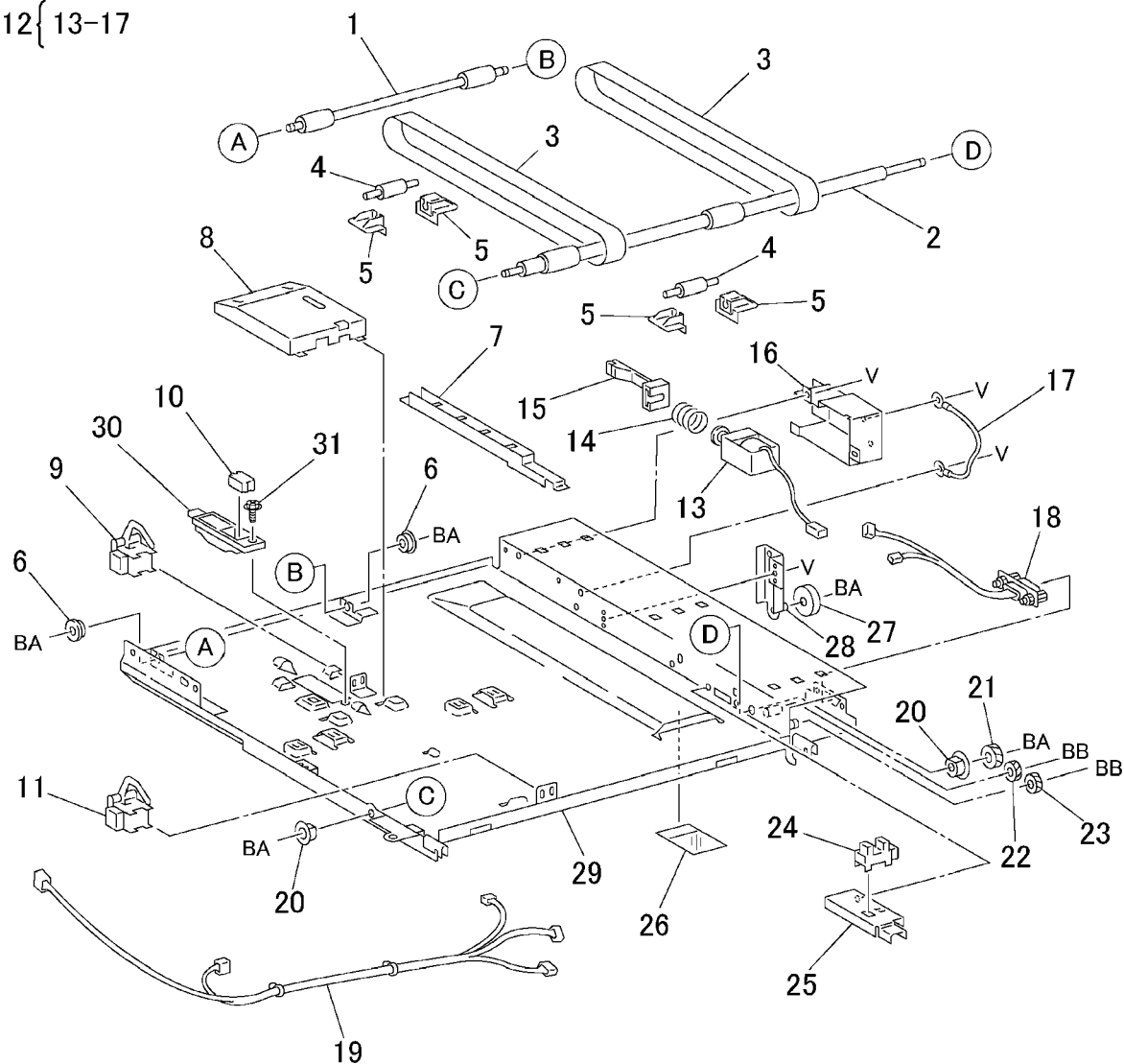


## PL 17.4 H-Transport Assembly: 2 of 2

Item	Part	Description
1	—	H-Transport Roll (In) (Not Spared)
2	—	H-Transport Roll (Out) (Not Spared)
3	023E20020	H-Transport Belt (REP 12.2)
4	—	Roll (Not Spared)
5	—	Support (Not Spared)
6	—	Bearing (Not Spared)
7	802E30150	Harness Guide
8	802E30140	Cover
9	130K93360	Entrance Sensor (REP 12.3)
10	130E84300	Top Tray Full Sensor (REP 12.3)
11	130K62360	Exit Sensor
12	802K28580	Gate In Solenoid Assembly
13	—	Gate In Solenoid (P/O PL 17.4 Item 12)
14	—	Spring (P/O PL 17.4 Item 12)
15	—	Link (P/O PL 17.4 Item 12)
16	—	Cover (P/O PL 17.4 Item 12)
17	—	Ground Wire (P/O PL 17.4 Item 12)
18	162K69070	Wire Harness
19	962K14550	Wire Harness
20	—	Bearing (Not Spared)
21	007E67850	Gear (37T)
22	007E67860	Gear (30T)
23	007E67870	Gear (26T)
24	130E82540	Interlock Sensor
25	—	Bracket (Not Spared)
26	038E24650	Paper Guide
27	022E88210	Roll
28	—	Bracket (Not Spared)
29	—	Frame (Not Spared)
30	—	Bracket (Not Spared)
31	—	Screw (Not Spared)

PL17.4

12 { 13-17



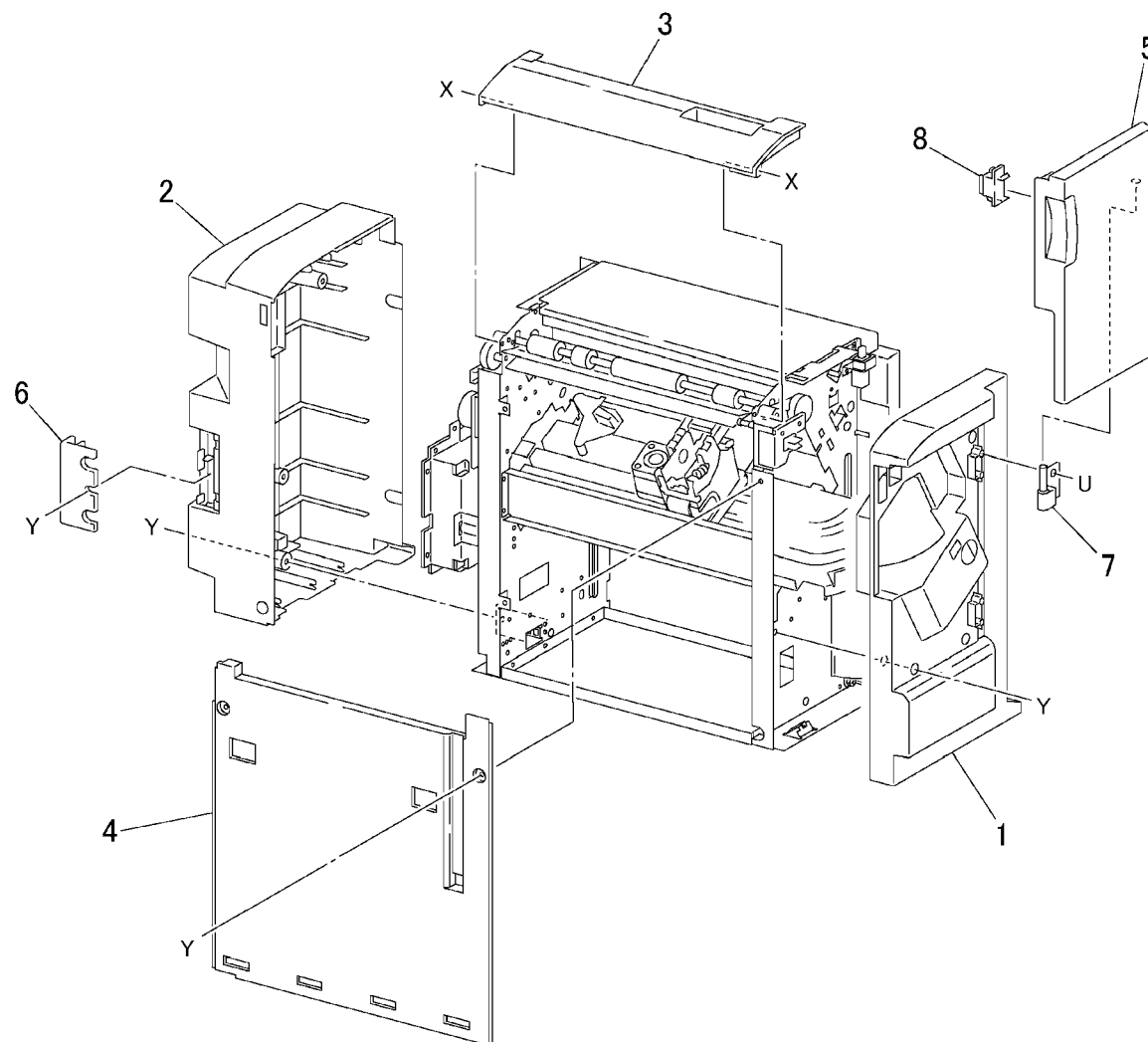
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## PL 17.5 Covers

Item	Part	Description
1	802E28560	Front Cover
2	802E28520	Rear Cover
3	802E28530	Top Cover
4	802E50710	Left Cover
5	802E28550	Front Cover Door
6	802E28570	Left Panel
7	—	Hinge (Not Spared)
8	121E88470	Magnet

PL17.5



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## PL 17.6 Top Cover and Eject Roll

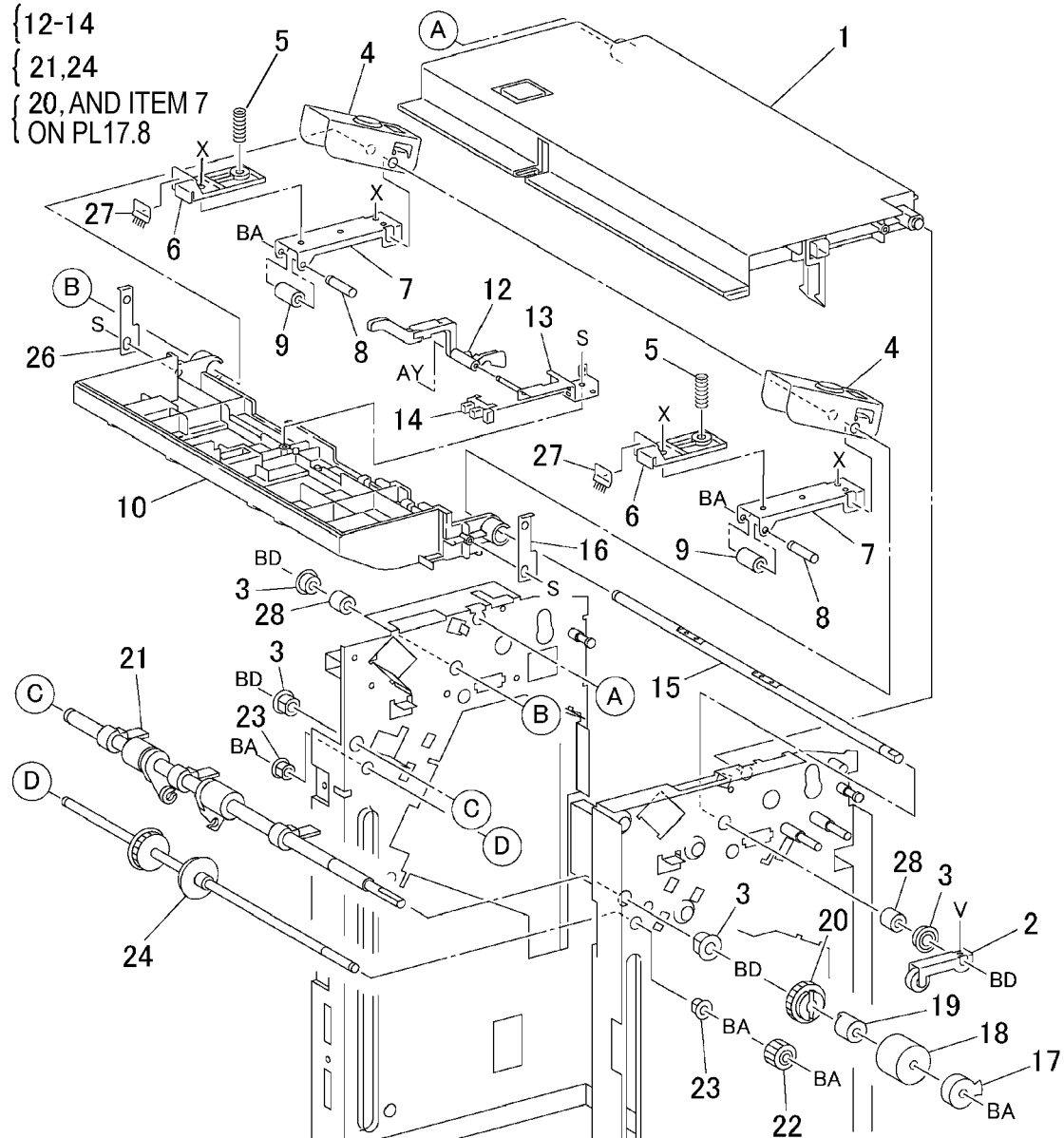
Item	Part	Description
1	802K28571	Top Cover
2	—	Arm (Not Spared)
3	—	Bearing (Not Spared)
4	—	Bracket (Not Spared)
5	—	Spring (Not Spared)
6	830E81670	Support
7	—	Bracket (Not Spared)
8	—	Shaft (Not Spared)
9	022K61480	Eject Pinch Roll
10	—	Eject Chute (Not Spared)
11	130K61920	Stack Height Sensor Assembly (REP 12.5)
12	—	Actuator (P/O PL 17.6 Item 11)
13	—	Bracket (P/O PL 17.6 Item 11)
14	130E82530	Stack Height Sensor
15	—	Shaft (Not Spared)
16	—	Link (Not Spared)
17	120E20970	Actuator
18	005E16220	Clutch
19	005E16510	Collar
20	—	Gear (P/O PL 17.6 Item 29) (34Z)
—	—	(DC2240/1632/WC24)
21	007E76930	Gear (34Z) (DC3535)
22	007K86910	Gear (20T)
23	013E20240	Bearing
24	—	Eject Shaft (P/O PL 17.6 Item 25)
25	006K21730	Eject Roll Assembly (REP 12.6)
26	—	Link (Not Spared)
27	—	Static Eliminator (Not Spared)
28	—	Collar (Not Spared)
29	604K09720	Eject Gear Kit (DC2240/1632/WC24)

### PL17.6

11 { 12-14

25 { 21,24

29 { 20, AND ITEM 7  
ON PL17.8



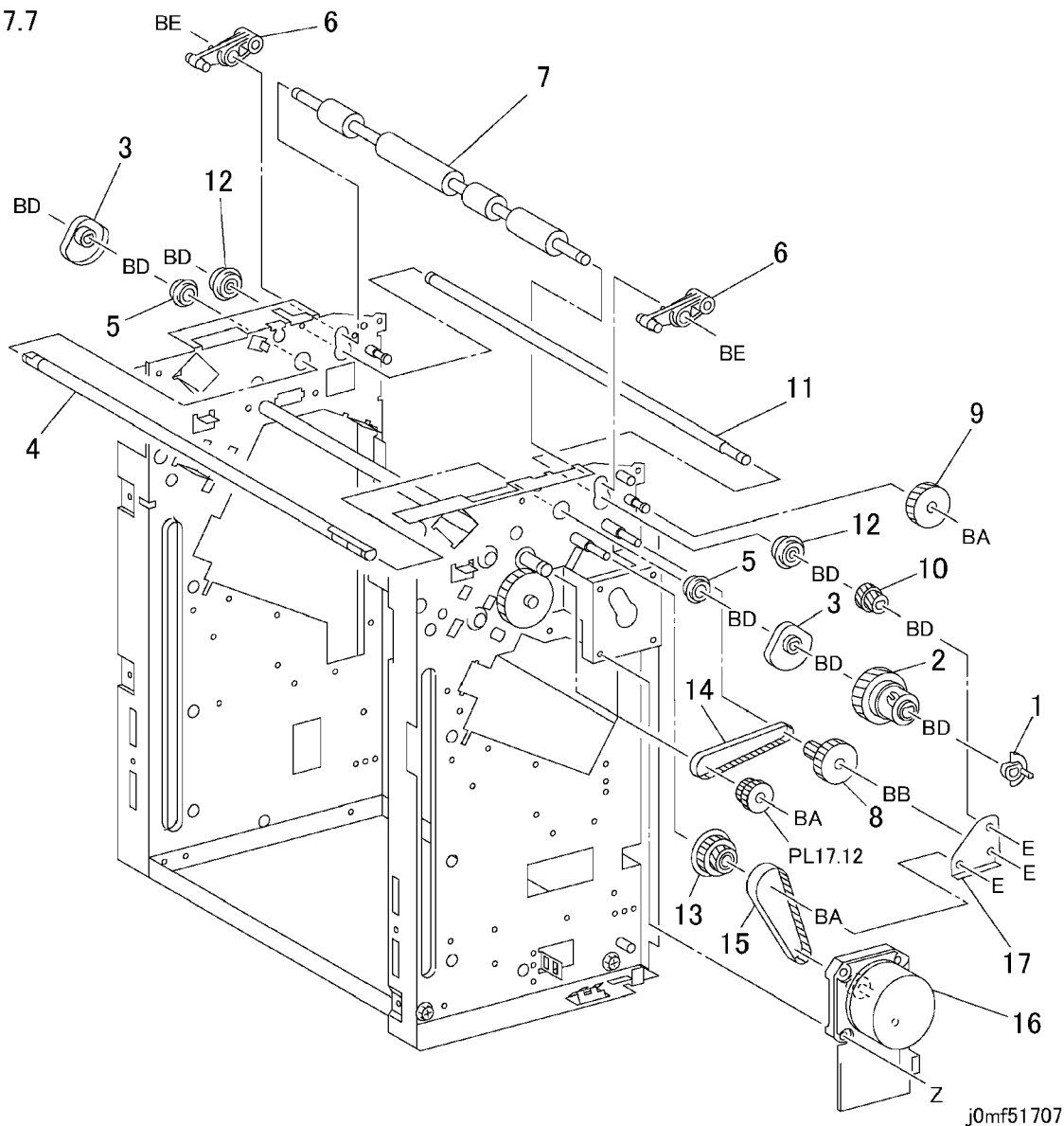
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## PL 17.7 Paper Transportation: 1 of 2

Item	Part	Description
1	120E20690	Actuator
2	121K24610	Decurler Cam Clutch
3	008E94070	Cam
4	—	Shaft (Not Spared)
5	—	Bearing (Not Spared)
6	031E94030	Arm
7	059K20210	Decurler Roll (REP 12.7)
8	007E67740	Gear (40Z/20T)
9	007E67750	Gear (40Z)
10	007E72090	Gear (18Z/21T)
11	—	Shaft (Not Spared)
12	—	Bearing (Not Spared)
13	007E67730	Gear (23Z/52T)
14	023E20160	Belt (REP 12.9)
15	423W29655	Belt
16	127K32840	Finisher Drive Motor (REP 12.8)
17	—	Bracket (Not Spared)

PL17.7

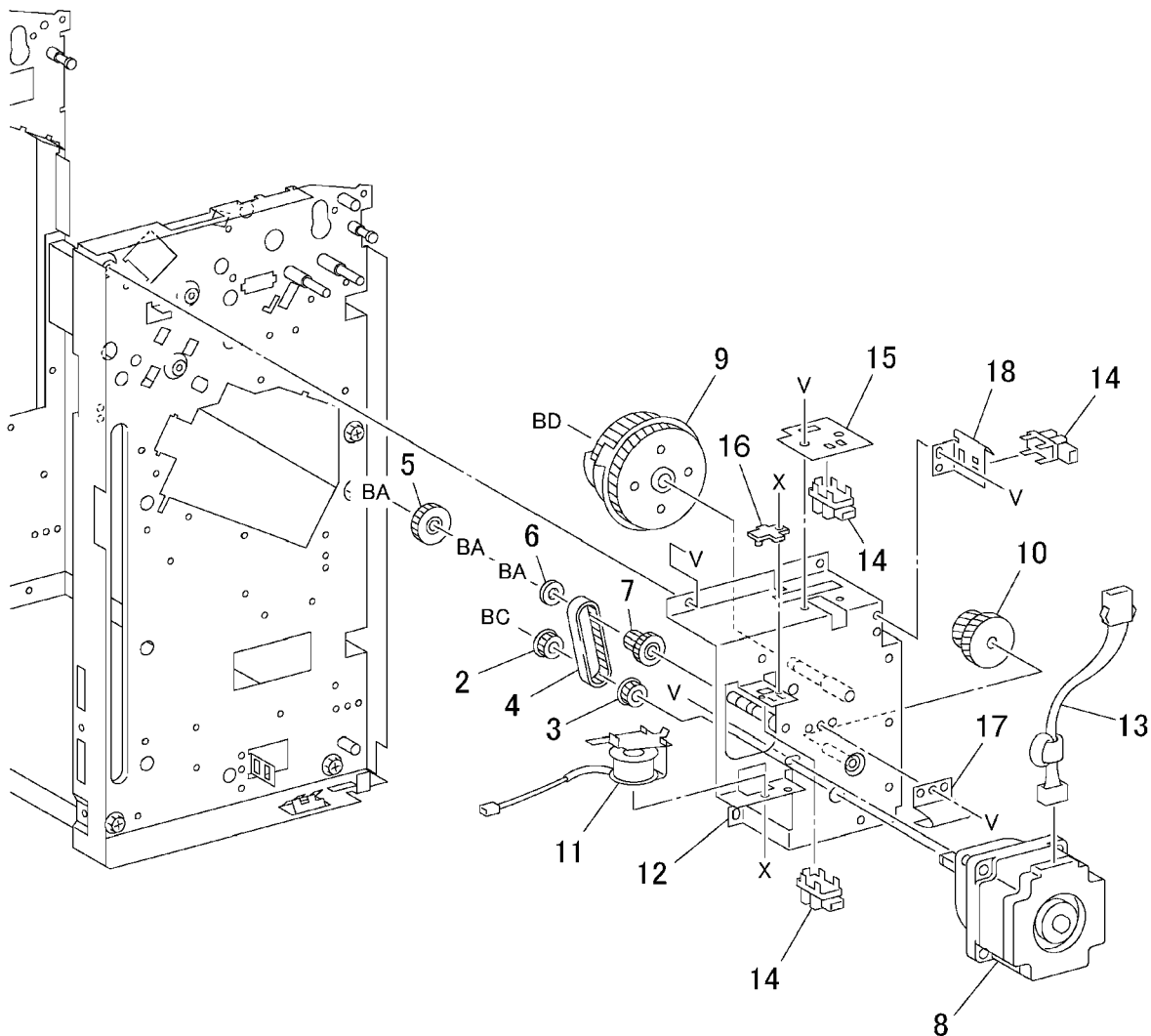




## PL 17.8 Paper Transportation: 2 of 2

Item	Part	Description
1	604K11150	Finisher DR Repair Kit
2	020E34970	Pulley
3	007E67780	Gear (15Z)
4	423W28054	Belt
5	007E67810	Gear (30Z)
6	—	Collar (P/O PL 17.8 Item 1)
7	—	Gear Pulley (P/O PL 17.6 Item 29) (23Z,16T) (DC2240/1632/WC24)
—	007E76940	Gear Pulley (23Z,16T) (DC3535)
8	127K32870	Eject Motor
9	007E67800	Cam Gear
10	007E67770	Gear (42Z/27Z)
11	121K24620	Set Clamp Solenoid
12	—	Bracket (P/O PL 17.8 Item 1)
13	—	Wire Harness (Not Spared)
14	130E82540	Home Sensor
15	—	Plate (Not Spared)
16	—	Stop (P/O PL 17.8 Item 1)
17	—	Spring (Not Spared)
18	—	Bracket (Not Spared)

### PL17.8 1 { 2 - 12, 14, 16



j0mf51708



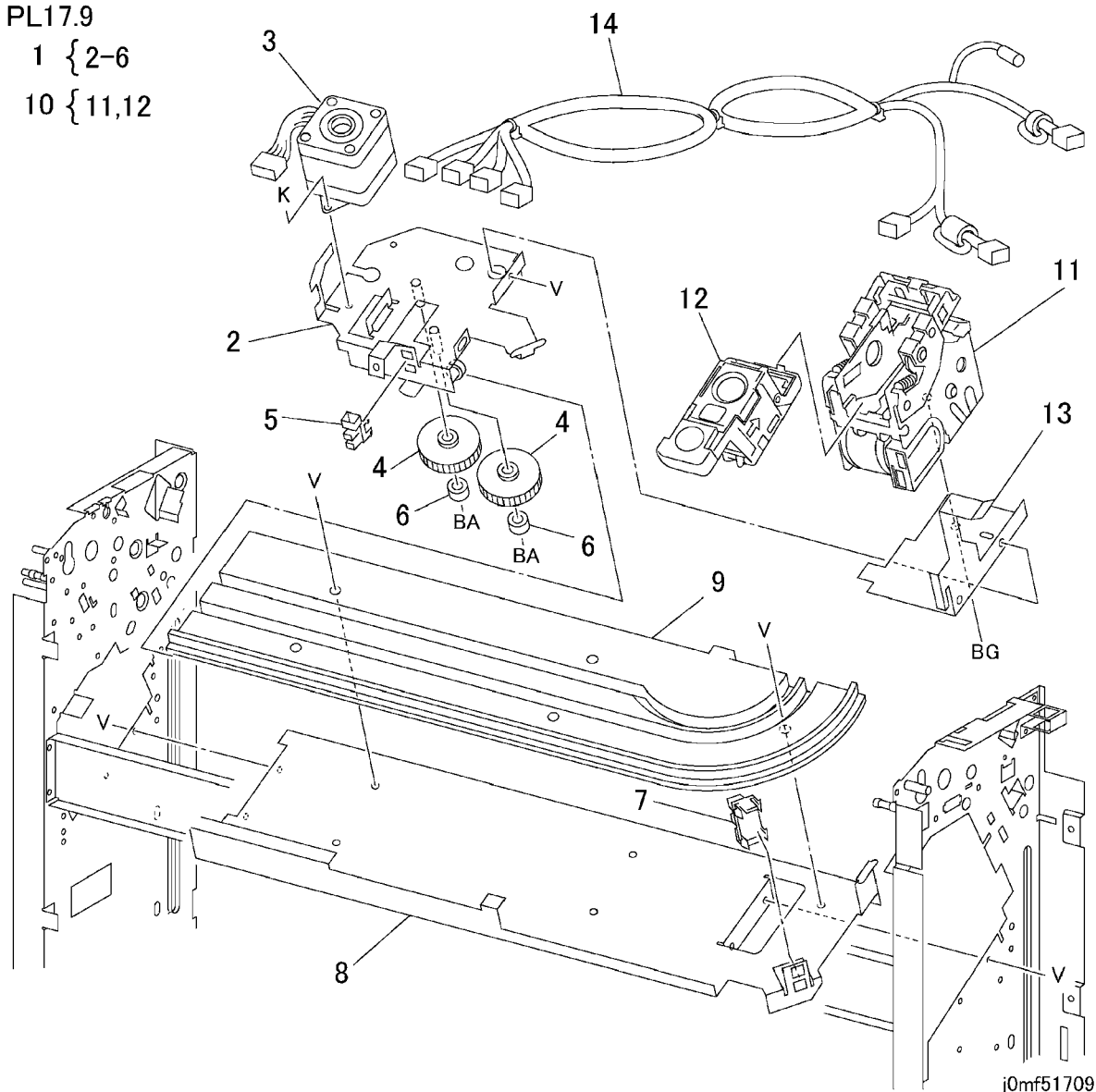
## PL 17.9 Stapler Unit

Item	Part	Description
1	041K94260	Carriage Assembly
2	—	Bracket (P/O PL 17.9 Item 1)
3	127K32860	Staple Move Motor
4	—	Gear (P/O PL 17.9 Item 1)
5	130E82530	Staple Move Sensor
6	—	Roll (P/O PL 17.9 Item 1)
7	—	Staple Front Corner Sensor (Not Spared)
8	—	Plate (Not Spared)
9	001E59600	Rail (REP 12.10)
10	029K03720	Stapler Assembly (REP 12.11)
11	—	Stapler (P/O PL 17.9 Item 10)
12	050K48750	Cartridge
13	—	Bracket (Not Spared)
14	962K07440	Stapler Harness

PL17.9

1 { 2-6

10 { 11,12

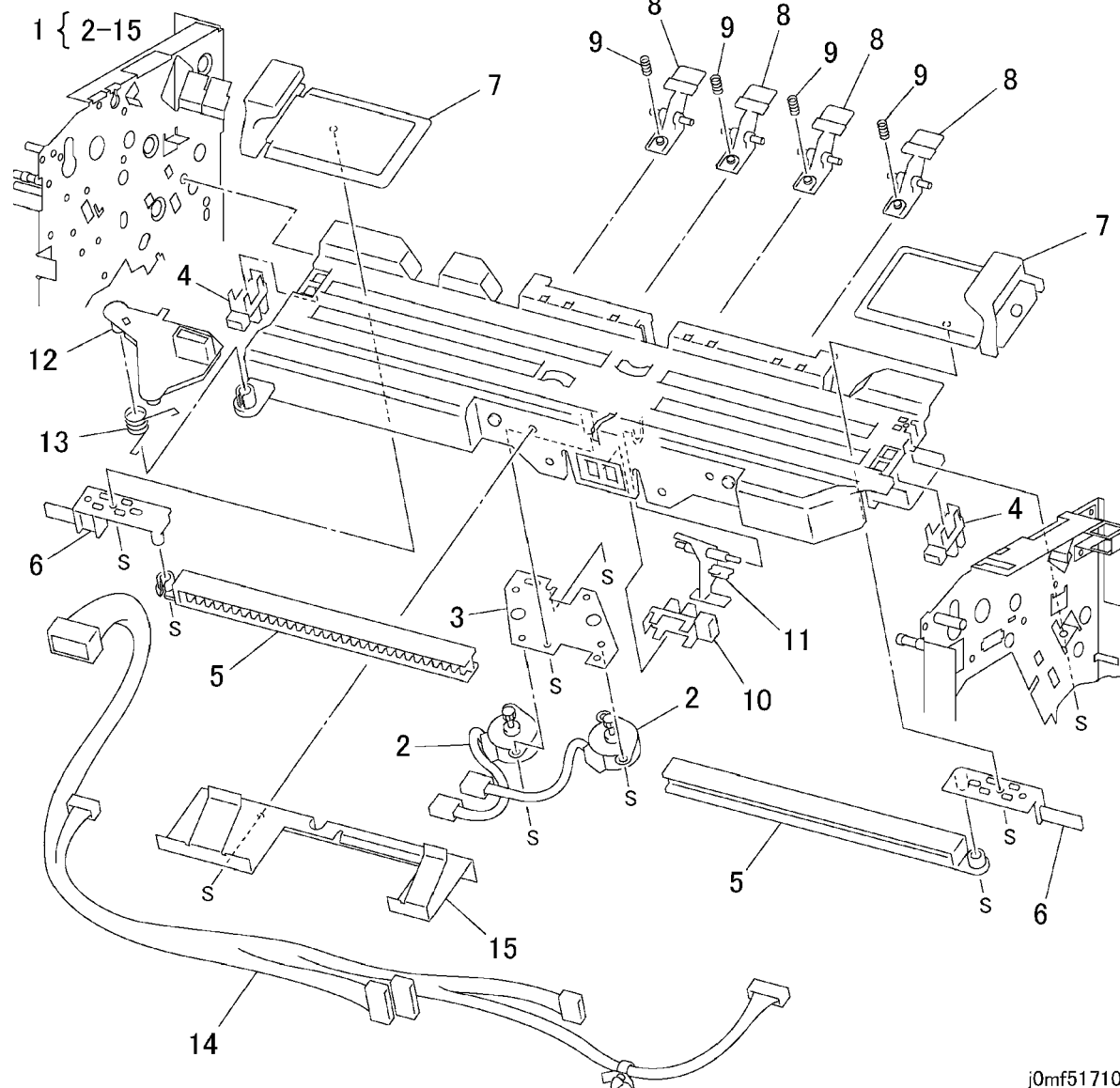




## PL 17.10 Compiler Tray Assembly

Item	Part	Description
1	050K43880	Compiler Tray Assembly (REP 12.12)
2	127K32850	Front/Rear Tamper Motor
3	—	Plate (P/O PL 17.10 Item 1)
4	130E82530	Front/Rear Tamper Home Sensor
5	—	Rack (P/O PL 17.10 Item 1)
6	—	Actuator (P/O PL 17.10 Item 1)
7	—	Tamper (P/O PL 17.10 Item 1)
8	—	Finger (P/O PL 17.10 Item 1)
9	—	Spring (P/O PL 17.10 Item 1)
10	130E82540	Compiler Paper Sensor
11	—	Actuator (P/O PL 17.10 Item 1)
12	038E24410	Paper Guide
13	809E33600	Spring
14	—	Wire Harness (P/O PL 17.10 Item 1)
15	—	End Guide (P/O PL 17.10 Item 1)

### PL17.10



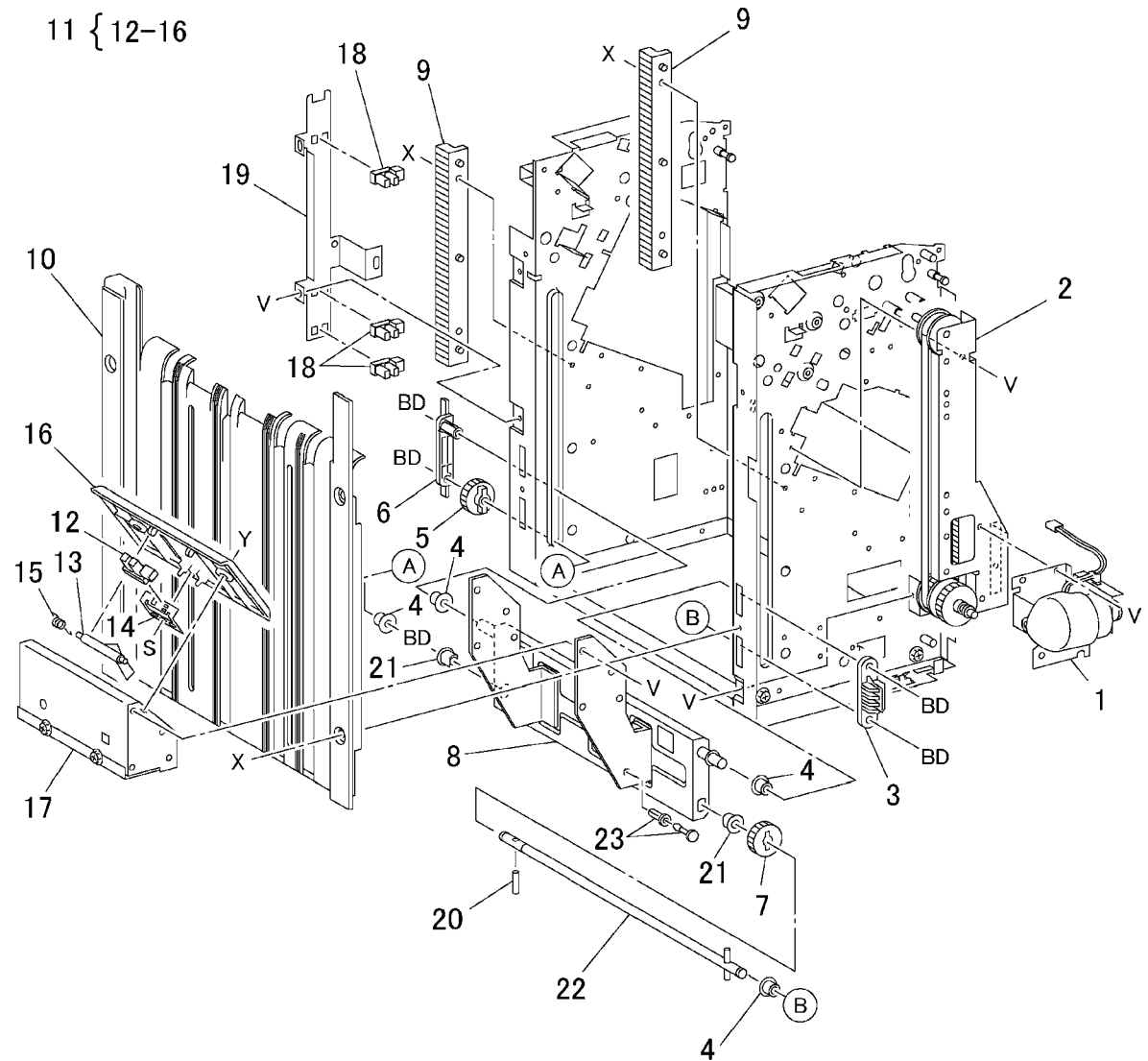
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## PL 17.11 Elevator

Item	Part	Description
1	127K33420	Stacker Motor Assembly (REP 12.13)
2	015K50680	Front Elevator Bracket (REP 12.14)
3	019E50340	Clamp
4	—	Bearing (Not Spared)
5	007E67830	Rear Gear
6	—	Actuator (Not Spared)
7	007E67840	Front Gear
8	—	Bracket (Not Spared)
9	007E67820	Rack
10	—	Tray Guide (Not Spared)
11	015K51640	Stacker Paper Sensor Assembly
12	130E82530	Sensor
13	—	Actuator (P/O PL 17.11 Item 11)
14	—	Bracket (P/O PL 17.11 Item 11)
15	—	Spring (P/O PL 17.11 Item 11)
16	—	Cover (P/O PL 17.11 Item 11)
17	—	Bracket (Not Spared)
18	—	Sensor (Not Spared)
19	—	Bracket (Not Spared)
20	—	Pin (Not Spared)
21	—	Bearing (Not Spared)
22	—	Shaft (Not Spared)
23	—	Rivet (Not Spared)

PL17.11  
11 { 12-16



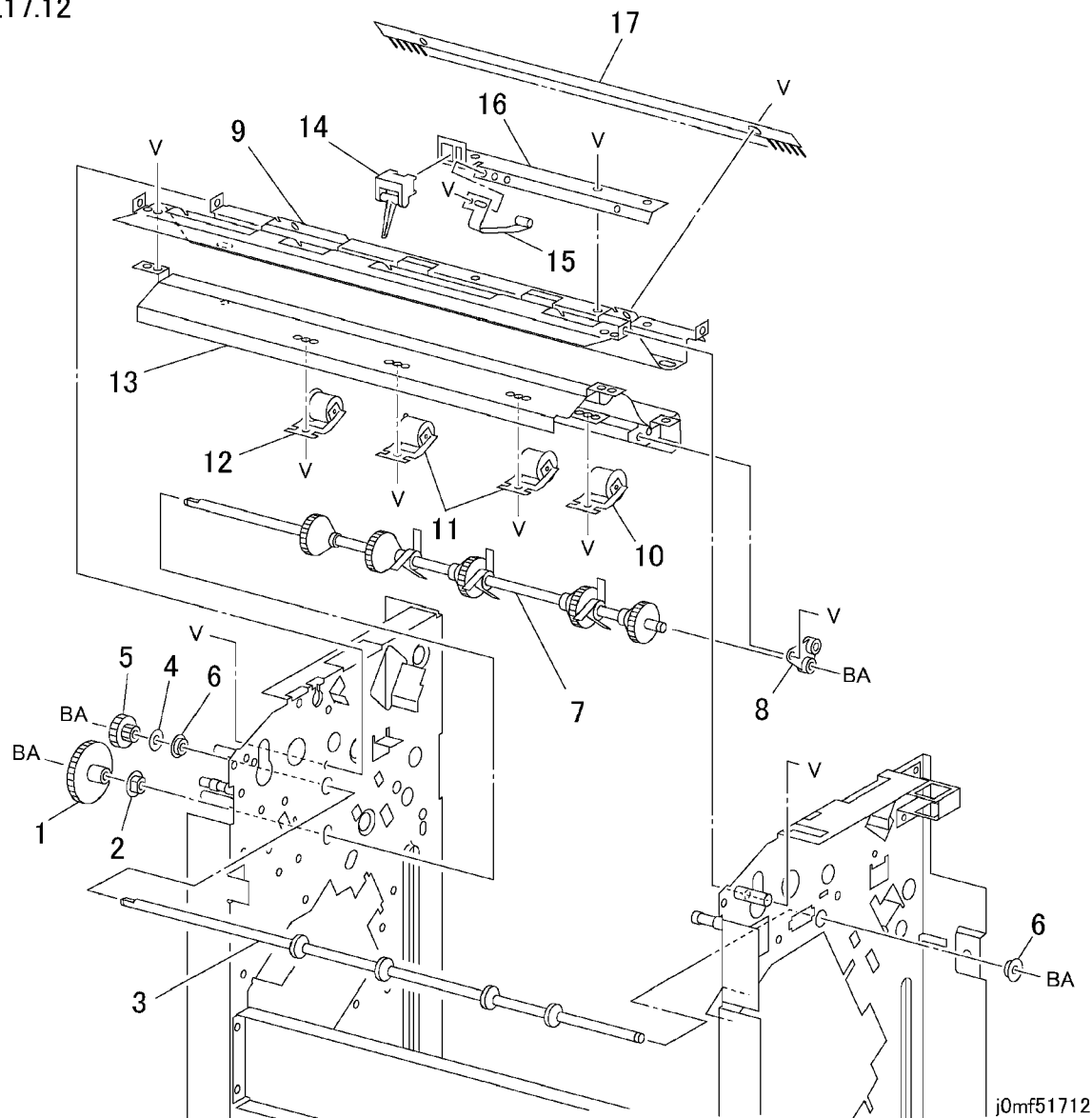
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## PL 17.12 Exit Assembly

Item	Part	Description
1	007E72080	Gear (48Z)
2	—	Bearing (Not Spared)
3	006K21720	Exit Shaft
4	—	Collar (Not Spared)
5	007E72070	Gear (32Z/18T)
6	—	Bearing (Not Spared)
7	006K21970	Paddle Gear Shaft (REP 12.15)
8	013E20250	Paddle Bearing
9	—	Lower Exit Chute (Not Spared)
10	022K65880	Pinch Roll
11	—	Pinch Roll (Not Spared)
12	—	Pinch Roll (Not Spared)
13	—	Upper Exit Chute (Not Spared)
14	130K94740	Compiler Entrance Sensor
15	—	Spring Plate (Not Spared)
16	—	Bracket (Not Spared)
17	105E11320	Static Eliminator

PL17.12



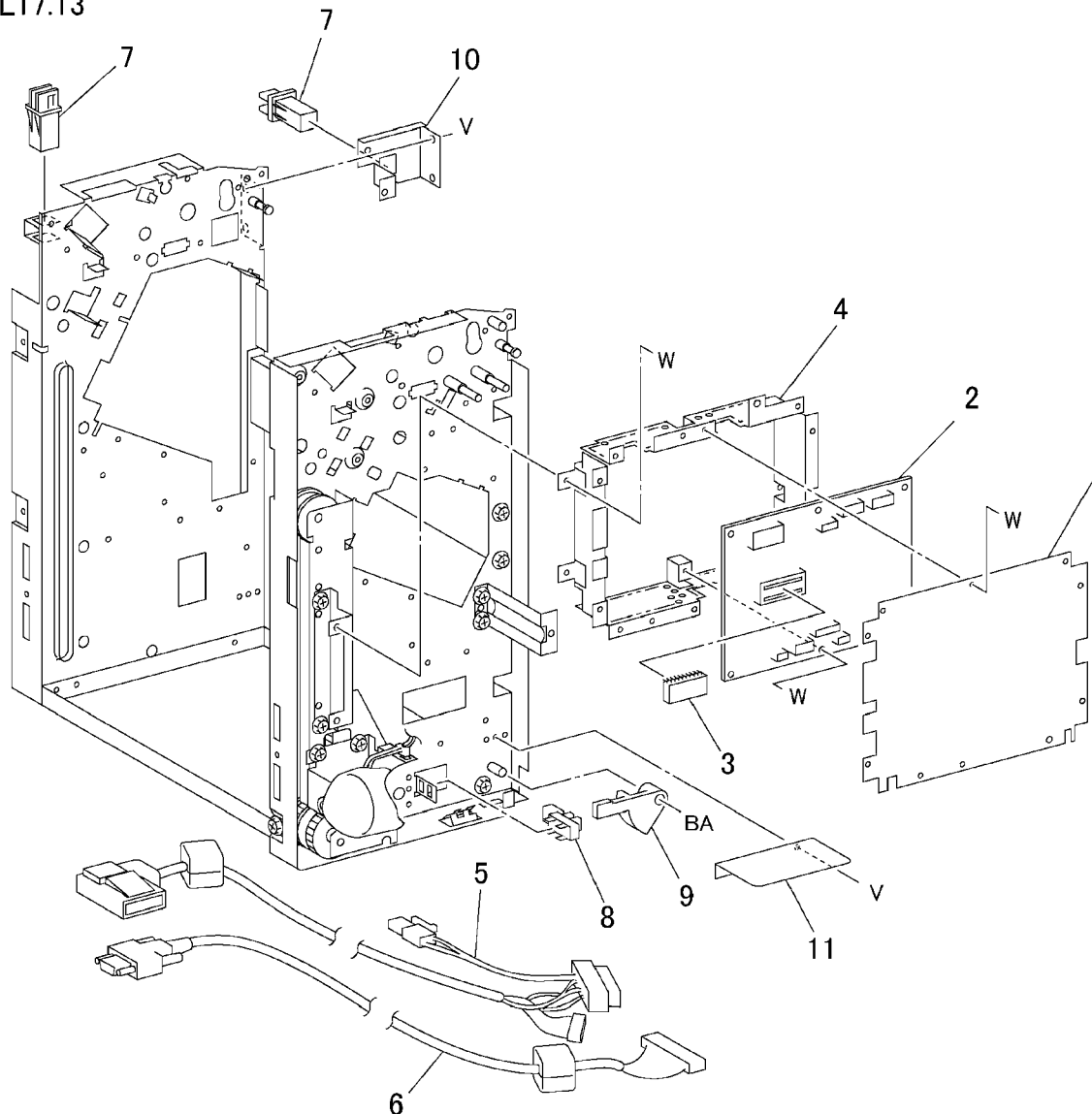
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## PL 17.13 Electrical Components

Item	Part	Description
1	—	PWB Cover (Not Spared)
2	160K76660	Finisher PWB (REP 12.16)
3	537K65040	ROM (DC2240/1632)
—	537K64130	ROM (DC3535, WC24)
4	—	PWB Bracket (Not Spared)
5	962K10120	DC Harness
6	962K10130	Cable
7	110E97990	Top Cover/Front Door Interlock Switch
8	130E82530	Docking Interlock Switch
9	—	Spring Plate (Not Spared)
10	—	Bracket (Not Spared)
11	—	Plate (Not Spared)

PL17.13



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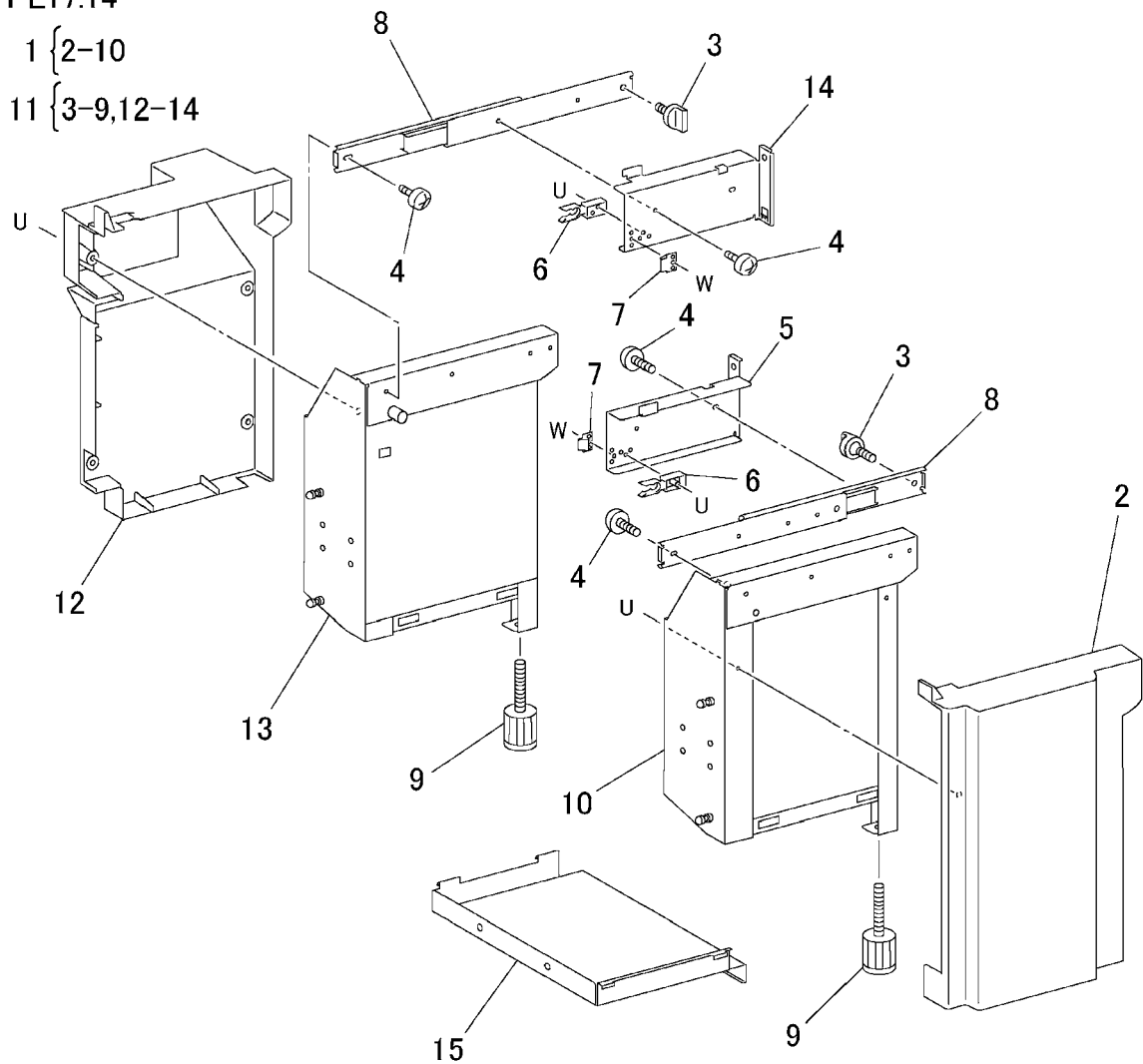


## PL 17.14 Rack Assembly

Item	Part	Description
1	802K36660	Front Rack Assembly
2	—	Front Cover (P/O PL 17.14 Item 1)
3	003K12090	Knob Screw
4	—	Screw (P/O PL 17.14 Item 1, PL 17.14 Item 11)
5	—	Bracket (P/O PL 17.14 Item 1, PL 17.14 Item 11)
6	—	Stop (P/O PL 17.14 Item 1, PL 17.14 Item 11)
7	—	Spring Plate (P/O PL 17.14 Item 1, PL 17.14 Item 11)
8	001E60050	Rail
9	017E94660	Foot
10	—	Front Rack (P/O PL 17.14 Item 1)
11	802K36670	Rear Rack Assembly
12	—	Rear Cover (P/O PL 17.14 Item 11)
13	—	Rear Rack (P/O PL 17.14 Item 11)
14	—	Bracket (P/O PL 17.14 Item 11)
15	015E77040	Bottom Plate

PL17.14

1 { 2-10  
11 { 3-9,12-14



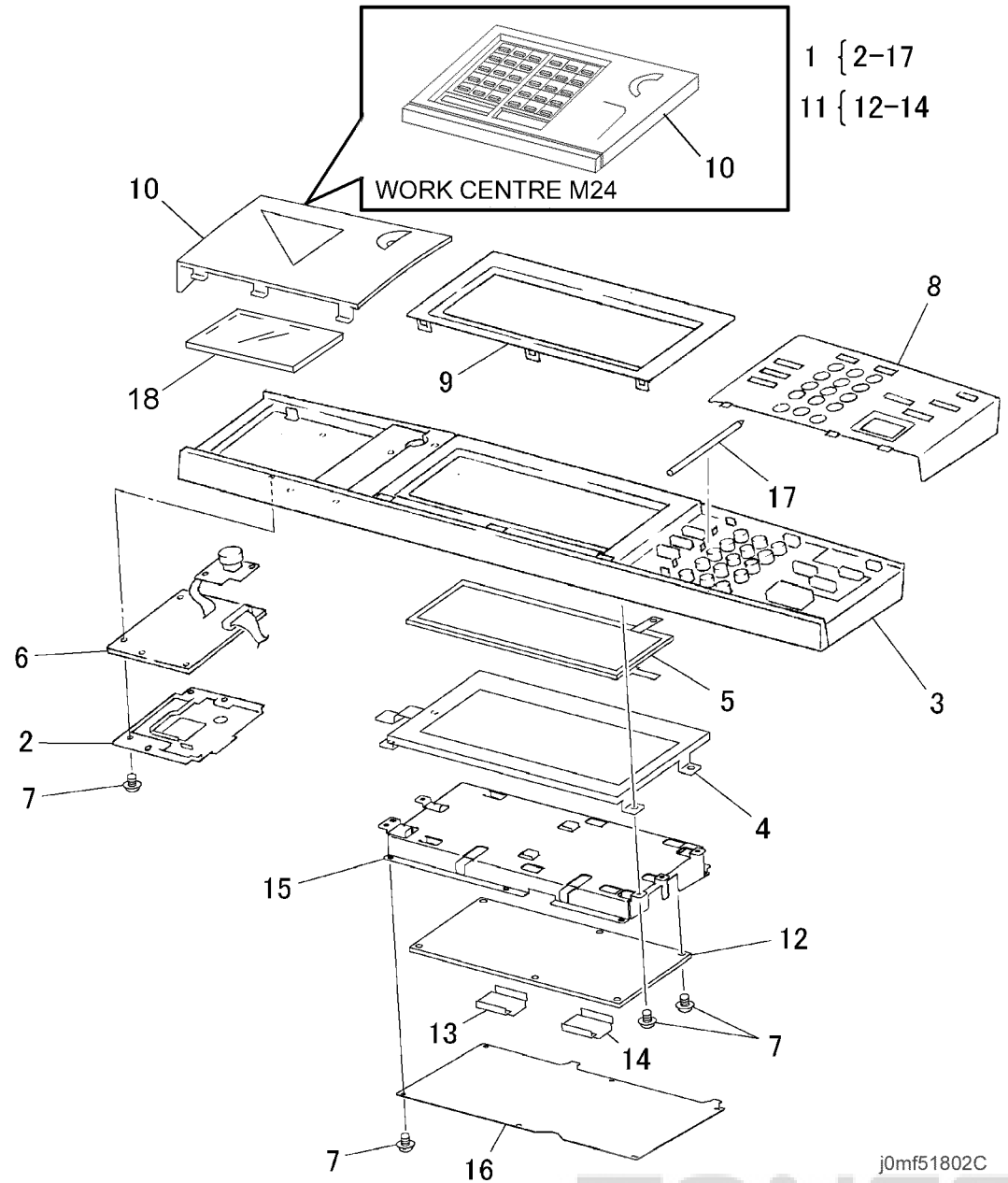
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## PL 18.2 Control Panel

Item	Part	Description
1	802K58860	Control Panel Assembly (XE) (WC24)
—	802K58870	Control Panel Assembly (XCL) (WC24)
—	802K46027	Control Panel Assembly (DC2240/1632) (W/ Tag D3)
—	802K47297	Control Panel Assembly (DC3535)
2	—	Bracket (P/O PL 18.2 Item 1)
3	—	Panel Housing (P/O PL 18.2 Item 1)
4	123K94020	Display
5	110K11100	Touch Panel (ADJ 9.13)
6	160K75800	VR PWB (DC2240/1632) (ADJ 9.13)
—	160K91440	VR PWB (DC3535/WC24) (ADJ 9.13)
7	—	Screw (P/O PL 18.2 Item 1)
8	—	Right Panel (P/O PL 18.2 Item 1)
9	—	Center Panel (P/O PL 18.2 Item 1)
10	802K58900	One Touch Panel (WC24) (REP 1.19)
—	802E49260	Left Panel (DC3535)
—	802E32860	Left Panel (DC2240/1632)
11	160K99040	UI PWB Assembly (XCL) (WC24)
—	160K93514	UI PWB Assembly (DC2240/1632) (REP 6.6,ADJ 9.13)
—	160K98890	UI PWB Assembly (DC3535) (W/ Tag D3) (REP 6.6,ADJ 9.13)
—	160K99050	UI PWB Assembly (XE) (WC24)
12	—	UI PWB Base (P/O PL 18.2 Item 11)
13	—	ROM (P/O PL 18.2 Item 11)
14	—	ROM (P/O PL 18.2 Item 11)
15	—	Bracket (P/O PL 18.2 Item 1)
16	—	Plate (P/O PL 18.2 Item 1)
17	—	Adjust Pen (P/O PL 18.2 Item 1)
18	300K63850	Machine Resident Disk Kit

PL18.2



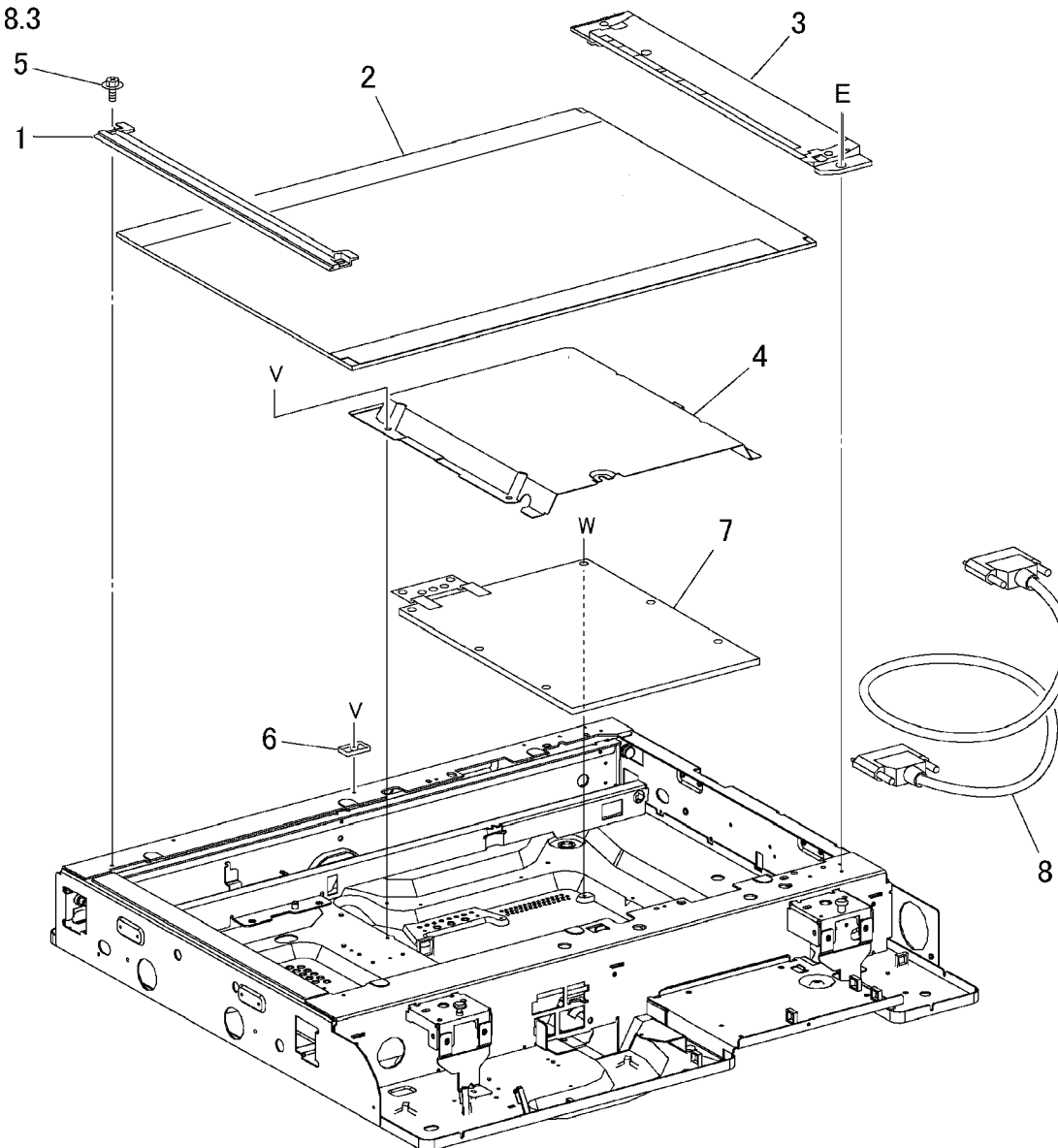
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## PL 18.3 Platen Glass, IIT/IPS PWB

Item	Part	Description
1	—	Right Side Plate (Not Spared)
2	090K92820	Platen Glass (DC2240/1632) (REP 6.2)
—	090K02290	Platen Glass (DC3535, WC24) (REP 6.2)
3	050K43070	Registration Gate (DC2240/1632)
—	050K48890	Registration Gate (DC3535, WC24)
4	—	IPS Cover (Not Spared)
5	—	Screw (Not Spared)
6	068E10210	Platen Glass Support
7	160K98020	IIT/IPS PWB (DC2240/1632, WC24) (REP 6.5)
—	160K94002	IIT/IPS PWB (DC3535) (REP 6.5)
8	117E20840	Cable

PL18.3



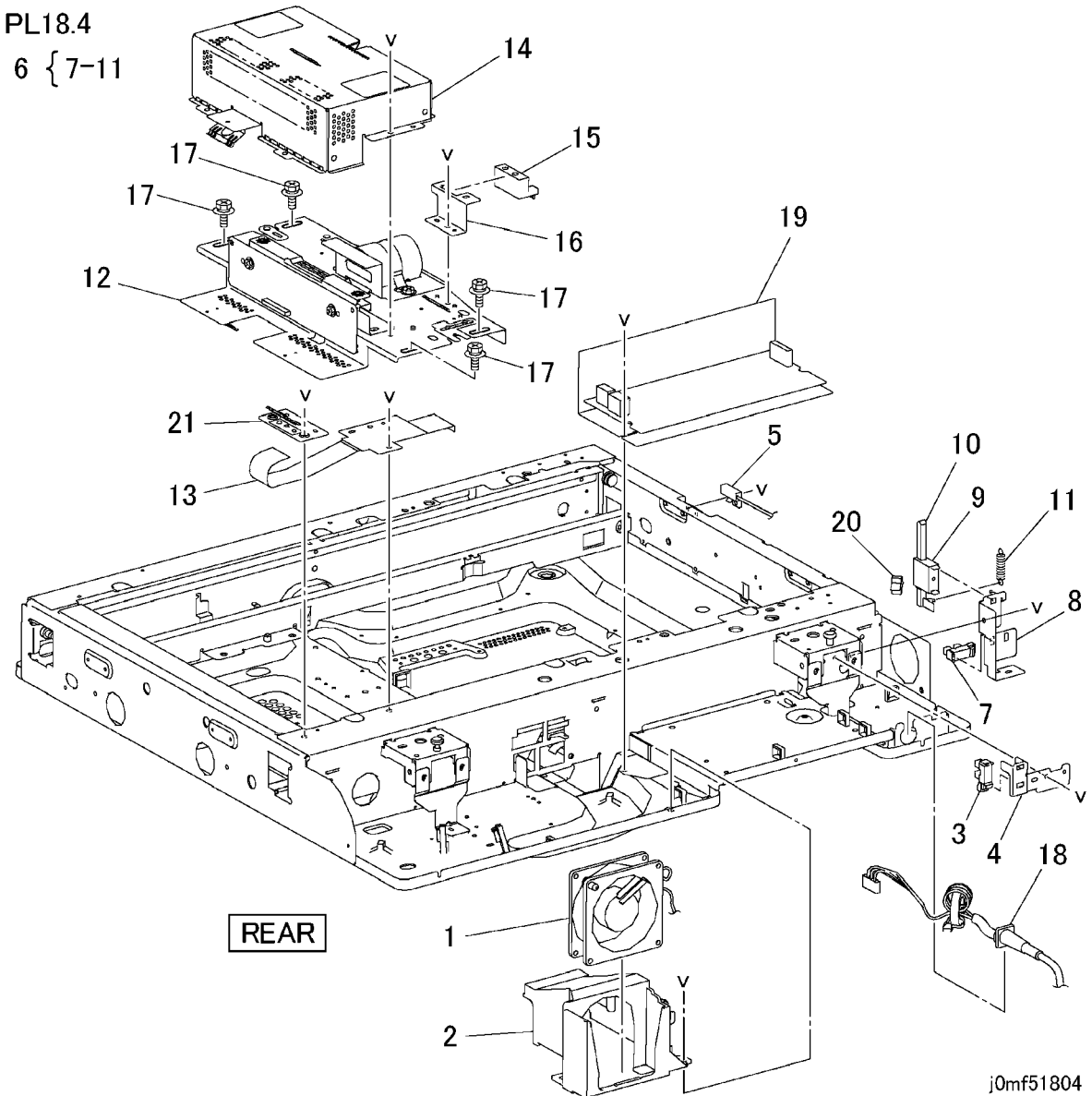
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## PL 18.4 CCD PWB, Sensor

Item	Part	Description
1	127K33160	IPS Fan
2	—	Bracket (Not Spared)
3	130K62000	IIT Registration Sensor
4	—	Bracket (Not Spared)
5	110K08471	Platen Open Switch
6	130K62580	Platen Angle Sensor Assembly
7	107E08680	Platen Angle Sensor
8	—	Bracket (P/O PL 18.4 Item 6)
9	—	Support (P/O PL 18.4 Item 6)
10	—	Actuator (P/O PL 18.4 Item 6)
11	009E55450	Spring
12	604K05330	Lens Kit (Kit contains CCD PWB and Lens Assembly) (REP 6.4, ADJ 9.7)
13	117K30960	CCD Flat Cable
14	—	Lens Cover (Not Spared)
15	—	APS Sensor (Not Spared)
16	—	Bracket (Not Spared)
17	—	Screw (Not Spared)
18	962K05900	AC Harness (120V)
—	962K05910	AC Harness (220V)
19	105E10481	IIT LVPS (100V)
—	105E10651	IIT LVPS (220V)
20	019E49830	Clamp
21	—	Plate (Not Spared)

PL18.4  
6 { 7-11



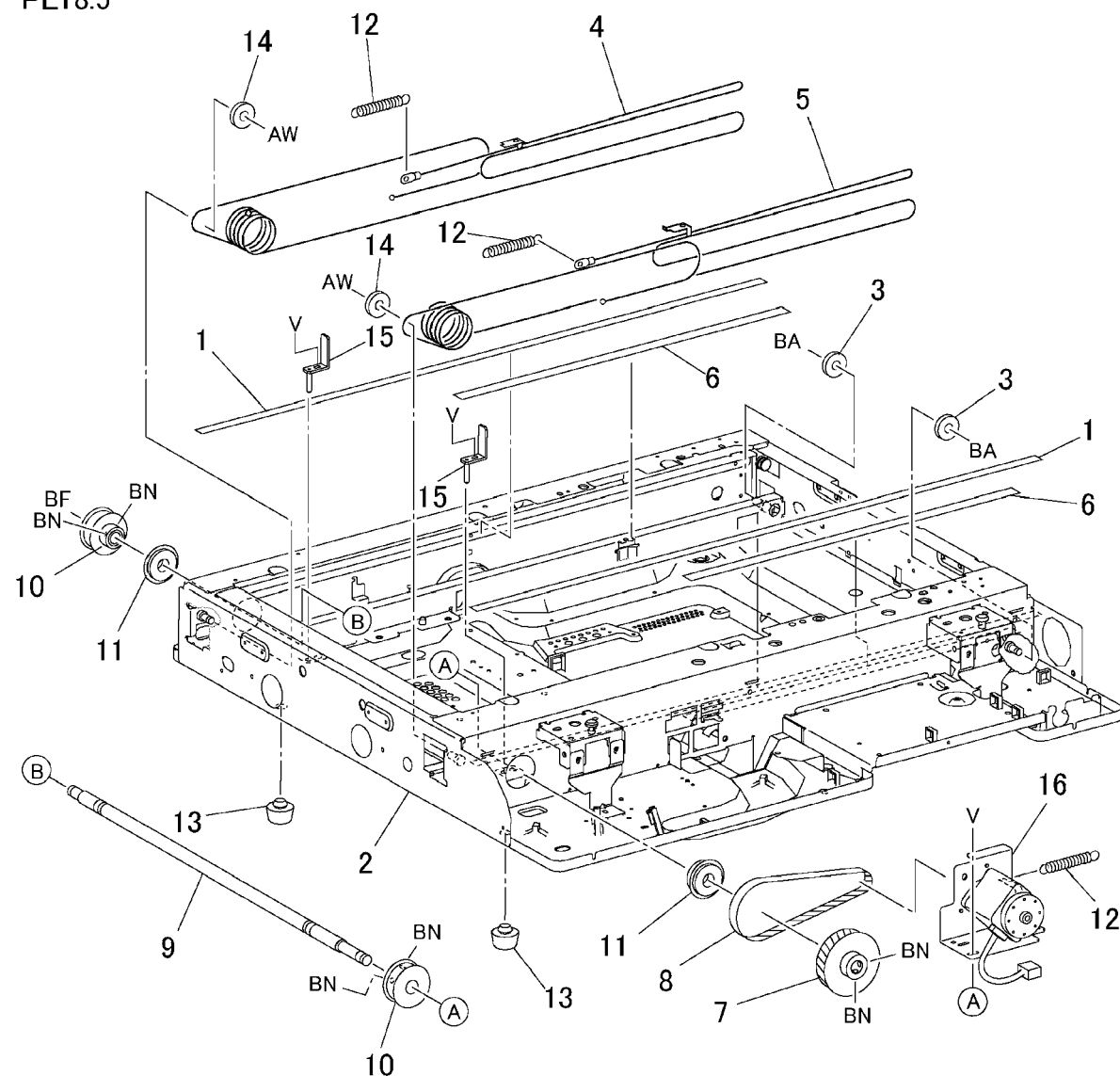
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## PL 18.5 Carriage Cable/ Motor

Item	Part	Description
1	063E94040	Tape
2	—	Frame (Not Spared)
3	020E99590	Pulley
4	012K94110	Front Carriage Cable (REP 6.11)
5	012K94120	Rear Carriage Cable (REP 6.11)
6	063E94050	Tape
7	020E32740	Timing Pulley
8	023E19300	Belt
9	—	Capstan Shaft (Not Spared)
10	020E25090	Capstan Pulley
11	413W10950	Bearing
12	009E62830	Spring
13	017E92060	Foot
14	—	Pulley (Not Spared)
15	—	Stop Bracket (Not Spared)
16	127K32140	Carriage Motor (REP 6.12)

PL18.5



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Initial issue

DC 3535/2240/1632, WC M24

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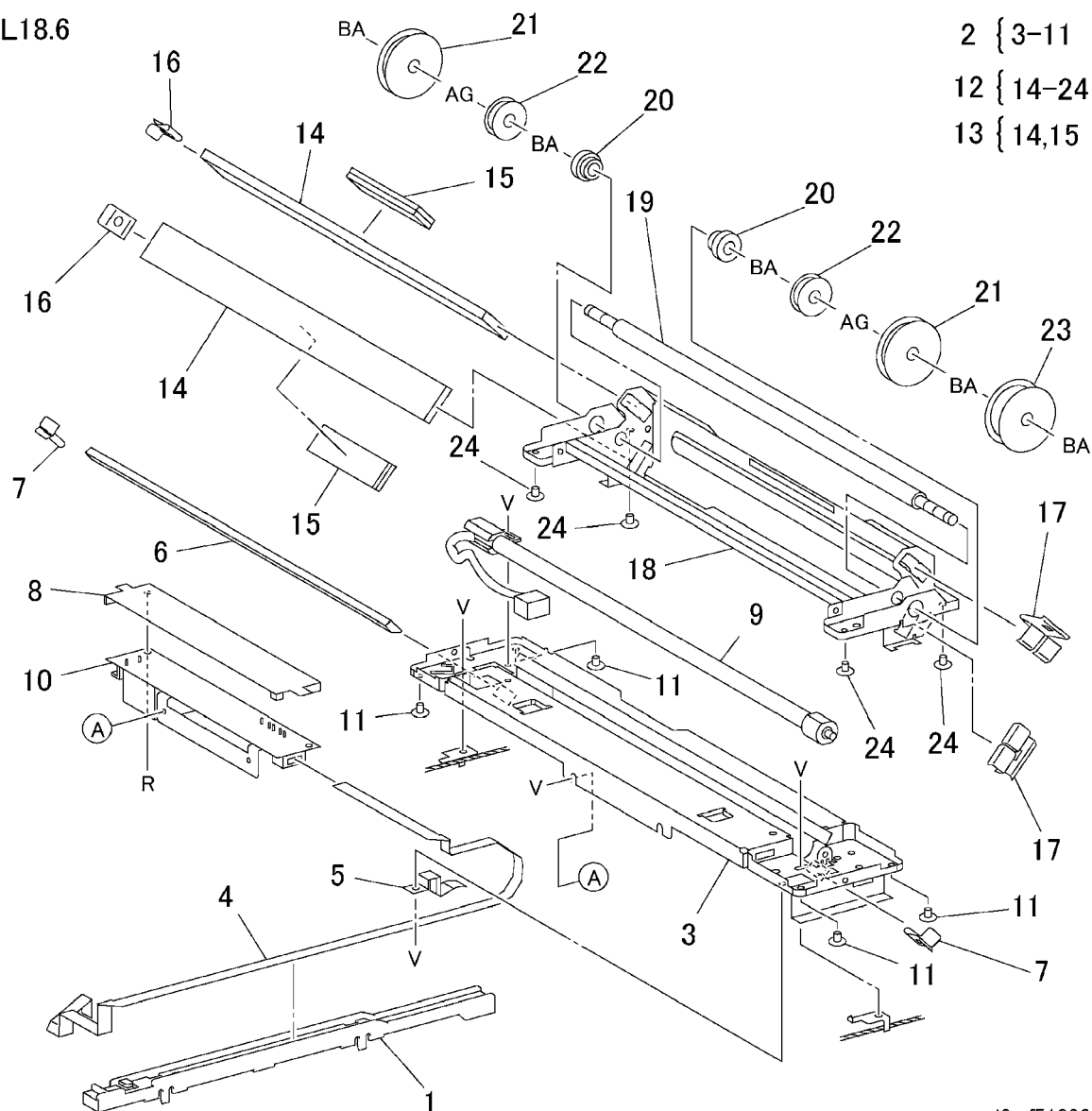
Parts List  
www.tonerplus.com.ua PL 18.5



## PL 18.6 Full/Half Rate Carriage

Item	Part	Description
1	—	Harness Guard (Not Spared)
2	041K94050	Full-Rate Carriage Assembly (ADJ 6.1)
3	—	Full-Rate Carriage (P/O PL 18.6 Item 2)
4	117E19780	Lamp Wire Harness (REP 6.14)
5	—	No 1 Motor (P/O PL 18.6 Item 2)
6	062E10040	No 1 Mirror
7	019E50400	Clip
8	118E12090	Insulator
9	122E92030	Exposure Lamp (REP 6.13)
10	105E10510	Lamp Ballast PWB
11	—	Pad (P/O PL 18.6 Item 2)
12	041K94271	Half-Rate Carriage Assembly (ADJ 6.1)
13	062K10730	No 2 and No 3 Mirror
14	—	No 2, No 3 Mirror (P/O PL 18.6 Item 12, PL 18.6 Item 13)
15	—	Damper (P/O PL 18.6 Item 12, PL 18.6 Item 13)
16	—	Single Clip (P/O PL 18.6 Item 12)
17	809E09110	Clip
18	—	Half-Rate Carriage (P/O PL 18.6 Item 12)
19	—	Shaft (P/O PL 18.6 Item 12)
20	004E06560	Damper Bearing
21	—	Pulley (P/O PL 18.6 Item 12)
22	020K94970	Pulley
23	—	Harness Pulley (P/O PL 18.6 Item 12)
24	019E49470	Pad

PL18.6



2 { 3-11  
12 { 14-24  
13 { 14,15

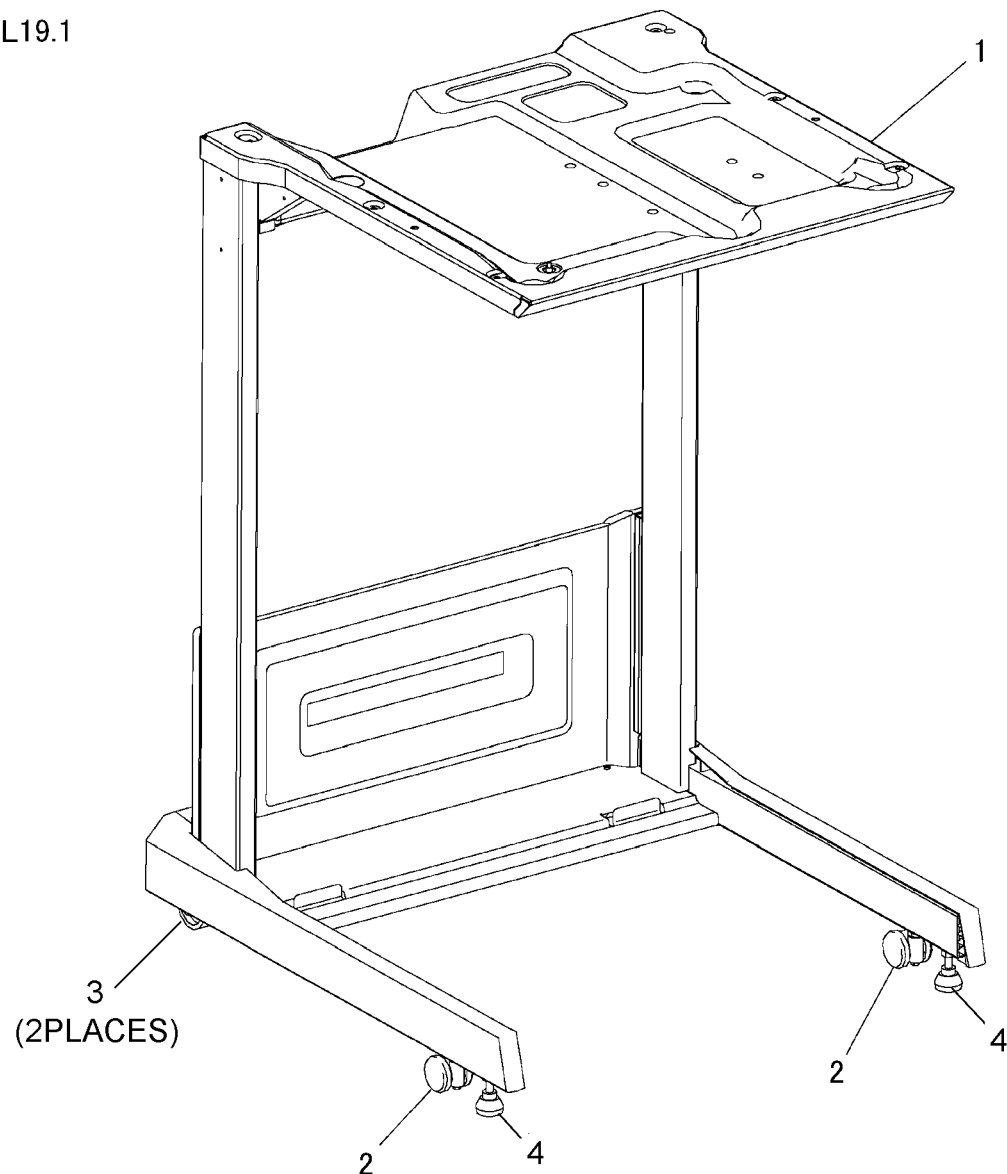
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## PL 19.1 Rack (DC2240/1632/WC24)

Item	Part	Description
1	—	Rack (Not Spared) (DC2240/1632/WC24)
2	017E94710	Swivel Caster (DC2240/1632/WC24)
3	017E94730	Stationary Caster (DC2240/1632/WC24)
4	017E94700	Foot (DC2240/1632/WC24)

PL19.1

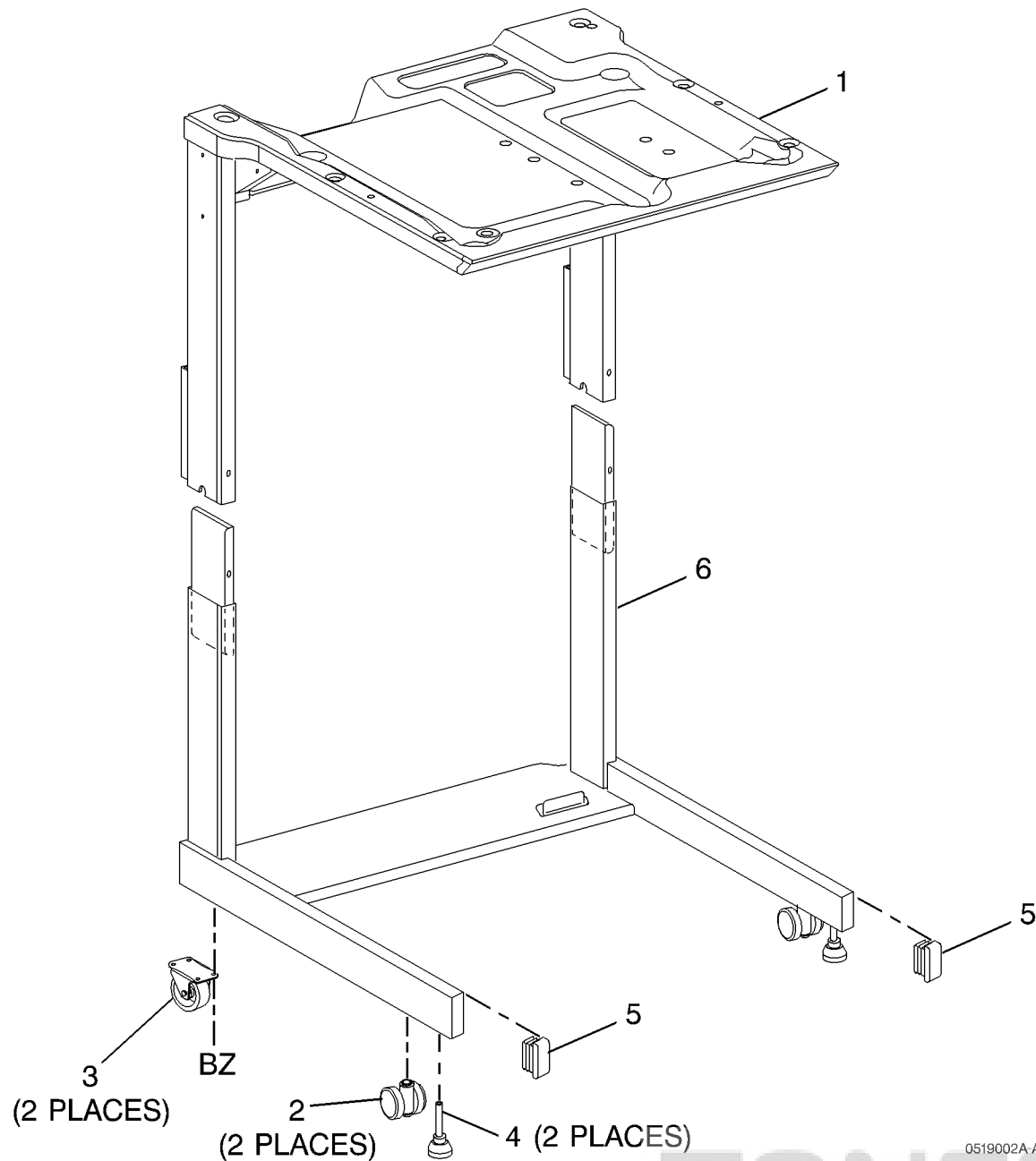


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## PL 19.2 Rack (DC3535)

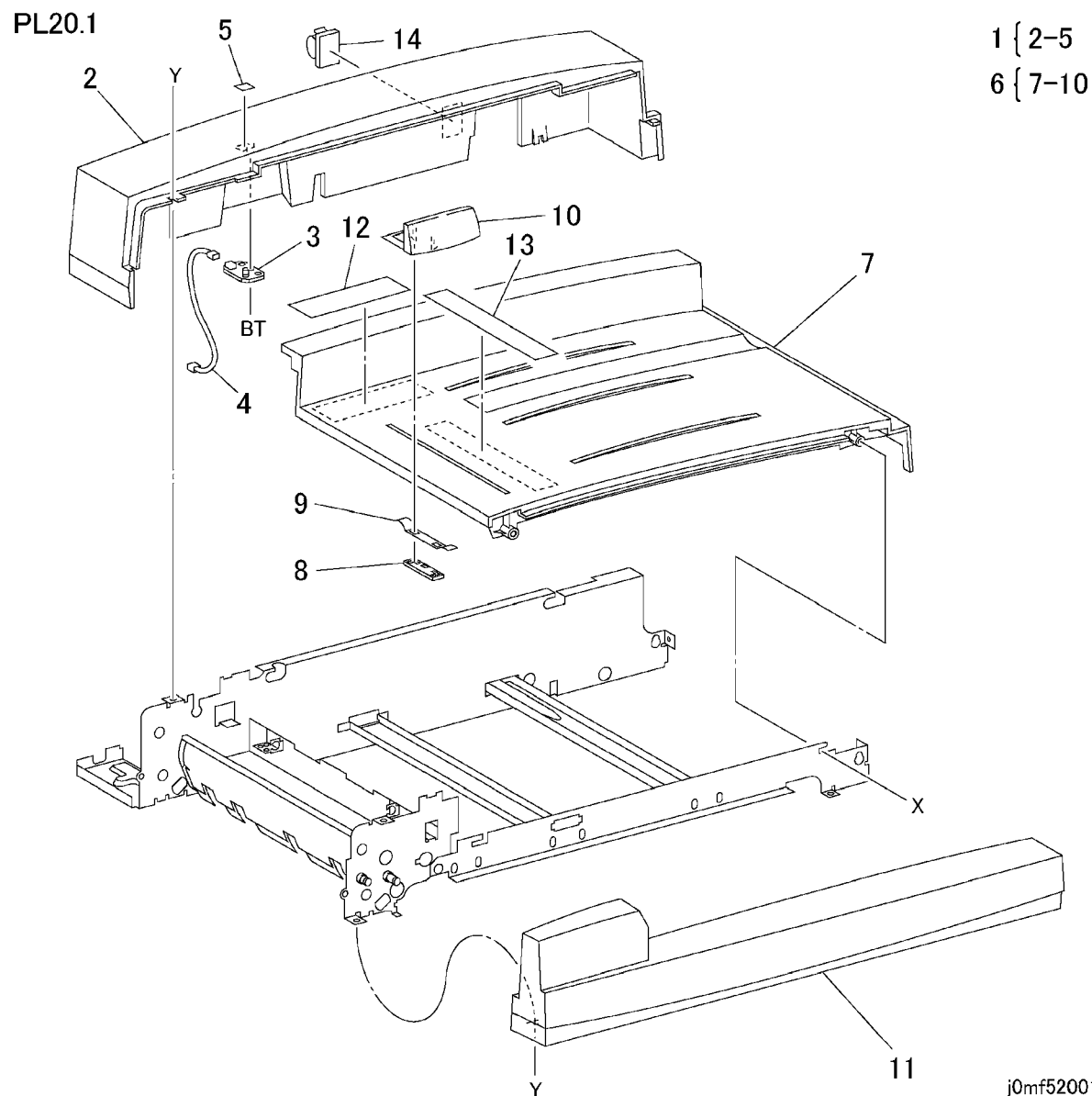
Item	Part	Description
1	—	Plate Assembly (Not Spared) (DC3535)
2	017E10700	Swivel Caster (DC3535)
3	017E10710	Rear Caster (DC3535)
4	017E10840	Foot (DC3535)
5	—	End Cap (Not Spared) (DC3535)
6	—	Base Support Assembly (Not Spared) (DC3535)





## PL 20.1 Front/Rear Cover, Entrance Tray

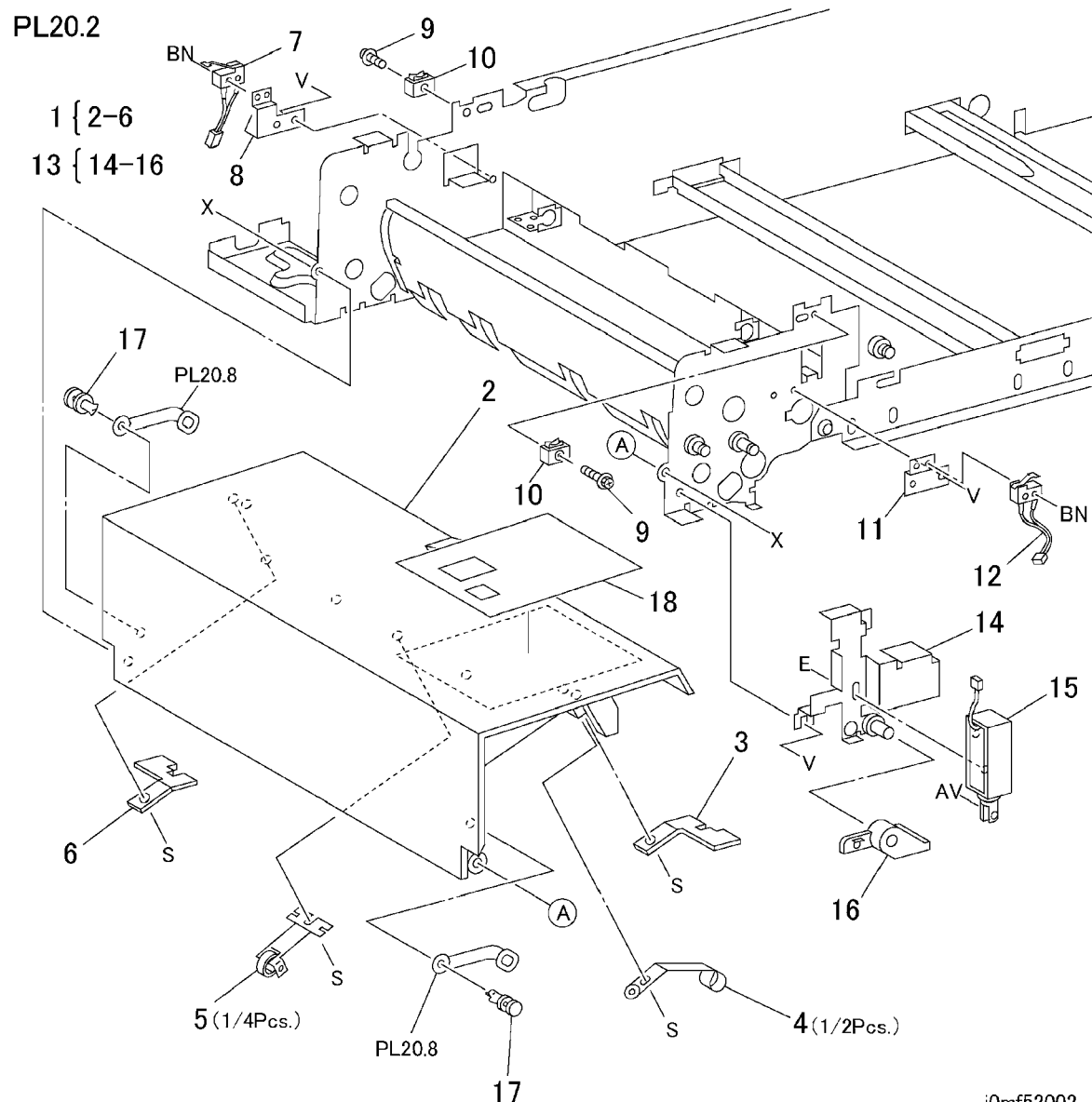
Item	Part	Description
1	048K76181	Rear Cover Assembly (REP 5.18)
2	—	Rear Cover (P/O PL 20.1 Item 1)
3	140K60480	LED PWB
4	—	Wire Harness (P/O PL 20.1 Item 1)
5	891E65180	Label (Display)
6	050K36410	Entrance Tray Assembly
7	—	Entrance Tray (P/O PL 20.1 Item 6)
8	—	Plate (P/O PL 20.1 Item 6)
9	009E26870	Spring Plate
10	032K93800	Document Guide (DC2240/1632)
—	032K96590	Document Guide (WC24,DC3535)
11	048E64201	Front Cover
12	892E89310	Label (Instruction)
13	891E65210	Size Label (WC24,DC2240/1632)
—	892E89340	Size Label (DC3535)
14	—	Clamp (Not Spared)





## PL 20.2 Top Cover, Registration Gate Solenoid

Item	Part	Description
1	054K13622	Top Cover Assembly
2	—	Top Cover (P/O PL 20.2 Item 1)
3	015E48890	Front Magnet Plate
4	809E11130	Spring
5	059K11880	Pinch Roll
6	015E48900	Front Magnet Plate
7	110K07850	Top Cover Interlock Switch (Rear)
8	—	Bracket (Not Spared)
9	—	Screw (Not Spared)
10	121K93870	Magnet
11	—	Bracket (Not Spared)
12	110K07870	Top Cover Interlock Switch (Front)
13	121K22710	Registration Gate Solenoid Assembly (REP 5.2)
14	—	Bracket (P/O PL 20.2 Item 13)
15	—	Registration Gate Solenoid (P/O PL 20.2 Item 13)
16	—	Registration Arm (P/O PL 20.2 Item 13)
17	019E93510	Push Rivet
18	—	Label (Not Spared)



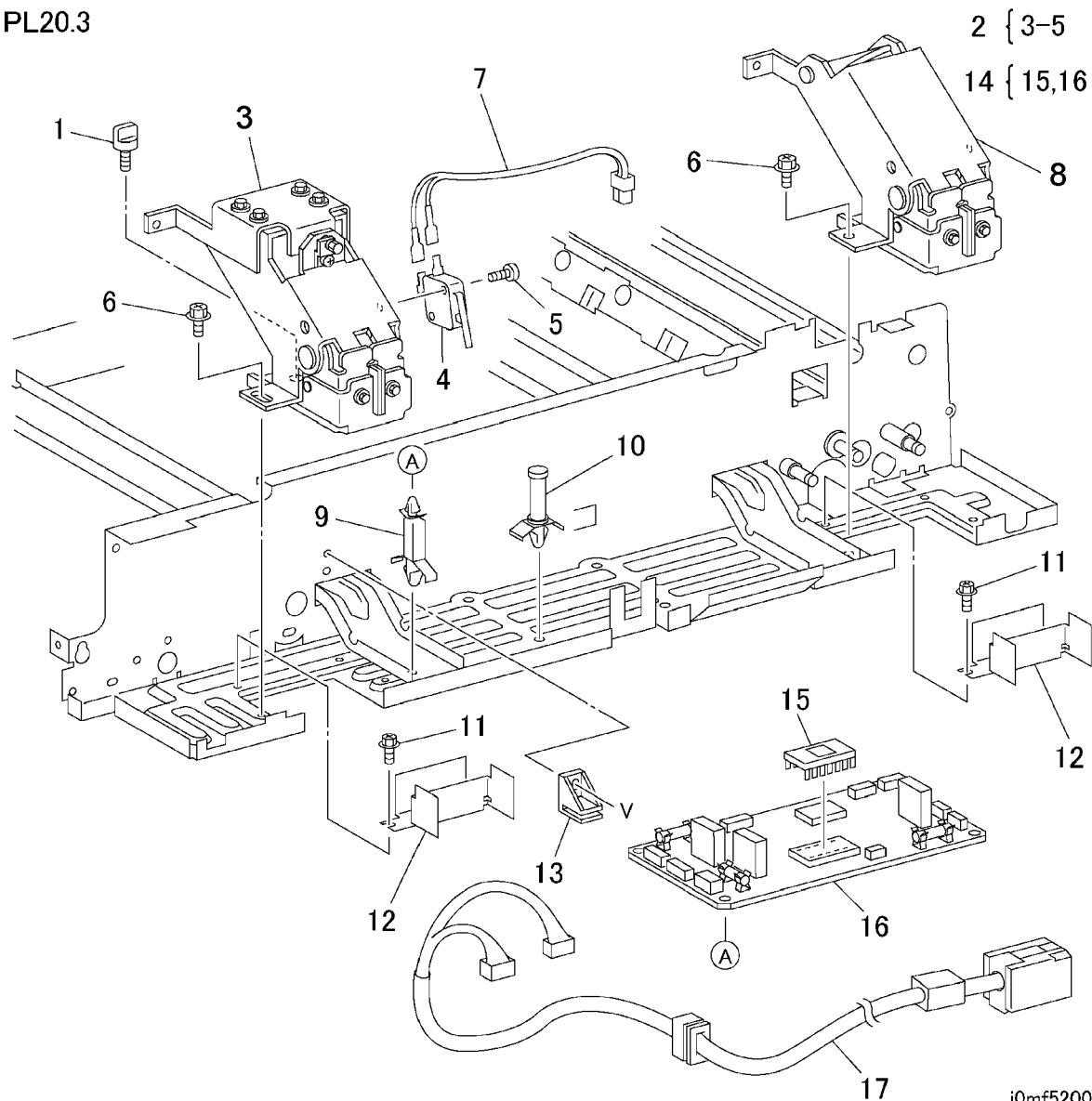
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## PL 20.3 Counterbalance, DADF Control PWB

Item	Part	Description
1	003K91881	Thumbscrew
2	036K91431	Right Counterbalance (REP 5.3)
3	—	Counterbalance (P/O PL 20.3 Item 2) (ADJ 5.2 ADJ 5.3 ADJ 5.4)
4	—	DADF Interlock Switch (P/O PL 20.3 Item 2)
5	—	Screw (P/O PL 20.3 Item 2)
6	—	Screw (Not Spared)
7	—	Wire Harness (Not Spared)
8	036K91420	Left Counterbalance (REP 5.3, ADJ 5.2 ADJ 5.3 ADJ 5.4)
9	—	PWB Support (Not Spared)
10	—	PWB Support (Not Spared)
11	—	Screw (Not Spared)
12	—	Safety Bracket (Not Spared)
13	—	PWB Support (Not Spared)
14	160K83081	DADF Control PWB Assembly (W/ROM) (REP 5.4)
15	—	ROM (P/O PL 20.3 Item 14)
16	—	DADF Control PWB (P/O PL 20.3 Item 14)
17	162K64340	Wire Harness

PL20.3

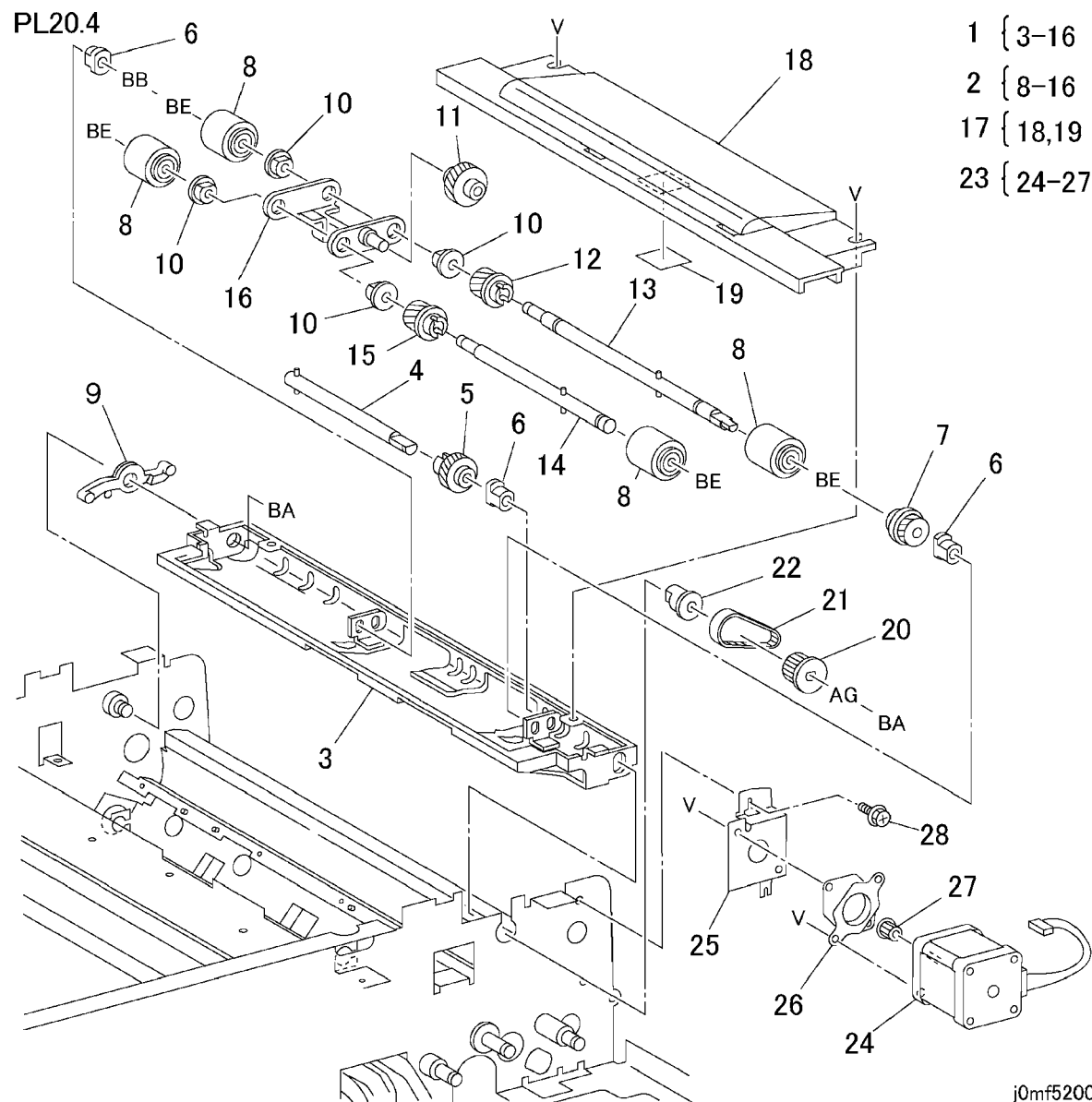


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## PL 20.4 Document Feed Chute (Upper), Feed Motor

Item	Part	Description
1	054K13600	Document Feed Upper Chute Assembly
2	059K11840	Feed Roll Assembly
3	—	Upper Baffle (P/O PL 20.4 Item 1)
4	—	Drive Shaft (P/O PL 20.4 Item 1)
5	—	Gear (P/O PL 20.4 Item 1)
6	013E92760	Bearing
7	—	Gear (P/O PL 20.4 Item 1)
8	600K90370	Roll Kit (2 Rolls/Kit) (REP 5.6 REP 5.7)
9	012E09750	Link
10	413W77359	Bearing
11	—	Gear (P/O PL 20.4 Item 1, PL 20.4 Item 2)
12	—	Gear (P/O PL 20.4 Item 1, PL 20.4 Item 2)
13	—	Feed Shaft (P/O PL 20.4 Item 1, PL 20.4 Item 2)
14	—	Nudger Shaft (P/O PL 20.4 Item 1, PL 20.4 Item 2)
15	—	Gear (P/O PL 20.4 Item 1, PL 20.4 Item 2)
16	—	Housing (P/O PL 20.4 Item 1, PL 20.4 Item 2)
17	802K08320	Inner Cover Assembly
18	—	Inner Cover (P/O PL 20.4 Item 17)
19	—	Pad (P/O PL 20.4 Item 17)
20	—	Pulley (Not Spared)
21	023E20000	Belt
22	—	Bearing (Not Spared)
23	127K32680	Feed Motor Assembly (REP 5.5)
24	—	Feed Motor (P/O PL 20.4 Item 23)
25	—	Motor Bracket (P/O PL 20.4 Item 23)
26	—	Damper (P/O PL 20.4 Item 23)
27	—	Pulley (P/O PL 20.4 Item 23)
28	—	Screw (Not Spared)

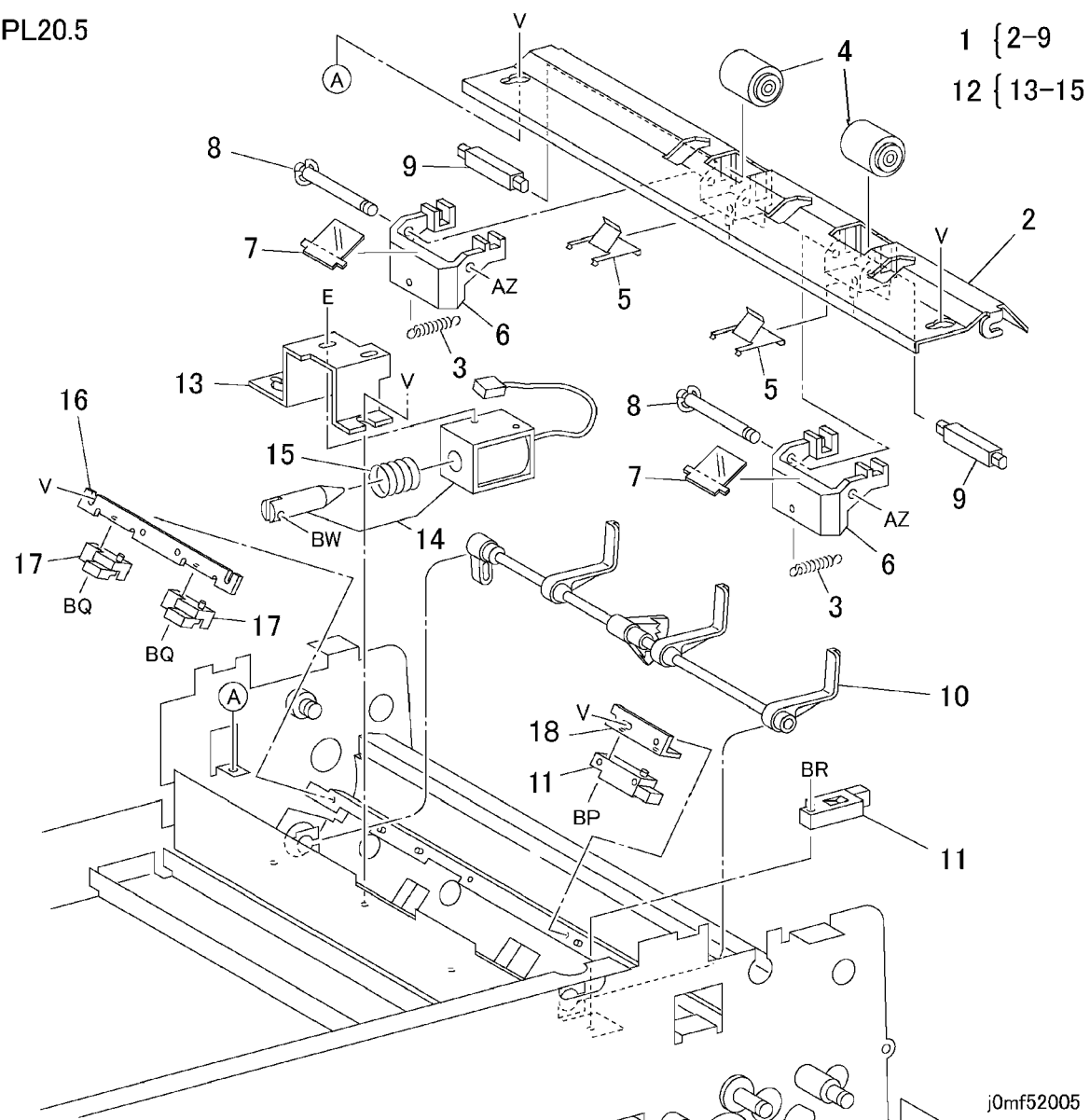




## PL 20.5 Document Feed Chute (Lower)

Item	Part	Description
1	054K18780	Lower Chute Assembly (REP 5.8)
2	—	Lower Chute (P/O PL 20.5 Item 1)
3	—	Spring (P/O PL 20.5 Item 1)
4	059K19720	Retard Roll (REP 5.9)
5	—	Spring Plate (P/O PL 20.5 Item 1)
6	—	Arm (P/O PL 20.5 Item 1)
7	055K19260	Guard
8	—	Arm Shaft (P/O PL 20.5 Item 1)
9	—	Retard Shaft (P/O PL 20.5 Item 1)
10	—	Set Gate (Not Spared)
11	130K60600	Document Sensor, Registration Sensor (REP 5.11)
12	121K22690	Set Gate Solenoid Assembly (REP 5.10)
13	—	Bracket (P/O PL 20.5 Item 12)
14	—	Set Gate Solenoid (P/O PL 20.5 Item 12)
15	—	Spring (P/O PL 20.5 Item 12)
16	—	Bracket (Not Spared)
17	130E80890	Size Sensor 1 (Rear), Size Sensor 2 (Front) (REP 5.12)
18	—	Bracket (Not Spared)

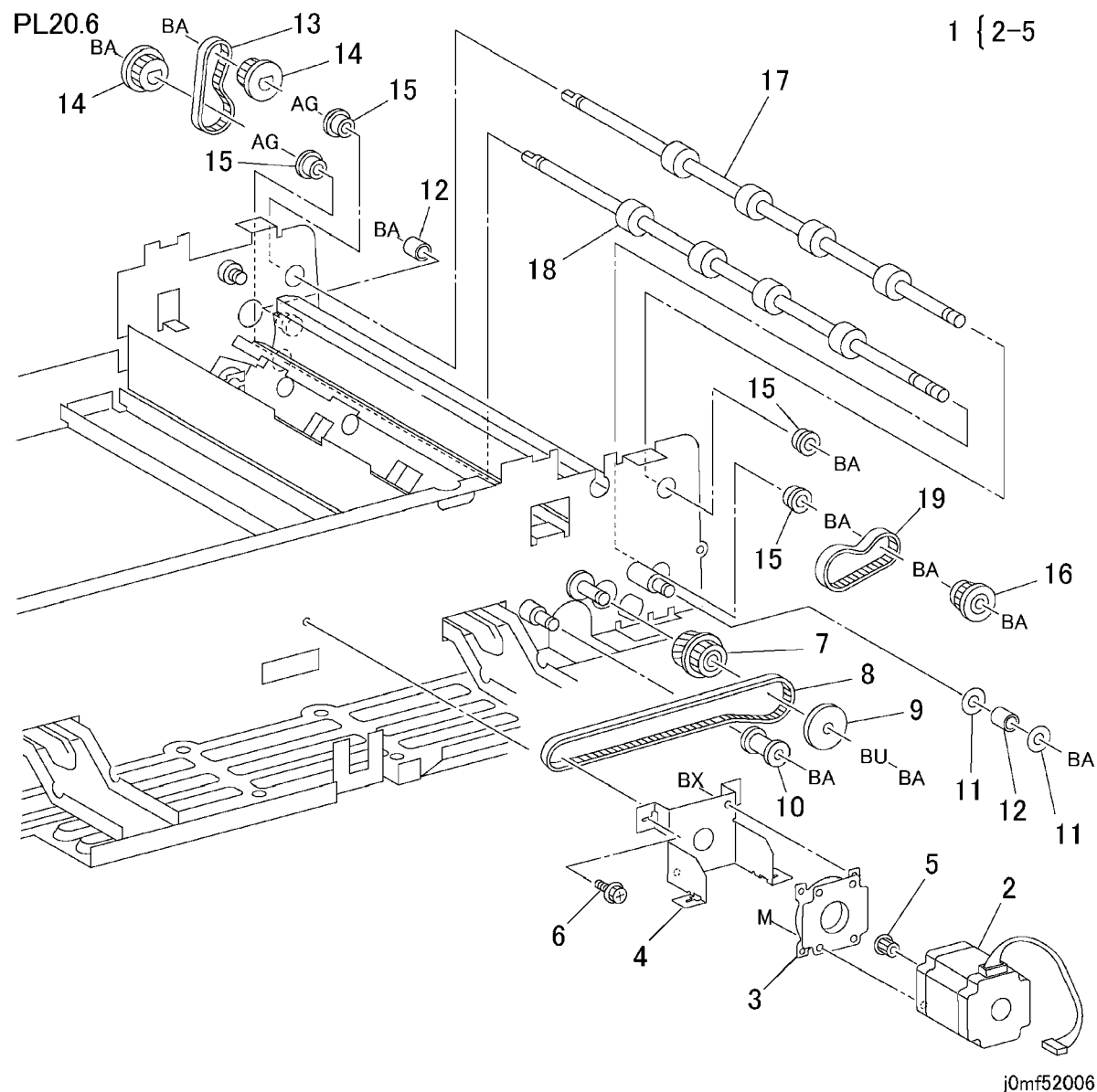
PL20.5





## PL 20.6 DADF Belt Motor, Duplex Roll

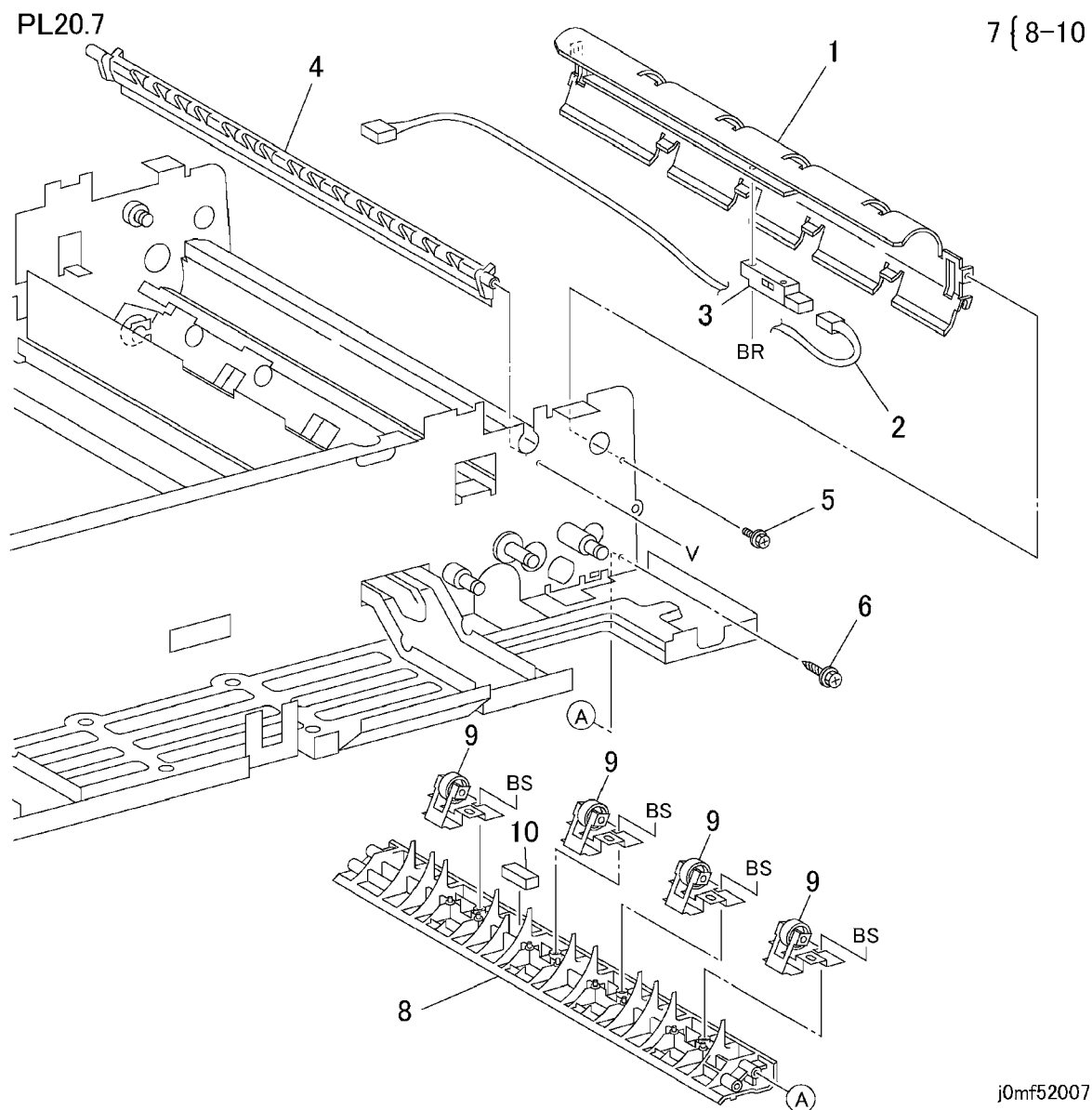
Item	Part	Description
1	127K32690	DADF Belt Motor Assembly (REP 5.13)
2	—	DADF Belt Motor (P/O PL 20.6 Item 1)
3	—	Damper (P/O PL 20.6 Item 1)
4	—	Bracket (P/O PL 20.6 Item 1)
5	—	Pulley (P/O PL 20.6 Item 1)
6	—	Screw (Not Spared)
7	007K86700	Gear Pulley
8	023E19990	Belt
9	—	Spacer (Not Spared)
10	—	Tension Roll (Not Spared)
11	—	Spacer (Not Spared)
12	—	Tension Roll (Not Spared)
13	023E20010	Belt
14	020E21050	Pulley
15	—	Bearing (Not Spared)
16	020K91230	Pulley
17	022K37080	Upper Duplex Roll
18	022K37070	Lower Duplex Roll
19	023E12230	Belt





## PL 20.7 Duplex Chute

Item	Part	Description
1	—	Duplex Chute (Not Spared)
2	—	Wire Harness (Not Spared)
3	130K60600	Duplex Sensor (REP 5.14)
4	050K46690	Gate
5	—	Screw (Not Spared)
6	—	Screw (Not Spared)
7	054K18790	Lower Chute Assembly
8	—	Lower Chute (P/O PL 20.7 Item 7)
9	—	Pinch Roll (P/O PL 20.7 Item 7)
10	121E90640	Open Switch Magnet



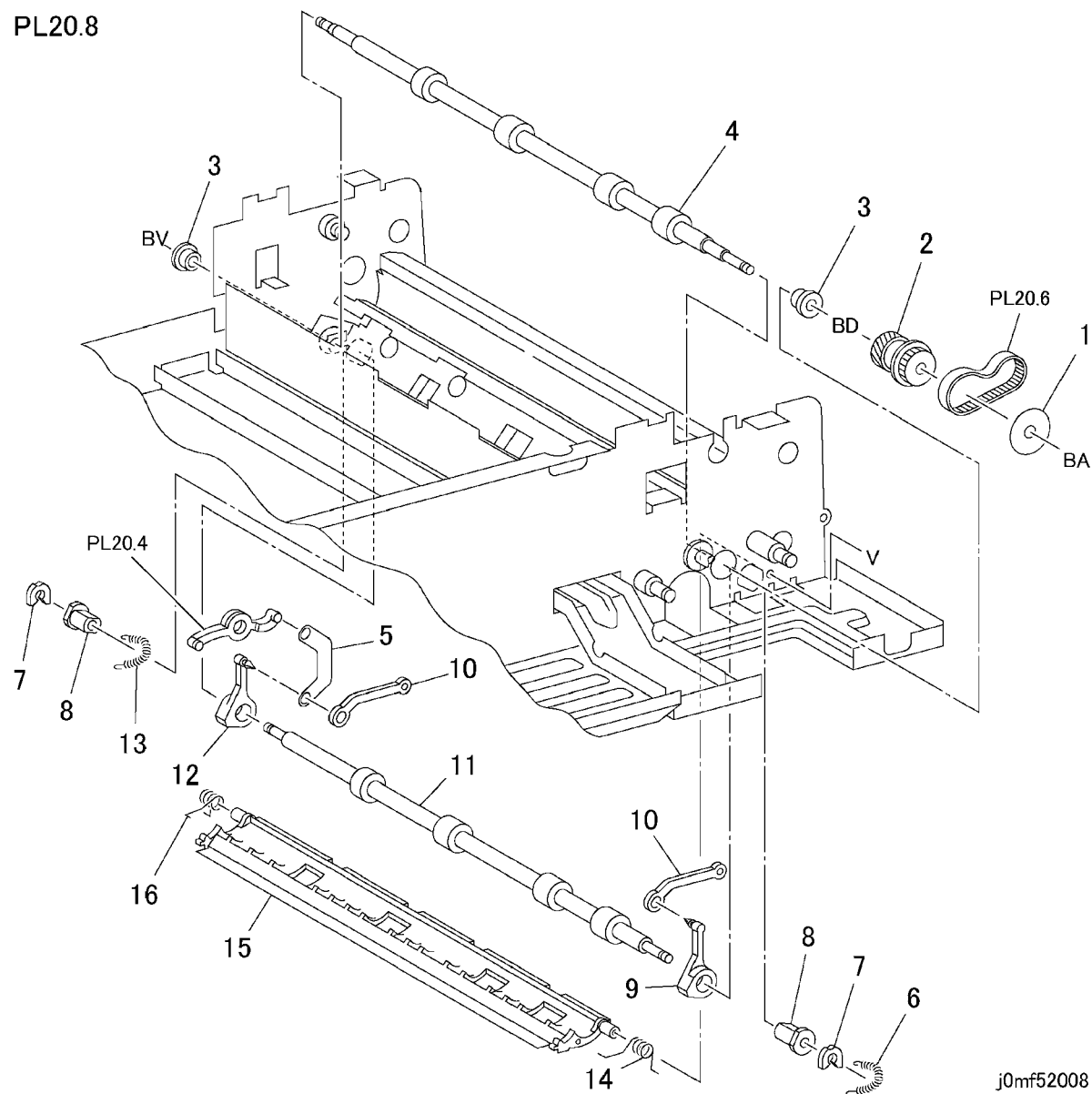
j0mf52007



## PL 20.8 Registration Roll

Item	Part	Description
1	—	Spacer (Not Spared)
2	007K81120	Gear Pulley
3	—	Bearing (Not Spared)
4	059K19750	Registration Roll
5	012E09760	Link
6	809E04210	Rear Spring
7	005E80250	Clip
8	013E94561	Bearing
9	008E90941	Rear Cam
10	012E91960	Link
11	022K38040	Registration Pinch Roll (REP 5.15)
12	008E90931	Front Cam
13	809E04220	Front Spring
14	009E28570	Spring
15	050K46690	Gate
16	009E28560	Spring

PL20.8



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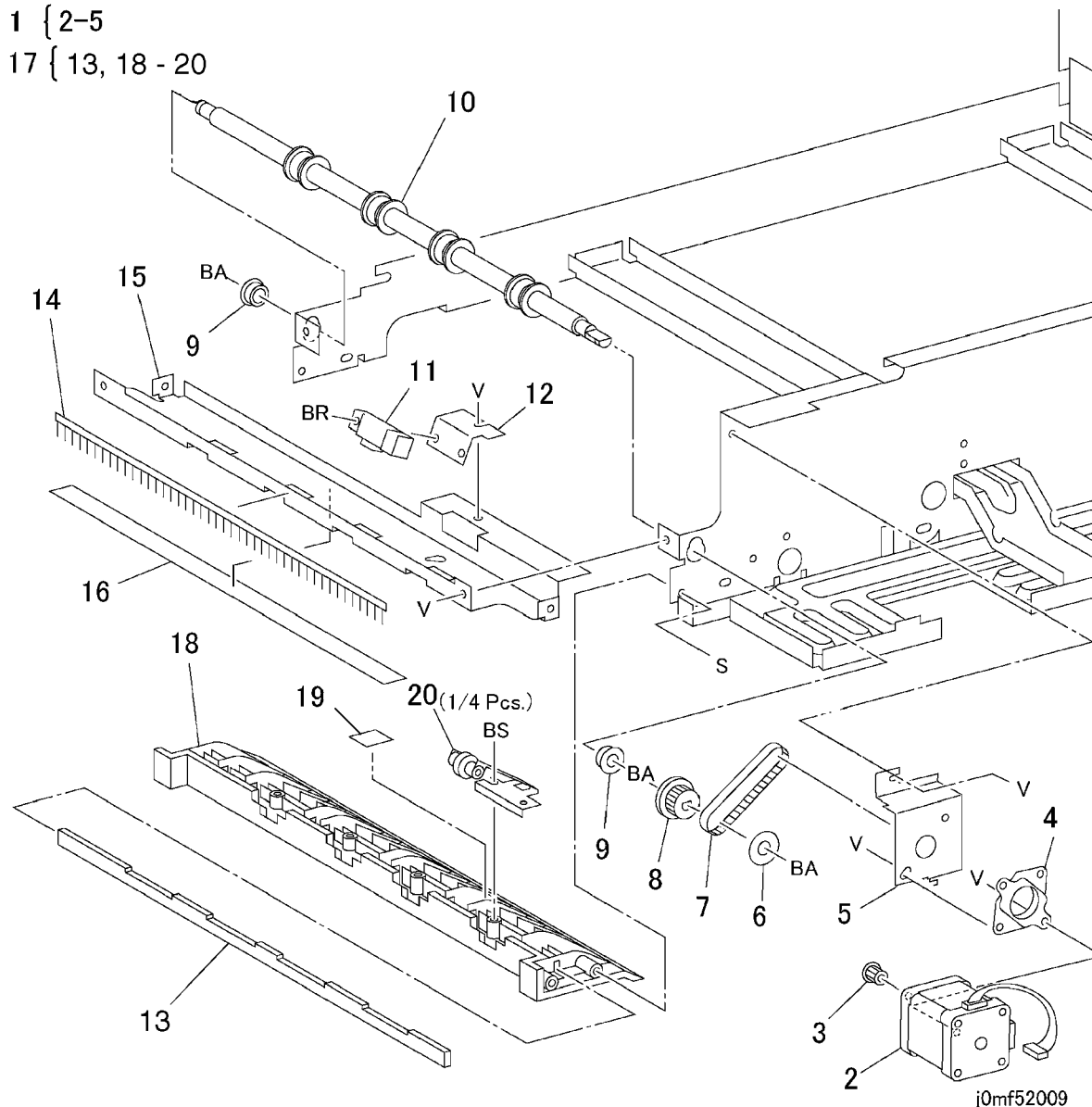
## PL 20.9 Exit Motor/Chute

Item	Part	Description
1	127K32640	Exit Motor Assembly (REP 5.16)
2	—	Exit Motor (P/O PL 20.9 Item 1)
3	—	Pulley (P/O PL 20.9 Item 1)
4	—	Damper (P/O PL 20.9 Item 1)
5	—	Bracket (P/O PL 20.9 Item 1)
6	—	Spacer (Not Spared)
7	023E20000	Belt
8	020E93230	Pulley
9	—	Bearing (Not Spared)
10	059K11860	Exit Roll
11	130K60600	DADF Exit Sensor
12	—	Bracket (Not Spared)
13	—	Plate (P/O PL 20.9 Item 17)
14	105E06910	Static Eliminator
15	—	Exit Upper Chute (Not Spared)
16	055K26060	Document Guard
17	054K13082	Lower Exit Chute
18	—	Exit Lower Chute (P/O PL 20.9 Item 17)
19	—	Sensor Pad (P/O PL 20.9 Item 17)
20	059K11821	Pinch Roll

### PL20.9

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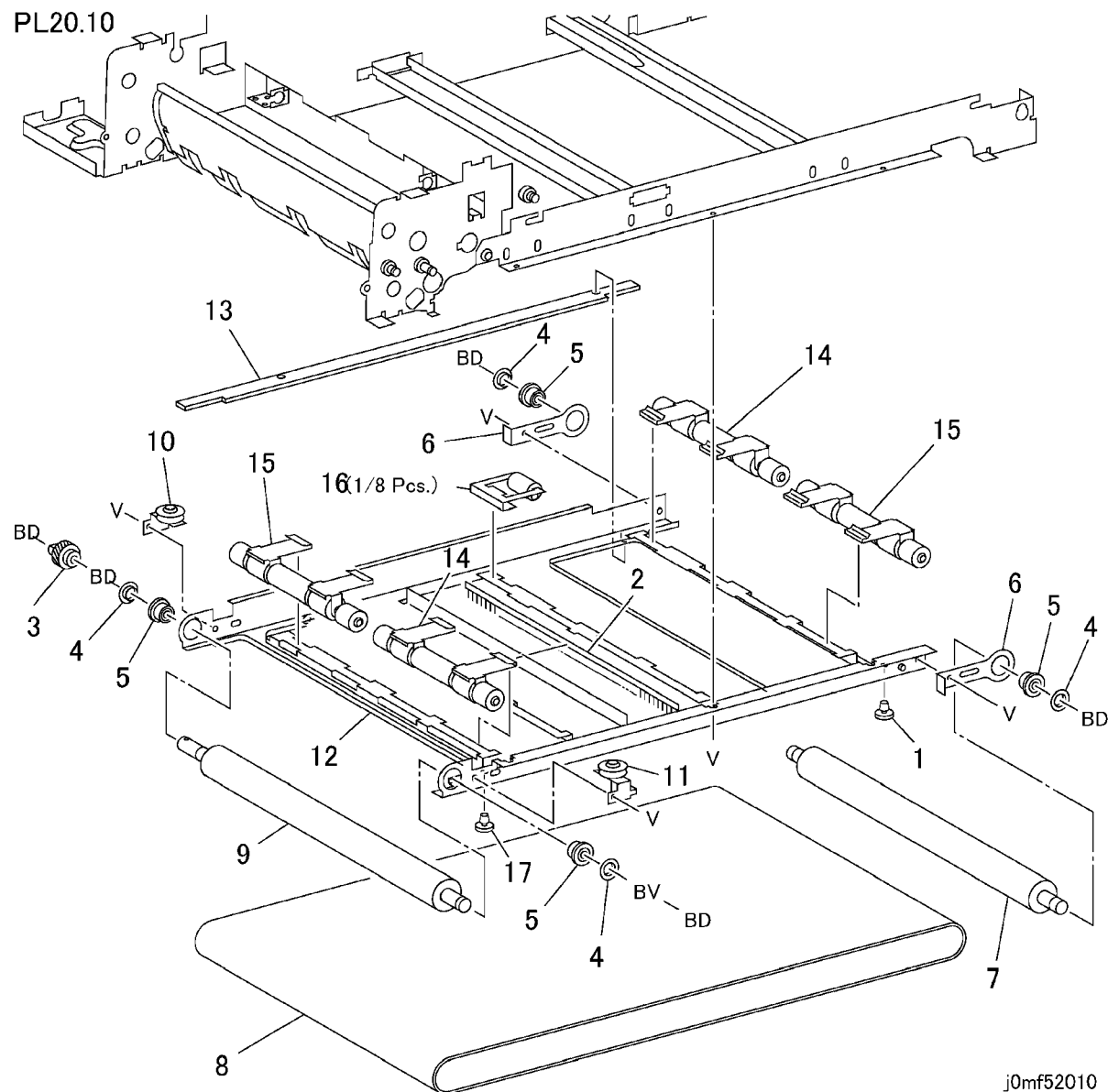


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## PL 20.10 Document Transport, Platen Belt

Item	Part	Description
1	—	Damper (Not Spared)
2	—	Static Eliminator (Not Spared)
3	007E66340	Gear
4	—	Collar (Not Spared)
5	013E80970	Bearing
6	049E91070	Tension Plate
7	022K39710	Idler Roll
8	023E15690	Platen Belt (REP 5.19)
9	—	Drive Roll (Not Spared)
10	—	Belt Guide (Not Spared)
11	—	Belt Guide (Not Spared)
12	—	Transport Frame (Not Spared)
13	—	Deflector (Not Spared)
14	—	Pinch Roll (Not Spared)
15	—	Pinch Roll (Not Spared)
16	—	Pinch Roll (Not Spared)
17	—	Damper (Not Spared)



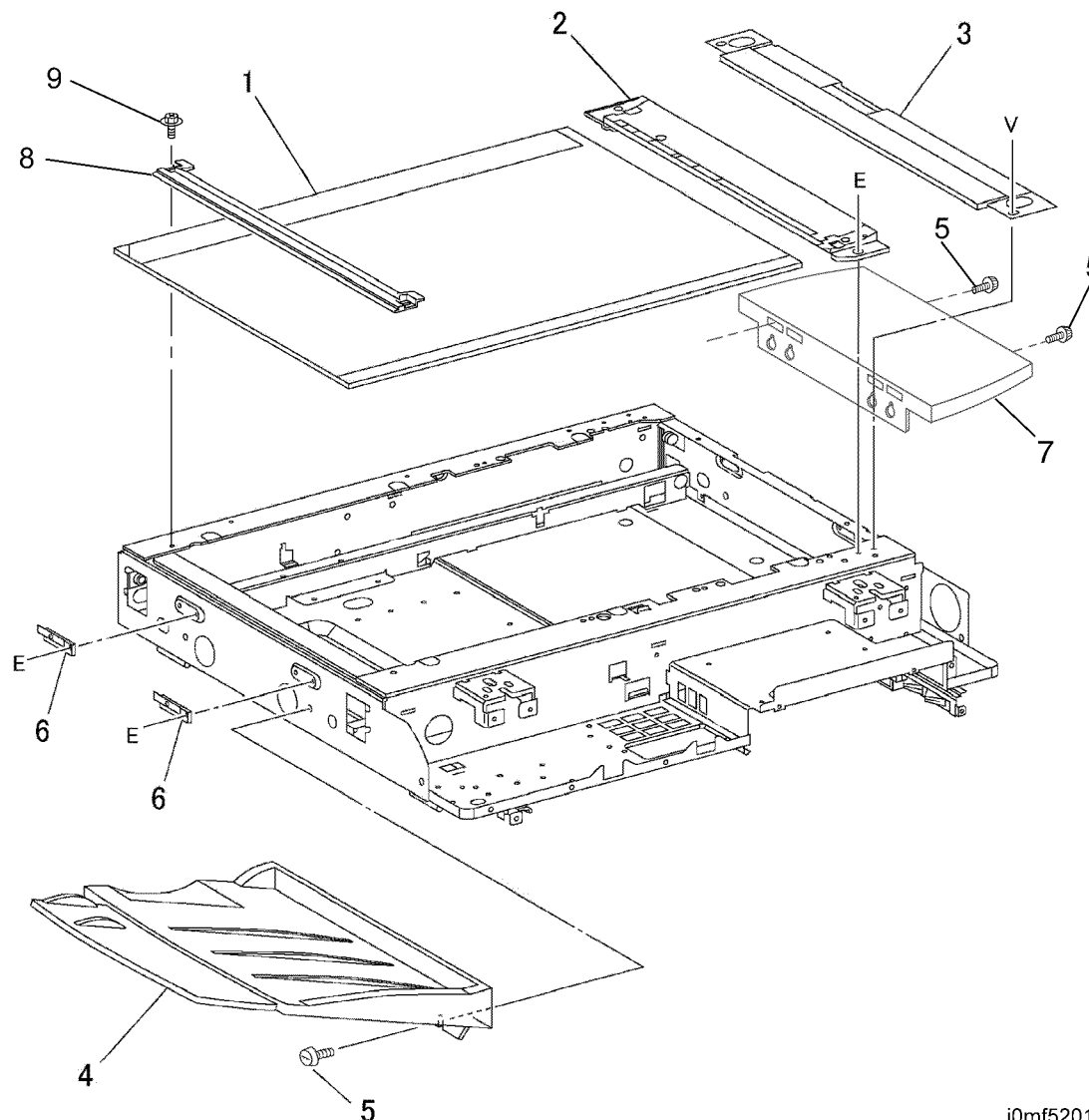
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## PL 20.11 Platen Glass, Registration Gate, Exit Tray

Item	Part	Description
1	090K92820	Platen Glass (DC2240/1632) (REP 6.2)
—	090K02290	Platen Glass (DC3535, WC24) (REP 6.2)
2	050K43070	Registration Gate (DC2240/1632)
—	050K48890	Registration Gate (DC3535, WC24)
3	015K83700	Plate
4	604K18520	Exit Tray (DC3535, WC24)
—	673K51383	Exit Tray (DC2240/1632)
5	003E43840	Thumbscrew
6	830E17490	Bracket
7	050E88440	Wing Tray (DC2240/1632)
8	—	Right Side Plate (Not Spared)
9	—	Screw (Not Spared)

PL20.11



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## Common Hardware

Item	Part	Description
A	112W27651	Screw (M3x6)
B	112W27659	Screw (M3x6)
C	112W27851	Screw (M3x8)
D	112W28451	Screw (M3x14)
E	113W20457	Screw (M3x4)
F	113W20651	Screw (M3x6)
G	113W20857	Screw (M3x8)
H	113W21057	Screw (M3x10)
J	113W21657	Screw (M3x16)
K	113W27451	Screw (M3x4)
L	113W27551	Screw (M3x5)
M	113W27651	Screw (M3x6)
N	113W27851	Screw (M3x8)
P	113W28051	Screw (M3x10)
Q	113W28851	Screw (M3x20)
R	153W17655	Thread-forming Screw (M3x6)
S	153W17855	Thread-forming Screw (M3x8)
T	153W18055	Thread-forming Screw (M3x10)
U	153W27855	Thread-forming Screw (M3x8)
V	158W27655	Screw (M3x6)
W	158W27663	Screw (M3x6)
X	158W27855	Screw (M3x8)
Y	158W27863	Screw (M3x8)
Z	158W28255	Screw (M3x12)
AA	158W35855	Screw (M4x8)
AB	220W21250	Flange Nut (M3)
AC	251W24251	Washer (4)
AD	251W24450	Washer (4)
AE	252W24250	Nylon Washer (4)
AF	252W26450	Nylon Washer (5)
AG	252W27350	Nylon Washer (6)
AH	252W27450	Nylon Washer (6)
AJ	252W29450	Nylon Washer (8)
AK	271W16050	Dowel Pin (2x10)
AL	271W28250	Dowel Pin (3x12)
AM	271W28650	Dowel Pin (3x16)
AN	271W28950	Dowel Pin (3x22)
AP	271W36850	Dowel Pin (4x20)
AQ	285W15651	Spring Pin (2x6)
AR	285W15851	Spring Pin (2x8)
AS	285W16251	Spring Pin (2x12)
AT	285W28051	Spring Pin (3x10)
AU	285W28251	Spring Pin (3x12)
AV	285W28651	Spring Pin (3x16)
AW	354W15251	E-Clip (2)
AX	354W19251	E-Clip (2.5)
AY	354W21251	E-Clip (3)
AZ	354W21254	K-Clip (3)
BA	354W24251	E-Clip (4)
BB	354W24254	K-Clip (4)
BC	354W26251	E-Clip (5)
BD	354W27251	E-Clip (6)
BE	354W27254	K-Clip (6)
BF	354W29251	E-Clip (8)
BG	113W20657	Screw (M3x6)
BH	113W16051	Screw (M2x10)
BJ	158W45055	Screw (M5x10)
BK	158W36355	Screw (M4x12)
BL	251W24451	Washer (4)
BM	113W20557	Screw (M3x5)
BN	113W15851	Screw (M2x8)
BP	113W28056	Screw (M3x10)
BQ	113W28251	Screw (M3x12)
BR	113W28256	Screw (M3x12)
BS	153W27650	Thread-forming Screw (M3x6)
BT	153W27850	Thread-forming Screw (M3x8)
BU	252W27250	Nylon Washer (6)
BV	252W29350	Nylon Washer (8)
BW	285W29151	Spring Pin (3x25)
BX	158W35655	Screw (M4x6)
BY	113W36257	Screw (M4x12)
BZ	158W35863	Thread-forming Screw - Deltite Tip (M4x8)



## Part Number Index

Table 1 Part Number Index

Part Number	Part List
001E59600	PL 17.9
001E60050	PL 17.14
001K70542	PL 5.1
001K70551	PL 5.1
003K12090	PL 17.1
	PL 17.14
003K12650	PL 5.2
003K12881	PL 5.1
003E23672	PL 15.1
	PL 16.1
	PL 2.1
003E43840	PL 20.11
003E51861	PL 7.2
003E52290	PL 5.1
003E52300	PL 5.1
003E53700	PL 15.10
	PL 16.13
003E53710	PL 15.10
	PL 16.13
003K86122	PL 4.1
003K91881	PL 20.3
004E06560	PL 18.6
004E11831	PL 2.7
005K05890	PL 15.4
	PL 15.6
	PL 15.8
	PL 16.10
	PL 16.12
	PL 2.5
	PL 16.8
005E16220	PL 17.6
005E16510	PL 17.6
005E80250	PL 20.8
005K83081	PL 15.3
	PL 15.7
	PL 16.9
	PL 2.4
	PL 16.11
	PL 16.7

Table 1 Part Number Index

Part Number	Part List
	PL 15.5
006K21720	PL 17.12
006K21730	PL 17.6
006K21970	PL 17.12
006E71740	PL 5.1
007E61890	PL 5.2
007E61910	PL 5.2
007E62630	PL 2.8
007E64740	PL 2.7
007E66050	PL 15.9
	PL 16.15
007E66060	PL 15.9
	PL 16.15
007E66070	PL 15.9
	PL 16.15
007E66080	PL 16.14
007E66340	PL 20.10
007E67730	PL 17.7
007E67740	PL 17.7
007E67750	PL 17.7
007E67770	PL 17.8
007E67780	PL 17.8
007E67800	PL 17.8
007E67810	PL 17.8
007E67820	PL 17.11
007E67830	PL 17.11
007E67840	PL 17.11
007E67850	PL 17.4
007E67860	PL 17.4
007E67870	PL 17.4
007E72070	PL 17.12
007E72080	PL 17.12
007E72090	PL 17.7
007E75201	PL 2.8
007E76930	PL 17.6
007E76940	PL 17.8
007K81120	PL 20.8
007K85580	PL 1.3
007K85730	PL 15.3
	PL 15.7
	PL 16.11



Table 1 Part Number Index

Part Number	Part List
	PL 15.5
	PL 16.7
	PL 16.9
	PL 2.4
007K85750	PL 1.1
007K86400	PL 1.1
007K86700	PL 20.6
007K86910	PL 17.6
007K86921	PL 1.1
007K86931	PL 2.9
007K87220	PL 1.1
007K87360	PL 1.1
007K87370	PL 1.1
007K87440	PL 2.9
007K87600	PL 1.1
008R12904	PL 7.1
008R12905	PL 7.1
008E90931	PL 20.8
008E90941	PL 20.8
008E94070	PL 17.7
009E26870	PL 20.1
009E26970	PL 16.3
	PL 16.4
009E28560	PL 20.8
009E28570	PL 20.8
009E55450	PL 18.4
009E62830	PL 18.5
011E10711	PL 11.2
011E10800	PL 15.10
	PL 16.13
011K94970	PL 5.1
011K96790	PL 16.14
012E09750	PL 20.4
012E09760	PL 20.8
012E10070	PL 16.4
012E91960	PL 20.8
012K94110	PL 18.5
012K94120	PL 18.5
012K94260	PL 10.2
013E18980	PL 5.3
013E20240	PL 17.6

Table 1 Part Number Index

Part Number	Part List
013E20250	PL 17.12
013E80970	PL 20.10
013E92760	PL 20.4
013E94561	PL 20.8
014E42850	PL 16.1
	PL 2.1
014E43150	PL 5.6
014K81604	PL 9.3
015K45802	PL 11.2
015K48381	PL 2.8
015E48890	PL 20.2
015E48900	PL 20.2
015K49310	PL 5.6
015K49450	PL 16.14
015K49460	PL 16.14
015K49470	PL 15.10
	PL 16.13
015K49480	PL 5.6
015K50680	PL 17.11
015K51640	PL 17.11
015K52320	PL 4.2
015E77040	PL 17.14
015K83700	PL 20.11
017E10700	PL 19.2
017E10710	PL 19.2
017E10840	PL 19.2
017E92060	PL 18.5
017K92350	PL 15.9
	PL 16.15
017K92360	PL 15.9
	PL 16.15
017E94660	PL 17.14
017E94700	PL 19.1
017E94710	PL 19.1
017E94730	PL 19.1
019E49470	PL 18.6
019E49830	PL 18.4
019E50340	PL 17.11
019E50400	PL 18.6
019E93510	PL 20.2
019K97130	PL 2.14



Table 1 Part Number Index

Part Number	Part List
019K97540	PL 5.4
019K97550	PL 5.4
019K98190	PL 5.4
019K98200	PL 5.4
020E21050	PL 20.6
020E25090	PL 18.5
020E32740	PL 18.5
020E34970	PL 17.8
020K91230	PL 20.6
020E93120	PL 16.3
020E93230	PL 20.9
020K94970	PL 18.6
020E99590	PL 18.5
022K37070	PL 20.6
022K37080	PL 20.6
022K38040	PL 20.8
022K39710	PL 20.10
022K61480	PL 17.6
022K65880	PL 17.12
022E88210	PL 17.4
023E12230	PL 20.6
023E15690	PL 20.10
023E19300	PL 18.5
023E19990	PL 20.6
023E20000	PL 20.4
	PL 20.9
023E20010	PL 20.6
023E20020	PL 17.4
023E20160	PL 17.7
026E93560	PL 17.1
029K03720	PL 17.9
029E31600	PL 2.3
031E94030	PL 17.7
032K93800	PL 20.1
032K96590	PL 20.1
035E65010	PL 6.2
036K91420	PL 20.3
036K91431	PL 20.3
038E23560	PL 2.14
038E24410	PL 17.10
038E24650	PL 17.4

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Part Number	Part List
041K94050	PL 18.6
041K94260	PL 17.9
041K94271	PL 18.6
042K91990	PL 10.1
048E64201	PL 20.1
048K76181	PL 20.1
049E91070	PL 20.10
050E19480	PL 17.1
050K36410	PL 20.1
050K43070	PL 18.3
	PL 20.11
050K43120	PL 16.1
050K43130	PL 16.1
050K43880	PL 17.10
050K46690	PL 20.7
	PL 20.8
050K48171	PL 16.1
	PL 2.1
050K48182	PL 2.13
050K48750	PL 17.9
050K48840	PL 15.1
050K48861	PL 2.13
050K48890	PL 18.3
	PL 20.11
050K48980	PL 15.1
050K48981	PL 16.1
	PL 2.1
050K49050	PL 16.1
050K49060	PL 16.1
050E88440	PL 20.11
054K13082	PL 20.9
054K13600	PL 20.4
054K13622	PL 20.2
054K16130	PL 2.8
054K17241	PL 11.2
054K18270	PL 16.6
054E18520	PL 16.6
054E18530	PL 16.5
054E18540	PL 16.5
054K18780	PL 20.5
054K18790	PL 20.7



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054K22410	PL 2.8
055K19260	PL 20.5
055K26060	PL 20.9
059K11821	PL 20.9
059K11840	PL 20.4
059K11860	PL 20.9
059K11880	PL 20.2
059K15573	PL 15.1
	PL 16.6
	PL 2.3
059K15612	PL 2.8
059K16742	PL 11.1
059K18283	PL 16.5
059K18714	PL 12.1
059K18900	PL 15.10
	PL 16.6
059K19720	PL 20.5
059K19750	PL 20.8
059K20210	PL 17.7
059K21260	PL 5.4
059K21790	PL 16.5
059K23150	PL 5.3
059K23470	PL 12.2
059K23960	PL 12.1
059K23970	PL 12.2
059K23980	PL 12.2
059K24010	PL 2.14
059K24020	PL 2.14
059K24661	PL 2.6
059K24802	PL 2.12
059K25581	PL 2.12
059K29560	PL 2.11
059E95920	PL 16.4
059E95930	PL 16.1
062E10040	PL 18.6
062K10730	PL 18.6
062K10881	PL 3.1
062K11421	PL 3.1
063E94040	PL 18.5
063E94050	PL 18.5
064K91451	PL 5.3

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Part Number	Part List
068E10210	PL 18.3
074K94280	PL 9.2
074K94321	PL 9.2
090K02290	PL 18.3
	PL 20.11
090K92820	PL 18.3
	PL 20.11
101K37940	PL 13.1
101K38812	PL 9.2
101K38821	PL 9.2
101K38982	PL 9.2
101K39401	PL 9.2
103E27220	PL 9.1
104E93610	PL 9.1
105E06910	PL 20.9
105E09761	PL 9.1
105E09811	PL 9.1
105E09821	PL 9.1
105E09831	PL 9.1
105E09971	PL 9.1
105E09981	PL 9.1
105E10481	PL 18.4
105E10510	PL 18.6
105E10651	PL 18.4
105E11131	PL 9.1
105E11320	PL 17.12
105E11341	PL 9.1
105K18642	PL 9.1
105K18772	PL 9.1
105K20061	PL 9.1
107E08680	PL 18.4
110K07850	PL 20.2
110K07870	PL 20.2
110K08471	PL 18.4
110K08541	PL 15.1
	PL 16.1
	PL 2.1
110K10651	PL 2.8
110K10880	PL 16.1
110K11100	PL 18.2
110K11211	PL 10.2



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Part Number	Part List
110E93440	PL 12.2
110E94770	PL 10.1
110E97990	PL 10.1
	PL 17.13
113K82310	PL 9.3
116K90810	PL 6.1
117E19780	PL 18.6
117E20840	PL 18.3
117K30960	PL 18.4
117K31400	PL 9.2
117K34640	PL 9.4
117E94370	PL 9.2
118E12090	PL 18.6
120E11971	PL 2.13
120E18141	PL 15.3
	PL 15.5
	PL 15.7
120E18160	PL 2.11
120E18820	PL 15.10
120E20690	PL 17.7
120E20970	PL 17.6
121K22220	PL 2.6
121K22470	PL 1.2
121K22690	PL 20.5
121K22710	PL 20.2
121K22860	PL 11.2
121K22870	PL 11.2
121K23270	PL 1.2
121K24610	PL 17.7
121K24620	PL 17.8
121K27751	PL 13.1
121K30550	PL 13.1
121E87830	PL 2.14
121E88470	PL 17.5
121E89780	PL 17.3
121E90640	PL 20.7
121K93870	PL 20.2
122E92030	PL 18.6
122K93330	PL 4.2
122K93340	PL 4.2
123K94020	PL 18.2

Table 1 Part Number Index

Part Number	Part List
126K13943	PL 7.1
126K13950	PL 7.2
126K13960	PL 7.2
126K13980	PL 7.2
126K13990	PL 7.2
126K14893	PL 7.1
127K23230	PL 15.3
	PL 16.9
	PL 16.7
	PL 2.4
	PL 15.5
	PL 16.11
	PL 15.7
127K29243	PL 4.1
127K29330	PL 9.1
127K29340	PL 8.1
127K29511	PL 2.9
127K29930	PL 12.2
127K31840	PL 16.15
127K32140	PL 18.5
127K32640	PL 20.9
127K32680	PL 20.4
127K32690	PL 20.6
127K32730	PL 8.1
127K32840	PL 17.7
127K32850	PL 17.10
127K32860	PL 17.9
127K32870	PL 17.8
127K32920	PL 13.1
127K33160	PL 18.4
127K33420	PL 17.11
127K33930	PL 6.1
127K33940	PL 6.1
127K33950	PL 5.4
127K36020	PL 15.9
	PL 16.15
127K36640	PL 8.1
130K60600	PL 20.5
	PL 20.7
	PL 20.9
130K60830	PL 5.4



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Part Number	Part List
130K60851	PL 2.3
130K60865	PL 1.3
130K61020	PL 7.2
130K61250	PL 12.2
130K61510	PL 15.10
	PL 16.6
130K61920	PL 17.6
130K62000	PL 18.4
130K62360	PL 17.4
130K62580	PL 18.4
130K62980	PL 9.4
130K63000	PL 6.2
130E80890	PL 20.5
130E81600	PL 15.10
	PL 16.6
130E82190	PL 15.3
	PL 5.4
	PL 2.9
	PL 2.4
	PL 2.3
	PL 2.13
	PL 2.11
	PL 16.9
	PL 16.7
	PL 16.11
	PL 15.7
	PL 15.5
130E82530	PL 17.10
	PL 17.11
	PL 17.13
	PL 17.9
	PL 17.6
130E82540	PL 17.10
	PL 17.4
	PL 17.8
130E82650	PL 16.5
	PL 2.6
130E84270	PL 5.4
130E84300	PL 17.4
	PL 2.9
130E91010	PL 4.1

Table 1 Part Number Index

Part Number	Part List
130K93360	PL 17.4
130K94740	PL 17.12
133K21200	PL 13.1
133K22400	PL 13.1
140K60480	PL 20.1
152S05108	PL 9.2
160K46290	PL 2.6
160K66860	PL 12.2
160K74231	PL 13.1
160K75800	PL 18.2
160K76651	PL 13.1
160K76660	PL 17.13
160K76761	PL 9.2
160K76771	PL 9.2
160K76803	PL 9.1
160K77203	PL 9.2
160K78660	PL 9.4
160K82224	PL 13.1
160K82460	PL 13.1
160K83081	PL 20.3
160K84400	PL 9.1
160K84802	PL 9.2
160K84821	PL 9.2
160K85970	PL 15.9
160K85980	PL 16.15
160K87480	PL 9.1
160K87730	PL 9.1
160K88080	PL 13.1
160K88140	PL 9.4
160K88150	PL 9.4
160K88160	PL 9.4
160K88291	PL 9.1
160K89890	PL 9.4
160K89980	PL 13.1
160K90520	PL 9.4
160K90570	PL 13.1
160K91001	PL 15.9
160K91011	PL 16.15
160K91440	PL 18.2
160K91716	PL 13.1
160K91963	PL 13.1



Table 1 Part Number Index

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160K93514	PL 18.2
160K94002	PL 18.3
160K98020	PL 18.3
160K98890	PL 18.2
160K99040	PL 18.2
160K99050	PL 18.2
160K99070	PL 13.1
162K55941	PL 9.3
162K55971	PL 9.3
162K56000	PL 9.3
162K56020	PL 5.4
162K56031	PL 9.3
162K56590	PL 16.11
162K61090	PL 5.4
162K62110	PL 9.3
162K62810	PL 15.10
	PL 16.6
162K64340	PL 20.3
162K69070	PL 17.4
162K69330	PL 9.2
300K63850	PL 18.2
413W10950	PL 18.5
413W77359	PL 20.4
423W28054	PL 17.8
423W29655	PL 17.7
537K61030	PL 9.4
537K61180	PL 13.1
537K62671	PL 13.1
537K63930	PL 9.4
537K63950	PL 9.4
537K64130	PL 17.13
537K64252	PL 13.1
537K64426	PL 13.1
537K64436	PL 13.1
537K65040	PL 17.13
537K67710	PL 13.1
537K67720	PL 13.1
600K78460	PL 15.4
	PL 15.8
	PL 16.12
	PL 16.8

Table 1 Part Number Index

Part Number	Part List
	PL 16.10
	PL 2.5
	PL 15.6
600K90370	PL 20.4
604K05330	PL 18.4
604K07052	PL 5.2
604K07061	PL 5.2
604K07070	PL 2.8
604K07490	PL 6.2
604K07500	PL 6.2
604K07510	PL 6.2
604K07520	PL 6.2
604K09720	PL 17.6
604K11150	PL 17.8
673K51382	PL 20.11
673K51383	PL 20.11
801K03600	PL 17.1
802K08320	PL 20.4
802E12400	PL 10.2
802E12430	PL 10.2
802E12480	PL 10.3
802E12490	PL 10.3
802E12500	PL 10.3
802K12950	PL 5.2
802K13193	PL 2.3
802E23930	PL 15.11
	PL 16.16
802E23941	PL 15.11
802E23950	PL 15.11
	PL 16.16
802E23960	PL 15.11
	PL 16.16
802E23980	PL 16.4
802E23990	PL 16.3
802K25721	PL 15.10
802K25731	PL 16.13
802K27073	PL 2.9
802E27860	PL 10.3
802K28110	PL 10.3
802E28520	PL 17.5
802E28530	PL 17.5



Table 1 Part Number Index

Part Number	Part List
802E28550	PL 17.5
802E28560	PL 17.5
802E28570	PL 17.5
802K28571	PL 17.6
802K28580	PL 17.4
802K28590	PL 17.3
802K28600	PL 17.3
802K28810	PL 6.1
802K28820	PL 6.1
802K28830	PL 6.1
802K28840	PL 6.1
802K28891	PL 6.2
802K29611	PL 10.2
802E30140	PL 17.4
802E30150	PL 17.4
802K32660	PL 18.2
802E32860	PL 18.2
802K33090	PL 6.1
802E33910	PL 10.3
802K36580	PL 16.16
802K36660	PL 17.14
802K36670	PL 17.14
802K45492	PL 2.7
802K45910	PL 6.1
802K45920	PL 6.1
802K45930	PL 6.1
802K45940	PL 6.1
802K46027	PL 18.2
802K46050	PL 10.1
802K46060	PL 10.1
802K46070	PL 10.2
802K47090	PL 4.1
802K47297	PL 18.2
802K47590	PL 10.1
802E49260	PL 18.2
802K49800	PL 10.2
802K49801	PL 10.2
802K49900	PL 17.1
802K50160	PL 10.1
802K50490	PL 15.11
802E50710	PL 17.5

Table 1 Part Number Index

Part Number	Part List
802K52450	PL 10.1
802K58860	PL 18.2
802K58870	PL 18.2
802K58900	PL 18.2
802K62050	PL 10.1
809E04210	PL 20.8
809E04220	PL 20.8
809E09110	PL 18.6
809E11130	PL 20.2
809E26070	PL 2.8
809E26330	PL 5.6
809E28960	PL 15.10
	PL 16.13
809E28970	PL 15.10
809E28980	PL 15.10
	PL 16.13
809E33600	PL 17.10
830E17490	PL 20.11
830E81670	PL 17.6
830E97760	PL 11.2
849E04830	PL 17.3
891E49060	PL 16.1
891E49510	PL 16.1
891E49520	PL 16.1
891E65180	PL 20.1
891E65210	PL 20.1
891E75951	PL 10.1
892E13310	PL 15.2
	PL 2.2
892E28491	PL 16.1
892E41110	PL 2.1
892E74500	PL 16.2
892E78280	PL 10.1
892E78290	PL 10.1
892E87140	PL 2.1
892E89060	PL 10.1
892E89190	PL 15.1
	PL 16.1
892E89200	PL 15.1
	PL 16.1
892E89210	PL 15.1



Table 1 Part Number Index

Part Number	Part List
	PL 16.1
892E89310	PL 20.1
892E89340	PL 20.1
892E90351	PL 15.2
	PL 2.2
908W01200	PL 9.2
960K11380	PL 10.3
962K03490	PL 9.4
962K03500	PL 9.4
962K03981	PL 9.4
962K05900	PL 18.4
962K05910	PL 18.4
962K07440	PL 17.9
962K08641	PL 13.1
962K08821	PL 9.2
962K09140	PL 9.3
962K09380	PL 9.2
962K09800	PL 9.3
962K10120	PL 17.13
962K10130	PL 17.13
962K10230	PL 13.1
962K14080	PL 13.1
962K14550	PL 17.4



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800-xxx ESS Print Service Setting .....	6-82
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823-xxx ESS Fax Service Device Setting NVM List .....	6-89
825-xxx ESS Fax Service Protocol Setting NVM List .....	6-90
830-xxx ESS I-Fax Service Control NVM List .....	6-98
840-xxx ESS Scan Setting NVM List .....	6-98
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## Entering Diagnostic Mode using the PWS

### Procedure

The following procedure describe how to enter the Diagnostics Mode with the PWS.

1. Inform the customer that the machine will be undergoing service and will not be available. (Copy jobs and local print jobs will be stopped).
2. Disconnect the machine from the customer network.
3. Connect the Portable Work Station (PWS) to the machine (Figure 1).

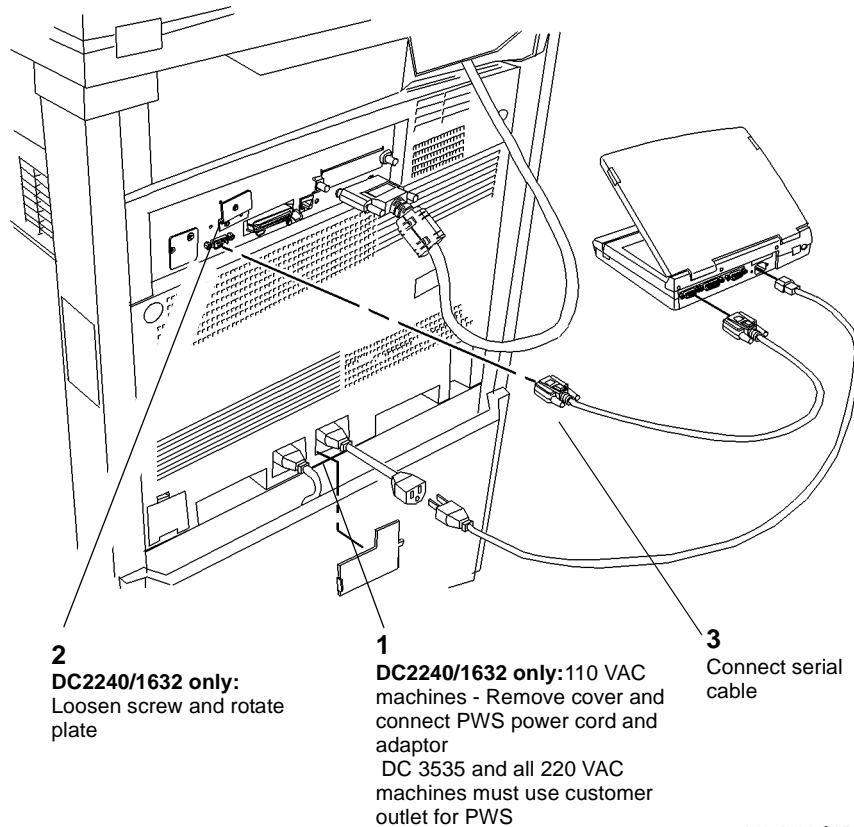


Figure 1 Connecting the PWS

4. Switch on the PWS.
5. Make sure the machine is not copying or printing. The machine UI should display **Ready to Copy** when there are no pending jobs.
6. At the PWS, enter the **GSNLock Password** and select **OK**.
7. From the Start menu in the lower left corner, select Programs\Xerox Applications. Select the appropriate PWS for the machine.

**NOTE:** The PWS cannot connect to the machine if it is in Power Save mode. Ensure that the machine indicates **Ready to Copy** before launching the PWS Tools.

8. The **Diagnostics Tool** screen will display.
  - a. Select **Use Local DB** from the **Diagnostics Tool** screen. The **PWS Diagnostic Service Entry Window** displays.
  - b. While the machine is connected to the PWS, the machine UI will display the message, **Connecting to the PWS**.
9. When the tool starts obtaining machine data, that data is displayed on the Service Entry Screen. When the system has obtained the machine data, it displays **Complete** at the upper left corner of the Service Entry Screen.  
The data listed in Table 1 will be displayed.

Table 1 Machine Data displayed at Service Entry

Heading	Contents	Description
Machine Data	Product Code	Displays a code allocated to each machine type.
	Serial Number	Displays the 6 (XC) or 10 (XE) digit number allocated to each machine.
	Total Copies	Displays the total number of copies/prints
	Copies Since Last Call	Displays the total number of copies/prints since the last CSE visit (complete closeout).
	Software Version	Displays current IOT S/W Version
Non-Zero Jams	ID, Description, Occurrences	Displays the Jams that have occurred since the last complete closeout.
HFSI Requiring Replacement	ID, Description, Threshold, Count.	Displays the component(s) (HFSI) that has exceeded the life Threshold).
Faults in Progress (Current Faults)	ID, Description, Primary	Displays current (active) faults in the machine.

10. If communication is lost between the PWS and the machine, click **Reconnect** from the main file menu.
11. To exit the Diagnostic Mode:
  - a. Select the **Service Exit Tab**.
  - b. Click on the appropriate close-out buttons:
    - **Complete Closeout**
    - **Temporary Closeout**
  - c. After the PWS has disconnected from the machine, select **Exit PWS** to close the tool.



## UI Diagnostic Mode

Diagnostic routines are mainly instructed/executed through the PWS. The UI Diagnostic mode is provided for simple tasks that do not require connection with the PWS.

### Procedure

Access the UI Diagnostic mode by following the procedures below.

#### Entering the UI Diagnostic mode

1. At the Control Panel, press and hold the **0** key for 5 seconds, then press the **Start** button while still pressing the 0 key.  
The **CE Mode - Password Entry** screen will appear.
2. Enter the Access Number (6789) and press **Confirm**.  
The colors on the display will be reversed to indicate that the mode has changed to the UI Diagnostic mode.

#### Accessing Diagnostic routines

1. Press the **Access** button on the Control Panel
2. Select **System Settings** on the display
3. Select **Common Settings** on the display
4. Select **Diagnostics** on the display
5. The following dC routines can be accessed from the UI screen
  - a. DC301 NVM Initialization  
- Select the subsystem to be initialized and press the Start button on the display. Refer to **dC301** for details.
  - b. DC355 Hard Disk Initialization  
- Only Partition A can be initialized. For full initialization, refer to **ADJ 9.8**.
  - c. DC131 NVM Read/Write  
- follow the instructions on the screen. If one or more NVM locations is changed, the machine will reboot upon exit. Refer to **dC131** for details.
  - d. Fax Diagnostics (WC 24 only), refer to **GP 5** for details.

#### Printing Service Reports

1. To access Service reports, follow the **Entering the UI Diagnostic mode** procedure.
2. After entering the Access Number, press the **Machine Status** button on the Control Panel.
3. Select the **Billing Meter/Print Reports** tab on the display.
4. Press the **Print Reports/List** button.
5. Press the **CE** button
6. The following reports can be printed.
  - a. Debug Log
  - b. HFSI Report
  - c. Jam Report
  - d. Shutdown Report
  - e. Fail Report
  - f. Protocol Monitor Report (WC 24 only)

7. Select the requested log button and press the Start button. The selected log will be printed.

#### Exiting UI Diagnostic mode

#### CAUTION

*Ensure that the machine is not inadvertently left in UI Diagnostic Mode.*

There are three ways to exit from the UI Diagnostic mode.

- Switch the power off and on.
- perform the following:
  - Press **Close** to exit any of the service screens that were opened.
  - When the **System Settings** screen is displayed, press Exit
  - When the reversed-color Copy Mode screen is displayed, press the **Start** button while the **0** key is pressed.
- If the **Restart** button is displayed in the screen, pressing the button will restart the operation and exit from the mode.



## DC Quick (CODE Number LIST)

Once in the Service Mode, dC Routines can be selected by dC Number or by selecting the appropriate tabs starting at the Service Entry Screen.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Using the DC Quick pull-down menu (upper-right side of Diagnostics Service Entry Screen), select the desired dC routine.

[Table 1](#) is a complete list of dC Routines that are available from the DC Quick pull-down menu.

**Table 1 dC Routines**

dC Number	Name	Description
100	Service Entry Screen	<ol style="list-style-type: none"> <li>1. Displays the Service Routine Tabs.</li> <li>2. Lists Active Faults</li> <li>3. Lists the item names of the HFSIs that exceeded life expectancy.</li> <li>4. Lists the jams that have occurred since the last Call Closeout.</li> <li>5. Displays IOT S/W Version.</li> <li>6. Lists the total copies/prints</li> </ol>
118	Jam Counter	Displays the following: Number of jam events since the last Complete Closeout (performed in Service Exit) to the current Number of jams.
120	Fault Counters	Displays the following: Number of Fault events after the last Complete Closeout (performed in Service Exit) to the current copy count.
122	Shut-down History	<ol style="list-style-type: none"> <li>1. Displays the history in three categories: Document Jam, Paper Jam and Other Fault.</li> <li>2. Displays the most recent 40 Faults (without categorizing)</li> </ol>
129	Automatic Setting: Adjust System Registration	The IOT lead registration and side registration are matched.
131	NVM access: Read/Write NVM	You can reference or set/change the NVM data.

**Table 1 dC Routines**

dC Number	Name	Description
132	Set Machine Serial Number. Read Billing Meter Information	<p>If you have replaced the PWB that has a Machine Serial Number, check the PWB and set the Machine Serial Number. Reads Billing Meter Information for the following:</p> <ul style="list-style-type: none"> <li>• MCU PWB</li> <li>• ESS PWB</li> <li>• ESS NVM PWB</li> </ul>
135	Service Data HFSI Counter	Displays the regular part replacement life expectancy (threshold) and current value (usage). You can change the replacement life expectancy to a preset value in the PWS database and reset the current value.
140	Component Check: Analog Monitor	Monitor the analog values of the sensors (A/D conversion) while operating the components (e.g., C.C). You can temporarily change the output value.
188	Service Mode Exit Screen	Displays the requirements for exit from the Service Mode.
301	NVM access: NVM initialization	Initiates NVM Data initialization
305	System Test: Component Operation Check UI Component Check	Checks the UI Screen and Component Panel Button operation.
330	Component Check: Component Control	<p>Displays the instructions and results of the Input Component Check and Output Component Check</p> <ol style="list-style-type: none"> <li>1. You can monitor each Input Component or check the operation of each Output Component.</li> <li>2. You can simultaneously check multiple Input Components and Output Components up to 11 total.</li> </ol>
351	NVM Background Processing	<ol style="list-style-type: none"> <li>1. Saves and restores values of all NVM in PWS dC131 database.</li> </ol> <p><b>NOTE:</b> Background Read must complete prior to saving.</p> <ol style="list-style-type: none"> <li>2. Start and Stop background NVM Read.</li> <li>3. Saves/restores machine settings. Saves NVM values listed:</li> <li>4. Resets all HFSI.</li> <li>5. Batch write of region-specific NVM.</li> </ol>
355	HDD Diagnostics	Perform maintenance on HDD.



Table 1 dC Routines

dC Number	Name	Description
371	Configuration Page	Allows viewing of current software version and Market Place setting, Machine Configuration, Output Device(s), Accessories, Feature Config., and Input Device. These settings can be changed to align with the machine configuration.
612	Color Test Pattern Print	Generates test pattern from the pattern generator in the machine. Patterns for use in identifying IQ problems, setting registration, and performing adjustments
685	Regicon	Color Registration/Skew setup
921	ATC Calibration	Enter ATC Sensor Calibration code into NVM.
922	TRC Control/Toner Density Adjustment	Measure the gray scale patch by the ADC sensor. Make the LUT for IOT TRC correction.
924	TRC Adjustment	Manually fine adjust each color (low/mid/high density) in PG.
934	ADC/AGC Setup	Execute automatic adjustment of the ADC Sensor Gain.
945	IIT calibration	1. Calculate and set the white reference compensation coefficient. 2. Correct the IIT sensitivity variation.
956	Belt Edge Learn	Set up the Belt Edge Sensor.

## dC100 Service Entry

When entering Diagnostics, this routine allows you to view faults in progress, Non-Zero Jams and HFSI items requiring replacement. Service entry allows you to view product information, such as:

- Product Code
- Machine Serial Number
- Total Copies
- Copies since Last Call
- IOT Software Version

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Check the **HFSI Requiring Replacement**.
3. Check the **Non-Zero Jams**. Jams that have occurred since the last service exit with the Complete Closeout option selected. Check for any Jams that have a high number of occurrences.
4. Check the **Faults In Progress**. If any faults in progress are displayed, troubleshoot accordingly.
5. Select the **Refresh** button to have the PWS request and receive the latest information on Total Copies, Copies Since Last Call, Non-Zero Jams or HFSI Requiring Replacement.



## dC118 Jam Counter

### Purpose

Displays the number of occurrences of Jams from time of previous Complete Closeout on service exit until present.

**NOTE:** *This procedure does not count jams detected while in the Service Mode.*

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select **Maintenance** on the Service Entry Screen.
3. Select the **Jam Counters (dC 118)**.
4. The screen displays all jam-related fault codes, and the number of times that the fault has occurred since the last time the **Complete Closeout** option was selected when exiting Diagnostic Mode.
5. The following subsets of data are selectable:
  - All Jams
    - This is the default. All jam-related faults are listed
  - DADF Jams
    - Selecting this tab lists only the DADF jam codes.
  - Paper Jams
    - Selecting this tab lists only the paper supply and paper feeding jam codes.
  - Non-Zero Jams
    - Selecting this tab lists only those jam codes that have had at least one occurrence since the last time the **Complete Closeout** option was selected.

## dC120 Fault Counter

### Purpose

Displays the number of occurrences of each fault since the last Service Exit with the Complete Closeout option selected.

### NOTE:

- *The machine does not count the faults detected while in the Service Mode.*
- *The machine does not count interlock open detected faults while the Main Processor is stopped.*

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select **Maintenance** on the Service Entry Screen.
3. Select the **Fail Counters (dC120)** tab.
4. The screen displays all fault codes that have occurred since the last time the **Complete Closeout** option was selected when exiting Diagnostic Mode.

The codes are listed in ascending order; to list in descending order, click on **ID** in the table header.

If machine data was previously saved to diskette, and Diagnostic Mode was entered with the **Read From Diskettes** option selected, the previous fault history #Occurrence will display in the P1 column. If this same procedure was performed previously, the fault history #Occurrence will display in P2, then P3, up to columns P7.
5. The following subsets of data are selectable:
  - All Faults
  - DADF Faults
  - System faults
  - Xero Faults



## dC122 Shutdown History

### Purpose

To display the Last 40 Faults (History).

#### NOTE:

1. *faults detected while in Service Mode are not counted.*
2. *An Interlock open while the machine is stopped is not counted.*
3. *If multiple faults occurred in the machine, the primary fault is recorded.*

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select the **Diagnostics Tab**.
3. Select the **Shutdown Hist (dC122)** tab.
4. The system displays the faults that occurred in Customer Mode since the last service call closeout, up to a maximum of 40 faults.
5. The information in the lower right corner of the screen (Input, Original, Paper, Tray, Output) reflects the fault highlighted in the Table.
6. The following subsets of data are available:
  - **Last 40 Faults History** (default screen).
    - displays the 40 newest faults and lists copy count when each occurred.
  - **Last 40 Faults Occurrences**
    - displays the 40 newest faults and lists the number of occurrences.
  - **DADF Jams**
    - displays the 40 newest DADF jams and lists copy count when each occurred.
  - **Paper Jams**
    - displays the 40 newest paper jams and lists copy count when each occurred.
  - **Faults**
    - displays the 40 newest non-jam faults and lists copy count when each occurred.
7. To clear the shutdown history, select **Complete Closeout** in the Service Mode Exit screen (dC188). Exiting from the Service Mode clears all data in the Shut-Down History.

## dC129 System Registration Setup

### Purpose

Performs the Lead Registration and Side Registration adjustments by looking at the output of the built-in Test Pattern.

**NOTE:** For details on the dC129 System Registration adjustment, see [ADJ 9.9 IOT Registration Series \(dC129\)](#).



## dC131 NVM Read/Write

### Purpose

Reads, sets or changes the NVM data.

### Procedure

#### Module Selection

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select **Adjustments** in the Service Entry Screen.
3. The system displays one of the Read/Write Screens. dC131 NVM Read/Write is the default screen.
4. Select a **Sub-System** from the Vertical Left Tab List. The default tab is **All**.

Table 1 Module Selection

Module item	Chain number allocation
All	700 - 999
UI/Tools	700, 720
IISS	715
Config/System	719, 740
Xfer	746
RegiCon	760
PHM	742
DADF	710
Xero	751
Drives / Output	741, 764
ProCon	752
Developer	762
Fuser	744
Other	755, 769
Errors (number of errors)	Displays and NVM outside of the ranges listed in the PWS database.
Changed (number pending change)	Displays any with new value entered in the New column, but not written yet.

#### Reading NVM

1. Select an **ID** from the Sub-System Table, then click **Read NVM**, or double click on the line **ID** and the value will be read in the **Value** column.  
The **Range Check** column will fill in.

#### Writing NVM

1. To change a value, enter a new value in the **New** column and press **Enter**.
2. When a new value is entered, the **Changed** tab will turn green. The number in parentheses count the number of pending NVM values. Clicking this tab will show a list of all the changed values. These locations can be written individually or as a block from this tab, or can be canceled.
3. Select **Write NVM**.

- a. If the input value is valid (within the range), the system writes the new NVM value in the NVM location in the machine.
  - b. If the input value is invalid, the system displays the following message in the information screen, The **given NVM value is out of range. NVM was not changed**.
  - c. If the NVM cannot be changed (Write protected NVM), the system displays the following message, **The specified NVM is read only**.
4. When the system writes the new value in the specified NVM code, the value is updated in the **New** box and reduces the count in the Changed Tab.



## 700-xxx ESS Configuration NVM List

Table 1 Chain 700

Chain-Link	Name	Default	Range	Description
700-006	Configuration	-	0~8	[P, SP, CSP, CFSP] Set up at factory production. It allocates bits in the following P(rinter), F(ax), C(opy), S(can). P=1, F=2, C=4, S=8.
700-061	Fax Card Available		0~ -2	0= Normal, -1= Error, -2= Not installed
700-064	Fax Card Available for Ch0	-	0~1	0=No,1=Yes
700-073	Page Memory Size	-	64*1024*102 4~256*1024* 1024	bytes (Auto Setting)
700-075	ART User Buffer Size	32KB	32*1024~204 8*1024	32KB~2048KB (32KB interval)
700-076	PostScript Buffer Size	33554432	8*1024*1024 ~32*1024*10 24	Color machine=[8 MB~32 MB] B/W machine=[4.5 MB~32 MB] (0.25 MB interval)
700-078	Form Buffer Size	128 KB	128*1024~20 48*1024	128 KB~2048 KB
700-080	HPGL/Auto Layout Buffer Size	64 KB	64*1024~512 0*1024	64 KB~5120 KB (32 KB interval)
700-081	Parallel Buffer Size	64KB	-	64 KB~1 MB (32 KB interval)
700-082	Port 9100 Buffer Size	1048576	64*1024~1*1 024*1024	64 KB~1 MB (32 KB interval)
700-083	Lpd Buffer Size	256KB	64*1024~1*1 024*1024	64 KB~1 MB (32 KB interval)
700-084	NetWare Buffer Size	1048576	64*1024~1*1 024*1024	64 KB~1 MB (32 KB interval)
700-085	AppleTalk Buffer Size	1048576	-	64 KB~1 MB (32 KB interval)
700-086	SMB Buffer Size	256KB	64*1024~1*1 024*1024	64 KB~1 MB (32 KB interval)
700-087	IPP Buffer Size	256KB	64*1024~1*1 024*1024	64 KB~1 MB (32 KB interval)
700-088	Salutation Buffer Size	256KB	-	64 KB~1 MB (32 KB interval)
700-089	HDD Status	-	-2~0	0=OK; -1=HDD Error; -2=No HDD (Auto Detect)
700-120	Time Zone	XC=42496699; XE=0	-	Displays the Time difference from GMT
700-122	Date Format	XC=2; XE=3	1~3	1=year/month/day; 2=month/day/year; 3=day/month/year
700-123	Clock Format	1	0~2	1=12 hour; 2=24 hour
700-124	Auto Clear Timer	1	0~240	MF=0; 1~4=[Disable (0); 1~4min] (in increments of 1 min.) P=0; 1~30=[Disable (0); 1~30min] (in increments of 1 min.)
700-125	Job Cancel Timer	10	0~5940	0=Disable; 240~5940=4~99min (in increments of 1 sec.)
700-126	Operating Timer	10	0~240	0=Disable;1~240 sec. (in increments of 1 sec.)
700-127	Job End Timer	6	0~240	0=Disable; 1~240 sec. (in increments of 1 sec.)
700-128	Scanning Timer	4	1~20	1~20 sec. (1 sec. unit)
700-129	LowPower Mode Timer	15	6~240	6~240min (in increments of 1 min.)

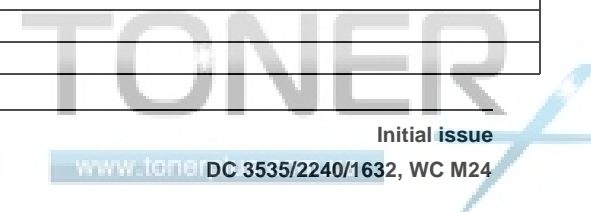




Table 1 Chain 700

Chain-Link	Name	Default	Range	Description
700-130	Sleep Mode Timer	60	15~240	15~240min (in increments of 1 min.)
700-131	Sleep Mode Available	1	0~1	0=Disable; 1=Enable
700-132	Operation Panel OK Beep	2	0~3	0=Off; 1=Low volume; 2=Medium volume; 3=High volume
700-133	Operation Panel NG Beep	2	0~3	0=Off; 1=Low volume; 2=Medium volume; 3=High volume
700-134	Job Complete Beep with Copy	2	0~3	0=Off; 1=Low volume; 2=Medium volume; 3=High volume
700-135	Job Complete Beep without Copy	2	0~3	0=Off; 1=Low volume; 2=Medium volume; 3=High volume
700-136	Abnormal Warning Beep	2	0~3	0=Off; 1=Low volume; 2=Medium volume; 3=High volume
700-137	Job Incomplete Beep	2	0~3	0=Off; 1=Low volume; 2=Medium volume; 3=High volume
700-138	Ready Beep	2	0~3	0=Off; 1=Low volume; 2=Medium volume; 3=High volume
700-139	Toner Empty Warning Beep	2	0~3	0=Off; 1=Low volume; 2=Medium volume; 3=High volume
700-140	Bell Tone	2	0~3	0=Off; 1=Low volume; 2=Medium volume; 3=High volume
700-141	Line Monitor Tone	2	0~3	1=Low volume; 2=Medium volume; 3=High volume
700-144	Auto Log Print Flag	0	0~1	0=Off; 1=On
700-145	Report Duplex Print	0	0~1	0=Off; 1=On
700-146	Mail Box Receive Report	On	0~1	0=Off; 1=On
700-147	Protocol Monitor Output Control	0	0~2	0=When instructed; 1=When error occurs; 2=When normal
700-148	Broadcast / Multi-Poll Report Output Control	1	0~1	0= Do not output, 1= Output
700-149	Relay Broadcast Report Output Setting	1	0~3	0 = No; 1= Send to Send-station; 2= Print to Self-station; 3= Send to Sent-station & Print to Self-station
700-150	FAX Communication Report Output Control	1	0~1	0= Do not output; 1= Output
700-151	Transmission Report on Error Output Control	1	0~2	0=Off; 1=On; 2=Output at normal
700-152	User Abort Transmission Report Output Control	0	0~1	0=Do not output; 1=Output
700-153	Telephone number registration	48	18~48	48=Priority 0 (low); 38=Priority 1; 28=Priority 2; 18=Priority 3 (high); Default=Priority 0 (48)
700-164	Language	2	1~13	1=Japanese; 2=English; 3=French; 4=German; 5=Italian; 6=Spanish; 7=Portuguese; 8=Russian; 9=Chinese; 10=Korean; 11=Thai; 12=Vietnamese; 13=Taiwanese
700-165	Country Code	XC=840 XE=826	-	0=Undefined; 840=USA; 124=Canada; 076=Brazil; 3=Latin America; 826=UK; 276=Germany; 380=Italy; 250=France; 724=Spain; 528=Holland; 756=Swiss; 752=Sweden; 056=Belgium; 040=Austria; 620=Portugal; 246=Finland; 208=Denmark
700-166	Territory	-		1=FX; 2=XC; 3=XE; 4=AP (read-only - see 700-338)
700-167	Fax Print Priority	48	18~48	48=Priority 0 (low); 38=Priority 1; 28=Priority 2; 18=Priority 3 (high); Default=Priority 0 (48)
700-168	I-Fax Print Priority	48	18~48	48=Priority 0 (low); 38=Priority 1; 28=Priority 2; 18=Priority 3 (high); Default=Priority 0 (48)
700-169	Print Priority	48	18~48	48=Priority 0 (low); 38=Priority 1; 28=Priority 2; 18=Priority 3 (high); Default=Priority 0 (48)
700-170	Copy Priority	38	18~48	48=Priority 0 (low); 38=Priority 1; 28=Priority 2; 18=Priority 3 (high); Default=Priority 0 (38)
700-171	Key Op Tools Entry Password	1111	0000~999999	ASCII '0'~'9'. 4 ~12 digits.
700-173	Off Hook Alarm	2	0~3	0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume
700-174	Transaction Report Log	0	0~1	0 = Receiver Name>Receive Station Name>Telephone No.>Receive station ID>CCITT XX (Domestic, M/N common); 1 = Receive station ID given highest priority
700-175	Transaction Report Display point	0	0~1	0= Displays lead edge in 40 digits; 1= Displays rear edge in 40 digits



Table 1 Chain 700

Chain-Link	Name	Default	Range	Description
700-176	Fax Report Language #1	2	1~13	1 = Japanese, 2 = English, 3 = French, 4 = German, 5 = Italian, 6 = Spanish, 7 = Portuguese, 8 = Russian, 9 = Chinese, 10 = Korean, 11 = Thai, 12 = Vietnamese, 13 Chinese (Taiwan)
700-177	Fax Report Language #2	2	1~13	1 = Japanese, 2 = English, 3 = French, 4 = German, 5 = Italian, 6 = Spanish, 7 = Portuguese, 8 = Russian, 9 = Chinese, 10 = Korean, 11 = Thai, 12 = Vietnamese, 13 Chinese (Taiwan)
700-178	Fax Report Language #3	2	1~13	1 = Japanese, 2 = English, 3 = French, 4 = German, 5 = Italian, 6 = Spanish, 7 = Portuguese, 8 = Russian, 9 = Chinese, 10 = Korean, 11 = Thai, 12 = Vietnamese, 13 Chinese (Taiwan)
700-179	Fax Report Language #4	2	1~13	1 = Japanese, 2 = English, 3 = French, 4 = German, 5 = Italian, 6 = Spanish, 7 = Portuguese, 8 = Russian, 9 = Chinese, 10 = Korean, 11 = Thai, 12 = Vietnamese, 13 Chinese (Taiwan)
700-180	Fax Report Language #5	2	1~13	1 = Japanese, 2 = English, 3 = French, 4 = German, 5 = Italian, 6 = Spanish, 7 = Portuguese, 8 = Russian, 9 = Chinese, 10 = Korean, 11 = Thai, 12 = Vietnamese, 13 Chinese (Taiwan)
700-181	Fax Report Language Switch	0	0~4	0 = Use language #1, 1 = Use language #2, 2 = Use language #3, 3 = Use language #4, 4 = Use language #5
700-197	Max. Job Numbers	600	90~3000	90 (min.)~3000 (max.) in increments of 1.
700-198	Job skip	1	0~1	1=permitted; 0=prohibited
700-301	SEEPROM Serial# (1st digit)	-	-	Alphanumerics (ASCII)
700-302	SEEPROM Serial# (2nd digit)	-	-	Alphanumerics (ASCII)
700-303	SEEPROM Serial# (3rd digit)	-	-	Alphanumerics (ASCII)
700-304	SEEPROM Serial# (4th digit)	-	-	Alphanumerics (ASCII)
700-305	SEEPROM Serial# (5th digit)	-	-	Alphanumerics (ASCII)
700-306	SEEPROM Serial# (6th digit)	-	-	Alphanumerics (ASCII)
700-307	SEEPROM Serial# (7th digit)	-	-	Alphanumerics (ASCII)
700-308	SEEPROM Serial# (8th digit)	-	-	Alphanumerics (ASCII)
700-309	SEEPROM Serial# (9th digit)	-	-	Alphanumerics (ASCII)
700-310	SEEPROM Serial# (10th digit)	-	-	Alphanumerics (ASCII)
700-311	Battery Backup SRAM Serial # (1st digit)	-	-	Alphanumerics (ASCII)
700-312	Battery Backup SRAM Serial # (2nd digit)	-	-	Alphanumerics (ASCII)
700-313	Battery Backup SRAM Serial # (3rd digit)	-	-	Alphanumerics (ASCII)
700-314	Battery Backup SRAM Serial # (4th digit)	-	-	Alphanumerics (ASCII)
700-315	Battery Backup SRAM Serial # (5th digit)	-	-	Alphanumerics (ASCII)
700-316	Battery Backup SRAM Serial # (6th digit)	-	-	Alphanumerics (ASCII)
700-317	Battery Backup SRAM Serial # (7th digit)	-	-	Alphanumerics (ASCII)
700-318	Battery Backup SRAM Serial # (8th digit)	-	-	Alphanumerics (ASCII)
700-319	Battery Backup SRAM Serial # (9th digit)	-	-	Alphanumerics (ASCII)
700-320	Battery Backup SRAM Serial # (10th digit)	-	-	Alphanumerics (ASCII)





Table 1 Chain 700

Chain-Link	Name	Default	Range	Description
700-321	SEEPROM Product # (1st digit)	-	-	Alphanumeric (ASCII)
700-322	SEEPROM Product # (2nd digit)	-	-	Alphanumeric (ASCII)
700-323	SEEPROM Product # (3rd digit)	-	-	Alphanumeric (ASCII)
700-324	SEEPROM Product # (4th digit)	-	-	Alphanumeric (ASCII)
700-325	Battery Backup SRAM Product # (1st digit)	-	-	Alphanumeric (ASCII)
700-326	Battery Backup SRAM Product # (2nd digit)	-	-	Alphanumeric (ASCII)
700-327	Battery Backup SRAM Product # (3rd digit)	-	-	Alphanumeric (ASCII)
700-328	Battery Backup SRAM Product # (4th digit)	-	-	Alphanumeric (ASCII)
700-329	SEEPROM Product Code (1st digit)	76	-	Alphanumerics (ASCII)
700-330	SEEPROM Product Code (2nd digit)	86	-	Alphanumerics (ASCII)
700-331	SEEPROM Product Code (3rd digit)	XC=69 XE=70	-	Alphanumerics (ASCII)
700-331 DC3535	SEEPROM Product Code (3rd digit)	XC=71 XE=72	-	Alphanumerics (ASCII)
700-332	SEEPROM Product Code (4th digit)	32	-	Alphanumerics (ASCII)
700-333	SEEPROM Product Code (5th digit)	32	-	Alphanumerics (ASCII)
700-334	SEEPROM Product Code (6th digit)	32	-	Alphanumerics (ASCII)
700-335	SEEPROM Product Code (7th digit)	32	-	Alphanumerics (ASCII)
700-336	SEEPROM Product Code (8th digit)	32	-	Alphanumerics (ASCII)
700-337	Device Configuration	15	-	Set at factory. It allocates bits in the following sequence into P(rinter), F(ax), C(opy), S(can) respectively: P=0x01, F=0x02, C=0x04, S=0x08
700-338	Market Region (SEEPROM)	XC=2 XE=3	1~4	1=FX; 2=XC; 3=XE; 4=AP
700-339	IOT ROM Major version	-	-	(Auto Setting)
700-340	IOT ROM Minor version	-	-	(Auto Setting)
700-341	IOT ROM Revision version	-	-	(Auto Setting)
700-342	Sys Main ROM Major	-	-	(Auto Setting)
700-343	Sys Main ROM Minor	-	-	(Auto Setting)
700-344	Sys Main ROM Revision	-	-	(Auto Setting)
700-348	IIT ROM Major	-	-	(Auto Setting)
700-349	IIT ROM Minor	-	-	(Auto Setting)
700-350	IIT ROM Revision	-	-	(Auto Setting)
700-351	DADF ROM Major	-	-	(Auto Setting)
700-352	DADF ROM Minor	-	-	(Auto Setting)
700-353	DADF ROM Revision	-	-	(Auto Setting)
700-354	UI Frame ROM Major	-	-	(Auto Setting)
700-355	UI Frame ROM Minor	-	-	(Auto Setting)
700-356	UI Frame ROM Revision	-	-	(Auto Setting)



Table 1 Chain 700

Chain-Link	Name	Default	Range	Description
700-357	UI control ROM Major	-	-	(Auto Setting)
700-358	UI control ROM Minor	-	-	(Auto Setting)
700-359	UI control ROM Revision	-	-	(Auto Setting)
700-360	Product Code (1st digit)	-	-	Alphanumerics (ASCII)
700-361	Product Code (2nd digit)	-	-	Alphanumerics (ASCII)
700-362	Product Code (3rd digit)	-	-	Alphanumerics (ASCII)
700-363	Product Code (4th digit)	-	-	Alphanumerics (ASCII)
700-364	Product Code (5th digit)	-	-	Alphanumerics (ASCII)
700-365	Product Code (6th digit)	-	-	Alphanumerics (ASCII)
700-366	Product Code (7th digit)	-	-	Alphanumerics (ASCII)
700-367	Product Code (8th digit)	-	-	Alphanumerics (ASCII)
700-368	Lpd Buffer Size (Memory Spool)	1MB 1*1024*1024	512*1024~32 *1024*1024	Memory Spool=[512 KB~32 MB] (256 KB interval)
700-370	Fax CH0 ROM Major version	-	-	Read Only (Auto Setting)
700-371	Fax CH0 ROM Minor version	-	-	Read Only (Auto Setting)
700-372	Fax CH0 ROM Revision version	-	-	Read Only (Auto Setting)
700-373	Fax CH1 ROM Major version	-	-	Read Only (Auto Setting)
700-374	Fax CH1 ROM Minor version	-	-	Read Only (Auto Setting)
700-375	Fax CH1 ROM Revision version	-	-	Read Only (Auto Setting)
700-376	Fax CH2 ROM Major version	-	-	Read Only (Auto Setting)
700-377	Fax CH2 ROM Minor version	-	-	Read Only (Auto Setting)
700-378	Fax CH2 ROM Revision version	-	-	Read Only (Auto Setting)
700-379	Fax CH3 ROM Major version	-	-	Read Only (Auto Setting)
700-380	Fax CH3 ROM Minor version	-	-	Read Only (Auto Setting)
700-381	Fax CH3 ROM Revision version	-	-	Read Only (Auto Setting)
700-382	Fax CH4 ROM Major version	-	-	Read Only (Auto Setting)
700-383	Fax CH4 ROM Minor version	-	-	Read Only (Auto Setting)
700-384	Fax CH4 ROM Revision version	-	-	Read Only (Auto Setting)
700-385	Fax CH5 ROM Major version	-	-	Read Only (Auto Setting)
700-386	Fax CH5 ROM Minor version	-	-	Read Only (Auto Setting)
700-387	Fax CH5 ROM Revision version	-	-	Read Only (Auto Setting)
700-389	PCL memory	0	0~199999999	receive buffer
700-390	Email print	0	0~199999999	print buffer size
700-396	Auditron Color Mode	0	0~2	0=All; 1=Color; 2=Full Color Only
700-397	Report paper size	5		44=8.5 x 11; 5=A4
700-398	CE Auditron Mode	0	0~1	0=don't display; 1=display



## 701--xxx Image Quality Setting NVM List

Table 1 Chain 701

Chain-Link	Name	Default	Range	Description
701-912	ADC Gradation Compensation Validity for A, B	1	0~1	0 = Invalid; 1 = Valid
701-924	Auto Gradation Compensation Validity for A, B	1	0~1	0 = Invalid; 1 = Valid
701-929	Auto Gradation Compensation Validity for E, F	1	0~1	0 = Invalid; 1 = Valid

## 710-xxx DADF NVM List

Table 1 Chain 710

Chain-Link	Name	Default	Range	Description
710-001	ADF Fail Bypass	0	0~1	0=Bypass On 1=Bypass Off
710-002	JAM Bypass	0	0~1	0=Bypass On 1=Bypass Off
710-005	Regi Sensor Off to Belt Motor Slow-down Step (Non CVT Mode)	250	217~283	No. of Steps after the Regi Sensor turned Off and until the Belt Motor started to reduce speed in the Non CVT Mode. Lead Regi Adjustment Value=5 +/-5mm
710-006	DupMode RegiSensor On to Belt Mot. Slowdown Step (Non CVT Mode)	44	19~69	No. of Steps after the Regi Sensor turned On and until the Belt Motor started to reduce speed in the Non CVT Mode (Reverse & Reverse Output Loop) Regi Roll Loop Adjustment Value at Reverse & Reverse Output=4 +/-5mm
710-012	8.5x11LEF Threshold	2093	1993~2193	Threshold to separated the size detection of 8.5x11LEF and 8x10LEF.
710-013	B5SEF/8x10SEF Switching	0	0~1	0=B5SEF(FX/XE/AP); 1=8x10SEF(XC)
710-014	11x15SEF/8K Switching (for AP market)	0	0~1	11x15SEF; 1=8K
710-018	FS MAX value	2970	1297~3070	For customized registration of DADF Document Size Detection Decurler
710-019	FS MIN value	2970	1297~3070	For customized registration of DADF Document Size Detection Decurler
710-020	SS MAX value	2100	1297~4418	For customized registration of DADF Document Size Detection Decurler
710-021	SS MIN value	2100	1297~4418	For customized registration of DADF Document Size Detection Decurler
710-022	Document Size	8	3~20	For customized registration of DADF Document Size Detection Decurler
710-023	Document Process Direction	0	0~1	For customized registration of DADF Document Size Detection Decurler
710-024	DADF Doc Size Detection Table	0	0~1	For customized registration of DADF Document Size Detection Decurler
710-025	S Size Side2 Lead Regi Adjust	250	217~283	Side 2 Lead Regi Correction Value of S Size document. Unit=Step (S Size=131.7mm~158.0mm in Slow Scan Direction)
710-026	M Size Side2 Lead Regi Adjust	250	217~283	Side 2 Lead Regi Correction Value of M Size document. Unit=Step (M Size=158.1mm~245.9mm in Slow Scan Direction)
710-027	L Size Side2 Lead Regi Adjust	250	217~283	Side 2 Lead Regi Correction Value of L Size document. Unit=Step (L Size=246.0mm~460.0mm in Slow Scan Direction)
710-800	ADF Static Jam Count Total (No Sensor Sensed Jam)	0	0~65535	cumulative Jam Counter (Write not permitted)
710-801	ADF Static Jam Count Since Reset (No Sensor)	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-802	ADF Document Input Sensor Static Jam Count Total	0	0~65535	cumulative Jam Counter (Write not permitted)



Table 1 Chain 710

Chain-Link	Name	Default	Range	Description
710-803	ADF Document Input Sensor Static Jam Count Since Reset	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-804	ADF Registration Sensor Static Jam Count Total	0	0~65535	cumulative Jam Counter (Write not permitted)
710-805	ADF Regi Sensor Static Jam Count Since Reset	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-806	ADF Exit Sensor Static Jam Count Total	0	0~65535	cumulative Jam Counter (Write not permitted)
710-807	ADF Exit Sensor Static Jam Count Since Reset	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-808	ADF Duplex Sensor Static Jam Count Total	0	0~65535	cumulative Jam Counter (Write not permitted)
710-809	ADF Duplex Sensor Static Jam Count Since Reset	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-810	ADF Regi sensor On NonInvert DynamicJam Count Total	0	0~65535	cumulative Jam Counter (Write not permitted)
710-811	ADF Regi sensor On Dynamic Jam Count Since Reset	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-812	ADF Regisensor Off NonInvert DynamicJam Count Total	0	0~65535	cumulative Jam Counter (Write not permitted)
710-813	ADF Regi sensor Off Dynamic Jam Count Since Reset	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-814	ADF Regi sensor On Dynamic Jam Count Total (invert)	0	0~65535	cumulative Jam Counter (Write not permitted)
710-815	ADF RegisensorOn DynamicJam-Count Since Reset (invert)	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-816	ADF Regi sensor Off Dynamic Jam Count Total (invert)	0	0~65535	cumulative Jam Counter (Write not permitted)
710-817	ADF RegisensorOffDynamicJamCount Since Reset (invert)	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-818	ADF Exit Sensor On Dynamic Jam Count Total	0	0~65535	cumulative Jam Counter (Write not permitted)
710-819	ADF Exit Sensor On Dynamic Jam Count Since Reset	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-820	ADF Exit Sensor Off Dynamic Jam Count Total	0	0~65535	cumulative Jam Counter (Write not permitted)
710-821	ADF Exit Sensor Off DynamicJam Count Since Reset	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-822	Size Mismatch Jam Count Total	0	0~65535	cumulative Jam Counter (Write not permitted)
710-823	Size Mismatch Jam Count Since Reset	0	0~65535	cumulative Jam Counter at the previous clearing (Write not permitted)
710-900	Feed Life Count (upper digits)	36	0~65535	Feed Count Replacement Life (Upper digits) (Write not permitted)
710-901	Feed Life Count (lower digits)	40704	0~65535	Feed Count Replacement Life (Lower digits) (Write not permitted)



## 715-xxx IIT NVM List

Table 1 Chain 715

Chain-Link	Name	Default	Range	Description
715-001	PreIPS Fail Bypass	0	0~1	0=Fail Bypass is not available; 1=Fail Bypass is available
715-004	ACS Detection Level	2	0~4	Level 0 (judged from Black and White)~Level 4 (judged from Color)
715-014	PRadjF	120	0~240	Fast Scan Direction Regi Correction Value (Dot) Adjustment at factory. VLSS=PROMVLSS+PRadjF -120 - Shift Amount
715-015	DADF FS Offset	71	0~150	Fast Scan Offset Value (Dot) when DADF is used. VLSS=PROMVLSS+PRadjF -120 +DADF Offset- Shift Amount; Adjustment at factory. (DUP Side can be used too)
715-016	Side Registration Shift (-)	0	0~256	For VLSS=PROMVLSS+PRadjF - 120 - Shift Amount and (Dot) Regi adjustments.
715-017	COSAC FS1x5 Filter	0	0~1	0=Off; 1=On (Moire reduction)
715-018	COSAC Special Feature	0	0~2047	bit 0 -> 0=Normal; 1=LSWIDE LineSync Active large width bit 1 -> 0=Normal; 1=AGOC Cancel Manual Setup from NVM-AGCP, AOCp. bit 2 -> 0=Normal; 1=Forward revolution output (OnPF=0)
715-051	AOCerr	0	0~255	No. of times the AOC flow has ended in an abnormal way.
715-080	Pshad (1)	148	115~255	Red W-Ref Correction Coefficient Adjustment at factory.
715-081	Pshad (2)	158	115~255	Green W-Ref Correction Coefficient Adjustment at factory.
715-082	Pshad (3)	165	115~255	Blue W-Ref Correction Coefficient Adjustment at factory.
715-083	Pshad (4)	65	0~127	Red W-Ref Correction Coefficient P Paper Adjustment at factory.
715-084	Pshad (5)	72	0~127	Green W-Ref Correction Coefficient P Paper Adjustment at factory.
715-085	Pshad (6)	69	0~127	Blue W-Ref Correction Coefficient P Paper Adjustment at factory.
715-113	A6/Postcard Detection	0	0~1	0=A6 Document, 1=Postcard Document (XC 0=Postcard, 1=A6)
715-114	A4S/8.5in Detection 1	0	0~1	0=A4 Fixed (Other than XC), Letter Fixed (XC), 1=Can be changed by Area Switching 2
715-115	A4S/8.5in Detection 2	3	0~6	0=210mm(A4S)~6=216mm(8.5)
715-116	Original detection table for special paper	0	0~2	0=Do not use special table; 1=A Series (A4L when APS is Off, and A3S when APS is On); 2=Inch Series (Letter LEF when APS is Off, and 11x17 when APS is On)
715-128	DADF FS Offset (side 2)	71	0~150	Fast Scan Offset value (Dot) on IPS at DADF DUP Side 2. VLSS=PROMVLSS+PRadjF - 50 +DADF Offset Side 2 Adjustment at factory.
715-138	Document Size Detection	0	0~1	0=Detection by 4 Registers; 1=Detection by 3 Registers (Contamination Countermeasure)
715-139	B5/8x10 Detection	0	0~1	B5/8x10 Switching (Default 0=B5 Detection; 1=8x10 Detection)
715-140	8K Detection	0	0~1	8K detection specification (Default 0=Do not detect; 1=Detect)
715-141	8.5x13/8.5x14 Detection	0	0~1	8.5x13/8.5x14 Detection Switching Specification in AP/XE markets.
715-142	NutAngleF	990	0~1980	Front NUT Revolution Angle (990~1980=Right revolution angle; 0~990=Left revolution angle)
715-143	NutAngleR	990	0~1980	Rear NUT Revolution Angle (990~1980=Right revolution angle; 0~990=Left revolution angle)
715-144	IIT Paper Code	XC=2; XE=4	0~5	0=P paper; 1=J paper; 2=Digital Color Xpression; 3=Xerox 4200; 4=ColorTech+; 5=Xerox Business
715-200	External Area of FS Sampling	255	0~511	Speed Priority AE/Fast Scan direction undetected area
715-204	Maximum Sampling Value of Back-ground color	90	0~255	Speed Priority AE/Sampling Upper Limit/BMAX
715-205	Initial Background color Value	0	0~255	Speed Priority AE/Background level initial value/INIT
715-208	Line to Fix Variation	48	0~255	Speed Priority AE/Slow Scan variation fixed position/NCON
715-212	Background Color Suppression mode for BW	2	0~2	Speed Priority AE/Suppression Mode Setup in B/W 0=Register; 1=Fixed; 2=Vary
715-213	Background Color Suppression mode for Color	0	0~2	Speed Priority AE/Suppression Mode Setup in Color 0=Register; 1=Fixed; 2=Vary



Table 1 Chain 715

Chain-Link	Name	Default	Range	Description
715-214	Undercolor Data for B/W	0	0~255	Speed Priority AE/Fixed background color data in B/W Register Mode
715-215	Undercolor Data for Color	0	0~255	Speed Priority AE/Fixed background color data in Color Register Mode
715-216	Undercolor removal level for color copy	0	0~4	0=std. background suppression; 1=level 1; 2=level 2; 3=level 3; 4=level 4
715-217	Undercolor removal level for color scan	0	0~4	0=std. background suppression; 1=level 1; 2=level 2; 3=level 3; 4=level 4
715-218	Gamma Data for BW	1	0~2	AE GAMMA Data in B/W mode 0=GMD 2; 1=GMD 3; 2=GMD 5
715-219	Gamma Data for Color	1	0~2	AE GAMMA Data in Color mode 0=GMD 2; 1=GMD 3; 2=GMD 5
715-220	Color Balance Default=Y/Low density	4	0~8	Default Color Balance Adjustment Level Y Color Low density
715-221	Color Balance Default=Y/Medium density	4	0~8	Default Color Balance Adjustment Level Y Color Medium density
715-222	Color Balance Default=Y/High density	4	0~8	Default Color Balance Adjustment Level Y Color High density
715-223	Color Balance Default=M/Low density	4	0~8	Default Color Balance Adjustment Level M Color Low density
715-224	Color Balance Default=M/Medium density	4	0~8	Default Color Balance Adjustment Level M Color Medium density
715-225	Color Balance Default=M/High density	4	0~8	Default Color Balance Adjustment Level M Color High density
715-226	Color Balance Default=C/Low density	4	0~8	Default Color Balance Adjustment Level C Color Low density
715-227	Color Balance Default=C/Medium density	4	0~8	Default Color Balance Adjustment Level C Color Medium density
715-228	Color Balance Default=C/High density	4	0~8	Default Color Balance Adjustment Level C Color High density
715-229	Color Balance Default=K/Low density	4	0~8	Default Color Balance Adjustment Level K Color Low density
715-230	Color Balance Default=K/Medium density	4	0~8	Default Color Balance Adjustment Level K Color Medium density
715-231	Color Balance Default=K/high density	4	0~8	Default Color Balance Adjustment Level K Color High density
715-232	Photo reproduction level	1	0~2	0=Above Text; 1=Normal; 2=Above Photo
715-233	Text/Photo separation level	2	0~4	0=Above Text; 1=Slightly above text; 2=Normal; 3=Slightly above photo; 4=Above Photo
715-234	FS Magnification Adjustment	50	0~100	Magnification fine adjustment in Fast Scan direction. Specified in units between range of 0~100. The value indicates the magnification adjustment with 0=-5%; 50=0% and 100=5% at $\pm 5\%$ (0.1% unit) (Adjustment at factory.)
715-237	Normal Density Text (BW Copy)	128	0~256	B/W COPY Text Normal Density Adjustment
715-238	High Density Text (BW Copy)	128	0~256	B/W COPY Text Darker 3 Density Adjustment
715-239	Normal Density Text (Scan)	128	0~256	Scan Text Normal Density Adjustment
715-240	High Density Text (Scan)	128	0~256	Scan Text Darker 3 Density Adjustment
715-241	SS Not Detect Area for Platen model (Real Time AE)	38	0~65535	Slow Scan Non-detection area Setup value at Real Time AE for platen model.
715-242	SS Not Detect Area for DADF model DADF mode (Real Time AE)	38	0~65535	Slow Scan Non-detection area Setup value at Real Time AE for DADF model platen job.
715-243	SS Not Detect Area for DADF model Platen mode (Real Time AE)	38	0~65535	Slow Scan Non-detection area Setup value at Real Time AE for DADF model DADF job.
715-244	B/W-Offset for Text/Image Platen mode (Real Time AE)	10	0~255	For AE offset data Platen text/photo in B/W model
715-245	B/W-Offset for Text Platen mode (Real Time AE)	10	0~255	For AE offset data Platen text in B/W model
715-246	B/W-Offset for Map Platen mode (Real Time AE)	10	0~255	For AE offset data Platen map in B/W model

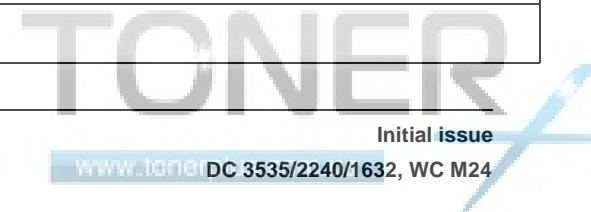




Table 1 Chain 715

Chain-Link	Name	Default	Range	Description
715-247	B/W-Offset for Text/Image DADF Single Side mode (Real Time AE)	13	0~255	For AE offset data DADF Single Side Document text/photo in B/W model
715-248	B/W-Offset for Text DADF Single Side mode(Real Time AE)	15	0~255	For AE offset data DADF Single Side Document text in B/W model
715-249	B/W-Offset for Map DADF Single Side mode Real Time AE)	13	0~255	For AE offset data DADF Single Side Document map in B/W model
715-250	B/W-Offset for Text/Image DADF Duplex Side mode (Real Time AE)	17	0~255	For AE offset data DADF Duplex Side Document text/photo in B/W model
715-251	B/W-Offset for Text DADF Duplex Side mode (Real Time AE)	17	0~255	For AE offset data DADF Duplex Side Document text in B/W model
715-252	B/W-Offset for Map DADF Duplex Side mode (Real Time AE)	17	0~255	For AE offset data DADF Duplex Side Document map in B/W model
715-253	Color-Offset for Text/Image Platen mode (Real Time AE)	15	0~255	For AE offset data Platen text/photo in Color model
715-254	Color-Offset for Text Platen mode (Real Time AE)	15	0~255	For AE offset data Platen text in Color model
715-255	Color-Offset for Text Platen mode (Real Time AE)	15	0~255	For AE offset data Platen map in Color model
715-256	Color-Offset for Text/Image DADF Single Side mode (Real Time AE)	17	0~255	For AE offset data DADF Single Side Document text/photo in Color model
715-257	Color-Offset for Text DADF Single Side mode (Real Time AE)	18	0~255	For AE offset data DADF Single Side Document text in Color model
715-258	Color-Offset for Map DADF Single Side mode (Real Time AE)	17	0~255	For AE offset data DADF Single Side Document map in Color model
715-259	Color-Offset for Text/Image DADF Duplex Side mode (Real Time AE)	17	0~255	For AE offset data DADF Duplex Side Document text/photo in Color model
715-260	Color-Offset for Text DADF Duplex Side mode (Real Time AE)	18	0~255	For AE offset data DADF Duplex Side Document text in Color model
715-261	Color-Offset for Map DADF Duplex Side mode (Real Time AE)	17	0~255	For AE offset data DADF Duplex Side Document map in Color model
715-300	IIT Fail Bypass	0	0~1	0=Fail Bypass is not available; 1=Fail Bypass is available
715-301	SS Registration Adjustment	100	16~184	Slow Scan Direction Regi Correction Value (0.036mm/step) Adjustment at factory.
715-302	SS Magnification Adjustment	50	44~56	Slow Scan direction Magnification Correction Value (0.1%/step) Adjustment at factory.
715-400	Platen/ADF	1	0~1	0=Platen model 1=ADF model.
715-401	AGOC Timing	15	0~29	Time between Power On/Energy Saver recovery and AGOC (min.) (0=Timer not available)
715-406	Fax Document Size Detection	0	0, 1	0 = metric sizes, 1 = inch sizes
715-800	IISS/ADF Communication Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-801	IISS/ADF Communication Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-802	IISS RAM CHECK Failure Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-803	IISS RAM CHECK Failure Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)



Table 1 Chain 715

Chain-Link	Name	Default	Range	Description
715-804	EEPROM Failure Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-805	EEPROM Failure Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-806	Fan Failure Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-807	Fan Failure Count Since Reset	0	0~065535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-808	Scan Carriage Position Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-809	Scan Carriage Position Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-810	Scan CRG Init Regi sensor Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-811	Scan CRG Init Regi Sensor Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-812	PreIPS (X) Recognition Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-813	PreIPS (X) Recognition Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-814	Lamp Failure Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-815	Lamp Failure Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-816	CRG Over Run Fail Count Overall Total (Scan End)	0	0~65535	cumulative Fail Counter (Write not permitted)
715-817	CRG Over Run Fail Count Since Reset (Scan End)	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-818	CRG Over Run Fail Count Overall Total (Home End)	0	0~65535	cumulative Fail Counter (Write not permitted)
715-819	CRG Over Run Fail Count Since Reset (Home End)	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-820	CRG INIT Motor Driver Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-821	CRG INIT Motor Driver Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-822	Platen AGC Channel 1 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-823	Platen AGC Channel 1 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-824	Platen AGC Channel 2 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-825	Platen AGC Channel 2 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-826	Platen AGC Channel 3 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-827	Platen AGC Channel 3 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-828	Platen AGC Channel 4 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)



Table 1 Chain 715

Chain-Link	Name	Default	Range	Description
715-829	Platen AGC Channel 4 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-830	Platen AGC Channel 5 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-831	Platen AGC Channel 5 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-832	Platen AGC Channel 6 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-833	Platen AGC Channel 6 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-834	Platen AOC Channel 1 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-835	Platen AOC Channel 1 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-836	Platen AOC Channel 2 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-837	Platen AOC Channel 2 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-838	Platen AOC Channel 3 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-839	Platen AOC Channel 3 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-840	Platen AOC Channel 4 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-841	Platen AOC Channel 4 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-842	Platen AOC Channel 5 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-843	Platen AOC Channel 5 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-844	Platen AOC Channel 6 Fail Count Overall Total	0	0~65535	cumulative Fail Counter (Write not permitted)
715-845	Platen AOC Channel 6 Fail Count Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-854	Original Size Sensor Failure Total Count	0	0~65535	cumulative Fail Counter (Write not permitted)
715-855	Original Size Sensor Failures Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-856	IIT Memory Hot Line Failure Total Count	0	0~65535	cumulative Fail Counter (Write not permitted)
715-857	IIT Memory Hot Line Failures Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-858	DADF RAM CHECK Failure Total Count	0	0~65535	cumulative Fail Counter (Write not permitted)



Table 1 Chain 715

Chain-Link	Name	Default	Range	Description
715-859	DADF RAM CHECK Failures Since Reset	0	0~65535	cumulative Fail Counter at the previous clearing (Write not permitted)
715-900	Scan Life Count (upper digits)	36	0~65535	Scan Count Replacement Life (Upper Level) (Write not permitted)
715-901	Scan Life Count (lower digits)	40704	0~65535	Scan Count Replacement Life (Lower Level) (Write not permitted)

## 719--xxx IIT/DADF Software NVM List

Table 1 Chain 719

Chain-Link	Name	Default	Range	Description
719-001	Version No. (Upper level)	0	0~65535	Indicates the IISS Version No.
719-002	Market Information	0	0~3	FX=0; AP=1; XC=2; XE=3
719-003	A4/Letter	1	0~3	Basic unit of document size. For A4=bit0=1; letter=bit=1 *Checking of range is not performed.
719-004	ADF Version No.	0	0~65535	Indicates the ADF Version No.
719-005	IISS Major Version	0	0~65535	IISS Major Version No.
719-006	IISS Minor Version	0	0~65535	IISS Minor Version No.
719-007	IISS Revision Version	0	0~65535	IISS Revision Version No.
719-008	IISS Patch Version	0	0~65535	IISS Patch Version No.
719-010	ADF Major Version	0	0~65535	ADF Major Version No.
719-011	ADF Minor Version	0	0~65535	ADF Minor Version No.
719-012	ADF Revision Version	0	0~65535	ADF Revision Version No.
719-013	ADF Patch Version	0	0~65535	ADF Patch Version No.

## 720-xxx ESS Meter/Counter NVM List

Table 1 Chain 720

Chain-Link	Name	Default	Range	Description
720-002	Billing Display	1	1~6	1=Billing1; 2=Billing2; 3=Billing3; 4=Billing4; 5=Billing5; 6=Billing6
720-003	Master Print-Full Color	-	0~1999999	read only
720-004	Master Print-Color1	-	0~1999999	read only
720-005	Master Print-Color2	-	0~1999999	read only
720-006	Master Print-B&W	-	0~1999999	read only
720-007	Master Copy-Full Color	-	0~1999999	read only
720-008	Master Copy-Color2	-	0~1999999	read only
720-009	Master Copy-B&W	-	0~1999999	read only
720-010	Master Fax-Full Color	-	0~1999999	read only
720-011	Master Fax-B&W	-	0~1999999	read only
720-012	Backup1 Print-Full Color	-	0~1999999	read only
720-013	Backup1 Print-Color1	-	0~1999999	read only
720-014	Backup1 Print-Color2	-	0~1999999	read only
720-015	Backup1 Print-B&W	-	0~1999999	read only



Table 1 Chain 720

Chain-Link	Name	Default	Range	Description
720-016	Backup1 Copy-Full Color	-	0~1999999	read only
720-017	Backup1 Copy-Color2	-	0~1999999	read only
720-018	Backup1 Copy-B&W	-	0~1999999	read only
720-019	Backup1 Fax-Full Color	-	0~1999999	read only
720-020	Backup1 Fax-B&W	-	0~1999999	read only
720-046	Master large size B&W	0	0~1999999	read only
720-047	Master large size color	0	0~1999999	read only
720-048	Backup 1 large size B&W	0	0~1999999	read only
720-043	Backup 1 large size color	0	0~1999999	read only

## 740--xxx IOT Manager NVM List

Table 1 Chain 740

Chain-Link	Name	Default	Range	Description
740-020	Market Code	XC=2; XE=3	-	XC=2; XE=3
740-024	RegiCon Request Flag	0	0~255	0=Performed; 1=Not performed
740-025	Edge Check Request Flag	0	0~255	0=Performed; 1=Not performed
740-026	ProCon Request Flag	0	0~255	0=Performed; 1=Not performed
740-027	Temperature when act RegiCon	0	0~255	20 degrees C/ bit
740-028	Date when act PowerOn-SetUp or NextDay-SetUp	0	0~255	
740-028	Date when act PowerOn-SetUp or NextDay-SetUp	0	0~255	
740-029	Power Off Delay Switch	0	0~1	0=Delay on; 1=Delay off

## 741--xxx Drive NVM List

Table 1 Chain 741

Chain-Link	Name	Default	Range	Description
741-054 <b>2240/1632 only</b>	NVM_PR_MOT_HIGH_PULSE (PR (Drum) Motor Speed Fine Adjustment (Standard))	23	0~40	Performs fine adjustment of Drum speed at standard speed. Each bit raises or lowers the drum speed by approx. 0.05% with respect to the initial value.
741-055 <b>2240/1632 only</b>	NVM_PR_MOT_LOW_PULSE (PR (Drum) Motor Speed Fine Adjustment (Heavy Weight /Transparency))	23	0~40	Fine adjusts the Drum speed at half speed. Each bit raises or lowers the drum speed by approx. 0.05% with respect to the initial value.
741-056	Belt Home Fail Too Long counter	0	0~3	It is necessary to reset the counter to reenale operation if the value reaches 3.
741-057	NoPaperRun Mode SW	0	0~2	0=Normal NoPaperRun 1=MainMotor Stop 2=Main/Dev. Motor Stop
741-068 <b>2240/1632 only</b>	NVM_PR_MOT_DOUBLE_PULSE (PR (Drum) Motor Speed Fine Adjustment (Double Speed))	22	0~40	Fine adjusts the Drum Speed at double speed. Increases the Drum Speed by +1 (approx. 0.05%) with respect to the initial value. Decreases the Drum Speed by -1 (approx. 0.05%).
741-111	Belt Length Variable	10	0~24	Correction of belt peripheral length for lead registration (0.2544 mm/bit)



Table 1 Chain 741

Chain-Link	Name	Default	Range	Description
741-112 <b>3535 only</b>	IBT Motor Reverse Switch	1	0~1	Switch to reverse IBT Motor rotation at job end 0=Disable; 1=Enable
741-113 <b>3535 only</b>	PR Motor Reverse Switch	0	0~1	Switch to reverse PR Motor rotation at job end 0=Disable; 1=Enable
741-114 <b>3535 only</b>	Reverse time	13	12~25	Time from the reverse rotation-start signal until the reverse rotation-disabling signal (10 msec/bit) IBT: Time of step-up + constant speed PR: Time from On to Off of Reverse rotation port (Excluding time of step-down and stop)
741-115 <b>3535 only</b>	Threshold for PV Counter	200	1~65535	Reverse rotation interval by PV
741-113 <b>3535 only</b>	PV Counter for Drive	0	0~65535	Total PV from the previous reverse rotation



## 742--xxx Paper Handling NVM List

Table 1 Chain 742

Chain-Link	Name	Default	Range	Description
742-001	Invert Clutch CW Off Timing	91	0~163	Paper inversion position adjustment (P Speed) (1bit=2.4462 msec.)
742-002	Invert Clutch CW Off Timing (MF-1)	90	0~259	Paper inversion position adjustment (Double Speed) <b>DC2240/1632, WC M24:</b> (1bit=1.31136 msec.) <b>DC3535:</b> (1bit=1.5418 msec.)
742-003 <b>DC3535 only</b>	Invert Clutch CW Off Timing (104mm/sec. Heavy 1)	91	0~259	Adjustment of paper inversion position (104mm/sec.) Heavy1 Clutch off 238msec after Fuser Exit sensor off
742-006	RegiLoop Length Adjust (Tray Standard Paper)	41	0~81	Regi Loop Length Adjustment (P Speed) for Standard Paper from Tray (2.4462 msec/bit)
742-007	RegiLoop Length Adjust (Tray Standard Paper)	41	0~81	Regi Loop Length Adjustment (Double Speed) for Standard Paper from Tray <b>DC2240/1632, WC M24:</b> (1bit=1.31136 msec.) <b>DC3535:</b> (1bit=1.5418 msec.)
742-008 <b>DC3535 only</b>	RegiLoop Length Adjust (Tray Heavy 1)	41	0~81	Regi Loop Length Adjustment (P Speed) for Heavy Weight1paper from Tray (2.4462 msec/bit)
742-009	RegiLoop Length Adjust (Tray 5 Standard Paper)	41	0~81	Regi Loop Length Adjustment (P Speed) for Standard Paper from Tray 5 (1bit=2.4462 msec.)
742-010 <b>DC3535 only</b>	RegiLoop Length Adjust (Tray 5 Heavy 1)	41	0~81	Regi Loop Length Adjustment (P Speed) for Heavy Weight1paper from Tray 5 (2.4462 msec/bit)
742-011	RegiLoop Length Adjust (Tray 5 Standard Paper)	41	0~81	Regi Loop Length Adjustment (Double Speed) for Standard Paper from Tray 5 (1bit=1.322 msec.)
742-013	RegiLoop Length Adjust (Tray 5 Heavy2 Paper)	41	0~81	Regi Loop Length Adjustment (Half Speed) for Heavy Weight Paper from Tray 5. <b>DC2240/1632, WC M24:</b> (1bit=4.8924 msec.) <b>DC3535:</b> (1bit=5.025ms msec.)
742-014	RegiLoop Length Adjust (DUP) (2sheets of paper)	*	0~81	Regi Loop Length Adjustment (P Speed) from Up (Feeding length Letter-LEF and Shorter) (2.4462 msec/bit) *default=41 for <b>DC2240/1632, WC M24</b> ; 33 for DC3535
742-015	RegiLoop Length Adjust (DUP)	64	0~152	Regi Loop Length Adjustment (Double Speed) from Dup (1bit=1.31136 msec.)
742-016	T/A Clutch On Timing (From Regi Start)	20	8~32	Synchronize adjustment to be same as Regi Clutch at Regi Start (-30~30 msec.) Default=0ms (2.4462 msec/bit)
742-017	Dup On Timing (From Regi Start)	20	0~40	Synchronize adjustment to be same as Regi Clutch at Regi Start (P Speed). (1bit=2.4462 msec.)
742-018	Full Stack Paper Sensing Condition	*	1~12	Full Stack Detection Condition (1bit=5sec). *Default=4 for <b>DC2240/1632, WC M24</b> ; 7 for DC3535
742-019	Full Stack Paper Cancel Condition	1	1~30	Full Stack Cancel Condition (1bit=1 sec.)
742-020	Feed Start Timing (Tray 5)	41	0~82	Feed Start Timing Adjustment from Pitch (P Speed) (850~1050 msec.). Default=950ms (1bit=2.4462 msec.)
742-021	Feed Start Timing (Tray 5)	150	0~300	Feed Start Timing Adjustment from Pitch (Double Speed) (100~500 msec.) <b>DC2240/1632, WC M24:</b> (1bit=1.31136 msec.) <b>DC3535:</b> (1bit=1.5418 msec.)
742-022	Feed Motor Off Timing	10	0~35	Feed Motor Off Timing Adjustment from T/A Nip (1bit=10 msec.)
742-023	Regi Clutch Off Timing	41	0~81	Adjusts the time between the when paper rear edge passes the Regi Sensor and the Regi Clutch turns Off (P Speed) (90~290 msec.). Default=190ms (1bit=2.4462 msec.)
742-024	Regi Clutch Off Timing	76	0~152	Adjusts the time between when the paper rear edge passes the Regi Sensor and the Regi Clutch Turns Off (Double Speed) <b>DC2240/1632, WC M24:</b> (1bit=1.31136 msec.) <b>DC3535:</b> (1bit=1.5418 msec.)
742-025	Adjust Side Regi (All)	25	0~50	Side Regi Adjustment (ALL, Offset value) (1bit=0.211mm)



Table 1 Chain 742

Chain-Link	Name	Default	Range	Description
742-026	Adjust Side Regi (Tray 5)	20	0~50	Side Regi Adjustment (Tray 5) (1bit=0.211mm)
742-027	Adjust Side Regi (Dup)	*	0~50	Side Regi Adjustment (Dup) (1bit=0.211mm) *default=18 for DC2240/1632, WC M24; 22 for DC3535
742-028	Adjust Lead Regi (All)	*	0~40	Lead Regi Adjustment (ALL, Offset value) (1bit=0.2544mm) *default=20 for DC2240/1632, WC M24; 16 for DC3535
742-029	Adjust Lead Regi (Tray)	*	0~40	Lead Regi Adjustment (P Speed) from Tray (1bit=0.2544mm) *default=6 for DC2240/1632, WC M24; 22 for DC3535
742-030	Adjust Lead Regi (Tray)	*	0~40	Lead Regi Adjustment (Double Speed) from Tray (1bit=0.2544mm) *default=21 for DC2240/1632, WC M24; 20 for DC3535
742-031	Adjust Lead Regi (Tray 5) (Standard Paper)	*	0~40	Lead Regi Adjustment (P Speed) Standard Paper from Tray 5 (1bit=0.2544mm) *default=10 for DC2240/1632, WC M24; 23 for DC3535
742-032	Adjust Lead Regi (Tray 5) (Standard Paper)	*	0~40	Lead Regi Adjustment (Double Speed) Standard Paper from Tray 5 (1bit=0.2544mm) *default=21 for DC2240/1632, WC M24; 20 for DC3535
742-033	Adjust Lead Regi (Tray 5) (Heavy1)	20	0~40	Lead Regi Adjustment (P Speed) Heavy Weight Paper 1 from Tray 5 (1bit=0.2544mm)
742-034	Adjust Lead Regi (Tray 5) (Heavy2)	7	0~40	Lead Regi Adjustment (Half Speed) Heavy Weight Paper 2 from Tray 5 (1bit=0.2544mm)
742-035	Adjust Lead Regi (Tray 5) (Heavy 1)	*	0~40	Lead Regi Adjustment (Half Speed) Heavy Weight Paper 1 from Tray 5 (1bit=0.2544mm) *default=7 for DC2240/1632, WC M24; 20 for DC3535
742-036	Adjust Lead Regi (Tray 5) (Heavy 2)	*	0~40	Lead Regi Adjustment (Half Speed) Heavy Weight Paper 2 from Tray 5 (1bit=0.2544mm) *default=7 for DC2240/1632, WC M24; 20 for DC3535
742-037	Adjust Lead Regi (Dup)	*	0~40	Lead Regi Adjustment (P Speed) (Side2) (1bit=0.2544mm) *default=21 for DC2240/1632, WC M24; 22 for DC3535
742-038	Adjust Lead Regi (Dup)	*	0~40	Lead Regi Adjustment (Double Speed) (Side2) (1bit=0.2544mm) *default=21 for DC2240/1632, WC M24; 20 for DC3535
742-039	Jam Bypass	0	0~255	0=Normal Mode 255=Jam Bypass
742-040	OCT Start Timing (Offset)	112	0~202	OCT (Offset) Start Timing Adjustment (P Speed) (1bit=2.4462 msec.)
742-041	OCT Start Timing (Offset)	59	0~202	OCT (Offset) Start Timing Adjustment (Double Speed) <b>DC2240/1632, WC M24:</b> (1bit=1.31136 msec.) <b>DC3535:</b> (1bit=1.5418 msec.)
741-042 <b>DC3535 only</b>	OCT Start Timing (Offset)	112	0~202	OCT (Offset) Start Timing Adjustment (Heavy1) (1bit=2.4462 msec.)
742-046	Face Up Tray Condition	0	0~1	Face Up Tray Present 0=No 1=Yes
742-047	OCT Start Timing (Home)	17	0~112	OCT (Home) Start Timing Adjustment (P Speed) (1bit=2.4462 msec.)
742-048	OHP Sheet Sensing Condition	1	0~1	Transparency Detection; 1=Detect; 0=Does not detect
742-049	Tray 5 Side Guide min. Data	972	927~1017	Saves the Tray 5 Size Detection min. Value (1bit=1mm)
742-050	Tray 5 Side Guide Max Data	52	7~97	Saves the Tray 5 Size Detection Max Value (1mm/bit)
742-053	Adjust Side Regi Tray 1	20	0~50	Side Regi adjustment of Tray 1 (1bit=0.211mm)
742-055	Pre-T/A Start Timing 3TM-Tray 2	74	0~115	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (303~803 msec.) (1bit=2.4462 msec.)
742-056	Pre-T/A Start Timing 3TM-Tray 3	74	0~115	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (365~865 msec.) (1bit=2.4462 msec.)
742-057	Pre-T/A Start Timing 3TM-Tray 4	74	0~115	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (429~929 msec.) (1bit=2.4462 msec.)
742-058	Pre-T/A Start Timing TTM-Tray 2	10	0~16	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (1bit=2.4462 msec.)
742-059	Pre-T/A Start Timing TTM-Tray 3	74	0~115	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (457~957 msec.) (1bit=2.4462 msec.)
742-060	Pre-T/A Start Timing TTM-Tray 4	74	0~115	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (431~931 msec.) (1bit=2.4462 msec.)
742-062	Adjust Pre-Feed Position 3TM-Tray 2	0	0~40	Set time between Feed Out Sensor On and Feed Motor Off (0~400 msec (1bit=10 msec.))



Table 1 Chain 742

Chain-Link	Name	Default	Range	Description
742-063	Adjust Pre-Feed Position 3TM-Tray 3	0	0~40	Set time between Feed Out Sensor On and Feed Motor Off (0~400 msec.). (1bit=10 msec.)
742-064	Adjust Pre-Feed Position 3TM-Tray 4	0	0~40	Set time between Feed Out Sensor On and Feed Motor Off (0~400 msec.). (1bit=10 msec.)
742-065	Adjust Pre-Feed Position TTM-Tray 2	0	0~40	Set time between Feed Out Sensor On and Feed Motor Off (0~400 msec.). (1bit=10 msec.)
742-066	Adjust Pre-Feed Position TTM-Tray 3	0	0~40	Set time between Feed Out Sensor On and Feed Motor Off (0~400 msec.). (1bit=10 msec.)
742-067	Adjust Pre-Feed Position TTM-Tray 4	37	10~50	Set time between Feed Out Sensor On and Feed Motor Off (100~500 msec.). (1bit=10 msec.) Default=370ms
742-068	Adjust Pre-Feed Position 1TM-1	0	0~40	Set time between Feed Out Sensor On and Feed Motor Off (0~400 msec.). (1bit=10 msec.)
742-069	Main Feed Start Timing 3TM-Tray 2	20	0~44	Set time between Main Feed Start and the Pre-T/A (330~830 msec.). (1bit=10 msec.)
742-070	Main Feed Start Timing 3TM-Tray 3	20	0~44	Sets time between Main Feed Start and Pre-T/A (570~1070 msec.). (1bit=10 msec.)
742-071	Main Feed Start Timing 3TM-Tray 4	20	0~44	Sets time between Main Feed Start and Pre-T/A (810~1310 msec.). (1bit=10 msec.)
742-072	Main Feed Start Timing TTM-Tray 2	20	0~44	Sets time between Main Feed Start and Pre-T/A (330~830 msec.). (1bit=10 msec.)
742-073	Main Feed Start Timing TTM-Tray 3	20	0~44	Sets time between Main Feed Start and Pre-T/A (780~1280 msec.). (1bit=10 msec.)
742-074	Main Feed Start Timing TTM-Tray 4	20	0~44	Sets time between Main Feed Start and Pre-T/A (1410~1910 msec.). (1bit=10 msec.)
742-076	Adjust Side Regi Tray 2	20	0~50	Side Regi adjustment of Tray 2 (1bit=0.211mm)
742-077	Adjust Side Regi Tray 3	20	0~50	Side Regi adjustment of Tray 3 (1bit=0.211mm)
742-078	Adjust Side Regi Tray 4	20	0~50	Side Regi adjustment votary 4 (1bit=0.211mm)
742-079	Adjust Side Regi Tray Module All	25	0~50	Side Regi adjustment of Trays 2, 3, 4 (Batch adjustment) (1bit=0.211mm)
742-080	Paper remaining (calc) 3TM-Tray 2	0	0~4000	Saves the cumulative Lift-up time from Tray insertion (Calculation of remaining paper level detected).
742-081	Paper remaining (calc) 3TM-Tray 3	0	0~4000	Saves the cumulative Lift-up time from Tray insertion (Calculation of remaining paper level detected).
742-082	Paper remaining (calc) 3TM-Tray 4	0	0~4000	Saves the cumulative Lift-up time from Tray insertion (Calculation of remaining paper level detected).
742-083	Paper remaining (calc) TTM-Tray 2	0	0~4000	Saves the cumulative Lift-up time from Tray insertion (Calculation of remaining paper level detected).
742-084	Paper remaining (calc) TTM-Tray 3	0	0~12000	Saves the cumulative Lift-up time from Tray insertion (Calculation of remaining paper level detected).
742-085	Paper remaining (calc) TTM-Tray 4	0	0~15000	Saves the cumulative Lift-up time from Tray insertion (Calculation of remaining paper level detected).
742-087	OCT present	1	0~1	0=Not available; 1=Available
742-088	Dup On Timing (From Regi Start)	20	0~40	Synchronize adjustment to be same as the Regi Clutch at Regi Start (Double Speed) <b>DC2240/1632, WC M24:</b> (1bit=1.31136 msec.) <b>DC3535:</b> (1bit=1.5418 msec.)
742-089	OCT Start Timing (Home)	17	0~112	OCT (Home) Start Timing Adjustment (Double Speed) <b>DC2240/1632, WC M24:</b> (1bit=1.31136 msec.) <b>DC3535:</b> (1bit=1.5418 msec.)
742-090 <b>DC3535 only</b>	OCT Start Timing (Home)	17	0~112	OCT (Home) Start Timing Adjustment (Heavy 1) (1bit=2.4462 msec.)
742-093	Pre-T/A Start Timing 3TM-Tray 2	139	0~215	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (303~803 msec.) (1bit=1.31136 msec.)
742-093 <b>DC3535</b>	Pre-T/A Start Timing 3TM-Tray 2	118	0~183	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (303~803 msec.) (1bit=1.5418 msec.)
742-094	Pre-T/A Start Timing 3TM-Tray 3	139	0~215	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (365~865 msec.) (1bit=1.31136 msec.)
742-094 <b>DC3535</b>	Pre-T/A Start Timing 3TM-Tray 3	118	0~183	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (365~865 msec.) (1bit=1.5418 msec.)
742-095	Pre-T/A Start Timing 3TM-Tray 4	139	0~215	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (429~929 msec.) (1bit=1.31136 msec.)
742-095 <b>DC3535</b>	Pre-T/A Start Timing 3TM-Tray 4	118	0~183	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (429~929 msec.) (1bit=1.5418 msec.)
742-096	Pre-T/A Start Timing TTM-Tray 3	139	0~215	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (457~957 msec.) (1bit=1.31136 msec.)



Table 1 Chain 742

Chain-Link	Name	Default	Range	Description
742-096 <b>DC3535</b>	Pre-T/A Start Timing TTM-Tray 3	118	0~183	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (457~957 msec.) (1bit=1.5418 msec.)
742-097	Pre-T/A Start Timing TTM-Tray 4	139	0~215	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (431~931 msec.) (1bit=1.31136 msec.)
742-097 <b>DC3535</b>	Pre-T/A Start Timing TTM-Tray 4	118	0~183	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (431~931 msec.) (1bit=1.5418 msec.)
742-098	Main Feed Start Timing 3TM-Tray 2	38	0~83	Sets time between Main Feed Start and Pre-T/A (330~830 msec.). (1bit=1.31136 msec.)
742-098 <b>DC3535</b>	Main Feed Start Timing 3TM-Tray 2	32	0~71	Sets time between Main Feed Start and Pre-T/A (330~830 msec.). (1bit=1.5418 msec.)
742-099	Main Feed Start Timing 3TM-Tray 3	38	0~83	Sets time between Main Feed Start and Pre-T/A (570~1070 msec.). (1bit=1.31136 msec.)
742-099 <b>DC3535</b>	Main Feed Start Timing 3TM-Tray 3	32	0~71	Sets time between Main Feed Start and Pre-T/A (570~1070 msec.). (1bit=1.5418 msec.)
742-100	Main Feed Start Timing 3TM-Tray 4	38	0~83	Sets time between Main Feed Start and Pre-T/A (810~1310 msec.). (1bit=1.31136 msec.)
742-100 <b>DC3535</b>	Main Feed Start Timing 3TM-Tray 4	32	0~71	Sets time between Main Feed Start and Pre-T/A (810~1310 msec.). (1bit=1.5418 msec.)
742-101	Main Feed Start Timing TTM-Tray 3	38	0~83	Sets time between Main Feed Start and Pre-T/A (780~1280 msec.). (1bit=1.31136 msec.)
742-101 <b>DC3535</b>	Main Feed Start Timing TTM-Tray 3	32	0~71	Sets time between Main Feed Start and Pre-T/A (780~1280 msec.). (1bit=1.5418 msec.)
742-102	Main Feed Start Timing TTM-Tray 4	38	0~83	Sets time between Main Feed Start and Pre-T/A (1410~1910 msec.). (1bit=1.31136 msec.)
742-102 <b>DC3535</b>	Main Feed Start Timing TTM-Tray 4	32	0~71	Sets time between Main Feed Start and Pre-T/A (1410~1910 msec.). (1bit=1.5418 msec.)
742-103	Select Metric or Inch (Tray 5 Auto Detect)	XC=1; XE=00	0~1	0=metric (A/B) paper; 1=Inch-sized paper
742-104	Select 2ndBTR Cleaning (Tray 5 Auto Detect)	1	0~1	0=No; 1=Yes
742-105	RegiLoop Length Adjust (DUP)	35	0~79	Lead Regi Length Adjustment (P Speed) from Dup (Feeding Length Letter-LEF and longer)Default=157ms (1bit=2.4462 msec.)
742-106	Pre-T/A Start Timing 3TM-Tray 2 (Half)	37	0~58	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (303~803 msec.) (1bit=4.8924 msec.)
742-107	Pre-T/A Start Timing 3TM-Tray 3 (Half)	37	0~58	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (365~865 msec.) (1bit=4.8924 msec.)
742-108	Pre-T/A Start Timing 3TM-Tray 4 (Half)	37	0~58	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (429~929 msec.) (1bit=4.8924 msec.)
742-109	Pre-T/A Start Timing TTM-Tray 3 (Half)	37	0~58	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (457~957 msec.) (1bit=4.8924 msec.)
742-110	Pre-T/A Start Timing TTM-Tray 4 (Half)	37	0~58	Adjusts the Time between Pre-T/A Starts and Standard Signal (IOT) (431~931 msec.) (1bit=4.8924 msec.)
742-111	Main Feed Start Timing 3TM-Tray 2 (Half)	10	0~22	Sets time between Main Feed Start and Pre-T/A (330~830 msec.). (1bit=4.8924 msec.)
742-112	Main Feed Start Timing 3TM-Tray 3 (Half)	10	0~22	Sets time between Main Feed Start and Pre-T/A (570~1070 msec.). (1bit=4.8924 msec.)
742-113	Main Feed Start Timing 3TM-Tray 4 (Half)	10	0~22	Sets time between Main Feed Start and Pre-T/A (810~1310 msec.). (1bit=4.8924 msec.)
742-114	Main Feed Start Timing TTM-Tray 3 (Half)	10	0~22	Sets time between Main Feed Start and Pre-T/A (780~1280 msec.). (1bit=4.8924 msec.)
742-115	Main Feed Start Timing TTM-Tray 4 (Half)	10	0~22	Sets time between Main Feed Start and Pre-T/A (1410~1910 msec.). (1bit=4.8924 msec.)
742-116	Tray Type selection	XC=1; XE=0	0~2	Set Tray Type to appropriate mkt setting: 0=metric; 1=inch; 2=FX K-size



Table 1 Chain 742

Chain-Link	Name	Default	Range	Description
742-118 <b>DC3535 only</b>	Regi Loop Length Adjust (Tray 5 Long Document)(104mm/sec.)	9	0~81	2.4462 msec/bit
742-120 <b>DC3535 only</b>	Adjust Lead Regi (104mm/sec.) (Heavy1)	22	0~40	Lead Regi adjustment (Heavy1) at 104mm/sec. (0.2544mm/bit)
742-121 <b>DC3535 only</b>	Adjust Lead Regi (104mm/sec.) (Heavy1)	23	0~40	Lead Regi adjustment (Heavy1) from Tray 5 at 104mm/sec. (0.2544mm/bit)
742-122 <b>DC3535 only</b>	Adjust Lead Regi (104mm/sec.) (Heavy1)	22	0~40	Lead Regi adjustment (Heavy1) from Duplex at 104mm/sec. (0.2544mm/bit)
742-123 <b>DC3535 only</b>	RegiLoop Length Adjust (Duplex Heavy1) (104mm/sec., 2-sheet feed)	39	0~81	RegiLoop adjustment(104mm/sec.) Heavy1 from Dup (Feed length: Letter LEF or smaller) (1bit=2.4462 msec.)
742-124 <b>DC3535 only</b>	RegiLoop Length Adjust (Duplex Heavy1) (104mm/sec., 1-sheet feed)	35	0~81	RegiLoop adjustment(104mm/sec.) Heavy1 from Dup (Feed length exceeding LetterLEF) Regi Sensor On - DUP MOT Step Down start: 86.66msec
742-125 <b>DC3535 only</b>	T/A Motor2 Off Timing	53	33~73	T/A Motor Stop timing at TTM #4T/A Roll Pre Feed (10 msec/bit)
742-126 <b>DC3535 only</b>	T/A Motor2 Start Timing	110	90~130	T/A Motor Start timing at TTM #4T/A Roll Pre Feed (10 msec/bit)
742-127 <b>DC3535 only</b>	T/A Motor Off Acceptance	48	28~68	TTM #4T/A Roll Pre Feed implementation reject/accept (10 msec/bit)
742-128 <b>DC3535 only</b>	Feed Roller Warning	298500	0~1500000	Tray Feed Roller Warning display timing (number of feeds)
742-129 <b>DC3535 only</b>	Adjust Lead Regi (52mm/sec.) (Heavy2)	20	0~40	Lead Regi adjustment (52mm/sec.) from Tray (Heavy2) (0.2544mm/bit)
742-130 <b>DC3535 only</b>	Adjust Lead Regi (52mm/sec.) (Heavy2)	41	0~81	RegiLoop adjustment (52mm/sec.) from Tray (Heavy2) (5.025msec/bit)



## 744--xxx Fuser NVM List

Table 1 Chain 744

Chain-Link	Name	Default	Range	Description
744-001	STS-1 Cont Temp- Low Pwr Mode	80	0~160 (1 bit=1 deg. C)	Main-Lamp temperature control in Low-Power Mode. Setting the default as 0 degrees Celsius is same as Fuser-Off. It is necessary for high temperature for recovery Time Claim.
744-002	STS-2 Cont Temp in Low Pwr Mode	80	0~160 (1 bit=1 deg. C)	Sub-Lamp temperature control in Low-Power Mode. Setting the default as 0 degrees Celsius is same as Fuser-Off. It is necessary for high temperature for recovery Time Claim.
744-003	UM status by High Temperature Error Detection	0	0~2	0 (Normal) or 1 (STS-1 High Temperature Error Detection) or 2 (STS-2 High Temperature Error Detection).UM Status occurs when either STS-1 or STS-2 High Temperature Error Detection is detected. Once this occurs, UM cannot be canceled unless this NVM value is changed to 0 by entering the Diag Mode in the Interlock-Open status of the M/C-Front Cover.
744-004	STS-2 High-temp-not-ready Temp	230	150~250 (1 bit=1 deg.C)	Once the STS-2 reaches high temperature not-ready temperature, the Fuser is moved to sagging status. This is because when continuous run is performed for A5SEF and below, Temperature Distribution Control would fail.
744-005	STS-1 Ready Temperature	150	100~150	For optimization of Ready to Copy temperature distribution (1 bit=1 deg.C)
744-006	STS-2 Ready temperature	127	100~150	For optimization of Ready to Copy temperature distribution (1 bit=1 deg.C).
744-007	STS-1 Stand-by temperature	160	100~200	For optimization of Standby temperature distribution (1 bit=1 deg.C).
744-008	STS-2 Stand-by temperature	160	100~200	For optimization of Standby temperature distribution (1 bit=1 deg.C).
744-013	STS-1 Target run temperature#6	190	100~200	For optimization of temperature distribution - plain paper 1 from 273.2 ~ 320 mm wide (1 bit=1 deg.C).
744-028	STS-1 Target run temperature#21	190	100~200	For optimization of temperature distribution - Transparency LEF (1 bit=1 deg.C).
744-031 <b>DC3535 only</b>	STS-1 Target run temperature#3	140	100~200	For optimization of temperature distribution - plain paper 1 from 236.7~ 196.2 mm wide (1 bit=1 deg.C).
744-032 <b>DC3535 only</b>	STS-1 Target run temperature#4	140	100~200	For optimization of temperature distribution - plain paper 1 from 165.4 ~ 196.2 mm wide (1 bit=1 deg.C).
744-033 <b>DC3535 only</b>	STS-1 Target run temperature#5	140	100~200	For optimization of temperature distribution - plain paper 1 less than 165.4 mm wide (1 bit=1 deg.C).
744-036 <b>DC3535 only</b>	STS-2 Target run temperature#8	140	100~200	For optimization of temperature distribution - plain paper 2 from 236.7~ 196.2 mm wide (1 bit=1 deg.C).
744-037 <b>DC3535 only</b>	STS-2 Target run temperature#9	140	100~200	For optimization of temperature distribution - plain paper 2 from 165.4 ~ 196.2 mm wide (1 bit=1 deg.C).
744-038 <b>DC3535 only</b>	STS-2 Target run temperature#10	140	100~200	For optimization of temperature distribution - plain paper 2 less than 165.4 mm wide (1 bit=1 deg.C).
744-041 <b>DC3535 only</b>	STS-2 Target run temperature#13	140	100~200	For optimization of temperature distribution - Heavy Weight 1 from 236.7~ 196.2 mm wide (1 bit=1 deg.C).
744-042 <b>DC3535 only</b>	STS-2 Target run temperature#14	140	100~200	For optimization of temperature distribution - Heavy Weight 1 from 165.4 ~ 196.2 mm wide (1 bit=1 deg.C).
744-043 <b>DC3535 only</b>	STS-2 Target run temperature#15	140	100~200	For optimization of temperature distribution - Heavy Weight 1 less than 165.4 mm wide (1 bit=1 deg.C).
744-046 <b>DC3535 only</b>	STS-2 Target run temperature#18	140	100~200	For optimization of temperature distribution - Heavy Weight 2 from 236.7~ 196.2 mm wide (1 bit=1 deg.C).
744-047 <b>DC3535 only</b>	STS-2 Target run temperature#19	140	100~200	For optimization of temperature distribution - Heavy Weight 2 from 165.4 ~ 196.2 mm wide (1 bit=1 deg.C).
744-048 <b>DC3535 only</b>	STS-2 Target run temperature#20	140	100~200	For optimization of temperature distribution - Heavy Weight 2 less than 165.4 mm wide (1 bit=1 deg.C).
744-049 <b>DC3535 only</b>	STS-2 Target run temperature#21	140	100~200	For optimization of temperature distribution - Transparency LEF (1 bit=1 deg.C).



Table 1 Chain 744

Chain-Link	Name	Default	Range	Description
744-050 <b>DC3535 only</b>	STS-2 Target run temperature#22	140	100~200	For optimization of temperature distribution - Transparency SEF (1 bit=1 deg.C).
744-051	Environment temperature correction	3	0~5	Environment dependent correction coefficient for level of fusing. Temperature AD value shift amount when the environment temperature varies 1 degrees Celsius from 20 degrees Celsius. Corrects the target temperature of Ready temperature/Standby temperature/RUN. Both STS-1 and STS-2 have the same temperature. Corrects between 10 ~ 20 degrees Celsius. Correction is not performed outside this range. 0=No correction; 1=0.2 degrees Celsius/Environment Temperature (Maximum 2 degrees Celsius); 2=0.4 degrees Celsius/Environment Temperature (Maximum 4 degrees Celsius); 3=0.6 degrees Celsius/Environment Temperature (Maximum 6 degrees Celsius); 4=0.8 degrees Celsius/Environment Temperature (Maximum 8 degrees Celsius); 5=1.0 degrees Celsius/Environment Temperature (Maximum 10 degrees Celsius)
744-052	STS-1 Low Temp Not-ready Temp	125	100~150	Once the STS-1 reaches Low Temperature Not-Ready Temperature, the Fuser is moved to sagging status to avoid poor fusing. (1 bit=1 deg.C)
744-053	STS-2 Low Temp Not-ready Temp	125	100~150 (1 bit=1 deg.C)	Once the STS-2 reaches Low Temperature Not-Ready Temperature, the Fuser is moved to sagging status to avoid poor fusing.
744-054	HFSI Counter Index	0	0~5	For HFSI Counter Symmetry
744-055 <b>DC3535 only</b>	STS-1, -2 shift from target run temp#1	5	0~30	Optimization of temperature - plain paper 1 (1 bit=1 deg.C)
744-056 <b>DC3535 only</b>	STS-1, -2 shift from target run temp#2	10	0~30	Optimization of temperature - plain paper 1 (1 bit=1 deg.C)
744-057 <b>DC3535 only</b>	STS-1, -2 shift from target run temp#3	15	0~30	Optimization of temperature - plain paper 1 (1 bit=1 deg.C)
744-067 <b>DC3535 only</b>	STS-1, -2 shift from target run temp#13	5	0~30	Optimization of temperature - transparency (1 bit=1 deg.C)
744-068 <b>DC3535 only</b>	STS-1,-2 shift from target run temp#14	10	0~30	Optimization of temperature - transparency
744-069 <b>DC3535 only</b>	STS-1,-2 shift from target run temp#15	15	0~30	Optimization of temperature - transparency
744-085	Plain Paper S Setting Temperature	5	0~5	0=Light Weight paper (55~63gsm); 1=Plain paper (64~70gsm); 2=Plain paper (71~80gsm); 3=Bond (81~89gsm); 4=Bond (90~98gsm); 5=Bond (99~105gsm)
744-088 <b>DC3535 only</b>	Fuser temp switch - media #3	5	0~20	Fuser temperature shift qty (-) for plain paper 2
744-089 <b>DC3535 only</b>	Fuser temp switch - media #4	5	0~20	Fuser temperature shift qty (+) for plain paper 2
744-091 <b>DC3535 only</b>	Temp Cont - Auto Dup	5	0~10	Plain paper 1 (1 bit=1 deg.C)
744-092 <b>DC3535 only</b>	Temp Cont - Auto Dup	5	0~10	Plain paper 2 (1 bit=1 deg.C)
744-136 <b>DC3535 only</b>	Main Lamp delay time	10	0~19	(1 bit=10 msec.)
744-194 <b>DC3535 only</b>	Environment Sensor temperature	40	0~80 (1 deg.C/ bit)	Environment Sensor temperature read @ power on. Environment controlled based on this factor
744-195 <b>DC3535 only</b>	Environment correction working temperature (STS-1, 2)	35	20~50 (1 bit=1 deg.C)	When temperature of STS1/2 is the set value or lower, the environment sensor temperature is read.
744-196 <b>only</b>	Plain Paper S Setting Temperature	2	0~2	0=Light Weight paper (55~63gsm) 1=Plain paper (64~80gsm) 2=Bond (81~105gsm)



Table 1 Chain 744

Chain-Link	Name	Default	Range	Description
744-197	104mm/sec. OHP pitch adjustment value	0	0~10 (1 count=1 pitch)	OHP blocking measures; It prevents OHP blocking by lowering the PPM with increase of pitch. A4LEF=PPM=66/(4+NVM value) A4SEF=PPM=66/(5+NVM value)
744-198	52mm/sec. OHP pitch adjustment value	1	0~10 (1 count=1 pitch)	OHP blocking measures; It prevents OHP blocking by lowering the PPM with increase of pitch. A4LEF=PPM=33/(3+NVM value) A4SEF=PPM=33/(4+NVM value)
744-223 <b>DC3535 only</b>	104mm/sec. OHP shift from STS-2 target run temp#1	0	0~30	(1 bit=1 deg.C)
744-224 <b>DC3535 only</b>	104mm/sec. OHP shift from STS-2 target run temp#2	0	0~30	(1 bit=1 deg.C)
744-225 <b>DC3535 only</b>	104mm/sec. OHP shift from STS-2 target run temp#3	0		(1 bit=1 deg.C)
744-226 <b>DC3535 only</b>	104mm/sec. OHP shift from STS-2 target run temp#4	0	0~30	(1 bit=1 deg.C)
744-227 <b>DC3535 only</b>	104mm/sec. OHP skip mode shift from STS-2 target run temp#1	0	0~30	(1 bit=1 deg.C)
744-228 <b>DC3535 only</b>	104mm/sec. OHP skip mode shift from STS-2 target run temp#2	0	0~30	(1 bit=1 deg.C)
744-229 <b>DC3535 only</b>	104mm/sec. OHP skip mode shift from STS-2 target run temp#3	0	0~30	(1 bit=1 deg.C)
744-230 <b>DC3535 only</b>	104mm/sec. OHP skip mode shift from STS-2 target run temp#4	0	0~30	(1 bit=1 deg.C)
744-231 <b>DC3535 only</b>	52mm/sec. OHP skip mode shift from STS-2 target run temp#1	0	0~30	(1 bit=1 deg.C)
744-232 <b>DC3535 only</b>	52mm/sec. OHP skip mode shift from STS-2 target run temp#2	0	0~30	(1 bit=1 deg.C)
744-233 <b>DC3535 only</b>	52mm/sec. OHP skip mode shift from STS-2 target run temp#3	0	0~30	(1 bit=1 deg.C)
744-234 <b>DC3535 only</b>	52mm/sec. OHP skip mode shift from STS-2 target run temp#4	0	0~30	(1 bit=1 deg.C)
744-235 <b>DC3535 only</b>	Applied Time for 104mm/sec. OHP Target Run Temp.(T[Run#2])	2	1~100	(1 bit=5 sec.)
744-236 <b>DC3535 only</b>	Applied Time for 104mm/sec. OHP Target Run Temp.(T[Run#3])	3	1~100	(1 bit=5 sec.)
744-237 <b>DC3535 only</b>	Applied Time for 104mm/sec. OHP Target Run Temp.(T[Run#4])	4	1~100	(1 bit=5 sec.)
744-238 <b>DC3535 only</b>	Applied Time for 104mm/sec. OHP Target Run Temp.(T[Run#5])	6	1~100	(1 bit=5 sec.)
744-239 <b>DC3535 only</b>	Applied Time for 104mm/sec. OHP Skip modeTarget Run Temp.(T[Run#2])	2	1~100	(1 bit=5 sec.)
744-240 <b>DC3535 only</b>	Applied Time for 104mm/sec. OHP Skip modeTarget Run Temp.(T[Run#3])	3	1~100	(1 bit=5 sec.)
744-239 <b>DC3535 only</b>	Applied Time for 104mm/sec. OHP Skip modeTarget Run Temp.(T[Run#4])	6	1~100	(1 bit=5 sec.)



Table 1 Chain 744

Chain-Link	Name	Default	Range	Description
744-239 <b>DC3535 only</b>	Applied Time for 104mm/sec. OHP Skip mode Target Run Temp.(T[Run#5])	16	1~100	(1 bit=5 sec.)
744-248	Condensation Guard Mode	0	0~10	Wait time from Fuser ready (1 count=1 min.)
744-249 <b>DC3535 only</b>	STS-1 Ready temperature #2	145	100~150	STS-1 Ready temperature for STS-1, 2 - temperature value of 744-253 or lower at recovery from Low-Power/ Sleep mode (1 bit=1 deg.C)
744-250 <b>DC3535 only</b>	STS-2 Ready temperature #2	145	100~150	STS-2 Ready temperature for STS-1, 2 - temperature value of 744-253 or lower at recovery from Low-Power/ Sleep mode (1 bit=1 deg.C)
744-251 <b>DC3535 only</b>	STS-1 Ready temperature #3	145	100~150	STS-1 Ready temperature for STS-1, 2 - temperature value of 744-253 or higher at recovery from Low-Power/ Sleep mode (1 bit=1 deg.C)
744-252 <b>DC3535 only</b>	STS-2 Ready temperature #3	145	100~150	STS-2 Ready temperature for STS-1, 2 - temperature value of 744-253 or higher at recovery from Low-Power/ Sleep mode (1 bit=1 deg.C)
744-253 <b>DC3535 only</b>	Change Ready temperature	45	20~100	Threshold for changing Ready temperature at recovery from Low-Power/Sleep mode



## 746--xxx Xero Transfer NVM List

Table 1 Chain 746

Chain-Link	Name	Default	Range	Description
746-006	2nd Resistance detection calculation results	245	102~921 (1bit=-4.888V)	Measures the resistance of the Secondary Transfer part composed of 2nd BTR and Backup Roll at printable -1000V and display the voltage at Secondary Transfer corresponding that resistance. Secondary Transfer Voltage=245x-4.888=-1200V (Display range=500V-- 4500V)
746-006 <b>DC3535</b>	2nd Resistance detection calculation results	245	77~921 (1bit=-6.515V)	Measures the resistance of the Secondary Transfer part composed of 2nd BTR and Backup Roll at printable -1000V and display the voltage at Secondary Transfer corresponding that resistance. Secondary Transfer Voltage=245x-6.515=-1596V (Display range=500V-- 4500V)
746-007	Final output value (Voltage value)	17	0~1023 (1bit=1M Ohm)	Measures and displays the resistance of the Secondary Transfer part composed of 2nd BTR and Backup Roll at printable -1000V. (Display range=0~1023M Ohm)
746-009	Calculation results of Absolute Humidity	9	0~200	Displays the absolute humidity calculated from the relative humidity and relative temperature. (Absolute Humidity=(5.375-0.077*Temperature+0.027*Temperature 2)*Humidity/100)
746-012	2nd Output	368	0~921 (1bit=-4.888V)	For Component Control (0-- 4500V)
746-012 <b>DC3535</b>	2nd Output	276	0~921 (1bit=-6.515V)	For Component Control (0-- 6000V)
746-013	DTS Output	818	0~818 (1bit=-3.666V)	For Component Control (0-- 3000V)
746-017	Resistance detection calculation results Y	*	31~255 (1bit=0.196μA)	Displays the output current corresponding to the resistance of the Primary Transfer part calculated from the voltage measured at fixed current (10 μA) in Y Color 1ST BTR. *default=51 for DC2240/1632, WC M24; 71 for DC3535
746-018	Resistance detection calculation results M	*	31~255 (1bit=0.196μA)	Displays the output current corresponding to the resistance of the Primary Transfer part calculated from the voltage measured at fixed current (10 μA) in M Color 1ST BTR. *default=51 for DC2240/1632, WC M24; 71 for DC3535
746-019	Resistance detection calculation results C	*	31~255 (1bit=0.196μA)	Displays the output current corresponding to the resistance of the Primary Transfer part calculated from the voltage measured at fixed current (10 μA) in C Color 1ST BTR. *default=51 for DC2240/1632, WC M24; 71 for DC3535
746-020	Resistance detection calculation results K	*	25~459 (1bit=0.196μA)	Displays the output current corresponding to the resistance of the Primary Transfer part calculated from the voltage measured at fixed current (10 μA) in K Color 1ST BTR. *default=102 for DC2240/1632, WC M24; 142 for DC3535
746-021	1ST BTR Output Remote Normal-speed Y	86	0~200 (1bit=1%)	For primary transfer output adjustment of Y Color at FC104mmsec. Displays the multiplication value in primary transfer current of 746-017. ex., At 150=Primary Transfer Current=14 μAx1.5=21 μA
746-022	1ST BTR Output Remote Normal-speed M	86	0~200 (1bit=1%)	For primary transfer output adjustment of M Color at FC104mmsec. Displays the multiplication value in primary transfer current of 746-018. ex., At 150=Primary Transfer Current=14 μAx1.5=21 μA
746-023	1ST BTR Output Remote Normal-speed C	86	0~200 (1bit=1%)	For primary transfer output adjustment of C Color at FC104mmsec. Displays the multiplication value in primary transfer current of 746-019. ex., At 150=Primary Transfer Current=14 μAx1.5=21 μA
746-024	1ST BTR Output Remote Normal-speed K	86	0~200 (1bit=1%)	For primary transfer output adjustment of K Color at FC104mmsec. Displays the multiplication value in primary transfer current of 746-020. ex., At 150=Primary Transfer Current=14 μAx1.5=21 μA
746-025	1ST BTR Output Remote Half-speed FC Y	36	0~200 (1bit=1%)	For primary transfer output adjustment of Y Color at FC52mmsec. Displays the multiplication value in primary transfer current of 746-017. ex., @ 50=Primary Transfer Current=14 μAx0.5=7 μA
746-026	1ST BTR Output Remote Half-speed FC M	36	0~200 (1bit=1%)	For primary transfer output adjustment of M Color at FC52mmsec. Displays the multiplication value in primary transfer current of 746-018. ex., At 50=Primary Transfer Current=14 μAx0.5=7 μA
746-027	1ST BTR Output Remote Half-speed FC C	36	0~200 (1bit=1%)	For primary transfer output adjustment of C Color at FC52mmsec. Displays the multiplication value in primary transfer current of 746-019. ex., At 50=Primary Transfer Current=14 μAx0.5=7 μA



Table 1 Chain 746

Chain-Link	Name	Default	Range	Description
746-028	1ST BTR Output Remote Half-speed FC K	36	0~200 (1bit=1%)	For primary transfer output adjustment of K Color at FC52mmsec. Displays the multiplication value in primary transfer current of 746-020. ex., At 50=Primary Transfer Current=14 $\mu$ Ax0.5=7 $\mu$ A
746-029	1ST BTR Output Remote High-speed BW K	*	0~255 (1bit=1%)	For primary transfer output adjustment of K Color at BW 194mmsec (165 mm/sec. for DC3535). Displays the multiplication value in primary transfer current of 746-020 *default=186 for DC2240/1632, WC M24; 157 for DC3535
746-030	1ST BTR Output Remote Normal-speed BW K	100	0~200 (1bit=1%)	For primary transfer output adjustment of K Color at BW 104mmsec. Displays the multiplication value in primary transfer current of 746-020
746-031	1ST BTR Output Remote Half-speed BW K	36	0~200 (1bit=1%)	For primary transfer output adjustment of K Color at BW 52mmsec. Displays the multiplication value in primary transfer current of 746-020
746-032	1ST BTR Present Output Y	*	31~255 (1bit=0.196 $\mu$ A)	Displays the Resistance Detection Calculation (results x remote). *default=51 for DC2240/1632, WC M24; 112 for DC3535
746-033	1ST BTR Present Output M	*	31~255 (1bit=0.196 $\mu$ A)	Displays the Resistance Detection Calculation (results x remote). *default=51 for DC2240/1632, WC M24; 112 for DC3535
746-034	1ST BTR Present Output C	*	31~255 (1bit=0.196 $\mu$ A)	Displays the Resistance Detection Calculation (results x remote). *default=51 for DC2240/1632, WC M24; 112 for DC3535
746-035	1ST BTR Present Output K	*	25~459 (1bit=0.196 $\mu$ A)	Displays the Resistance Detection Calculation (results x remote). *default=102 for DC2240/1632, WC M24; 224 for DC3535
746-059	Remote for Plain paper A Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper A side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-060	Remote for Plain paper B Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper B side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-061	Remote for Plain paper C Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper C side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-062	Remote for Plain paper D/E Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper D/E side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-063	Remote for Plain paper F/G Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper F/G side 1
746-064	Remote for Plain paper S Side1	100	0~200 (1bit=1%)	Secondary Transfer output adjustment of Plain paper S side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-065	Remote for Label stock Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Label side 1 Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-066	Remote for Lightweight paper Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Thin paper side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-067	Remote for Heavy Weight paper1 Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Heavy Weight paper 1 side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-068	Remote for Heavy Weight paper2 Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Heavy Weight paper 2 side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-069	Remote for Postcard Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Postcard side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-070	Remote for Envelope Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Envelope side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-071	Remote for MLT-faced Postcard Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of MLT-faced Postcard side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.



Table 1 Chain 746

Chain-Link	Name	Default	Range	Description
746-072	Remote for Transparency Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Transparency side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-073	Remote for Tack Film Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Tack Film side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-074	Remote for Heavy Weight coated paper1 Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Coated paper 1 side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-075	Remote for Heavy Weight coated paper2 Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Coat paper 2 side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-076	Remote for Plain paper A Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper A side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-077	Remote for Plain paper B Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper B side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-078	Remote for Plain paper C Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper C side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-079	Remote for Plain paper D/E Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper D/E side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-080	Remote for Plain paper F/G Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper F/G side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-081	Remote for Plain paper S Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper S side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-082	Remote for Heavy Weight paper1 Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Heavy Weight paper 1 side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-083	Remote for Heavy Weight paper2 Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Heavy Weight paper 2 side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-084	Remote for Postcard Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Postcard side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-085	Remote for Envelope Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Envelope side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-086	Remote for MLT-faced Postcard Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of MLT-faced Postcard side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-087	Remote for Heavy Weight coated paper1 Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Coat paper 1 side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-088	Remote for Heavy Weight coated paper2 Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Coat paper 2 side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-089	2ND BTR Present Output	245	102~921 (1bit=-4.888V)	(- 500V-- 4500V) Resistance Detection Calculation results x remote.
746-089 DC3535	2ND BTR Present Output	245	77~921 (1bit=-6.515V)	(- 500V-- 6000V) Resistance Detection Calculation results x remote.
746-090	Plain paper S Control NVM1 (FC Side1)	5  DC3535 =4	0~6	0=Control -S-1 (FCside1 secondary transfer output for P paper) 1=Control -S-2 (FCside1 secondary transfer output for recycled paper) 2=Control -S-3 (FCside1 secondary transfer output for 4024 20lb) 3=Control -S-4 (FCside1 secondary transfer output for 4024 24lb) 4=Control -S-5 (FCside1 secondary transfer output for paper applicable to the 4 items described above) 5=Control -S-6 (FCside1 secondary transfer output based on the secondary transfer coefficient stored in the undisclosed NVM locations 746-304~355)



Table 1 Chain 746

Chain-Link	Name	Default	Range	Description
746-091	Plain paper S Control NVM1 (BW Side1)	0	0~1	0=Control -S-7 (For BW side 1 of Plain paper A~G) 1=Control -S-8 (For BW side 1 of paper applicable to the above)
746-092	Plain paper S Control NVM1 (FC Side2)	5  DC3535 =4	0~5	0=Control -S-9 (FCside2 secondary transfer output for P paper) 1=Control -S-10 (FCside2 secondary transfer output for recycle paper) 2=Control -S-11 (FCside2 secondary transfer output for 4024 20lb) 3=Control -S-12 (FCside2 secondary transfer output for of 4024 24lb) 4=Control -S-13 (FCside2 secondary transfer output for paper applicable to the 4 items described above) 5=Control -S-14 (FCside2 secondary transfer output based on the secondary transfer coefficient stored in the undisclosed NVM locations 746-356~407)
746-408	Output Remote for DTS normal-speed Side1	0	0~100 (1bit=1%)	Displays the multiplication value for DTS output adjustment
746-409	Output Remote for DTS normal-speed Side2	50	0~100 (1bit=1%)	Displays the multiplication value for DTS output adjustment
746-410	Output Remote for DTS half-speed Side1	100	0~100 (1bit=1%)	Displays the multiplication value for DTS output adjustment
746-411	Output Remote for DTS half-speed Side2	100	0~100 (1bit=1%)	Displays the multiplication value for DTS output adjustment
746-412	Output Remote for DTS high-speed Side1	0	0~100 (1bit=1%)	Displays the multiplication value for DTS output adjustment
746-413	Output Remote for DTS high-speed Side2	50	0~100 (1bit=1%)	Displays the multiplication value for DTS output adjustment
746-423	Toner Band Width (in process direction)	3	0~22 (1bit=1mm)	For adjustment of Toner Band Width in process direction
746-424	Toner Band Width (in axial direction)	137	0~137	For adjustment of Toner Band Width in axial direction (1bit=1mm)
746-425	Toner Band Density	60	10~100	For adjustment of Toner Band Density (1bit=1%)
746-959	2nd Cln Minus Bias Output (for Environment no.0, 1, 2, 3)	123	102~921	For 2ND BTR Cleaning Bias setup for each environment (1bit=-4.888V)
746-959 DC3535	2nd Cln Minus Bias Output (for Environment no.0, 1, 2, 3)	92	77~921	For 2ND BTR Cleaning Bias setup for each environment (1bit=-6.515V)
746-960	2nd Cln Minus Bias Output (for Environment no.4)	123	102~921	For 2ND BTR Cleaning Bias setup for each environment (1bit=-4.888V)
746-960 DC3535	2nd Cln Minus Bias Output (for Environment no.4)	92	77~921	For 2ND BTR Cleaning Bias setup for each environment (1bit=-6.515V)
746-961	2nd Cln Minus Bias Output (for Environment no.5, 6)	123	102~921	For 2ND BTR Cleaning Bias setup for each environment (1bit=-4.888V)
746-961 DC3535	2nd Cln Minus Bias Output (for Environment no.5, 6)	92	77~921	For 2ND BTR Cleaning Bias setup for each environment (1bit=-6.515V)
746-962	2nd Cln Minus Bias Output (for Environment no.7, 8, 9)	123	102~921	For 2ND BTR Cleaning Bias setup for each environment (1bit=-4.888V)
746-962 DC3535	2nd Cln Minus Bias Output (for Environment no.7, 8, 9)	92	77~921	For 2ND BTR Cleaning Bias setup for each environment (1bit=-6.515V)
746-963	Y offset distance	16	0~16	Distance between Drum contact and 1ST BTR (0ms~39ms - 1bit=1 msec.)
746-964	M offset distance	16	0~16	Distance between Drum contact and 1ST BTR (0ms~39ms - 1bit=1 msec.)
746-965	C offset distance	16	0~16	Distance between Drum contact and 1ST BTR (0ms~39ms - 1bit=1 msec.)
746-966	K offset distance	16	0~16	Distance between Drum contact and 1ST BTR (0ms~39ms - 1bit=1 msec.)



Table 1 Chain 746

Chain-Link	Name	Default	Range	Description
746-967	1st BTR Vmonitor Y	36	4~178	Displays the voltage at primary transfer resistance detection (100~5000V - 1bit=28.01V)
746-968	1st BTR Vmonitor M	36	4~178	Displays the voltage at primary transfer resistance detection (100~5000V - 1bit=28.01V)
746-969	1st BTR Vmonitor C	36	4~178	Displays the voltage at primary transfer resistance detection (100~5000V - 1bit=28.01V)
746-970	1st BTR Vmonitor K	36	4~178	Displays the voltage at primary transfer resistance detection (100~5000V - 1bit=28.01V)
746-971	Remote for Plain paper A ~G Normal speed BW Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper A ~G 104mmsec side1 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-972	Remote for Plain paper A ~G twice speed BW Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper A ~G 194mmsec side1 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-973	Remote for Plain paper A ~G Normal speed BW Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper A ~G 104mmsec side2 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-974	Remote for Plain paper A ~G twice speed BW Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper A ~G 194mmsec side2 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-975	Remote for Plain paper S Normal speed BW Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper S 104mmsec side1 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-976	Remote for Plain paper S twice speed BW Side1	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper S 194mmsec side1 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-977	Remote for Plain paper S Normal speed BW Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper S 104mmsec side2 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-978	Remote for Plain paper S twice speed BW Side2	100	0~200 (1bit=1%)	For Secondary Transfer output adjustment of Plain paper S 194mmsec side2 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006.
746-979	Delay Time for 1st BTR Home Positioning	300	0~6000 (1bit=0.1 sec.)	Delay Time 0~10min
746-980	Selection Heavy Weight paper1	1	0~1	0=Secondary Transfer Voltage for Heavy Weight Paper 1. 1=Secondary Transfer Voltage for Heavy Weight Coated Paper 1
746-981	Selection Heavy Weight paper2	1	0~1	0=Secondary Transfer Voltage for Heavy Weight Paper 2. 1=Secondary Transfer Voltage for Heavy Weight Coated Paper 2
746-982	Remote for high resistance normal speed FC	115	100~115	
746-983	Remote for high resistance half speed FC	100	100~115	
746-984	Remote for high resistance double speed FC	100	100~115	
746-985	Remote for high resistance normal speed B/W	100	100~115	
746-986	Remote for high resistance half speed B/W	100	100~115	
746-987	high resistance threshold	255	0~255	



## 747--xxx Transfer NVM List (DC 3535 Only)

Table 1 Chain 747

Chain-Link	Name	Default	Range	Description
747-417	DTS Present Output	818	0~818	Display Environment * Remote (3.666V/bit)
747-418	Remote for resistance -high-speed FC	100	100~255	Available when 2nd transfer system resistance is 746-955. Ex. 2nd transfer resistance detection calculation result x 746-067 x 746-955=2nd Transfer Output Voltage (v)
747-419	1st BTR Remote/high-speed/ FC/ Y	143	0~357	For 1st transfer output adjustment for Y. Multiply by (1st transfer current in 746-020)/100. Ex. In case of 157: 1st transfer current=14μA x 1.57=22μA
747-420	1st BTR Remote/high-speed/FC/ M	143	0~357	For 1st transfer output adjustment for M. Multiply by (1st transfer current in 746-020)/100. Ex. In case of 157: 1st transfer current=14μA x 1.57=22μA
747-421	1st BTR Remote/high-speed/FC/ C	143	0~357	For 1st transfer output adjustment for C. Multiply by (1st transfer current in 746-020)/100. Ex. In case of 157: 1st transfer current=14μA x 1.57=22μA
747-422	1st BTR Remote/high-speed/FC /K	157	0~357	For 1st transfer output adjustment for C. Multiply by (1st transfer current in 746-020)/100. Ex. In case of 157: 1st transfer current=14μA x 1.57=22μA
747-425	1st Output M	112	31~255	For Component Control M (1 bit=0.196μA)
747-426	1st Output C	112	31~255	For Component Control M (1 bit=0.196μA)
747-427	Environment establishment for toner band	9	0~9	#=Max Environment number
747-428	2nd BTR Output Remote/ high-speed/ FC/ Side 1/ Plain Paper A	100	0~200	For 2nd transfer output adjustment for Plain paper A Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-429	2nd BTR Output Remote/ high-speed/ FC/ Side 1/ Plain Paper B	100	0~200	For 2nd transfer output adjustment for Plain paper B Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-430	2nd BTR Output Remote/ high-speed/ FC/ Side 1/ Plain Paper C	100	0~200	For 2nd transfer output adjustment for Plain paper C Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-431	2nd BTR Output Remote/ high-speed/ FC/ Side1/Plain Paper D/E	100	0~200	For 2nd transfer output adjustment for Plain paper D/E Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-432	2nd BTR Output Remote/ high-speed/ FC/ Side1/Plain Paper F/G	100	0~200	For 2nd transfer output adjustment for Plain paper F/G Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-433	2nd BTR Output Remote/ high-speed/ FC/ Side1/Plain Paper S	100	0~200	For 2nd transfer output adjustment for Plain paper S Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-434	2nd BTR Output Remote/ high-speed/ FC/ Side1/thin paper	100	0~200	For 2nd transfer output adjustment for thin paperSide1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-435	2nd BTR Output Remote/ high-speed/ FC/ Side2/Plain Paper A	100	0~200	For 2nd transfer output adjustment for Plain paper A Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-436	2nd BTR Output Remote/ high-speed/ FC/ Side2/Plain Paper B	100	0~200	For 2nd transfer output adjustment for Plain paper B Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-437	2nd BTR Output Remote/ high-speed/ FC/ Side2/Plain Paper c	100	0~200	For 2nd transfer output adjustment for Plain paper B Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-438	2nd BTR Output Remote/ high-speed/ FC/ Side2/Plain Paper D/E	100	0~200	For 2nd transfer output adjustment for Plain paper D/E Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-439	2nd BTR Output Remote/ high-speed/ FC/ Side2/Plain Paper F/G	100	0~200	For 2nd transfer output adjustment for Plain paper F/G Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-440	2nd BTR Output Remote/ high-speed/ FC/ Side2/Plain Paper S	100	0~200	For 2nd transfer output adjustment for Plain paper S Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V



Table 1 Chain 747

Chain-Link	Name	Default	Range	Description
747-441	2nd BTR Output Remote/normal speed/ Side1/Heavy paper 1B	100	0~200	For 2nd transfer output adjustment for Heavy paper 1B Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-442	2nd BTR Output Remote/normal speed/ Side1/Heavy paper 1S	100	0~200	For 2nd transfer output adjustment for Heavy paper 1S Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-443	2nd BTR Output Remote/low speed/ Side1/Heavy paper 1B	100	0~200	For 2nd transfer output adjustment for Heavy paper 1B Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-444	2nd BTR Output Remote/low speed/ Side1/Heavy paper 2S	100	0~200	For 2nd transfer output adjustment for Heavy paper 2S Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-445	2nd BTR Output Remote/normal speed/ Side2/Heavy paper 1B	100	0~200	For 2nd transfer output adjustment for Heavy paper 1B Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-446	2nd BTR Output Remote/normal speed/ Side2/Heavy paper 1S	100	0~200	For 2nd transfer output adjustment for Heavy paper 1S Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-447	2nd BTR Output Remote/low speed/ Side2/Heavy paper 2B	100	0~200	For 2nd transfer output adjustment for Heavy paper 2B Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-448	2nd BTR Output Remote/low speed/ Side2/Heavy paper 2S	100	0~200	For 2nd transfer output adjustment for Heavy paper 2S Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-449	2nd BTR Output Remote/normal speed/ Side1/Heavy paper 1C	100	0~200	For 2nd transfer output adjustment for Heavy paper 1C Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-450	2nd BTR Output Remote/low speed/ Side1/Heavy paper 2C	100	0~200	For 2nd transfer output adjustment for Heavy paper 2C Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-451	2nd BTR Output Remote/low speed/ Side1/Heavy paper 2D	100	0~200	For 2nd transfer output adjustment for Heavy paper 2D Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-452	2nd BTR Output Remote/normal speed/ Side2/Heavy paper 1C	100	0~200	For 2nd transfer output adjustment for Heavy paper 1C Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-453	2nd BTR Output Remote/low speed/ Side1/Heavy coated paper1	100	0~200	For 2nd transfer output adjustment for Heavy coated paper1 Side1. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-454	2nd BTR Output Remote/low speed/ Side2/Heavy coated paper1	100	0~200	For 2nd transfer output adjustment for Heavy coated paper1 Side2. (Multiply by 2nd transfer resistance calculation result in loc. 746-006)/100. Ex.- In case of 100: 2nd transfer current=245 x -6.515 x 1.0=-1200V
747-455	Low speed 1st Transfer FC K ECC #6	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-028}) \times 1.0$
747-456	Low speed 1st Transfer FC K ECC #7	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-028}) \times 1.0$
747-457	Low speed 1st Transfer FC K ECC #8	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-028}) \times 1.0$
747-458	Low speed 1st Transfer FC K ECC #9	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-028}) \times 1.0$
747-459	High speed 1st Transfer B/W K ECC #1	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-029}) \times 1.0$
747-460	High speed 1st Transfer B/W K ECC #2	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-029}) \times 1.0$
747-461	High speed 1st Transfer B/W K ECC #3	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-029}) \times 1.0$



Table 1 Chain 747

[illegible]



Table 1 Chain 747

Chain-Link	Name	Default	Range	Description
747-483	Low speed 1st Transfer B/W K ECC #7	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-031}) \times 1.0$
747-484	Low speed 1st Transfer B/W K ECC #8	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-031}) \times 1.0$
747-485	Low speed 1st Transfer B/W K ECC #9	1000	0~2000	Environment Control Coefficient of 1st transfer output for K Ex.: In case of 1000: $\mu A = ((\text{value in 746-020}) + (\text{value in 746-303})) \times (\text{value in 746-031}) \times 1.0$

## 751--xxx Procon NVM List

Table 1 Chain 751

Chain-Link	Name	Default	Range	Description
751-052	BCR Charge Compensate mode (SW)	0	0~3	Charge Correction. 0=Performs Wear & Environment Correction (Default); 1=Disables Charge Correction; 2=Performs Environment Correction Only; 3=Performs Wear Correction Only
751-053	BCR VM temperature & humidity compensate mode (SW)	0	0, 1	Vmid Factor Environment Correction. 0=Execute; 1=Disable
751-132	Bottle Full Counter Print (Max Value)	900	0~65535	Max Setup Value of EMP Counter Print (1 Count=1print)
751-133	Bottle Full (Flag)	0	0~2	0=Empty; 1=Near Full; 2=Full
751-134	Bottle Not In Position (Flag)	0	0, 1	Availability of the Toner Waster Bottle (0=Bottle set; 1=No bottle)
751-135	Print Volume (Counter)	0	0~65535	Total count of # of prints (1 Count=1 sheet)
751-136	Bottle Full Counter Dispense (Max Value)	500	0~65535	Max Setup Value of EMP Counter Dispense (1 Count=1 sec.)
751-137	Dispense Time Count (4Color Counter)	0	0~65535	Total Count of 4 Colors Dispense Time
751-138	Bottle Sns Mode (SW)	0	0~2	Specifies the Count method until Bottle Full. 0=Auto(Print&Dispense); 1=Only # of prints; 2=Only Dispense time
751-159	BCR Cln Trigger (SW)	3	0~3	Selection SW for Trigger types to operate the BCR Cleaner. 0=CV Count; 1=Drum Cycle Count; 2=Pixel Count; 3=PV Count+ Pixel Count+Drum Cycle
751-160	CV Count Total (Counter)	0	0~65535	Each cumulative ERU by Billing Count (1 Count=1pv)
751-161	Drum Cycle Count Total	0	0~65535	cumulative Drum Cycle (1 Count=10cycle)
751-162	Pixel Count Total (Counter)	0	0~10000000	cumulative K pixel count. units of 1 step is based on the ICDC control pixel count (1 Count=1dot/1 gradation)
751-163	BCR Cln CV Count Limit Value (Limiter)	25	0~255	Threshold in operating BCR Cleaner (Operation after reaching this value) (1 Count=100pv)
751-164	BCR Cln Cycle Count Limit Value (Limiter)	50	0~255	Threshold in operating BCR Cleaner (Operation after reaching this value) (1 Count=1k cycle)
751-165	BCR Cln Pixel Count Limit Value (Limiter)	15	0~255	Operating threshold for BCR Cleaner. (1 Count=(1dot/1 gradation)/10K)
751-167	BCR Cleaning Count	0	0~1000	Reads the No. of BCR Cleaner Operations. (1 Count=1 time)
751-168	CRU Type	0	0~255	80 = XC, ESG, DMO value
751-177	P/R Life Warning (Limiter)	1420	0~2000	Warning value of Drum Cartridge (All engine common) (1 bit=0.01 $\mu$ m)
751-178	P/R Life End of Life (Limiter)	1500	0~2000	End of Life value of Drum Cartridge (All engine common) (1 bit=0.01 $\mu$ m)
751-200	#Y_BCR DC corrected VH value	620	0~1023	VH Output Value of #Y Engine after Correction (All Speed common) (1 Count=-1.173V)
751-201	#M_BCR DC corrected VH value	620	0~1023	VH Output Value of #M Engine after Correction (All Speed common) (1 Count=-1.173V)
751-202	#C_BCR DC corrected VH value	620	0~1023	VH Output Value of #C Engine after Correction (All Speed common) (1 Count=-1.173V)
751-203	#K_BCR DC corrected VH value	620	0~1023	VH Output Value of #K Engine after Correction (All Speed common) (1 Count=-1.173V)



## 752-xxx Procon NVM List

Table 1 Chain 752

Chain-Link	Name	Default	Range	Description
752-027	Vdark Average	0	0~1023	ADC average detected value at expansion LED Off.
752-028	Vref Average	0	0~1023	ADC average detected value of reference board reflection at expansion
752-029	Vcln Average	0	0~1023	ADC average detected value of belt reflection at expansion
752-030	Diffusion Vcln Average	0	0~1023	ADC average detected value of Belt reflection Light at diffusion
752-031	Vpatch Average [Y] [CinA]	0	0~1023	ADC average detected value of CinA (low Cin) Patch.
752-032	Vpatch Average [M] [CinA]	0	0~1023	ADC average detected value of CinA (low Cin) Patch.
752-033	Vpatch Average [C] [CinA]	0	0~1023	ADC average detected value of CinA (low Cin) Patch.
752-034	Vpatch Average [K] [CinA]	0	0~1023	ADC average detected value of CinA (low Cin) Patch.
752-035	Vpatch Average [Y] [CinB]	0	0~1023	ADC average detected value of CinB (high Cin) Patch.
752-036	Vpatch Average [M] [CinB]	0	0~1023	ADC average detected value of CinB (high Cin) Patch.
752-037	Vpatch Average [C] [CinB]	0	0~1023	ADC average detected value of CinB (high Cin) Patch.
752-038	Vpatch Average [K] [CinB]	0	0~1023	ADC average detected value of CinB (high Cin) Patch.
752-050	Fail ADC Sensor	0	0~1	ADC Sensor Fail
752-051	Fail ADC Shutter	0	0~1	ADC Shutter Fail
752-052	Fail ADC Patch [Y]	0	0~1	ADC Patch Fail
752-053	Fail ADC Patch [M]	0	0~1	ADC Patch Fail
752-054	Fail ADC Patch [C]	0	0~1	ADC Patch Fail
752-055	Fail ADC Patch [K]	0	0~1	ADC Patch Fail
752-056	Diffusion Correction Factor	350	0~1023	Diffusion Output Standardization factor
752-057	RADC Target [Y]	*	0~1023	RADC Control Density Target Value *default=415 for DC2240/1632, WC M24; 375 for DC3535
752-058	RADC Target [M]	*	0~1023	RADC Control Density Target Value *default=360 for DC2240/1632, WC M24; 380 for DC3535
752-059	RADC Target [C]	*	0~1023	RADC Control Density Target Value *default=355 for DC2240/1632, WC M24; 390 for DC3535
752-060	RADC Target [K]	*	0~1023	RADC Control Density Target Value *default=310 for DC2240/1632, WC M24; 460 for DC3535
752-061	RADC Average [Y]	400	0~1023	RADC shift average value
752-062	RADC Average [M]	370	0~1023	RADC shift average value
752-063	RADC Average [C]	338	0~1023	RADC shift average value
752-064	RADC Average [K]	380	0~1023	RADC shift average value
752-069	ATC Correction Factor [Y]	1000	0~4095	ATC Sensor Sensitivity Correction Factor
752-070	ATC Correction Factor [Y]	1000	0~4095	ATC Sensor Sensitivity Correction Factor
752-071	ATC Correction Factor [Y]	1000	0~4095	ATC Sensor Sensitivity Correction Factor
752-072	ATC Correction Factor [Y]	1000	0~4095	ATC Sensor Sensitivity Correction Factor
752-073	ATC Correction Offset [Y]	10000	8976~11023	ATC Sensor Sensitivity Correction Offset
752-074	ATC Correction Offset [M]	10000	8976~11023	ATC Sensor Sensitivity Correction Offset
752-075	ATC Correction Offset [C]	10000	8976~11023	ATC Sensor Sensitivity Correction Offset
752-076	ATC Correction Offset [K]	10000	8976~11023	ATC Sensor Sensitivity Correction Offset



Table 1 Chain 752

Chain-Link	Name	Default	Range	Description
752-081	ATC Average [Y]	0	0~1023	ATC Average detected value after sensor sensitivity correction
752-082	ATC Average [M]	0	0~1023	ATC Average detected value after sensor sensitivity correction
752-083	ATC Average [C]	0	0~1023	ATC Average detected value after sensor sensitivity correction
752-084	ATC Average [K]	0	0~1023	ATC Average detected value after sensor sensitivity correction
752-089	ATC Fluctuation [Y]	0	0~1023	ATC Fluctuation Range detected value after sensor sensitivity correction
752-090	ATC Fluctuation [M]	0	0~1023	ATC Fluctuation Range detected value after sensor sensitivity correction
752-091	ATC Fluctuation [C]	0	0~1023	ATC Fluctuation Range detected value after sensor sensitivity correction
752-092	ATC Fluctuation [K]	0	0~1023	ATC Fluctuation Range detected value after sensor sensitivity correction
752-109	Number of Continuous ATC Fails [Y]	0	0~255	No. of Continuous ATC Fails
752-110	Number of Continuous ATC Fails [M]	0	0~255	No. of Continuous ATC Fails
752-111	Number of Continuous ATC Fails [C]	0	0~255	No. of Continuous ATC Fails
752-112	Number of Continuous ATC Fails [K]	0	0~255	No. of Continuous ATC Fails
752-114	Warn ATC Max & min. [Y]	0	0~2	ATC Upper and Lower Limits Warning (0=Normal, 1=ATC Output low HiTC, 2=ATC Output high LowTC)
752-115	Warn ATC Max & min. [M]	0	0~2	ATC Upper and Lower Limits Warning (0=Normal, 1=ATC Output low HiTC, 2=ATC Output high LowTC)
752-116	Warn ATC Max & min. [C]	0	0~2	ATC Upper and Lower Limits Warning (0=Normal, 1=ATC Output low HiTC, 2=ATC Output high LowTC)
752-117	Warn ATC Max & min. [K]	0	0~2	ATC Upper and Lower Limits Warning (0=Normal, 1=ATC Output low HiTC, 2=ATC Output high LowTC)
752-118	Warn ATC Fluctuation Max & min. [Y]	0	0~2	ATC Fluctuation Range Lower Limit Warning (0=Normal, 1=To little fluctuation)
752-119	Warn ATC Fluctuation Max & min. [M]	0	0~2	ATC Fluctuation Range Lower Limit Warning (0=Normal, 1=To little fluctuation)
752-120	Warn ATC Fluctuation Max & min. [C]	0	0~2	ATC Fluctuation Range Lower Limit Warning (0=Normal, 1=To little fluctuation)
752-121	Warn ATC Fluctuation Max & min. [K]	0	0~2	ATC Fluctuation Range Lower Limit Warning (0=Normal, 1=To little fluctuation)
752-122	Fail ATC Patch [Y]	0	0~1	ATC Sensor Fail
752-123	Fail ATC Sensor [M]	0	0~1	ATC Sensor Fail
752-124	Fail ATC Sensor [C]	0	0~1	ATC Sensor Fail
752-125	Fail ATC Sensor [K]	0	0~1	ATC Sensor Fail
752-130	Set ATC Control Nominal Value [0] [Y]	*	0~1023	ATC Control Nominal Value before environment/deterioration correction as center setup *default=602 for DC2240/1632, WC M24; 595 for DC3535
752-131	Set ATC Control Nominal Value [0] [M]	*	0~1023	ATC Control Nominal Value before environment/deterioration correction as center setup *default=602 for DC2240/1632, WC M24; 595 for DC3535
752-132	Set ATC Control Nominal Value [0] [C]	*	0~1023	ATC Control Nominal Value before environment/deterioration correction as center setup *default=602 for DC2240/1632, WC M24; 595 for DC3535
752-133	Set ATC Control Nominal Value [0] [K]	*	0~1023	ATC Control Nominal Value before environment/deterioration correction as center setup *default=602 for DC2240/1632, WC M24; 595 for DC3535
752-134	Set ATC Control Nominal Value [1] [Y]	*	0~1023	ATC Control Nominal Value before environment/deterioration correction as center setup *default=642 for DC2240/1632, WC M24; 645 for DC3535
752-135	Set ATC Control Nominal Value [1] [M]	*	0~1023	ATC Control Nominal Value before environment/deterioration correction as center setup *default=642 for DC2240/1632, WC M24; 645 for DC3535
752-136	Set ATC Control Nominal Value [1] [C]	*	0~1023	ATC Control Nominal Value before environment/deterioration correction as center setup *default=642 for DC2240/1632, WC M24; 645 for DC3535
752-137	Set ATC Control Nominal Value [1] [K]	*	0~1023	ATC Control Nominal Value before environment/deterioration correction as center setup *default=652 for DC2240/1632, WC M24; 645 for DC3535
752-138	Set ATC Control Nominal Value [2] [K]	*	0~1023	ATC Control Nominal Value before environment/deterioration correction as center setup



Table 1 Chain 752

Chain-Link	Name	Default	Range	Description
752-156	ATC Control Nominal Value [Y]	500	0~1023	[Set ATC Control Nominal Value]+[ATC Environment Correction Value]+[ATC Deterioration Correction Value]+[ATC Nominal Value offset]
752-157	ATC Control Nominal Value [M]	500	0~1023	[Set ATC Control Nominal Value]+[ATC Environment Correction Value]+[ATC Deterioration Correction Value]+[ATC Nominal Value offset]
752-158	ATC Control Nominal Value [C]	500	0~1023	[Set ATC Control Nominal Value]+[ATC Environment Correction Value]+[ATC Deterioration Correction Value]+[ATC Nominal Value offset]
752-159	ATC Control Nominal Value [K]	500	0~1023	[Set ATC Control Nominal Value]+[ATC Environment Correction Value]+[ATC Deterioration Correction Value]+[ATC Nominal Value offset]
752-162	Temp Average	100	80~200	Temperature average value after converting the temperature sensor output to temperature (80=-20 degree Celsius, 100=0 degree Celsius, 200=100 degree Celsius)
752-163	Humidity Average	0	0~100	Humidity average value after converting the humidity sensor output to humidity
752-176	Fail Environment sensor TEMP	0	0~1	[Detection relation (Temperature/Humidity)] Temperature Sensor Fail (Fixed as [Standard Temperature])
752-177	Fail Environment sensor Humidity	0	0~1	[Detection relation (Temperature/Humidity)] Temperature Sensor Fail (Fixed as [Standard Temperature])
752-324	SW_DispMode	0	0~2	Dispense method changing SW (0=ATC+ICDC, 1=ICDC, 2=Timer Disp)
752-357	Timer Disp time [Y]	5	0~250	Timer Disp Setup Time
752-358	Timer Disp time [M]	5	0~250	Timer Disp Setup Time
752-359	Timer Disp time [C]	5	0~250	Timer Disp Setup Time
752-360	Timer Disp time [K]	5	0~250	Timer Disp Setup Time
752-369	SW Potential Control On/Off	0	0~1	0=Controls Laser Diode light quantity 1=Fixed Laser Diode light quantity
752-371	LD Light qty. (Potential Control=Off) [Y]	300	0~1023	Laser Diode light quantity value when potential control is Off.
752-372	LD Light qty (Potential Control=Off) [M]	300	0~1023	Laser Diode light quantity value when potential control is Off.
752-373	LD Light qty (Potential Control=Off) [C]	300	0~1023	Laser Diode light quantity value when potential control is Off.
752-374	LD Light qty (Potential Control=Off) [K]	300	0~1023	Laser Diode light quantity value when potential control is Off.
752-375	Ideal LD light qty [Y]	*	0~1023	Laser Diode light quantity Ideal value calculated from delta-Laser Diode light quantity. *default=300 for DC2240/1632, WC M24; 378 for DC3535
752-376	Ideal LD light qty [M]	*	0~1023	Laser Diode light quantity ideal value calculated from delta-Laser Diode light quantity. *default=300 for DC2240/1632, WC M24; 378 for DC3535
752-377	Ideal LD light qty [C]	*	0~1023	Laser Diode light quantity ideal value calculated from delta-Laser Diode light quantity. *default=300 for DC2240/1632, WC M24; 378 for DC3535
752-378	Ideal LD light qty [K]	*	0~1023	Laser Diode light quantity ideal value calculated from delta-Laser Diode light quantity. *default=300 for DC2240/1632, WC M24; 378 for DC3535
752-394	Change in Lim_d_LD Light qty on Job-start	*	0~1023	Limit of Delta Laser Diode light quantity Feedback at Job Start. *default=40 for DC2240/1632, WC M24; 60 for DC3535
752-395	Change in Lim_d_LD Light qty on Job & Jobend	20	0~1023	Limit of Delta Laser Diode light quantity Feedback at Job End/during Job.
752-396	Change in Lim_d_LD Light qty on TonerRecovery	200	0~1023	Limit of Delta Laser Diode light quantity Feedback at recovery.
752-397	Change in Lim_d_LD Light qty on Job-start (CL)	*	0~1023	Limit of Delta Laser Diode light quantity Feedback at Job Start (YMC Color differences considered) *default=40 for DC2240/1632, WC M24; 60 for DC3535
752-398	Change in Lim_d_LD Light qty on Job & Jobend (CL)	20	0~1023	Limit of Delta Laser Diode light quantity Feedback at Job End/during Job (YMC Color differences considered)
752-439	Warn LD light amount Setting [Y]	0	0~1	Warning when the Laser Diode light quantity reached Upper or Lower Limit.
752-440	Warn LD light amount Setting [M]	0	0~1	Warning when the Laser Diode light quantity reached Upper or Lower Limit.



Table 1 Chain 752

Chain-Link	Name	Default	Range	Description
752-441	Warn LD light amount Setting [C]	0	0~1	Warning when the Laser Diode light quantity reached Upper or Lower Limit.
752-442	Warn LD light amount Setting [K]	0	0~1	Warning when the Laser Diode light quantity reached Upper or Lower Limit.
752-453	VBias [Y]	887	0~1023	DC VBias value
752-454	VBias [M]	887	0~1023	DC VBias value
752-455	VBias [C]	887	0~1023	DC VBias value
752-456	VBias [K]	887	0~1023	DC VBias value
752-474	Flag Empty Detection Status [Y]	0	0~3	Flag of Empty status (0=Normal 1=In Empty Count 2=Near Empty 3=End)
752-475	Flag Empty Detection Status [M]	0	0~3	Flag of Empty status (0=Normal 1=In Empty Count 2=Near Empty 3=End)
752-476	Flag Empty Detection Status [C]	0	0~3	Flag of Empty status (0=Normal 1=In Empty Count 2=Near Empty 3=End)
752-477	Flag Empty Detection Status [K]	0	0~3	Flag of Empty status (0=Normal 1=In Empty Count 2=Near Empty 3=End)
752-496	Nominal value for NEAR Detection [Y]	625	0~32767	Count threshold for Near Detection
752-497	Nominal value for NEAR Detection [M]	625	0~32767	Count threshold for Near Detection
752-498	Nominal value for NEAR Detection [C]	625	0~32767	Count threshold for Near Detection
752-499	Nominal value for NEAR Detection [K]	625	0~32767	Count threshold for Near Detection
752-683	Disp time Totalizing value [Y]	0	0~4294967295	Total of Disp Motor driving time
752-684	Disp time Totalizing value [M]	0	0~4294967295	Total of Disp Motor driving time
752-685	Disp time Totalizing value [C]	0	0~4294967295	Total of Disp Motor driving time
752-686	Disp time Totalizing value [K]	0	0~4294967295	Total of Disp Motor driving time
752-784	Fail Disp Unusual [Y]	0	0~1	Fail when new Toner Cartridge is installed and the Disp Motor Drive did not shift from new to old. 0=Normal; 1=Error
752-785	Fail Disp Unusual [M]	0	0~1	Fail when new Toner Cartridge is installed and the Disp Motor Drive did not shift from new to old. 0=Normal; 1=Error
752-786	Fail Disp Unusual [C]	0	0~1	Fail when new Toner Cartridge is installed and the Disp Motor Drive did not shift from new to old. 0=Normal 1=Error
752-787	Fail Disp Unusual [K]	0	0~1	Fail when new Toner Cartridge is installed and the Disp Motor Drive did not shift from new to old. 0=Normal 1=Error
752-788	min. PV Threshold	3	0~255	Minimum PV from Near empty to empty (M/Cstop)
752-804	DispTime Totalizing value for age Cor- rection [Y]	0	0~4294967295	cumulative dispense time for deterioration correction of ATC Control nominal value. Set to 0 at replacement of Developer.
752-805	DispTime Totalizing value for age Cor- rection [M]	0	0~4294967295	cumulative dispense time for deterioration correction of ATC Control nominal value. Set to 0 at replacement of Developer.
752-806	DispTime Totalizing value for age Cor- rection [C]	0	0~4294967295	cumulative dispense time for deterioration correction of ATC Control nominal value. Set to 0 at replacement of Developer.
752-807	DispTime Totalizing value for age Cor- rection [K]	0	0~4294967295	cumulative dispense time for deterioration correction of ATC Control nominal value. Set to 0 at replacement of Developer.
752-814	Pre Near EMP Factor	80	0~255	Factor correcting [Near Detection Nominal Value] after Pre Near is displayed.
752-864 <b>DC3535 only</b>	Set ATC Control Nominal Value [2][Y]	565	0~1023	ATC Control nominal value before environment/deterioration correction set as center value
752-865 <b>DC3535 only</b>	Set ATC Control Nominal Value [2][M]	565	0~1023	ATC Control nominal value before environment/deterioration correction set as center value
752-866 <b>DC3535 only</b>	Set ATC Control Nominal Value [2][C]	565	0~1023	ATC Control nominal value before environment/deterioration correction set as center value



Table 1 Chain 752

Chain-Link	Name	Default	Range	Description
752-873 <b>DC3535 only</b>	SW Charge Potential Control ON/OFF	0	0~1	0=Control VH (Add delta-VH to VH according to LD illumination; 1=No control for VH (delta-VH=0)
752-934 <b>DC3535 only</b>	RADC Nominal Target [Y]	375	0~1023	RADC target value set as center
752-935 <b>DC3535 only</b>	RADC Nominal Target [M]	380	0~1023	RADC target value set as center
752-936 <b>DC3535 only</b>	RADC Nominal Target [C]	390	0~1023	RADC target value set as center
752-937 <b>DC3535 only</b>	RADC Nominal Target [KY]	460	0~1023	RADC target value set as center
752-938 <b>DC3535 only</b>	TRC Nominal Target RADC [Y] [B]	375	0~1023	RADC target value set as center value for tone correction
752-939 <b>DC3535 only</b>	TRC Nominal Target RADC [M] [B]	380	0~1023	RADC target value set as center value for tone correction
752-940 <b>DC3535 only</b>	TRC Nominal Target RADC [C] [B]	390	0~1023	RADC target value set as center value for tone correction
752-941 <b>DC3535 only</b>	TRC Nominal Target RADC [K] [B]	460	0~1023	RADC target value set as center value for tone correction
752-942 <b>DC3535 only</b>	TRC Nominal Target RADC [Y] [A]	650	0~1023	RADC target value set as center value for tone correction
752-943 <b>DC3535 only</b>	TRC Nominal Target RADC [M] [A]	675	0~1023	RADC target value set as center value for tone correction
752-944 <b>DC3535 only</b>	TRC Nominal Target RADC [C] [A]	680	0~1023	RADC target value set as center value for tone correction
752-945 <b>DC3535 only</b>	TRC Nominal Target RADC [K] [A]	715	0~1023	RADC target value set as center value for tone correction
752-946 <b>DC3535 only</b>	TRC Nominal Target RADC [Y] [C]	940	0~1023	RADC target value set as center value for tone correction
752-947 <b>DC3535 only</b>	TRC Nominal Target RADC [M] [C]	955	0~1023	RADC target value set as center value for tone correction
752-948 <b>DC3535 only</b>	TRC Nominal Target RADC [C] [C]	953	0~1023	RADC target value set as center value for tone correction
752-949 <b>DC3535 only</b>	TRC Nominal Target RADC [K] [C]	935	0~1023	RADC target value set as center value for tone correction



## 753-xxx ProCon 2 NVM List

Table 1 Chain 753

Chain-Link	Name	Default	Range	Description
753-001	ADC Tone Correction Switch	0	0~1	2 Patch ADC Gradation Correction. On/Off Switch (0=On, 1=Off)
753-002	IOT Manual ADJ LUT Switch	0	0~1	IOT Manual Adjustment LUT On/Off Switch (0=On, 1=Off)
753-004	P LUTCin [K] [E]	10	0~255	P LUTCin (fixed number) when the Delta LUT is calculated.
753-005	P LUTCin [K] [C]		0~255	P LUTCin (fixed number) when the Delta LUT is calculated. *default=34 for DC2240/1632, WC M24; 51 for DC3535
753-006	P LUTCin [K] [A]		0~255	P LUTCin (fixed number) when the Delta LUT is calculated. *default=34 for DC2240/1632, WC M24; 51 for DC3535
753-007	P LUTCin [K] [B]	134	0~255	P LUTCin (fixed number) when the Delta LUT is calculated.
753-008	P LUTCin [K] [D]	255	0~255	P LUTCin (fixed number) when the Delta LUT is calculated.
753-009	P LUTCin [Color] [E]	10	0~255	P LUTCin (fixed number) when the Delta LUT is calculated.
753-010	P LUTCin [Color] [C]	51	0~255	P LUTCin (fixed number) when the Delta LUT is calculated.
753-011	P LUTCin [Color] [A]	*	0~255	P LUTCin (fixed number) when the Delta LUT is calculated. *default=102 for DC2240/1632, WC M24; 127 for DC3535
753-012	P LUTCin [Color] [B]	204	0~255	P LUTCin (fixed number) when the Delta LUT is calculated.
753-013	P LUTCin [Color] [D]	255	0~255	P LUTCin (fixed number) when the Delta LUT is calculated.
753-014	Patch Cin [Y] [CinA]	*	0~255	2P Patch Cin (Value is changed by the gradation correction result). *default=102 for DC2240/1632, WC M24; 127 for DC3535
753-015	Patch Cin [M] [CinA]	*	0~255	2P Patch Cin (Value is changed by the gradation correction result). *default=102 for DC2240/1632, WC M24; 127 for DC3535
753-016	Patch Cin [C] [CinA]	*	0~255	2P Patch Cin (Value is changed by the gradation correction result). *default=102 for DC2240/1632, WC M24; 127 for DC3535
753-017	Patch Cin [K] [CinA]	*	0~255	2P Patch Cin (Value is changed by the gradation correction result). *default=77 for DC2240/1632, WC M24; 92 for DC3535
753-018	Patch Cin [Y] [CinB]	204	0~255	2P Patch Cin (Value is changed by the gradation correction result).
753-019	Patch Cin [M] [CinB]	204	0~255	2P Patch Cin (Value is changed by the gradation correction result).
753-020	Patch Cin [C] [CinB]	204	0~255	2P Patch Cin (Value is changed by the gradation correction result).
753-021	Patch Cin [K] [CinB]	134	0~255	2P Patch Cin (Value is changed by the gradation correction result).
753-022	TRC Target RADC [Y] [A]	*	0~1023	Target RADC for Gradation Correction *default=780 for DC2240/1632, WC M24; 650 for DC3535
753-023	TRC Target RADC [Y] [B]	*	0~1023	Target RADC for Gradation Correction *default=415 for DC2240/1632, WC M24; 375 for DC3535
753-024	TRC Target RADC [M] [A]	*	0~1023	Target RADC for Gradation Correction *default=740 for DC2240/1632, WC M24; 675 for DC3535
753-025	TRC Target RADC [M] [B]	*	0~1023	Target RADC for Gradation Correction *default=360 for DC2240/1632, WC M24; 380 for DC3535
753-026	TRC Target RADC [C] [A]	*	0~1023	Target RADC for Gradation Correction *default=700 for DC2240/1632, WC M24; 680 for DC3535
753-027	TRC Target RADC [C] [B]	*	0~1023	Target RADC for Gradation Correction *default=355 for DC2240/1632, WC M24; 390 for DC3535
753-028	TRC Target RADC [K] [A]	*	0~1023	Target RADC for Gradation Correction *default=730 for DC2240/1632, WC M24; 715 for DC3535

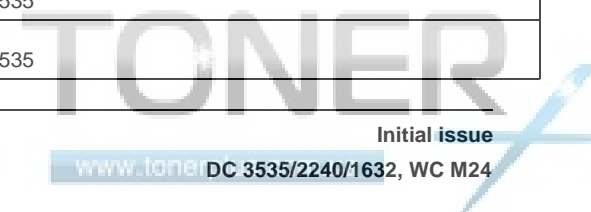




Table 1 Chain 753

Chain-Link	Name	Default	Range	Description
753-029	TRC Target RADC [K] [B]	*	0~1023	Target RADC for Gradation Correction *default=310 for DC2240/1632, WC M24; 460 for DC3535
753-030	TRC Current RADC [Y] [A]	*	0~1023	Current RADC for Gradation Correction *default=780 for DC2240/1632, WC M24; 650 for DC3535
753-031	TRC Current RADC [Y] [B]	*	0~1023	Current RADC for Gradation Correction *default=415 for DC2240/1632, WC M24; 375 for DC3535
753-032	TRC Current RADC [M] [A]	*	0~1023	Current RADC for Gradation Correction *default=740 for DC2240/1632, WC M24; 675 for DC3535
753-033	TRC Current RADC [M] [B]	*	0~1023	Current RADC for Gradation Correction *default=360 for DC2240/1632, WC M24; 380 for DC3535
753-034	TRC Current RADC [C] [A]	*	0~1023	Current RADC for Gradation Correction *default=725 for DC2240/1632, WC M24; 680 for DC3535
753-035	TRC Current RADC [C] [B]	*	0~1023	Current RADC for Gradation Correction *default=355 for DC2240/1632, WC M24; 390 for DC3535
753-036	TRC Current RADC [K] [A]	*	0~1023	Current RADC for Gradation Correction *default=730 for DC2240/1632, WC M24; 715 for DC3535
753-037	TRC Current RADC [K] [B]	*	0~1023	Current RADC for Gradation Correction *default=310 for DC2240/1632, WC M24; 460 for DC3535
753-801	Legible Y	1024	0~2047	Legible Adjustment (Y)
753-802	Legible M	1024	0~2047	Legible Adjustment (M)
753-803	Legible C	1024	0~2047	Legible Adjustment (C)
753-804	Legible K	1024	0~2047	Legible Adjustment (K)
753-805	Pattern Y	0	0~19	InOut Pattern Setup (Y)
753-806	Pattern M	0	0~19	InOut Pattern Setup (M)
753-807	Pattern C	0	0~19	InOut Pattern Setup (C)
753-808	Pattern K	0	0~19	InOut Pattern Setup (K)
753-831 DC3535 only	Patch Cin[Y][CinC]	51	0~255	Patch Cin (Y)
753-832 DC3535 only	Patch Cin[M][CinC]	51	0~255	Patch Cin (M)
753-833 DC3535 only	Patch Cin[C][CinC]	51	0~255	Patch Cin (C)
753-834 DC3535 only	Patch Cin[K][CinC]	51	0~255	Patch Cin (K)
753-835 DC3535 only	Patch Cin[Y][CinF]	0	0~255	Patch Cin (Y)
753-836 DC3535 only	Patch Cin[M][CinF]	0	0~255	Patch Cin (M)
753-837 DC3535 only	Patch Cin[C][CinF]	0	0~255	Patch Cin (C)
753-838 DC3535 only	Patch Cin[K][CinF]	0	0~255	Patch Cin (K)
753-839 DC3535 only	TRC_Target RADC [Y] [C]	0	0~1023	Current RADC for tone calibration



Table 1 Chain 753

Chain-Link	Name	Default	Range	Description
753-840 <b>DC3535 only</b>	TRC_Target RADC [Y] [FC]	0	0~1023	Current RADC for tone calibration
753-841 <b>DC3535 only</b>	TRC_Target RADC [M] [C]	0	0~1023	Current RADC for tone calibration
753-842 <b>DC3535 only</b>	TRC_Target RADC [M] [F]	0	0~1023	Current RADC for tone calibration
753-843 <b>DC3535 only</b>	TRC_Target RADC [C] [C]	0	0~1023	Current RADC for tone calibration
753-844 <b>DC3535 only</b>	TRC_Target RADC [C] [F]	0	0~1023	Current RADC for tone calibration
753-839 <b>DC3535 only</b>	TRC_Target RADC [K] [C]	0	0~1023	Current RADC for tone calibration
753-839 <b>DC3535 only</b>	TRC_Target RADC [K] [F]	0	0~1023	Current RADC for tone calibration



## 755-xxx CRUM NVM List

Table 1 Chain 755

Chain-Link	Name	Default	Range	Description
755-001	#Y_Drum Life Count - kCy	0	*	To determine Drum Life * <b>Range</b> =0~3000 for DC 2240/1632; 0~65535 for DC 3535
755-002	#Y_Drum Cycle Count - Total	0	0~4294967295	Total P/R cumulative No. of Rotations
755-003	DC Drum Cycle Count	0	0~4294967295	DC Charged I P/R cumulative No. of Rotations (1bit=0.1cycle)
755-004	AC Drum Cycle Count	0	0~4294967295	AC Charged I P/R cumulative No. of Rotations (1bit=0.1cycle)
755-005	Print Count - Color	0	*	Accumulates the # of Full Color prints. * <b>Range</b> =0~100K for DC 2240/1632; 0~4294967295 for DC 3535
755-006	Print Count - Black	0	*	Accumulates the # of B/W prints. * <b>Range</b> =0~100K for DC 2240/1632; 0~4294967295 for DC 3535
755-007	#Y_Print Count - Full Color, A4L only	0	*	Accumulates the # of FC prints - A4LEF equivalent (1bit=100/A4.1 sheet). * <b>Range</b> =0~20000K for DC 2240/1632; 0~4294967295 for DC 3535
755-008	#Y_Print Count - Black, A4L only	0	*	Accumulates the # of B/W prints - A4LEF equivalent (1bit=100/A4.1 sheet). * <b>Range</b> =0~20000K for DC 2240/1632; 0~4294967295 for DC 3535
755-009	#Y_Shutdown Count - Full Color	0	0~65535	Accumulates the # of shutdowns during FC jobs.
755-010	#Y_Shutdown Count - Black	0	0~65535	Accumulates the # of shutdowns during B/W jobs.
755-011	#Y_Setup Count - Full Color	0	0~65535	Accumulates the # of Setups immediately after FC jobs.
755-012	#Y_Setup Count - Black	0	0~65535	Accumulates the # of Setups immediately after B/W jobs.
755-013	#Y_First Install - Year	0	0~99	Writes the date info when the first job was performed.
755-014	#Y_First Install - Month	0	0~12	Writes the date info when the first job was performed.
755-015	#Y_First Install - Day	0	0~31	Writes the date info when the first job was performed.
755-016	#Y_First install, Part#1	0	0~65535	Records the machine serial # when the CRU was first installed.
755-017	#Y_First install, Part#2	0	0~65535	Records the machine serial # when the CRU was first installed.
755-018	#Y_Last install, Part#1	0	0~65535	Records the machine (2nd time onwards) serial # when the CRU was last installed.
755-019	#Y_Last install, Part#2	0	0~65535	Records the machine (2nd time onwards) serial # when the CRU was last installed.
755-020	#Y_Machine Serial # - Write count	0	0~65535	Accumulates the # of M/C into which CRU is installed.
755-022	#Y_CRU TYPE	CRU Type	0~255	CRU Type is recorded.
755-028	#M_Drum Life Count - kCy	0	*	To determine Drum Life * <b>Range</b> =0~3000 for DC 2240/1632; 0~65535 for DC 3535
755-029	M_Drum Cycle Count - Total	0	0~ 4294967295	cumulative # of P/R cycles (1bit=0.1cycle)
755-030	#M_DC Drum Cycle Count	0	0~ 4294967295	cumulative # of DC charge current P/R cycles (1bit=0.1cycle)
755-031	#M_AC Drum Cycle Count	0	0~ 4294967295	cumulative # of AC charge current P/R cycles (1bit=0.1cycle)
755-032	#M_Print Count - Color	0	*	Accumulates the # of Full Color prints.* <b>Range</b> =0~100K for DC 2240/1632; 0~4294967295 for DC 3535
755-033	#M_Print Count - Black	0	*	Accumulates the # of B/W prints. * <b>Range</b> =0~100K for DC 2240/1632; 0~4294967295 for DC 3535
755-034	#M_Print Count - Full Color, A4L only	0	*	Accumulates the # of FC prints - A4LEF equivalent (1bit=100/A4.1 sheet). * <b>Range</b> =0~20000K for DC 2240/1632; 0~4294967295 for DC 3535
755-035	#M_Print Count - Black, A4L only	0	*	Accumulates the # of B/W prints - A4LEF equivalent (1bit=100/A4.1 sheet). * <b>Range</b> =0~20000K for DC 2240/1632; 0~4294967295 for DC 3535



Table 1 Chain 755

Chain-Link	Name	Default	Range	Description
755-036	#M_Shutdown Count - Full Color	0	0~65535	Accumulates the # of shutdowns during FC jobs.
755-037	#M_Shutdown Count - Black	0	0~65535	Accumulates the # of shutdowns during B/W jobs.
755-038	#M_Setup Count - Full Color	0	0~65535	Accumulates the # of Setups immediately after FC jobs.
755-039	#M_Setup Count - Black	0	0~65535	Accumulates the # of Setups immediately after B/W jobs.
755-040	#M_First Install - Year	0	0~99	Writes the date info when the first job was performed.
755-041	#M_First Install - Month	0	0~12	Writes the date info when the first job was performed.
755-042	#M_First Install - Day	0	0~31	Writes the date info when the first job was performed.
755-043	#M_First install, Part#1	0	0~65535	Records the machine serial # when the CRU was first installed.
755-044	#M_First install, Part#2	0	0~65535	Records the machine serial # when the CRU was first installed.
755-045	#M_Last install, Part#1	0	0~65535	Records the machine (2nd time onwards) serial # when the CRU was last installed.
755-046	#M_Last install, Part#2	0	0~65535	Records the machine (2nd time onwards) serial # when the CRU was last installed.
755-047	#M_Machine Serial # - Write count	0	0~65535	Accumulates the # of machine into which CRU is installed.
755-049	#M_CRU TYPE	CRU Type	0~255	CRU Type is recorded.
755-055	#C_Drum Life Count - kCy	0	*	To determine Drum Life * <b>Range</b> =0~3000 for DC 2240/1632; 0~65535 for DC 3535
755-056	#C_Drum Cycle Count - Total	0	0~ 4294967295	cumulative # of P/R cycles (1bit=0.1cycle)
755-057	#C_DC Drum Cycle Count	0	0~ 4294967295	cumulative # of DC charge current P/R cycles (1bit=0.1cycle)
755-058	#C_AC Drum Cycle Count	0	0~ 4294967295	cumulative # of AC charge current P/R cycles (1bit=0.1cycle)
755-059	#C_Print Count - Color	0	*	Accumulates the # of Full Color prints.* <b>Range</b> =0~100K for DC 2240/1632; 0~4294967295 for DC 3535
755-060	#C_Print Count - Black	0	*	Accumulates the # of B/W prints. * <b>Range</b> =0~100K for DC 2240/1632; 0~4294967295 for DC 3535
755-061	#C_Print Count - Full Color, A4L only	0	*	Accumulates the # of FC prints - A4LEF equivalent (1bit=100/A4.1 sheet). * <b>Range</b> =0~20000K for DC 2240/1632; 0~4294967295 for DC 3535
755-062	#C_Print Count - Black, A4L only	0	*	Accumulates the # of B/W prints - A4LEF equivalent (1bit=100/A4.1 sheet). * <b>Range</b> =0~20000K for DC 2240/1632; 0~4294967295 for DC 3535
755-063	#C_Shutdown Count - Full Color	0	0~65535	Accumulates the # of shutdowns during FC jobs.
755-064	#C_Shutdown Count - Black	0	0~65535	Accumulates the # of shutdowns during B/W jobs.
755-065	#C_Setup Count - Full Color	0	0~65535	Accumulates the # of Setups immediately after FC jobs.
755-066	#C_Setup Count - Black	0	0~65535	Accumulates the # of Setups immediately after B/W jobs.
755-067	#C_First Install - Year	0	0~99	Writes the date info when the first job was performed.
755-068	#C_First Install - Month	0	0~12	Writes the date info when the first job was performed.
755-069	#C_First Install - Day	0	0~31	Writes the date info when the first job was performed.
755-070	#C_First install, Part#1	0	0~65535	Records the machine serial # when the CRU was first installed.
755-071	#C_First install, Part#2	0	0~65535	Records the machine serial # when the CRU was first installed.
755-072	#C_Last install, Part#1	0	0~65535	Records the machine (2nd time onwards) serial # when the CRU was last installed.
755-073	#C_Last install, Part#2	0	0~65535	Records the machine (2nd time onwards) serial # when the CRU was last installed.
755-074	#C_Machine Serial # - Write count	0	0~65535	Accumulates the # of M/C into which CRU is installed.
755-076	#C_CRU TYPE	CRU Type	0~255	CRU Type is recorded.
755-082	#K_Drum Life Count - kCy	0	*	To determine Drum Life * <b>Range</b> =0~3000 for DC 2240/1632; 0~65535 for DC 3535



Table 1 Chain 755

Chain-Link	Name	Default	Range	Description
755-083	#K_Drum Cycle Count - Total	0	0~ 4294967295	cumulative # of P/R cycles (1bit=0.1cycle)
755-084	#K_DC Drum Cycle Count	0	0~ 4294967295	cumulative # of DC charge current P/R cycles (1bit=0.1cycle)
755-085	#K_AC Drum Cycle Count	0	0~ 4294967295	cumulative # of AC charge current P/R cycles (1bit=0.1cycle)
755-086	#K_Print Count - Color	0	*	Accumulates the # of Full Color prints.* <b>Range</b> =0~100K for DC 2240/1632; 0~4294967295 for DC 3535
755-087	#K_Print Count - Black	0	*	Accumulates the # of B/W prints. * <b>Range</b> =0~100K for DC 2240/1632; 0~4294967295 for DC 3535
755-088	#K_Print Count - Full Color, A4L only	0	*	Accumulates the # of FC prints - A4LEF equivalent (1bit=100/A4.1 sheet). * <b>Range</b> =0~20000K for DC 2240/1632; 0~4294967295 for DC 3535
755-089	#K_Print Count - Black, A4L only	0	*	Accumulates the # of B/W prints - A4LEF equivalent (1bit=100/A4.1 sheet). * <b>Range</b> =0~20000K for DC 2240/1632; 0~4294967295 for DC 3535
755-090	#K_Shutdown Count - Full Color	0	0~65535	Accumulates the # of shutdowns during FC jobs.
755-091	#K_Shutdown Count - Black	0	0~65535	Accumulates the # of shutdowns during B/W jobs.
755-092	#K_Setup Count - Full Color	0	0~65535	Accumulates the # of Setups immediately after FC jobs.
755-093	#K_Setup Count - Black	0	0~65535	Accumulates the # of Setups immediately after B/W jobs.
755-094	#K_First Install - Year	0	0~99	Writes the date info when the first job was performed.
755-095	#K_First Install - Month	0	0~12	Writes the date info when the first job was performed.
755-096	#K_First Install - Day	0	0~31	Writes the date info when the first job was performed.
755-097	#K_First install, Part#1	0	0~65535	Records the machine serial # when the CRU was first installed.
755-098	#K_First install, Part#2	0	0~65535	Records the machine serial # when the CRU was first installed.
755-099	#K_Last install, Part#1	0	0~65535	Records the machine (2nd time onwards) serial # when the CRU was last installed.
755-100	#K_Last install, Part#2	0	0~65535	Records the machine (2nd time onwards) serial # when the CRU was last installed.
755-101	#K_Machine Serial # - Write count	0	0~65535	Accumulates the # of M/C into which CRU is installed.
755-103	#K_CRU TYPE	CRU Type	0~255	CRU Type is recorded.
755-201 DC3535 only	#Y_Area Coverage Count, 4C (0-5%)	0	0~65535	Area Coverage counter for 4C (0 to 5%) (1 bit=1 page)
755-202 DC3535 only	#Y_Area Coverage Count, 4C (6-10%)	0	0~65535	Area Coverage counter for 4C (6-10%) (1 bit=1 page)
755-203 DC3535 only	#Y_Area Coverage Count, 4C (11-20%)	0	0~65535	Area Coverage counter for 4C (11-20%) (1 bit=1 page)
755-204 DC3535 only	#Y_Area Coverage Count, 4C (21-50%)	0	0~65535	Area Coverage counter for 4C (21-50%) (1 bit=1 page)
755-205 DC3535 only	#Y_Area Coverage Count, 4C (51-100%)	0	0~65535	Area Coverage counter for 4C (51-100%) (1 bit=1 page)
755-206 DC3535 only	#Y_Area Coverage Count, K (0-5%)	0	0~65535	Area Coverage counter for K (0 to 5%) (1 bit=1 page)
755-207 DC3535 only	#Y_Area Coverage Count, K (6-10%)	0	0~65535	Area Coverage counter for K (6-10%) (1 bit=1 page)
755-208 DC3535 only	#Y_Area Coverage Count, K (11-20%)	0	0~65535	Area Coverage counter for K (11-20%) (1 bit=1 page)
755-209 DC3535 only	#Y_Area Coverage Count, K (21-50%)	0	0~65535	Area Coverage counter for 4C (21-50%) (1 bit=1 page)

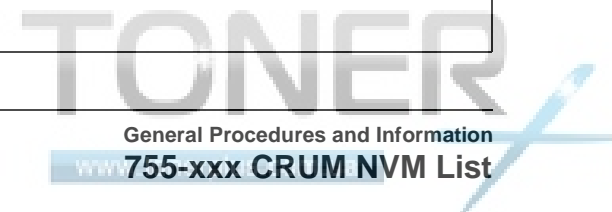




Table 1 Chain 755

Chain-Link	Name	Default	Range	Description
755-210 <b>DC3535 only</b>	#Y_Area Coverage Count, 4C (51-100%)	0	0~65535	Area Coverage counter for 4C (51-100%) (1 bit=1 page)
755-211 <b>DC3535 only</b>	#Y_CRU Install - Color	0	0~4	Y=1; M=2; 3=C; 4=K
755-301 <b>DC3535 only</b>	#M_Area Coverage Count, 4C (0-5%)	0	0~65535	Area Coverage counter for 4C (0 to 5%) (1 bit=1 page)
755-302 <b>DC3535 only</b>	#M_Area Coverage Count, 4C (6-10%)	0	0~65535	Area Coverage counter for 4C (6-10%) (1 bit=1 page)
755-303 <b>DC3535 only</b>	#M_Area Coverage Count, 4C (11-20%)	0	0~65535	Area Coverage counter for 4C (11-20%) (1 bit=1 page)
755-304 <b>DC3535 only</b>	#M_Area Coverage Count, 4C (21-50%)	0	0~65535	Area Coverage counter for 4C (21-50%) (1 bit=1 page)
755-305 <b>DC3535 only</b>	#M_Area Coverage Count, 4C (51-100%)	0	0~65535	Area Coverage counter for 4C (51-100%) (1 bit=1 page)
755-306 <b>DC3535 only</b>	#M_Area Coverage Count, K (0-5%)	0	0~65535	Area Coverage counter for K (0 to 5%) (1 bit=1 page)
755-307 <b>DC3535 only</b>	#M_Area Coverage Count, K (6-10%)	0	0~65535	Area Coverage counter for K (6-10%) (1 bit=1 page)
755-308 <b>DC3535 only</b>	#M_Area Coverage Count, K (11-20%)	0	0~65535	Area Coverage counter for K (11-20%) (1 bit=1 page)
755-309 <b>DC3535 only</b>	#M_Area Coverage Count, K (21-50%)	0	0~65535	Area Coverage counter for 4C (21-50%) (1 bit=1 page)
755-310 <b>DC3535 only</b>	#M_Area Coverage Count, 4C (51-100%)	0	0~65535	Area Coverage counter for 4C (51-100%) (1 bit=1 page)
755-311 <b>DC3535 only</b>	#M_CRU Install - Color	0	0~4	Y=1; M=2; 3=C; 4=K
755-401 <b>DC3535 only</b>	#C_Area Coverage Count, 4C (0-5%)	0	0~65535	Area Coverage counter for 4C (0 to 5%) (1 bit=1 page)
755-402 <b>DC3535 only</b>	#C_Area Coverage Count, 4C (6-10%)	0	0~65535	Area Coverage counter for 4C (6-10%) (1 bit=1 page)
755-403 <b>DC3535 only</b>	#C_Area Coverage Count, 4C (11-20%)	0	0~65535	Area Coverage counter for 4C (11-20%) (1 bit=1 page)
755-404 <b>DC3535 only</b>	#C_Area Coverage Count, 4C (21-50%)	0	0~65535	Area Coverage counter for 4C (21-50%) (1 bit=1 page)
755-405 <b>DC3535 only</b>	#C_Area Coverage Count, 4C (51-100%)	0	0~65535	Area Coverage counter for 4C (51-100%) (1 bit=1 page)
755-406 <b>DC3535 only</b>	#C_Area Coverage Count, K (0-5%)	0	0~65535	Area Coverage counter for K (0 to 5%) (1 bit=1 page)
755-407 <b>DC3535 only</b>	#M_Area Coverage Count, K (6-10%)	0	0~65535	Area Coverage counter for K (6-10%) (1 bit=1 page)
755-408 <b>DC3535 only</b>	#M_Area Coverage Count, K (11-20%)	0	0~65535	Area Coverage counter for K (11-20%) (1 bit=1 page)
755-409 <b>DC3535 only</b>	#C_Area Coverage Count, K (21-50%)	0	0~65535	Area Coverage counter for 4C (21-50%) (1 bit=1 page)

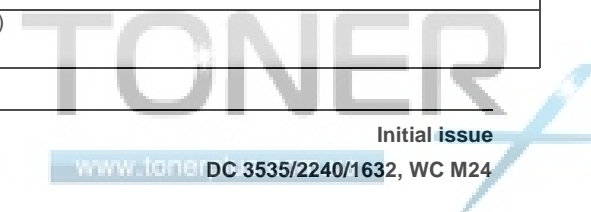




Table 1 Chain 755

Chain-Link	Name	Default	Range	Description
755-410 <b>DC3535 only</b>	#C_Area Coverage Count, 4C (51-100%)	0	0~65535	Area Coverage counter for 4C (51-100%) (1 bit=1 page)
755-411 <b>DC3535 only</b>	#C_CRU Install - Color	0	0~4	Y=1; M=2; 3=C; 4=K
755-501 <b>DC3535 only</b>	#K_Area Coverage Count, 4C (0-5%)	0	0~65535	Area Coverage counter for 4C (0 to 5%) (1 bit=1 page)
755-502 <b>DC3535 only</b>	#K_Area Coverage Count, 4C (6-10%)	0	0~65535	Area Coverage counter for 4C (6-10%) (1 bit=1 page)
755-503 <b>DC3535 only</b>	#K_Area Coverage Count, 4C (11-20%)	0	0~65535	Area Coverage counter for 4C (11-20%) (1 bit=1 page)
755-504 <b>DC3535 only</b>	#K_Area Coverage Count, 4C (21-50%)	0	0~65535	Area Coverage counter for 4C (21-50%) (1 bit=1 page)
755-505 <b>DC3535 only</b>	#K_Area Coverage Count, 4C (51-100%)	0	0~65535	Area Coverage counter for 4C (51-100%) (1 bit=1 page)
755-506 <b>DC3535 only</b>	#K_Area Coverage Count, K (0-5%)	0	0~65535	Area Coverage counter for K (0 to 5%) (1 bit=1 page)
755-507 <b>DC3535 only</b>	#K_Area Coverage Count, K (6-10%)	0	0~65535	Area Coverage counter for K (6-10%) (1 bit=1 page)
755-508 <b>DC3535 only</b>	#K_Area Coverage Count, K (11-20%)	0	0~65535	Area Coverage counter for K (11-20%) (1 bit=1 page)
755-509 <b>DC3535 only</b>	#K_Area Coverage Count, K (21-50%)	0	0~65535	Area Coverage counter for 4C (21-50%) (1 bit=1 page)
755-510 <b>DC3535 only</b>	#K_Area Coverage Count, 4C (51-100%)	0	0~65535	Area Coverage counter for 4C (51-100%) (1 bit=1 page)
755-511 <b>DC3535 only</b>	#K_CRU Install - Color	0	0~4	Y=1; M=2; 3=C; 4=K



## 760-xxx Regicon NVM List

Table 1 Chain 760

Chain-Link	Name	Default	Range	Description
760-001 DC3535	Lposi	3004	0~3004	Permissible misregistration between the center of optical axis of MOB sensor and the center of fine setup pattern (difference between left and right counter values)
760-002 DC3535	NGcnt	50000	0~65535	Count equivalent to Max misregistration on rough setup pattern + retrieval delay
760-003 DC3535	OKcnt	601	0~8000	Count equivalent to AC variation and retrieval delay
760-004 DC3535	ErrV	11483	0~65535	from patch start by belt speed change to the sensor B side of the header block K
760-005 DC3535	GapV	10000	0~65535	Error in count equivalent to 1-block length due to belt speed change
760-006	Block	3	0~4	Threshold of pattern valid no. of Blocks. Fail occurs if the value is not corrected below the threshold.
760-007	Y-MAG	716	0~1432	Adjusts the fast scan direction image 100% magnification by switching the average frequency of each ROS video clock. (DC 2240/1632=1/4 pixel/bit; DC 3535=1/10 pixel/bit)
760-008	M-MAG	716	0~1432	Adjusts the fast scan direction image 100% magnification by switching the average frequency of each ROS video clock. (DC 2240/1632=1/4 pixel/bit; DC 3535=1/10 pixel/bit)
760-009	C-MAG	716	0~1432	Adjusts the fast scan direction image 100% magnification by switching the average frequency of each ROS video clock. (DC 2240/1632=1/4 pixel/bit; DC 3535=1/10 pixel/bit)
760-010	K-MAG	716	0~1432	Adjusts the fast scan direction image 100% magnification by switching the average frequency of each ROS video clock. (DC 2240/1632=1/4 pixel/bit; DC 3535=1/10 pixel/bit)
760-011	Y-BAL	421	0~842	Adjusts the left/right magnification in fast scan direction with respect to image center by changing the sweep gradient of ROS video clock. (DC 2240/1632=1/8 pixel/bit; DC 3535=1/20 pixel/bit)
760-012	M-BAL	421	0~842	Adjusts the left/right magnification in fast scan direction with respect to image center by changing the sweep gradient of ROS video clock. (DC 2240/1632=1/8 pixel/bit; DC 3535=1/20 pixel/bit)
760-013	C-BAL	421	0~842	Adjusts the left/right magnification in fast scan direction with respect to image center by changing the sweep gradient of ROS video clock. (DC 2240/1632=1/8 pixel/bit; DC 3535=1/20 pixel/bit)
760-014	K-BAL	421	0~842	Adjusts the left/right magnification in fast scan direction with respect to image center by changing the sweep gradient of ROS video clock. (DC 2240/1632=1/8 pixel/bit; DC 3535=1/20 pixel/bit)
760-015	Y-Skew misregistration	500	0~1000	100=1 rotation. 500 and above=CW direction, Below 500=CCW direction
760-016	M-Skew misregistration	500	0~1000	100=1 rotation. 500 and above=CW direction, Below 500=CCW direction
760-017	C-Skew misregistration	500	0~1000	100=1 rotation. 500 and above=CW direction, Below 500=CCW direction
760-018	K-Skew misregistration	500	0~1000	100=1 rotation. 500 and above=CW direction, Below 500=CCW direction
760-019	Y-XSO	236	0~472	Adjusts the fast scan direction write start position by the # of Video clocks from SOS signal. (1 pixel/bit)
760-020	M-XSO	236	0~472	Adjusts the fast scan direction write start position by the # of Video clocks from SOS signal. (1 pixel/bit)
760-021	C-XSO	236	0~472	Adjusts the fast scan direction write start position by the # of Video clocks from SOS signal. (1 pixel/bit)
760-022	K-XSO	236	0~472	Adjusts the fast scan direction write start position by the # of Video clocks from SOS signal. (1 pixel/bit)
760-023	Y-YSO	237	0~474	Adjusts the slow scan direction write start position by the #. of LS signal counts from the ROS/Image/Patch Start signal. (1 pixel/bit)
760-024	M-YSO	237	0~474	Adjusts the slow scan direction write start position by the #. of LS signal counts from the ROS/Image/Patch Start signal. (1 pixel/bit)
760-025	C-YSO	237	0~474	Adjusts the slow scan direction write start position by the #. of LS signal counts from the ROS/Image/Patch Start signal. (1 pixel/bit)



Table 1 Chain 760

Chain-Link	Name	Default	Range	Description
760-026	K-YSO	237	0~474	Adjusts the slow scan direction write start position by the #. of LS signal counts from the ROS/Image/Patch Start signal. (1 pixel/bit)
760-027	Regi Con/Circum. Length Correction implement SW	3	0~3	For check during servicing etc. 0=Does not perform Regi Control nor Circumference Length Correction 1=Performs Regi Control, does not perform Circumference Length Correction 2=Does not perform Regi Control, performs Circumference Length Correction 3=Performs Regi Control and Circumference Length Correction
760-028	RC Start Temp	40	10~250	Threshold of (Normal) Regi Control Implementation Temperature difference. Value is 10 times the temperature. (0.1 degree Celsius interval)
760-029	OLRC implementation SW	1	0~1	0=Does not perform Open Loop Regi control; 1=Performs Open Loop Regi control
760-030	Y-OLRC Start Temp	30	10~100	Threshold of Yellow Open Loop Regi control implementation temperature difference. Value is 10 times the temperature. (0.1 degree Celsius interval)
760-031	M-OLRC Start Temp	30	10~100	Threshold of Magenta Open Loop Regi control implementation temperature difference. Value is 10 times the temperature. (0.1 degree Celsius interval)
760-032	K-OLRC Start Temp	30	10~100	Threshold of Black Open Loop Regi Control Implementation Temperature difference. Value is 10 times the temperature. (0.1 degree Celsius interval)
760-033 <b>DC5355</b>	Lchev	100	0~255	Tolerance of color misregistration in lateral direction (2µm/bit)
760-034 <b>DC5353</b>	Pchev	100	0~255	Tolerance of color misregistration in lateral direction (2µm/bit)
760-035	Aok (for Diag Regi Con)	20	1~24	Threshold of No. of valid Blocks of fine adjustment pattern at Diag Regi Control (DC685). NG occurs if the value is out corrected below the threshold.
760-036	Aok (for normal Regi Con)	8	1~12	Threshold of No. of valid Blocks of fine adjustment pattern at Normal Regi Control. NG occurs if the value is out corrected below the threshold.
760-037	LEDset-IN-A	2	0~2	MOB LED On/Off and light quantity step at IN side. 0=Off; 1=Low; 2=High
760-038	LEDset-IN-B	2	0~2	MOB LED On/Off and light quantity step at IN side. 0=Off; 1=Low 2=High
760-039 <b>DC5353</b>	LED-IN-A-Low	12	0~60	Set current value when light quantity on the LED-A side of IN-MOB is Low
760-040 <b>DC5353</b>	LED-IN-A-High	25	0~60	Set current value when light quantity on the LED-A side of IN-MOB is High
760-041 <b>DC5353</b>	LED-IN-B-Low	12	0~60	Set current value when light quantity on the LED-b side of IN-MOB is Low
760-042 <b>DC5353</b>	LED-IN-B-High	25	0~60	Set current value when light quantity on the LED-B side of IN-MOB is High
760-043	LEDset-OUT-A	2	0~2	MOB LED On/Off and light quantity step at OUT side. 0=Off; 1=Low; 2=High
760-044	LEDset-OUT-B	2	0~2	MOB LED On/Off and light quantity step at OUT side 0=Off; 1=Low; 2=High
760-045 <b>DC5353</b>	LED-OUT-A-Low	12	0~60	Set current value when light quantity on the LED-A side of OUT-MOB is Low
760-046 <b>DC5353</b>	LED-OUT-A-High	25	0~60	Set current value when light quantity on the LED-A side of OUT-MOB is High
760-047 <b>DC5353</b>	LED-OUT-B-Low	12	0~60	Set current value when light quantity on the LED-b side of OUT-MOB is Low
760-048 <b>DC5353</b>	LED-OUT-B-High	25	0~60	Set current value when light quantity on the LED-B side of OUT-MOB is High
760-049	Y-XBI	0	0~3	Adjusts fast scan direction write start position by switching the video clock phase from SOS signal. (DC 2240/1632=1 pixel/bit; DC 3535=1/5 pixel/bit)



Table 1 Chain 760

Chain-Link	Name	Default	Range	Description
760-050	M-XBI	0	0~3	Adjusts fast scan direction write start position by switching the video clock phase from SOS signal. (DC 2240/1632=1 pixel/bit; DC 3535=1/5 pixel/bit)
760-051	C-XBI	0	0~3	Adjusts fast scan direction write start position by switching the video clock phase from SOS signal. (DC 2240/1632=1 pixel/bit; DC 3535=1/5 pixel/bit)
760-052	K-XBI	0	0~3	Adjusts fast scan direction write start position by switching the video clock phase from SOS signal. (DC 2240/1632=1 pixel/bit; DC 3535=1/5 pixel/bit)
760-053	Y-OLXSO	10	0~20	Adjust the writing-start position in FS direction, using Open Loop, with number of video locks from SOS signal, based on temperature detection results, separately from normal Regi Con cycle (1 pixel/bit). This NVM is defined by correction amount from the current set value XSO-; the level of correction amount is four steps from -1 to -4 depending on the temperature. XSO- is overwritten based on the selected correction amount.
760-054	M-OLXSO	10	0~20	Adjust the writing-start position in FS direction, using Open Loop, with number of video locks from SOS signal, based on temperature detection results, separately from normal Regi Con cycle (1 pixel/bit). This NVM is defined by correction amount from the current set value XSO-; the level of correction amount is four steps from -1 to -4 depending on the temperature. XSO- is overwritten based on the selected correction amount
760-055	C-OLXSO	10	0~20	Adjust the writing-start position in FS direction, using Open Loop, with number of video locks from SOS signal, based on temperature detection results, separately from normal Regi Con cycle (1 pixel/bit). This NVM is defined by correction amount from the current set value XSO-; the level of correction amount is four steps from -1 to -4 depending on the temperature. XSO- is overwritten based on the selected correction amount
760-056	K-OLXSO	10	0~20	Adjust the writing-start position in FS direction, using Open Loop, with number of video locks from SOS signal, based on temperature detection results, separately from normal Regi Con cycle (1 pixel/bit). This NVM is defined by correction amount from the current set value XSO-; the level of correction amount is four steps from -1 to -4 depending on the temperature. XSO- is overwritten based on the selected correction amount
760-057	Y-OLXBI	0	0~3	Adjust writing-start position in FS direction in Open Loop, by switching video lock phase from SOS signal, based on temperature detection results, separately from normal Regi Con cycle (DC 2240/1632=1 pixel/bit; DC 3535=1/5 pixel/bit). This NVM is defined with the correction amount from the current set values XBI-, XSO-; its level is 5 steps from -1 to -5 depending on the temperature. XBI- and XSO- are overwritten based on the selected correction amount.
760-058	M-OLXBI	0	0~3	Adjust writing-start position in FS direction in Open Loop, by switching video lock phase from SOS signal, based on temperature detection results, separately from normal Regi Con cycle (DC 2240/1632=1 pixel/bit; DC 3535=1/5 pixel/bit). This NVM is defined with the correction amount from the current set values XBI-, XSO-; its level is 5 steps from -1 to -5 depending on the temperature. XBI- and XSO- are overwritten based on the selected correction amount.
760-059	O-OLXBI	0	0~3	Adjust writing-start position in FS direction in Open Loop, by switching video lock phase from SOS signal, based on temperature detection results, separately from normal Regi Con cycle (DC 2240/1632=1 pixel/bit; DC 3535=1/5 pixel/bit). This NVM is defined with the correction amount from the current set values XBI-, XSO-; its level is 5 steps from -1 to -5 depending on the temperature. XBI- and XSO- are overwritten based on the selected correction amount.



Table 1 Chain 760

Chain-Link	Name	Default	Range	Description
760-060	K-OLXBI	0	0~3	Adjust writing-start position in FS direction in Open Loop, by switching video lock phase from SOS signal, based on temperature detection results, separately from normal Regi Con cycle (DC 2240/1632=1 pixel/bit; DC 3535=1/5 pixel/bit). This NVM is defined with the correction amount from the current set values XBI-, XSO-; its level is 5 steps from -1 to -5 depending on the temperature. XBI- and XSO- are overwritten based on the selected correction amount.
760-061	Y-OLYSO	4	0~20	Adjust using Open Loop the writing-start position in SS direction with the number of LS signal counts from ROS Image Patch Start signal, based on temperature detection results, separately from normal Regi Con cycle (1 pixel/bit). This NVM is defined with the correction amount from the current set value YSO-; its level is 4 steps from -1 to -4 depending on the temperature. YSO- is overwritten based on the selected correction amount.
760-062	M-OLYSO	10	0~20	Adjust using Open Loop the writing-start position in SS direction with the number of LS signal counts from ROS Image Patch Start signal, based on temperature detection results, separately from normal Regi Con cycle (1 pixel/bit). This NVM is defined with the correction amount from the current set value YSO-; its level is 4 steps from -1 to -4 depending on the temperature. YSO- is overwritten based on the selected correction amount.
760-063	C-OLYSO	10	0~20	Adjust using Open Loop the writing-start position in SS direction with the number of LS signal counts from ROS Image Patch Start signal, based on temperature detection results, separately from normal Regi Con cycle (1 pixel/bit). This NVM is defined with the correction amount from the current set value YSO-; its level is 4 steps from -1 to -4 depending on the temperature. YSO- is overwritten based on the selected correction amount.
760-064	K-OLYSO	10	0~20	Adjust using Open Loop the writing-start position in SS direction with the number of LS signal counts from ROS Image Patch Start signal, based on temperature detection results, separately from normal Regi Con cycle (1 pixel/bit). This NVM is defined with the correction amount from the current set value YSO-; its level is 4 steps from -1 to -4 depending on the temperature. YSO- is overwritten based on the selected correction amount.
760-065	Y-OLMAG	100	0~200	In Open Loop, adjust all magnification in FS direction by switching the average frequency of video clock of each ROS, based on temperature detection results, separately from normal Regi Con cycle (DC 2240/1632=1/4 pixel/bit; DC 3535=1/10 pixel/bit). This NVM is defined with the correction amount from the current set value MAG-; its level is 4 steps from -1 to -4 depending on temperature. The above MAG- is overwritten based on the selected correction amount
760-066	M-OLMAG	100	0~200	In Open Loop, adjust all magnification in FS direction by switching the average frequency of video clock of each ROS, based on temperature detection results, separately from normal Regi Con cycle (DC 2240/1632=1/4 pixel/bit; DC 3535=1/10 pixel/bit). This NVM is defined with the correction amount from the current set value MAG-; its level is 4 steps from -1 to -4 depending on temperature. The above MAG- is overwritten based on the selected correction amount
760-067	C-OLMAG	100	0~200	In Open Loop, adjust all magnification in FS direction by switching the average frequency of video clock of each ROS, based on temperature detection results, separately from normal Regi Con cycle (DC 2240/1632=1/4 pixel/bit; DC 3535=1/10 pixel/bit). This NVM is defined with the correction amount from the current set value MAG-; its level is 4 steps from -1 to -4 depending on temperature. The above MAG- is overwritten based on the selected correction amount
760-068	K-OLMAG	100	0~200	In Open Loop, adjust all magnification in FS direction by switching the average frequency of video clock of each ROS, based on temperature detection results, separately from normal Regi Con cycle (DC 2240/1632=1/4 pixel/bit; DC 3535=1/10 pixel/bit). This NVM is defined with the correction amount from the current set value MAG-; its level is 4 steps from -1 to -4 depending on temperature. The above MAG- is overwritten based on the selected correction amount



Table 1 Chain 760

Chain-Link	Name	Default	Range	Description
760-069 <b>DC3535</b>	Skew Alarm threshold	30	0~255	Threshold of Skew amount; if this value is exceeded, it is registered as a failure. (2µm/bit)
760-070	Y-LD light volume at last RegiCon	0	0~1023	Laser Diode light quantity when Regi Control is performed.
760-071	M-LD light volume at last RegiCon	0	0~1023	Laser Diode light quantity when Regi Control is performed.
760-072	C-LD light volume at last RegiCon	0	0~1023	Laser Diode light quantity when Regi Control is performed.
760-073	K-LD light volume at last RegiCon	0	0~1023	Laser Diode light quantity when Regi Control is performed.
760-074	Y-XSO after LD light volume change	236	0~472	XSO value after correction based on the Laser Diode light quantity variation
760-075	M-XSO after LD light volume change	236	0~472	XSO value after correction based on the Laser Diode light quantity variation
760-076	C-XSO after LD light volume change	236	0~472	XSO value after correction based on the Laser Diode light quantity variation
760-077	K-XSO after LD light volume change	236	0~472	XSO value after correction based on the Laser Diode light quantity variation
760-078	Y-XBI after LD light volume change	0	0~3	XBI value after correction based on the Laser Diode light quantity variation
760-079	M-XBI after LD light volume change	0	0~3	XBI value after correction based on the Laser Diode light quantity variation
760-080	C-XBI after LD light volume change	0	0~3	XBI value after correction based on the Laser Diode light quantity variation
760-081	K-XBI after LD light volume change	0	0~3	XBI value after correction based on the Laser Diode light quantity variation
760-082 <b>DC3535</b>	Specified LD light quantity [Y]	0	0~1023	Current Laser Diode light quantity (LD light quantity specified by ROS)
760-083 <b>DC3535</b>	Specified LD light quantity [M]	0	0~1023	Current Laser Diode light quantity (LD light quantity specified by ROS)
760-084 <b>DC3535</b>	Specified LD light quantity [C]	0	0~1023	Current Laser Diode light quantity (LD light quantity specified by ROS)
760-085 <b>DC3535</b>	Specified LD light quantity [K]	0	0~1023	Current Laser Diode light quantity (LD light quantity specified by ROS)
760-090 <b>DC3535</b>	Frequency of RegiCon implemented at the same time as ProCon	3	0~16	in what cycle RegiCon should be implemented at the same timing as ProCon during job
760-091 <b>DC3535</b>	YSO at Y-165mm/s	237	0~474	1 dot
760-092 <b>DC3535</b>	YSO at M-165mm/s	237	0~474	1 dot
760-094 <b>DC3535</b>	YSO at K-165mm/s	237	0~474	1 dot
760-095 <b>DC3535</b>	Y-X direction speed correction amount	17	0~32	1/4 dot
760-096 <b>DC3535</b>	M-X direction speed correction amount	17	0~32	1/4 dot
760-097 <b>DC3535</b>	C-X direction speed correction amount	16	0~32	1/4 dot
760-098 <b>DC3535</b>	K-X direction speed correction amount	16	0~32	1/4 dot
760-099 <b>DC3535</b>	Process speed at last Regi-Con	0	0~1	0=RegiCon last implemented at 104 or 52mm/s; 1=RegiCon last implemented at 165mm/sec.
760-100 <b>DC3535</b>	Y-Y margin speed switch variation	156	0~200	(Y margin variation amount when the speed is switched from 104 or 52mm/sec. to 165mm/s)-100, for Yellow (1 µm/bit)



Table 1 Chain 760

Chain-Link	Name	Default	Range	Description
760-101 DC3535	M-Y margin speed switch variation	138	0~200	(Y margin variation amount when the speed is switched from 104 or 52mm/sec. to 165mm/sec.)-100, for Magenta (1 µm/bit)
760-102 DC3535	K-Y margin speed switch variation	83	0~200	(Y margin variation amount when the speed is switched from 104 or 52mm/sec. to 165mm/sec.)-100, for Black (1 µm/bit)
760-103 DC3535	Skew offset	64	0~70	Difference between the right value and Skew amount detected at the speed of 104mm/sec. (1 µm/bit)
760-104 DC3535	Y-IN-Y margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-105 DC3535	M-IN-Y margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-106 DC3535	K-IN-Y margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-107 DC3535	Y-IN-X margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-108 DC3535	M-IN-X margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-109 DC3535	C-IN-X margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-110 DC3535	K-IN-X margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-111 DC3535	Y-OUT-Y margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-112 DC3535	M-OUT-Y margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-113 DC3535	K-OUT-Y margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-114 DC3535	Y-OUT-X margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-115 DC3535	M-OUT-X margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-116 DC3535	C-OUT-X margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-117 DC3535	K-OUT-X margin MOB reading	0	0~1000	Skew amount + 500µm (1 µm/bit)
760-118 DC3535	Register set value for YSO-ROS at Y 104 & 52mm/s	237	0~474	PS register set value; for debugging
760-119 DC3535	Register set value for YSO-ROS at M 104 & 52mm/s	237	0~474	PS register set value; for debugging
760-120 DC3535	Register set value for YSO-ROS at C 104 & 52mm/s	237	0~474	PS register set value; for debugging
760-121 DC3535	Register set value for YSO-ROS at K 104 & 52mm/s	237	0~474	PS register set value; for debugging



Table 1 Chain 760

Chain-Link	Name	Default	Range	Description
760-122 <b>DC3535</b>	Register set value for YSO-ROS at Y 165mm/s	237	0~474	PS register set value; for debugging
760-123 <b>DC3535</b>	Register set value for YSO-ROS at M 165mm/s	237	0~474	PS register set value; for debugging
760-124 <b>DC3535</b>	Register set value for YSO-ROS at C 165mm/s	237	0~474	PS register set value; for debugging
760-125 <b>DC3535</b>	Register set value for YSO-ROS at K 165mm/s	237	0~474	PS register set value; for debugging
760-126 <b>DC3535</b>	Misregistration after correction of Y margin at Y- 104 & 52mm/sec.	50000	0~100000	Skew amount ( $\mu\text{m}$ ) x 100 + 50000; for debugging
760-127 <b>DC3535</b>	Misregistration after correction of M margin at Y- 104 & 52mm/sec.	50000	0~100000	Skew amount ( $\mu\text{m}$ ) x 100 + 50000; for debugging
760-128 <b>DC3535</b>	Misregistration after correction of C margin at Y- 104 & 52mm/sec.	50000	0~100000	Skew amount ( $\mu\text{m}$ ) x 100 + 50000; for debugging
760-129 <b>DC3535</b>	Misregistration after correction of K margin at Y- 104 & 52mm/sec.	50000	0~100000	Skew amount ( $\mu\text{m}$ ) x 100 + 50000; for debugging
760-130 <b>DC3535</b>	Misregistration after correction of Y margin at Y- 165mm/sec.	50000	0~100000	Skew amount ( $\mu\text{m}$ ) x 100 + 50000; for debugging
760-131 <b>DC3535</b>	Misregistration after correction of M margin at Y- 165mm/sec.	50000	0~100000	Skew amount ( $\mu\text{m}$ ) x 100 + 50000; for debugging
760-132 <b>DC3535</b>	Misregistration after correction of C margin at Y- 165mm/sec.	50000	0~100000	Skew amount ( $\mu\text{m}$ ) x 100 + 50000; for debugging
760-133 <b>DC3535</b>	Misregistration after correction of K margin at Y- 165mm/sec.	50000	0~100000	Skew amount ( $\mu\text{m}$ ) x 100 + 50000; for debugging



## 762-xxx Developer NVM List

Table 1 Chain 762

Chain-Link	Name	Default	Range	Description
762-002	#YMC Normal VM1 value	351	0~1023 (1bit=-0.684V)	Vm1 Developer DC energized voltage at YMC Color/Normal speed (104mm/sec.)
762-008	#YM_DB AC Normal Vp-p value	600	0~1023 (1bit=1.491Vpp)	AC peak to peak energized voltage at YM Color/Normal speed.
762-009	#YM_DB AC Normal monitor value	0	0~1023 (1bit=1.491Vpp)	AC applied voltage monitor value at YM Color/Normal speed.
762-012	#K_DB DC Normal Vm1 value	351	0~1023 (1bit=-0.684V)	Vm1 Developer DC energized voltage at K Color/Normal speed (104mm/sec.)
762-013	#CK_DB AC Normal Vp-p value	600	0~1023 (1bit=1.491Vpp)	AC peak to peak energized voltage at CK Color/Normal speed.
762-014	CK_DB AC Normal monitor value	0	0~1023 (1bit=1.491Vpp)	AC applied voltage monitor value at CK Color/Normal speed.
762-015	AC Bias Normal target value	818	0~1023 (1bit=1.491Vpp)	AC target value for Normal speed.
762-018	#YMC_DB DC Half-speed Vm1 value	351	0~1023 (1bit=-0.684V)	Vm1 Developer DC energized voltage at YMC Color/Half speed (52mm/sec.)
762-024	#YM_DB AC Half-speed Vp-p value	600	0~1023 (1bit=1.491Vpp)	AC peak to peak energized voltage at YM Color/Half speed.
762-028	#K_DB DC Half-speed Vm1 value	351	0~1023 (1bit=-0.684V)	Vm1 Developer DC energized voltage at K Color/Half speed (52mm/sec.)
762-029	#CK_DB AC Half-speed Vp-p value	600	0~1023 (1bit=1.491Vpp)	AC peak to peak energized voltage at CK Color/Half speed.
762-040	Recovery DB Normal output value	818	0~1023 (1bit=-0.684V)	Dev Bias applied ref. value during recovery operation - Normal speed.
762-041	Recovery DB half-speed output value	818	0~1023 (1bit=-0.684V)	Dev Bias applied ref. value during recovery operation - half speed.
762-042	Total Drum rotations - YMC	0	0~65535	Total Drum rotations - YMC
762-043	Pixel/Drum rotation threshold for Deve-Band	20	0~65535	reference value (cumulative no. of pixels/total drum rotations) for creation of DeveBand; 0=No Dev band
762-044	cumulative ICDC_Band_Value_Y	0	0~409600	Y Color cumulative Pixels
762-045	cumulative ICDC_Band_Value_M	0	0~409600	M Color cumulative Pixels
762-046	cumulative ICDC_Band_Value_C	0	0~409600	C Color cumulative Pixels
762-047	cumulative ICDC_Band_Value_K	0	0~409600	K Color cumulative Pixels
762-052	#YM_DB AC Normal test value	0	0~100	AC Voltage test value for YM Color Normal Speed
762-053	#YM_DB AC Normal Frequency	59	0~127	AC Energized Voltage Frequency for YM Color Normal Speed
762-054	#YM_DB AC Normal Output Phase value	65	0~127	AC Energized Voltage Phase Value at YM Color Normal Speed
762-058	#CK_DB AC Normal test value	0	0~100	AC Voltage test value for CK Color Normal Speed
762-059	#CK_DB AC Normal Frequency	59	0~127	AC Energized Voltage Frequency at CK Color Normal Speed
762-060	#CK_DB AC Normal Output Phase value	65	0~127	AC Energized Voltage Phase Value at CK Color Normal Speed



Table 1 Chain 762

Chain-Link	Name	Default	Range	Description
762-061	AC Bias normal test value	0	0~100	AC Voltage test value at normal speed
762-062	AC Bias normal frequency	60	0~127	AC Voltage frequency at normal speed
762-064	#YM_DB AC Half-speed Frequency	60	0~127	AC Energized Voltage Frequency at YM Color Half Speed
762-065	YM_DB AC Half-speed Output Phase value	65	0~127	AC Energized Voltage Phase Value at YM Color Half Speed
762-070	#CK_DB AC Half-speed Frequency	60	0~127	AC Energized Voltage Frequency at CK Color Half Speed
762-071	#CK_DB AC Half-speed Output Phase value	65	0~127	AC Energized Voltage Phase Value at CK Color Half Speed
762-073	#Y_DB DC Vm0 On Normal Timing	110	0~255 1bit=2.4462 msec	Rise timing from 0V to Vm0 for Y Color Normal Speed.
762-074	#M_DB DC Vm0 On Normal Timing	110	0~255 1bit=2.4462 msec	Rise timing from 0V to Vm0 for M Color Normal Speed.
762-075	#C_DB DC Vm0 On Normal Timing	110	0~255 1bit=2.4462 msec	Rise timing from 0V to Vm0 for C Color Normal Speed.
762-076	#K_DB DC Vm0 On Normal Timing	110	0~255 1bit=2.4462 msec	Rise timing from 0V to Vm0 for K Color Normal Speed.
762-077	#Y_DB DC Vm1 Off Normal Timing	90	0~255 1bit=2.4462 msec	Fall timing from Vm1 to Vm0 for Y Color Normal Speed.
762-078	#M_DB DC Vm1 Off Normal Timing	90	0~255 1bit=2.4462 msec	Fall timing from Vm1 to Vm0 for M Color Normal Speed.
762-079	#C_DB DC Vm1 Off Normal Timing	90	0~255 1bit=2.4462 msec	Fall timing from Vm1 to Vm0 for C Color Normal Speed.
762-080	#K_DB DC Vm1 Off Normal Timing	82	0~255 1bit=2.4462msec	Fall timing from Vm1 to Vm0 for K Color Normal Speed.
762-081	#Y_DB DC VB1 On Normal Timing	110	0~255 1bit=2.4462 msec	Rise timing from Vm1 to VB1 for Y Color Normal Speed.
762-082	#M_DB DC VB1 On Normal Timing	110	0~255 1bit=2.4462 msec	Rise timing from Vm1 to VB1 for M Color Normal Speed.
762-083	#C_DB DC VB1 On Normal Timing	110	0~255	Rise timing from Vm1 to VB1 for C Color Normal Speed. (1bit=2.4462 msec.)
762-084	#K_DB DC VB1 On Normal Timing	102	0~255	Rise timing from Vm1 to VB1 for K Color Normal Speed. (1bit=2.4462 msec.)
762-089	#Y_DB DC VB Off Normal Timing	90	0~255	Fall timing from VB to VB2 for Y Color Normal Speed. (1bit=2.4462 msec.)
762-090	#M_DB DC VB Off Normal Timing	90	0~255	Fall timing from VB to VB2 for M Color Normal Speed. (1bit=2.4462 msec.)
762-091	#C_DB DC VB Off Normal Timing	90	0~255	Fall timing from VB to VB2 for C Color Normal Speed. (1bit=2.4462 msec.)
762-092	#K_DB DC VB Off Normal Timing	82	0~255	Fall timing from VB to VB2 for K Color Normal Speed. (1bit=2.4462 msec.)
762-093	#YM_DB AC On Normal Timing	110	0~255	AC Voltage Energized timing for YM Color Normal Speed. (1bit=2.4462 msec.)
762-094	#CK_DB AC On Normal Timing	110	0~255	AC Voltage Energized timing for CK Color Normal Speed. (1bit=2.4462 msec.)
762-095	#YM_DB AC Off Normal Timing	118	0~255	AC Voltage off timing for YM Color Normal Speed. (1bit=2.4462 msec.)
762-096	#CK_DB AC Off Normal Timing	118	0~255	AC Voltage Off timing for CK Color Normal Speed.
762-097	#Y_DB DC Vm0 On half speed timing	104	0~255	Rise timing from 0V to Vm0 for Y Color half speed. (1bit=4.8924 msec.)
762-098	#M_DB DC Vm0 On half speed timing	104	0~255	Rise timing from 0V to Vm0 for M Color half speed. (1bit=4.8924 msec.)
762-099	#C_DB DC Vm0 On half speed timing	104	0~255	Rise timing from 0V to Vm0 for C Color half speed. (1bit=4.8924 msec.)
762-100	#K_DB DC Vm0 On half speed timing	96	0~255	Rise timing from 0V to Vm0 for K Color half speed. (1bit=4.8924 msec.)
762-101	#Y_DB DC Vm1 Off half speed timing	92	0~255	Fall timing from Vm1 to Vm0 for Y Color half speed. (1bit=4.8924 msec.)



Table 1 Chain 762

Chain-Link	Name	Default	Range	Description
762-102	#M_DB DC Vm1 Off half speed timing	92	0~255	Fall timing from Vm1 to Vm0 for M Color half speed. (1bit=4.8924 msec.)
762-103	#C_DB DC Vm1 Off half speed timing	92	0~255	Fall timing from Vm1 to Vm0 for C Color half speed. (1bit=4.8924 msec.)
762-104	#K_DB DC Vm1 Off half speed timing	92	0~255	Fall timing from Vm1 to Vm0 for K Color half speed. (1bit=4.8924 msec.)
762-105	#Y_DB DC VB1 On half-speed timing	104	0~255	Rise timing from Vm1 to VB1 for Y Color Half Speed. (1bit=4.8924 msec.)
762-106	#M_DB DC VB1 On half-speed timing	104	0~255	Rise timing from Vm1 to VB1 for M Color Half Speed. (1bit=4.8924 msec.)
762-107	#C_DB DC VB1 On half-speed timing	104	0~255	Rise timing from Vm1 to VB1 for C Color Half Speed. (1bit=4.8924 msec.)
762-108	#K_DB DC VB1 On half-speed timing	94	0~255	Rise timing from Vm1 to VB1 for K Color Half Speed. (1bit=4.8924 msec.)
762-113	#Y_DB DC VB Off half-speed timing	92	0~255	Fall timing from VB to VB2 for Y Color Half Speed. (1bit=4.8924 msec.)
762-114	#M_DB DC VB Off half-speed timing	92	0~255	Fall timing from VB to VB2 for M Color Half Speed. (1bit=4.8924 msec.)
762-115	#C_DB DC VB Off half-speed timing	92	0~255	Fall timing from VB to VB2 for C Color Half Speed. (1bit=4.8924 msec.)
762-116	#K_DB DC VB Off half-speed timing	88	0~255	Fall timing from VB to VB2 for K Color Half Speed. (1bit=4.8924 msec.)
762-117	#YM_DB AC On half-speed timing	110	0~255	AC Voltage Energized timing for YM Color Half Speed. (1bit=4.8924 msec.)
762-118	#CK_DB AC On half-speed timing	110	0~255	AC Voltage Energized timing for CK Color Half Speed. (1bit=4.8924 msec.)
762-119	#YM_DB AC Off half-speed timing	108	0~255	AC Voltage off timing for YM Color Half Speed. (1bit=4.8924 msec.)
762-120	#CK_DB AC Off half-speed timing	108	0~255	AC Voltage off timing for CK Color Half Speed. (1bit=4.8924 msec.)
762-121	#YMC_Dev MOT On Normal Timing	184	0~255	Color Developer during motor rising timing for Normal Speed. (1bit=2.4462 msec.)
762-122	#YMC_Dev MOT Off Normal Timing	303	0~1023	Color Developer during motor falling timing for Normal Speed. (1bit=2.4462 msec.)
762-123	#YMC_Dev MOT On half-speed timing	184	0~255	Color Developer during motor rising timing for Half Speed. (1bit=4.8924 msec.)
762-124	#YMC_Dev MOT Off half-speed timing	303	0~1023	Color Developer during motor falling timing for Half Speed. (1bit=4.8924 msec.)
762-125	Recovery DB normal On time	159	0~255	Rise time for Dev Bias during recovery operation - normal speed. (1bit=2.4462 msec.)
762-126	Recovery DB half-speed On time	159	0~255	Rise time for Dev Bias during recovery operation - half speed. (1bit=2.4462 msec.)
762-134	#K_Deve C/L On Normal Timing	164	0~255	K Color Developer during clutch rising timing for Normal Speed. (1bit=2.4462 msec.)
762-135	#K_Deve C/L Off Normal Timing	531	0~1023	K Color Developer during clutch falling timing for Normal Speed. (1bit=2.4462 msec.)
762-136	#K_Deve C/L On half-speed timing	164	0~255	K Color Developer during clutch rising timing for Half Speed. (1bit=4.8924 msec.)
762-137	#K_Deve C/L Off half-speed timing	531	0~1023	K Color Developer during clutch falling timing for Half Speed. (1bit=4.8924 msec.)
762-148	Total Drum rotations_K	0	0~65535	Total number of Black Drum rotations.
762-219	toner_band_width_YMC	10	0~30	Xero/Deve band width (mm) Setup value for YMC Color
762-220	toner_band_width_K	10	0~30	Xero/Deve band width (mm) Setup value for K Color
762-221	toner_band_density_Half-speed_YMC	153	0~255	Half Speed Xero/Deve band density setup value at YMC Color (1bit=0.3922%)
762-222	toner_band_density_Half-speed_K	153	0~255	Half Speed Xero/Deve band density setup value at K Color (1bit=0.3922%)
762-223	toner_band_density_Normal_YMC	153	0~255	Normal Speed Xero/Deve band density setup value at YMC Color (1bit=0.3922%)
762-224	toner_band_density_Normal_K	153	0~255	Normal Speed Xero/Deve band density setup value at K Color (1bit=0.3922%)
762-225	toner_band_density_Hi-speed_YMC	51	0~255	High Speed Xero/Deve band density setup value at YMC Color (1bit=0.3922%)
762-226	toner_band_density_Hi-speed_K	153	0~255	High Speed Xero/Deve band density setup value at K Color (1bit=0.3922%)
762-228	#YM_DB AC Hi-speed Vp-p Value	600	0~1023	AC peak to peak energized voltage at YM Color High Speed. (1bit=0.3922%)
762-229	#CK_DB AC Hi-speed Vp-p Value	600	0~1023 (1bit=1.491Vpp)	AC peak to peak energized voltage at CK Color High Speed.
762-230	Recovery DB increased-speed output	600	0~1023	Reference value for Dev. Bias during recovery operation at increased speed. (1bit=-0.684V)
762-231	#YM_DB AC Hi-speed Frequency	*	0~127	AC energized voltage frequency at YM Color High Speed. * Default=63 for DC 2240/1632; 59 for DC 3535



Table 1 Chain 762

Chain-Link	Name	Default	Range	Description
762-232	#YM_DB AC Hi-speed Output Phase Value	65	0~127	AC energized voltage phase value at YM Color High Speed.
762-233	#CK_DB AC Hi-speed Frequency	*	0~127	AC energized voltage frequency at CM Color High Speed. * Default=63 for DC 2240/1632; 59 for DC 3535
762-234	#CK_DB AC Hi-speed Output Phase Value	65	0~127	AC energized voltage phase value at CK Color High Speed.
762-235 <b>DC3535</b>	Recovery DB increased speed On time	159	0~255	Rise timing for Dev Bias during recovery (for increased speed)
762-308 <b>DC 3535</b>	Dev_Warn timer	590947	0~150000	Dev HFSI warning timer

## 764-xxx Output (Finisher) NVM List

Table 1 Chain 764

Chain-Link	Name	Default	Range	Description
764-001	Mix Stack	0	0~1	0=Disable; 1=Enable
764-002	Set Count	50	10~100	Maximum No. of sets allowed
764-003	Unstaple Compile Sheet Count (Small Size)	50	10~100	No. of Small Size sheets compiled.
764-004	Maximum Compile Sheet Count	50	10~100	No. of sheets compiled.







## 770-xxx ESS IO Port/Protocol Setting NVM List

Table 1 Chain 770

Chain-Link	Name	Default	Range	Description
770-001	Parallel Port Enable	1	0~1	0=Stop 1=Start Up
770-002	Parallel Print ModeType	1	1~23	1=Auto; 3=HPGL2; 5=PostScript; 8=ESCP; 10=TIFF; 14=Dump; 15=ART; 16=PLW
770-003	Parallel PjL Switch	1	0~1	0=Off; 1=On
770-004	Parallel Adobe Protocol	0	0~2	0=Standard; 1=Binary; 2=TBCP
770-005	Parallel Auto Feed Time	6	1~255	1~255 (5 sec./bit)
770-006	Parallel Input Prime	1	0~1	0=Off; 1=On
770-007	Parallel COMM Mode	0	0~1	0=On 1=Off
770-009	Parallel Corresponding Standard	0	0~1	0=IEEE P1284 1=Centronics
770-010	Ethernet Transfer Rate	Auto	-	0x7F=Auto, 2=100BASE-TX, 1=10BASE-T
770-030	NetWare Frame Type	255	-	255=Auto; 1=Ethernet 802.3; 2=Ethernet II; 3=Ethernet 802.2; 4=Ethernet SNAP; 5=Token 802.5; 6=Token SNAP;
770-040	EtherTalk Port Enable	1	0~1	0=Disable; 1=Enable
770-041	EtherTalk Print Type	Post-Script	-	PostScript
770-042	EtherTalk JCL Enable	1	0~1	0=Off; 1=On
770-050	Netware Port Enable	0	0~1	0=Stop; 1=Start Up
770-051	Netware Print Mode Type	1	1~23	1=Auto; 3=HPGL2; 5=PostScript; 8=ESCP; 10=TIFF; 16=ART; 17=PLW; 23=Dump
770-052	Netware JCL Enable	1	0~1	0=Cannot be used; 1=Can be used
770-053	NetWare TBCP Valid	0	0~1	0=None 1=TBCP
770-054	NetWare Trans. Protocol	1	0~3	1=IPX/SPX, 2=TCP/IP, 3=both
770-060	Lpd Port Enable	1	0~1	0=Stop 1=Start Up
770-061	Lpd Print Mode Type	1	1~23	1=Auto; 3=HPGL2; 5=PostScript; 8=ESCP; 10=TIFF; 16=ART; 17=PLW; 23=Dump
770-062	Lpd JCL Enable	1	0~1	0=Off; 1=On
770-063	TBCP Valid Flag	0	0~1	0=None 1=TBCP
770-064	Lpd Spool Mode	1	0~1	0=Non Spool 1=Spool
770-065	Lpd Time-out	16	2~65,535	2~3600sec
770-070	Lpd Address Limitation	0	0~1	1=Yes 0=No
770-071	lpd Valid IP Address 1	0.0.0.0	-	00000000~FFFFFFFF
770-072	lpd Valid IP Address 2	0.0.0.0	-	00000000~FFFFFFFF
770-073	lpd Valid IP Address 3	0.0.0.0	-	00000000~FFFFFFFF
770-074	lpd Valid IP Address 4	0.0.0.0	-	00000000~FFFFFFFF
770-075	lpd Valid IP Address 5	0.0.0.0	-	00000000~FFFFFFFF
770-080	SMB Port Enable	1	0~1	0=Stop 1=Start Up
770-081	SMB Print Mode Type	1	1~23	1=Auto; 3=HPGL2; 5=PostScript; 8=ESCP; 10=TIFF; 16=ART; 17=PLW; 23=Dump
770-082	SMB JCL Enable is SMB PjL Enable for AP	1	0~1	0=Off; 1=On
770-083	SMB TBCP Valid Flag	0	0~1	0=None 1=TBCP
770-084	SMB Spool Mode	1	0~1	0=Non Spool 1=Spool
770-085	SMB Transport Protocol	6	2~6	2=TCP/IP, 4=NetBeui, 6=both

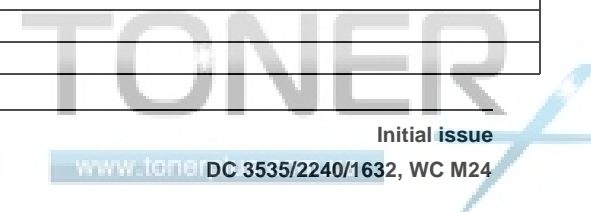
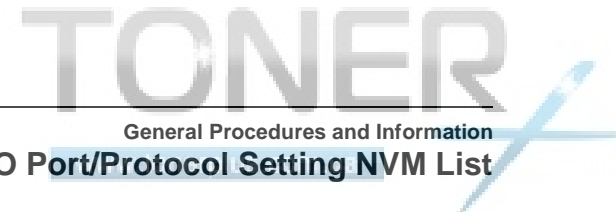




Table 1 Chain 770

Chain-Link	Name	Default	Range	Description
770-090	IPP Port Enable	1	0~1	0=Stop; 1=Start Up
770-091	IPP Print Mode Type	1	-	1=Auto; 3=HPGL2; 5=PostScript; 8=ESCP; 10=TIFF; 16=ART; 17=PLW; 23=Dump
770-092	IPP JCL Enable is IPP PJJ Enable for AP	1	0~1	0=Off; 1=On
770-093	IPP TBCP Valid Flag	0	0~1	0=None; 1=TBCP
770-094	Acl Authorization	0	-	0=Off; 1=On
770-095	Use DNS Name	0	0~1	On, Off
770-097	Port no.	80	0~9999	0, 80, any one value between 8000~9999
770-098	IPP Spool Mode	1	-	0=Non Spool; 1=Spool
770-099	Time Out	60	0~65535	0~65535 [sec.]
770-100	DHCP Mode	DHCP	-	0x10=Manual, 4=BOOTP, 2=DHCP, 1=RARP
770-101	IP Address	0.0.0.0	0x00000000~0xFF FFFFFF	00000000~FFFFFFF
770-102	Subnet Mask	0.0.0.0	0x00000000~0xFF FFFFFF	00000000~FFFFFFF
770-103	Gateway Address	0.0.0.0	0x00000000~0xFF FFFFFF	00000000~FFFFFFF
770-110	DNS Auto Config.	DHCP	0~1	1=Manual Setting; 2=DHCP
770-112	DNS Domain Name	NULL		DNS Domain Name (Normally, it is within 255 characters including the. (dot) at the end which is not displayed)
770-120	TBD	DHCP		1=Manual Setting; 2=DHCP
770-121	TBD	0.0.0.0		00000000~FFFFFFF
770-123	TBD	0.0.0.0	0x00000000~0xFF FFFFFF	00000000~FFFFFFF
770-130	Agent Port Enable	1	0~1	0=Stop; 1=Start Up
770-131	Agent Transport Flag	2	-	0=both Off, 1=IPX, 2=UDP, 3=both On
770-133	Agent Community Name	NULL	-	JISX0201 Character Code 12 Characters (Replace to fxSystemMgr on the PDU) Agent Community Name 1 ~ Agent Community Name 10
770-140	EWS Port Enable	1	0~1	0=Stop; 1=Start Up
770-150	Salutation Port Enable	1	0~1	0=Stop; 1=Start Up
770-160	MFIO Port Enable (FTP)	1	0~1	0=Stop; 1=Start Up
770-166	HTTP Max Session	5	-	1~10
770-190	Mail Service Start/Stop	1	0~1	1=Start Up; 0=Stop
770-191	Address of Mail Sender	NULLR	-	Maximum 128 ASCII characters (types include alphanumerics, [ @ ] [ . (period) ] [ + ] [ - ] [ = ] [ _ (underscore) ] [ / ] [ < ] [ > ] ). Format=username@domain.name
770-202	SMTP Mail Server IP Address	0.0.0.0	0x00000000~0xFF FFFFFF	00000000~FFFFFFF





## 780-xxx ESS Print Frame Setting NVM List

Table 1 Chain 780

Chain-Link	Name	Default	Range	Description
780-013	Paper Type for Tray 1	22	1~27	1=Plain Paper; 2=Transparency; 6=Label; 8=Coated 1; 10=HW1;12=HW2;14=Recycled Paper; 21=Light-weight; 22=Bond; 23~27=Custom Paper 1~5; 31=Coated 2; 35=Coated 1(F); 36=HW1A; 37=HW1B; 38=HW1C; 39=HW1S; 40=HW2A
780-014	Paper Type for Tray 2	22		1=Plain Paper; 2=Transparency; 6=Label; 8=Coated 1; 10=HW1;12=HW2;14=Recycled Paper; 21=Light-weight; 22=Bond; 23~27=Custom Paper 1~5; 31=Coated 2; 35=Coated 1(F); 36=HW1A; 37=HW1B; 38=HW1C; 39=HW1S; 40=HW2A
780-015	Paper Type for Tray 3	22		1=Plain Paper; 2=Transparency; 6=Label; 8=Coated 1; 10=HW1;12=HW2;14=Recycled Paper; 21=Light-weight; 22=Bond; 23~27=Custom Paper 1~5; 31=Coated 2; 35=Coated 1(F); 36=HW1A; 37=HW1B; 38=HW1C; 39=HW1S; 40=HW2A
780-016	Paper Type for Tray 4	22		1=Plain Paper; 2=Transparency; 6=Label; 8=Coated 1; 10=HW1;12=HW2;14=Recycled Paper; 21=Light-weight; 22=Bond; 23~27=Custom Paper 1~5; 31=Coated 2; 35=Coated 1(F); 36=HW1A; 37=HW1B; 38=HW1C; 39=HW1S; 40=HW2A
780-018	Paper Type for Tray 5	22		1=Plain Paper; 2=Transparency; 6=Label; 8=Coated 1; 10=HW1;12=HW2;14=Recycled Paper; 21=Light-weight; 22=Bond; 23~27=Custom Paper 1~5; 31=Coated 2; 35=Coated 1(F); 36=HW1A; 37=HW1B; 38=HW1C; 39=HW1S; 40=HW2A
780-019	User Define=Name of Types 1 Paper	NULL		Maximum 24 characters of ASCII (M/N)
780-020	User Define=Name of Types 2 Paper	NULL		Maximum 24 characters of ASCII (M/N)
780-021	User Define=Name of Types 3 Paper	NULL		Maximum 24 characters of ASCII (M/N)
780-022	User Define=Name of Types 4 Paper	NULL		Maximum 24 characters of ASCII (M/N)
780-023	User Define=Name of Types 5 Paper	NULL		Maximum 24 characters of ASCII (M/N)
780-025	Image Quality Control Category for Bond paper	1		
780-026	Image Quality Control Category for Plain Paper	8		
780-027	Image Quality Control Category for Recycle Paper	32		
780-028	Image Quality Control Category - Custom Paper 1	1		
780-029	Image Quality Control Category - Custom Paper 2	1		
780-030	Image Quality Control Category - Custom Paper 3	1		
780-031	Image Quality Control Category - Custom Paper 4	1		
780-032	Image Quality Control Category - Custom Paper 5	1		
780-033	Image Quality Control Category - Heavy Weight 1 paper	19	4~22	19=Heavy Weight 1A; 20=Heavy Weight 1B; 21=Heavy Weight 1C; 22=Heavy Weight 1S
780-034	Image Quality Control Category - Heavy Weight 1 paper (Finisher)	19	4~22	19=Heavy Weight 1A; 20=Heavy Weight 1B; 21=Heavy Weight 1C; 22=Heavy Weight 1S
780-035	Image Quality Control Category - Heavy Weight 1 paper side 2	23	4~26	23=Heavy Weight 1A; 24=Heavy Weight 1B; 25=Heavy Weight 1C; 26=Heavy Weight 1S, side 2



Table 1 Chain 780

Chain-Link	Name	Default	Range	Description
780-036	Image Quality Control Category - Heavy Weight 2 paper	27	4~31	27=Heavy Weight 2A; 28=Gloss 1C; 29=Gloss 1A; 30=Coated 1 Gloss; 31=Heavy Weight 2S
780-037	Image Quality Control Category - Heavy Weight 2 paper (side 2)	200	4~200	200=Heavy Weight 2A; 34=Gloss 1C; 35=Gloss 1A; 36=Coated 1 Gloss; 33=Heavy Weight 2S
780-050	Paper Type Priority - Bond Paper	1		1=Bond paper has top priority; 2=Bond paper is second priority; 3=Bond paper is lowest priority There are three paper type priority NVM locations (780-050, 780-051, and 780-052). Each location must have a unique value.
780-051	Paper Type Priority - Plain Paper	2		1=Plain paper has top priority; 2=Plain paper is second priority; 3=Plain paper is lowest priority There are three paper type priority NVM locations (780-050, 780-051, and 780-052). Each location must have a unique value.
780-052	Paper Type Priority - Recycle Paper	3		1=Recycled paper has top priority; 2=Recycled paper is second priority; 3=Recycled paper is lowest priority There are three paper type priority NVM locations (780-050, 780-051, and 780-052). Each location must have a unique value.
780-053	Paper Type Priority - Custom Paper 1		1~8	Priority when not controlled by APS/ATS
780-054	Paper Type Priority - Custom Paper 2		1~8	Priority when not controlled by APS/ATS
780-055	Paper Type Priority - Custom Paper 3		1~8	Priority when not controlled by APS/ATS
780-056	Paper Type Priority - Custom Paper 4		1~8	Priority when not controlled by APS/ATS
780-057	Paper Type Priority - Custom Paper 5		1~8	Priority when not controlled by APS/ATS
780-060	Tray 1 Priority	1	1~4	The priority follows the number; 1 is the highest priority.
780-061	Tray 2 Priority	2	1~4	The priority follows the number; 1 is the highest priority.
780-062	Tray 3 Priority	3	1~4	The priority follows the number; 1 is the highest priority.
780-063	Tray 4 Priority	4	1~4	The priority follows the number; 1 is the highest priority.
780-066	Edge Erase Adjustment value (Lead Edge)	40	40~50	4.0~5.0mm (0.1mm unit)
780-067	Edge Erase Adjustment value (Trail Edge)	20	20~30	2.0~3.0mm (0.1mm unit)
780-068	Edge Erase Adjustment value (Side)	20	10~30	1.0~3.0mm (0.1mm unit)
780-069	Image Enhancement MC Setting	1	0~1	0=Off; 1=On
780-072	Offset operation of Center Tray	1	0~2	0=Offset Off; 1=Offset Per Set; 2=Offset Per Job
780-073	Offset operation of Finisher Tray	1	0~2	0=Offset Off; 1=Offset Per Set; 2=Offset Per Job



## 785-xxx ESS Fax Setting NVM List

Table 1 Chain 785

Chain-Link	Name	Default	Range	Description
785-002	ACS Separate Level	3	0~5	1= Black, 2: Towards Black, 3: Normal, 4: Towards Color, 5: Color
785-003	Image Processing Method-FAX Photo	0	0~1	0 = Error Diffusion (1bit ED); 1 = Dither
785-004	Background Color Removal Method - B/W Mode	0	0~1	0 = Speed priority; 1 = Image priority
785-005	Background Color Removal Method - Color Mode	0	0~1	0 = Speed priority; 1 = Image priority
785-008	Postcard / A6 Switch	0	0~1	0 = A6, 1 = Postcard
785-009	A4/8.5" determination boundary in Platen	3	1~5	1mm~5mm, 1mm/bit
785-010	FAX Document Size Detect Method in DADF	0	0~1	0 = metric; 1 = inch sized
785-011	8.5x13/8.5x14 Switching in Platen	4	4~5	4 = 8.5x14, 5 = 8.5x13
785-014	Reduction to A4 with 8.5 width Enable	0	0~1	0 = Reduction ON 1 = Reduction OFF
785-015	Text / Photo Detect Level	3	1~5	1 = Text, 2 = Towards Text, 3 = Normal, 4 = Towards Photo, 5 = Photo
785-016	Photo Reproduction Level	3	1~5	1 = Text, 2 = Towards Text, 3 = Normal, 4 = Towards Photo, 5 = Photo



## 790-xxx ESS Panel Display Setting NVM List

Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-001	Startup Display Setting	0	0~2	0=Features Programming Screen; 1=Job Management Screen; 2=Machine Status Screen
790-002	Function Setup Startup Display	1	0~3	0=Menu; 1=Copy; 3=Scanner
790-003	Fax Broadcast/Polling Confirmation Display	1	0~1	0 = No display; 1 = Display
790-004	Toner Near Empty advance notification	1	0~1	0=No display; 1=Display
790-006	Tray 5 Paper sizes _1	18	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-007	Tray 5 Paper sizes _2	17	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-008	Tray 5 Paper sizes _3	20	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-009	Tray 5 Paper sizes _4	22	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-010	Tray 5 Paper sizes _5	30	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-011	Tray 5 Paper sizes _6	11	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-012	Tray 5 Paper sizes _7	10	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button

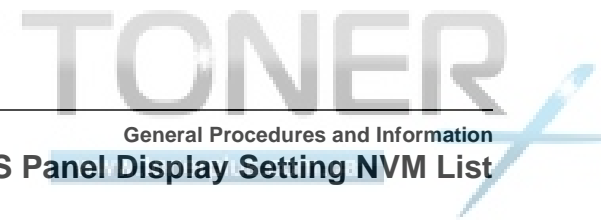




Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-013	Tray 5 Paper sizes _8	13	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-014	Tray 5 Paper sizes _9	16	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-015	Tray 5 Paper sizes _10	15	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-016	Tray 5 Paper sizes _11	7	0~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-050	Pre Set Tray 1	1	1~5	Pre-set tray setting on Basic screen - 1=Tray 1; 2=Tray 2; 3=Tray 3; 4=Tray 4; 5=Tray 5
790-051	Pre Set Tray 2	2	1~5	1=Tray 1; 2=Tray 2; 3=Tray 3; 4=Tray 4; 5=Tray 5
790-052	Pre Set Tray 3	3	1~5	1=Tray 1; 2=Tray 2; 3=Tray 3; 4=Tray 4; 5=Tray 5
790-060	Pre Set Magnification 1	1	1~7	1~7=Fixed Magnification 1~7
790-061	Pre Set Magnification 2	2	1~7	1~7=Fixed Magnification 1~7
790-070	Default Tray Setting in Copy Mode	0	0~5	0=Auto; 1=Tray 1; 2=Tray 2; 3=Tray 3; 4=Tray 4; 5=Tray 5
790-071	Tray at Auto Cancellation	1		1=Tray 1; 2=Tray 2; 3=Tray 3; 4=Tray 4
790-072	Default Magnification Setting in Copy Mode	0	0~8	0=100%; 1~7=Fixed Magnification presets; 8=Auto
790-073	Fixed Magnification 1 Setting in Copy Mode	1	1~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-074	Fixed Magnification 2 Setting in Copy Mode	3	1~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-075	Fixed Magnification 3 Setting in Copy Mode	6	1~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-076	Fixed Magnification 4 Setting in Copy Mode	7	1~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-077	Fixed Magnification 5 Setting in Copy Mode	12	1~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-078	Fixed Magnification 6 Setting in Copy Mode	13	1~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-079	Fixed Magnification 7 Setting in Copy Mode	18	1~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-090	Default Color Mode	0	0~5	0=None; 1=Auto; 2=B/W; 3=4 Colors; 4=Single Color; 5=Dual Color
790-091	Default Single Color Selection	1	0~12	1~6=Fixed Registered Color 1~6; 7~12=User Registered Color 1~6



Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-092	Default Dual Color Selection ("Vivid" Color)	0	0~12	1~6=Fixed Registered Color 1~6; 7~12=User Registered Color 1~6
790-093	Default Dual Color Selection (Chromatic Color)	1	0~12	1~6=Fixed Registered Color 1~6; 7~12=User Registered Color 1~6
790-094	Default B/W Document Type	1	0~9	0=Text; 1=Text/Photo (Print); 2=Text/Photo (Photo Paper); 3=Text/Photo (Copy Document); 4=Photo (Print); 5=Photo (Photo Paper); 6=Photo (Copy Document)
790-096	Default 4 Color/Auto Document Type	1	0~9	0=Text; 1=Text/Photo (Print); 2=Text/Photo (Photo Paper); 3=Text/Photo (Copy Document); 4=Photo (Print); 5=Photo (Photo Paper); 6=Photo (Copy Document) 7=Map; 8=Highlighted Originals; 9=Inkjet Originals
790-097	Default Background Color Removal	1	0~1	0=Off, 1=On
790-098	Default Density Adjustment	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
790-100	Default Color balance (Y low density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-101	Default Color balance (Y med. density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-102	Default Color balance (Y-High Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-103	Default Color balance (M-Low Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-104	Default Color balance (M-Medium Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-105	Default Color balance (M-High Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-106	Default Color balance (C-Low Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-107	Default Color balance (C-Medium Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-108	Default Color balance (C-High Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-109	Default Color balance (K-Low Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-110	Default Color balance (K-Medium Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-111	Default Color balance (K-High Density)	0	0~6	0~6=-3~3 (Lighter 3; Lighter 2; Lighter 1; Normal; Darker 1; Darker 2; Darker 3)
790-120	Default Color Shift	2	0~4	0=-20 degrees; 1=-10 degrees; 2=0 degrees; 3=+10 degrees; 4=+20 degrees
790-121	Default Color Saturation	2	0~4	0=Stronger 2 (Higher); 1=Stronger 1 (High); 2=Normal; 3=Softer 1 (Low); 4=Softer 2 (Lower)
790-122	Default Sharpness	2	0~4	0=Sharper; 1=Sharp; 2=Normal; 3=Soft; 4=Softer
790-123	Default Contrast	2	0~4	0=Stronger 2; 1=Stronger 1; 2=Normal; 3=Softer 1; 4=Softer 2
790-124	Default Center/Corner Shift Position (Side1)	0	0~10	0=Off; 1=Center; 2=Upper Right; 3=Lower Right; 4=Upper Left; 5=Lower Left; 6=Upper Center; 7=Lower Center; 8=Left Center; 9=Right Center
790-125	Default Center/Corner Shift Position (Side2)	10	0~10	0=Off; 1=Center; 2=Upper Right; 3=Lower Right; 4=Upper Left; 5=Lower Left; 6=Upper Center; 7=Lower Center; 8=Left Center; 9=Right Center; 10=Symmetry position with Side 1
790-126	Default Top and Bottom Edge Erase	5	0~50	0~50; increments of 1mm
790-127	Default Left and Right Edge Erase	5	0~50	0~50; increments of 1mm
790-128	Default Center Erase	0	0~50	0~50; increments of 1mm
790-129	Rotation Default Setting	1	0~2	0=Always Enabled; 1=Enabled only at APS/AMS; 2=Always Disabled
790-130	Image Orientation Default Setting	0	0~2	0=Auto; 1=Portrait document Left; 2=Portrait document Right
790-131	Fixed Size 1 of Copy Document Size Input	16	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7 (Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button



Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-132	Fixed Size 2 of Copy Document Size Input	15	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-133	Fixed Size 3 of Copy Document Size Input	18	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-134	Fixed Size 4 of Copy Document Size Input	17	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-135	Fixed Size 5 of Copy Document Size Input	20	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-136	Fixed Size 6 of Copy Document Size Input	22	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-137	Fixed Size 7 of Copy Document Size Input	11	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-138	Fixed Size 8 of Copy Document Size Input	10	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-139	Fixed Size 9 of Copy Document Size Input	13	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-140	Fixed Size 10 of Copy Document Size Input	27	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button



Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-141	Fixed Size 11 of Copy Document Size Input	28	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7 (Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-180	Default Document Orientation in Copy Mode	0	0~1	0=Head to Top; 1=Head to Left
790-181	Duplex feature default setting	0	0~3	0=Off (1 to 1 Sided); 1=1 to 2 Sided; 2=2 to 1 Sided; 3=2 to 2 Sided
790-182	Default Collate Mode in Copy Mode	0	0~2	0=Auto; 1=Collated; 2=Uncollated
790-183	Default Output Tray in Copy Mode	0	0~2	0=Center Tray 1=Side Tray 2=Finisher Tray * Options that are not installed cannot be selected.
790-184	FAX Sending Display Availability	0	0~1	0 = Off; 1 = On
	Receiver Initial Display Availability	0	0~1	0 = Off; 1 = On
790-186	Fax Default Communication Mode	2	0~6	1=G4 Auto; 2=G3 Auto; 3=International Communication (Communication Speed is below 4800bps) 4=G3 5=G3 (ECM) 6=G3 (ECM) - Forced4800
790-187	Default Density (Scan Density)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
790-188	Default Image Quality (Document Type)	0	0~2	0=Text; 1=Photo; 2=Text/Photo
790-189	Default Resolution (Scan Resolution)	0	0~3	0=Normal; 1=High Quality (200x200); 2=High Quality (400x400); 3=High Quality (600x600)
790-190	Default Monitor Print	0	0~1	0=Off; 1=On
790-192	Default Sender Records	1	0~1	0=Off; 1=On
790-193	Default display starting number of Receiver List	1	1~500	1~500
790-194	Default Mixed Size	0	0~1	0=Off; 1=On
790-195	Default Receive Mode	0	0~1	0=Auto Receive; 1=Manual Receive
790-196	Delayed Send Time Setting-Hour	0	0~23	1 bit/hour
790-197	Delayed Send Time Setting-Minutes	0	0~59	1 bit/minute
790-200	Default 1 Setting of Fax Fixed Magnification	3	1~18; 50~400	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%; 50~400 incremental - 1 bit = 1%
790-201	Default 2 Setting of Fax Fixed Magnification	7	1~18; 50~400	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%; 50~400 incremental - 1 bit = 1%
790-202	Default 3 Setting of Fax Fixed Magnification	8	1~18; 50~400	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%; 50~400 incremental - 1 bit = 1%
790-203	Default 4 Setting of Fax Fixed Magnification	9	1~18; 50~400	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%; 50~400 incremental - 1 bit = 1%
790-204	Default 5 Setting of Fax Fixed Magnification	10	1~18; 50~400	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%; 50~400 incremental - 1 bit = 1%
790-205	Default 6 Setting of Fax Fixed Magnification	11	1~18; 50~400	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%; 50~400 incremental - 1 bit = 1%
790-206	Default 7 Setting of Fax Fixed Magnification	13	1~18; 50~400	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%; 50~400 incremental - 1 bit = 1%
790-210	Fixed Size 1 of Fax Scan Size Input	13	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7 (Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button



Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-211	Fixed Size 2 of Fax Scan Size Input	10	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-212	Fixed Size 3 of Fax Scan Size Input	11	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-213	Fixed Size 4 of Fax Scan Size Input	7	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-214	Fixed Size 5 of Fax Scan Size Input	12	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-215	Fixed Size 6 of Fax Scan Size Input	8	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-216	Fixed Size 7 of Fax Scan Size Input	9	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-217	Fixed Size 8 of Fax Scan Size Input	22	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-218	Fixed Size 9 of Fax Scan Size Input	20	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-219	Fixed Size 10 of Fax Scan Size Input	17	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button



Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-220	Fixed Size 11 of Fax Scan Size Input	18	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7 (Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-221	Default FAX Profile	0	0~2	0 = TIFF-S, 1 = TIFF-F, 2 = TIFF-J
790-222	Default Mixed Size	0	0~1	0=Off; 1=On
790-223	Default Color Mode	*	0~3	0=Full Color; 1=Grey Color; 2=B/W Binary; 3=Auto *Default is 3 for DC 2240/1632WC24; 0 for DC 3535
790-224	Default Document Type	1	0~2	0=Text; 1=Text/Photo; 2=Photo
790-225	Default Resolution	0	0~3	0=200dpi; 1=300dpi; 2=400dpi; 3=600dpi
790-226	Default Top and Bottom Edge Erase	2	0~50	0~50; increments of 1mm
790-227	Default Left and Right Edge Erase	2	0~50	0~50; increments of 1mm
790-228	Default Center Erase	0	0~50	0~50; increments of 1mm
790-229	Default Density/Brightness Adjustment (Using data common to Density; Brightness)	3	0~6	0=Brightness (Density) 3; 1=Brightness (Density) 2; 2=Brightness (Density) 1; 3=Normal; 4=Brightness (Density) -1; 5=Brightness (Density) -2; 6=Brightness (Density) -3
790-230	Default Contrast Adjustment	2	0~4	0=Stronger 2; 1=Stronger 1; 2=Normal; 3=Softer 1; 4=Softer 2
790-231	Fixed Size 1 of Scan Document Size Input	16	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7 (Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-232	Fixed Size 2 of Scan Document Size Input	15	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7 (Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-233	Fixed Size 3 of Scan Document Size Input	18	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7 (Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-234	Fixed Size 4 of Scan Document Size Input	17	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7 (Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-235	Fixed Size 5 of Scan Document Size Input	20	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7 (Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button



Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-236	Fixed Size 6 of Scan Document Size Input	22	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-237	Fixed Size 7 of Scan Document Size Input	11	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-238	Fixed Size 8 of Scan Document Size Input	10	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-239	Fixed Size 9 of Scan Document Size Input	13	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-240	Fixed Size 10 of Scan Document Size Input	27	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-241	Fixed Size 11 of Scan Document Size Input	28	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF; 19=8.5x13SEF; 20=8.5x14; 21=11x15SEF; 22=11x17SEF; 23=AP Envelope (Cho-3 gou); 24=8-K SEF; 25=16-K SEF; 26=16-K LEF; 27=3.5x5 (Photo L size); 28=5x7(Photo 2L size); 29=#10 Envelope LEF; 31=8x10SEF; 40~50=Non-standard size for each button
790-250	Fixed Size 1 Fast Scan	NULL	15~297	15~297mm
790-251	Fixed Size 1 Slow Scan	NULL	15~432	15~432mm
790-252	Fixed Size 2 Fast Scan	NULL	15~297	15~297mm
790-253	Fixed Size 2 Slow Scan	NULL	15~432	15~432mm
790-254	Fixed Size 3 Fast Scan	NULL	15~297	15~297mm
790-255	Fixed Size 3 Slow Scan	NULL	15~432	15~432mm
790-256	Fixed Size 4 Fast Scan	NULL	15~297	15~297mm
790-257	Fixed Size 4 Slow Scan	NULL	15~432	15~432mm
790-258	Fixed Size 5 Fast Scan	NULL	15~297	15~297mm
790-259	Fixed Size 5 Slow Scan	NULL	15~432	15~432mm
790-260	Fixed Size 6 Fast Scan	NULL	15~297	15~297mm
790-261	Fixed Size 6 Slow Scan	NULL	15~432	15~432mm
790-262	Fixed Size 7 Fast Scan	NULL	15~297	15~297mm
790-263	Fixed Size 7 Slow Scan	NULL	15~432	15~432mm
790-264	Fixed Size 8 Fast Scan	NULL	15~297	15~297mm

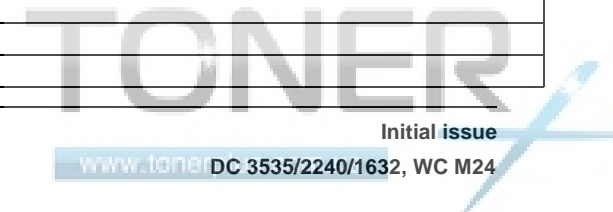




Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-265	Fixed Size 8 Slow Scan	NULL	15~432	15~432mm
790-266	Fixed Size 9 Fast Scan	NULL	15~297	15~297mm
790-267	Fixed Size 9 Slow Scan	NULL	15~432	15~432mm
790-268	Fixed Size 10 Fast Scan	NULL	15~297	15~297mm
790-269	Fixed Size 10 Slow Scan	NULL	15~432	15~432mm
790-270	Fixed Size 11 Fast Scan	NULL	15~297	15~297mm
790-271	Fixed Size 11 Slow Scan	NULL	15~432	15~432mm
790-272	Default [Document Orientation] in SCAN Mode	0	0~1	0=Head to Top; 1=Head to Left
790-273	Default 1 setting of SCAN Fixed magnification	3	0~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-274	Default 2 setting of SCAN Fixed magnification	7	0~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-275	Default 3 setting of SCAN Fixed magnification	8	0~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-276	Default 4 setting of SCAN Fixed magnification	9	0~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-277	Default 5 setting of SCAN Fixed magnification	10	0~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-278	Default 6 setting of SCAN Fixed magnification	11	0~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-279	Default 7 setting of SCAN Fixed magnification	13	0~18	1=25.0; 2=35.3; 3=50.0; 4=57.7; 5=61.2 6=64.7; 7=70.7; 8=81.6; 9=86.6 10=115.4; 11=122.5; 12=129.4 13=141.4; 14=163.2; 15=173.2 16=200.0; 17=282.8; 18=400.0%
790-280	Output Size 1	18	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF
790-281	Output Size 2	17	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF
790-282	Output Size 3	11	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF
790-283	Output Size 4	10	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF
790-284	Output Size 5	20	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF
790-285	Output Size 6	22	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF
790-286	Output Size 7	13	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF



Table 1 Chain 790

Chain-Link	Name	Default	Range	Description
790-287	Output Size 8	7	1~50	1=Postcard; 2=A6SEF; 3=A6LEF; 4=B6SEF; 5=B6LEF; 6=A5SEF; 7=A5LEF; 8=B5SEF; 9=B5LEF; 10=A4SEF; 11=A4LEF; 12=B4SEF; 13=A3SEF; 14=Postcard (4x6); 15=5.5x8.5SEF; 16=5.5x8.5LEF; 17=8.5x11SEF; 18=8.5x11LEF
790-288	Default Background Color Removal in SCAN Mode	0	0~1	0=Off; 1=On
790-290	Basic Screen Preset Magnification 1	2	1~7	1~7=Fixed Magnification 1~7
790-291	Basic Screen Preset Magnification 2	4	1~7	1~7=Fixed Magnification 1~7
790-292	Basic Screen Preset Magnification 3	7	1~7	1~7=Fixed Magnification 1~7

## 800-xxx ESS Print Service Setting

Table 1 Chain 800

Chain/Link	Name	Default	Range	Description
800-001	APS Job Recovery Method	6	-	6=Displays add paper (SPS Off); 5=Uses a larger paper size (no adjustment); 2=Uses a nearest paper size (no adjustment); 7=Only Oceans2 uses a substitution. (Abort)=
800-006	Expand Print Mode	Normal	-	1=Normal; 2=Expand



## 810-xxx ESS Copy Service Setting

Table 1 Chain 810

Chain/Link	Name	Default	Range	Description
810-002	Fixed preset color1 (Red) Y component	102 (80%)	0~128	0%~100%; 0.78%/bit
810-003	Fixed preset color1 (Red)M Component	128 (100%)	0~128	0%~100%; 0.78%/bit
810-004	Fixed preset color1 (Red)C component	0	0~128	0%~100%; 0.78%/bit
810-005	Fixed preset color2 (Green) Y component	118 (92%)	0~128	0%~100%; 0.78%/bit
810-006	Fixed preset color2 (Green) M component	0%	0~128	0%~100%; 0.78%/bit
810-007	Fixed preset color2 (Green) C component	128 (100%)	0~128	0%~100%; 0.78%/bit
810-008	Fixed preset color3 (Blue)Y component	0%	0~128	0%~100%; 0.78%/bit
810-009	Fixed preset color3 (Blue)M component	102 (80%)	0~128	0%~100%; 0.78%/bit
810-010	Fixed preset color3 (Blue)C component	128 (100%)	0~128	0%~100%; 0.78%/bit
810-011	Fixed preset color4 (Yellow) Y component	128 (100%)	0~128	0%~100%; 0.78%/bit
810-012	Fixed preset color4 (Yellow) M component	0	0~128	0%~100%; 0.78%/bit
810-013	Fixed preset color4 (Yellow) C component	0	0~128	0%~100%; 0.78%/bit
810-014	Fixed preset color5 (Magenta) Y component	0	0~128	0%~100%; 0.78%/bit
810-015	Fixed preset color5 (Magenta) M component	128 (100%)	0~128	0%~100%; 0.78%/bit
810-016	Fixed preset color5 (Magenta) C component	0	0~128	0%~100%; 0.78%/bit
810-017	Fixed preset color6 (Cyan) Y component	0	0~128	0%~100%; 0.78%/bit
810-018	Fixed preset color6 (Cyan) M component	0	0~128	0%~100%; 0.78%/bit
810-019	Fixed preset color6 (Cyan) C component	128 (100%)	0~128	0%~100%; 0.78%/bit
810-020	User Preset Color 1 - Y component	0	0~128	0%~100%; 0.78%/bit
810-021	User Preset Color 1 - M component	0	0~128	0%~100%; 0.78%/bit
810-022	User Preset Color 1 -C component	0	0~128	0%~100%; 0.78%/bit
810-023	User Preset Color 2 -Y component	0	0~128	0%~100%; 0.78%/bit
810-024	User Preset Color 2 - M component	0	0~128	0%~100%; 0.78%/bit
810-025	User Preset Color 2 - C component	0	0~128	0%~100%; 0.78%/bit
810-026	User Preset Color 3 - Y component	0	0~128	0%~100%; 0.78%/bit



Table 1 Chain 810

Chain/Link	Name	Default	Range	Description
810-027	User Preset Color 3 - M component	0	0~128	0%~100%; 0.78%/bit
810-028	User Preset Color 3 - C component	0	0~128	0%~100%; 0.78%/bit
810-029	User Preset Color 4 - Y component	0	0~128	0%~100%; 0.78%/bit
810-030	User Preset Color 4 - M component	0	0~128	0%~100%; 0.78%/bit
810-031	User Preset Color 4 - C component	0	0~128	0%~100%; 0.78%/bit
810-032	User Preset Color 5 - Y component	0	0~128	0%~100%; 0.78%/bit
810-033	User Preset Color 5 - M component	0	0~128	0%~100%; 0.78%/bit
810-034	User Preset Color 5 - C component	0	0~128	0%~100%; 0.78%/bit
810-035	User Preset Color 6 - Y component	0	0~128	0%~100%; 0.78%/bit
810-036	User Preset Color 6 - M component	0	0~128	0%~100%; 0.78%/bit
810-037	User Preset Color 6 - C component	0	0~128	0%~100%; 0.78%/bit
810-038	Background Suppression "Vivid"	0	0~1	0=disable; 1=enable
810-039	Density Adjustment "Vivid"	2	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-040	Color balance (Y low density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-041	Color balance (Y med. density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-042	Color balance (Y high density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-043	Color balance (M low density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-044	Color balance (M med. density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-045	Color balance (M high density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-046	Color balance (C low density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-047	Color balance (C med. density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-048	Color balance (C high density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-049	Color balance (K low density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-050	Color balance (K med. density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-051	Color balance (K high density) "Vivid"	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-052	Color Shift "Vivid"	2	0~4	0=-20 degrees; 1=-10 degrees; 2=0 degrees; 3=+10 degrees; 4=+20 degrees
810-053	Color Saturation "Vivid"	0	0~4	0=Higher 2; 1=Higher 1; 2=Normal; 3=Lower 1; 4=Lower 2
810-054	Sharpness "Vivid"	2	0~4	0=Sharper 2; 1=Sharper 1; 2=Normal; 3=Softer 1; 4=Softer 2
810-055	Contrast "Vivid"	2	0~4	0=Stronger 2; 1=Stronger 1; 2=Normal; 3=Softer 1; 4=Softer 2
810-056	Background Suppression MERIHARI Copy	0	0~1	0=disable; 1=enable
810-057	Density Adjustment MERIHARI Copy	4	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-058	Color balance (Y low density) MERIHARI Copy	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-059	Color balance (Y med. density) MERIHARI Copy	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-060	Color balance (Y high density) MERIHARI Copy	6	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-061	Color balance (M low density) MERIHARI Copy	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-062	Color balance (M med. density) MERIHARI Copy	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3



Table 1 Chain 810

Chain/Link	Name	Default	Range	Description
810-063	Color balance (M high density) MERI-HARI Copy	6	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-064	Color balance (C low density) MERI-HARI Copy	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-065	Color balance (C med. density) MERI-HARI Copy	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-066	Color balance (C high density) MERI-HARI Copy	6	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-067	Color balance (K low density) MERI-HARI Copy	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-068	Color balance (K med. density) MERI-HARI Copy	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-069	Color balance (K high density) MERI-HARI Copy	6	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-070	Color Shift MERIHARI Copy	2	0~4	0=-20 degrees; 1=-10 degrees; 2=0 degrees; 3=+10 degrees; 4=+20 degrees
810-071	Color Saturation MERIHARI Copy	1	0~4	0=Higher 2; 1=Higher 1; 2=Normal; 3=Lower 1; 4=Lower 2
810-072	Sharpness MERIHARI Copy	0	0~4	0=Sharper 2; 1=Sharper 1; 2=Normal; 3=Softer 1; 4=Softer 2
810-073	Contrast MERIHARI Copy	0	0~4	0=Stronger 2; 1=Stronger 1; 2=Normal; 3=Softer 1; 4=Softer 2
810-074	Background Suppression - Ruddiness	1	0~1	0=disable; 1=enable
810-075	Density Adjustment - Ruddiness	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-076	Color balance (Y low density) - Ruddiness	1	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-077	Color balance (Y med. density) - Ruddiness	1	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-078	Color balance (Y high density) - Ruddiness	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-079	Color balance (M low density) - Ruddiness	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-080	Color balance (M med. density) - Ruddiness	4	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-081	Color balance (M high density) - Ruddiness	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-082	Color balance (C low density) - Ruddiness	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-083	Color balance (C med. density) - Ruddiness	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-084	Color balance (C high density) - Ruddiness	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-085	Color balance (K low density) - Ruddiness	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-086	Color balance (K med. density) - Ruddiness	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-087	Color balance (K high density) - Ruddiness	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3



Table 1 Chain 810

Chain/Link	Name	Default	Range	Description
810-088	Color Shift - Ruddiness	2	0~4	0=-20 degrees; 1=-10 degrees; 2=0 degrees; 3=+10 degrees; 4=+20 degrees
810-089	Color Saturation - Ruddiness	2	0~4	0=Higher 2; 1=Higher 1; 2=Normal; 3=Lower 1; 4=Lower 2
810-090	Sharpness - Ruddiness	2	0~4	0=Sharper 2; 1=Sharper 1; 2=Normal; 3=Softer 1; 4=Softer 2
810-091	Contrast - Ruddiness	2	0~4	0=Stronger 2; 1=Stronger 1; 2=Normal; 3=Softer 1; 4=Softer 2
810-092	Background Suppression (Blue)	1	0~1	0=disable; 1=enable
810-093	Density Adjustment (Blue)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-094	Color balance (Y low density) (Blue)	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-095	Color balance (Y med. density) (Blue)	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-096	Color balance (Y high density) (Blue)	1	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-097	Color balance (M low density) (Blue)	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-098	Color balance (M med. density) (Blue)	0	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-099	Color balance (M high density) (Blue)	1	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-100	Color balance (C low density) (Blue)	4	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-101	Color balance (C med. density) (Blue)	5	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-102	Color balance (C high density) (Blue)	5	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-103	Color balance (K low density) (Blue)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-104	Color balance (K med. density) (Blue)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-105	Color balance (K high density) (Blue)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-106	Color Shift (Blue)	2	0~4	0=-20 degrees; 1=-10 degrees; 2=0 degrees; 3=+10 degrees; 4=+20 degrees
810-107	Color Saturation (Blue)	2	0~4	0=Higher 2; 1=Higher 1; 2=Normal; 3=Lower 1; 4=Lower 2
810-108	Sharpness (Blue)	2	0~4	0=Sharper 2; 1=Sharper 1; 2=Normal; 3=Softer 1; 4=Softer 2
810-109	Contrast (Blue)	2	0~4	0=Stronger 2; 1=Stronger 1; 2=Normal; 3=Softer 1; 4=Softer 2
810-110	Background Suppression (Back Reflect Guard)	1	0~1	0=disable; 1=enable
810-111	Density Adjustment (BRG)	2	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-112	Color balance (Y low density) (BRG)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-113	Color balance (Y med. density) (BRG)	1	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-114	Color balance (Y high density) (BRG)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-115	Color balance (M low density) (BRG)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-116	Color balance (M med. density) (BRG)	1	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-117	Color balance (M high density) (BRG)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-118	Color balance (C low density) (BRG)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-119	Color balance (C med. density) (BRG)	1	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-120	Color balance (C high density) (BRG)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-121	Color balance (K low density) (BRG)	3	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-122	Color balance (K med. density) (BRG)	1	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-123	Color balance (K high density) (BRG)	5	0~6	0=Lighter 3; 1=Lighter 2; 2=Lighter 1; 3=Normal; 4=Darker 1; 5=Darker 2; 6=Darker 3
810-124	Color Shift (BRG)	2	0~4	0=-20 degrees; 1=-10 degrees; 2=0 degrees; 3=+10 degrees; 4=+20 degrees
810-125	Color Saturation (BRG)	2	0~4	0=Higher 2; 1=Higher 1; 2=Normal; 3=Lower 1; 4=Lower 2
810-126	Sharpness (BRG)	2	0~4	0=Sharper 2; 1=Sharper 1; 2=Normal; 3=Softer 1; 4=Softer 2
810-127	Contrast (BRG)	1	0~4	0=Stronger 2; 1=Stronger 1; 2=Normal; 3=Softer 1; 4=Softer 2



**Table 1 Chain 810**

Chain/Link	Name	Default	Range	Description
810-128	Operation when Memory Overflow occurs	0	0~1	0=Stop; 1=Print
810-129	Max. No. of Copy Sheets accumulated	999	1~999	1-999=[1~999 pages]
810-130	Build Job Setup Menu Display	1	0~1	0=No display; 1=Display





## 820-xxx ESS Fax Service Function Setting NVM List

Table 1 Chain 820

Chain/Link	Name	Default	Range	Description
820-003	Full Dial Disable	0	0~1	0 = Enable; 1 = Disable
820-006	Output Tray for Mail Box Print	0	0~2	0 =Top Tray; 1 =Center Tray; 2 = Finisher Tray (Options that are not installed cannot be selected)
820-010	Tray Selection for Ch0	0	0~2	0 =Top Tray; 1 =Center Tray; 2 = Finisher Tray (Options that are not installed cannot be selected)
820-011	Tray Selection for Ch1	0	0~2	0 =Top Tray; 1 =Center Tray; 2 = Finisher Tray (Options that are not installed cannot be selected)
820-012	Tray Selection for Ch2	0	0~2	0 =Top Tray; 1 =Center Tray; 2 = Finisher Tray (Options that are not installed cannot be selected)
820-013	Tray Selection for Ch3	0	0~2	0 =Top Tray; 1 =Center Tray; 2 = Finisher Tray (Options that are not installed cannot be selected)
820-014	Tray Selection for Ch4	0	0~2	0 =Top Tray; 1 =Center Tray; 2 = Finisher Tray (Options that are not installed cannot be selected)
820-015	Tray Selection for Ch5	0	0~2	0 =Top Tray; 1 =Center Tray; 2 = Finisher Tray (Options that are not installed cannot be selected)
820-016	Duplex Printing (Receive Print/Report Print/Confirmation Print)	0	0~1	0 = 1-sided; 1 = 2-sided
820-019	Forced Polling Select	0	0~1	0 = No; 1 = Forced Polling
820-020	Sending Job Screen Auto Display	0	0~1	0 = Off; 1 = Disable
820-021	Selection of Receiving Paper Mode	0	0~1	0 = Tray Selection; 1 = User Selection
820-022	Selection of Log Size In User Declaration Mode	-	-	1st byte: bit1=A3SEF, bit2=A4SEF, bit5=B4SEF; 2nd byte: bit0=LetterSEF 3rd byte: bit2=A4LEF, bit3=A5LEF, bit6=B5LEF 0=No paper; 1=Paper loaded
820-024	Broadcast / Multi-Poll Report Instruction Disable	0	0~1	0 = Selectable resolution (metric); 1 = Selectable resolution (inch); 2 = Fine
820-025	Rotated Storing of FAX Scan	1	0~1	0 = 90 Degrees Rotation Storing Off; 1 = 90 Degrees Rotation Storing On
820-026	Scan Illegal Operation	0	0~1	0 = Discards the stored document; 1 = Validates the stored document
820-027	Scan Resolution in G3 Auto or ICU	2	0~2	0 = Enable; 1 = Disable
820-028	Letter/Legal Scan Reduction	0	0~1	0 = 100%; 1 = Reduce to LTR
820-029	On Hook Timer	2	0~3	0 = Wait Always; 1 = 60 sec.; 2 = 90 sec.; 3 = 180 sec.
820-030	Fax Card Status	-	-	0 = Checking; 1 = Enabled; 255 = Disabled
820-031	Fax Ch0 Status	-	-	0 = Checking; 2 = G3 PSTN Enabled; 3 = G3 ISDN Enabled; 4 = G4 ISDN Enabled; READ ONLY
820-032	Fax Ch1 Status	-	-	0 = Checking; 2 = G3 PSTN Enabled; 3 = G3 ISDN Enabled; 4 = G4 ISDN Enabled; READ ONLY
820-033	Fax Ch2 Status	-	-	0 = Checking; 2 = G3 PSTN Enabled; 3 = G3 ISDN Enabled; 4 = G4 ISDN Enabled; READ ONLY
820-034	Fax Ch3 Status	-	-	0 = Checking; 2 = G3 PSTN Enabled; 3 = G3 ISDN Enabled; 4 = G4 ISDN Enabled; READ ONLY
820-035	Fax Ch4 Status	-	-	0 = Checking; 2 = G3 PSTN Enabled; 3 = G3 ISDN Enabled; 4 = G4 ISDN Enabled; READ ONLY
820-036	Fax Ch5 Status	-	-	0 = Checking; 2 = G3 PSTN Enabled; 3 = G3 ISDN Enabled; 4 = G4 ISDN Enabled; READ ONLY
820-037	Max Storage Space (sheets)	999	1~999	



## 823-xxx ESS Fax Service Device Setting NVM List

Table 1 Chain 823

Chain/Link	Name	Default	Range	Description
823-001	Receive Mode Setting	0	0~1	0 = Auto Receive (Auto Call Response On); 1 = Manual Receive (Auto Call Response Off)
823-002	DM (Direct Mail) Prevention Feature	0	0~1	0=Off, 1=On
823-006	Receive Header (CIL) in G4 Receive	0	0~1	0 = No; 1 = Yes
823-007	Send Header When Polled (except Forced Polling)	0	0~1	0 = No; 1 = Yes
823-011	Maximum User Data Field Length (Send) G4 Communication/Network Layer for Ch0	0x0b	0x07~0x0b (hex)	0x07 =128; 0x08 =256; 0x09 =512; 0x0a =1024; 0x0b =2048
823-012	Enable/Disable Symmetry Setting (to the box that used the service)	0	0~1	0=Disable; 1=Enable
823-013	Enable/Disable Symmetry Setting (to the box by receive line)	0	0~1	0=Disable; 1=Enable
823-014	Telephone # Box Symmetry Priority	0	0~1	0=Dial-in number at highest priority; 1=Sender ID at highest priority
823-015	Setting of Line Monitor	1	0~1	0=Off, 1=On
823-016	Redial Attempts	5	0~15	0~15 times (0 = No redial); step=1 time
823-017	Redial Interval	1	0~15	0 min~15 min.; step=1min
823-018	Communication Interval	8	3~255	3 sec~255 sec.; step=1 sec.
823-019	Receive Print/Page Composition (2up)	0	0~1	0=Off, 1=On
823-020	Page Division Threshold	16	0~127	0mm ~127mm; step=1mm
823-021	Auto Reduce Mode	0	0~1	0=100% print; 1=Auto Reduce On
823-022	Batch Send	0	0~1	0=No; 1=Yes
823-023	Sending from Local ID	0	0~1	0=Off, 1=On
823-024	ISDN Local ID Send Setting For Ch0	0	0~1	0=Off, 1=On
823-025	ISDN Local ID Send Setting For Ch1	0	0~1	0=Off, 1=On
823-026	ISDN Local ID Send Setting For Ch2	0	0~1	0=Off, 1=On
823-027	ISDN Local ID Send Setting For Ch3	0	0~1	0=Off, 1=On
823-028	ISDN Local ID Send Setting For Ch4	0	0~1	0=Off, 1=On
823-029	ISDN Local ID Send Setting For Ch5	0	0~1	0=Off, 1=On
823-030	Dial Type For Ch0	0	0~2	0 = PB (DTMF); 1 = DP (10 PPS); 2 = DP (20 PPS)
823-031	Dial Type For Ch1	0	0~2	0 = PB (DTMF); 1 = DP (10 PPS); 2 = DP (20 PPS)
823-032	Dial Type For Ch2	0	0~2	0 = PB (DTMF); 1 = DP (10 PPS); 2 = DP (20 PPS)
823-033	Dial Type For Ch3	0	0~2	0 = PB (DTMF); 1 = DP (10 PPS); 2 = DP (20 PPS)
823-034	Dial Type For Ch4	0	0~2	0 = PB (DTMF); 1 = DP (10 PPS); 2 = DP (20 PPS)
823-035	Dial Type For Ch5	0	0~2	0 = PB (DTMF); 1 = DP (10 PPS); 2 = DP (20 PPS)
823-036	Line Type For Ch0	0	0~2	0 = PSTN (Public Telephone Network); 1 = PBX (Private Branch Exchange); 2 = Direct Connection
823-037	Line Type For Ch1	0	0~2	0 = PSTN (Public Telephone Network); 1 = PBX (Private Branch Exchange); 2 = Direct Connection
823-038	Line Type For Ch2	0	0~2	0 = PSTN (Public Telephone Network); 1 = PBX (Private Branch Exchange); 2 = Direct Connection
823-039	Line Type For Ch3	0	0~2	0 = PSTN (Public Telephone Network); 1 = PBX (Private Branch Exchange); 2 = Direct Connection
823-040	Line Type For Ch4	0	0~2	0 = PSTN (Public Telephone Network); 1 = PBX (Private Branch Exchange); 2 = Direct Connection



Table 1 Chain 823

Chain/Link	Name	Default	Range	Description
823-041	Line Type For Ch5	0	0~2	0 = PSTN (Public Telephone Network); 1 = PBX (Private Branch Exchange); 2 = Direct Connection
823-043	Set Service for Ch1	0	-	0 = Normal line; xxxx xxx1 = Local ID Notification Service Line; xxxx xx1x = Modem Dial-In Service Line
823-044	Set Service for Ch2	0	-	0 = Normal line; xxxx xxx1 = Local ID Notification Service Line; xxxx xx1x = Modem Dial-In Service Line
823-045	Set Service for Ch3	0	-	0 = Normal line; xxxx xxx1 = Local ID Notification Service Line; xxxx xx1x = Modem Dial-In Service Line
823-046	Set Service for Ch4	0	-	0 = Normal line; xxxx xxx1 = Local ID Notification Service Line; xxxx xx1x = Modem Dial-In Service Line
823-047	Set Service for Ch5	0	-	0 = Normal line; xxxx xxx1 = Local ID Notification Service Line; xxxx xx1x = Modem Dial-In Service Line
823-049	G3 ISDN Transmission Capability Setting	0	0~1	0=3.1K Audio, 1=Speech
823-052	Paper Size(s) for User in Fax Protocol	1111011	-	0 = No Paper; 1 = Paper existing; bit 0=Letter SEF; bit 1=A3 SEF; bit 2=A4 SEF; bit 3=A5 LEF; bit 4=Not used; bit 5=B4 SEF; bit 6=B5 LEF

## 825-xxx ESS Fax Service Protocol Setting NVM List

Table 1 Chain 825

Chain/Link	Name	Default	Range	Description
825-001	1300HZ Incoming Receive ON/OFF Setting	1	0~1	1=OFF (Do not receive);1=ON (Receive)
825-002	Registers Power Cutoff/Reboot (including emergency) in Activity Report.	0	0~1	0= Do not register; 1= Register
825-009	Pause Timer	60	0~240	1= 50msec; 20= 1sec
825-017	Disconnect detection For Ch0	1	0~1	0= Do not detect; 1= Detect
825-018	Disconnect detection For Ch1	1	0~1	0= Do not detect; 1= Detect
825-019	Disconnect detection For Ch2	1	0~1	0= Do not detect; 1= Detect
825-020	Disconnect detection For Ch3	1	0~1	0= Do not detect; 1= Detect
825-021	Disconnect detection For Ch4	1	0~1	0= Do not detect; 1= Detect
825-022	Disconnect detection For Ch5	1	0~1	0= Do not detect; 1= Detect
825-024	Fallback Redial from G4 to G3 in ISDN communication.	0	0~1	0=Fallback redial Off; 1=Fallback redial On
825-025	RTN Fallback	0	-	0= Determine the fallback from the TCF check result and continue sending; 1= Stop transmission. (This document becomes a resend target). Process to determine continuity in the Transmitter when RTN was received. This has been designed to be ZZF compatible.
825-033	Dial Tone Detect Wait Period for PBX	4	0~255	0 ~ 255 (Sec.)
825-046	PB Sending Level for Ch0	6	0~15	0dBm~-15dBm; step=-1dBm
825-047	PB Send Level Ch1	6	0~15	0dBm~-15dBm; step=-1dBm
825-048	PB Send Level Ch2	6	0~15	0dBm~-15dBm; step=-1dBm
825-049	PB Send Level Ch3	6	0~15	0dBm~-15dBm; step=-1dBm
825-050	PB Send Level Ch4	6	0~15	0dBm~-15dBm; step=-1dBm
825-051	PB Send Level Ch5	6	0~15	0dBm~-15dBm; step=-1dBm
825-052	PB Send Level (High-Pass/Low-Pass (dB)) For Ch0	0	0~15	0=2.0; 1=2.5; 2=3.0; 3=3.5; 4=4.0; 5=4.5; 6=5.0; 7=5.5; 8=-2.0; 9=-1.5; 10=-1.0; 11=-0.5; 12=0; 13=0.5;14=1.0; 15=1.5
825-053	PB Send Level (high-pass - low-pass (dB)) For Ch1	0	0~15	0=2.0; 1=2.5; 2=3.0; 3=3.5; 4=4.0; 5=4.5; 6=5.0; 7=5.5; 8=-2.0; 9=-1.5; 10=-1.0; 11=-0.5; 12=0; 13=0.5;14=1.0; 15=1.5



Table 1 Chain 825

Chain/Link	Name	Default	Range	Description
825-054	PB Send Level (high-pass - low-pass (dB)) For Ch2	0	0~15	0=2.0; 1=2.5; 2=3.0; 3=3.5; 4=4.0; 5=4.5; 6=5.0; 7=5.5; 8=-2.0; 9=-1.5; 10=-1.0; 11=-0.5; 12=0; 13=0.5; 14=1.0; 15=1.5
825-055	PB Send Level (high-pass - low-pass (dB)) For Ch3	0	0~15	0=2.0; 1=2.5; 2=3.0; 3=3.5; 4=4.0; 5=4.5; 6=5.0; 7=5.5; 8=-2.0; 9=-1.5; 10=-1.0; 11=-0.5; 12=0; 13=0.5; 14=1.0; 15=1.5
825-056	PB Send Level (high-pass - low-pass (dB)) For Ch4	0	0~15	0=2.0; 1=2.5; 2=3.0; 3=3.5; 4=4.0; 5=4.5; 6=5.0; 7=5.5; 8=-2.0; 9=-1.5; 10=-1.0; 11=-0.5; 12=0; 13=0.5; 14=1.0; 15=1.5
825-057	PB Send Level (high-pass - low-pass (dB)) For Ch5	0	0~15	0=2.0; 1=2.5; 2=3.0; 3=3.5; 4=4.0; 5=4.5; 6=5.0; 7=5.5; 8=-2.0; 9=-1.5; 10=-1.0; 11=-0.5; 12=0; 13=0.5; 14=1.0; 15=1.5
825-058	Busy Tone detection before dialing For Ch0	0	0~1	0= Busy Tone detection Off; 1= Busy Tone detection On
825-059	Busy Tone detection before dialing For Ch1	0	0~1	0= Busy Tone detection Off; 1= Busy Tone detection On
825-060	Busy Tone detection before dialing For Ch2	0	0~1	0= Busy Tone detection Off; 1= Busy Tone detection On
825-061	Busy Tone detection before dialing For Ch3	0	0~1	0= Busy Tone detection Off; 1= Busy Tone detection On
825-062	Busy Tone detection before dialing For Ch4	0	0~1	0= Busy Tone detection Off; 1= Busy Tone detection On
825-063	Busy Tone detection before dialing For Ch5	0	0~1	0= Busy Tone detection Off; 1= Busy Tone detection On
825-064	Dial Tone detection before dialing For Ch0	1	0~1	0= Dial Tone detection Off; 1= Dial Tone detection On
825-065	Dial Tone detection before dialing For Ch1	1	0~1	0= Dial Tone detection Off; 1= Dial Tone detection On
825-066	Dial Tone detection before dialing For Ch2	1	0~1	0= Dial Tone detection Off; 1= Dial Tone detection On
825-067	Dial Tone detection before dialing For Ch3	1	0~1	0= Dial Tone detection Off; 1= Dial Tone detection On
825-068	Dial Tone detection before dialing For Ch4	1	0~1	0= Dial Tone detection Off; 1= Dial Tone detection On
825-069	Dial Tone detection before dialing For Ch5	1	0~1	0= Dial Tone detection Off; 1= Dial Tone detection On
825-070	Dial Tone detection before dialing (PBX)	0	0~1	0= Dial Tone detection Off; 1= Dial Tone detection On
825-071	Timing of tone detection before dialing For Ch0	4	0~255	0 ~ 255 (Sec.)
825-072	Timing of tone detection before dialing For Ch1	10	0~255	0 ~ 255 (Sec.)
825-073	Timing of tone detection before dialing For Ch2	10	0~255	0 ~ 255 (Sec.)
825-074	Timing of tone detection before dialing For Ch3	10	0~255	0 ~ 255 (Sec.)
825-075	Timing of tone detection before dialing For Ch4	10	0~255	0 ~ 255 (Sec.)





Table 1 Chain 825

Chain/Link	Name	Default	Range	Description
825-076	Timing of tone detection before dialing For Ch5	10	0~255	0 ~ 255 (Sec.)
825-077	Call Restriction For Ch0	0	0~2	0= Outgoing/Incoming Call; 1= Outgoing Call only; 2= Incoming Call only
825-078	Call Restriction For Ch1	0	0~2	0= Outgoing/Incoming Call; 1= Outgoing Call only; 2= Incoming Call only
825-079	Call Restriction For Ch2	0	0~2	0= Outgoing/Incoming Call; 1= Outgoing Call only; 2= Incoming Call only
825-080	Call Restriction For Ch3	0	0~2	0= Outgoing/Incoming Call; 1= Outgoing Call only; 2= Incoming Call only
825-081	Call Restriction For Ch4	0	0~2	0= Outgoing/Incoming Call; 1= Outgoing Call only; 2= Incoming Call only
825-082	Call Restriction For Ch5	0	0~2	0= Outgoing/Incoming Call; 1= Outgoing Call only; 2= Incoming Call only
825-099	Carrier down timer	-	0~1	0= 5.1sec; 1= 2.5sec
825-101	Check Time for TCF after CD On	1	0~1	0= 750msec; 1= 900msec
825-103	RX Gain in G3 Communication Mode	6 (-6dB)	0~15	0~15 (0~-15dB)
825-104	TX Gain in ISDN G3 Communication Mode	0	0~15	0~15 (0~-15dB)
825-115	Inter Digit pause timer	102	0~255	Inter digit time when PB dial.
825-119	Ring Detection Time	58	0~255	Time of tone sensing after dialing. 1=1sec
825-127	Analog Modem Drop-off (TX) for Ch0	8	8~15	8 dBm~15 dBm; step=-1 dBm
825-128	Analog Modem Drop-off (TX) for Ch1	8	8~15	8 dBm~15 dBm; step=-1 dBm
825-129	Analog Modem Drop-off (TX) for Ch2	8	8~15	8 dBm~15 dBm; step=-1 dBm
825-130	Analog Modem Drop-off (TX) Ch3	8	8~15	8 dBm~15 dBm; step=-1 dBm
825-131	Analog Modem Drop-off (TX) for Ch4	8	8~15	8 dBm~15 dBm; step=-1 dBm
825-132	Analog Modem Drop-off (TX) for Ch5	8	8~15	8 dBm~15 dBm; step=-1 dBm
825-133	Busy Tone detection (On/Off) setting	1	0~1	0= Busy Tone detection Off; 1= Busy Tone detection On
825-134	Dial Tone detection (On/Off) setting	1	0~1	0= Dial Tone detection Off; 1= Dial Tone detection On
825-135	Change number of times for pause	1	0~255	Change number of time for pause
825-148	Polling (Manual/Auto)	0	0.1	Set Polling when receive manual receiving during tel-communication. 0= Manual Receiving; 1= Manual Polling
825-156	RTN/EOR	1	0~3	Set whether or not to sense error when EOR/RTN are sent or received. 0= Not sense as error; 1= Sensed as error when RTN is sent or received.; 2= Sensed as error when EOR is sent or received.; 3= Sensed as error when EOR/RTN are sent or received.
825-158	No. of sheets recorded in the Transmission Result Report (Cannot be changed because of ROM data)	0	0~1	0= Total no. of sheets recorded, including those re-sent; 1= Total no. of sheets recorded for each line connection.
825-159	ECM Capability (Auto Error Resending Feature)	1	0~1	Disable=0; Enable=1
825-160	Time between dialing has completed, and the initial CNG Signal is sent.	60 (3 sec.)	20~140	1sec~7sec; (1=50msec)
825-161	CED signal frequency	1	0~1	0=1080Hz; 1=2100Hz
825-162	T1 Timer Value at Receive mode	39	1~90	1 ~ 90 (Sec.)
825-163	Timer Value of no tone timing recommended in T.30	0	0~1	0=75msec; 1=1sec
825-164	FSK detection before image information is received (Non-ECM)	1	0~1	0= Off; 1= On



Table 1 Chain 825

Chain/Link	Name	Default	Range	Description
825-165	FSK detection before image information is received	0	0~1	0= Off; 1= On
825-166	G3M CSI Send	0	0~1	Transmit=0; Off=1. CSI = Notification signal to the Sender of the ID Code registered at the Receiver.
825-168	Sending of Local Name	1	0~1	0= No; 1= Yes
825-169	To determine resending of the Local Name	0	0~1	0= No; 1= Yes
825-170	ECM Frame Size	0	0~1	256 bytes=0; 64 bytes=1
825-171	G3M ECM T5 Timer (2 Channel Common)	1	0~2	0= 1min; 1= 3 min; 2= No limit. Timer to the RNR Signal sent out when memory overflow etc. occurs at the Receive, or continuous receiving is not possible.
825-172	CCITT MMR Capability Enable/Disable	1	0~1	0= Disable; 1= Enable
825-173	Send reference of RTN Command (Proportion)	0	0~3	0=5%; 1=10%; 2=15%; 3=20% RTN = The message is not received properly, indicating that training is necessary.
825-174	Send Reference of RTN Command (No. of Continuous Lines)	2	0~3	0= No limit; 1= 3 line; 2= 6 line; 3= 12 line
825-175	No. of bytes of the DIS/DTC FIF Sending (DTC = Send command in response to DIS)	0	0~1	0= No limit; 1= 4bytes System
825-176	ECM Capability (Auto Error Resending feature)	1	0~1	Disable=0; Enable=1. Feature to start resending automatically when an error has been repaired in case when a line error has occurred during transmission. (Used in International Communication)
825-177	CCITT Trellis Capability On/Off, and types	2	0~2	0= V.27ter or less; 1= V.29 or less; 2= V.17 or less
825-178	CCITT Trellis Capability On/Off and types (Used in International Communication)	2	0~2	0= V.27ter or less; 1= V.29 or less; 2= V.17 or less
825-179	ECM Block Synchronize for Ch0	0	0~2	0 = 200 msec.; 1 = 500 msec.; 2 = 1 second
825-180	ECM Block Synchronize for Ch1	0	0~2	0 = 200 msec.; 1 = 500 msec.; 2 = 1 second
825-181	ECM Block Synchronize for Ch2	0	0~2	0 = 200 msec.; 1 = 500 msec.; 2 = 1 second
825-182	ECM Block Synchronize for Ch3	0	0~2	0 = 200 msec.; 1 = 500 msec.; 2 = 1 second
825-183	ECM Block Synchronize for Ch4	0	0~2	0 = 200 msec.; 1 = 500 msec.; 2 = 1 second
825-184	ECM Block Synchronize for Ch5	0	0~2	0 = 200 msec.; 1 = 500 msec.; 2 = 1 second
825-185	ECM CTC Number for Ch0	5	0~7	0=000 ~ 7=111
825-186	ECM CTC Number for Ch1	5	0~7	0=000 ~ 7=111
825-187	ECM CTC Number for Ch2	5	0~7	0=000 ~ 7=111
825-188	ECM CTC Number for Ch3	5	0~7	0=000 ~ 7=111
825-189	ECM CTC Number for Ch4	5	0~7	0=000 ~ 7=111
825-190	ECM CTC Number for Ch5	5	0~7	0=000 ~ 7=111
825-191	ECM CTC Speed Shift Down for Ch0	1	0~1	0 = No Shift; 1 = Shift Down. (CTC= Instructs to continue resending for the same block and to change the transmission speed as required, by the signal capable of transmission for every 3 resends)
825-192	ECM CTC Speed Shift Down for Ch1	1	0~1	0 = No Shift; 1 = Shift Down. (CTC= Instructs to continue resending for the same block and to change the transmission speed as required, by the signal capable of transmission for every 3 resends)
825-194	ECM CTC Speed Shift Down for Ch2	1	0~1	0 = No Shift; 1 = Shift Down. (CTC= Instructs to continue resending for the same block and to change the transmission speed as required, by the signal capable of transmission for every 3 resends)



Table 1 Chain 825

Chain/Link	Name	Default	Range	Description
825-194	ECM CTC Speed Shift Down for Ch3	1	0~1	0 = No Shift; 1 = Shift Down. (CTC= Instructs to continue resending for the same block and to change the transmission speed as required, by the signal capable of transmission for every 3 resends)
825-195	ECM CTC Speed Shift Down for Ch4	1	0~1	0 = No Shift; 1 = Shift Down. (CTC= Instructs to continue resending for the same block and to change the transmission speed as required, by the signal capable of transmission for every 3 resends)
825-196	ECM CTC Speed Shift Down for Ch5	1	0~1	0 = No Shift; 1 = Shift Down. (CTC= Instructs to continue resending for the same block and to change the transmission speed as required, by the signal capable of transmission for every 3 resends)
825-197	G3 DIS ignore for Channel 0 (No. of times DIS ignored)	0	-	0= Do not ignore DIS.; 1= DIS ignored once.
825-198	G3 DIS ignore for Channel 1 (No. of times DIS ignored)	0	-	0= Do not ignore DIS.; 1= DIS ignored once.
825-199	G3 DIS ignore for Channel 2 (No. of times DIS ignored)	0	-	0= Do not ignore DIS.; 1= DIS ignored once.
825-200	G3 DIS ignore for Channel 3 (No. of times DIS ignored)	0	-	0= Do not ignore DIS.; 1= DIS ignored once.
825-201	G3 DIS ignore for Channel 4 (No. of times DIS ignored)	0	-	0= Do not ignore DIS.; 1= DIS ignored once.
825-202	G3 DIS ignore for Channel 5 (No. of DIS ignored)	0	-	0= Do not ignore DIS.; 1= DIS ignored once.
825-203	G3 ECM EOR_Q Command for Channel 0	1	-	0= Stop; 1= Continue
825-209	G3 Modem Mode For Ch0	1	-	0= CCITT G3; 1= Auto
825-210	G3 Modem Mode For Ch1	1	-	0= CCITT G3; 1= Auto
825-211	G3 Modem Mode For Ch 2	1	-	0= CCITT G3; 1= Auto
825-212	G3 Modem Mode For Ch 3	1	-	0= CCITT G3; 1= Auto
825-213	G3 Modem Mode For Ch 4	1	-	0= CCITT G3; 1= Auto
825-214	G3 Modem Mode For Ch 5	1	-	0= CCITT G3; 1= Auto
825-215	G3 Modem RX Communication Speed Capability (non-V.34) for Channel 0	8	1 ~ 8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-216	G3 Modem RX Communication Speed Capability (non-V.34) for Channel 1	8	1 ~ 8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-217	G3 Modem RX Communication Speed Capability (non-V.34) for Channel 2	8	1 ~ 8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-218	G3 Modem RX Communication Speed Capability (non-V.34) for Channel 3	8	1 ~ 8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-219	G3 Modem RX Communication Speed Capability (non-V.34) for Channel 4	8	1 ~ 8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-220	G3 Modem RX Communication Speed Capability (non-V.34) for Channel 5	8	1 ~ 8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-221	G3 Modem RX Communication Speed Capability (V.34) for Channel 0	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-222	G3 Modem RX Communication Speed Capability (V.34) for Channel 1	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)



Table 1 Chain 825

Chain/Link	Name	Default	Range	Description
825-223	G3 Modem RX Communication Speed Capability (V.34) for Channel 2	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-224	G3 Modem RX Communication Speed Capability (V.34) for Channel 3	14	1~14	14
825-225	G3 Modem RX Communication Speed Capability (V.34) for Channel 4	14	1~14	14
825-226	G3 Modem RX Communication Speed Capability (V.34) for Channel 5	14	1~14	14
825-227	G3 Modem TX Communication Speed Capability (non-V.34) for Channel 0	8	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-228	G3 Modem TX Communication Speed Capability (non-V.34) for Channel 1	8	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-229	G3 Modem TX Communication Speed Capability (non-V.34) for Channel 2	8	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-230	G3 Modem TX Communication Speed Capability (non-V.34) for Channel 3	8	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-231	G3 Modem TX Communication Speed Capability (non-V.34) for Channel 4	8	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-232	G3 Modem TX Communication Speed Capability (non-V.34) for Channel 5	8	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-233	G3 Modem TX Communication Speed Capability (non-V.34 - overseas communication) for Channel 0	2	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-234	G3 Modem TX Communication Speed Capability (non-V.34 - overseas communication) for Channel 1	2	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-235	G3 Modem TX Communication Speed Capability (non-V.34 - overseas communication) for Channel 2	2	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-236	G3 Modem TX Communication Speed Capability (non-V.34 - overseas communication) for Channel 3	2	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-237	G3 Modem TX Communication Speed Capability (non-V.34 - overseas communication) for Channel 4	2	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-238	G3 Modem TX Communication Speed Capability (non-V.34 - overseas communication) for Channel 50	2	1~8	8 = 14400 bps/V.17 (1000); 7 = 12000 bps/V.17 (0111); 6 = 9600 bps/V.17 (0110); 5 = 7200 bps/V.17 (0101); 4 = 9600 bps/V.29 (0100); 3 = 7200 bps/V.29 (0011); 2 = 4800 bps/V.27ter (0010); 1 = 2400 bps/V.27ter (0001)
825-239	G3 Modem TX Communication Speed Capability (V.34) for Channel 0	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-240	G3 Modem TX Communication Speed Capability (V.34) for Channel 1	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)



Table 1 Chain 825

Chain/Link	Name	Default	Range	Description
825-241	G3 Modem TX Communication Speed Capability (V.34) for Channel 2	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-242	G3 Modem TX Communication Speed Capability (V.34) for Channel 3	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-243	G3 Modem TX Communication Speed Capability (V.34) for Channel 4	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-244	G3 Modem TX Communication Speed Capability (V.34) for Channel 5	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-245	G3 Modem TX Communication Speed Capability (V.34 - overseas communication) - Ch0	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-246	G3 Modem TX Communication Speed Capability (V.34 - overseas communication) - Ch1	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-247	G3 Modem TX Communication Speed Capability (V.34 - overseas communication) - Ch2	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-248	G3 Modem TX Communication Speed Capability (V.34 - overseas communication) - Ch3	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-249	G3 Modem TX Communication Speed Capability (V.34 - overseas communication) - Ch4	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-250	G3 Modem TX Communication Speed Capability (V.34 - overseas communication) - Ch5	14	1~14	14 = 33600 bps (1110); 31200 bps (1101); 28800 bps (1100); 26400 bps (1011); 24000 bps (1010); 21600 bps (1001); 19200 bps (1000); 16800 bps (0111); 14400 bps (0110); 12000 bps (0101); 9600 bps (0100); 7200 bps (0011); 4800 bps (0010); 2400 bps (0001)
825-251	G3 RX Cable Equalizer for Channel 0	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-252	G3 RX Cable Equalizer for Channel 1	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-253	G3 RX Cable Equalizer for Channel 2	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-254	G3 RX Cable Equalizer for Channel 3	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-255	G3 RX Cable Equalizer for Channel 4	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-256	G3 RX Cable Equalizer for Channel 5	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-257	G3 TSI/CIG Send TSI for Ch0	0	0~255	0 = Auto; 1 = Forced Transmit; 10 = Not Transmit. Notification signal of the Sender ID by the signal for the CSI signal from the recipient. CIG = Indicates recognition information of the call station.
825-258	G3 TSI/CIG Send TSI for Ch1	0	0~255	0 = Auto; 1 = Forced Transmit; 10 = Not Transmit. Notification signal of the Sender ID by the signal for the CSI signal from the recipient. CIG = Indicates recognition information of the call station.
825-259	G3 TSI/CIG Send TSI for Ch2	0	0~255	0 = Auto; 1 = Forced Transmit; 10 = Not Transmit. Notification signal of the Sender ID by the signal for the CSI signal from the recipient. CIG = Indicates recognition information of the call station.
825-260	G3 TSI/CIG Send TSI for Ch3	0	0~255	0 = Auto; 1 = Forced Transmit; 10 = Not Transmit. Notification signal of the Sender ID by the signal for the CSI signal from the recipient. CIG = Indicates recognition information of the call station.



Table 1 Chain 825

Chain/Link	Name	Default	Range	Description
825-261	G3 TSI/CIG Send TSI for Ch4	0	0~255	0 = Auto; 1 = Forced Transmit; 10 = Not Transmit. Notification signal of the Sender ID by the signal for the CSI signal from the recipient. CIG = Indicates recognition information of the call station.
825-262	G3 TSI/CIG Send TSI for Ch5	0	0~255	0 = Auto; 1 = Forced Transmit; 10 = Not Transmit. Notification signal of the Sender ID by the signal for the CSI signal from the recipient. CIG = Indicates recognition information of the call station.
825-263	G3 TX Cable Equalizer for Ch0	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-264	G3 TX Cable Equalizer for Ch1	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-265	G3 TX Cable Equalizer for Ch2	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-266	G3 TX Cable Equalizer for Ch3	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-267	G3 TX Cable Equalizer for Ch4	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-268	G3 TX Cable Equalizer for Ch5	1	-	0=0dB; 1=4dB; 2=8dB; 3=12dB
825-274	Line Error Value setting	0	-	0= No limit. 1= 128 lines; 2= 256 lines; 3= 512 lines; 4= 1024 lines; 5= 2048 line. RTN is sent if error Line is 1/2 or above the value set. RTN is sent if error Line is 1/4 or above the value set. MCF is sent if error Line is less 1/4 of the value set.
825-275	Reference for when RTN is sent.	0	-	0= Proportional; 1= No. of Lines
825-276	Incoming Tone Detection Level for Ch0	1	-	0=-48dBm; 1=-43dBm; 2=-38dBm; 3=-33dBm
825-277	Incoming Tone Detection Level for Ch1	1	-	0=-48dBm; 1=-43dBm; 2=-38dBm; 3=-33dBm
825-278	Incoming Tone Detection Level for Ch2	1	-	0=-48dBm; 1=-43dBm; 2=-38dBm; 3=-33dBm
825-279	Incoming Tone Detection Level for Ch3	1	-	0=-48dBm; 1=-43dBm; 2=-38dBm; 3=-33dBm
825-280	Incoming Tone Detection Level for Ch4	1	-	0=-48dBm; 1=-43dBm; 2=-38dBm; 3=-33dBm
825-281	Incoming Tone Detection Level for Ch5	1	-	0=-48dBm; 1=-43dBm; 2=-38dBm; 3=-33dBm
825-285	Transmission Paper Size	0x014c	-	0x0000 0002=A3; 0x0000 0004=A4; 0x0000 0020=B4; 0x0000 0100=Letter; 0x0000 0200=Legal; 0x0000 0400=Ledger; 0x0000 0800=8.5x13 inch; 0x0004 0000=A4LEF; 0x0008 0000=A5LEF; 0x0040 0000=B5LEF; 0x0100 0000=Letter LEF; 0x0200 0000=Letter Half LEF 0726 = A3, A4, B4, A4LEF, A5LEF, B5LEF, Letter, Legal, Ledger, Letter LEF
825-322	Set V34 modulation method enable.	1	0~1	0=Disable, 1=Enable





## 830-xxx ESS I-Fax Service Control NVM List

Table 1 Chain 830

Chain/Link	Name	Default	Range	Description
830-001	Email To Print (I-FAX Receive) Feature Setting	1	0~1	0=Disable; 1=Enable
830-002	Email To Fax Feature Setting	1	0~1	0=Disable; 1=Enable
830-003	Scan To Email (I-FAX Send) Feature Setting	1	0~1	0=Disable; 1=Enable
830-004	Fax To Email Feature Setting	1	0~1	0=Disable; 1=Enable
830-007	POP User Name	-	-	ASCII 64 Characters
830-022	SMTP/POP3 Receive Start Up	1	0~2	0= Stop; 1= SMTP Receive; 2= POP Receive
830-023	POP Receive Interval	10	1~120	1~120 minutes
830-024	Deletion after POP is obtained	0	0~1	1= Do not delete; 0= Delete
830-025	Mail Header Print Target	0	0~1	1= All; 0= Except Return-Path and Received
830-026	Printing of Error Mail	1	0~2	0= Do not print; 1= Print in the same way as Normal mail; 2= Always print both header and content
830-027	Sending of Error Notification Mail	0	0~1	0= Do not send; 1= Send
830-030	Mail Receive Limitation	0	0~1	0= Do not limit; 1= Limit
830-081	Fax Transmission Limitation by Address Book (Speed Dial)			0= Do not limit; 1= Limit
830-082	Mail Partition Send Threshold	1	0~999	0~999 pages (0 = No limit)
830-083	SMTP Send Start Up	0	0~1	0= Stop; 1= Start Up
830-084	Profile Selection at Broadcast	0	0~2	0= TIFF-S, 1= TIFF-F, 2= TIFF-J
830-085	Send Mode Selection at Broadcast	0	0~2	0= G3 Auto, 1= International Communication, 2= G4 Auto
830-086	Mail Partition Send Threshold - B&W	10	0~999	0~999 pages (0 = No limit)
830-087	Delivery Check When Broadcast	0	0~1	0= No; 1= Yes
830-088	Delivery Check System	1	0~1	0= DNS; 1= MDN

## 840-xxx ESS Scan Setting NVM List

Table 1 Chain 840

Chain/Link	Name	Default	Range	Description
840-001	SCAN Feature Setting	0	0~1	0=Enable;1=Disable
840-002	Scan Illegal Operation	1	0~1	0=Discards the stored document; 1=Validates the stored document
840-003	Maximum No. of Storage	999	1~999	1~999 sheets
840-004	Brightness 3 Setting	192	0~200	0~200=[-100~100]
840-005	Brightness 2 Setting	161	0~200	0~200=[-100~100]
840-006	Brightness 1 Setting	131	0~200	0~200=[-100~100]
840-007	Brightness -1 Setting	99	0~200	0~200=[-100~100]
840-008	Brightness -2 Setting	98	0~200	0~200=[-100~100]
840-009	Brightness -3 Setting	99	0~200	0~200=[-100~100]
840-010	Hard Contrast (High)	150	0~200	0~200=[-100~100]
840-011	Med. Hard Contrast (Slightly High)	125	0~200	0~200=[-100~100]



Table 1 Chain 840

Chain/Link	Name	Default	Range	Description
840-012	Med. Soft Contrast (Slightly Low)	75	0~200	0~200=[-100~100]
840-013	Soft Contrast (Low)	50	0~200	0~200=[-100~100]
840-014	Scan to E-mail enable (WC 24 only)	0	0~1	0=disable; 1=enable <b>NOTE:</b> In order to set value to 1, enter
840-015	Scan to E-mail user name	-	n/a	ASCII max. 64 characters
840-016	Scan to E-mail errors destination	-	n/a	ASCII max. 64 characters
840-017	Scan to E-mail "reply to" destination	-	n/a	ASCII max. 64 characters
840-018	Threshold of divided E-mail send	2	0~999	0=no limit; 1~999 pages
840-019	RGB Color Space	0	0~1	0=Standard Color Space; 1=Device Color Space
840-020	Upper data size limit for scan To E-mail	2	0~99	0=no limit; 1~99 Mbytes
840-021	Scan ACS menu Display	0	0~1	0=Don't display; 1=Display





## 850-xxx ESS Foreign Interface NVM List

Table 1 Chain 840

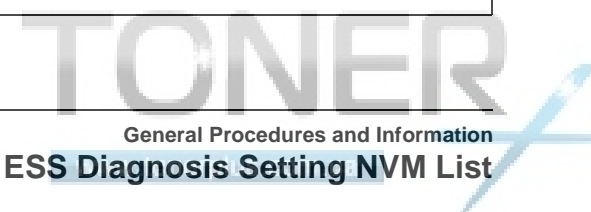
Chain/Link	Name	Default	Range	Description
850-001	Foreign Interface Enable	0	0~1	0 = Enable; 1 = Disable
850-009	Print Control Feature Enable	1	0~1	0=No Control; 1=Control
850-010	Interrupt Enable when Subtractive device connected	0	0~1	0 = Enable; 1 = Disable
850-015	Scan Control Feature Enable	0	0~1	0=No Control; 1=Control
850-016	“Disable” behavior when Subtractive device connected	0	0~1	0=Job Cancel; 1=Job Pause



## 870-xxx ESS Diagnosis Setting NVM List

Table 1 Chain 870

Chain/Link	Name	Default	Range	Description
870-001	TBD	Normal	-	Normal, Diag (Auto setting)
870-010	CRU #1 PR Wear previous value	-	-	0~99999999
870-011	CRU #2 PR Wear previous value	-	-	0~99999999
870-012	CRU #3 PR Wear previous value	-	-	0~99999999
870-013	CRU #4 PR Wear previous value	-	-	0~99999999
870-014	#1CRU Warning previous value	-	-	0~99999999
870-015	#1DRUM Total cycles previous value	-	-	0~99999999
870-016	#2DRUM Total cycles previous value	-	-	0~99999999
870-017	#3DRUM Total cycles previous value	-	-	0~99999999
870-018	#4DRUM Total cycles previous value	-	-	0~99999999
870-019	#1DRUM DC cycles previous value	-	-	0~99999999
870-020	#2DRUM DC cycles previous value	-	-	0~99999999
870-021	#3DRUM DC cycles previous value	-	-	0~99999999
870-022	#4DRUM DC cycles previous value	-	-	0~99999999
870-023	#1DRUM AC cycles previous value	-	-	0~99999999
870-024	#2DRUM AC cycles previous value	-	-	0~99999999
870-025	#3DRUM AC cycles previous value	-	-	0~99999999
870-026	#4DRUM AC cycles previous value	-	-	0~99999999
870-027	IBT Belt (IMPS) previous value	-	-	0~99999999
870-028	IBT Belt (cycle) previous value	-	-	0~99999999
870-029	1st BTR previous value	-	-	0~99999999
870-030	Back Up Roll previous value	-	-	0~99999999
870-031	2nd BTR Unit previous value	-	-	0~99999999
870-032	Bearing BTR previous value	-	-	0~99999999
870-033	Trim within Transfer Module previous value	-	-	0~99999999
870-034	Belt Cleaner Blade previous value	-	-	0~99999999
870-035	Belt Cleaner Film Seal previous value	-	-	0~99999999
870-037	Tray 5 # of feeds previous value	-	-	0~99999999
870-038	3TM Tray 2 # of feeds previous value	-	-	0~99999999
870-039	3TM Tray 3 # of feeds previous value	-	-	0~99999999
870-040	3TM 4Tray # of feeds previous value	-	-	0~99999999
870-042	TTM Tray 2 # of feeds previous value	-	-	0~99999999
870-043	TTM Tray 3 # of feeds previous value	-	-	0~99999999
870-044	TTM 4Tray # of feeds previous value	-	-	0~99999999
870-045	PV (CV) Counter for filter life previous value	-	-	0~99999999









## dC132 Serial Number/Billing Meter Synchronization

### Purpose

Checks the Billing Meters and sets the Machine Serial Number when fault 103-208 occurs. This routine also reads the Billing Meters and can be accessed at any time for this purpose.

### Procedure

#### CAUTION

*Failure to comply with the board replacement procedure in GP 10, could result in catastrophic NVM corruption.*

Follow the procedure described in GP 10.

## dC135 HFSI Counters

### Purpose

This routine displays the service life (Threshold) and the current value (count) of the periodic replacement parts. Replacement life change, and current value resets are possible.

### Procedure

#### Reading and resetting HFSI

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select dC135 from the **DC Quick** menu, or click on **Maintenance** on the **Service Entry** Screen. The **All Jams** screen displays as the default screen.
3. Select **HFSI Counters (dC135)** tab on the Maintenance screen.
4. The **HFSI Counters** screen displays the replacement life (Threshold) and the current value (count) of the periodic replacement parts. Two vertical tabs allow display of all HFSI counters, or only those counters that are over threshold.
5. Refer to [Detailed Maintenance Activities](#) in Section 1. Perform the listed Service Action for all HFSI counters that are at or near threshold (near threshold indicated by yellow diamond in the % column).
6. To reset the count after replacing the parts, select the appropriate HFSI item, then select the **Reset Counter** button.

#### Changing Thresholds

The PWS tool has two **Threshold** columns. One (**Threshold**) represents the threshold value as stored within the PWS tool; the other (**Machine Threshold**) represents the data stored in the machine NVM. The **Machine Threshold** can be modified as follows:

#### CAUTION

*Changing HFSI thresholds may adversely affect machine performance. Do not perform this procedure unless specific directed to do so.*

1. Select the **Change Threshold** Tab.
2. Select the counter you wish to modify.
3. To reset the machine threshold to the same value as the PWS value, press the **Set Threshold** button.
4. To reset the machine threshold to a value other than the current machine or PWS value, enter the value into the **New Threshold:** box, then press the **Set New Threshold** button.
5. Press the **Refresh** button to display the updated value.



## dC140 Analog Monitor

### Purpose

Monitors the analog values of the A/D converter sensors by driving each component (e.g., C.C). Temporary change of output values is possible. Output component check is also possible.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select the **Analog Monitor (dC140) tab** in the **Diagnostics Screen**.
3. The system displays the Analog Monitor Screen.
  - a. The system displays the analog output component names and the analog input component names with the Chain Link Numbers (ID column) in the table in the order of Chain Link number.
  - b. The status of all output components show **Disabled**. The **Level** columns are blank.
4. To run an output component check:
  - a. Select a component to check.
  - b. Select **Start** in the output component check.
  - c. The output component in the machine is switched on.
  - d. The PWS changes the output component status to **Enable**.
  - e. You can switch on an input component to monitor the output component in the machine.

**NOTE:** If the component has a runtime restriction, the component is switched on for that period and automatically switched off.

**NOTE:** Some components cannot be energized at the same time as another component. If you activate such a combination of components, the first component switched on will be automatically switched off.

**NOTE:** If the component cannot be automatically turned off, the following message appears: **Cannot check the component. Stop another output component.**

### Checking multiple components

1. To check multiple components simultaneously, repeat Step 4a through 4e.
2. To stop the check, select **Stop** while the component is selected, or select **Stop All**, which switches off all output components.

### Changing output levels

1. You can temporarily change the output level of some output component by using the [+] or [-] to increment/decrement the output level by 1.
2. Select the component whose output level you want to change. Select [+] to increment or [-] to decrement.
3. Increment or decrement the output level by 1. The new output level is input into the system and the Analog Monitor shows the new output level in the Level column. If the output level entered is out of the range, the Information screen shows the following message: **Invalid value. Enter again.** (A value that is out of the range is a value that is higher than the upper limit or lower than the lower limit defined by the machine.)

## dC188 Exiting from Service Mode

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select the **Service Exit** Tab on the Screen.
3. The Service Exit Screen (dC188) displays.
4. The exit options are:
  - Complete Closeout
  - Temporary Closeout

**NOTE:** Selecting **Complete Closeout** resets the Shutdown History (dC122), Fault Counter (dC120), Jam Counters (dC118) and the numbers of copies since the last call.

5. Select **Complete Closeout** or **Temporary Closeout**. The machine reboots. The UI message **Ready to Copy** displays.

**NOTE:** Selecting **Temporary Closeout** exits from the Service Mode without resetting the Shutdown History (dC122), Fault Counter (dC120), Jam Counter (dC118), and the number of copies since last call.

6. Select **Exit PWS** to close from the PWS diagnostic tool after the PWS has been disconnected from the machine.

**NOTE:** Step 7 is specific for the DC2240/1632 Tool. The multi-product PWS Tool allows the option of saving the data to any drive space or folder. Use standard Windows navigation to locate the desired drive and/or directory.

7. After Exit PWS is selected, the following message will display, **Would you like to copy Machine Data to the a:drive? Yes or No.**
  - If **Yes** is selected, insert a diskette into a:drive and the PWS will write Machine Data to a:drive and the diagnostic tool will close.
  - If **No** is selected the diagnostic tool will close.

**NOTE:** If the PWS is disconnected from the machine after the machine entered the Service Mode, the machine does not automatically exit from the Service Mode. If the machine is disconnected from the PWS, switch the machine power off, then on to force an exit from PWS mode.



## dC301 NVM Initialization

### Purpose

This procedure may be needed when the machine cannot recover for some unknown reasons, including problems such as producing blank copies/prints, continuously declaring system faults, etc. It is also required as part of the software upgrade process.

### Initial Actions

- Disconnect any Foreign Interface devices.
- Obtain all of the following information:
  - Machine Settings diskette (either a known-good diskette or a new recording, if possible - refer to [dC351](#) for procedure).
  - NVM value factory setting report (typically it is located in the Tray 1 pocket)
  - Any customer setting Auditron account from the system administrator
  - Any setting changes (specifically NVM settings) shown on the machine's service log.
  - Any customer settings in the Tools mode.
- If possible, save Machine Settings ([dC351](#)).

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select the **Adjustments** tab.
3. Select the **NVM Init, S/R** tab.
4. Select the **NVM Initialize (dC301)** tab. The NVM Initialize screen is displayed
5. There are four selectable areas of NVM that can be individually initialized. The follow the instructions in the procedure that sent you here when choosing the areas to be initialized and the correct sequence. [Table 1](#) lists the NVM locations that are reset for each selection.
6. After the initialization is complete, use the data accumulated in **Initial Actions** to restore the machine to its previous configuration.

Table 1 NVM Initialization

Name	Description
IOT	The following NVM locations will be initialized: <ul style="list-style-type: none"><li>• Chain 740 - links 020 through 419</li><li>• Chain 741 - All</li><li>• Chain 742 - links 055 through 079</li><li>• Chain 744 - All</li><li>• Chain 746 - All</li><li>• Chain 751 - All except links 168 and 364</li><li>• Chain 752</li><li>• Chain 753 - All</li><li>• Chain 760 - All</li><li>• Chain 762 - All</li><li>• Chain 764 - All</li></ul>

Table 1 NVM Initialization

Name	Description
IIT/IPS	The following NVM locations will be initialized: <ul style="list-style-type: none"><li>• Chain 710</li><li>• Chain 715 - links 001 through 017</li></ul>
SYS-System	The following NVM locations will be initialized: <ul style="list-style-type: none"><li>• Chain 700 - links 006, 065 through 070, 088, 116, 122, 127, 128, 147, 164 through 166, 174, 176 through 181, 197, 208</li><li>• Chain 701 - links 912, 917, 924, 929</li><li>• Chain 720 -link 002</li><li>• Chain 730 - links 00 through 006</li><li>• Chain 770 - links 124, 203</li><li>• Chain 780 - links 065 through 068</li><li>• Chain 785 - links 008, 009</li><li>• Chain 790 - links 003, 004, 099</li><li>• Chain 801 - links 104, 204, 304, 404, 504, 604, 704, 804, 904</li><li>• Chain 802 - links 004, 104, 204, 304, 404, 504, 604, 704, 804, 904</li><li>• Chain 803 - link 004</li><li>• Chain 810 - links 002 through 019, 038 through 127</li><li>• Chain 820 - links 003, 007 through 009, 017 through 019, 024, 026, 027, 029</li><li>• Chain 823 - links 001 through 005, 008 through 011, 030 through 047</li><li>• Chain 830 - links 001 through 004, 084, 085</li><li>• Chain 850 - links 001 through 004, 007, 009 through 012, 015</li><li>• Chain 860 - links 009, 013, 020, 025, 031, 032</li></ul>
SYS-User	All user settable NVM locations in the following chains will be reset: Chains 700, 780, 785, 790, 800, 801, 802, 803, 804, 805, 806, 810, 820, 823, 830, 840



## dC305 UI Component Check

### Purpose

Checks the operations of the UI Screen and Control Panel buttons.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select the **Diagnostics** Tab in the Service Entry Screen.
3. Select the **System Test** Tab in the Diagnostics Screen. The System Test Screen displays. The UI Component Check dC305 is the default screen.
4. Select **Start**. The following message displays, **Perform the UI Component Check on the Machine. When complete, select Stop**.
5. Select **OK**.
6. Touch the **UI Screen** in a different locations. The highlighted point moves to the new location.
7. All LEDs should be illuminated when the dC305 Touch Screen Test is displayed. Select **Stop** to Turn-OFF all LEDs.
8. Select **Stop** on the Component Check Screen.
9. The Touch Screen Test Screen on the machine UI closes.

## dC330 Component Control

### Purpose

The purpose of the dC330 Component Control is to display the logic state of input signals and to energize output components.

**NOTE:** Refer to [Table 1](#) for a list of all Input Components listed by Chain/Link ID number. Refer to [Table 2](#) for a list of all Output Components listed by Chain/Link ID number.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select the **Diagnostics Tab** on the Service Entry Screen.
3. Select **Component Control** (dC330) on the Diagnostic Entry Screen.
4. The dC330 Screen is displayed. The display indicates the following:
  - Input/Output Components
  - ID Number (chain/link order)
  - Active Stack (including ID and state of component)
5. The Component Control Codes are arranged in categories, such as: Processor, System, Finisher, etc. Select the appropriate vertical tab.

### CAUTION

*Some components have special machine safety requirements, such as removing the IBT assembly before running the IBT Drive, etc. These caution statements are listed in the Quick-Help window for each code. Be careful to read and fully comply with these messages, in order to avoid machine damage.*

6. Activate the desired component code by double clicking on the Chain/Link ID number or by clicking once on the Chain/Link ID number then selecting the **Start Button**. The ID's will display in the Active Stack.

**NOTE:** *If the component has a runtime restriction, the component is switched on for that period and automatically switched off.*

7. Press the **Stop** or **Stop All** button, or double click the active component in the Active Stack box to end the test. The ID and Active Stack components are removed from the Active Stack box.

### Stacking Component Codes

**NOTE:** *Some components cannot be energized at the same time as another component. If you activate such a combination of components, the first component switched on will be automatically switched off. If the component cannot be automatically turned off, the following message appears: **Cannot check the component. Stop another output component***

8. To stack several codes, select the first code and press **Start**, then select the next code and press **Start**. Continue to enter up to eleven codes.
9. The selected ID appears in the ID column of the Active Stack box and the state changes to Run; H or L as applicable.
10. Stop a highlighted component by pressing **Stop** or double click the active component in the Active Stack Box
11. To switch Off all components and clear the screen, press **Stop All**.



**NOTE:** When exiting dC330, the machine resets and communication between the PWS and the machine is momentarily lost. The PWS will reconnect automatically.

**Table 1 Input Component Control Codes**

Code	Name	Description
001-300	INTLK_1	High when Open is detected. ON = High
001-301	INTLK_2	High when Open is detected. ON = High
001-302	LH LOW I/L SW	High when Open is detected. ON = High
001-304	LH 3TM I/L SW	Low when Open is detected. ON = Low
001-306	INTLK_3	High when Open is detected. ON = High
004-100	Belt Home Sensor	IBT is not at Home Position. Open circuit. It is necessary to operate IBT 5V ON. ON = High
004-101	Drum Motor YMC Fail Detection	PR (Drum) Motor YMC Failure. ON = High
004-102	Drum Motor K Fail Detection	PR (Drum) Motor K Failure. ON = High
004-200	FAN_LOCK_FAIL	Fan rotation is stopped. ON = Fault
005-102	Document Sensor	No paper detected by Document Sensor. ON = High
005-110	Regi Sensor (DADF)	Paper detected by Regi Sensor. ON = Low
005-115	Exit Sensor	Paper detected by Exit Sensor. ON = Low
005-119	Dup Sensor	Paper detected by Dup Sensor. ON = Low
005-150	#1 Size Sensor	No paper detected by #1 Size Sensor. ON = High
005-151	#2 Size Sensor	No paper detected by #2 Size Sensor. ON = High
005-201	Exchange from IISS	Document Exchange Instruction. on from IISS. ON = Low
005-300	Platen I/L Switch	Platen Cover Open. ON = High
005-301	Top Cover I/L Switch	Top Cover Inter Lock Open. ON = High
006-160	Polygon Motor Ready Signal	Regular rotation of Polygon Motor. ON = Low
006-201	Sheet Abort	Document Regist. ON = Low
006-212	IIT Regi Sensor	Deactuation of Regi Sensor. ON = Low
006-240	DADF Exist	DADF is not installed. ON = High
006-251	APS Sensor1	Document is detected. ON = APS SNR1: Low, APS. ON = High
006-253	APS Sensor3	Document is detected. ON = APS SNR3: Low, APS. ON = High
006-272	PM-0	Flash Memory writing is not in progress. ON = Inside PWBA
006-281	IPS Fan Fail	High when FAN failure is detected. ON = High
006-300	Platen I/L Switch	Low when Platen closed. ON = Low
006-301	Angle Sensor	Low when Platen closed. ON = Low
007-100	Tray 1 Size Switch 1	ON = AN value
007-101	Tray 1 Size Switch 2	ON = AN value
007-102	Tray 1 Size Switch 3	ON = AN value

**Table 1 Input Component Control Codes**

Code	Name	Description
007-103	Tray 1 Size Switch 4	ON = AN value
007-104	Tray 2 Size Switch 1	ON = AN value
007-105	Tray 2 Size Switch 2	ON = AN value
007-106	Tray 2 Size Switch 3	ON = AN value
007-107	Tray 2 Size Switch 4	ON = AN value
007-108	Tray 3 Size Switch 1	ON = AN value
007-109	Tray 3 Size Switch 2 (3TM); Size Switch 3 (TTM)	ON = AN value
007-110	Tray 3 Size Switch 3 (3TM only)	ON = AN value
007-111	Tray 3 Size Switch 4 (3TM only)	ON = AN value
007-112	Tray 4 Size Switch 1	ON = AN value
007-113	Tray 4 Size Switch 2 (3TM); Size Switch 3 (TTM)	ON = AN value
007-114	Tray 4 Size Switch 3 (3TM only)	ON = AN value
007-115	Tray 4 Size Switch 4 (3TM only)	ON = AN value
007-116	Tray 1 Level Sensor	Lift Up. ON = High
007-117	Tray 2 Level Sensor	Lift Up. ON = High
007-118	Tray 3 Level Sensor	Lift Up. ON = High
007-119	Tray 4 Level Sensor	Lift Up. ON = High
007-120	Tray 1 No paper Sensor	No paper. ON = High
007-121	Tray 2 No paper Sensor	No paper. ON = High
007-122	Tray 3 No paper Sensor	No paper. ON = High
007-123	Tray 4 No paper Sensor	No paper. ON = High
007-125	Tray 5 No paper Sensor	No paper. ON = High
007-128	Face Up Tray Detect	Low when Tray is installed. ON = Low
008-100	#1Feed Out Sensor	Paper detected. ON = High
008-102	#3Feed Out Sensor	Paper detected. ON = High
008-103	#4Feed Out Sensor	Paper detected. ON = High
008-104	Regi Sensor	No paper -ON = Low
008-105	Dup Wait Sensor	Paper detected. ON = High
008-106	T/A Sensor	Paper detected. ON = High
008-107	TTM Path Sensor1	Paper detected
008-108	TTM Path Sensor2	Paper detected
008-109	OHP Sensor#L	ON = Low
008-110	OHP Sensor#R	ON = Low
008-300	DUP Open Switch	ON = High



Table 1 Input Component Control Codes

Code	Name	Description
009-101	Toner_Y New	CRU Connection of color is open (The CRU in use is present, or it is not present). Low=new, High=old
009-102	Toner_M New	CRU Connection of color is open (The CRU in use is present, or it is not present). Low=new, High=old
009-103	Toner_C New	CRU Connection of color is open (The CRU in use is present, or it is not present) Low=new, High=old
009-104	Toner_K New	CRU Connection of color is open (The CRU in use is present, or it is not present) Low=new, High=old
009-150	TNR FULL SNR	ON = High
009-151	#Y_CRU detect	CRU is installed
009-152	#M_CRU detect	CRU is installed
009-153	#C_CRU detect	CRU is installed
009-154	#K_CRU detect	CRU is installed
009-200	2nd BTR Retract Sensor	Retraction. ON = Low
009-201	POB Sensor	Paper detected. ON = Low
009-203	1st BTR Retract Sensor	Retraction. ON = Low
010-101	Fuser Exit	Paper detected. ON = High
010-102	Full Paper Stack Sensor	NotFull. ON = Low
012-100	IOT Regi Clutch	Clutch OFF. ON = High
012-101	Compiler Tray Exit Sensor	Paper detected. ON = High
012-102	Compiler Paper Sensor	Paper detected. ON = High
012-103	H-Tra Ent. Sensor	Paper detected. ON = High
012-104	H-Tra Exit Sensor	Paper detected. ON = High
012-200	Stacker Paper Sensor	Paper detected. ON = High
012-201	Stacker Height Sensor	Higher than the detection surface. ON = High
012-202	Stacker Upper Limit Sensor	Upper Limit position. ON = High
012-204	Stacker Stack A Sensor	Non-transmissive position. ON = High
012-205	Stacker Stack B Sensor	Non-transmissive position. ON = High
012-207	Staple Head Home Sensor	Not at Home position. ON = High
012-208	Low Staple Switch	Low Staple. ON = High
012-209	Staple Ready Sensor	Not at Ready position. ON = High
012-210	Eject Clamp Home Sensor	Not at Home Position (Roller is down). ON = High
012-211	Set Clamp Home Sensor	Not at Home Position (transmissive). ON = High
012-212	Rear Tamper Home Sensor	Home position. ON = High
012-215	H-Tra IOT Full Paper Sensor	No paper. ON = High
012-216	Front Tamper Home Sensor	Home position. ON = High
012-217	Decurler Cam Position Sensor	Not at Home Position (transmissive). ON = High

Table 1 Input Component Control Codes

Code	Name	Description
012-224	Stapler Move Sensor	Non-transmissive position. ON = High
012-225	Stapler Front Corner Sensor	Front Corner position. ON = High
012-300	Front Cover Interlock Switch	Open. ON = High
012-301	Top Cover Interlock Switch	Open. ON = High
012-302	Docking Interlock Sensor	Docking release. ON = High
012-305	H-Tra Interlock Sensor	Open. ON = High

Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
001-001	Delayed_off	Delay Relay	
001-003	Flicker	Energize triac to switch in Flicker Resistor. (220VAC - DC3535 only)	
004-001	Steering Motor	Reswitch the Steering Cam to Home position once and operate it at half cycle after that.	004-005
004-002	IBT Motor (104mm/sec.)	Operate with the IBT Assy. removed to prevent Transfer Belt damage.	004-012, 004-013
004-003	Drum Motor YMC (104mm/sec.)	Remove all Drum Cartridges before energizing to prevent Belt damage.	
004-004	Main Motor (104mm/sec.)	Rotate at medium speed. Operate the motor with the 2nd BTR nipped, or the LH Cover opened. Otherwise, the 2nd BTR might damage the belt.	004-007, 004-008
004-005	Steering Motor Home Position	Returns Steering Cam to home position ON = Low. Operate with the IBT Assy. removed to prevent Transfer Belt damage.	004-001
004-006	Drum Motor K (104mm/sec.)	Remove all Drum Cartridges before energizing to prevent Belt damage.	004-004, 004-009
004-007	Main Motor (52mm/sec.)	Rotate at low speed. Operate the motor with the 2nd BTR nipped, or the LH Cover opened. Otherwise, the 2nd BTR might damage the belt.	004-004, 004-008
004-008	Main Motor (high speed)	Rotate at high speed. Operate the motor with the 2nd BTR nipped, or the LH Cover opened. Otherwise, the 2nd BTR might damage the belt.	004-004, 004-007
004-009	Drum Motor K (52mm/sec.)	Rotate at low speed. Remove all Drum Cartridges before energizing to prevent Belt damage.	004-006, 004-010
004-010	Drum Motor K (high speed)	Rotate at high speed. Remove all Drum Cartridges before energizing to prevent Belt damage.	004-006, 004-009



Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
004-011	Drum Motor YMC (52mm/sec.)	Rotate at low speed. Remove all Drum Cartridges before energizing to prevent Belt damage.	004-003
004-012	IBT Motor (52mm/sec.)	Rotate at low speed. Operate with the IBT Assy. removed to prevent Transfer Belt damage.	004-002, 004-013
004-013	IBT Motor (high speed)	Rotate at high speed. Operate with the IBT unit removed. The Belt might be damaged since the Belt Work Control is not performed.	004-002, 004-012
004-014	IBT_5V ON	ON = High.	-
004-050	Fuser Fan, LV Fan and Rear Fan Rotation High speed	Rotate the FUSER FAN, LV FAN and REAR FAN at high speed. (Rotation is Low at Power ON)	-
005-011	Set Gate Solenoid Open	Turn Set Gate Open ON (Towards bottom of Nudger Roll) for 5sec -> Auto OFF	-
005-012	Set Gate Solenoid Close	Turn Set Gate Close ON (Towards bottom of Nudger Roll) for 5sec -> Auto OFF	-
005-040	Feed Mot.	DADF Feed Motor for 2sec -> Auto OFF	-
005-055	Belt Motor Non CVT Mode (CW)	Rotate the DADF Belt Motor forward.	005-056
005-056	Belt Motor Non CVT Mode (CCW)	Rotate the DADF Belt Motor backward.	005-055
005-075	Regi Gate Solenoid	Push the Regi Gate with the Arm to turn it ON for 5sec -> Auto OFF	-
005-081	Exit Motor Non CVT Mode	Operate the DADF Exit Motor	-
005-083	Doc Ready	switch ON the Doc Ready signal.	-
005-084	Doc Set LED	switch ON the DOC SET LED	-
006-002	IIT Exposure Lamp	switch the Lamp ON for 180sec -> Auto OFF	-
006-004	IPS Cooling Fan (Low speed)	After operating the IPS Cooling Fan at high speed for 5sec, operate it at low speed. ON = FAN. ON = 24V, FAN Slow: L->H (About 13V)	-
006-005	IIT Scan Motor (Scan)	Move it 50mm from current position in Scan direction -> Auto OFF	006-006
006-006	IIT Scan Motor (Return)	Move it 50mm from current position in Return direction -> Auto OFF	006-005
006-014	IPS Cooling Fan (High speed)	Operate the IPS Cooling Fan at high speed.	-
006-030	LD ON Enable Signal (concurrently for 4 colors)		-

Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
006-031	Polygon Motor Start Signal		-
006-032	SOS Gain	Start-of-Scan Sensor gain signal	
006-086	IIT Image Area	IMG-AREA Signal Output. ON = P727 LVDS (Differential) High	-
006-091	Exchange To ADF	Turn ON the document exchange command signal to the DADF	-
007-003	Tray 5 FEED Clutch		-
007-004	HOTLINE_TRAY	Not used.	-
008-001	#1Feed Motor (Fwd)	Feed (Rotate #1Feed Motor in paper feed direction at 200mm/sec.)	8-002
008-002	#1Feed Motor (Rev)	It switches OFF automatically 6sec after LiftUp has started, or when the Level Snr detected LiftUp. LiftUp cannot be performed when the Level Snr should detect LiftUp.	8-001
008-003	#2Feed Motor (Fwd)	Feed (Turn #2Feed Motor On in paper feed direction at 192mm/sec.)	8-004
008-004	#2Feed Motor (Rev)	It switches OFF automatically 6sec after LiftUp has started, or when the Level Snr detected LiftUp. LiftUp cannot be performed when the Level Snr should detect LiftUp.	8-003
008-005	#3Feed Motor (Fwd)	Feed (Turn #3Feed Motor On in paper feed direction at 192mm/sec.)	
008-006	#3Feed Motor (Rev)	It switches OFF automatically 6sec after LiftUp has started, or when the Level Snr detected LiftUp. LiftUp cannot be performed when the Level Snr should detect LiftUp.	8-005
008-007	#4Feed Motor (Fwd)	Feed (Turn #4Feed Motor On in paper feed direction at 192mm/sec.)	8-008
008-008	#4Feed Motor (Rev)	It switches OFF automatically 6sec after LiftUp has started, or when the Level Snr detected LiftUp. LiftUp cannot be performed when the Level Snr should detect LiftUp.	8-007
008-009	Dup Motor (200.1mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-010, 011, 012, 053, 054, 055, 056
008-010	Dup Motor (104mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-009, 011, 012, 053, 054, 055, 056



Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
008-011	Dup Motor (200.1mm/sec.) Long		8-009, 010, 012, 053, 054, 055, 056
008-012	Dup Motor (104mm/sec.) Long		8-009, 010, 011, 053, 054, 055, 056
008-021	3TM TA Motor (52mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-022, 023, 024, 025, 026, 027, 028
008-022	3TM TA Motor (104mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-021, 023, 024, 025, 026, 027, 028
008-023	3TM TA Motor (192mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-021, 022, 024, 025, 026, 027, 028
008-024	3TM TA Motor (370mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-021, 022, 023, 025, 026, 027, 028
008-025	3TM TA Motor (52mm/sec.) Long		8-021, 022, 023, 024, 026, 027, 028
008-026	3TM TA Motor (104mm/sec.) Long		8-021, 022, 023, 024, 025, 027, 028
008-027	3TM TA Motor (192mm/sec.) Long		8-021, 022, 023, 024, 025, 026, 028
008-028	3TM TA Motor (370mm/sec.) Long		8-021, 022, 023, 024, 025, 026, 027
008-029	TTM TA Motor (52mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-030, 031, 032, 033, 034, 035, 036
008-030	TTM TA Motor (104mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-029, 031, 032, 033, 034, 035, 036
008-031	TTM TA Motor (192mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-029, 030, 032, 033, 034, 035, 036
008-032	TTM TA Motor (370mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-029, 030, 031, 033, 034, 035, 036
008-033	TTM TA Motor (52mm/sec.) Long		8-029, 030, 031, 032, 034, 035, 036

Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
008-034	TTM TA Motor (104mm/sec.) Long		8-029, 030, 031, 032, 033, 035, 036
008-035	TTM TA Motor (192mm/sec.) Long		8-029, 030, 031, 032, 033, 034, 036
008-036	TTM TA Motor (370mm/sec.) Long		8-029, 030, 031, 032, 033, 034, 035
008-037	Regi Clutch	Switches on. Switches off automatically at 400msec.	None
008-038	#1TA Clutch	Switches on. Switches off automatically at 400msec.	None
008-042	Invert Clutch CW	Switches on in output direction. Switches OFF automatically at 400msec.	None
008-043	Invert Clutch CCW	Switches on in Invert direction. Switches OFF automatically at 400msec.	None
008-047	TTM TM Motor2 (370mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	None
008-048	TTM TM Motor2 (370mm/sec.) Long		None
008-049	MOB2LED_CHNG	MOB SNR2 LED Light quantity switching signal, Light quantity UP (increase voltage) at PORT H. ON = ANA Output LED2 Light quantity UP	None
008-050	MOB2LED_ON	MOB SNR2 LED ON. ON = ANA output	None
008-051	MOB1LED_CHNG	MOB SNR1 LED Light quantity switching signal, Light quantity UP (increase voltage) at PORT H. ON = ANA Output LED1 Light quantity UP	None
008-052	MOB1LED_ON	MOB SNR1 LED ON. ON = ANA output	None
008-053	Dup Motor (373.2mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-009, 010, 011, 012, 054, 055, 056
008-054	Dup Motor (194mm/sec.)	Start operation. Switches OFF automatically at 1000msec.	8-009, 010, 011, 012, 053, 055, 056
008-055	Dup Motor (373.2mm/sec.) Long		8-009, 010, 011, 012, 053, 054, 056
008-056	Dup Motor (194mm/sec.) Long		8-009, 010, 011, 012, 053, 054, 055
009-001	#Y_Disb MOT	Y Color Disp. MOT turns ON, and switches OFF automatically after 5sec.	-



Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
009-002	#M_Disp MOT	M Color Disp. MOT turns ON, and switches OFF automatically after 5sec.	-
009-003	#C_Disp MOT	C Color Disp. MOT turns ON, and switches OFF automatically after 5sec.	-
009-004	#K_Disp MOT	K Color Disp. MOT turns ON, and switches OFF automatically after 5sec.	-
009-005	#Y_DB DC	Y Color Developer Bias DC Component Output	-
009-006	#M_DB DC	M Color Developer Bias DC Component Output	-
009-007	#C_DB DC	C Color Developer Bias DC Component Output	-
009-008	#K_DB DC	K Color Developer Bias DC Component Output	-
009-009	#YM_DB AC	YM Color Developer Bias AC Component Output	-
009-012	#CK_DB AC	CK Color Developer Bias AC Component Output	-
009-013	Dev_CL	The clutch for driving K Color turns ON, and switches OFF automatically after 5 sec.	-
009-014	Dev_MOT Normal-speed	Switches off automatically after 5 sec.	009-016,-017
009-016	Dev_MOT Half-speed	Switches off automatically after 5sec.	009-014, -017
009-017	Dev_MOT High-speed	Switches off automatically after 5sec.	009-016, -017
009-018	Dev bias AC enable	Switch on before starting BCR DC for each color.	
009-026	#Y_BCR DC	High voltage output value of BCR DC_Y. ON = PWM	009-030
009-027	#M_BCR DC	High voltage output value of BCR DC_M. ON = PWM	009-031
009-028	#C_BCR DC	High voltage output value of BCR DC_C. ON = PWM	009-032
009-029	#K_BCR DC	High voltage output value of BCR DC_K. ON = PWM	9-33
009-030	#Y_BCR AC	High voltage output value of BCR AC_Y. ON = PWM	009-026
009-031	#M_BCR AC	High voltage output value of BCR AC_M	009-027
009-032	#C_BCR AC	High voltage output value of BCR AC_C	009-028
009-033	#K_BCR AC	High voltage output value of BCR AC_K	009-029
009-034	AGT MOT	Agitator MOT ON	
009-035	CRUM PWR	Power ON for CRUM-YMCK	

Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
009-037	Dev DC chg (K)		
009-038	BCR ACDC K CHG	DEVE_AC_K changes at connector terminals trailing.	
009-039	BCRAC Clock	Frequency signal common to BCR AC All Colors.	
009-040	ROS Shutter Close	ROS Shutter: Rotates in Close direction (Brush: Contact direction).	009-041
009-041	ROS Shutter Open	ROS Shutter: Rotates in Open direction (Brush: Retract direction). ON = H	009-040
009-042	#K_Erase Lamp	K ERASE LAMP lit.	
009-045	#YMC_Erase Lamp	YMC ERASE LAMP lit.	
009-051	2nd BTR Contact	BTR2 Retract MOT. Switches off 800ms after the Retract SNR detected the Contact Position (High).	-
009-052	2nd BTR Retract	Switches off 60ms after the Retract SNR detected the Retract Position (Low).	-
009-053	De Tack Saw HV	Turn on DTS HV.	-
009-054	1st BTR Contact	Switches off 100ms after the Retract SNR detected the Contact Position (High).	-
009-055	1st BTR Retract	Switches off 100ms after the Retract SNR detected the Retract Position (Low).	-
009-056	2nd BTR Select	selects polarity of bias voltage	-
009-076	Specular reflection LED	When the Specular Reflection LED of ADC SNR turns ON and YMC density is detected.	-
009-077	Diffusion reflection LED	When the Diffusion Reflection LED of ADC SNR turns ON and K density is detected.	-
009-078	ADC Sensor Shutter Open	Switches off automatically after 100msec.	009-079
009-079	ADC Sensor Shutter Close	Switches off automatically after 100msec.	009-078
009-080	ATC Sensor 5V ON	5V Power supply to ATC SNR.	-
010-001	OCT Motor (CW)	Switches on forward and switches off automatically at 150msec.	010-002
010-002	OCT Motor (CCW)	Switches on reverse and switches off automatically at 150msec.	010-001
012-001	Main Drive Motor On/Off		012-071
012-010	Rear Taper Motor Low Front On/Off	Switches off automatically after 100pulses.	012-011, 012-012, 012-013, 012-014, 012-015





Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
012-011	Rear Tamper Motor Middle Front On/Off	Switches off automatically after 100pulses.	012-010, 012-012, 012-013, 012-014, 012-015
012-012	Rear Tamper Motor High Front On/Off	Switches off automatically after 100pulses.	012-010, 012-011, 012-013, 012-014, 012-015
012-013	Rear Tamper Motor Low Rear On/Off	Switches off automatically after 100pulses.	012-010, 012-011, 012-012, 012-014, 012-015
012-014	Rear Tamper Motor Middle Rear On/Off	Switches off automatically after 100pulses.	012-010, 012-011, 012-012, 012-013, 012-015
012-015	Rear Tamper Motor High Rear On/Off	Switches off automatically after 100pulses.	012-010, 012-011, 012-012, 012-013, 012-014
012-020	Staple Motor Close On/Off	Stops at Home Position.	012-021
012-021	Stapler Motor Reverse	Switches off automatically after 110msec.	012-020
012-030	Eject Motor FORWARD On/Off	Switches off automatically after 2000pulses.	012-031, 012-032, 012-033, 012-034, 012-041
012-031	Eject Motor Reverse On/Off	Switches off automatically after 2000pulses.	012-030, 012-032, 012-033, 012-034, 012-04
012-032	Eject Clamp Low Down	Switches off automatically at 702pulses after the Eject Home Snr detected Home Position.	012-030, 012-031, 012-033, 012-034, 012-041
012-033	Eject Clamp Middle Down	Switches off automatically at 365pulses after the Eject Home Snr detected Home Position.	012-030, 012-031, 012-032, 012-034, 012-041
012-034	Eject Clamp UP	Switches off automatically at 46pulses after the Eject Home Snr detected Home Position.	012-030, 012-031, 012-032, 012-033, 012-041
012-040	Set Clamp Paddle Solenoid	Switches off automatically after 1000msec.	012-041

Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
012-041	Set Clamp Paddle Rev	Switches off automatically at Mot: 583 pulses and Sol: 200msec.	012-030, 012-031, 012-032, 012-033, 012-034, 012-040
012-050	Stacker Motor UP On/Off	Switches off automatically after 500msec, or if tray upper limit sensor detected.	012-051
012-051	Stacker Motor Down On/Off		012-050
012-060	H-Tra Gate In Solenoid Open	Switches off automatically after 200msec.	012-061
012-061	H-Tra Gate In Solenoid Close	Switches off automatically after 200msec.	012-060
012-070	Decurler Cam Clutch On	Switches off automatically after 1000msec.	012-071
012-071	Decurler Penetration Change	Switches off automatically after the Decurler Home Snr detected On. (Stops when the Home Snr detected ON -> off or off -> ON by turning ON Decurler Cam Clutch 500ms after driving the Main Drive Motor.)	012-01, 012-070
012-080	Stapler Move Motor High Front On/Off	Switches off automatically at 250pulses.	012-081, 012-082, 012-083
012-081	Stapler Move Motor Low Front On/Off	Switches off automatically at 250pulses.	012-080, 012-082, 012-083
012-082	Stapler Move Motor High Rear On/Off	Switches off automatically at 250pulses.	012-080, 012-081, 012-083
012-083	Stapler Move Motor Low Rear On/Off	Switches off automatically at 250pulses.	012-080, 012-081, 012-082
012-091	Front Tamper Motor Low Front On/Off	Switches off automatically at 100pulses.	012-092, 012-093, 012-094, 012-095, 012-096
012-092	Front Tamper Motor Middle Front On/Off	Switches off automatically at 100pulses.	012-091, 012-093, 012-094, 012-095, 012-096
012-093	Front Tamper Motor High Front On/Off	Switches off automatically at 100pulses.	012-091, 012-092, 012-094, 012-095, 012-096
012-094	Front Tamper Motor Low Rear On/Off	Switches off automatically at 100pulses.	012-091, 012-092, 012-093, 012-095, 012-096



Table 2 Output Component Control Codes

Code	Name	Description	Conflicts
012-095	Front Tamper Motor Middle Rear On/Off	Switches off automatically at 100pulses.	012-091, 012-092, 012-093, 012-094, 012-096
012-096	Front Tamper Motor High Rear On/Off	Switches off automatically at 100pulses.	012-091, 012-092, 012-093, 012-094, 012-095

## dC351 NVM Background Processing

### Purpose

Consists of 5 subroutines:

- **Machine Settings** - This routine saves the current machine settings or restores the previously-saved machine settings.
- **Special Batch Write** - Automatically loads a region-specific set of values into NVM.
- **Dust Off Reset** - This routine sets all HFSI counters to zero.

**NOTE:** The following subroutines are intended for engineering/manufacturing use. They should not be performed as part of normal repair or maintenance unless you are specifically directed to use them.

- **NVM Background Read** - This routine polls all NVM locations in the machine, and stores the values in the diagnostic tool database.
- **Save / Restore NVM** - Saves current NVM settings or restores previously saved settings.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select the **Adjustments** tab.
3. Select the **NVM Init, S/R** tab.
4. Select the **NVM Background Processing (dC351)** tab.

### Machine Settings

**NOTE:** The radio buttons (**IOT**, **IIT**, **SYS**, or **ALL**) are not selectable when **saving** Machine Settings; the default is **ALL**.

1. Press the **Save Machine Settings** button to record the values of approximately 636 NVM locations containing data unique to a specific machine. The data is saved in on the PWS hard drive. The data remains available until the PWS is connected to a different machine. To make a permanent record of machine settings, perform the following:

**NOTE:** For DC3535/2240/1632, the Machine Settings floppy diskette (Machine Resident Disk Kit, [PL 18.2](#)), is normally stored underneath the removable, left side cover ([PL 18.2](#), item 10) of the Control Panel. For WC M24, the floppy is usually stored in a plastic pouch attached the the Rack.

- a. Go to [dC188](#). Select **Temporary Call Closeout**, then exit the PWS tool.

**NOTE:** With the multiproduct PWS Tool, you can select a different drive and/or directory when saving the database.

- b. When the PWS displays the message **Would you like to copy Machine Data to the a: drive? Yes or No**, insert a diskette into the floppy drive, then select **Yes**. The PWS will write Machine Data to the diskette and the diagnostic tool will close.
  - c. Restart the PWS tool and select **Read from Floppy** on the opening screen. This loads the data from the diskette into the PWS tool database, but does not load data into the machine NVM.
2. To load previously saved machine settings into NVM, press the **Restore Machine Settings** button. Four choices can be made; **IOT**, **IIT**, **SYS**, or **ALL**.
    - a. If **IOT** is selected, Machine Settings in the following NVM chains will be restored:



- Chains 740 - 742
  - Chain 744
  - Chain 746
  - Chains 751 -753
  - Chain 760
  - Chain 762
  - Chain 764
  - Chain 769
- b. If **IIT** is selected Machine Settings in NVM Chains 710 and 715 will be restored.
- c. If **IOT** is selected, Machine Settings in the following NVM chains will be restored:
- Chains 700 -701
  - Chain 720
  - Chain 730
  - Chain 770
  - Chain 780
  - Chain 785
  - Chain 790
  - Chains 801 - 803
  - Chain 810
  - Chain 820
  - Chain 823
  - Chain 830
  - Chain 840
  - Chain 850
  - Chain 860

#### Special Batch Write

This routine is intended primarily for initial setup prior to shipment to a customer location, but it can be used to restore machine setting to their as-delivered state. This may be necessary if the NVM was initialized without saving machine settings, or in the case of a 103-208 fault code

1. Select the market region for the installation.
2. Press the **Batch Write NVM** button.

#### Save/Restore NVM

1. Press the **Background Read** button. This will read all locations in the dC 131 database. This will require approximately 20 minutes to complete.

#### CAUTION

*The NVM data is saved in RAM only. If the PWS Tools program is closed or if the PWS is switched off, the data will be lost.*

2. Press the **Save Current NVM Settings** button. This will store the NVM data in the PWS memory.

#### CAUTION

*If the PWS is disconnected from the machine during NVM Restore, ALL NVM data may be lost*

3. To load the saved data into the machine NVM, press the **Restore Saved NVM Settings** button. This will require approximately 20 minutes to complete, and must not be interrupted.



## dC355 Hard Disk Diagnostic Program

### Purpose

**NOTE:** For details on dC355 Hard Disk Diagnostic Program, see Adjustments: [ADJ 9.8](#).

## dC371 Configuration Page

### Purpose

Allows easy viewing and set-up of machine configuration.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select **Adjustments** on the Service Entry Screen.
3. Select **NVM Init, S/R** (the default screen).
4. Select **Configuration Page (dC371)**. The Configuration Page Screen is displayed.
5. Make selections on the screen from the following categories:
  - a. **Market Place**
    - XC (NASG)
    - XE (ESG)
    - FX
    - FX / AP
  - b. **Machine Config**
    - Digital Copier
    - Copier / Printer
    - Copier / Printer / Scanner
    - Printer with UI
  - c. **Output Device(s)**
    - Simple Catch Tray
    - Offsetting Catch Tray
    - Finisher
  - d. **Input Device**
    - DADF
    - Platen Only
6. Select **Save** to save the options or select **Reset** to reset the default settings back to original options prior to entering Configuration Page (dC371).



## dC527 DADF Document Calibration

### Purpose

**NOTE:** For details on dC527 DADF Document Calibration, see Adjustments Section 4: [ADJ 5.6](#).

## dC612 Color Test Pattern Print

### Purpose

Prints the test patterns in the machine, to help identify Image Quality problems.

### Procedure

1. Enter the **Diagnostic Mode**. Refer to [Entering Diagnostic Mode using the PWS](#).
2. Select **Diagnostics** in the Service Entry Screen.
3. Select **Test Pattern (dc612)**.
4. Select the **Pattern Number** from the menu.

**NOTE:** Not all of the following parameters are applicable to all test patterns; patterns 5 through 36-3 require A4 paper and can be output only from Tray 1

5. Select the **Paper Tray**.
6. Select **Simplex/Duplex**
7. Select **Paper Type**
8. Select **Screen Type**
9. Select **Color Mode**
10. Set the **number of prints** to output in the Print Count Box and select **Start**.

### Test Patterns

For details on the test pattern generation location and output path, see [Table 1](#):



Table 1 Test Patterns

No.	Description	Overview	Purpose	Location
1	ROS Check	ROS window Cleaning Guide: 20% Half Tone Full Band Width KCMY Fast Scan direction	The engine where defect has occurred can be determined as an output sheet contains ROS window smearing. -> To determine defect engine	IOT
2	Halftone (IOT)	Full Band Width Half Tone. Select the color, and density from Cin = 0 to 100.	can be detected/evaluated for streaks, uneven density, banding	IOT
2-1	Halftone 4 Color	Full Band Width Half Tone. Select density from Cin = 0 to 100. 4 color mode	can be detected/evaluated for streaks, uneven density, banding	IOT
2-2	Halftone 3 Color	Full Band Width Half Tone. Select density from Cin = 0 to 100. 3 color mode	can be detected/evaluated for streaks, uneven density, banding	IOT
3	Grid 1dot	512 dot Pitch Grid Pattern with 1 dot width	- Around Alignment and Color Regi - Secondary Transfer part magnification failure	IOT
4	8 level scanning	8 tone levels in scanning direction	For ASIC debug.	IOT
5	A1 Patch	Forms a bi-axial near the IN and OUT edges in full color. (Chevron Pattern) At normal Regi Control cycle: Approx. half cycle of IBT Belt (2 sheets of A4 continuous) At Diag Regi Control cycle: Approx. 1 cycle of IBT Belt (1: 4 sheets of A4 continuous)	For Color Regi adjustment in Diag DC685-1 (Skew Fine Setup) and DC685-2 (In/Out Setup) during JOB, at beginning of JOB and end of JOB. Also, for Color Regi reading in DC681 and DC684.	Controller
6	A2 Patch	Forms a 1 axial near CNT for approx. 1 cycle (1: 4 sheets of A4 continuous) of IBT Belt in full color. (Chevron Pattern)	For Color Regi adjustment in Diag DC685-3 (Center Setup)	Controller
7	B1 Patch	Forms a bi-axial near the IN and OUT edges for approx. 1 cycle (1: 4 sheets of A4 continuous) in full color. ("<" pattern)	For Color Regi rough adjustment in Diag DC685-1 (Skew Fine Setup) and 685-4 (Skew Rough Setup).	Controller
8	B2 Patch	Forms a 1 axial near CTR for approx. 1 cycle (1: 4 sheets of A4 continuous) of IBT Belt in full color. ("<" pattern)	For Color Regi adjustment in Diag DC685-3 (Center Setup)	Controller
9	C Patch	Forms a three-axis IN/CTR/OUT in approx. 1 cycle (1: 4 sheets of A4 continuous) of IBT Belt in single color (Cyan). (Chevron Pattern)	For Diag DC683 (to check Sensor, Cyan and position shift).	Controller
12-0	Binary Process Control	(Density adjustment, gradation check) Gradation pattern for density adjustment LUT: Ctrax off; IOT off	The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC.	IPS
12-1	Binary Process Control	(Density adjustment, gradation check) Gradation pattern for density adjustment LUT: Ctrax off; IOT ON	The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC.	IPS
12-2	Binary Process Control	(Density adjustment, gradation check) Gradation pattern for density adjustment LUT: Ctrax ON; IOT off	The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC.	IPS
12-3	Binary Process Control	(Density adjustment, gradation check) Gradation pattern for density adjustment LUT: Ctrax ON IOT ON	The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC.	IPS
13-0	Binary Highlight PG	(Highlight gradation check) Gradation pattern for highlight adjustment LUT: Ctrax off; IOT off	In the gradation reproducibility of Primary color/Secondary color/Tertiary color, the highlight parts easily varied can be checked in detail. For checking TRC.	IPS
13-1	Binary Highlight PG	(Highlight gradation check) Gradation pattern for highlight adjustment LUT: Ctrax off; IOT ON	In the gradation reproducibility of Primary color/Secondary color/Tertiary color, the highlight parts easily varied can be checked in detail. For checking TRC.	IPS
13-2	Binary Highlight PG	(Highlight gradation check) Gradation pattern for highlight adjustment LUT: Ctrax ON; IOT off	In the gradation reproducibility of Primary color/Secondary color/Tertiary color, the highlight parts easily varied can be checked in detail. For checking TRC.	IPS



Table 1 Test Patterns

No.	Description	Overview	Purpose	Location
13-3	Binary Highlight PG	(Highlight gradation check) Gradation pattern for highlight adjustment LUT: Ctrax ON; IOT ON	In the gradation reproducibility of Primary color/Secondary color/Tertiary color, the highlight parts easily varied can be checked in details. For checking TRC.	IPS
19	IIT FS Increment Gradation	Fast Scan direction gradation YMC process BK pattern	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
20	IIT SS Increment Gradation	Slow Scan direction gradation YMC process BK pattern	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
21	Shading Data Output	Shading RAM data output pattern	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
22	COSAC Count Mode YMCK Process Direction Stripe	10.84mm width YMCK process direction stripe pattern	For separating troubles. It determines the defective locations when an error image was output. Normal: Pre IPS Asic onwards can be determined as normal.	IPS
23	COSAC Count Mode 8 level pattern	21.67x10.84mm 8 gradation patch pattern	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
24	COSAC Solid PG ALL A4	Solid Data Pattern.	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
25	AES L* Pass Check	32.51mm grey + 10.84mm white, vertical stripe pattern.	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
26	VIPER Grid 4C	10.84mm grid pattern. 4 color mode	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
27	VIPER Grid BW	10.84mm grid pattern. black mode	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
28	FSRE Count Mode Grid	5.42mm YMCK Grid Pattern.	It determines the defective locations when an error image was output. Normal: Pre IPS Asic onwards can be determined as normal.	IPS
29	FSRE Count Mode/Slanting Grid	5.42mm YMCK Slanting Grid Pattern.	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
30	VIPER Fixed Pattern Output/BW Binary	Connection between IPS-Controller CHK Entire 2dot width Horizontal Ladder Pattern.	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
31	VIPER Fixed Pattern Output/4C Binary	Entire 2dot width Horizontal Ladder Pattern.	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
32	TAG fixed binary copy 1	TAG='0' fixed copy.	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
33	TAG fixed binary copy 2	TAG='1' fixed copy.	Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred.	IPS
35-0	Multi-level_Process Control PG	Gradation pattern for density control LUT: Ctrax off; IOT off	The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC	IPS
35-1	Multi-level_Process Control PG	Gradation pattern for density control LUT: Ctrax off; IOT ON	The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC	IPS
35-2	Multi-level_Process Control PG	Gradation pattern for density control LUT: Ctrax ON; IOT OFF	The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC	IPS



Table 1 Test Patterns

No.	Description	Overview	Purpose	Location
35-3	Multi-level_Process Control PG	Gradation pattern for density control LUT: Ctrax ON; IOT ON	The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC	IPS
36-0	Multi-level_Highlight PG	(Highlight gradation check) Gradation pattern for highlight adjustment LUT: Ctrax OFF; IOT OFF	In the gradation reproducibility of Primary color/Secondary color/Tertiary color, the highlight parts easily varied can be checked in detail. For checking TRC.	IPS
36-1	Multi-level_Highlight PG	(Highlight gradation check) Gradation pattern for highlight adjustment LUT: Ctrax OFF; IOT ON	In the gradation reproducibility of Primary color/Secondary color/Tertiary color, the highlight parts easily varied can be checked in detail. For checking TRC.	IPS
36-2	Multi-level_Highlight PG	(Highlight gradation check) Gradation pattern for highlight adjustment LUT: Ctrax ON; IOT OFF	In the gradation reproducibility of Primary color/Secondary color/Tertiary color, the highlight parts easily varied can be checked in detail. For checking TRC.	IPS
36-3	Multi-level_Highlight PG	(Highlight gradation check) Gradation pattern for highlight adjustment LUT: Ctrax ON; IOT ON	In the gradation reproducibility of Primary color/Secondary color/Tertiary color, the highlight parts easily varied can be checked in detail. For checking TRC.	IPS



## dC685 Color Registration

### Purpose

**NOTE:** For details on dC685 Color Registration, see Adjustments Section 4: [ADJ 9.6](#).

## dC921 TC/ATC Sensor Setup

### Purpose

**NOTE:** For details on dC921 TC/ATC Sensor Setup, see Adjustments Section 4: [ADJ 9.2](#).



## dC922 TRC Control

### Purpose

**NOTE:** For details on dC922 TRC Control, see Adjustments Section 4: [ADJ 9.3](#) dC922 TRC Control Adjustment.

## dC924 TRC Adjust

### Purpose

To manually fine adjust the low/medium/high densities (TRC) for each color.

**NOTE:** For details on TRC Adjust, see Adjustments Section 4: [ADJ 9.5](#).



## dC929 Max Setup

### Purpose

**NOTE:** For the execution sequence of the Max Setup Functions, see Adjustments Section 4: [ADJ 9.1](#).

## dC934 ADC/AGC Setup

### Purpose

Automatically adjusts the ADC Sensor Gain.

**NOTE:** For details on dC934 ADC/AGC Setup, see Adjustment Section 4: [ADJ 9.4](#).



## dC945 IIT Calibration

### Purpose

Functional details:

- Computes and sets the White Reference Correction Coefficient.
- Corrects the IIT Sensitivity Dispersion.

**NOTE:** For details on dC945 IIT Calibration, see Adjustments Section 4: [ADJ 9.7](#).

## dC956 Belt Edge Learn Mode

### Purpose

**NOTE:** For details on dC956 Belt Edge Learn Mode, see Adjustments Section 4: [ADJ 9.6](#).







# GP 1 Network Printing Simulation

## Purpose

This procedure details a method of troubleshooting network printing problems.

### CAUTION

*This procedure was written based on pre-release data. The software installation procedure and the screens described may be different in the final version.*

## Procedure

### Prerequisites

Crossover Cable and a PWS equipped with a Network Interface Card.

### Windows 2000/Windows XP

1. Connect the PWS to the printer with the Crossover Cable.
2. Click the Windows **Start** button.
3. Select **Settings**, then **Printers**.
4. Select **Add Printer**.
5. On the **Add Printer Wizard** screen, click **Next**.
6. On the next screen, select **Local printer**, then click **Next**.
7. When the **Add Printer Wizard** asks you to select the printer port, select **Create a new port**. In the Type: menu, select **Standard TCP/IP Port**, then click **Next**. This will open the **Add Standard TCP/IP Printer Port Wizard**. Click **Next**.
8. Enter the IP address of the printer. If not available, this can be determined from Tools mode, or by printing the Configuration pages (GP 12). Click **Next**.
9. Select **Custom**, then click on **Settings...**
10. In the **Protocol** box, select **LPR**. In the **LPR Settings** box, type **RAW** for **Queue Name**;, then click **OK**.
11. Click **Next**. Click **Finish** to return to the **Add Printer Wizard**.
12. If the printer driver was previously loaded on the PWS, select the printer from the list and click **Next**. Otherwise, click **Have Disk**. Print Drivers can be found on the customer User Software CD, or the latest driver can also be downloaded from the Xerox website. Navigate to the CD or downloaded driver for your PWS' operating system. Click **OK**.
13. On the **Name Your Printer** screen, enter a name for the printer. Do not set this printer as the default. Click **Next**.
14. Select **Do not share...**
15. Select **Yes** when asked if you want to print a test page. Correct printing indicates a functioning network connection.

### Windows 95/Windows 98

**NOTE:** The GSN Release 9 CD contains an LPR Spooler application (Xerox TCP/IP Port Monitor), which must be manually installed before performing this procedure. To install, navigate the following path: [your CD drive letter]:\pwsother\LPR\_PortMonitor\Win95\_98. Run **Setup.exe**.

Creating a printer on the PWS

1. Connect the PWS to the printer with the Crossover Cable.
2. Click the Windows **Start** button.

3. Select **Settings**, then **Printers**.
  4. Select **Add Printer**.
  5. On the **Add Printer Wizard** screen, click **Next**.
  6. When the **Add Printer Wizard** asks which port you want to use, select **LPT1:**, then click **Next**.
  7. If the printer driver was previously loaded on the PWS, select the printer from the list and click **Next**. Otherwise, click **Have Disk**. Print Drivers can be found on the customer Drivers CD, or the latest driver can also be downloaded from the Xerox website. Navigate to the CD or downloaded driver for your PWS' operating system. Click **OK**.
  8. On the **Name Your Printer** screen, enter a name for the printer. Do not set this printer as the default. Click **Next**.
  9. Select **No** when asked if you want to print a test page, then click **Finish**.
- Configuring the printer port

1. In the **Printers** folder, right-click on the new printer and select **Properties**.
2. Click **Add Port**
3. In the Add Port screen, click **Other**, then select **Xerox TCP/IP Port** and click **OK**.
4. Enter the IP address of the printer. If not available, this can be determined from Tools mode, or by printing the Configuration pages (GP 12). Click **Next**.
5. Select **Custom**, then **Setup**
6. The port will auto configure. Click **Next**.
7. Click **Finish** to close the Wizard and return to the **Properties** screen.
8. Click **Apply** to save the port configuration.
9. A simple test of the printing function can be performed by selecting the **General** tab then clicking **Print Test Page**.



## GP 2 Machine Startup Troubleshooting

### Purpose

This procedure describes methods of recovering from failure of the machine to successfully complete the self-test/startup procedure.

### Description

When power is applied to the machine, a five-step self test/initialization process is started. Progress through this routine is indicated by the five circles that appear on the UI. These circles change from greyed-out, to blinking white, then to steady-on white as the routine progresses. [Table 1](#) lists the five stages of this process.

Table 1 Startup

Display	Status	Operation	Possible cause for stalling
O (1st dot blinking)	UI initialization complete	Waiting for ESS initial- ization.	ESS boot-up failed. Loose connection on ESS, bad ESS PWB, software cor- ruption. Perform the following: <ul style="list-style-type: none"><li>Switch power off, then on.</li><li>Switch off the power. Remove and reseat NVM PWBs, PS-1 and PS- 2 ROM PWBs, and ESS PWB.</li><li>Perform all of <a href="#">GP 3</a>.</li><li>If the problem continues, replace the ESS NVM PWB, next, the PS- 1 and PS-2 ROM PWBs (<a href="#">PL 13.1</a>).</li><li>If the problem continues, replace the ESS PWB (<a href="#">PL 13.1</a>).</li></ul>
OO (2nd dot blinking)	ESS initialization complete	Communication between ESS and UI OK. Waiting for ESS system data (NVM)	System data not ready. ESS NVM prob- lem: bad PWB, loose connection <ul style="list-style-type: none"><li>Perform steps listed above</li></ul>
OOO (3rd dot blinking)	ESS NVM initial- ization complete	System data ready. Transfer from ESS starts	System data transfer problem. IOT fail- ure, IIT/IPS PWB, or ESS PWB.  <b>NOTE:</b> PWS can be connected at this stage. <ul style="list-style-type: none"><li>Perform steps listed above</li></ul>
OOOO (4th dot blinking)	UI Ready	System data transfer from ESS done.	IOT or IIT boot-up failure. <ul style="list-style-type: none"><li>Perform steps listed above</li></ul>
OOOOO (5th dot blinking)	Pre-ready	(momentary display)	N/A

## GP 3 Special Boot Modes

### Purpose

This procedure describes methods of recovering from certain unclearable faults.

### Procedure

Some boot-up failures, as well as some unclearable fault codes, may be caused by software corruption, or by structural flaws in a command sent to the machine. In these cases, it is some-  
times possible to bypass or delete the offending code during the startup process.

#### CAUTION

*There are four special boot modes. Each mode performs a different set of initializations to  
bypass a specific set of problems. There is information lost in each procedure, thus, they  
should not be used unless specific directions are given. The following list gives these proce-  
dures, in the order from least-invasive to most-invasive. If you are instructed to perform a spe-  
cific initialization, perform only that procedure. If you are asked to perform the entire series,  
perform the steps in the order given, until the problem is resolved.*

#### Log Initialization

This step will delete any print or copy job that is in process, and then perform a reboot.

To execute: simultaneously press and hold the **1**, the **Stop**, and the **Power Save** buttons on  
the Control Panel while switching on the power. Hold the buttons down until the boot up screen  
(5 circles) appears and the second circle starts to blink.

#### Spool Initialization

This step will delete all pending print or copy jobs in the job queue, and then perform a reboot.

To execute: simultaneously press and hold the **6**, the **Stop**, and the **Power Save** buttons on  
the Control Panel while switching on the power. Hold the buttons down until the boot up screen  
(5 circles) appears and the second circle starts to blink.

#### HDD Initialization

This step will delete all pending print or copy jobs in the IOT job queue (DC 3535: does not  
delete any job data stored in the Network Controller), initializes the IOT HDD (refer to [ADJ 9.8](#)  
for details), and will and then perform a reboot. All customer data on the HDD will be deleted.

To execute: simultaneously press and hold the **4**, the **Stop**, and the **Power Save** buttons on  
the Control Panel while switching on the power. Hold the buttons down until the boot up screen  
(5 circles) appears and the second circle starts to blink.

#### ESS NVM Initialization

#### CAUTION

*This routine will set all IOT ESS NVM values to default. Do not attempt this procedure unless  
there is a known-good Machine Settings floppy, an accurate Configuration Report and/or other  
data that will enable you to reload the correct NVM values for this machine.*

This step will initialize the IOT ESS NVM (SYS-System and SYS-User) and then perform a  
reboot.



To execute: simultaneously press and hold the **3**, the **Stop**, and the **Power Save** buttons on the Control Panel while switching on the power. Hold the buttons down until the boot up screen (5 circles) appears and the second circle starts to blink.

## GP 4 Intermittent Problem RAP

The purpose of this RAP is to provide guidance for resolving an intermittent problem. This is not an exact procedure, but a set of recommended actions that use the resources of the service manual to help locate the cause of an intermittent problem.

### Procedure

1. Check the service log. Recent service actions may provide information about the problem. For example, a component that was recently replaced to correct another problem may be the cause of the new intermittent problem.
2. Run the machine in a mode that vigorously exercises the function that is suspected. The machine may fail more frequently or may fail completely under these conditions. Look for signs of failure or abnormal operation.

An intermittent problem can usually be associated with a RAP, since when it does fail, it results in a fault code, a jam code, or some other observable symptom.

3. Using the RAP that is associated with the symptom of the intermittent problem, examine all of the components that are referenced in the RAP. Look for:
  - contamination, such as a feed roller that has a build up of dirt or toner
  - wear, such as gear teeth that are rounded or have excessive backlash
  - HFSI, even if they are not near or have not exceeded the SPEC LIFE or COPY COUNT value
  - wires chafing against components of the machine, especially against moving components
  - misaligned, misadjusted, or incorrectly installed components
  - slow or slipping clutches; slow or binding solenoids
  - damaged components
  - excessive heat, or symptoms of excessive heat, such as the discoloration of a component
  - loose cables or wires
4. Using the RAP that is associated with the symptom of the intermittent problem, perform all of the adjustments for the components or functions that are referenced in the RAP. Check to ensure that the adjustment can be made and that there is an adequate range of adjustment, and that it can be set to or near the nominal value. Any abnormality that is observed may be an indication of the cause of the problem. For example, a component can be adjusted to the nominal value, but it is at the limit of the adjustment range. This is not normal and may be an indication of the cause of the problem.
5. Operate all of the components in the appropriate RAP that is associated with the symptom of the intermittent problem with DC330 Component Control. Observe the components for any symptoms of abnormal operation, such as a hesitation, or an unusual sound.
6. Check that the AC and DC power are within specification.
7. Get technical advice or assistance when it is appropriate. This will depend upon the situation and the established local procedures.
8. Examine the components that are not in the RAP, but are associated with the function that is failing. Refer to the BSDs. Look for:
  - contamination, such as a feed roller that has a build up of dirt or toner
  - wear, such as gear teeth that are rounded or have excessive backlash
  - HFSI, even if they are not near or have not exceeded the SPEC LIFE or COPY COUNT value



- wires chafing against components of the machine, especially against moving components
  - misaligned, misadjusted, or incorrectly installed components
  - slow or slipping clutches; slow or binding solenoids
  - damaged components
  - excessive heat, or symptoms of excessive heat, such as the discoloration of a component
  - loose cables or wires
9. Perform the adjustments for the components that are not in the RAP, but are associated with the function that is failing. Refer to the BSDs. Check to ensure that the adjustment CAN BE MADE and that there is an adequate range of adjustment, and that it can be set to or near the nominal value. Any abnormality that is observed may be an indication of the cause of the problem. For example, a component can be adjusted to the nominal value, but it is at the limit of the adjustment range. This is not normal and may be an indication of the cause of the problem
  10. Operate all of the components that are not in the RAP, but are associated with the function that is failing with dC330 Component Control. Refer to the BSDs. Observe the components for any symptoms of abnormal operation, such as a hesitation, or an unusual sound.
  11. Replace any components or consumables that are known to be a frequent cause of the problem. When doing this, consider the cost and time required. If the suspected item is inexpensive, can be installed quickly, and has a high probability of resolving the problem, then it is reasonable to replace it.
  12. Leave an accurate and detailed record of your actions in the service log. Describe what you have observed, what actions you took, and the recommended next steps.

## GP 5 Fax Diagnostics

### Purpose

This procedure describes the process for running fax diagnostic tests found in [UI Diagnostic Mode](#).

### Procedure

To Access Fax Diagnostics:

1. Enter [UI Diagnostic Mode](#).
2. Press the **Access** button on the Control Panel
3. On the display, select **System Settings**, then **Common Settings**, then **Diagnostics**.
4. Select **Fax Diagnostics**.

There are two tests for Fax Diagnostics; the Signal Sending Test and the Relay Test

#### Signal Sending Test

This test checks the ability of the Fax system to generate and transmit a specific signal.

To run this test:

1. From the Fax Diagnostics screen, select **Signal Sending Test**.
2. Select the line number you wish to test (standard line is **1**. Lines **3** and **5** are for optional additional lines, **0**, **2**, and **4** are for FX use only).
3. Enter the **Signal No.** you wish to test and select **Send Signals**. Refer to [Table 1](#) for the list of signal numbers.
4. An audio tone or tones corresponding to the selected signal should be heard. This verifies communication from the UI to the ESS PWB, from the ESS to the Fax I/F PWB, from the Fax I/F to the Fax PWB, and demonstrates the ability of the system to generate the specific signal being tested.  
If an error occurs, a Fault Code will be displayed.
5. To stop the test, select **Cancel Sending**.

#### Relay On/Off Test

This test turns on/off various relays that are used in the NCU.

To run this test:

1. From the Fax Diagnostics screen, select **Relay On/Off**.
2. Select the line No. and select **Relay On**.  
If an error occurs, a Fault Code will be displayed. Listen for the Relay to pick up the line.
3. To stop the test, select **Relay Off**.

Table 1 Fax Diagnostic signal numbers

Signal No.	Output	Description
011	Tonal Signal Output	462Hz
012	Tonal Signal Output	1080Hz
013	Tonal Signal Output	1100Hz
014	Tonal Signal Output	1300Hz
015	Tonal Signal Output	1650Hz



Table 1 Fax Diagnostic signal numbers

Signal No.	Output	Description
016	Tonal Signal Output	1850Hz
017	Tonal Signal Output	2100Hz
019	DTMF Signal Output	Dual Tone 1
020	DTMF Signal Output	Dual Tone 2
021	DTMF Signal Output	Dual Tone 3
022	DTMF Signal Output	Dual Tone 4
023	DTMF Signal Output	Dual Tone 5
024	DTMF Signal Output	Dual Tone 6
025	DTMF Signal Output	Dual Tone 7
026	DTMF Signal Output	Dual Tone 8
027	DTMF Signal Output	Dual Tone 9
028	DTMF Signal Output	Dual Tone 0
029	DTMF Signal Output	Dual Tone *
030	DTMF Signal Output	Dual Tone #
031	DTMF Signal Output	Dual Tone A
032	DTMF Signal Output	Dual Tone B
033	DTMF Signal Output	Dual Tone C
034	DTMF Signal Output	Dual Tone D
035	V.21 (H) Signal Output	HDLC Flag
036	V.27ter Signal Output	2400 bps (HDLC Flag)
037	V.27ter Signal Output	4800 bps (HDLC Flag)
038	V.29 Signal Output	7200 bps (HDLC Flag)
039	V.29 Signal Output	9600 bps (HDLC Flag)
040	V.17 Signal Output	7200 bps (HDLC Flag)
041	V.17 Signal Output	9600 bps (HDLC Flag)
042	V.17 Signal Output	12000 bps (HDLC Flag)
043	V.17 Signal Output	14400 bps (HDLC Flag)
080	V.8 Signal Output	ANSam
081	V.8 Signal Output	CM
082	V.8 Signal Output	JM
083	V.8 Signal Output	INFOc
084	V.8 Signal Output	INFOa
085	V.8 Signal Output	PPh+ALT
096	V.34 Signal Output	2400/2400 (HDLC Flag)
097	V.34 Signal Output	4800/2400 (HDLC Flag)
098	V.34 Signal Output	7200/2400 (HDLC Flag)
099	V.34 Signal Output	9600/2400 (HDLC Flag)
100	V.34 Signal Output	12000/2400 (HDLC Flag)
101	V.34 Signal Output	14400/2400 (HDLC Flag)
102	V.34 Signal Output	16800/2400 (HDLC Flag)
103	V.34 Signal Output	19200/2400 (HDLC Flag)

Table 1 Fax Diagnostic signal numbers

Signal No.	Output	Description
104	V.34 Signal Output	21600/2400 (HDLC Flag)
106	V.34 Signal Output	4800/2743 (HDLC Flag)
107	V.34 Signal Output	7200/2743 (HDLC Flag)
108	V.34 Signal Output	9600/2743 (HDLC Flag)
109	V.34 Signal Output	12000/2743 (HDLC Flag)
110	V.34 Signal Output	14400/2743 (HDLC Flag)
111	V.34 Signal Output	16800/2743 (HDLC Flag)
112	V.34 Signal Output	19200/2743 (HDLC Flag)
113	V.34 Signal Output	21600/2743 (HDLC Flag)
114	V.34 Signal Output	24000/2743 (HDLC Flag)
117	V.34 Signal Output	4800/3000 (HDLC Flag)
118	V.34 Signal Output	7200/3000 (HDLC Flag)
119	V.34 Signal Output	9600/3000 (HDLC Flag)
120	V.34 Signal Output	12000/3000 (HDLC Flag)
121	V.34 Signal Output	14400/3000 (HDLC Flag)
122	V.34 Signal Output	16800/3000 (HDLC Flag)
123	V.34 Signal Output	19200/3000 (HDLC Flag)
124	V.34 Signal Output	21600/3000 (HDLC Flag)
125	V.34 Signal Output	24000/3000 (HDLC Flag)
126	V.34 Signal Output	26400/3000 (HDLC Flag)
127	V.34 Signal Output	28800/3000 (HDLC Flag)
129	V.34 Signal Output	4800/3200 (HDLC Flag)
130	V.34 Signal Output	7200/3200 (HDLC Flag)
131	V.34 Signal Output	9600/3200 (HDLC Flag)
132	V.34 Signal Output	12000/3200 (HDLC Flag)
133	V.34 Signal Output	14400/3200 (HDLC Flag)
134	V.34 Signal Output	16800/3200 (HDLC Flag)
135	V.34 Signal Output	19200/3200 (HDLC Flag)
136	V.34 Signal Output	21600/3200 (HDLC Flag)
137	V.34 Signal Output	24000/3200 (HDLC Flag)
138	V.34 Signal Output	26400/3200 (HDLC Flag)
139	V.34 Signal Output	28800/3200 (HDLC Flag)
140	V.34 Signal Output	31200/3200 (HDLC Flag)
142	V.34 Signal Output	4800/3429 (HDLC Flag)
143	V.34 Signal Output	7200/3429 (HDLC Flag)
144	V.34 Signal Output	9600/3429 (HDLC Flag)
145	V.34 Signal Output	12000/3429 (HDLC Flag)
146	V.34 Signal Output	14400/3429 (HDLC Flag)
147	V.34 Signal Output	16800/3429 (HDLC Flag)
148	V.34 Signal Output	19200/3429 (HDLC Flag)
149	V.34 Signal Output	21600/3429 (HDLC Flag)



Table 1 Fax Diagnostic signal numbers

Signal No.	Output	Description
150	V.34 Signal Output	24000/3429 (HDLC Flag)
151	V.34 Signal Output	26400/3429 (HDLC Flag)
152	V.34 Signal Output	28800/3429 (HDLC Flag)
153	V.34 Signal Output	31200/3429 (HDLC Flag)
154	V.34 Signal Output	33600/3429 (HDLC Flag)
160	DTMF Signal Output	Signal Tone 697Hz
161	DTMF Signal Output	Signal Tone 770Hz
162	DTMF Signal Output	Signal Tone 852Hz
163	DTMF Signal Output	Signal Tone 941Hz
164	DTMF Signal Output	Signal Tone 1209Hz
165	DTMF Signal Output	Signal Tone 1336Hz
166	DTMF Signal Output	Signal Tone 1477Hz
167	DTMF Signal Output	Signal Tone 1633Hz

## GP 6 Resetting the Administrator Password

### Purpose

The purpose of this procedure is to allow the CSE to recover the Administrator Password in situations where the customer has changed the password from the default value, and subsequently lost or forgotten the password.

### Procedure

1. Enter **UI Diagnostic Mode**.
2. Press the **Access** button on the Control Panel
3. On the display, select **System Settings**, then **Common Settings**, then **Diagnostics**.
4. Select **NVM Read/Write**.
5. Enter location 700-171 and press **Confirm/Change**. This is the current password. You can provide this number to the customer, or set the location to the default value (11111) and allow the customer to enter a new number from Tools mode.



## GP 10 Replacing Billing PWBs

### Purpose

This procedure is used to maintain serial number and billing data integrity when Billing PWBs must be replaced.

### Procedure

#### CAUTION

*To maintain the integrity of the serial number and billing data never replace all three PWBs at once. If any of the following billing data PWBs needs replacing, replace them **ONE PWB AT A TIME**, according to this procedure:*

- *ESS PWB (PL 13.1).*
- *MCU NVM PWB (PL 13.1).*
- *ESS NVM PWB (PL 13.1).*

*Ensure that the software on the PWBs is at the correct version before and after PWB replacement. Print the System Settings List (GP 12), and compare the ROM values to the table in the software installation instructions on the current software upgrade CD.*

1. Connect the PWS. Select **dC132** in the DC Quick pull-down menu.
2. Compare the serial numbers and billing counters displayed for the three PWBs with the serial number on the data plate. Note any that do not agree.

**NOTE:** *If any of the following conditions exist, escalate the call to Field engineering or the NTC:*

- *The displayed serial numbers match each other but do not match the data plate.*
  - *Two or more numbers do not agree with the data plate and the third number*
  - *The displayed numbers are all different.*
3. If one serial number or billing counter does not match the others, highlight that column. The **Set Serial Number** button will become active. Click on the button. A series of pop-up windows will open. Follow the instructions on the screen to synchronize the serial numbers.

#### CAUTION

*To maintain the integrity of the serial number and billing data never replace all three PWBs at once. Replacing all three PWBs at once will cause unrecoverable NVM corruption. If a PWB needs replacing, only replace **ONE AT A TIME**. If the problem is not resolved, reinstall the original PWB and re-enter the serial number (if necessary) before attempting to replace a different PWB.*

4. If any PWB will not synchronize, replace that PWB and re-synchronize.

## GP 12 Printing Reports

### Description

This procedure describes how to print the various reports that are available. Printing reports can help you troubleshoot and configure the machine.

### Procedure

#### Printing the Settings List (Configuration Report)

**NOTE:** *Make sure **dC371** is set for the correct Market Region. If paper size errors still occur when attempting to print reports, check that NVM location 700-397 is set for the appropriate paper size (44 = 8.5 x 11 in.; 5 = A4).*

1. Press the **Machine Status** button on the Control Panel.
2. Select the **Billing Meter/Print Report** tab on the display.
3. Press the **Print Report/List** button.
4. Select the **Copy Mode Settings** button.
5. Select the **Settings List** button.
6. Press the **Start** button.

#### Other Reports

The following reports can be printed from the **UI Diagnostic Mode**:

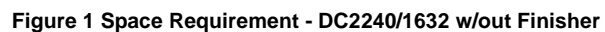
1. Debug Log
2. HFSI Report
3. Jam Report
4. Shutdown Report
5. Fail Report
6. Protocol Monitor Report







Installation space requirements are shown in [Figure 1](#) (DC 1632/2240 w/out Finisher), [Figure 2](#) (DC 1632/2240 w/Finisher), [Figure 3](#), (DC 3535 w/out Finisher), and [Figure 4](#), (DC 3535 w/ Finisher),





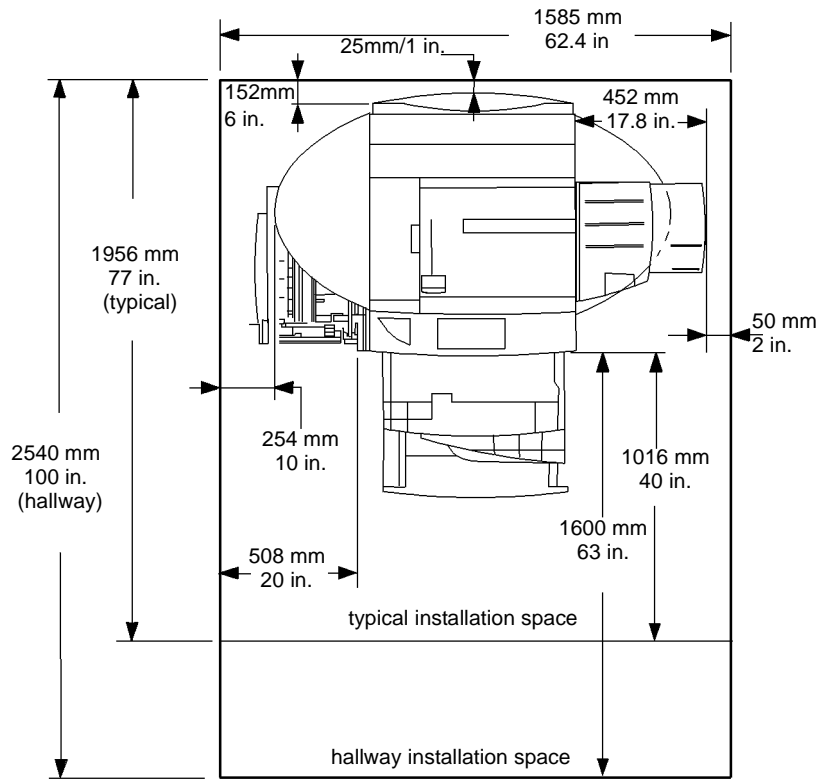


Figure 3 Space Requirement - WC 24, DC 3535 w/out Finisher

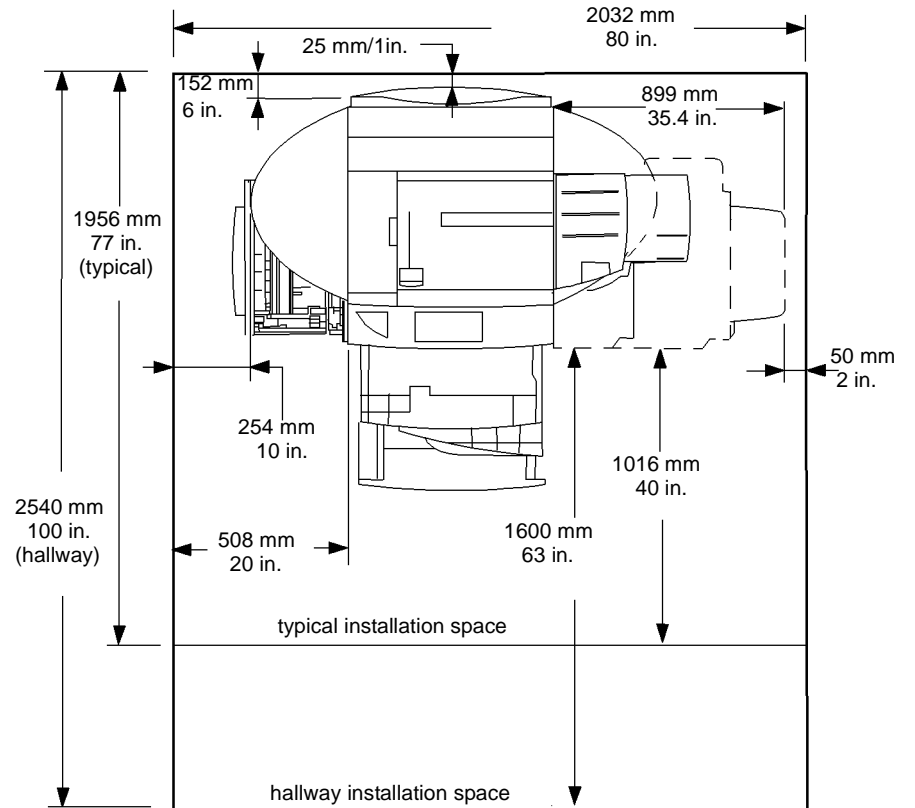


Figure 4 Space Requirement - WC 24, DC 3535 w/Finisher







## Product Codes

**Table 1 Product Codes DC 2240/1632**

Item	Product Code
DocuColor 1632 IOT 120 VAC	LVE
DocuColor 1632 IOT 220 VAC	LVF
Scanner/UI/DADF (XC) 120 VAC	LVM
Scanner/UI/DADF (XE) 220 VAC	LVN
Speed Upgrade Kit (1632 to 2240)	MDU
Finisher	KMT
Token Ring Kit	MLH
Left Wing Kit	MLG
Foreign Interface Kit	NMP

**Table 2 Product Codes DC 3535**

Item	Product Code
DocuColor 3535 IOT 120 VAC	LVG
DocuColor 3535 IOT 220 VAC	LVH
Scanner/UI/DADF (XC) 120 VAC	MWD
Scanner/UI/DADF (XE) 220 VAC	MWE
EFI Network Controller	MWF
3-Tray Module	NKT
Tandem Tray Module	NKU
DC 3535 IOT/Network Controller/ 3TM - preconfigured	NTW
DC 3535 IOT/Network Controller/ TTM - preconfigured	NTY
Finisher Option	KNL
DT-32 Densitometer Option	R0E
ED-100 Densitometer Option	FVK
Foreign Interface Option	NMP

**Table 3 Product Codes WC M24**

Item	Product Code
WorkCentre M24 IOT 120 VAC	RLU
WorkCentre M24 IOT 220 VAC	RLV
Scanner/UI/DADF (XC) 120 VAC	RLY
Scanner/UI/DADF (XE) 220 VAC	RMC
Scanner/UI/Platen (XC) 120 VAC	RMD
Scanner/UI/Platen (XE) 220 VAC	RLW
Cabinet	RME
3-Tray Module	RMF
Tandem Tray Module	RMG

**Table 3 Product Codes WC M24**

Item	Product Code
Std. G3 Fax Kit (XC)	RMH
Std. G3 Fax Kit (XE)	RMK
Convenience Stapler (XC)	NPG
Convenience Stapler (XE)	NPH
Finisher	KMT
Foreign Interface Kit	NMP

## Component Weights

**Table 4 Component Weights**

Component	Weight (approx.)
IOT w/3TM or TTM	120 kg (264 lb.)
IIT and Platen	21 kg (46 lb.)
DADF	14 kg (31 lb.)
Finisher	35 kg (77 lb.)
Network Controller (DC 3535 only)	6 kg (13 lb.)

## Paper Capacities

**Table 5 Paper Capacities (WC M24)**

Specification	Paper Trays 1 - 4	Tray 5 (Bypass)
Paper Sizes	Tray 1 & 2 (TTM); Tray 1 -4 (3TM) <ul style="list-style-type: none"> <li>Min: A5 SEF (148 x 210 mm)</li> <li>Max: A3/11 x 17 in.</li> </ul> Trays 3 & 4 (TTM only) <ul style="list-style-type: none"> <li>A4, 8.5 x 11 in., and B5 LEF only</li> </ul>	Paper <ul style="list-style-type: none"> <li>Min.: 100 x 140 mm (postcard)</li> <li>Max: 305 x 483 mm/12 x 19 in.</li> </ul> Envelopes <ul style="list-style-type: none"> <li>Min.: 98 x 190 mm (Monarch 7 3/4 size)</li> </ul>
Paper Weights	Optimum: 24 lb./90 gsm Range: 64 - 220 gsm	Range: 55 - 220 gsm
Capacities 24 lb. (90 gsm)	TTM: 3040 sheets total: <ul style="list-style-type: none"> <li>Tray 1: 520 sheets</li> <li>Tray 2: 520 sheets</li> <li>Tray 3: 867 sheets</li> <li>Tray 4: 1133 sheets</li> </ul> 3TM: 2080 sheets total: <ul style="list-style-type: none"> <li>Tray 1: 520 sheets</li> <li>Tray 2: 520 sheets</li> <li>Tray 3: 520 sheets</li> <li>Tray 4: 520 sheets</li> </ul>	100 sheets



**Table 6 Paper Capacities (DC 2240/1632)**

Specification	Paper Trays 1 - 4	Tray 5 (Bypass)
Paper Sizes	Trays 1 & 2 <ul style="list-style-type: none"> <li>Min.: A5 SEF (148 x 210 mm)</li> <li>Max: A3/11 x 17 in.</li> </ul> Trays 3 & 4 <ul style="list-style-type: none"> <li>A4, 8.5 x 11 in., and B5 LEF only</li> </ul>	Paper <ul style="list-style-type: none"> <li>Min.: 100 x 140 mm (postcard)</li> <li>Max: 305 x 483 mm/12 x 19 in.</li> </ul> Envelopes <ul style="list-style-type: none"> <li>Min.: 98 x 190 mm (Monarch 7 3/4 size)</li> </ul>
Paper Weights	Optimum: 24 lb./90 gsm Range: 64 - 105 gsm	Range: 55 - 220 gsm
Capacities 24 lb. (90 gsm)	3040 sheets total: <ul style="list-style-type: none"> <li>Tray 1: 520 sheets</li> <li>Tray 2: 520 sheets</li> <li>Tray 3: 867 sheets</li> <li>Tray 4: 1133 sheets</li> </ul>	100 sheets

**Table 7 Paper Capacities (DC 3535)**

Specification	Paper Trays 1 - 4	Tray 5 (Bypass)
Paper Sizes	Tray 1 & 2 (TTM); Tray 1 - 4 (3TM) <ul style="list-style-type: none"> <li>Min: A5 SEF (148 x 210 mm)</li> <li>Max: A3/11 x 17 in.</li> </ul> Trays 3 & 4 (TTM only) <ul style="list-style-type: none"> <li>A4, 8.5 x 11 in., and B5 LEF only</li> </ul>	Paper <ul style="list-style-type: none"> <li>Min.: 100 x 140 mm (postcard)</li> <li>Max: 305 x 483 mm/12 x 19 in.</li> </ul> Envelopes <ul style="list-style-type: none"> <li>Min.: 98 x 190 mm (Monarch 7 3/4 size)</li> </ul>
Paper Weights	Optimum: 24 lb./90 gsm Range: 64 - 220 gsm	Range: 55 - 220 gsm
Capacities 24 lb. (90 gsm)	TTM: 3120 sheets total: <ul style="list-style-type: none"> <li>Tray 1: 520 sheets</li> <li>Tray 2: 520 sheets</li> <li>Tray 3: 910 sheets</li> <li>Tray 4: 1170 sheets</li> </ul> 3TM: 2080 sheets total: <ul style="list-style-type: none"> <li>Tray 1: 520 sheets</li> <li>Tray 2: 520 sheets</li> <li>Tray 3: 520 sheets</li> <li>Tray 4: 520 sheets</li> </ul>	95 sheets

**Copy Speed****WorkCentre M24**

- B/W (plain paper; simplex; fed from Tray 1)
  - letter size LEF: 24 ppm
  - letter size SEF: 20 ppm
  - legal size: 17 ppm
  - A3/11x17 in.: 15 ppm
- Color (plain paper; simplex; fed from Tray 1)
  - letter size LEF: 13 ppm
  - letter size SEF: 11 ppm
  - legal size: 9 ppm
  - A3/11x17 in.: 9 ppm

**DocuColor 1632**

- B/W (plain paper; simplex; fed from Tray 1)
  - letter size LEF: 32 ppm
  - letter size SEF: 24 ppm
  - legal size: 20 ppm
  - A3/11x17 in.: 17 ppm
- Color (plain paper; simplex; fed from Tray 1)
  - letter size LEF: 16 ppm
  - letter size SEF: 13 ppm
  - legal size: 11 ppm
  - A3/11x17 in.: 9 ppm

**DocuColor 2240**

- B/W (plain paper; simplex; fed from Tray 1)
  - letter size LEF: 40 ppm
  - letter size SEF: 30 ppm
  - legal size: 24 ppm
  - A3/11x17 in.: 20 ppm
- Color (plain paper; simplex; fed from Tray 1)
  - letter size LEF: 22 ppm
  - letter size SEF: 16 ppm
  - B4/legal size: 13 ppm
  - A3/11x17 in.: 11 ppm

**DocuColor 3535**

- B/W or Color (plain paper; simplex; fed from Tray 1)
  - letter size LEF: 35 ppm
  - letter size SEF: 26 ppm
  - legal size: 21 ppm
  - A3/11x17 in.: 17 ppm

**FCOT/FPOT**

First Copy Output Time (original on platen); 8.5" x 11" (A4); Tray 1;

- Color - 12.3 sec. max (DC 2240/1632, WC M24); 13.5 sec (DC 3535)



- B/W - 4.6 sec. max (DC 2240/1632, WC M24); 8.2 sec (DC 3535)

First Print Output Time (does not include ESS process time for prints); 8.5" x 11" (A4); Tray 1;

- Color - 11.8 sec. max (DC 2240/1632, WC M24); 9.0 sec (DC 3535)
- B/W - 4.1 sec. max (DC 2240/1632, WC M24); 5.0 sec (DC 3535)

### Voltage Requirements

- Single phase (two wires plus ground)
- 110 - 127 VAC/60 Hz (99 - 135 VAC, 55 to 62 Hz)
- 220 - 240 VAC/50 Hz (198 to 255 VAC, 48.5 to 51.5 Hz)

### Power Consumption (5 minute average)

- Machine Running: 1.584 kVA - NASG; 2.20 kVA ESG max.
- Low Power: 204 watts max.
- Sleep Mode: 80 watts max.

Warm up time: 66 sec. max.

### Environmental Data and Requirements

#### Ambient Temperature and Humidity requirement:

- Minimum: 10° C/50°F at 15% humidity
- Maximum: 35° C/99°F at 85% humidity

## IIT/DADF Specifications

**Table 8 DADF Specifications**

Document Size: Platen	Max size: 334 x 452 mm Max scannable area: 297 x 432 mm
Document Size: DADF	5.5" x 8.5" (A5) LEF to 11" x 17" SEF (A3) Max: 297 x 432 mm Min: 148.5 x 210 mm
Document Weight: DADF	Min: 50 gsm/16lb Max: 128 gsm/32lb (110 gsm in Duplex mode)
Document Capacity: DADF	50 sheets 100 gsm or less 40 sheets 101 to 128 gsm
R/E Capability:	Variable Percentages: 25% to 400% in 1% increments Preset Percentages: <ul style="list-style-type: none"> <li>• 25%</li> <li>• 50% (A3 to A5)</li> <li>• 64% (11 x17 in. to 8.5 x 11 in.)</li> <li>• 70% (A3 to A4; B4 to B5)</li> <li>• 100%</li> <li>• 129% (8.5 x 11 in. to 11 x17 in.)</li> <li>• 141% (A4 to A3; B5 to B4)</li> <li>• 400%</li> </ul> Presets can be changed in Tools mode



## Common Tools

Table 1 Common Tools

Description	Part Number
Screw Driver (-) 3 x 50	600T40205
Screw Driver (+) 6 x 100	600T1989
Screw Driver (+) NO.1	499T356
Stubby Driver (+) (-)	600T40210
Screw Driver (-) 100MM	499T355
Spanner and Wrench 5.5 x 5.5	600T40501
Spanner and Wrench 7x 7	600T40502
Hex Key Set	600T02002
Box Driver 5.5MM	600T1988
Side Cutting Nipper	600T40903
Round Nose Pliers	600T40901
Digital Multi-meter Set	600T2020
Interlock Cheater	600T91616
Silver Scale 150MM	600T41503
CE Tool Case	600T1901
Magnetic Screw Pick-up Tool	600T41911
Scriber Tool	600T41913
Magnetic pickup	600T41911
Loupe	600T42008
Flash Light	600T1824
Brush	600T41901
Tester Lead Wire (red)	600T 9583
Tester Lead Wire (black)	600T2030

## Product Tools and Test Patterns

Table 1 Tools and Test Patterns

Description	Part Number
Color Test Pattern	82E13120
Geometric Test Pattern	82E8220
HVPS test probe (1/10X)	600T1653
HVPS test probe adapter	600T1996
Copy Paper Carrying Case	600T1999
Copy Paper Zip Lock Bag	600T2000
Xerox Color Xpressions Plus 24# 11x17 in,	3R5465
Colotech + - 90 gsm - A3	3R94642
Service and Machine NVM Log	700P97436
Serial cable	600T2058
Network Interface (Crossover) cable	600T02252
Parallel printer cable	117E19340
PWS power cord adapter	600T2018
L Probe	600T02177
Machine Resident Disk Kit (Machine Settings Floppy)	300K63850





## Cleaning Materials

Table 1 Cleaning Materials

Description	NASG Part Number	ESG Part Number
Cleaning fluid (8oz., Formula A)	43P48	8R90034
Film remover (8 oz.)	43P45	8R90176
Lens/mirror cleaner	43P81	8R90178
Lint-free (white) cleaning cloth	19P3025	19P3025
Lint-free Optics cleaning cloth	499T90417	499T90417
Cleaning towels	35P3191	600S4372
Drop cloth	35P1737	35P1737
Cotton Swab	35P2162	35P2162

## Machine Consumables

Table 1 Consumables

Name	Part Number
Drum Cartridge	13R586 - DC 2240/1632 13R579 - DC 3535, WC M24
Black Toner Cartridge	6R1122 - DC 3535/2240/1632 6R1153 - WC M24
Cyan Toner Cartridge	6R1123 - DC 3535/2240/1632 6R1154 - WC M24
Magenta Toner Cartridge	6R1124 - DC 3535/2240/1632 6R1155 - WC M24
Yellow Toner Cartridge	6R1125 - DC 3535/2240/1632 6R1156 - WC M24
Waste Toner Cartridge	8R12903
Finisher Staple Cartridge	8R12915
Convenience Stapler Cartridge	8R12915
Fuser	8R12904 - 110 Volt 8R12905 - 220 Volt

## Glossary of Terms

Table 1

Term	Description
A3	Paper size 297 millimeters (11.69 inches) x 420 millimeters (16.54 inches).
A4	Paper size 210 millimeters (8.27 inches) x 297 millimeters (11.69 inches).
AC	Alternating Current is type of current available at power source for machine.
ACT	Advanced Customer Training: teaches customers to perform some of service that is normally performed by Xerox Service Representative.
A/D	Analog to Digital refers to conversion of signal
ADJ	Adjustment Procedure
Bit	Binary digit, either 1 or 0, representing an electrical state.
CCD	Charge Coupled Device (Photoelectric Converter)
CD	1:Circuit Diagram; 2: Compact Disc
Chip	Integrated Circuit (IC)
CRU	Customer Replaceable Unit
CYMK	Toner colors for machine; Y=yellow, C=cyan, M=magenta, and K=black
DADF	Duplexing Automatic Document Feeder
DC	Direct Current is type of power for machine components. Machine converts AC power from power source to DC power.
DMM	Digital Multimeter is generic name for meter that measures voltage, current, or electrical resistance.
Duplex	2-sided printing or copying
EME	Electromagnetic Emissions are emitted from machine during normal operation and power of these emissions are reduced by machine design features.
ESD	Electrostatic Discharge. A transfer of charge between bodies at different electrostatic potential.
FS	Fast Scan (direction) - Inboard-to Outboard
GND	Ground
HFSI	High Frequency Service Item
HVPS	High Voltage Power Supply
Hz	Hertz (Cycles per second)
IIT	Image Input Terminal - the Scanner/CCD portion of the machine
IOT	Image Output Terminal - the ROS/Xero/paper handling/ fusing portion of the machine
IQ	Image Quality
KC	1000 copies
LCD	Liquid Crystal Display
LE	Lead Edge of copy or print paper, with reference to definition of term TE
LED	Light Emitting Diode
LEF	Long Edge Feed
LTR	Letter size paper (8.5 x 11 inches)
LUT	Look Up Table - array of NVM locations that store process control data
LVPS	Low Voltage Power Supply



Table 1

Term	Description
MF	Multi-Function
MN	Multinational
NIC	Network Interface Card
NVM	Non Volatile Memory
OEM	Original equipment manufacturer
OGM	On-going Maintenance
PC	Personal Computer
PL	Parts List
PO	Part of (Assembly Name)
PWB	Printed Wiring Board
PWS	Portable Workstation for Service
PJ	Plug Jack (electrical connections)
RAM	Random Access Memory
RAP	Repair Analysis Procedure for diagnosis of machine status codes and abnormal conditions
R/E	Reduction/Enlargement refers to features selection or components that enable reduction or enlargement
REP	Repair Procedure for disassembly and reassembly of component on machine
RIS	Raster Input Scanner
ROM	Read Only Memory
ROS	Raster Output Scanner - Device that transfers digitally processed image, using laser light, to photoreceptor.
SAD	Solid Area Density
SCP	Service Call Procedure
SEF	Short Edge Feed
Self-test	An automatic process that is used to check Control Logic circuitry. Any fault that is detected during self-test is displayed by fault code or by LEDs on PWB.
SIMM	Single Inline Memory Module used to increase printing capacity
Simplex	Single sided copies
FS	Fast Scan (direction) - LE - to - TE
TE	Trail Edge of copy or print paper, with reference to definition of term LE
UM	Unscheduled Maintenance
UI	User Interface
USB	Universal Serial Bus
W/	With - indicates machine condition where specified condition is present
W/O	Without - indicates machine condition where specified condition is not present
XBRA	Xerox Brazil
XE	Xerox Europe - also referred to as ESG (European Solutions Group)
XLA	Xerox Latin America
YCMK	Toner colors for machine; Y=yellow, C=cyan, M=magenta, and K=black
XMEX	Xerox Mexico







## Change Tag Introduction

Important modifications to the copier are identified by a tag number which is recorded on a tag matrix. The tag matrix for the IOT (Processor) is molded into the inside of the Front Door. The DADF tag matrix is a label affixed to the rear cover of the DADF.

This section describes all of the tags associated with the copier, as well as multinational applicability, classification codes, and permanent or temporary modification information.

### Classification Codes

A tag number may be required to identify differences between parts that cannot be interchanged, or differences in diagnostic, repair, installation, or adjustment procedures.

A tag number may also be required to identify the presence of optional hardware, special non-volatile memory programming, or whether mandatory modifications have been installed. Each tag number is given a classification code to identify the type of change that the tag has made. The classification codes and their descriptions are listed in the table below.

Table 1

Classification Code	Description
M	Mandatory tag.
N	Tag not installed in the field.
O	Optional tag.
R	Repair tag.

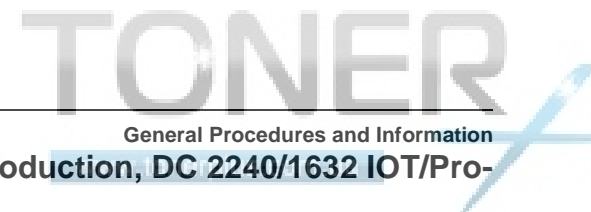
## DC 2240/1632 IOT/Processor (P) Tags

The following IOT/Processor change tags have been issued for the DocuColor 2240/1632:

**TAG:** P1  
**CLASS:** R  
**USE:** ALL  
**MFG SERIAL NUMBERS:** LVE: 180908 LVF: 311200422x  
**NAME:** V3.8 Software Upgrade  
**PURPOSE:**  
**KIT NUMBER:** 301E49540  
**REFERENCE:**

**TAG:** P2  
**CLASS:** O  
**USE:** ALL  
**NAME:** V4.1 Software Upgrade  
**PURPOSE:** Software upgrade for Token Ring compatibility.  
**KIT NUMBER:** 301E49760  
**REFERENCE:**

**TAG:** P3  
**CLASS:** R  
**USE:** ALL  
**MFG SERIAL NUMBERS:** LVE: 182520 LVF: 3112024025  
**NAME:** V4.2 Software Upgrade  
**PURPOSE:**  
**KIT NUMBER:** 301E49541  
**REFERENCE:**





**TAG: P4**

**CLASS:** O  
**USE:** ALL

**MFG SERIAL NUMBERS:** LVE: 186274 LVF:311 208685x

**NAME:** V5.7 Software Maintenance Release

**PURPOSE:** update ESS ROM to 2.41.5; MCU to 2.0.4

**KIT NUMBER:** 301E49543

**REFERENCE:**

**TAG: P5**

**CLASS:** O  
**USE:** ALL

**MFG SERIAL NUMBERS:** LVE: 186789 LVF:311 209080x

**NAME:** Software Release

**PURPOSE:** update IOT ROM to 2.0.6

**KIT NUMBER:** 160K91724

**REFERENCE:**

**TAG: P6**

**CLASS:** O  
**USE:** ALL

**MFG SERIAL NUMBERS:** LVE: LVF:311 2110204x

**NAME:** Software Maintenance Release

**PURPOSE:** update ESS ROM to 2.43.8

**KIT NUMBER:**

**REFERENCE:**

**DC 3535 IOT/Processor (P) Tags**

The following IOT/Processor change tags have been issued for the DocuColor 3535:

**TAG: P1**

**CLASS:** O  
**USE:** ALL

**MFG SERIAL NUMBERS:** LVG: 249863 LVH: 311 264689x

**NAME:** Launch Software Release

**PURPOSE:**

**KIT NUMBER:**

**REFERENCE:**

**TAG: P2**

**CLASS:** O  
**USE:** ALL

**MFG SERIAL NUMBERS:** LVE: LVF:

**NAME:** Software Release

**PURPOSE:** update ESS ROM to v1.1.0; MCU to v3.0.12

**KIT NUMBER:**

**REFERENCE:**



## WC M24 IOT/Processor (P) Tags

There are no Tags assigned to this product

## DC 2240/1632 IIT/Document Handler (D) Tags

The following IIT change tags have been issued:

### **TAG: D1**

**CLASS:** R

**USE:** ALL

**MFG SERIAL NUMBERS:** LVM: 163331 LVN: 311222979x

**NAME:** V4.2 Software Upgrade

**PURPOSE:** Change software to preload English/French/German (default English)

**KIT NUMBER:**

**REFERENCE:** Tag P2

### **TAG: D2**

**CLASS:** O

**USE:** ALL

**MFG SERIAL NUMBERS:** LVM: 166266 LVN: 3112287506

**NAME:** V5.7 Software Maintenance Release

**PURPOSE:**

**KIT NUMBER:**

**REFERENCE:** Tag P4

### **TAG: D3**

**CLASS:** O

**USE:** ALL

**MFG SERIAL NUMBERS:** LVM: LVN:311 2110204x

**NAME:** Software Maintenance Release

**PURPOSE:** update UI-C to 3.0.17; UI-F to 3.101.6

**KIT NUMBER:**

**REFERENCE:** Tag P6





## DC 3535 IIT/Document Handler (D) Tags

The following IIT/DADF change tags have been issued for the DocuColor 3535:

### **TAG: D1**

**CLASS:** O

**USE:** ALL

**MFG SERIAL NUMBERS:** MWD: 279863 MWE: 311 294689x

**NAME:** Software Release

**PURPOSE:** update IISS s/w to v1.4.1

**KIT NUMBER:**

**REFERENCE:**

### **TAG: D2**

**CLASS:** O

**USE:** ALL

**MFG SERIAL NUMBERS:** MWD: 290958 MWE: 311 295869x

**NAME:** Software Release

**PURPOSE:** update UI-C to v4.0.7; UI-F to 4.101.0

**KIT NUMBER:**

**REFERENCE:**

### **TAG: D3**

**CLASS:** O

**USE:** ALL

**MFG SERIAL NUMBERS:** MWD: MWE:

**NAME:** Software Release

**PURPOSE:** update IISS s/w to v1.6.0

**KIT NUMBER:**

**REFERENCE:**

### **TAG: D4**

**CLASS:** O

**USE:** ALL

**MFG SERIAL NUMBERS:** MWD: MWE:

**NAME:** Software Release

**PURPOSE:** update UI-F to 4.104.0

**KIT NUMBER:**

**REFERENCE:**



## WC M24 IIT/Document Handler (D) Tags

There are no Tags assigned to this product







## 7 Wiring Data

### Plug/Jack Locations

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## Plug/Jack Locations

### How to use the Plug/Jack Location List

The Plug/Jack Location List below is provided to locate plugs, jacks, or other terminating devices. Locate the desired termination device in the first column (Connector Number) of the list. Refer to the second column (Figure Number) to determine the figure number of the electrical termination device. Refer to the (Item Number) column to determine the item number in the adjacent Figure Number column. The fourth column supplies the title of the Figure.

**NOTE:** Connectors numbered “CN,” “T,” and “FS” are listed after the “P and J” connectors.

**Table 1 Plug / Jack Location List**

Connector Number	Figure Number	Item Number	Figure Title
P/J2	Figure 12	8	HVPS, +24V LVPS
P/J15A	Figure 16	19	I/F PWB, Main Motor, LVPS
P/J16	Figure 16	16	I/F PWB, Main Motor, LVPS
P/J42	Figure 18	10	AC Drive PWB, Noise Filter PWB, Delay PWB
P/J43	Figure 18	11	AC Drive PWB, Noise Filter PWB, Delay PWB
P/J46	Figure 18	1	AC Drive PWB, Noise Filter PWB, Delay PWB
J50	Figure 18	19	AC Drive PWB, Noise Filter PWB, Delay PWB
J70	Figure 18	12	AC Drive PWB, Noise Filter PWB, Delay PWB
P/J72	Figure 12	9	HVPS, +24V LVPS
P/J102	Figure 3	1	Inverter Transport Assembly
P/J103	Figure 8	4	Tray 5
P/J104	Figure 7	3	Exit Transport Assembly
P/J106	Figure 19	3	Left Lower Assembly, Tray 1 Feeder
P/J108	Figure 19	2	Left Lower Assembly, Tray 1 Feeder
P/J109	Figure 5	4	Registration Transport Assembly
P/J111	Figure 3	14	Inverter Transport Assembly
P/J113	Figure 3	8	Inverter Transport Assembly
P/J115	Figure 17	10	Developer Motor, Tray 1 Size Switch
P/J116	Figure 2	3	MOB Sensor Assembly
P/J117	Figure 2	1	MOB Sensor Assembly
P/J119	Figure 11	5	IBT Belt Assembly
P/J121	Figure 11	4	IBT Belt Assembly
P/J122	Figure 11	2	IBT Belt Assembly
P/J125	Figure 19	7	Left Lower Assembly, Tray 1 Feeder
P/J129	Figure 1	10	Xerographics
P/J130	Figure 1	9	Xerographics
P/J131	Figure 1	7	Xerographics
P/J132	Figure 1	5	Xerographics
P/J133	Figure 1	16	Xerographics
P/J135	Figure 4	5	Duplex Transport Assembly
P/J136	Figure 4	6	Duplex Transport Assembly

**Table 1 Plug / Jack Location List**

Connector Number	Figure Number	Item Number	Figure Title
P/J140	Figure 3	12	Inverter Transport Assembly
P/J144	Figure 2	2	MOB Sensor Assembly
P/J150	Figure 19	4	Left Lower Assembly, Tray 1 Feeder
P/J151	Figure 1	12	Xerographics
P/J152	Figure 1	15	Xerographics
P/J153	Figure 1	19	Xerographics
P/J154	Figure 1	17	Xerographics
P/J155	Figure 5	3	Registration Transport Assembly
P/J163	Figure 9	11	Toner Dispense Motor, Main Switch
P/J165	Figure 9	8	Toner Dispense Motor, Main Switch
P/J171	Figure 1	4	Xerographics
P/J172	Figure 7	2	Exit Transport Assembly
J173	Figure 13	9	Outlet Panel Assembly, Fuser PWB
P/J203	Figure 16	10	I/F PWB, Main Motor, LVPS
P/J205	Figure 19	1	Left Lower Assembly, Tray 1 Feeder
P/J207	Figure 1	11	Xerographics
P/J210	Figure 16	22	I/F PWB, Main Motor, LVPS
P/J211	Figure 6	8	Fuser Assembly
P/J212	Figure 6	11	Fuser Assembly
P/J214	Figure 12	11	HVPS, +24V LVPS
P/J215	Figure 3	5	Inverter Transport Assembly
P/J216	Figure 3	15	Inverter Transport Assembly
P/J217	Figure 3	4	Inverter Transport Assembly
P/J218	Figure 3	2	Inverter Transport Assembly
P/J219	Figure 3	3	Inverter Transport Assembly
P/J220	Figure 7	4	Exit Transport Assembly
P/J221	Figure 17	7	Developer Motor, Tray 1 Size Switch
P/J222	Figure 7	1	Exit Transport Assembly
P/J223	Figure 1	8	Xerographics
P/J224	Figure 1	6	Xerographics
P/J225	Figure 1	3	Xerographics
P/J226	Figure 1	20	Xerographics
P/J227	Figure 9	17	Toner Dispense Motor, Main Switch
P/J228	Figure 9	12	Toner Dispense Motor, Main Switch
P/J229	Figure 9	10	Toner Dispense Motor, Main Switch
P/J230	Figure 9	9	Toner Dispense Motor, Main Switch
P/J231	Figure 5	5	Registration Transport Assembly
P/J232	Figure 17	9	Developer Motor, Tray 1 Size Switch
P/J233	Figure 1	2	Xerographics
P/J234	Figure 17	1	Developer Motor, Tray 1 Size Switch



Table 1 Plug / Jack Location List

Connector Number	Figure Number	Item Number	Figure Title
P/J235	Figure 17	2	Developer Motor, Tray 1 Size Switch
P/J237	Figure 11	3	IBT Belt Assembly
P/J240	Figure 5	2	Registration Transport Assembly
P/J251	Figure 3	6	Inverter Transport Assembly
P/J255	Figure 2	4	MOB Sensor Assembly
P/J260	Figure 6	5	Fuser Assembly
P/J261	Figure 6	6	Fuser Assembly
P/J262	Figure 6	3	Fuser Assembly
P/J263	Figure 6	4	Fuser Assembly
P/J264	Figure 6	9	Fuser Assembly
P/J265	Figure 8	2	Tray 5
P/J288	Figure 9	18	Toner Dispense Motor, Main Switch
P300	Figure 14	5	ESS Assembly
NJ300	Figure 14	5A	ESS Assembly
NP300	Figure 14	5B	ESS Assembly
J300	Figure 14	5C	ESS Assembly
P/J310	Figure 14	18	ESS Assembly
P/J311	Figure 14	6	ESS Assembly
J332	Figure 14	1	ESS Assembly
P/J333	Figure 14	3	ESS Assembly
J335	Figure 14	19	ESS Assembly
P/J336	Figure 14	12	ESS Assembly
P/J337	Figure 14	8	ESS Assembly
P/J338	Figure 14	20	ESS Assembly
J340	Figure 14	15	ESS Assembly
J341	Figure 14	16	ESS Assembly
J342	Figure 14	17	ESS Assembly
P/J344	Figure 14	14	ESS Assembly
P347	Figure 14	11	ESS Assembly
P/J351	Figure 37	5	Fax Module
P390	Figure 36	1	VSEL Assembly
P391 (DDI-2)	Figure 36	3	VSEL Assembly
P392 (DDI-1)	Figure 36	2	VSEL Assembly
P/J400	Figure 15	8	MCU PWB
P/J401	Figure 15	11	MCU PWB
P/J402	Figure 15	12	MCU PWB
P/J403	Figure 15	2	MCU PWB
P/J404	Figure 15	4	MCU PWB
P/J405	Figure 15	5	MCU PWB
P/J406	Figure 15	6	MCU PWB

Table 1 Plug / Jack Location List

Connector Number	Figure Number	Item Number	Figure Title
P/J407	Figure 15	3	MCU PWB
J410	Figure 15	10	MCU PWB
P410	Figure 16	4	I/F PWB, Main Motor, LVPS
J460	Figure 14	7	ESS Assembly
P460	Figure 15	1	MCU PWB
J496	Figure 15	9	MCU PWB
P/J498	Figure 15	7	MCU PWB
P/J501	Figure 12	19	HVPS, +24V LVPS
P/J502	Figure 12	6	HVPS, +24V LVPS
P/J505	Figure 12	7	HVPS, +24V LVPS
P/J510	Figure 16	23	I/F PWB, Main Motor, LVPS
P/J510B	Figure 16	18	I/F PWB, Main Motor, LVPS
P/J511	Figure 16	15	I/F PWB, Main Motor, LVPS
P/J514	Figure 10	3	ROS Assembly
P/J515	Figure 10	2	ROS Assembly
P/J516	Figure 10	7	ROS Assembly
P/J517	Figure 10	8	ROS Assembly
P/J518	Figure 10	9	ROS Assembly
P/J526	Figure 10	5	ROS Assembly
P/J527	Figure 10	1	ROS Assembly
P/J528	Figure 10	6	ROS Assembly
P/J529	Figure 10	4	ROS Assembly
P/J530	Figure 16	13	I/F PWB, Main Motor, LVPS
P/J531	Figure 16	7	I/F PWB, Main Motor, LVPS
P/J532	Figure 16	14	I/F PWB, Main Motor, LVPS
P/J533	Figure 16	1	I/F PWB, Main Motor, LVPS
P/J534	Figure 16	9	I/F PWB, Main Motor, LVPS
P/J535	Figure 16	20	I/F PWB, Main Motor, LVPS
P/J536	Figure 16	8	I/F PWB, Main Motor, LVPS
P/J538	Figure 4	1	Duplex Transport Assembly
P/J539	Figure 4	3	Duplex Transport Assembly
P/J540	Figure 4	4	Duplex Transport Assembly
P/J541	Figure 25	14	TT Module (Rear)
P/J541	Figure 26	9	3T Module (Rear)
P/J546	Figure 25	1	TT Module (Rear)
P/J546	Figure 26	1	3T Module (Rear)
P/J547	Figure 25	4	TT Module (Rear)
P/J547	Figure 26	3	3T Module (Rear)
P/J548	Figure 25	15	TT Module (Rear)
P/J548	Figure 26	10	3T Module (Rear)



Table 1 Plug / Jack Location List

Connector Number	Figure Number	Item Number	Figure Title
P/J549	Figure 25	13	TT Module (Rear)
P/J549	Figure 26	8	3T Module (Rear)
P/J550	Figure 16	3	I/F PWB, Main Motor, LVPS
P/J550	Figure 29	5	DADF (2 of 2)
P/J551	Figure 16	25	I/F PWB, Main Motor, LVPS
P/J551	Figure 29	4	DADF (2 of 2)
P/J552	Figure 16	26	I/F PWB, Main Motor, LVPS
P/J552	Figure 25	6	TT Module (Rear)
P/J552	Figure 26	5	3T Module (Rear)
P/J553	Figure 16	17	I/F PWB, Main Motor, LVPS
P/J553	Figure 25	10	TT Module (Rear)
P/J554	Figure 25	11	TT Module (Rear)
P/J554	Figure 26	7	3T Module (Rear)
P/J555	Figure 25	5	TT Module (Rear)
P/J555	Figure 26	4	3T Module (Rear)
P/J557	Figure 25	2	TT Module (Rear)
P/J557	Figure 26	2	3T Module (Rear)
P/J561	Figure 25	12	TT Module (Rear)
P/J564	Figure 25	3	TT Module (Rear)
P/J568	Figure 16	2	I/F PWB, Main Motor, LVPS
P/J569	Figure 16	27	I/F PWB, Main Motor, LVPS
P/J570	Figure 12	4	HVPS, +24V LVPS
P/J571	Figure 12	17	HVPS, +24V LVPS
P/J572	Figure 12	3	HVPS, +24V LVPS
P/J573	Figure 12	1	HVPS, +24V LVPS
P/J574	Figure 12	18	HVPS, +24V LVPS
P/J575	Figure 16	12	I/F PWB, Main Motor, LVPS
P/J576	Figure 16	11	I/F PWB, Main Motor, LVPS
P/J580	Figure 12	14	HVPS, +24V LVPS
P/J580	Figure 28	8	DADF (1 of 2)
P/J581	Figure 12	2	HVPS, +24V LVPS
P/J581	Figure 28	9	DADF (1 of 2)
P/J582	Figure 28	6	DADF (1 of 2)
P/J583	Figure 28	5	DADF (1 of 2)
P/J585	Figure 28	4	DADF (1 of 2)
P/J586	Figure 28	11	DADF (1 of 2)
P/J587	Figure 28	1	DADF (1 of 2)
P/J588	Figure 29	6	DADF (2 of 2)
P/J589	Figure 29	2	DADF (2 of 2)
P/J590	Figure 18	5	AC Drive PWB, Noise Filter PWB, Delay PWB

Table 1 Plug / Jack Location List

Connector Number	Figure Number	Item Number	Figure Title
P/J590	Figure 29	7	DADF (2 of 2)
P/J591	Figure 28	2	DADF (1 of 2)
P/J592	Figure 18	6	AC Drive PWB, Noise Filter PWB, Delay PWB
P/J592	Figure 29	1	DADF (2 of 2)
P/J593	Figure 18	14	AC Drive PWB, Noise Filter PWB, Delay PWB
P/J594	Figure 29	9	DADF (2 of 2)
P/J595	Figure 29	10	DADF (2 of 2)
P/J596	Figure 29	13	DADF (2 of 2)
P/J597	Figure 29	8	DADF (2 of 2)
P/J598	Figure 29	11	DADF (2 of 2)
P/J599	Figure 29	3	DADF (2 of 2)
J600	Figure 5	1	Registration Transport Assembly
P600	Figure 6	10	Fuser Assembly
P/J600	Figure 29	12	DADF (2 of 2)
P/J602	Figure 1	24	Xerographics
P/J605	Figure 11	1	IBT Belt Assembly
P/J608	Figure 1	25	Xerographics
J610	Figure 8	1	Tray 5
P610	Figure 17	3	Developer Motor, Tray 1 Size Switch
P/J611	Figure 7	5	Exit Transport Assembly
J612	Figure 3	9	Inverter Transport Assembly
P612	Figure 17	4	Developer Motor, Tray 1 Size Switch
J613	Figure 3	10	Inverter Transport Assembly
P613	Figure 17	5	Developer Motor, Tray 1 Size Switch
P/J614	Figure 1	18	Xerographics
P/J617	Figure 19	6	Left Lower Assembly, Tray 1 Feeder
P/J619	Figure 1	1	Xerographics
P/J620	Figure 5	6	Registration Transport Assembly
P/J622	Figure 1	22	Xerographics
P/J623	Figure 19	5	Left Lower Assembly, Tray 1 Feeder
P/J624	Figure 1	21	Xerographics
P626	Figure 3	13	Inverter Transport Assembly
J626	Figure 4	2	Duplex Transport Assembly
P/J631	Figure 1	23	Xerographics
J633	Figure 3	3	Inverter Transport Assembly
P633	Figure 3	7	Inverter Transport Assembly
P/J639	Figure 16	5	I/F PWB, Main Motor, LVPS
J640	Figure 3	11	Inverter Transport Assembly
P640	Figure 17	6	Developer Motor, Tray 1 Size Switch
P/J641	Figure 16	6	I/F PWB, Main Motor, LVPS



Table 1 Plug / Jack Location List

Connector Number	Figure Number	Item Number	Figure Title
P/J646	Figure 17	8	Developer Motor, Tray 1 Size Switch
P/J668	Figure 12	15	HVPS, +24V LVPS
P/J669	Figure 12	16	HVPS, +24V LVPS
P/J670	Figure 20	9	TT Module (Tray 2,3 Feeder)
P/J670	Figure 21	12	3T Module (Tray 2,3,4 Feeder)
P/J672	Figure 20	7	TT Module (Tray 2,3 Feeder)
P/J672	Figure 21	10	3T Module (Tray 2,3,4 Feeder)
P/J674	Figure 25	9	TT Module (Rear)
P/J674	Figure 21	8	3T Module (Tray 2,3,4 Feeder)
P/J700	Figure 31	5	IIT (Rear)
P/J702	Figure 31	3	IIT (Rear)
P/J705	Figure 31	4	IIT (Rear)
J711	Figure 30	8	IIT (Front)
P711	Figure 27	10	Control Panel
J712	Figure 30	7	IIT (Front)
P712	Figure 27	9	Control Panel
P/J713	Figure 27	5	Control Panel
P/J714	Figure 27	4	Control Panel
P/J715	Figure 27	11	Control Panel
P/J720	Figure 30	3	IIT (Front)
P/J721	Figure 30	9	IIT (Front)
P/J722	Figure 30	5	IIT (Front)
P/J724	Figure 30	2	IIT (Front)
P/J725	Figure 30	10	IIT (Front)
P/J726	Figure 30	1	IIT (Front)
P/J727	Figure 31	9	IIT (Rear)
P/J734	Figure 31	7	IIT (Rear)
P/J735	Figure 31	6	IIT (Rear)
P/J736	Figure 31	8	IIT (Rear)
P/J737	Figure 30	4	IIT (Front)
P/J738	Figure 31	10	IIT (Rear)
P/J739	Figure 31	2	IIT (Rear)
P/J741	Figure 30	6	IIT (Front)
P/J742	Figure 30	12	IIT (Front)
P/J746	Figure 30	11	IIT (Front)
P/J747	Figure 30	4	IIT (Front)
J750	Figure 31	1	IIT (Rear)
P750	Figure 28	10	DADF (1 of 2)
P/J765	Figure 28	7	DADF (1 of 2)
P/J769	Figure 28	3	DADF (1 of 2)

Table 1 Plug / Jack Location List

Connector Number	Figure Number	Item Number	Figure Title
J800	Figure 34	8	Finisher (Rear) (1 of 2)
P800	Figure 16	21	I/F PWB, Main Motor, LVPS
P/J801	Figure 12	5	HVPS, +24V LVPS
P/J814	Figure 20	5	TT Module (Tray 2,3 Feeder)
P/J814	Figure 21	5	3T Module (Tray 2,3,4 Feeder)
P/J815	Figure 20	4	TT Module (Tray 2,3 Feeder)
P/J815	Figure 21	4	3T Module (Tray 2,3,4 Feeder)
P/J816	Figure 23	5	TT Module (Tray 2,3,4 Paper Size Switch)
P/J816	Figure 24	1	3T Module (Tray 2,3,4 Paper Size Switch)
P/J818	Figure 20	5	TT Module (Tray 2,3 Feeder)
P/J818	Figure 21	5	3T Module (Tray 2,3,4 Feeder)
P/J819	Figure 20	4	TT Module (Tray 2,3 Feeder)
P/J819	Figure 21	4	3T Module (Tray 2,3,4 Feeder)
P/J820	Figure 23	3	TT Module (Tray 2,3,4 Paper Size Switch)
P/J820	Figure 24	2	3T Module (Tray 2,3,4 Paper Size Switch)
P/J821	Figure 20	6	TT Module (Tray 2,3 Feeder)
P/J821	Figure 21	7	3T Module (Tray 2,3,4 Feeder)
P/J822	Figure 22	1	TT Module (Tray 2,3 Feeder)
P/J822	Figure 21	4	3T Module (Tray 2,3,4 Feeder)
P/J823	Figure 22	2	TT Module (Tray 2,3 Feeder)
P/J823	Figure 21	5	3T Module (Tray 2,3,4 Feeder)
P/J824	Figure 23	3	TT Module (Tray 2,3,4 Paper Size Switch)
P/J824	Figure 24	3	3T Module (Tray 2,3,4 Paper Size Switch)
P/J825	Figure 22	3	TT Module (Tray 2,3 Feeder)
P/J825	Figure 21	6	3T Module (Tray 2,3,4 Feeder)
P/J826	Figure 25	7	TT Module (Rear)
P/J826	Figure 26	6	3T Module (Rear)
P/J827	Figure 20	3	TT Module (Tray 2,3 Feeder)
P/J827	Figure 21	3	3T Module (Tray 2,3,4 Feeder)
P/J828	Figure 20	3	TT Module (Tray 2,3 Feeder)
P/J828	Figure 21	3	3T Module (Tray 2,3,4 Feeder)
P/J829	Figure 22	4	TT Module (Tray 2,3 Feeder)
P/J829	Figure 21	3	3T Module (Tray 2,3,4 Feeder)
P/J830	Figure 20	11	TT Module (Tray 2,3 Feeder)
P/J830	Figure 21	14	3T Module (Tray 2,3,4 Feeder)
P/J840	Figure 20	10	TT Module (Tray 2,3 Feeder)
P/J840	Figure 21	13	3T Module (Tray 2,3,4 Feeder)
P/J841	Figure 20	8	TT Module (Tray 2,3 Feeder)
P/J841	Figure 21	11	3T Module (Tray 2,3,4 Feeder)
P/J842	Figure 25	8	TT Module (Rear)



Table 1 Plug / Jack Location List

Connector Number	Figure Number	Item Number	Figure Title
P/J842	Figure 21	9	3T Module (Tray 2,3,4 Feeder)
P/J843	Figure 35	9	Finisher PWB
P/J844	Figure 35	8	Finisher PWB
P/J845	Figure 35	5	Finisher PWB
P/J846	Figure 35	6	Finisher PWB
P/J847	Figure 35	7	Finisher PWB
P/J848	Figure 35	3	Finisher PWB
P/J849	Figure 35	4	Finisher PWB
P/J850	Figure 35	12	Finisher PWB
P/J851	Figure 35	10	Finisher PWB
P/J852	Figure 35	11	Finisher PWB
P/J853	Figure 32	4	H-Transport Assembly
P/J854	Figure 32	2	H-Transport Assembly
P/J855	Figure 32	1	H-Transport Assembly
P/J856	Figure 32	8	H-Transport Assembly
P/J858	Figure 32	5	H-Transport Assembly
P/J859	Figure 32	6	H-Transport Assembly
P/J860	Figure 32	3	H-Transport Assembly
P/J861	Figure 32	7	H-Transport Assembly
P/J862	Figure 33	7	Tamper Unit, Staple Unit
P/J863	Figure 33	11	Tamper Unit, Staple Unit
P/J864	Figure 33	12	Tamper Unit, Staple Unit
P/J865	Figure 33	14	Tamper Unit, Staple Unit
P/J866	Figure 34	9	Finisher (Rear) (1 of 2)
P/J867	Figure 34	2	Finisher (Rear) (1 of 2)
P/J868	Figure 34	1	Finisher (Rear) (1 of 2)
P/J869	Figure 34	12	Finisher (Rear) (1 of 2)
P/J870	Figure 33	13	Tamper Unit, Staple Unit
P/J871	Figure 33	16	Tamper Unit, Staple Unit
P/J873	Figure 34	10	Finisher (Rear) (1 of 2)
P/J874	Figure 33	1	Tamper Unit, Staple Unit
P/J875	Figure 33	3	Tamper Unit, Staple Unit
P/J876	Figure 33	2	Tamper Unit, Staple Unit
P/J877	Figure 33	5	Tamper Unit, Staple Unit
P/J878	Figure 33	4	Tamper Unit, Staple Unit
P/J879	Figure 34	7	Finisher (Rear) (1 of 2)
P/J880	Figure 34	5	Finisher (Rear) (1 of 2)
P/J881	Figure 34	6	Finisher (Rear) (1 of 2)
P/J882	Figure 34	11	Finisher (Rear) (1 of 2)
P/J883	Figure 34	3	Finisher (Rear) (1 of 2)

Table 1 Plug / Jack Location List

Connector Number	Figure Number	Item Number	Figure Title
P/J884	Figure 34	4	Finisher (Rear) (1 of 2)
P/J885	Figure 33	10	Tamper Unit, Staple Unit
P/J886	Figure 33	8	Tamper Unit, Staple Unit
P/J887	Figure 33	9	Tamper Unit, Staple Unit
P/J888	Figure 33	15	Tamper Unit, Staple Unit
P/J889	Figure 35	2	Finisher PWB
P/J890	Figure 33	6	Tamper Unit, Staple Unit
P/J891	Figure 33	17	Tamper Unit, Staple Unit
P/J892	Figure 35	1	Finisher PWB
J903	Figure 12	13	HVPS, +24V LVPS
J925	Figure 12	12	HVPS, +24V LVPS
J4401	Figure 14	11	ESS Assembly
J4500	Figure 14	9	ESS Assembly
P/J4510	Figure 14	10	ESS Assembly
CN1	Figure 27	8	Control Panel
CN2	Figure 27	7	Control Panel
CN5	Figure 27	6	Control Panel
CN9	Figure 27	1	Control Panel
CN10	Figure 27	13	Control Panel
CN11	Figure 27	2	Control Panel
CN12	Figure 27	3	Control Panel
CN13	Figure 27	14	Control Panel
CNJ363	Figure 37	11	Fax Module
CNJ363	Figure 37	12	Fax Module
CNJ364	Figure 37	13	Fax Module
CNJ369	Figure 37	1	Fax Module
CNJ370	Figure 37	15	Fax Module
CNP352	Figure 37	6	Fax Module
CNP353	Figure 37	7	Fax Module
CNP355	Figure 37	9	Fax Module
CNP356	Figure 37	8	Fax Module
CNP357	Figure 37	4	Fax Module
CNP359	Figure 37	3	Fax Module
CNP360	Figure 37	10	Fax Module
CNP362	Figure 37	14	Fax Module
CNP368	Figure 37	2	Fax Module
FS37	Figure 6	2	Fuser Assembly
FS38	Figure 6	1	Fuser Assembly
FS39	Figure 18	3	AC Drive PWB, Noise Filter PWB, Delay PWB
FS40	Figure 18	2	AC Drive PWB, Noise Filter PWB, Delay PWB



Table 1 Plug / Jack Location List

Connector Number	Figure Number	Item Number	Figure Title
FS41	Figure 18	4	AC Drive PWB, Noise Filter PWB, Delay PWB
FS45	Figure 18	9	AC Drive PWB, Noise Filter PWB, Delay PWB
FS47	Figure 18	7	AC Drive PWB, Noise Filter PWB, Delay PWB
FS48	Figure 18	8	AC Drive PWB, Noise Filter PWB, Delay PWB
FS51	Figure 12	10	HVPS, +24V LVPS
FS56	Figure 9	14	Toner Dispense Motor (Y,M,C,K), Main Switch
FS57	Figure 9	13	Toner Dispense Motor (Y,M,C,K), Main Switch
FS61	Figure 18	16	AC Drive PWB, Noise Filter PWB, Delay PWB
FS62	Figure 18	15	AC Drive PWB, Noise Filter PWB, Delay PWB
FS68	Figure 9	15	Toner Dispense Motor (Y,M,C,K), Main Switch
FS69	Figure 9	16	Toner Dispense Motor (Y,M,C,K), Main Switch
FS76	Figure 18	13	AC Drive PWB, Noise Filter PWB, Delay PWB
FS77	Figure 18	17	AC Drive PWB, Noise Filter PWB, Delay PWB
FS78	Figure 13	4	Outlet Panel Assembly, Fuser PWB
FS79	Figure 13	3	Outlet Panel Assembly, Fuser PWB
FS80	Figure 13	8	Outlet Panel Assembly, Fuser PWB
FS81	Figure 13	5	Outlet Panel Assembly, Fuser PWB
FS82	Figure 13	7	Outlet Panel Assembly, Fuser PWB
FS83	Figure 13	6	Outlet Panel Assembly, Fuser PWB
FS90	Figure 18	18	AC Drive PWB, Noise Filter PWB, Delay PWB
FS134	Figure 1	13	Xerographics
FS135	Figure 1	14	Xerographics
FS150	Figure 13	2	Outlet Panel Assembly, Fuser PWB
FS151	Figure 13	1	Outlet Panel Assembly, Fuser PWB
FS180	Figure 9	19	Toner Dispense Motor (Y,M,C,K), Main Switch
FS181	Figure 9	1	Toner Dispense Motor (Y,M,C,K), Main Switch
FS182	Figure 9	2	Toner Dispense Motor (Y,M,C,K), Main Switch
FS183	Figure 9	3	Toner Dispense Motor (Y,M,C,K), Main Switch
FS184	Figure 9	4	Toner Dispense Motor (Y,M,C,K), Main Switch
FS185	Figure 9	5	Toner Dispense Motor (Y,M,C,K), Main Switch
FS186	Figure 9	6	Toner Dispense Motor (Y,M,C,K), Main Switch
FS187	Figure 9	7	Toner Dispense Motor (Y,M,C,K), Main Switch
FS812	Figure 20	1	TT Module (Tray 2,3 Feeder)
FS812	Figure 21	1	3T Module (Tray 2,3,4 Feeder)
FS813	Figure 20	2	TT Module (Tray 2,3 Feeder)
FS813	Figure 21	2	3T Module (Tray 2,3,4 Feeder)
LCD CN1	Figure 27	12	Control Panel
T502	Figure 12	20	<b>HVPS, +24V LVPS</b>



## Plug/Jack Illustrations

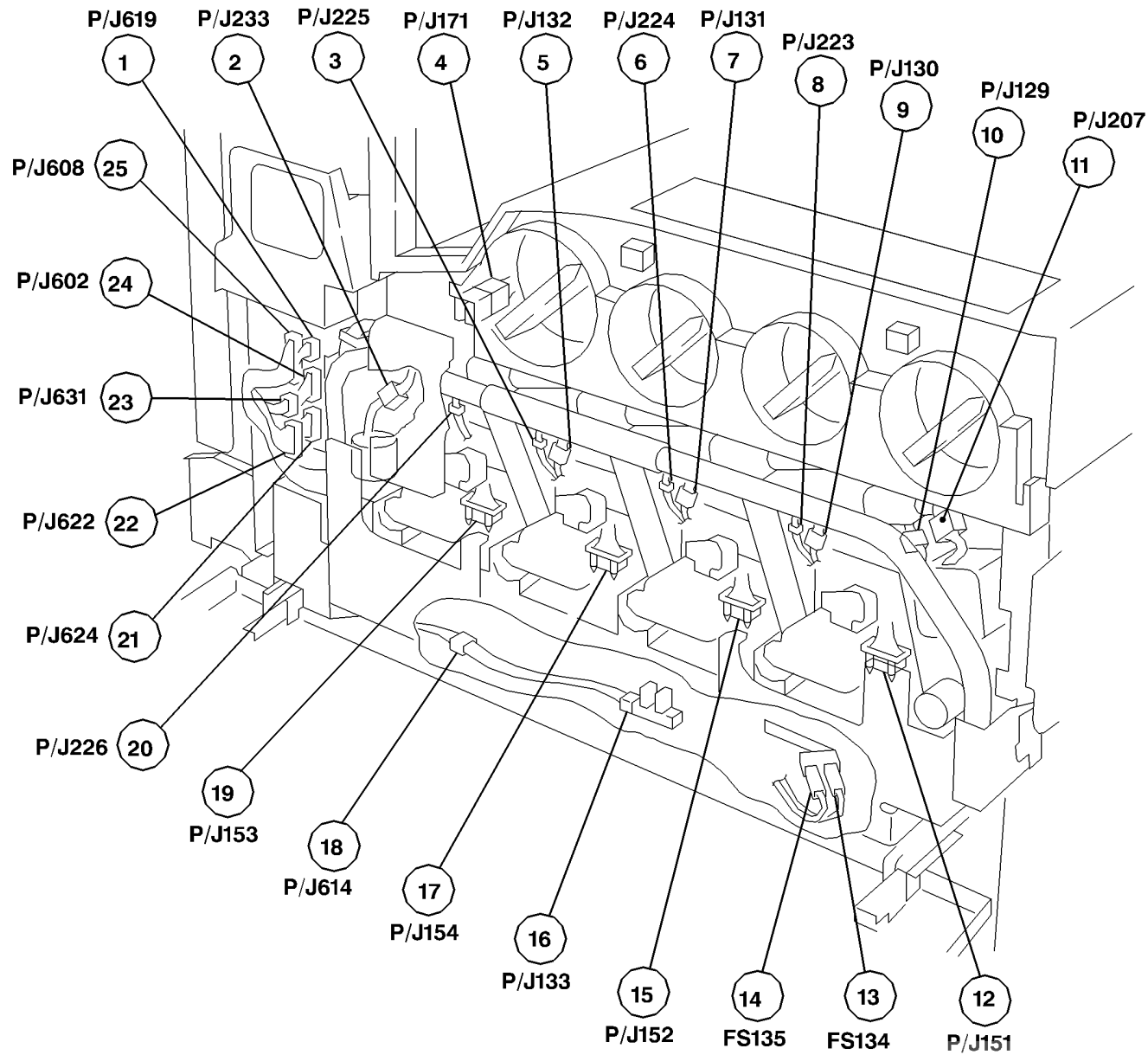


Figure 1 Xerographics



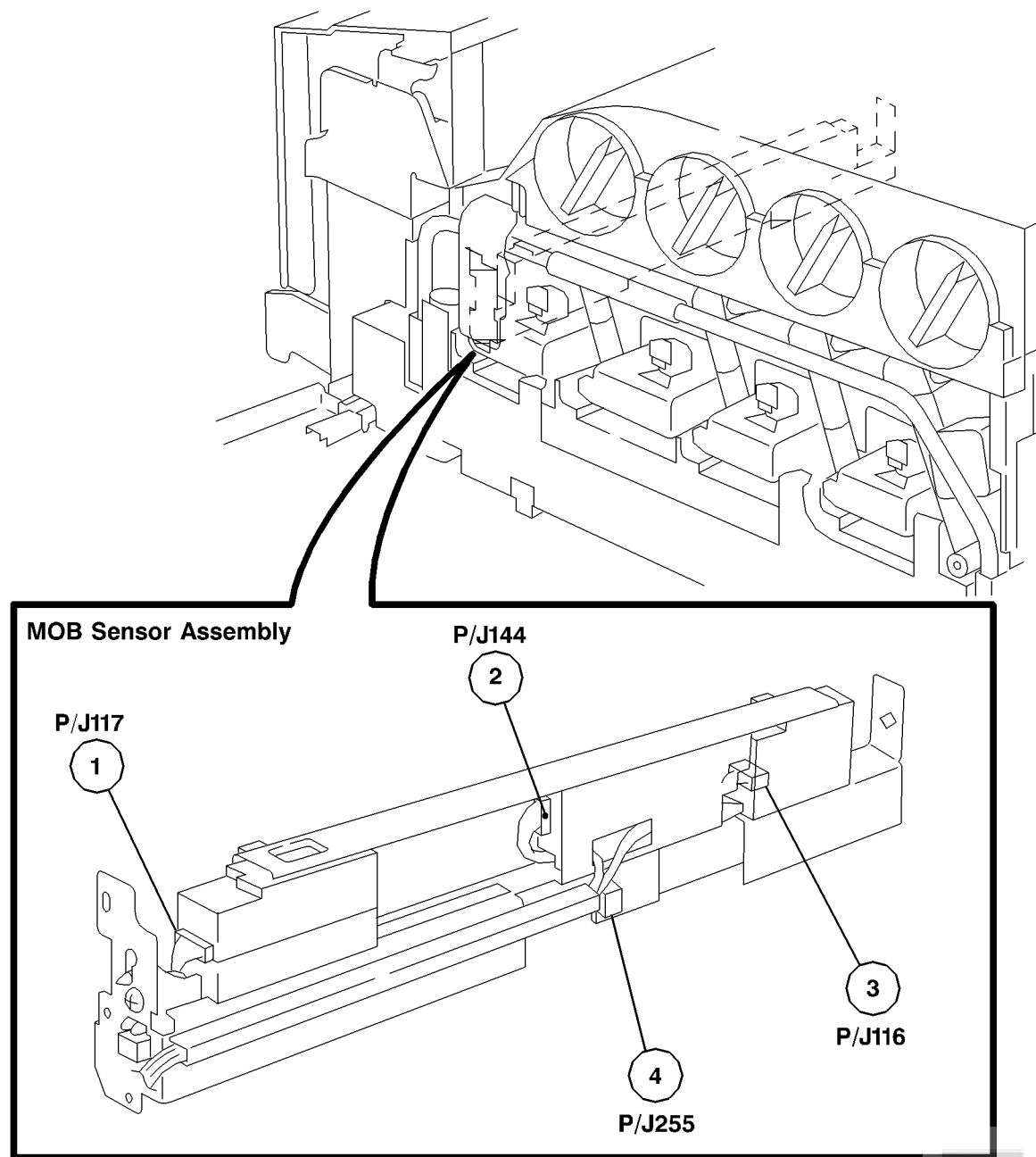


Figure 2 MOB Sensor Assembly



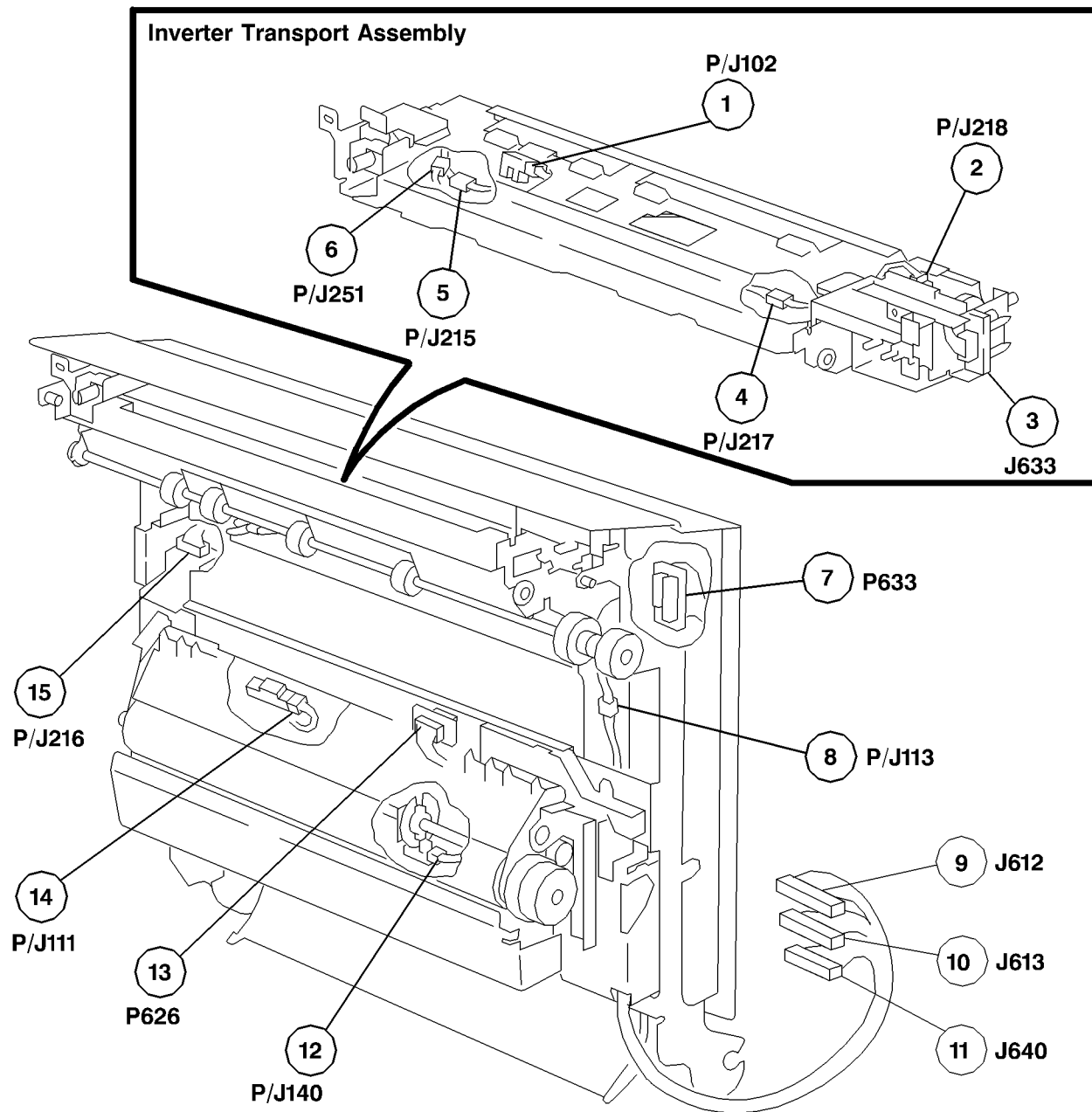


Figure 3 Inverter Transport Assembly



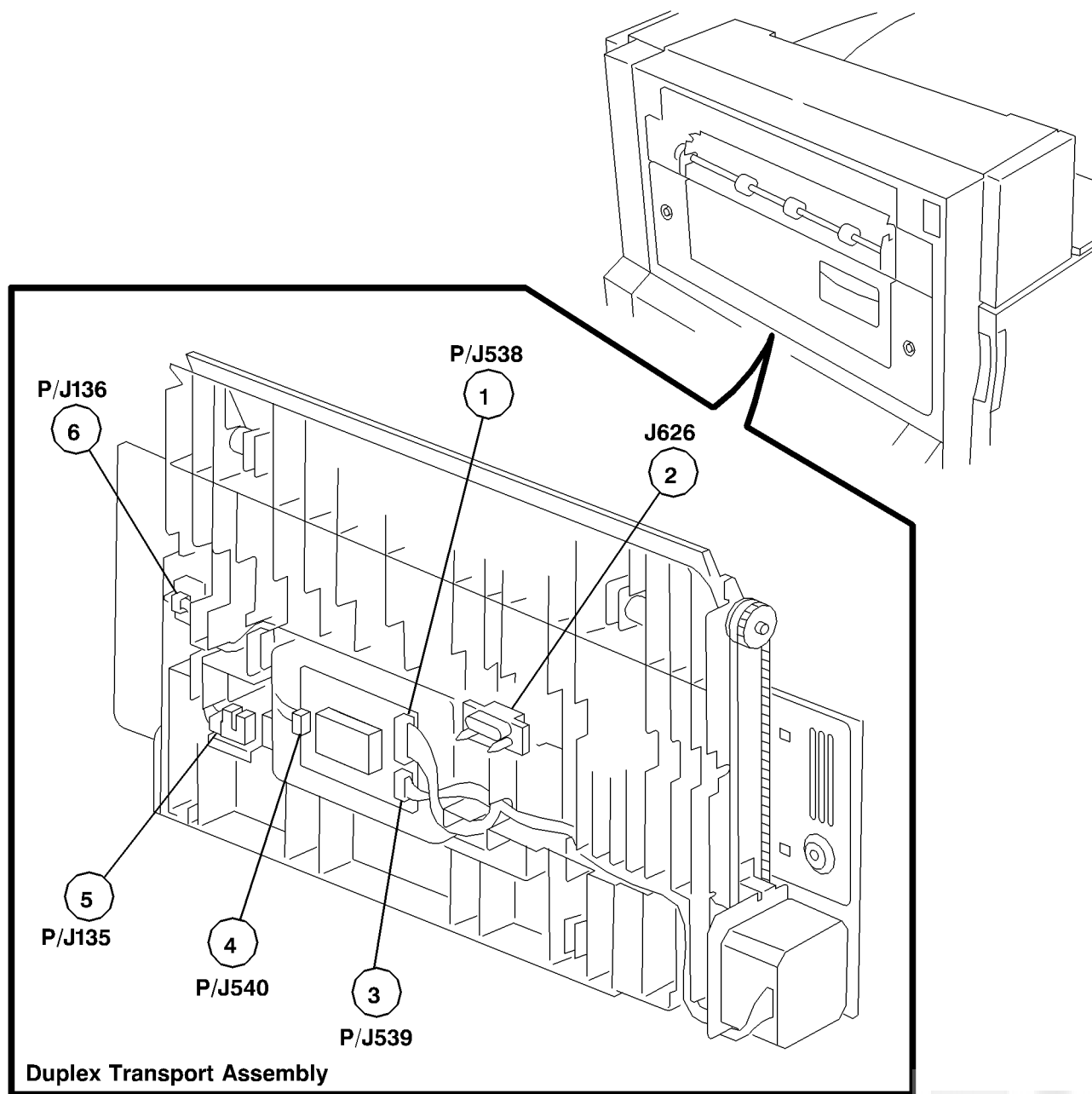


Figure 4 Duplex Transport Assembly



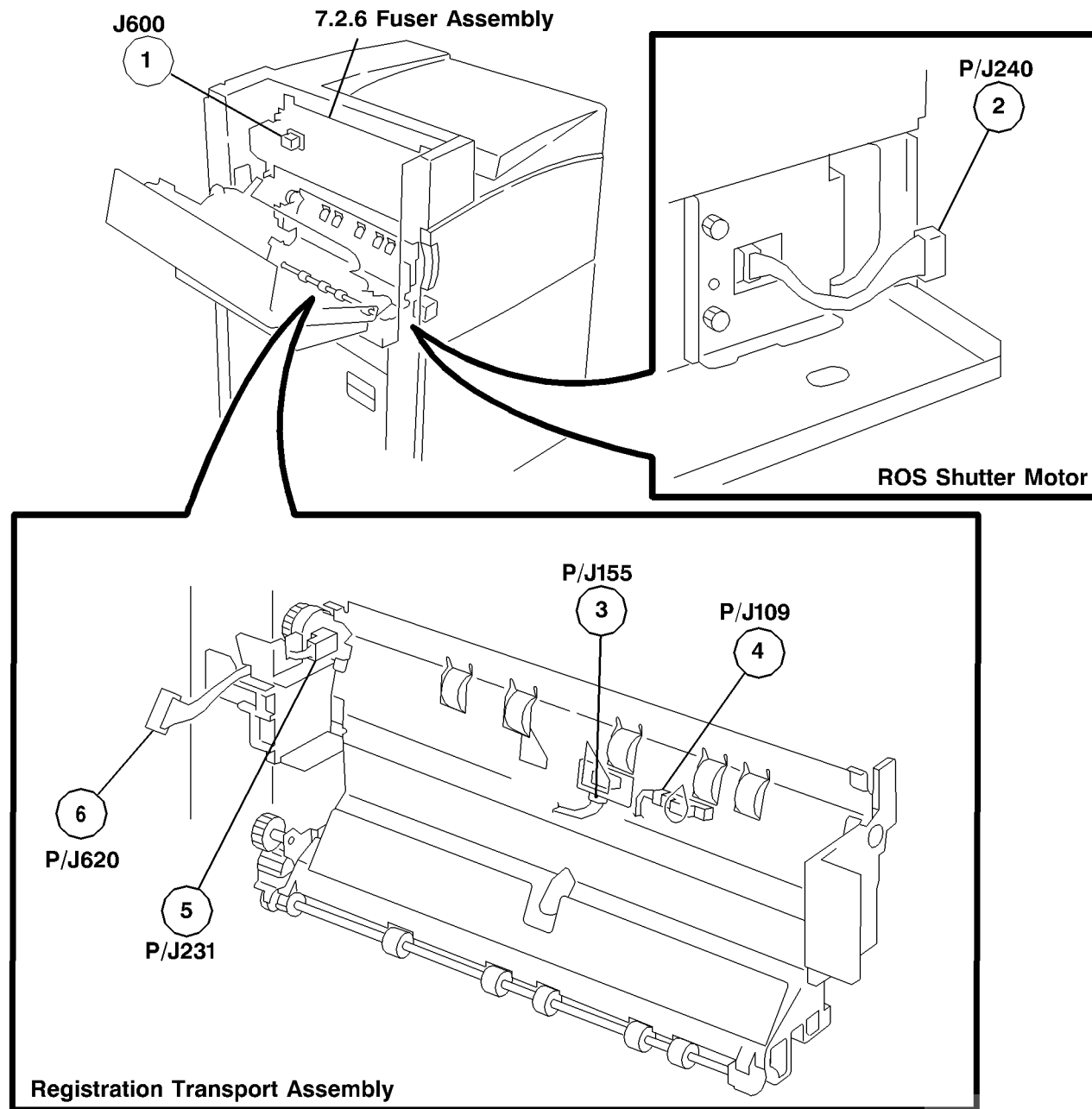


Figure 5 Registration Transport Assembly



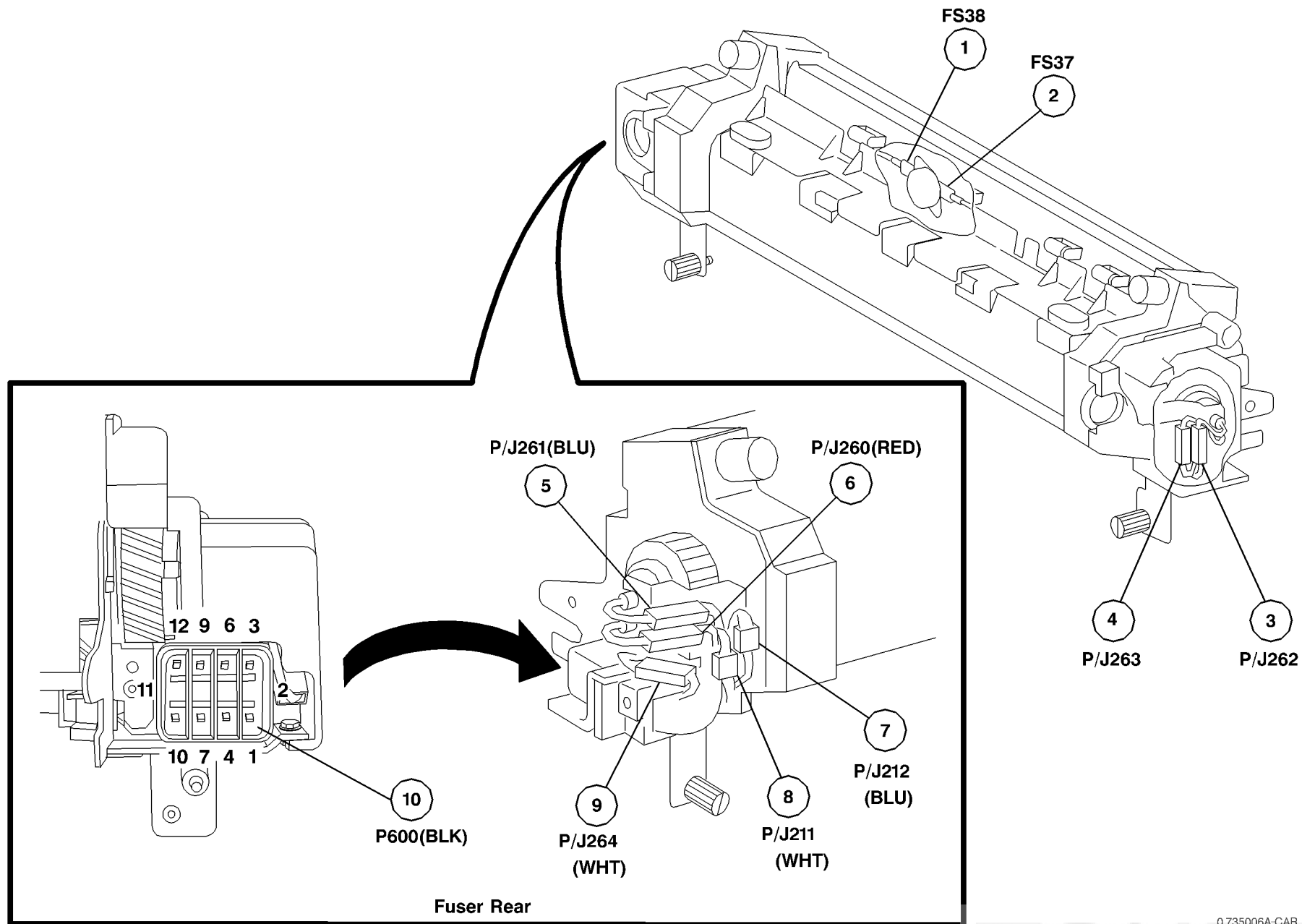


Figure 6 Fuser Assembly



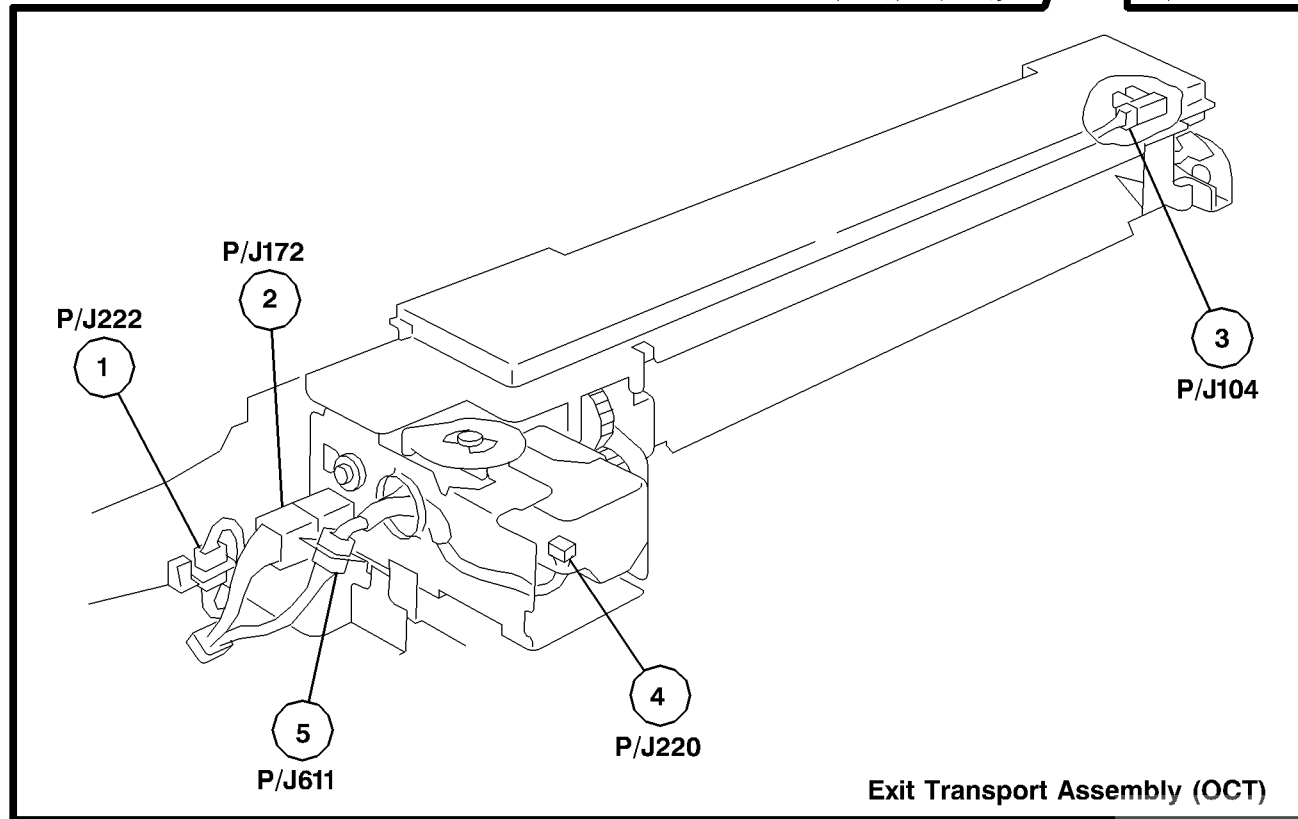
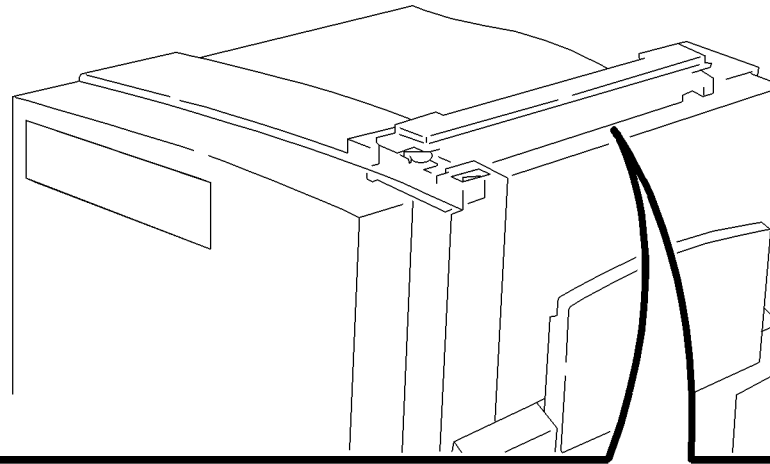


Figure 7 Exit Transport Assembly (OCT)



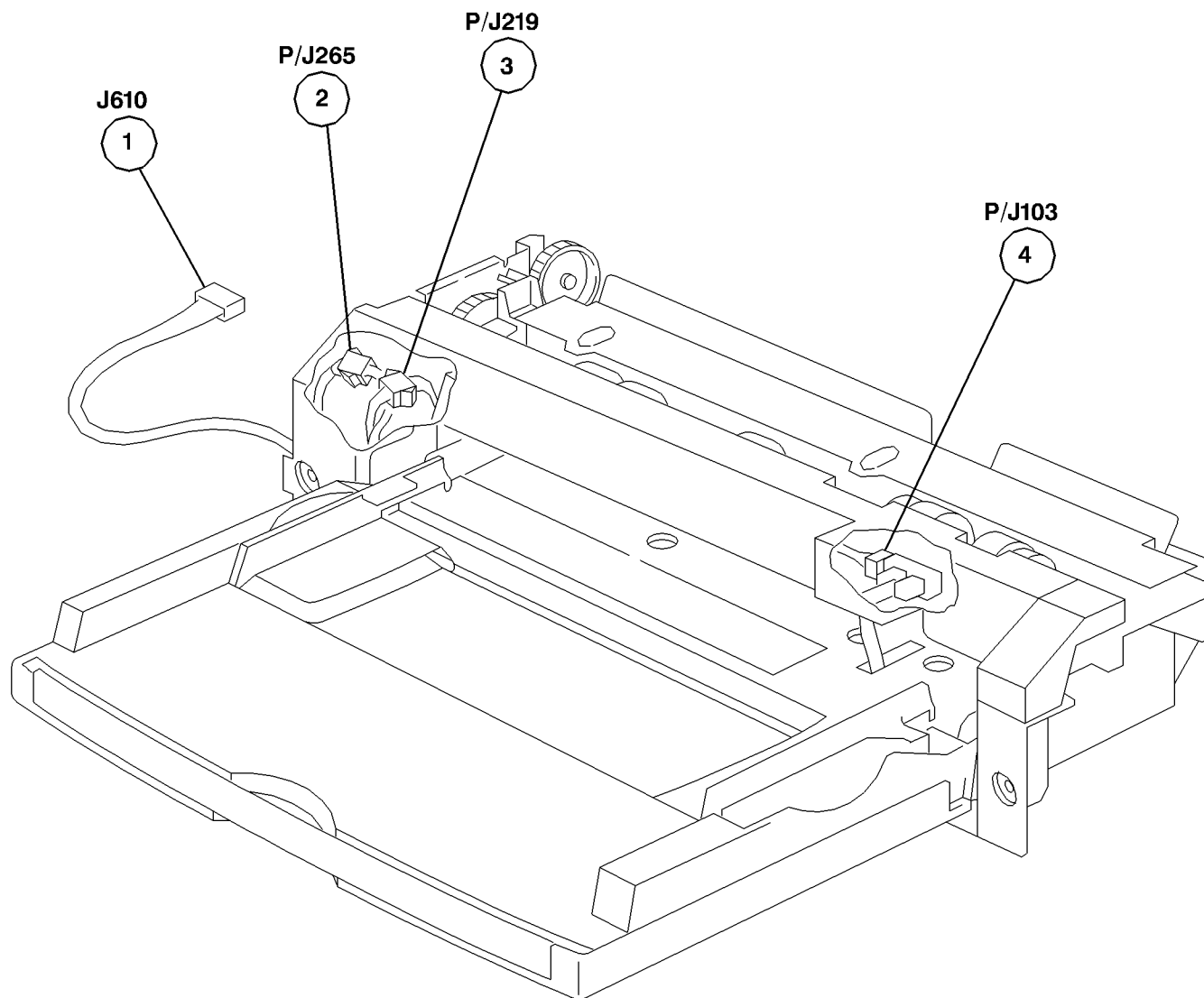


Figure 8 Tray 5



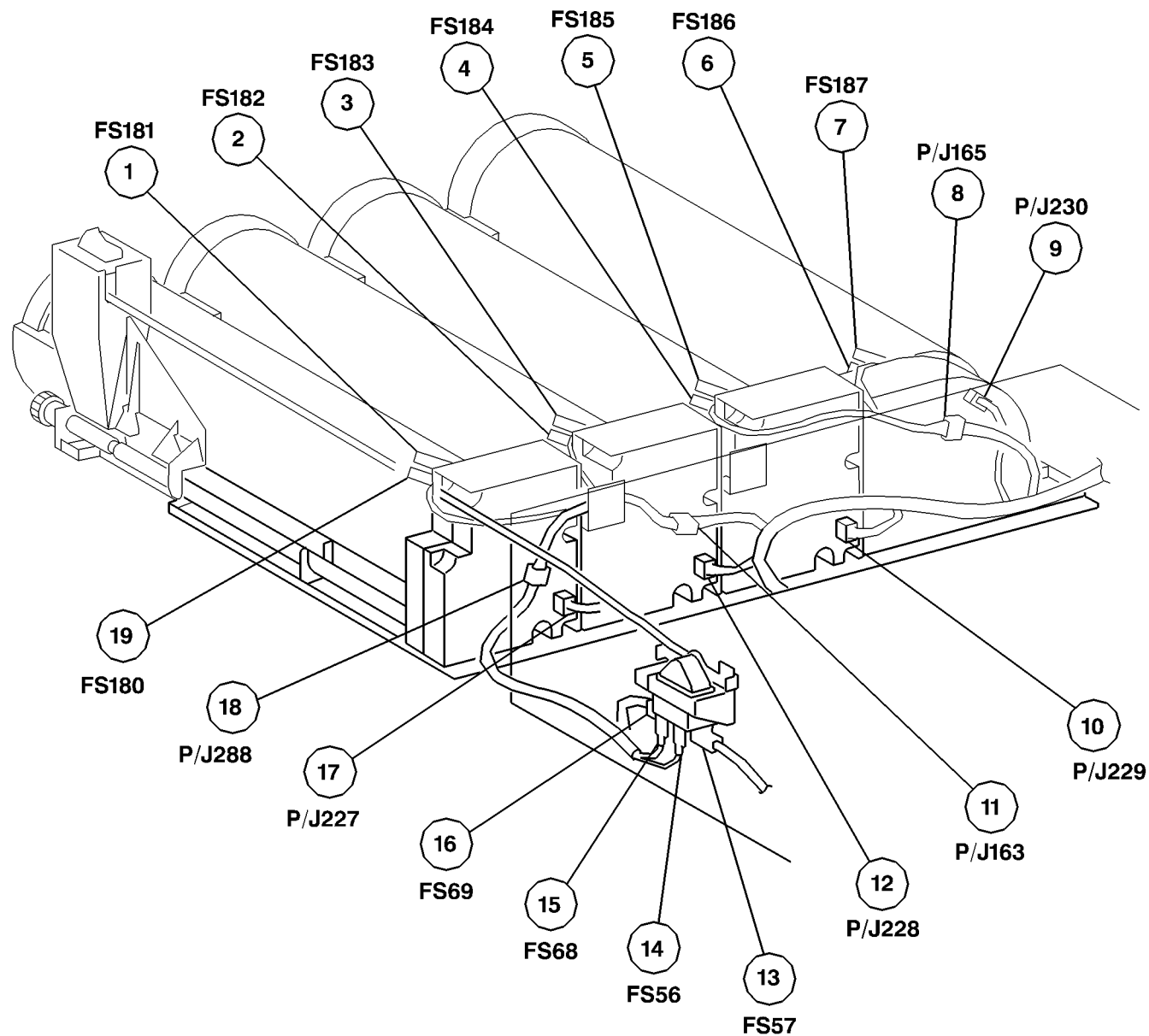


Figure 9 Toner Dispense Motor (Y,M,C,K), Main Switch



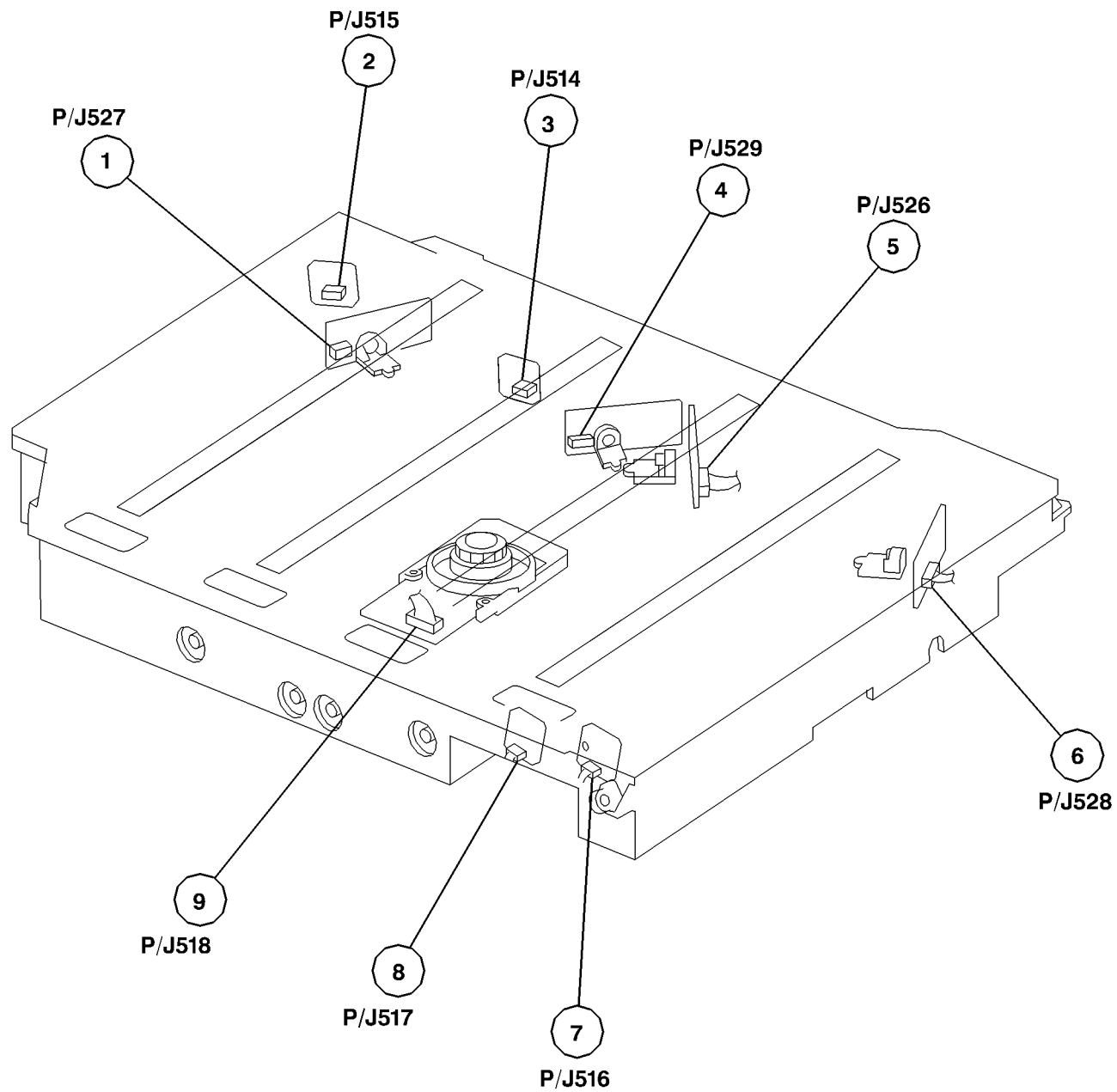


Figure 10 ROS Assembly



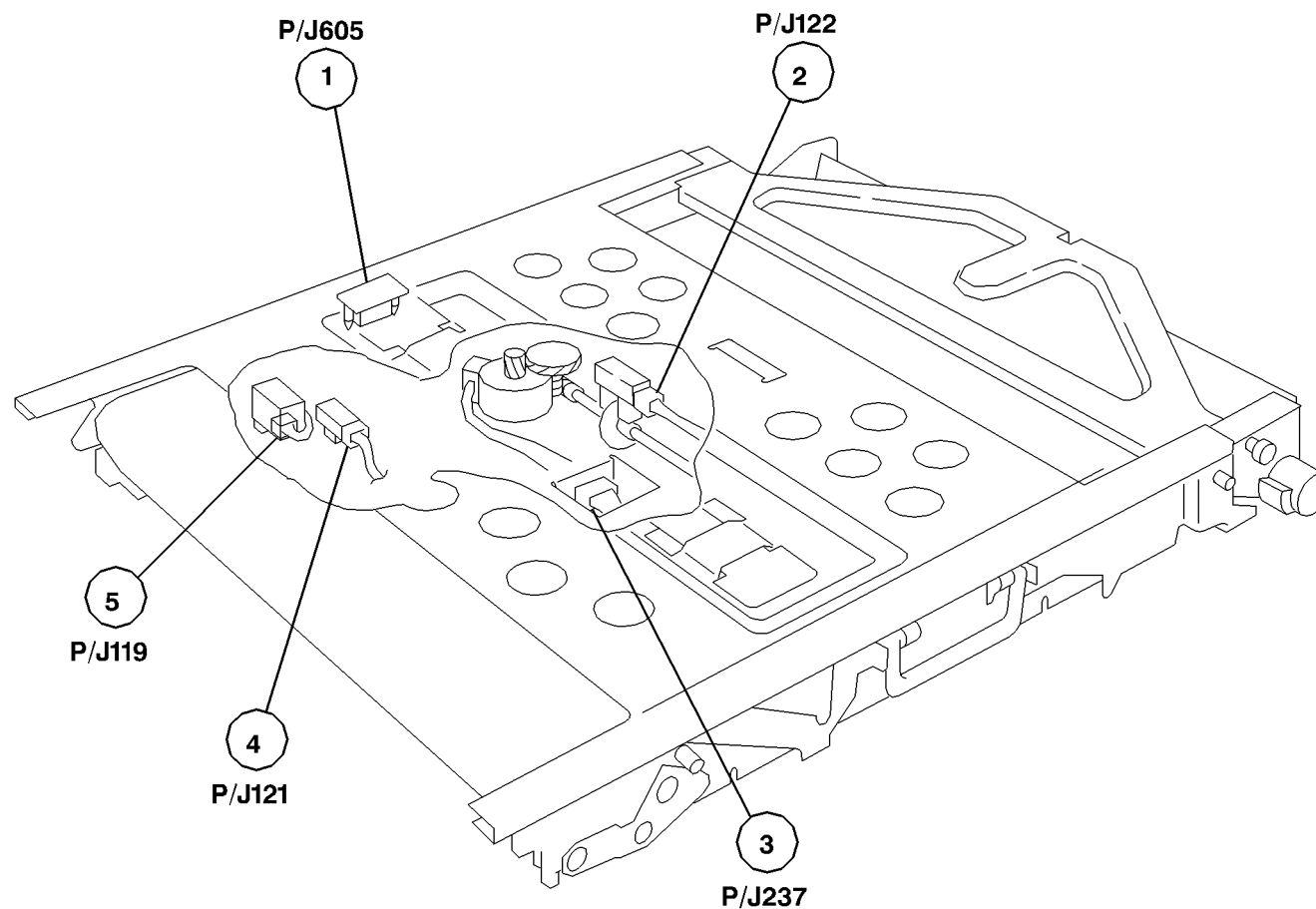


Figure 11 IBT Belt Assembly



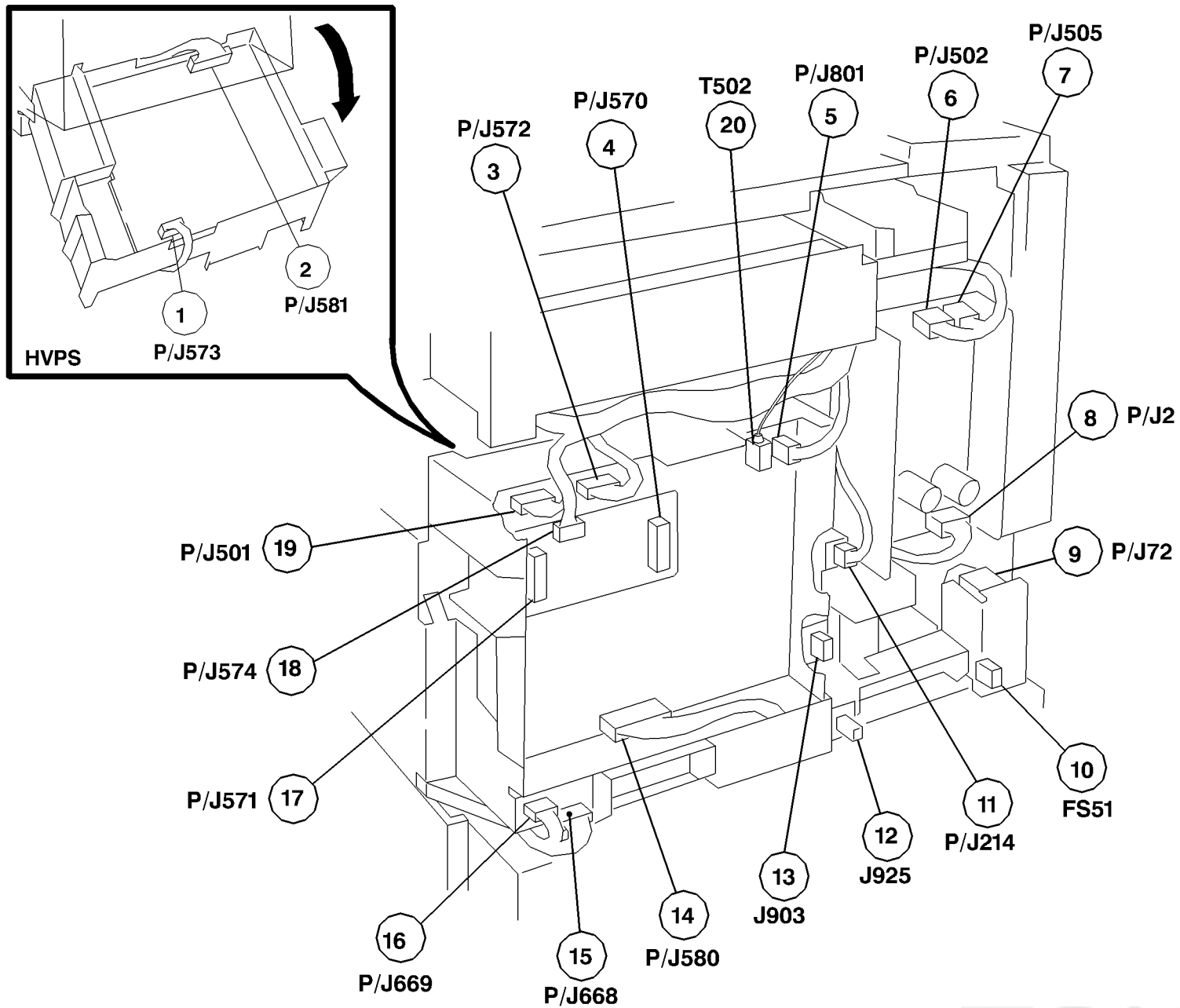


Figure 12 HVPS, +24V LVPS



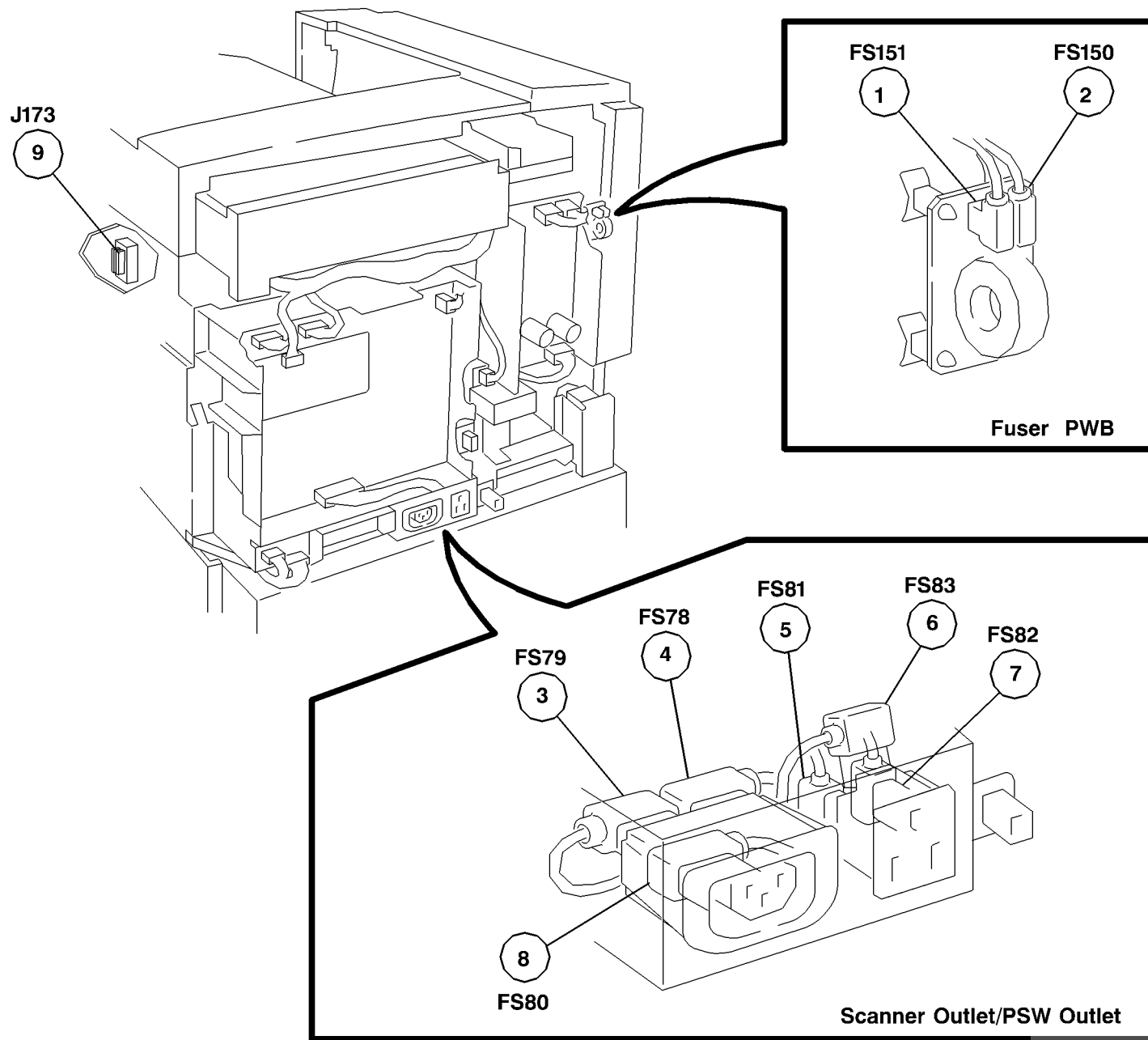


Figure 13 Outlet Panel Assembly, Fuser PWB



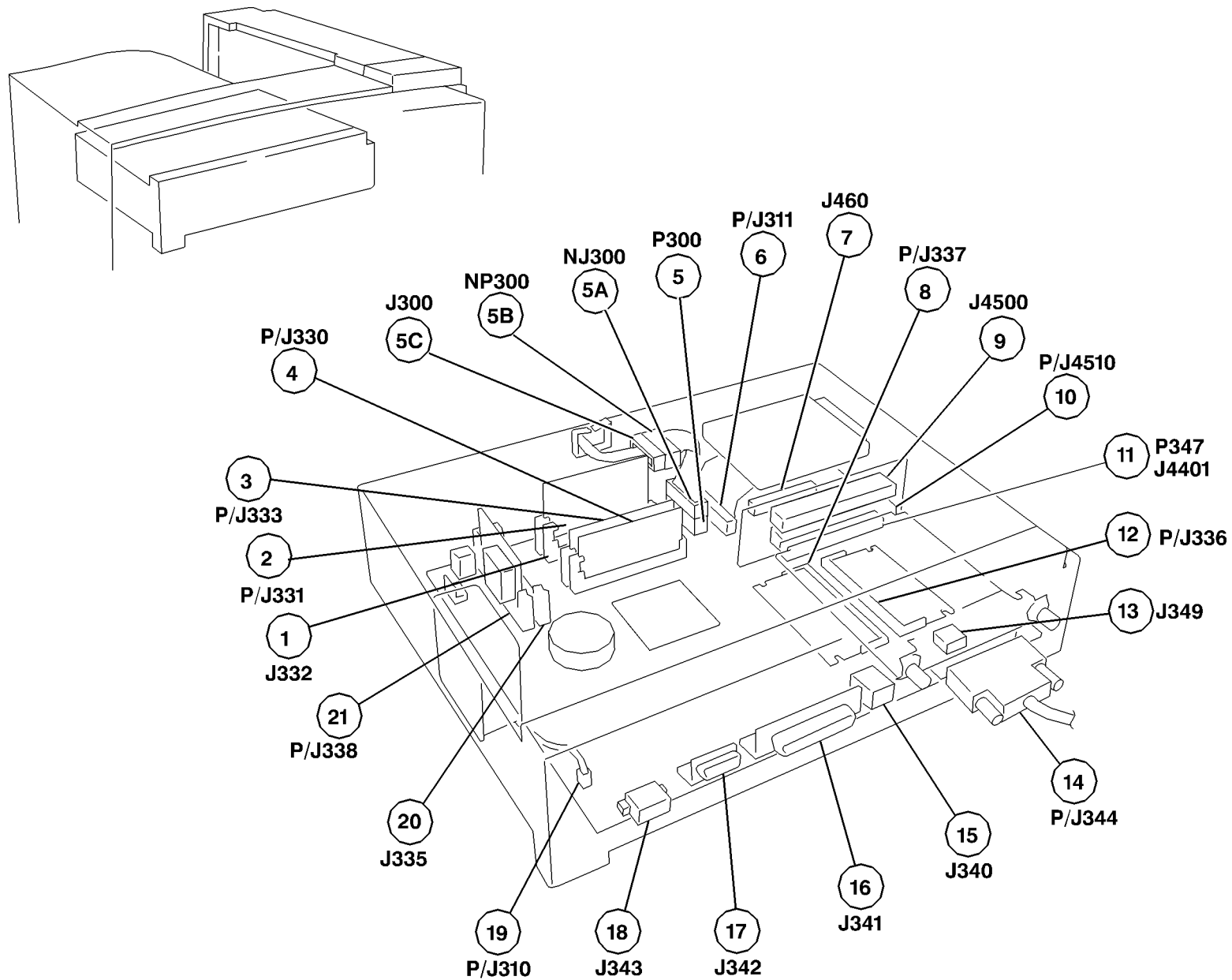


Figure 14 ESS Assembly



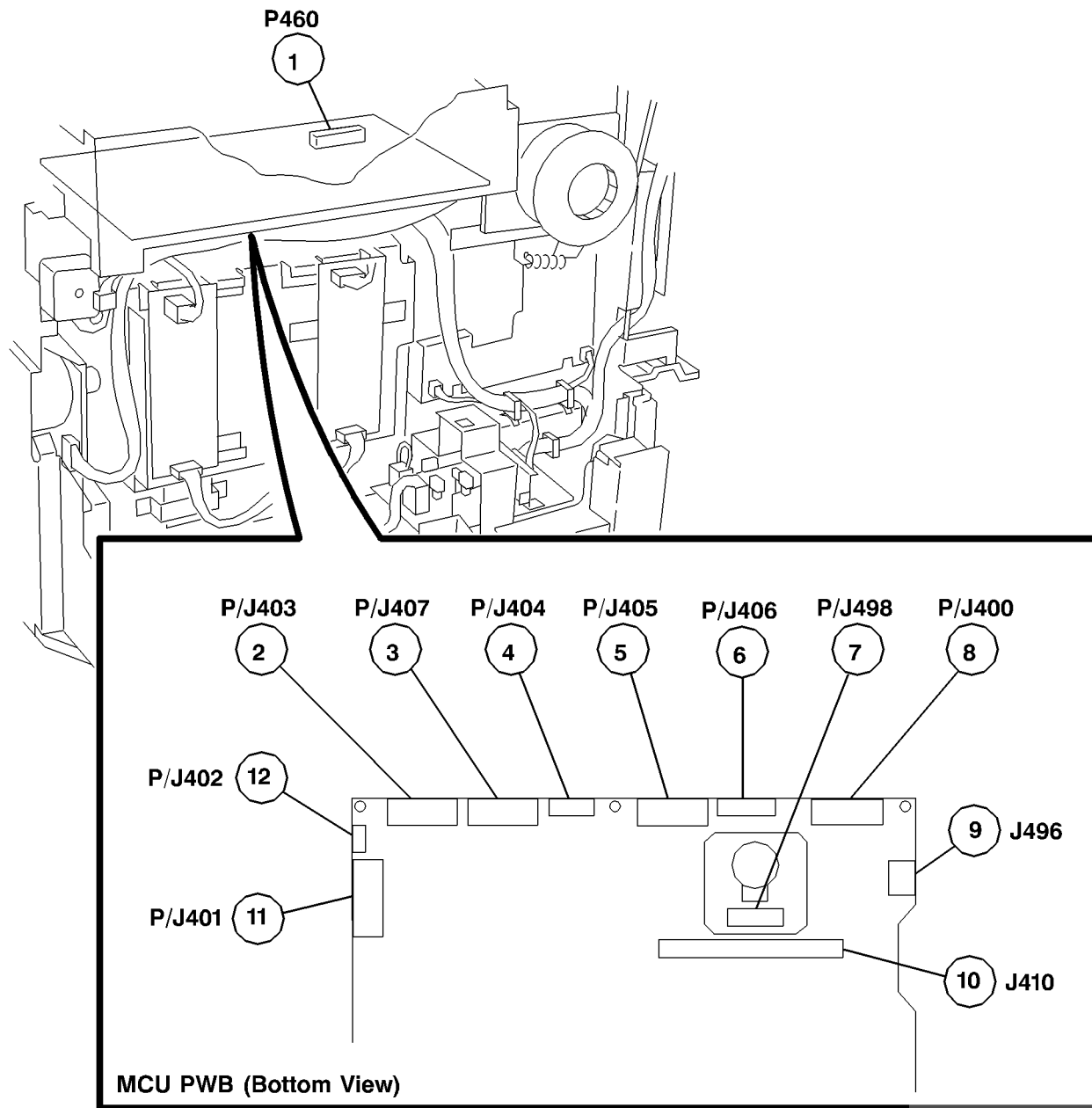


Figure 15 MCU PWB



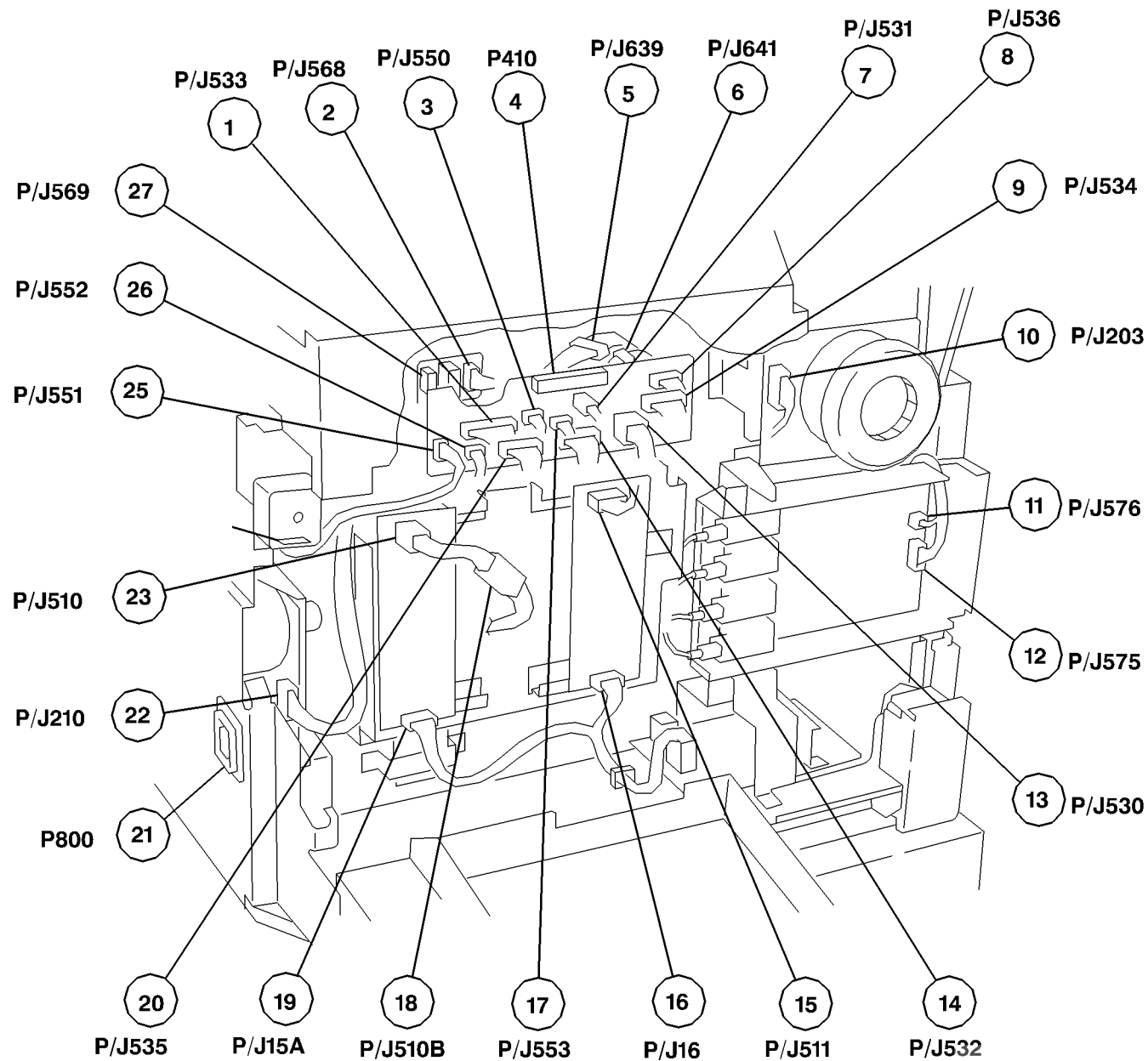


Figure 16 I/F PWB, Main Motor, LVPS



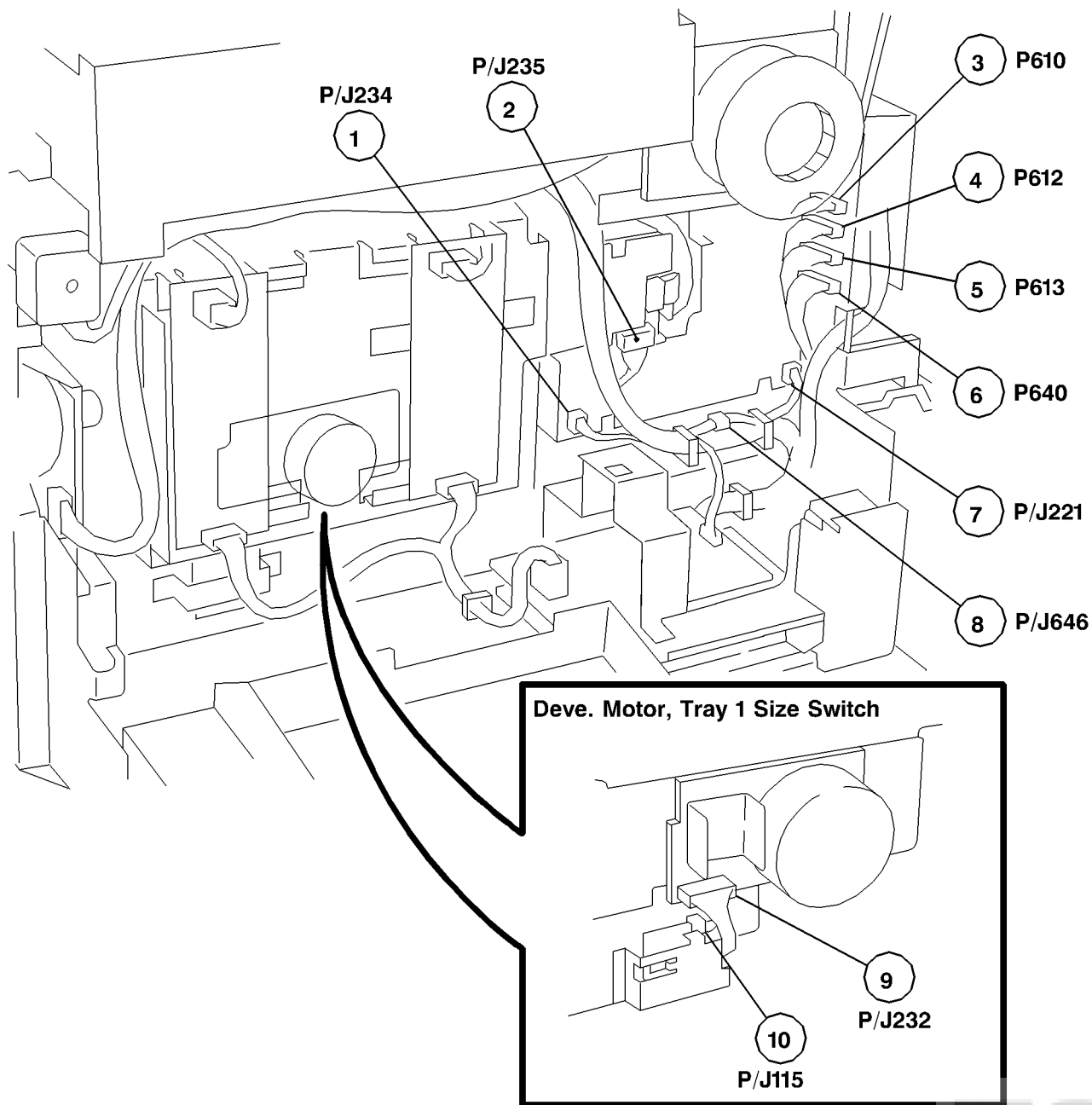


Figure 17 Developer Motor, Tray 1 Size Switch

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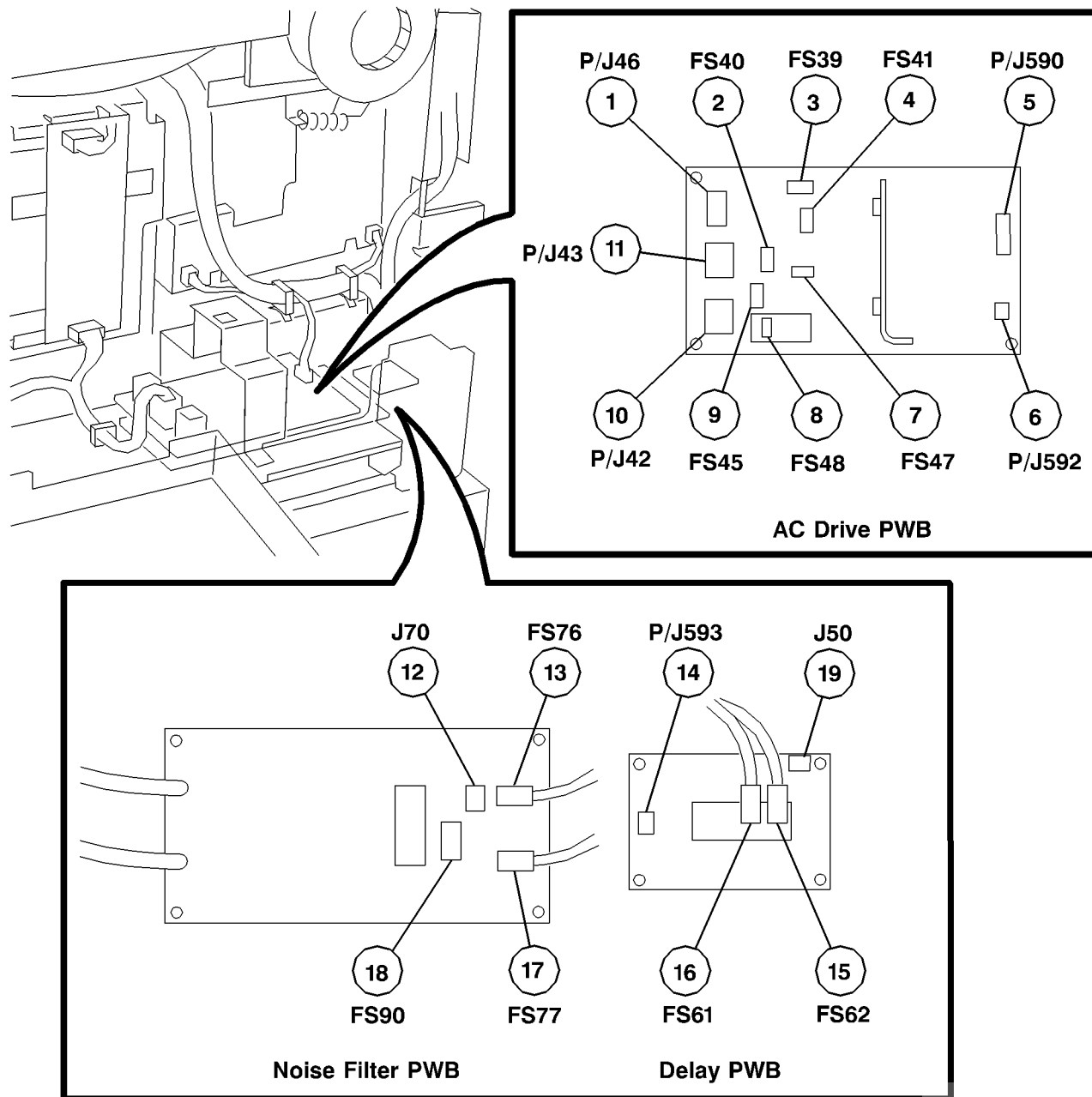


Figure 18 AC Drive PWB, Noise Filter PWB, Delay PWB



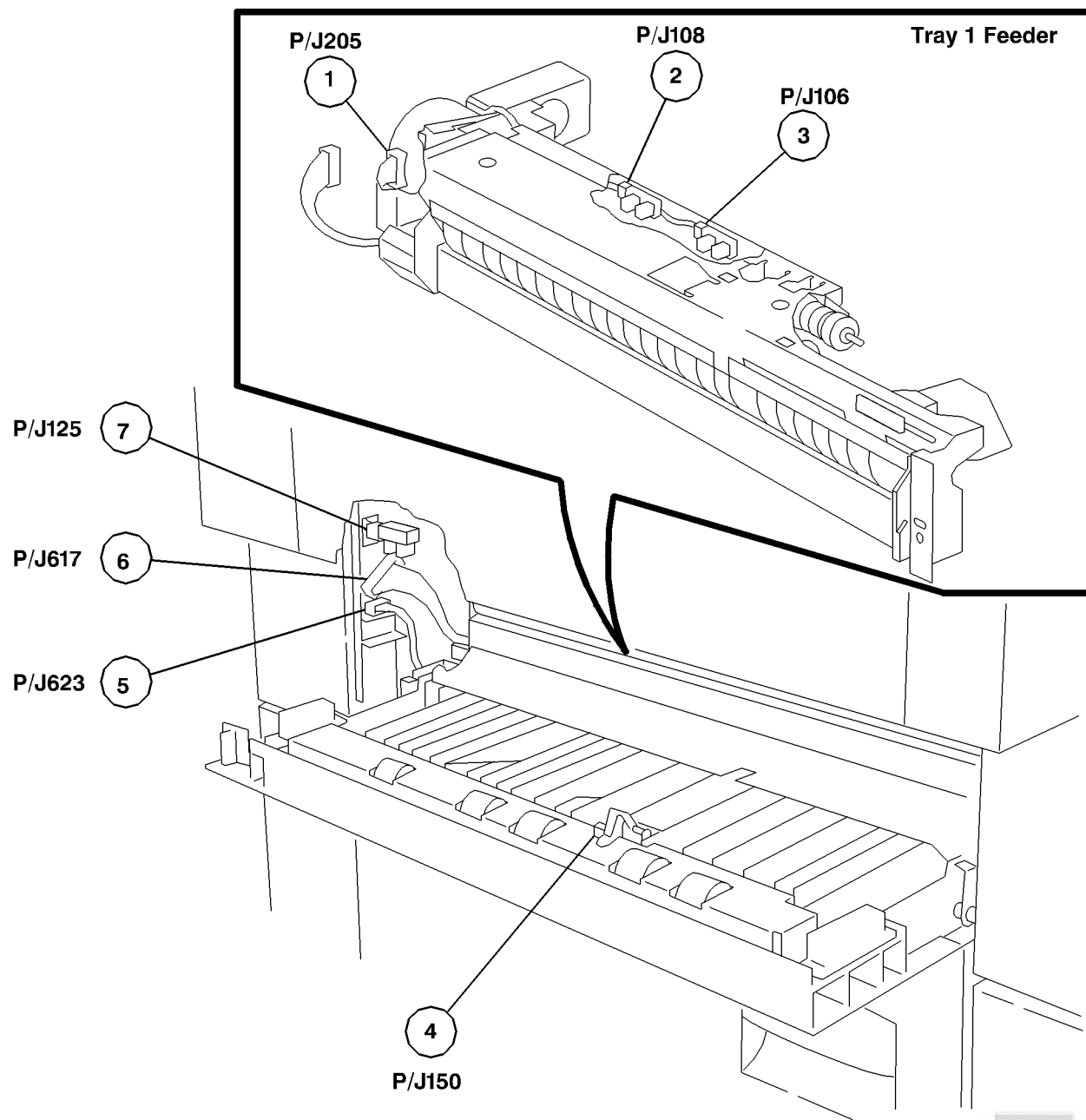


Figure 19 Left Lower Assembly, Tray 1 Feeder



# TANDEM TRAY MODULE

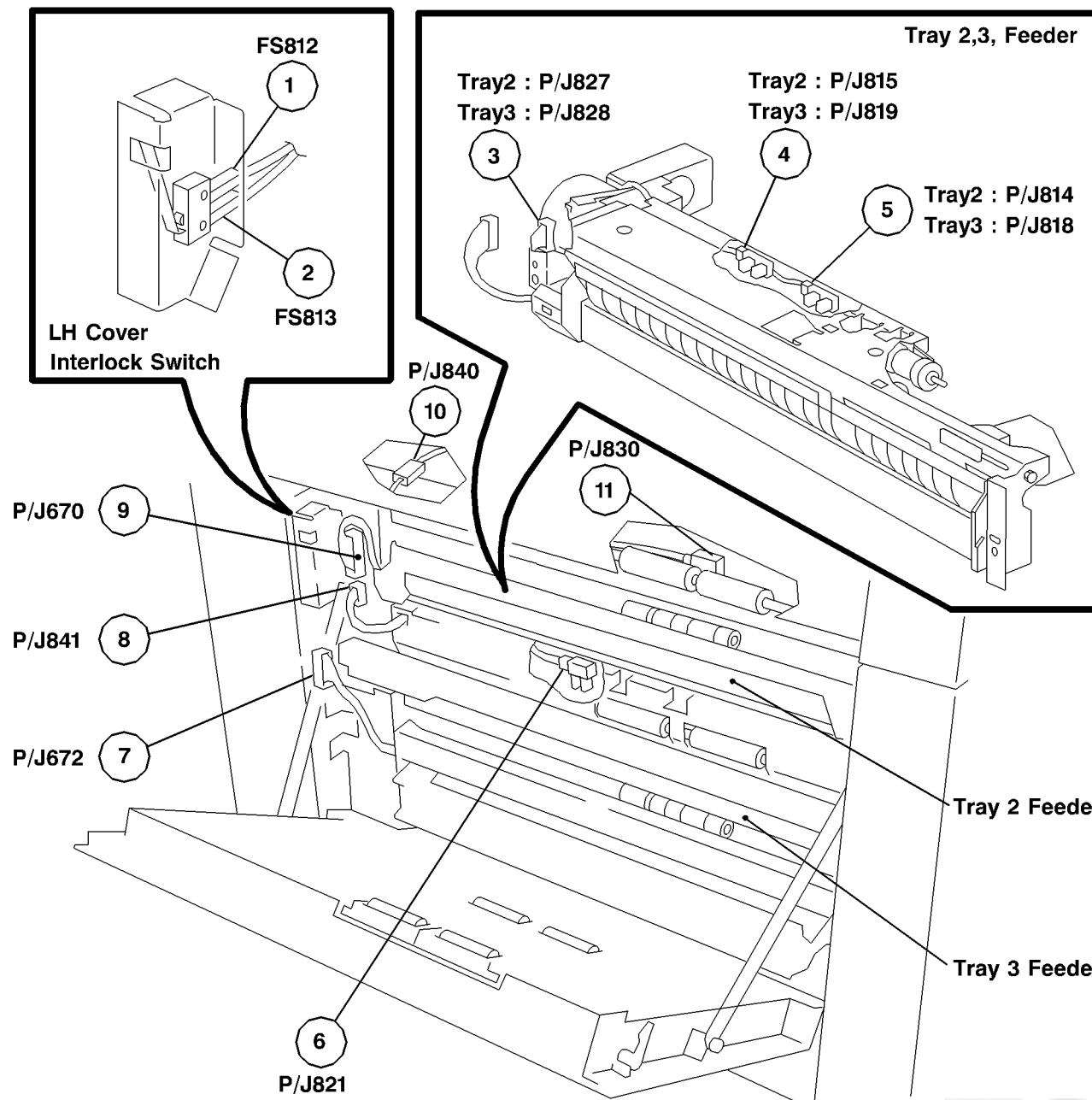


Figure 20 TT Module (Tray 2, 3 Feeder)



## 3 TRAY MODULE

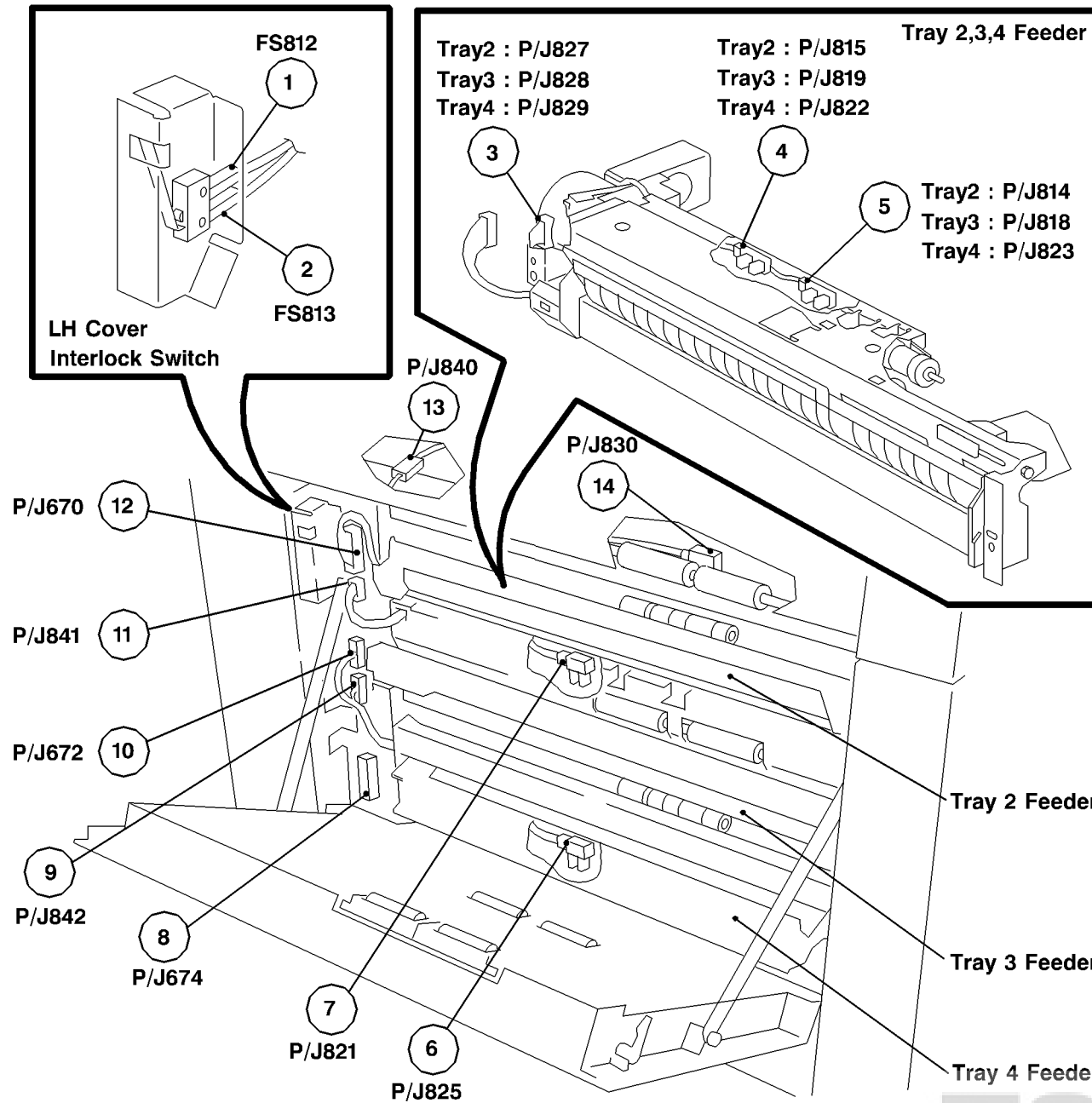


Figure 21 3T Module (Tray 2, 3, 4 Feeder)



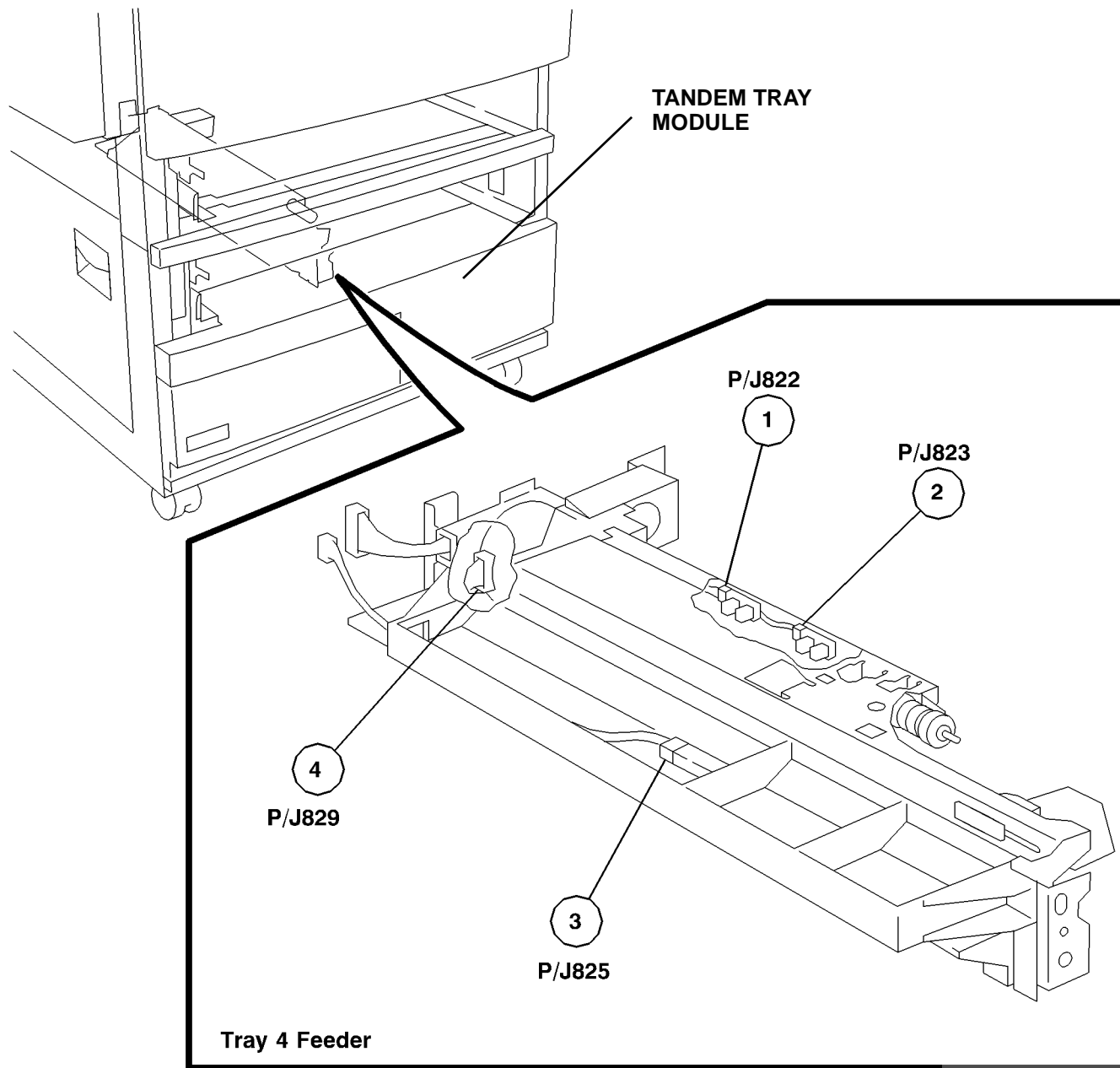


Figure 22 TT Module (Tray 4 Feeder)



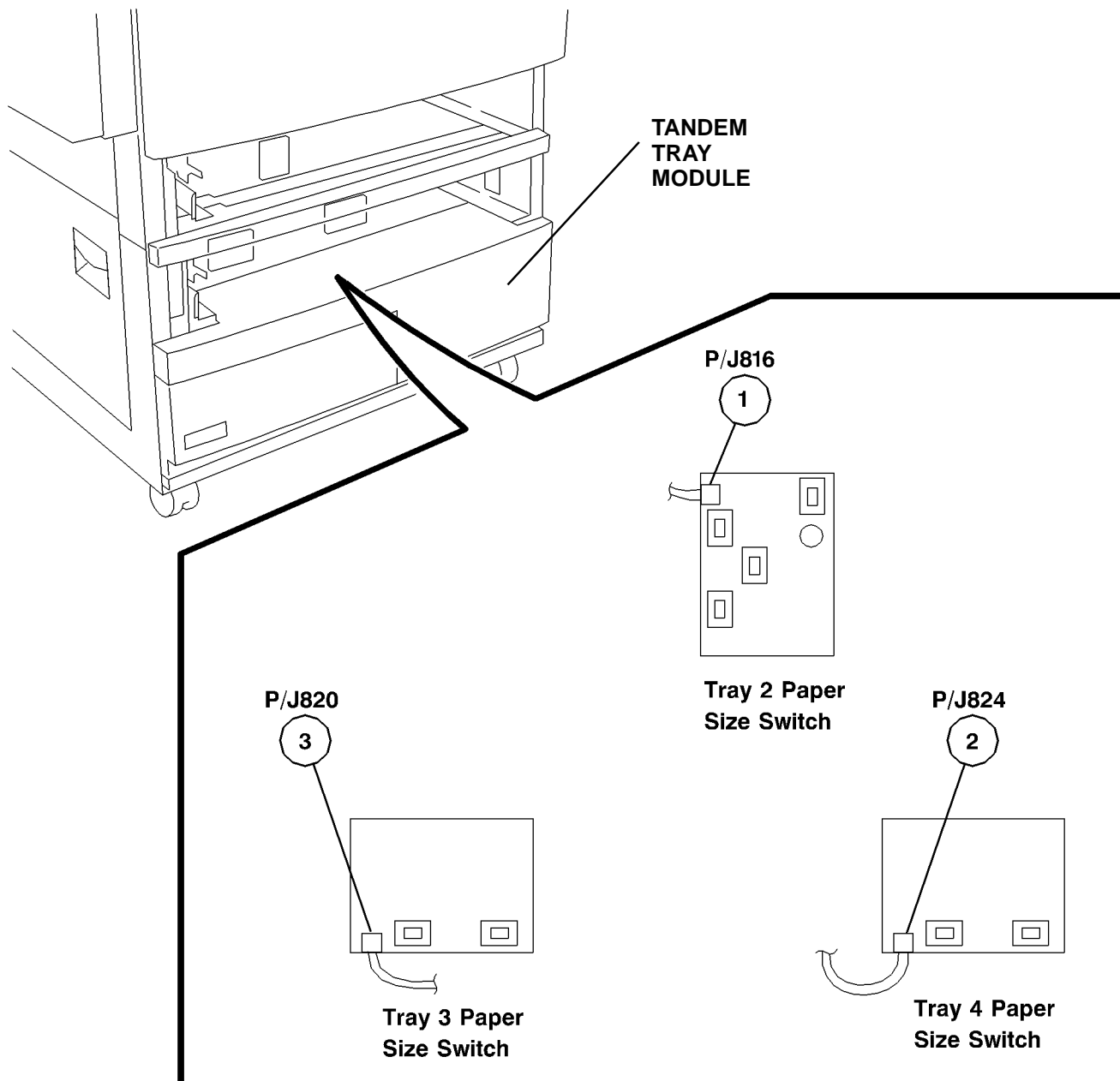


Figure 23 TT Module (Tray 2,3,4 Paper Size Switches)



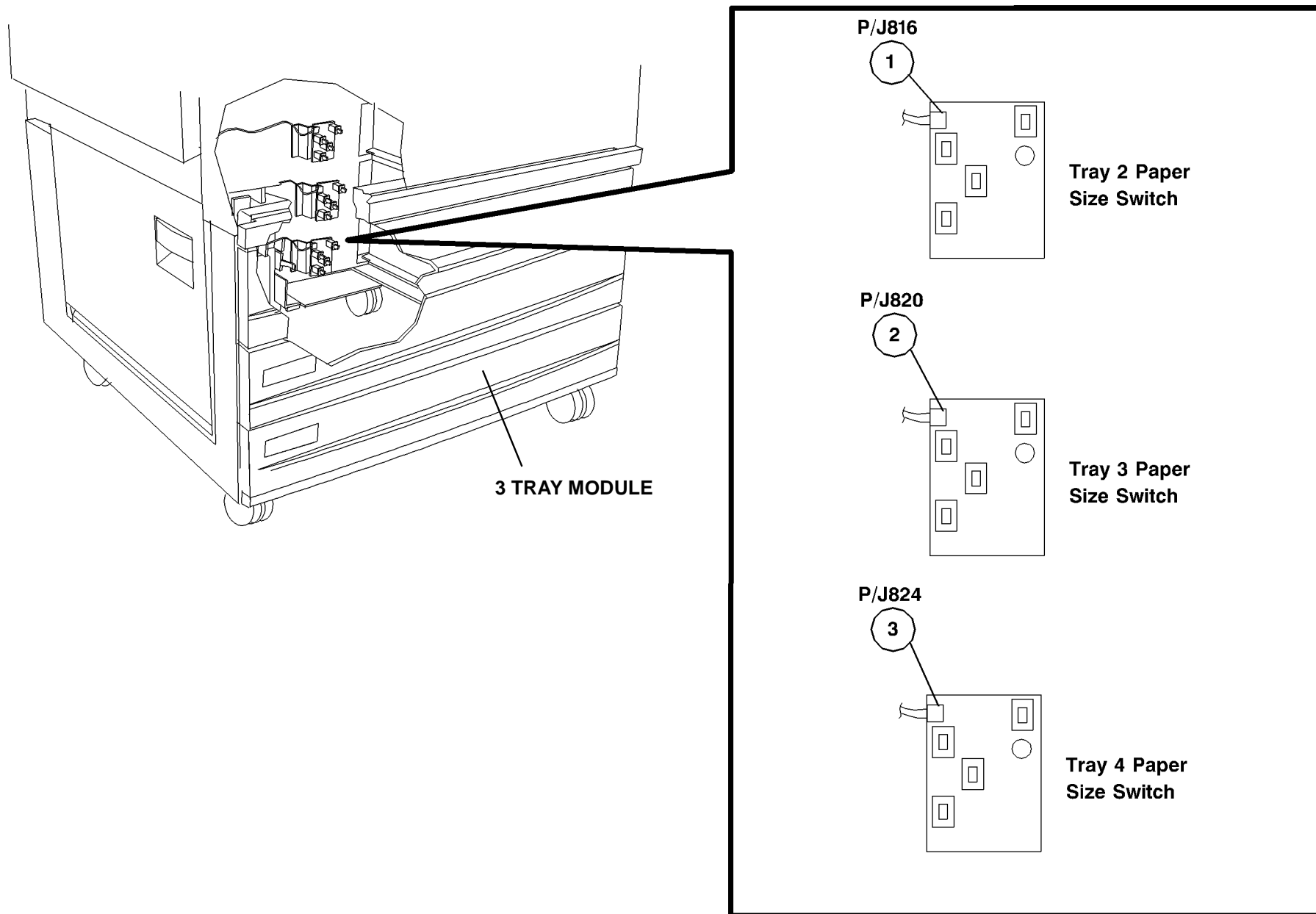


Figure 24 3T Module (Tray 2,3,4 Paper Size Switches)



**TANDEM TRAY  
MODULE (REAR)**

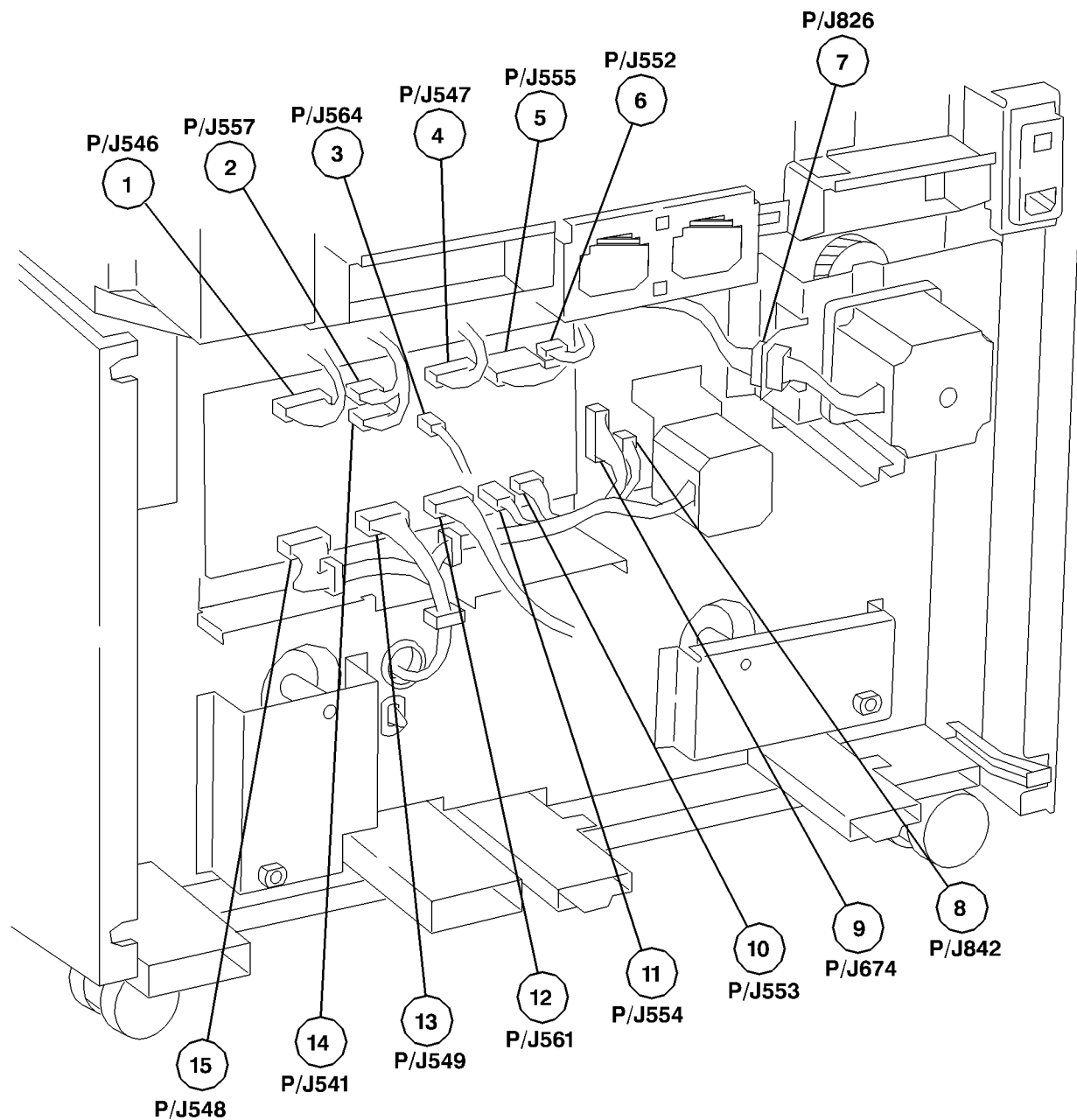


Figure 25 TT Module (Rear)



### 3 TRAY MODULE (REAR)

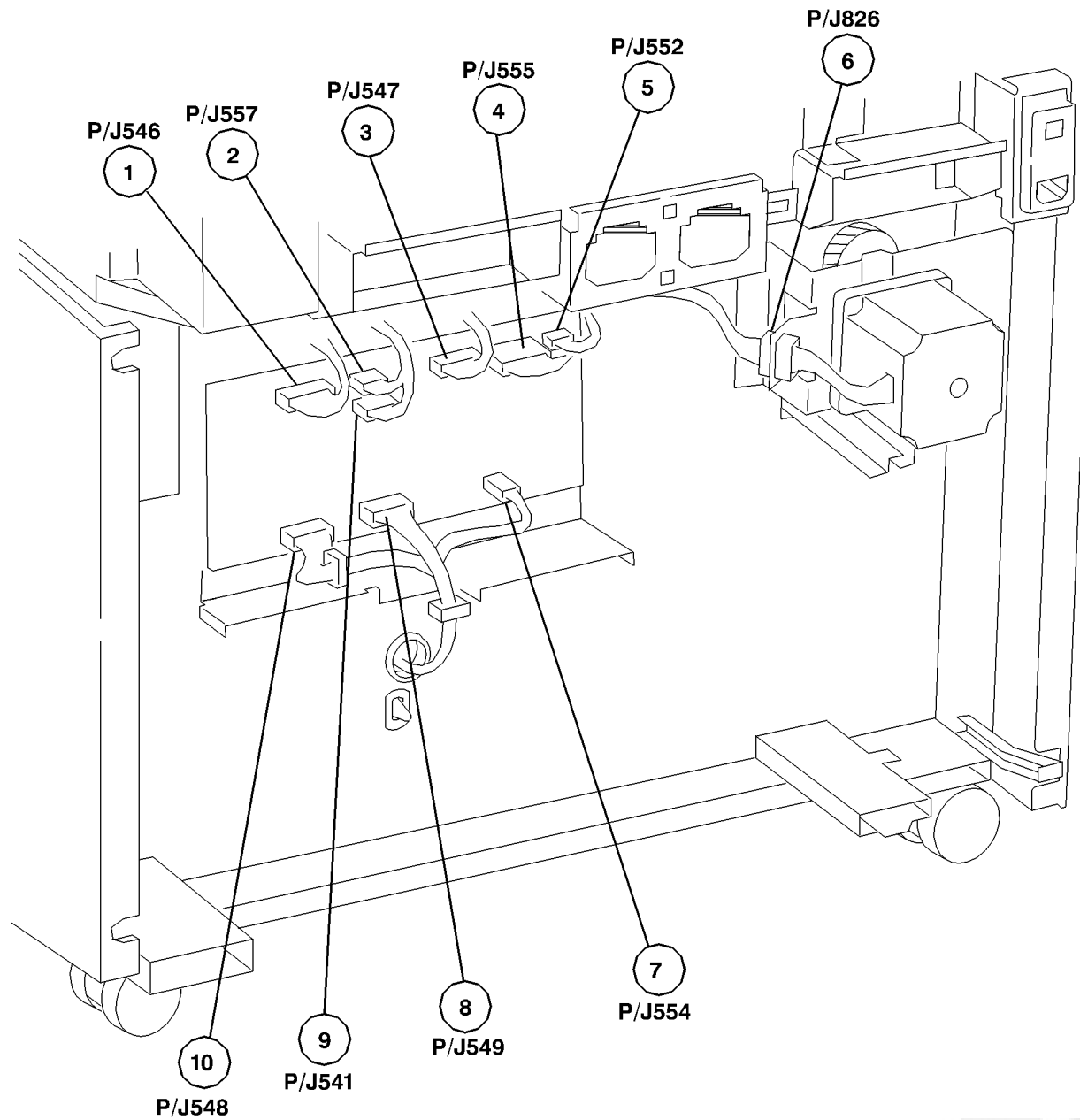


Figure 26 3T Module (Rear)



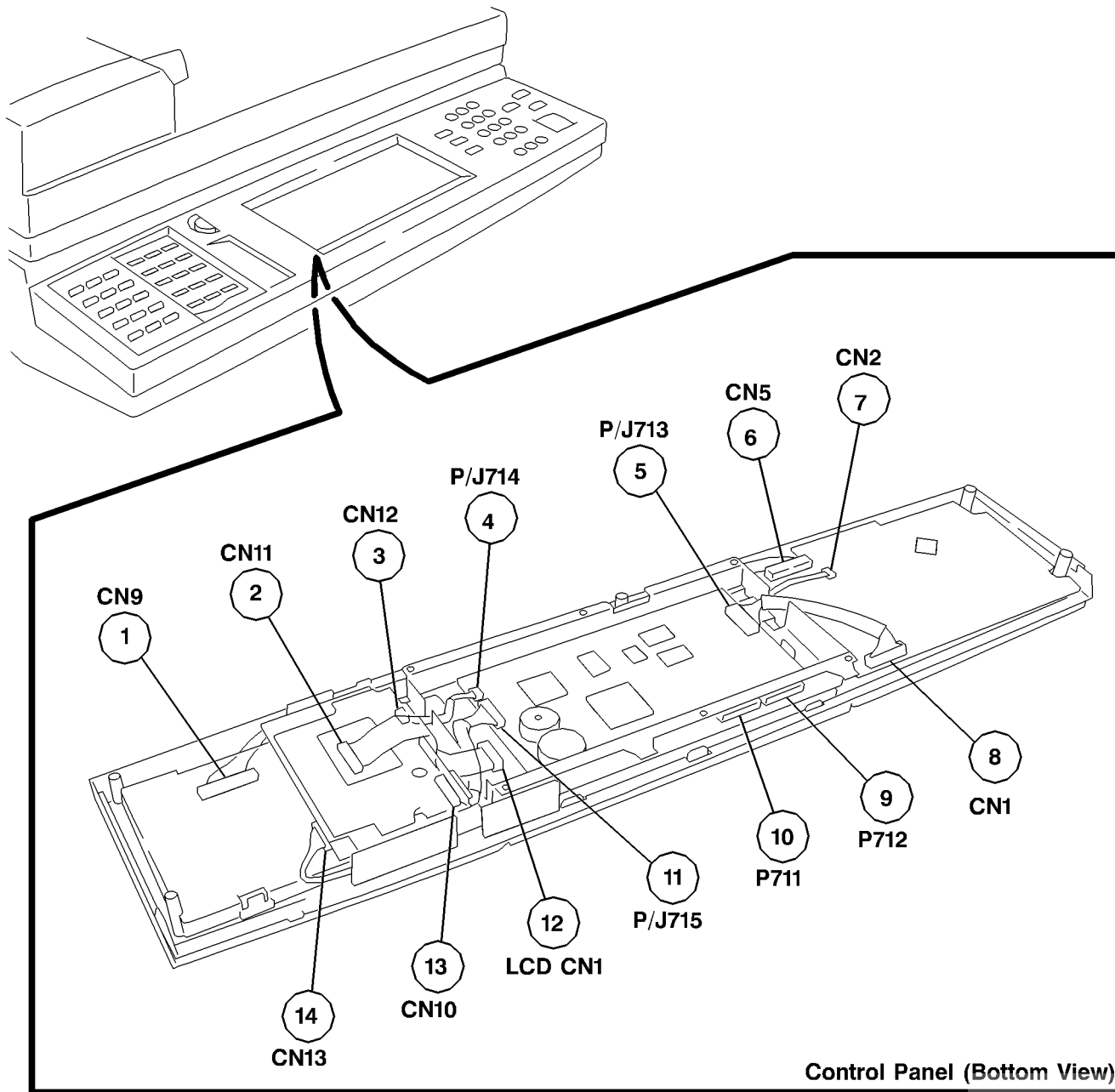


Figure 27 Control Panel



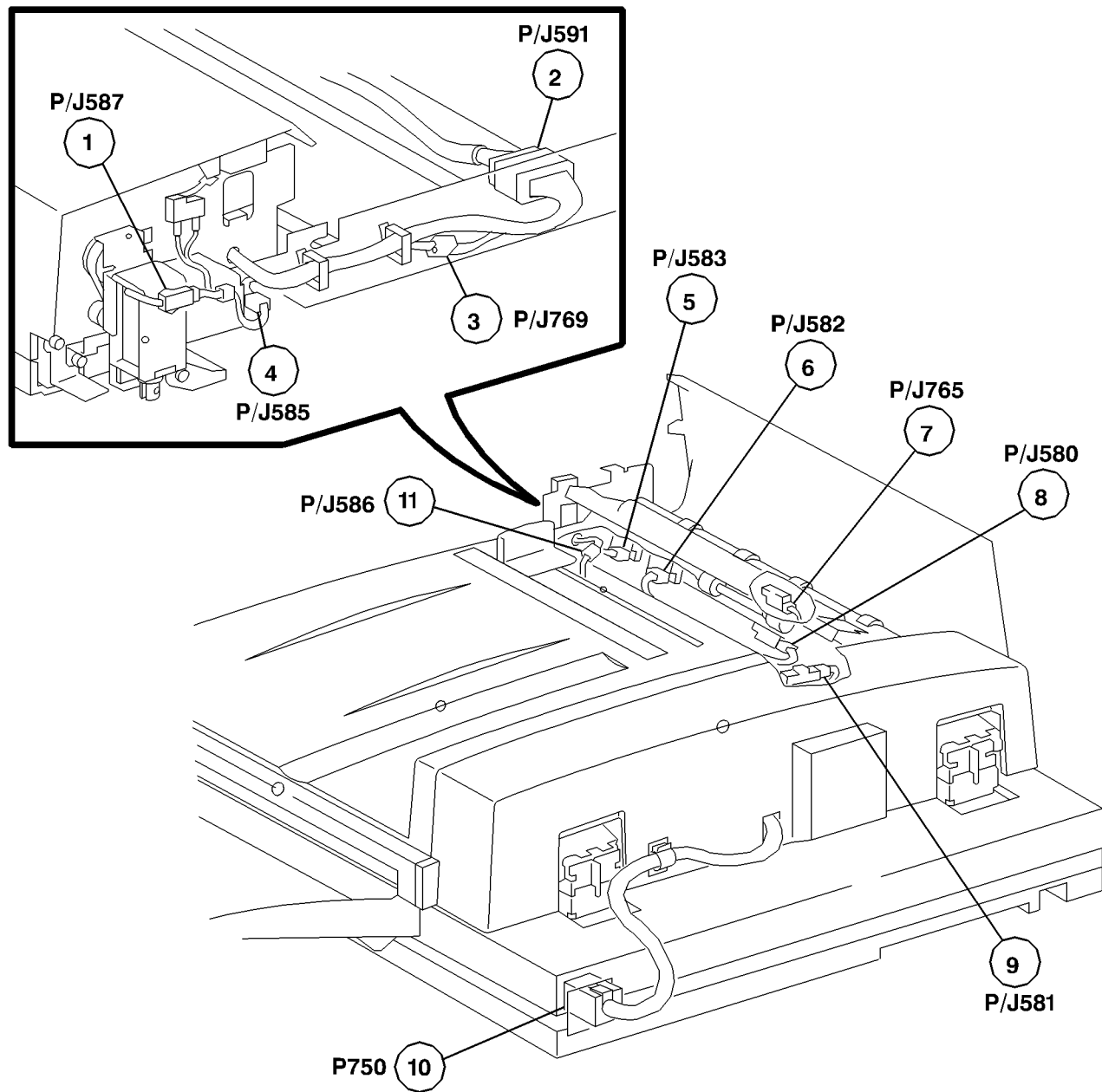


Figure 28 DADF (1 of 2)



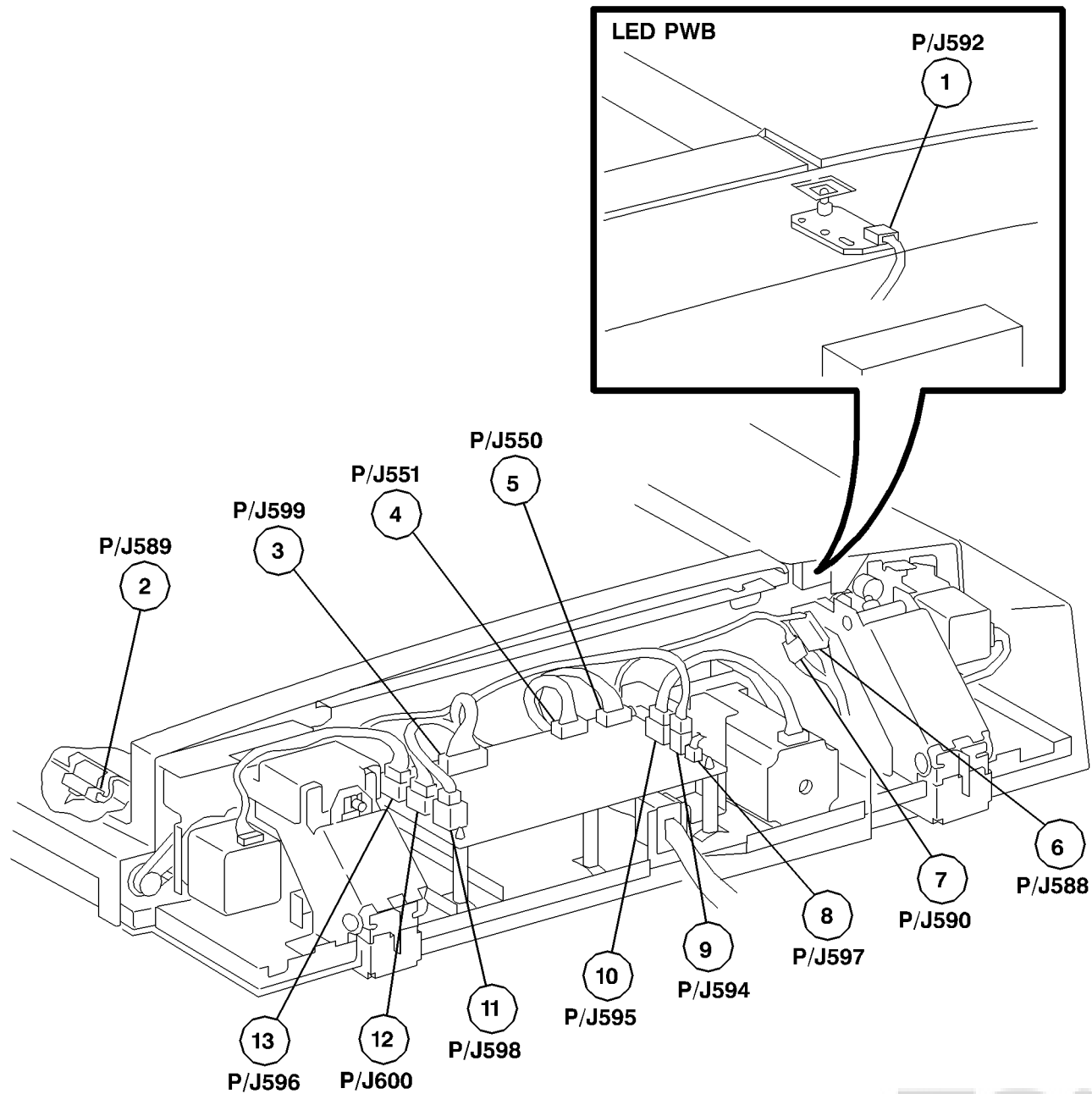


Figure 29 DADF (2 of 2)



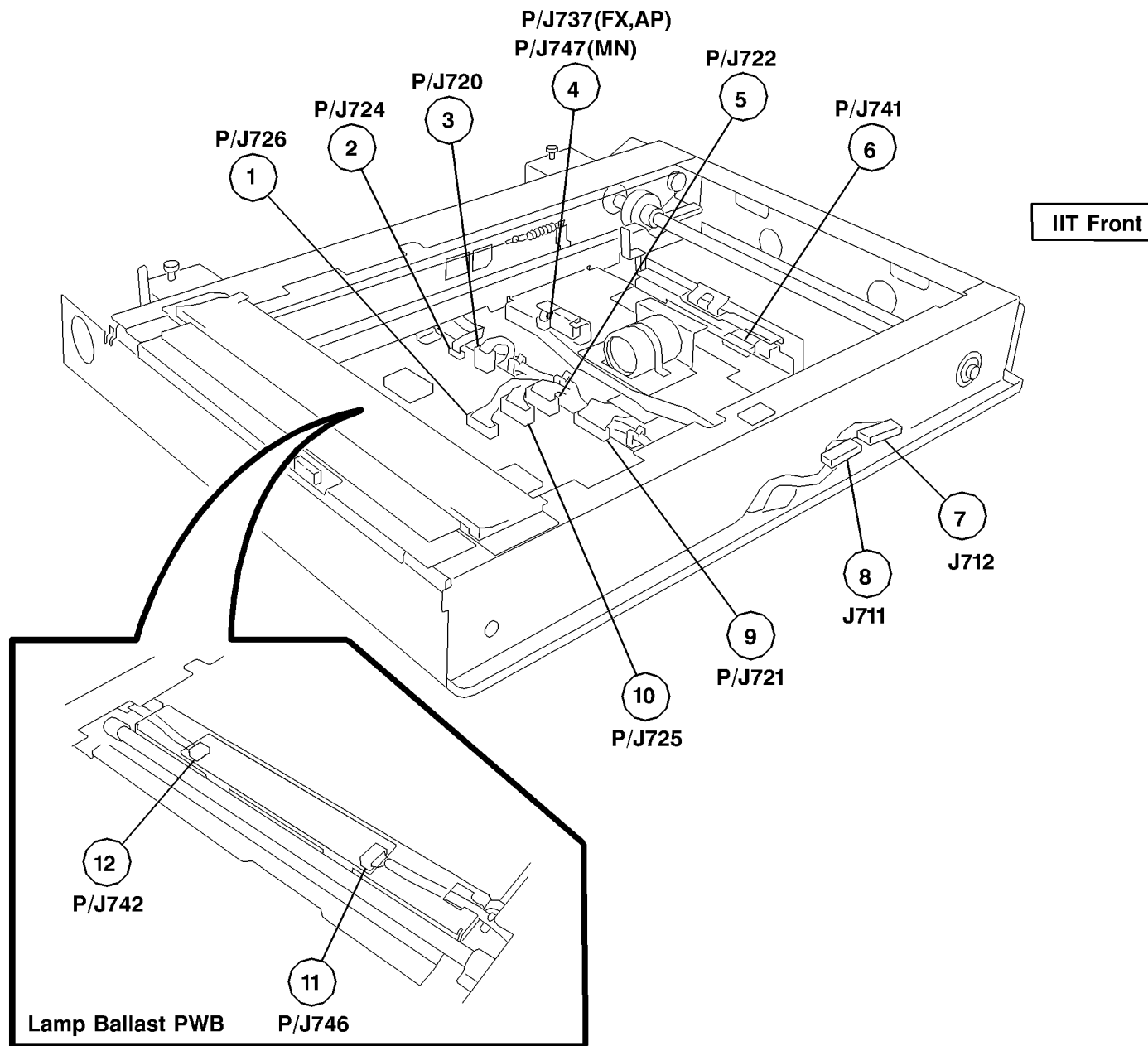


Figure 30 IIT (Front)



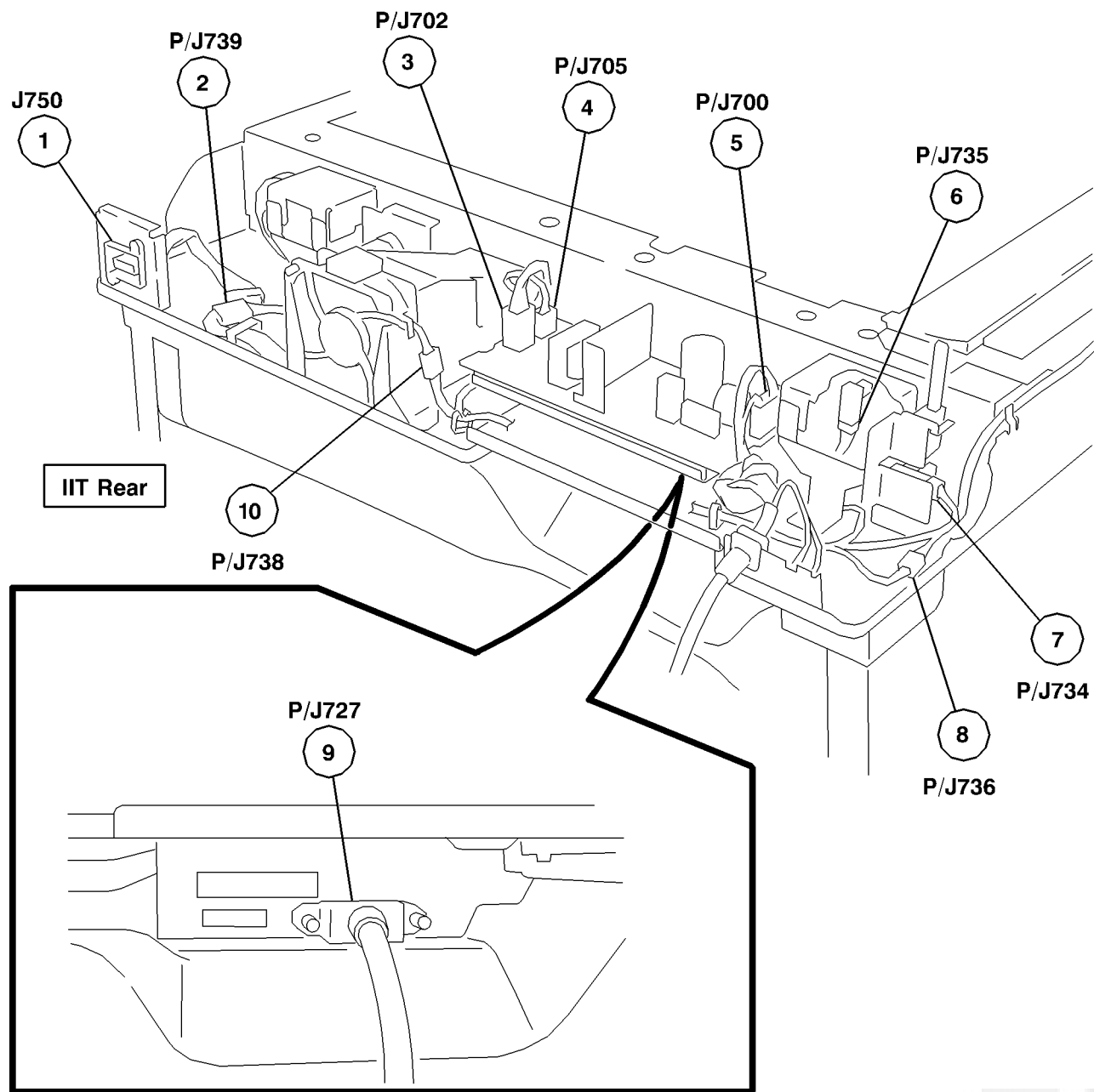


Figure 31 IIT (Rear)



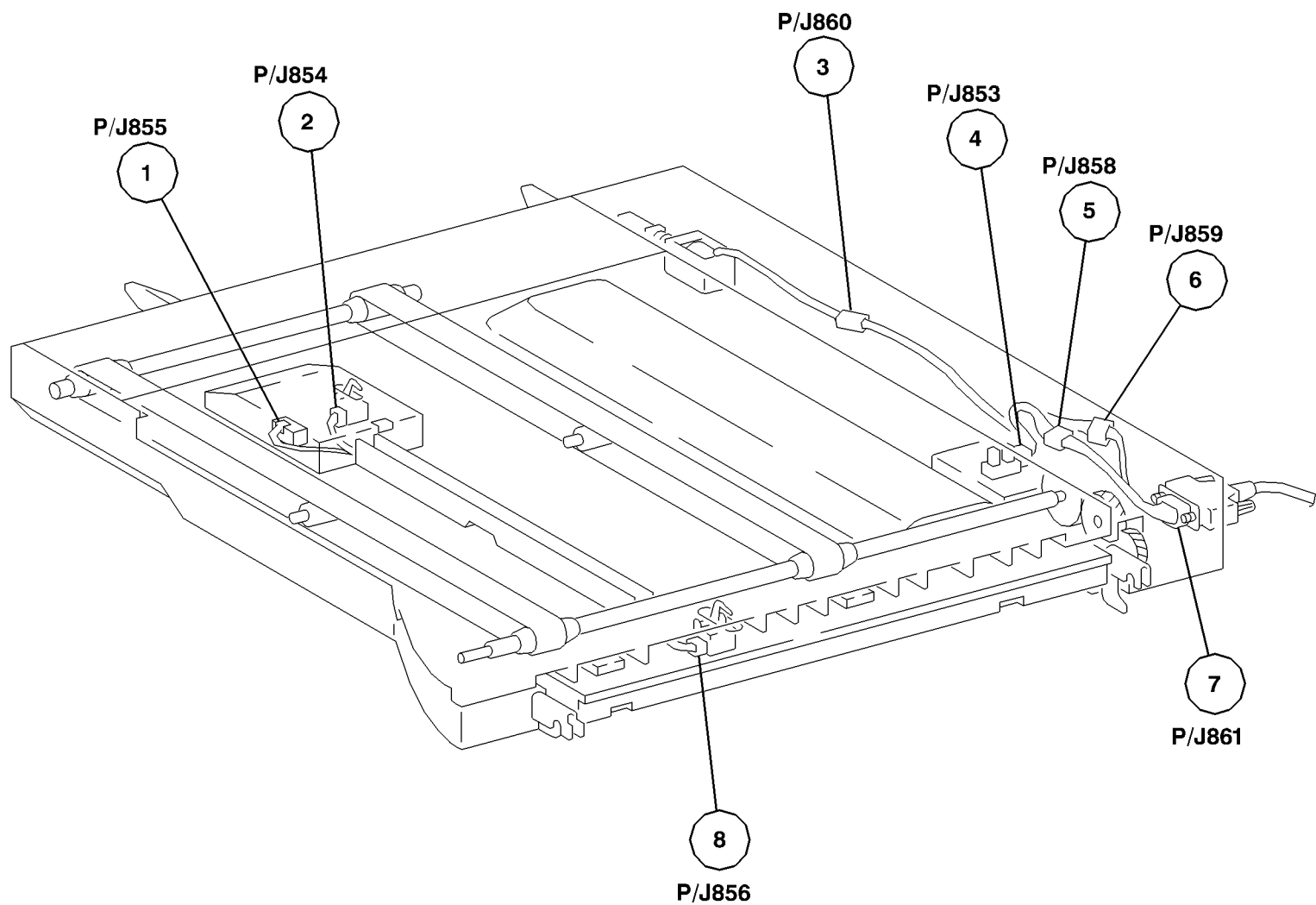


Figure 32 H - Transport Assembly



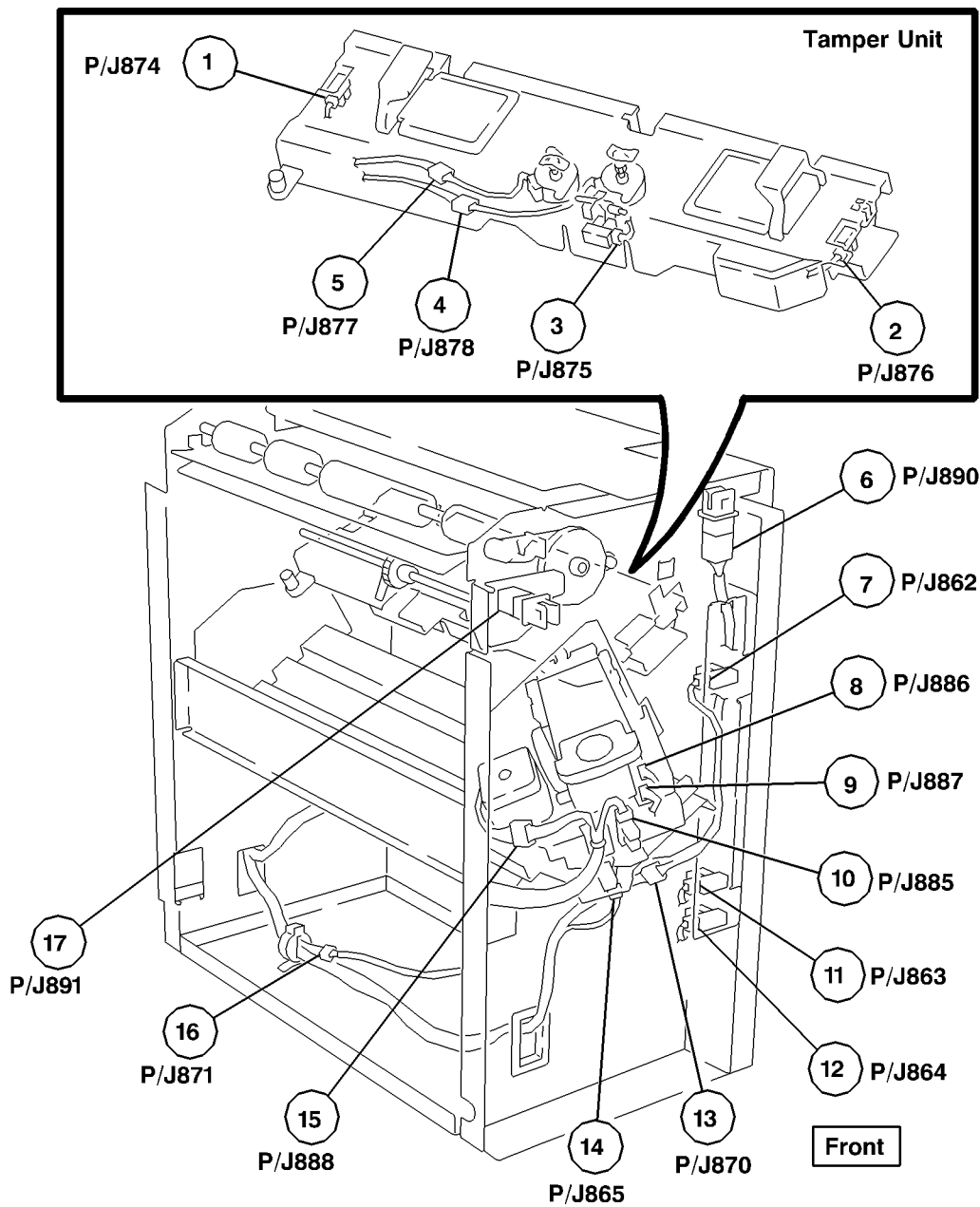


Figure 33 Tamper Unit, Staple Unit



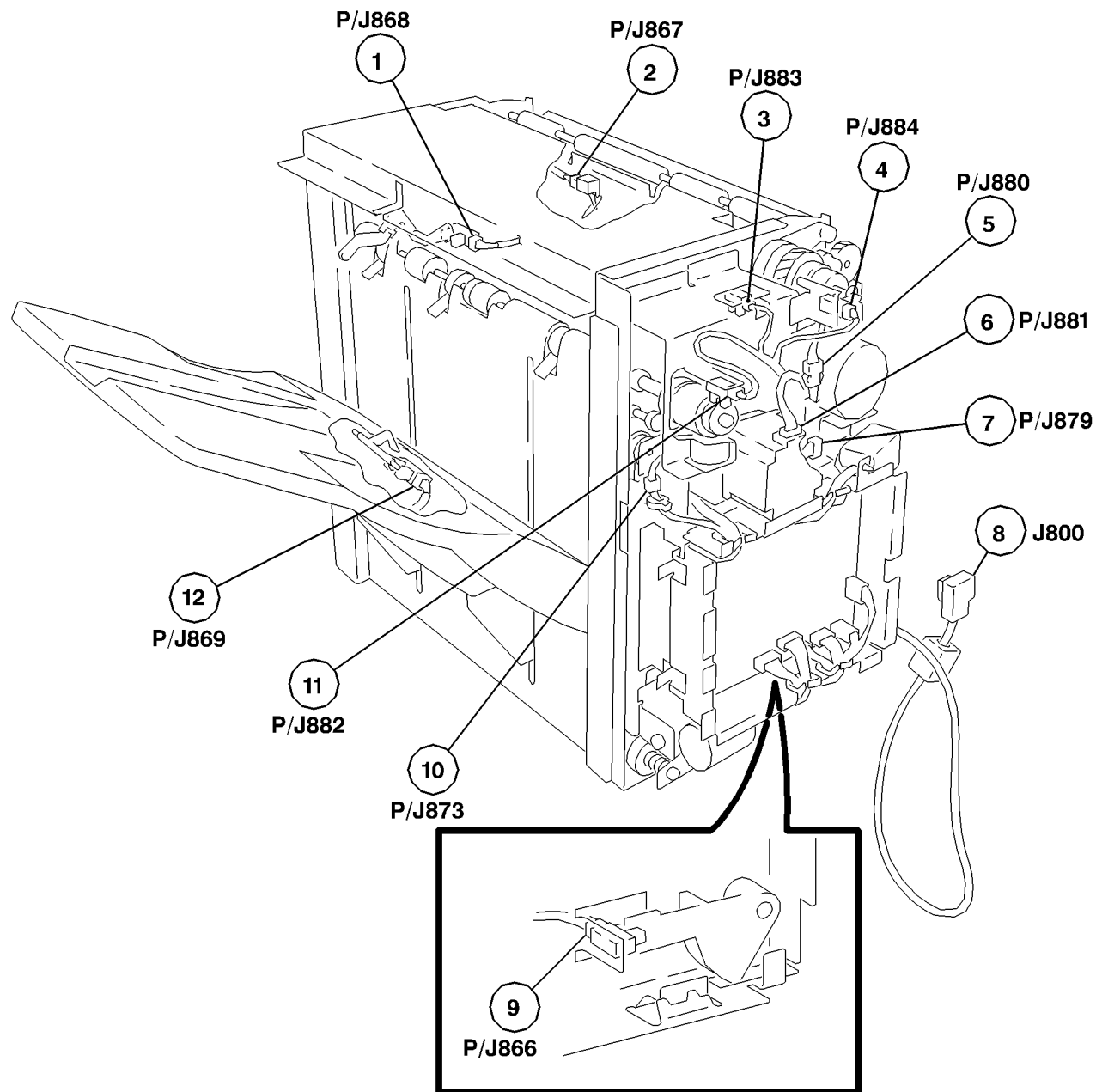


Figure 34 Finisher (Rear)



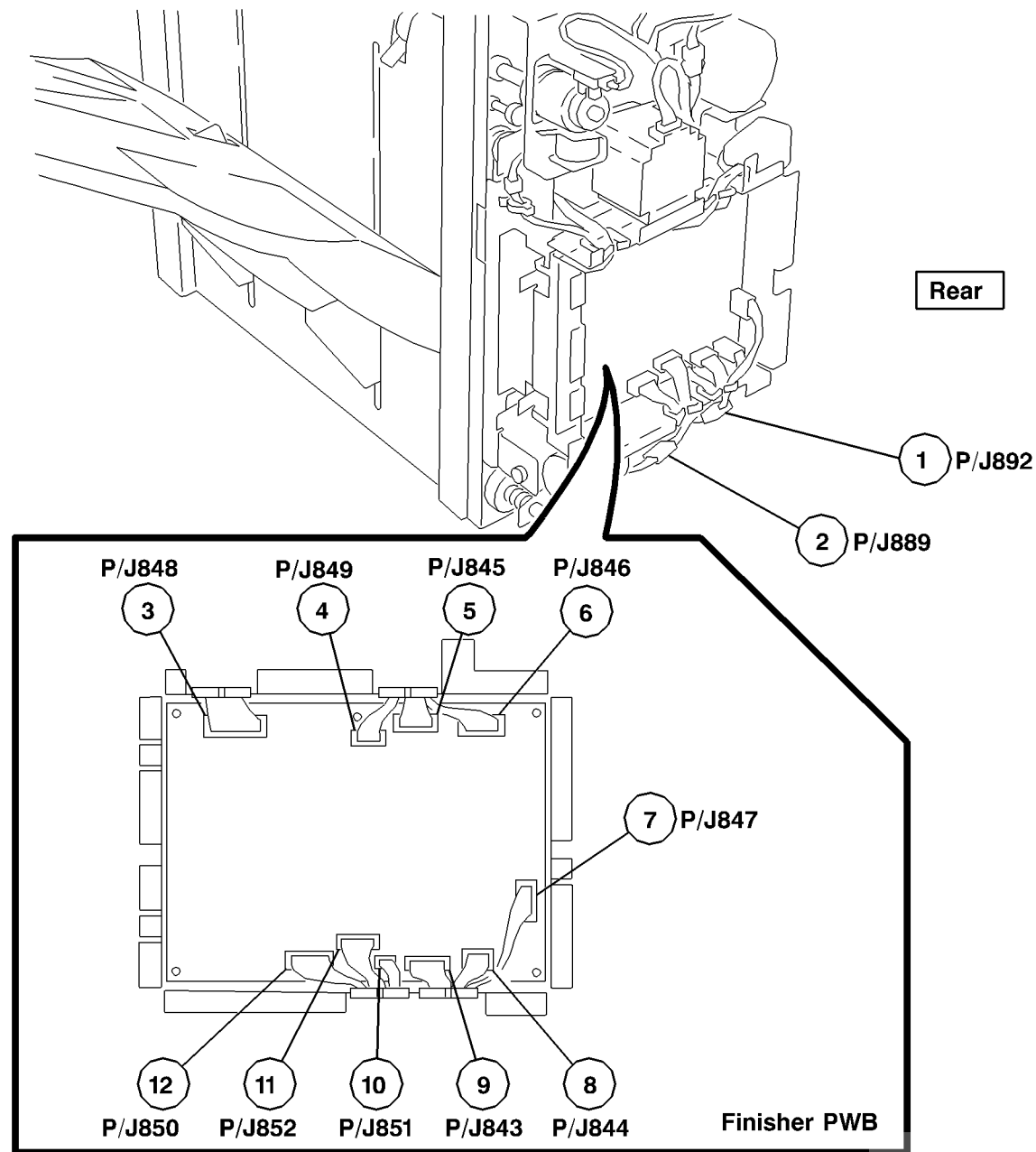


Figure 35 Finisher PWB



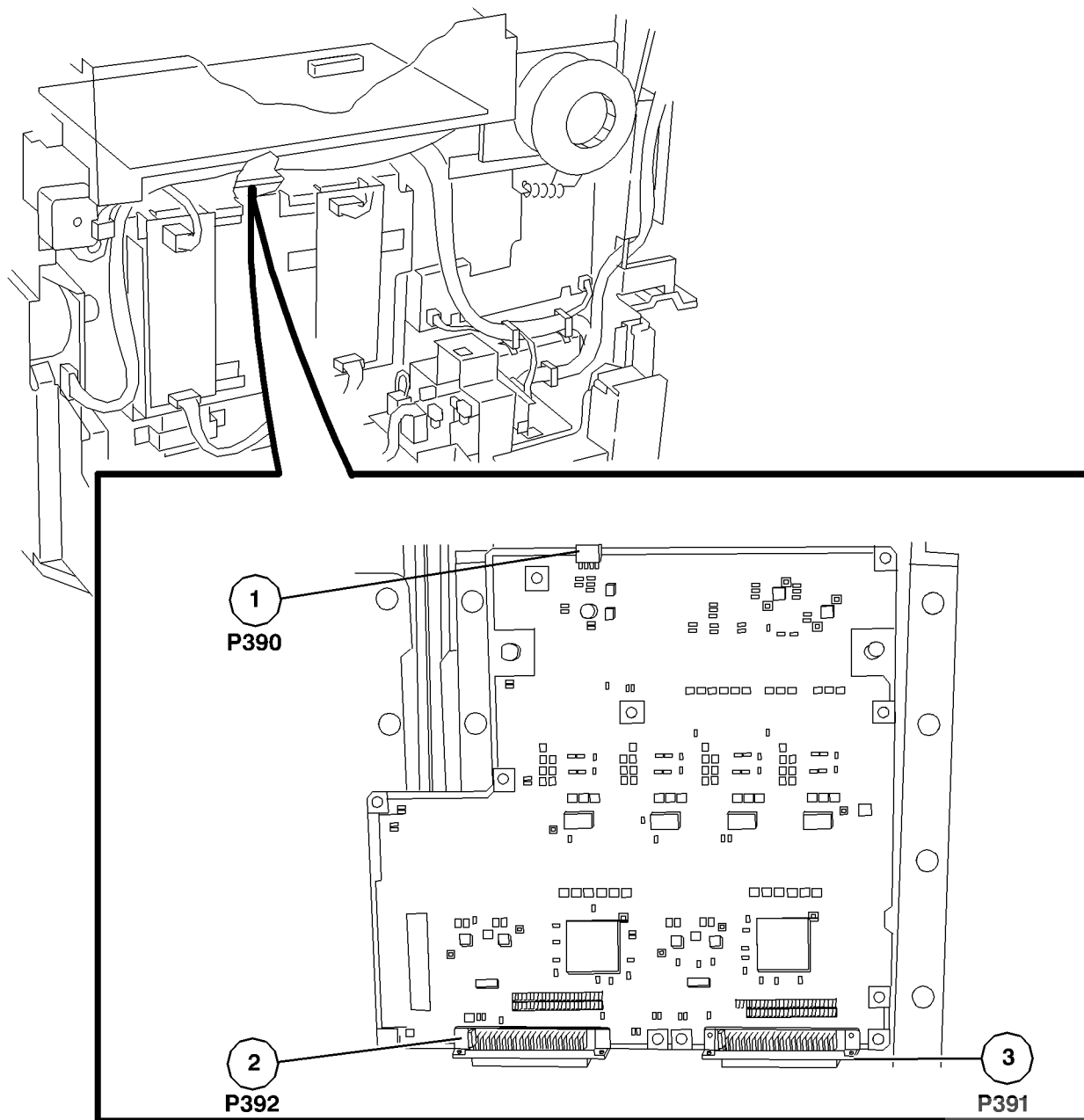
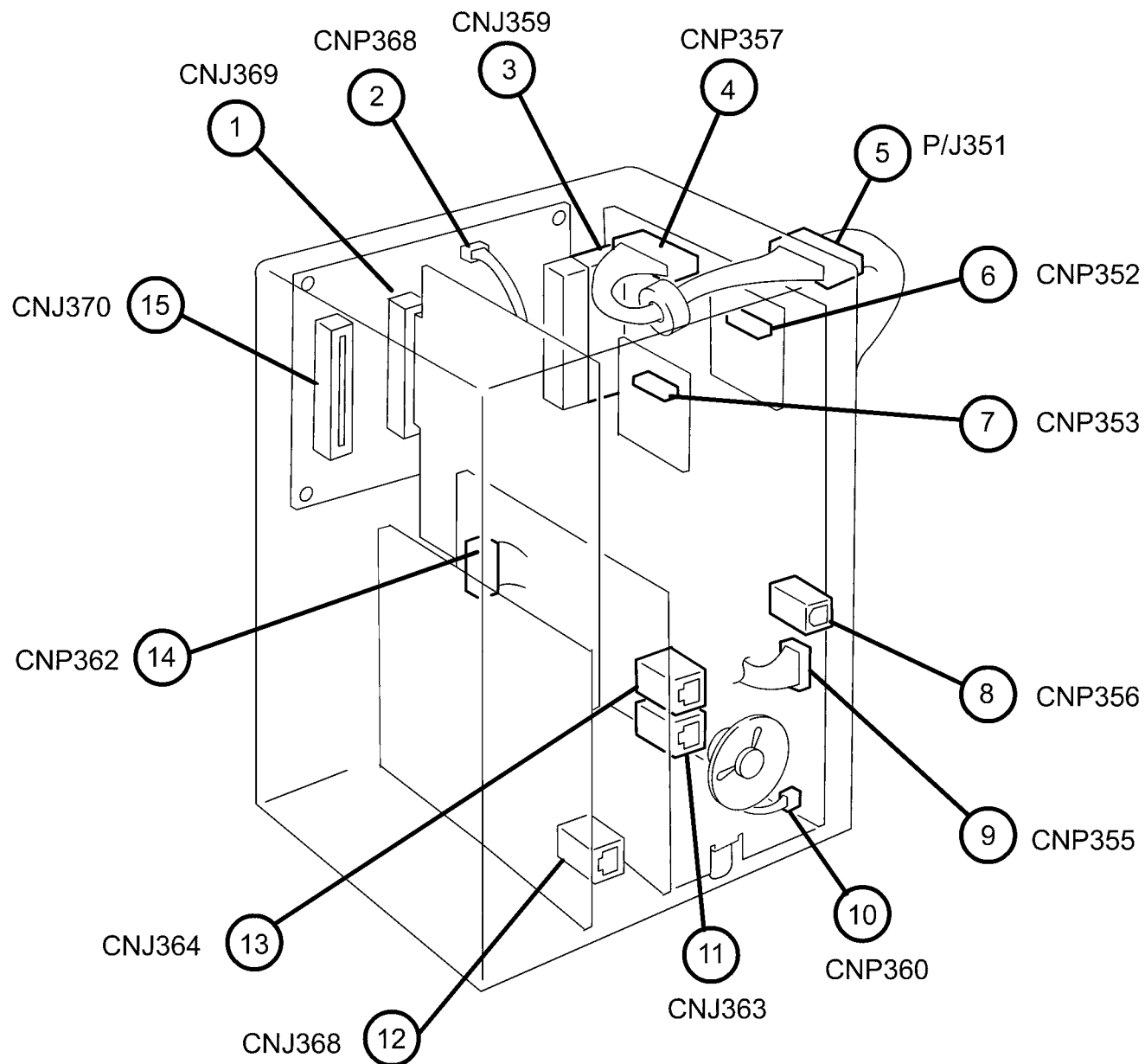


Figure 36 VSEL Assembly





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Figure 37 Fax Module







# AC Wirenets

ACH

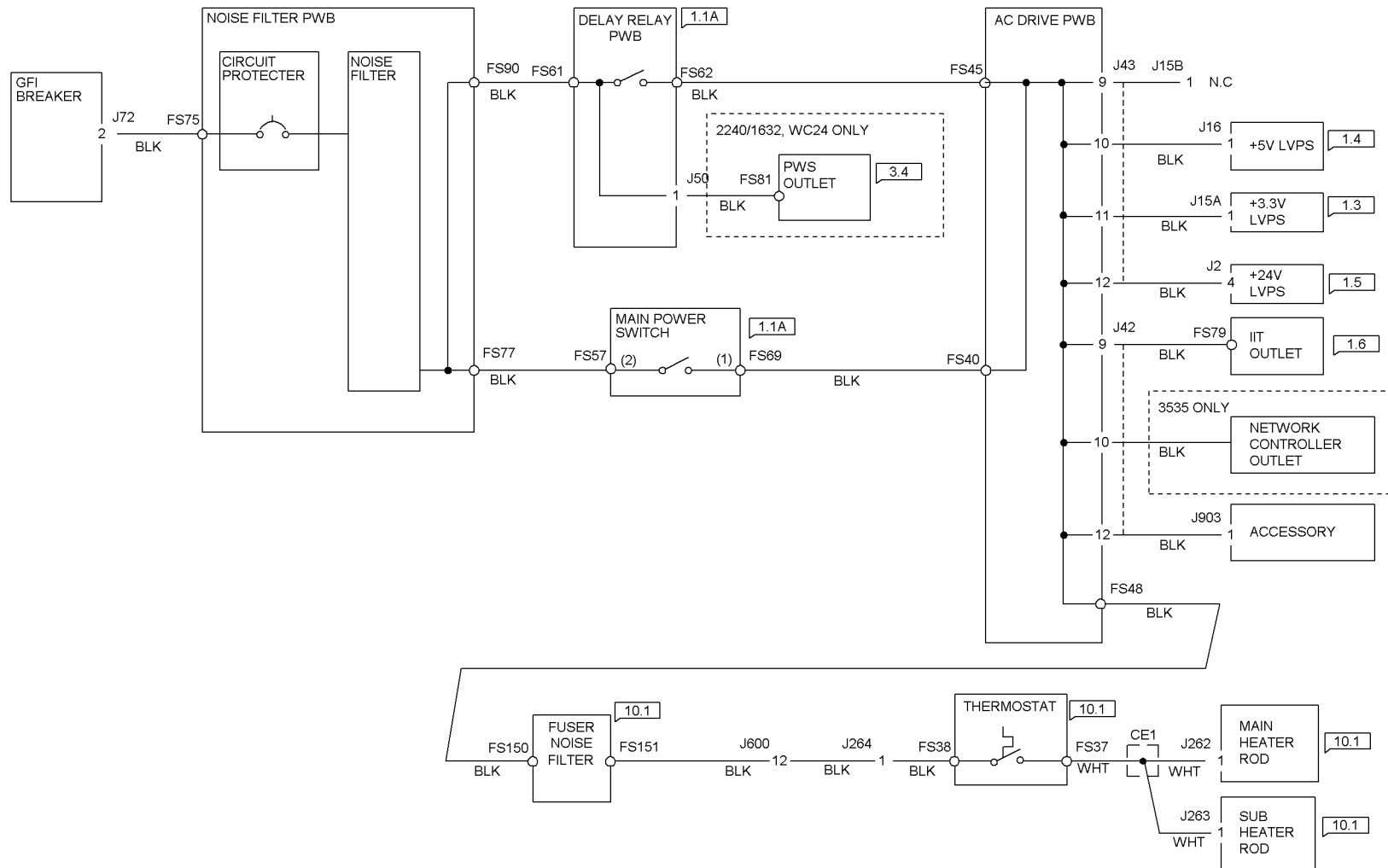
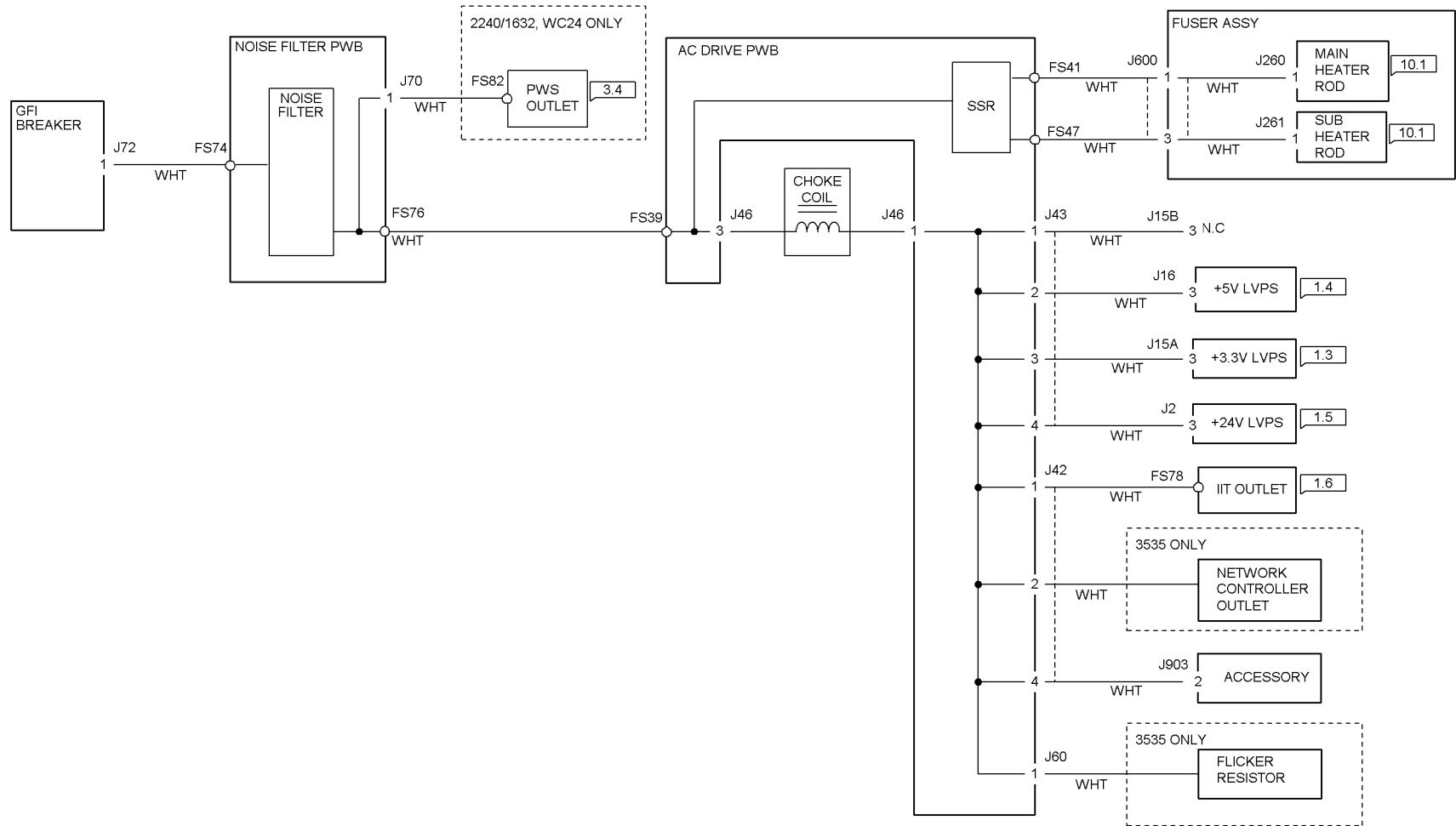


Figure 1 ACH Wirenet



# ACN



T720001C-CAR

Figure 2 ACN Wirenet



## +3.3 VDC / +3.3VDC RTN Wirenets

+3.3VDC (1 OF 2 - DC 2240/1632, WC 24)

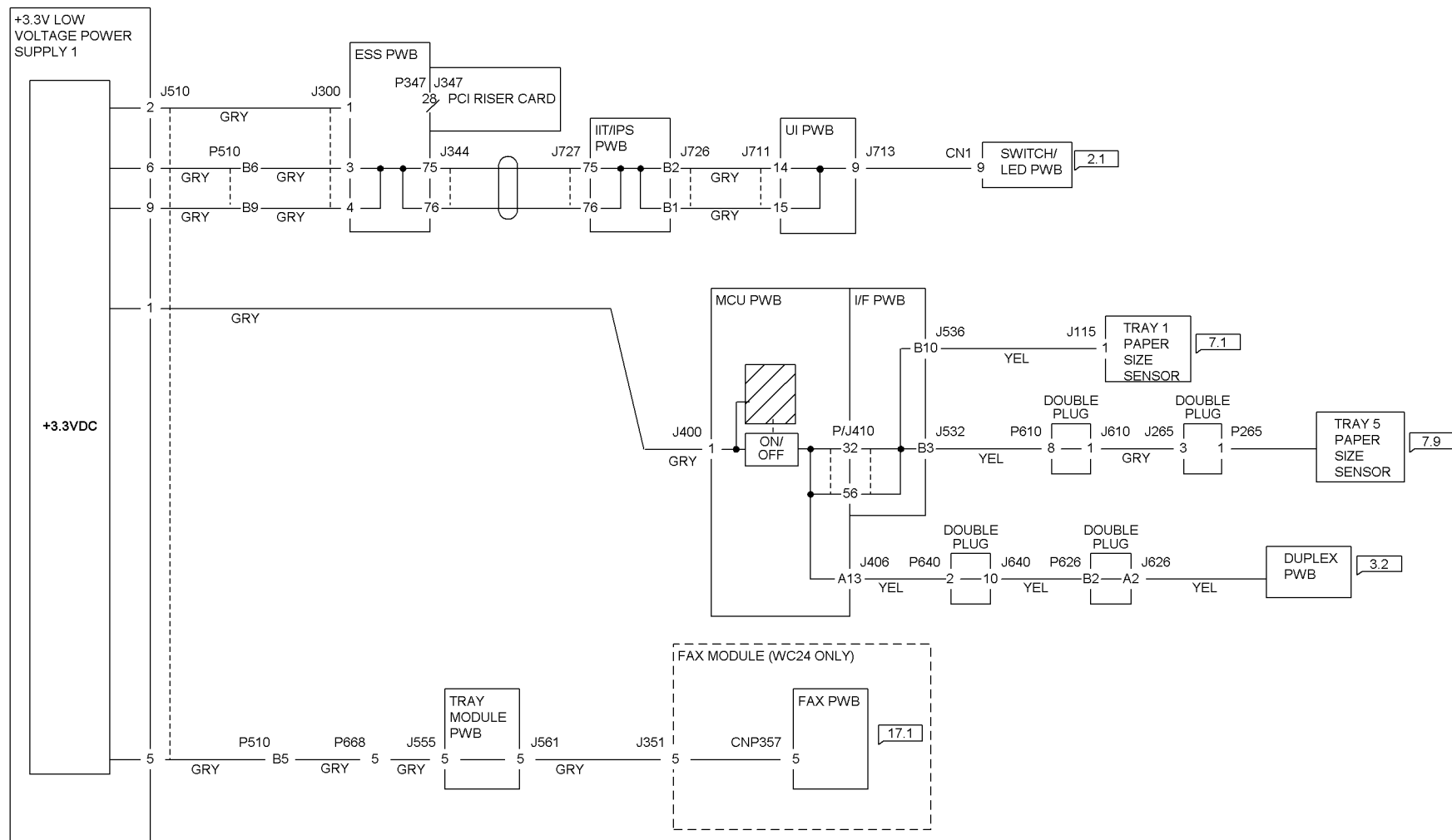
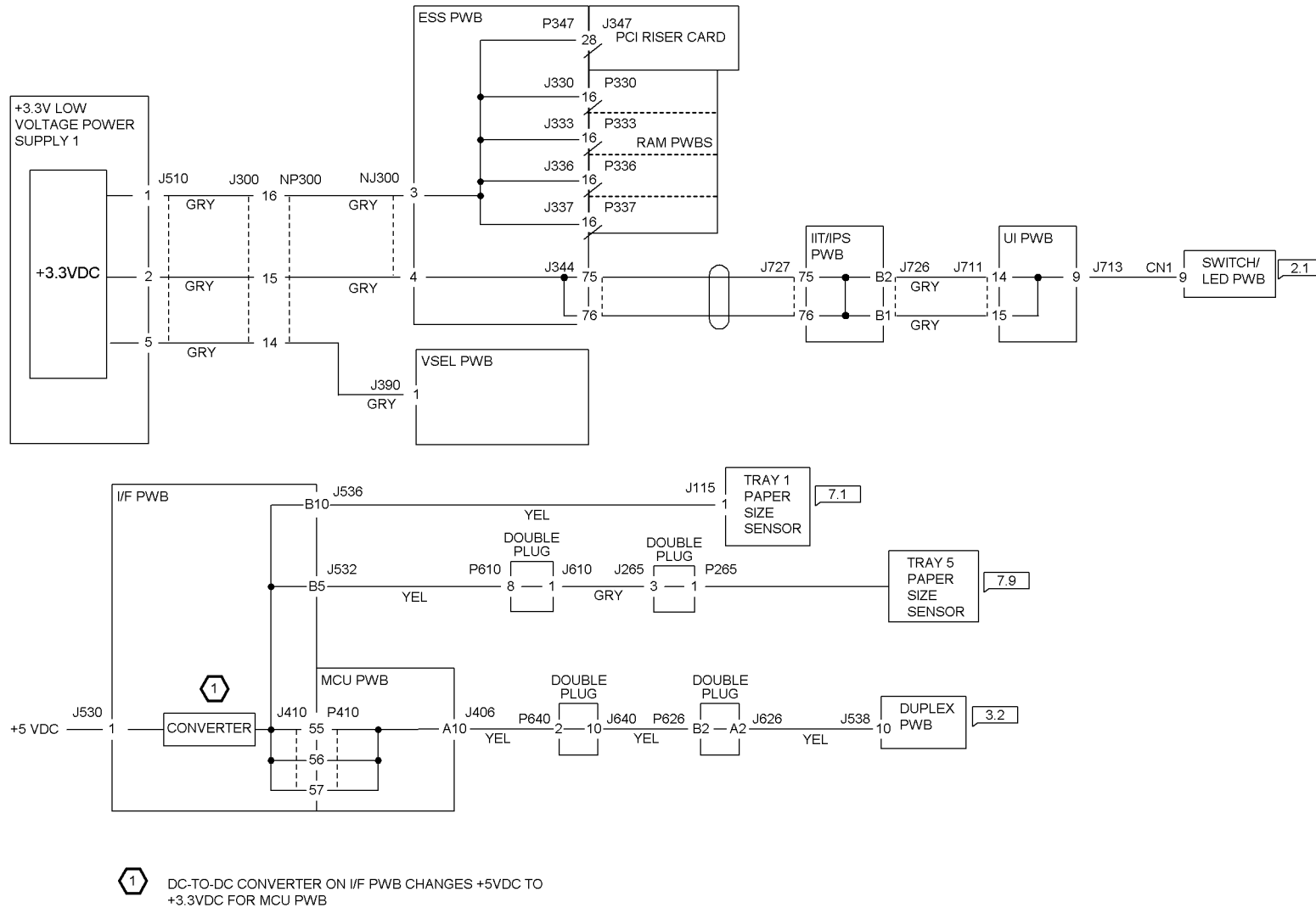


Figure 1 +3.3VDC Wirenet (1 of 2 -DC 2240/1632, WC 24)



# **+3.3VDC (2 OF 2 - DC 3535)**



T720032A-CAR

**Figure 2 +3.3VDC Wirenet (2 of 2 -DC 3535)**



**+3.3V LOW VOLTAGE POWER SUPPLY 1**

**3.3VRTN**

**ESS PWB** 1.3

**TRAY MODULE PWB** 17.1

**FAX PWB** 17.1

**MCU PWB**

**CRUM(C)** 9.4

**CRUM(K)** 9.4

**CRUM(M)** 9.3

**CRUM(Y)** 9.3

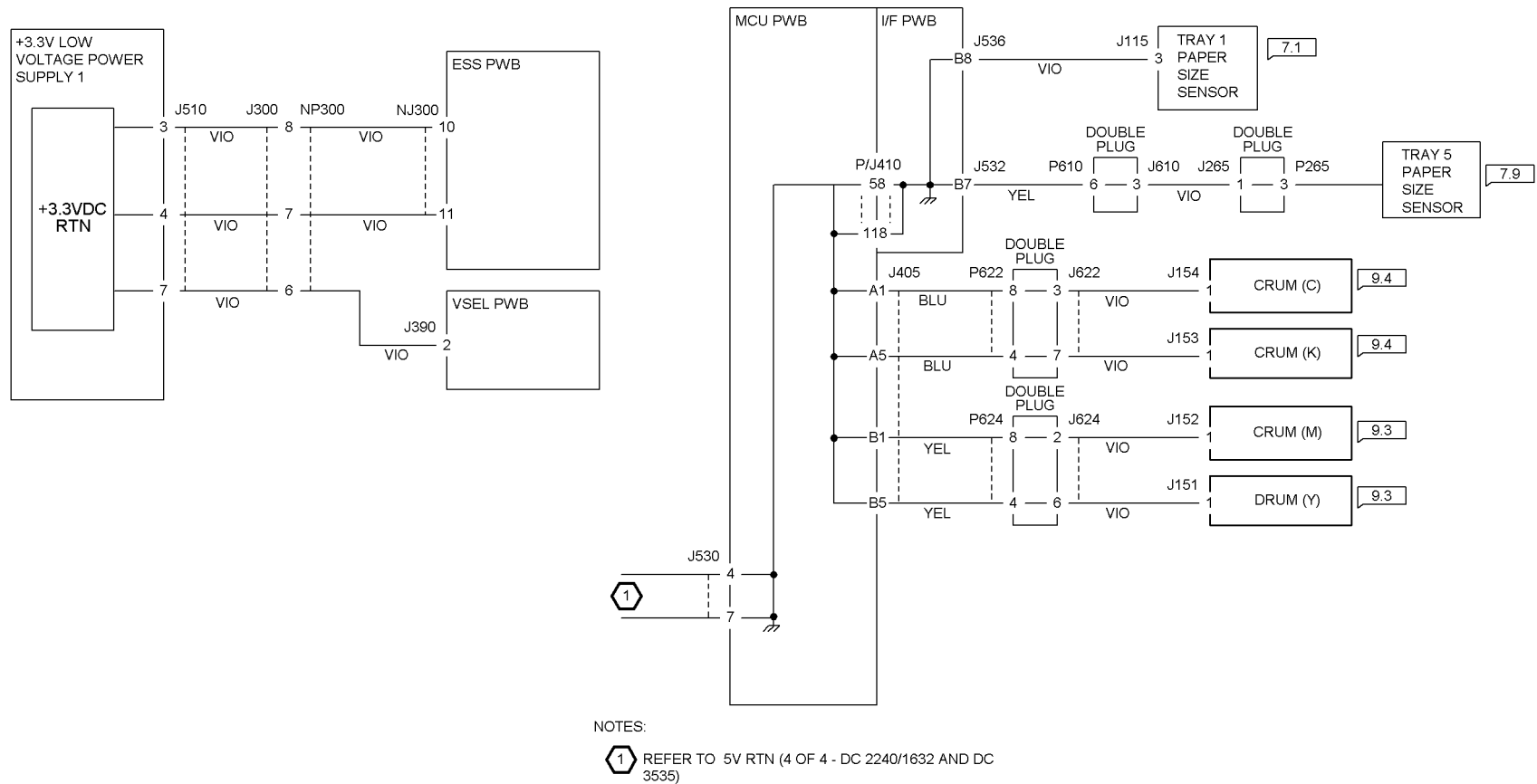
**TRAY 1 PAPER SIZE SENSOR** 7.1

**TRAY 5 PAPER SIZE SENSOR** 7.9

**Figure 3 3.3V RTN Wirenet (1 of 2 -DC 2240/1632, WC 24)**



# **+3.3VDC RTN (2 OF 2 - DC 3535)**



NOTES:

1 REFER TO 5V RTN (4 OF 4 - DC 2240/1632 AND DC 3535)

T720033A-CAR

**Figure 4 +3.3V RTN Wirenet (2 of 2 -DC 3535)**



## +5 VDC Wirenets

### +5VDC (1 OF 6)

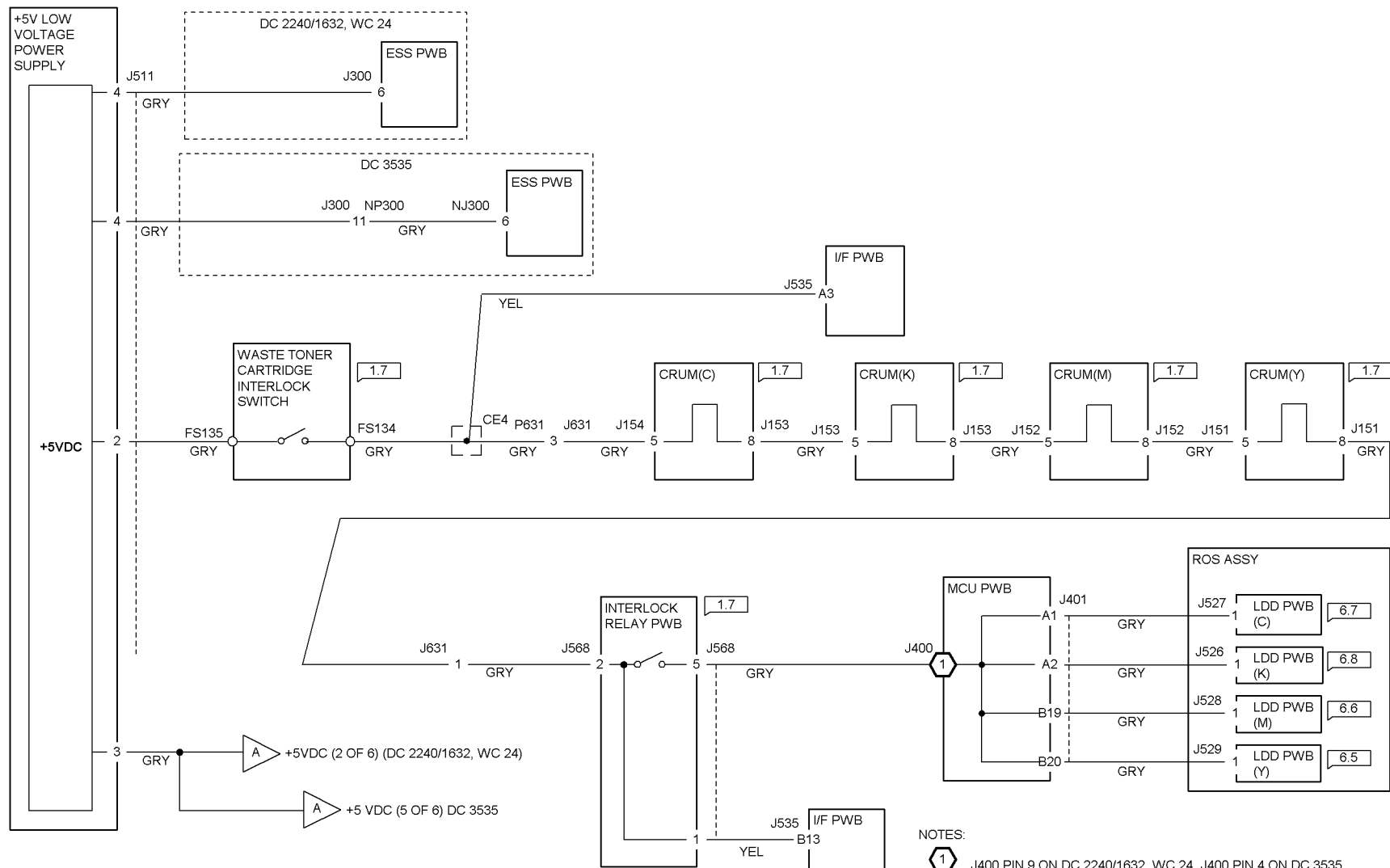
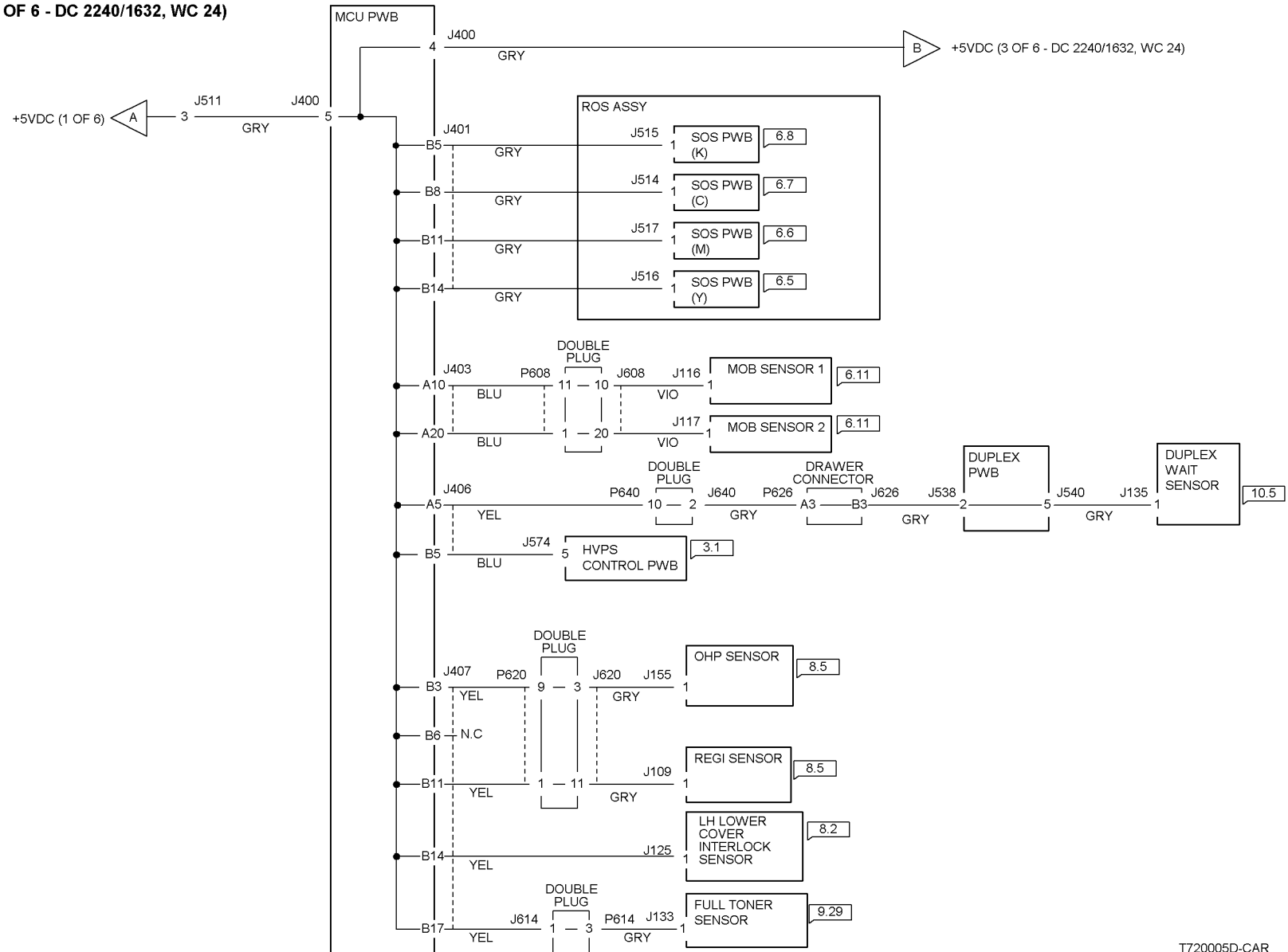


Figure 1 +5 VDC Wirenet (1 of 6)



**+5VDC (2 OF 6 - DC 2240/1632, WC 24)**

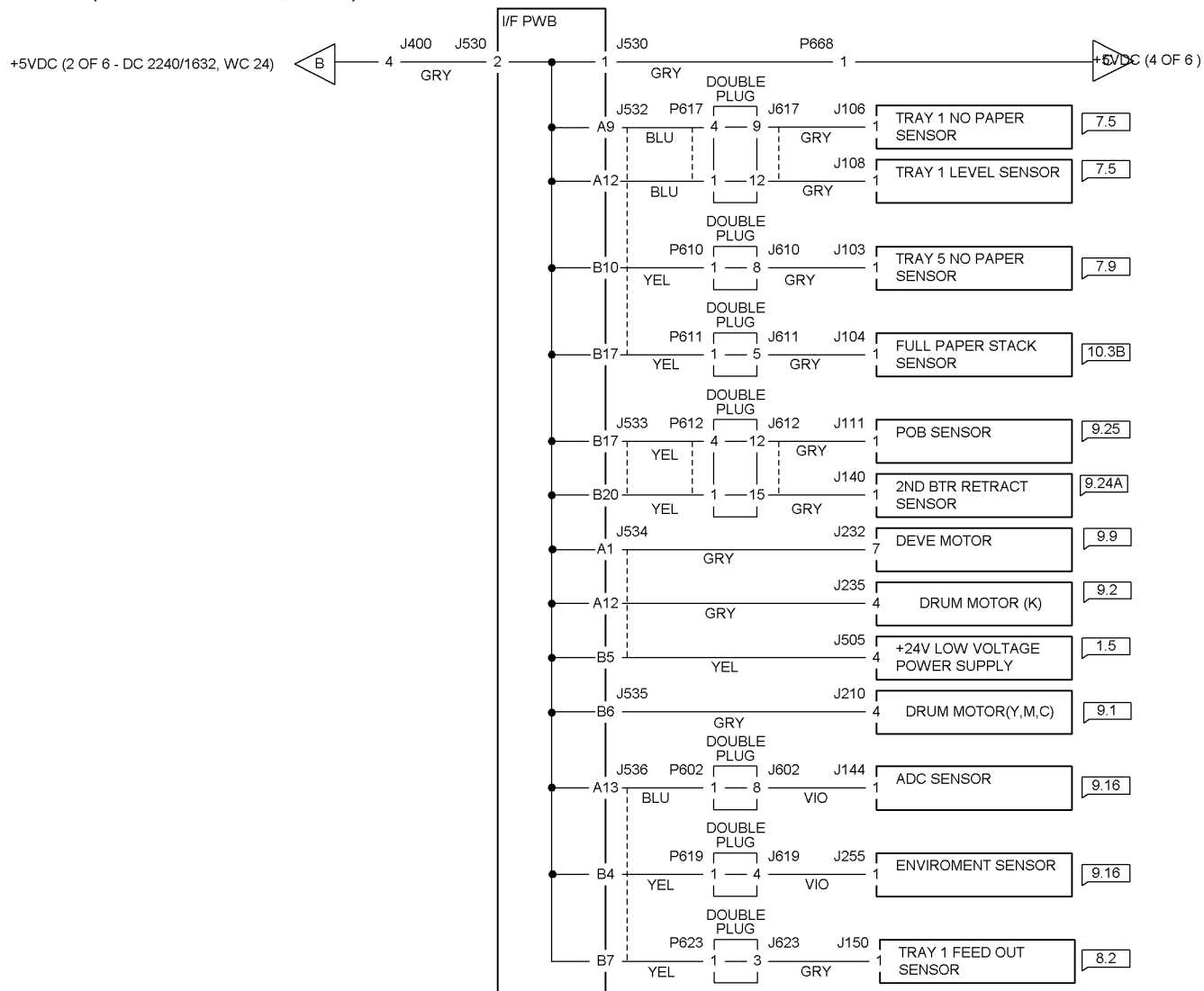


T720005D-CAR

**Figure 2 +5 VDC Wirenet (2 of 6 - DC 2240/1632 WC 24)**



# +5VDC (3 of 6 - DC 2240/1632, WC 24)

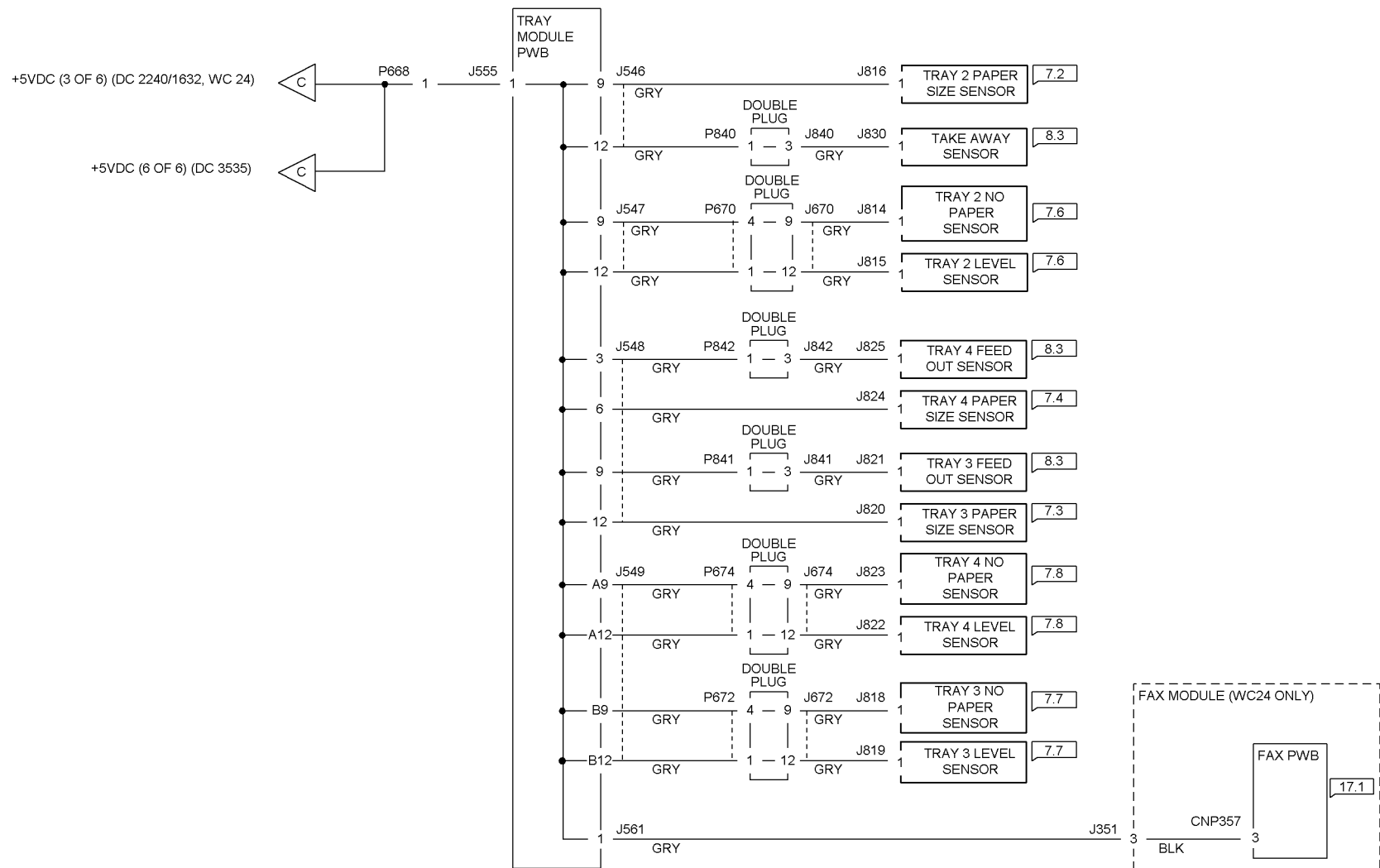


T720006C-CAR

Figure 3 +5 VDC Wirenet (3 of 6 - DC 2240/1632 WC 24)



# +5VDC (4 of 6)



T720007C-CAR

Figure 4 +5 VDC Wirenet (4 of 6)



Continuation of the wiring diagram for the +5 VDC (6 OF 6) (DC 3535) system. The diagram shows connections from the I/F PWB and MCU PWB to various sensors and components.

**ROS ASSY:**

- J515: 1 SOS PWB (K) 6.8
- J514: 1 SOS PWB (C) 6.7
- J517: 1 SOS PWB (M) 6.6
- J516: 1 SOS PWB (Y) 6.5

**MOBILE SENSORS:**

- J116: 1 MOB SENSOR 1 6.11
- J117: 1 MOB SENSOR 2 6.11

**Other Components:**

- J574: 5 HVPS CONTROL PWB 3.1
- J155: 1 OHP SENSOR 8.5
- J109: 1 REGI SENSOR 8.5
- J125: 1 LH LOWER COVER INTERLOCK SENSOR 8.2
- J133: 1 FULL TONER SENSOR 9.29
- J505: 4 +24V LOW VOLTAGE POWER SUPPLY 1.5
- J135: 1 DUPLEX WAIT SENSOR 10.5

**Connections:**

- I/F PWB:** J410 (2) to P410 (59) and P410 (60).
- MCU PWB:** B5, B8, B11, B14, A10, A20, A2, B3, B11, B14, B17, J400 (7).
- Wiring:** GRAY (GRY), BLUE (BLU), YELLOW (YEL).
- Connectors:** DOUBLE PLUG (P608, P640, P620, P614), DRAWER CONNECTOR (P626), DUPLEX PWB (J538).

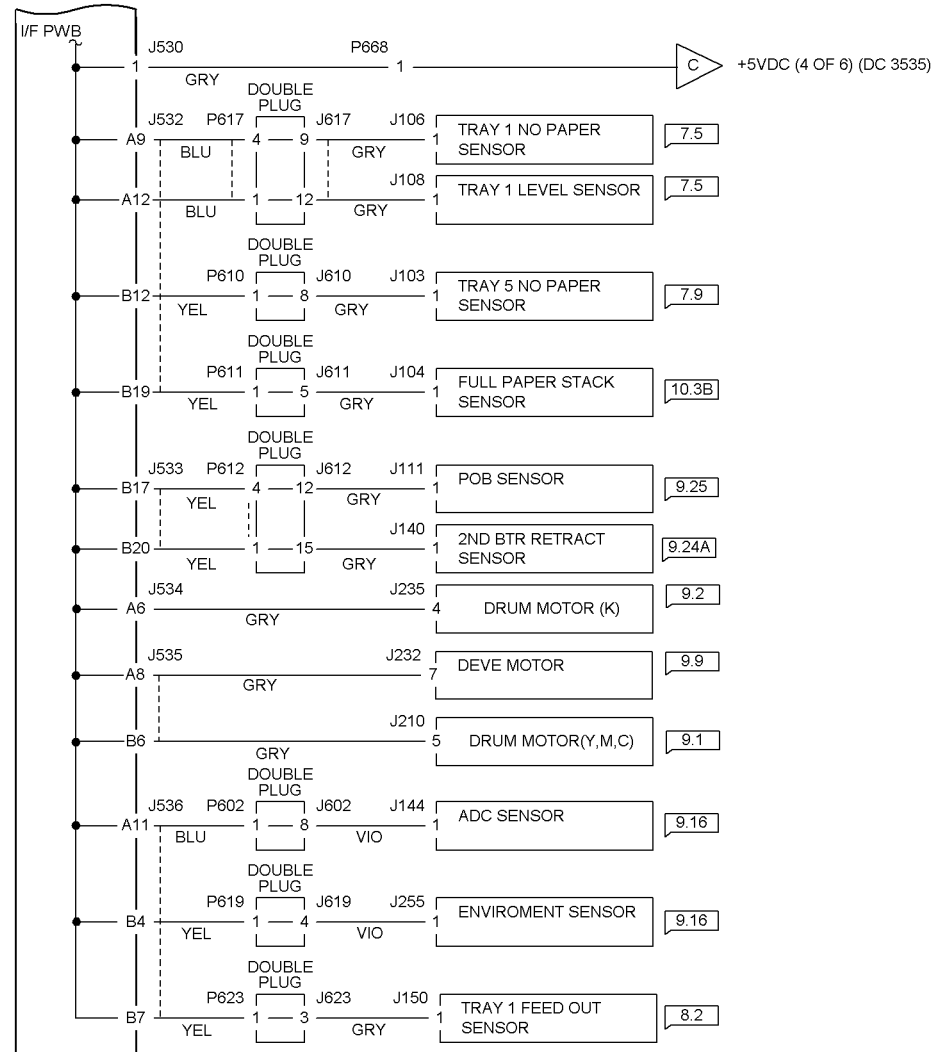
CONTINUED ON  
+5 VDC (6 OF 6)  
(DC 3535)

**Figure 5 +5VDC Wirenet (5 of 6 - DC3535)**



# +5VDC (6 OF 6 - DC 3535)

CONTINUED FROM  
+5 VDC (5 OF 6) (DC  
3535)



T720046A-CAR

Figure 6 +5VDC Wirenet (6 of 6 - DC3535)



## +5 VDC RTN Wirenets

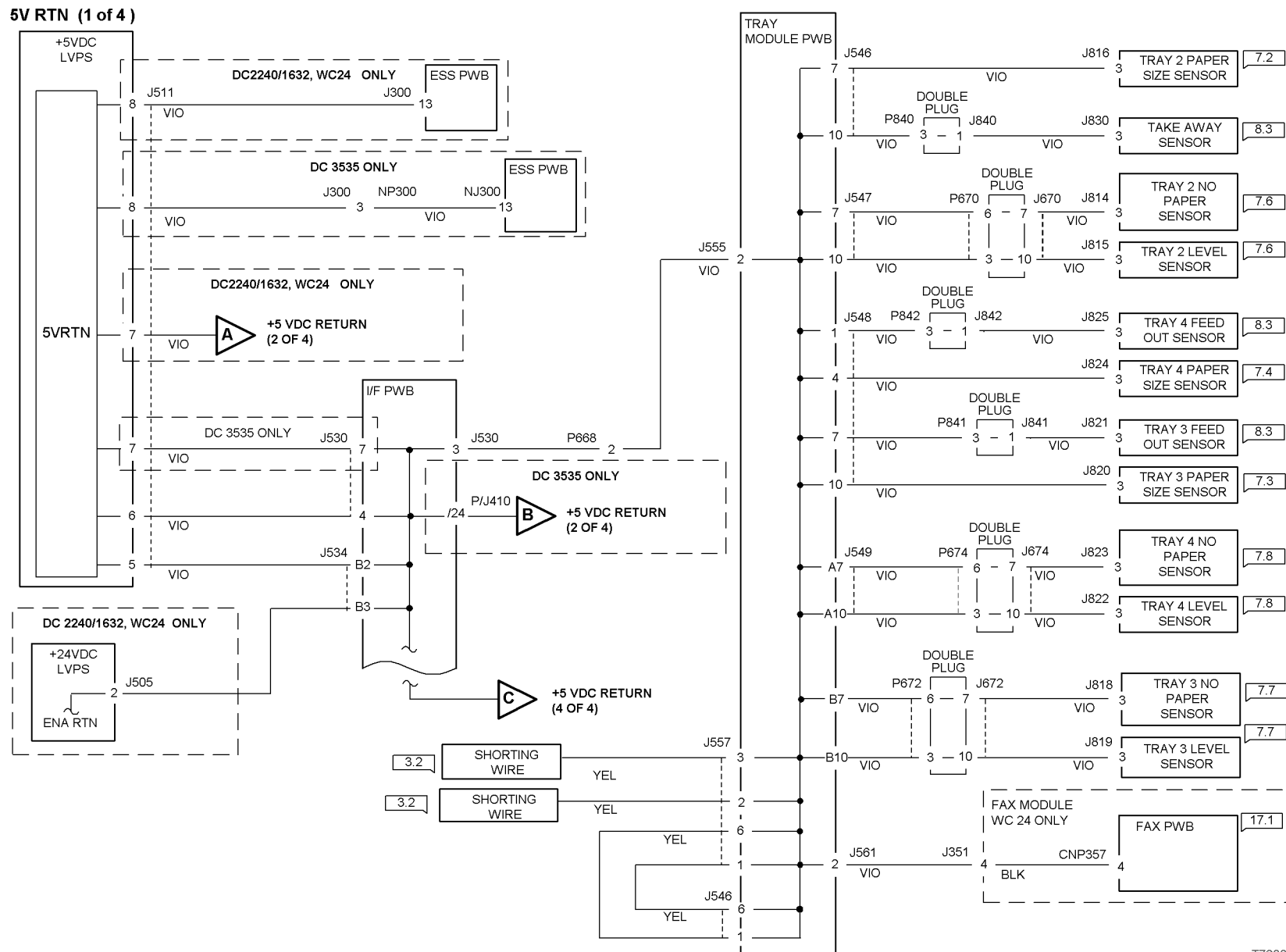


Figure 1 5V RTN (1 of 4) Wirenet



# 5V RTN (2 OF 4)

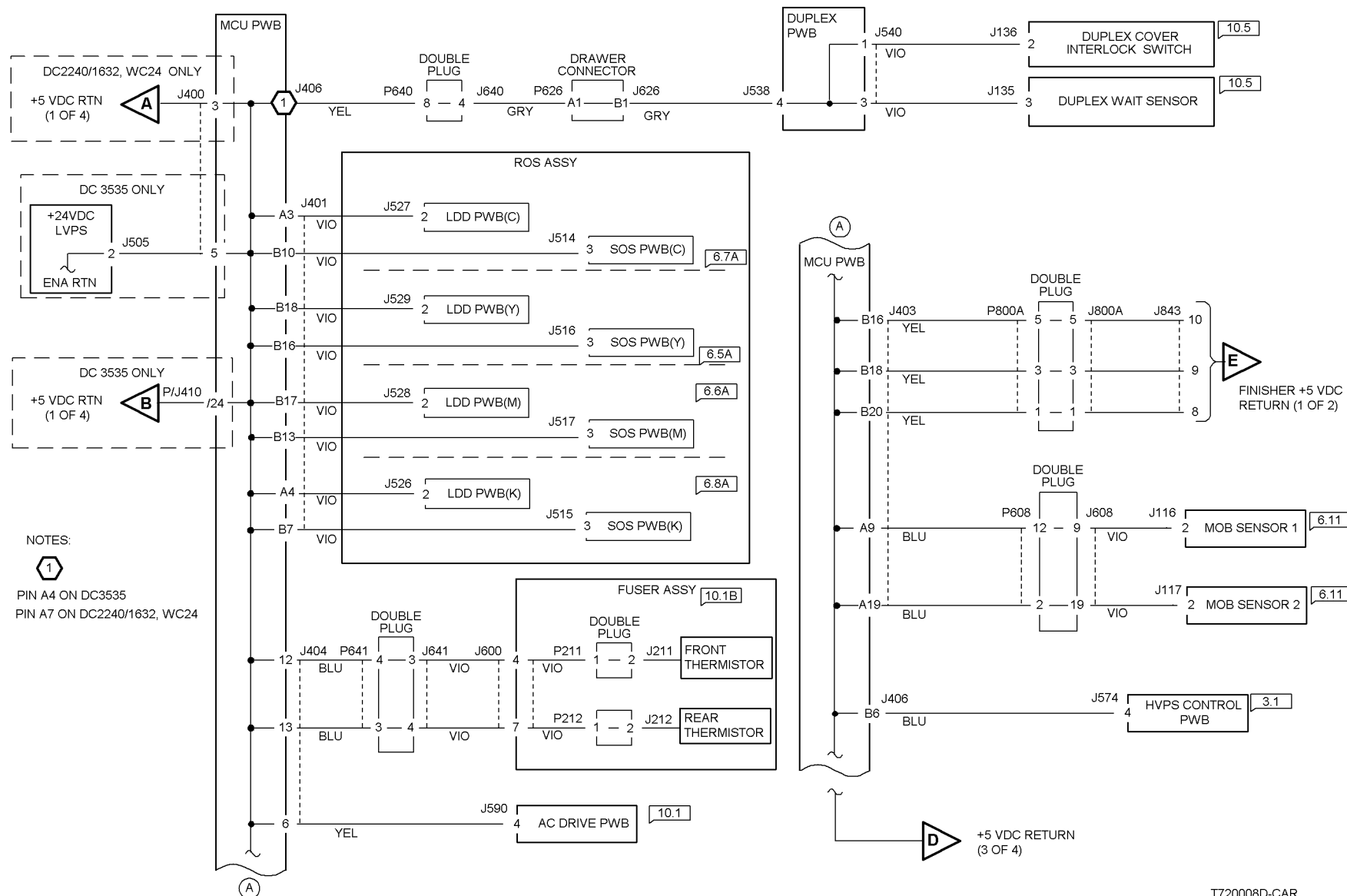
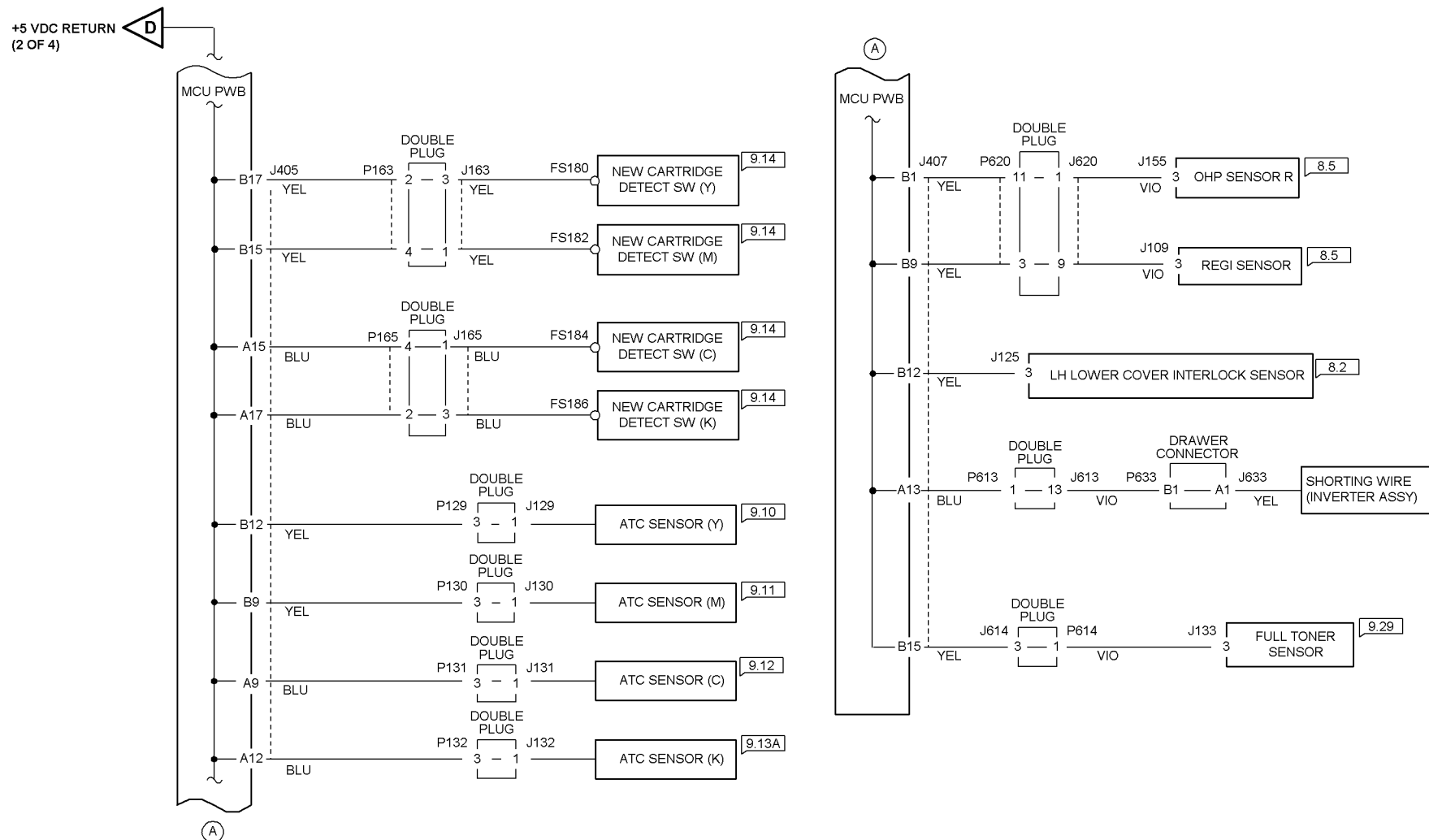


Figure 2 5V RTN (2 of 4) Wirenet

T720008D-CAR



# 5V RTN (3 OF 4)



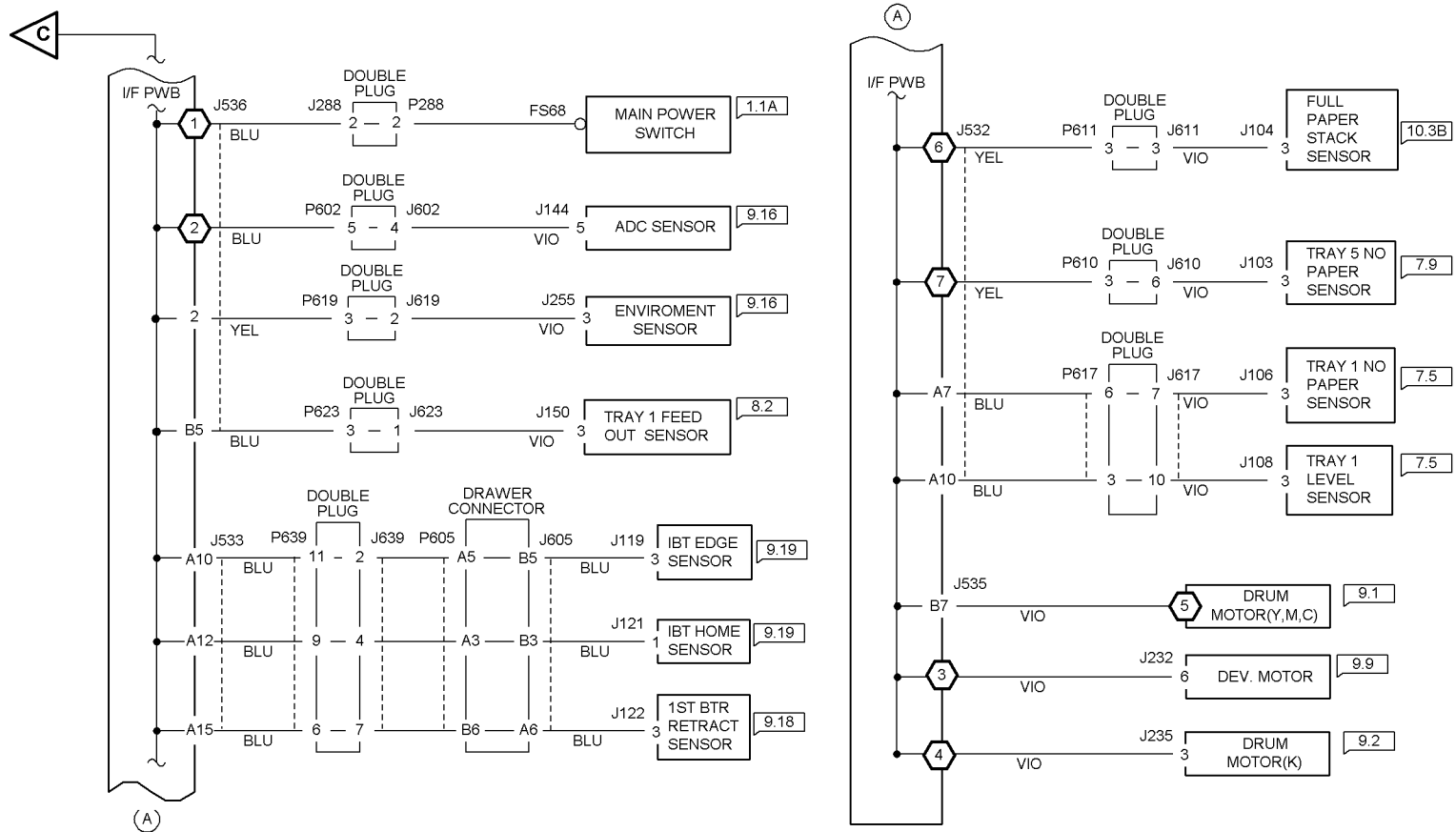
T720009C-CAR

Figure 3 5V RTN (3 of 4) Wirenet



# 5V RTN (4 OF 4)

+5 VDC RETURN  
(1 OF 4)



## NOTES:

1 J536 PIN A2 ON DC3535  
J536 PIN A4 ON DC2240/1632, WC24

3 J535 PIN A9 ON DC3535  
J534 PIN A2 ON DC2240/1632, WC24

5 J210 PIN 6 ON DC3535  
J210 PIN 5 ON DC2240/1632, WC24

7 J532 PIN B10 ON DC3535  
J532 PIN B8 ON DC2240/1632, WC24

2 J536 PIN A7 ON DC3535  
J536 PIN A9 ON DC2240/1632, WC24

4 J534 PIN A7 ON DC3535  
J534 PIN A13 ON DC2240/1632, WC24

6 J532 PIN B17 ON DC3535  
J532 PIN B15 ON DC2240/1632, WC24

T720010C-CAR

Figure 4 5V RTN (4 of 4) Wirenet



# +24 VDC Wirenets

## +24VDC (1 OF 5)

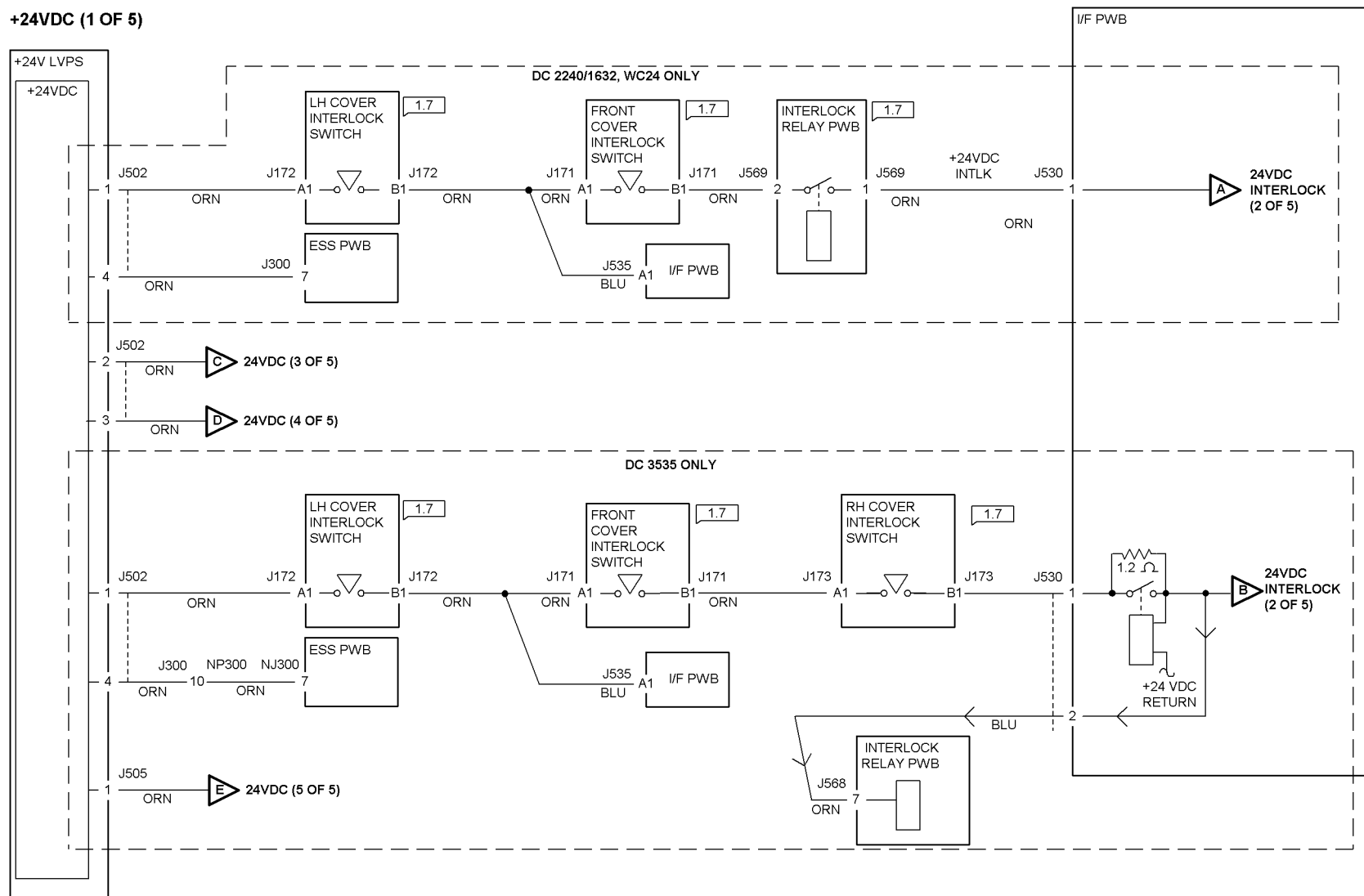
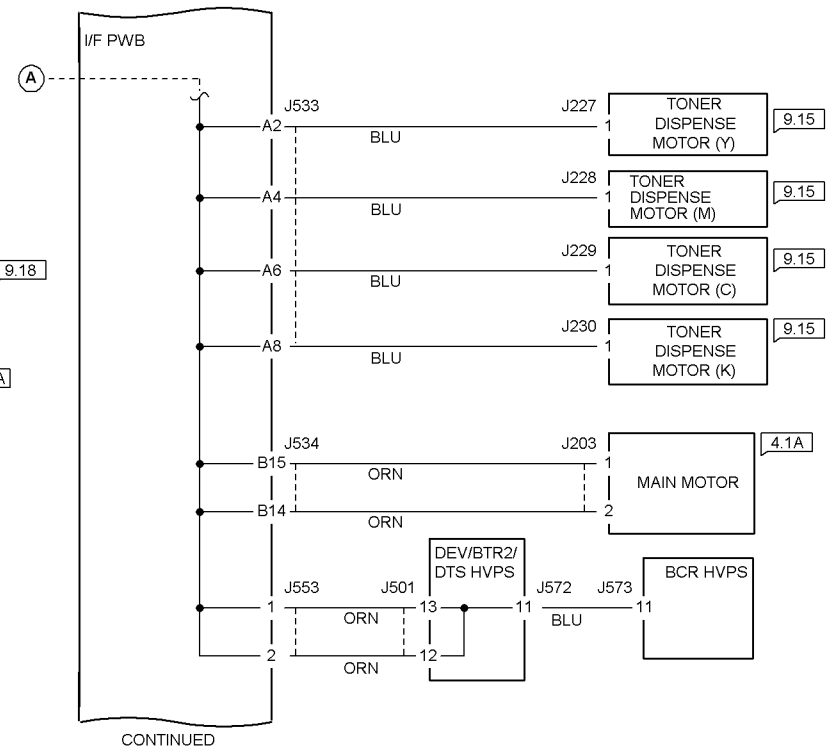
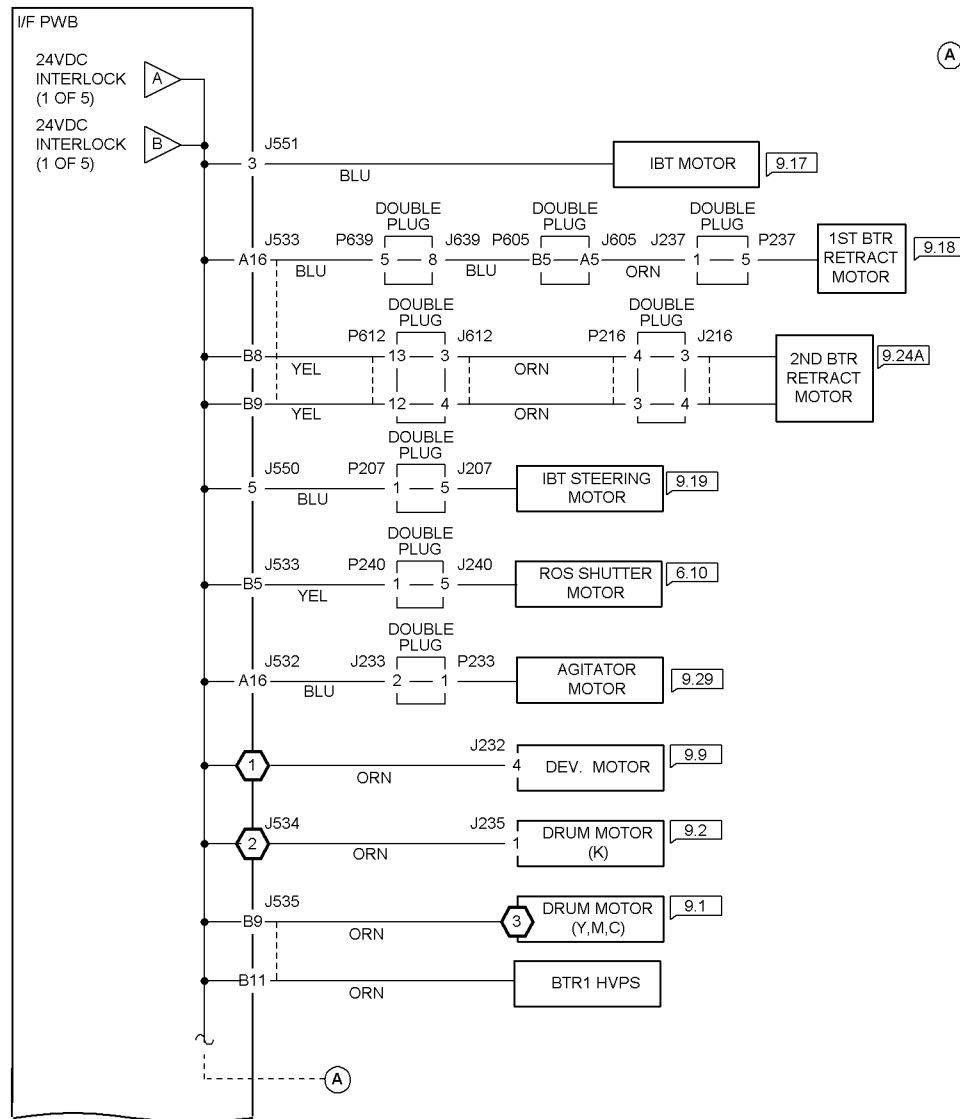


Figure 1 +24VDC (1 of 5) Wirenet



# +24VDC (2 of 5)



## NOTES:

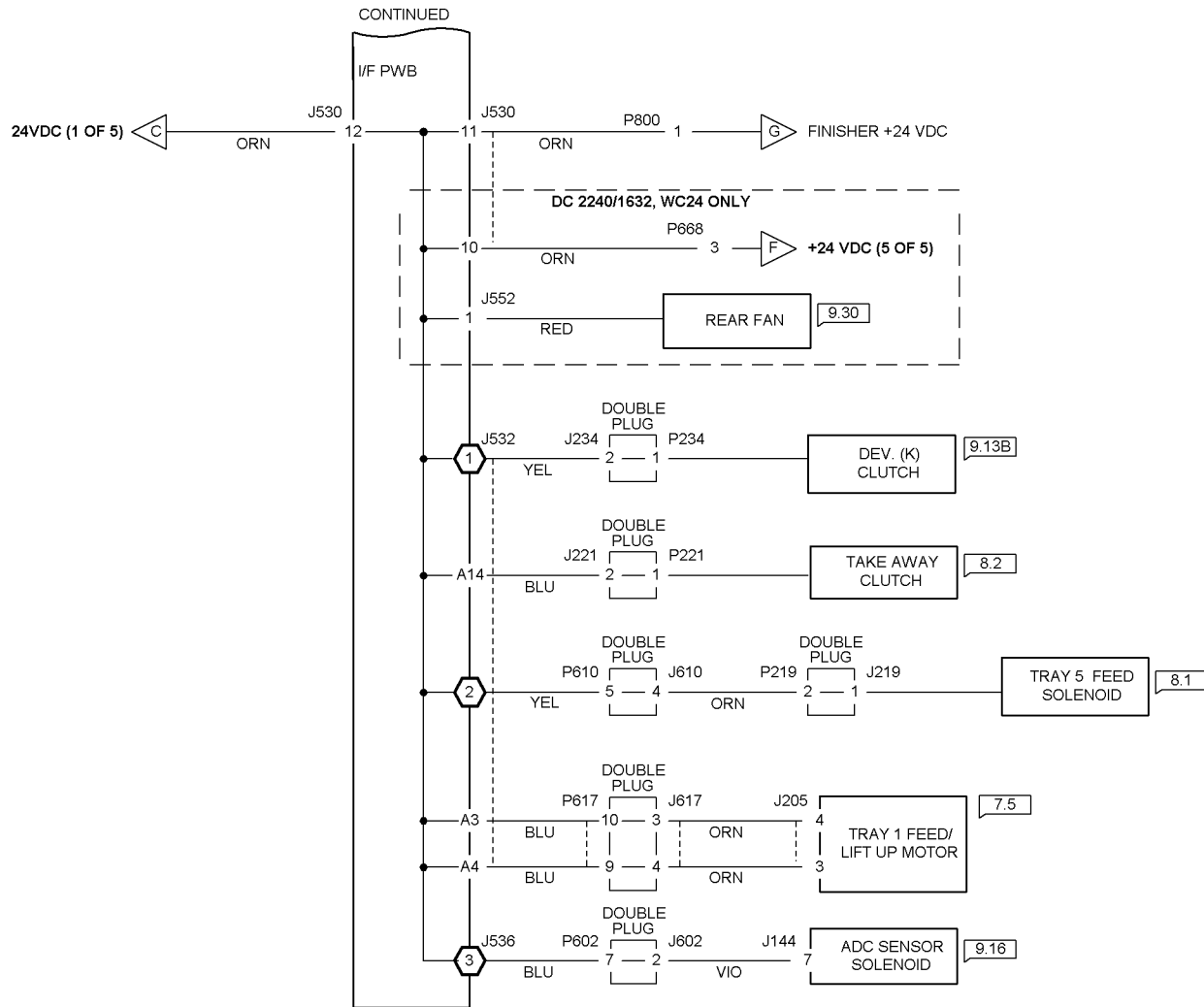
- 1 J534 PIN A3 ON DC 2240/1632, WC24  
J535 PIN A1 ON DC 3535
- 2 J534 PIN A15 ON DC 2240/1632, WC24  
J534 PIN A9 ON DC 3535
- 3 J210 PIN 6 ON DC 2240/1632, WC24  
J210 PIN 7 ON DC 3535

T720012D-CAR

Figure 2 +24VDC (2 of 5) Wirenet



# +24VDC (3 OF 5)



## NOTES:

- 1 J532 PIN B11 ON DC 2240/1632, WC24  
J532 PIN B13 ON DC 3535
- 2 J532 PIN B6 ON DC 2240/1632, WC24  
J532 PIN B8 ON DC 3535
- 3 J536 PIN A7 ON DC 2240/1632, WC24  
J536 PIN A5 ON DC 3535

T720013C-CAR

Figure 3 +24VDC (3 of 5) Wirenet



The diagram illustrates the electrical connections for the MCU PWB. It features a vertical bus on the left with terminals 1, 2, B1, B3, B5, B7, 6, 9, A9, A11, and 3. Key components and their connections include:

- 24VDC (1 OF 5)**: Connected to terminal 1 via a diode (D) and ORN wire.
- FUSER FAN**: Connected via J407 (BLU) to a double plug (J222) and P222 (10.2).
- LVPS FAN**: Connected via J406 (BLU) to a double plug (J214) and P214 (1.2).
- ERASE LAMP (Y)**: Connected via J403 (YEL) to a double plug (J223) and P223 (9.26).
- ERASE LAMP (M)**: Connected via J403 (YEL) to a double plug (J224) and P224 (9.26).
- ERASE LAMP (C)**: Connected via J403 (YEL) to a double plug (J225) and P225 (9.27).
- ERASE LAMP (K)**: Connected via J403 (YEL) to a double plug (J226) and P226 (9.27).
- ROS MOTOR**: Connected via J402 (ORN) to J518 (6.9).
- AC DRIVE PWB**: Connected via J404 (YEL) to J590 (10.1A).
- INVERTER FORWARD CLUTCH**: Connected via J407 (BLU) to a double plug (P613), J613 (ORN), a drawer connector (P633), J633 (ORN), a double plug (P217), and J217 (10.3A).
- INVERTER REVERSE CLUTCH**: Connected via J407 (BLU) to a double plug (P613), J613 (ORN), a drawer connector (P633), J633 (ORN), and J218 (10.3A).
- DUPLEX MOTOR**: Connected via J406 (YEL) to a double plug (P640), J640 (GRY), a drawer connector (P626), J626 (GRY), J538, and a duplex PWB (10.4).
- REGI CLUTCH**: Connected via J407 (YEL) to a double plug (P620), J620 (ORN), and J231 (8.5).
- DELAY RELAY PWB**: Connected via J404 (YEL) to a double plug (J646), P646 (BLU), and J593 (1.1A).

**NOTES:**

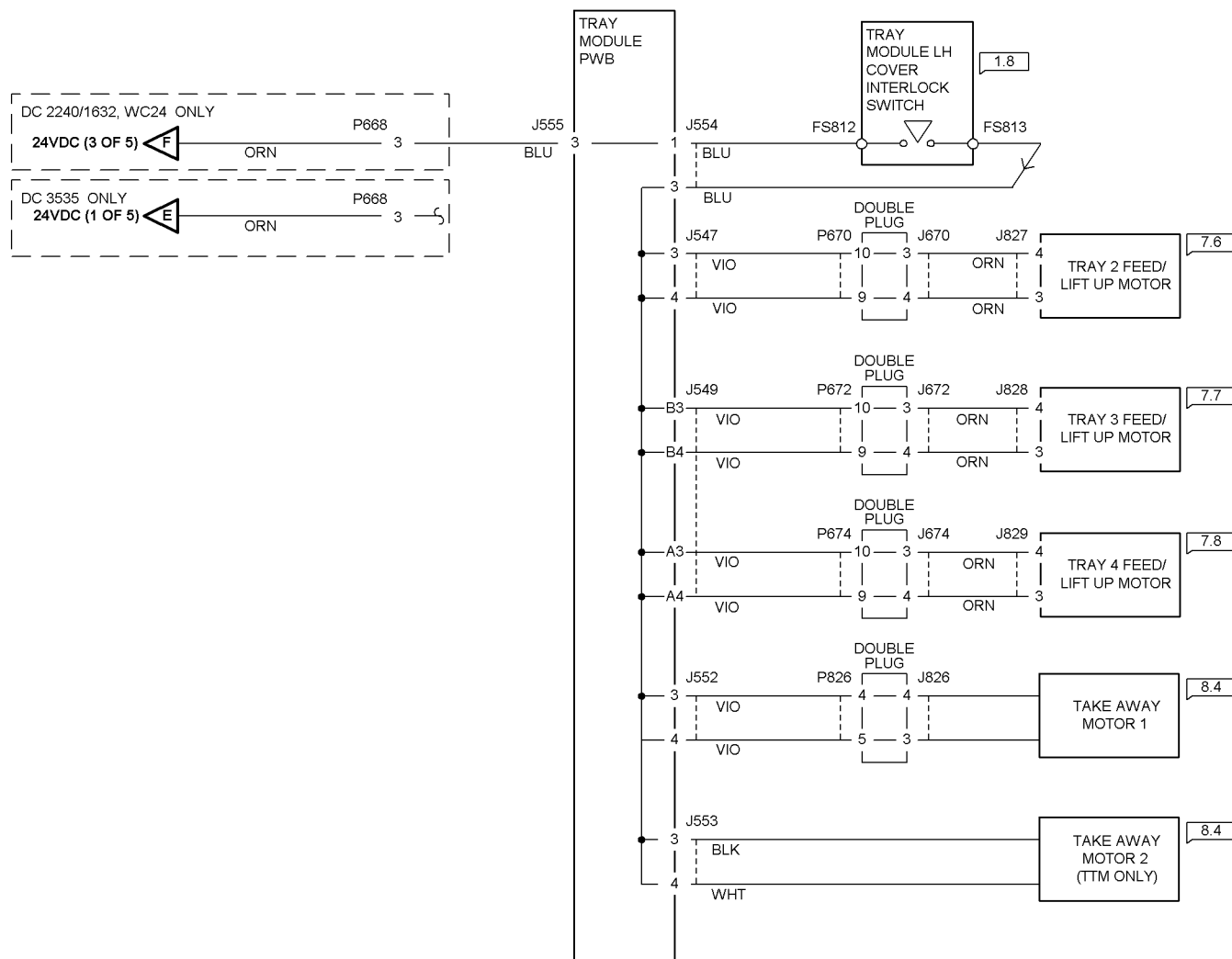
- J400 PIN 6 ON DC, J400 PIN 1 ON DC
- J406 PIN B11 ON DC, J406 PIN B10 ON DC
- J406 PIN A4 ON DC, J406 PIN A1 ON DC

- 1 J400 PIN 6 ON DC 2240/1632, WC24  
J400 PIN 1 ON DC 3535
- 2 J406 PIN B11 ON DC 2240/1632, WC24  
J406 PIN B10 ON DC 3535
- 3 J406 PIN A4 ON DC 2240/1632, WC24  
J406 PIN A1 ON DC 3535

### Figure 4 +24VDC (4 of 5) Wirenet



# +24VDC (5 of 5)



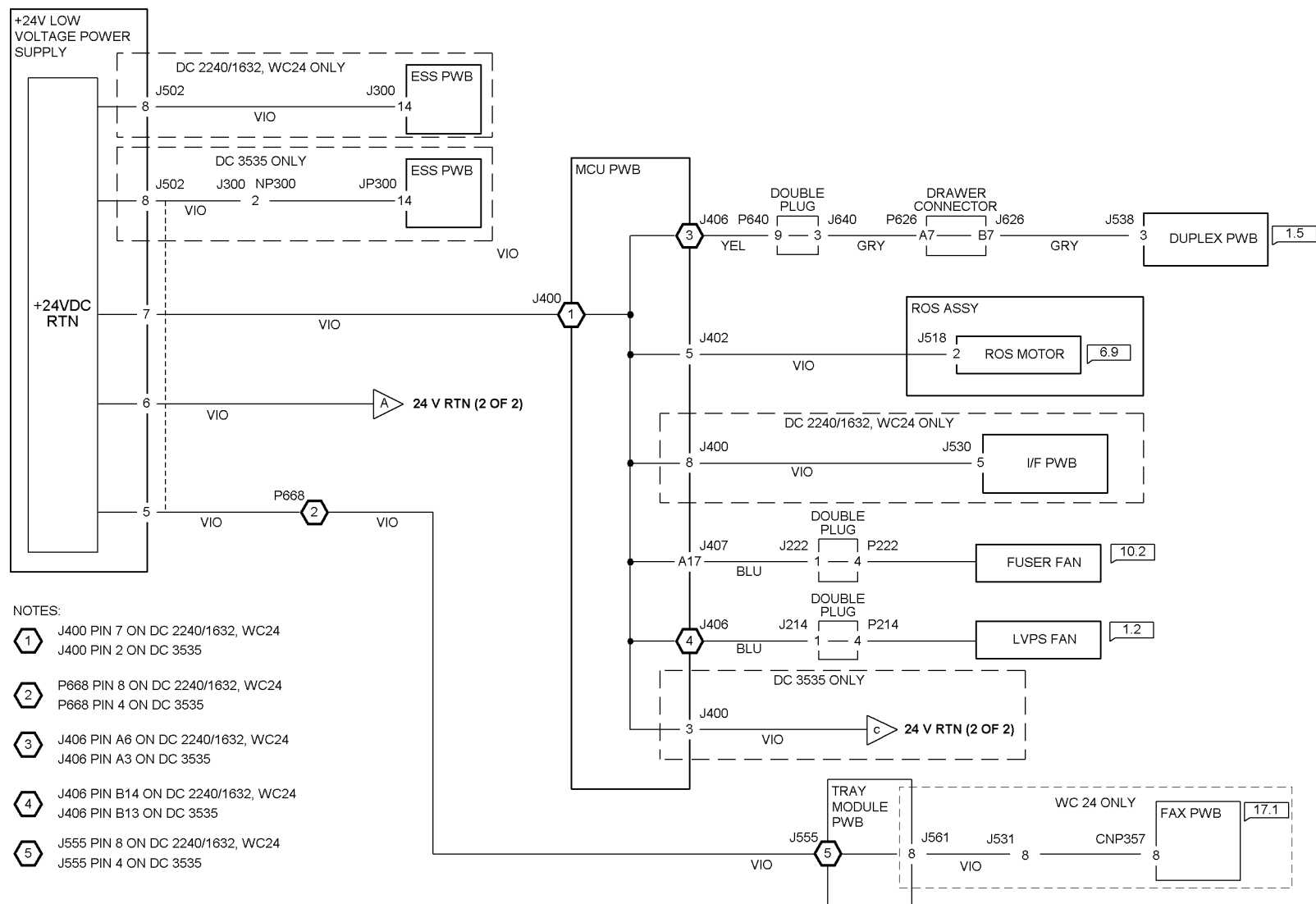
T720015C-CAR

Figure 5 +24VDC (5 of 5) Wirenet



# +24 VDC RTN Wirenets

## 24V RTN (1 OF 2)

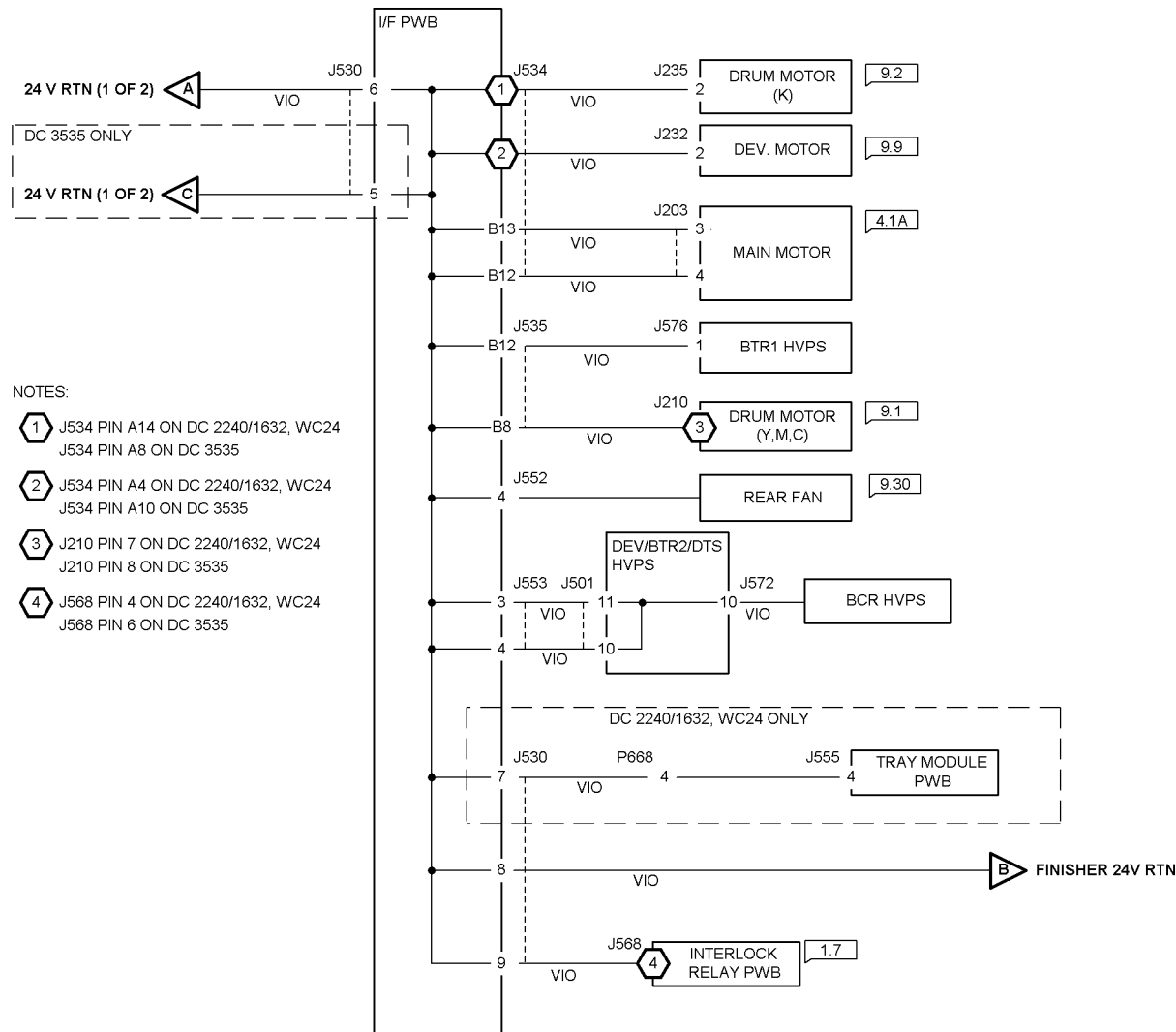


T720016D-CAR

Figure 1 24V RTN (1 of 2) Wirenet



## 24V RTN (2 OF 2)



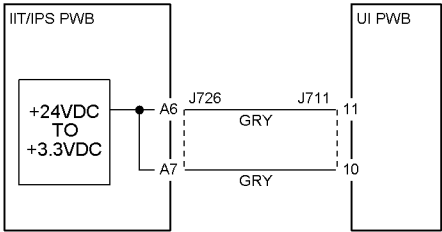
T720017D-CAR

Figure 2 24V RTN (2 of 2) Wirenet



IIT Wirenets

IIT +3.3VDC



IIT DC COM (3.3V RTN)

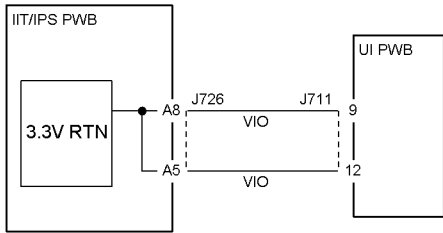
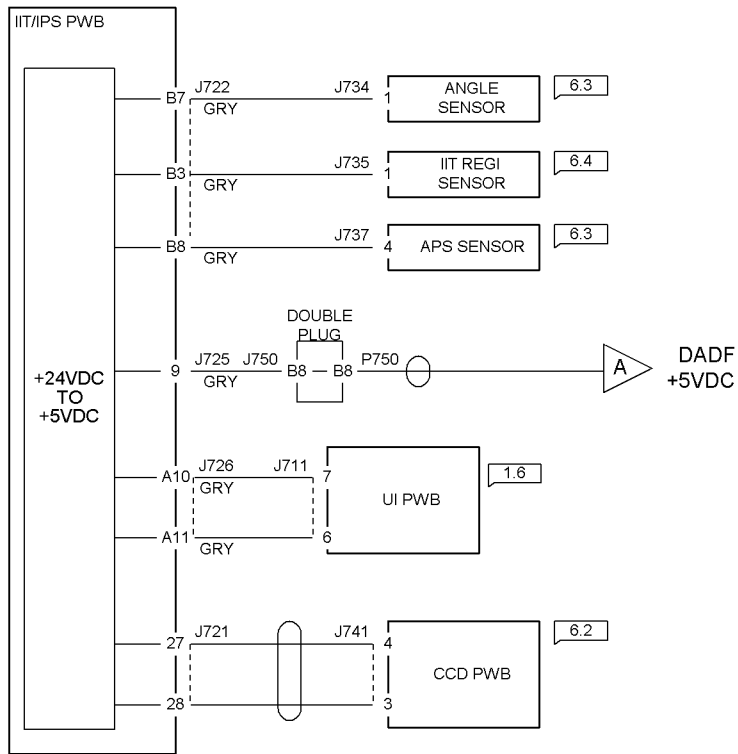


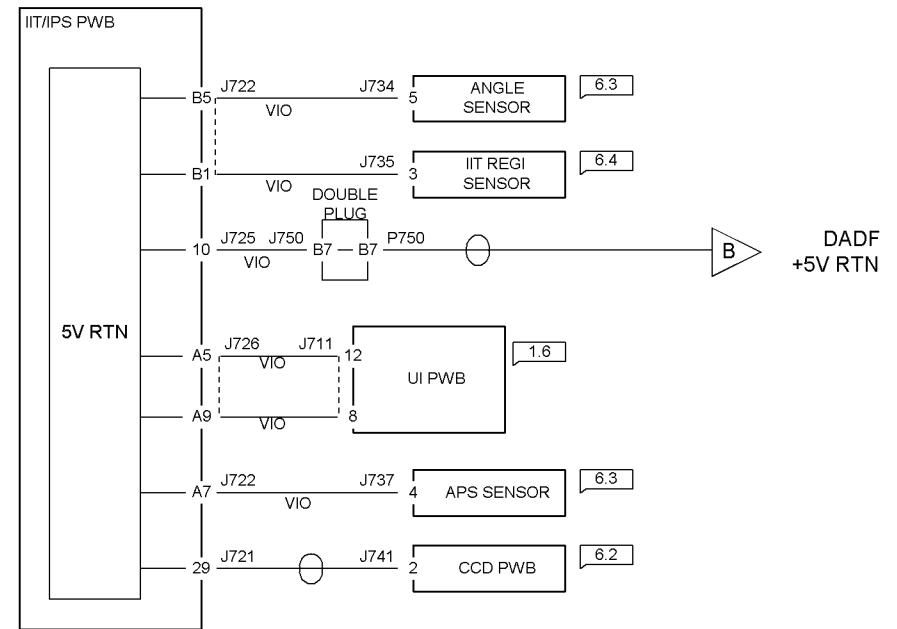
Figure 1 IIT +3.3VDC & 3.3V RTN Wirenets



## IIT +5VDC



## IIT DC COM (5V RTN)

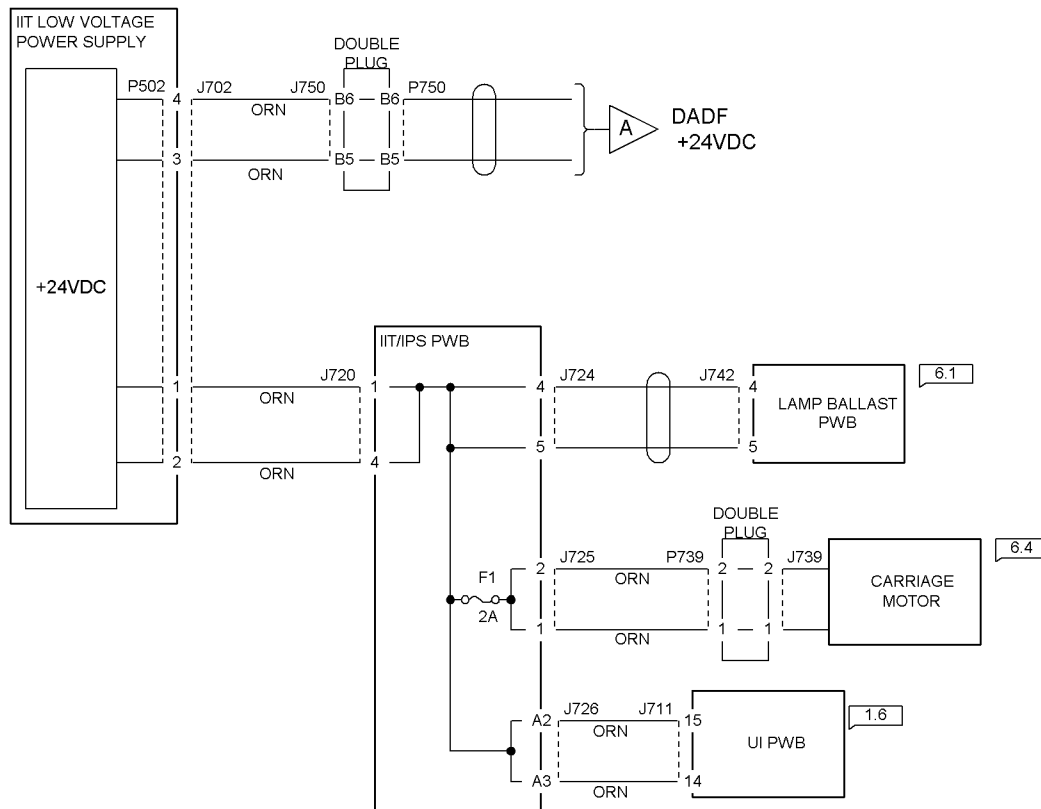


T720019B-CAR

Figure 2 IIT +5VDC & 5V RTN Wirenets



## IIT +24VDC

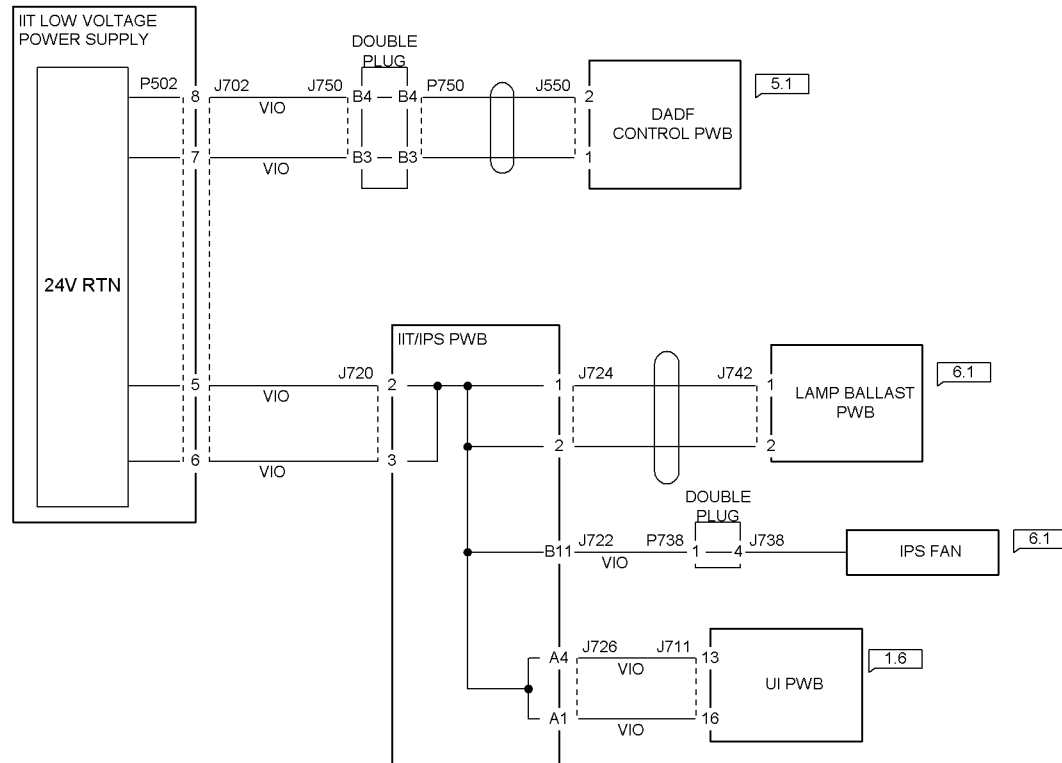


T720020B-CAR

Figure 3 IIT +24VDC Wirenet



# IIT DC COM (24V RTN)



T720021B-CAR

Figure 4 IIT 24V RTN



# DADF Wirenets

## DADF +5VDC

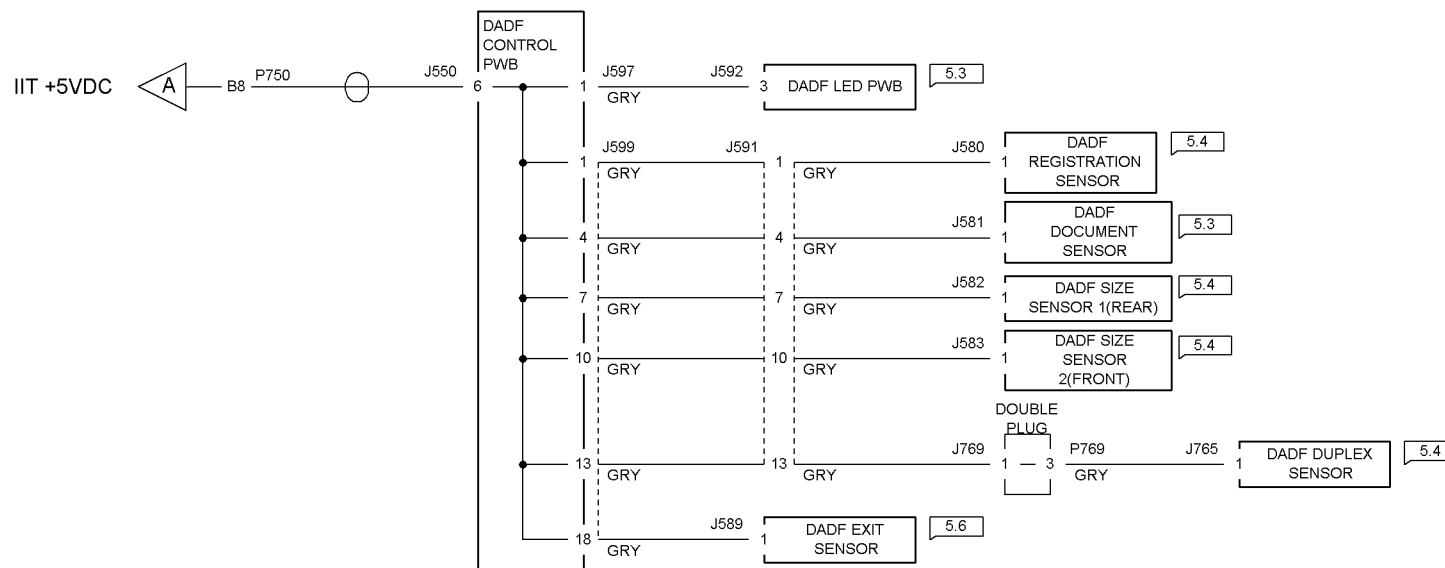
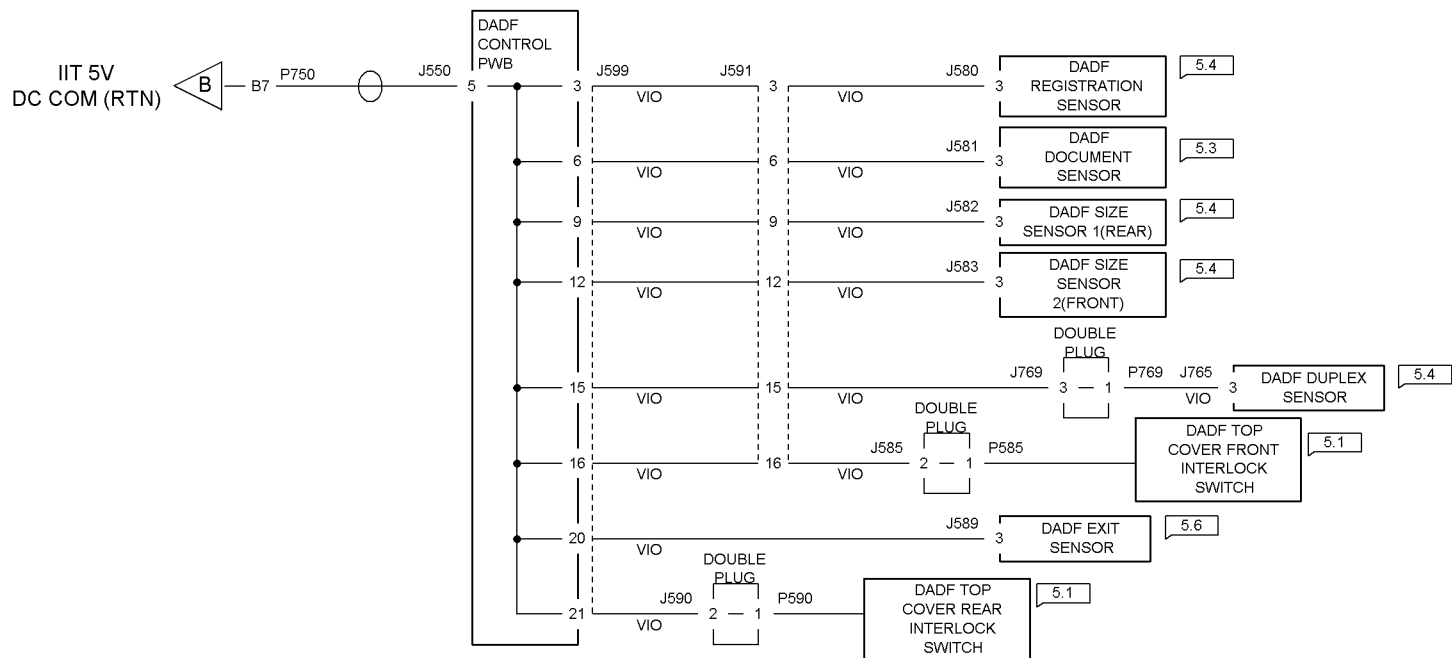


Figure 1 DADF +5VDC Wirenet



# DADF DC COM (5V RTN)

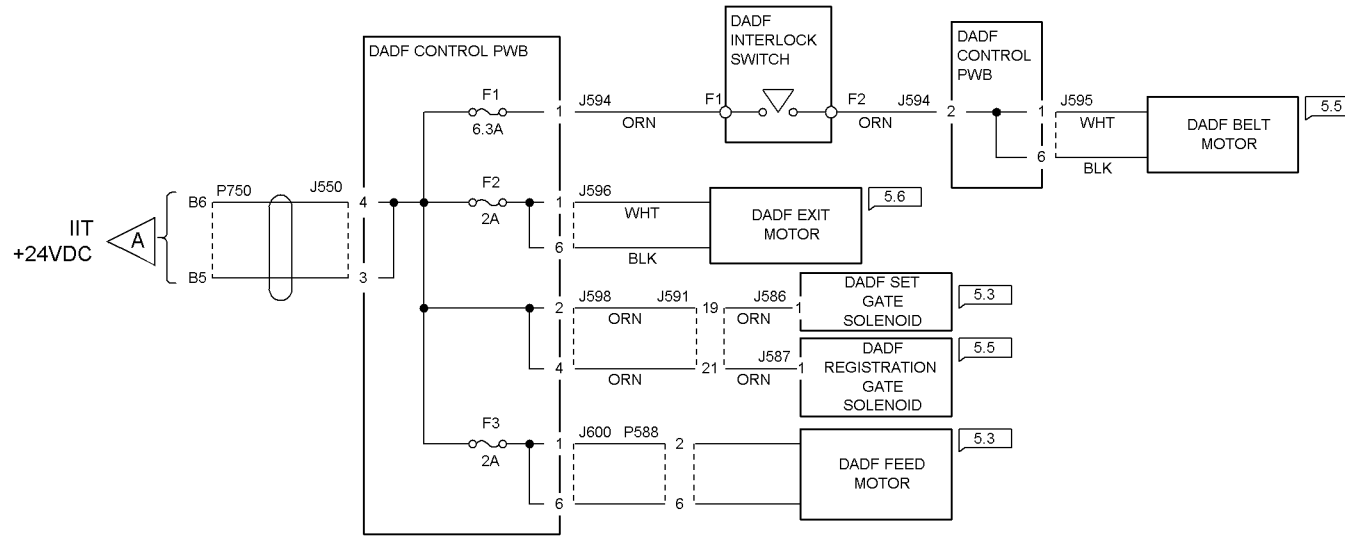


T720023A-CAR

Figure 2 DADF 5V RTN



# DADF +24VDC



T720024A-CAR

Figure 3 DADF +24VDC Wirenet



# Finisher Wirenets

## FINISHER +5VDC(1 of 2)

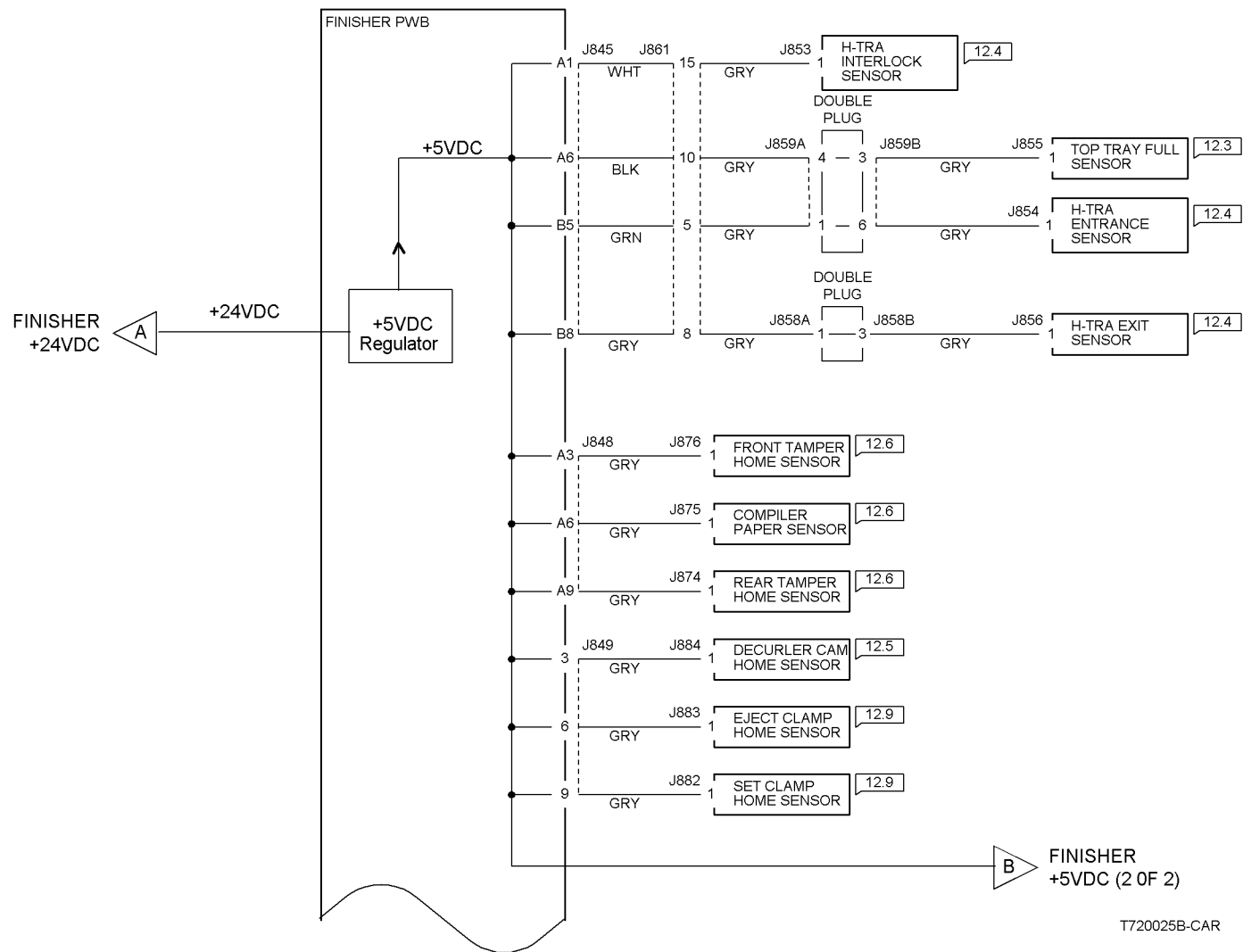
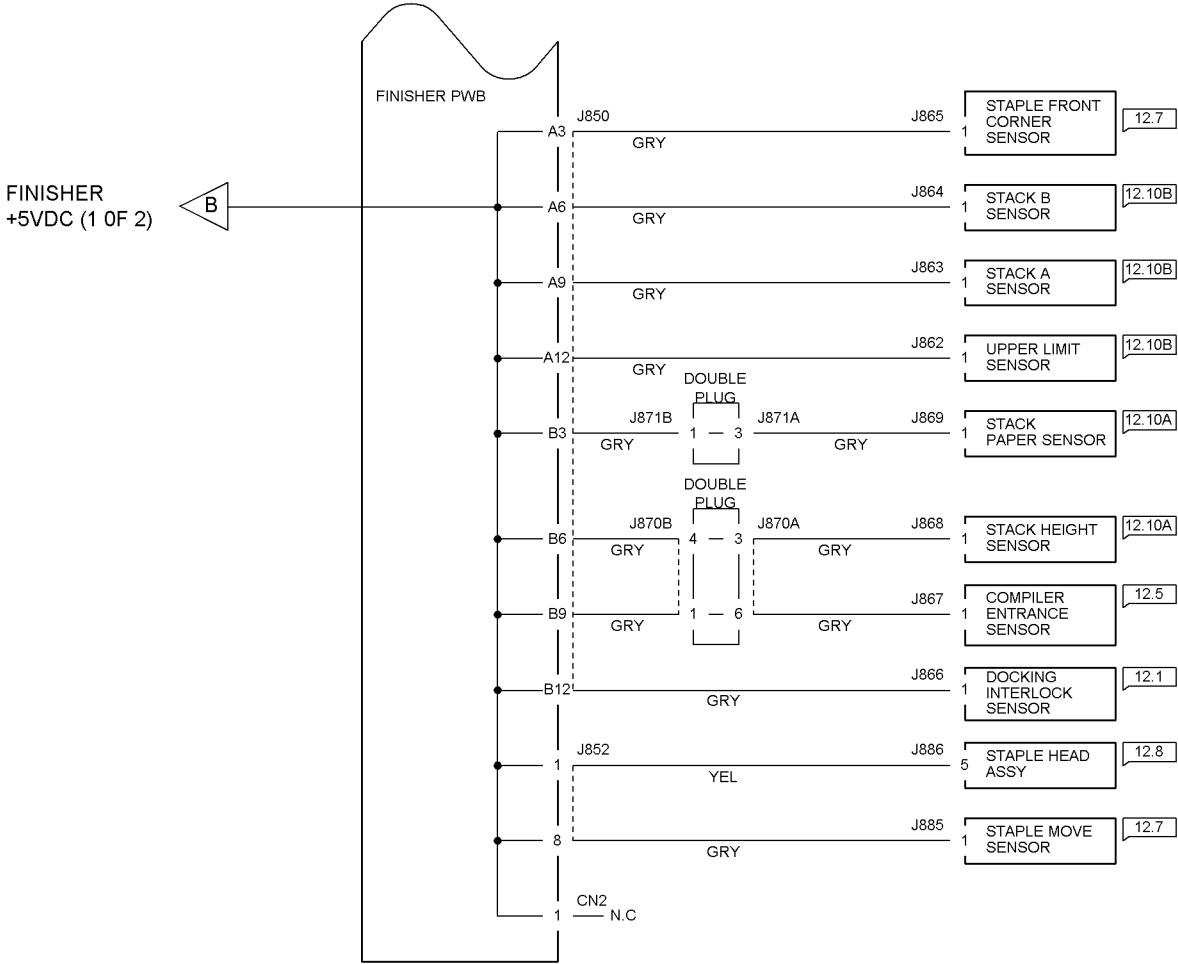


Figure 1 Finisher +5VDC (1 of 2) Wirenet



FINISHER +5VDC (2 of 2)



T720026A-CAR

Figure 2 +5VDC (2 of 2) Wirenet



# FINISHER 5V RTN (1 of 2)

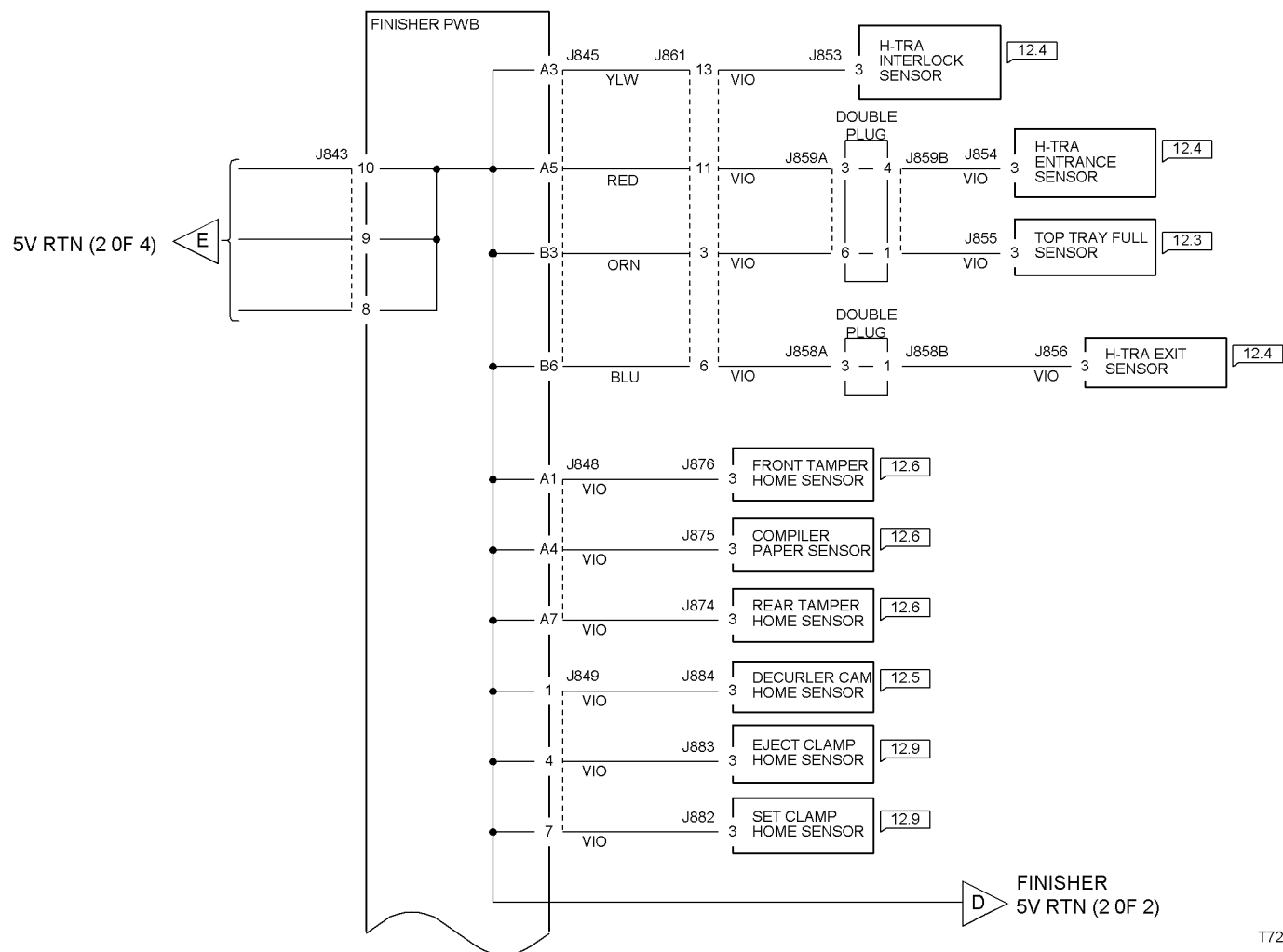
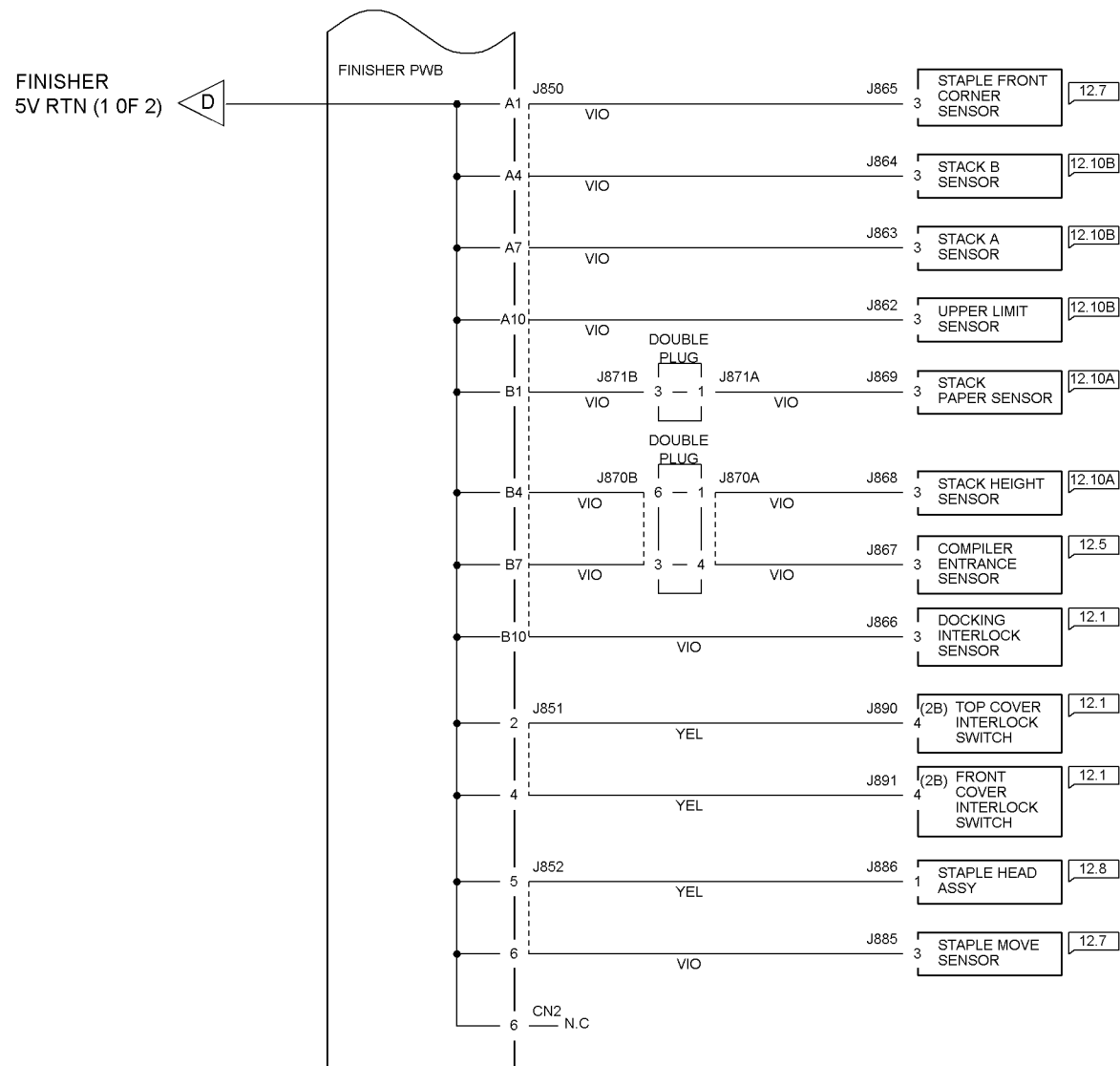


Figure 3 5V RTN (1 of 2) Wirenet



# FINISHER 5V RTN (2 of 2)



T720028A-CAR

Figure 4 5V RTN (2 of 2) Wirenet



# FINISHER +24VDC

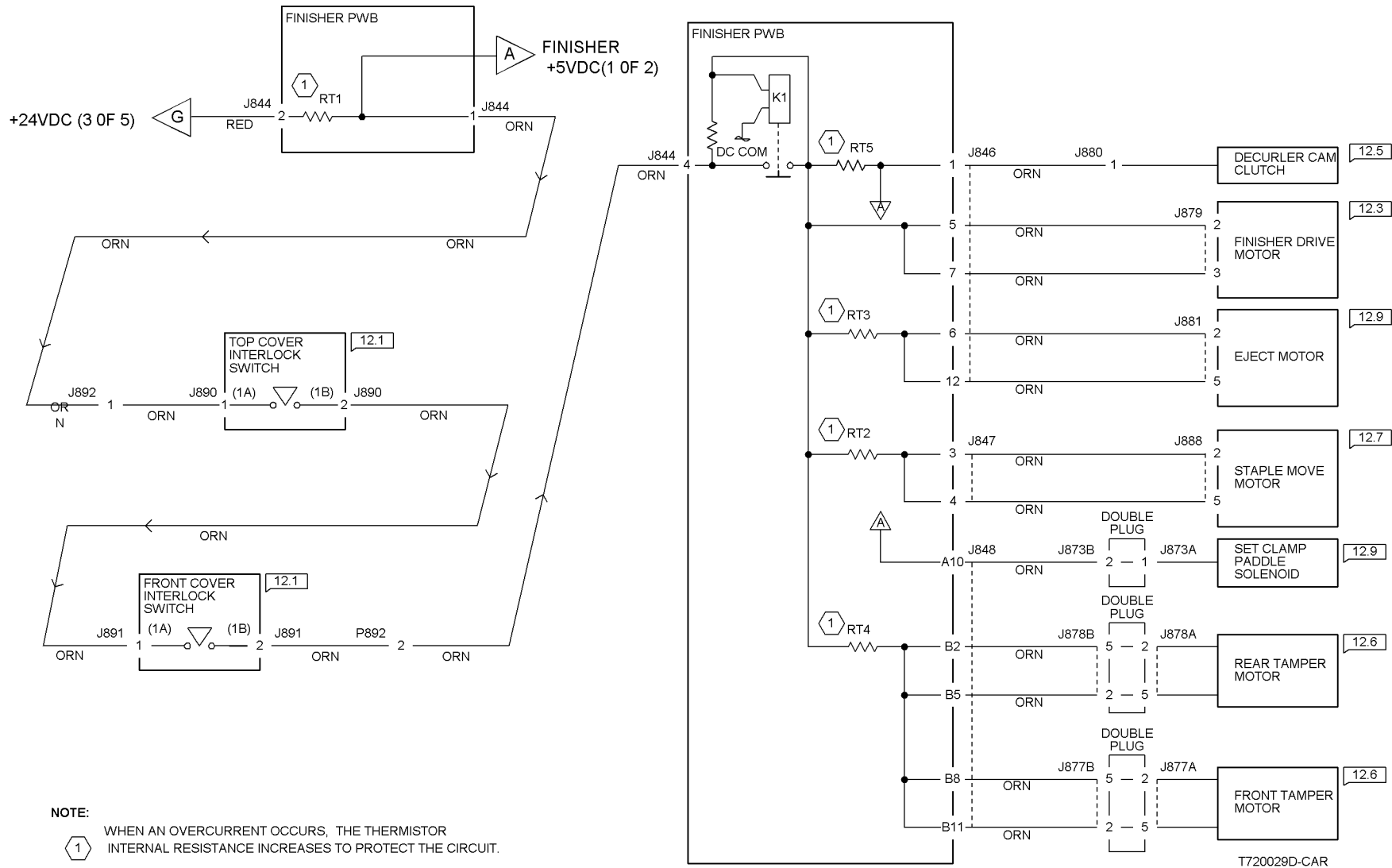
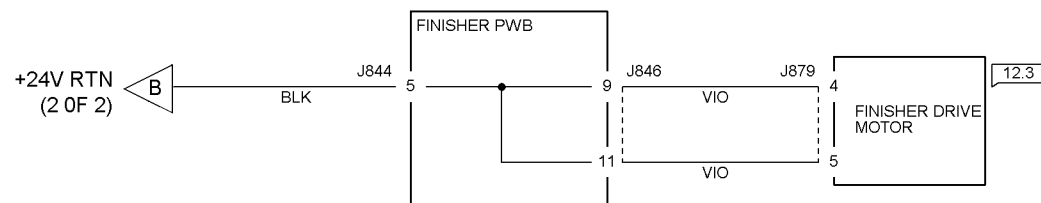


Figure 5 Finisher +24VDC Wirenet



# FINISHER DC COM (24V RTN)



T720030B-CAR

Figure 6 Finisher 24V RTN Wirenet



## Chain 01 Main Power

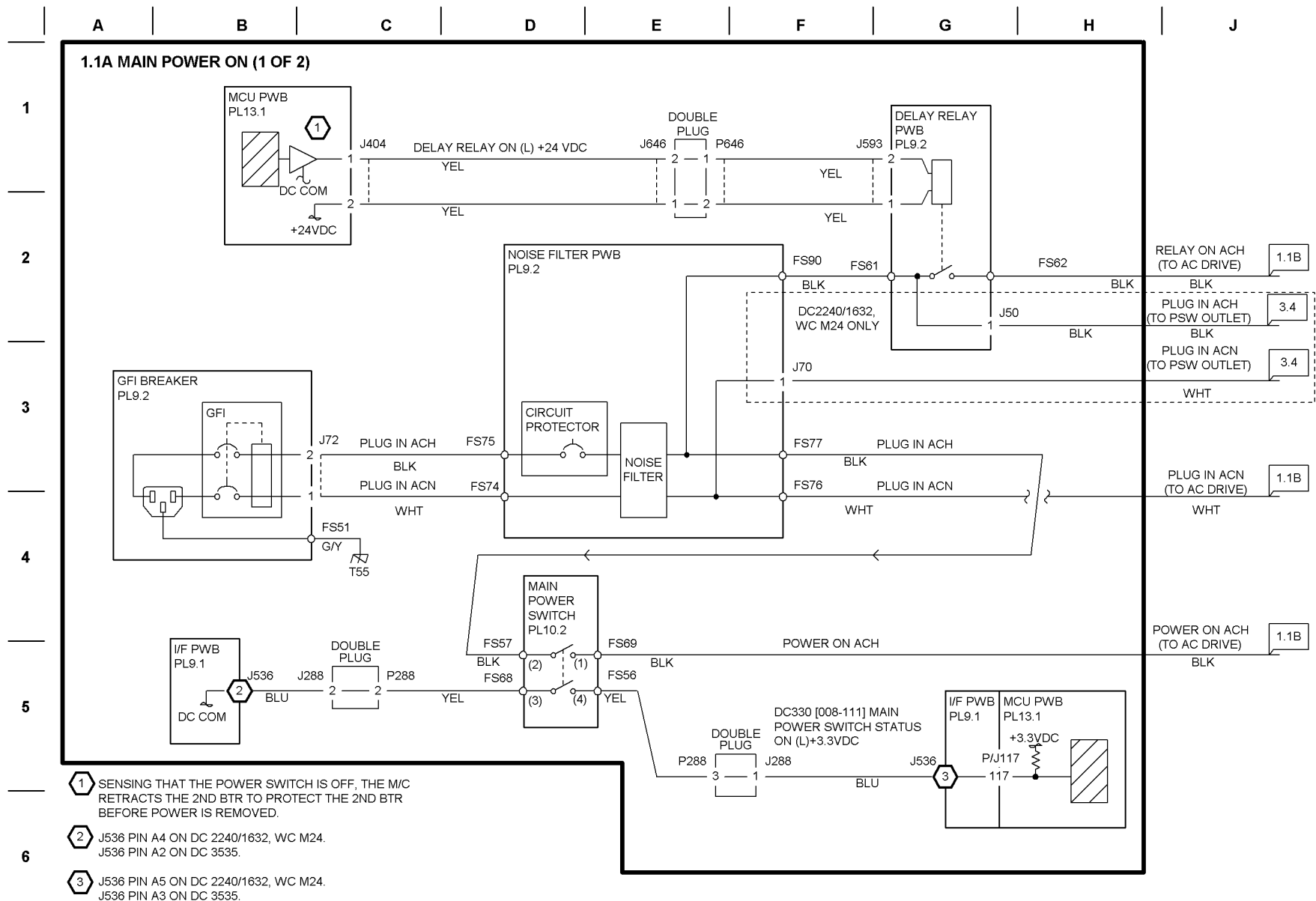
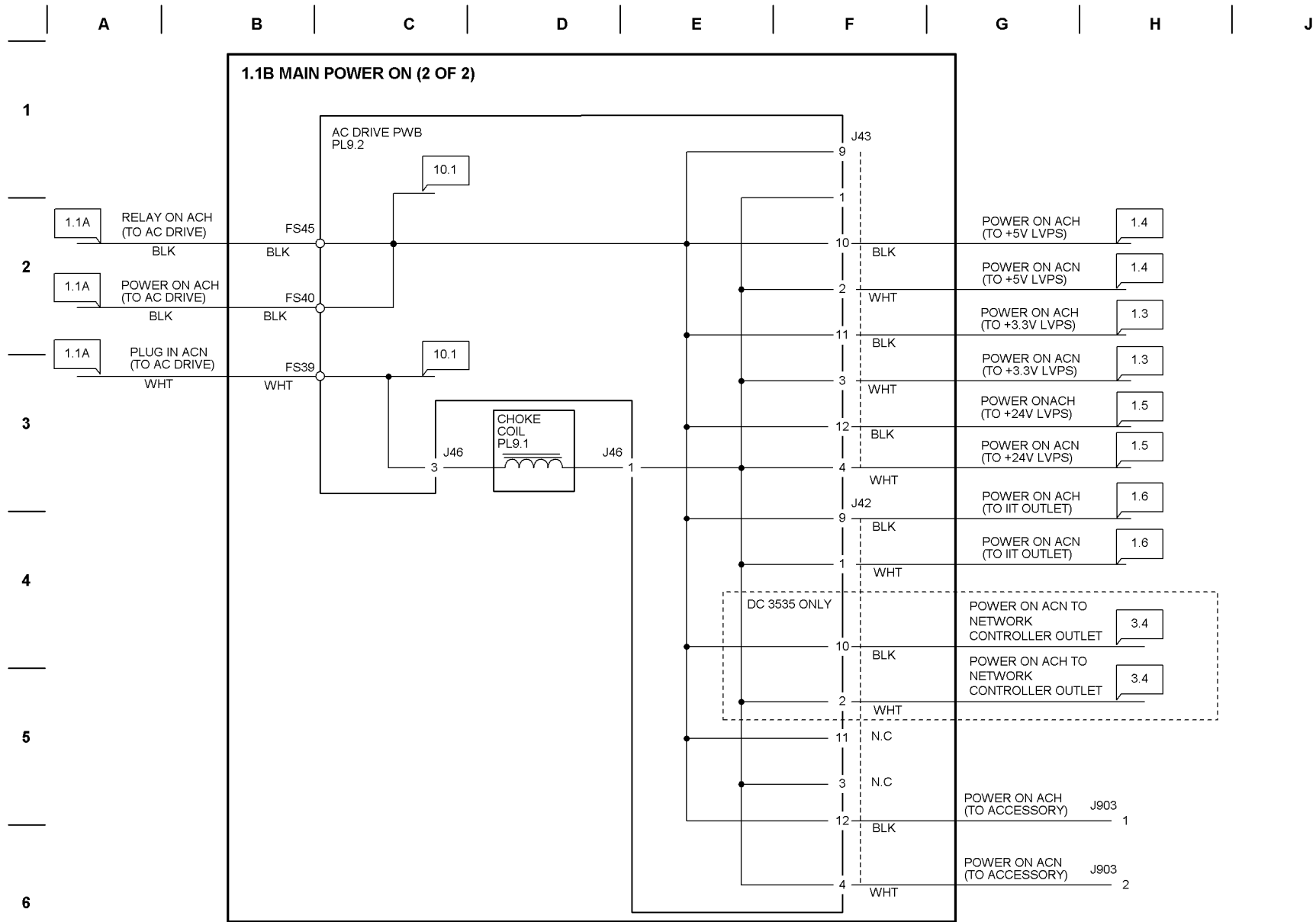


Figure 1 BSD 1.1A Main Power On (1 of 2)

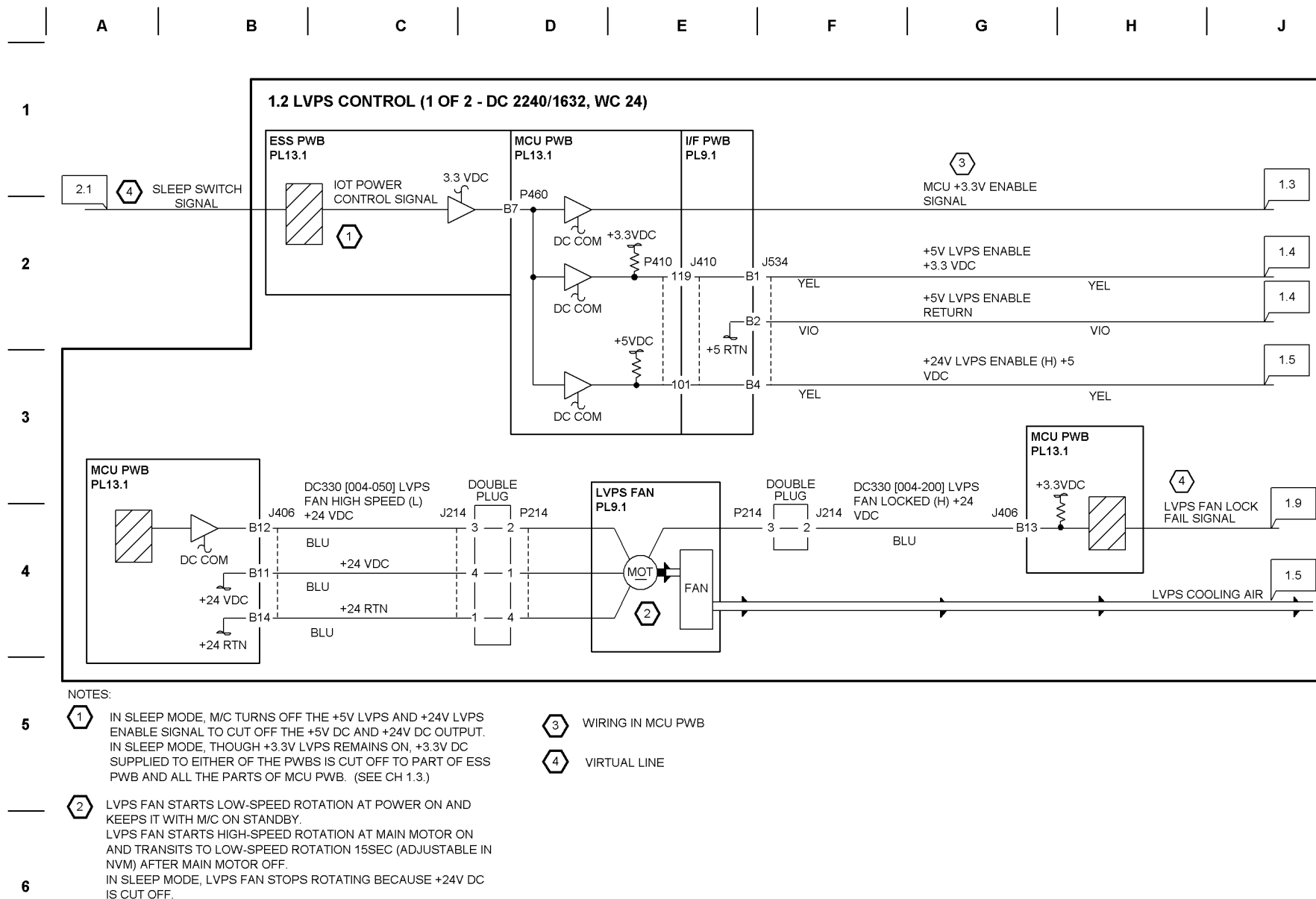




T701701B-CAR

Figure 2 BSD 1.1B Main Power On (2 of 2)

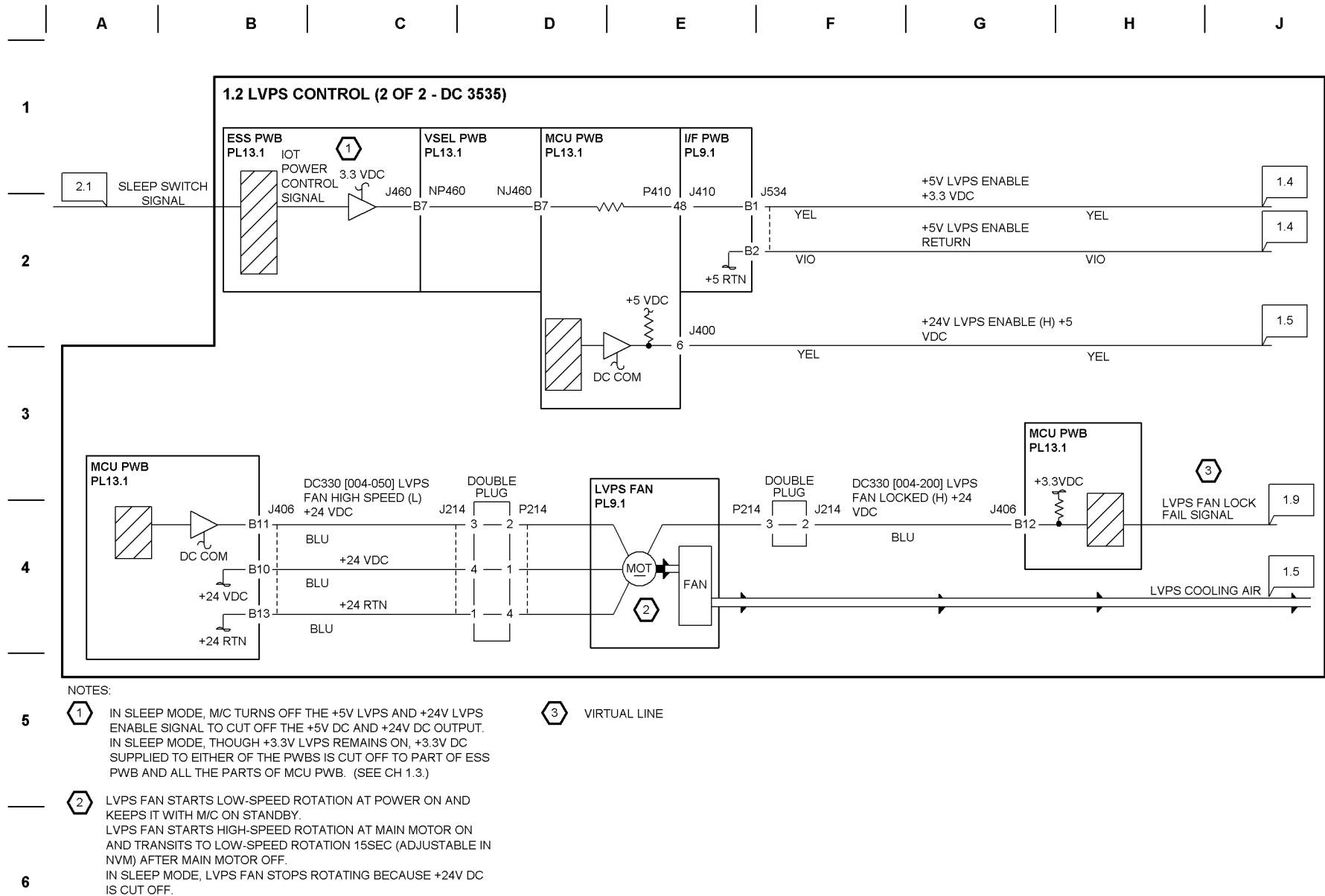




T701702D-CAR

Figure 3 BSD 1.2 LVPS Control (DC 2240/1632, WC 24)

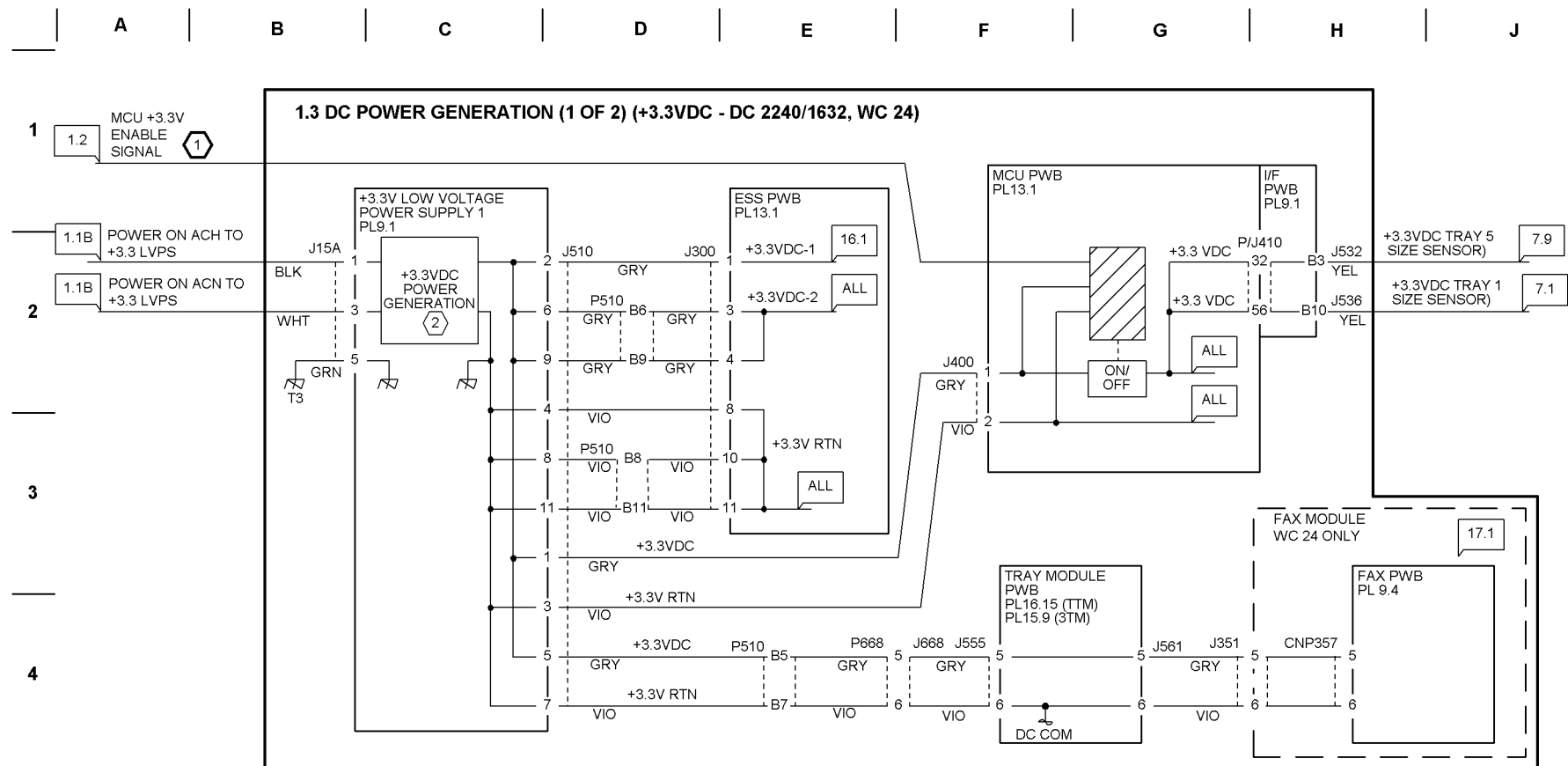




T701735A-CAR

Figure 4 BSD 1.2 LVPS Control (DC 3535)





NOTES:



WIRING IN MCU PWB



OVERCURRENT PROTECTION (SHORT-CIRCUIT PROTECTION)

- WHEN +3.3V DC CIRCUIT IS SHORTED, THE OUTPUT DROPS. THE OUTPUT AUTO-RECOVERS IN 10SEC AFTER RECOVERY FROM THE SHORT CIRCUIT.

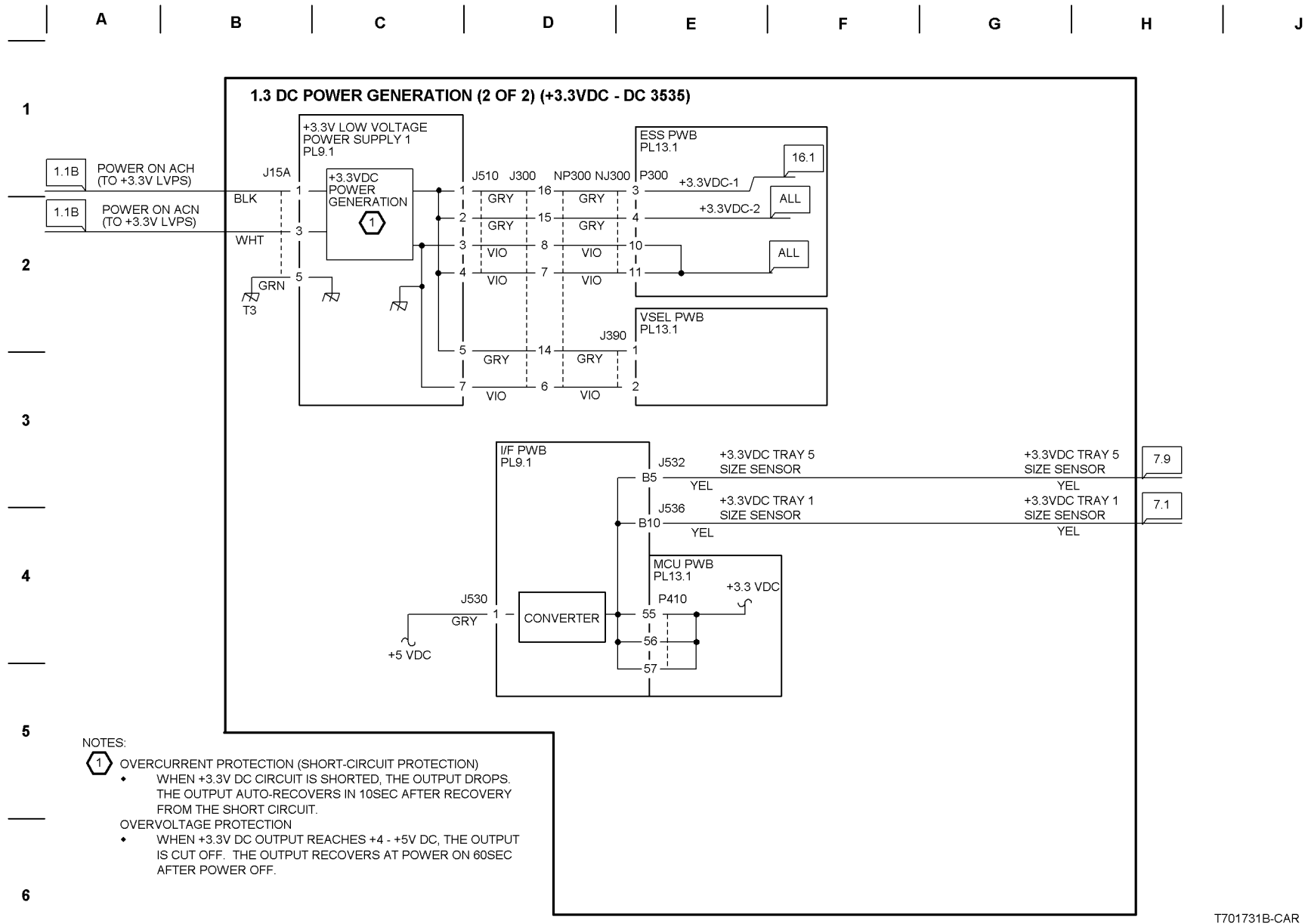
OVERVOLTAGE PROTECTION

- WHEN +3.3V DC OUTPUT REACHES +4 - +5V DC, THE OUTPUT IS CUT OFF. THE OUTPUT RECOVERS AT POWER ON 60SEC AFTER POWER OFF.

T701703C-CAR

Figure 5 BSD 1.3 DC Power Generation - +3.3VDC (DC 2240/1632, WC 24)





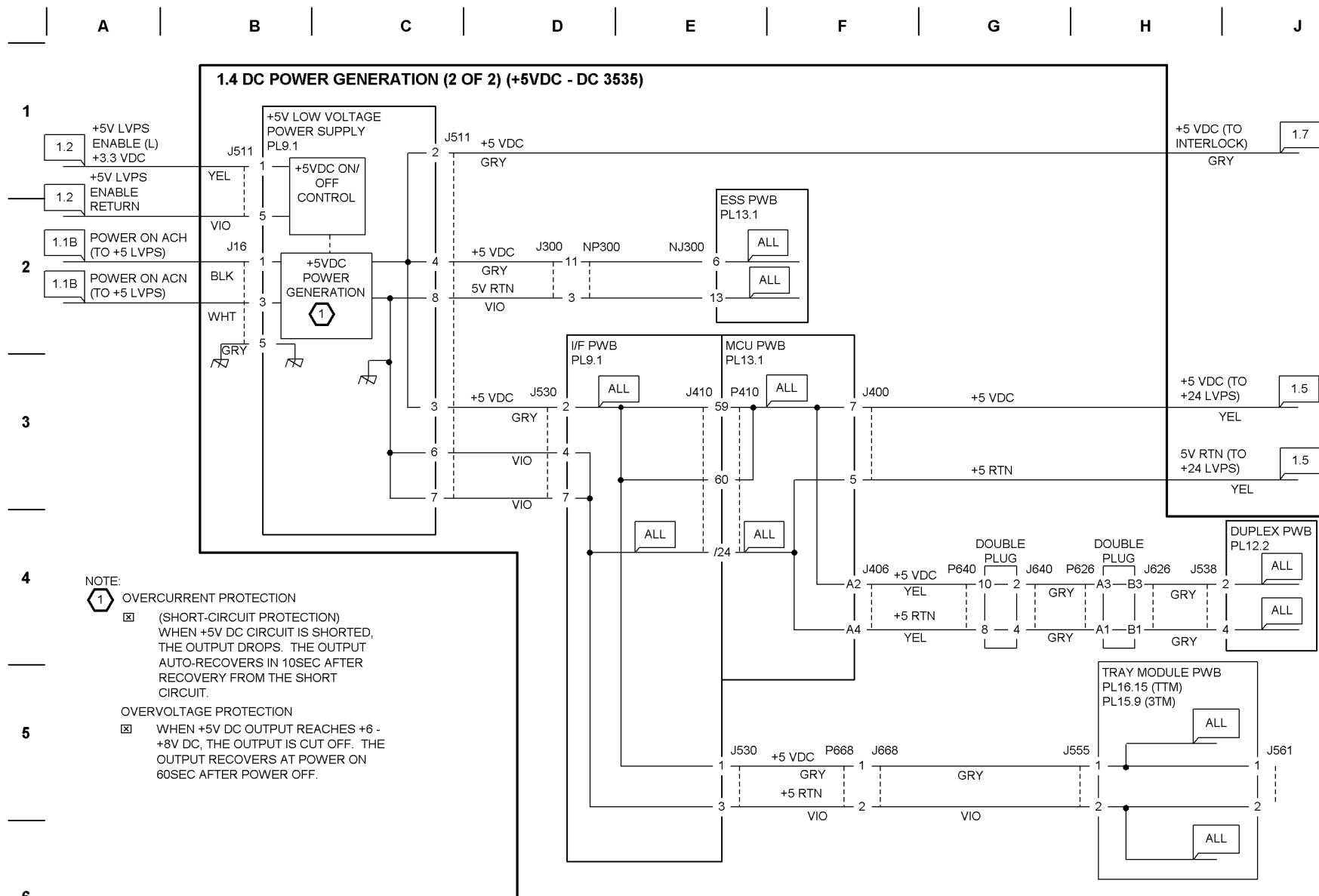
T701731B-CAR

Figure 6 BSD 1.3 DC Power Generation - +3.3VDC (DC 3535)





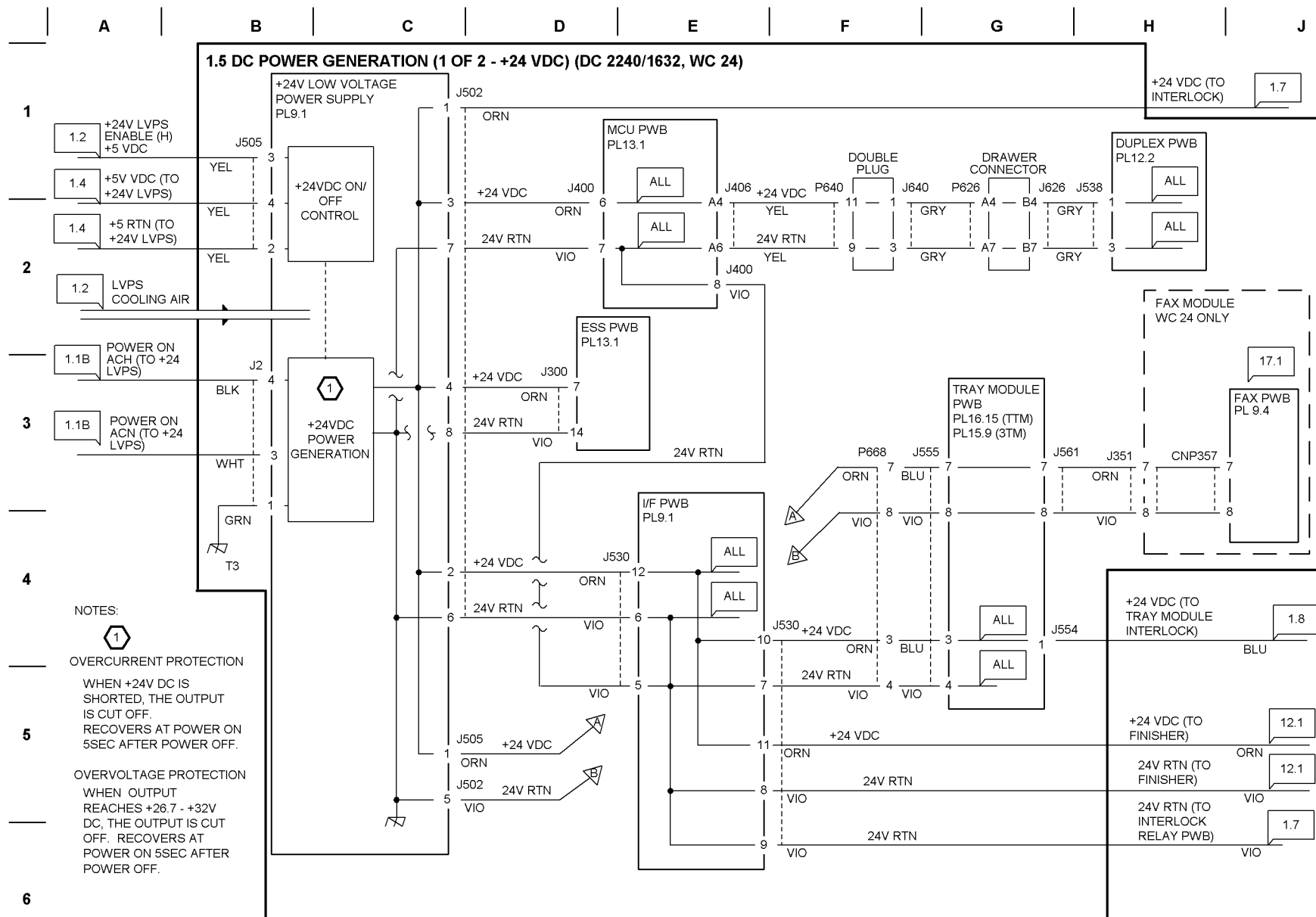




T701732A-CAR

Figure 8 BSD 1.4 DC Power Generation - +5 VDC (DC 3535)





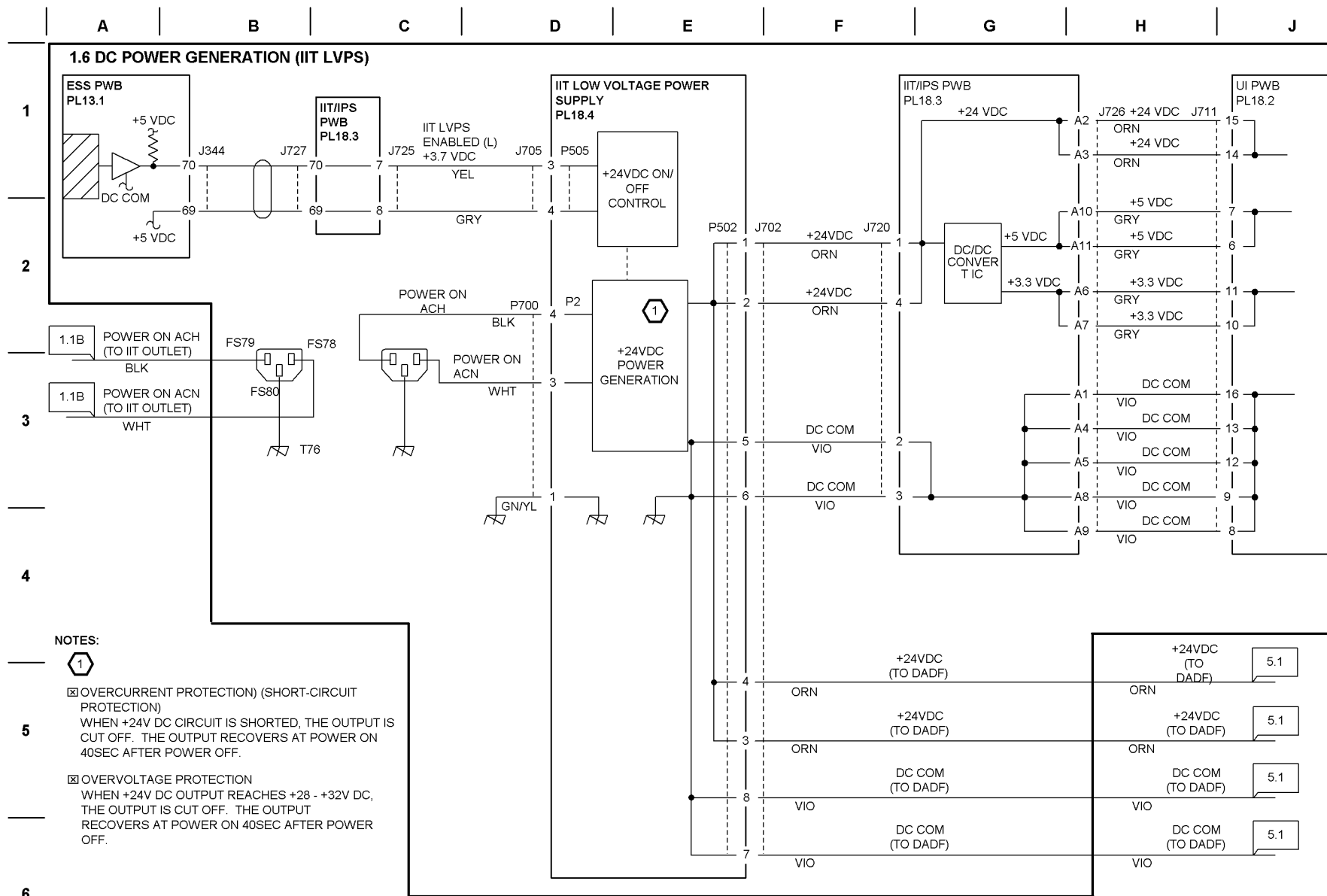
T701705C-CAR

Figure 9 BSD 1.5 DC Power Generation - +24VDC (DC 2240/1632, WC 24)









T701706B-CAR

Figure 11 BSD 1.6 DC Power Generation (IIT LVPS)



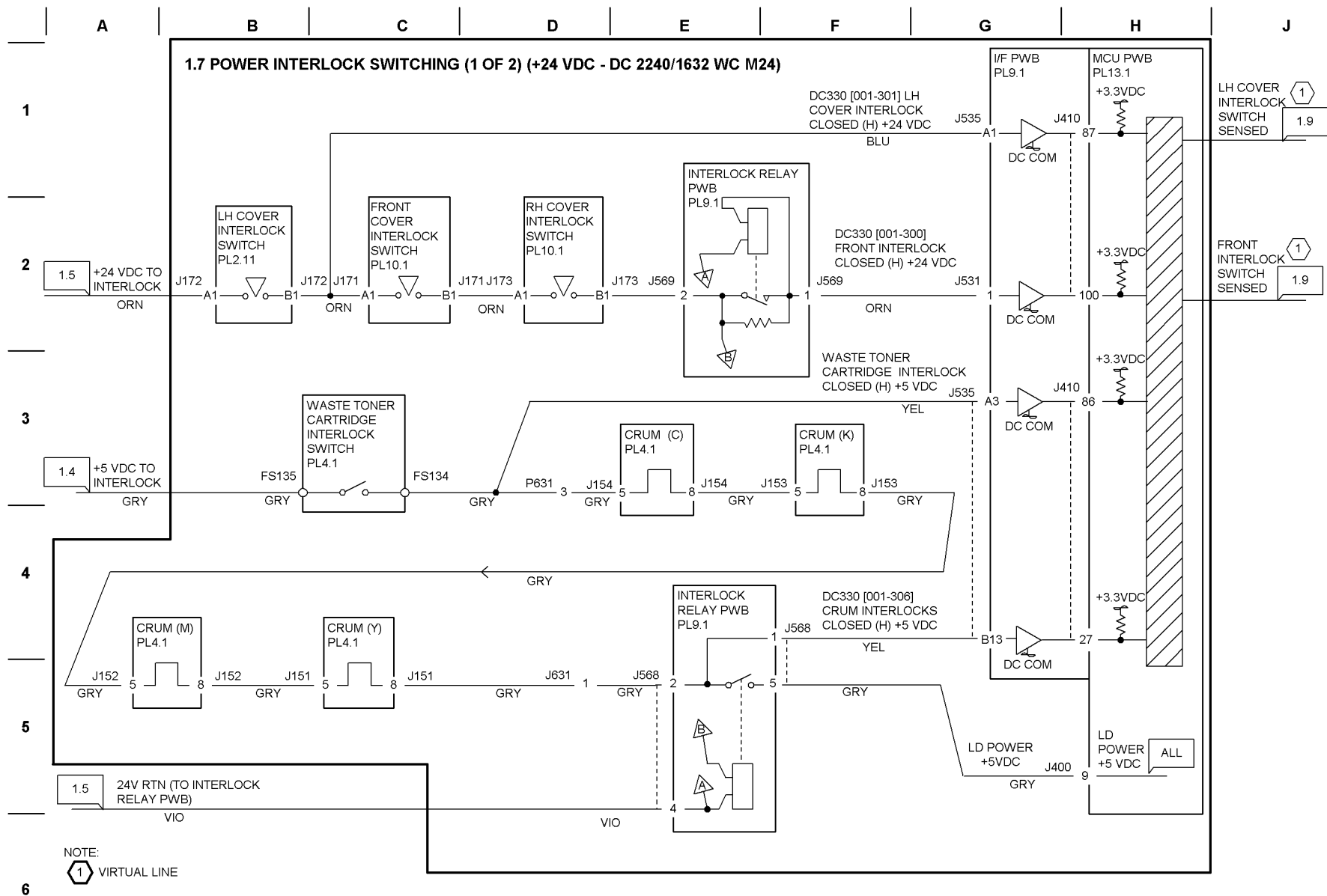
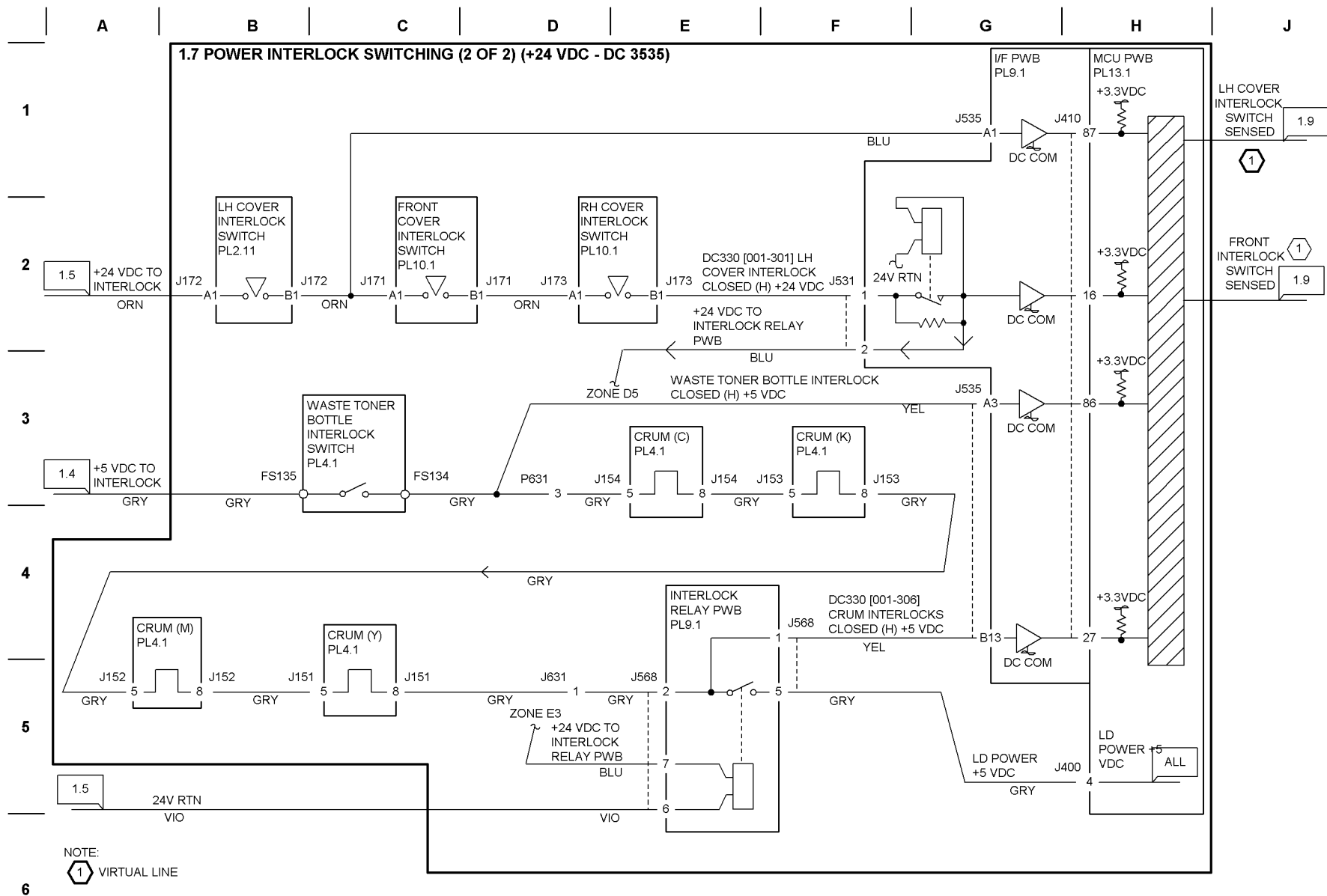


Figure 12 BSD 1.7 Power Interlock Switching (DC 2240/1632, WC M24)

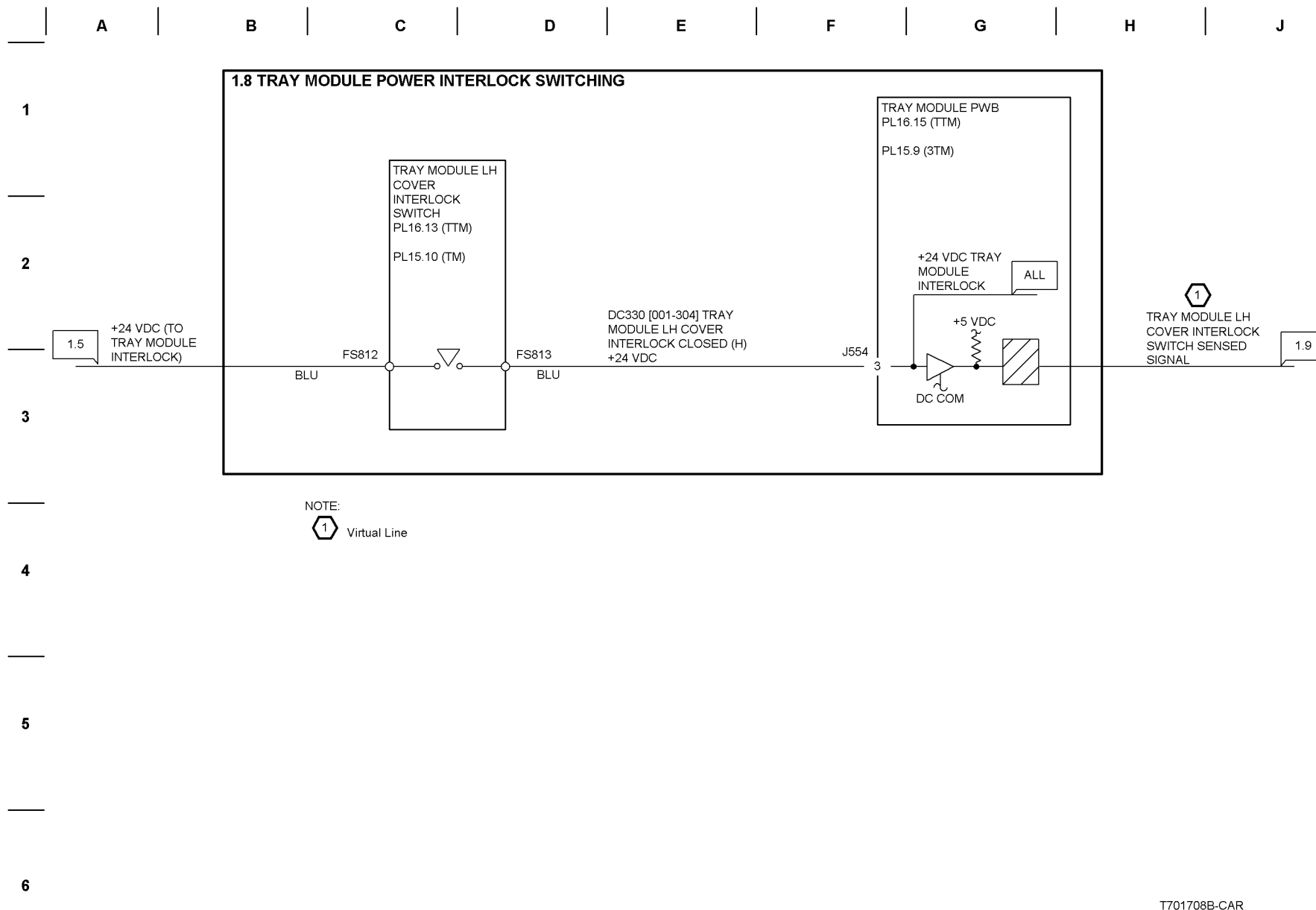




T701734A-CAR

Figure 13 BSD 1.7 Power Interlock Switching (DC 3535)

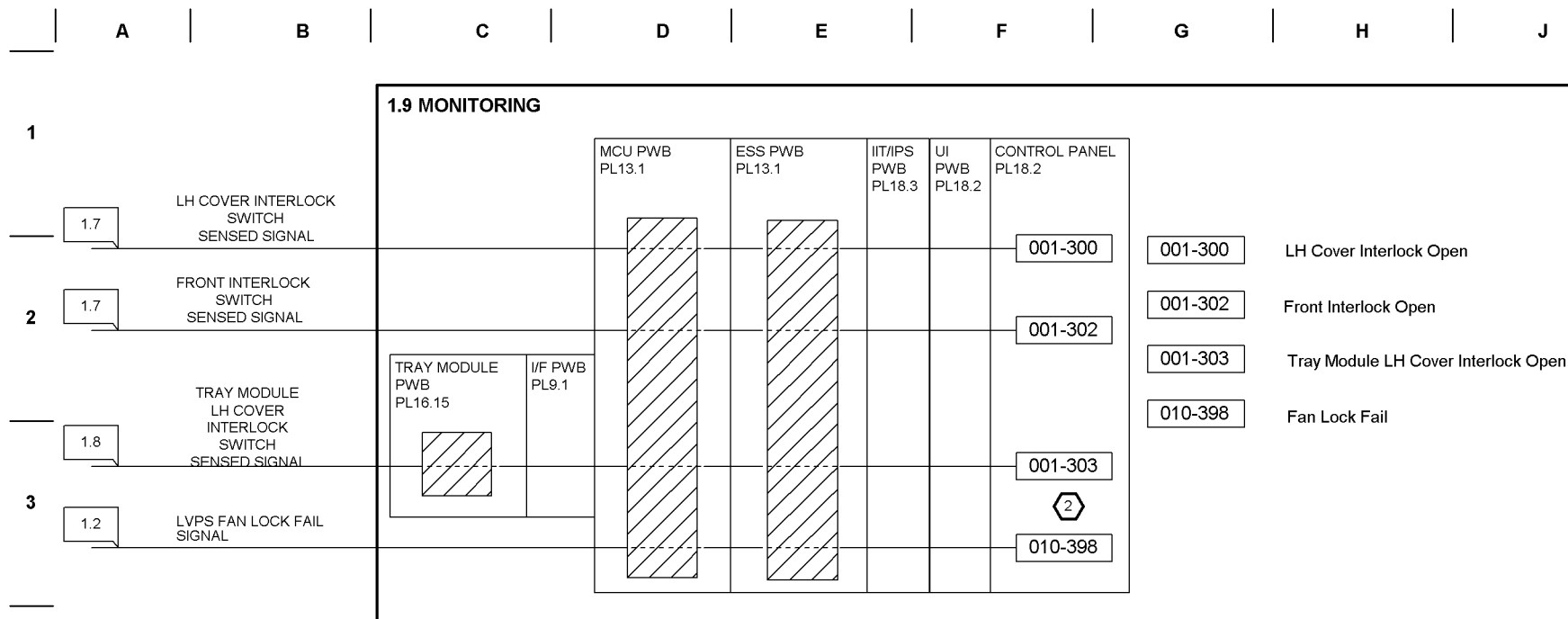




T701708B-CAR

Figure 14 BSD 1.8 Tray Module Power Interlock Switching





NOTES:



VIRTUAL LINE



FAULT CODE 010-398 IS ALSO DISPLAYED AT THE OCCURRENCE OF FUSER FAN LOCK FAIL AND REAR FAN LOCK FAIL. FOR THE WIRING FOR FUSER FAN SEE CH10.2. FOR REAR FAN SEE CH9.30.

T701709B-CAR

Figure 15 BSD 1.9 Monitoring



## Chain 02 Mode Selection

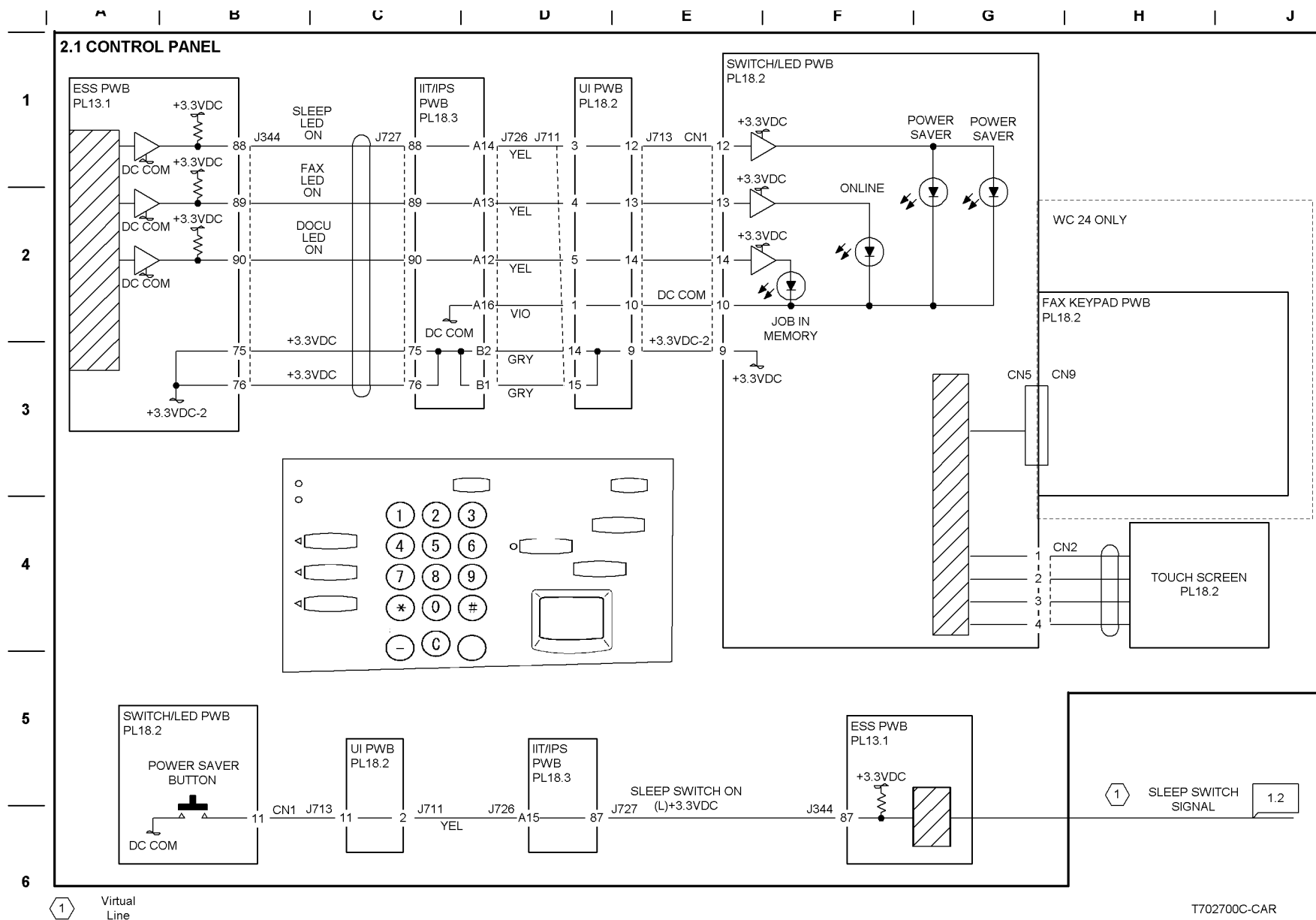


Figure 1 BSD 2.1 Control Panel



1

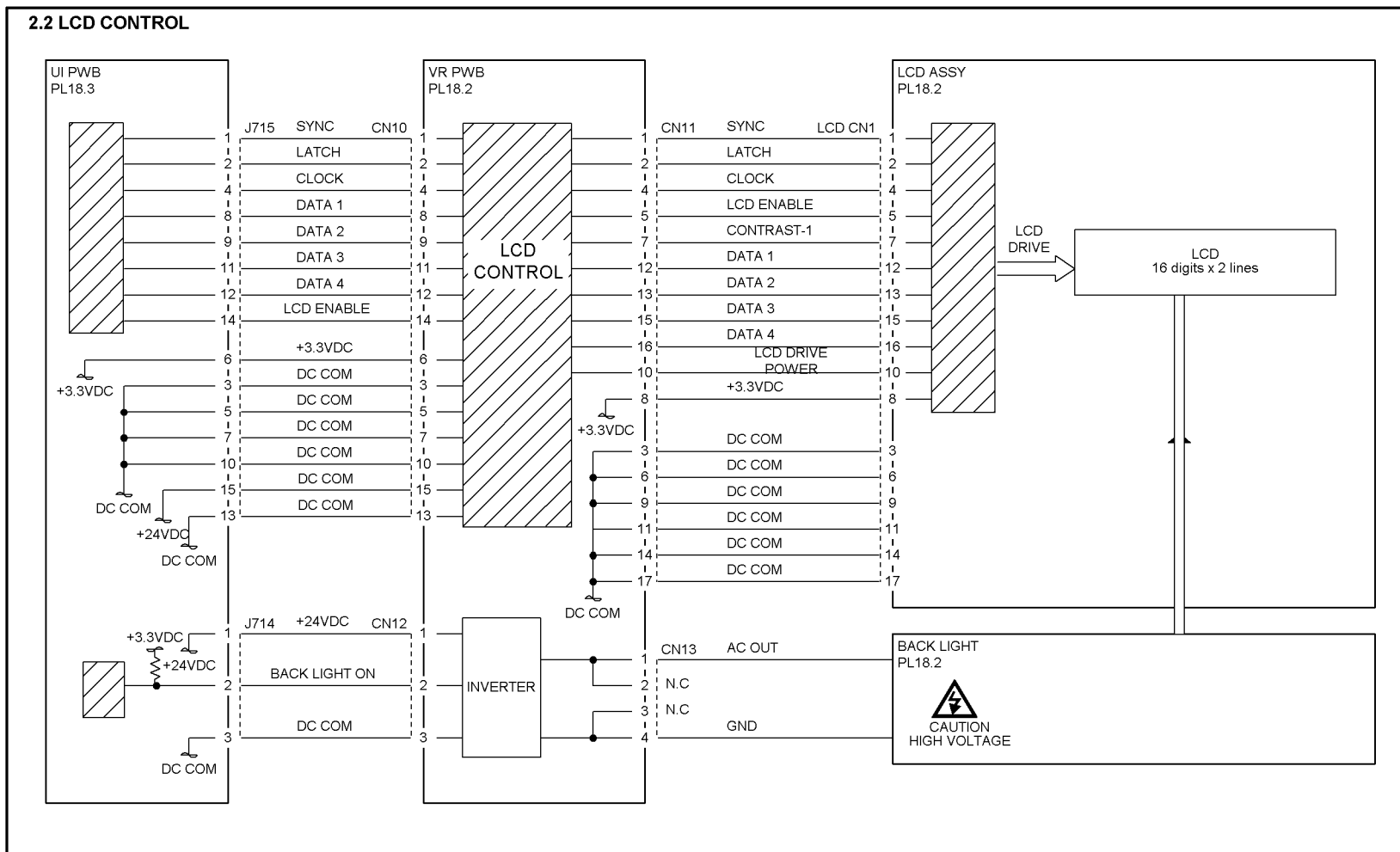
2

3

4

5

6



T702701A-CAR

Figure 2 BSD 2.2 LCD Control



Chain 03 Printer Communication

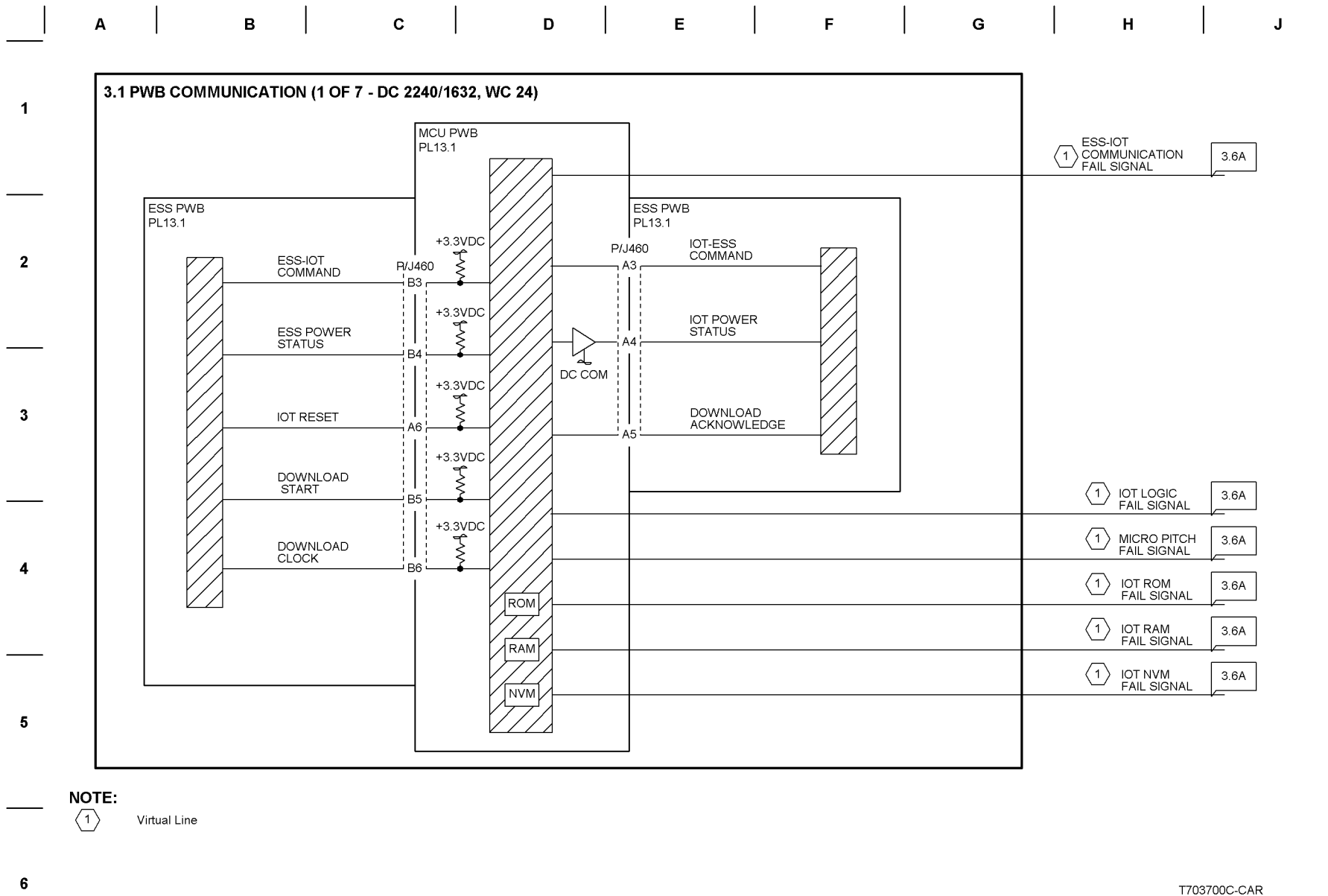


Figure 1 BSD 3.1 PWB Communication (1 of 7 - DC 2240/1632, WC 24)



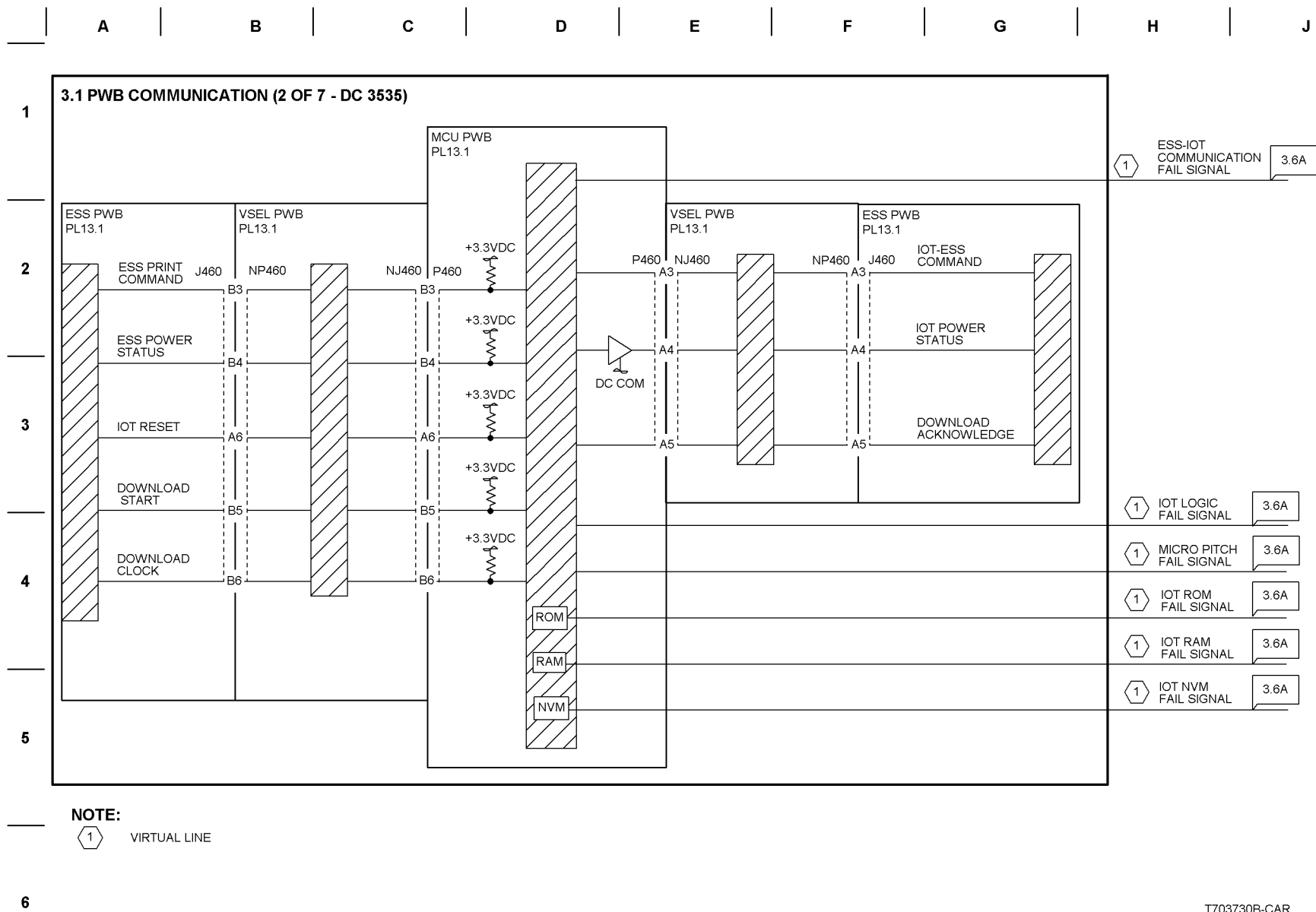


Figure 2 BSD 3.1 PWB Communication (2 of 7 - DC 3535)



A

B

C

D

E

F

G

H

J

1

### 3.1 PWB COMMUNICATION (3 OF 7)

2

3

4

5

NOTE:

① VIRTUAL LINE

6

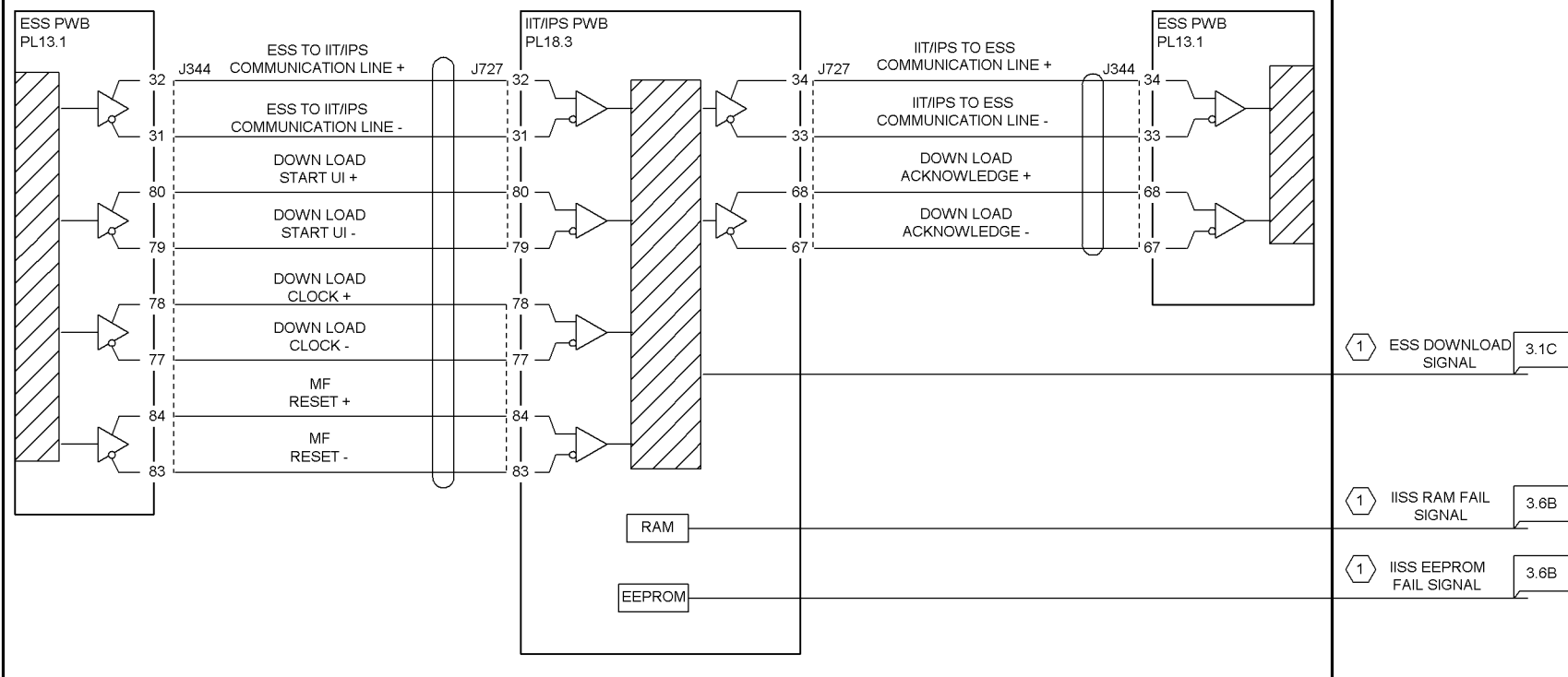
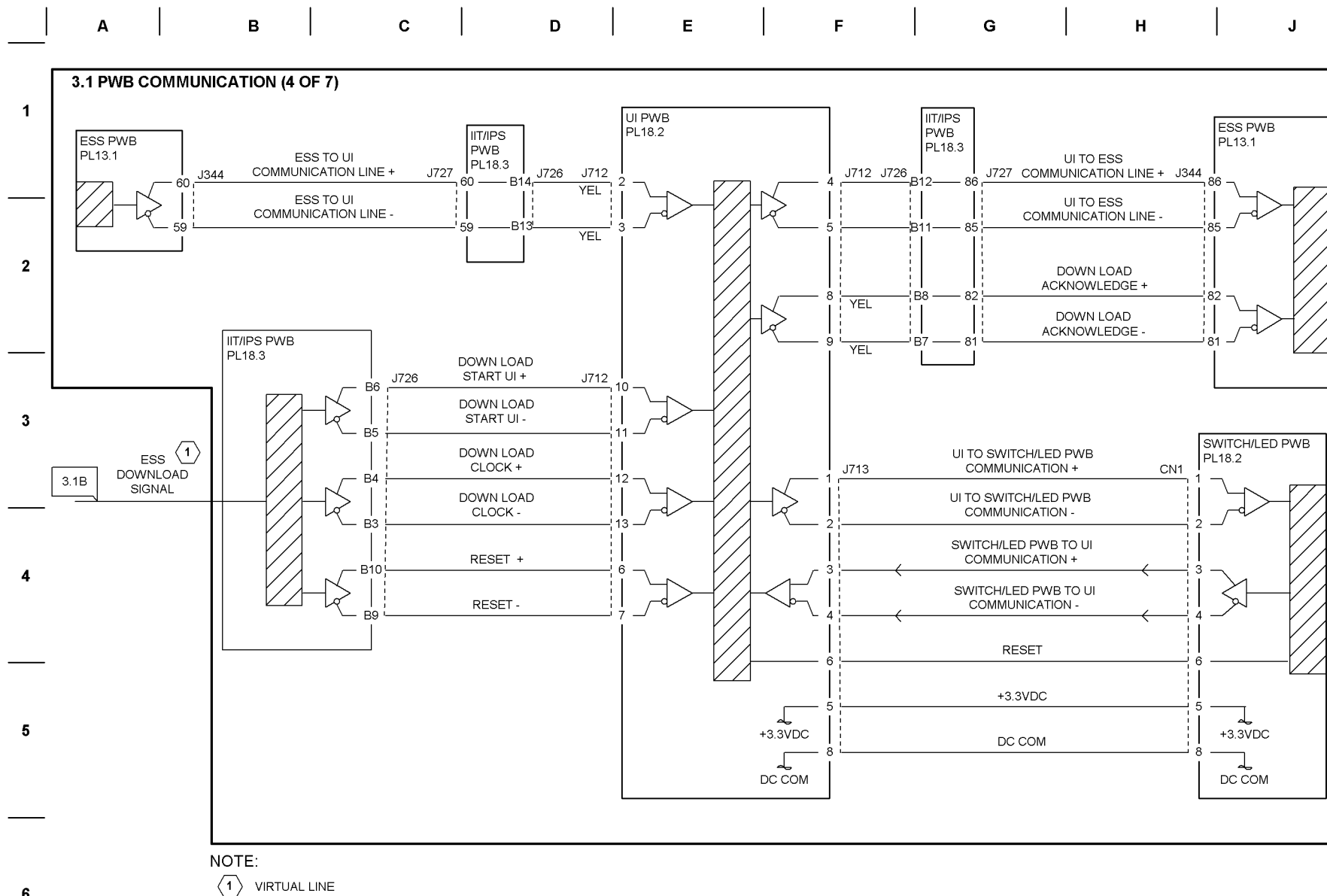


Figure 3 BSD 3.1 PWB Communication (3 of 7)

T703701C-CAR





T703702C-CAR

Figure 4 BSD 3.1 PWB Communication (4 of 7)



A

B

C

D

E

F

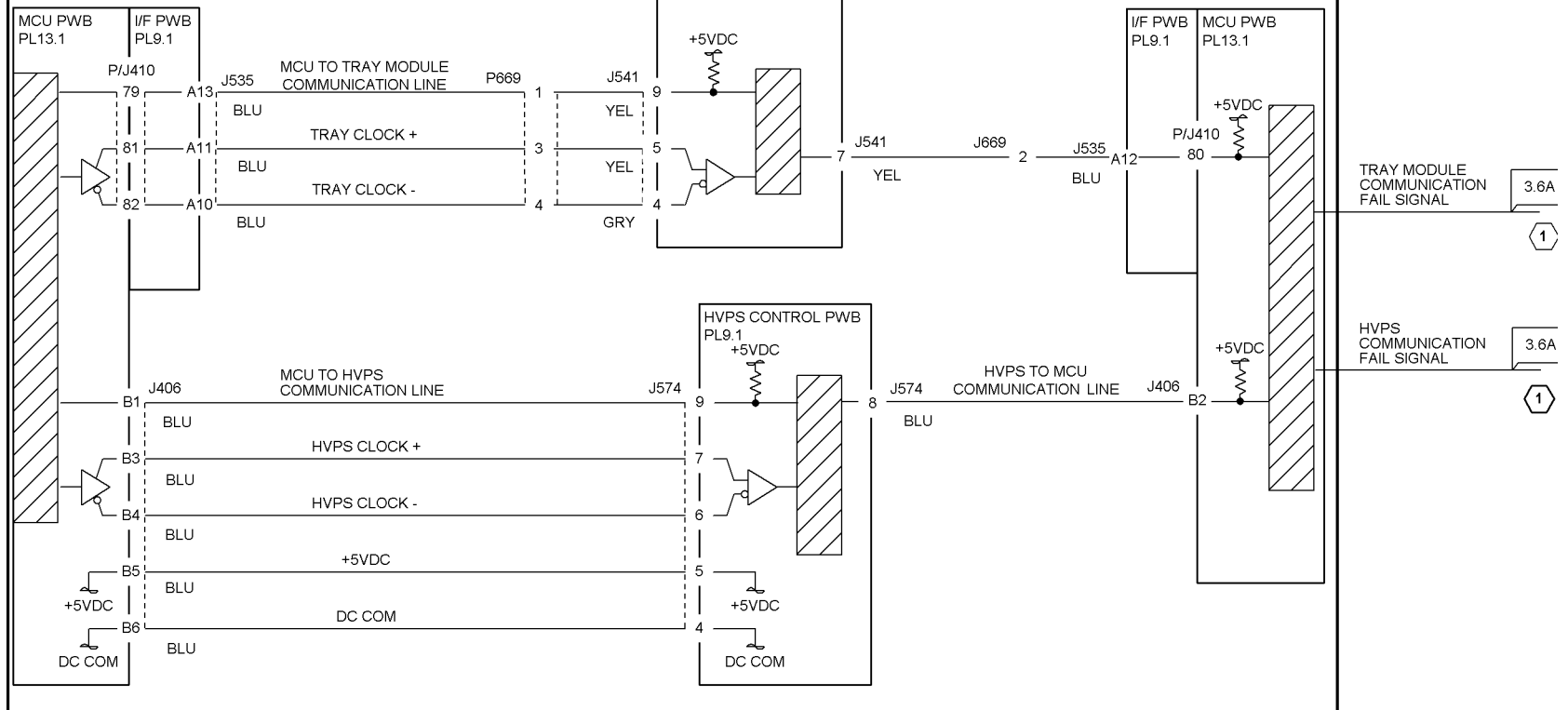
G

H

J

1

### 3.1 PWB COMMUNICATION (5 OF 7 - DC2240/1632, WC 24)



NOTE:

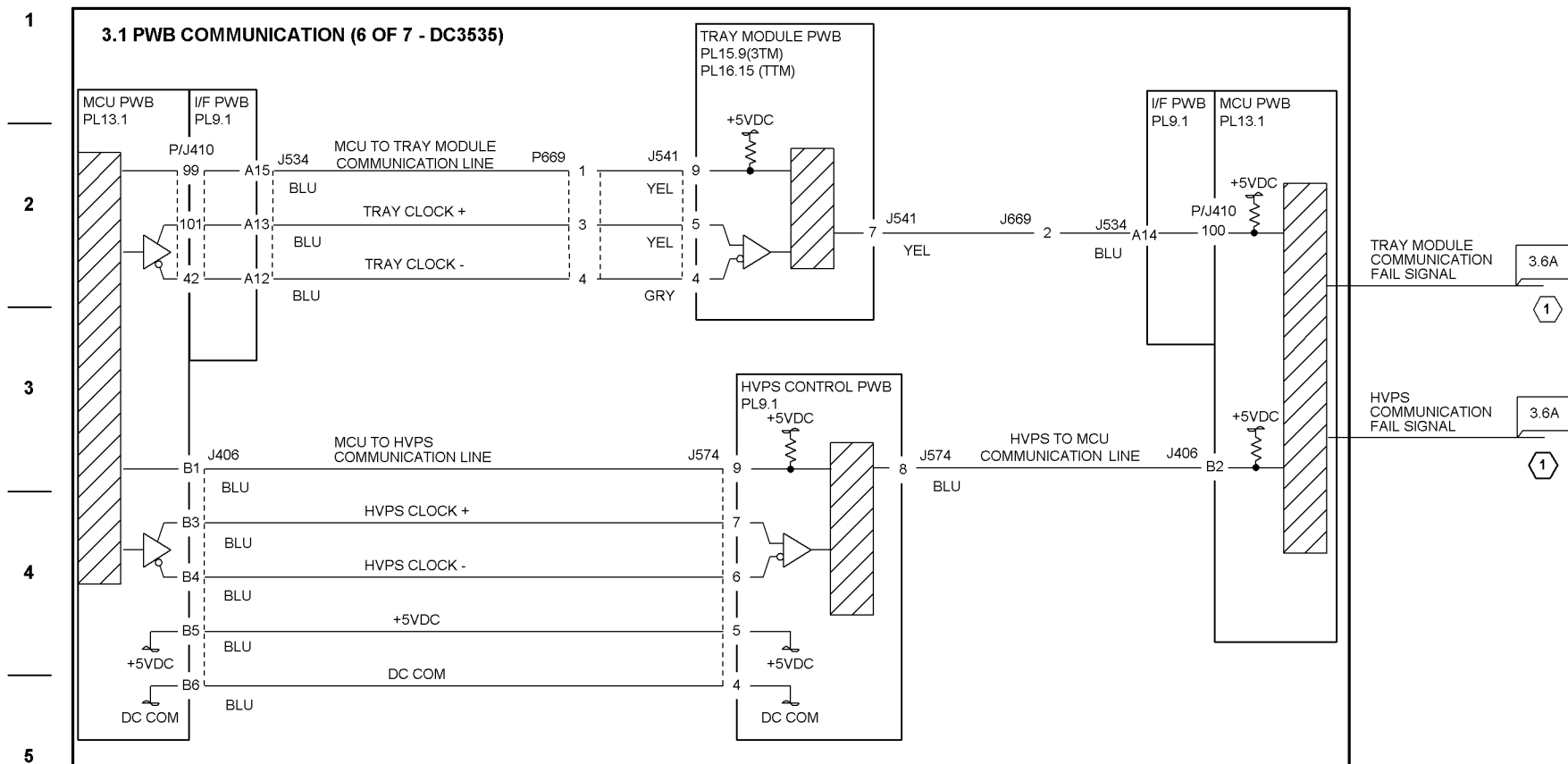
① VIRTUAL LINE

6

T703703C-CAR

Figure 5 BSD 3.1 PWB Communication (5 of 7 - DC2240/1632, WC 24)





**NOTE:**  
 1 VIRTUAL LINE

T703731B-CAR

Figure 6 BSD 3.1 PWB Communication (6 of 7 - DC3535)



A

B

C

D

E

F

G

H

J

1

### 3.1 PWB COMMUNICATION (WC 24 WITH FAX ONLY) (7 OF 7)

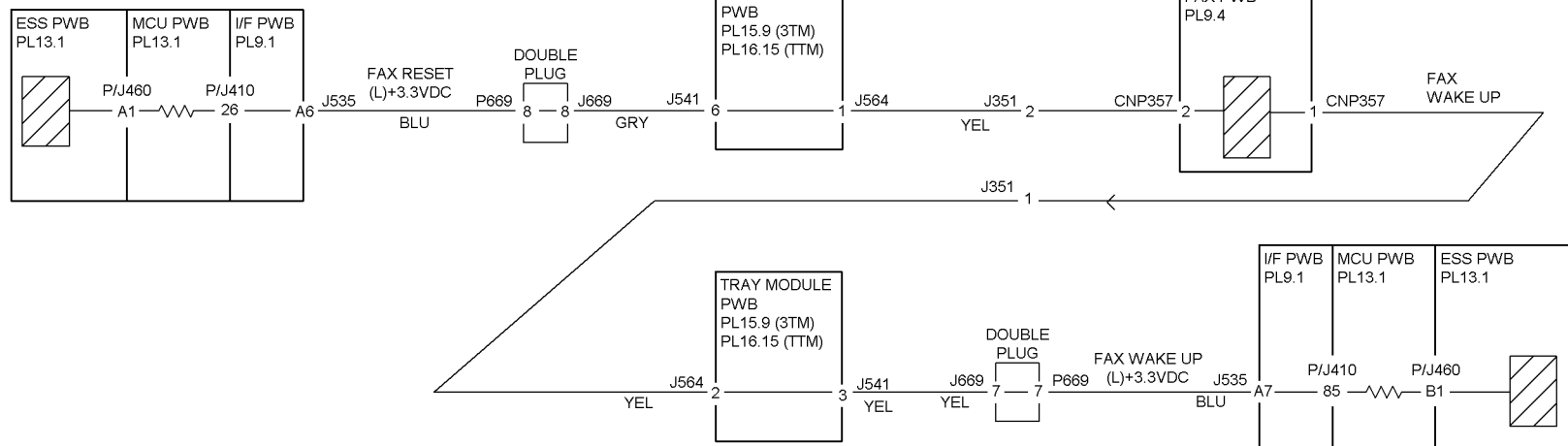
2

3

4

5

6



T703704A-CAR

Figure 7 BSD 3.1 PWB Communication (7 of 7 - WC 24 w/Fax only)



A

B

C

D

E

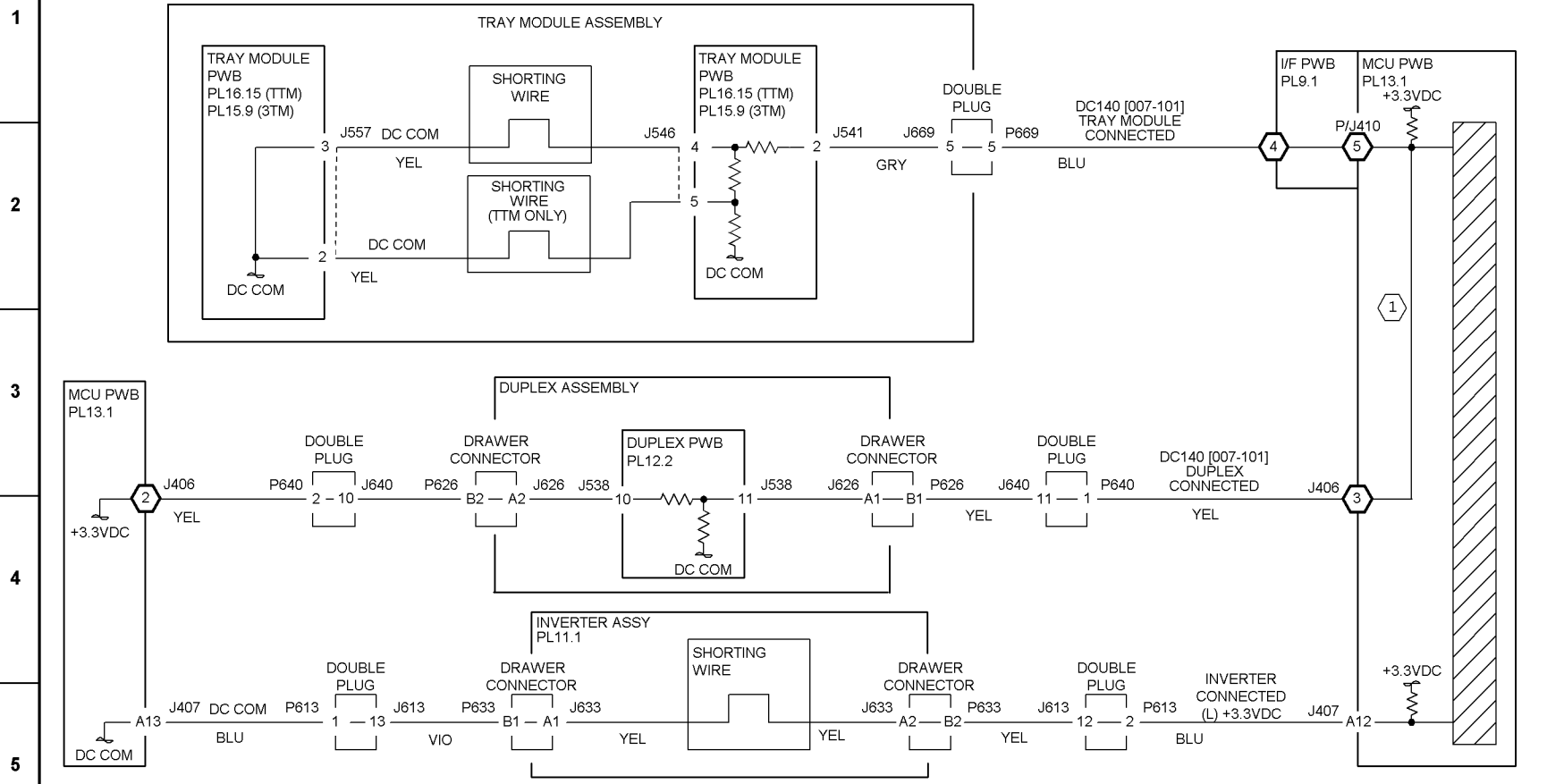
F

G

H

J

### 3.2 OPTION DEVICE DETECTION



**NOTES:** ① TRAY MODULE AND/OR DUPLEX ARE SENSED ACCORDING TO VOLTAGE CORRESPONDING TO COMBINED RESISTANCE OF TRAY MODULE PWB AND DUPLEX PWB.

② PIN A13 FOR DC 2240/1632, WC M24  
PIN A10 FOR DC 3535

③ PIN A14 FOR DC 2240/1632, WC M24  
PIN A11 FOR DC 3535

④ J535 PIN A9 FOR DC 2240/1632, WC M24  
J534 PIN A11 FOR DC 3535

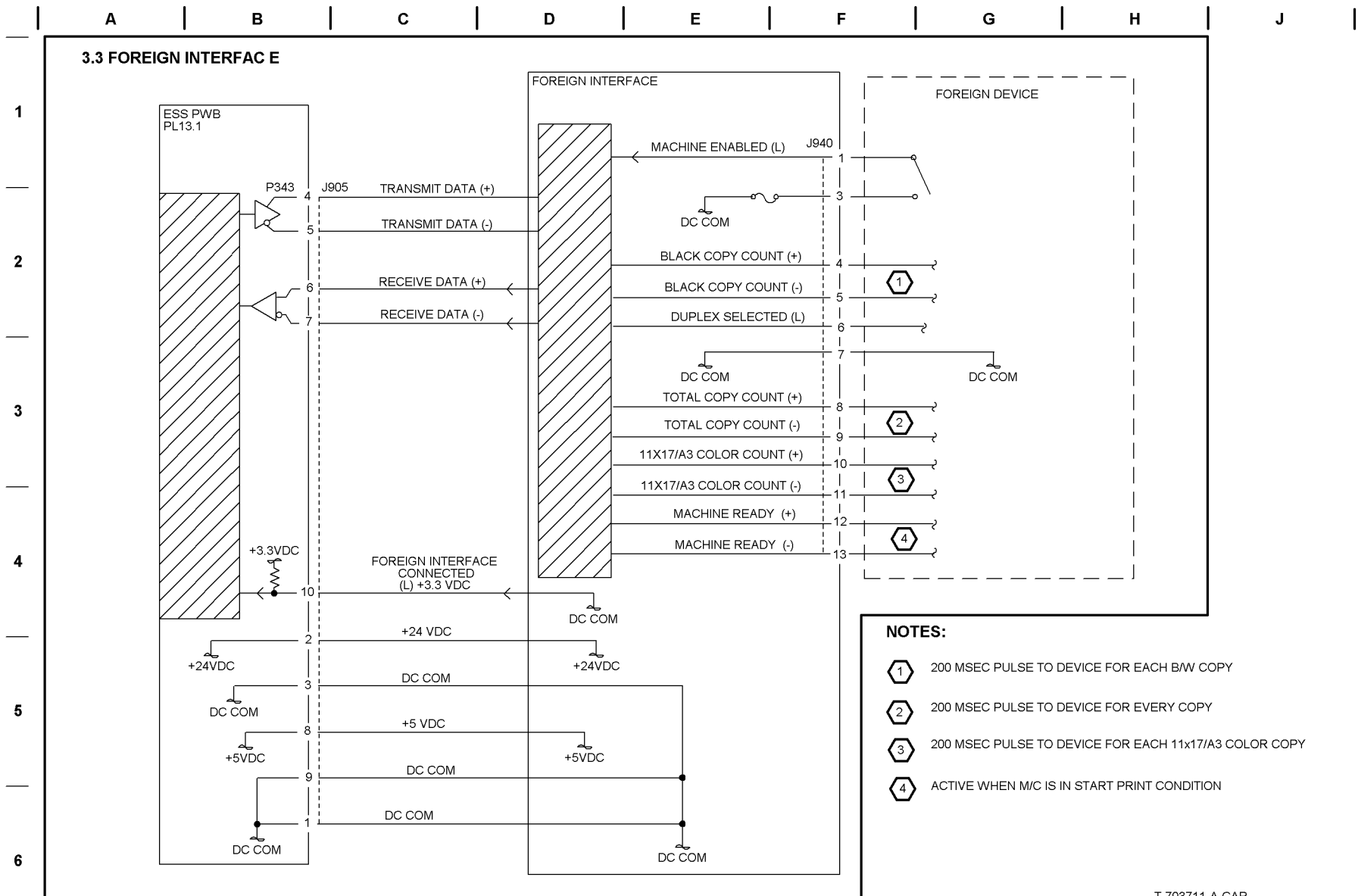
⑤ PIN 24 FOR DC 2240/1632, WC M24  
PIN 102 FOR DC 3535

TTM/ 3TM	DUP.	VOLTAGE (J535-A9 OR J534- A11)	AD DC140 [007-101]
O	O	2.53	727- 810

T703705C-CAR

Figure 8 BSD 3.2 Option Device Detection





T-703711-A-CAR

Figure 9 BSD 3.3 Foreign Interface



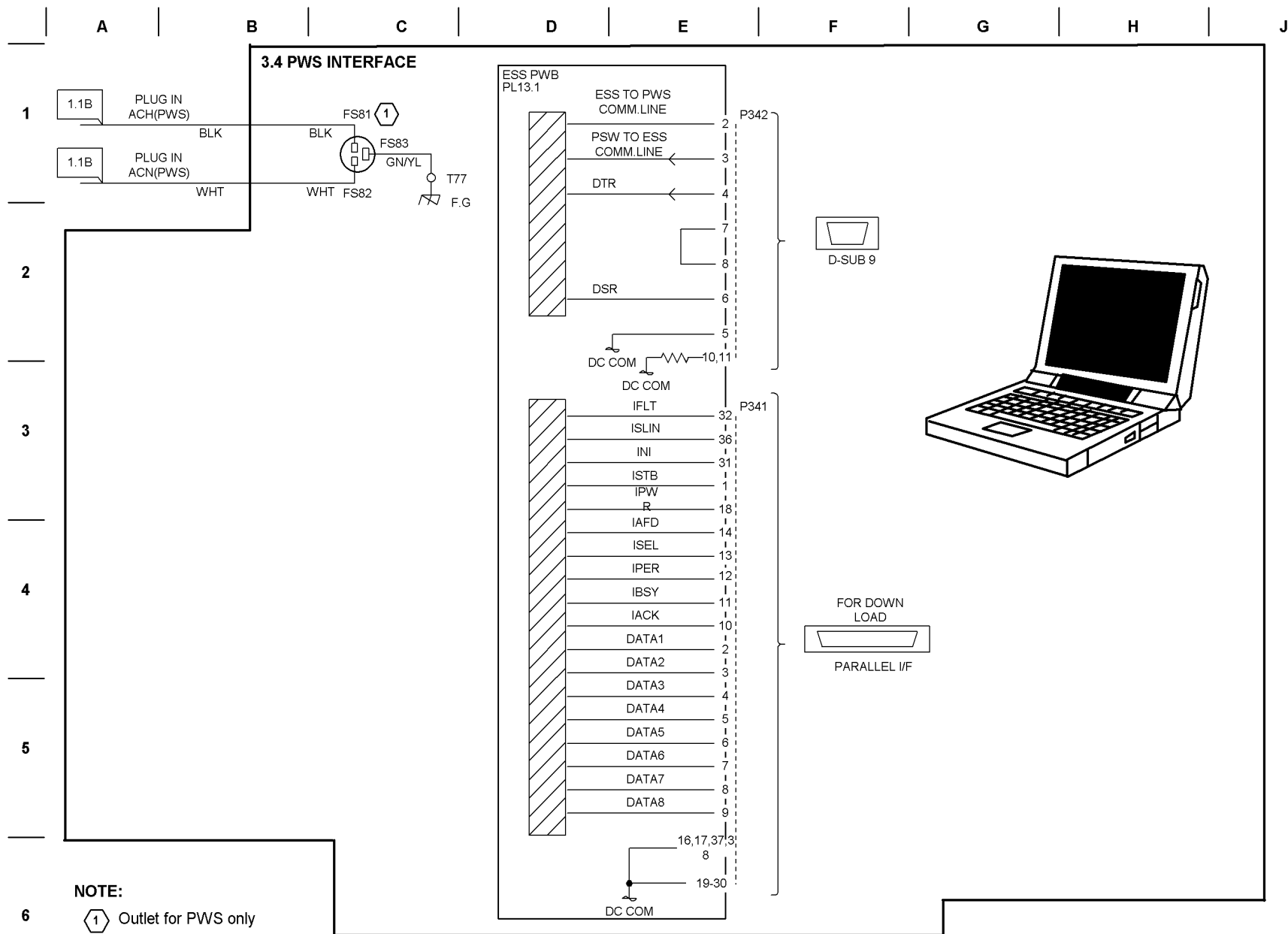
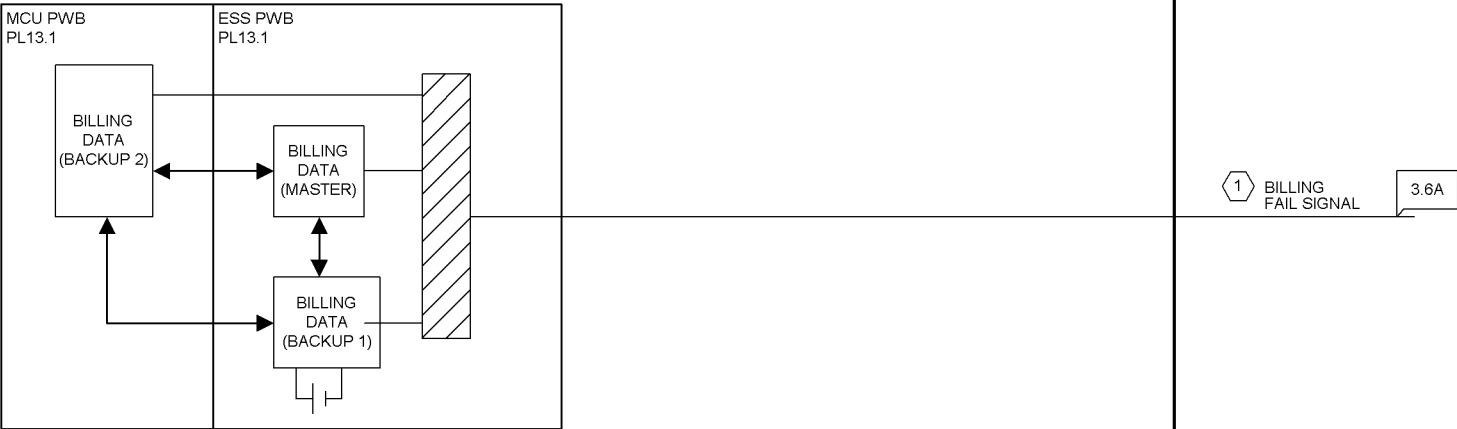


Figure 10 BSD 3.42 PWS Interface



3.5 ELECTRIC BILLING

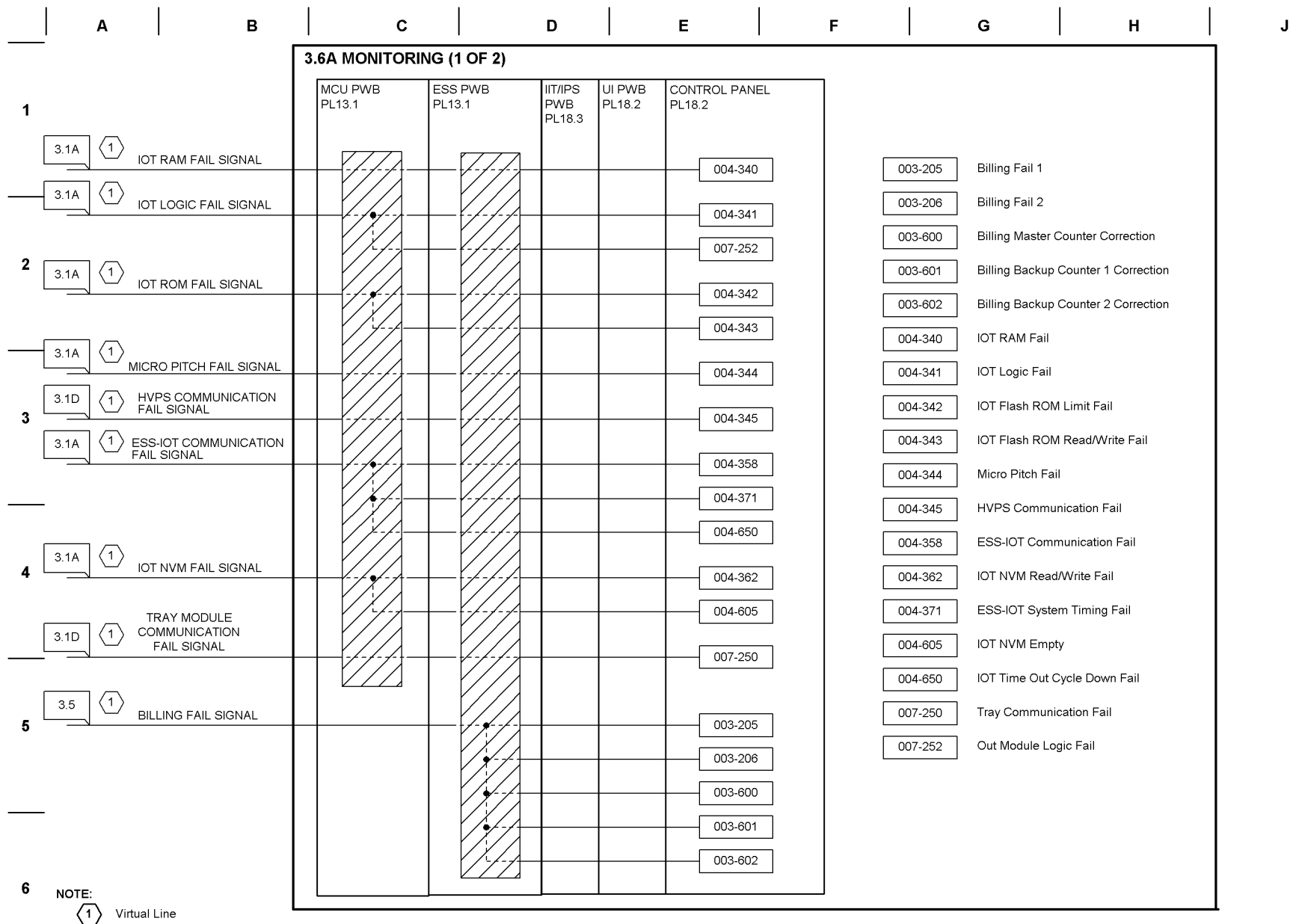


NOTE:  
 1 Virtual Line

T703708A-CAR

Figure 11 BSD 3.5 Electric Billing





T703709A-CAR

Figure 12 BSD 3.6A Monitoring (1 of 2)



1

2

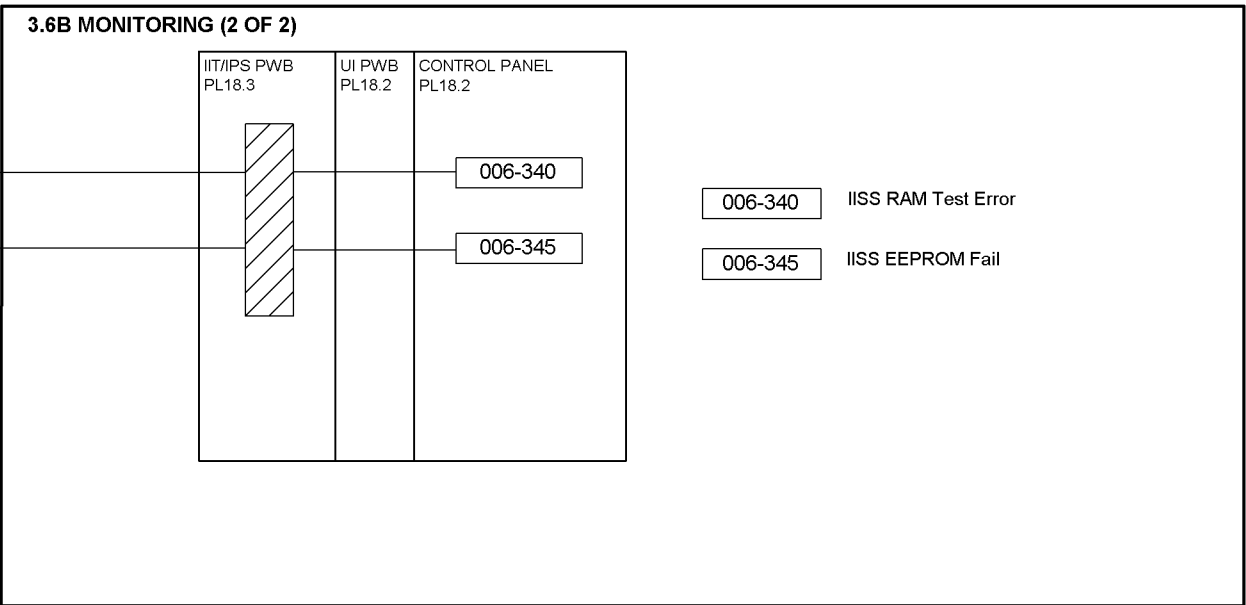
3

4

5

6

3.1B 1 IIS RAM FAIL SIGNAL  
3.1B 1 IIS EEPROM FAIL SIGNAL

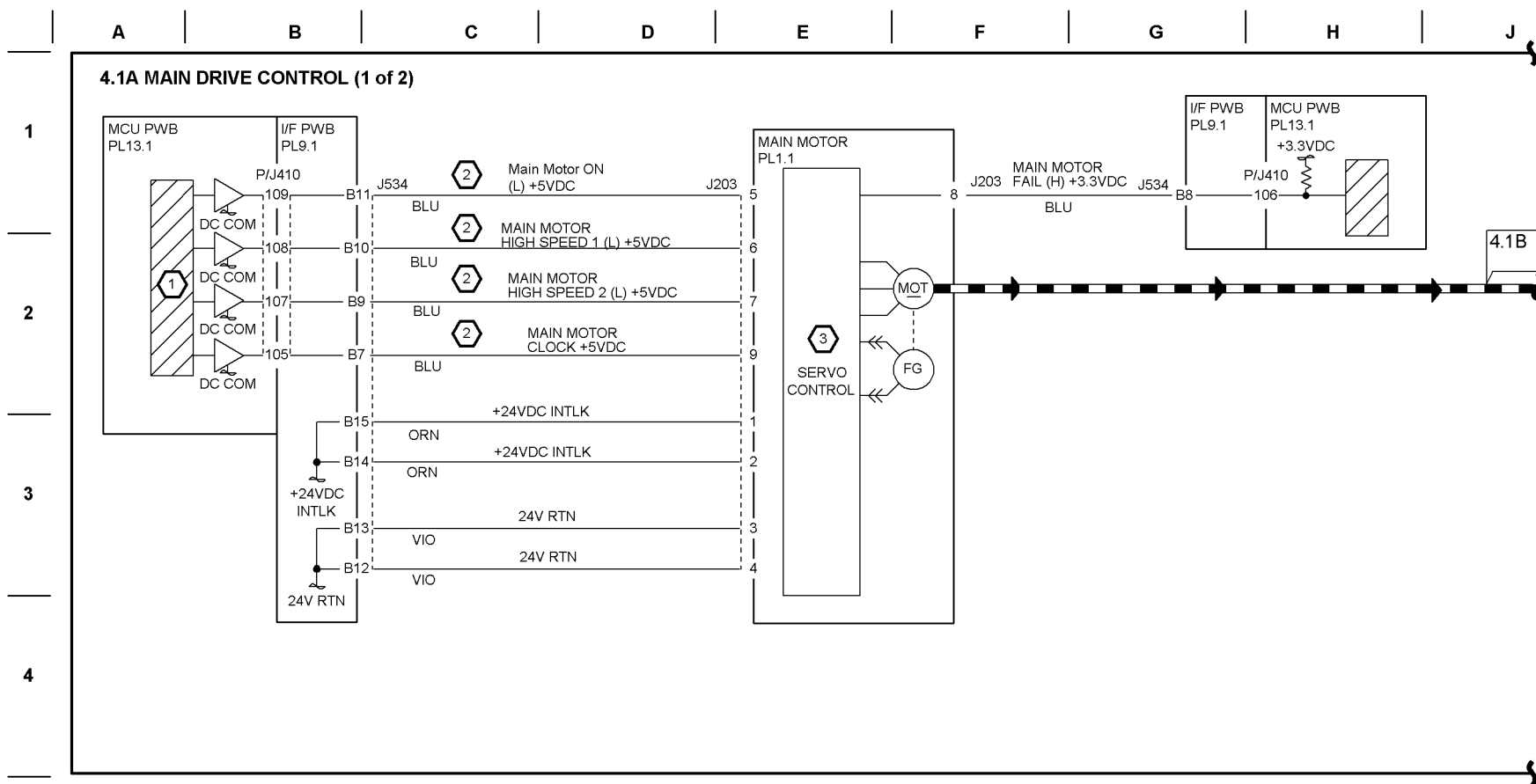


NOTE:  
1 Virtual Line

T703710A-CAR

Figure 13 BSD 3.6 Monitoring (2 of 2)





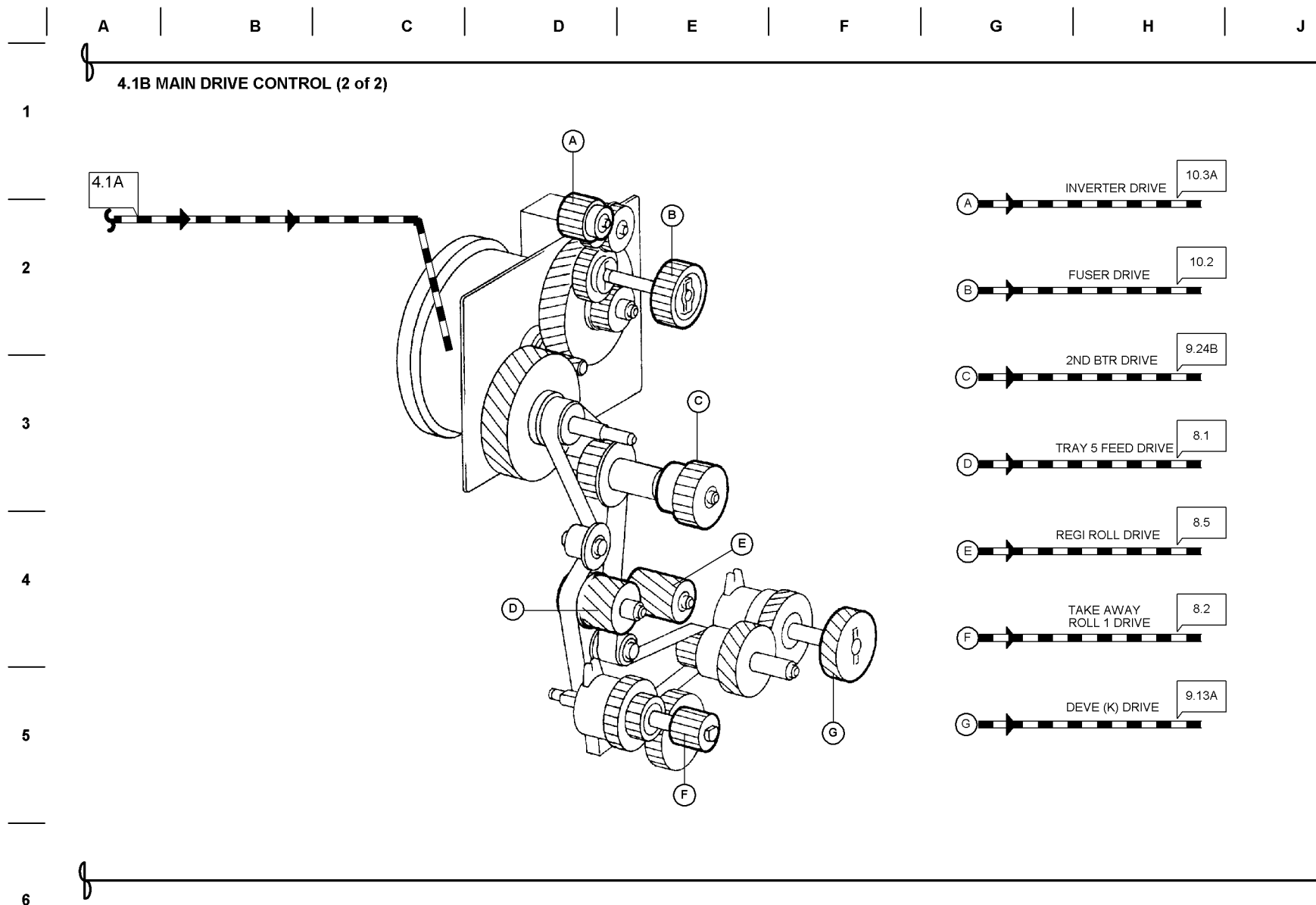
NOTES:

- 1 THIS DRIVES AT HIGH SPEED FOR STANDARD PAPER AND AT HALF SPEED FOR OHP FILM.
- 2 THE MAIN MOTOR ROTATES AT NORMAL SPEED WITH DC330 [004-004] ON, AT HALF SPEED WITH DC330 [004-007] ON, AND AT DOUBLE SPEED WITH DC330 [004-008] ON.
- 3 THE MAIN MOTOR ROTATION SPEED IS CONTROLLED COMPARED WITH THE INTERNAL CLOCK.

T704700B-CAR

Figure 1 BSD 4.1A Main Drive Control (1 of 2)





T704701A-CAR

Figure 2 BSD 4.1B Main Drive Control (2 of 2)



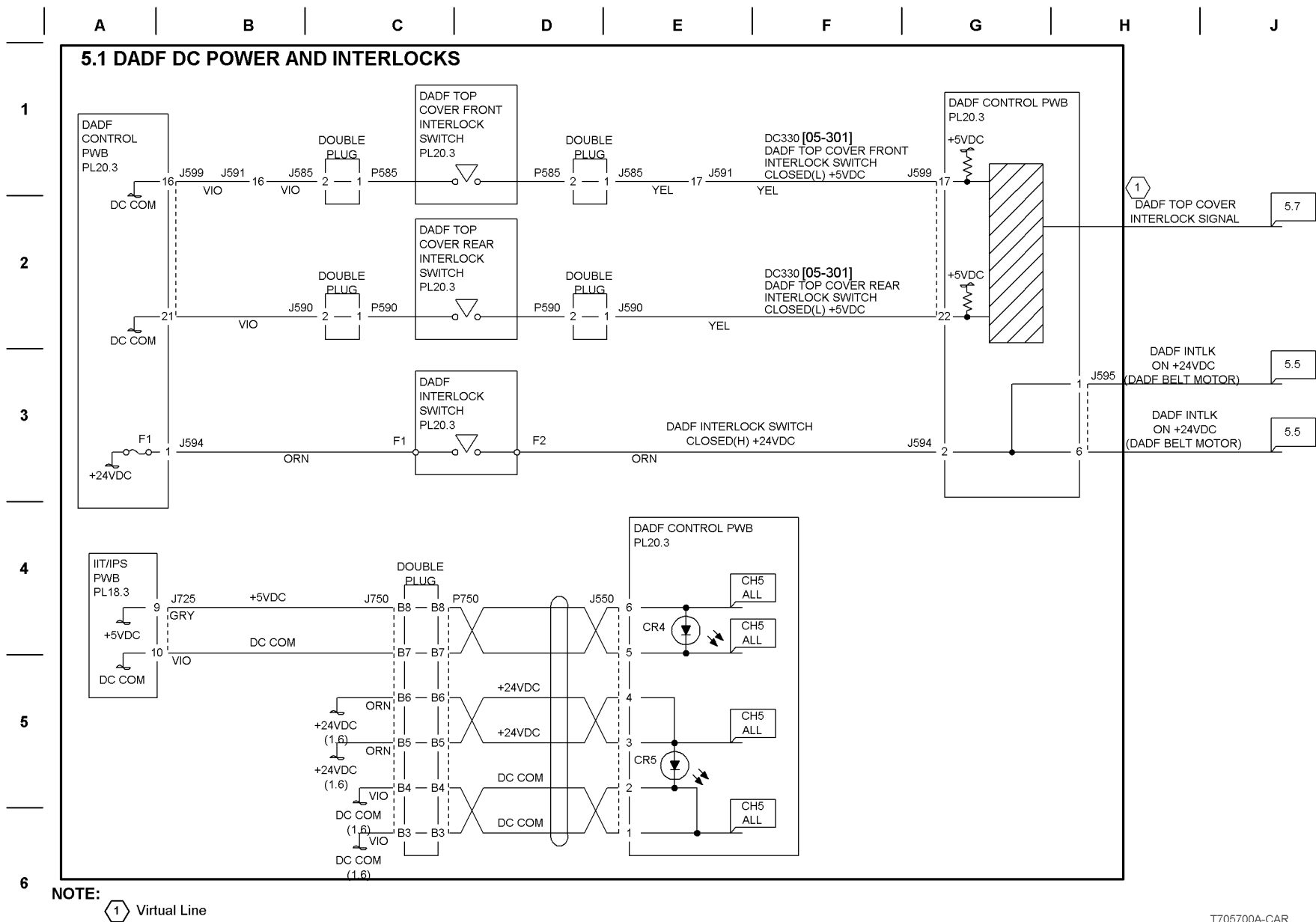


Figure 1 BSD 5.1 DADF DC Power and Interlocks



A

B

C

D

E

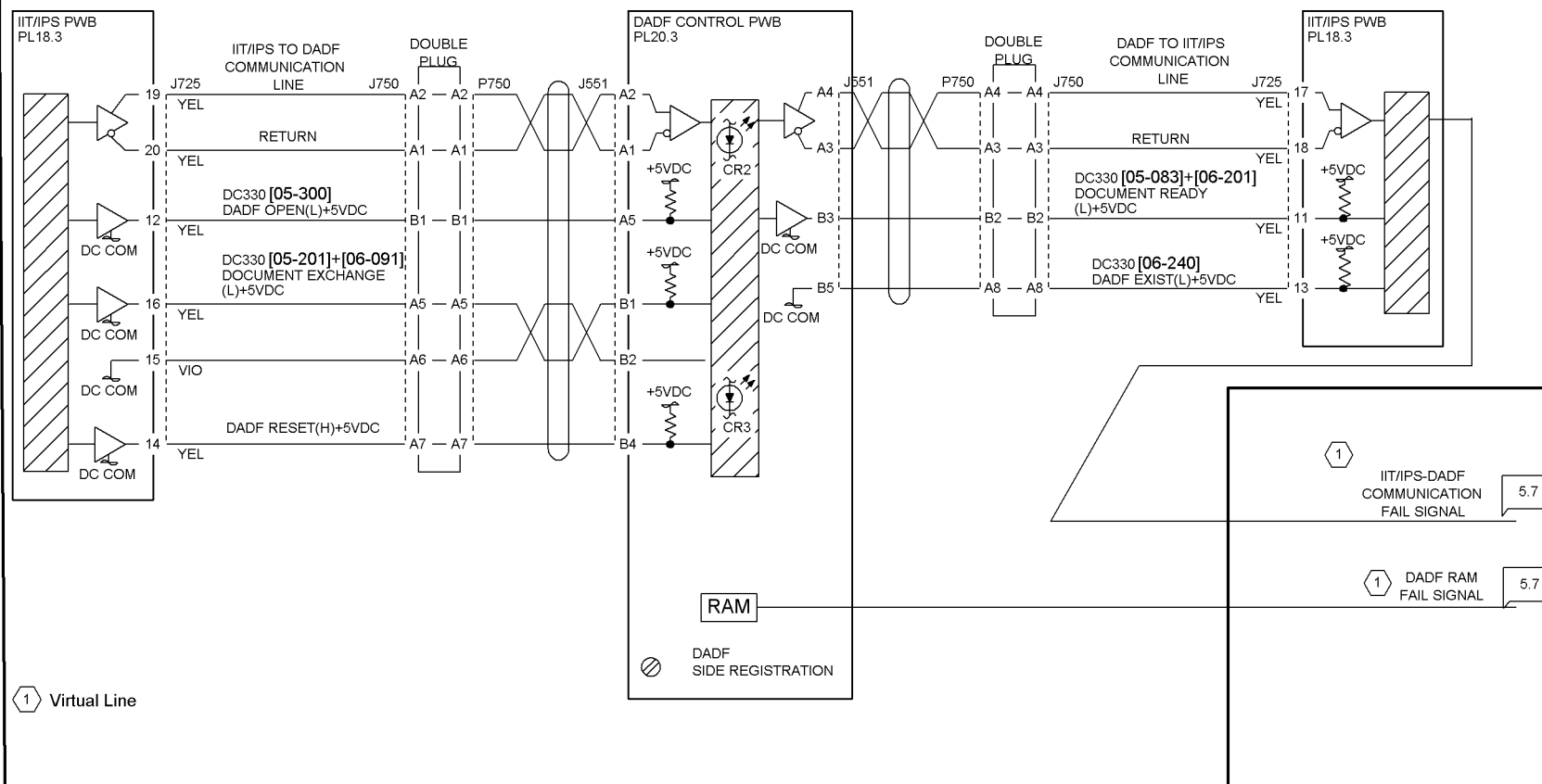
F

G

H

J

## 5.2 PWBS COMMUNICATION



T705701A-CAR

Figure 2 BSD 5.2 PWBs Communications



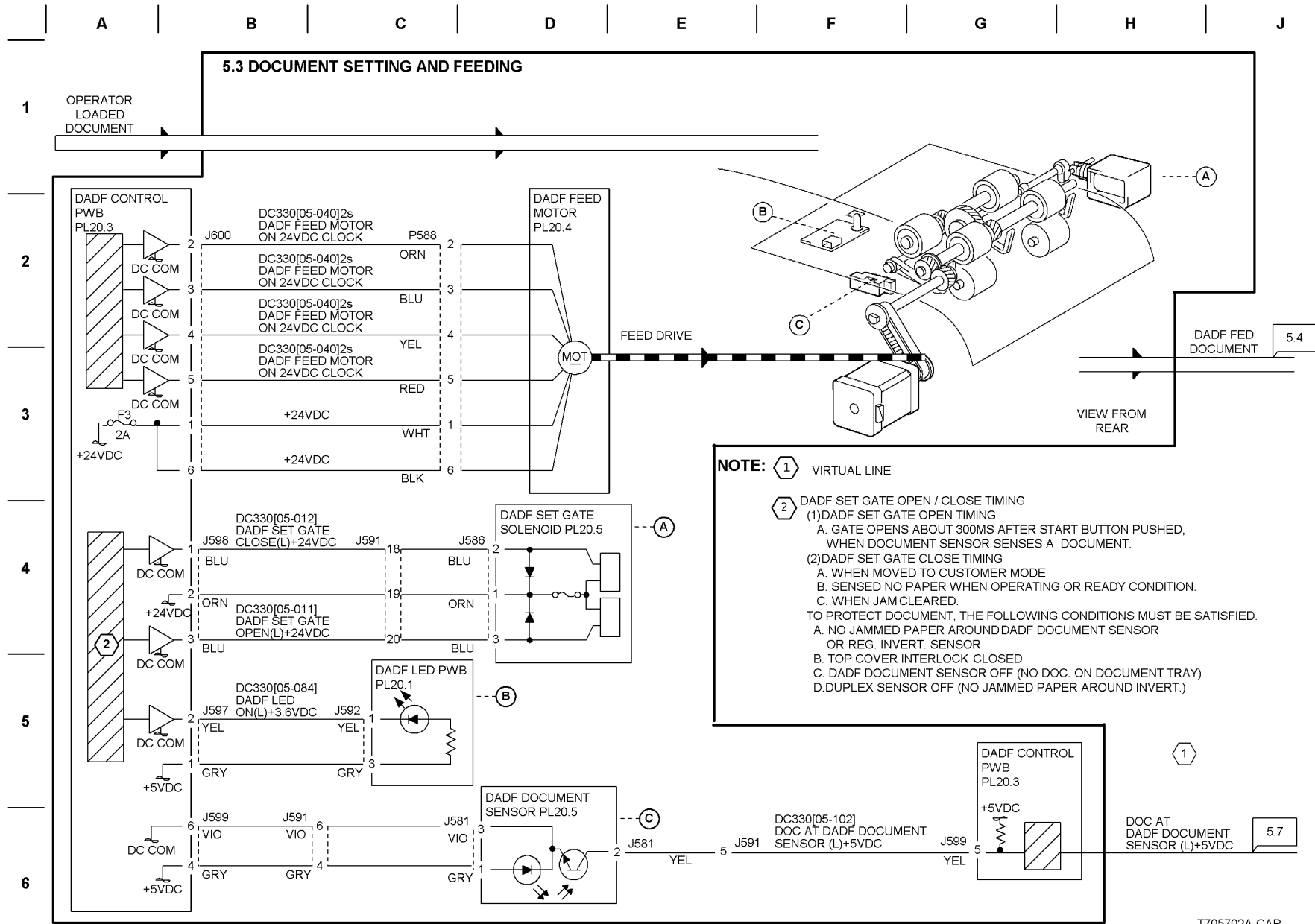


Figure 3 BSD 5.3 Document Setting and Feeding

T705702A-CAR



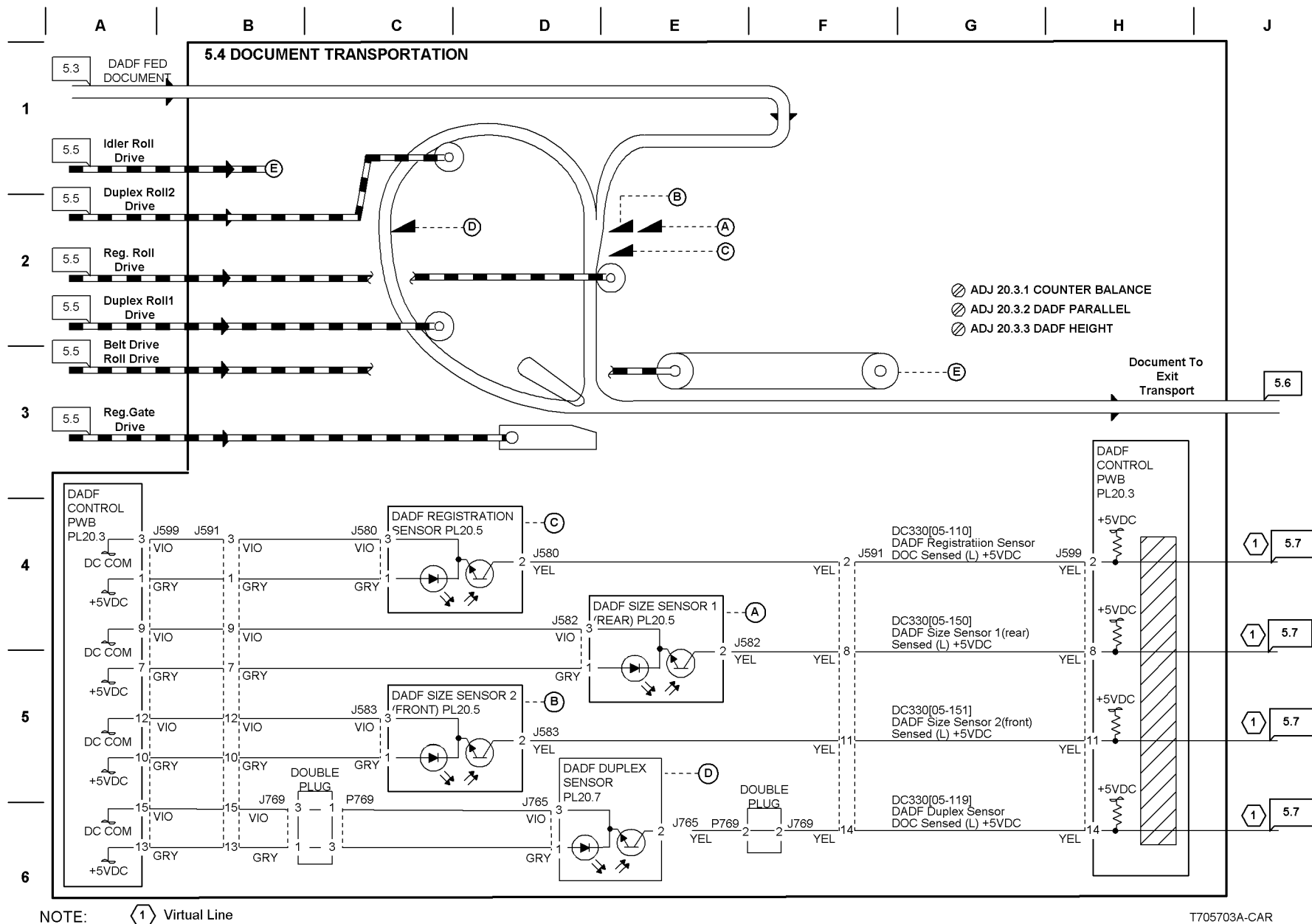
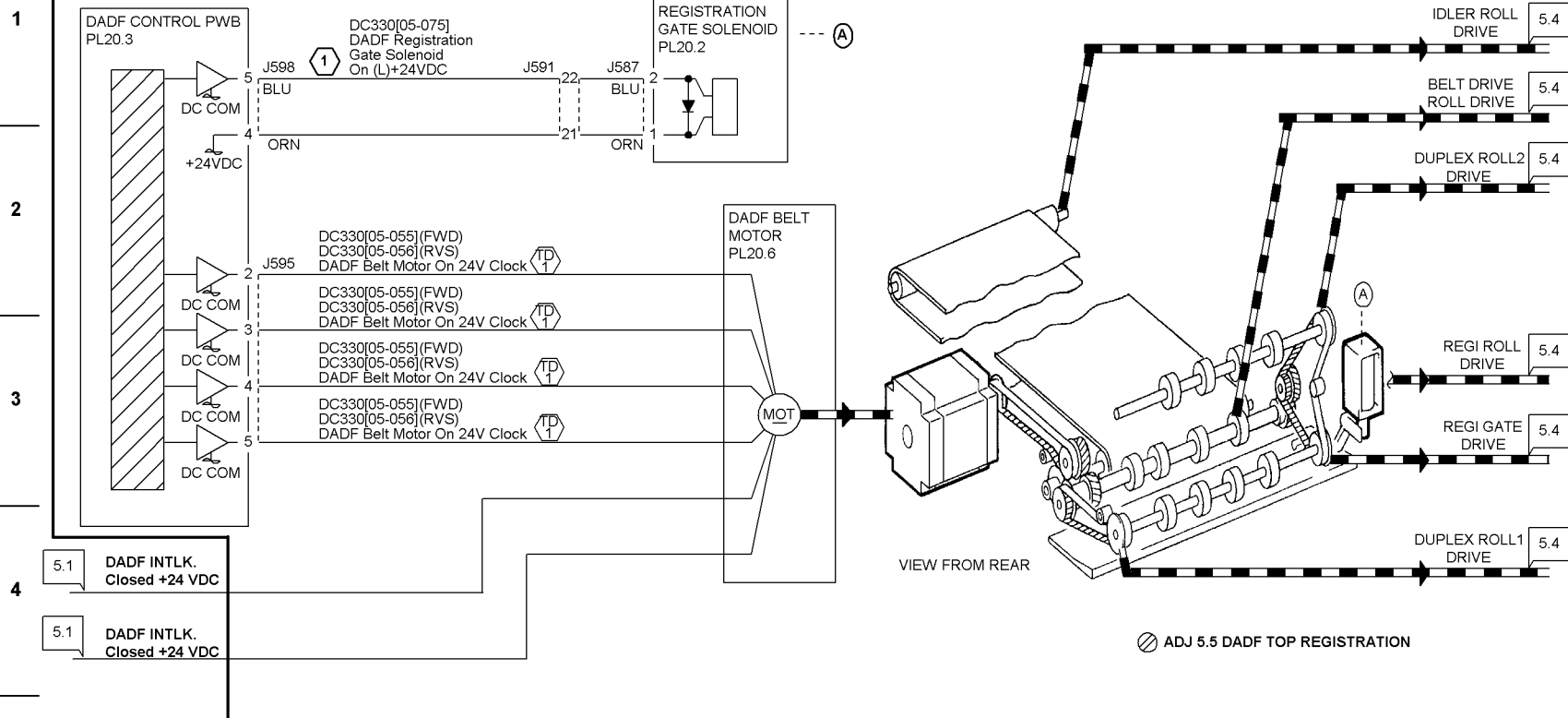


Figure 4 BSD 5.4 Document Transportation



# 5.5 DOCUMENT TRANSPORT MECHANISM



**1** ON timing (energize):  
At the end of scanning Duplex Side 1 or Side 2.  
OFF timing (de-energize):  
300ms after Regi Gate Solenoid is on.

**TP 1** Test Point: DADF Control PWB J595-2 - 5(+) to GND(-)  
With DC330 [05-055/056] on, a frequency of approx. 710Hz

T705704A-CAR

Figure 5 BSD 5.5 Document Transport



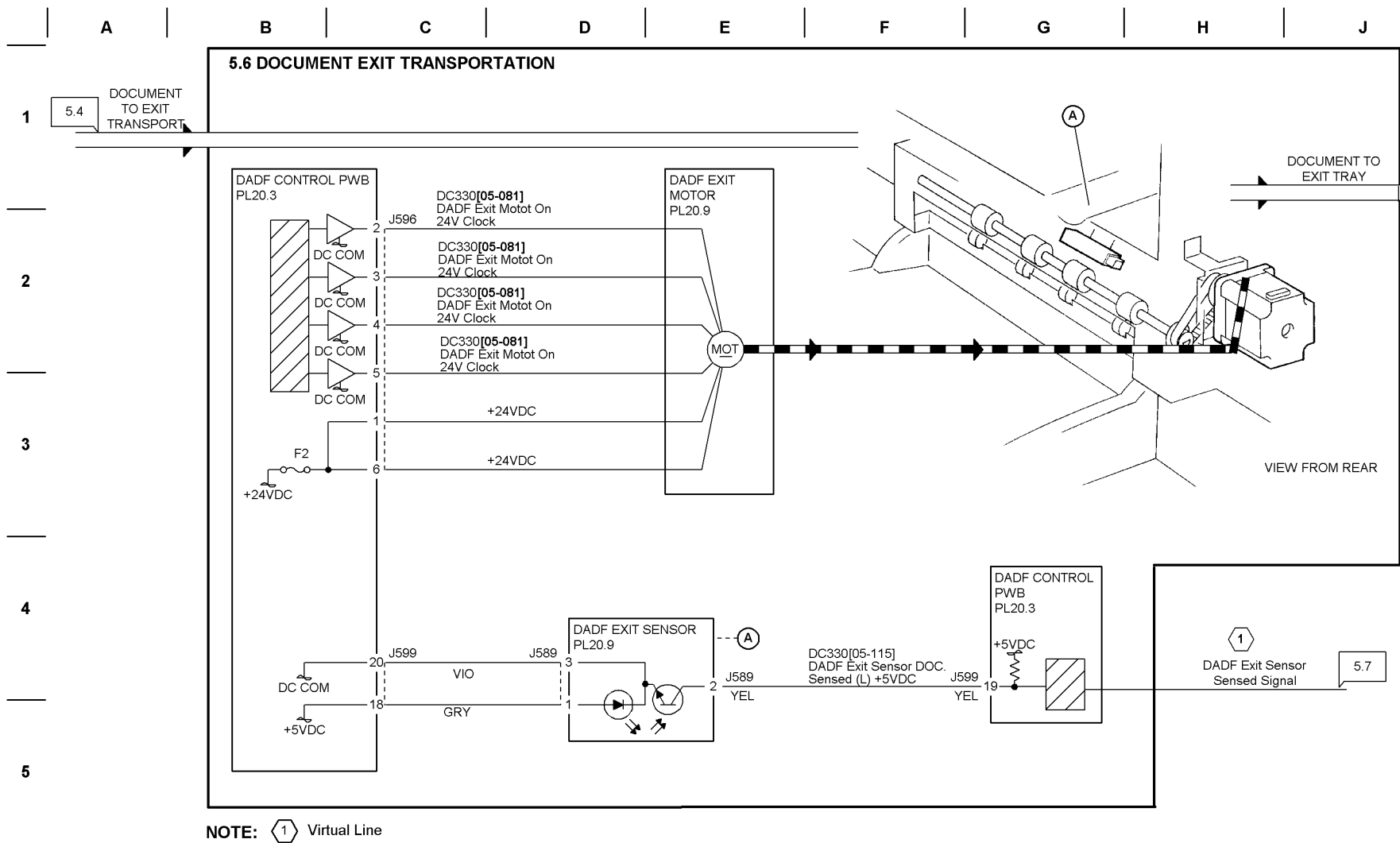
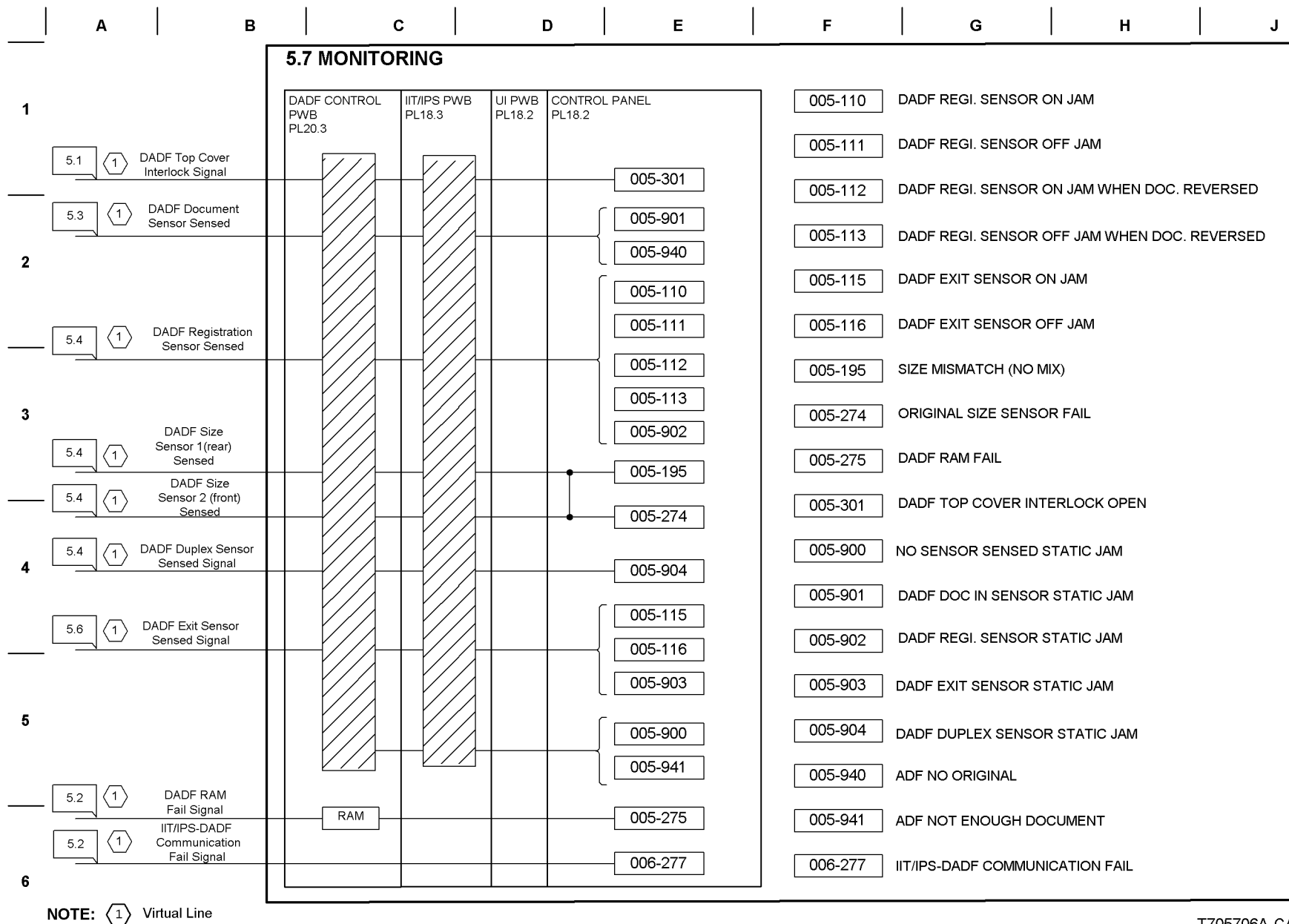


Figure 6 BSD 5.6 Document Exit Transportation

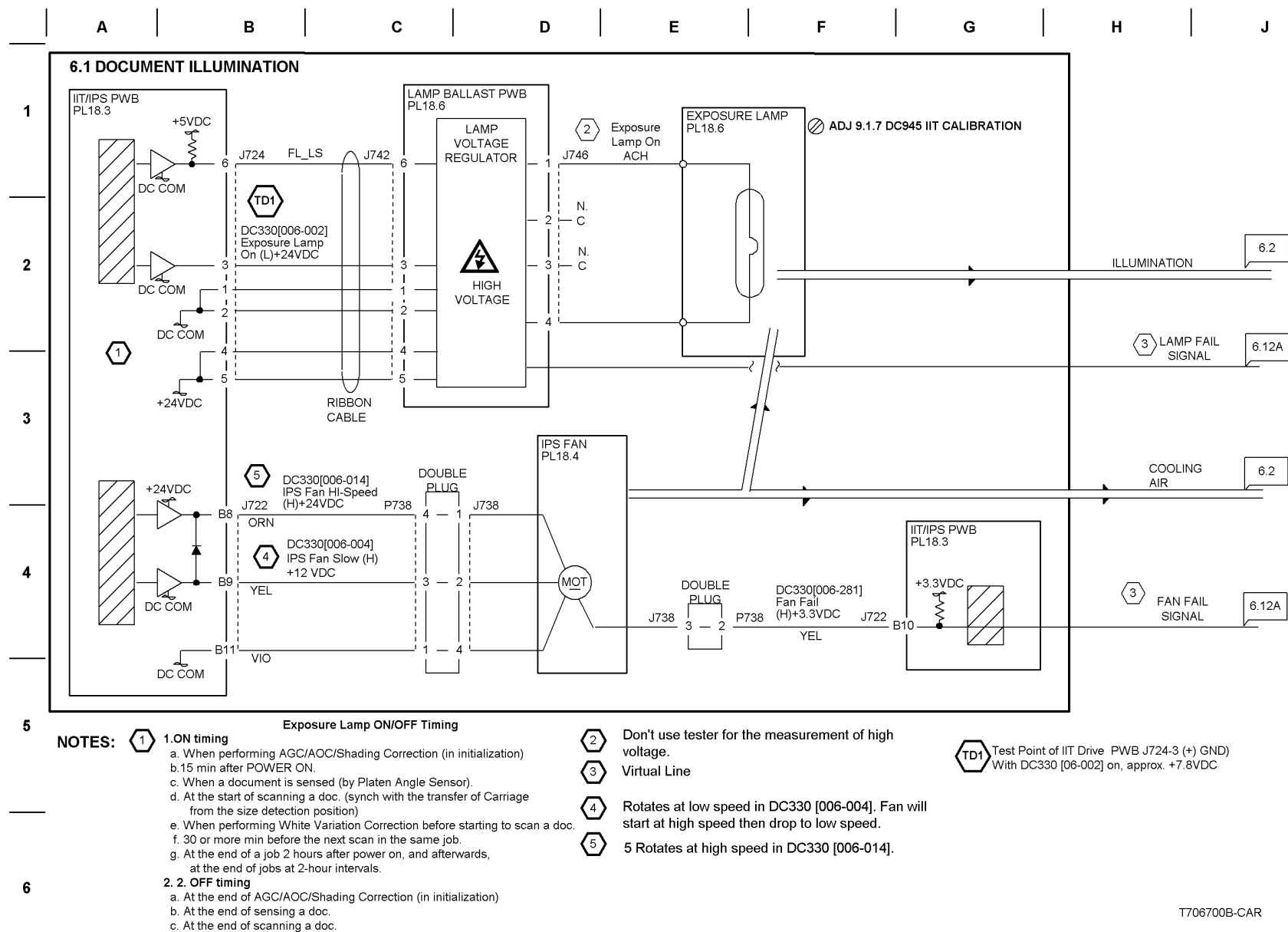




T705706A-CAR

Figure 7 BSD 5.7 DADF Monitoring





T706700B-CAR

Figure 1 BSD 6.1 Document Illumination



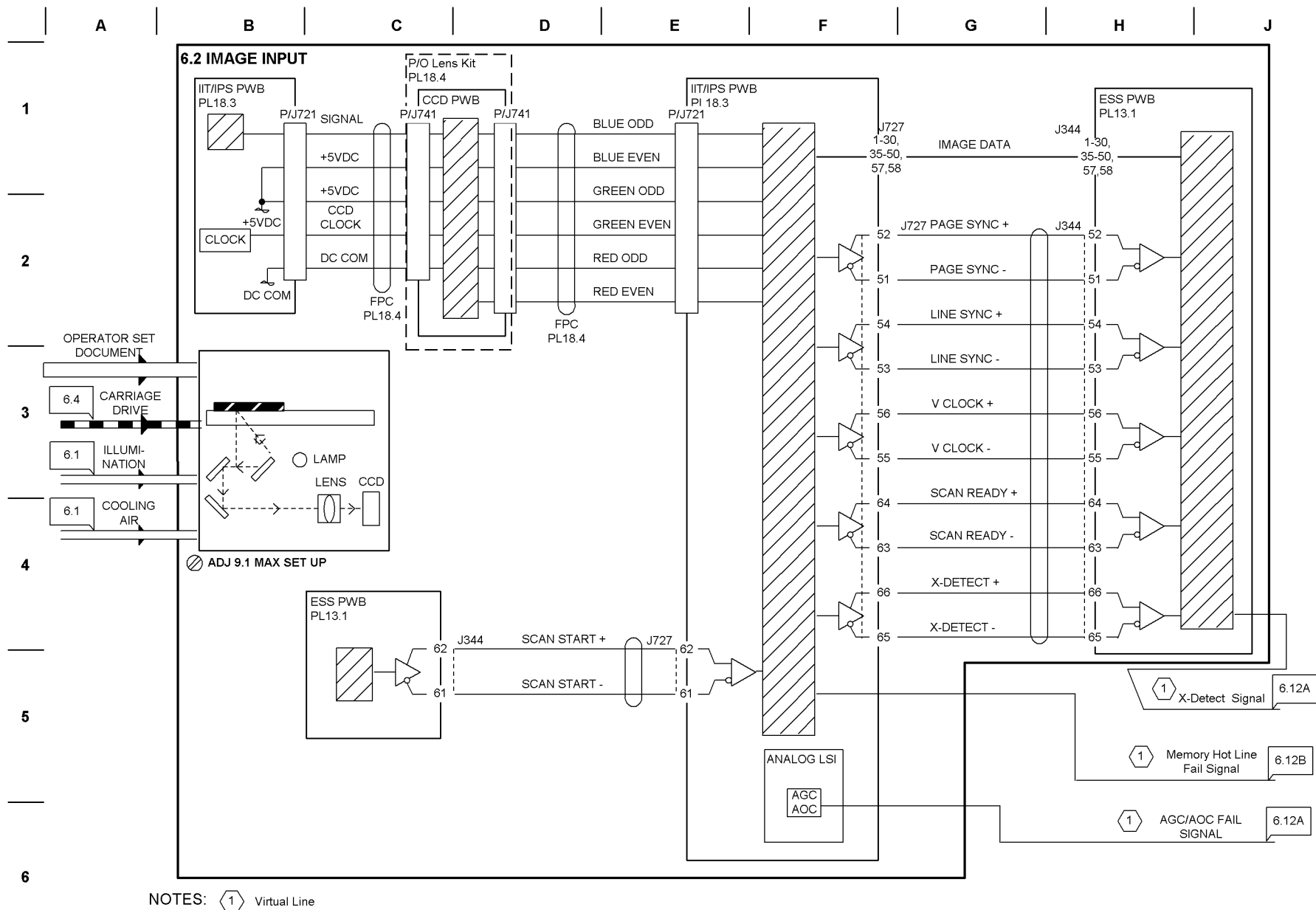
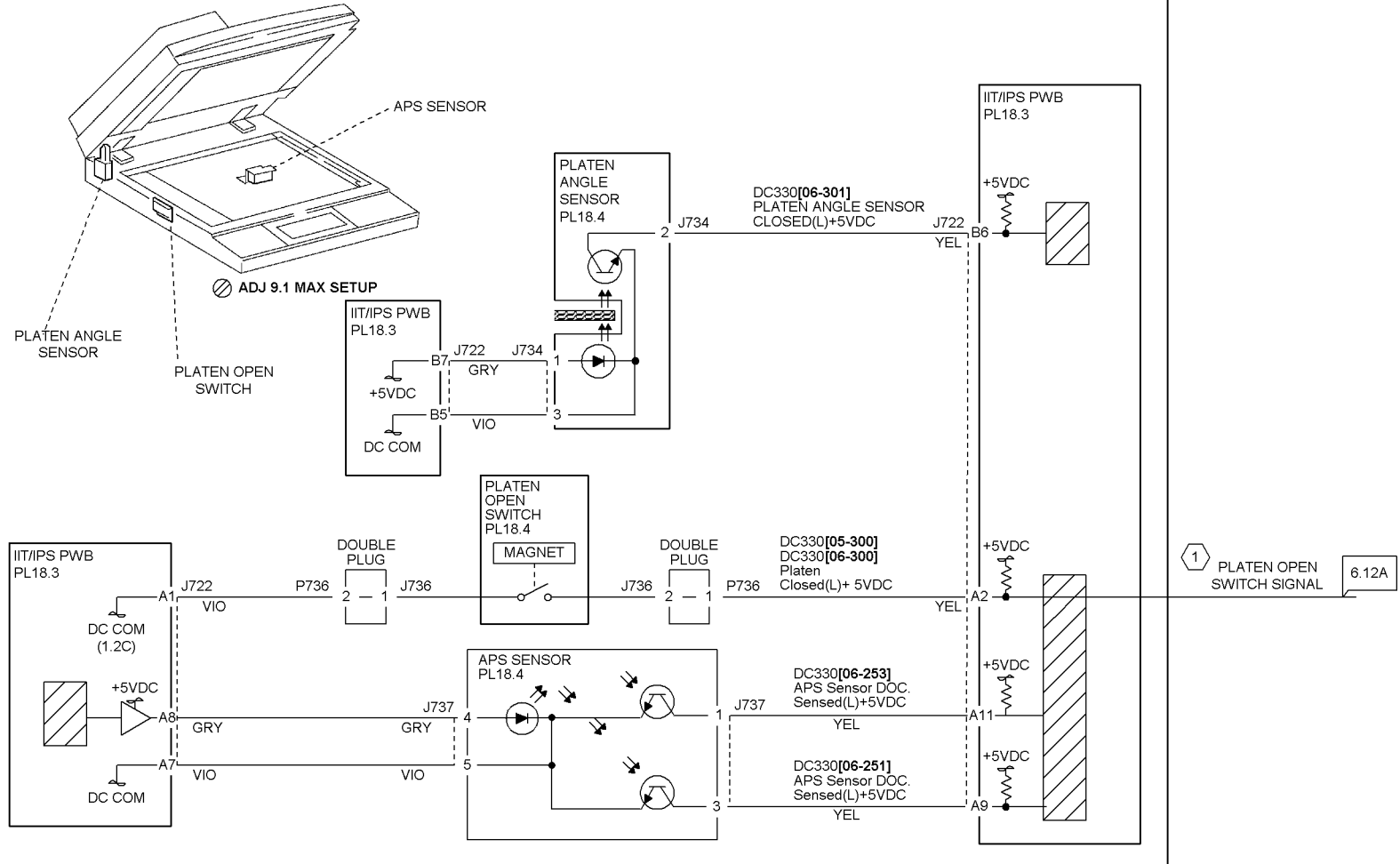


Figure 2 BSD 6.2 Image Input



A B C D E F G H J

### 6.3 PLATEN DOCUMENT SETTING

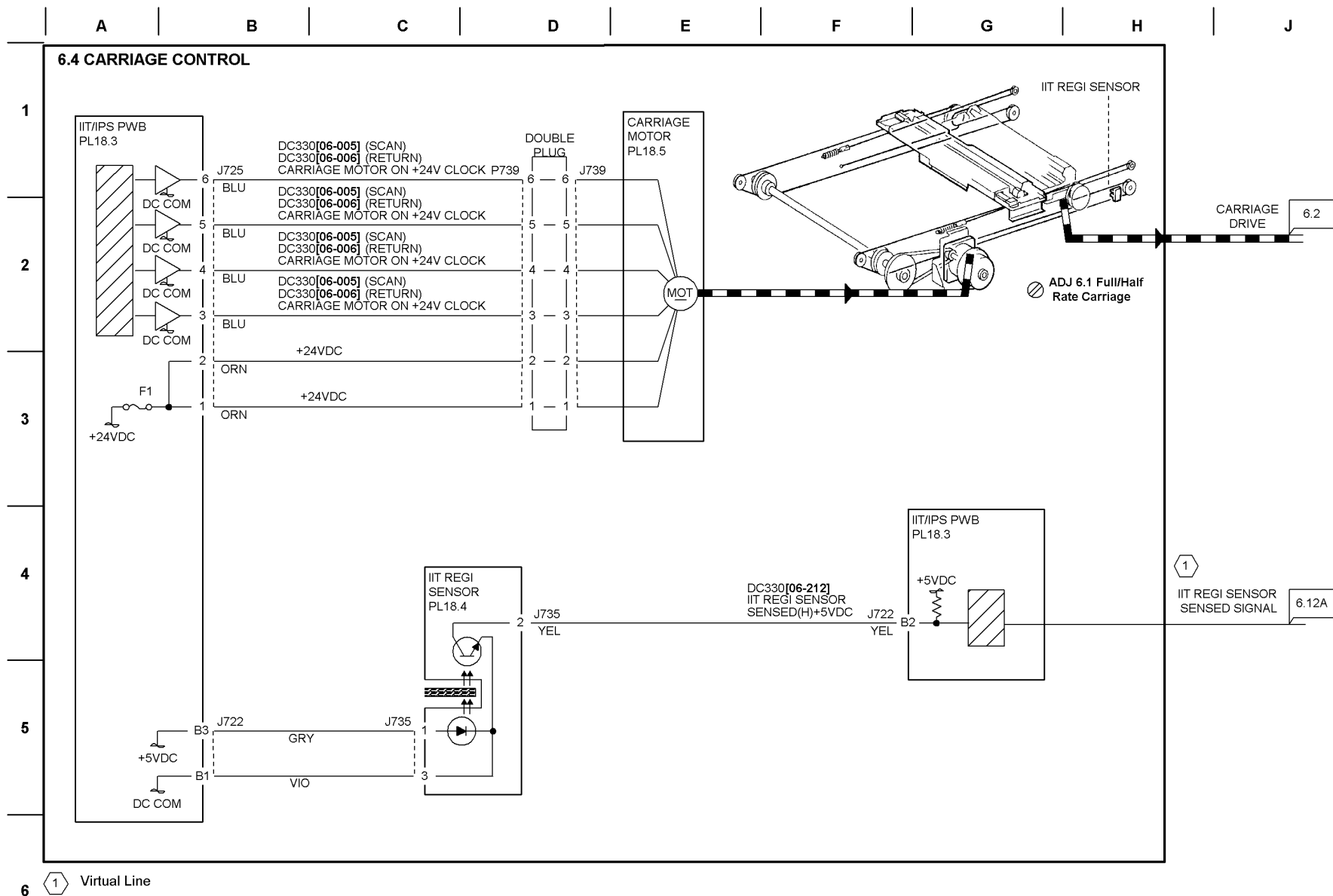


NOTE: ① Virtual Line

T706702B-CAR

Figure 3 BSD 6.3 Platen Document Setting





T706703A-CAR

Figure 4 BSD 6.4 Carriage Control



# 6.5 LASER AND SCANNING CONTROL - YELLOW (1 OF 3 - DC2240/1632, WC 24)

NOTES:  
1 VIRTUAL LINE

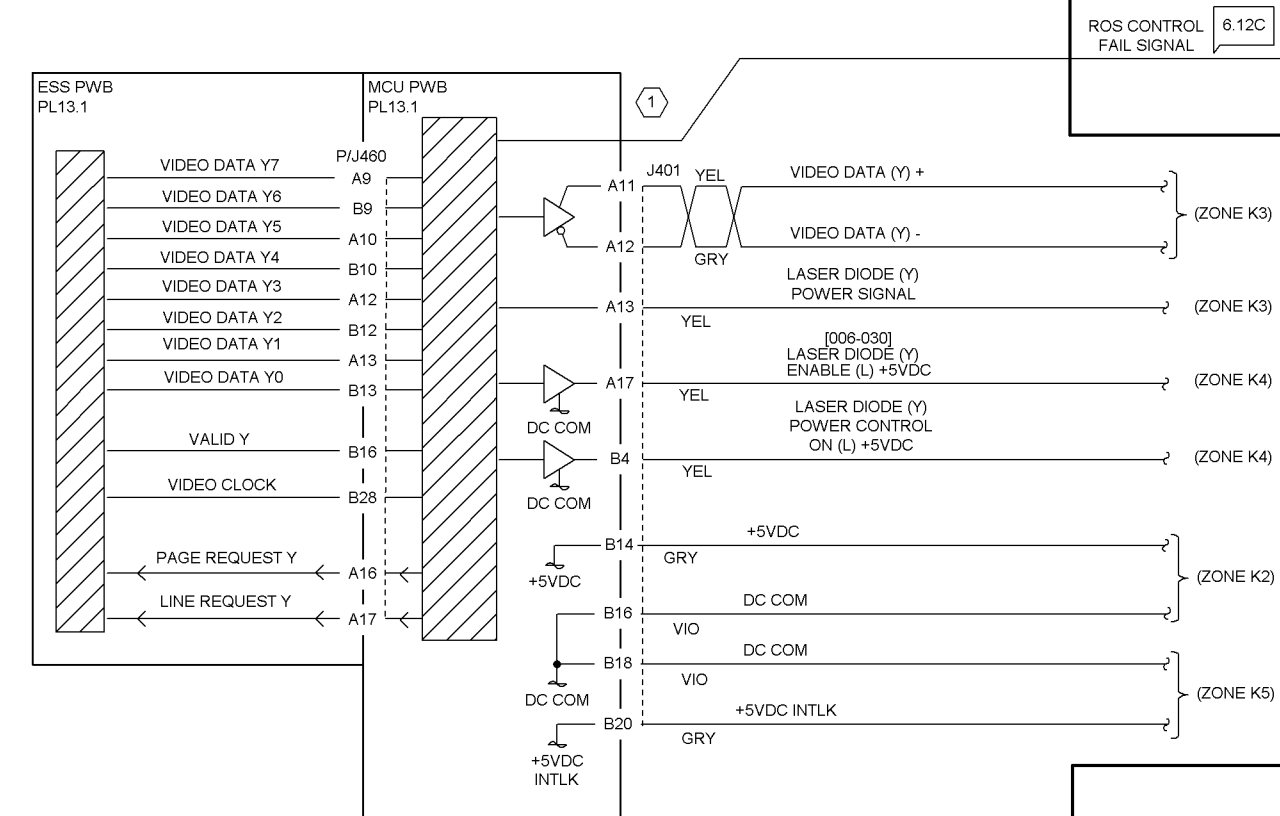


Figure 5 BSD 6.5 (1 of 3) Laser and Scanning Control - Yellow (DC 2240/1632, WC 24)



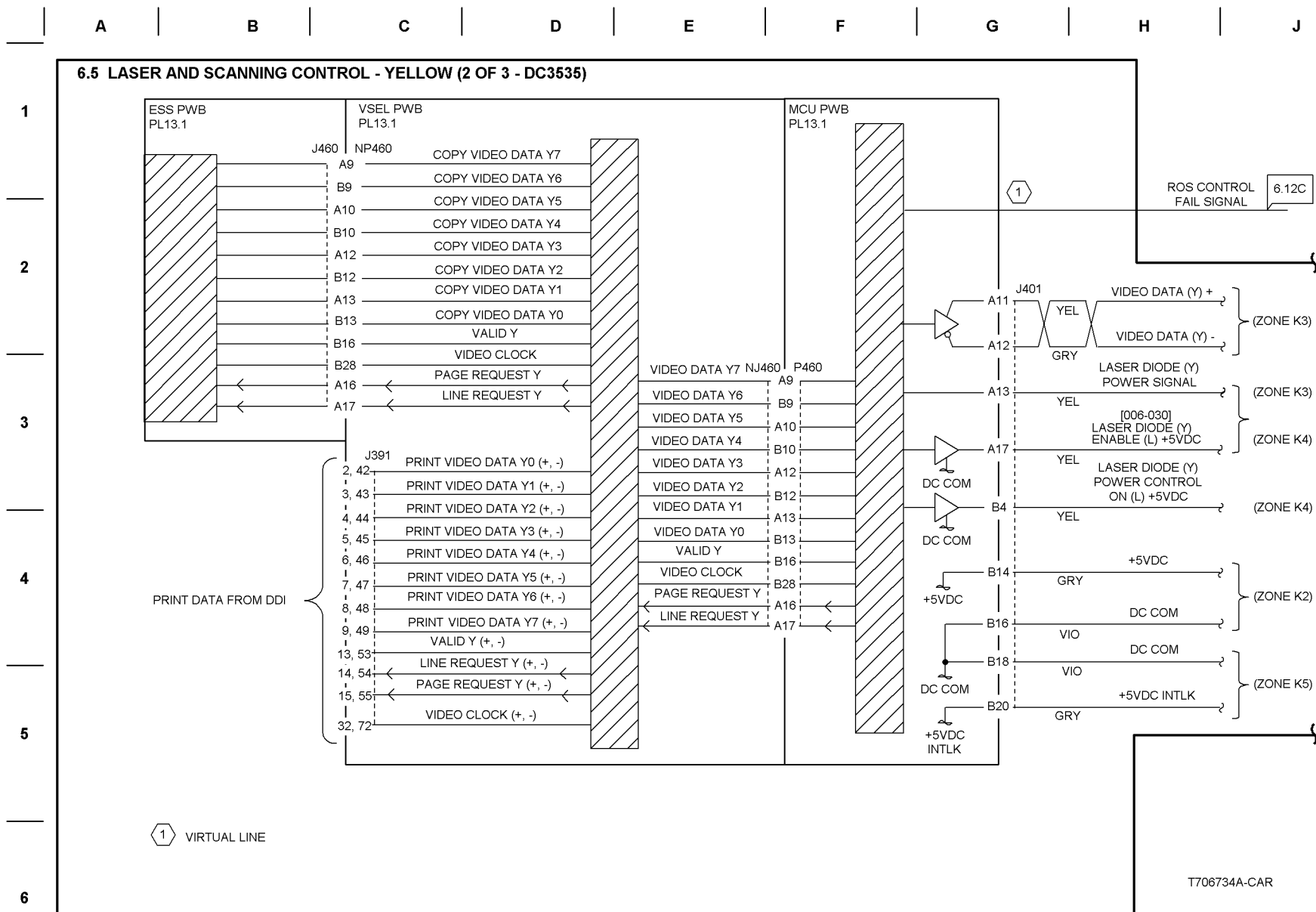
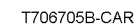


Figure 6 BSD 6.5 (2 of 3) Laser and Scanning Control - Yellow (DC 3535)





TONER

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Initial **issue**

[www.tonerDC](http://www.tonerDC) 3535/2240/1632, WC M24



# 6.6 LASER AND SCANNING CONTROL - MAGENTA (1 OF 3 - DC2240/1632, WC 24)

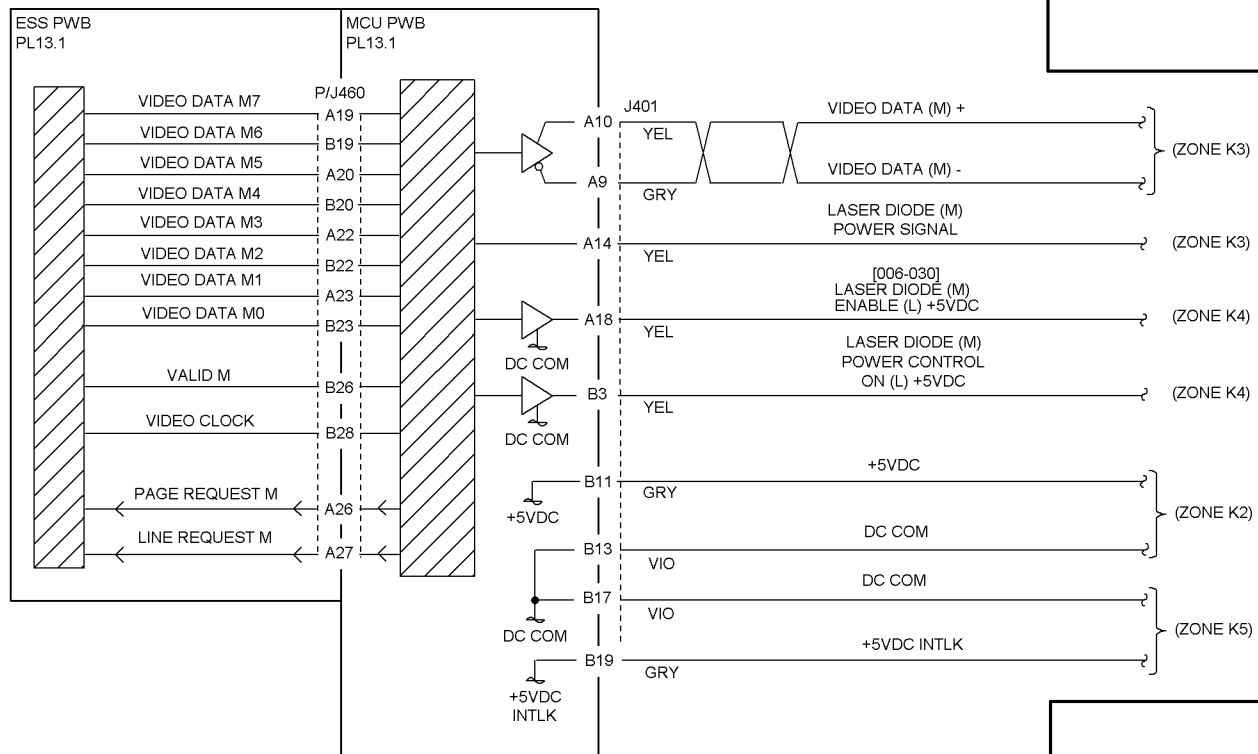


Figure 8 BSD 6.6 (1 of 3) Laser and Scanning Control - Magenta (DC 2240/1632, WC 24)



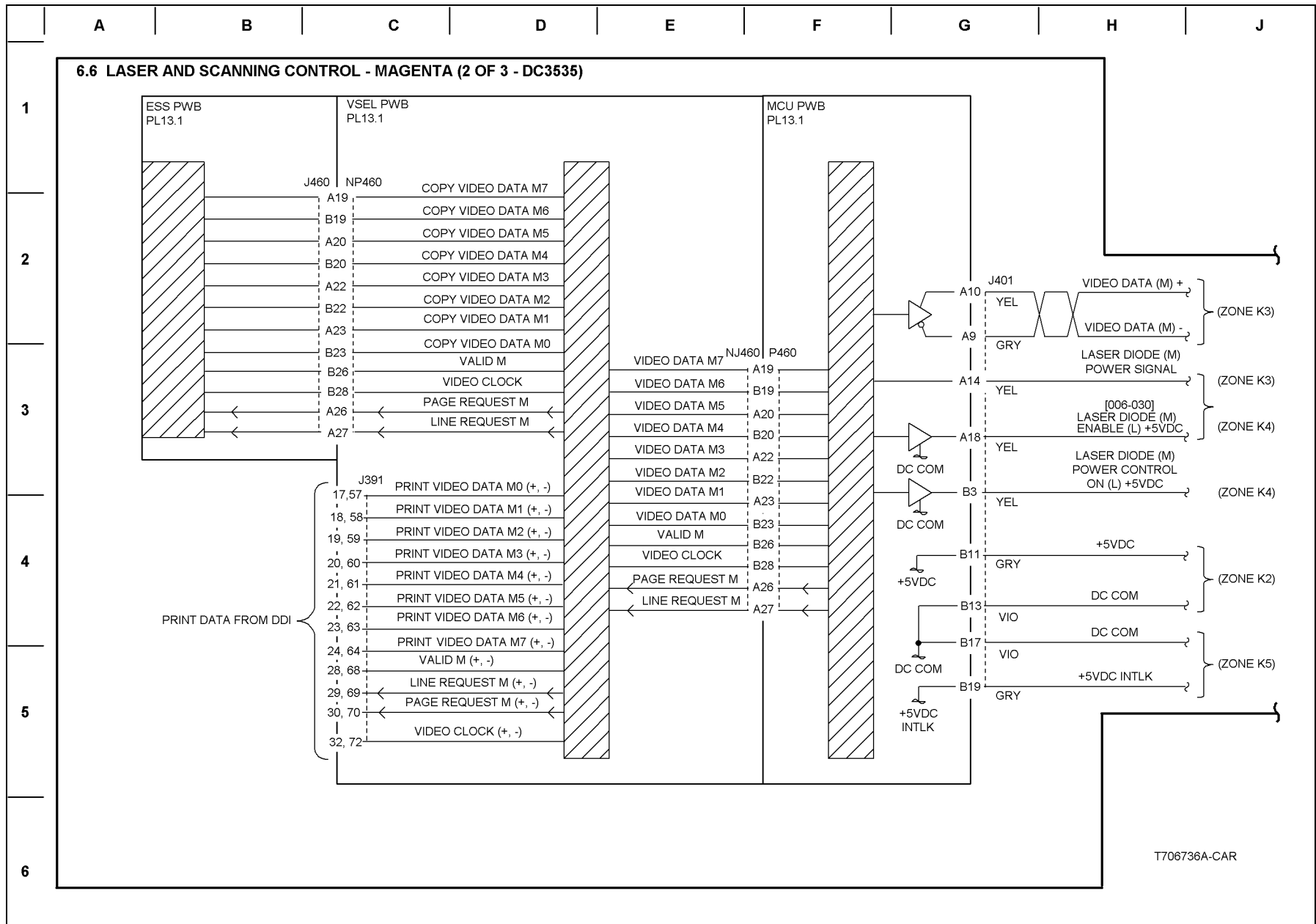


Figure 9 BSD 6.6 (2 of 3) Laser and Scanning Control - Magenta (DC 3535)



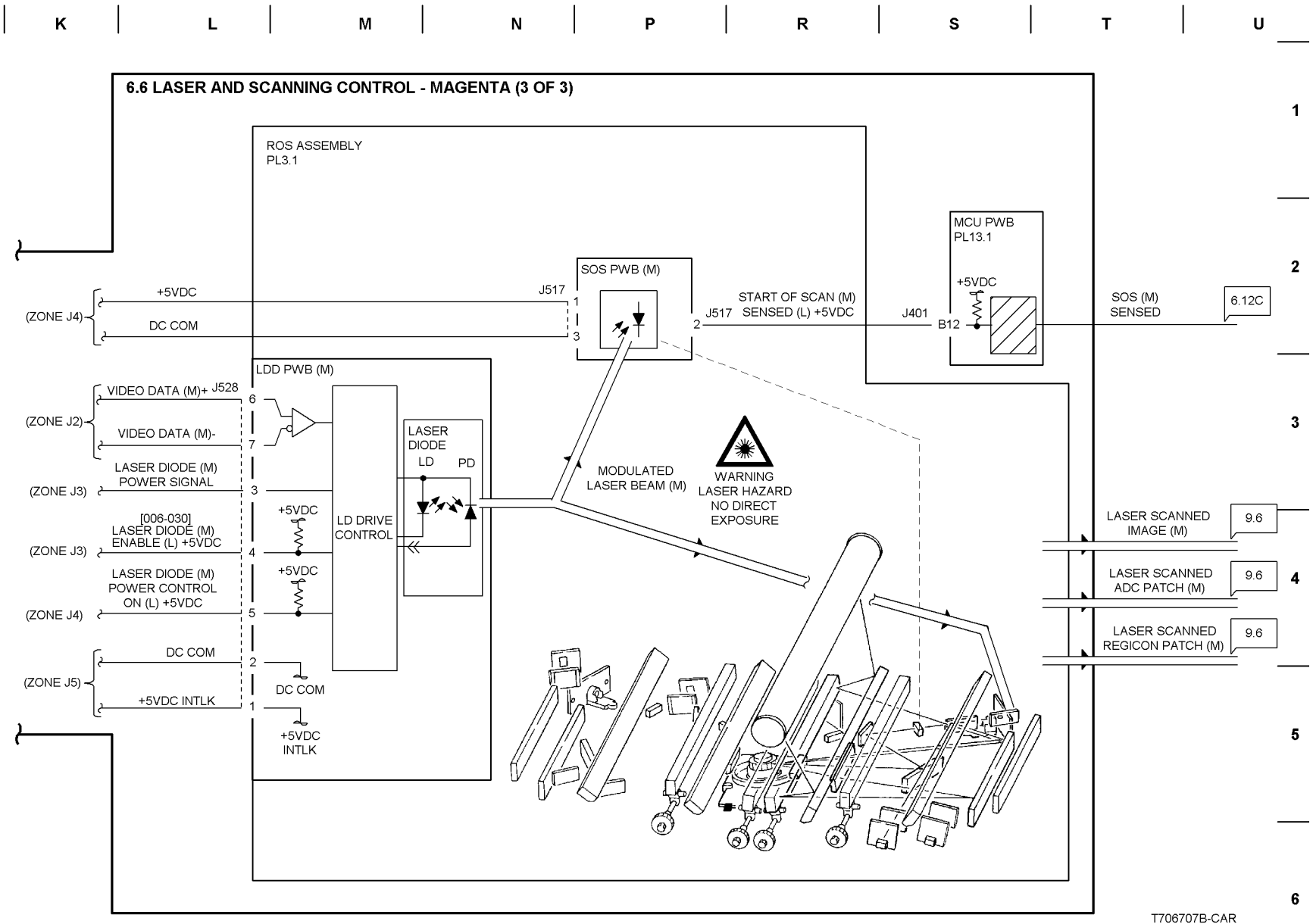
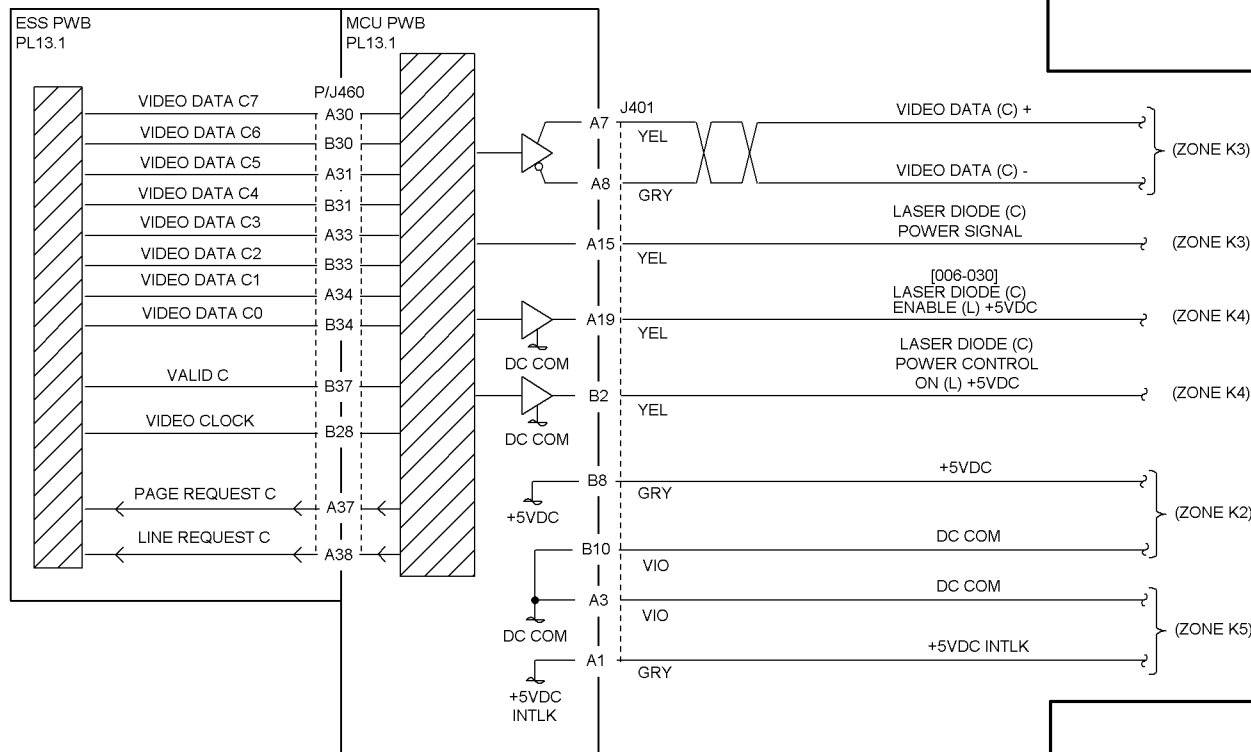


Figure 10 BSD 6.6 (3 of 3) Laser and Scanning Control - Magenta



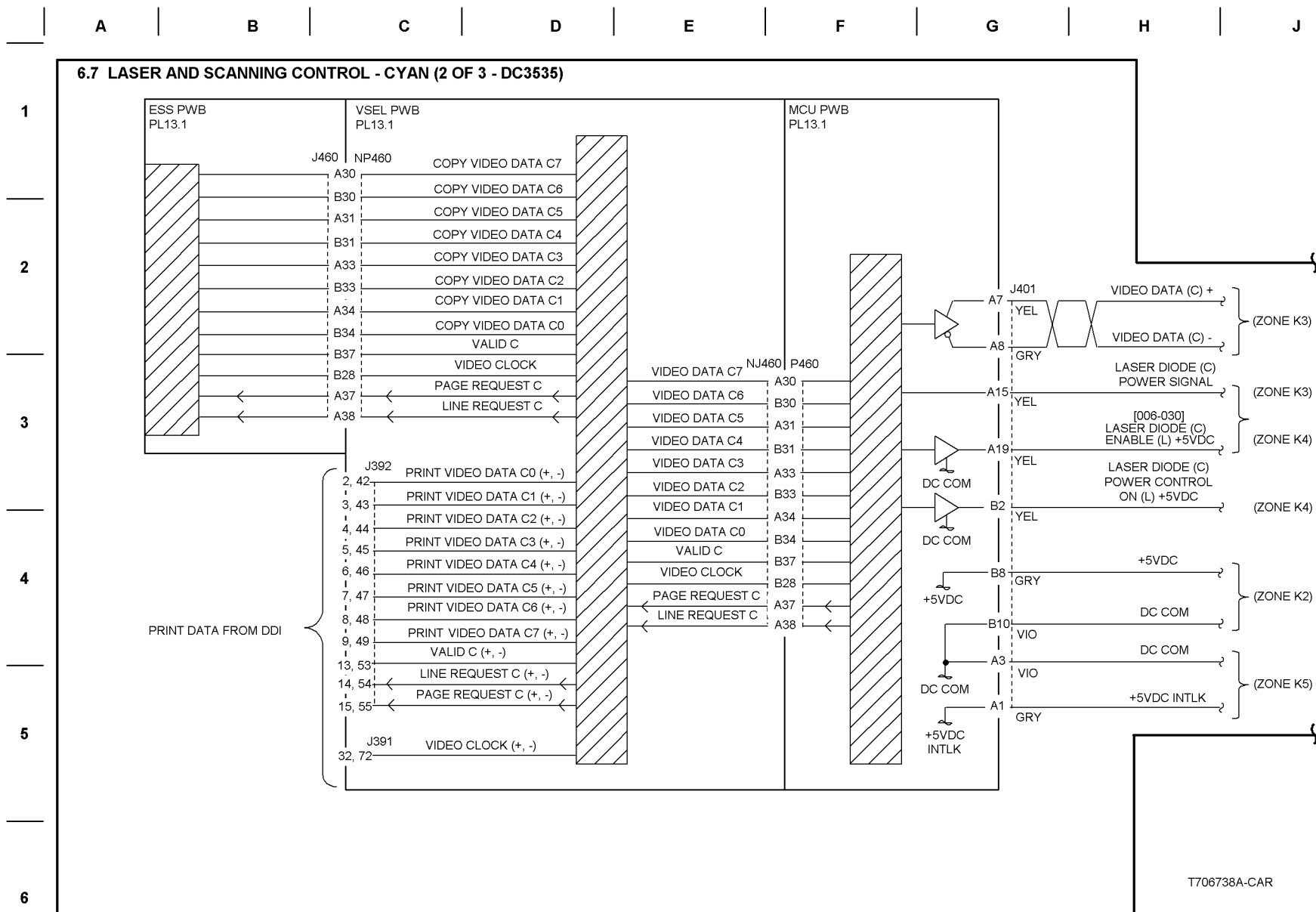
# 6.7 LASER AND SCANNING CONTROL - CYAN (1 OF 3 - DC2240/1632, WC 24)



T706708C-CAR

Figure 11 BSD 6.7 (1 of 3) Laser and Scanning Control - Cyan (DC 2240/1632, WC 24)





T706738A-CAR

Figure 12 BSD 6.7 (2 of 3) Laser and Scanning Control - Cyan (DC 3535)



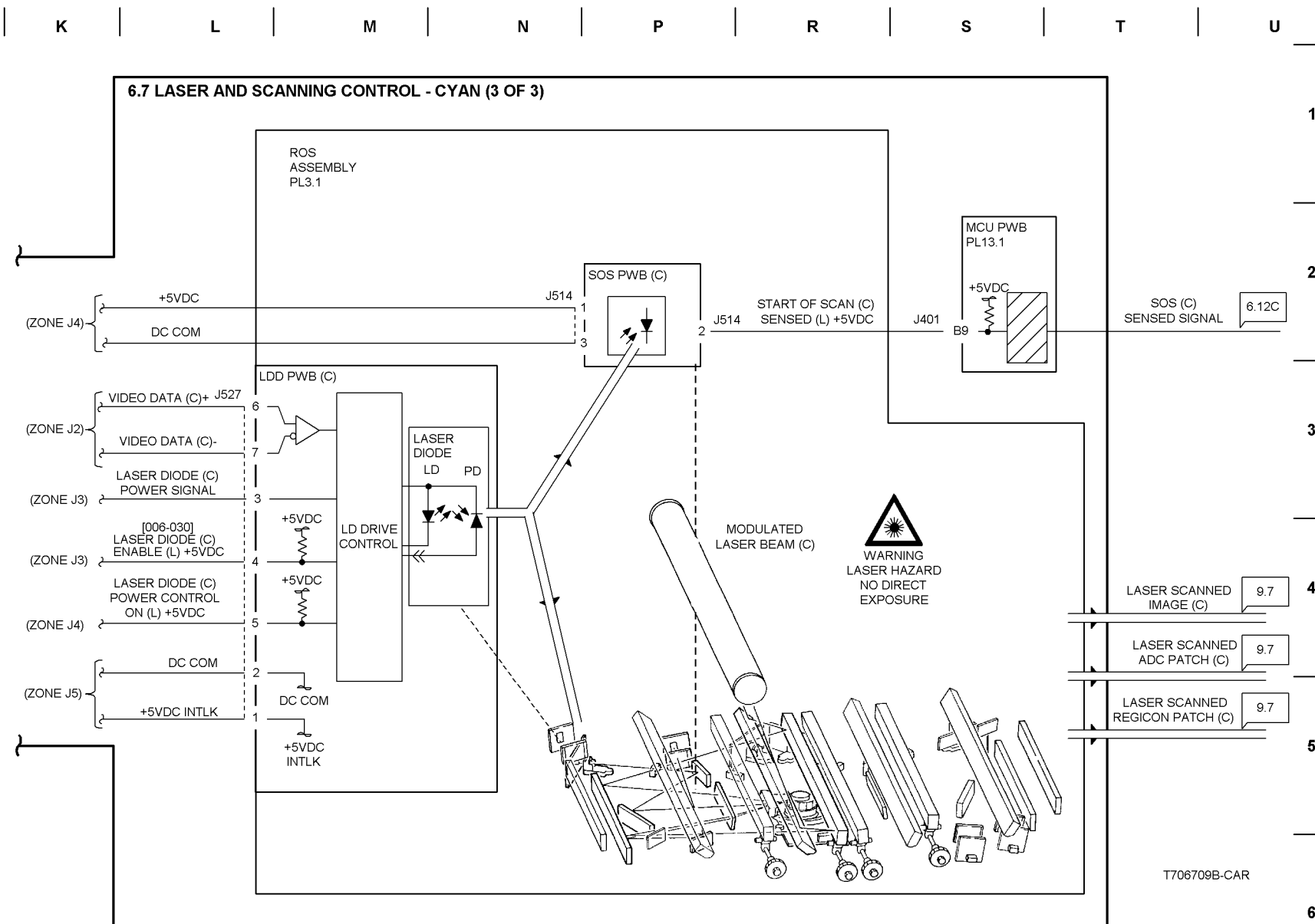


Figure 13 BSD 6.7 (3 of 3) Laser and Scanning Control - Cyan



# 6.8 LASER AND SCANNING CONTROL - BLACK (1 OF 3 - DC2240/1632, WC 24)

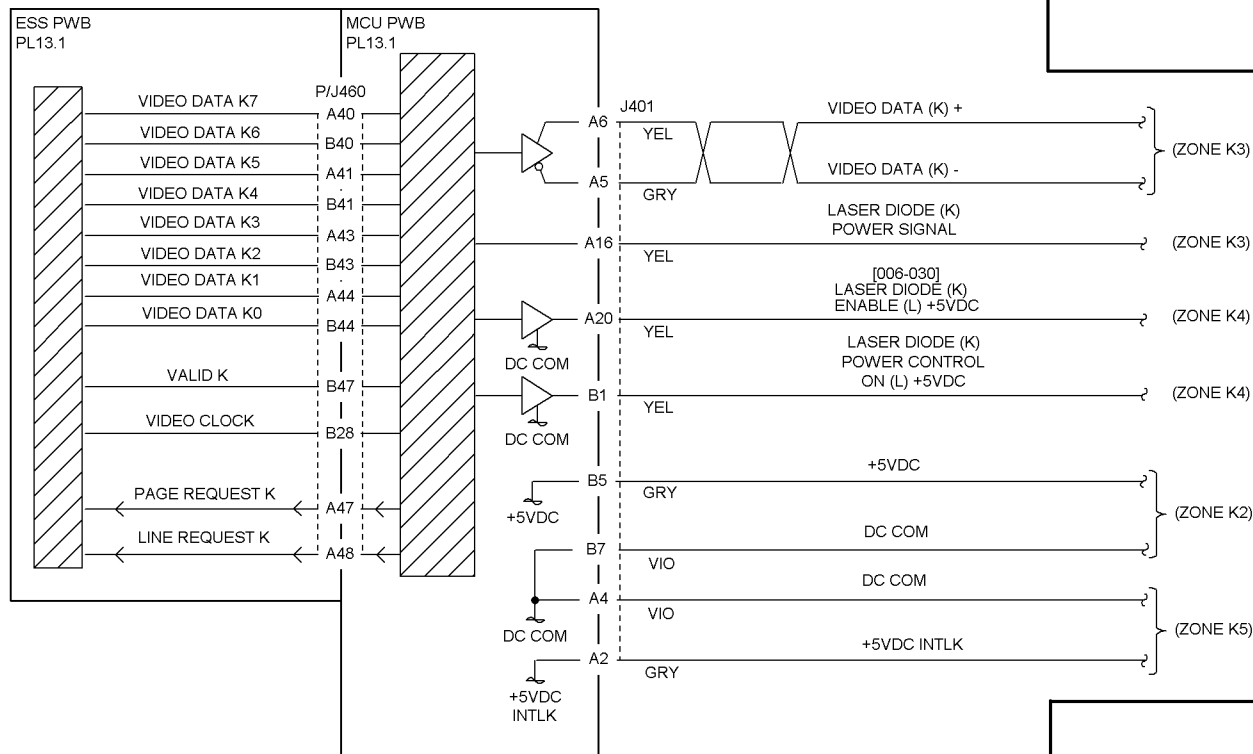


Figure 14 BSD 6.8 (1 of 3) Laser and Scanning Control - Black (DC 2240/1632, WC 24)



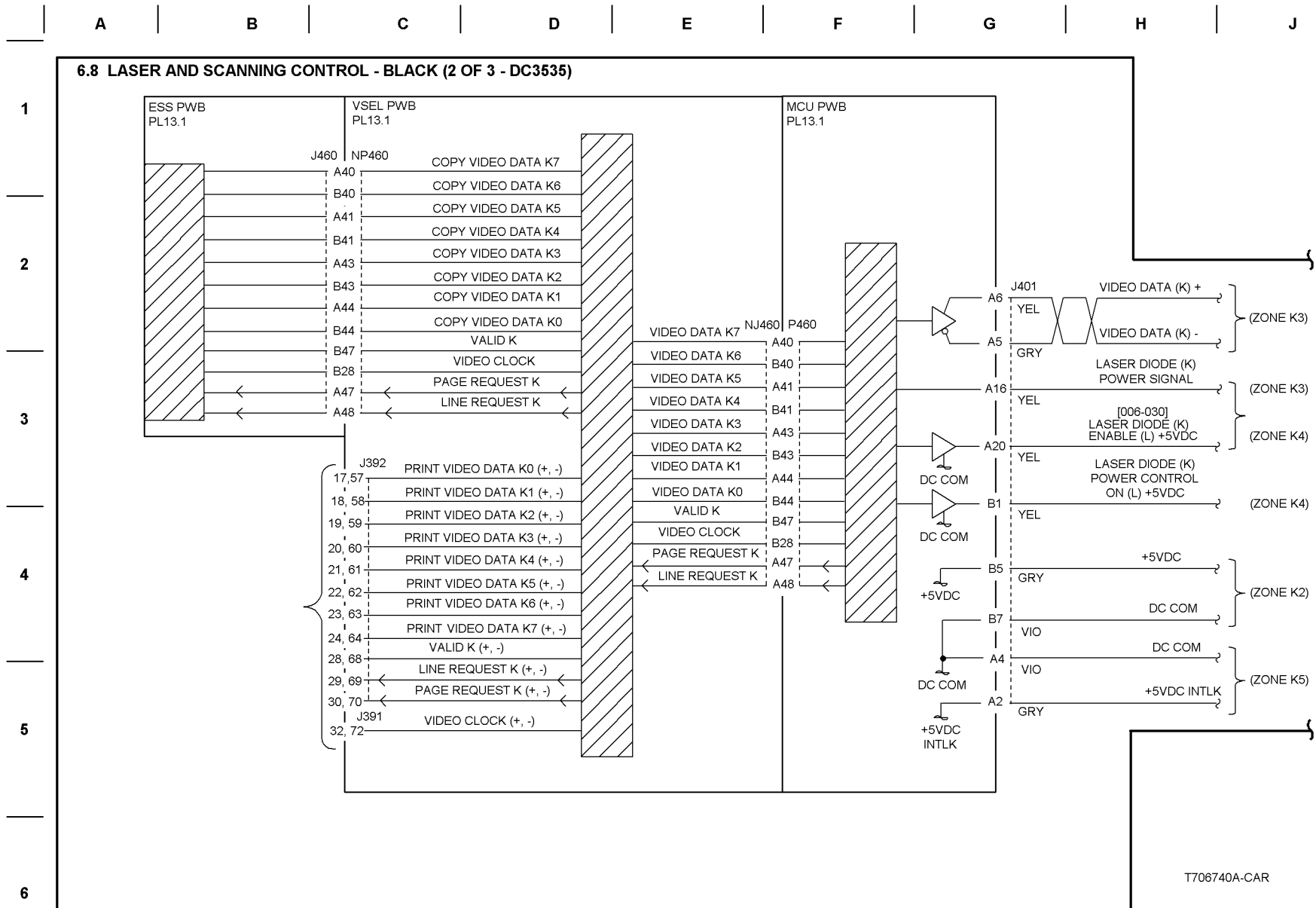


Figure 15 BSD 6.8 (2 of 3) Laser and Scanning Control - Black (DC 3535)



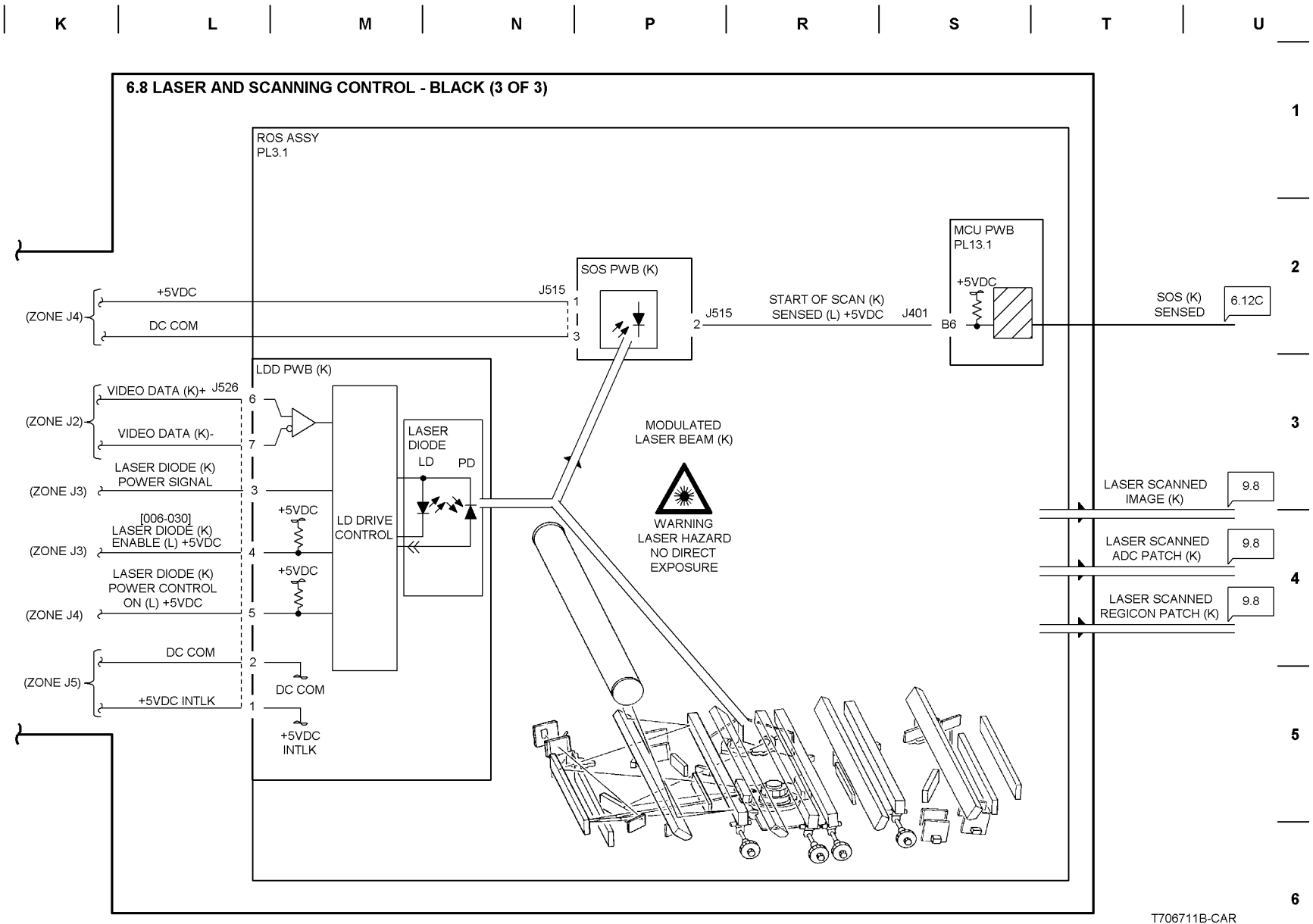


Figure 16 BSD 6.8 (3 of 3) Laser and Scanning Control - Black











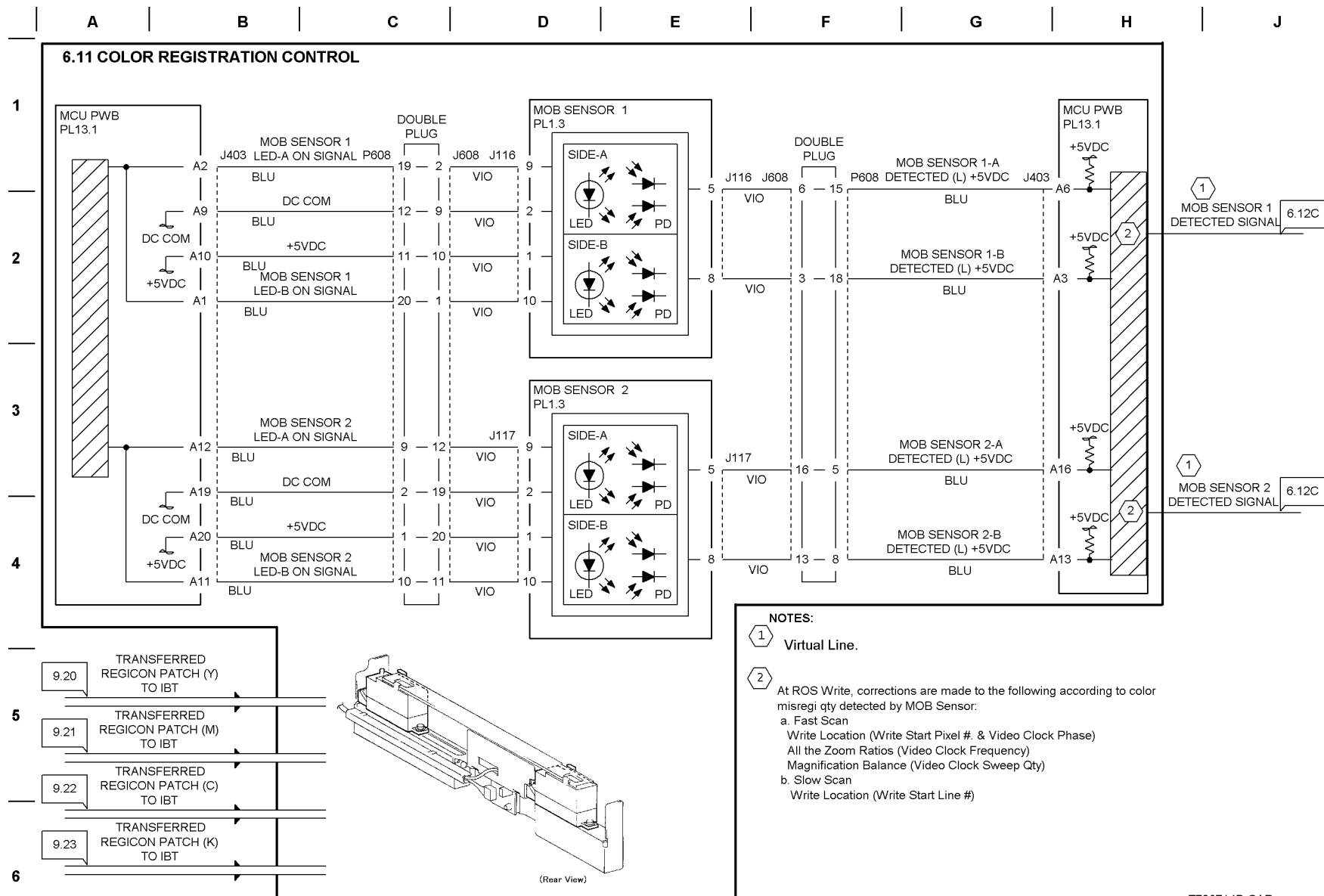


Figure 19 6.11 Color Registration Control



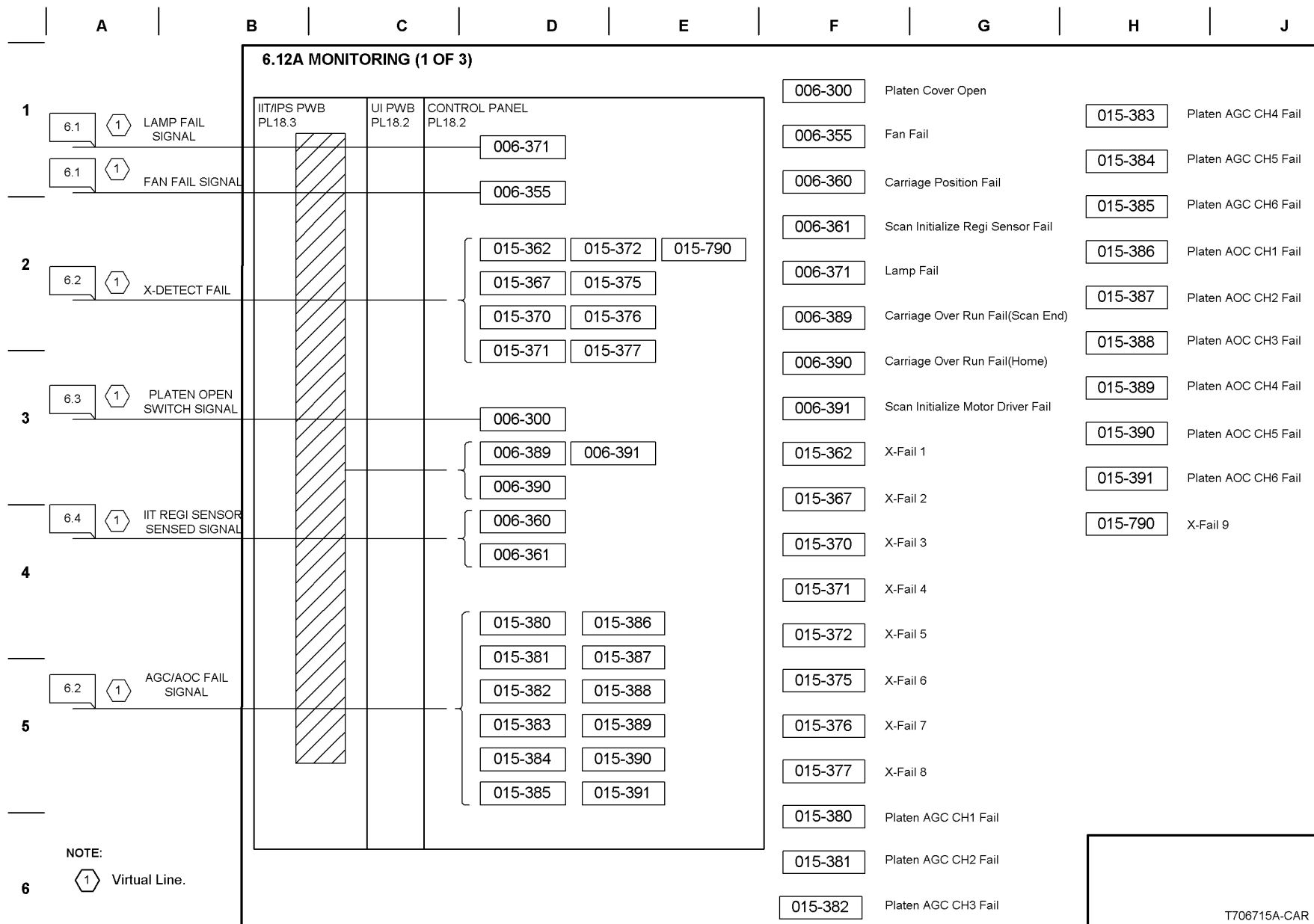
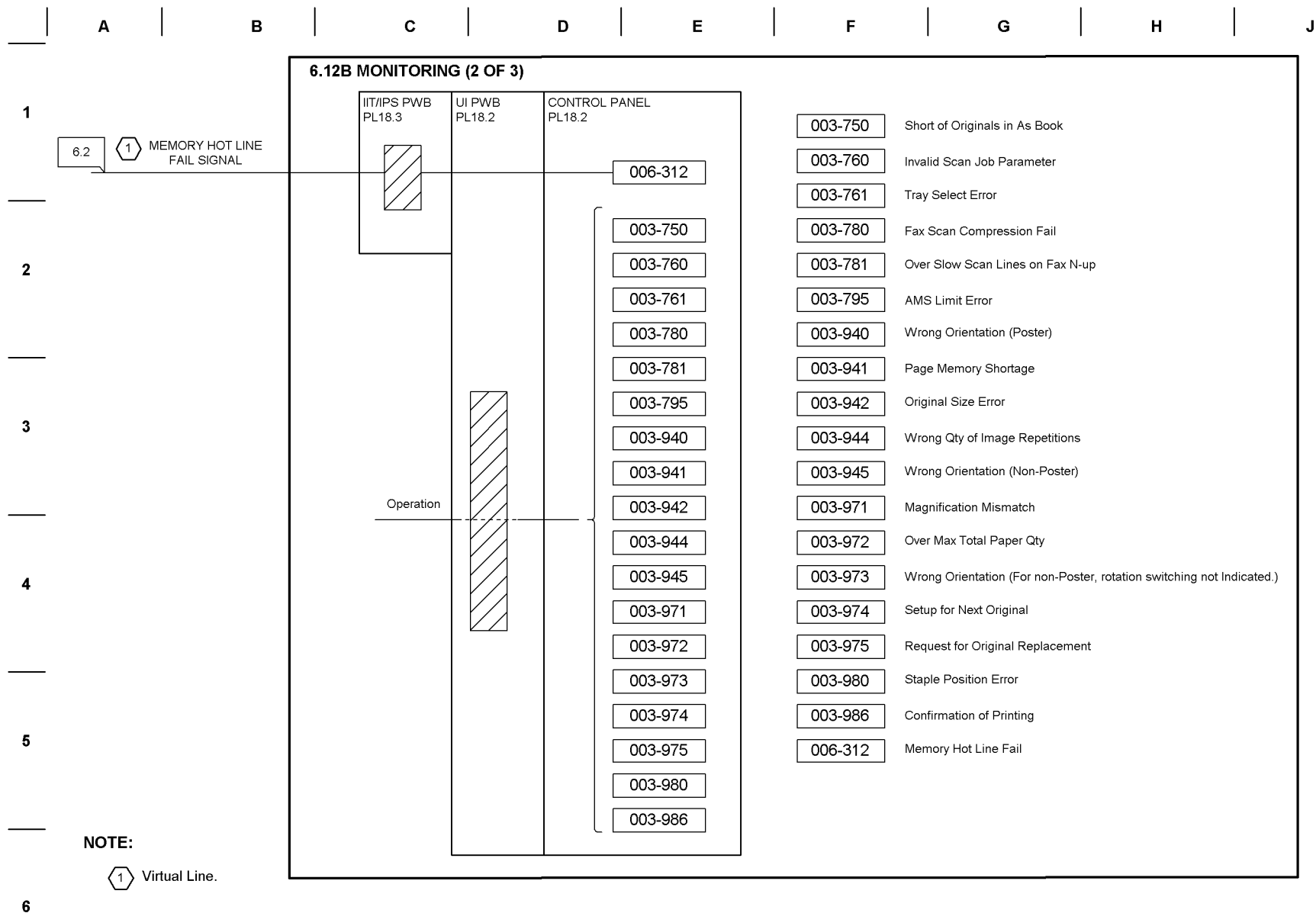


Figure 20 BSD 6.12A Image Monitoring (1 of 3)

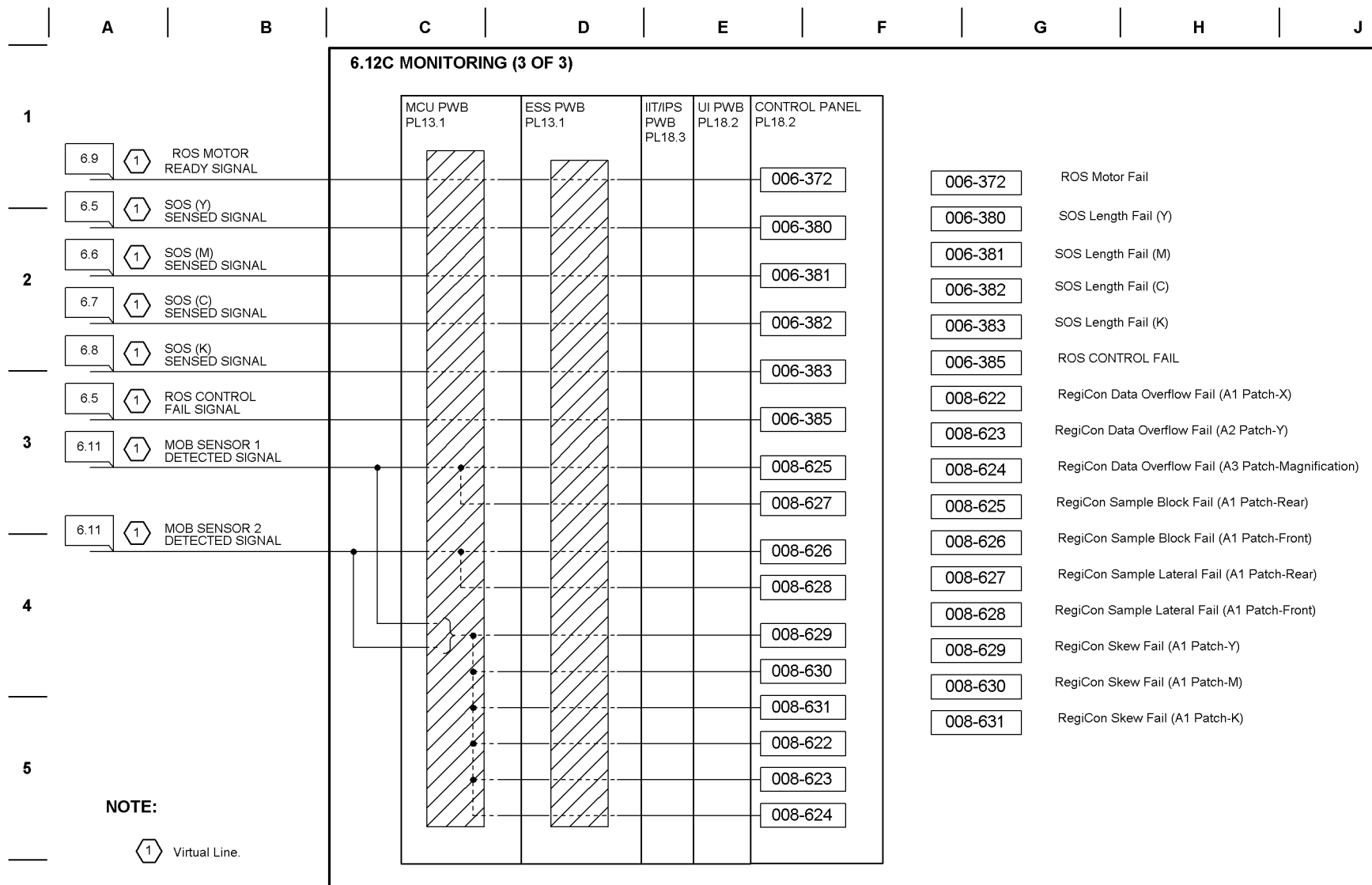




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Figure 21 BSD 6.12B Image Monitoring (2 of 3)



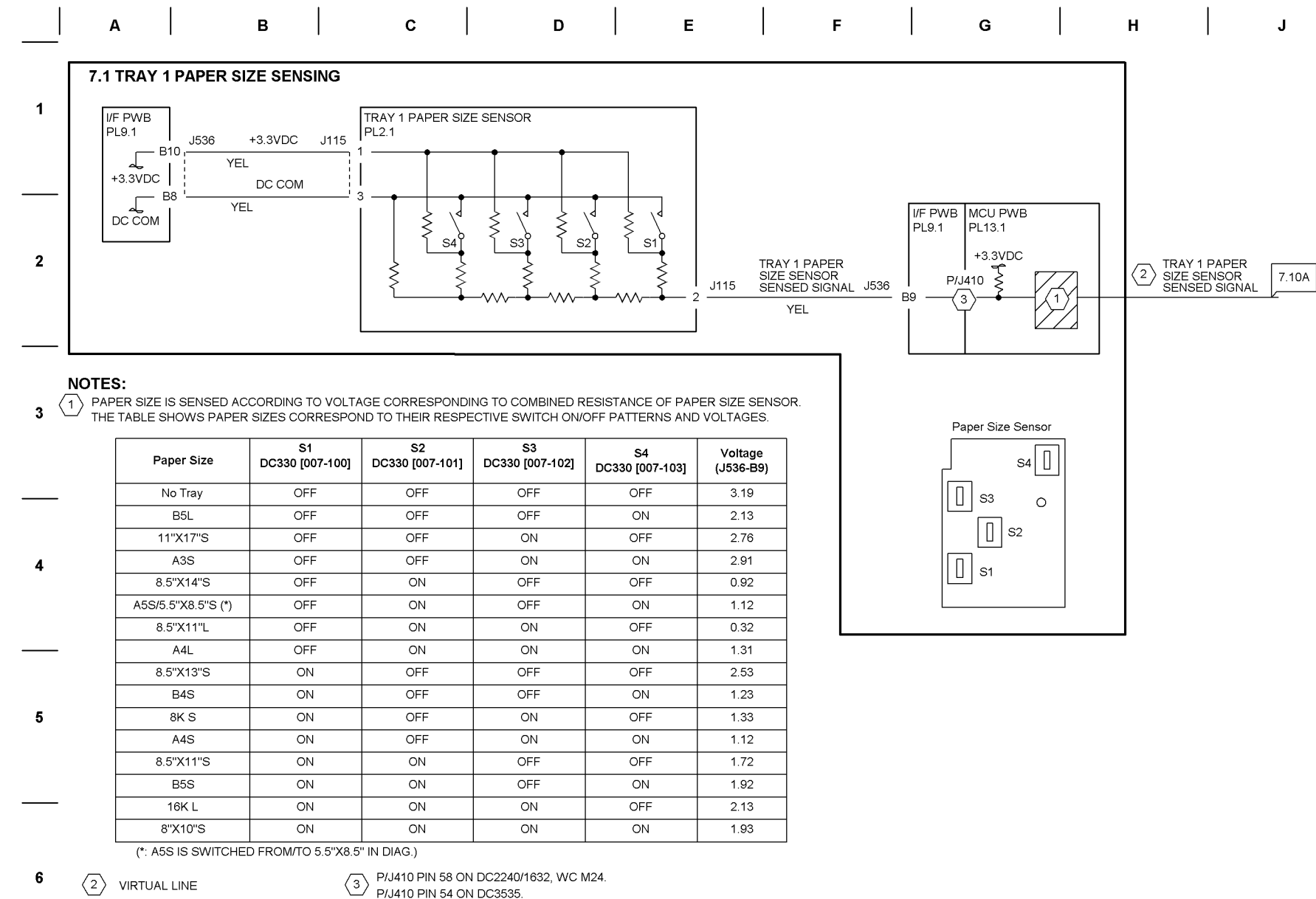


T706718A-CAR

Figure 22 BSD 6.12C Image Monitoring (3 of 3)

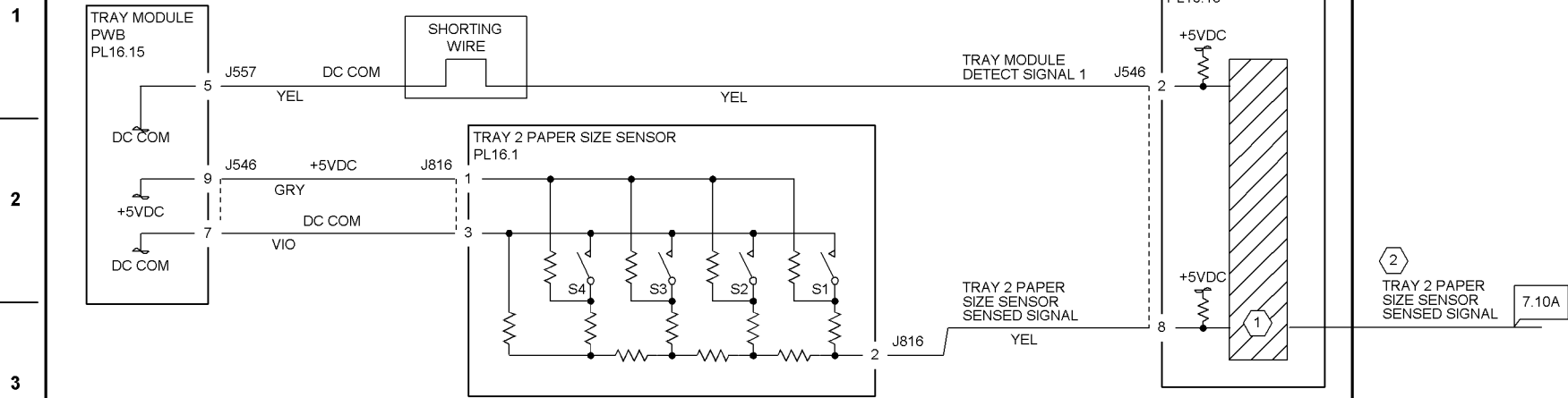


Chain 07 Paper Supply





## 7.2 TRAY 2 PAPER SIZE SENSING (1 of 2 - TTM)



### NOTES:

Paper size is sensed according to voltage corresponding to combined resistance of Paper Size Sensor.  
The table shows paper sizes correspond to their respective Switch ON/OFF patterns and voltages.

Paper Size	S1 DC330 [007-104]	S2 DC330 [007-105]	S3 DC330 [007-106]	S4 DC330 [007-107]	Voltage (J546-8)
No Tray	OFF	OFF	OFF	OFF	4.78
A3S	OFF	OFF	OFF	ON	4.45
11"X17"S	OFF	OFF	ON	OFF	4.12
8.5"X13"S	OFF	OFF	ON	ON	3.81
---	OFF	ON	OFF	OFF	3.38
B5L/16K L	OFF	ON	OFF	ON	3.18
B5S/8"X10"S	OFF	ON	ON	OFF	2.87
8.5"X11"S	OFF	ON	ON	ON	2.57
---	ON	OFF	OFF	OFF	2.15
B4S/8K S	ON	OFF	OFF	ON	1.98
A4S	ON	OFF	ON	OFF	1.67
8.5"X14"S	ON	OFF	ON	ON	1.37
---	ON	ON	OFF	OFF	0.91
A4L	ON	ON	OFF	ON	0.77
8.5"X11"L	ON	ON	ON	OFF	0.47
A5S/5.5"X8.5"S (*)	ON	ON	ON	ON	0.17

(\*: A5S is switched from/to 5.5"x8.5" in Diag.)

### Paper Size Sensor

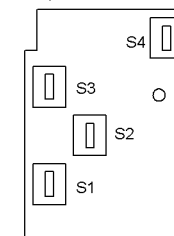
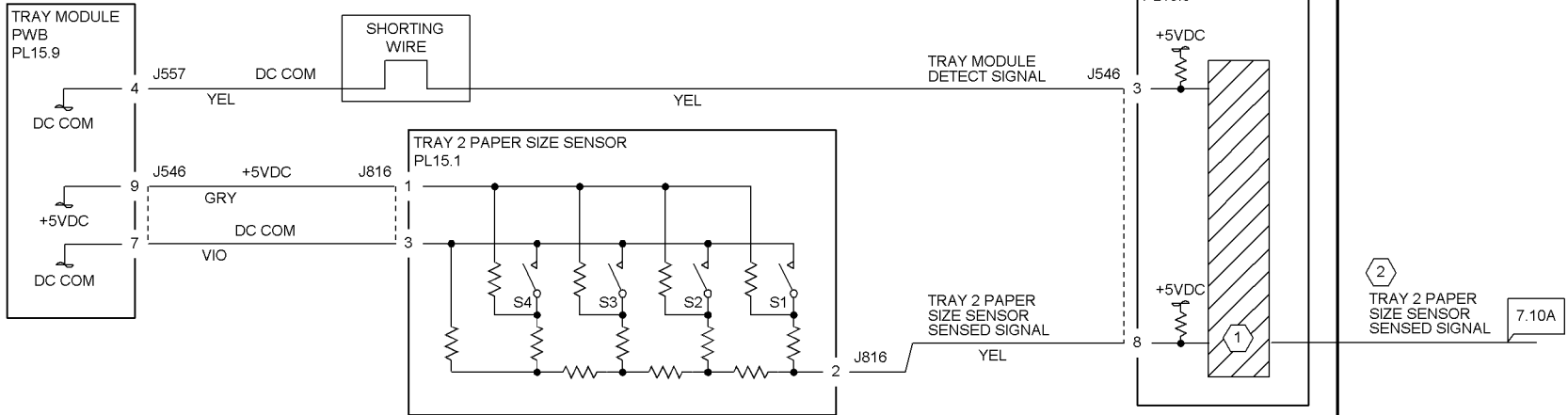


Figure 2 BSD 7.2 Tray 2 Paper Size Sensing TTM



## 7.2 TRAY 2 PAPER SIZE SENSING (2 of 2 - 3TM)



### NOTES:

Paper size is sensed according to voltage corresponding to combined resistance of Paper Size Sensor.  
The table shows paper sizes correspond to their respective Switch ON/OFF patterns and voltages.

Paper Size	S1 DC330 [007-104]	S2 DC330 [007-105]	S3 DC330 [007-106]	S4 DC330 [007-107]	Voltage (J546-8)
No Tray	OFF	OFF	OFF	OFF	4.78
A3S	OFF	OFF	OFF	ON	4.45
11"X17"S	OFF	OFF	ON	OFF	4.12
8.5"X13"S	OFF	OFF	ON	ON	3.81
---	OFF	ON	OFF	OFF	3.38
B5L/16K L	OFF	ON	OFF	ON	3.18
B5S/8"X10"S	OFF	ON	ON	OFF	2.87
8.5"X11"S	OFF	ON	ON	ON	2.57
---	ON	OFF	OFF	OFF	2.15
B4S/8K S	ON	OFF	OFF	ON	1.98
A4S	ON	OFF	ON	OFF	1.67
8.5"X14"S	ON	OFF	ON	ON	1.37
---	ON	ON	OFF	OFF	0.91
A4L	ON	ON	OFF	ON	0.77
8.5"X11"L	ON	ON	ON	OFF	0.47
A5S/5.5"X8.5"S (*)	ON	ON	ON	ON	0.17

(\*: A5S is switched from/to 5.5"x8.5" in Diag.)

### Paper Size Sensor

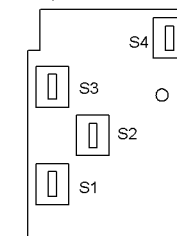


Figure 3 BSD 7.2 Tray 2 Paper Size Sensing 3TM







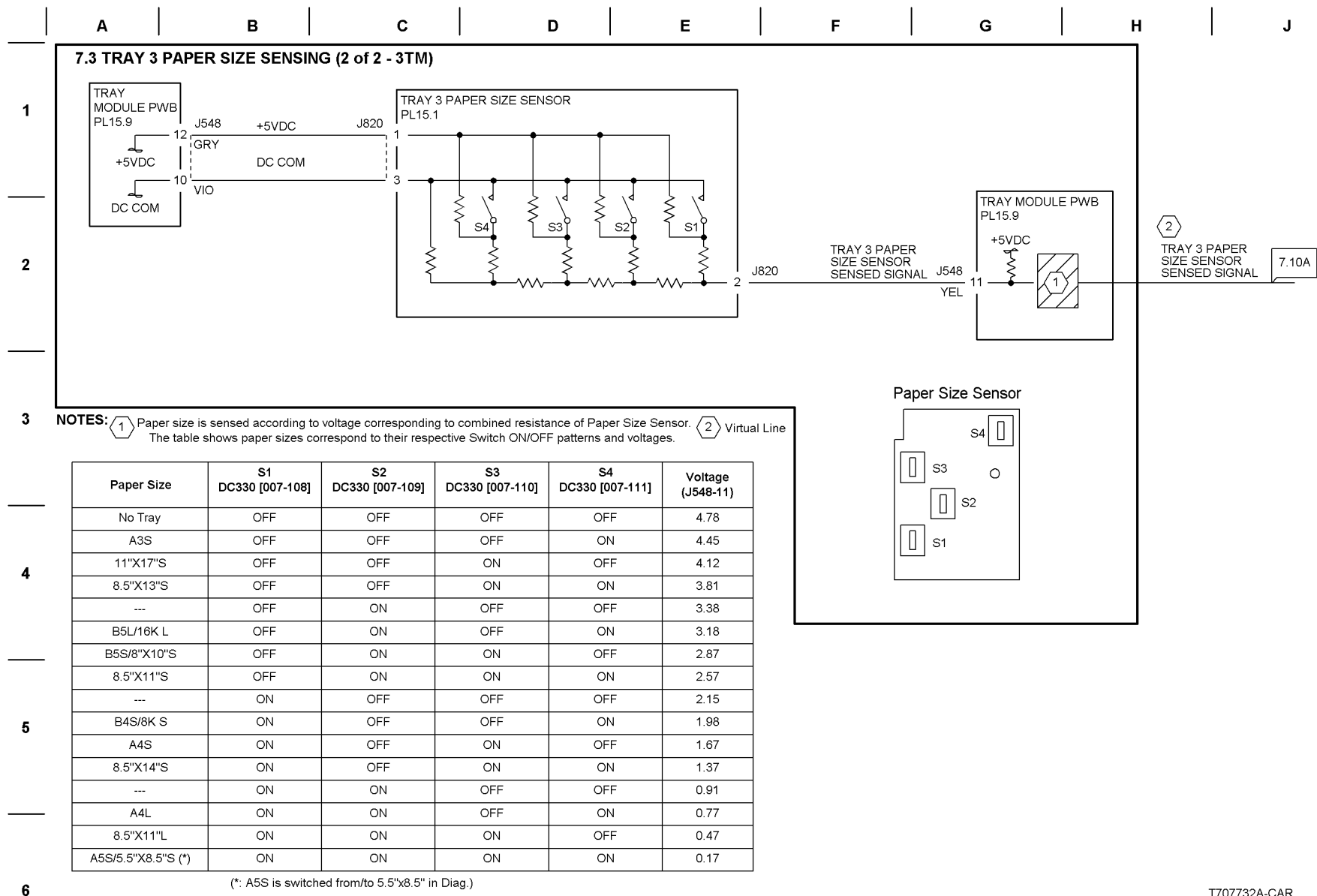
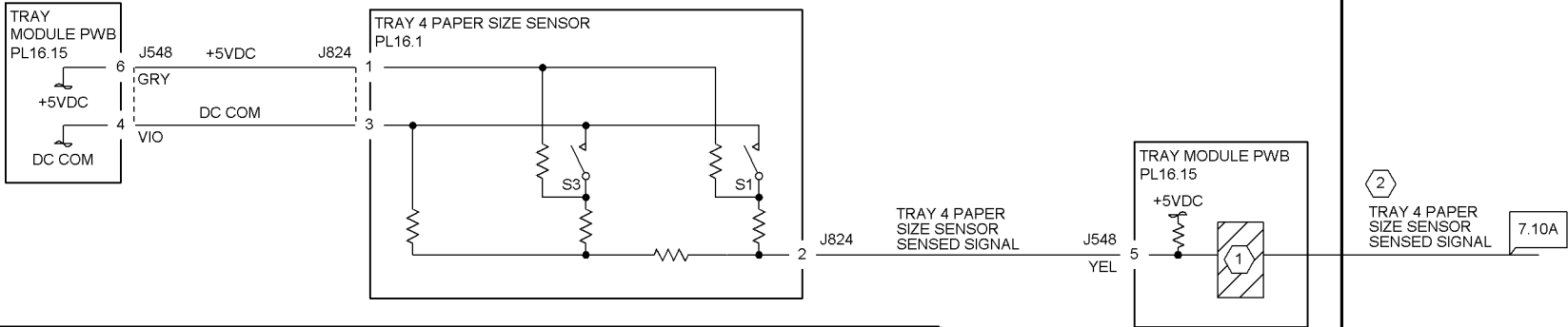


Figure 5 BSD 7.3 Tray 3 Paper Size Sensing 3TM



### 7.4 TRAY 4 PAPER SIZE SENSING (1 of 2 - TTM)



#### NOTES:

1 Paper size is sensed according to voltage corresponding to combined resistance of Paper Size Sensor. The table shows paper sizes correspond to their respective Switch ON/OFF patterns and voltages.

Paper Size	S1 DC330 [007-112]	S3 DC330 [007-113]	Voltage (J548-5)
No Tray	OFF	OFF	4.78
B5 LEF	OFF	ON	4.11
8.5 x 11 LEF	ON	OFF	2.23
A4 LEF	ON	ON	1.59

2 Virtual Line

Figure 6 BSD 7.4 Tray 4 Paper Size Sensing TTM



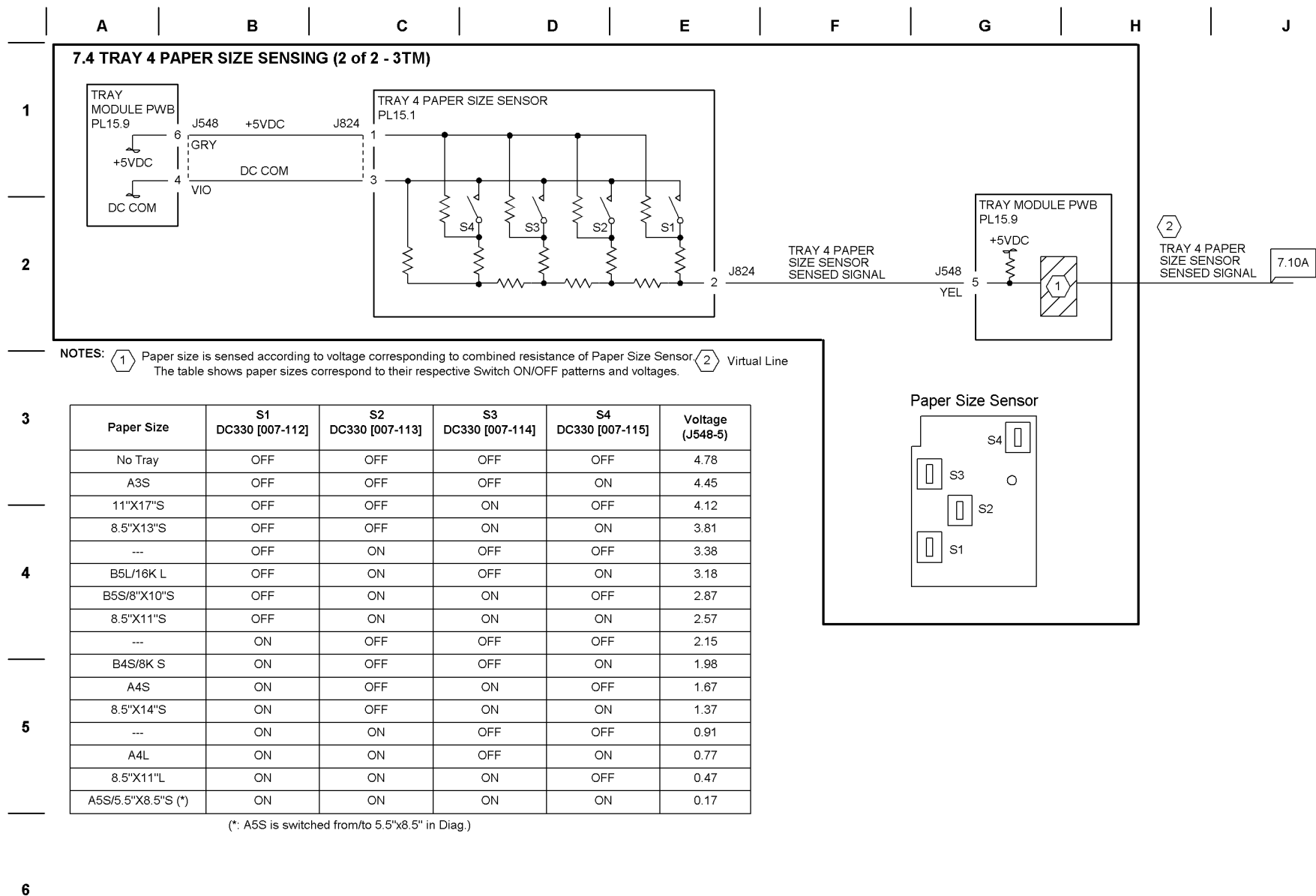
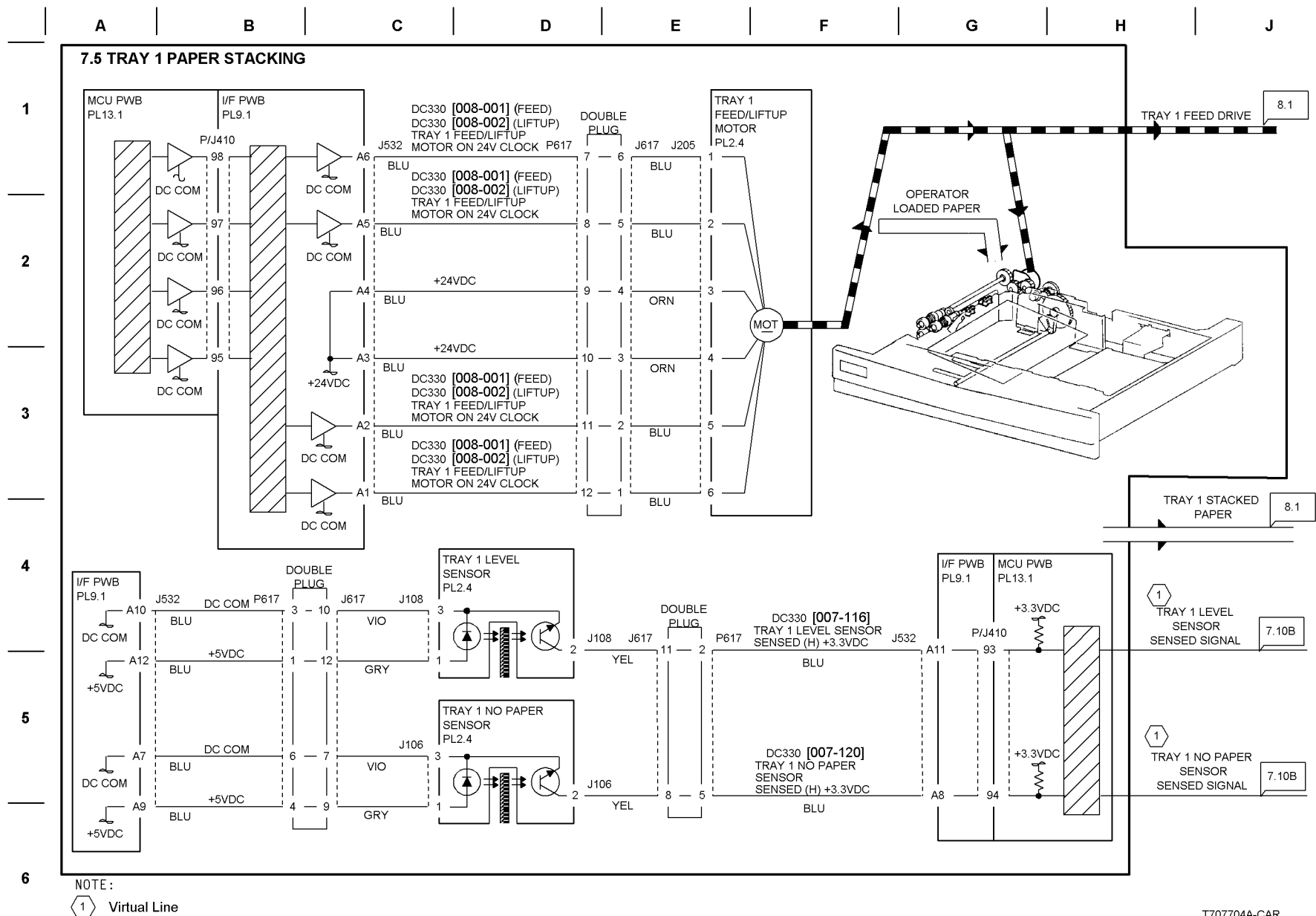


Figure 7 BSD 7.4 Tray 4 Paper Size Sensing 3TM





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Figure 8 BSD 7.5 Tray 1 Paper Stacking







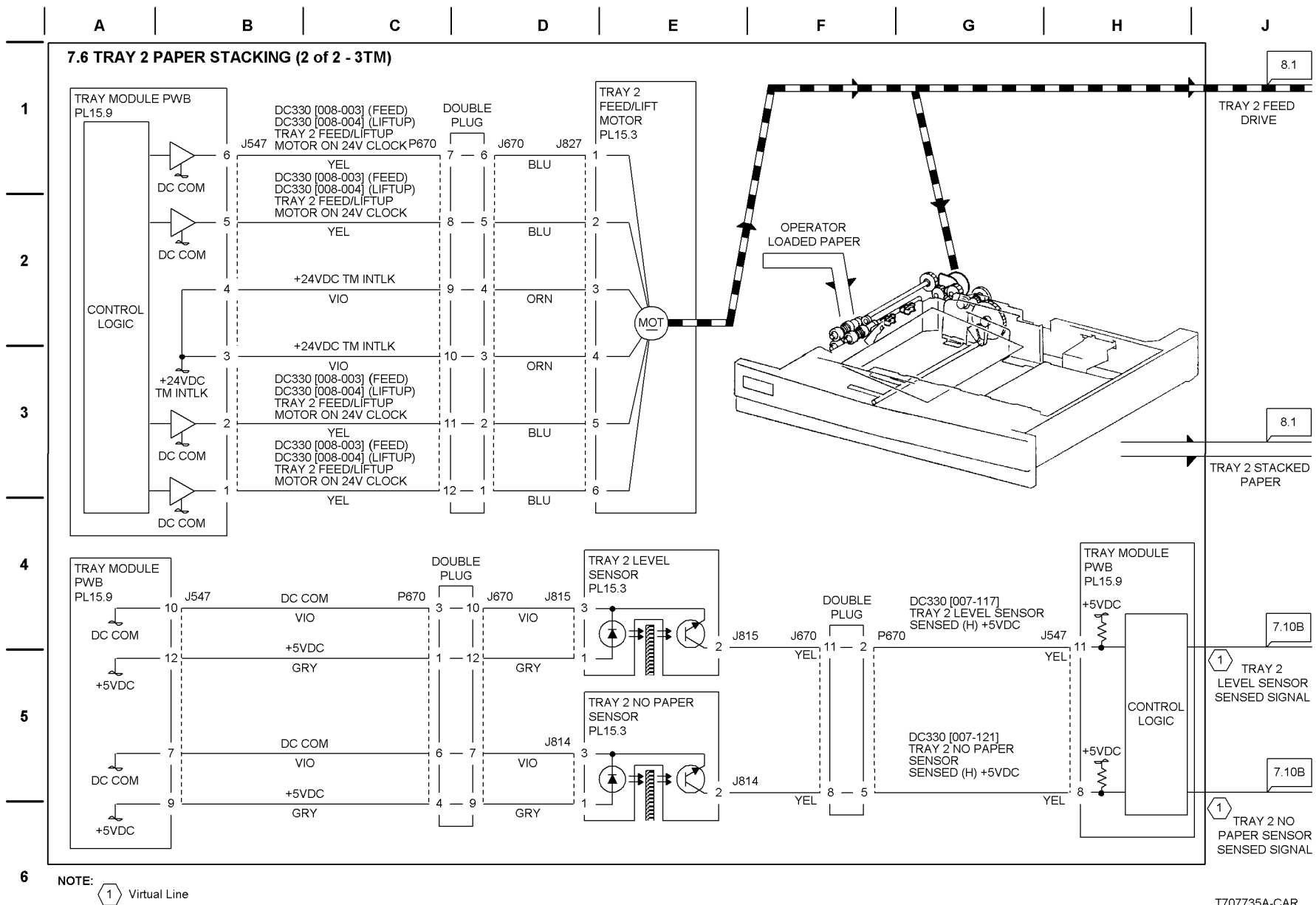
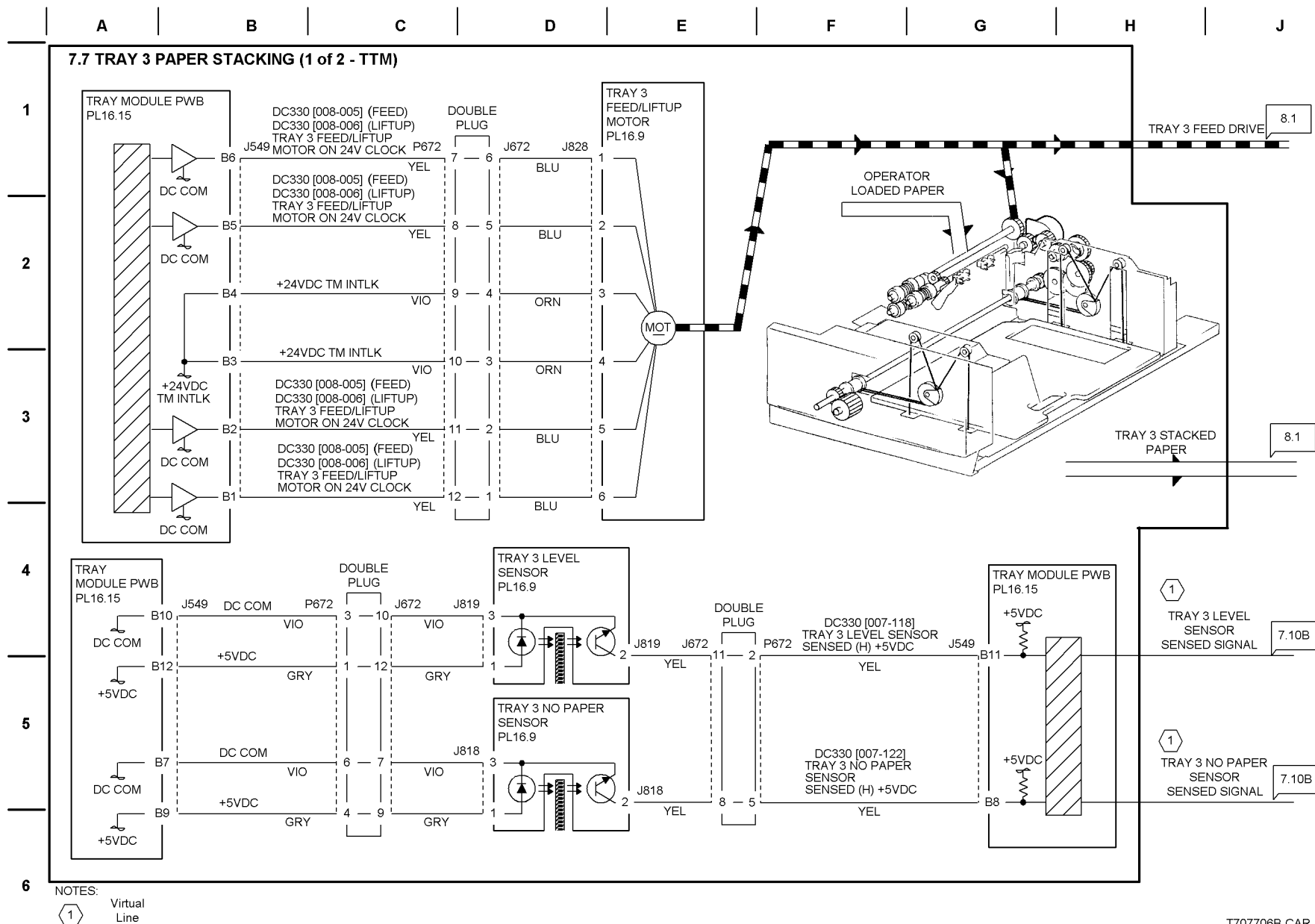


Figure 10 BSD 7.6 Tray 2 Paper Stacking 3TM





T707706B-CAR

Figure 11 BSD 7.7 Tray 3 Paper Stacking TTM



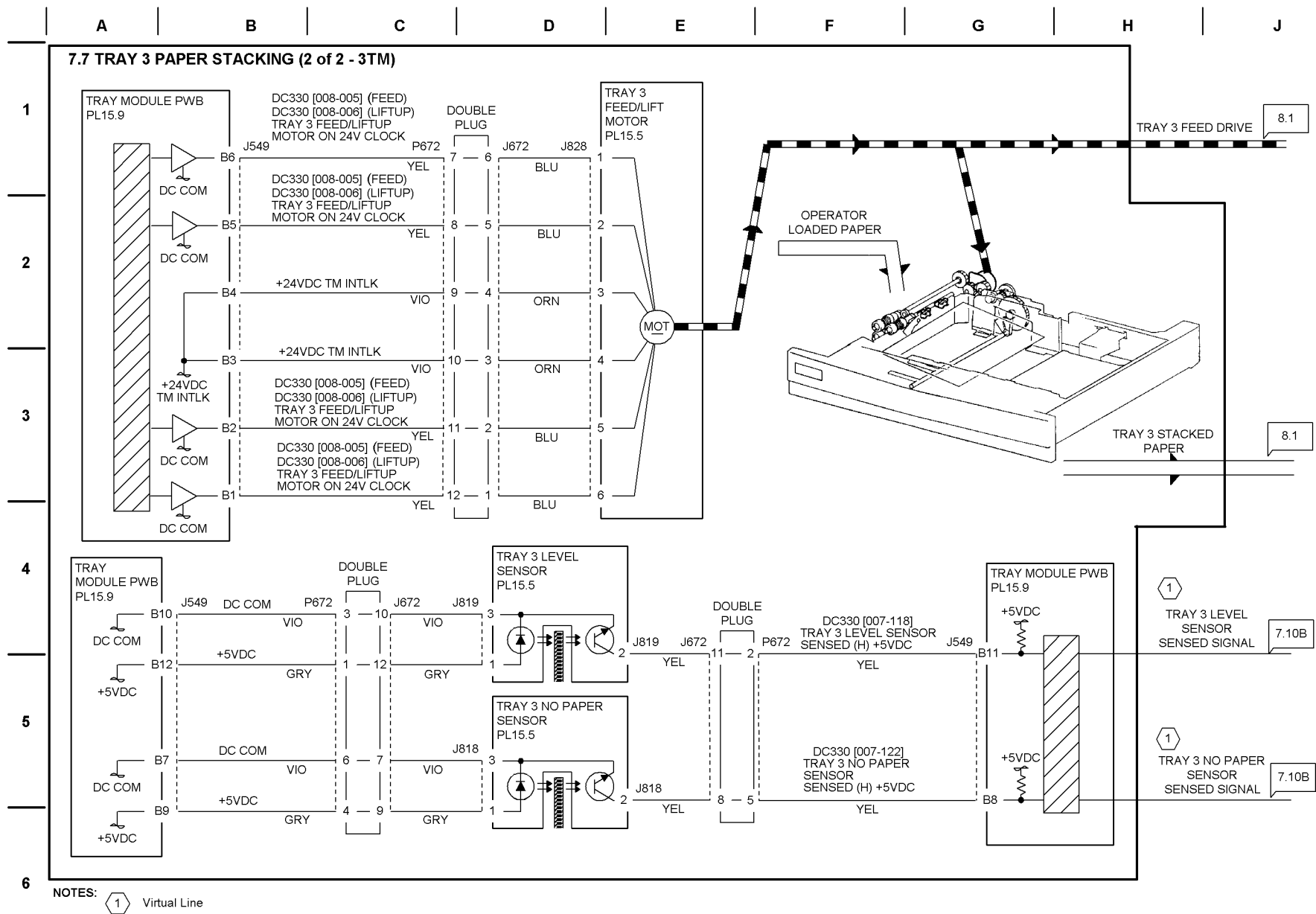


Figure 12 BSD 7.7 Tray 3 Paper Stacking 3TM



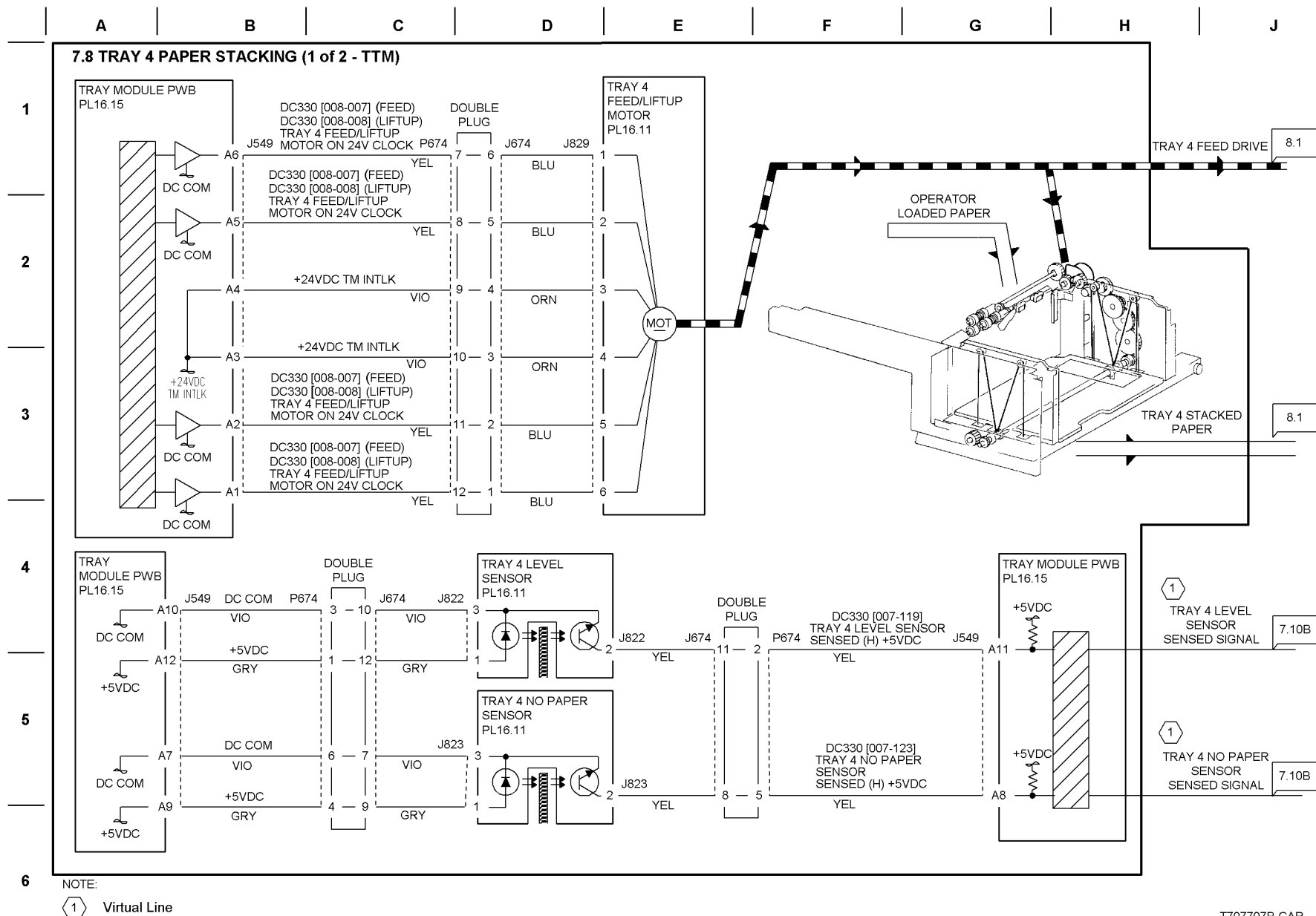


Figure 13 BSD 7.8 Tray 4 Paper Stacking TTM



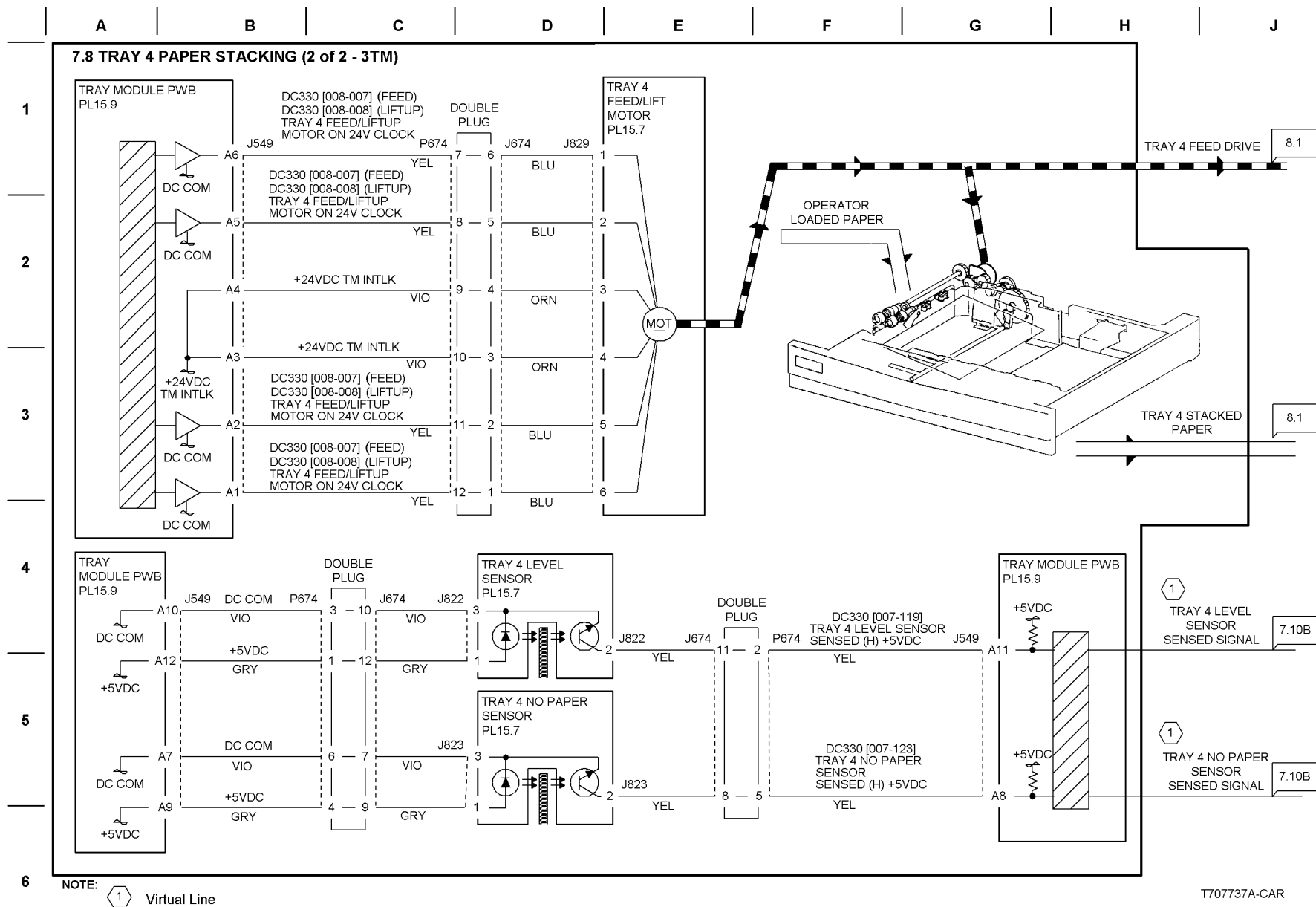
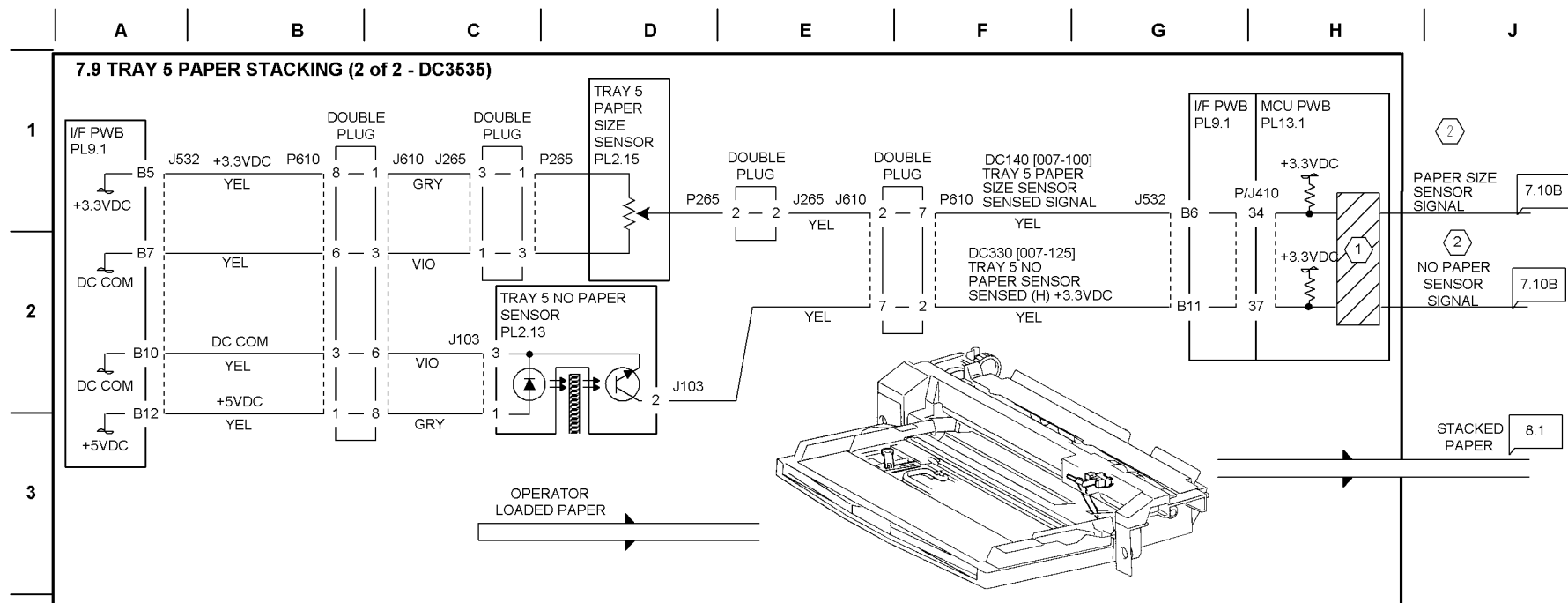


Figure 14 BSD 7.8 Tray 4 Paper Stacking 3TM









NOTE:

1 Paper width (size in Fast Scan direction) is sensed according to voltage corresponding to resistance of MSI Paper Size Sensor. The table shows paper sizes (widths) correspond to their respective voltages.

Ref

Paper length (size in Slow Scan direction) is sensed according to time from Regi Clutch ON to the time paper passes Regi Sensor. The table shows paper sizes (lengths) correspond to their respective times.

Paper Size	Voltage (J534-A10)	AD Value DC140 [007-100]
Post Card S	3.315	971
A6S	3.064	949
B6S	2.736	848
5.5"X8.5"S	2.569	796
A5S	2.451	759
B5S	1.967	609
A5L	1.568	486
A4S		
8.5"X11"S	1.484	460
8.5"X12.4"S		
8.5"X13"S		
8.5"X14"S		

Paper Size	Voltage (J534-A10)	AD Value DC140 [007-100]
8"X10"L	0.941	291
B5L	0.899	278
B4S		
16K L	0.756	234
8K S		
8.5"X11"L	0.580	189
11"X17"S		
A4L	0.329	101
A3S		
12"X18"S	0.273	84
12.6"X18"S	0.165	51

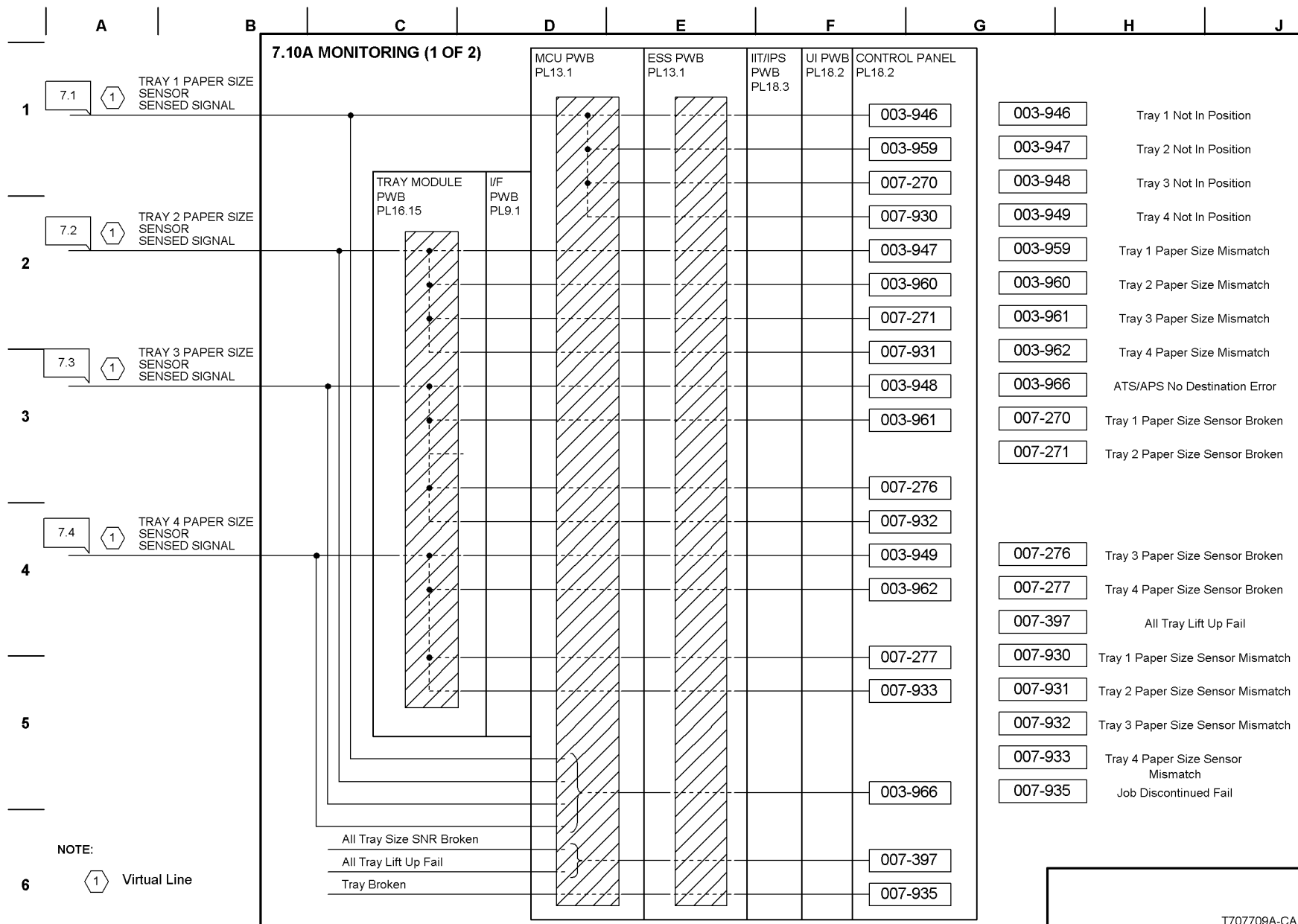
Paper Size	Duration (ms)
Post Card S	1278.8
A6S	
B6S	
5.5"X8.5"S	1931.7
A5S	1875.0
B5S	2326.9
A5L	1278.8
A4S	2711.5
8.5"X11"S	2542.3
8.5"X12.4"S	2884.6
8.5"X13"S	3030.8
8.5"X14"S	3275.0

Paper Size	Duration(ms)
8"X10"L	1809.6
B5L	1605.8
B4S	3355.8
16K L	1721.2
8K S	3596.2
8.5"X11"L	1931.7
11"X17"S	4007.7
A4L	1875.0
A3S	3894.2
12"X18"S	4251.9
12.6"X18"S	

T707711A-CAR

Figure 16 BSD 7.9 Tray 5 Paper Stacking (DC 3535)

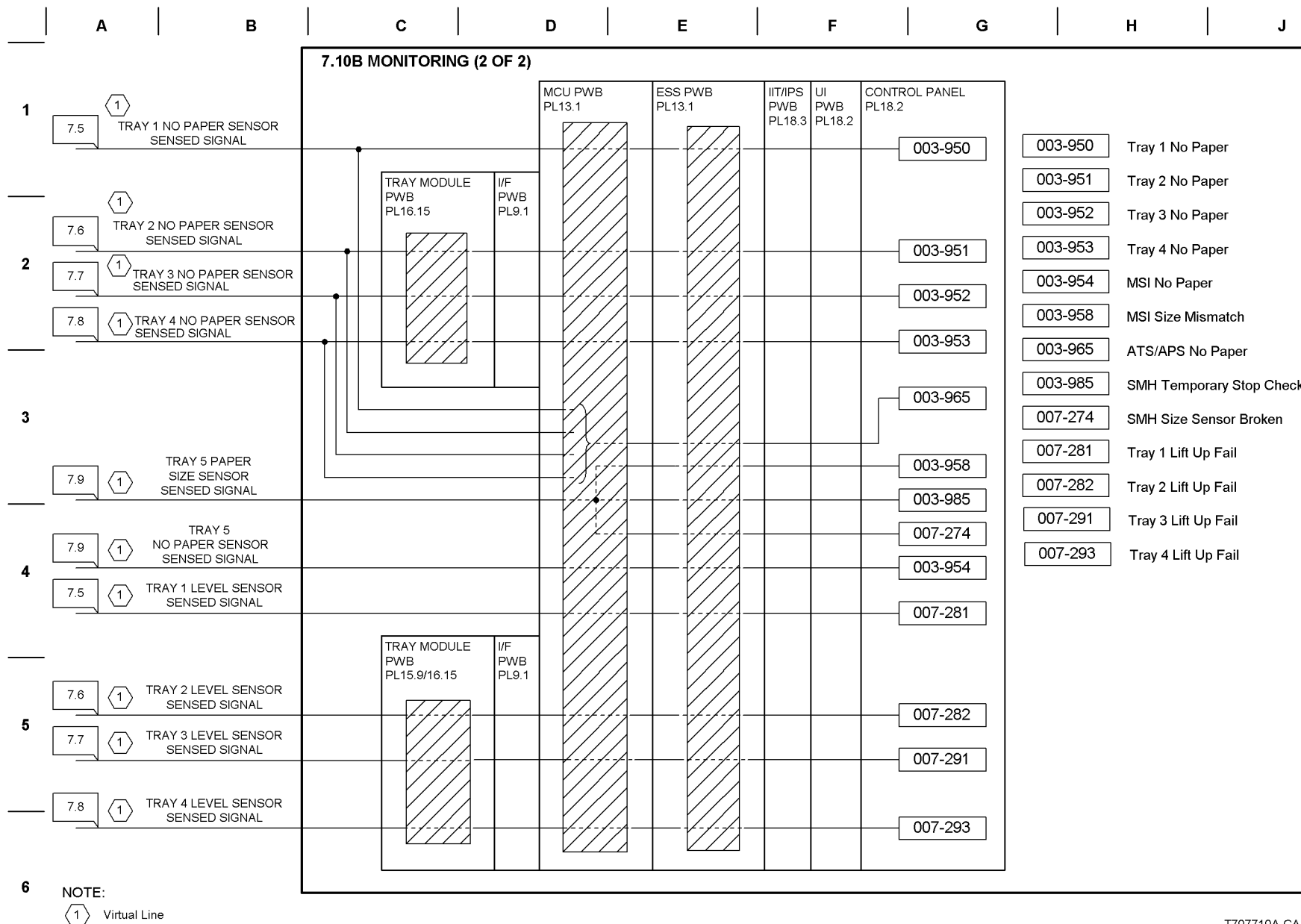




T707709A-CAR

Figure 17 BSD 7.10A Paper Feed Monitoring (1 of 2)





T707710A-CAR

Figure 18 BSD 7.10B Paper Feed Monitoring (2 of 2)



# Chain 08 Paper Registration

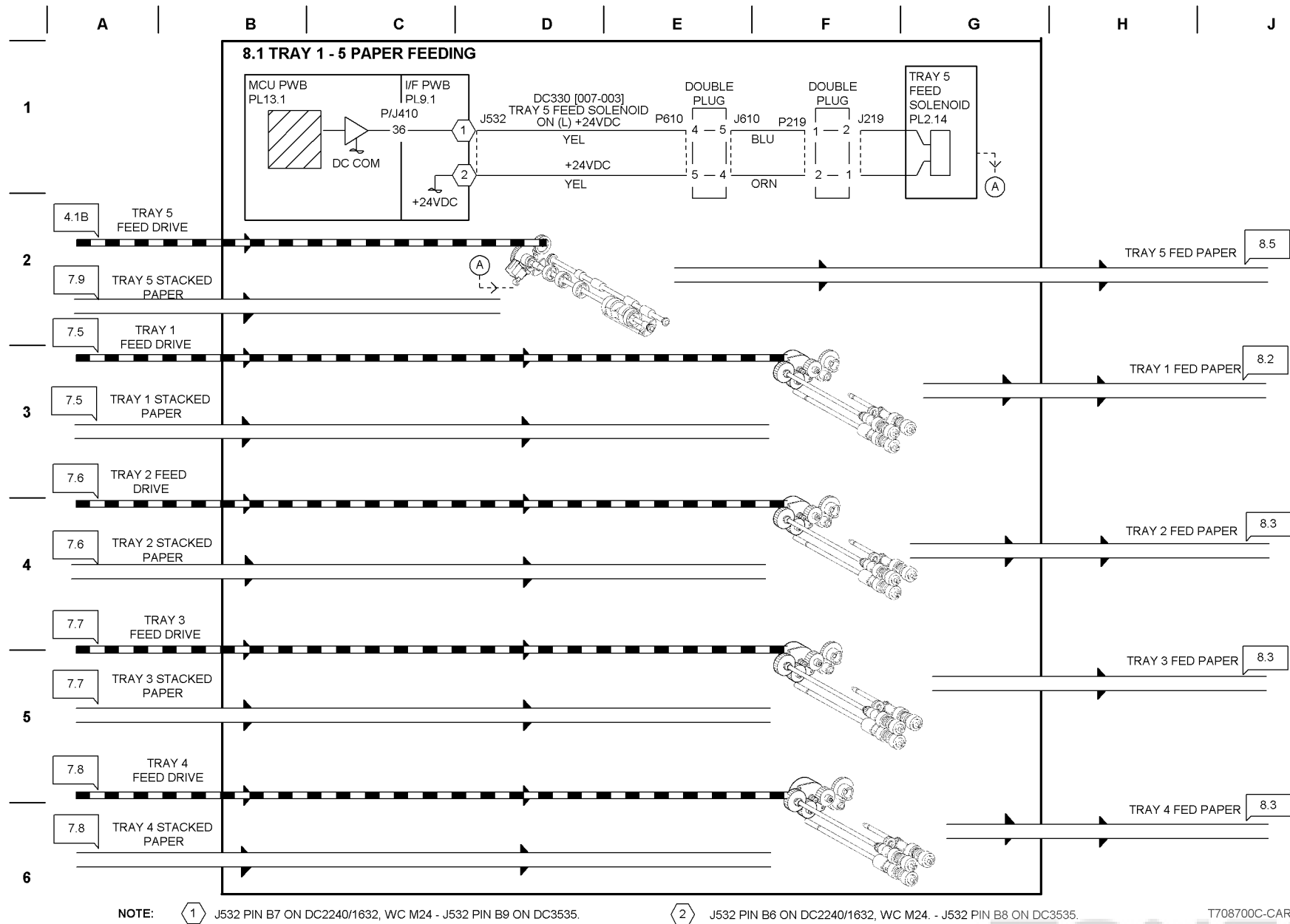


Figure 1 BSD 8.1 Tray 1 - 5 Paper Feeding



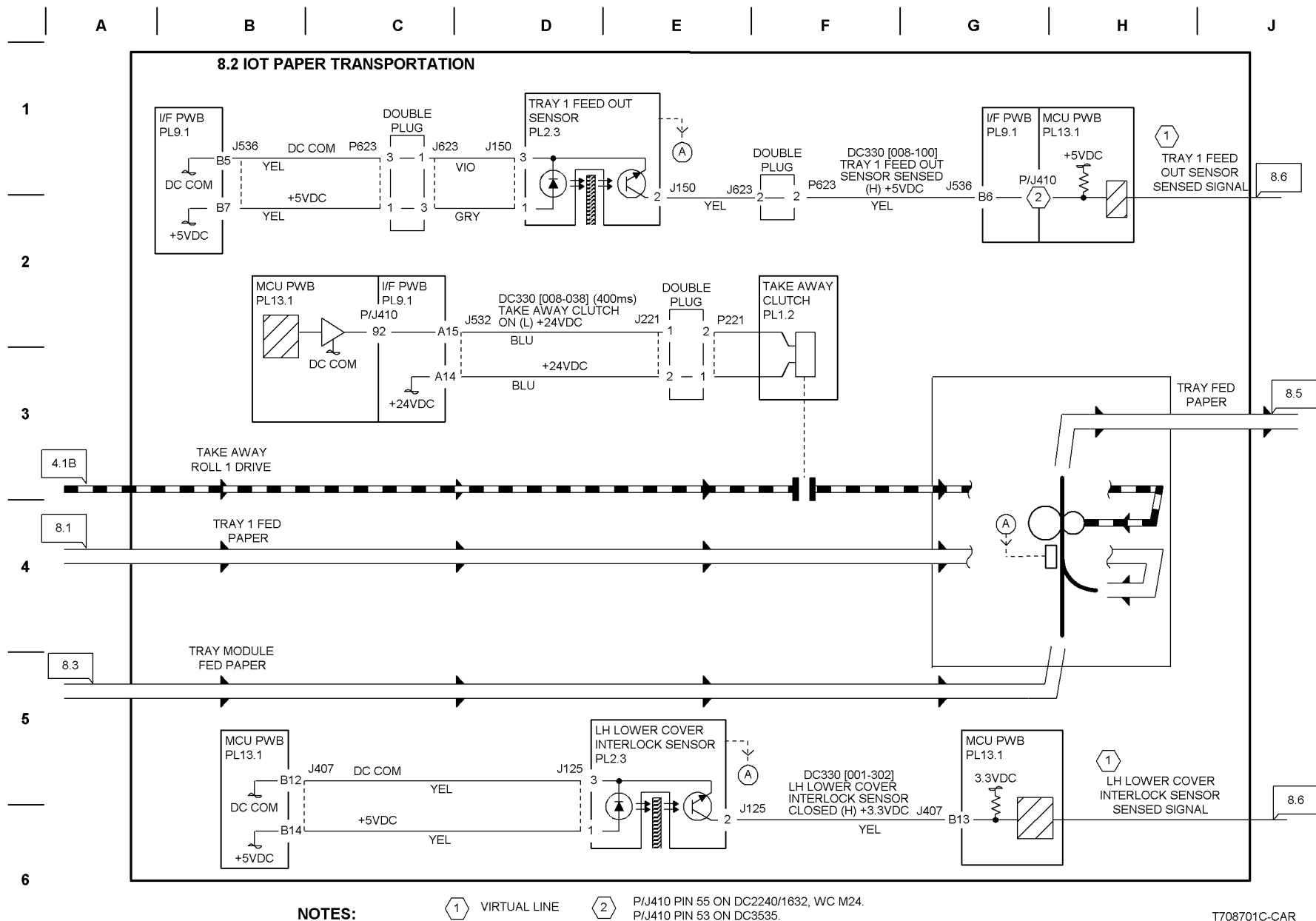


Figure 2 BSD 8.2 IOT Paper Transportation



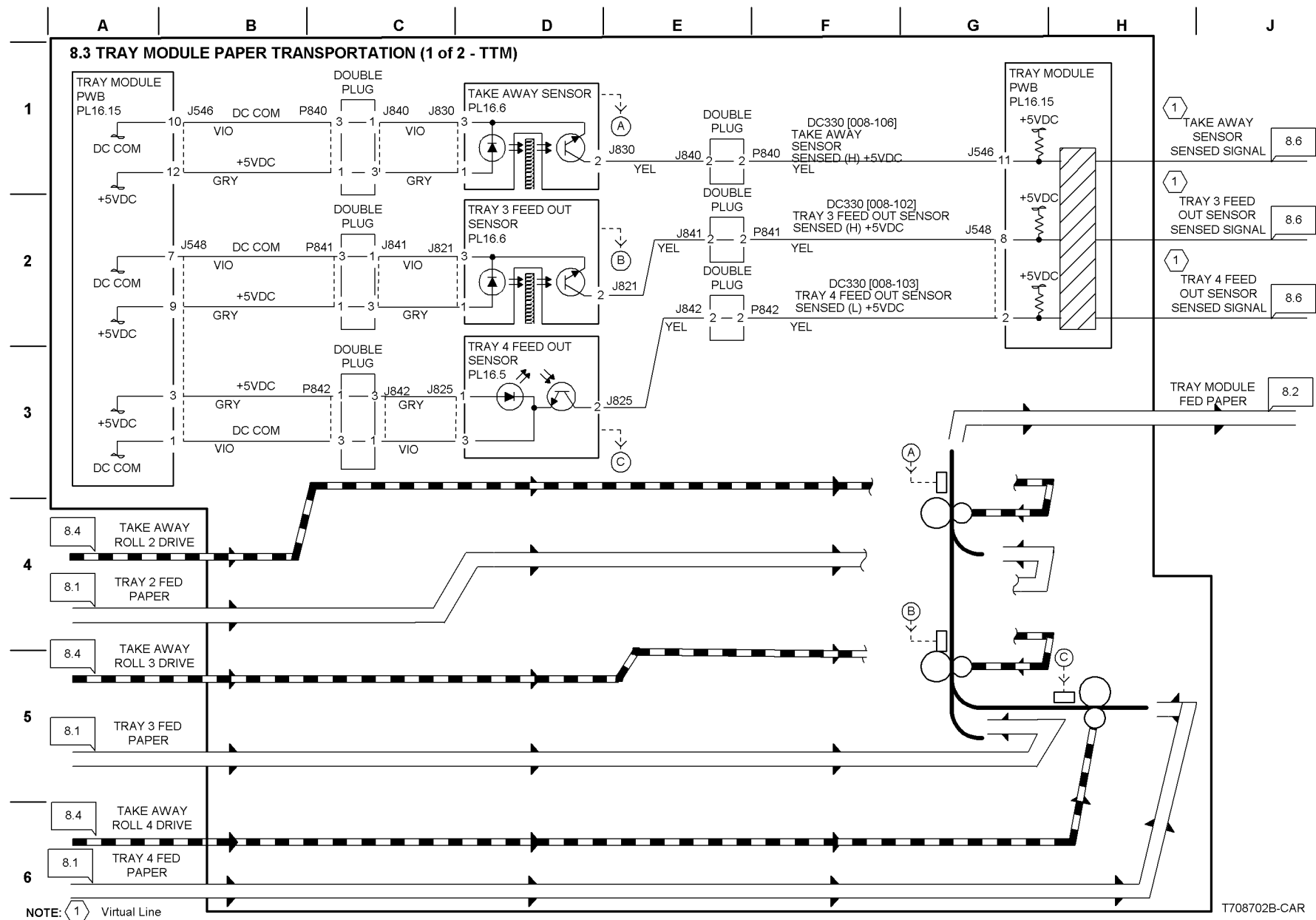


Figure 3 BSD 8.3 Tray Module Paper Transportation TTM



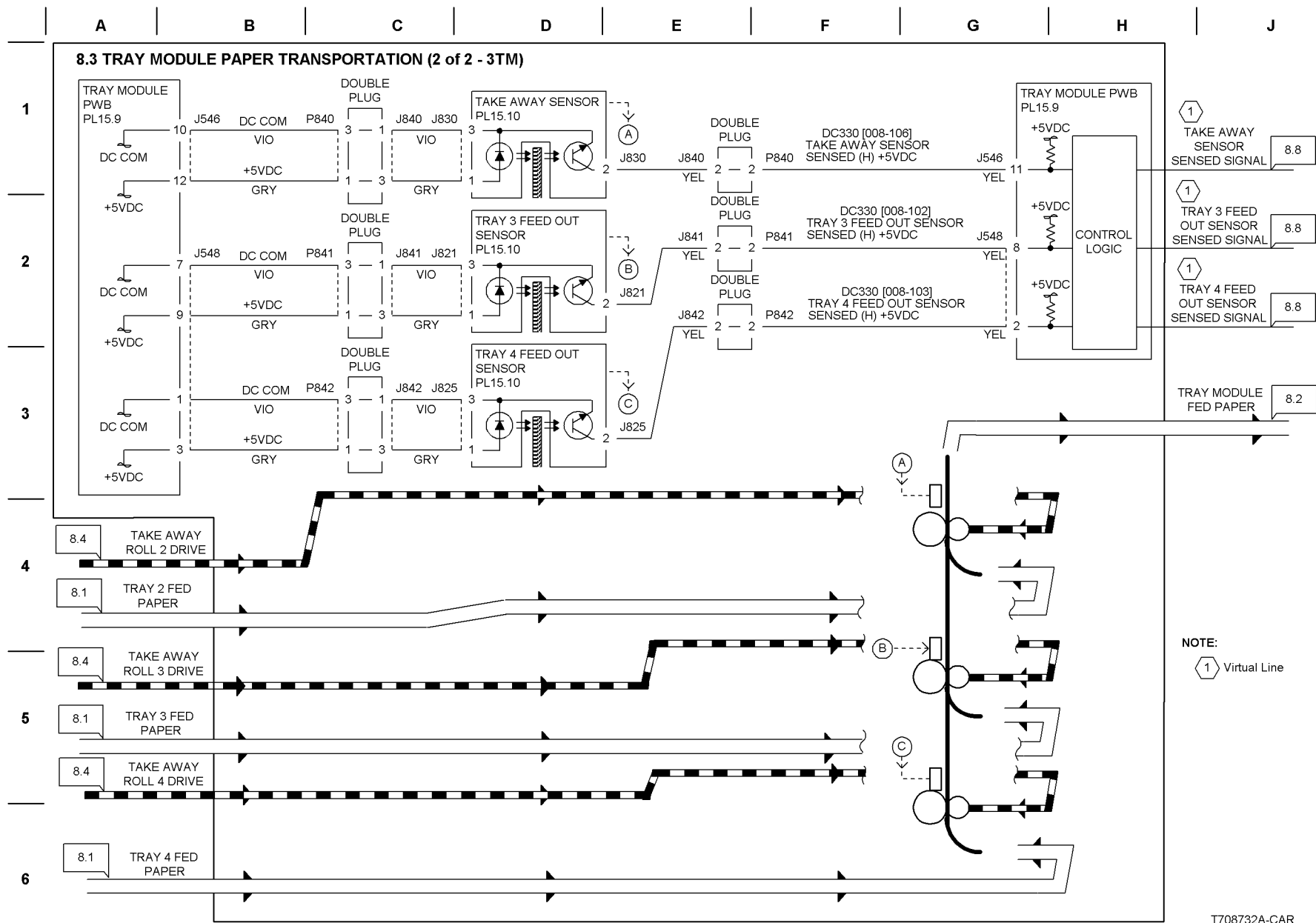
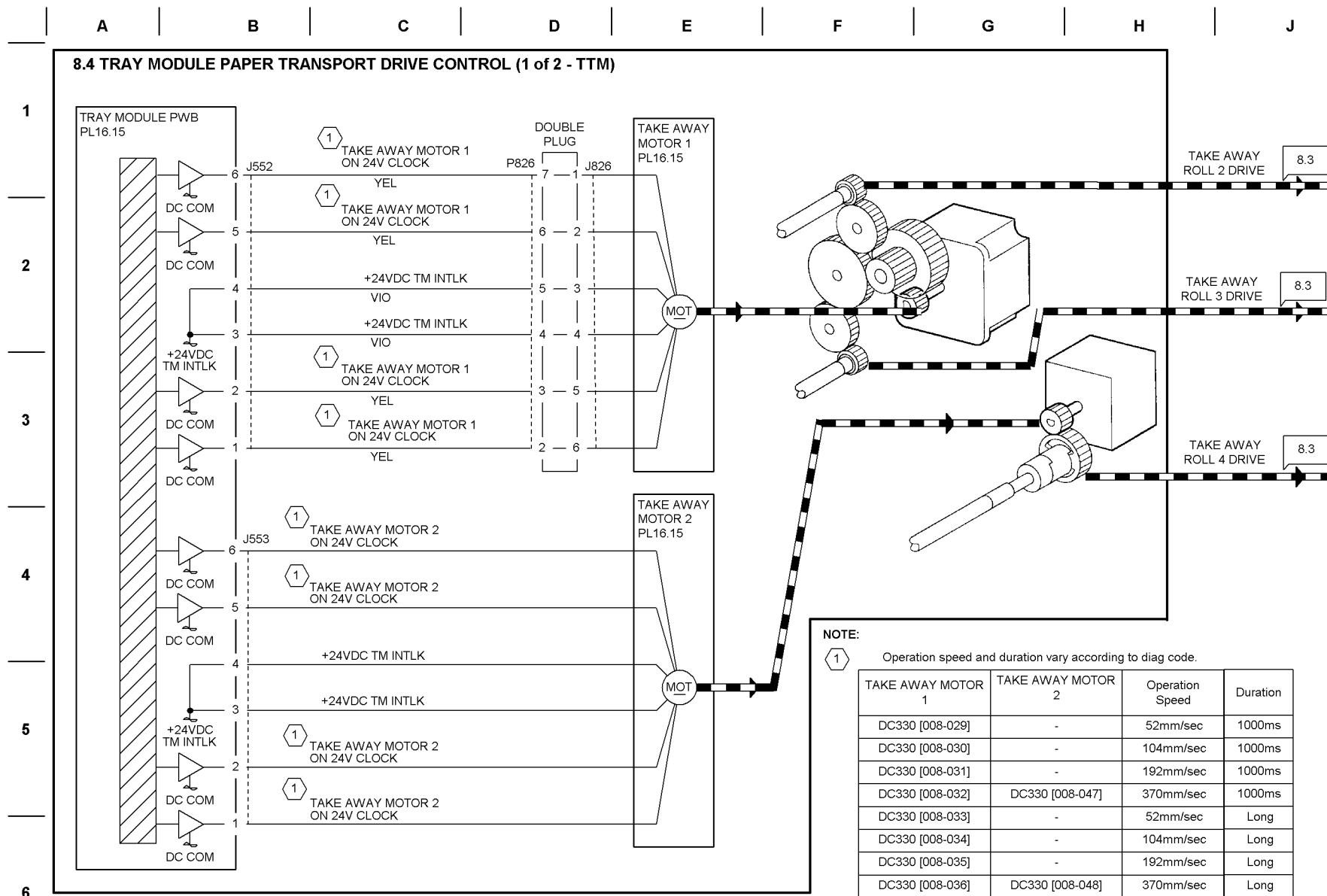


Figure 4 BSD 8.3 Tray Module Paper Transportation 3TM

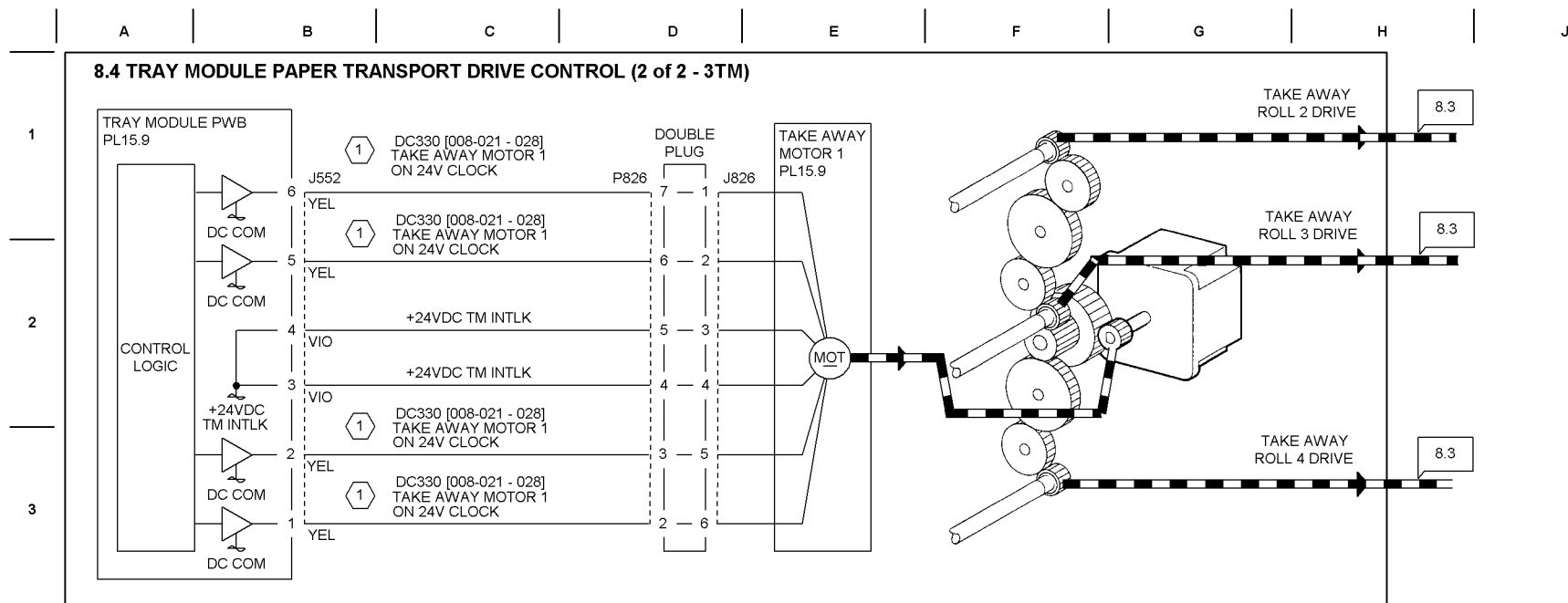




T708703C-CAR

Figure 5 BSD 8.4 Tray Module Paper Transportation Drive Control TTM





TAKE AWAY MOTOR 1	Operation Speed	Duration
DC330 [008-021]	52mm/sec	1000ms
DC330 [008-022]	104mm/sec	1000ms
DC330 [008-023]	192mm/sec	1000ms
DC330 [008-024]	370mm/sec	1000ms
DC330 [008-025]	52mm/sec	Long
DC330 [008-026]	104mm/sec	Long
DC330 [008-027]	192mm/sec	Long
DC330 [008-028]	370mm/sec	Long

Figure 6 BSD 8.4 Tray Module Paper Transportation Drive Control 3TM



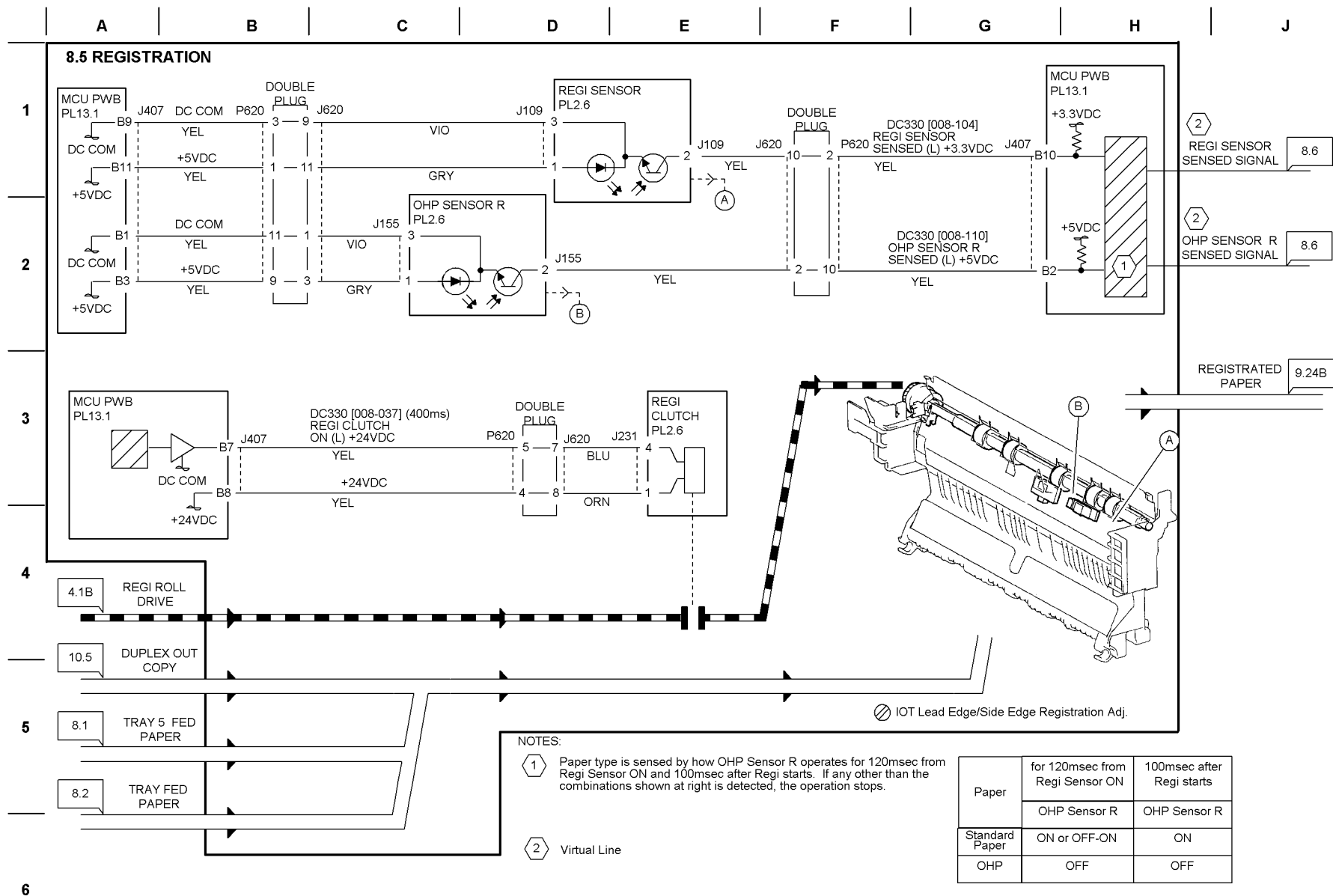
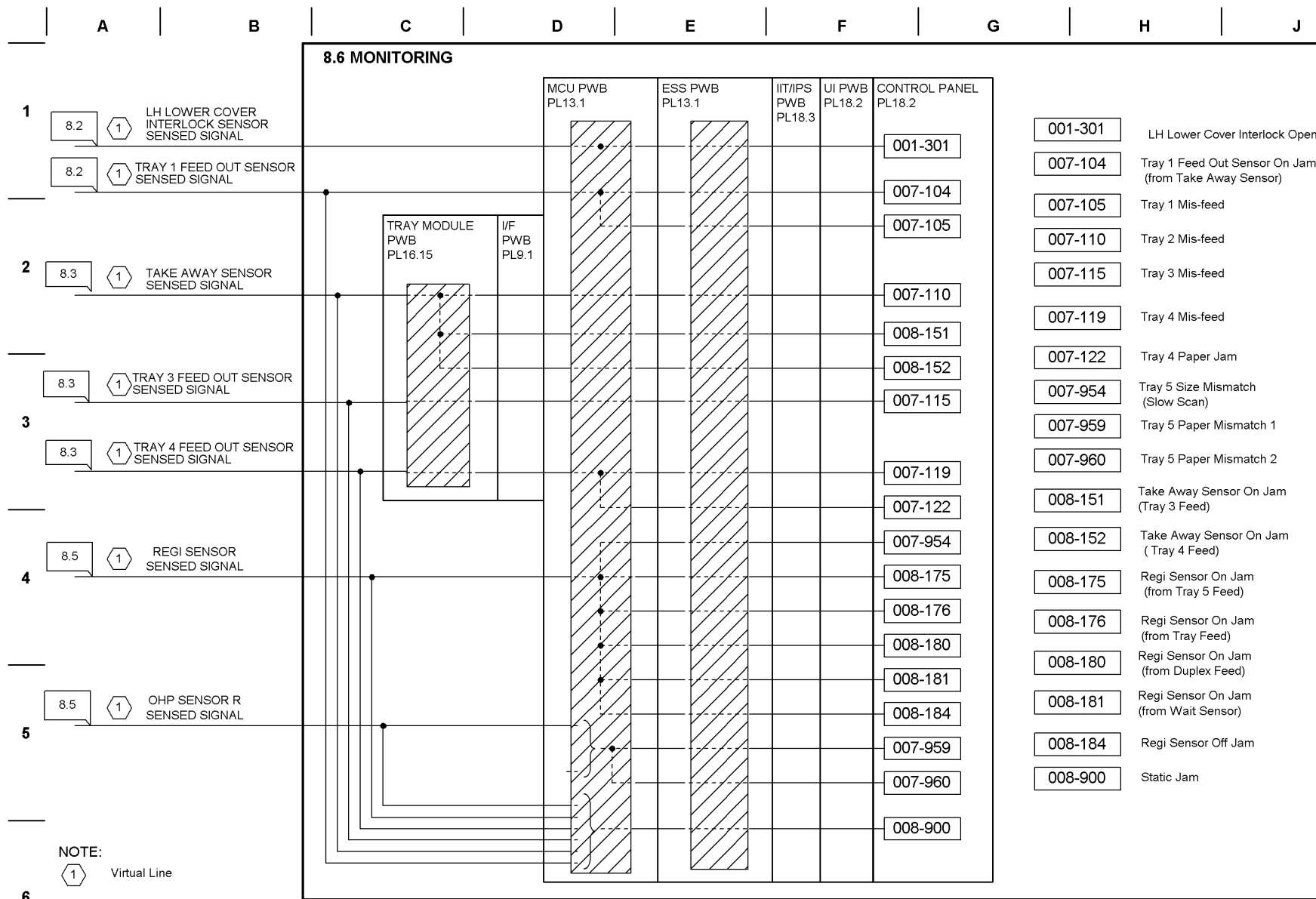


Figure 7 BSD 8.5 Registration



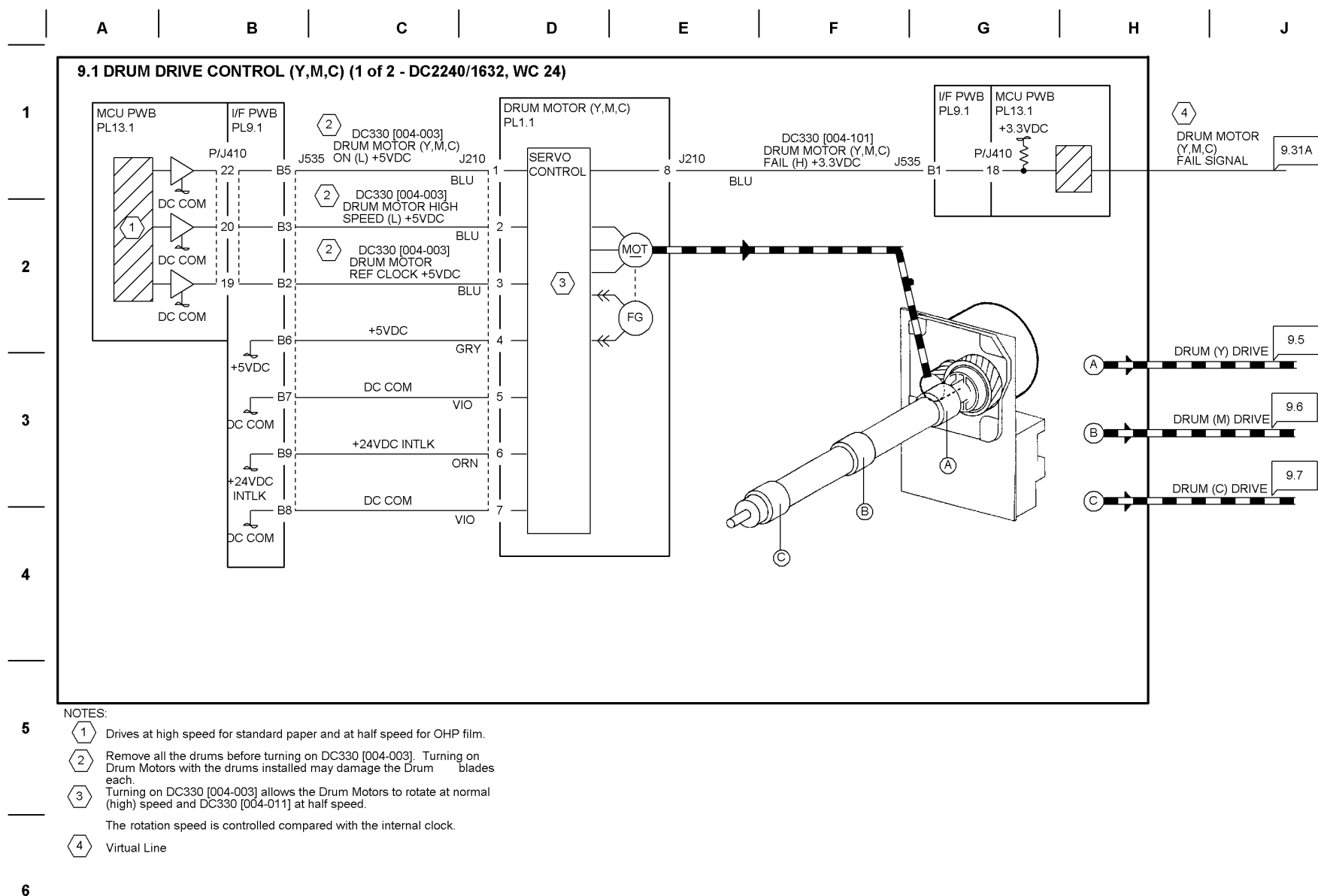


T708705A-CAR

Figure 8 BSD 8.6 Monitoring

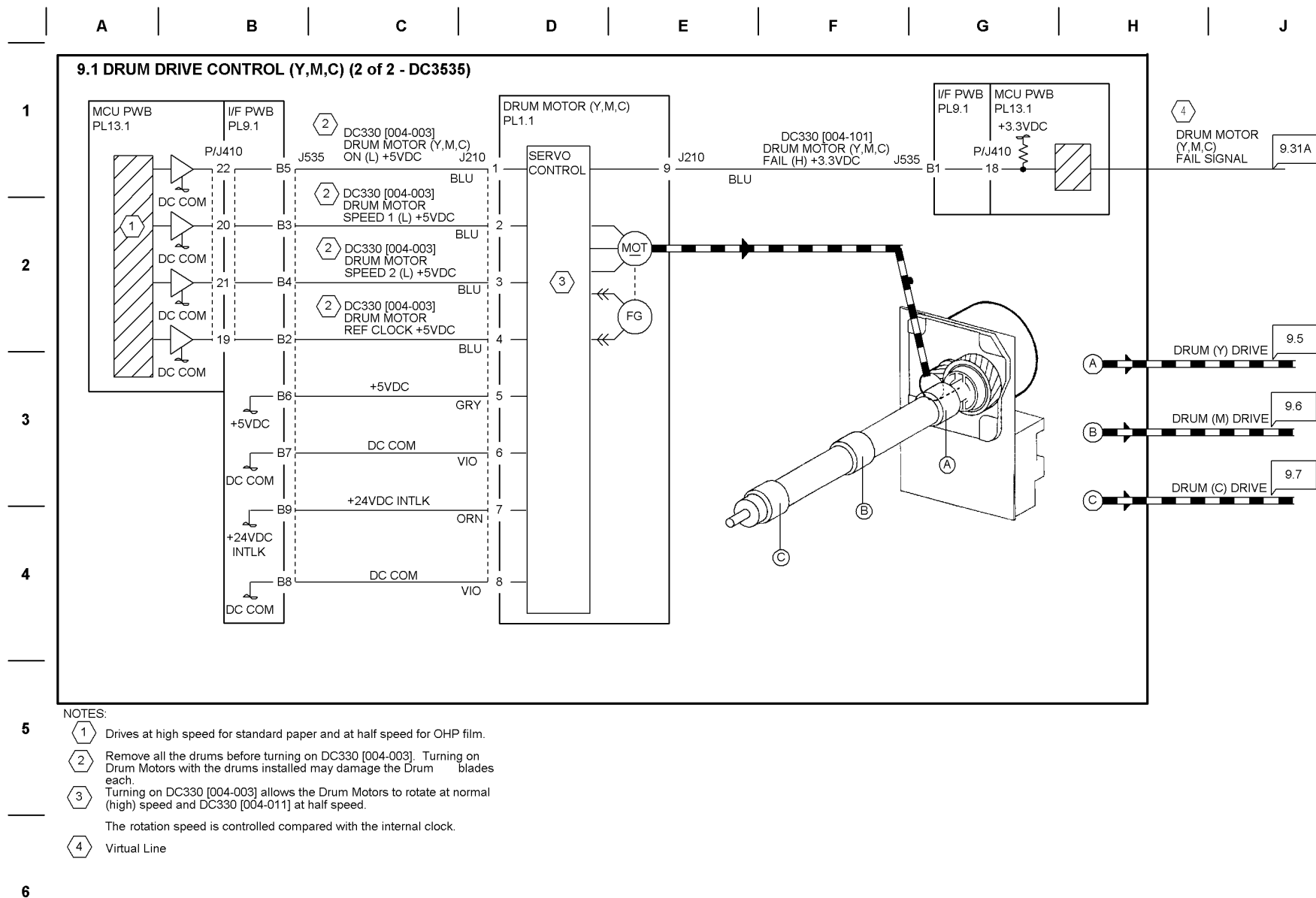


## Chain 09 Xerographics



**Figure 1 BSD 9.1 Drum Drive Control (Y, M, C) (DC 2240/1632, WC 24)**





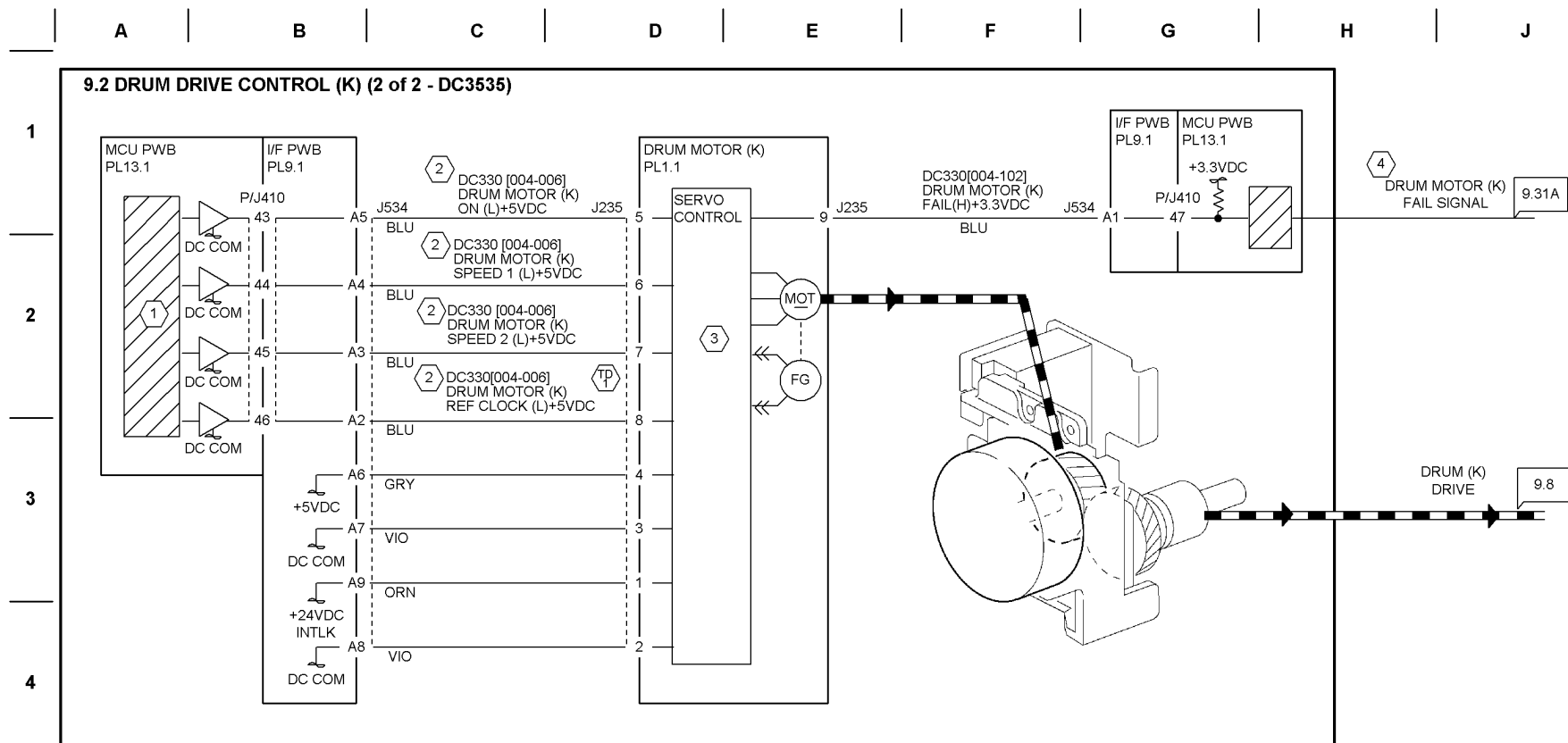
T709738A-CAR

Figure 2 BSD 9.1 Drum Drive Control (Y,M,C) (DC 3535)









NOTES:

- 1 Drives at high speed for standard paper and at half speed for OHP film.
- 2 Remove Drum K before turning on DC330 [004-006]. Turning on Drum Motor with the drum installed may damage the Drum blade.
- 3 The rotation speed is controlled in comparison with the internal clock.
- 4 Virtual Line

Figure 4 BSD 9.2 Drum Drive Control (K) (DC 3535)

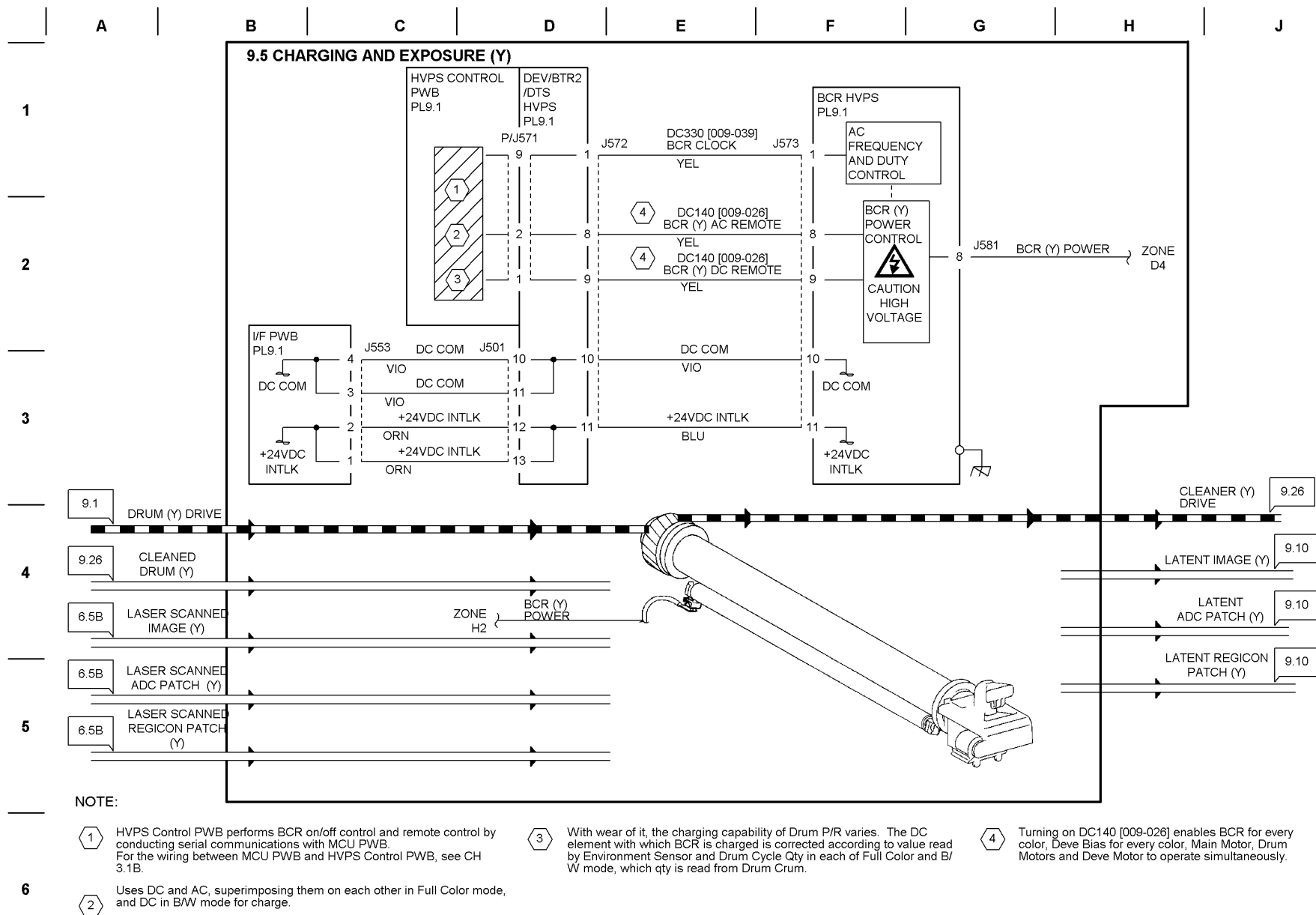












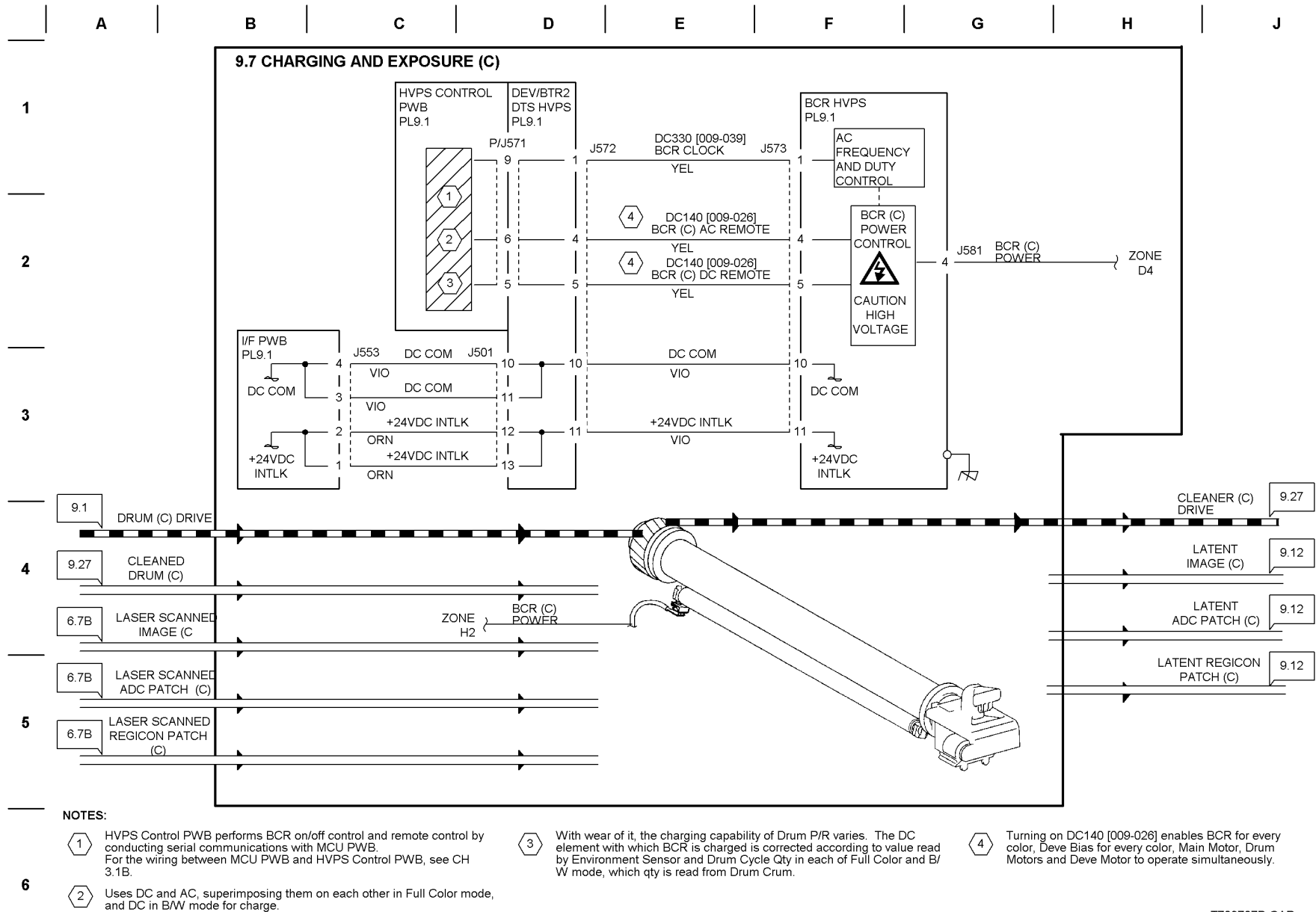
T709705B-CAR

Figure 7 BSD 9.5 Charging and Exposure (Y)





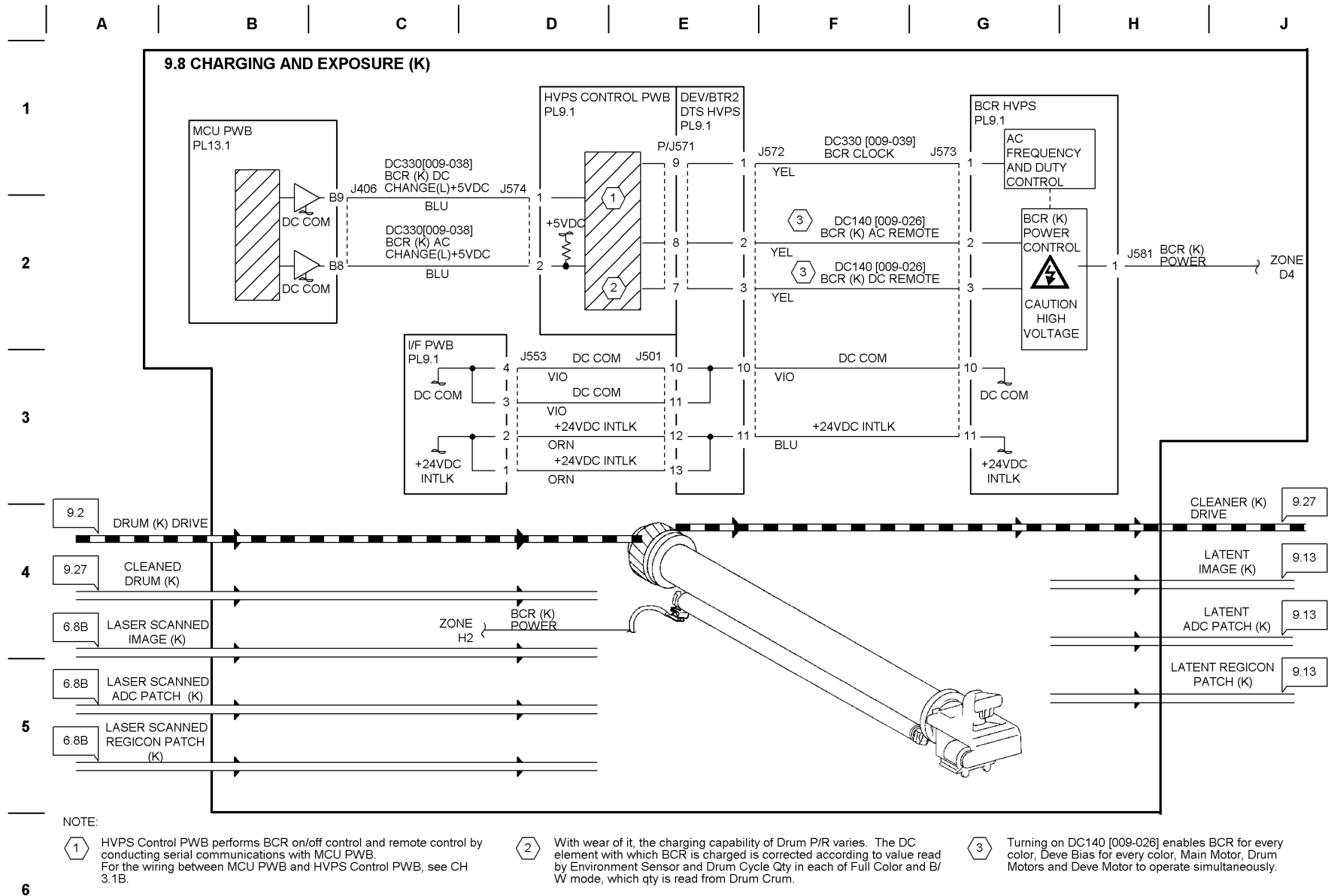




T709707B-CAR

Figure 9 BSD 9.7 Charging and Exposure (C)





T709708B-CAR

Figure 10 BSD 9.8 Charging and Exposure (K)



A

B

C

D

E

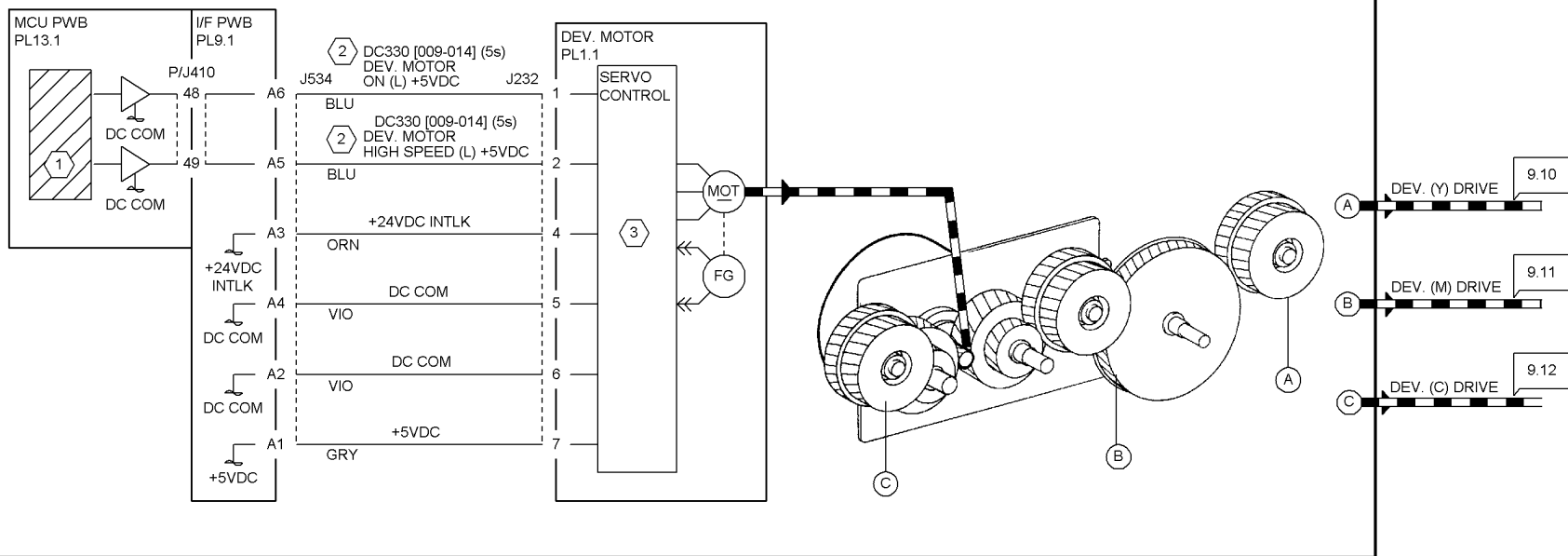
F

G

H

J

### 9.9 DEV. DRIVE CONTROL (1 of 2 - DC2240/1632, WC 24)



#### NOTES:

- 1 DRIVES AT HIGH SPEED FOR STANDARD PAPER AND AT HALF SPEED FOR THICK PAPER AND OHP FILM.
- 2 TURNING ON DC330 [009-014] ALLOWS DEV. MOTOR TO ROTATE AT NORMAL (HIGH) SPEED AND DC330 [009-016] AT HALF SPEED.
- 3 THE ROTATION SPEED IS CONTROLLED COMPARED WITH THE INTERNAL CLOCK.

T709709C-CAR

Figure 11 BSD 9.9 Developer Drive Control (DC 2240/1632, WC 24)



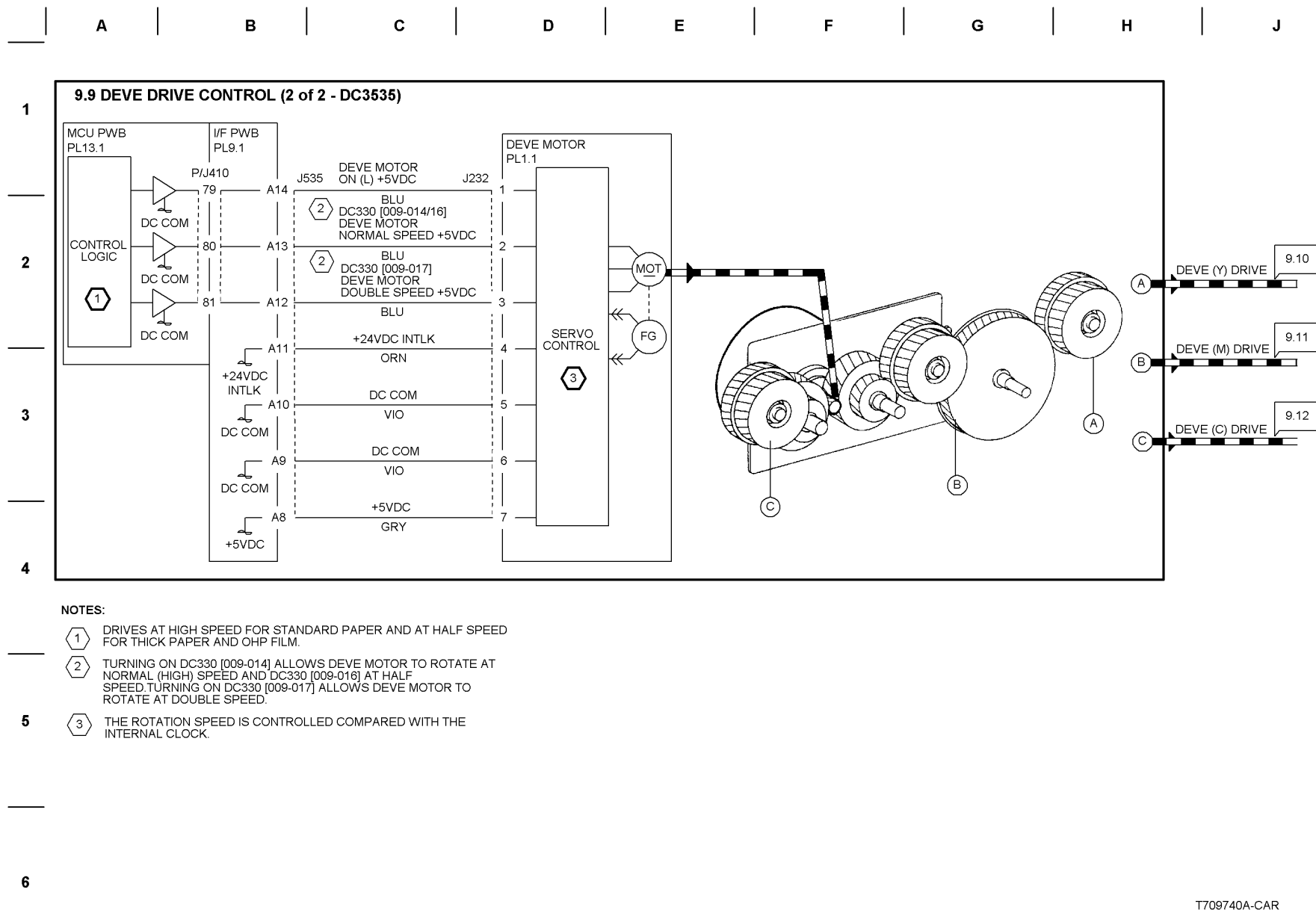
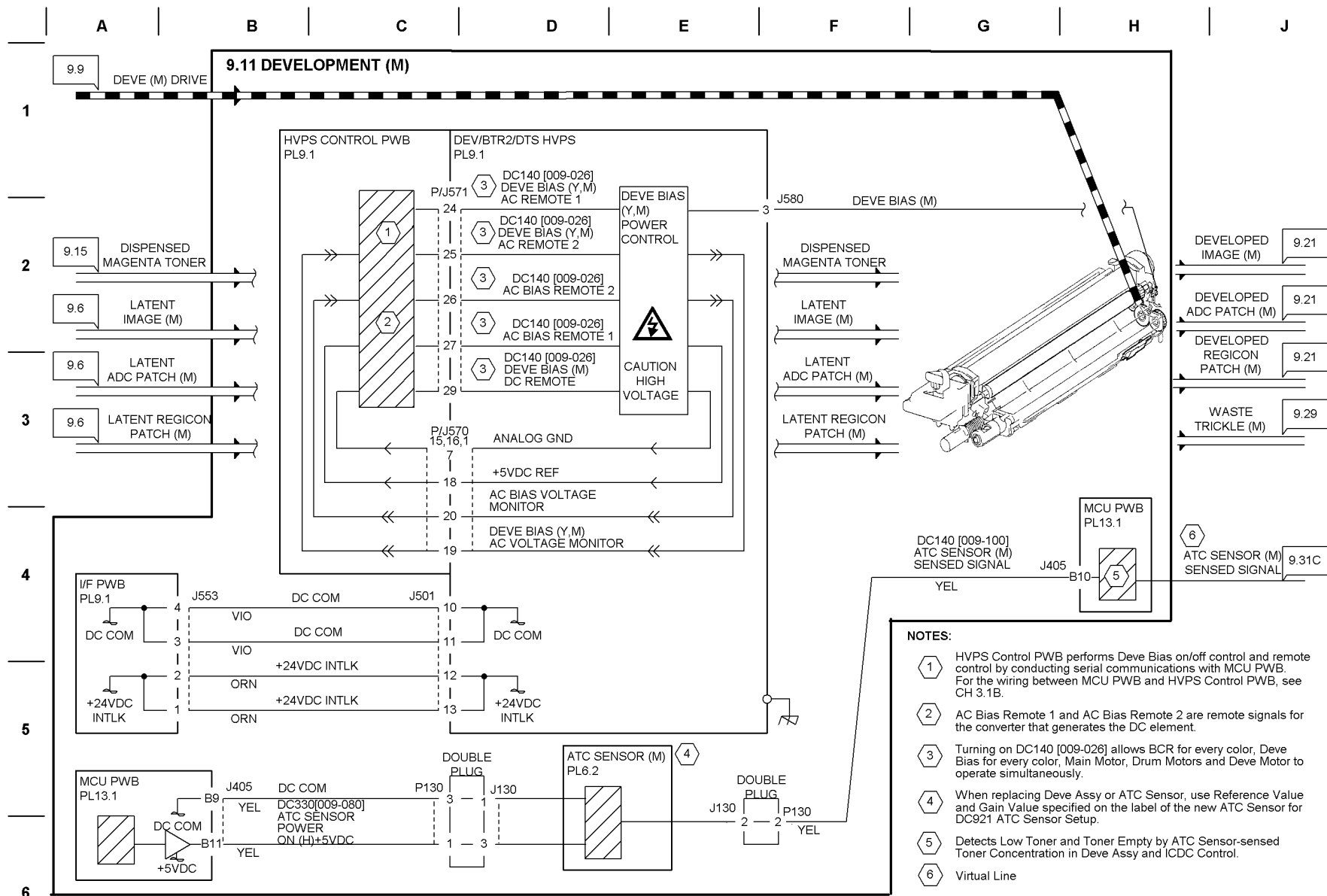


Figure 12 BSD 9.9 Developer Drive Control (DC 3535)





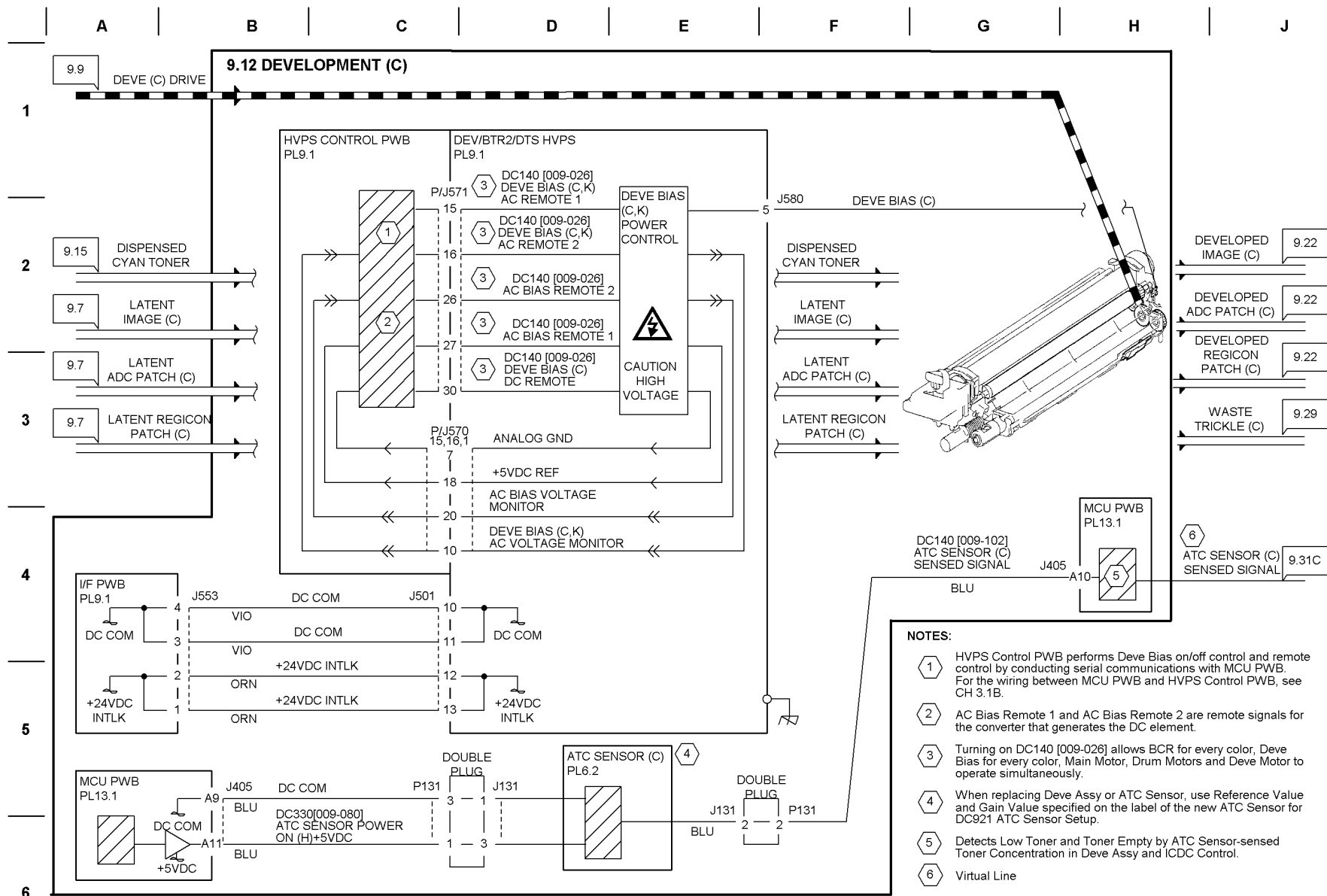




T709711B-CAR

Figure 14 BSD 9.11 Development (M)

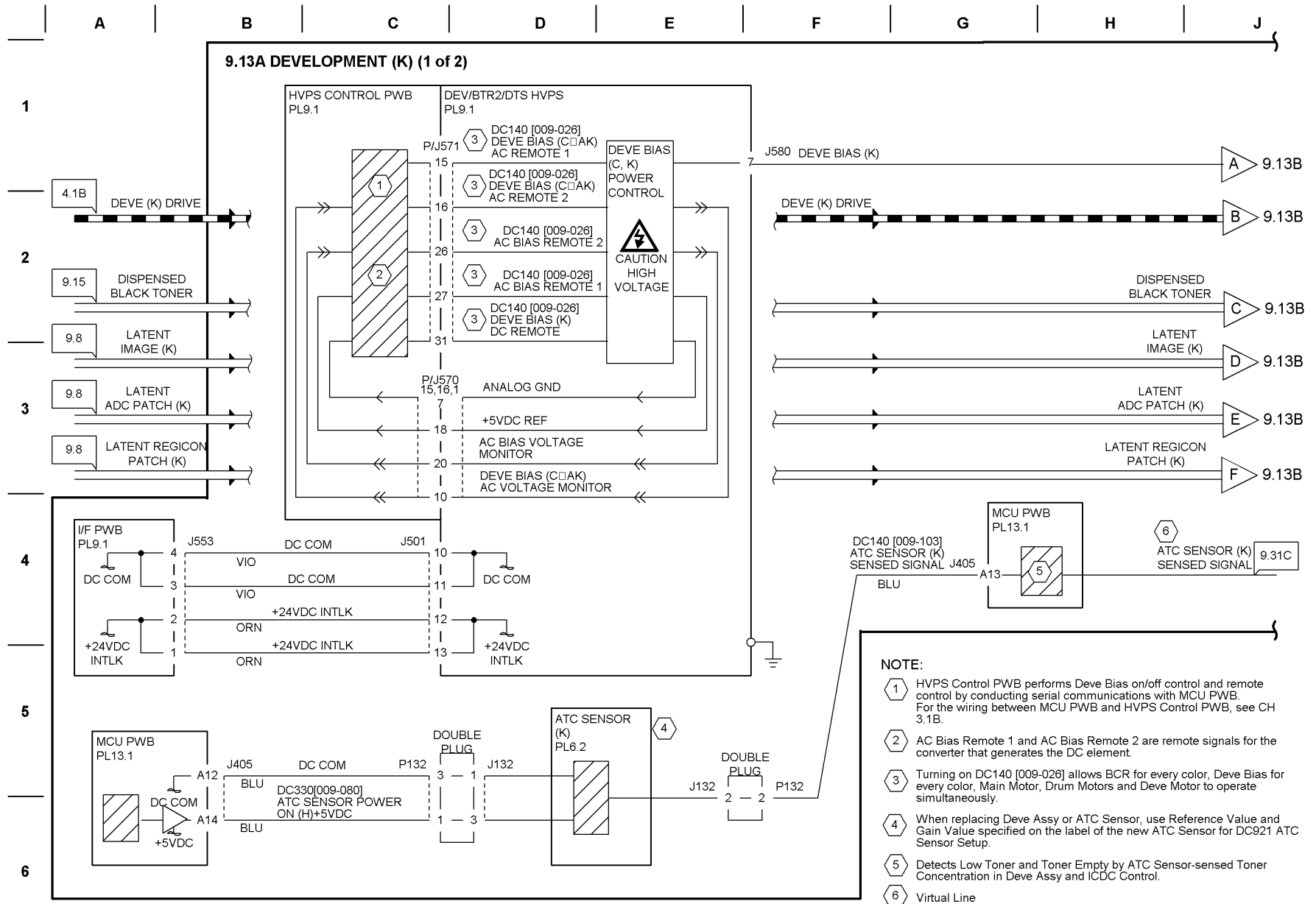




T709712B-CAR

Figure 15 9.12 Development (C)

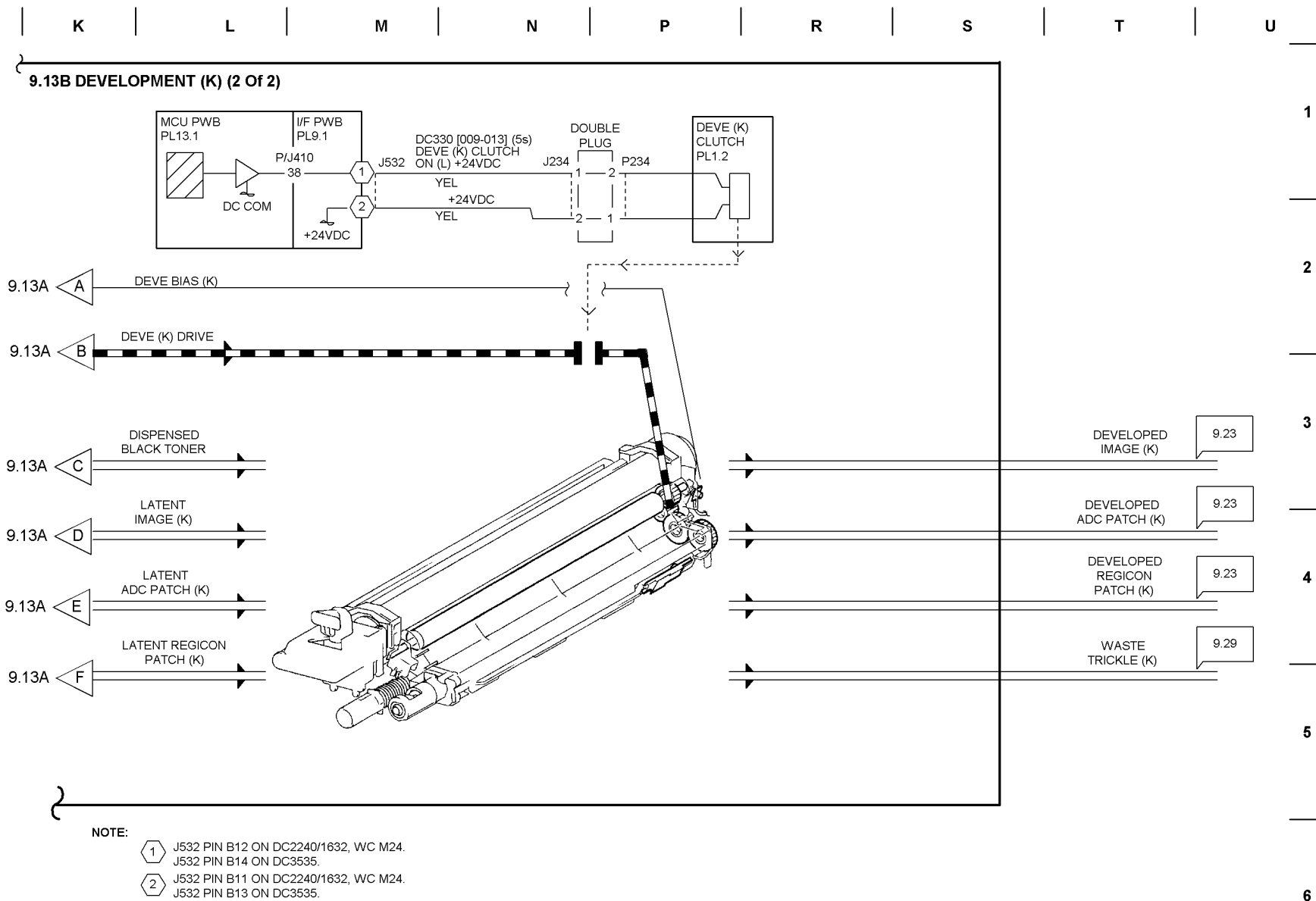




T709713B-CAR

Figure 16 BSD 9.13A Development (K) (1 of 2)





T709714C-CAR

Figure 17 BSD 9.13B Development (K) (2 of 2)



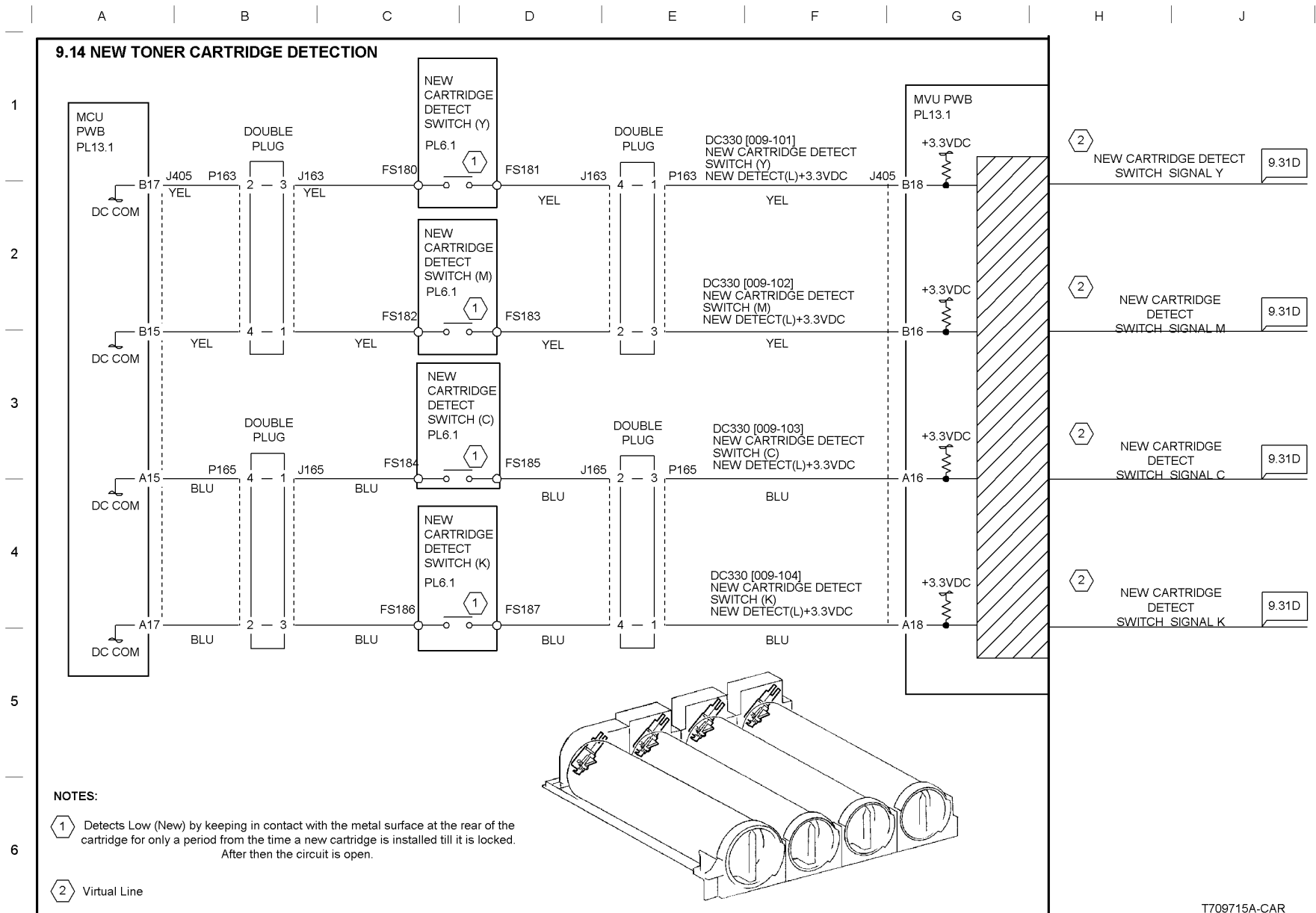
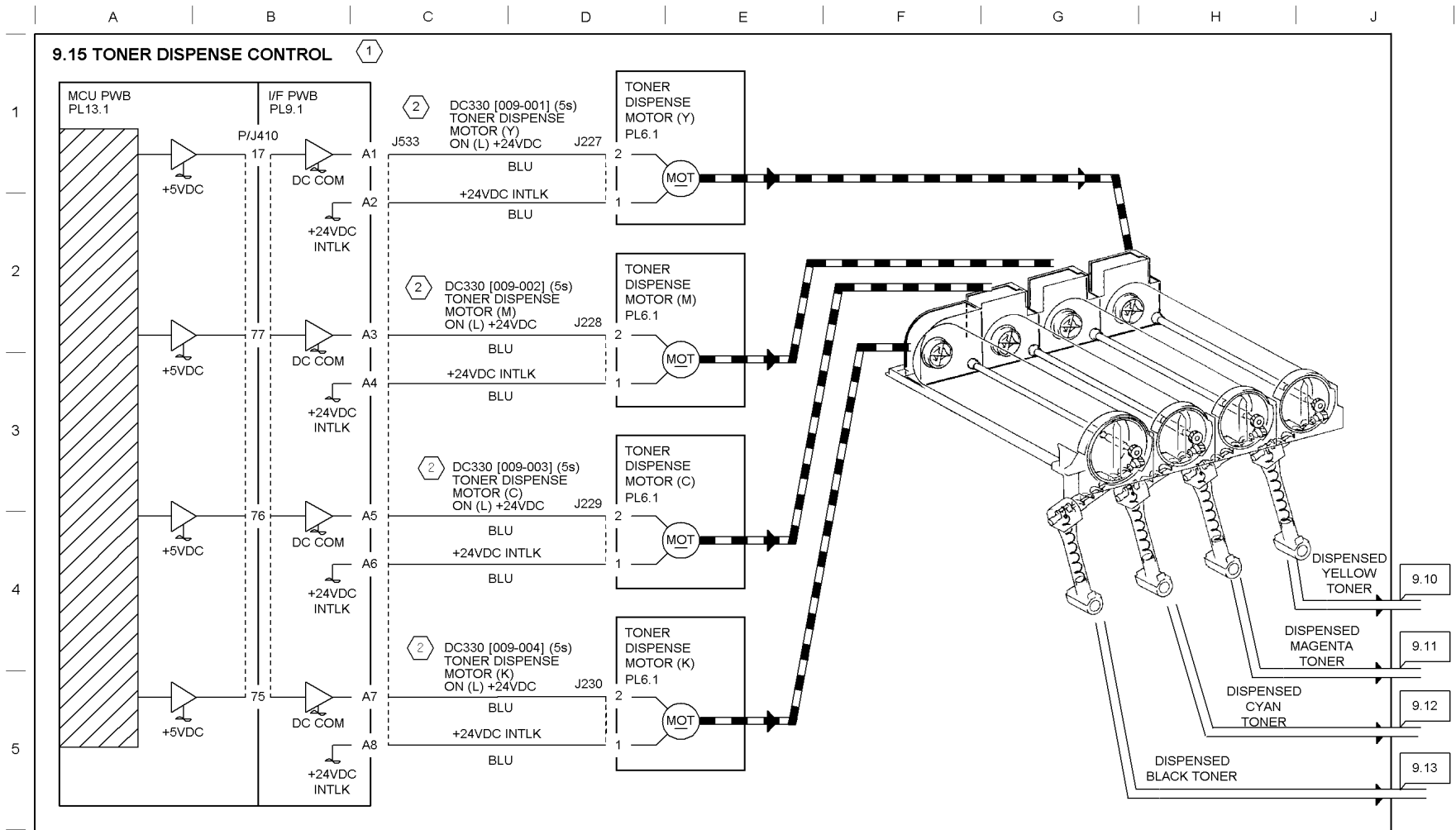


Figure 18 BSD 9.14 New Toner Cartridge Detection





**NOTE:**

1

This model has no Low Toner Sensor. Low Toner/Toner Empty is detected by ATC Sensor-sensed Toner Concentration in Deve Assy and ICDC Control. For the ATC Sensor wiring, see CH9.10 - 9.13.

**Toner Density Control**

☑ ICDC Control estimates toner consumption qty for Dispense Control.

☑ Dispense Qty is corrected according to ATC Sensor-sensed Toner Concentration in Deve Assy.

**Toner Empty Detection**

☑ When ATC Sensor-sensed Toner Concentration in Deve Assy reduces below the spec, Low Toner is detected.

☑ When a total ICDC value exceeds the spec after the detection of Low Toner, Toner Empty is detected.

2

Never repeat turning on DC330 [009-001] - [009-004]. Turning on Toner Dispense Motor repeatedly causes toner blocking in Deve Assy.

T709716A-CAR

Figure 19 BSD 9.15 Toner Dispense Control



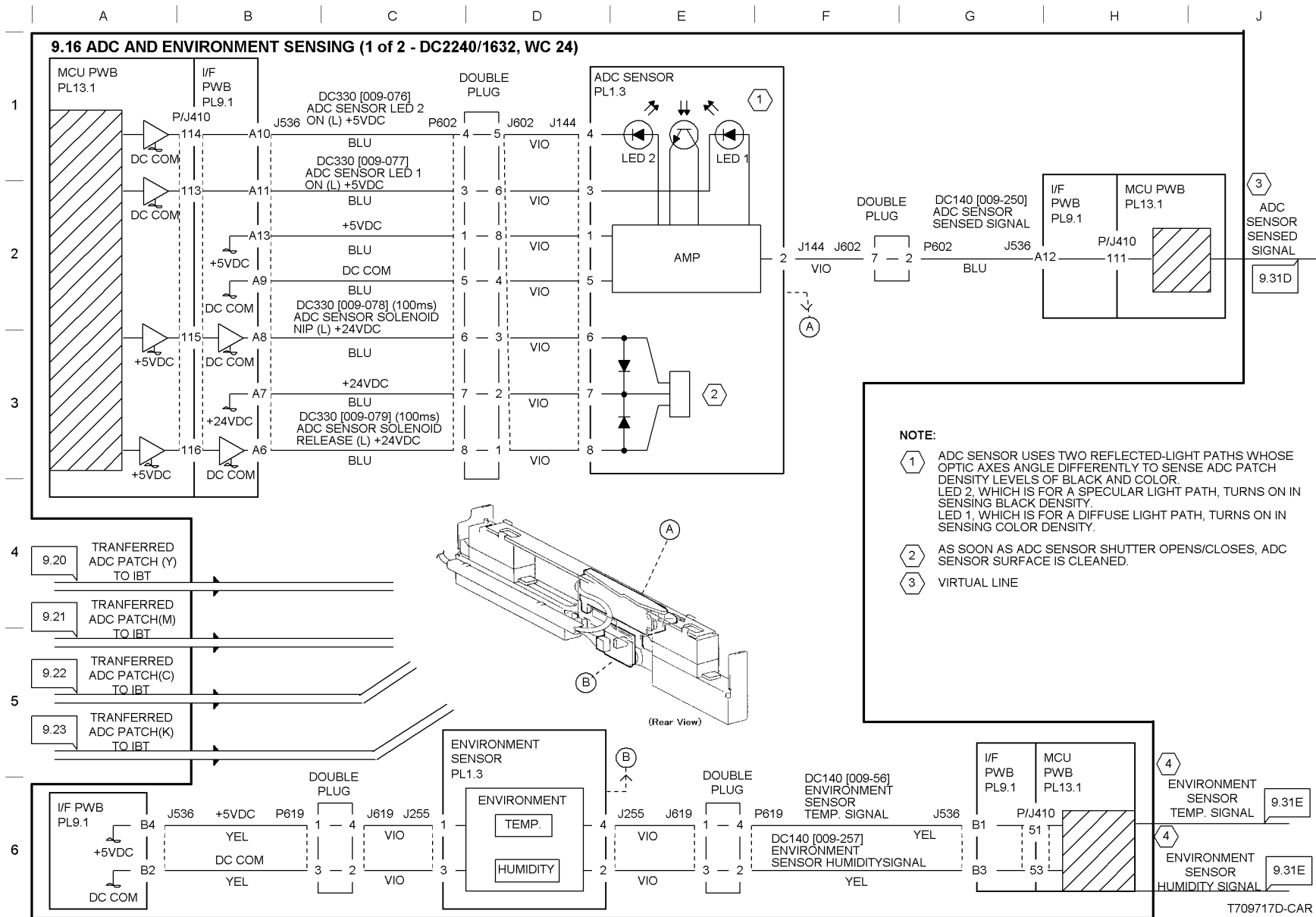
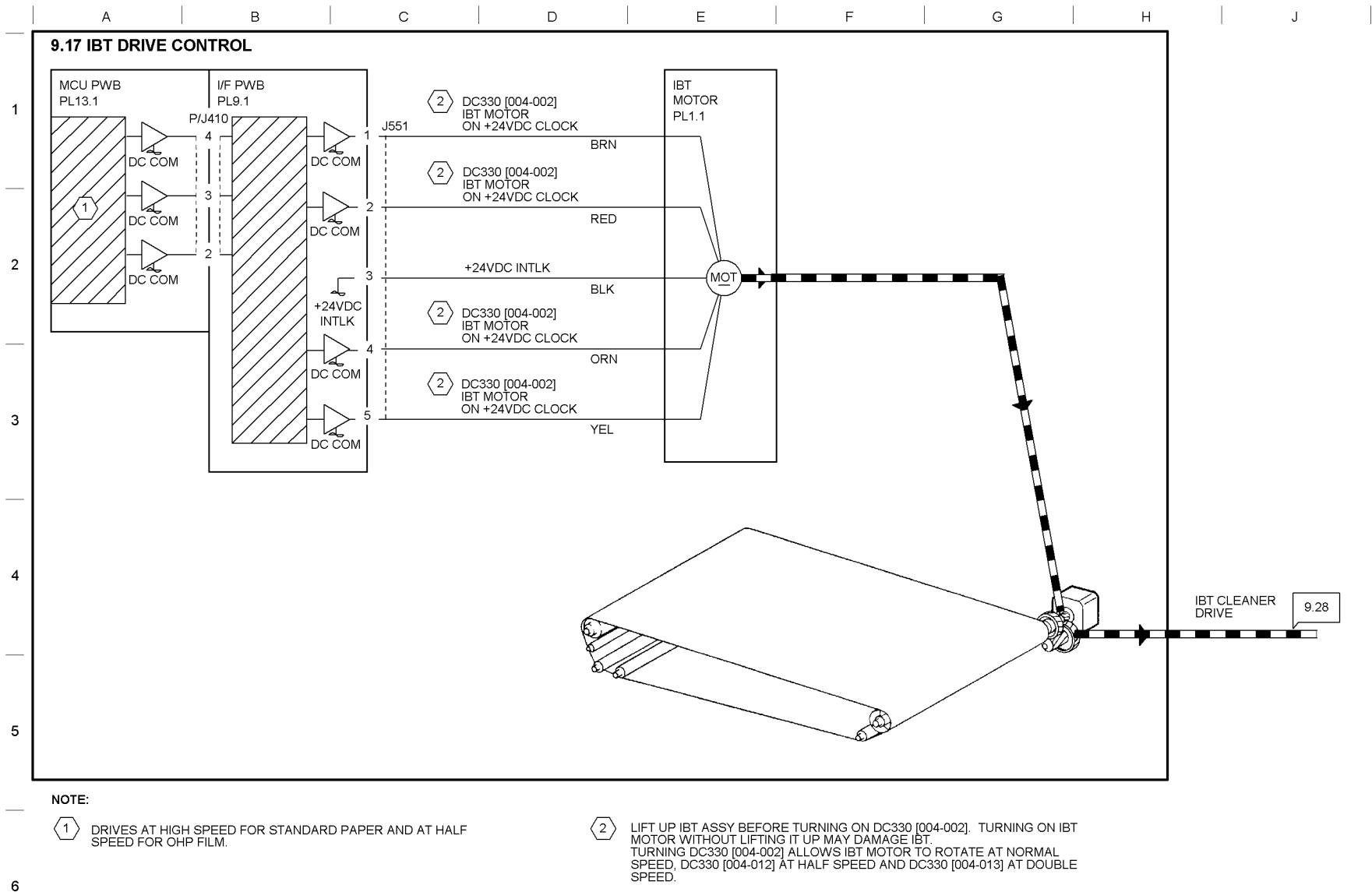


Figure 20 BSD 9.16 ADC and Environment Sensing (DC 2240/1632, WC 24)









T709718B-CAR

Figure 22 BSD 9.17 IBT Drive Control



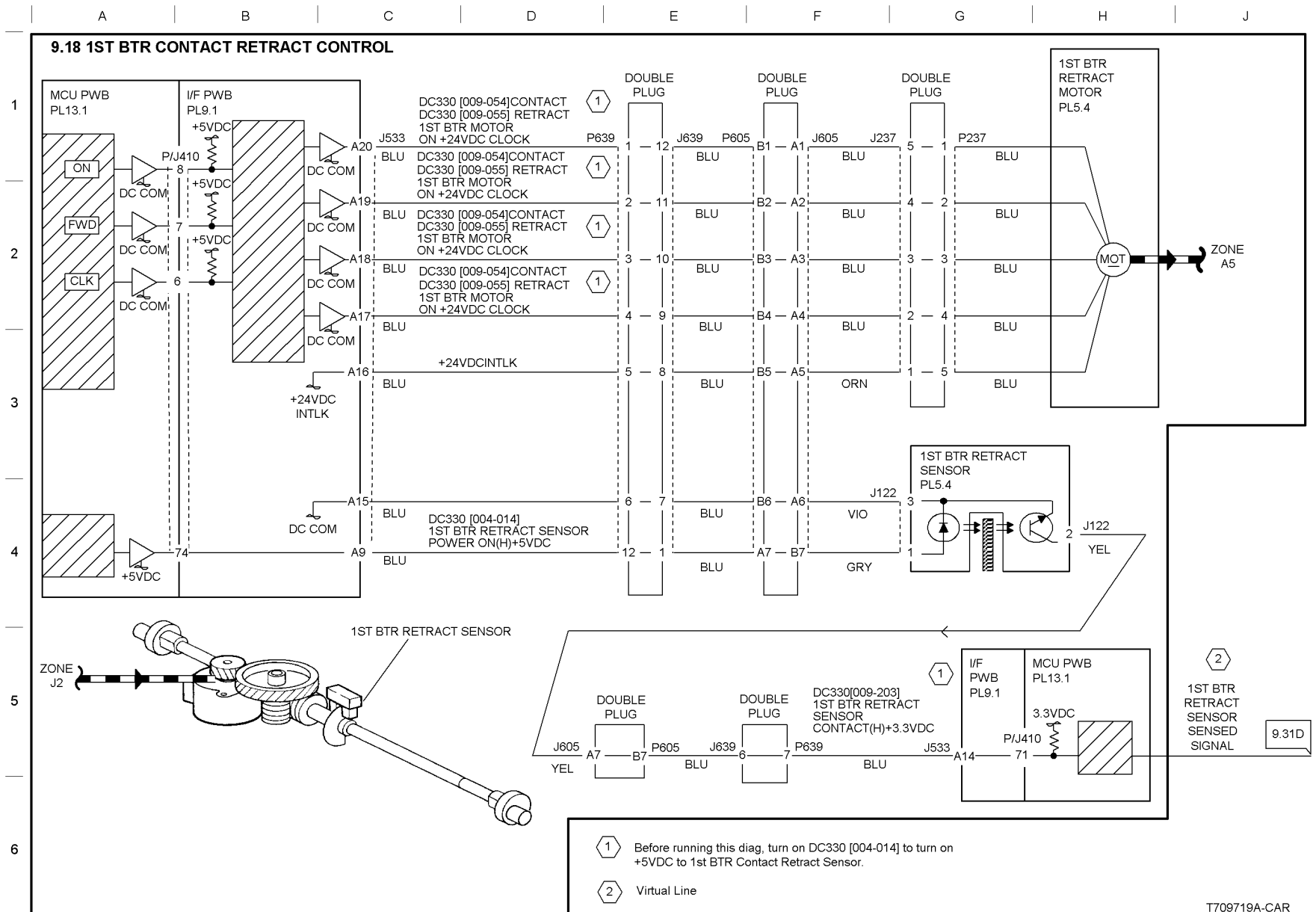


Figure 23 BSD 9.18 1ST BTR Contact Retract Control



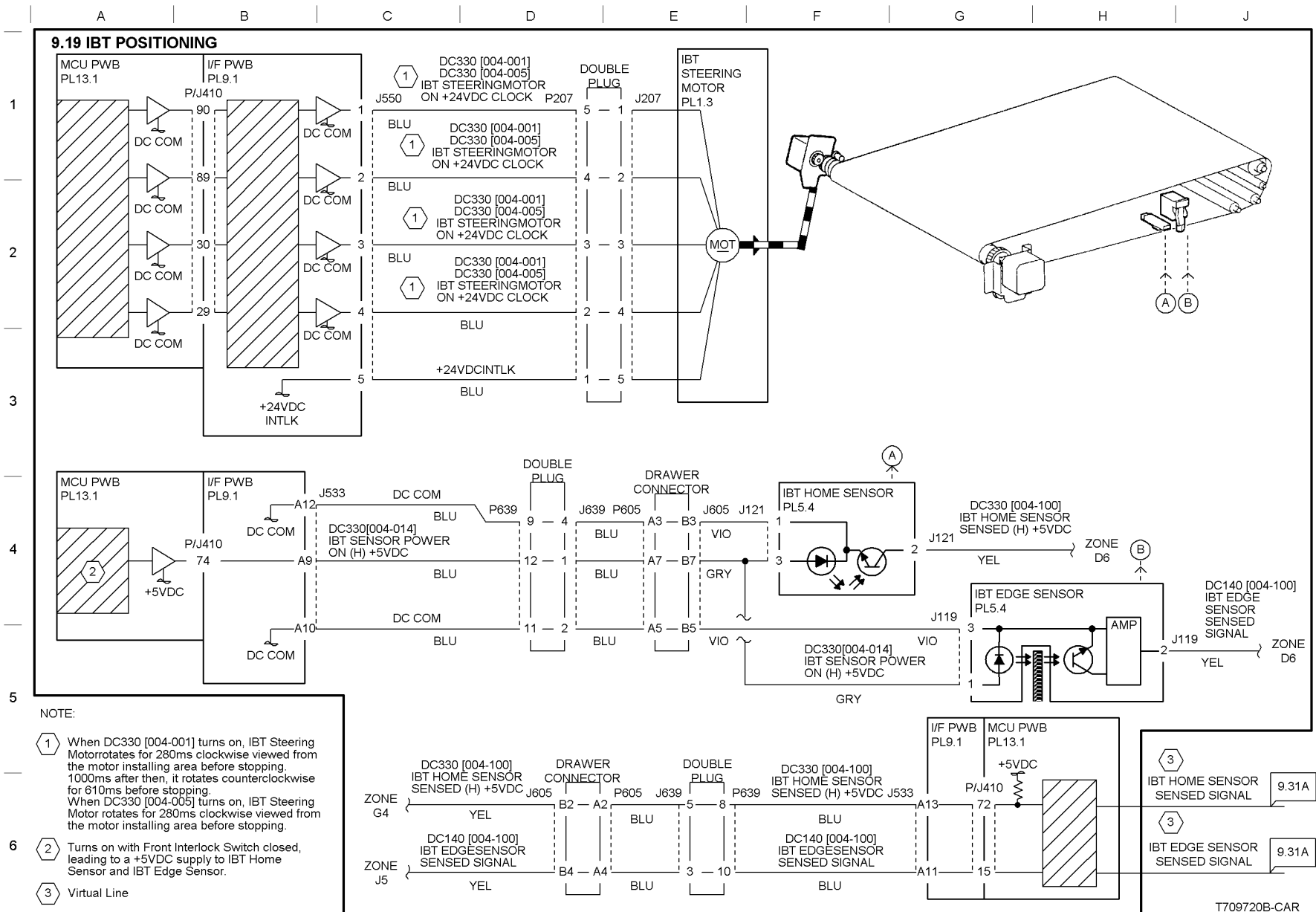
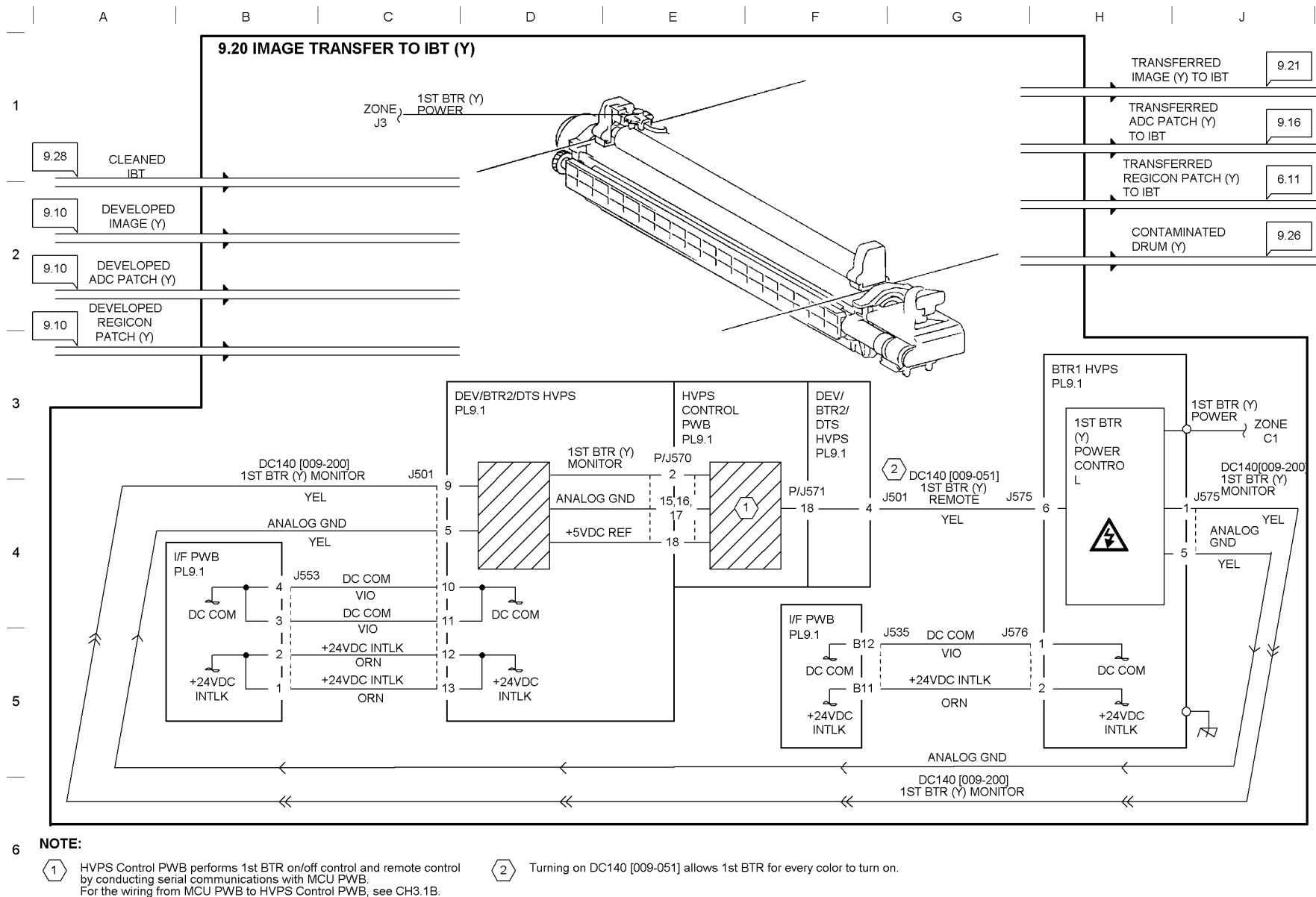


Figure 24 BSD 9.19 IBT Positioning

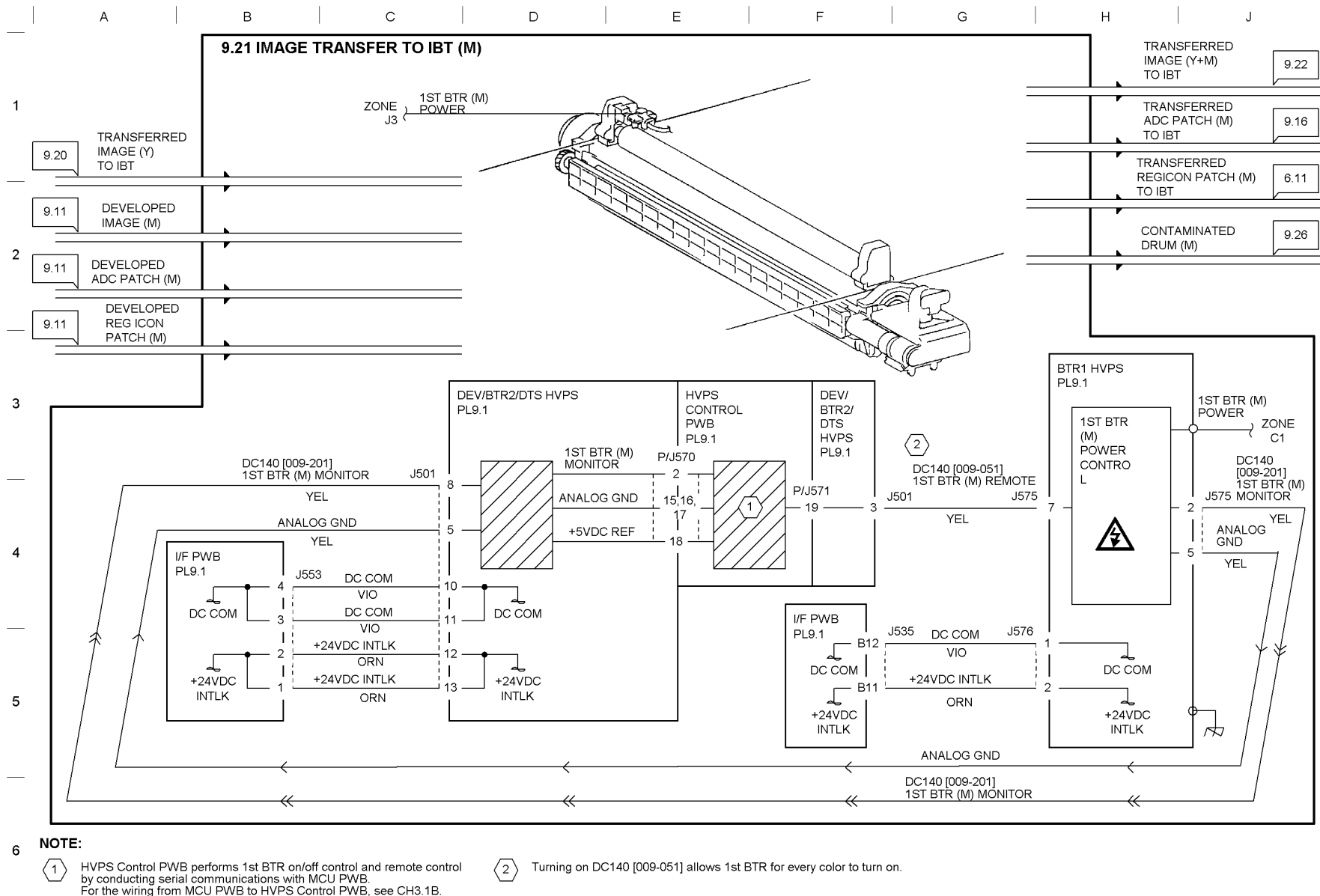




T709721A-CAR

Figure 25 BSD 9.20 Image Transfer To IBT (Y)

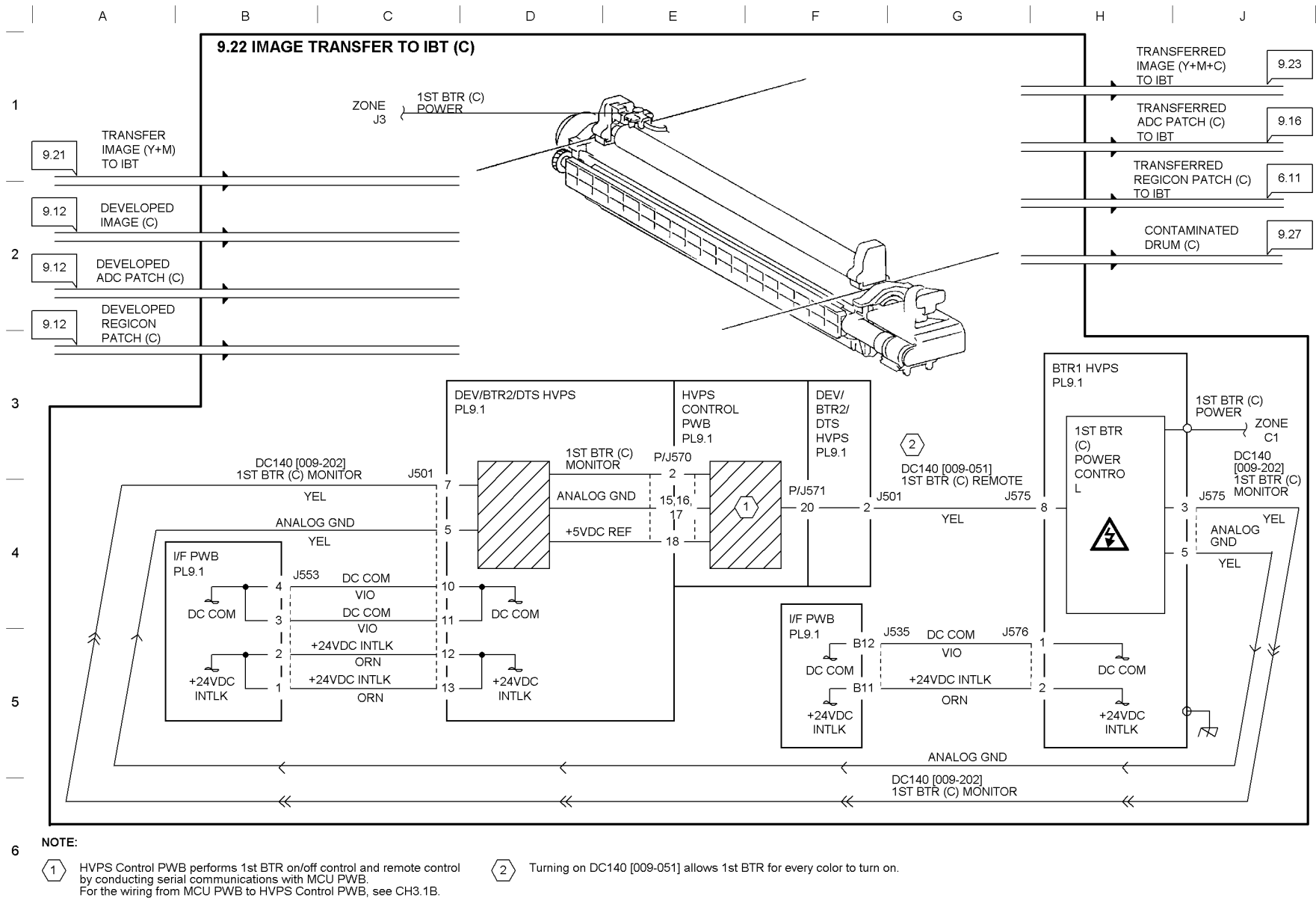




T709722B-CAR

Figure 26 BSD 9.21 Image Transfer To IBT (M)

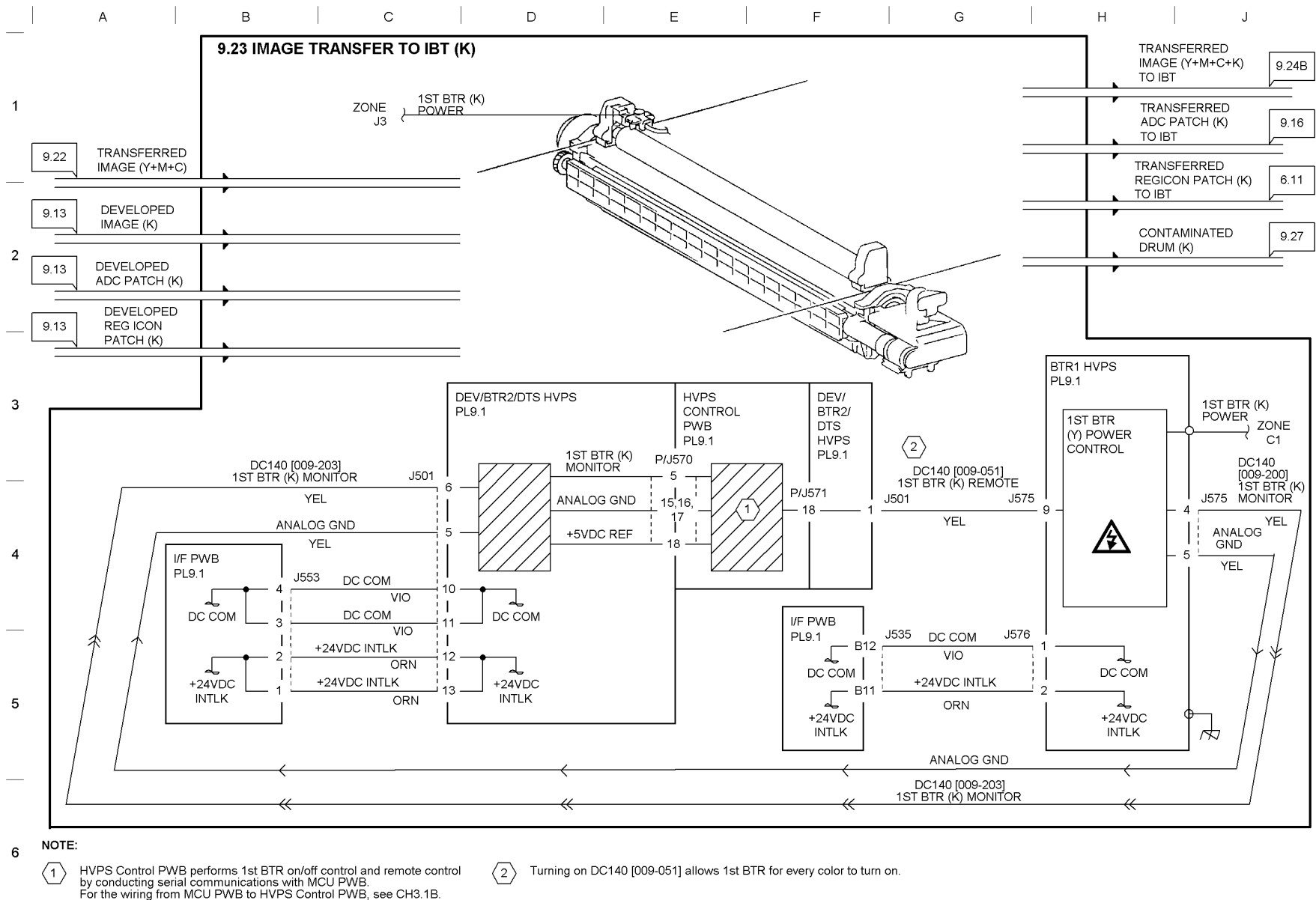




T709723B-CAR

Figure 27 BSD 9.22 Image Transfer To IBT (C)

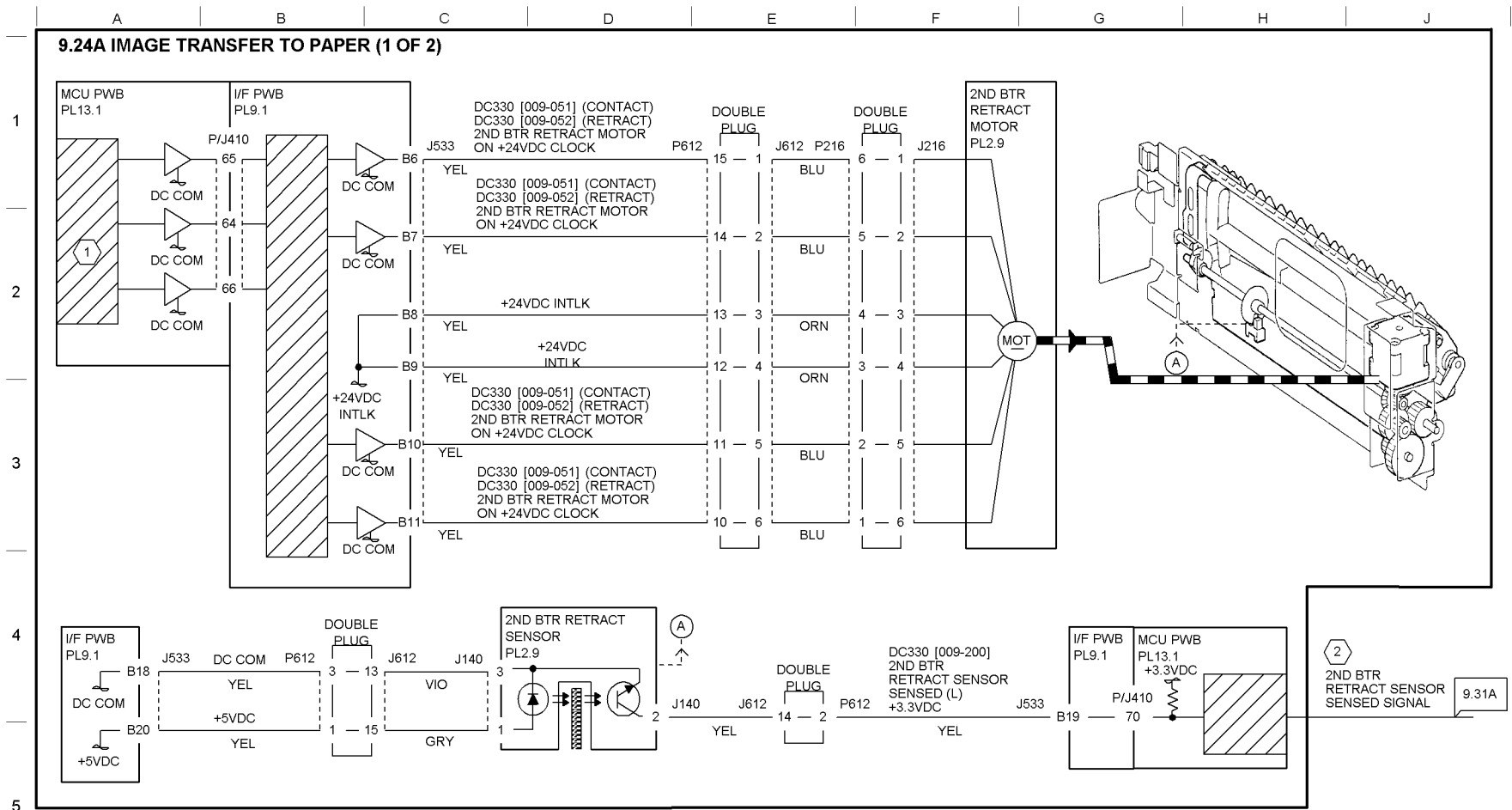




T709724B-CAR

Figure 28 BSD 9.23 Image Transfer To IBT (K)





**NOTE:**

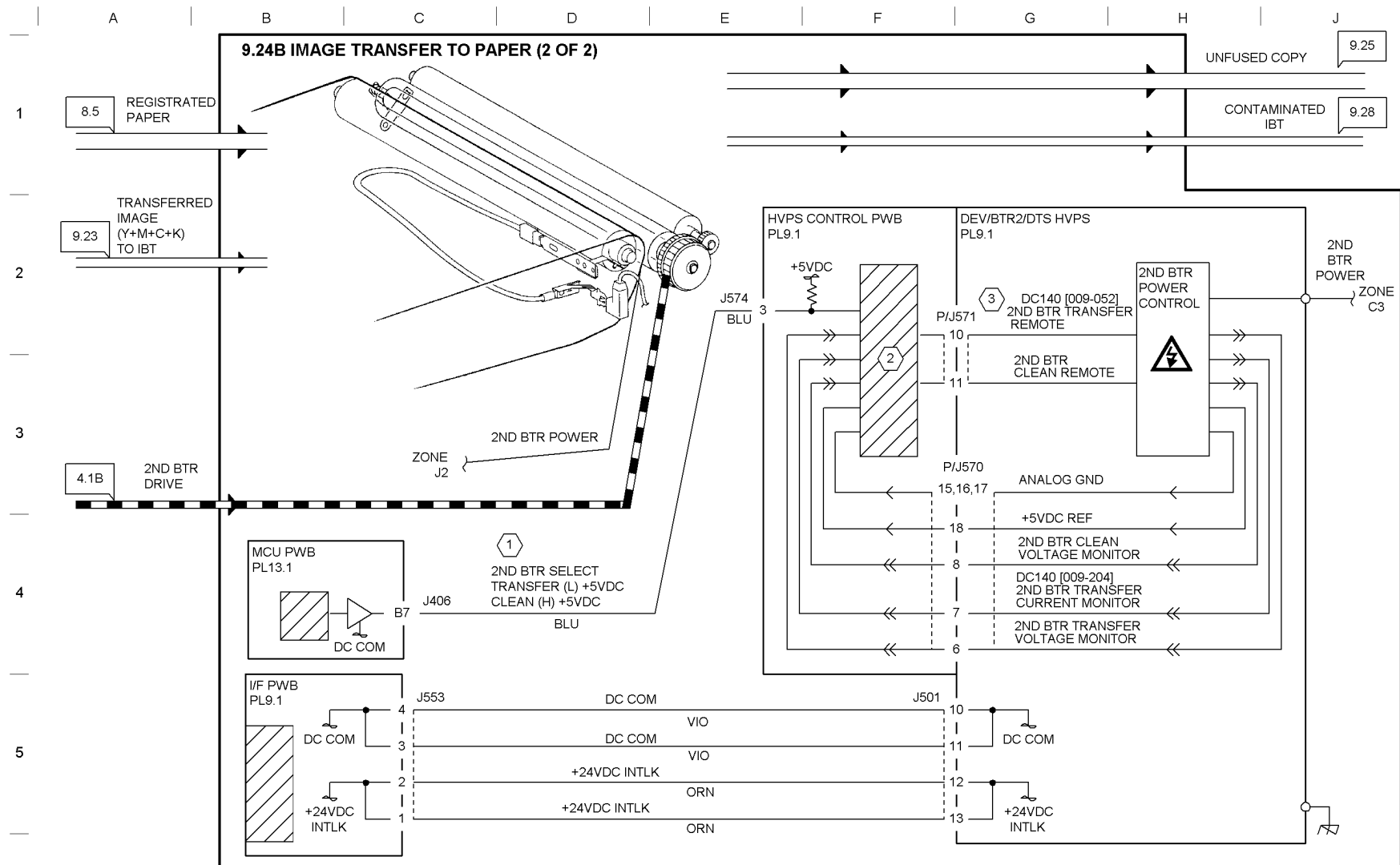
① 2nd BTR contacts at power on, and retracts 5hrs (adjustable in NVM) after power off or IBT stops, or when M/C shuts down.

② Virtual Line

T709725A-CAR

**Figure 29 BSD 9.24A Image Transfer To Paper (1 of 2)**





**NOTE:**

- ① 2nd BTR Bias switching  
For the image area on IBT, 2nd BTR is charged with Transfer Bias (negative) so that toner on IBT will be transferred to paper. (Transfer)  
For the non-image area on IBT, 2nd BTR is charged with Reverse Bias (positive) so that toner will be prevented from attaching to the roll. (Clean)
- ② HVPS Control PWB performs 2nd BTR on/off control and remote control by conducting serial communications with MCU PWB.  
For the wiring from MCU PWB to HVPS Control PWB, see CH3.1B.
- ③ Turning on DC140 [009-052] allows Transfer Bias to be output.

T709726B-CAR

**Figure 30 BSD 9.24B Image Transfer To Paper (2 of 2)**



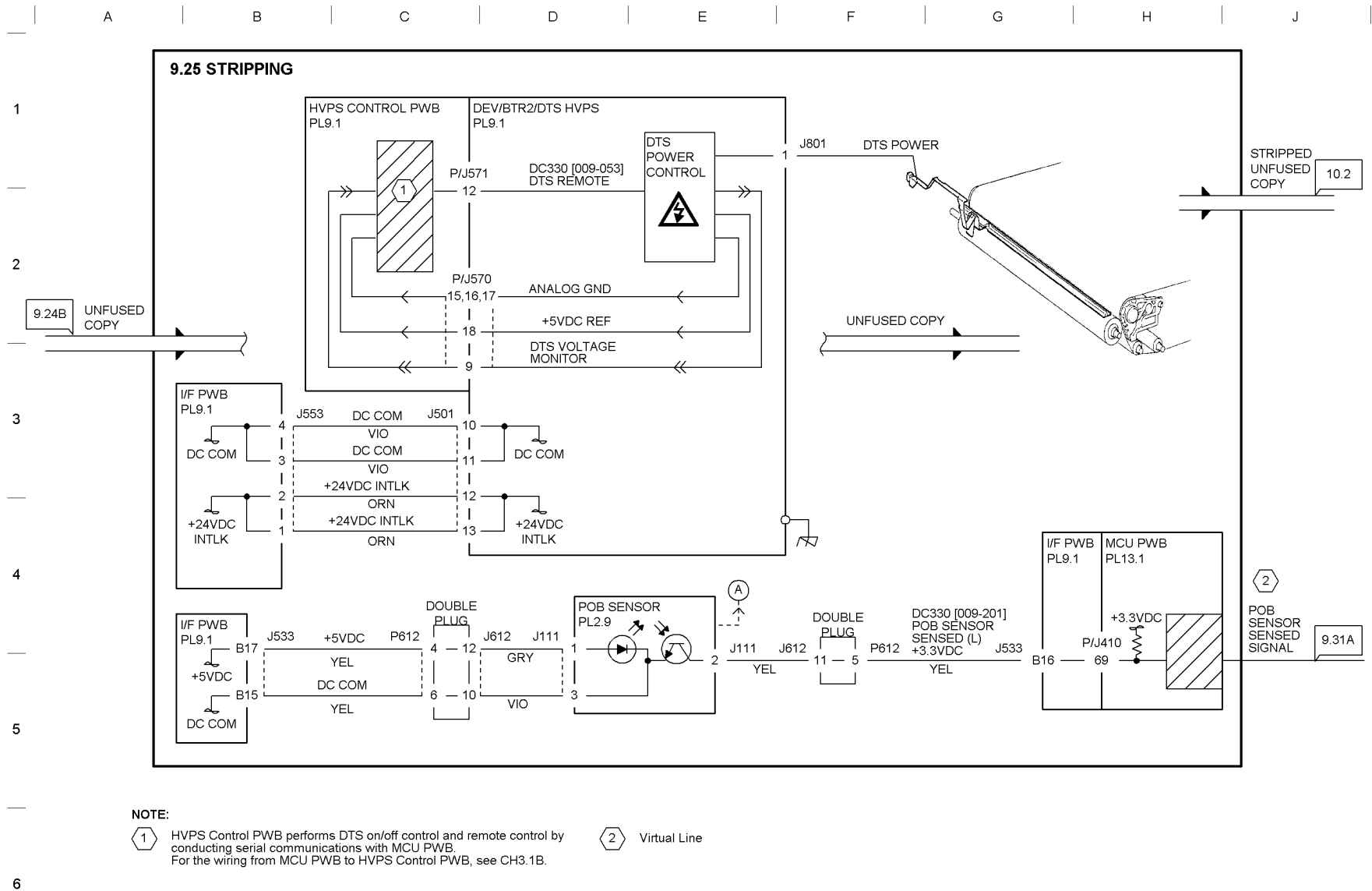
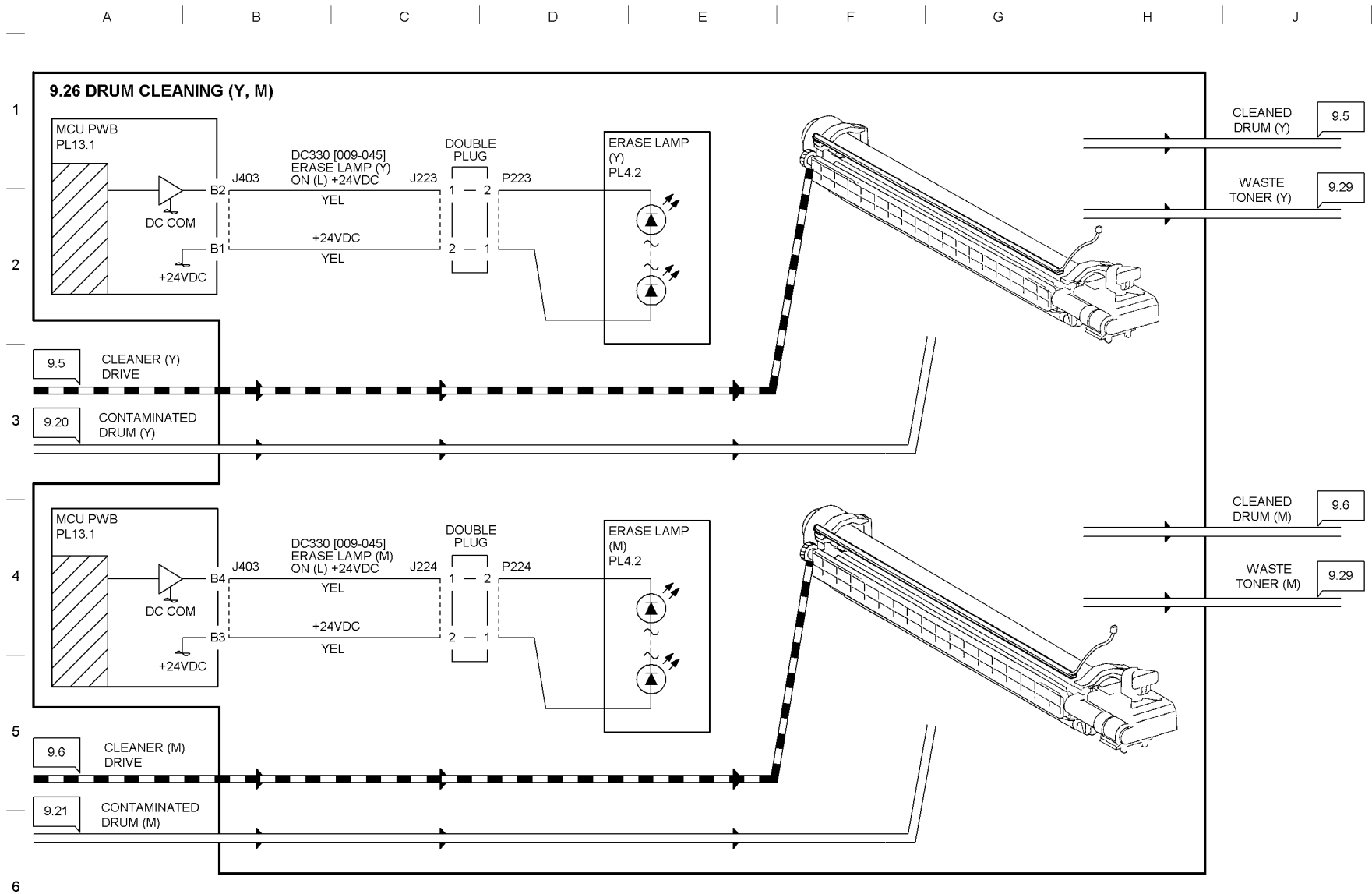


Figure 31 BSD 9.25 Stripping

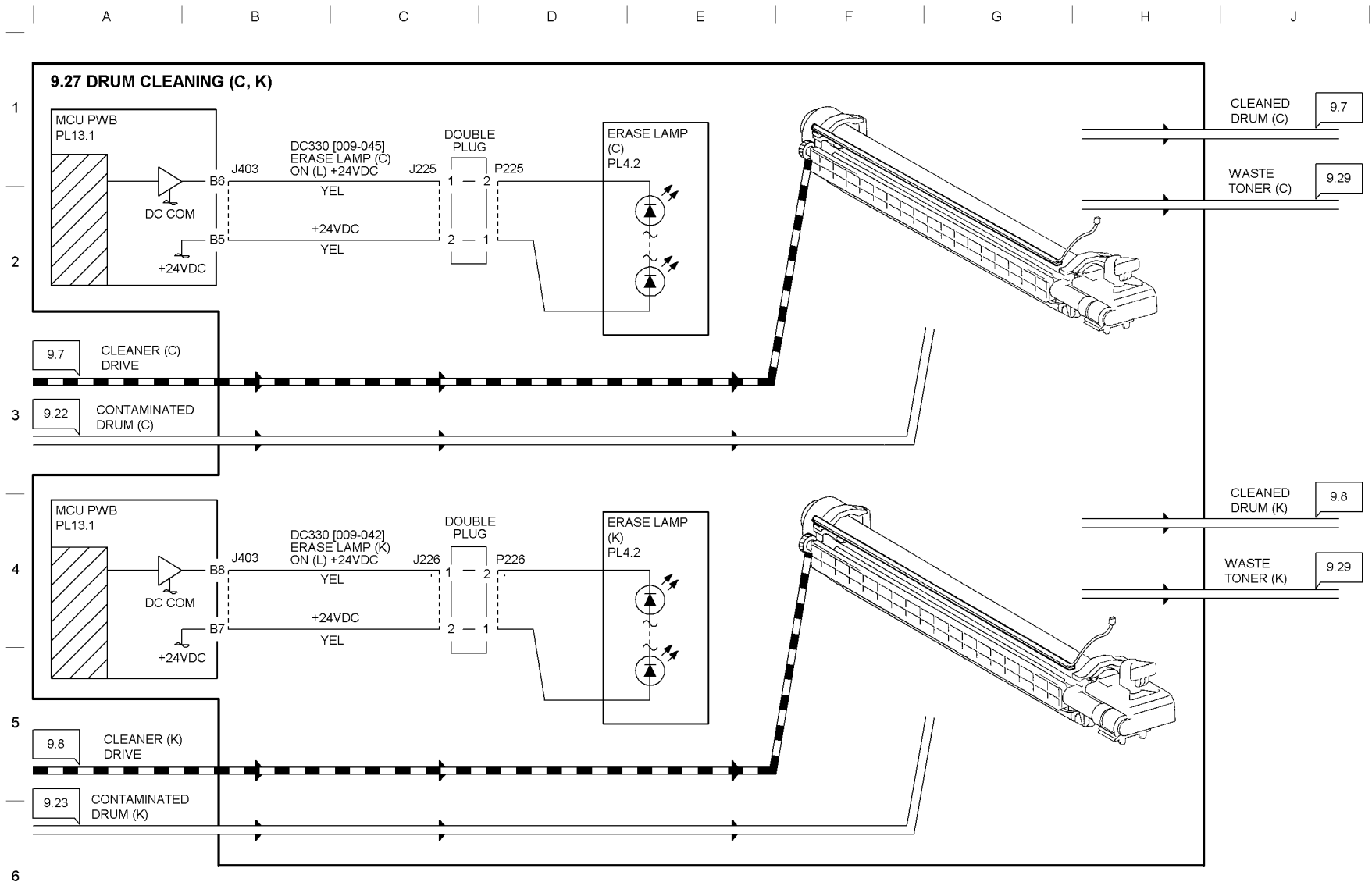




T709728A-CAR

Figure 32 BSD 9.26 Drum Cleaning (Y,M)

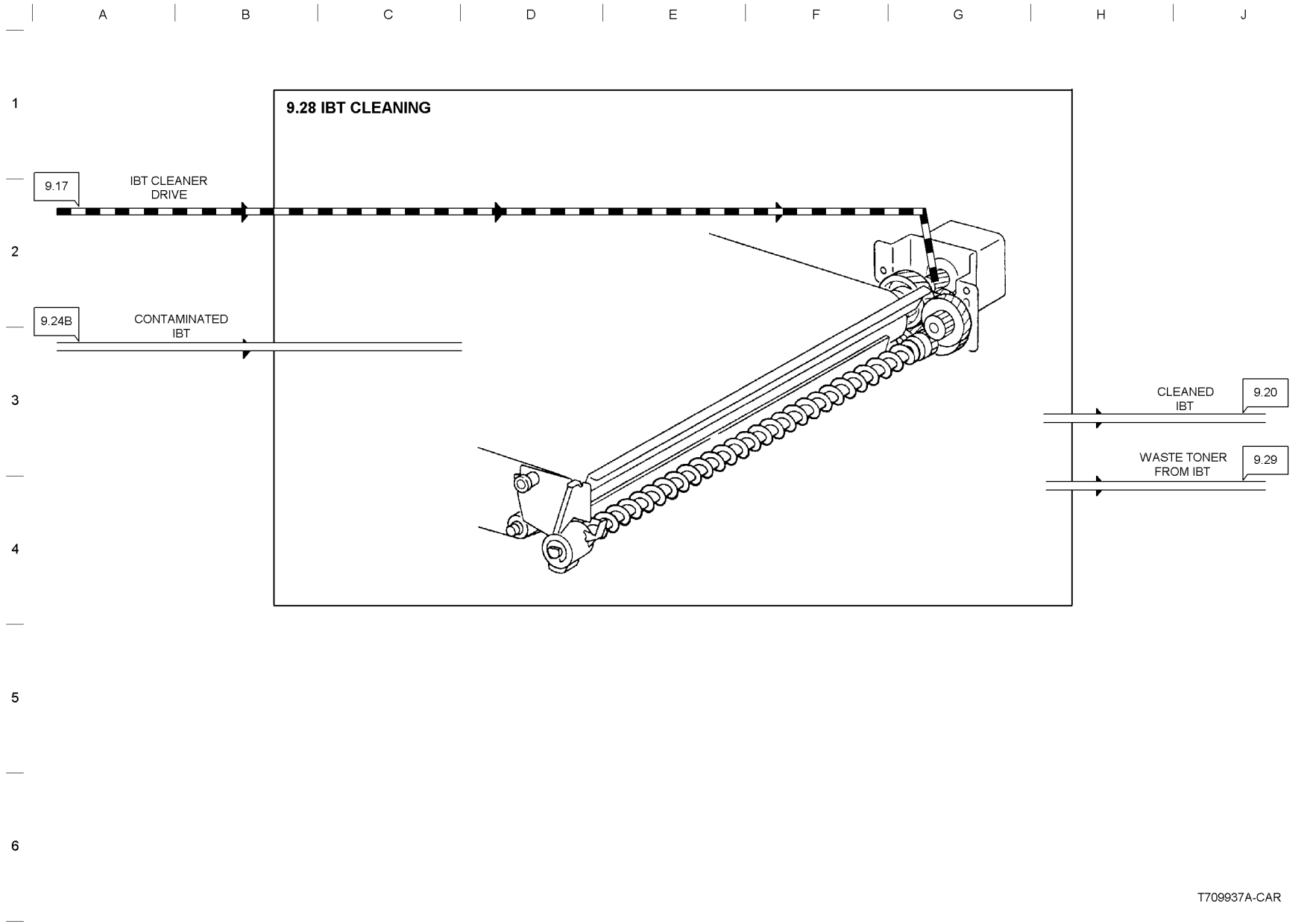




T709729B-CAR

Figure 33 BSD 9.27 Drum Cleaning (C,K)





T709937A-CAR

Figure 34 BSD 9.28 IBT Cleaning



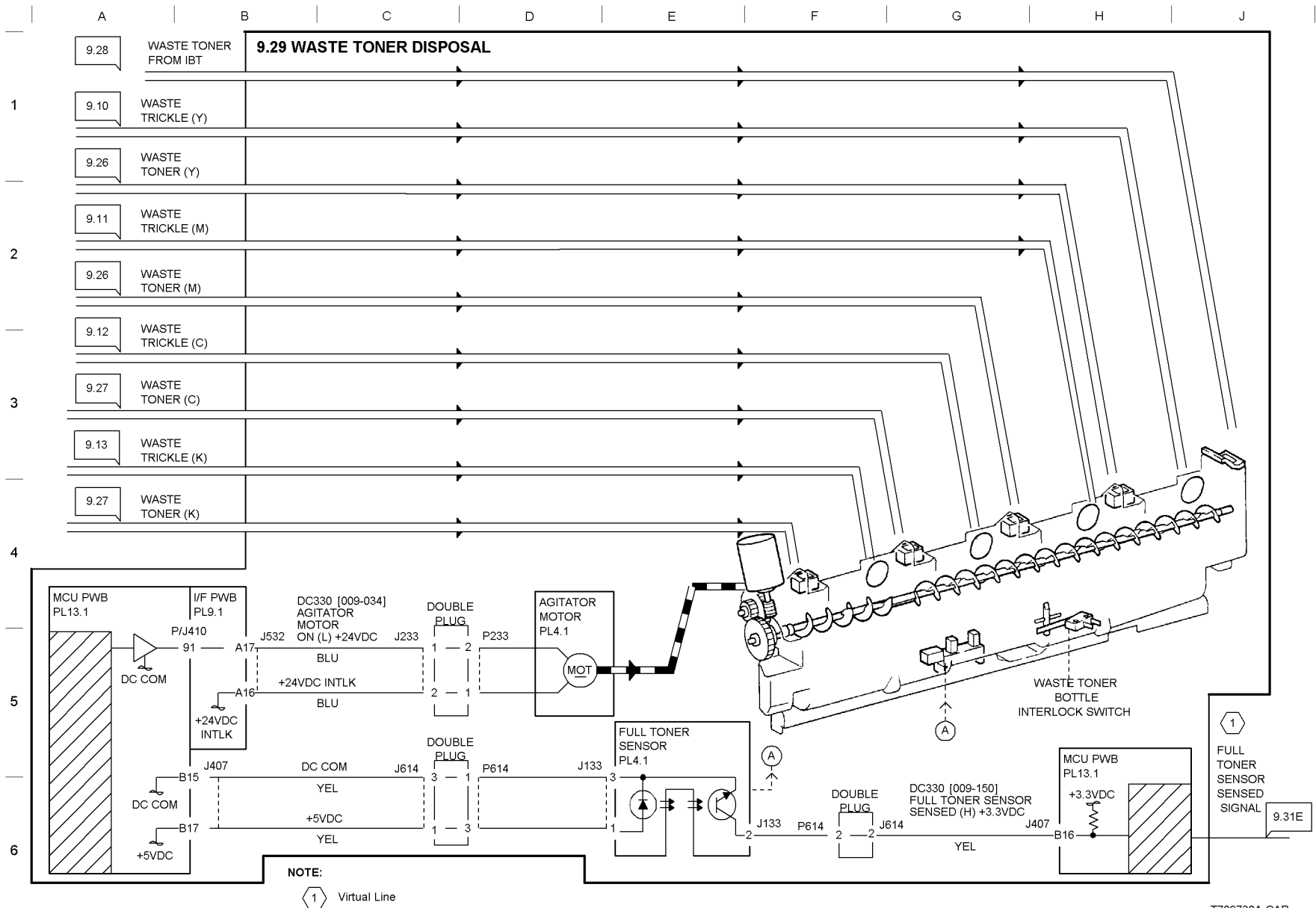
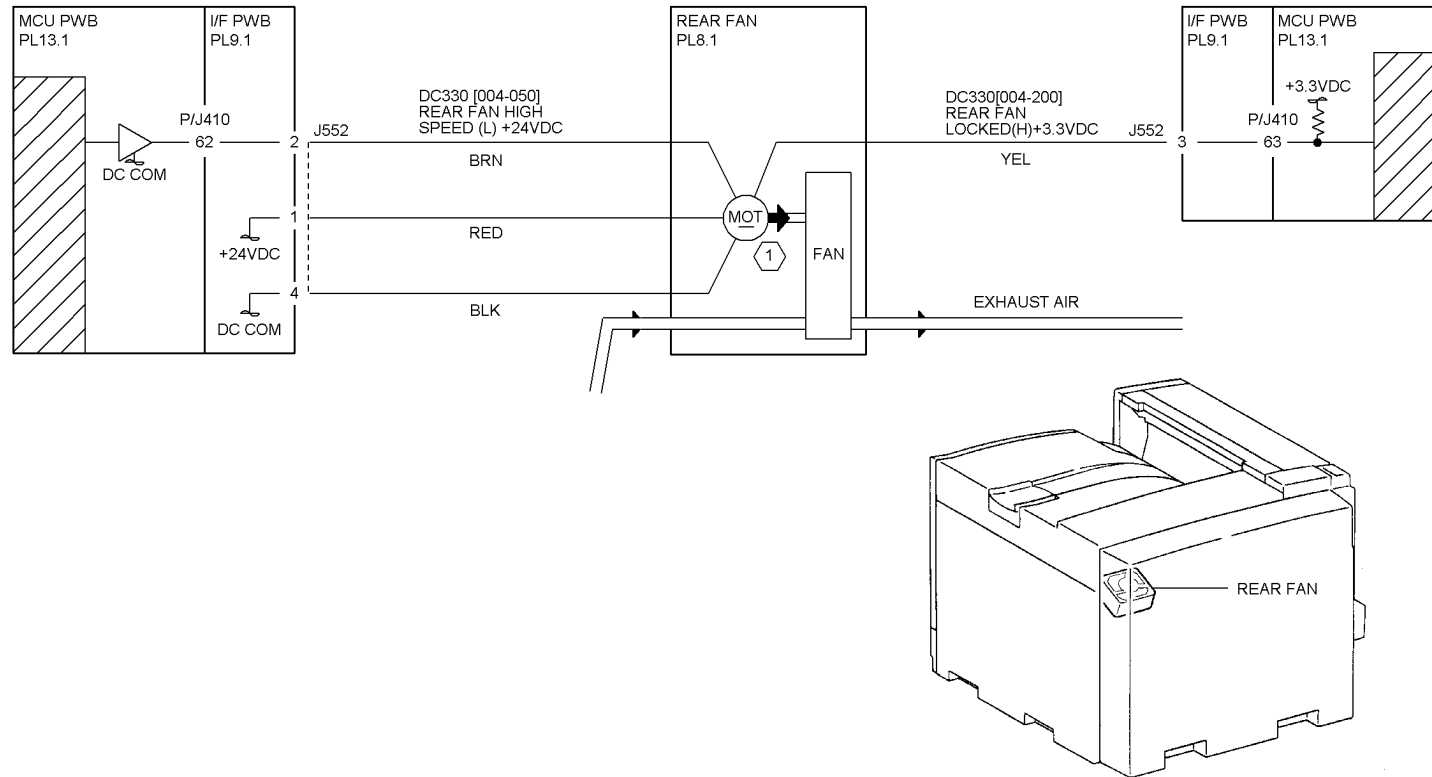


Figure 35 BSD 9.29 Waste Toner Disposal



### 9.30 REAR FAN CONTROL (1 of 2 - DC2240/1632, WC 24)



NOTE:

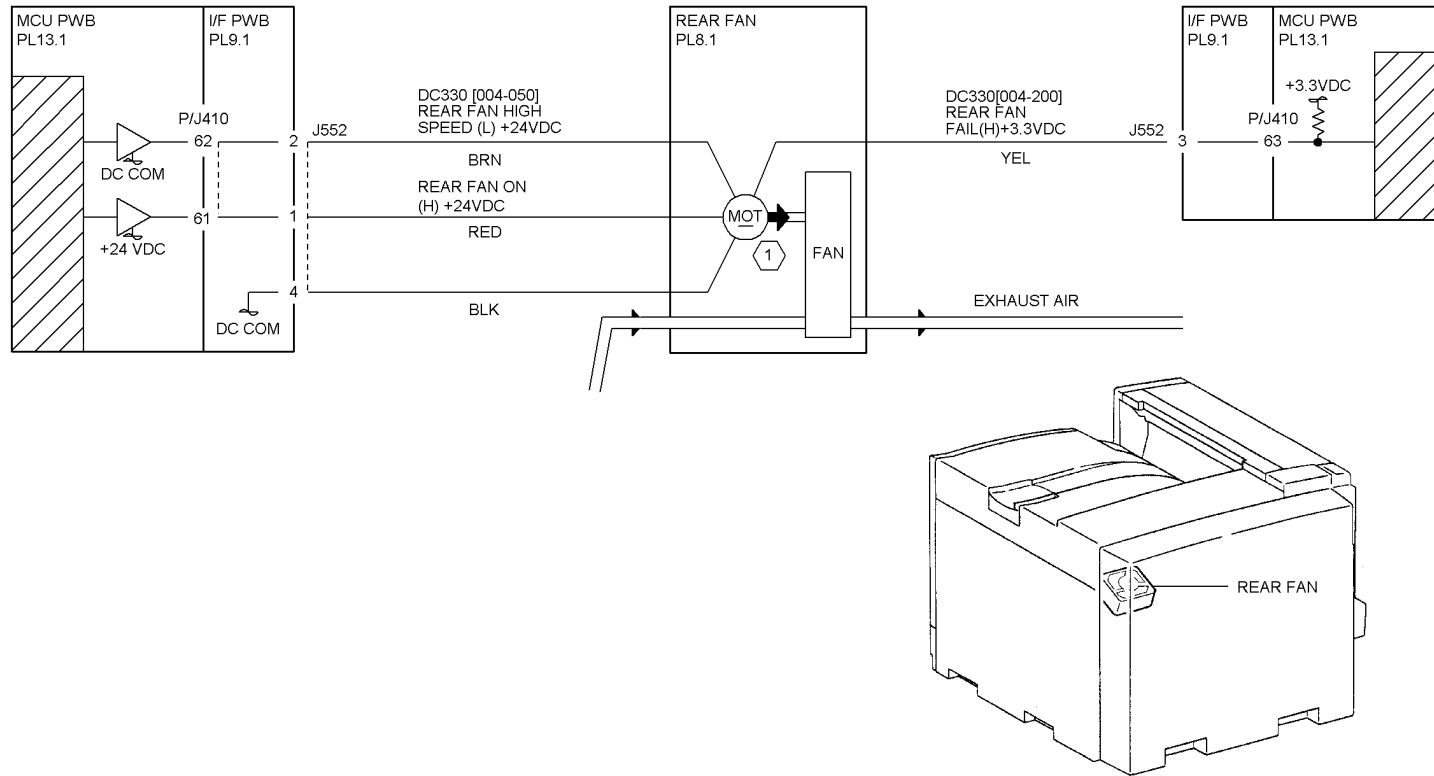
- 1 REAR FAN STARTS LOW-SPEED ROTATION AT POWER ON AND KEEPS IT WITH M/C ON STANDBY.  
REAR FAN STARTS HIGH-SPEED ROTATION AT MAIN MOTOR ON AND TRANSITS TO LOW-SPEED ROTATION 15SEC (ADJUSTABLE IN NVM) AFTER MAIN MOTOR OFF.  
IN SLEEP MODE, THE FAN STOPS ROTATING BECAUSE +24VDC IS CUT OFF.

T709731C-CAR

Figure 36 BSD 9.30 Rear Fan Control (DC 2240/1632, WC 24)



### 9.30 REAR FAN CONTROL (2 of 2 - DC3535)



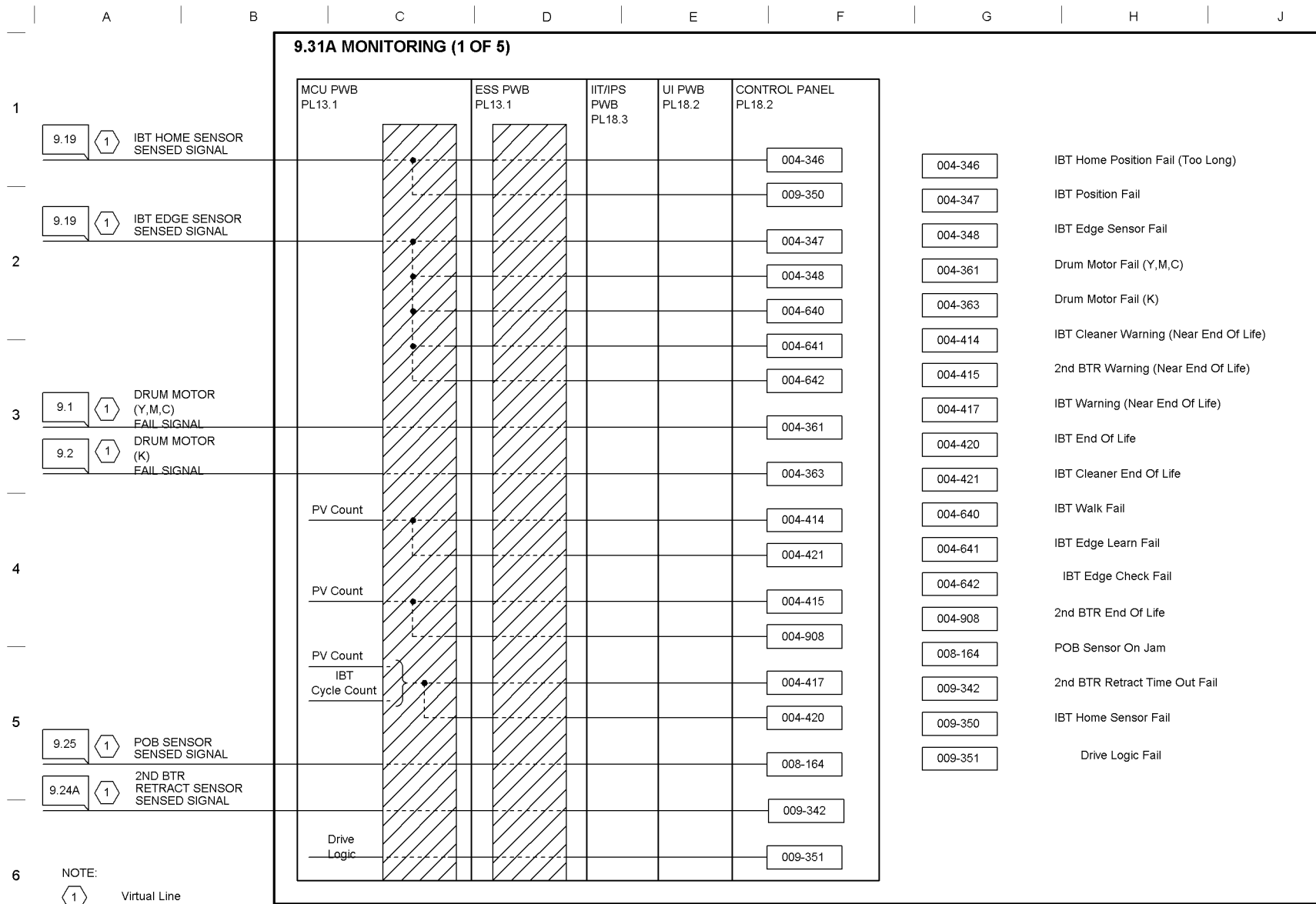
NOTE:

- 1 Rear Fan starts low-speed rotation at power on and keeps it with M/C on standby. Rear Fan starts high-speed rotation at Main Motor On and transits to low-speed rotation 15sec (adjustable in NVM) after Main Motor Off. In Sleep mode, the Fan stops rotating because +24VDC is cut off.

T709742A-CAR

Figure 37 BSD 9.30 Rear Fan Control (DC 3535)

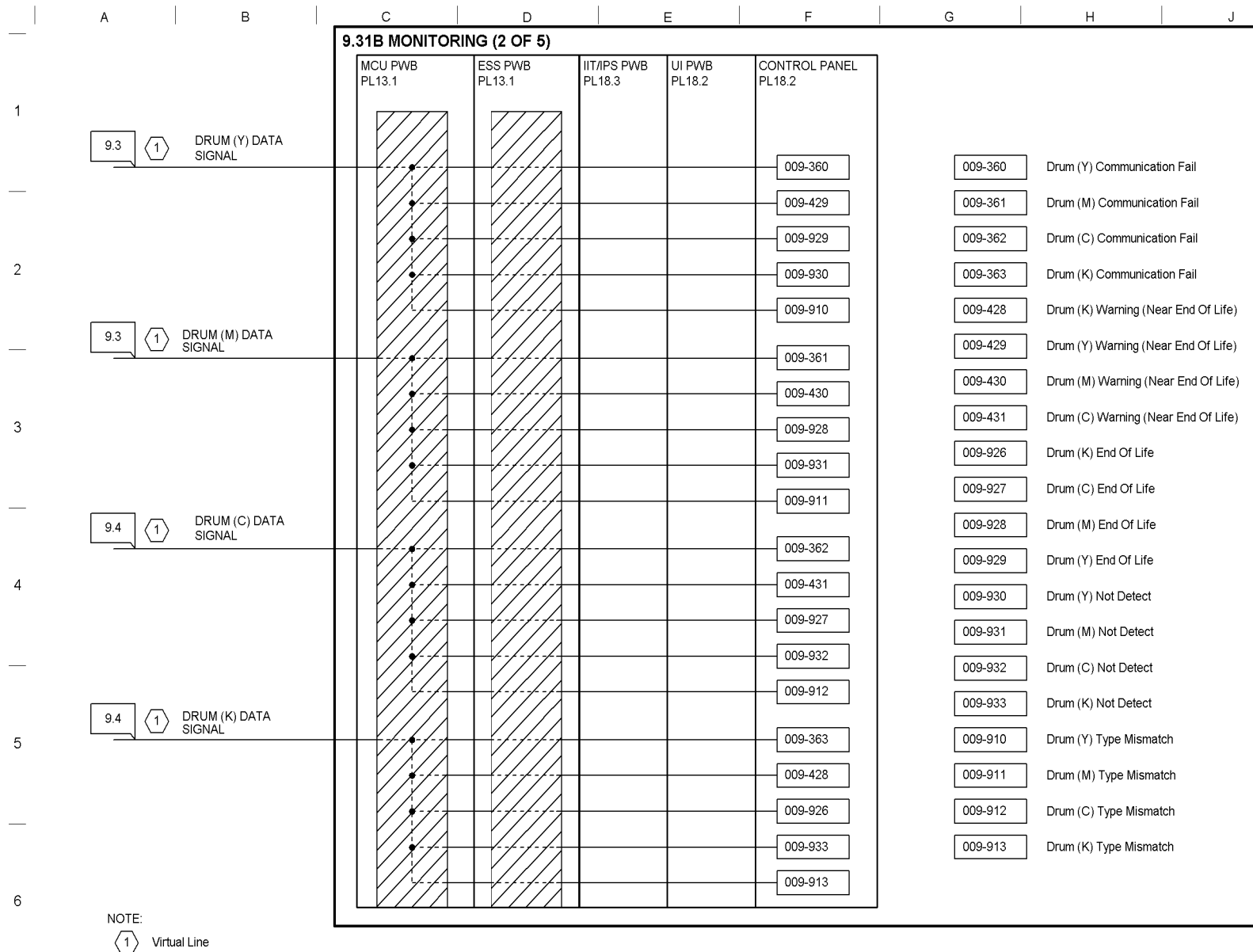




T709732A-CAR

Figure 38 BSD 9.31A Monitoring (1 of 5)

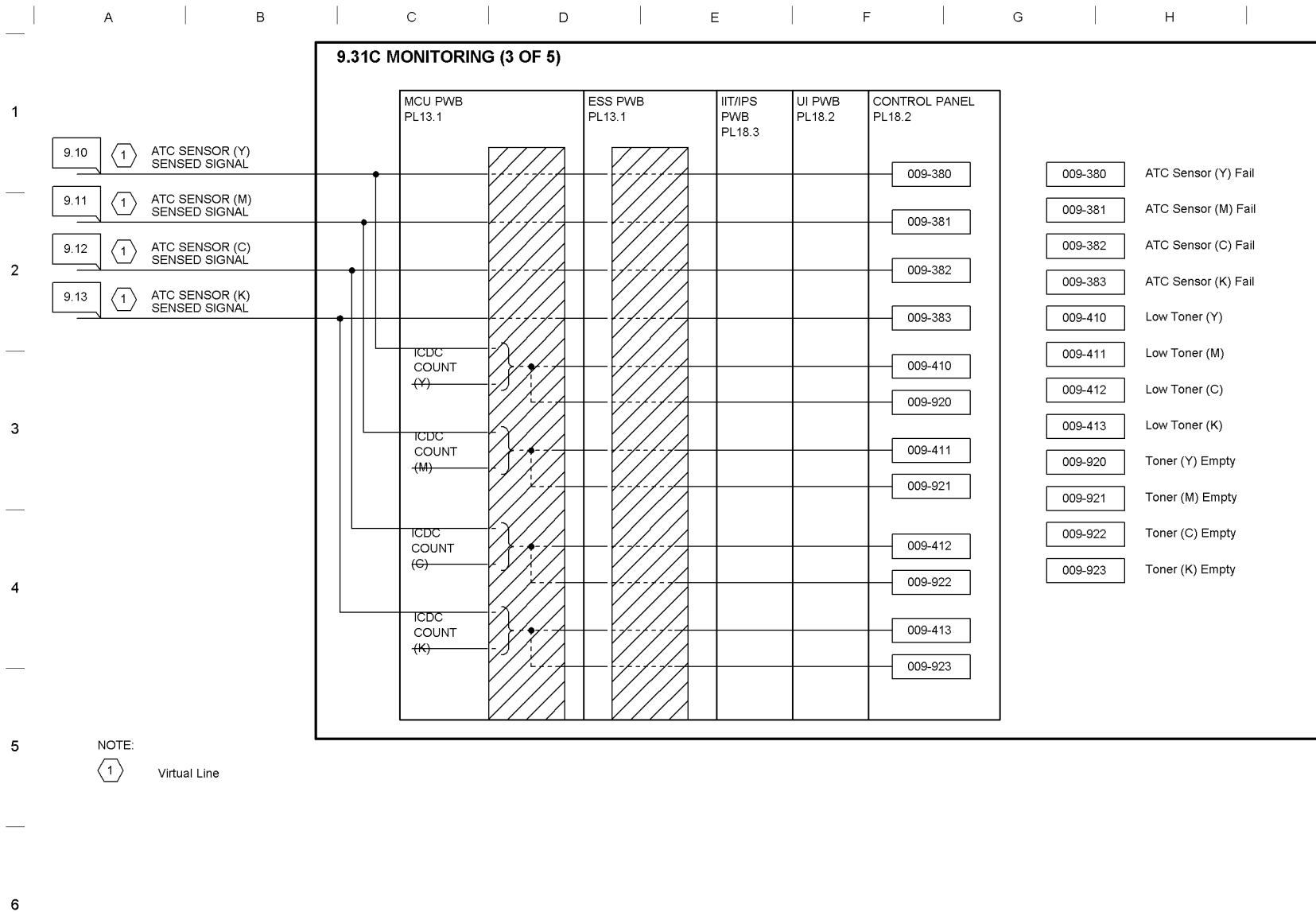




T709733A-CAR

Figure 39 BSD 9.31B Monitoring (2 of 5)

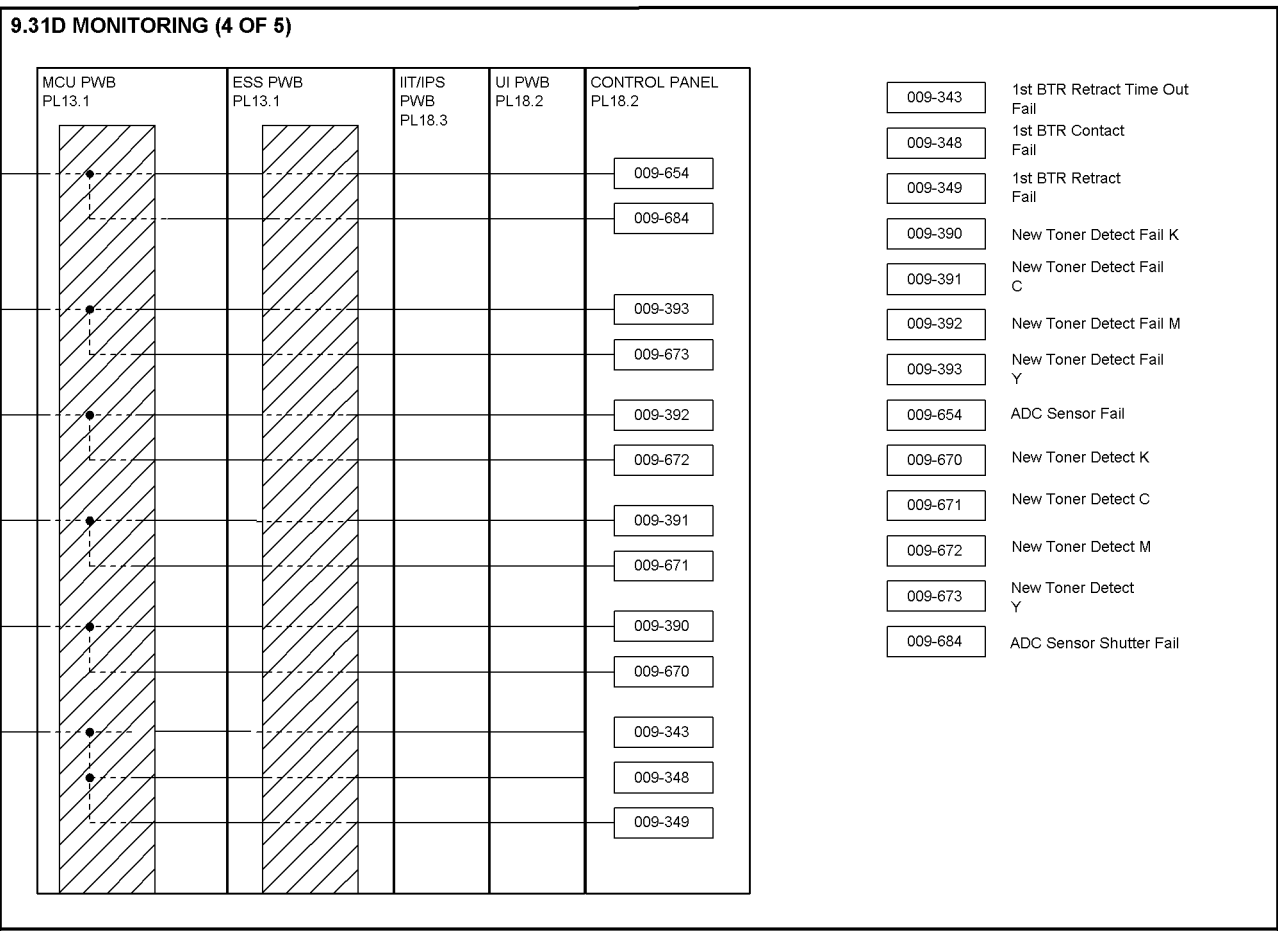
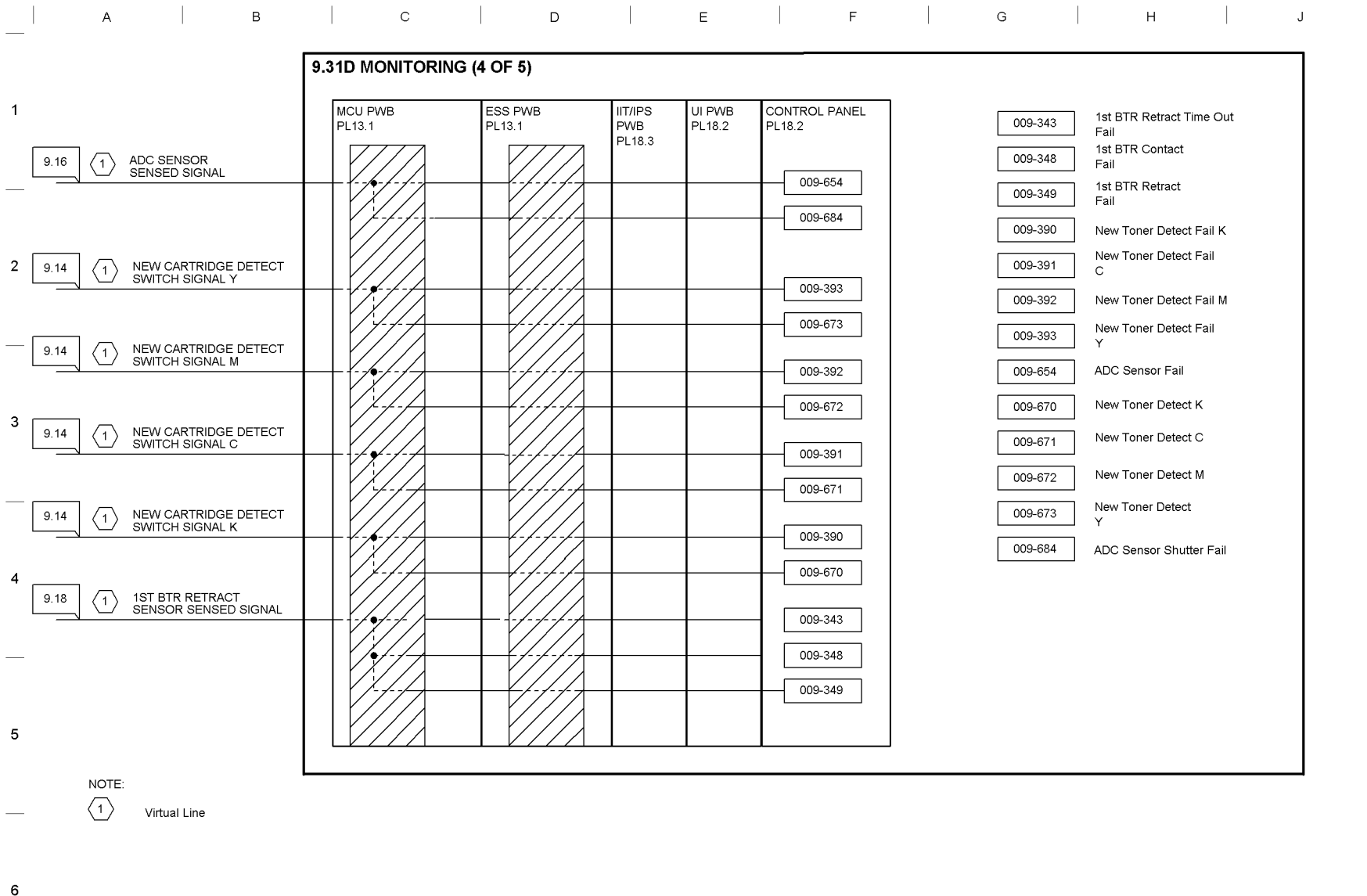




T709734A-CAR

Figure 40 BSD 9.31C Monitoring (3 of 5)





T709735A-CAR

Figure 41 BSD 9.31D Monitoring (4 of 5)





1

2

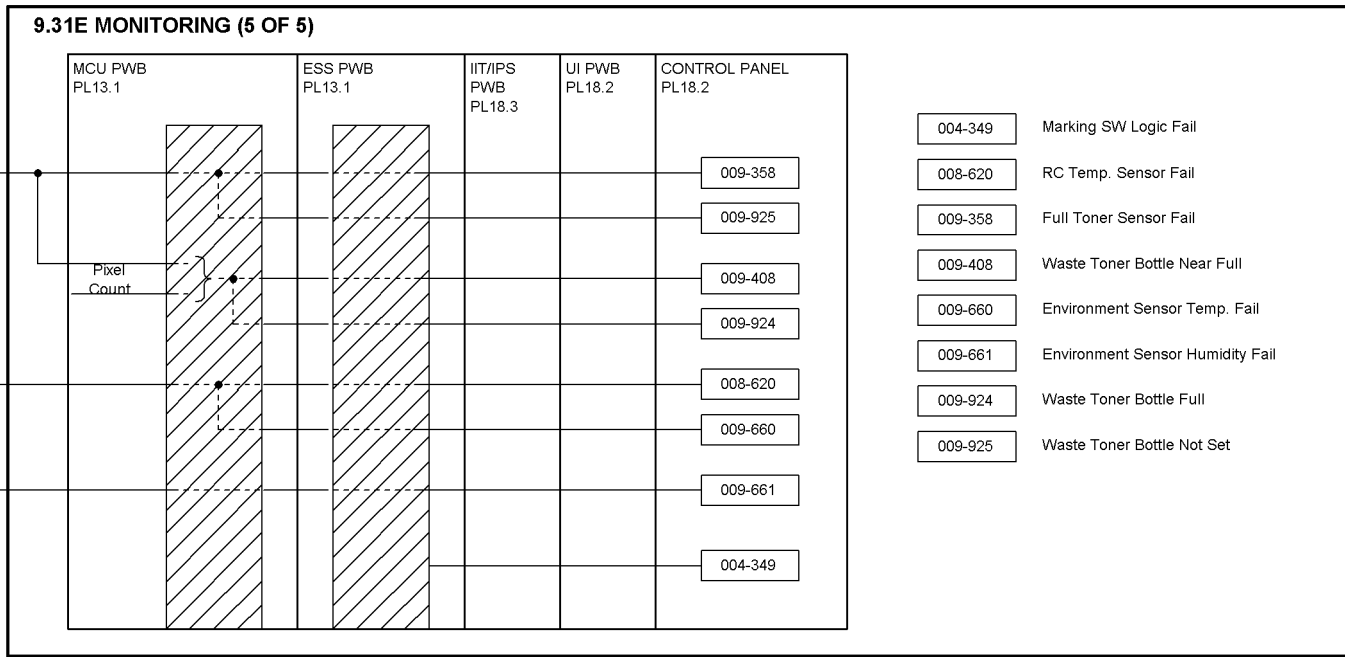
3

4

NOTE:  
 Virtual Line

5

6

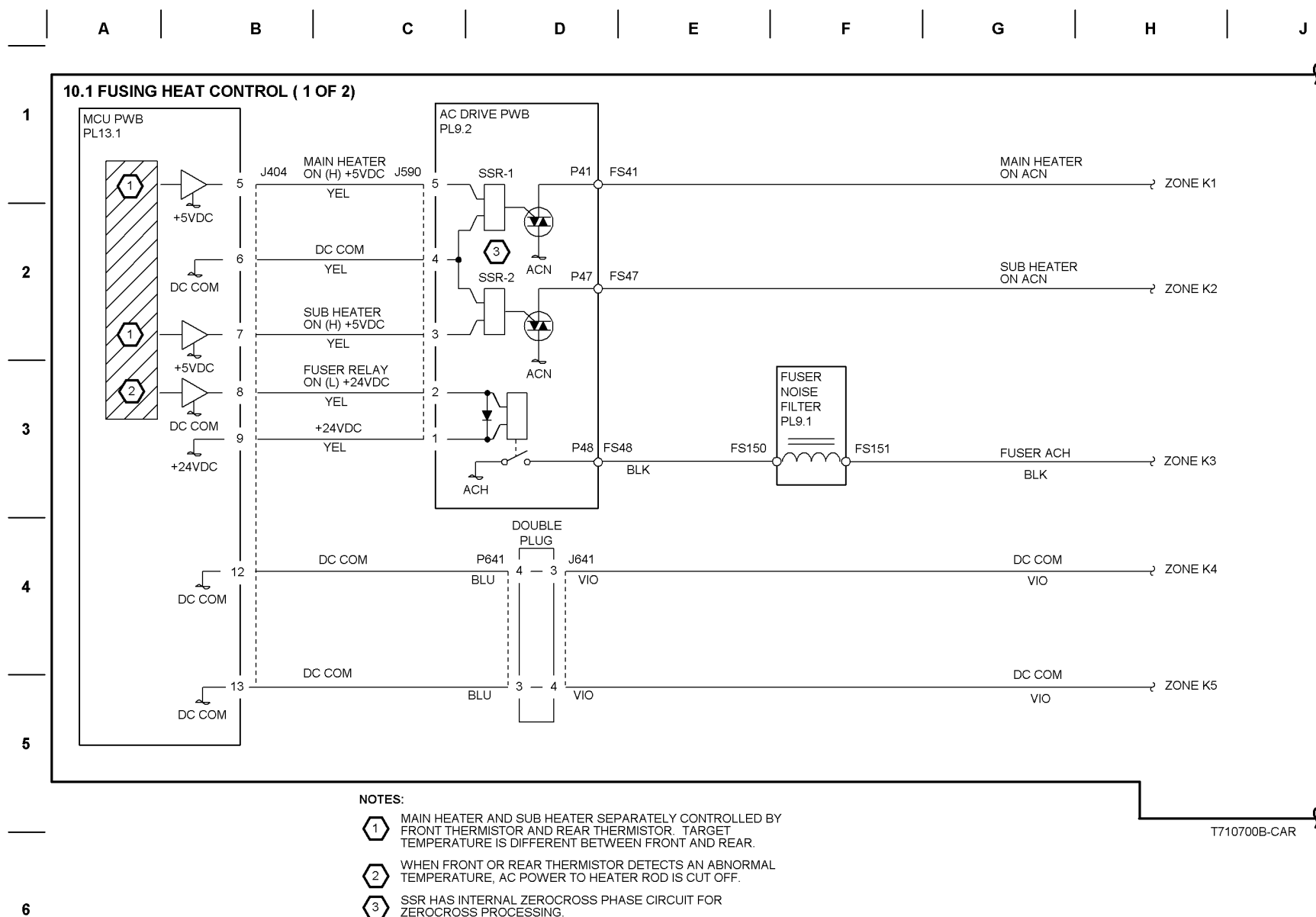


T709736A-CAR

Figure 42 BSD 9.31E Monitoring (5 of 5)



## Chain 10 Fusing and Output



**Figure 1 BSD 10.1 Fusing Heat Control (1 of 2)**



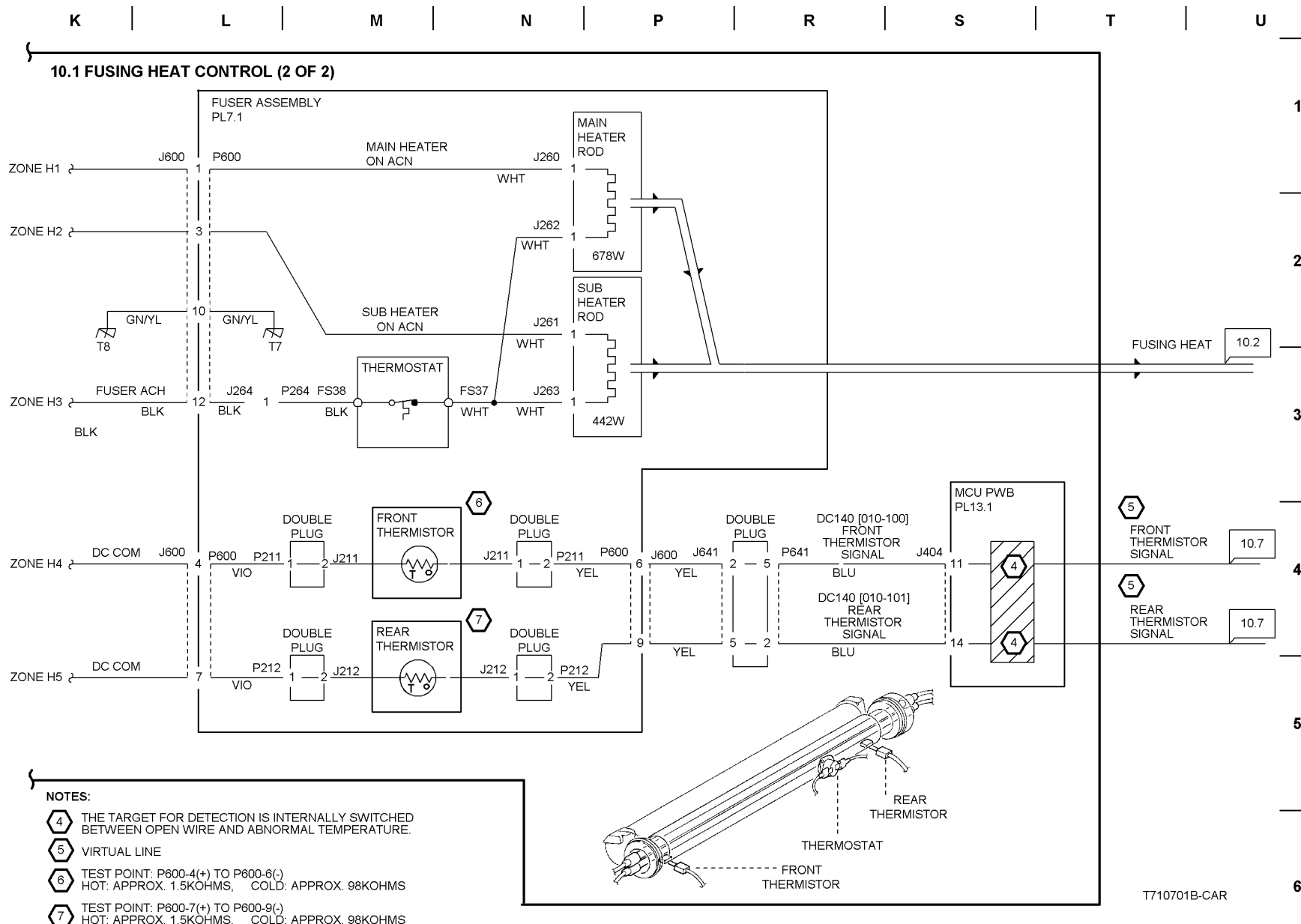
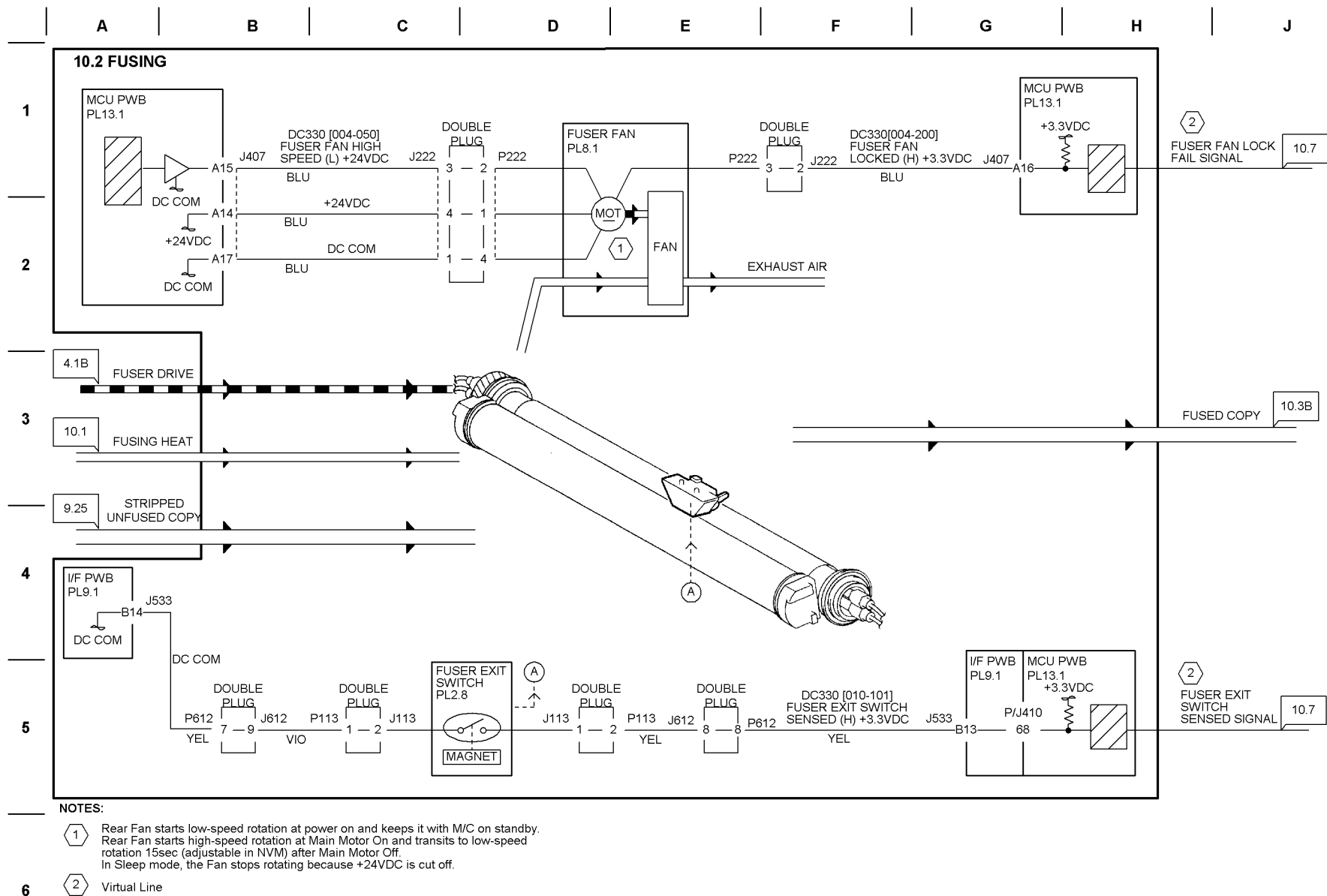


Figure 2 BSD 10.1 Fusing Heat Control (2 of 2)



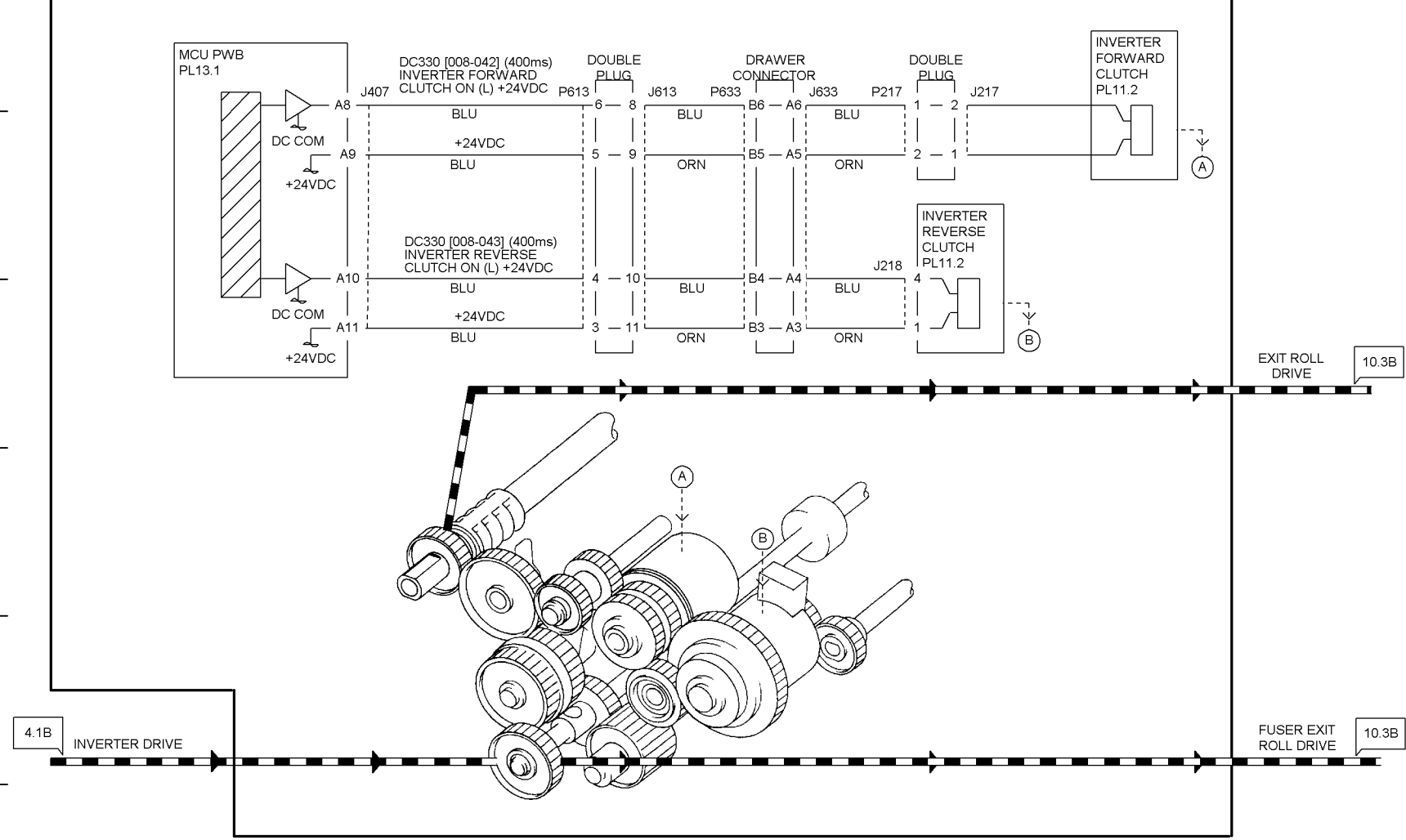


T710702B-CAR

Figure 3 BSD 10.2 Fusing



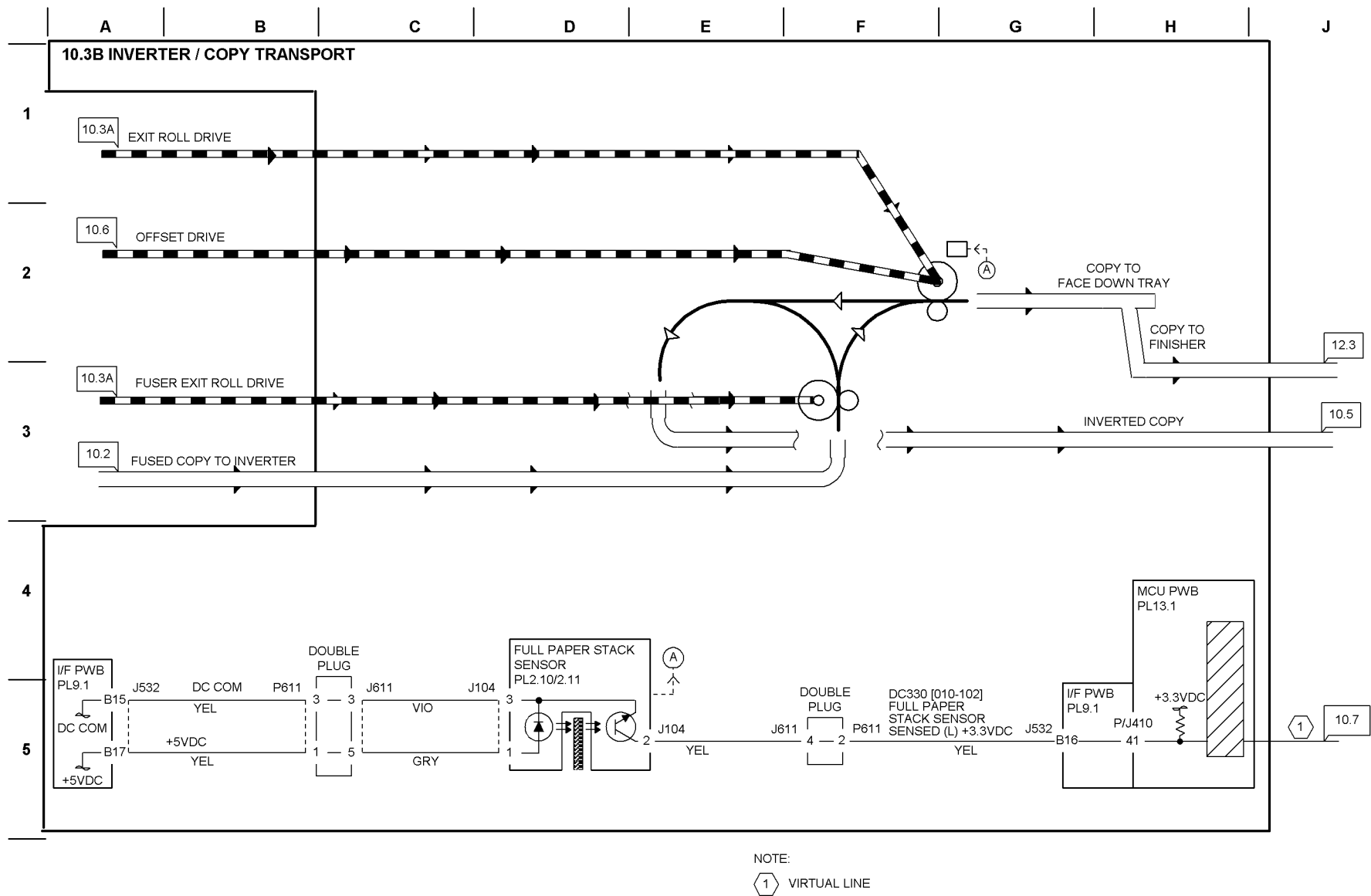
10.3A INVERTER / COPY TRANSPORTATION



T710703C-CAR

Figure 4 BSD 10.3A Inverter (1 of 2)





T710704B-CAR

Figure 5 BSD 10.3B Inverter (2 of 2)







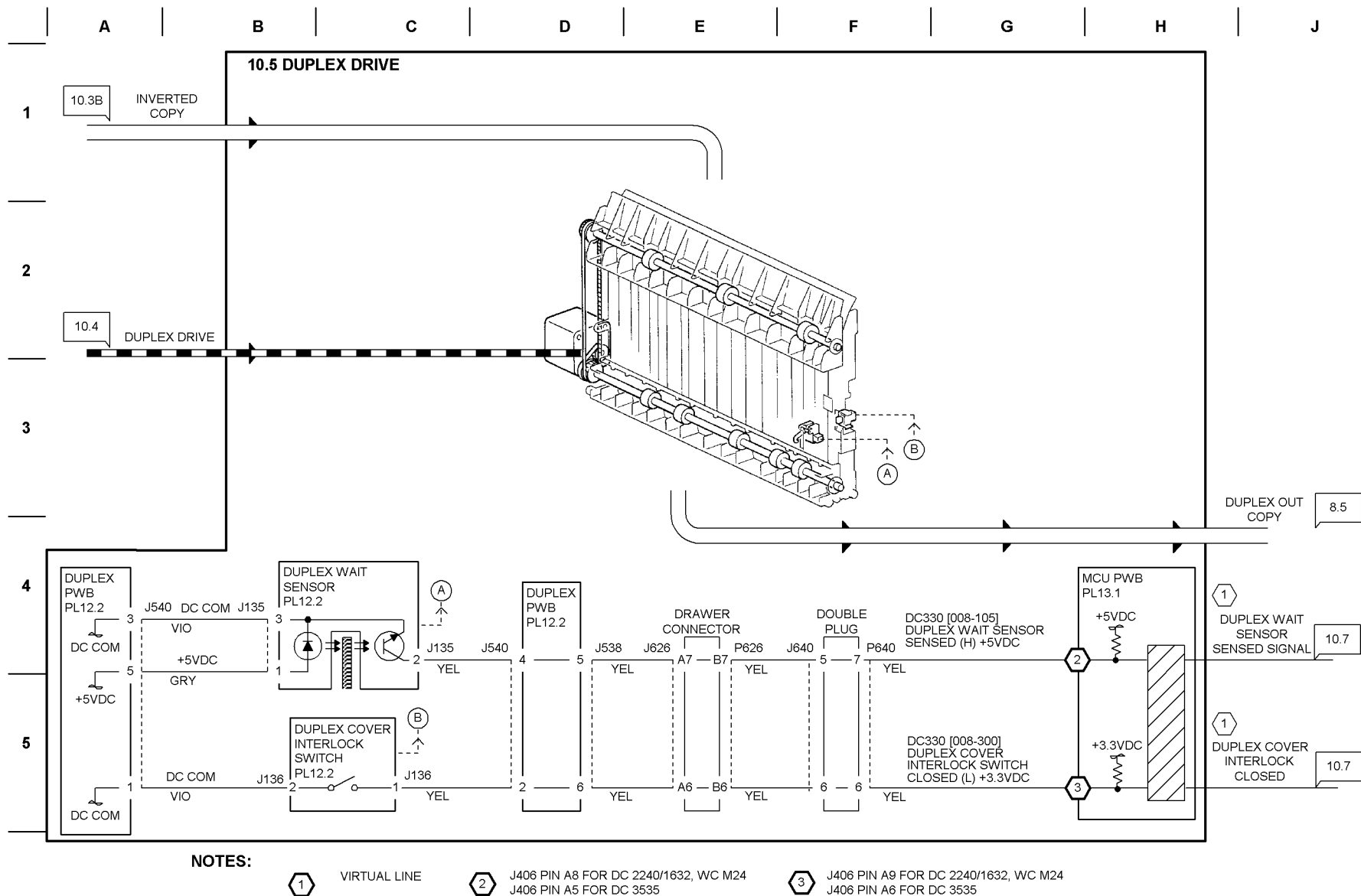


Figure 7 BSD 10.5 Duplex Drive



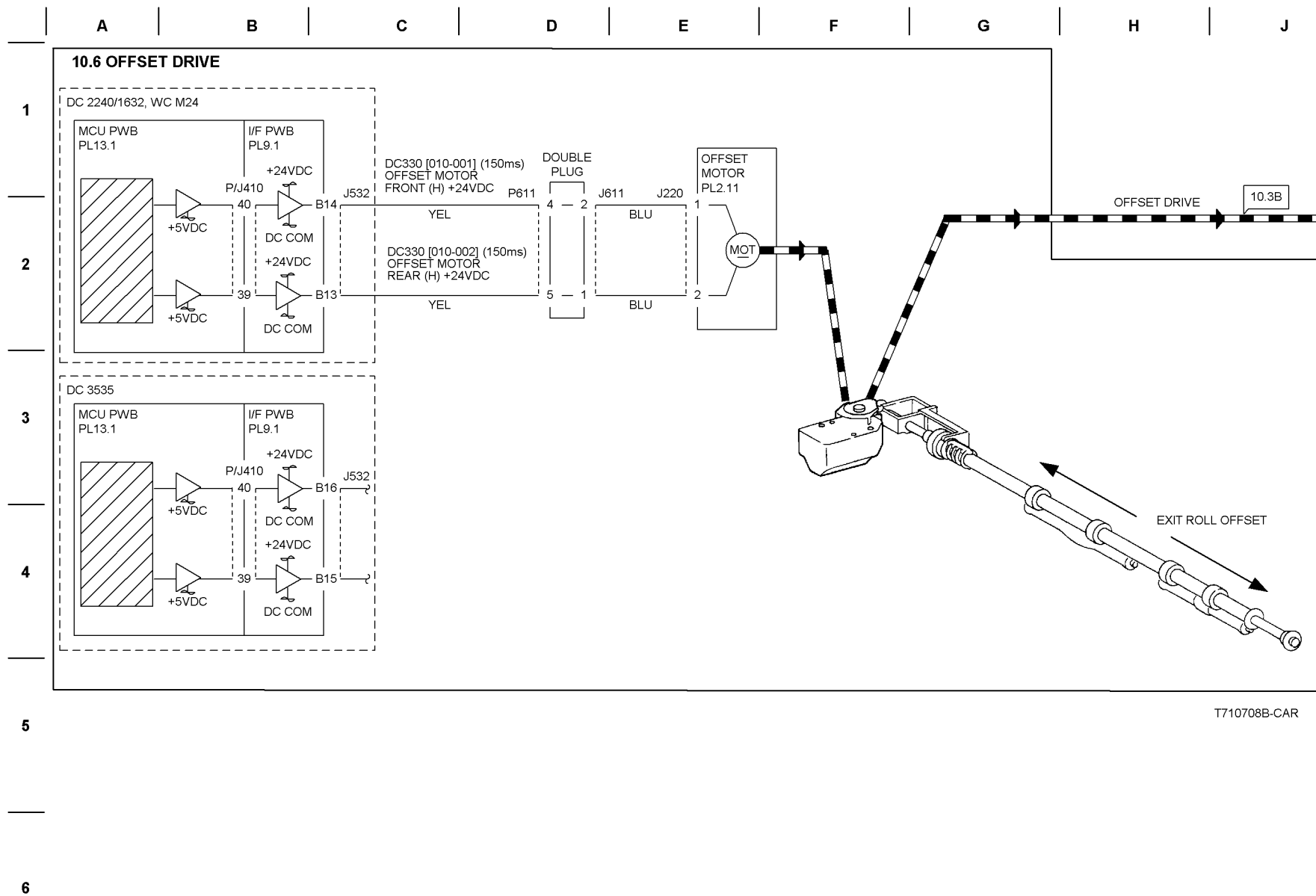


Figure 8 BSD 10.6 Offset Drive







# Chain 12 Finisher

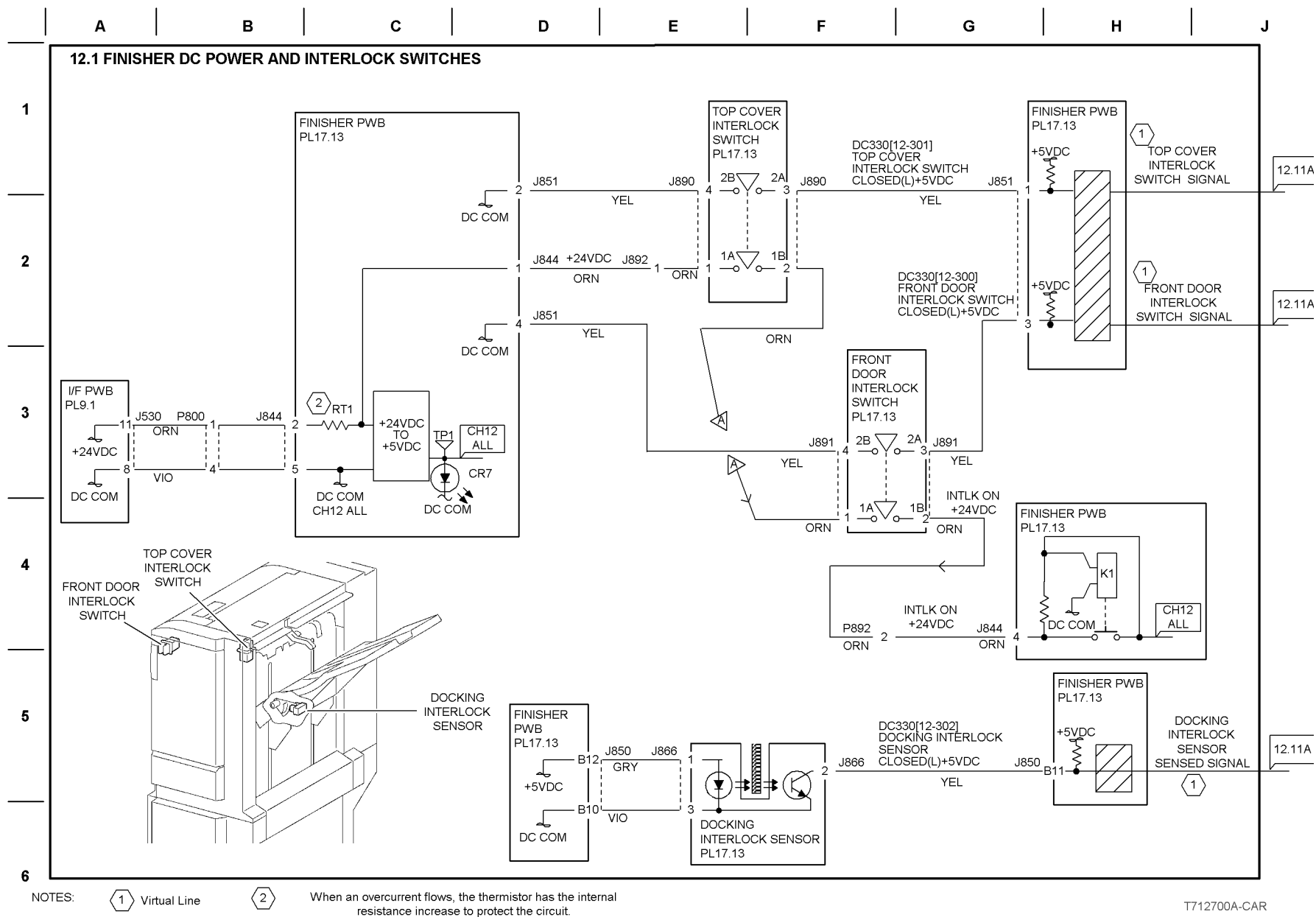


Figure 1 BSD 12.1 DC Power and Interlocks



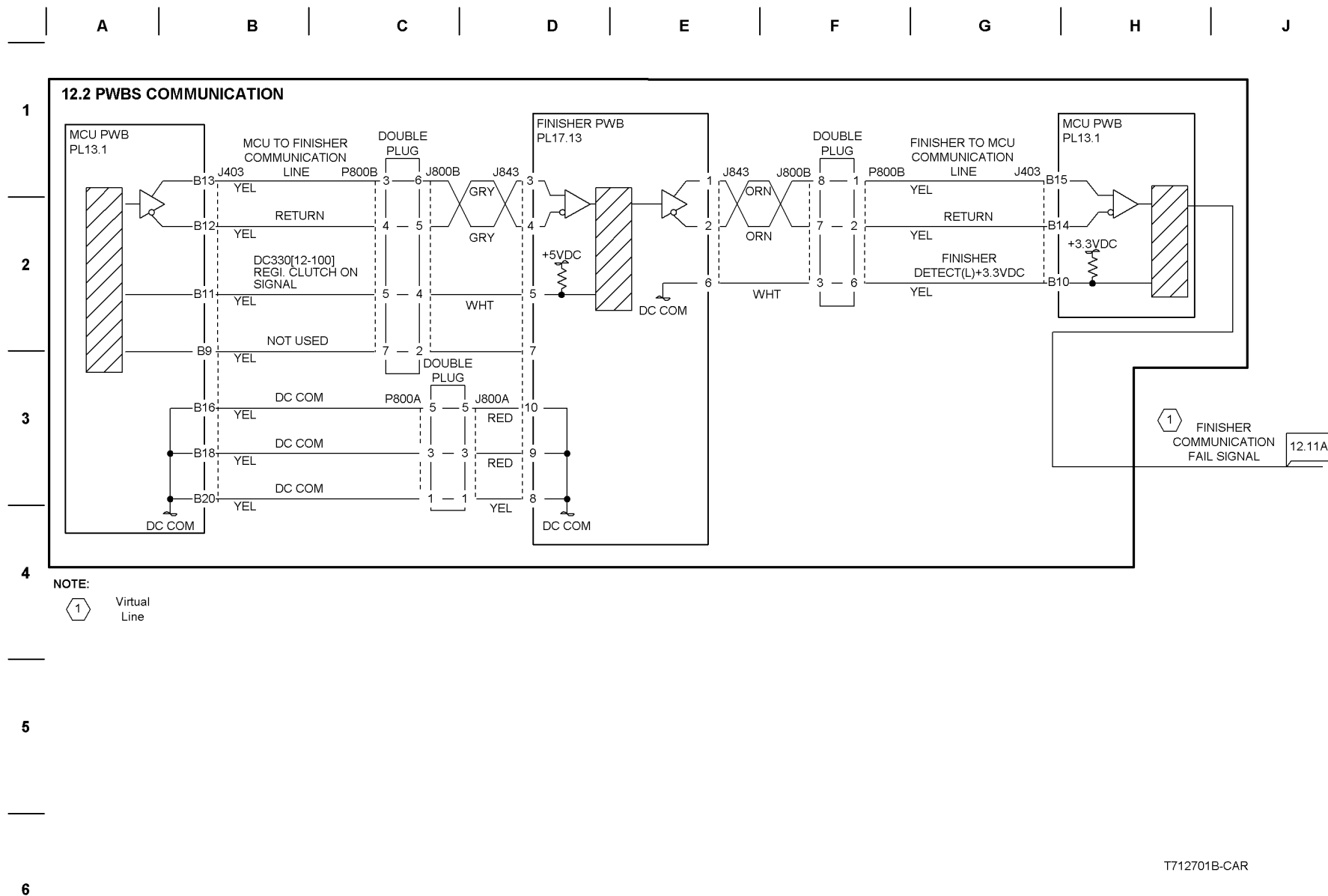
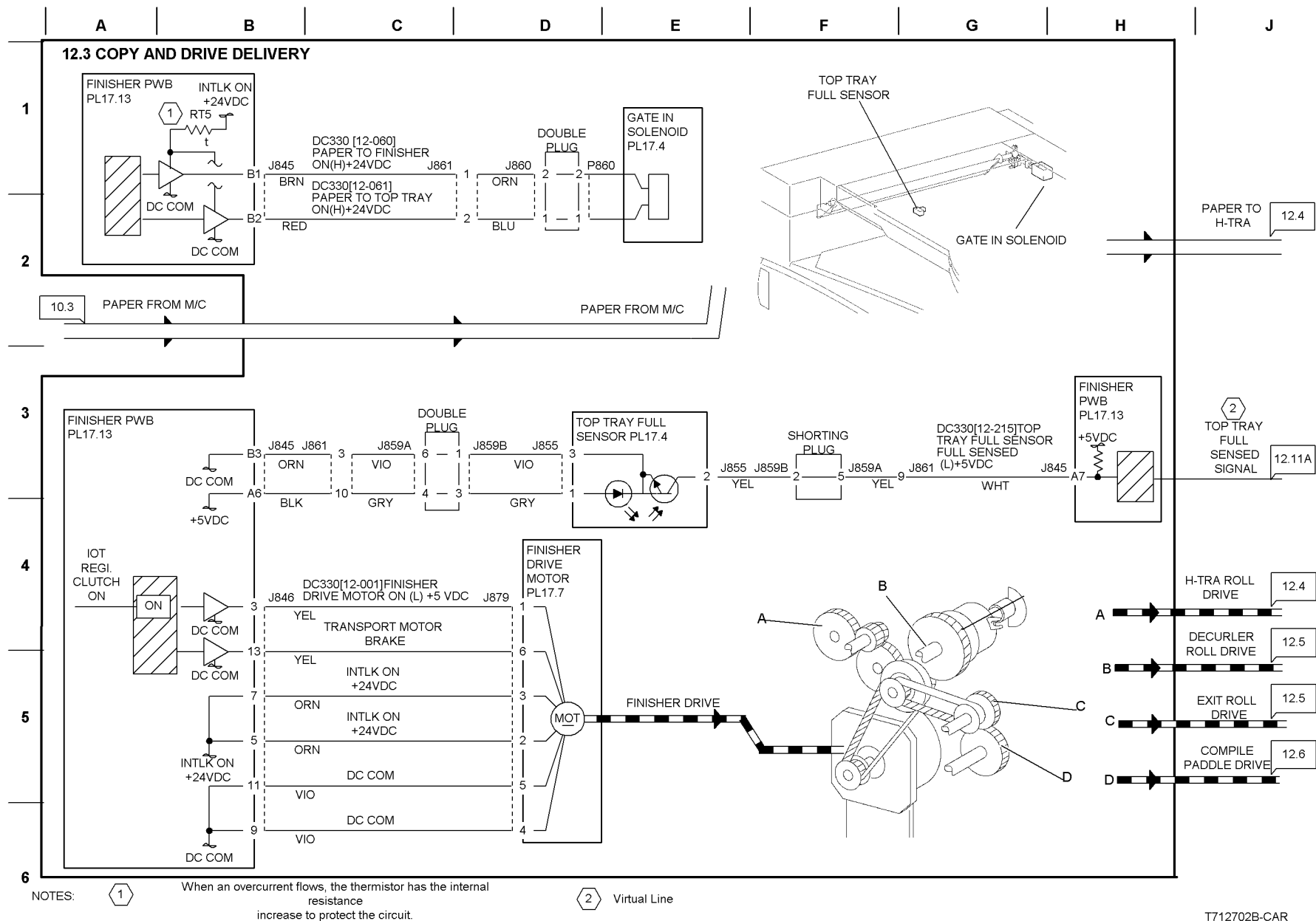


Figure 2 BSD 12.2 PWB Communications

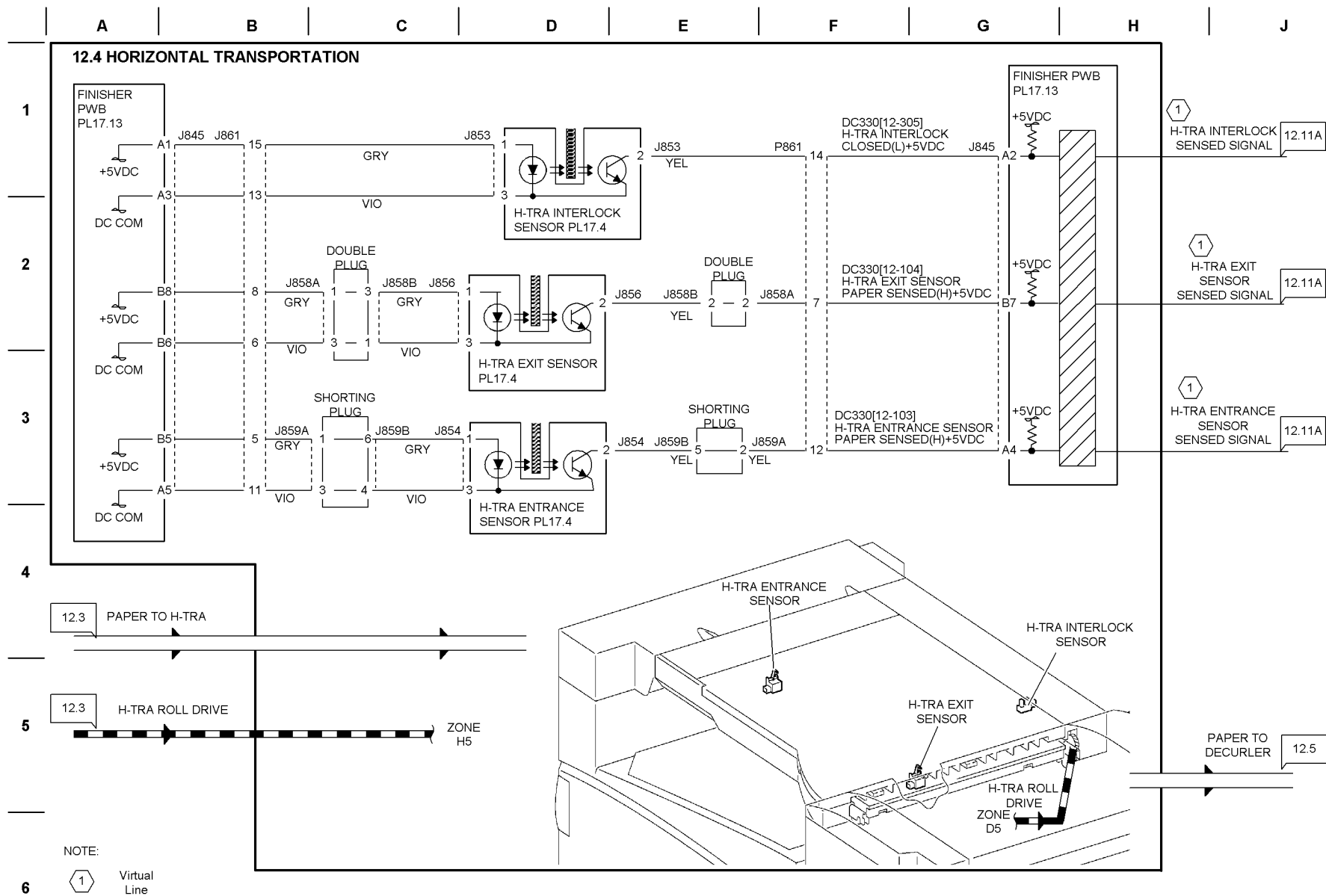




T712702B-CAR

Figure 3 BSD 12.3 Copy and Drive Delivery

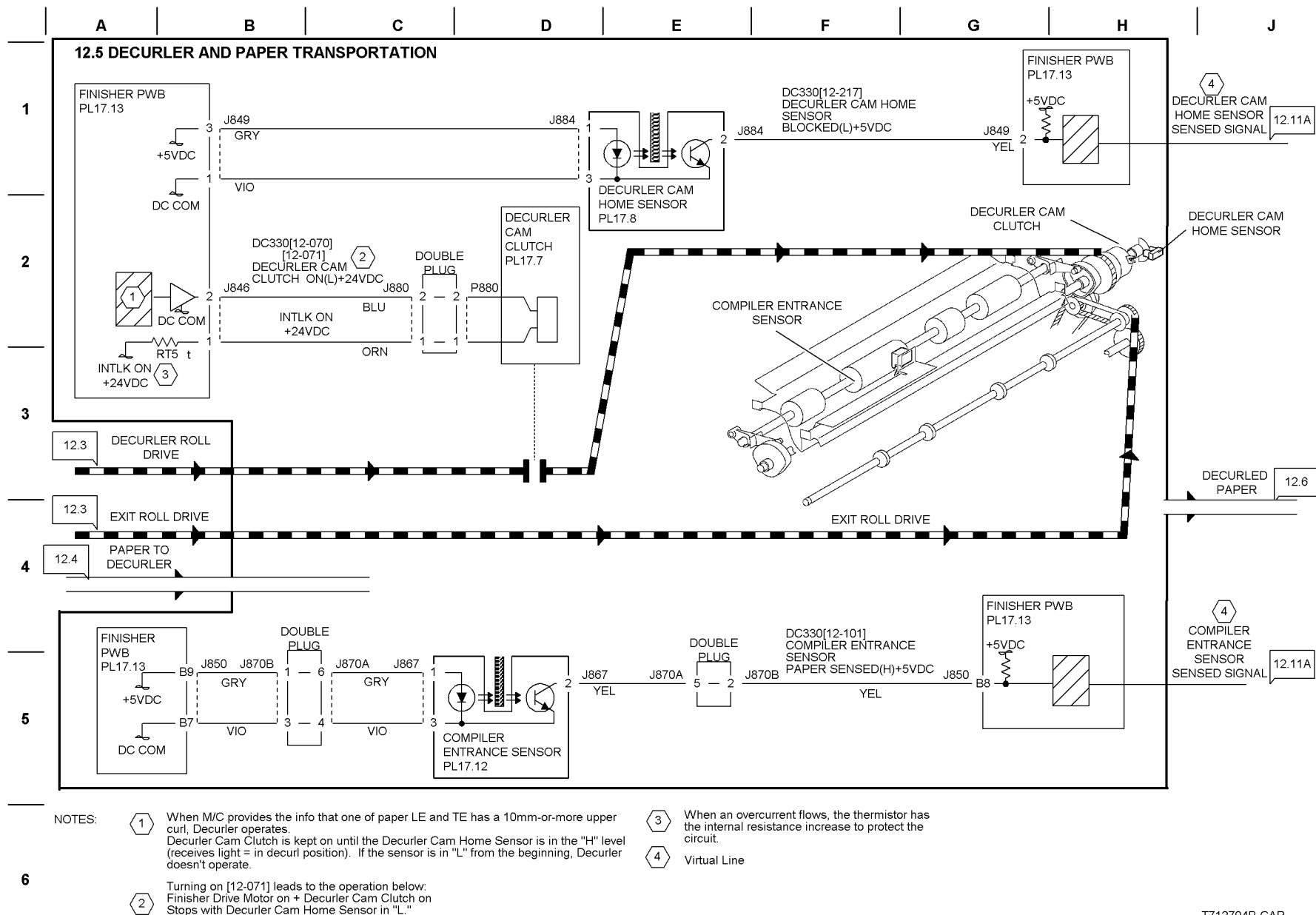




T712703B-CAR

Figure 4 BSD 12.4 Horizontal Transportation





T712704B-CAR

Figure 5 BSD 12.5 Decurler and Paper Transportation



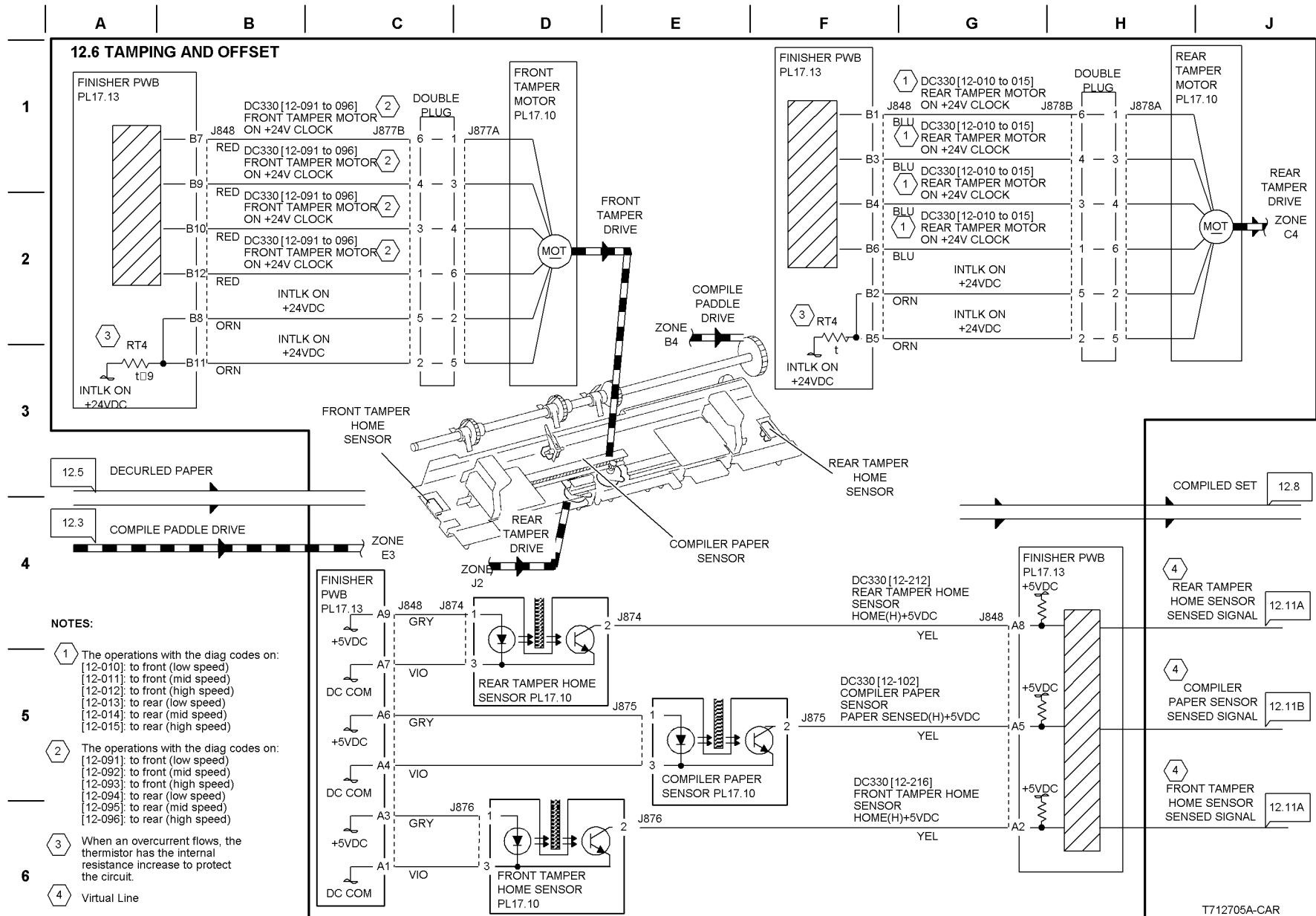
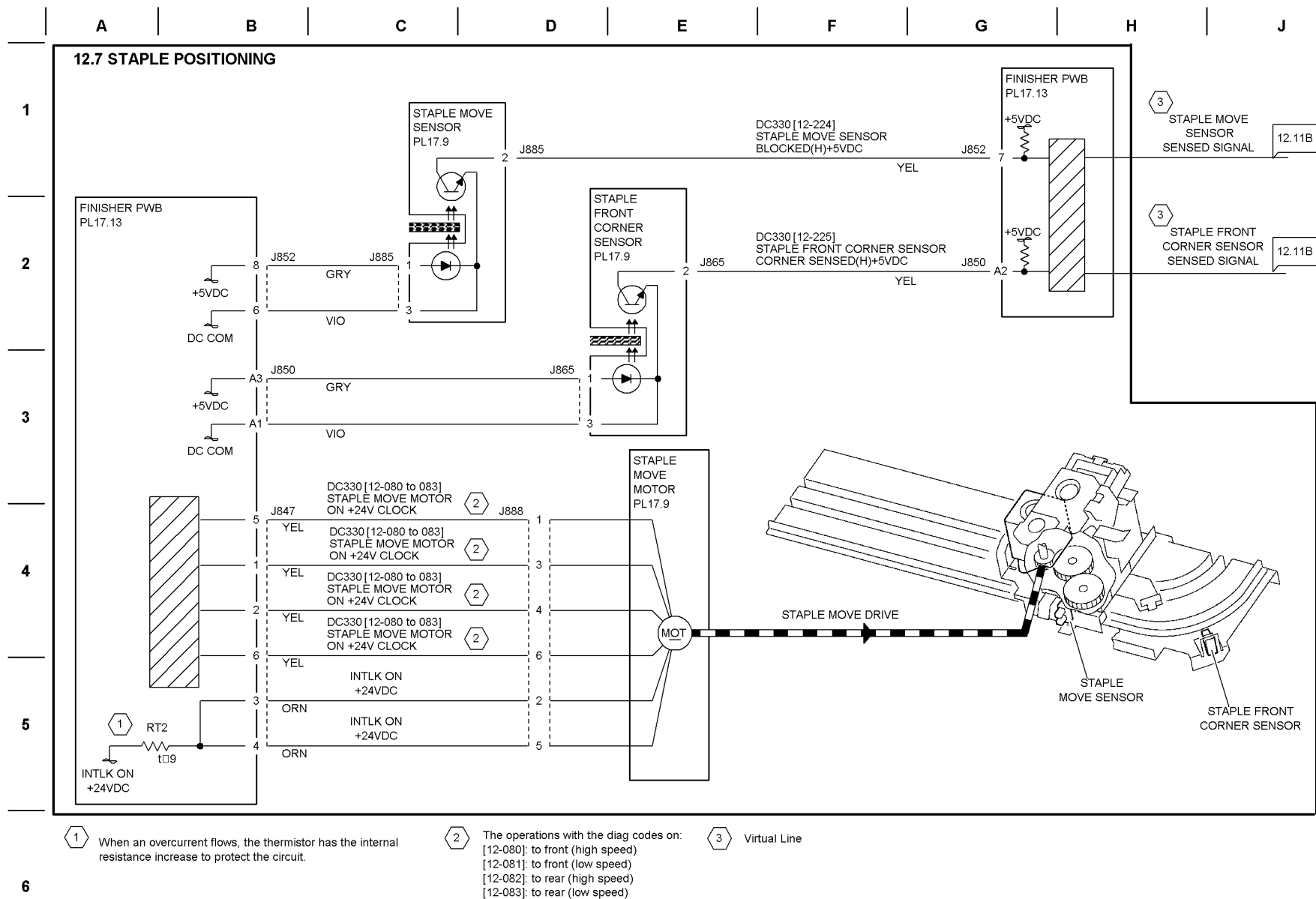


Figure 6 BSD 12.6 Tamping and Offset

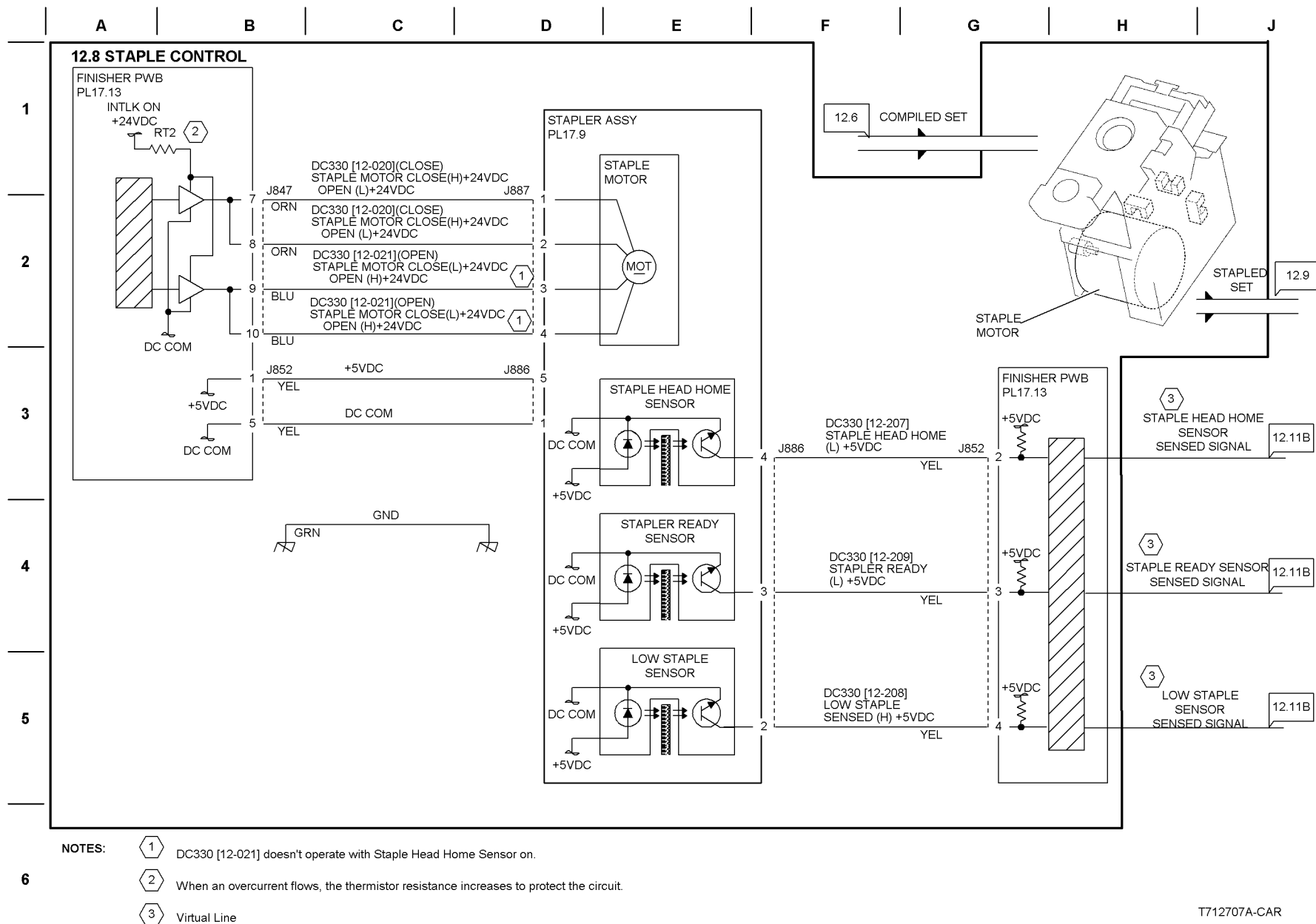




T712706A-CAR

Figure 7 BSD 12.7 Staple Positioning





T712707A-CAR

Figure 8 BSD 12.8 Staple Control







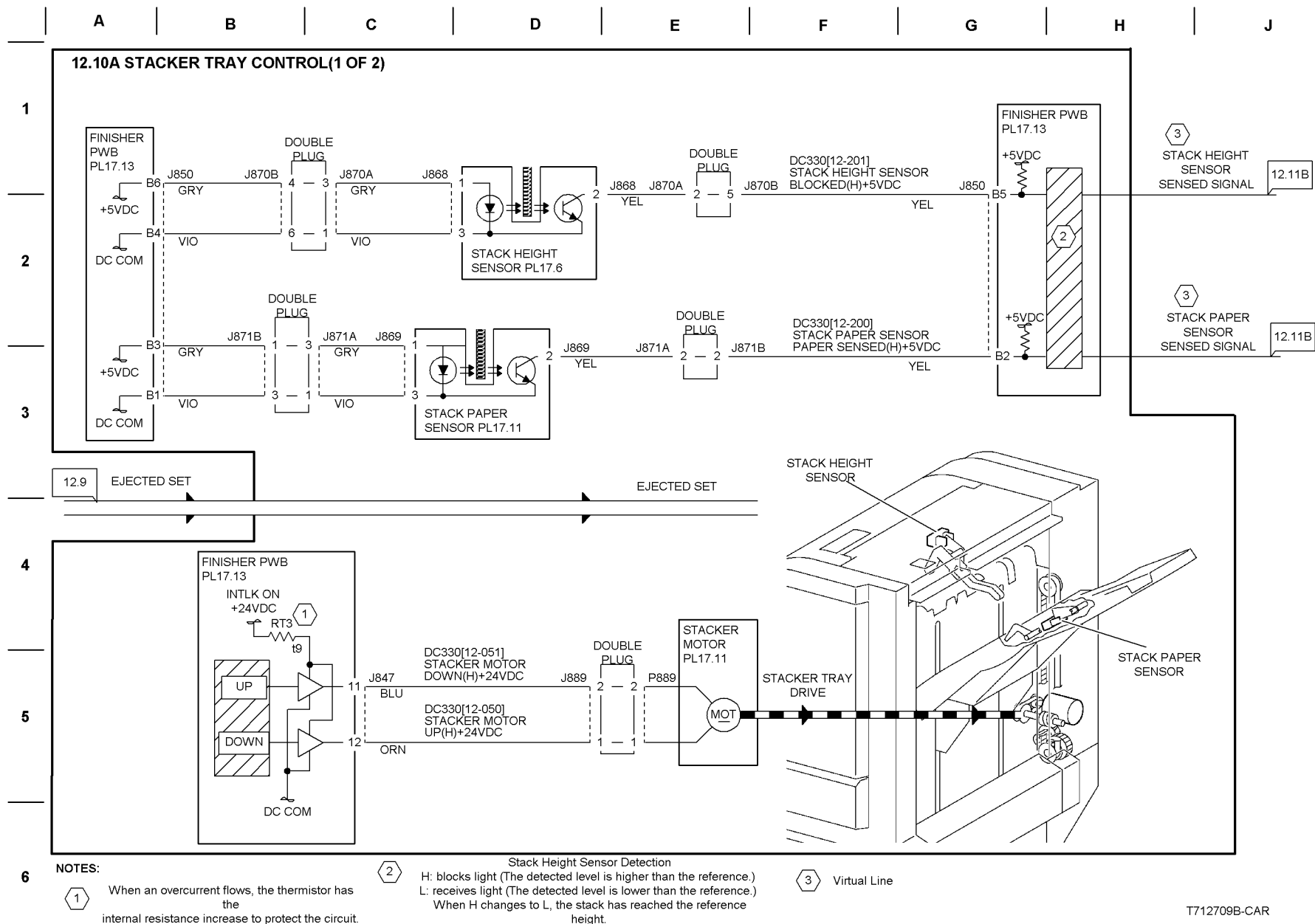


Figure 10 BSD 12.10A Stacker Tray Control (1 of 2)



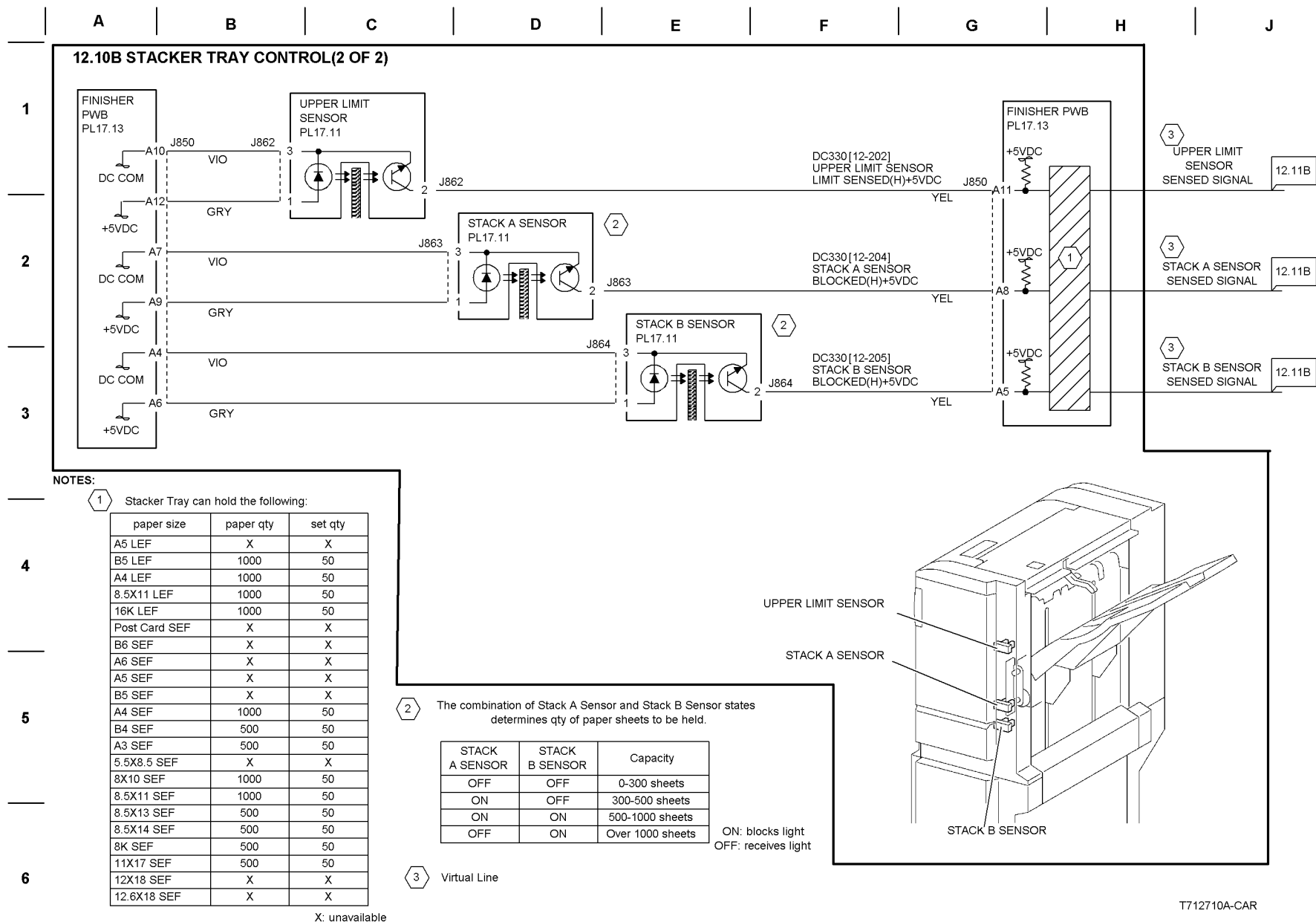
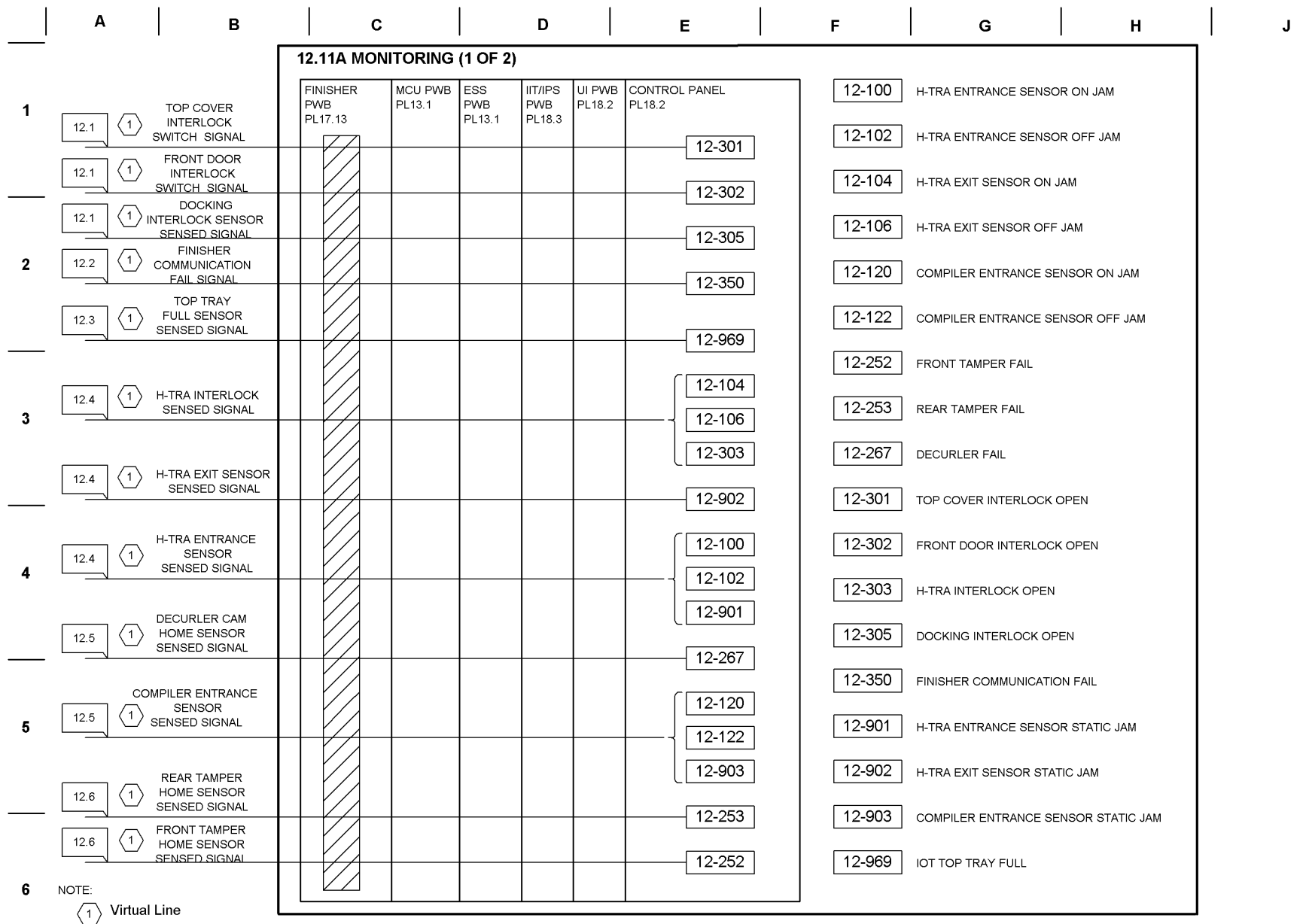


Figure 11 BSD 12.10B Stacker Tray Control (2 of 2)

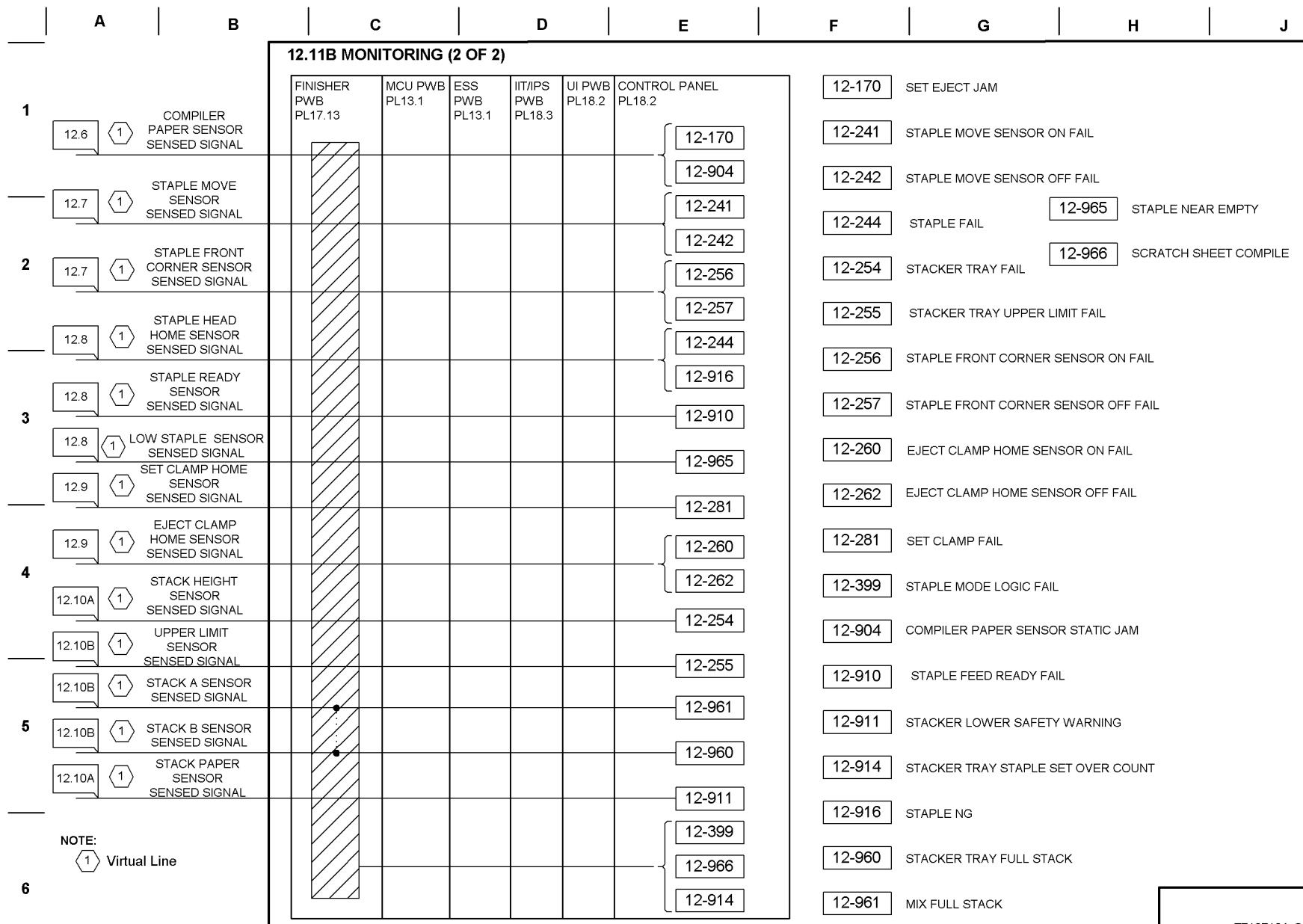




T712711A-CAR

Figure 12 BSD 12.11A Monitoring (1 of 2)



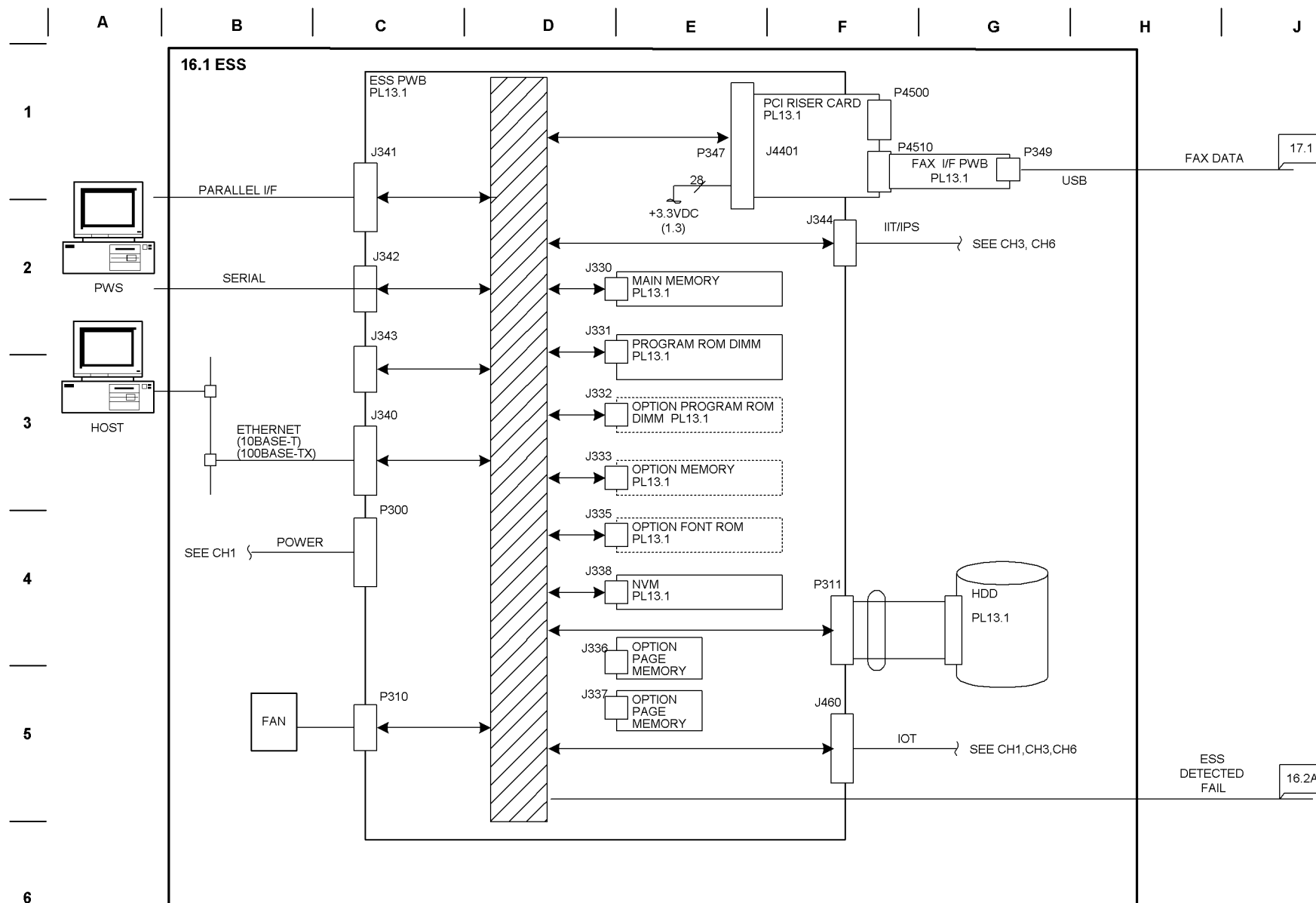


T712712A-CAR

Figure 13 BSD 12.11 Monitoring (2 of 2)



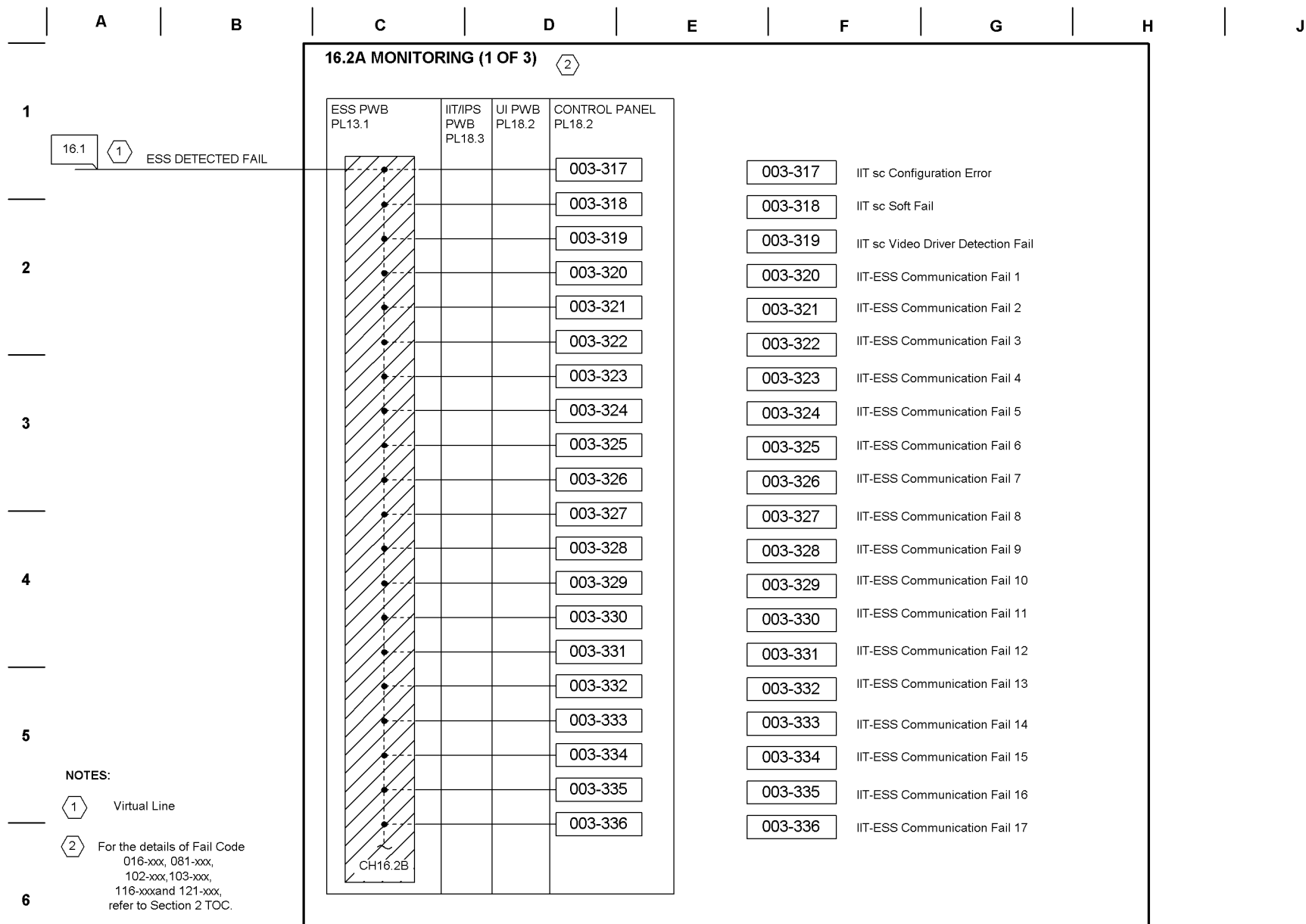
# Chain 16 ESS



T716700C-CAR

Figure 1 BSD 16.1 ESS PWB

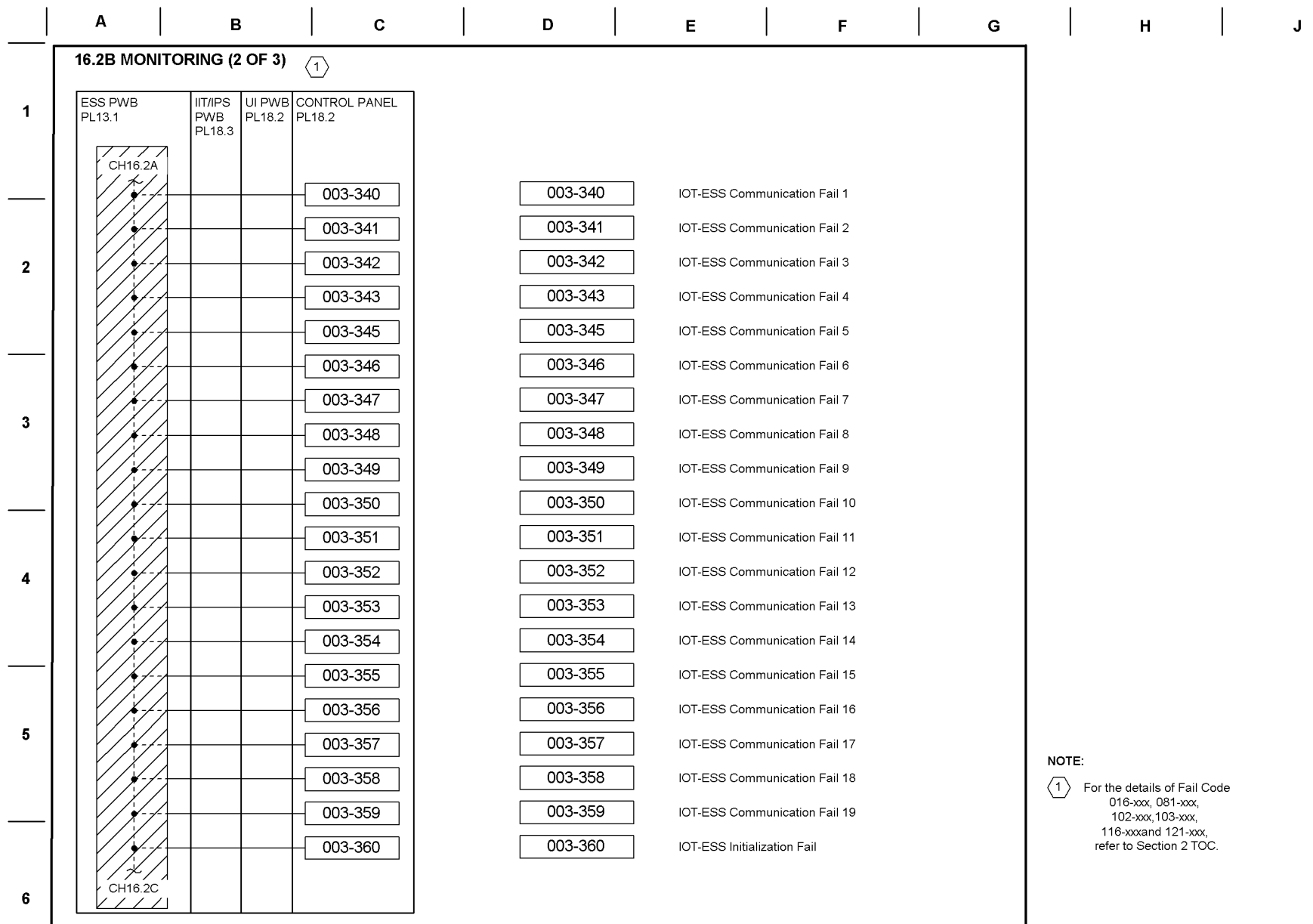




T716701A-CAR

Figure 2 BSD 13.2A ESS Monitoring (1 of 3)





**NOTE:**

1 For the details of Fail Code  
016-xxx, 081-xxx,  
102-xxx, 103-xxx,  
116-xxx and 121-xxx,  
refer to Section 2 TOC.

T716702A-CAR

Figure 3 BSD 13.2B ESS Monitoring (2 of 3)



A

B

C

D

E

F

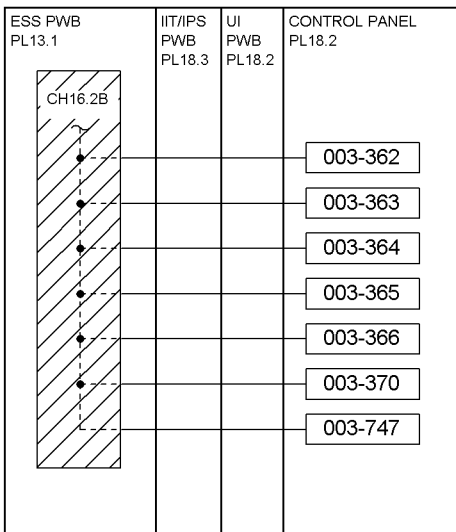
G

H

J

16.2C MONITORING (3 OF 3)

1



003-362	Page Sync Illegal Start
003-363	Page Sync Illegal Stop
003-364	DMA Transfer Fail
003-365	Overflow on Loop Back Write
003-366	JBIG Library Other Fail
003-370	Marker Code Detect Fail
003-747	Print Instruction Fail

NOTE:

1

For the details of Fail Code  
016-xxx, 081-xxx,  
102-xxx, 103-xxx,  
116-xxx and 121-xxx,  
refer to Section 2 TOC.

Figure 4 BSD 13.2C ESS Monitoring (3 of 3)



## Chain 17 Fax

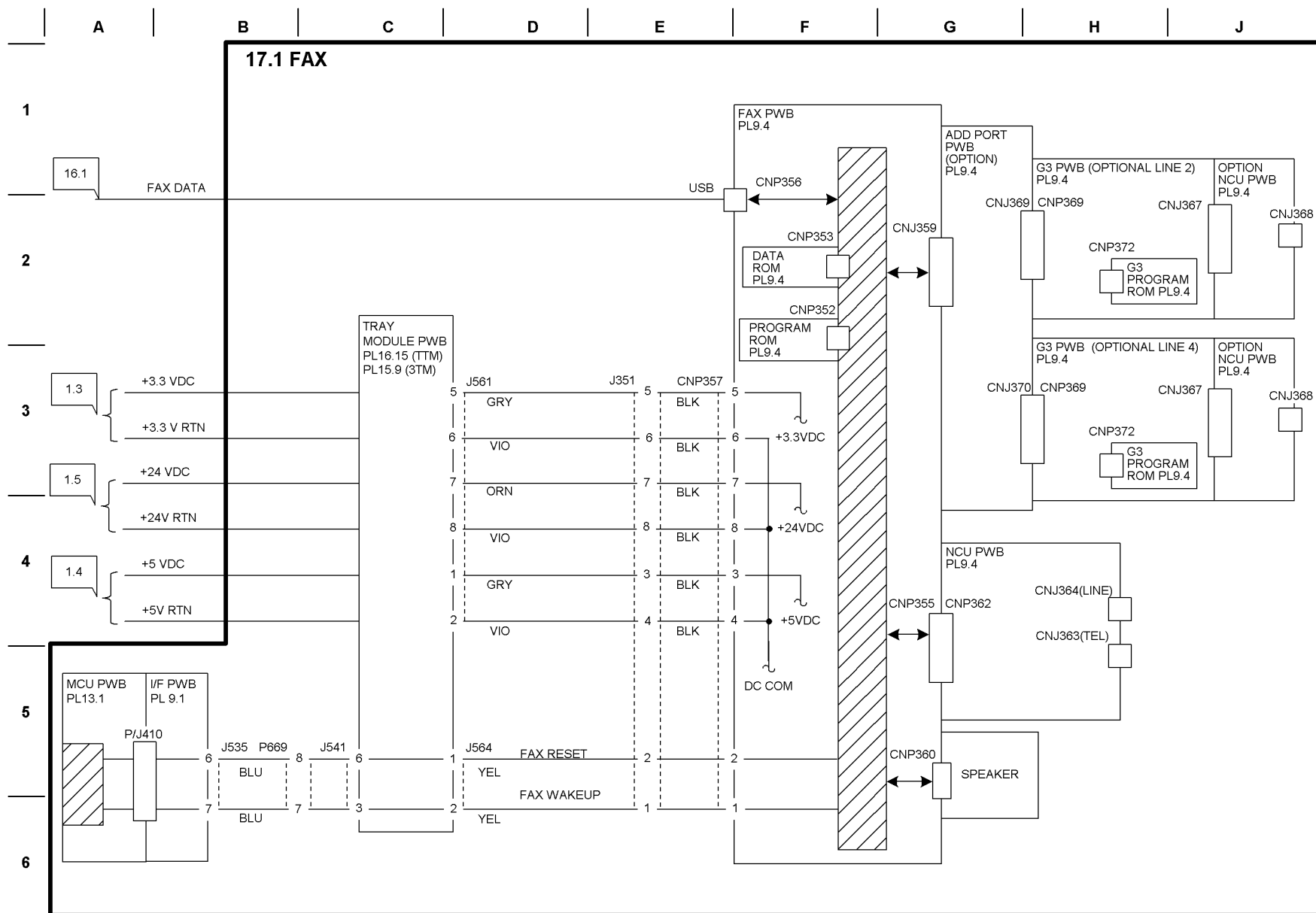


Figure 1 BSD 17.1 Fax



## 9 Installation

Installation / Completion Checklist (NASG).....	9-3
Token Ring Installation (DC2240/1632 only) .....	9-3
Foreign Interface Installation.....	9-6
Fax Kit Installation.....	9-7







## Installation / Completion Checklist (NASG)

A printable checklist is included in the NASG directory on this CD. Print out and complete a copy of this checklist (filename = checklist\_.doc) for each install.

## Token Ring Installation (DC2240/1632 only)

### Purpose

The purpose of this kit is to enable the machine to use the Token Ring Network.

### CAUTION

*Use ESD protection during the installation.*

### Kit Contents

Check kit contents against the following list:

1. ESS Rear Panel
2. Token Ring PWB
3. LH Bracket
4. RH Bracket
5. Screws (4)
6. Chassis Assembly - Riser
7. Tag P2 Software CD (301E49760)

### Prerequisites

The Token Ring kit requires machine S/W level 4.1 or higher (TAG P2). If Tag P2 or higher software is not installed, use the CD to download the software (follow the instructions on the CD), then mark off Tag 2 on the IOT Tag Matrix.

Ensure that the machine is fully operational.

### Procedure

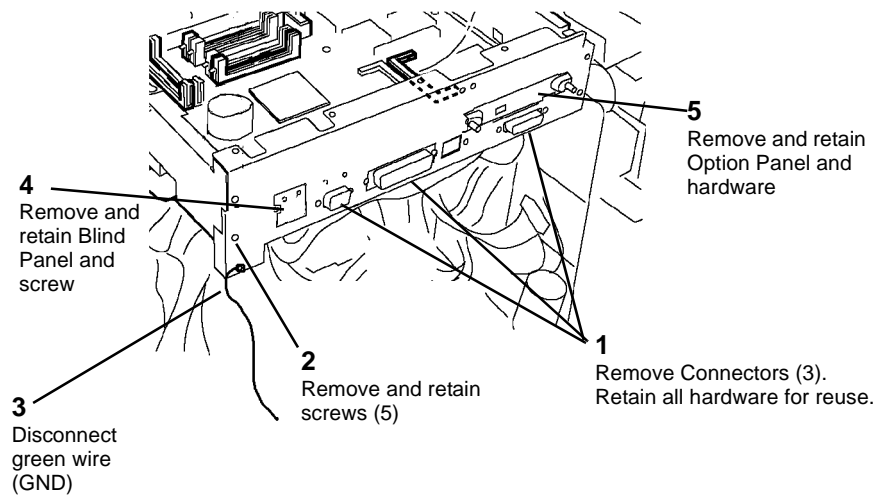
1. Switch off the copier and disconnect both power cords.
2. Disconnect the Scanner Cable from the Rear Panel on the machine.
3. If applicable remove the Finisher from the machine (REP 12.4), including the Finisher Gate Assembly (PL 17.2).
4. Remove the Rear Cover (REP 14.2).
5. Remove the Right Cover (REP 14.3).
6. Remove the Top Cover (REP 14.1).

### CAUTION

*Protect the Hard Drive Harness when removing the ESS Top Cover. The Hard Drive is mounted to the cover. The harness remains connected to the ESS PWB while removing the cover.*

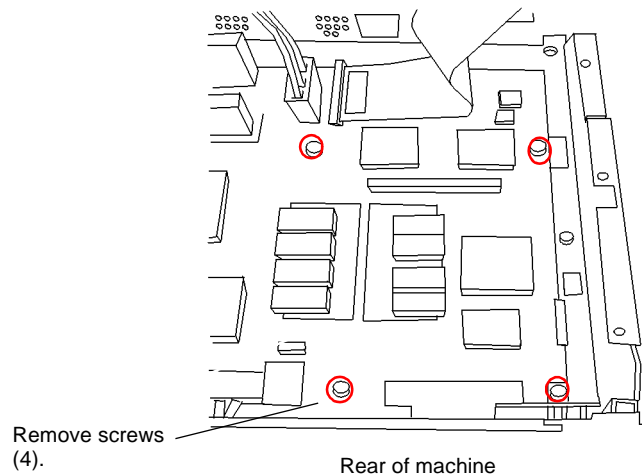
7. Remove the DIMM Cover and the ESS Top Cover (PL 13.1).
8. Remove the ESS Rear Panel (Figure 1).





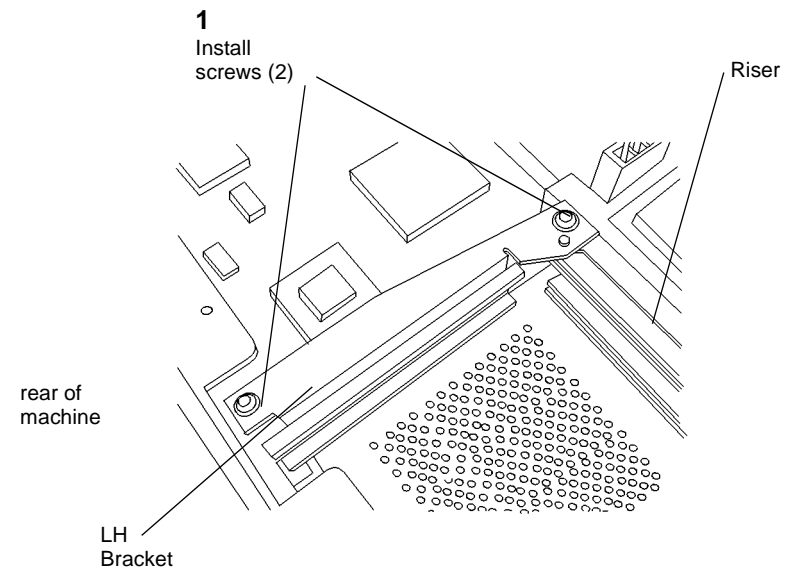
**Figure 1 Removing ESS Rear Panel**

9. Remove the 4 screws shown in [Figure 2](#).



**Figure 2 Preparing to mount Riser**

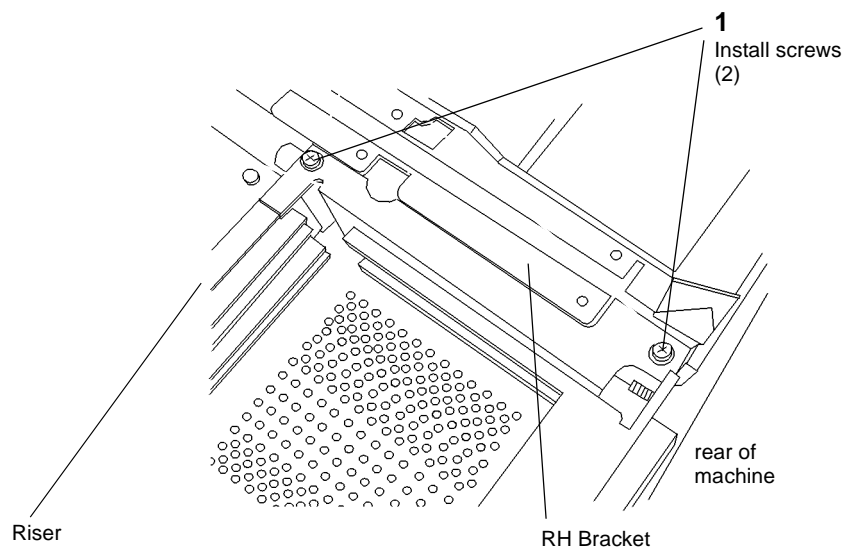
10. Place the new Chassis Assembly Riser over the ESS PWB and align the holes in the Chassis with the screw holes in the ESS PWB. Align the connector on the bottom of the Assembly with the matching connector on the ESS PWB and press firmly.
11. Reinstall the 4 screws removed in step 9.
12. Install the new ESS Rear Panel Assembly using the hardware removed from the original Rear Panel:
  - Reinstall the connectors removed in step 8, using the original hardware
  - Install the panel using the 5 screws retained from original.
  - Reinstall the Blind Panel and the Option Panel.
  - Reconnect the GND wire.
13. Install the Left Hand Bracket using the screws. [\(Figure 3\)](#).



**Figure 3 Installing the LH Bracket**

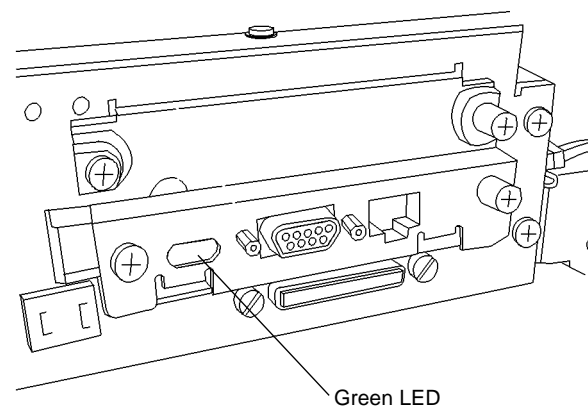
14. Install the Right Hand Bracket using (2) screws. [\(Figure 4\)](#).





0 108003A-CAR

**Figure 4 Installing the RH Bracket**



0 108004A-CAR

**Figure 5 Token Ring PWB**

15. Insert the Token Ring PWB into the lower slot, ensuring the connectors mate correctly.
16. Tighten the thumbscrews on the front of the PWB.
17. Reinstall the ESS Top Cover and DIMM Cover (PL 13.1).
18. Replace the machine covers:
  - Top Cover (REP 14.1).
  - Right Cover (REP 14.3).

**NOTE:** In the following step ensure that you reconnect the connectors.

- Rear Cover (REP 14.2).
19. Reinstall the Finisher Assembly if removed.
  20. Reconnect the Power Cords and Scan Cable.
  21. Connect network cable to the Token Ring PWB.
  22. Check that the Green LED on the Token Ring PWB is lit (Figure 5).

23. The LED indicates a successful network connection. If the LED is off, call for network assistance.



## Foreign Interface Installation

### Purpose

The purpose of this kit is install a plug and play foreign interface accessory that will enable the customer to attach a third-party vending device such as a debit machine or an external audiotron machine.

### Kit Contents

Check the kit contents against the following list:

1. Foreign Interface
2. Kit Instructions

### Prerequisites

For DC 2240/1632, the Foreign Interface kit requires machine S/W level 4.1 or higher (TAG P2). If Tag P2 or higher software is not installed, use the CD to download the software (follow the instructions on the CD), then mark off Tag 2 on the IOT Tag Matrix.

Ensure that the machine is fully operational.

### Procedure

1. Switch off the machine and unplug the power cord(s) from the wall outlet.
2. On the rear of the machine:
  - a. Loosen the screw (Figure 1).
  - b. Rotate the cover (Figure 1).
  - c. Secure the cover by tightening the screw.
  - d. Ensure that the connector is completely exposed.

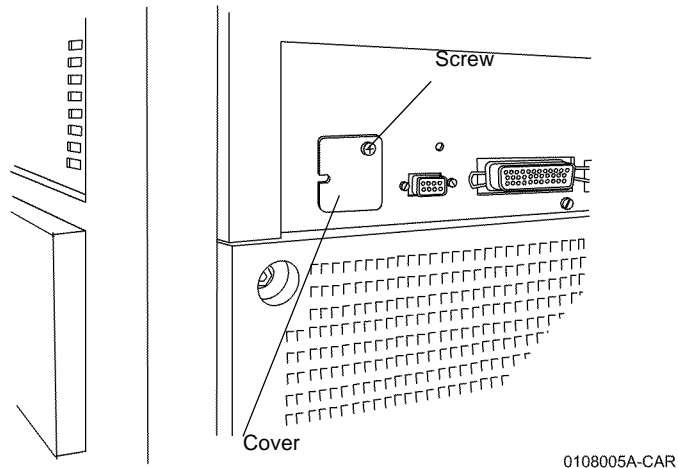
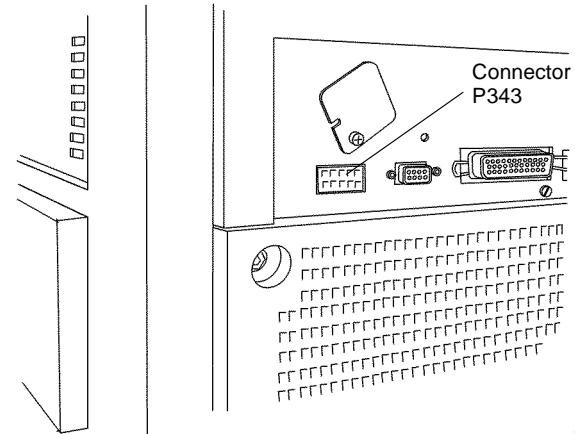


Figure 1 Cover on Rear of Machine

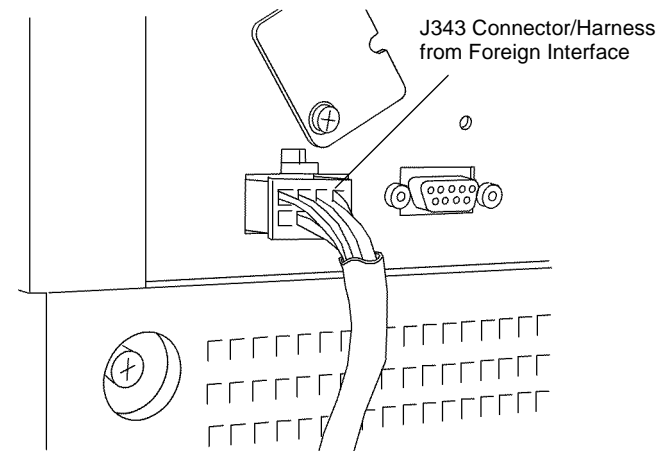
3. Locate the 10-pin connector (P343) (Figure 2).



0108006A-CAR

Figure 2 Connector P343

4. Plug in the 10-pin connector (J343) from the Foreign Interface (Figure 3).



0108007A-CAR

Figure 3 Connecting P/J343

5. Remove the backing from the Velcro™ on the rear of the Foreign Interface and attach the Foreign Interface in a convenient location on the rear of the machine.
6. Switch on the machine and confirm that the UI displays Insert Coin or Xerox Card.
7. If it is necessary to disable the Foreign Interface, change the value in NVM location 850-001 from 1 to 0.



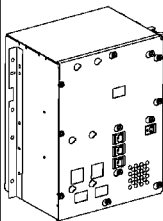

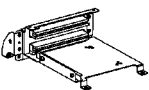
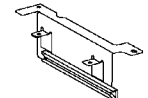


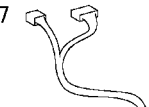
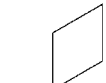
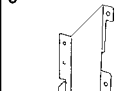


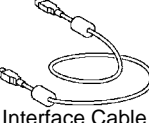
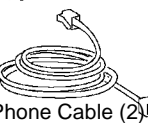

# Fax Kit Installation

## Purpose

The purpose of this kit is install a Fax Module on WorkCentre 24 machines.

## Kit Contents

Check the kit contents against the following list:

1  Fax Module	2  Fax I/F PWB	3  Riser Chassis	4  Guide Bracket	5  Plate
6  Screw, M3x6 (8)	7  Wire Harness	8  Label	9  Bracket (L)	
10  Bracket (R)	11  Self-tapping Screw, M3x6	12  Interface Cable	13  Phone Cable (2)	14  One Touch Panel

0108100A-CAR

Figure 1 Kit Contents

## Procedure

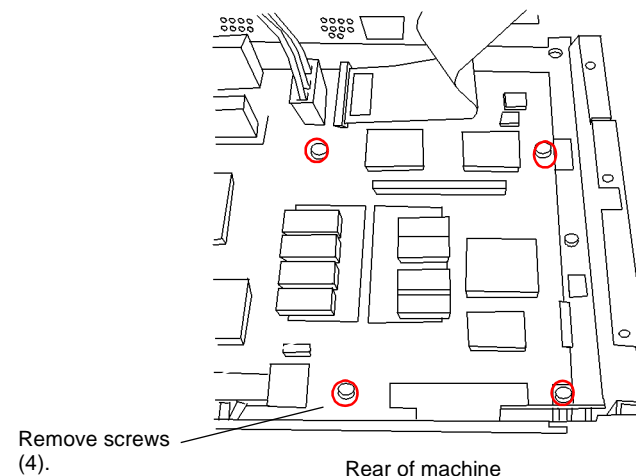
### Installing the Riser Chassis

1. Switch off the copier and disconnect both power cords.
2. Disconnect the Scanner Cable from the Rear Panel on the machine.
3. If applicable remove the Finisher from the machine (REP 12.4), including the Finisher Gate Assembly (PL 17.2).
4. Remove the Rear Cover (REP 14.2).
5. Remove the Right Cover (REP 14.3).
6. Remove the Top Cover (REP 14.1).

### CAUTION

Protect the Hard Drive Harness when removing the ESS Top Cover. The Hard Drive is mounted to the cover. The harness remains connected to the ESS PWB while removing the cover.

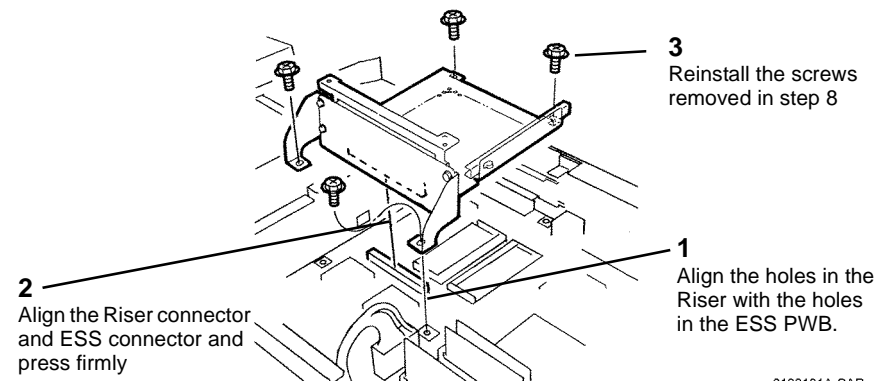
7. Remove the DIMM Cover and the ESS Top Cover (PL 13.1).
8. Remove the 4 screws shown in Figure 2.



0108001A-CAR

Figure 2 Preparing to Install Riser

9. Install the Riser Chassis (Figure 3).

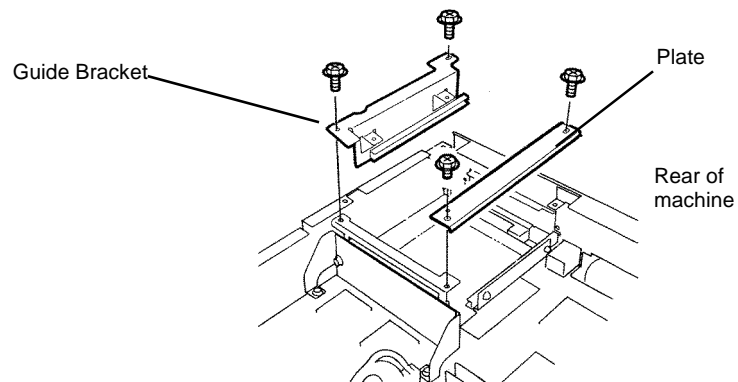


0108101A-CAR

Figure 3 Installing Riser

10. Install the Guide Bracket and Plate (Figure 4).





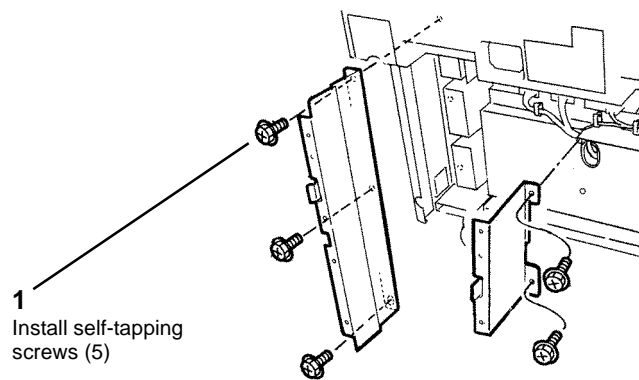
**Figure 4 Installing Guide Bracket and Plate**

0108102A-CAR

11. Insert the Fax I/F PWB into the lower slot, ensuring the connectors mate correctly.
12. Tighten the thumbscrews on the front of the PWB.
13. Reinstall the ESS Top Cover and DIMM Cover (PL 13.1).

#### Installing the Fax Module

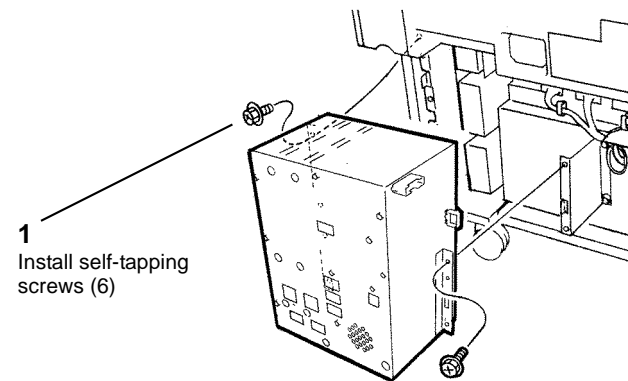
1. Remove the Tray Module Rear Cover (REP 14.9).
2. Install the Brackets (Figure 5).



**Figure 5 Installing Brackets**

0108103A-CAR

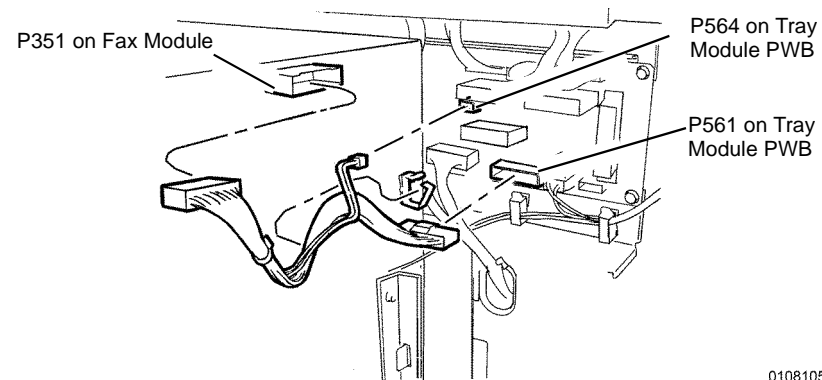
3. Install the Fax Module (Figure 6).



**Figure 6 Installing the Fax Module**

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4. Install the Wire Harness (Figure 7).

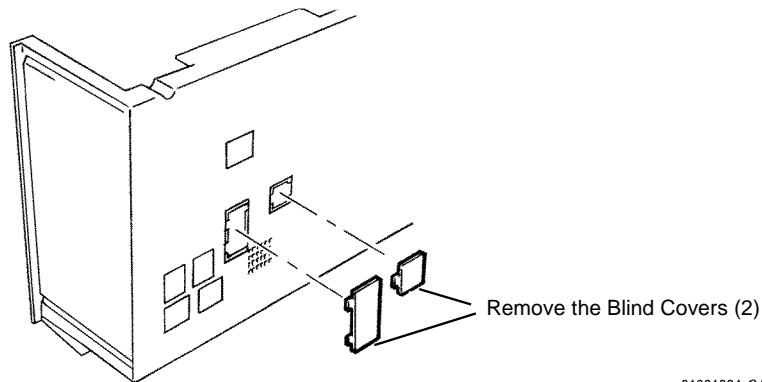


**Figure 7 Installing Harness**

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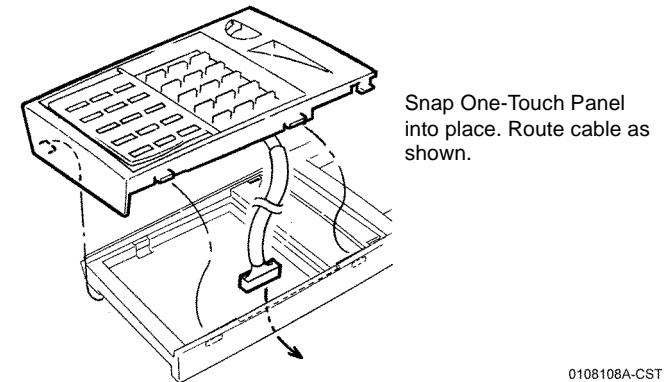
5. Remove the Blind Covers on the Tray Module Rear Cover (Figure 8).





**Figure 8 Preparing Tray Module Cover**

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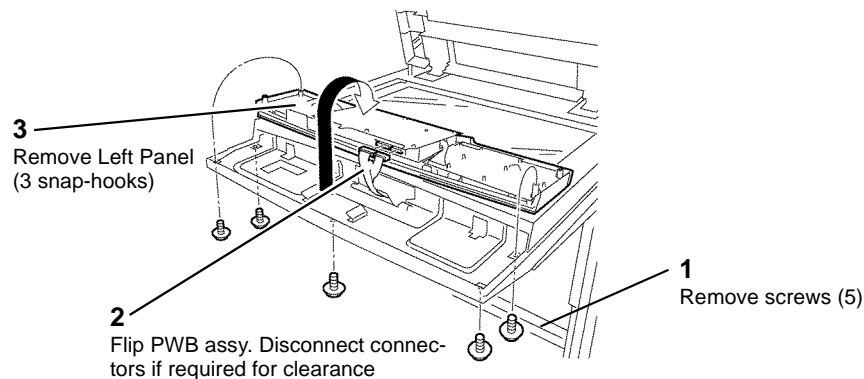
**Figure 10 Installing the One-Touch Panel**

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6. Reinstall the Tray Module Rear Cover.

#### Installing the One-Touch Panel

1. Remove the Control Panel (Figure 9).

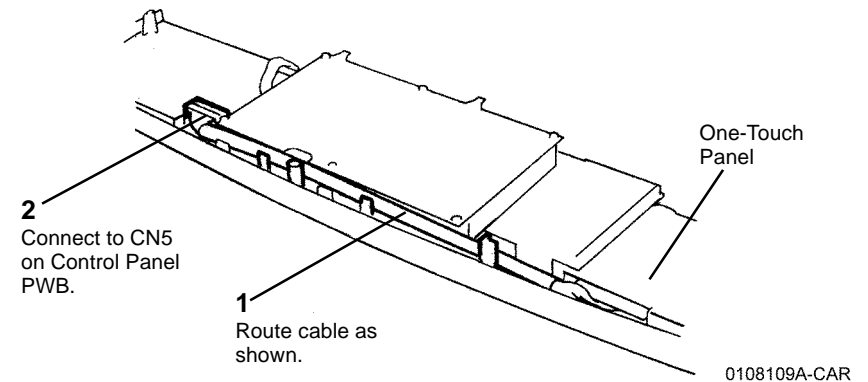


**Figure 9 Removing the Control Panel**

0108107A-CAR

2. Remove the Left Panel. Replace with the One-Touch Panel (Figure 10).

3. Connect the One-Touch Panel (Figure 11). Route harness as shown.



**Figure 11 Connecting the One-Touch Panel**

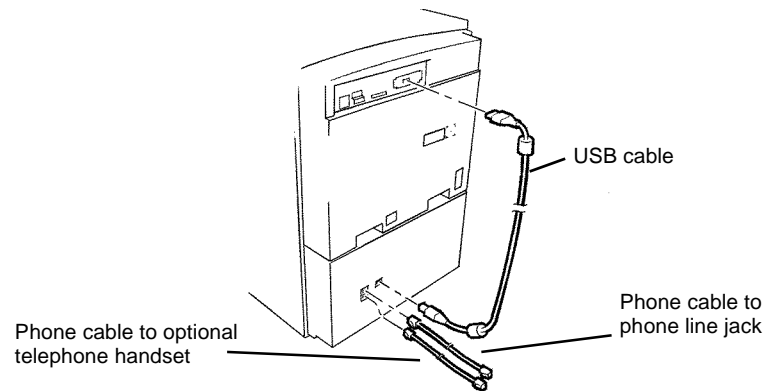
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4. Reinstall the Control Panel.

#### Completing the Installation

1. Install the Fax cables (Figure 12).

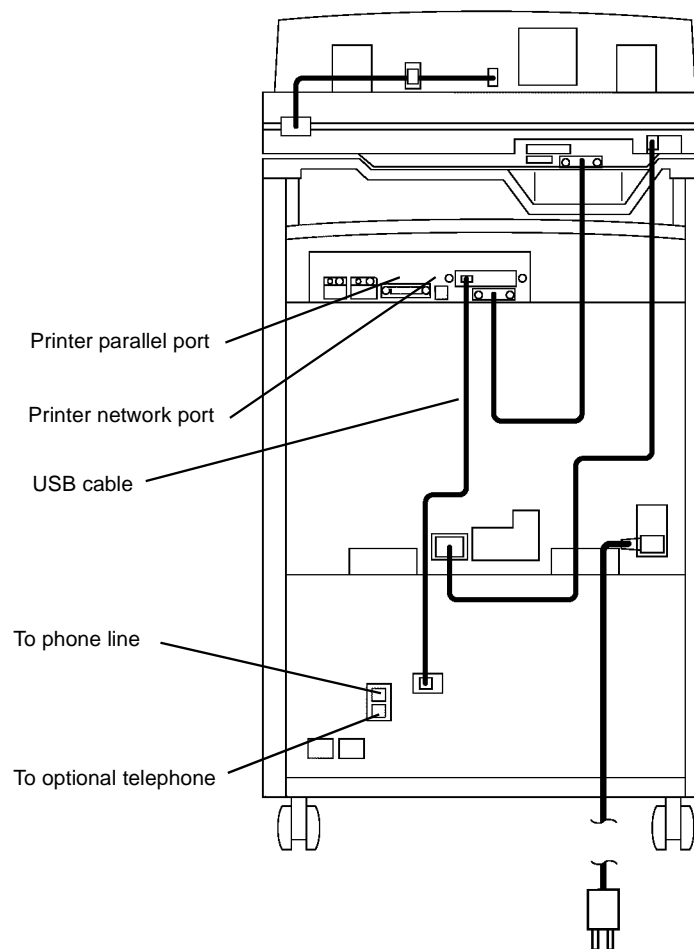




**Figure 12 Installing Fax Cables**

2. Reconnect the IIT and IOT (Figure 13).

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**Figure 13 IOT/IIT Interconnection**

3. Switch on the power.
4. Enter dC131 in UI Diagnostic Mode, and ensure that the Country Code ( NVM loc. 700-165) is set correctly:

**NOTE:** At launch, the Fax Option has received approval for installation in the following countries:

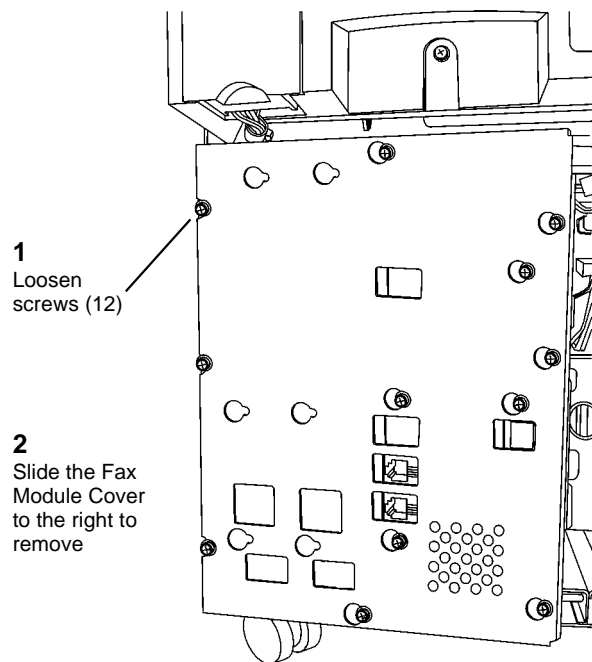
USA (Country Code 840); Canada (Country Code 124); UK (Country Code 826); Germany (Country Code 276); Italy (Country Code 380); France (Country Code 250); Spain (Country Code 724).

### G3 Option Kit Installation

1. Switch off the machine and disconnect the power cord.



2. Remove the Rear Cover (Tray Module) (REP 14.9).
3. Remove the Fax Module Cover (Figure 14).

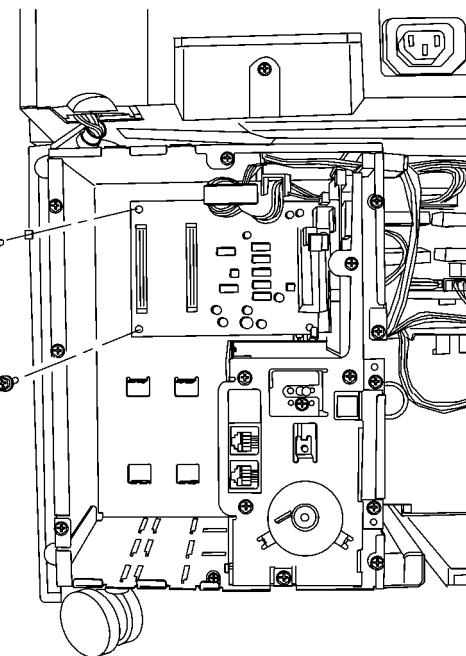


**Figure 14 Removing the Fax Module Cover**

4. Install the Add Port PWB (Figure 15).

- 1 Align the Add Port connector and Fax PWB connector and press firmly

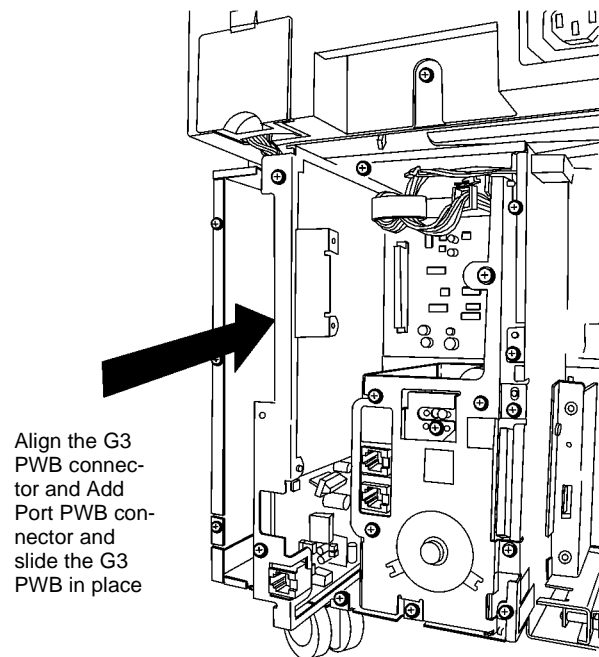
- 2 Fasten the Add Port PWB with screws (2)



**Figure 15 Installing the Add Port PWB**

5. Install the G3 PWB (Figure 16).





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**Figure 16 Installing the G3 PWB (Optional Line)**

6. Reinstall the Fax Module Cover and the Rear Cover (Tray Module).