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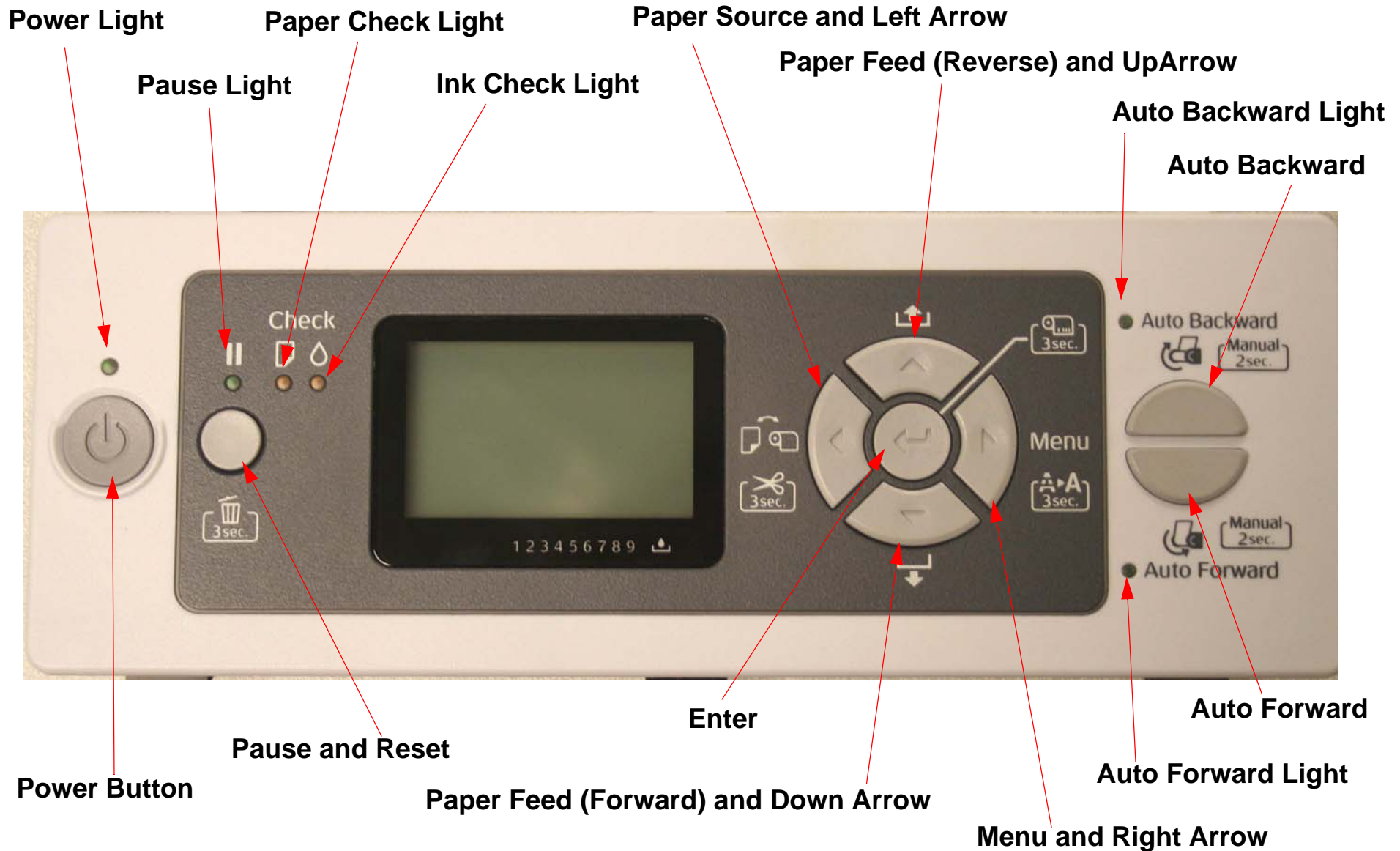
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Control Panel Map



Printers LCD Display

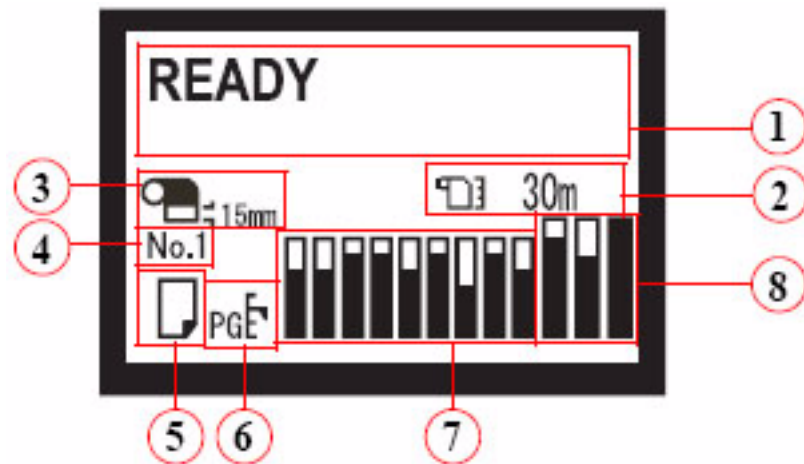


Figure 1-5. LCD (Normal indication)

1. **Printer Status**
2. **Remaining Roll Paper**
3. **Roll Paper Margin Setting**
4. **Custom Paper Setting**
5. **Paper Type and Roll Paper Auto Cut Setting**
6. **Platen Gap Setting**
7. **Ink Levels**
8. **Waste Ink Cartridge Level**

SERVICEMAN MODE: **Down**, **Right**, and **Pause**, at power on.

SELF TESTING: **Down**, **Right**, and **Enter**, at power on.

Parameter Backup and Restore Mode: **Down**, **Right**, and **Pause**, at power on.

F/W DOWNLOAD MODE: **Up**, **Down**, **Left**, and **Right**, at power on.

Maintenance Mode 1: **Pause**, at power on.

User Menu: Press the **Menu** button when
the printer displays **Ready**

1. PRINTER SETUP.

PLATEN GAP: *STANDARD, NARROW, WIDE,
WIDER, WIDEST
PAGE LINE: *ON, OFF
ROLL PAPER MARGIN: *DEFAULT, TOP/BOTTOM
15mm, TOP 35/BOTTOM
15mm, 15mm, 3mm
PAPER SIZE CHK: *ON, OFF
PAPER SKEW CHECK: *ON, OFF
REFRESH MARGIN: *ON, OFF
AUTO NOZZLE CHECK: ON:PERIODICALLY*,
ON:EVERY JOB, OFF
PRINT NOZZLE PATTERN: OFF*, ON:EVERY PAGE,
ON EVERY 10 PAGES,
INITIALIZE SETTINGS: EXEC

2. TEST PRINT.

NOZZLE CHECK: PRINT
STATUS SHEET: PRINT
NETWORK STATUS SHEET: PRINT
JOB INFORMATION: PRINT
CUSTOM PAPER: PRINT

3. MAINTENANCE

CUTTER ADJUSTMENT: EXEC
CUTTER REPLACEMENT: EXEC
POWER CLEANING: EXECUTE
CLEAN FOR EACH COLOR: C/VM, PK, MK/Y, LLK/LK,
VLM/LC
CLOCK SETTING: (mm/dd/yy hh:mm)
CONTRAST ADJUSTMENT: (nn)

4. PRINTER STATUS.

VERSION: (CURRENT FIRMWARE)
PRINTABLE PAGES: (FOR EACH COLOR)
(nnnnnn)PAGES
INK LEVEL: (FOR EACH COLOR) (nnn%)
MAINTENANCE TANK: LEFT (nnn%), CENTER
REAR (nnn%), RIGHT (nnn%)
USAGE COUNT: INK (nnnn.n)ML, PAPER (nn)ft (nn)
inch
CLEAR USAGE COUNT: INK:EXEC PAPER:EXEC
JOB HISTORY: N0.(n) INK:(n)ml, PAPER:(nnnn)cm2
TOTAL PRINTS: (n) PAGES
EDM STATUS: ENABLED, LAST UPLOADED (mm/
dd/yy hh:mm)

5. PAPER SETUP.

PAPER TYPE: Photo Paper, Proofing Paper, Fine Art Paper, Matte Paper, Plain Paper, Others, Custom Paper, No Paper Selected

ROLL PAPER REMAINING (***This Menu is only active when paper is not loaded and the Paper Lever is closed***)

REMAINING PPR SETUP: *OFF, ON:PRINT EVERY PAGE, ON: AT ROLL EXCHANGE

ROLL PAPER LENGTH: (nnn)ft (***REMAINING PPR SETUP must be on to enable***)

ROLL LENGTH ALERT: (nn)ft (***REMAINING PPR SETUP must be on to enable***)

CUSTOM PAPER: Paper NO. (1-10)

PAPER TYPE: Photo Paper, Proofing Paper, Fine Art Paper, Matte Paper, Plain Paper, Others

PLATEN GAP: NARROW, STANDARD, WIDE, WIDER, WIDEST

THICKNESS PATTERN: PRINT

CUT METHOD: *STANDARD, THIN PAPER, THICK PAPER FAST, THICK PAPER SLOW

PAPER FEED ADJUST: (n.nn)%

DRYING TIME: (n.n)sec

PAPER SUCTION: *STANDARD, -1, -2, -3, -4

6. Head Alignment.

PAPER THICKNESS: SELECT PAPER TYPE: (Photo Paper, Proofing Paper, Fine Art Paper, Matte Paper, Plain Paper, Others) SELECT THICKNESS: (N)mil

ALIGNMENT: AUTO (UNI-D, BI-D 2-COLOR, BI-D All, BI-D #1, BI-D #2, BI-D #3, BI-D #3, BI-D #4) MANUAL (UNI-D, BI-D 2-COLOR, BI-D All,)

7. NETWORK SETUP: (*DISABLE, ENABLE)

IP ADDRESS SETTING: AUTO, PANEL,

BONJOUR: *ON, OFF

INIT NETWORK SETTING: EXECUTE

Parameter Backup and Restore Mode

Release the **Paper Lever**, disengage **9 Ink Cartridges**, remove the **3 Maintenance Tanks**, hold the **Down, Right,** and **Pause** buttons and turn on the **Printer**. The Printer will display **MENU: SELF TESTING**.

Note: *If the backup procedure fails, try re-booting the Printer and letting it come **Ready**. Then try the backup / restore procedure in **READY** mode.*

Note: *Parameter Backup can also be performed in **F/W Download** Mode. Parameter Restore can not.*

F/W Download Mode

Hold the **Up, Down, Left,** and **Right** buttons and turn on the power. The Printer will display **F/W Download**.

Maintenance Mode 1: Press and hold the **Pause** button and turn on the Printer.

LANGUAGE: *ENGLISH, JAPANESE, FRENCH, GERMAN, ITALIAN, PORTUGUE, SPANISH, DUTCH
(Panel Language)

UNIT: *FEET/INCH, METER (Set's the unit of measure that the printer displays)

CUT PRESSURE: *100% (0%-150%) (Adjusts the Paper Cutter pressure)

SS CLEANING: EXEC (Super Strong Cleaning)

PWR ON ROLL PPR FEED: *ON, OFF (On = Feeds the paper 3" lower, when auto cut is off)
(Off = Does not feed the paper 3" lower, when auto cut is off)

SYLON MODE: *OFF, ON (Strobes the Ink Bay Lights while printing)

DEFAULT PANEL: EXEC (Resets to Factory Default all of the User Menus)

INK INFO MENU: (FOR EACH COLOR) MANUFACTURER, COLOR, INK TYPE, INK CAPACITY, INK LEVEL,
PRODUCTION DATE, EXPIRATION DATE, INK LIFE, INK AGE (CSIC information, for each
ink cartridge)

Custom:*0 (0 - 9)

ServiceMan Mode: Press and hold the **Down**, **Right**, and **Pause** buttons, and turn on the Printer

Note: *SERVICEMAN MODE turns on the USB Port even if there is an error condition.*

Note: *The printer must be displaying SELF TESTING in order to work properly with the Adjustment Wizard.*

SELF TESTING:

Test:

Version: F/W: F(nnnnnnnnn.nn.nnnn) (Displays the current firmware version)

Panel: Key, LCD, LED, Ink LED(Button, LCD, and LED tests for the control panel)

Sensor: Paper Thick: 00, 01,10,11 (Paper Thickness Sensor test)

Paper Lever: Down, Up (Paper Release Sensor test)

Ink Button: Off/Off Ink (Cover Release Button Test)

InkCvr: Close/Close (Ink Cover Sensor Test)

Cover: Close/Close (Front Cover Sensor test)

MTank: On, ON, ON(CSIC Contact Test)

INK NOT: 1,2,3,4,5,6,7,8 (Ink Cartridge Sensor test for 9 Ink Bays)

RearAD: (nnn nnn) (Rear Paper Sensor test)

Auto Reel Sens.: On, Off (Auto Pick Up Reel Paper Slack Sensor Test)

Auto Reel Conect: On

Head Temp: (nn)C (Displays the current Print Head temperature in degrees centigrade)

Drv. Temp: (nn)C (Displays the current Print Head Driver temperature in degrees centigrade)

AutoChk: [Enter]Start (**Do Not use very dangerous**) *this means you Dennis Hubble*

Encoder: CR (nnnn) (Carriage Encoder test. Counts up, moving away from home position)

PF (nnnn) (Paper Feed Encoder test. Counts up, as the paper advances.)

Fan: Paper(ALL): (Fan test for all paper suction fans)

Paper(Duty): (200% - 0%) (Tests the fan suction for all paper suction fans)

Paper1: (Fan test for paper suction fan #1 (Right Side Fan))

Paper2: (Fan test for paper suction fan #2 (Left Side Fan (Center Fan on 9800)))

Paper3: (Fan test for paper suction fan #3 (Left Side Fan))

HT Fan: (Fan test for the Head Driver Cooling Fan)

Error History (list of past errors)

CSIC: MTANK R/C/L

Cut Pressure: (0-100%)(approximately 55%)

Actuator2: Cutter Sol: [Enter], Start (Tests the Cutter Solenoid)

InkCover Sol.: [Enter], Start (Tests the Ink Cover Solenoids)

LeverLock Sol.: [Enter], Start (Tests the Lever Lock Solenoid)

Ink Press Motor: [Enter], Start (Ink System Pressure Motor)

Select Valve: [Enter], Start

Cap Motor: [Enter], Start (Tests the Cap Motor)

Auto Reel Motor: [Enter], Start (Tests the Auto Take Up Reel Motor)

Edge Sns Lvl: [Enter], Start (Sets the black level of the Edge Detector)

Cap Uncap: UnCap, Cap

Adjustment

PG Adjust: Uncap, Cap (Sets the platen gap to standard and allows capping/uncapping of the Carriage).

AID PG: [Enter]Start (Measures the distance between the Nozzle Plated and the Flushing Box)

Fan: Paper(ALL)(Runs all Suction Fans), Fan Adjust *0% (-10% to +10%) (Adjusts Suction Fans)

Paper: Paper Thick 00, 01, 10, 11(Displays the output from the Paper Thickness Sensors)

RearAD: [Enter]Start (nnn nnn nnn) (For adjusting the Rear Paper Sensor)

Init.Fill: [Enter]Start (Starts a initial fill)

Nozzle Check: Output Pattern: (Standard Nozzle Check)

Nozzle Alignment: Output Pattern: [Enter] Print, PG Select: 0.8mm, 1.2mm, 1.6mm, 2.1mm (Service nozzle check, displays Firmware Version)

Cutter: [Enter] Start:(Tests paper cutting)

Rear Sens.Pos: Set Cut Sheet Paper(Calibrates the EOF position for cut sheet media)

InkCover Sol.: [Enter] Start (Tests in Ink Cover Solenoid)

Head Slant : CR, PF, Uncap, Cap (For adjusting Print Head rotation and camber)

IM Sensor: [Enter] Print(Adjusts sensitivity of the Edge Detector Sensor and the Ink Mark Sensor)

Bellesta Pos.Adj.: [Enter] Start, Bellesta Pos. Confirm: [Enter], Start (Platen Position Adjustment)

Check Skew: Please Set Paper (Tests for Paper Skewing)

Feed Adj.+T&B: [Enter] Print(Performs the 980mm, Top, Bottom, and Side Margin adjustments)

Gap Adj: Auto, Manual Uni-D, Manual Bi-D PG1.6, Manual Bi-D PG0.8, (Auto and Manual Bi-D/ Uni-D)

AID: [Enter] Start (Tests the Auto Ink Detection system)

Print Adj. Variable1: [Enter] Print (Prints the numeric adjustment variables currently set)

Print Adj. Variable2: [Enter] Print (Prints the numeric adjustment variables currently set)

Clean Head: Remove Ink, Sucktion Wiping

Print Head Exchange: Drain, Head Exchange

SELF TESTING: Press and hold the **Down**, **Right**, and **Enter** buttons and turn on the Printer.

Test:

Version: F/W: F(nnnnnnnnn.nn.nnnn) (Displays the current firmware version)

Panel: Key, LCD, LED, Ink LED(Button, LCD, and LED tests for the control panel)

Sensor: Paper Thick: 00, 01,10,11 (**Paper Thickness Sensor test**)

Paper Lever: Down, Up (Paper Release Sensor test)

Ink Button: Off/Off

InkCvr: Close/Close

Cover: Close, Open (Cover Sensor test)

MTank: On, ON, ON(CSIC Contact Test)

INK NOT: 1,2,3,4,5,6,7,8,9 (Ink Cartridge Sensor test for 9 Ink Bays)

RearAD: (nnn nnn) (Rear Paper Sensor test)

Auto Reel Sens.: On, Off

Auto Reel Conect: On

Head Temp: (nn)C (Displays the current Print Head temperature in degrees centigrade)

Drv. Temp: (nn)C (Displays the current Print Head Driver temperature in degrees centigrade)

AutoChk: [Enter]Start (**Do Not use very dangerous**) *this means you Dennis Habbley*

Encoder: CR (nnnn) (Carriage Encoder test. Counts up, moving away from home position)

PF (nnnn) (Paper Feed Encoder test. Counts up, as the paper advances.)

Fan: Paper(ALL): (Fan test for all paper suction fans)

Paper(Duty): (200% - 0%) (Tests the fan suction for all paper suction fans)

Paper1: (Fan test for paper suction fan #1 (Right Side Fan))

Paper2: (Fan test for paper suction fan #2 (Left Side Fan)

Paper3: (Fan test for paper suction fan #3 (Left Side Fan))

HT Fan: (Fan test for the Head Driver Cooling Fan)

Error History (list of past errors)

CSIC: MTANK R/C/L

Cut Adj.: (0 - 100%) (approximately 55%)

Actuator2: Cutter Sol: [Enter], Start (Tests the Cutter Solenoid)

InkCover Sol.: [Enter], Start (Tests the Ink Cover Solenoids)

LeverLock Sol.: [Enter], Start (Tests the Lever Lock Solenoid)

Ink Press Motor: [Enter], Start (Ink System Pressure Motor)

Select Valve: [Enter], Start

Cap Motor: [Enter], Start (Tests the Cap Motor)

Auto Reel Motor: [Enter], Start (Tests the Auto Take Up Reel Motor)

Edge Sns Lvl: [Enter], Start (Sets the black level of the Edge Detector)

Cap Uncap: UnCap, Cap

Adjustment:

Input HeadRank: (Does not function, Japanese Bar Code Only) (QR Code)

Paper: Paper Thick 00, 01, 10, 11 (Displays the output from the Paper Thickness Sensors)

RearAD: [Enter]Start (nnn nnn nnn) (For adjusting the Rear Paper Sensor)

Init.Fill: [Enter]Start

Nozzle Check: Output Pattern: (Standard Nozzle Check)

Nozzle Alignment: Output Pattern: [Enter] Print, PG Select: 0.8mm, 1.2mm, 1.6mm, 2.1mm (Service nozzle check, displays Firmware Version, displays Head Rank)

Cutter: [Enter] Start: (Cut position check)

Fan: Paper(ALL) (Runs all Suction Fans), Fan Adjust *0% (-10% to +10%) (Adjusts Suction Fans)

Rear Sens.Pos: Set Cut Sheet Paper (Calibrates the EOF position for cut sheet media)

InkCover Sol.: [Enter] Start

PG Adjust: Uncap, Cap

Nozzle Check: Output Pattern: Cleaning:CL1, Cleaning:CL2, Cleaning:CL3 (Standard Nozzle Check)

Head Slant:

AID PG: [Enter]Start

Nozzle Check: Output Pattern: Cleaning:CL1, Cleaning:CL2, Cleaning:CL3(Standard Nozzle Check)

AID: [Enter] Start

IM Sensor: [Enter] Print(Adjusts sensitivity of the Edge Detector Sensor and the Ink Mark Sensor)

Check Skew: Please Set Paper

Feed Adj.+T&B: [Enter] Print(Performs the 980mm, Top and Bottom Margin adjustments)

Bellesta Pos.: [Enter] Start, Bellesta Pos.Adj Confirm: [Enter], Start

Nozzle Check: Output Pattern: Cleaning:CL1, Cleaning:CL2, Cleaning:CL3(Standard Nozzle Check)

Gap Adj: Auto, Manual Uni-D, Manual Bi-D PG1.6, Manual Bi-D PG0.8, (Auto and Manual Bi-D/ Uni-D)

Print Adj. Variable1: [Enter] Print (Prints the numeric adjustment variables currently set)

Print Adj. Variable1: [Enter] Print (Prints the numeric adjustment variables currently set)

Clean Head: Remove Ink, Sucktion Wiping

Counter Clear: (Clears a variety of counters)(Do not use)

Cleaning:

Std. CL1 (5.3ml)

Std. CL2

Std. CL3

Parameter:

Initialize:

All: Initialize OK? (Resets all of the following counters at once)

PF Resolution: Initialize OK? (Resets this counter only)

Head Record: Initialize OK? (Resets this counter only)

Wiping Record: Initialize OK? (Resets this counter only)

Waste Record: Initialize OK? (Resets this counter only)

CRmot Record: Initialize OK? (Resets this counter only)

PFmot Record: Initialize OK? (Resets this counter only)

Lever Record: Initialize OK? (Resets this counter only)

Cover Record: Initialize OK? (Resets this counter only)

Ink Cover Record: Initialize OK? (Resets this counter only)

Cutter Record: Initialize OK? (Resets this counter only)

Update: InkParameter: Init. Fill: (Set, Reset) (Reset, turns off the initial fill)

RTC: (mm/dd/yy hh:mm)

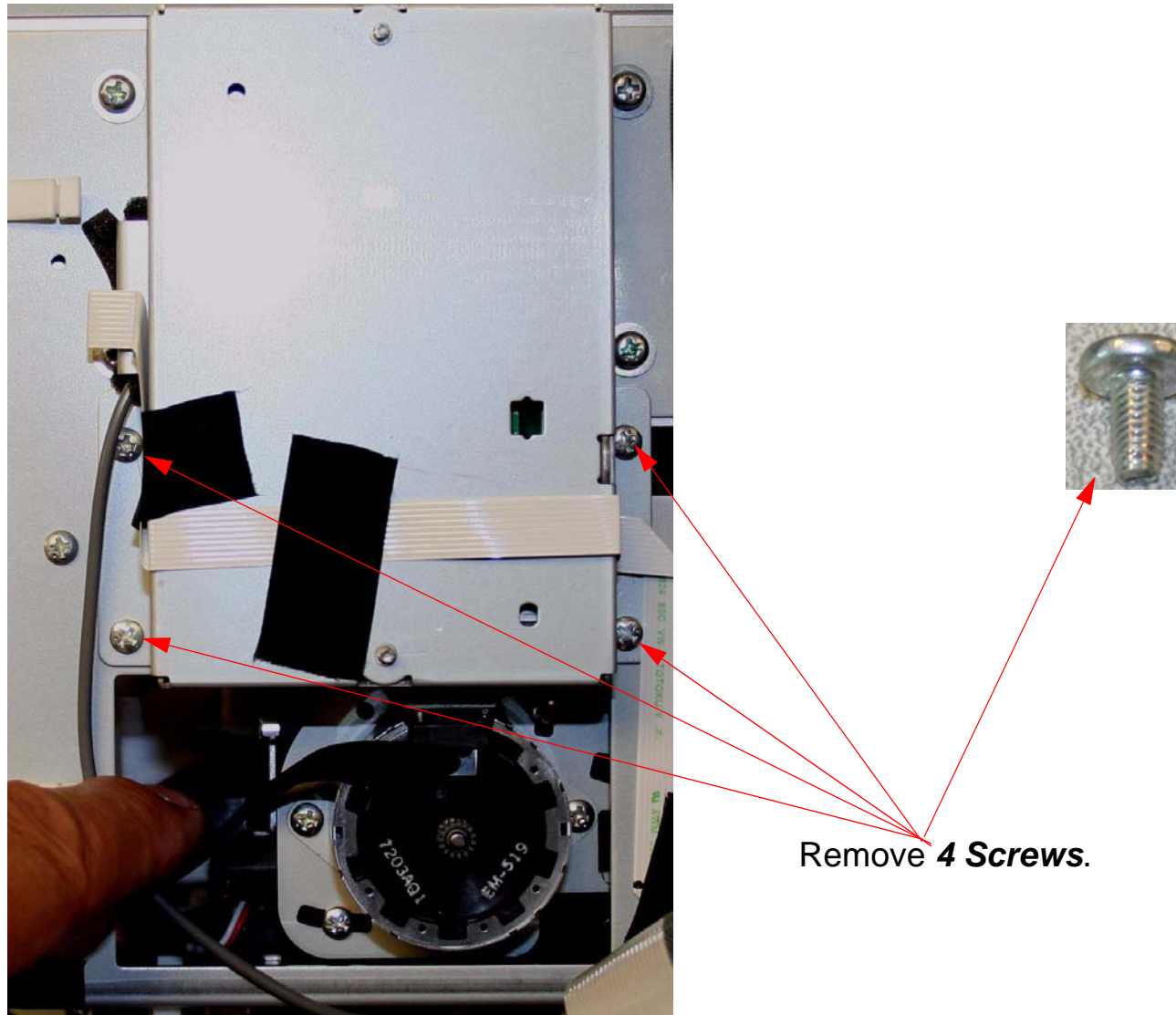
FunctionSelect: PulseMotorParam: Param0, Param1, Number of InkPress:3, 4

Display: Address: (nnnn)(Used for displaying data at specific RAM addresses)

Component Replacement

Board (AID) Removal

1. Remove the ***Right Side Cover***.
2. Remove **4 Screws** that fasten the ***AID Board Assembly*** to the top of the ***Cleaning Unit***.



3. Turn over the **AID Board Assembly**, and unplug **2 Cables** that connect it to the **Printer**.



1. Turn over the **AID Board Assembly**.

2. Unplug **2 Cables**.

4. Remove **3 Screws** that fasten the **AID Board** to the **Case**, and lift out the **Board**.



1. Remove **3 Screws**.



2. Lift out the **AID Board**.

Board (Main) Removal

Note: 11880 Main Board Part # 2113528 (the part # is stamped on the board)

Main Board Removal (Overview)

- Back up the **Printer's Parameters**.
- Remove the **Rear Cover**.
- Unplug the **Cables**.
- Remove the **Screws**.
- Remove the **Main Board**.
- Remove the **Ethernet Cover** from the **Main Board**.
- Remove the **EDM SIMM**.

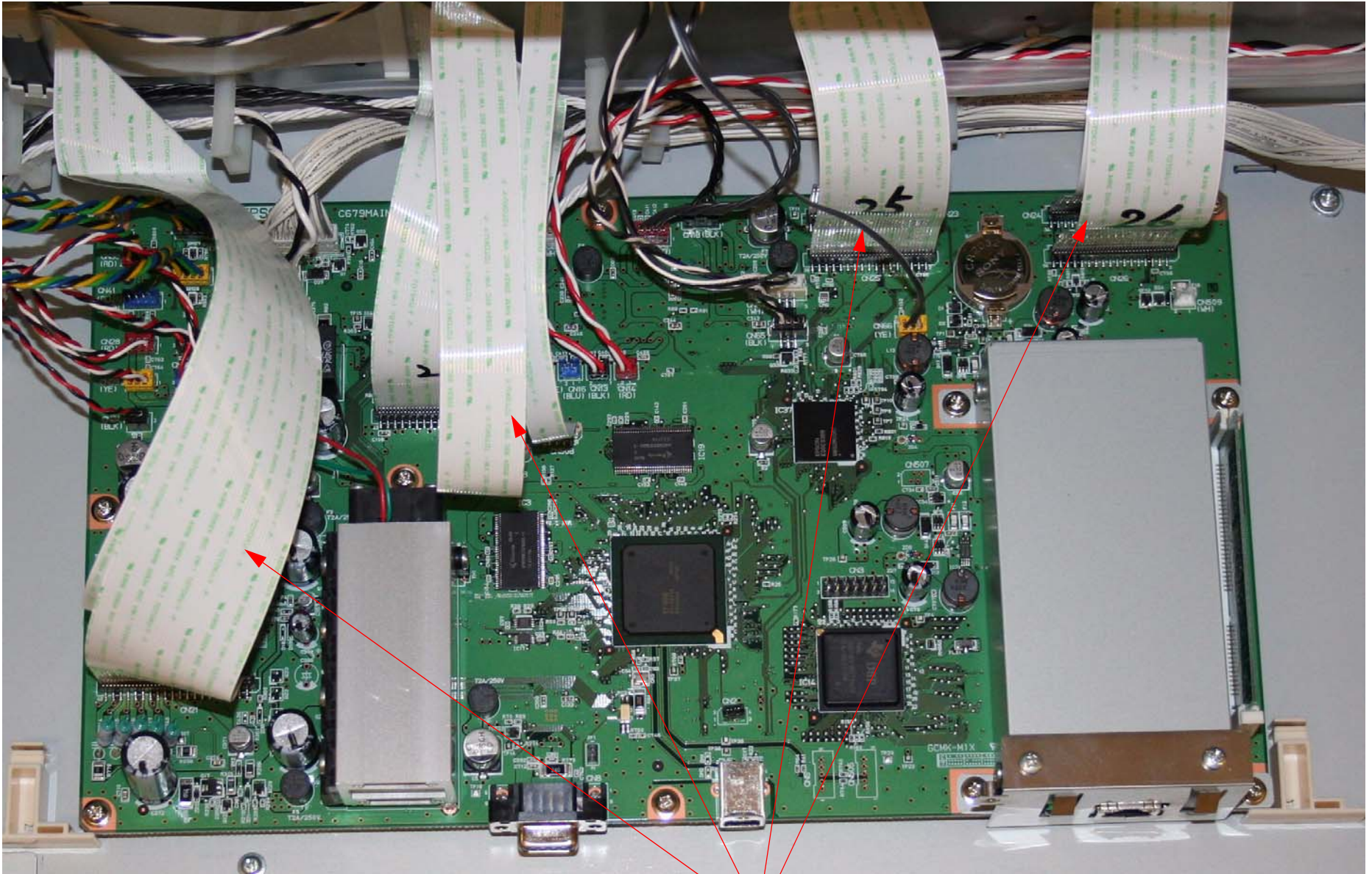
Main Board Removal (Detail)

1. Back up the **Printer's** parameters using the Parameter Backup / Restore Utility (**Nvram.exe**)

Note: If the Printer's parameters can not be "backed up", print out the Print Head Calibration value (Head Rank). The Print Head Calibration value is printed on the Service Level Nozzle Check (**ServiceMan Mode: Self Testing: Adjustment: Check Nozzle**).

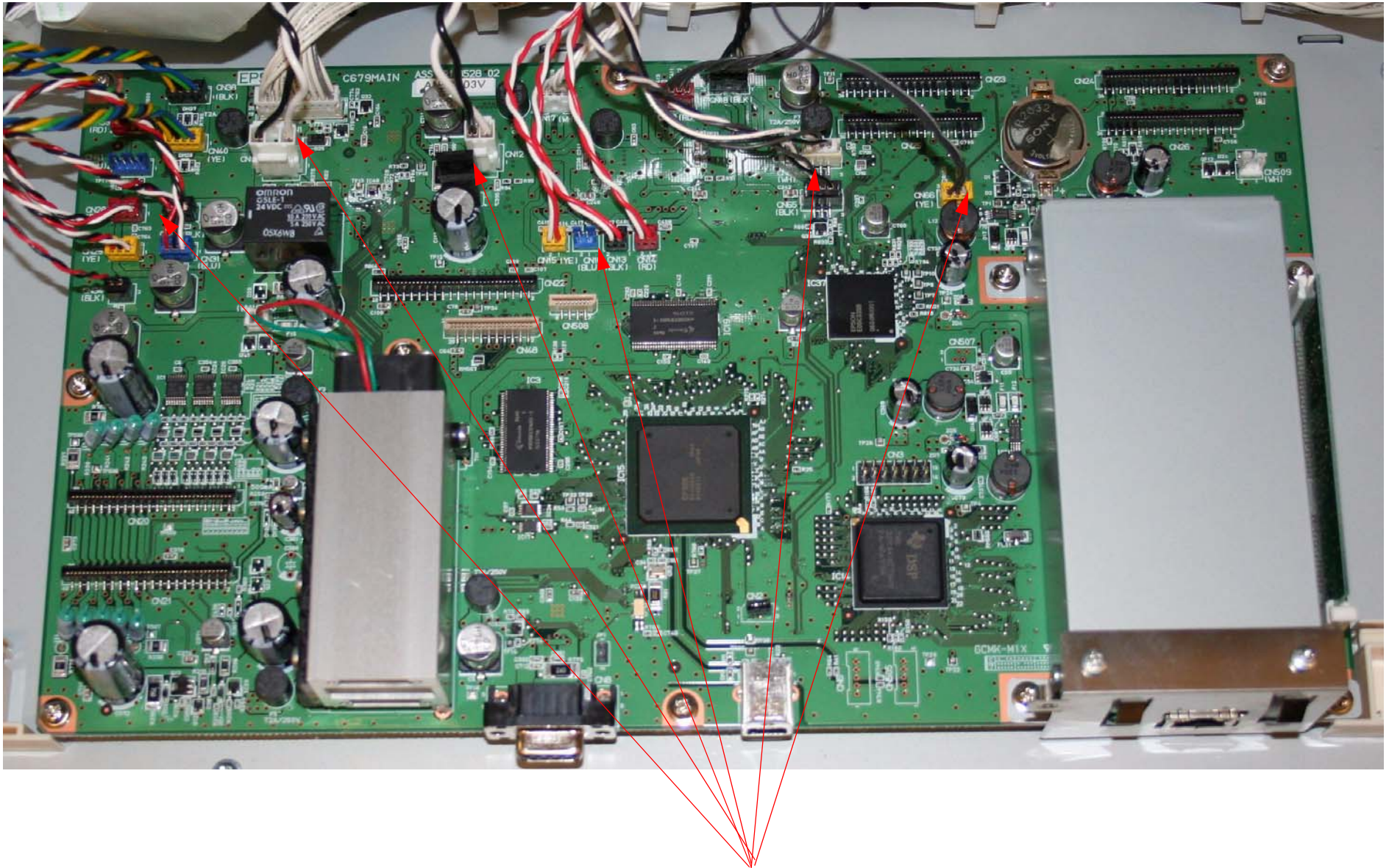
2. Turn off the **Printer** and **UNPLUG from AC**.
3. Remove the **Cover (Rear)**.

4. Unplug the **10 Foil Cables** that attach the **Main Board** to the **Printer**.



Unplug **10 Foil Cables**.

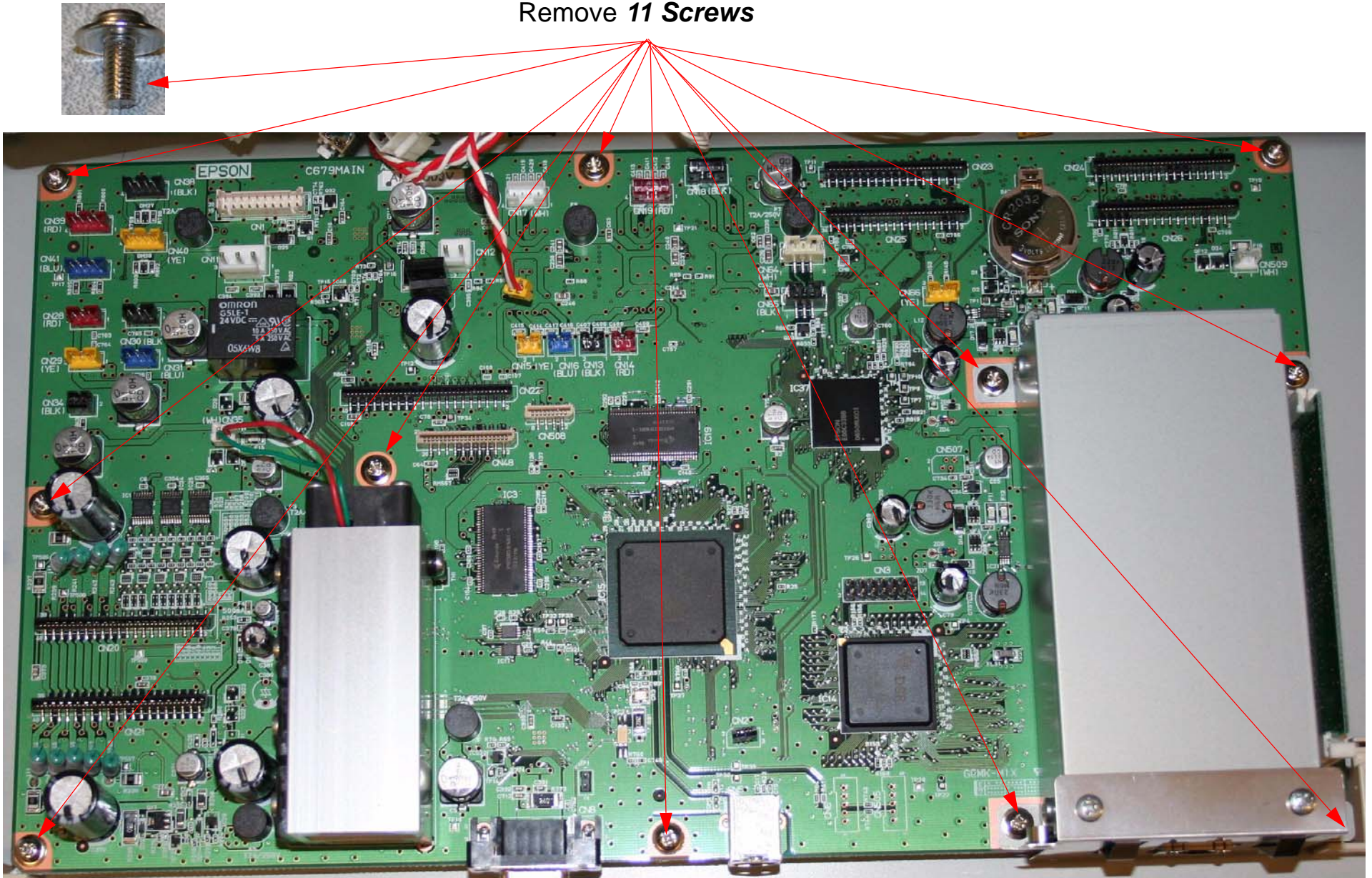
5. Unplug the **19 Wired Cables** that attach the **Main Board** to the **Printer**.



Unplug **19 Wired Cables**.

6. Remove **11 Screws** that fasten the **Main Board** to the **Printer**.

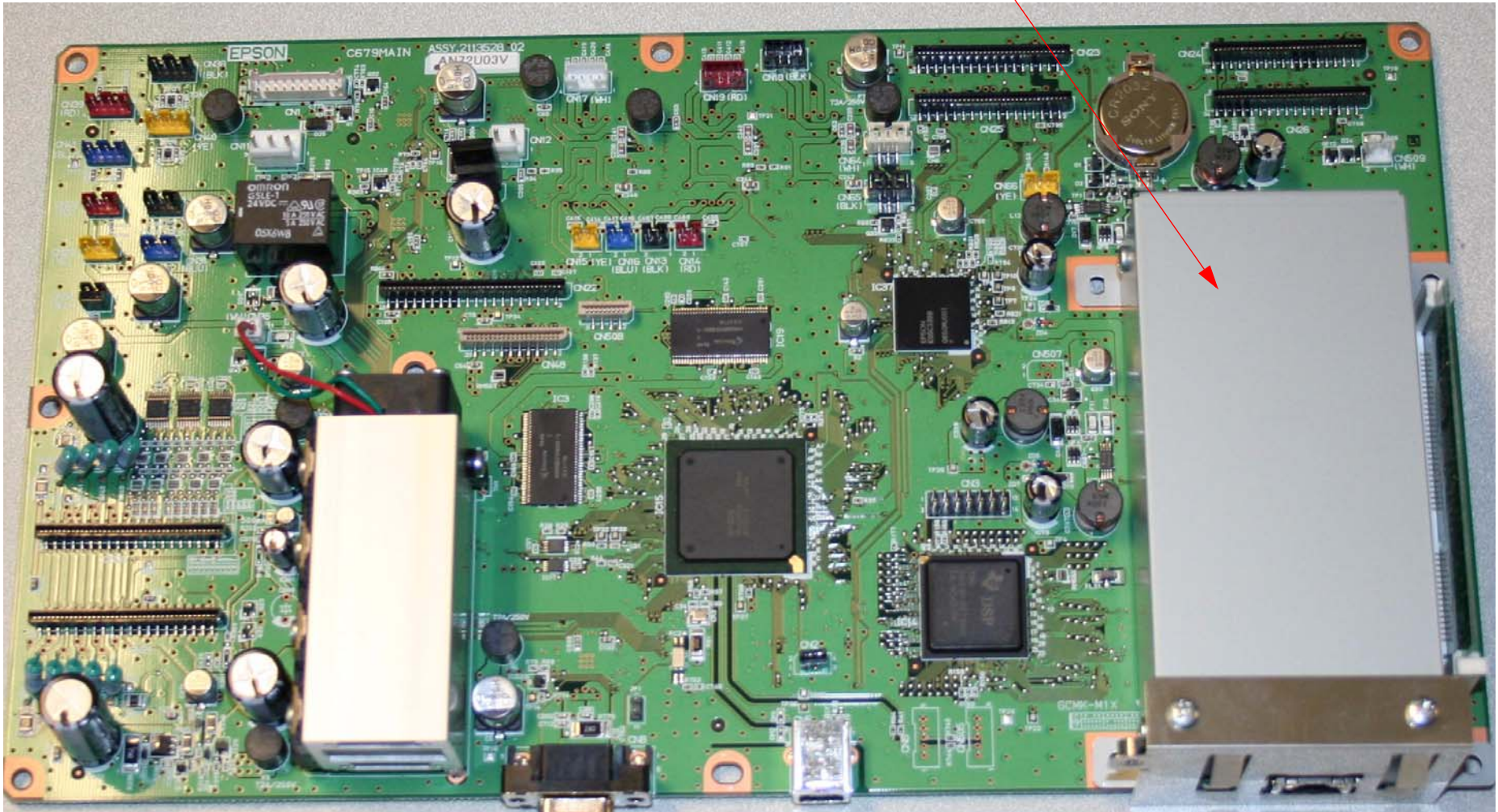
Remove **11 Screws**



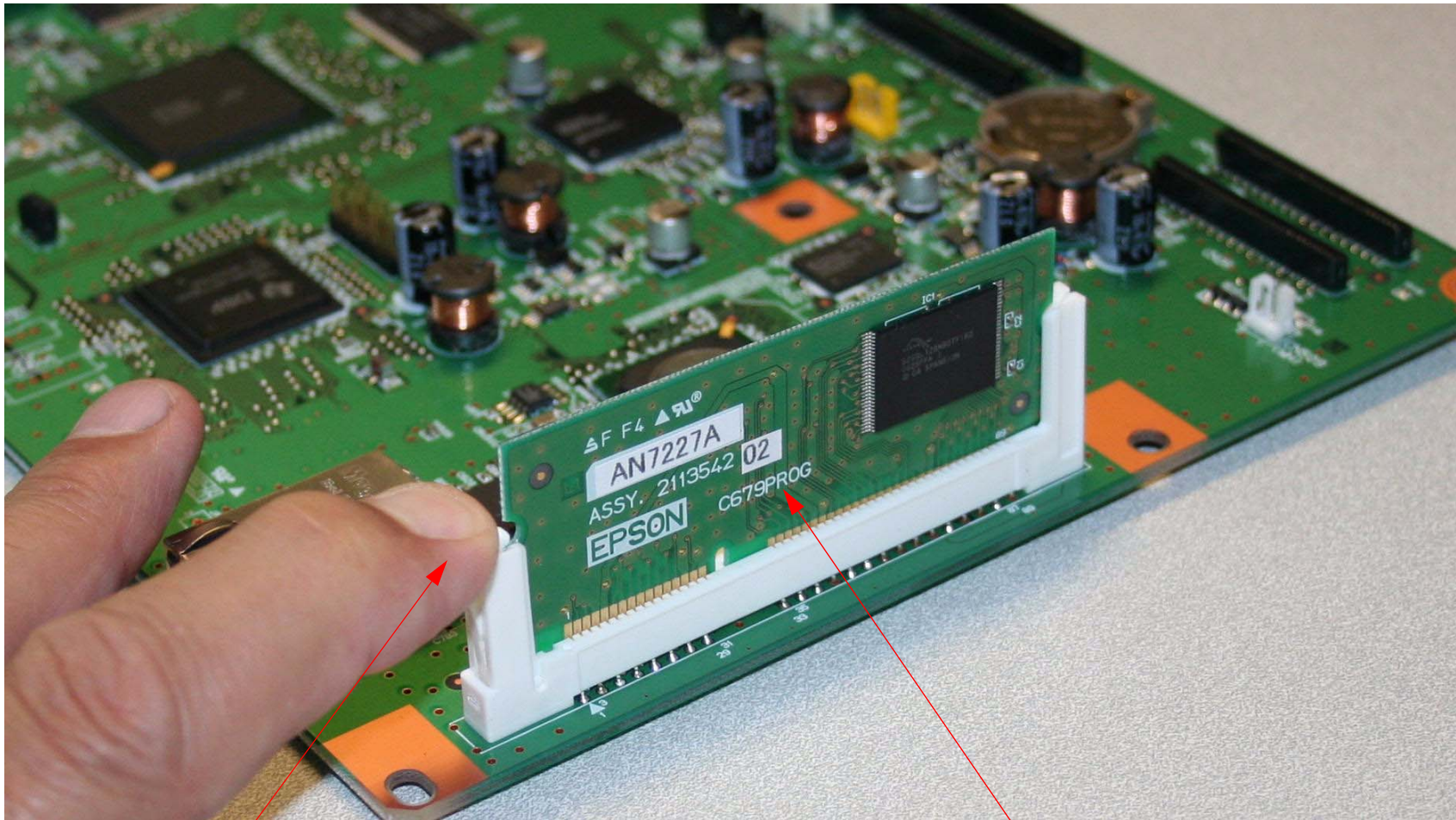
7. Lift out the **Main Board**, and separate the **Ethernet Cover** from the **Board**.

1. Lift out the **Main Board**.

2. Separate the **Ethernet Cover** from the **Board**.



8. Remove the **EDM SIMM** from the **Main Board**.



1. Press here to release the **EDM SIMM**.

2. Lift out the **EDM SIMM**.

Board (Main) Installation

Note: 11880 Main Board Part # 2113528 (the part # is stamped on the board)

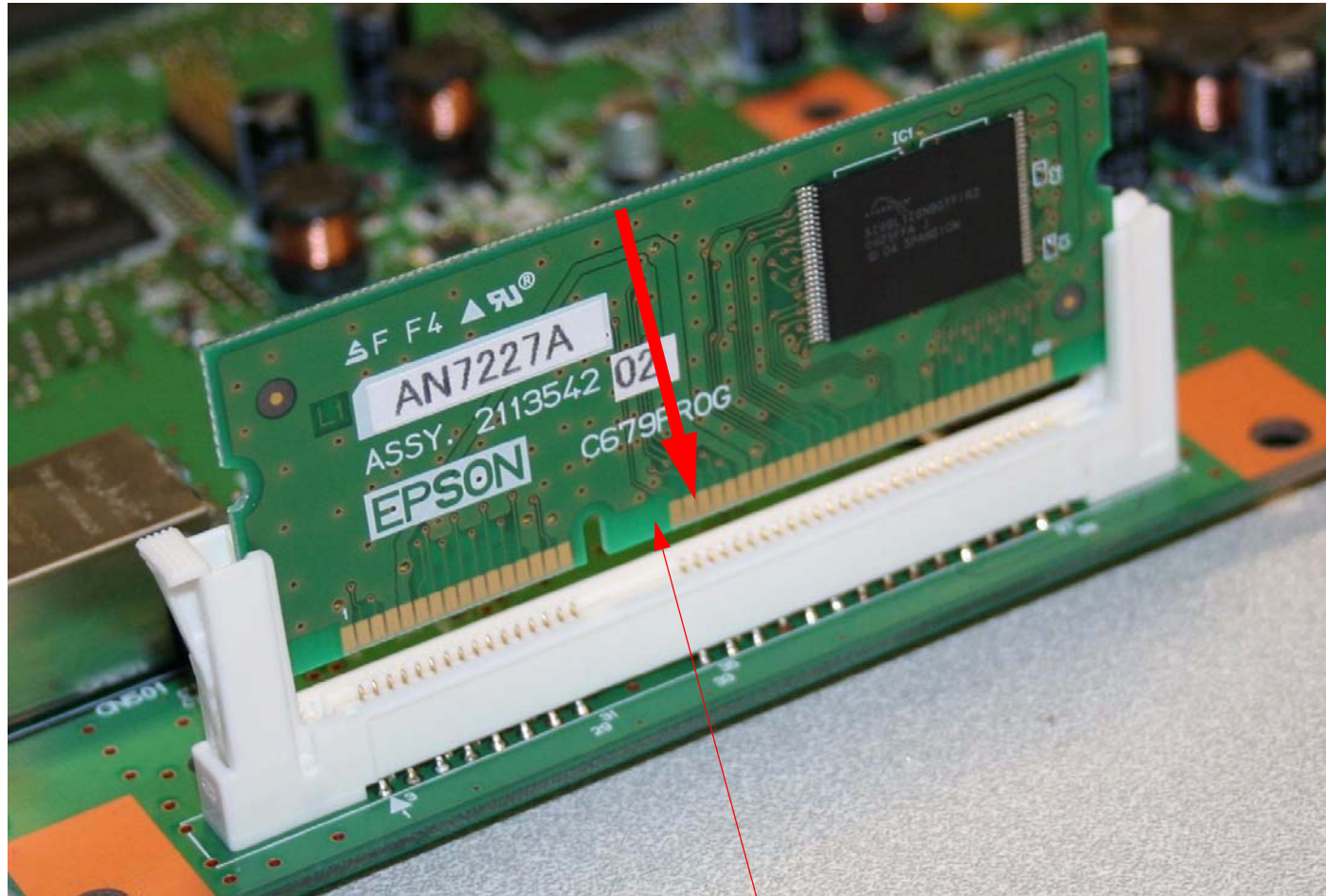
Main Board Installation (Overview)

- Install the **EDM SIMM** on the **New Main Board**
- Install the **Main Board**.
- Install the **Ethernet Cover** onto the **Main Board**.
- Install the **Screws**.
- Plug in the **Cables**.
- Upload **Firmware**.
- Install the **Printer's Parameters**.
- Perform the **RTC&USBID Adjustment**.
- Install the **Rear Cover**.

Main Board Installation (Detail)

1. Compare the **New Main Board** to the **Old Main Board**. Verify that the **Components**, **Brackets**, and **Part Numbers** match.

2. Install the **EDM SIMM** onto the **Main Board**.

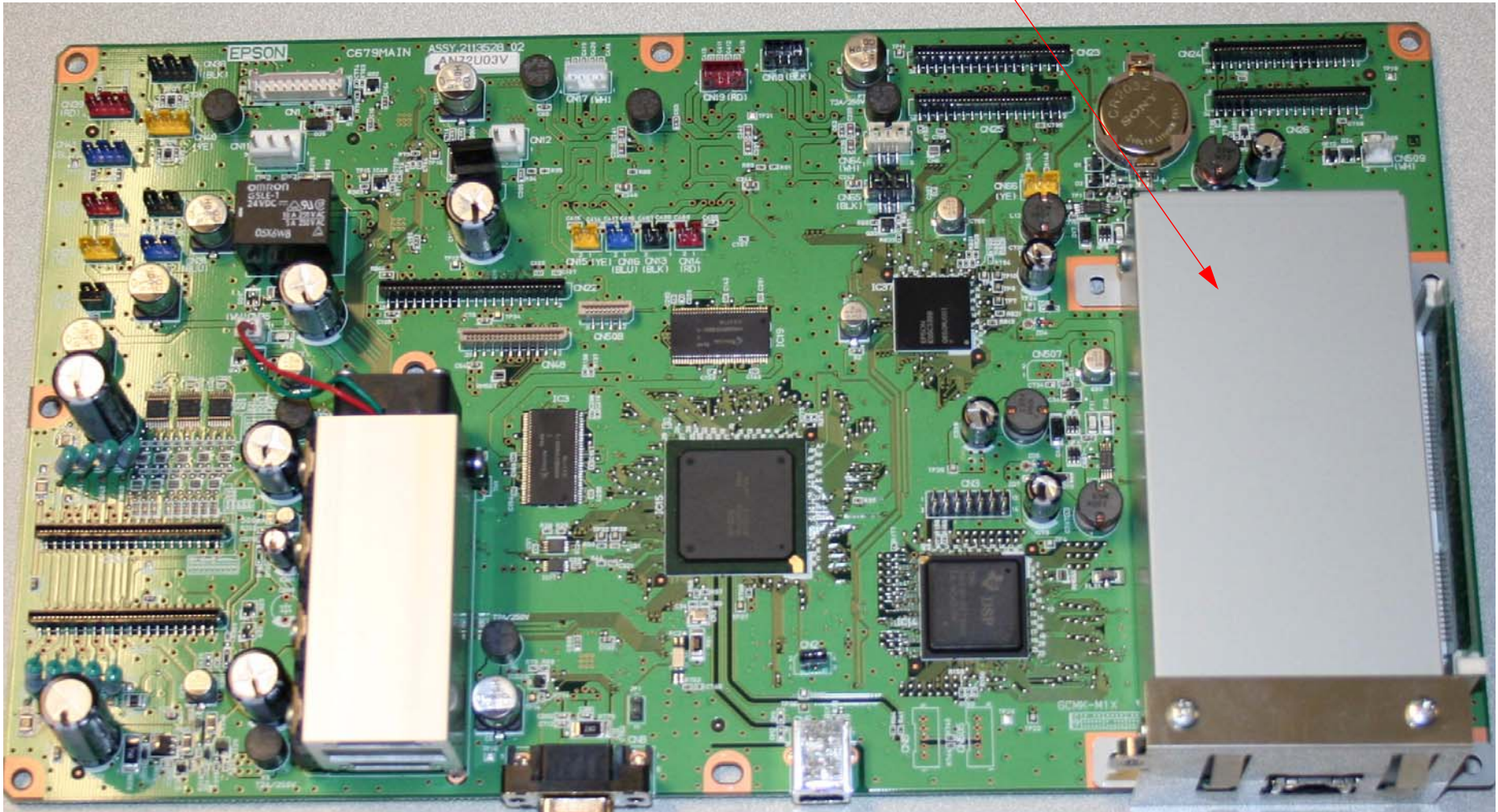


Install the **EDM SIMM**.

3. Install the **Main Board** into the **Printer**, and place the **Ethernet Cover** in position.

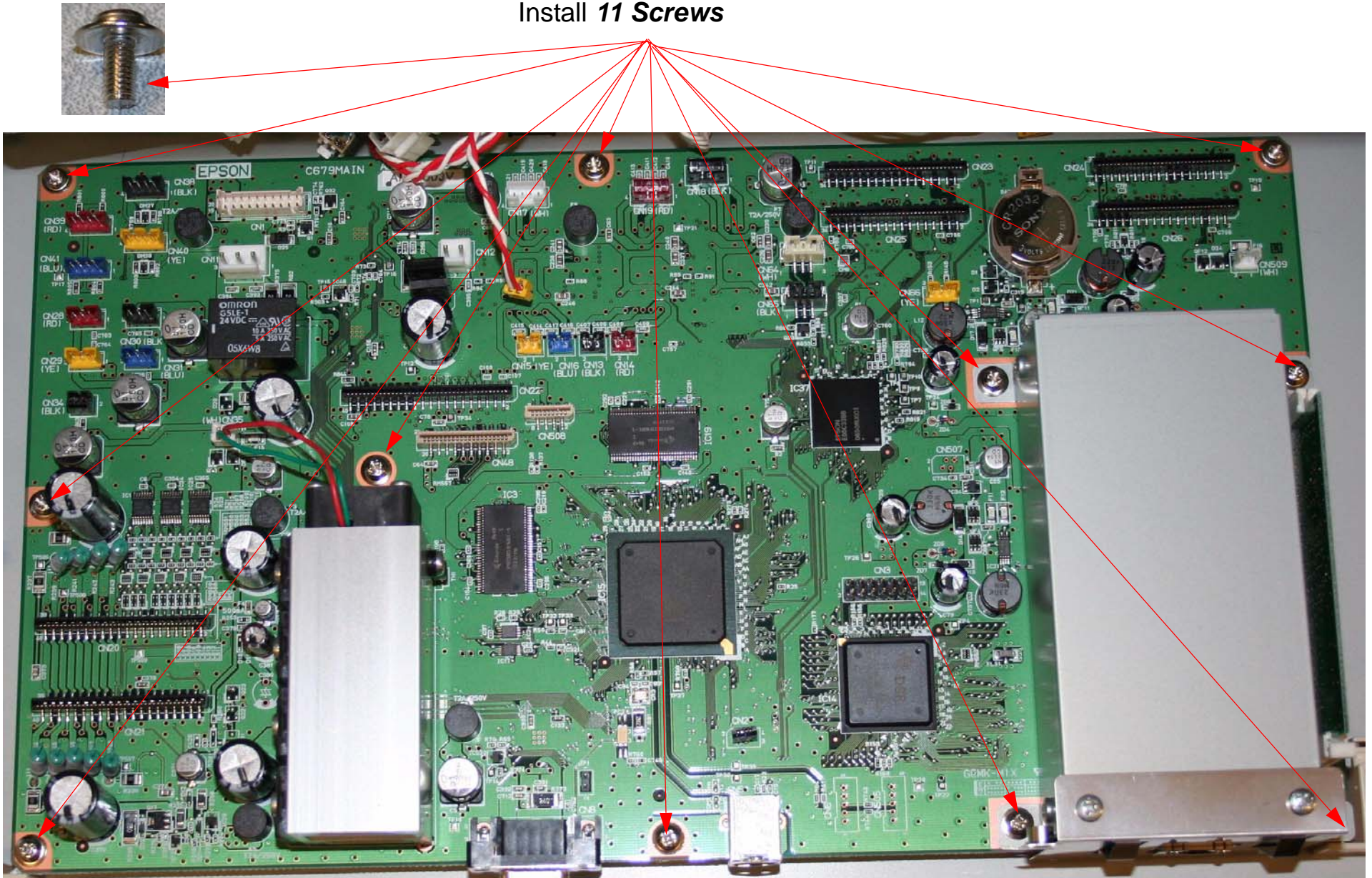
1. Drop in the **Main Board**.

2. Place the **Ethernet Cover** in position

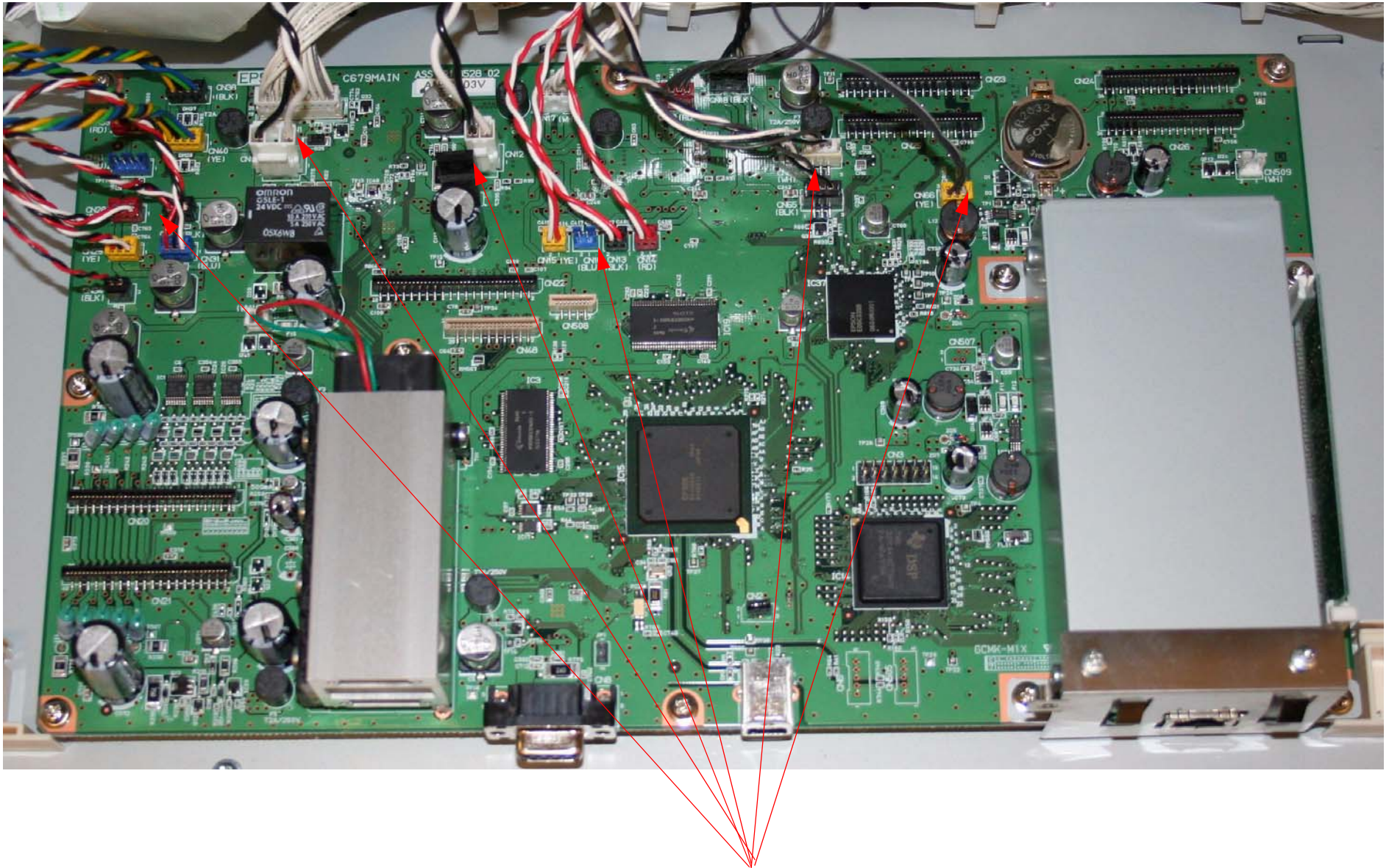


4. Install **11 Screws** that fasten the **Main Board** to the **Printer**.

Install **11 Screws**

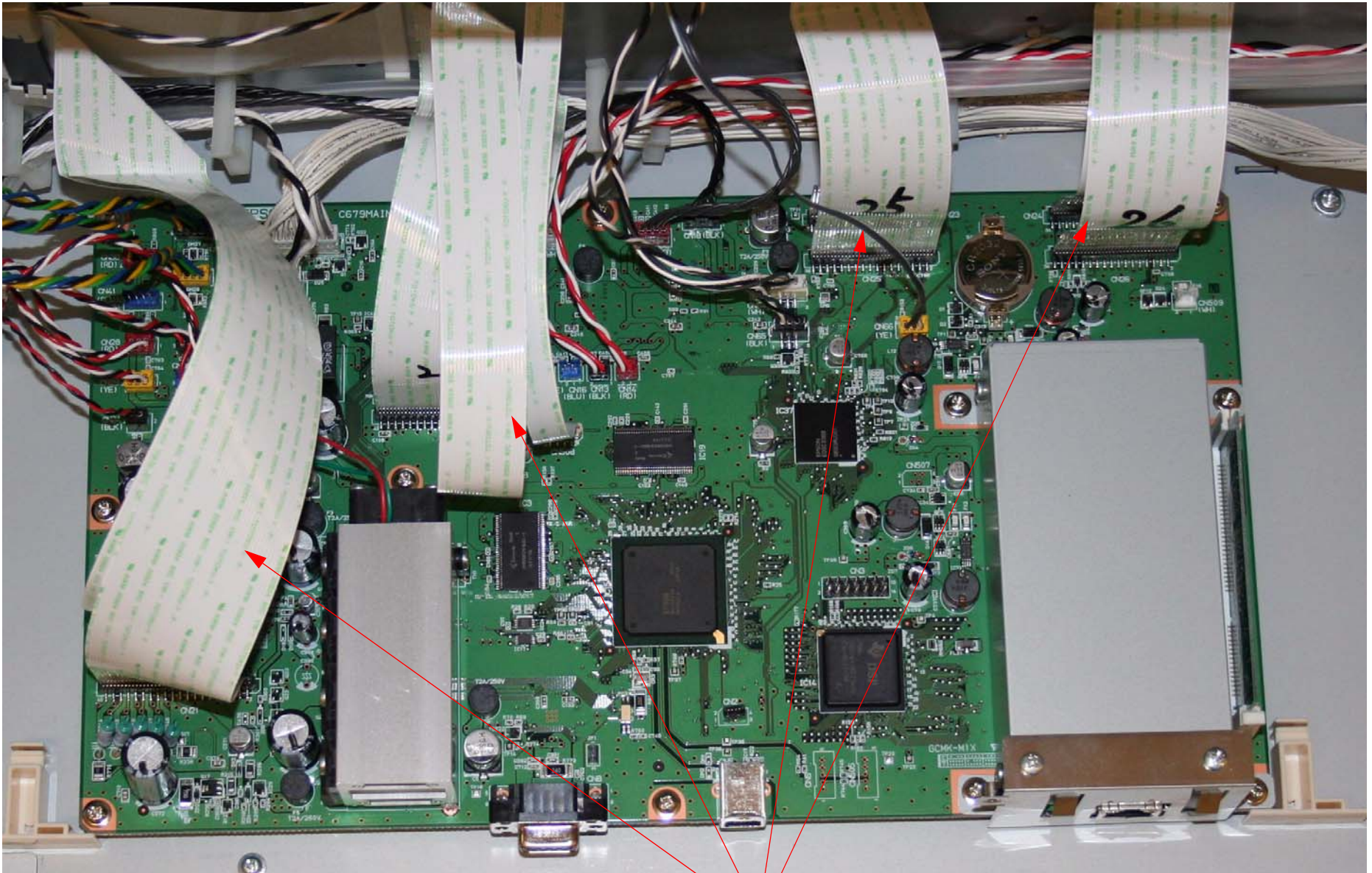


5. Plug in **19 Wired Cables** that attach the **Main Board** to the **Printer**.



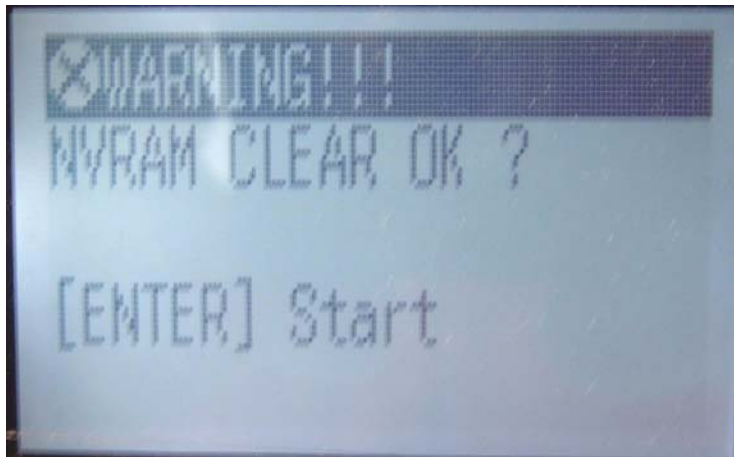
Plug in **19 Wired Cables**.

6. Plug in **10 Foil Cables** that attach the **Main Board** to the **Printer**. **Ensure that the Cables are fully seated (straight).**



Plug in **10 Foil Cables**.

7. Install the **Rear Cover**.
8. Plug in and turn on the **Printer** in Firmware Download Mode (depress the **Up**, **Down**, **Left**, and **Menu** buttons, and turn on the power to the **Printer**).
9. Download the latest Firmware following the directions found in the *Firmware Update Procedure Using FWUpdate.exe* chapter located in the Reference section of the Field Guide.
10. New **Main Boards** (never used **Boards**) will display this message. Follow the steps below.



Note: During the boot process after installing firmware, the Printer may display this message. It indicates that pressing the Enter Button will clear the NVRAM area. This NVRAM area will be overwritten when Parameters are installed in the following steps.

10.1 Press the **Enter** Button.

10.2 Immediately turn off the **Printer**, and proceed to Step 11.

Note: If the Printer is allowed to fully boot after clearing the NVRAM, the Printer will begin an “Initial Ink Charge”. If it does, open an Ink Door to interrupt the “Initial Ink Charge”, and turn the Printer off. Installing Parameters in the next step will cancel the “Initial Ink Charge”.

If the Printer's Parameters are not available skip step 11, and proceed with step 12.

11. Re-Install the **Printer's** parameters using the Parameter Backup / Restore Utility (**Nvram.exe**)

11.1 Perform the **RTC&USBID** Adjustment.

11.2 Perform the **Colorimetric Calibration** (*When specifically requested by Epson*).

12. Install the appropriate generic **Printer** parameters using the Parameter Backup / Restore Utility (**Nvram.exe**)

Note: *If the new Board does not have any parameters, the Printer will not function well enough to allow alignments, paper loading, nozzle check, or the rest of step 16. Generic parameters are a set of working parameters from another printer. They are available for download at: <https://www.epsoninsider.com> listed under the Printer name, as Generic NVRAM Backup.*

13. Perform the following operations in the order listed.

13.1 Perform the **RTC&USBID** Adjustment.

13.2 Enter the Head Rank ID (**Print Head** calibration values).

13.3 Perform **Input Serial Number**.

13.4 Perform the Rear Sensor Adjustment.

13.5 Perform the Feed Adj.+T&B Adjustment.

13.6 Perform the IM Sensor Adjustment.

13.7 Perform the **T&B&S (Cut Sheet) Adjustment**.

13.8 Perform the Platen Position Adjustment

13.9 Perform the Auto Bi-D Adjustment.

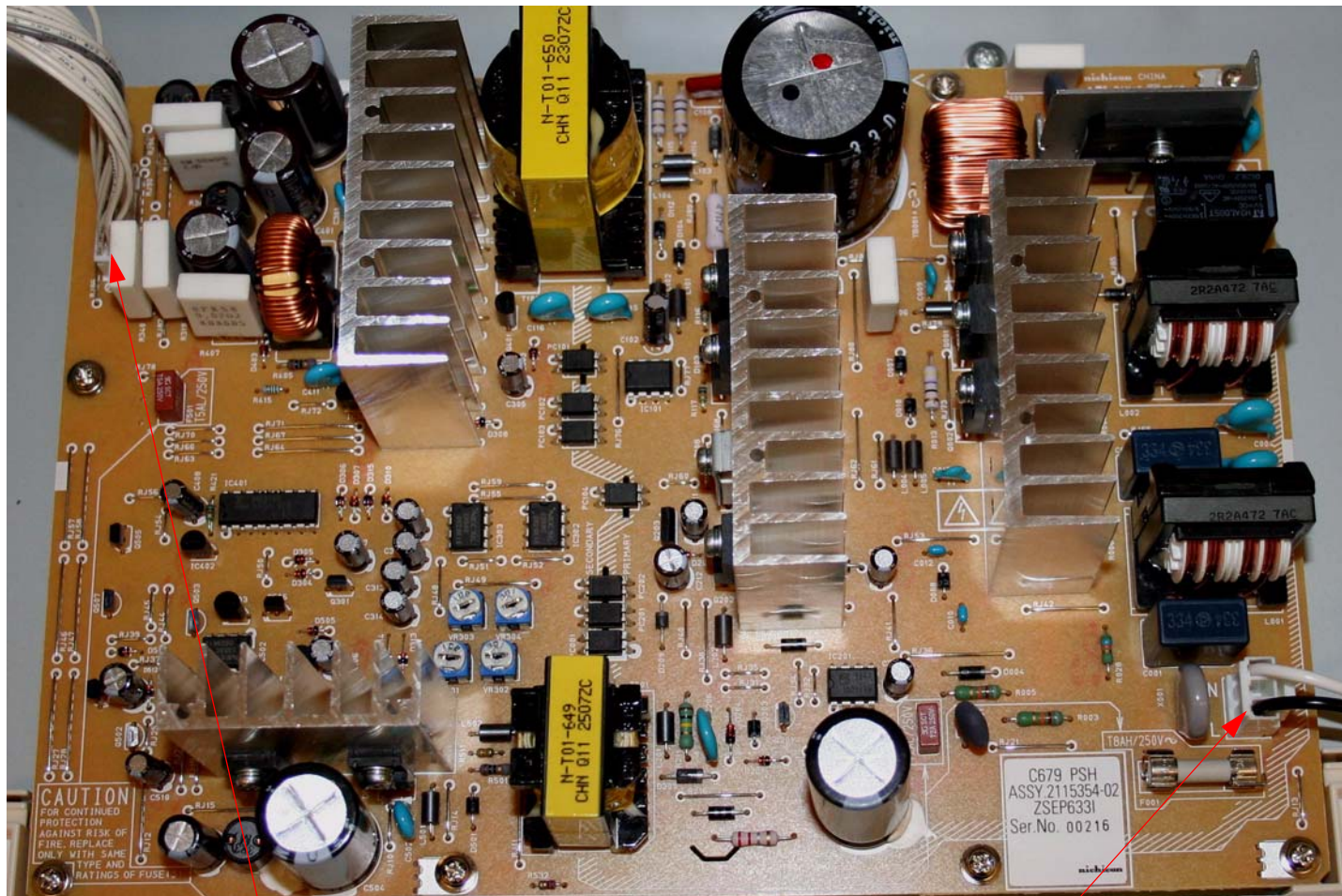
13.10 Perform the Auto Uni-D Adjustment.

13.11 Perform the Cutter Pressure Adjustment.

13.12 Perform the **Colorimetric Calibration** (*When specifically requested by Epson*).

Board (Power Supply) Removal

1. Turn off the **Printer** and **UNPLUG from AC**.
2. Remove the **Cover (Rear)**.
3. Unplug the **Cables** that attach the **Power Supply** to the **Printer**.



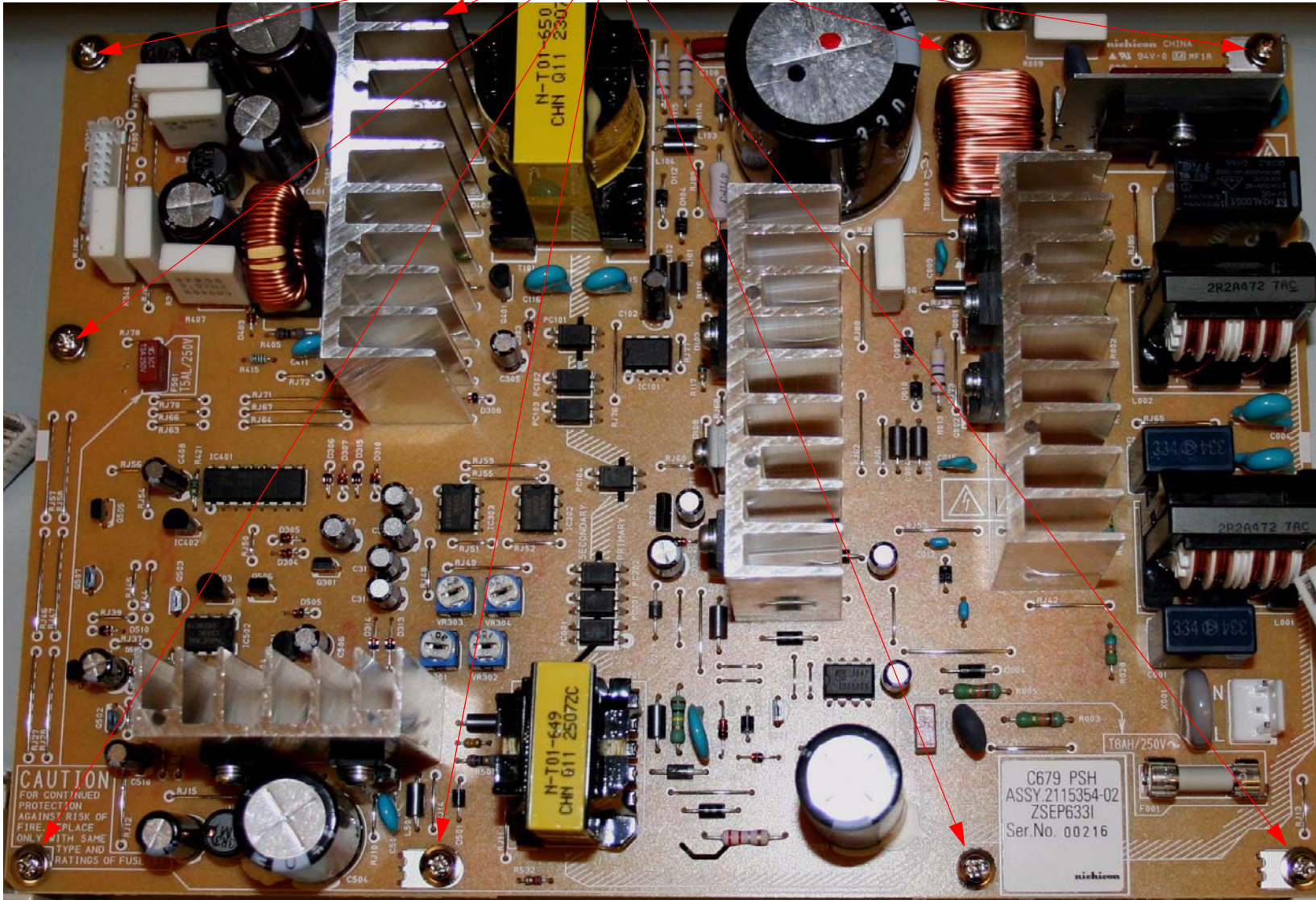
1. Unplug **CN301**.

2. Unplug **CN001**.

4. Remove **9 Screws**, and lift out the **Power Supply**.



1. Remove **9 Screws**

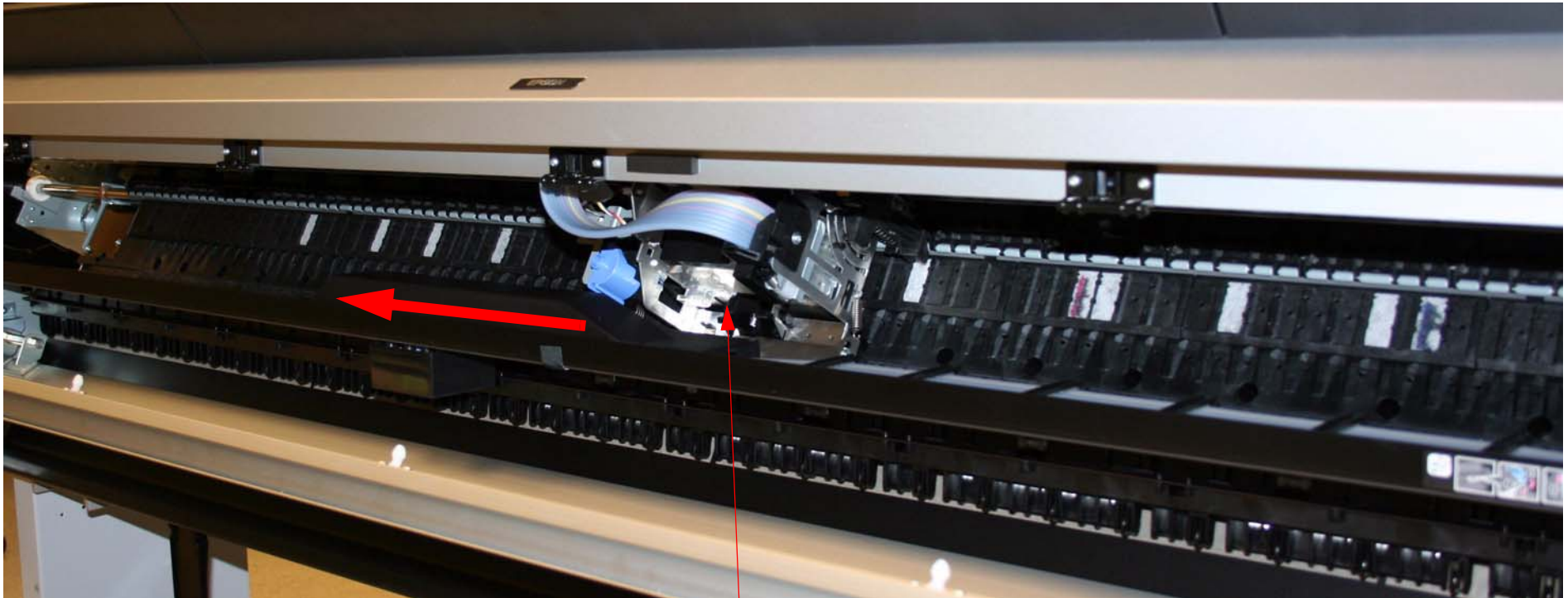


2. Lift out the **Power Supply**.

Cleaning Unit Removal

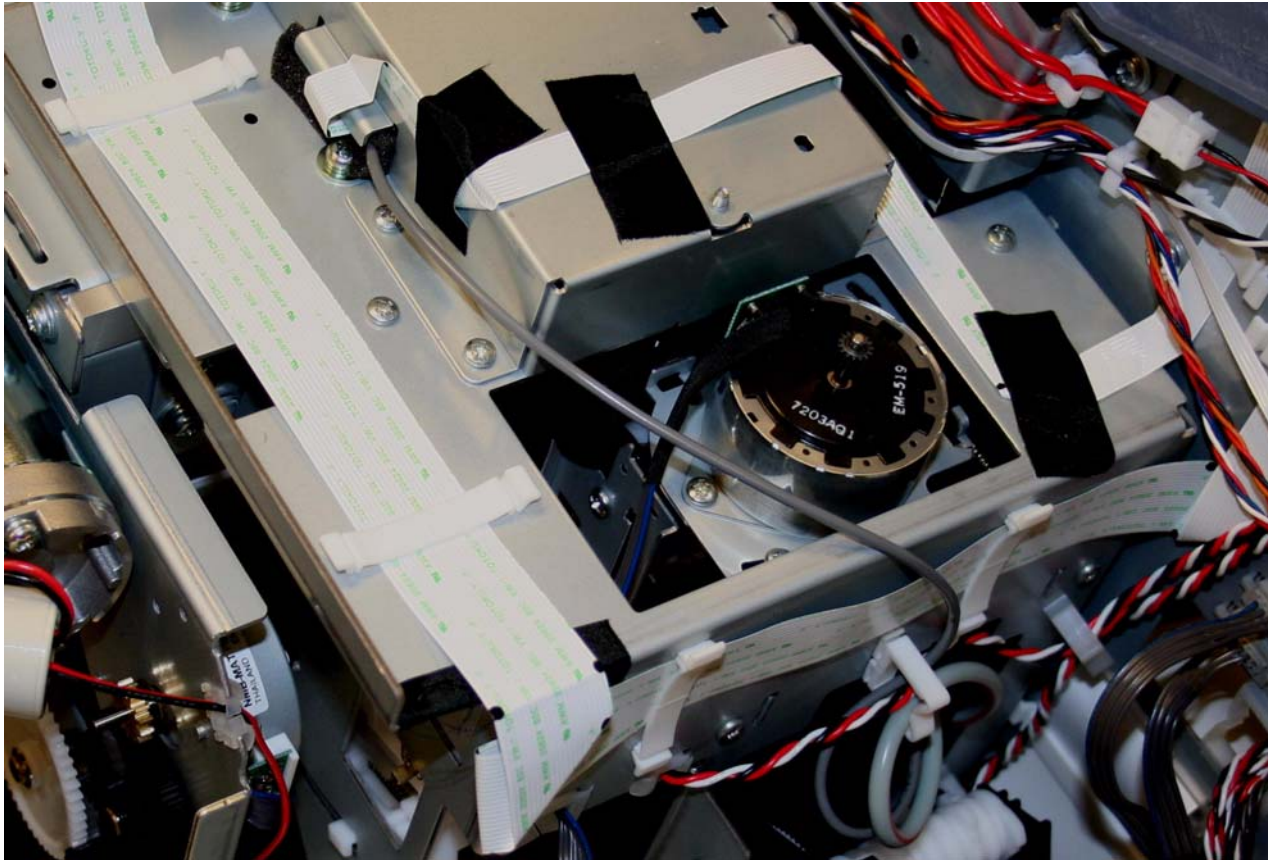
1. Remove the **Right Side Cover**.
2. Move the **Carriage Assembly** to the center of the **Printer**.
 - 2.1 Follow the directions in the Carriage Release (Auto) Chapter found in the Reference Section.

Note: The Print Head is very fragile and can be damaged moving it away from the Cleaning Unit. Use the Carriage Release (Auto) procedure located in the Reference Section of the Field Repair Guide. If the Carriage Release (Manual) Procedure must be used, ensure that the directions are followed carefully.



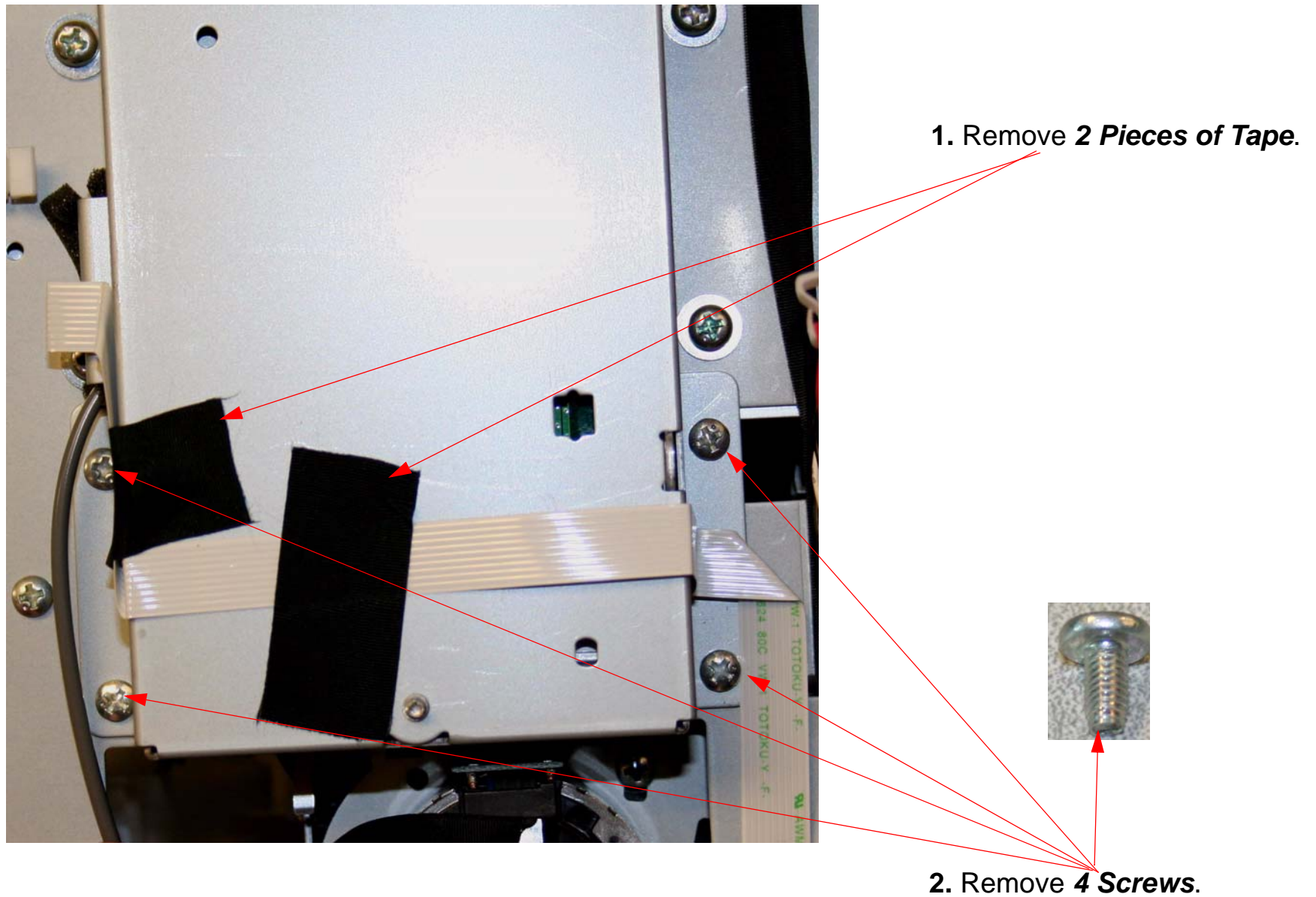
Move the **Carriage Assembly** to the center of the **Printer**.

3. Free the **Control Panel Cable** from **4 Fasteners**.



Free the **Cable** from **4 Fasteners**.

4. Remove the **2 Pieces of Tape**, and **4 Screws**, that fastens the **AID Cable** to the **AID Assembly**.



5. Turn over the **AID Board Assembly**, unplug **2 Cables**, and lift off the Assembly.

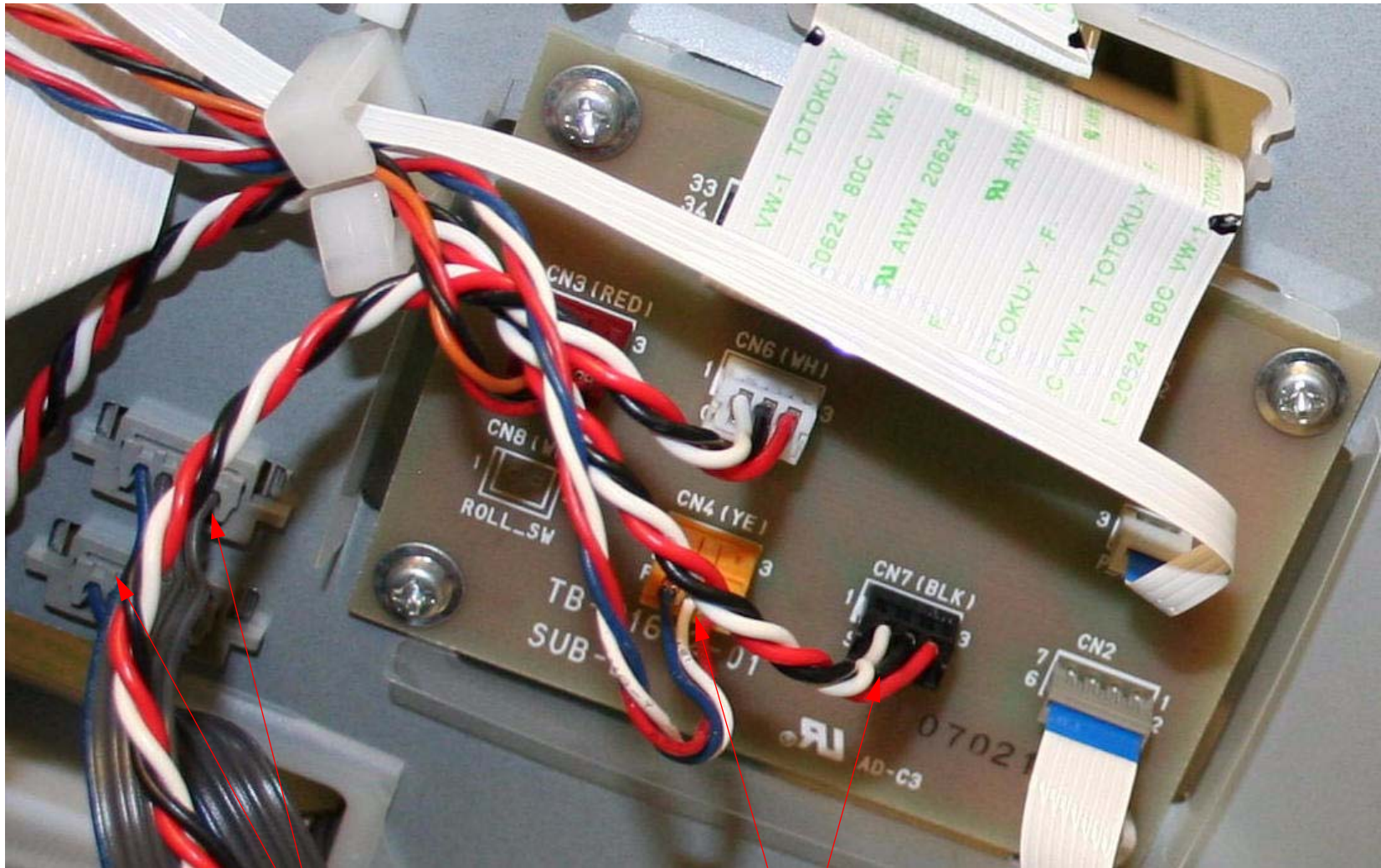


1. Turn over the **AID Board Assembly**.

2. Unplug **2 Cables**.

3. Lift off the **Assembly**.

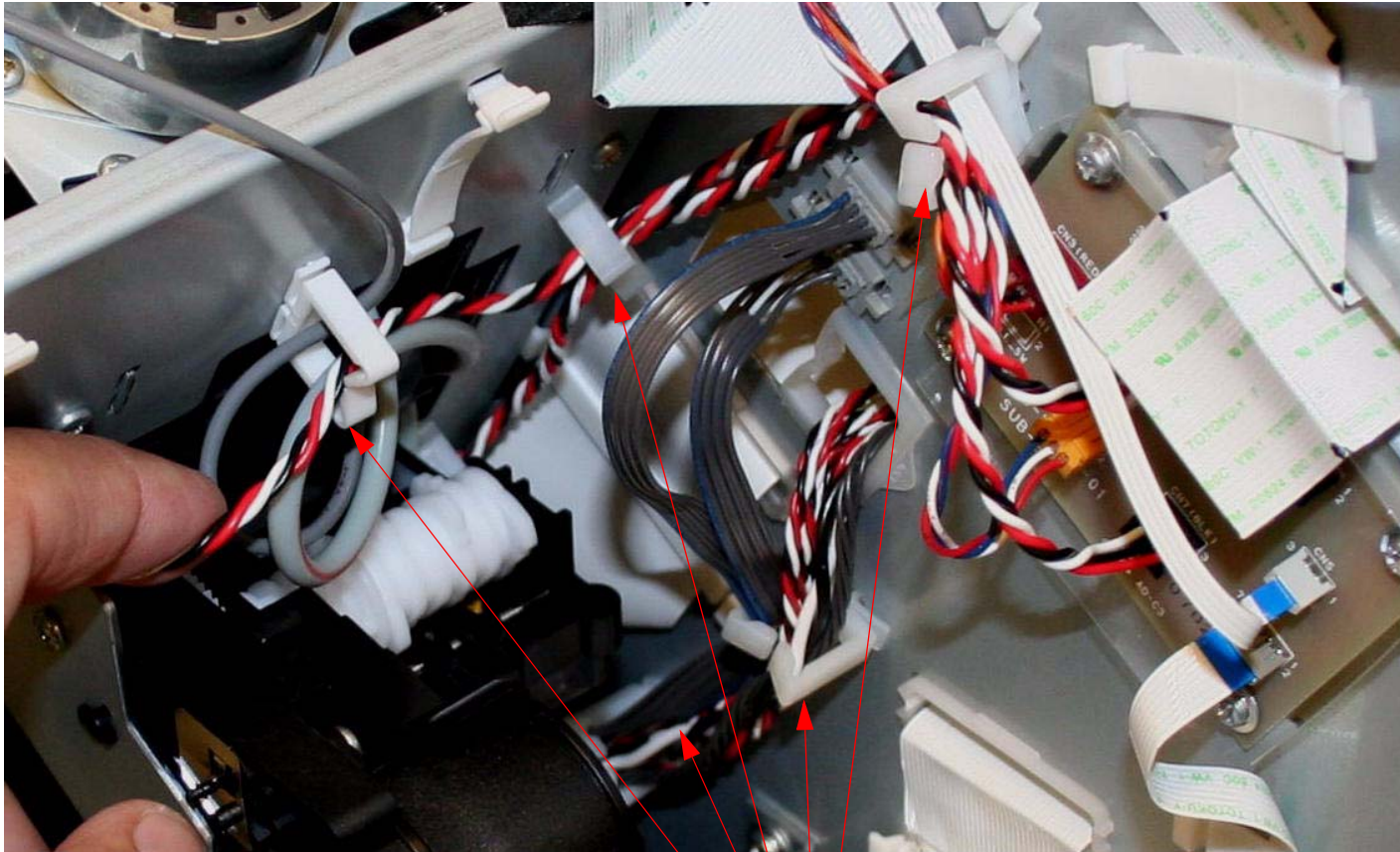
6. Unplug **2 Motors** and **2 Sensors** from the **Sub Board**.



1. Unplug **2 Motors**.

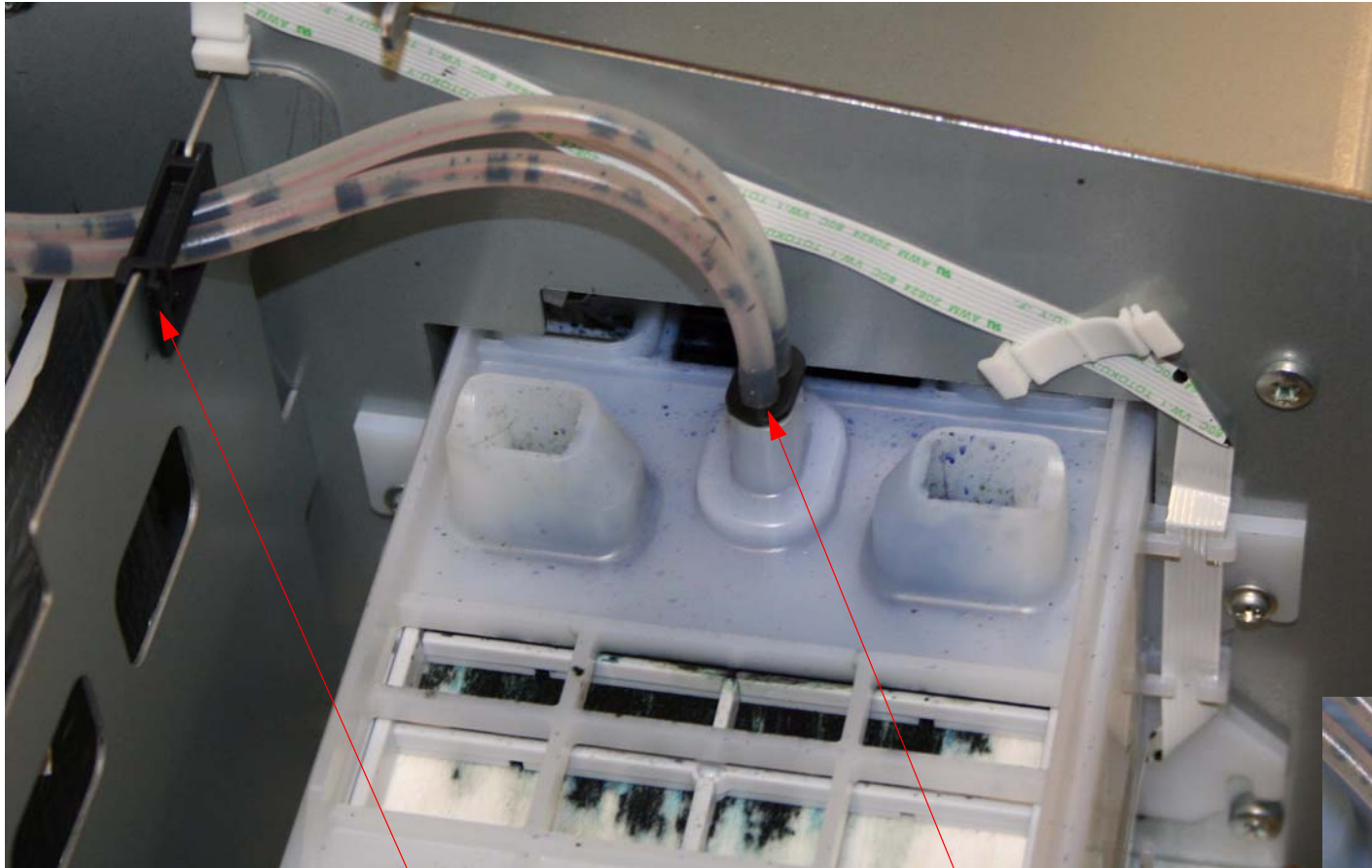
2. Unplug **2 Sensors**.

7. Free the **4 Cables** unplugged in the previous step from **5 Fasteners**.



Free the **Cables** from these **Fasteners**.

8. Free the **Waste Ink Tube** from the **Fastener**, remove it from the **Maintenance Tank**, and wrap it in a paper towel.



1. Free the **Tube** from this **Fastener**.

2. Pull out the **Tube**.

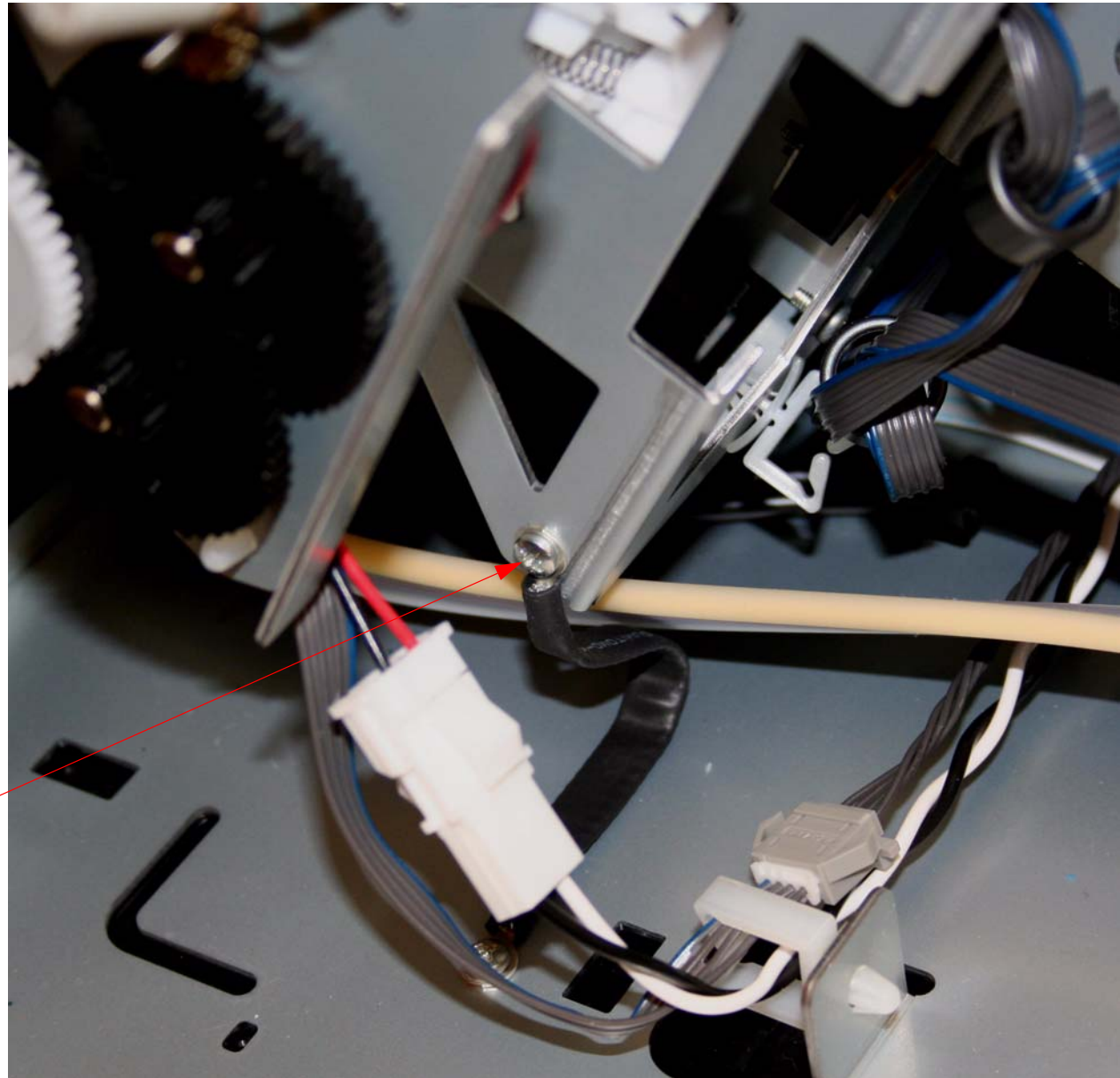
3. Wrap the **Tube**.



9. Disconnect the **Ground Strap** that connects the **Cleaning Unit** to the **Printer**.



Remove **1 Screw** to disconnect the **Ground Strap**.



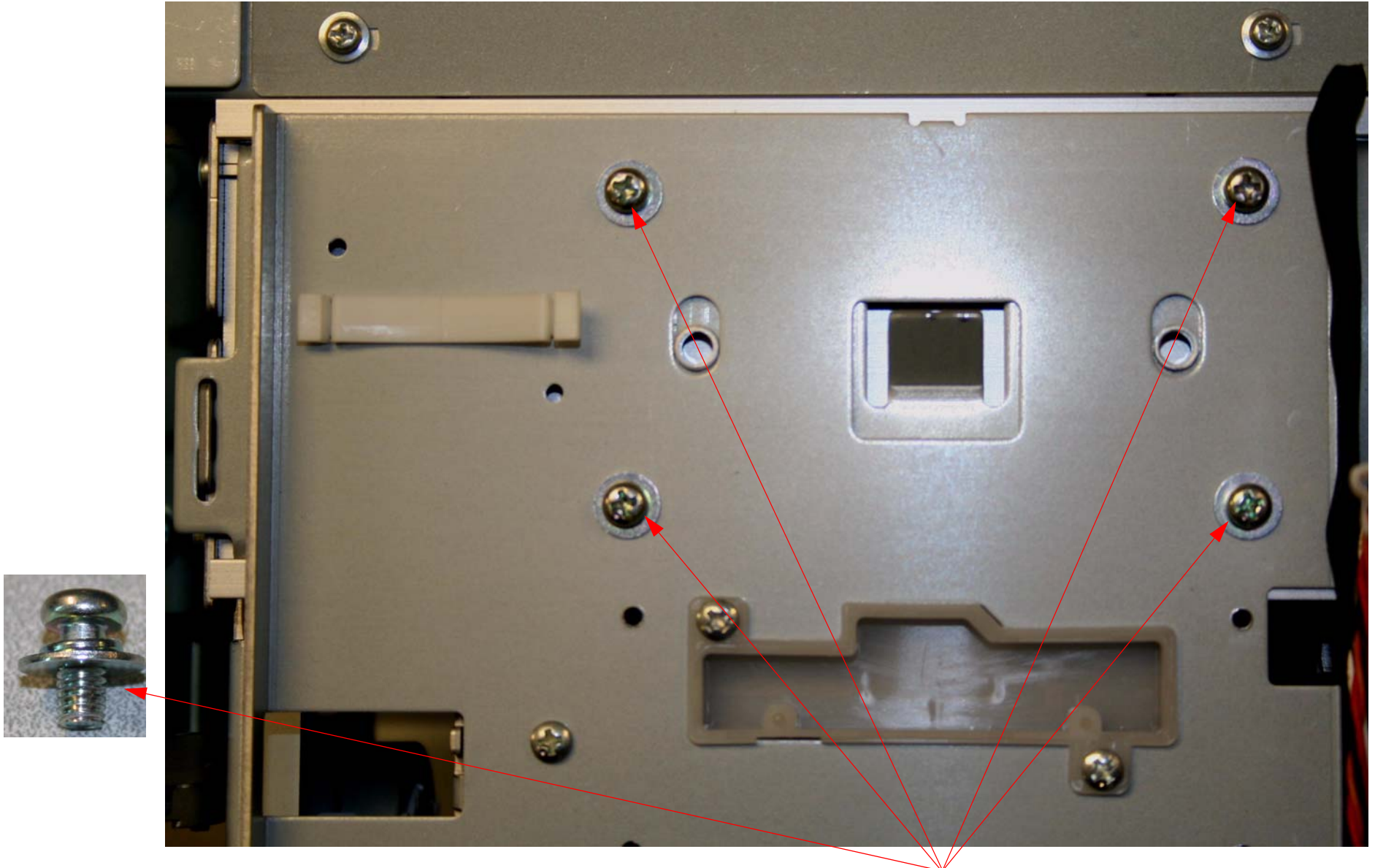
10. Remove **2 Screws** that fasten the **Cleaning Unit** to the **Printer**.



Remove **2 Screws**.

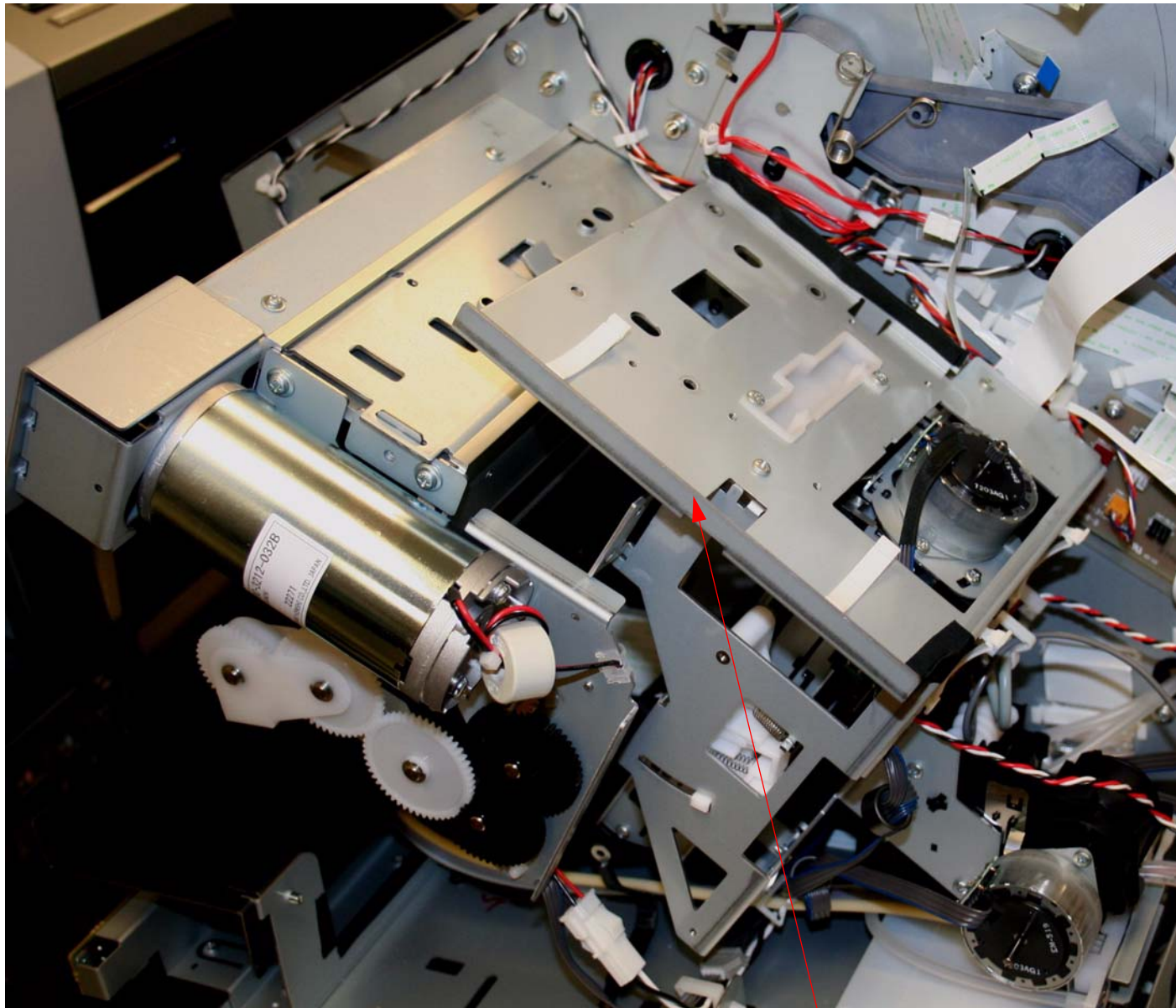
Carriage Motor

11. Remove **4 Screws** that fasten the top of the **Cleaning Unit** to the **Printer**.



Remove **4 Screws**.

12. Lift out the **Cleaning Unit**.



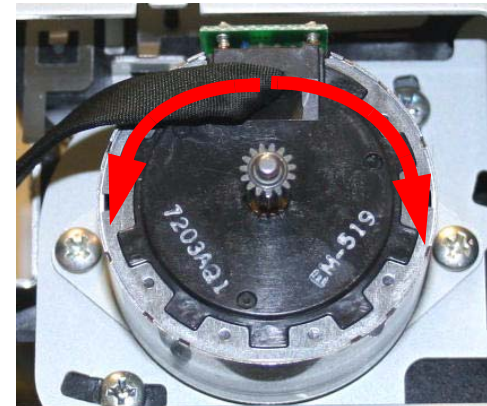
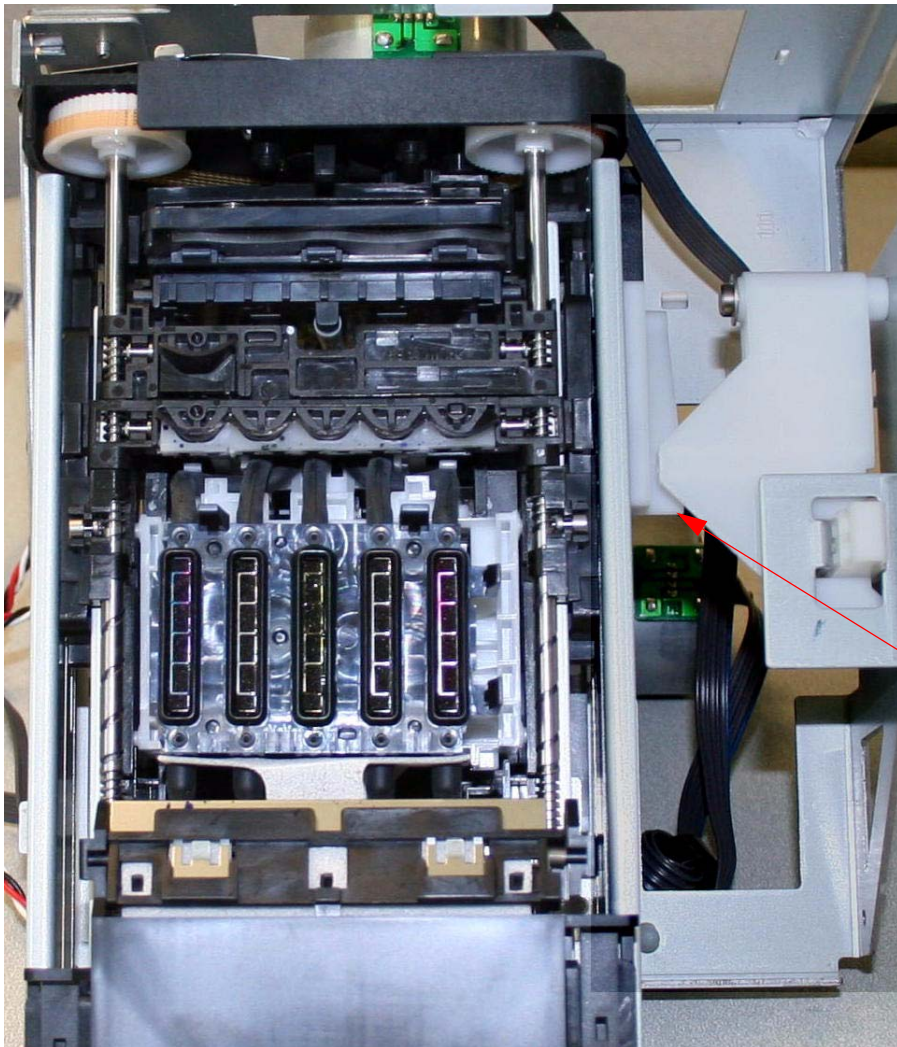
Lift out the **Cleaning Unit**.

Cleaning Unit Installation

Check the **New Cleaning Unit Mechanism** for correct Tube routing.

Note: *Incorrect Tube routing causes tube crimping and disconnecting.*

1. Raise the **Cap** to the “Capped” position.

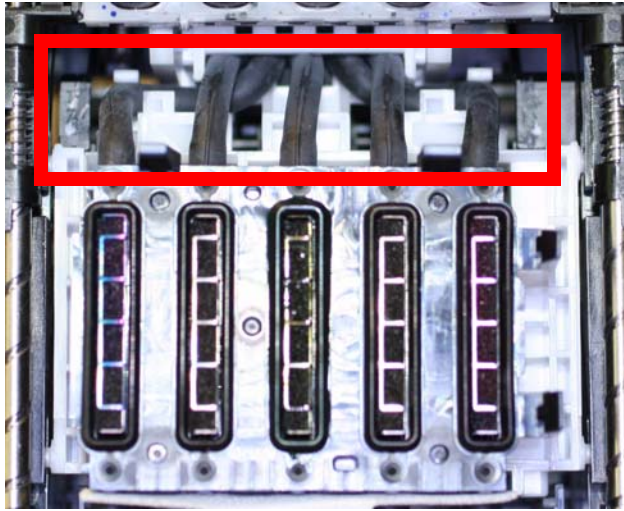


Cap Motor (located on the top of the **Cleaning Unit**).

Rotate the **Cap Motor** until this **White Nylon Piece** is in this position.

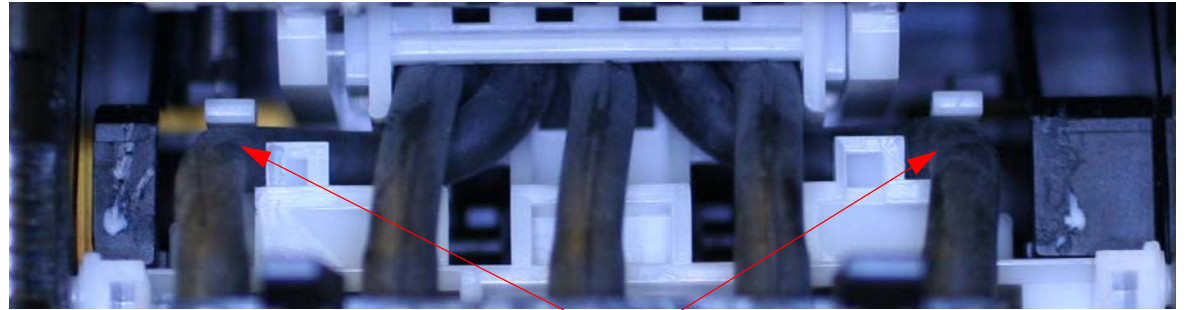
2. Check for proper **Tube** routing.

Check this area of the **Cap Mechanism**

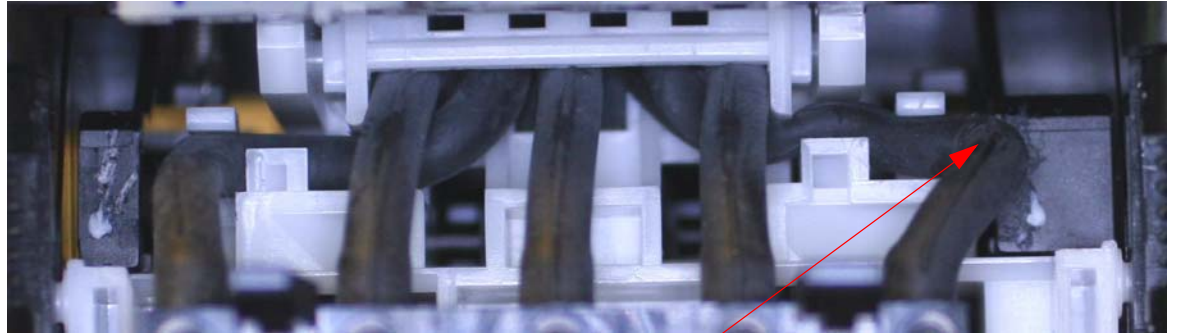


1. Check the **2 Outside Tubes** for incorrect positioning.

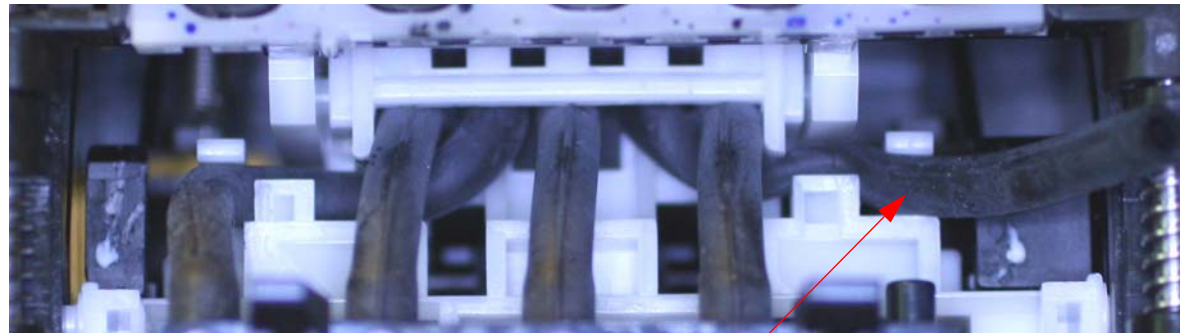
2. Check the **2 Outside Tubes** for correct connection to the **Cap**.



Correct **Tube** routing.



Incorrect **Tube** position.

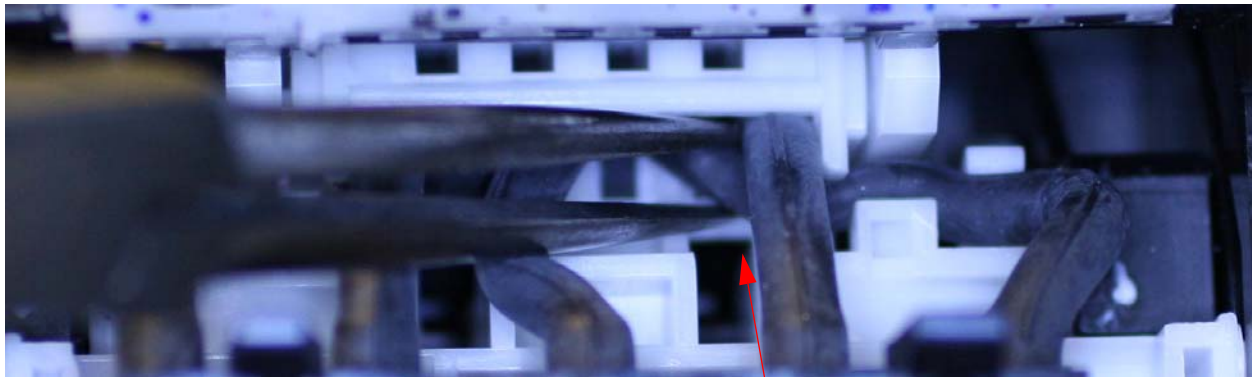


Incorrect **Tube** connection.

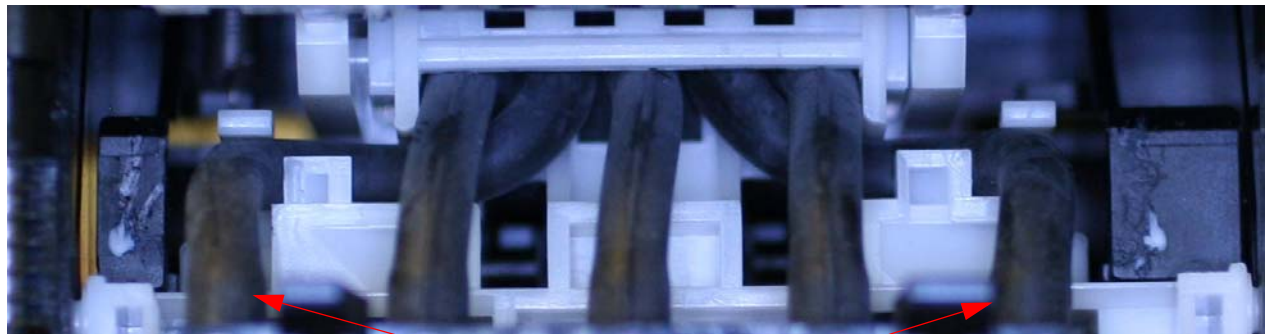
3. Repair if necessary.

1. Connect **Tube(s)** if it is disconnected.

2. Correctly route **Tube(s)**.



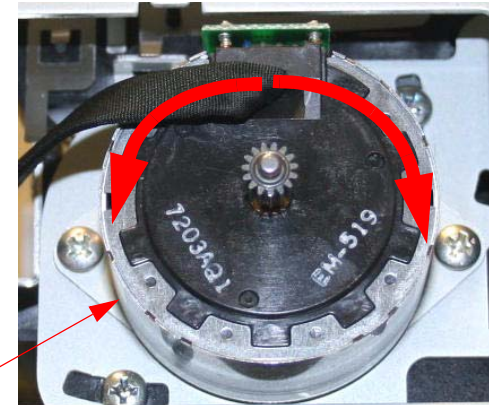
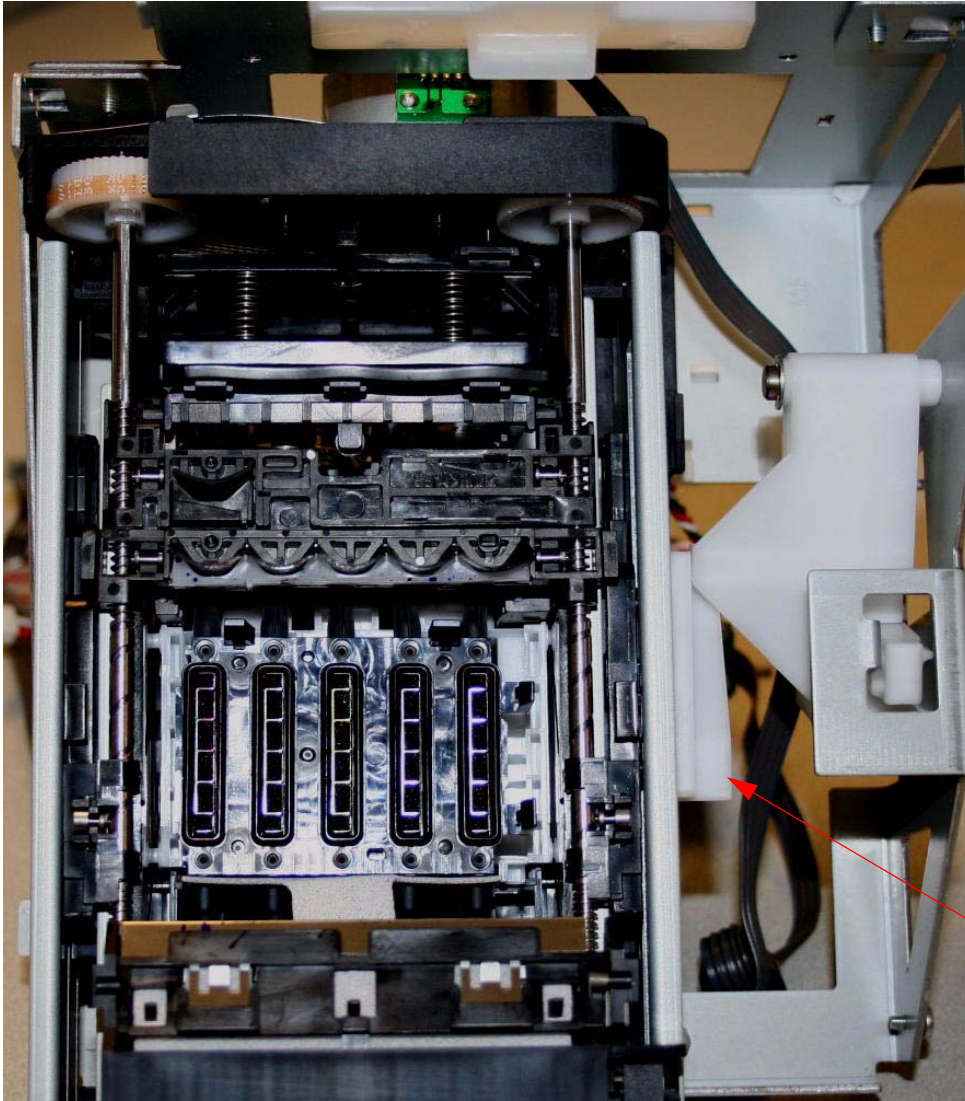
Pull here to “straighten” the **Tube**.



Correct **Tube** routing.

Install the Cleaning Unit

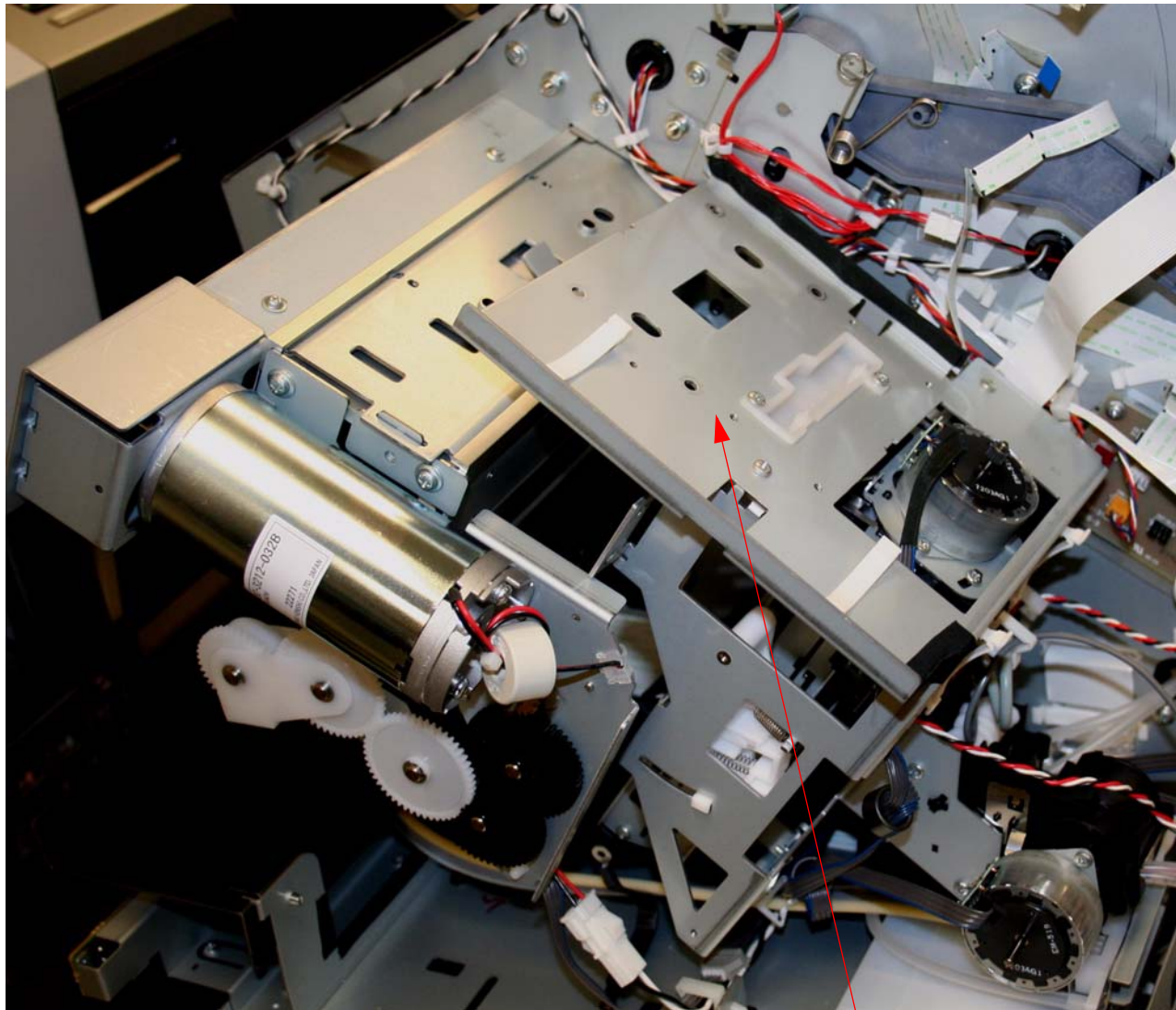
1. Ensure that the **New Cleaning Unit Mechanism** is in this condition.



Cap Motor (located on the top of the **Cleaning Unit**).

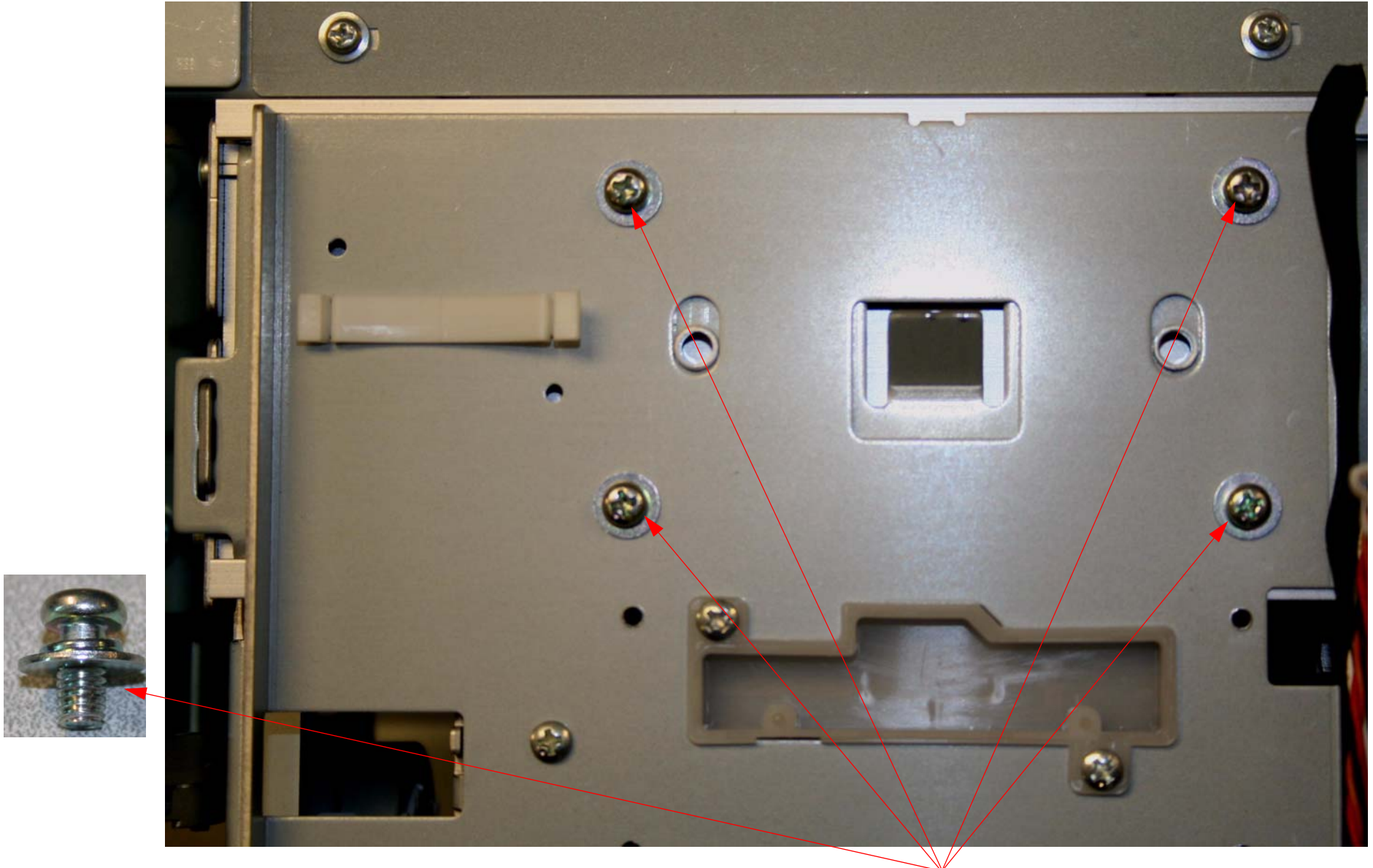
Rotate the **Cap Motor** until this **White Nylon Piece** is in this position.

2. Put the ***Cleaning Unit*** in position.



Drop in the ***Cleaning Unit***.

3. Install **4 Screws** that fasten the top of the **Cleaning Unit** to the **Printer**.



Install **4 Screws**.

4. Install **2 Screws** that fasten the **Cleaning Unit** to the **Printer**.



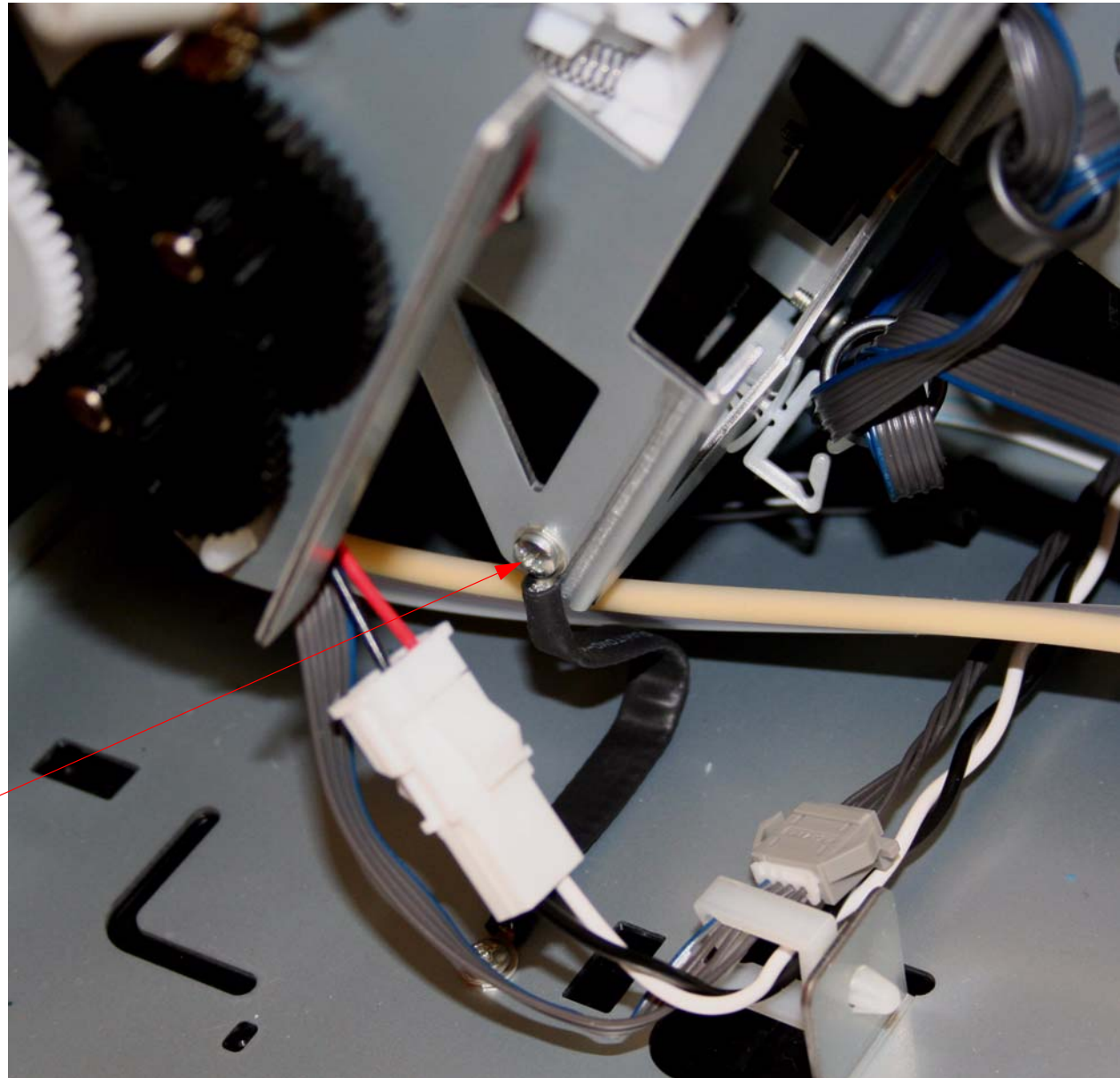
Install **2 Screws**.

Carriage Motor

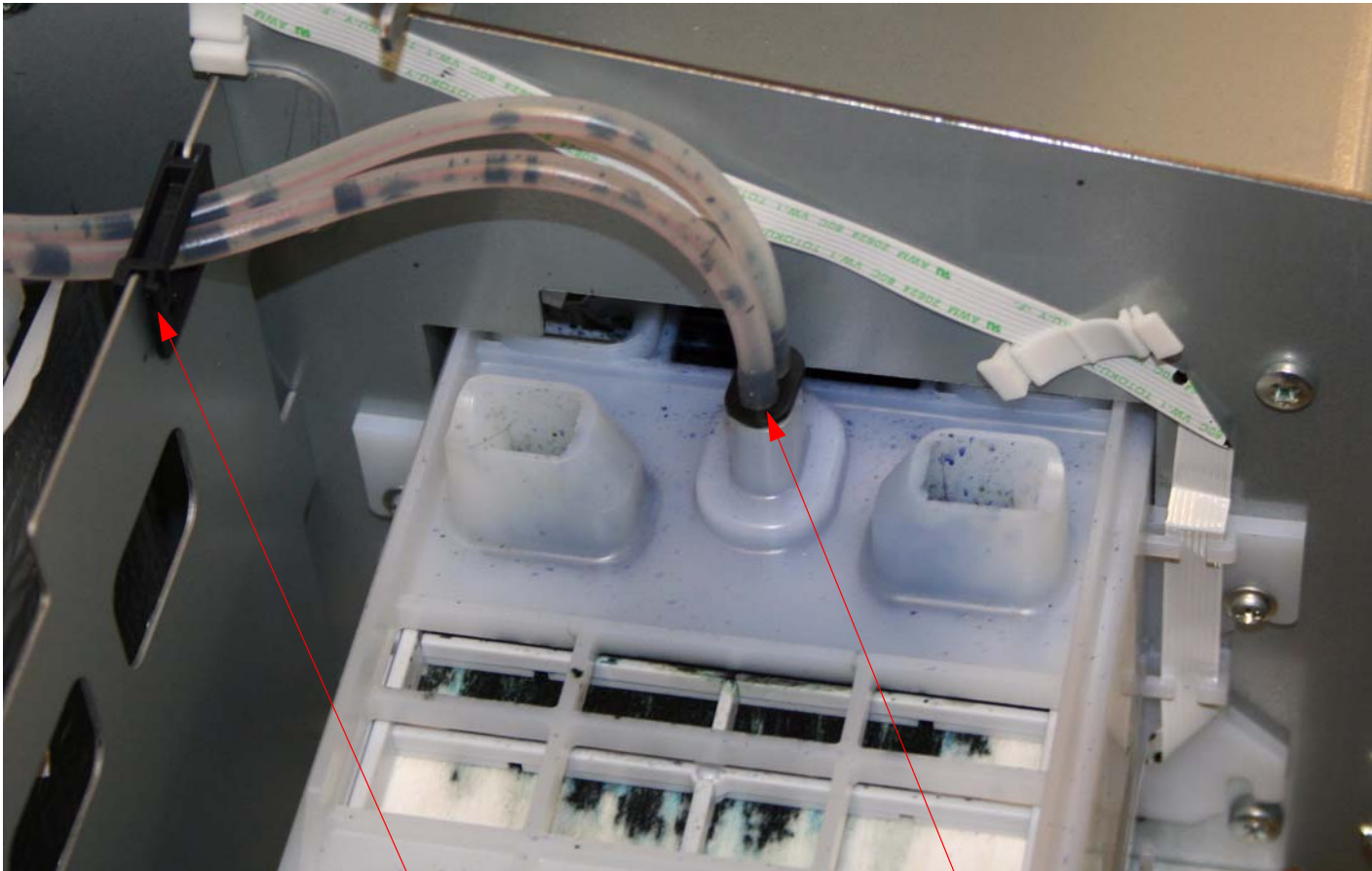
5. Connect the **Ground Strap** that connects the **Cleaning Unit** to the **Printer**.



Install **1 Screw** to connect the **Ground Strap**.



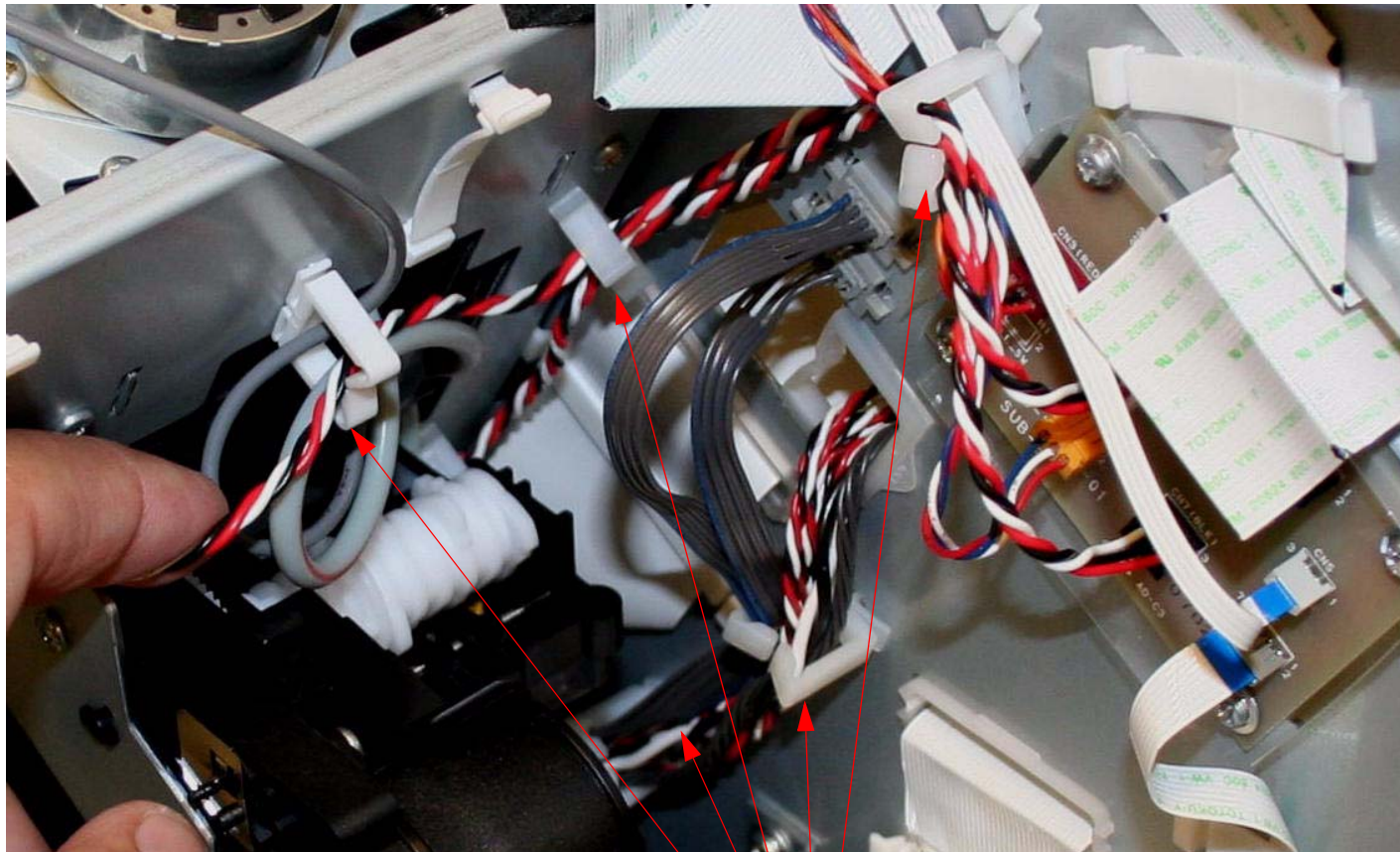
6. Place the **Waste Ink Tube** in it's **Fastener** and into the **Maintenance Tank**.



1. Place the **Tube** in this **Fastener**.

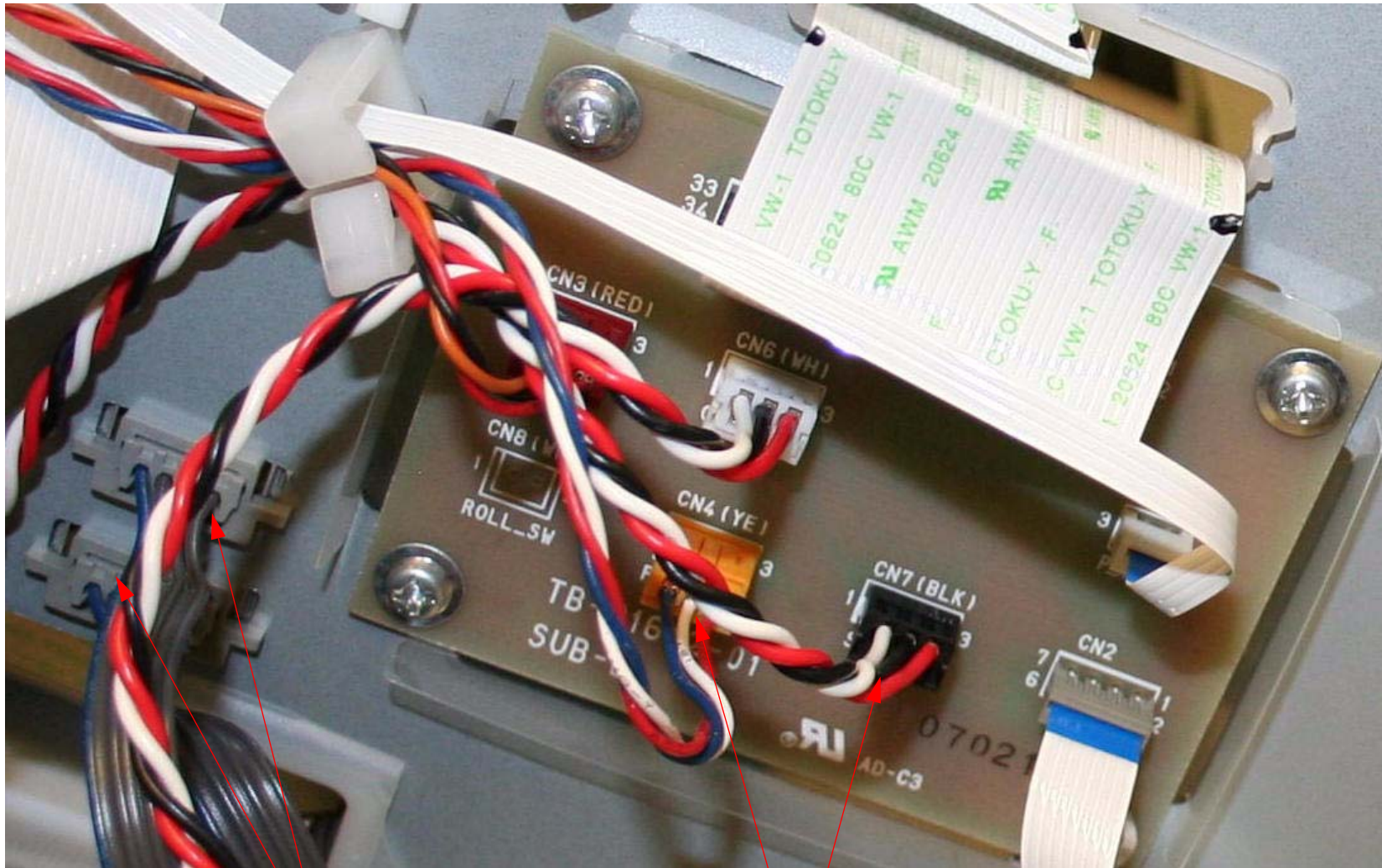
2. Insert the **Tube** into the **Waste Tank**.

7. Secure the **4 Cables** that connect the **Cleaner Unit** to the **Printer** with **5 Fasteners**.



Secure the **Cables** with these **Fasteners**.

8. Plug in **2 Motors** and **2 Sensors** into the **Sub Board**.



1. Plug in **2 Motors**.

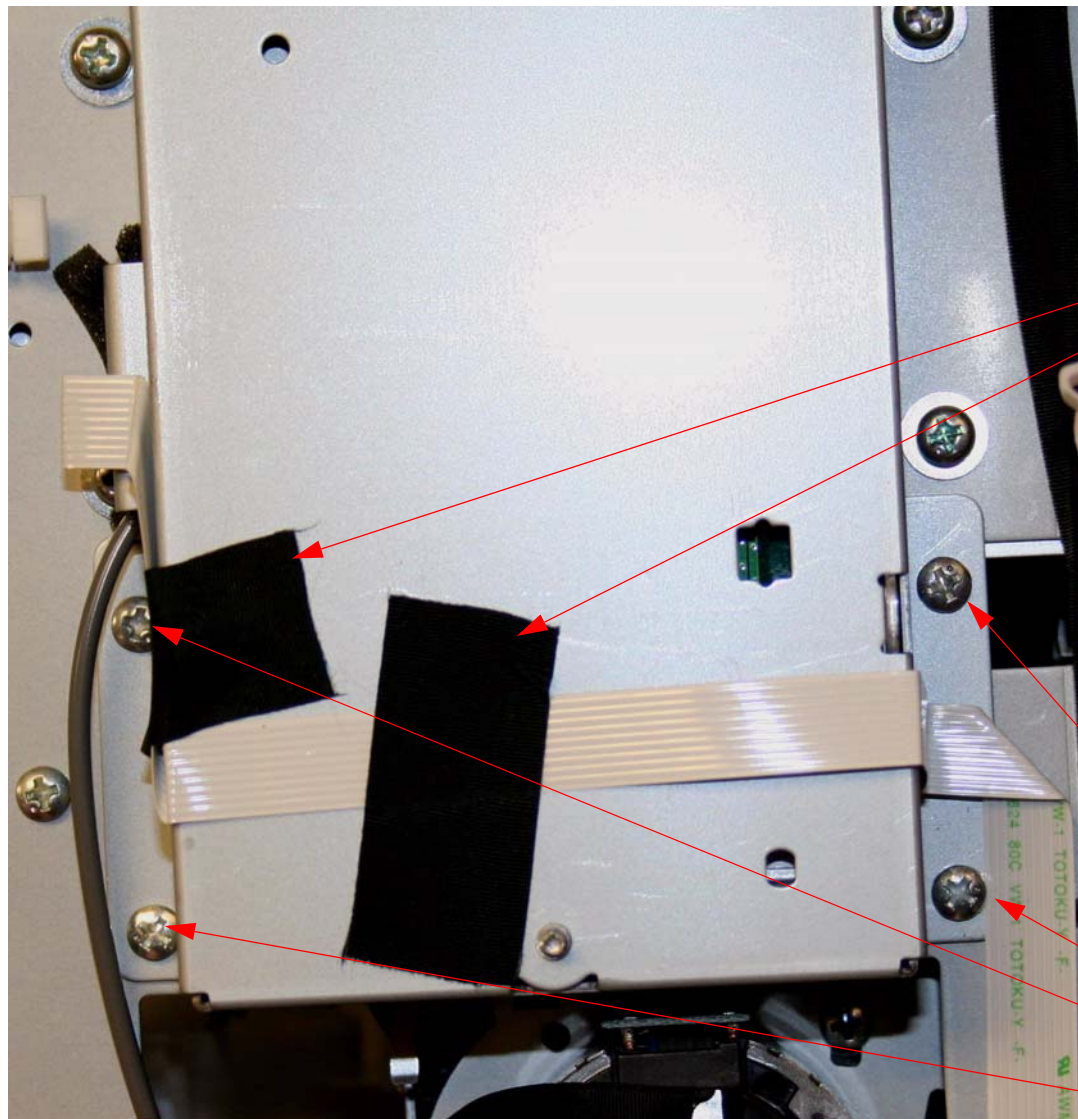
2. Plug in **2 Sensors**.

9. Plug in **2 Cables** to the **AID Board Assembly**.



Plug in **2 Cables**.

10. Install **4 Screws**, replace **2 Pieces of Tape** that fasten the **AID Cable** to the **AID Assembly**.

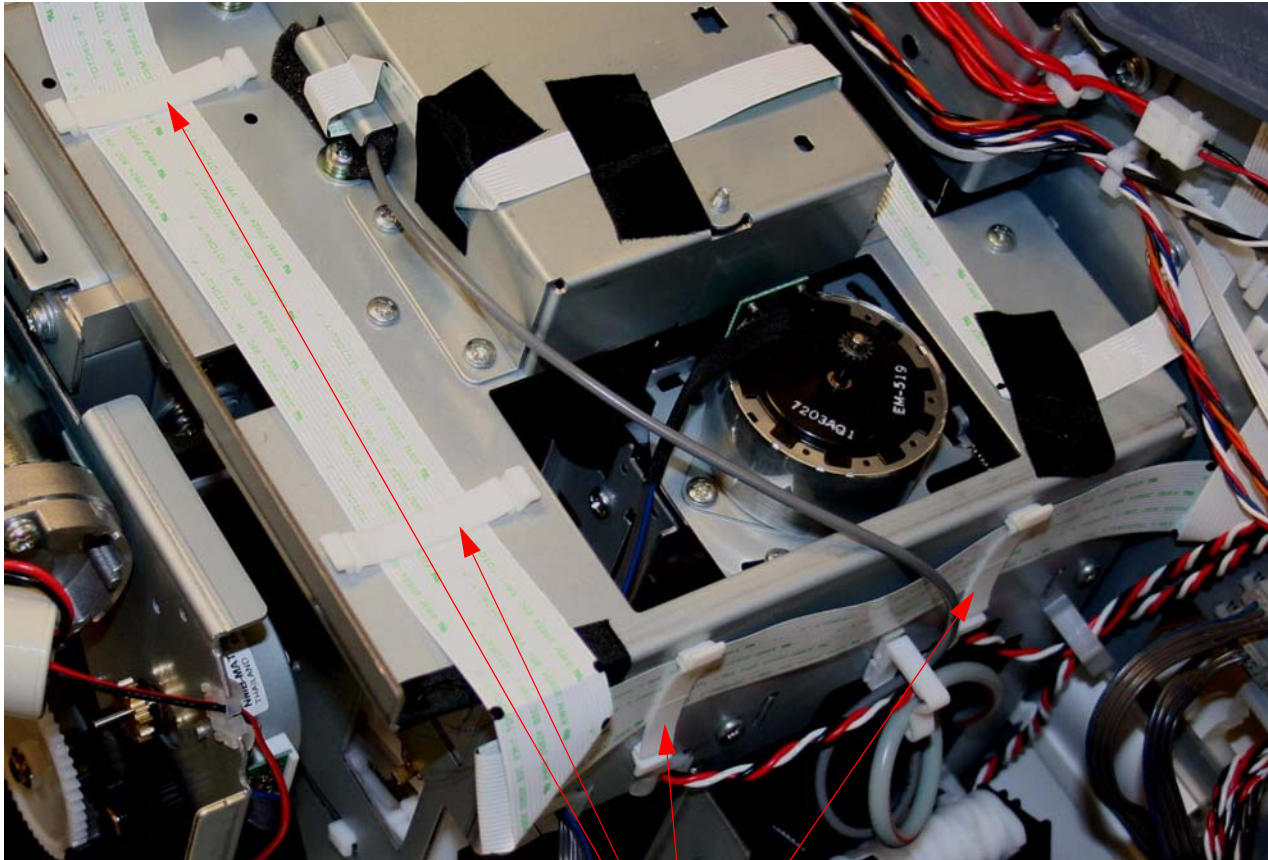


2. Replace **2 Pieces of Tape**.

1. Install **4 Screws**.



11. Secure the **Control Panel Cable** with **4 Fasteners**.



Secure the **Cable** with **4 Fasteners**.

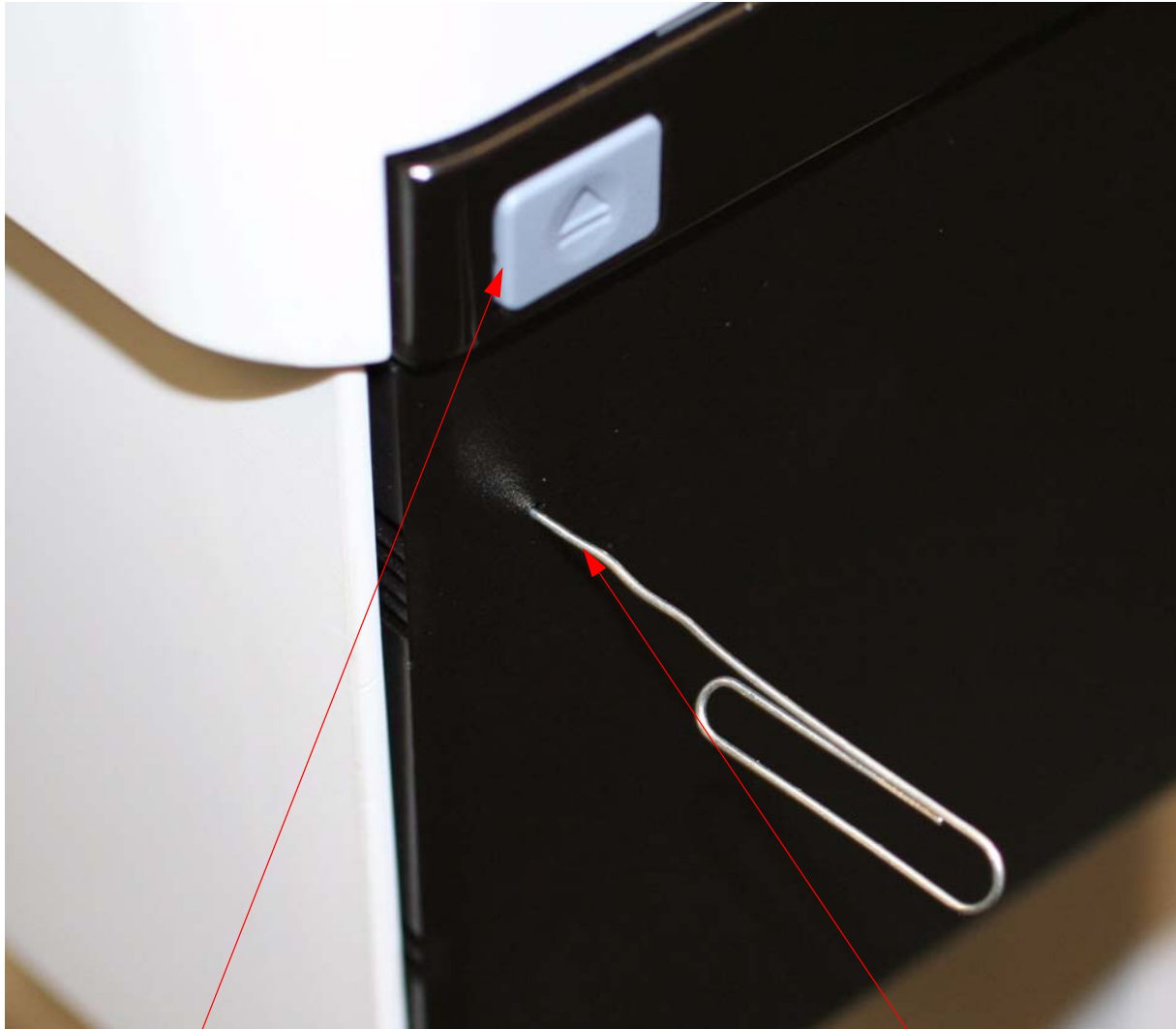
12. Perform the **AID PG** Adjustment.

13. Perform **Clear Counter [when replacing INK SYSTEM ASSY]**.

14. Install the **Right Side Cover**.

Cover (Left Side) Removal

1. Open the **Left Ink Bay Door**.



If the **Printer** is turned on, press this button to open the **Ink Bay Door**.

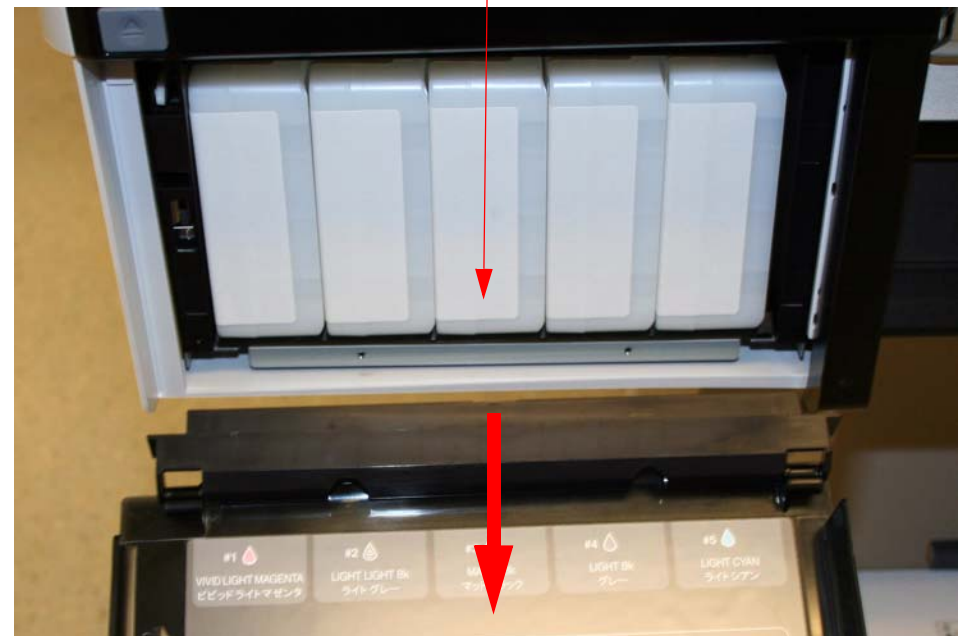
If the **Printer** is turned off, insert a paper clip into the **Manual Release Hole** to trip the **Door Release Mechanism**.

2. Remove the **Left Ink Bay Cover**.

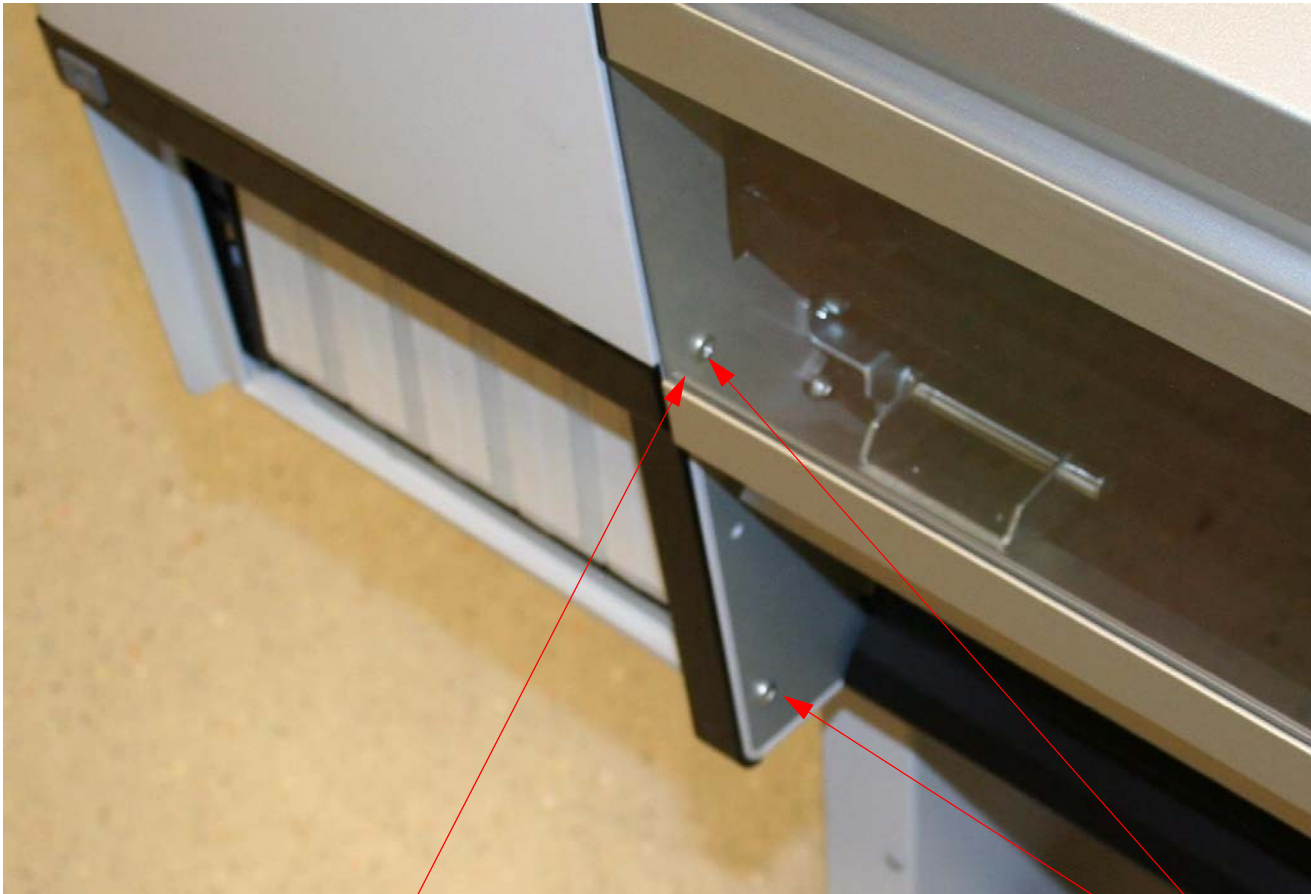


1. Remove the 2 **Screws** that fasten the **Left Ink Bay Cover**.

2. Remove the **Left Ink Bay Cover** by pulling straight out.



3. Remove **4 Screws** that fasten the inside of the **Left Side Cover** to the **Printer**.



Note: This Screw is pictured through the clear Front Cover.



Remove **2 Screw**.

4. Remove **1 Screw** that fastens the top of the **Left Side Cover** to the **Printer**.

Remove **1 Screw**.



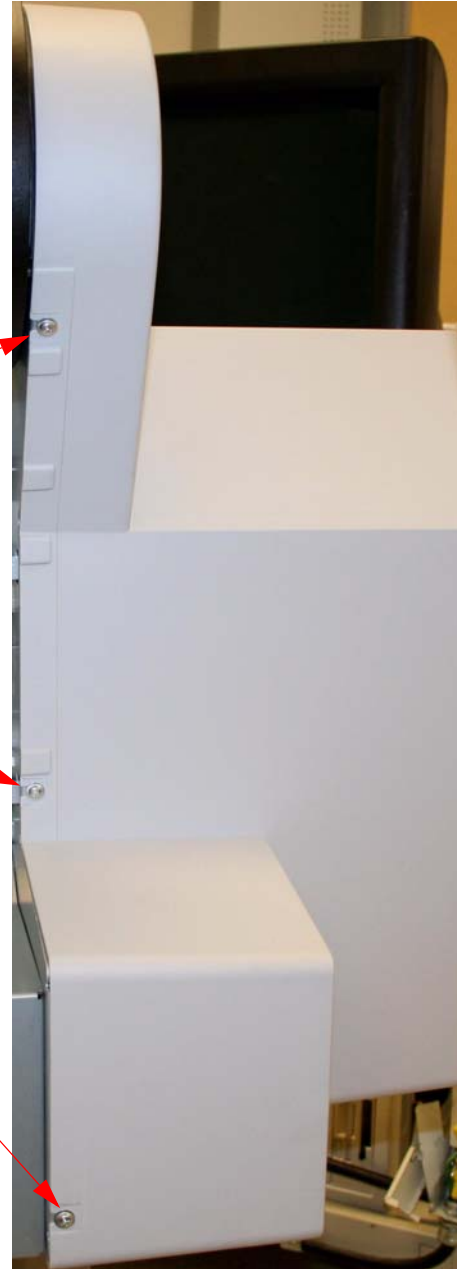
5. Remove **1 Screw** that fastens the **Left Side Cover** to the **Printer**.



Remove **1 Screw**.

6. Loosen **3 Screws** that fasten the **Left Side Cover** to the back of the **Printer**.

Loosen **3 Screws**.



7. Remove the ***Maintenance Cartridge***, and slide off the ***Left Side Cover***.

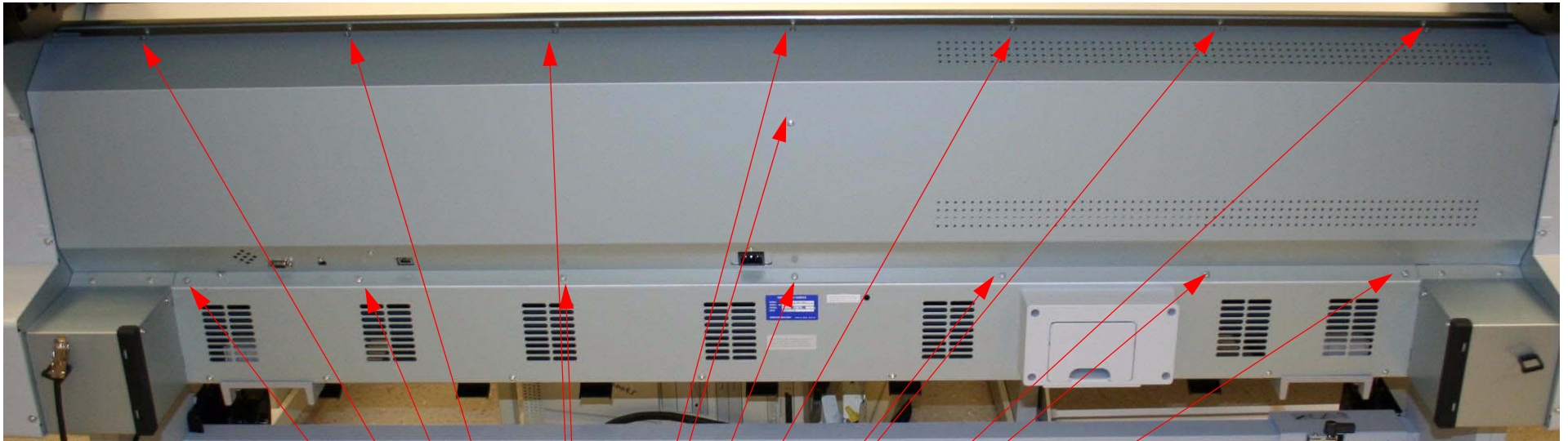


1. Slide out the ***Maintenance Cartridge***.

2. Slide off the ***Left Side Cover***.

Cover (Rear) Removal

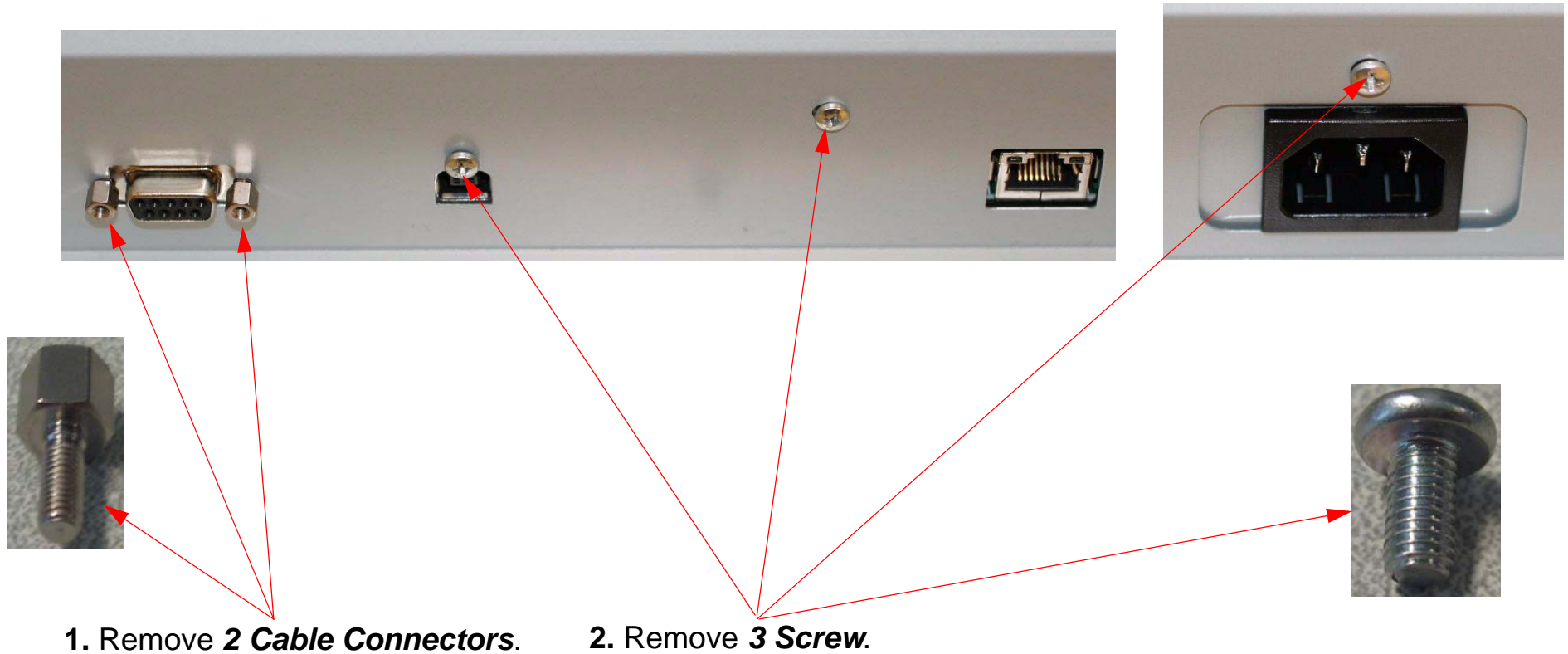
1. Remove the **15 Screws** that fasten the **Rear Cover** to the **Printer**.



Remove **15 Screws**.



2. Remove **2 Cable Connectors**, and **2 Screws**, and then the **Rear Cover**.



3. Remove the **Rear Cover**.

Cover (Right Side) Removal

1. Release the **Print Head** from the **Cap Assembly**.

Note: The **Print Head** is very fragile and can be damaged moving it away from the **Cleaning Unit**. Ensure that you are familiar with the **Carriage Release** chapter located in the **Reference Section** of the **Field Repair Guide**

2. Turn off and **unplug the Printer**.
3. Move the **Print Head (Carriage Assembly)** to the center of the **Printer**.



Move the **Print Head** to the center of the **Printer**.

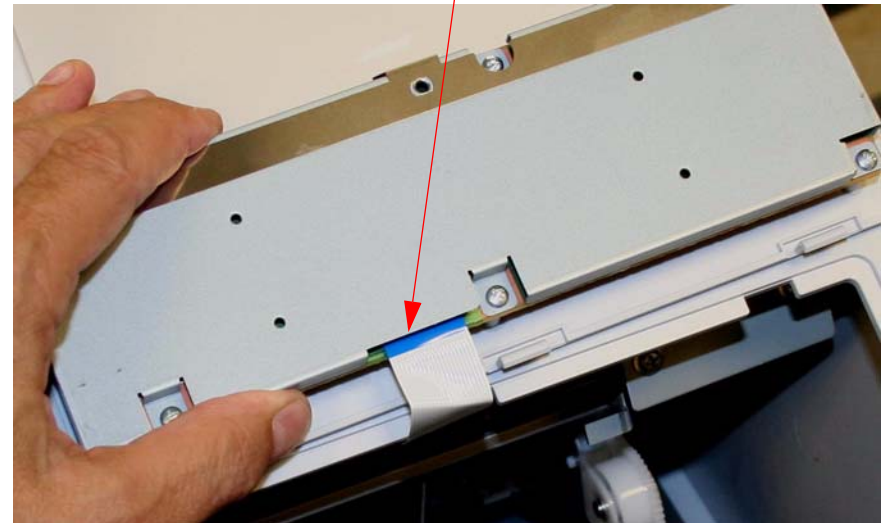
4. Remove the **Control Panel**.



1. Reach into the cavity that the **Print Head** occupies on the **Cap Assembly**, and release these **3 Interlocks**.

Note: Release the **Right Side Interlock** with your left hand and hold the right corner of the **Control Panel** up with your right hand, then release the **Center Interlock**, etc.

2. Unplug the **Control Panel Cable** and remove the **Control Panel**.

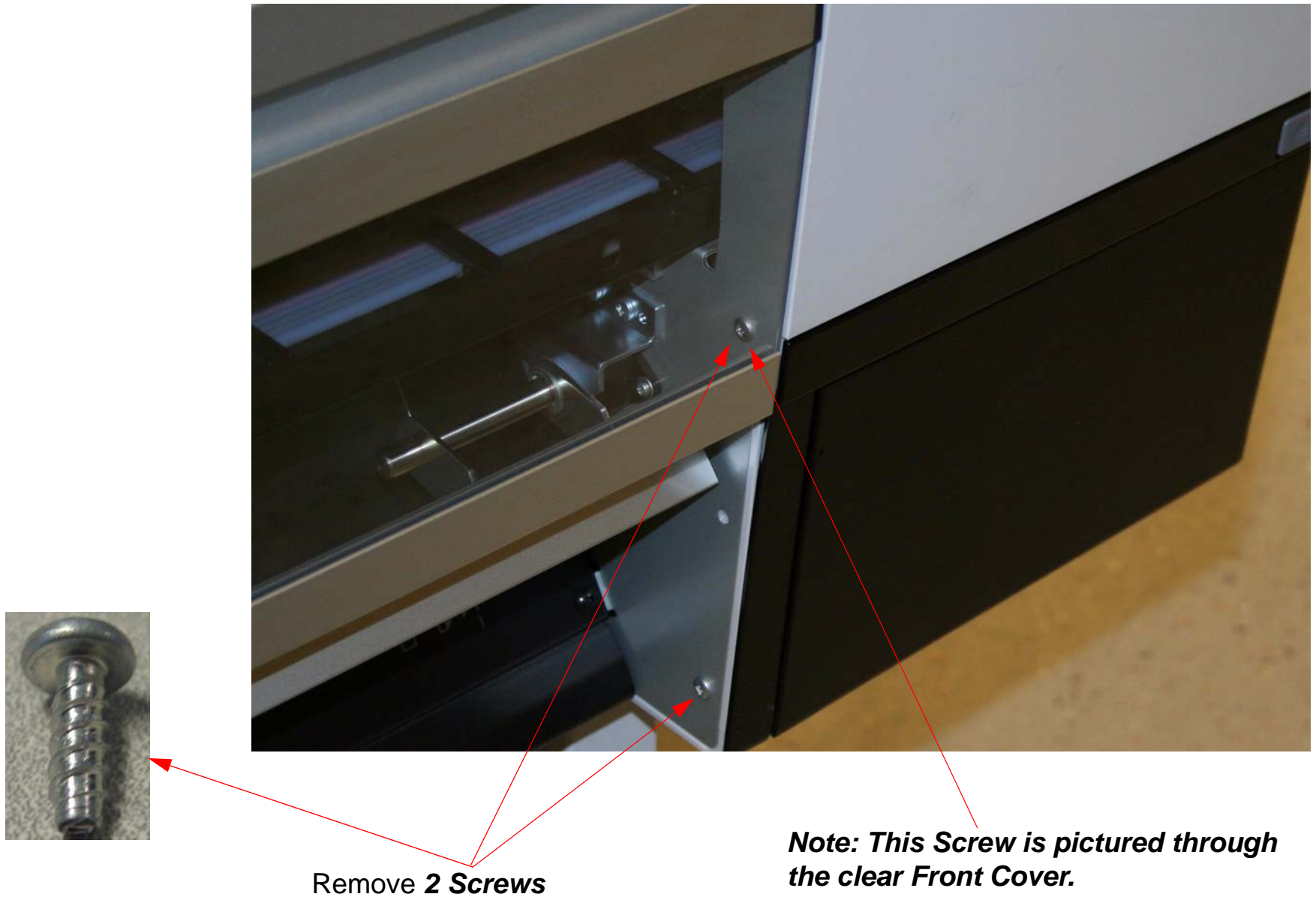


5. Remove the **Maintenance Cartridge** located at the rear of the **Right Side Cover**.

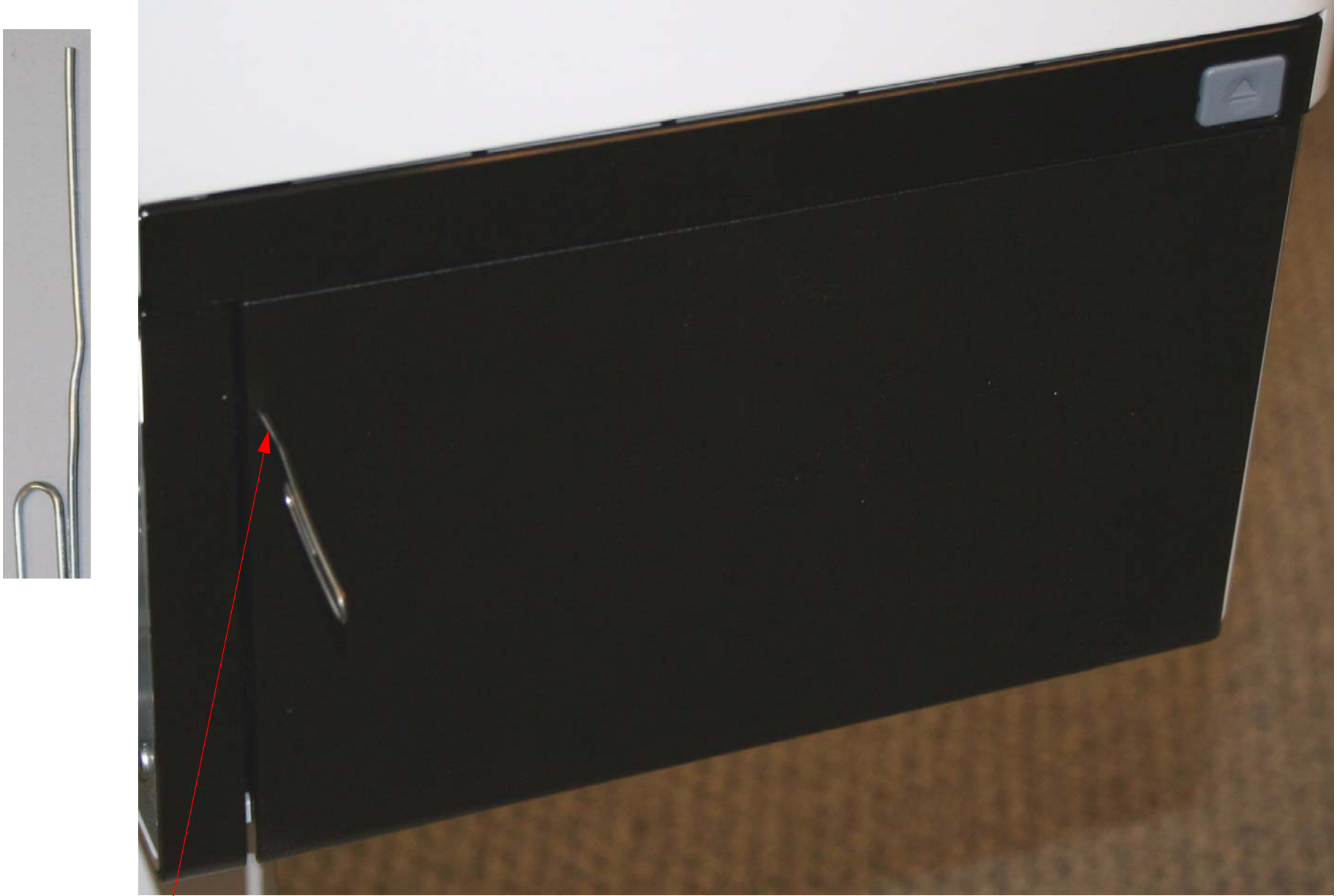


Slide out the **Maintenance Cartridge**.

6. Remove **2 Screws** that fasten the inside of the **Right Side Cover** to the **Printer**.

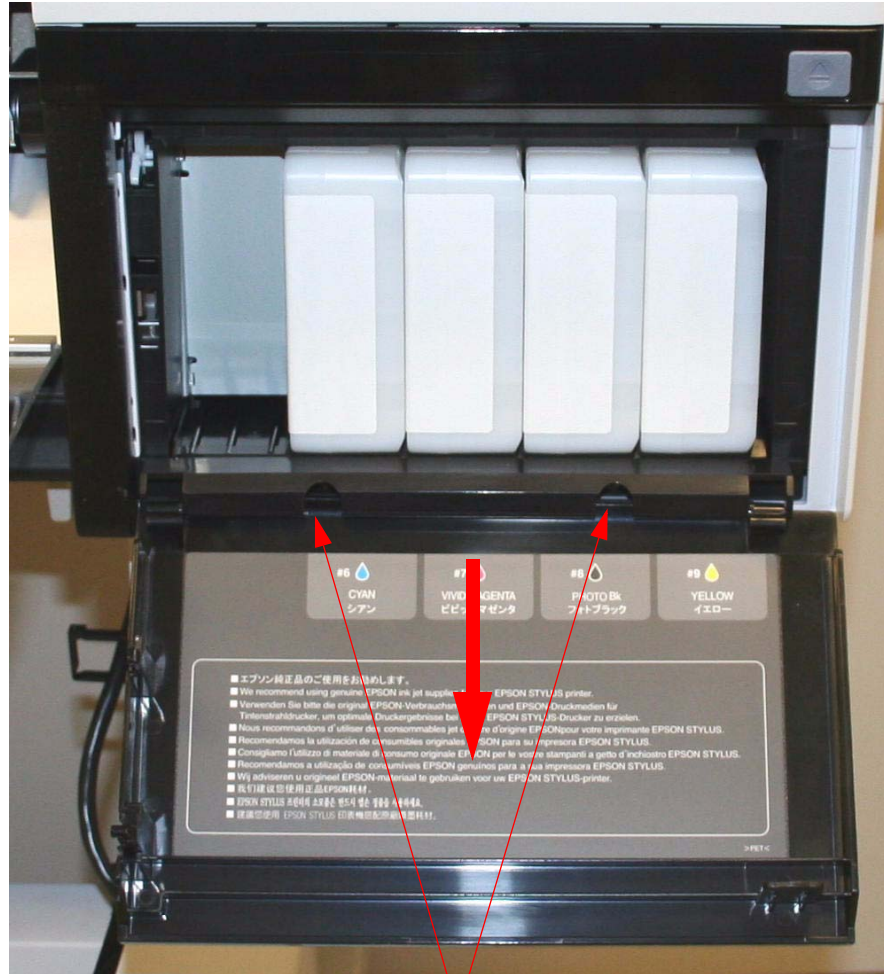


7. Open the ***Right Ink Bay Door***.



Insert a paper clip into the ***Manual Release Hole*** in the ***Ink Bay Door*** to trip the ***Door Release Mechanism***.

8. Remove the **Right Ink Bay Cover**.



1. Remove the **2 Screws** that fasten the **Left Ink Bay Cover**.

2. Remove the **Left Ink Bay Cover** by pulling straight out.

9. Remove **1 Screw** that fastens the top of the **Right Side Cover** to the **Printer**.

Remove **1 Screw**.

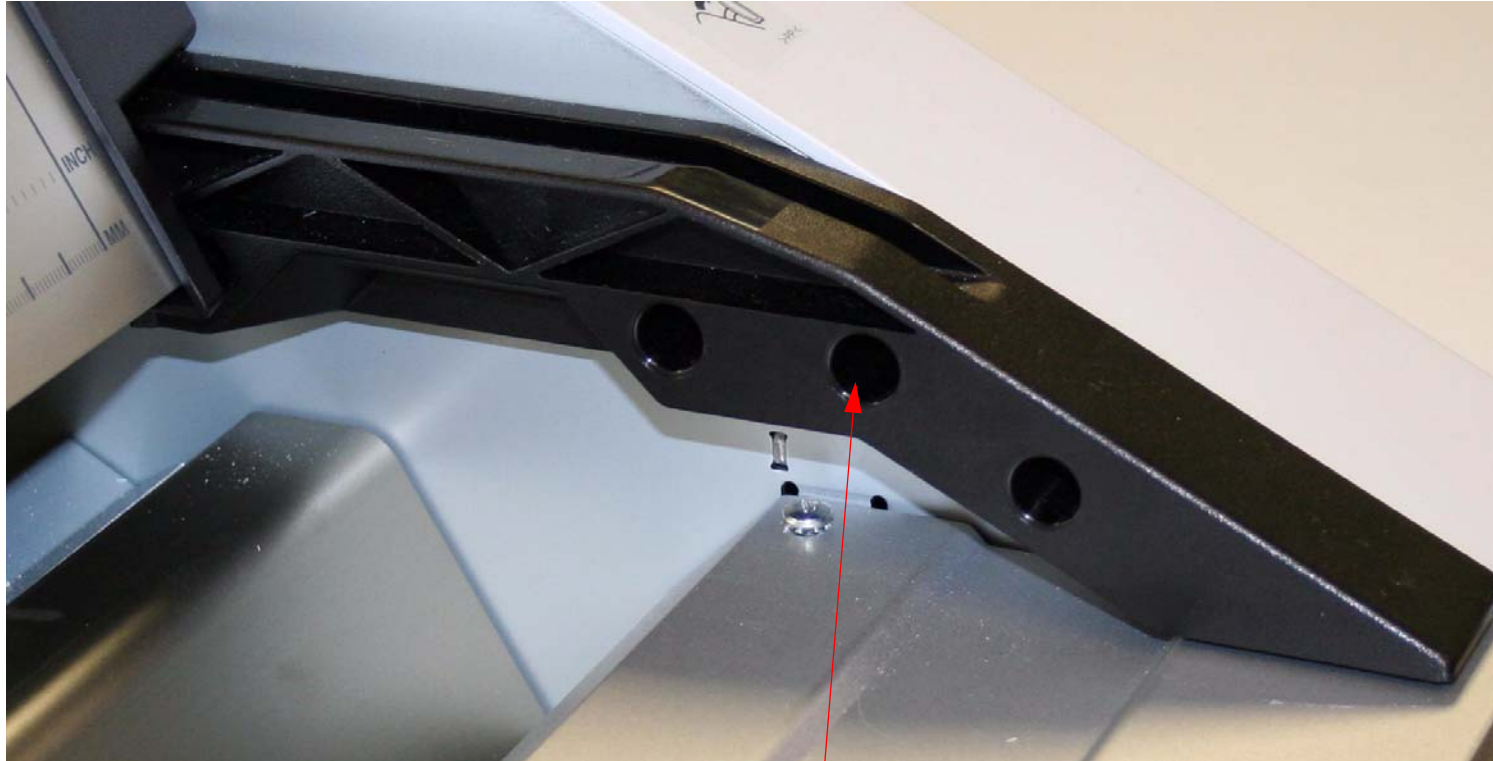


10. Remove the ***Paper Release Lever Handle***.



Remove **2 Screws** and then the ***Handle***.

11. Remove **1 Screw** that fastens the **Right Side Cover** to the **Printer**.



Remove **1 Screw**.

12. Ensure that the **Paper Release Lever** is in the “secured” position.



Ensure that the **Paper Release Lever** is in the “secured” position

13. Loosen **3 Screws** that fasten the back of the **Right Side Cover** to the **Printer**, and slide off the **Right Side Cover**.



1. Loosen **3 Screws**.

2. Slide off the **Left Side Cover**.

Cover (Top) Removal

1. Remove **1 Screw** that fastens the front of the **Top Cover** to the right side of the **Printer**.



Remove **1 Screw**.

Right side **Front Door Latch**

2. Remove **1 Screw** that fastens the front of the **Top Cover** to the Left side of the **Printer**.

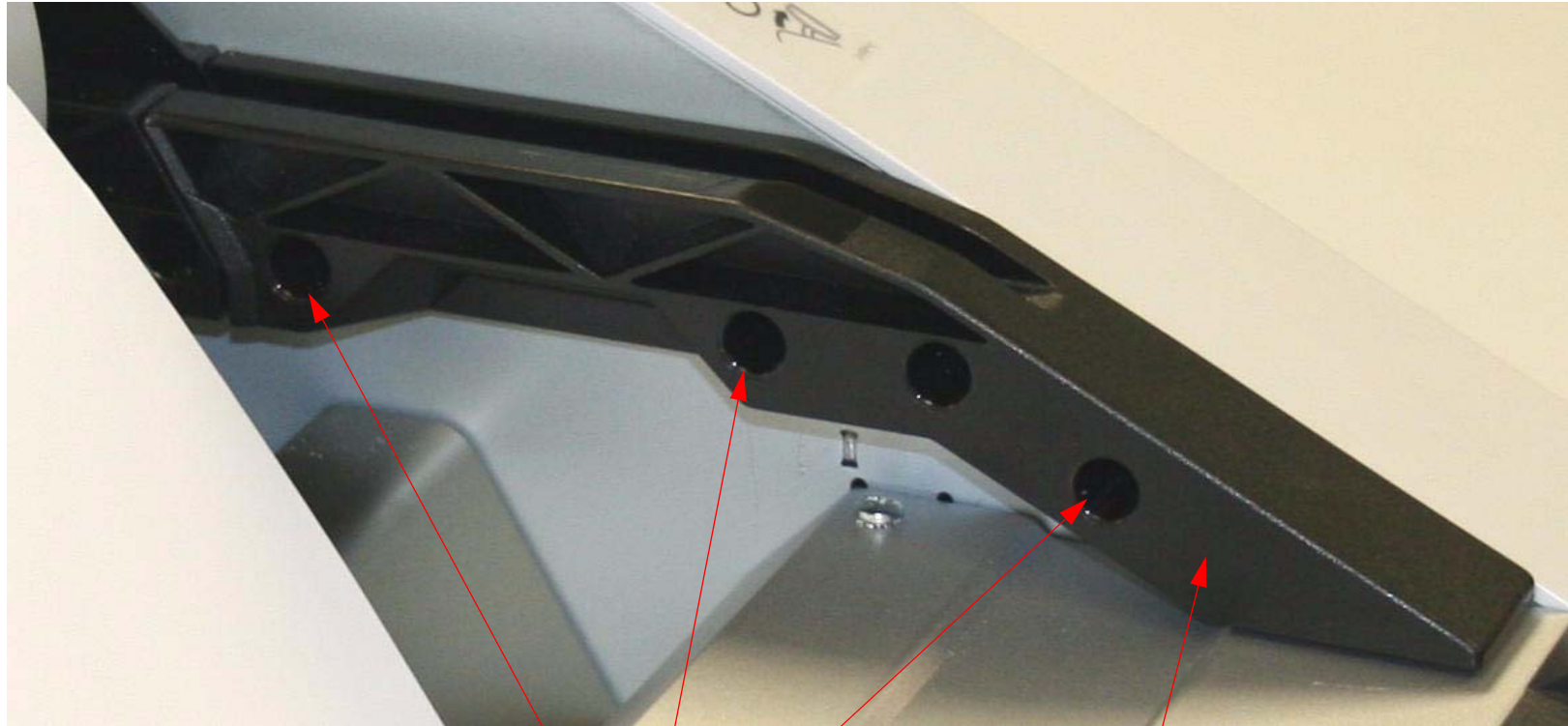


Left side **Front Door Latch**

Remove **1 Screw.**



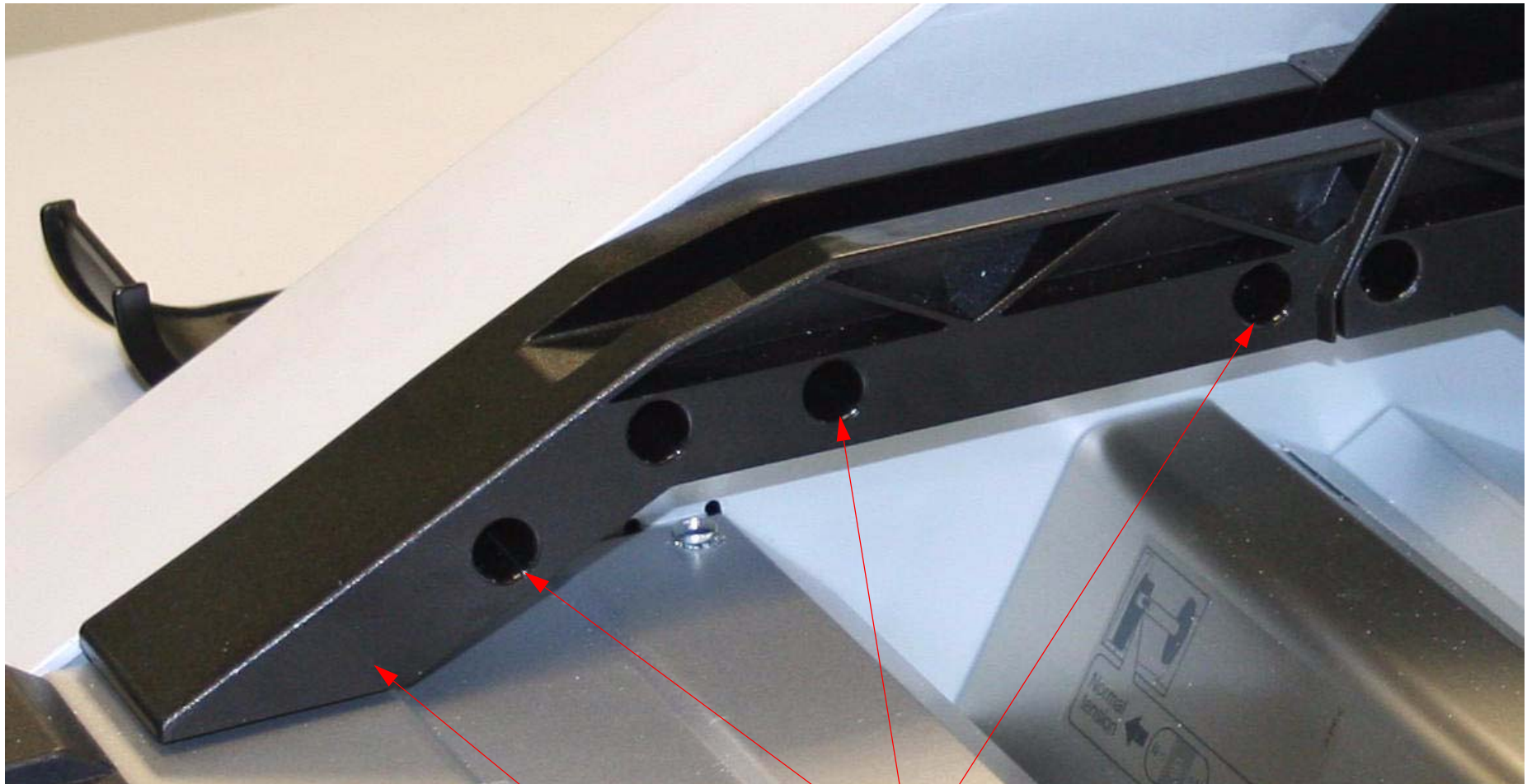
3. Remove **3 Screws** that fasten the right side **Roll Paper Ramp**, and remove the **Ramp**.



1. Remove **3 Screws**.

2. Remove the **Paper Roll Ramp**.

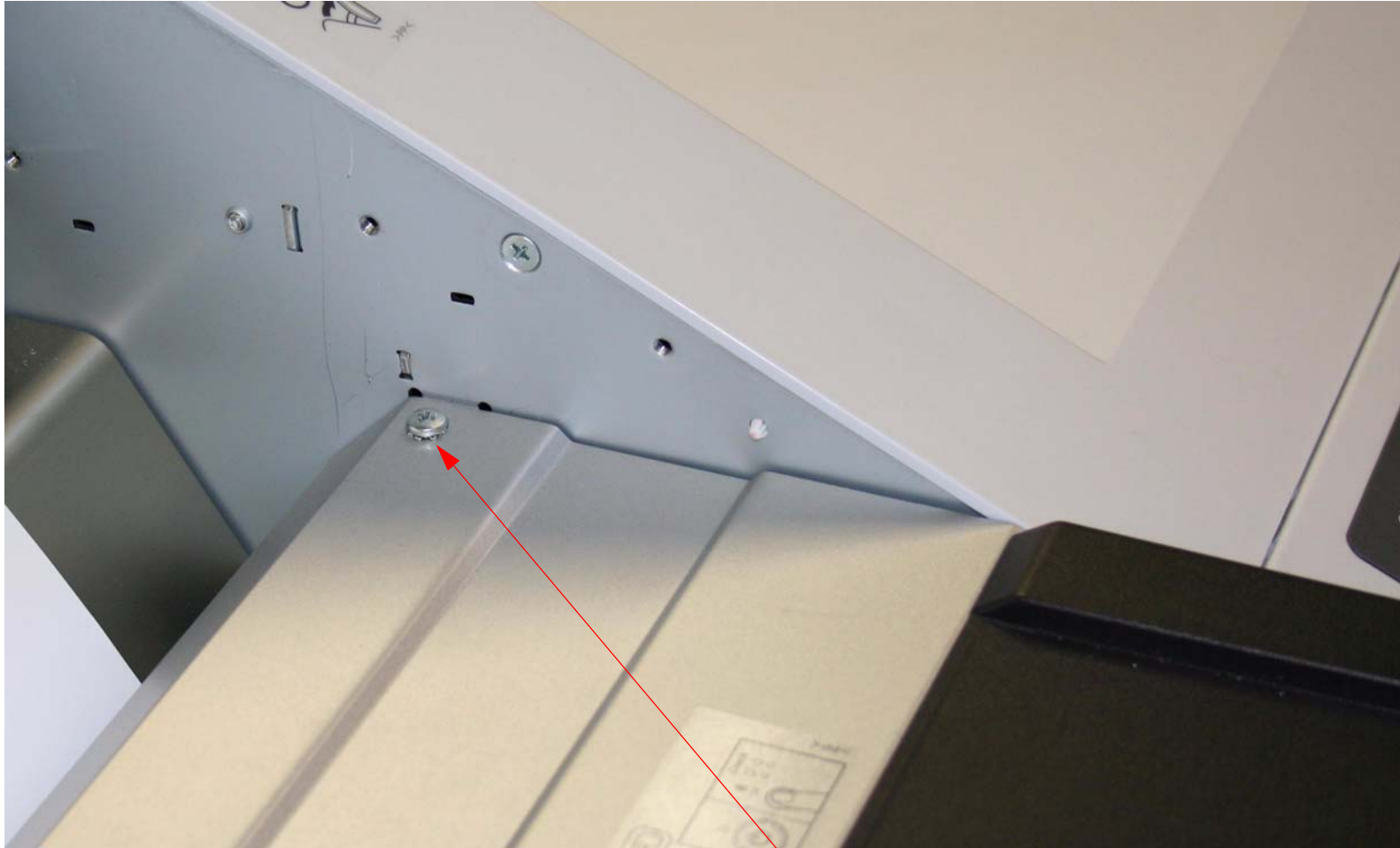
4. Remove **3 Screws** that fasten the left side **Roll Paper Ramp**, and remove the **Ramp**.



1. Remove **3 Screws**.

2. Remove the **Paper Roll Ramp**.

5. Remove **1 Screw** that fastens the top right side of the **Top Cover** to the **Printer**.



Remove **1 Screw**.

6. Remove **1 Screw** that fastens the top left side of the **Top Cover** to the **Printer**.

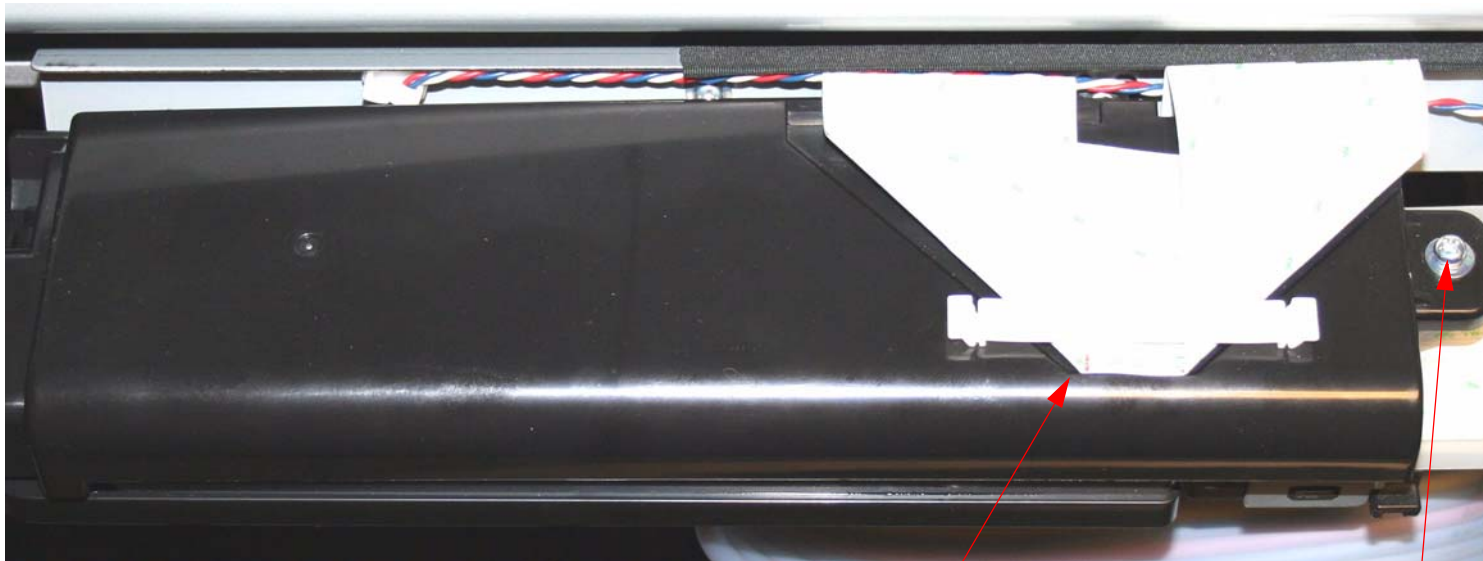


Remove **1 Screw**.

7. Ensure that the **Paper Release Lever** is in it's "closed" position, and lift off the **Top Cover**.

Cutter Blade Assembly Removal

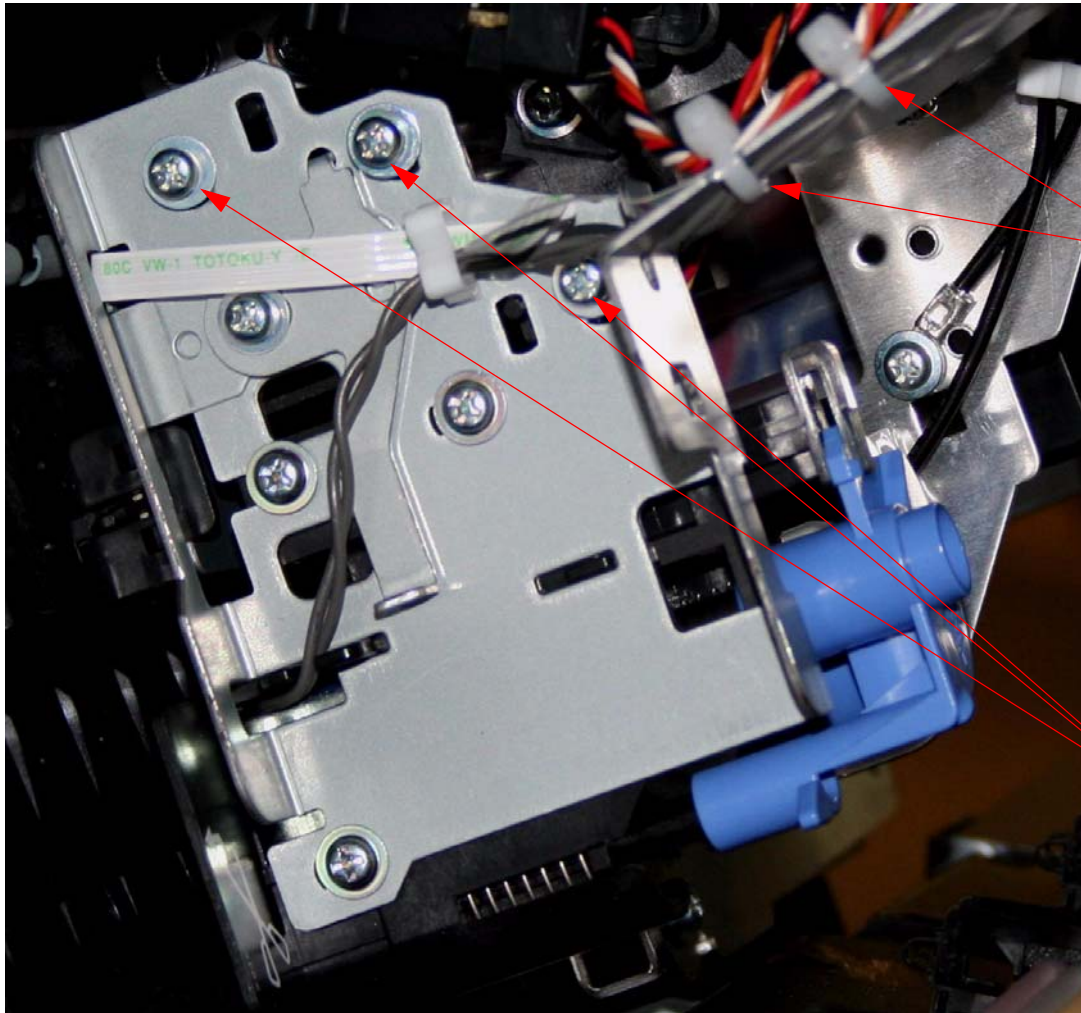
1. Remove the **Cover (Top)**.
2. Release the **Carriage Mechanism** and move it off of the **Cap Assembly**.
3. Remove the **Carriage Board Cover**.



1. Release the **Foil Cable**.

2. Release 1 **Screw**.

4. Clip **2 Cable Ties** and remove **3 Screws**.

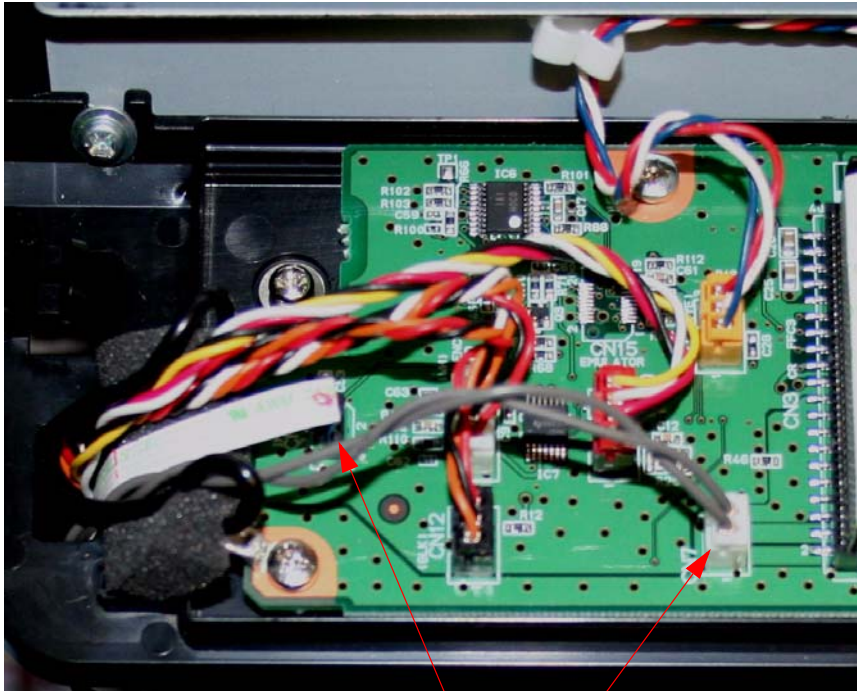


1. Clip **2 Cable Ties**.



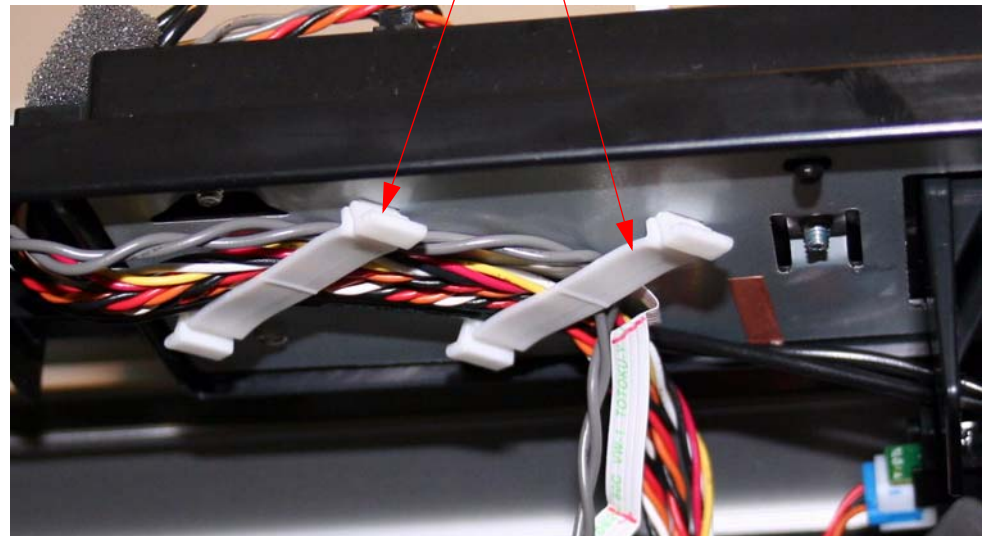
2. Remove **3 Screws**.

5. Unplug the ***Ink Mark Sensor*** and the ***Cutter Solenoid*** from the ***Carriage Board***.



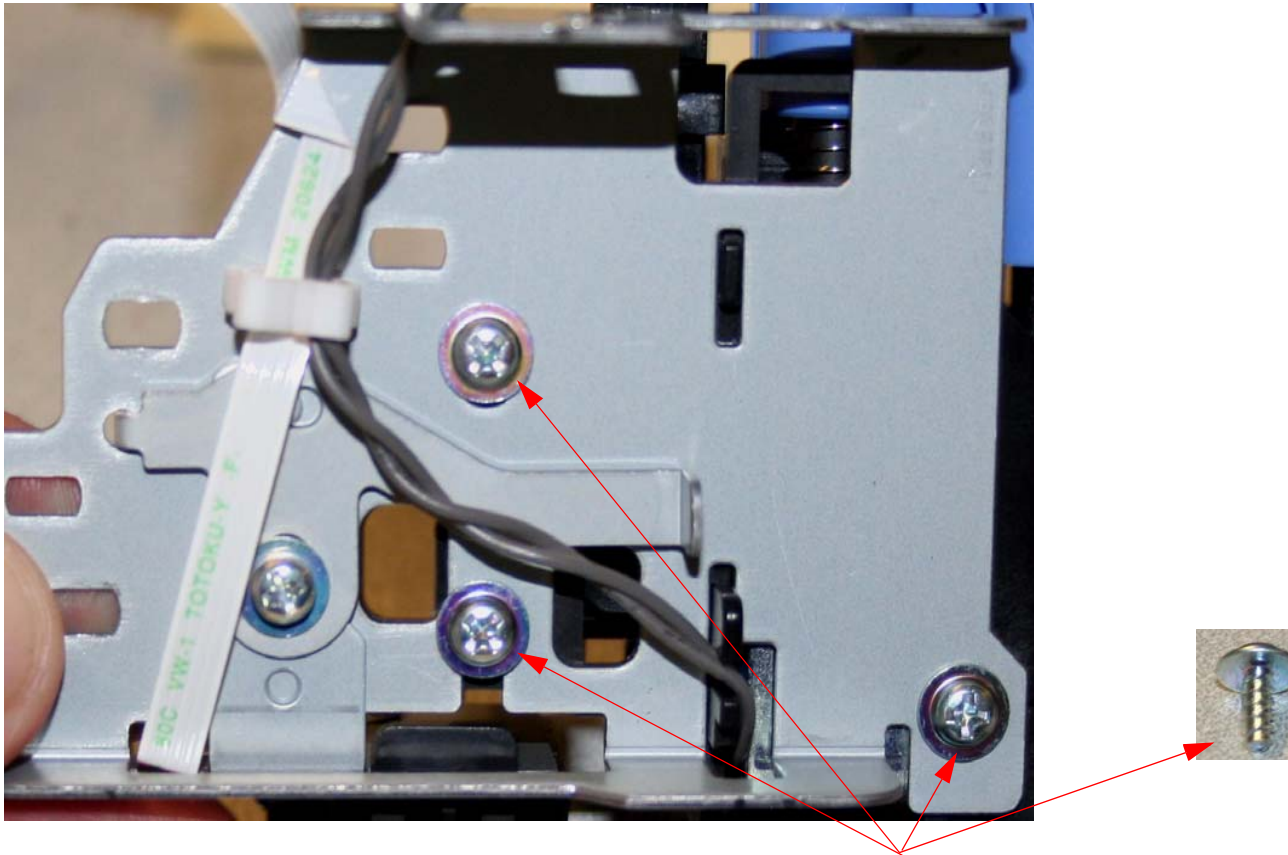
1. Unplug ***CN7*** an ***CN8***.

2. Release ***2 Cable Fasteners***.



Cutter Blade Solenoid Removal

1. Remove the **Cover (Top)**.
2. Remove the **Cutter Blade Assembly**.
3. Remove **3 Screws** to separate the **Cutter Blade Solenoid Assembly** from the **Cutter Frame**.

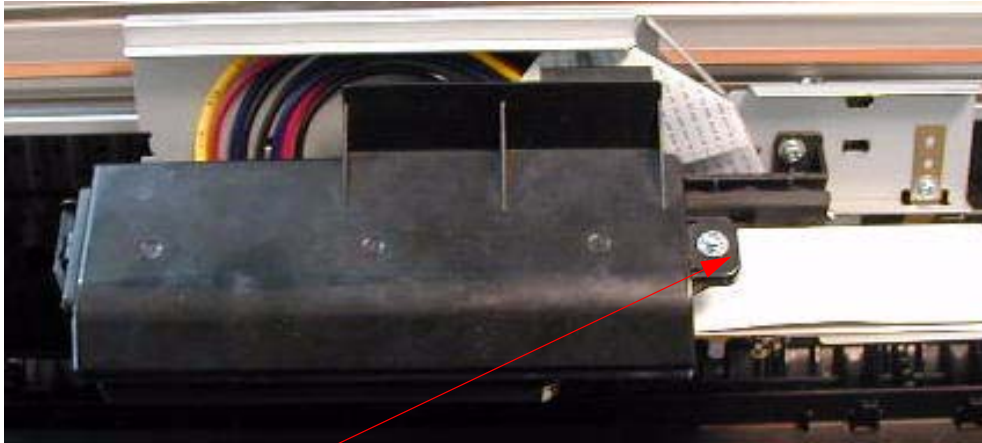


1. Remove **3 Screws**.

2. Separate the **Cutter Blade Solenoid Assembly** from the **Cutter Frame**.

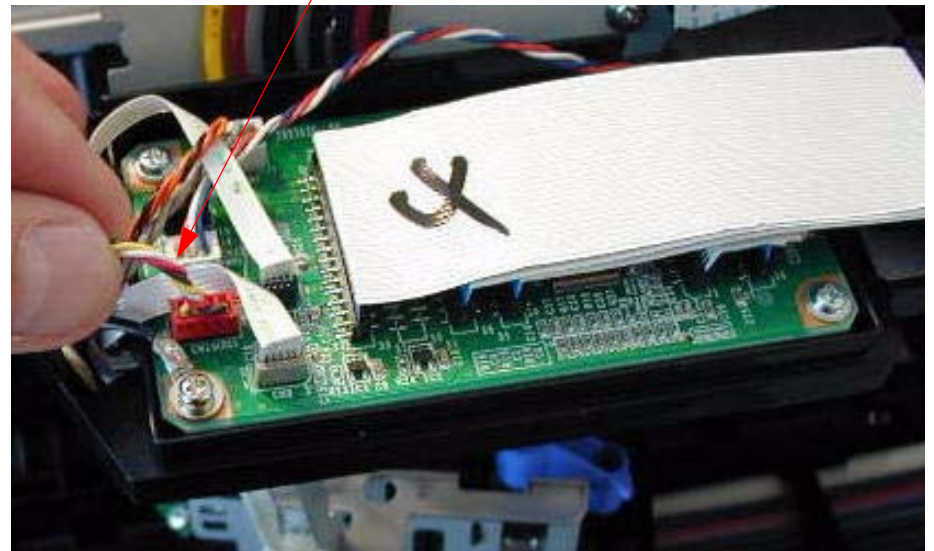
Edge Detector (EdgeAD) Replacement

1. Remove the **Top Cover**.
2. Release the **Carriage Assembly** and move the **Carriage** away from the capped position.
3. Remove the **Carriage Board Cover** and unplug the **Edge Detector (EdgeAD Sensor)**



1. Loosen **1 Screw** and remove the **Carriage Board Cover**.

2. Unplug the **Edge Detector**.

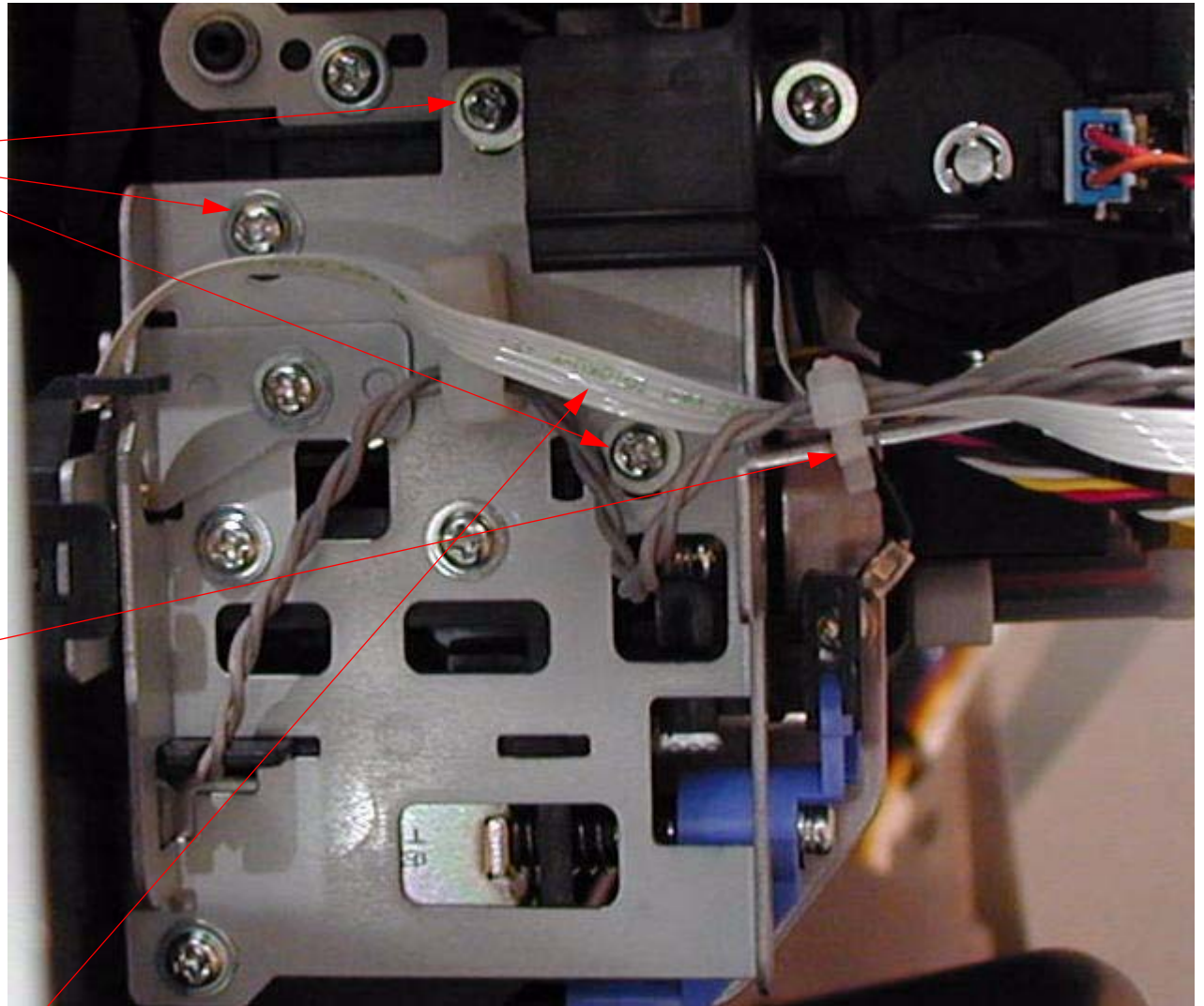


4. Remove the **Cutter Assembly**.

1. Remove **3 Screws**.

2. Cut **1 Tie Wrap**.

3. Remove the **Cutter Assembly**, and place out of the way.

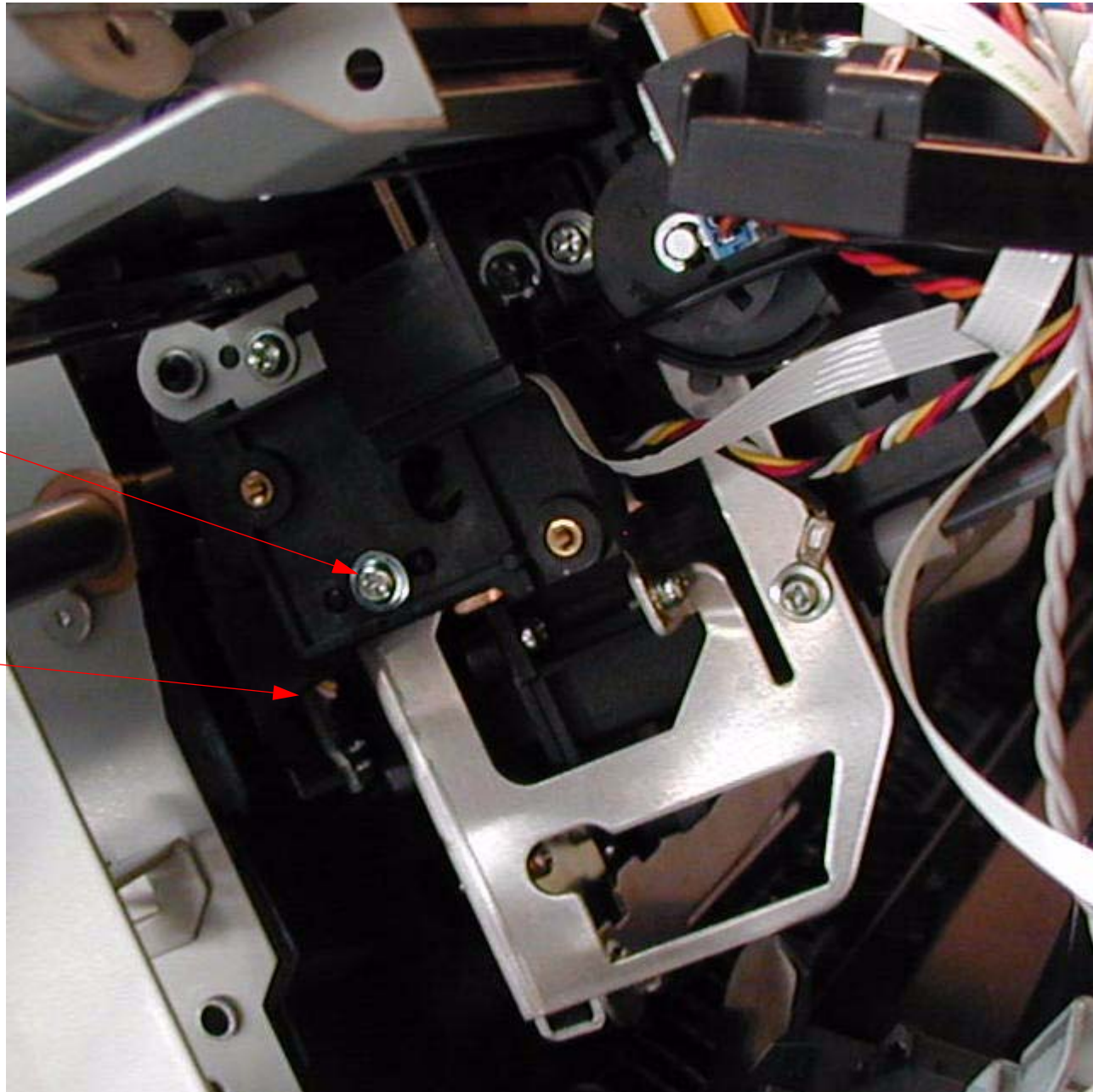


Note: Be careful of the Ink Mark Sensor Foil Cable, it is easy to damage or pull off the Ink Mark Sensor.

5. Remove the **Edge Detector**.

1. Remove **1 Screw** that fastens the **Edge Detector**.

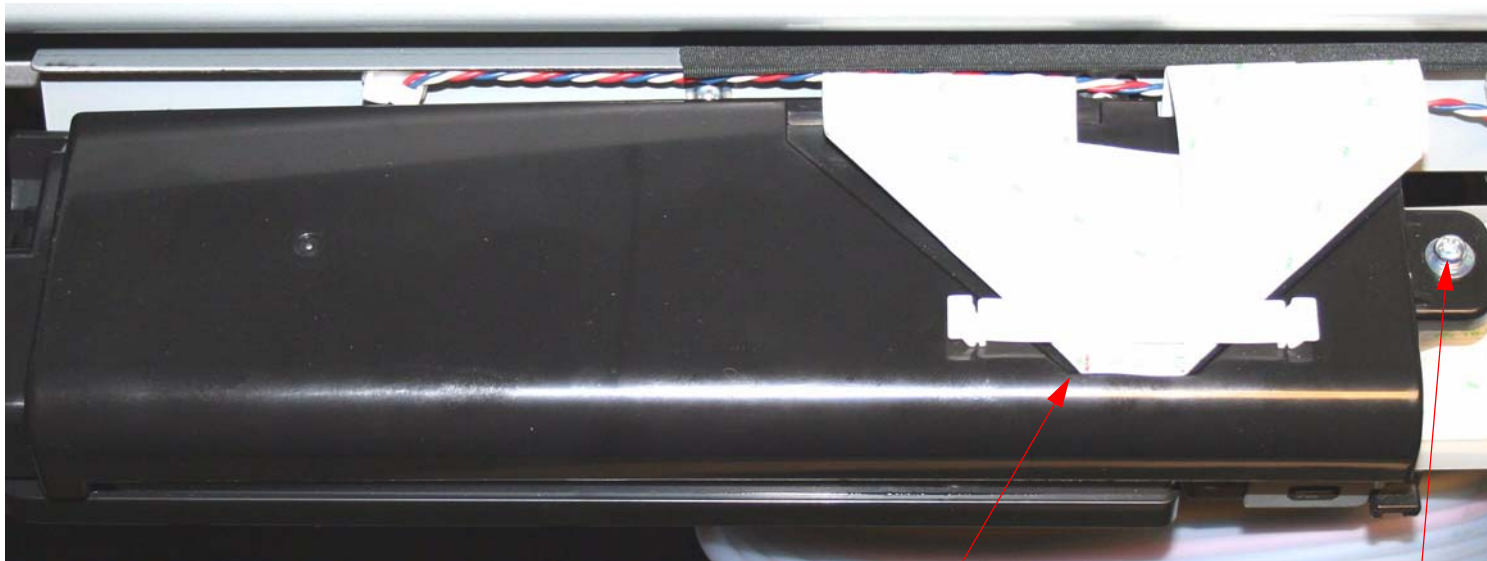
2. Remove the **Edge Detector**.



6. Install the new ***Edge Detector***.
7. Attach the ***Cutter Assembly***.
8. Perform the ***Cutter Blade*** Position Adjustment.
9. Install the ***Carriage Board Cover***.
10. Replace the ***Top Cover***.

Encoder (Carriage) Removal

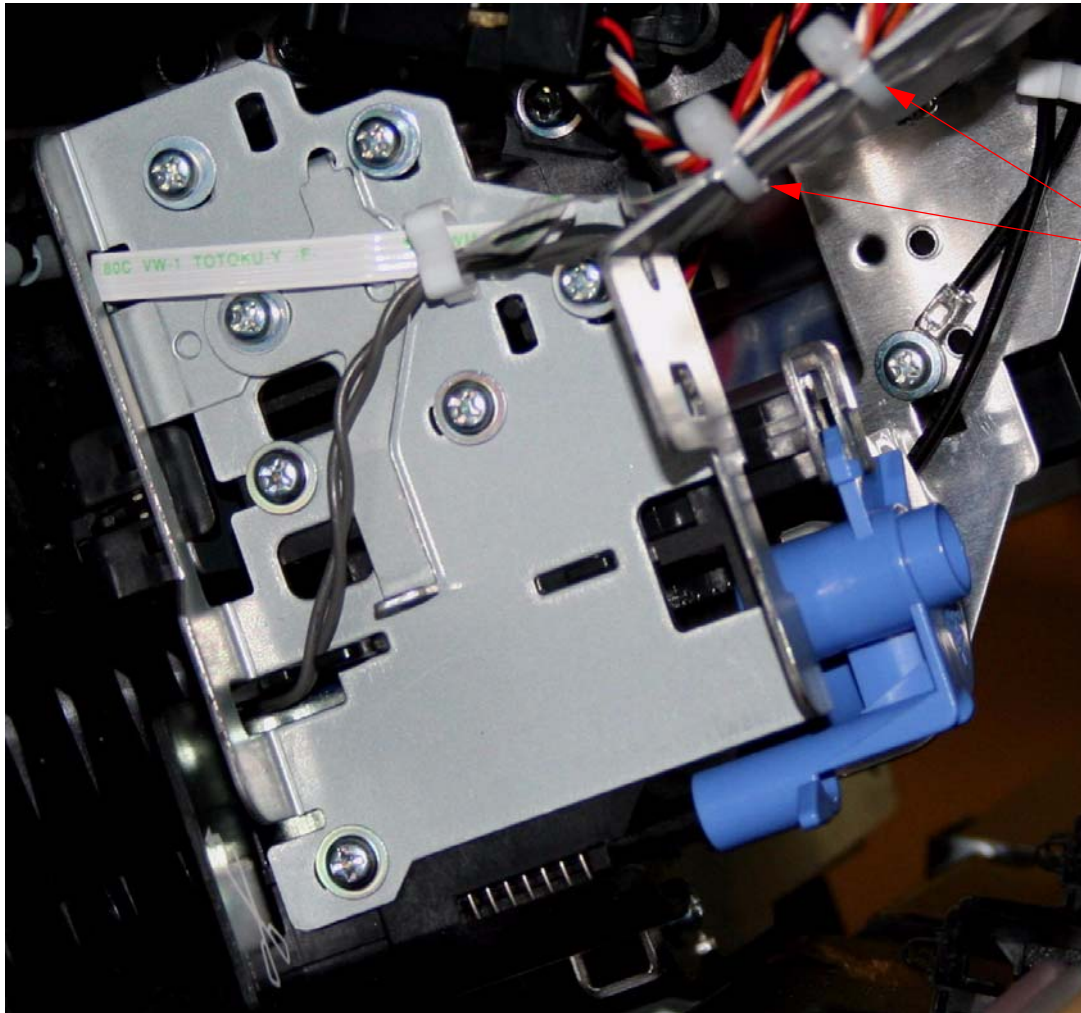
1. Remove the **Cover (Top)**.
2. Release the **Carriage Mechanism** and move it off of the **Cap Assembly**.
3. Remove the **Carriage Board Cover**.



1. Release the **Foil Cable**.

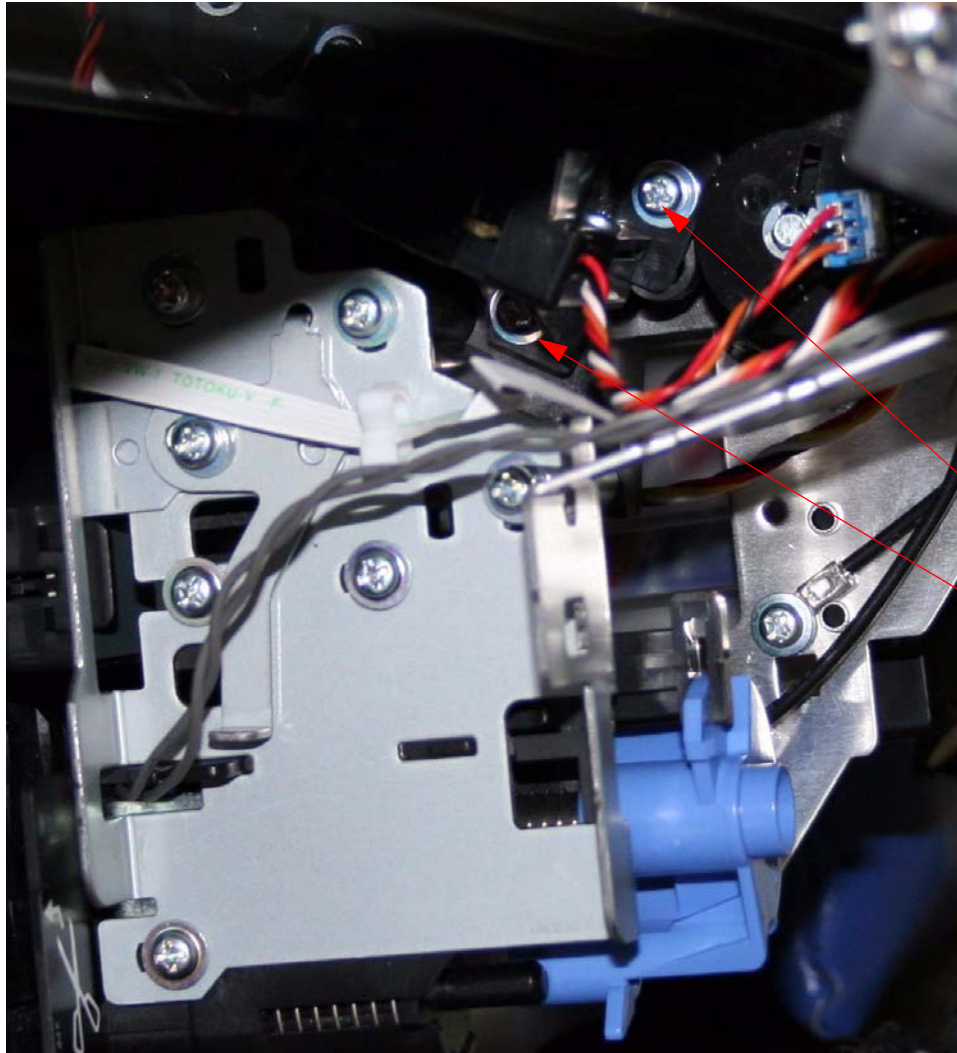
2. Release 1 **Screw**.

4. Clip 2 **Cable Ties**.



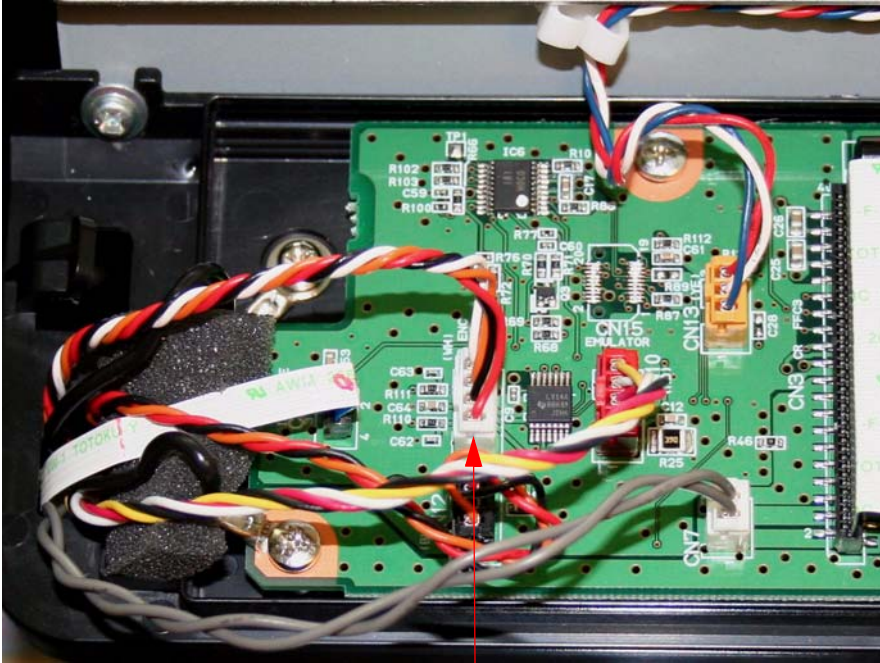
Clip 2 **Cable Ties**.

5.



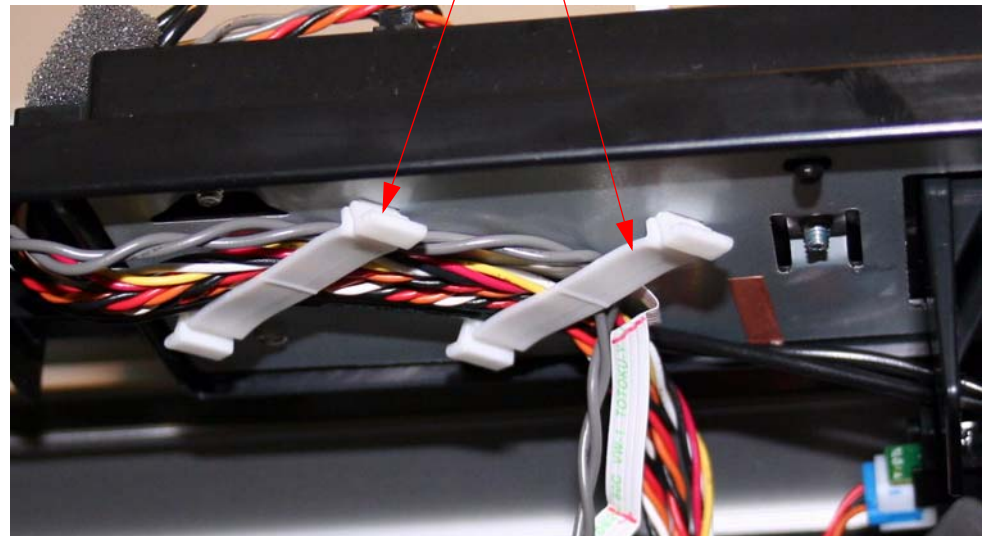
Remove **2 Screws**.

6. Unplug the **Carriage Encoder** from the **Carriage Board**.



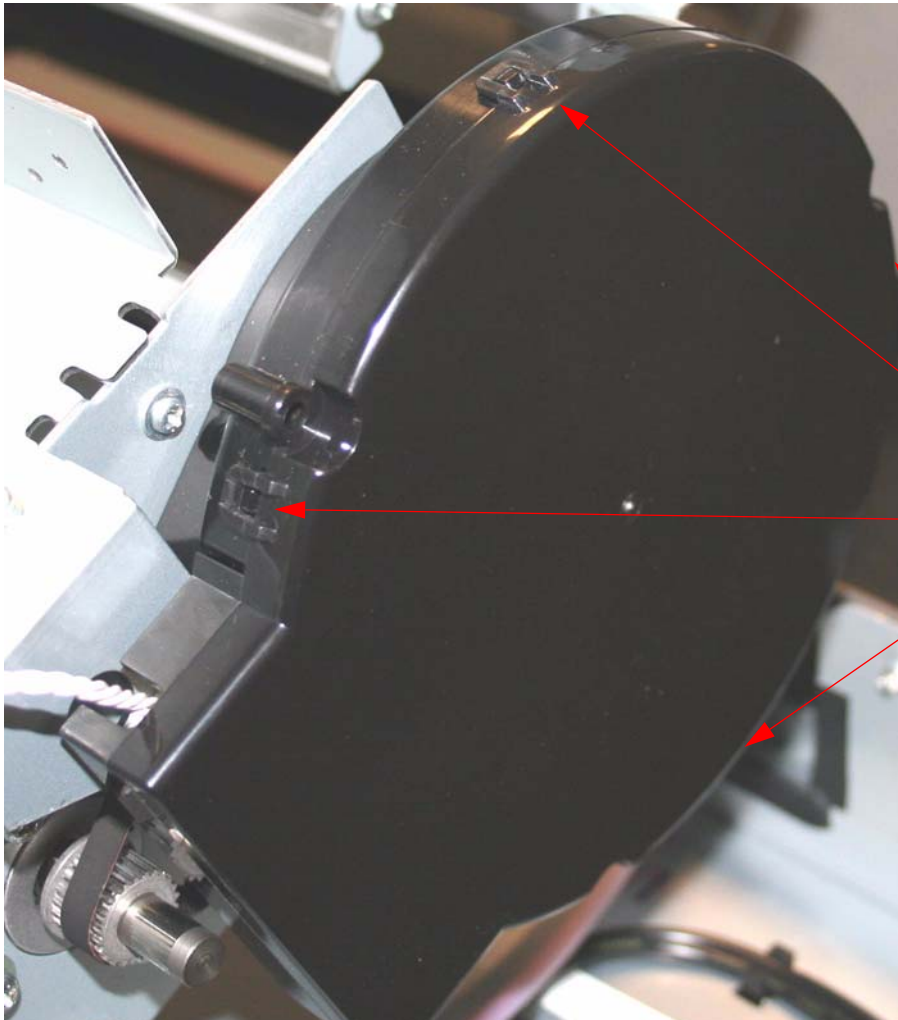
1. Unplug **CN9**.

2. Release **2 Cable Fasteners**.



Encoder Disk (Paper Feed) Removal

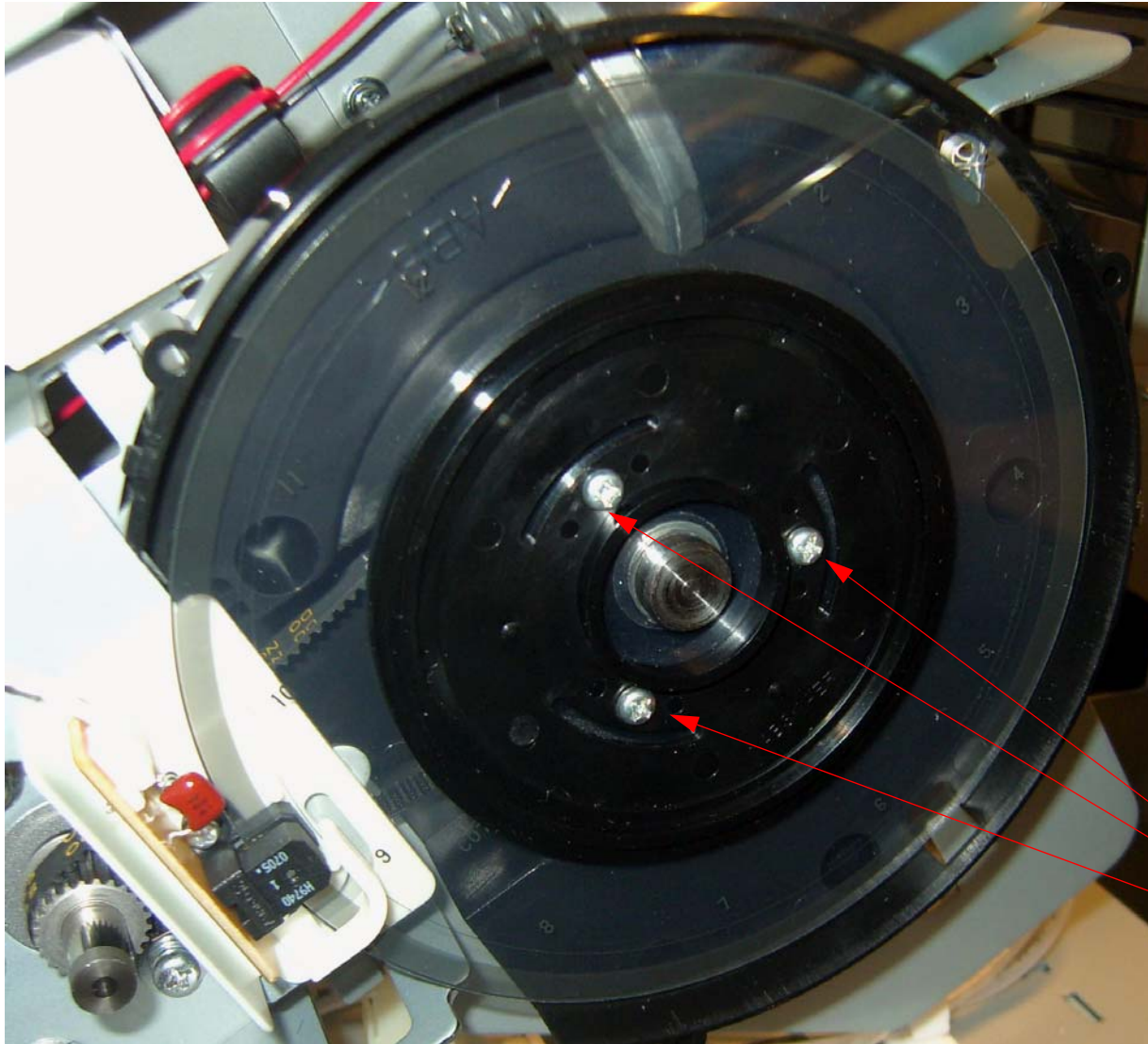
1. Turn off the **Printer** and **UNPLUG from AC.**
2. Remove the **Cover (Left).**
3. Remove the **Paper Feed Encoder Scale Cover.**



1. Release **4 Interlocks.**

2. Remove the **Cover.**

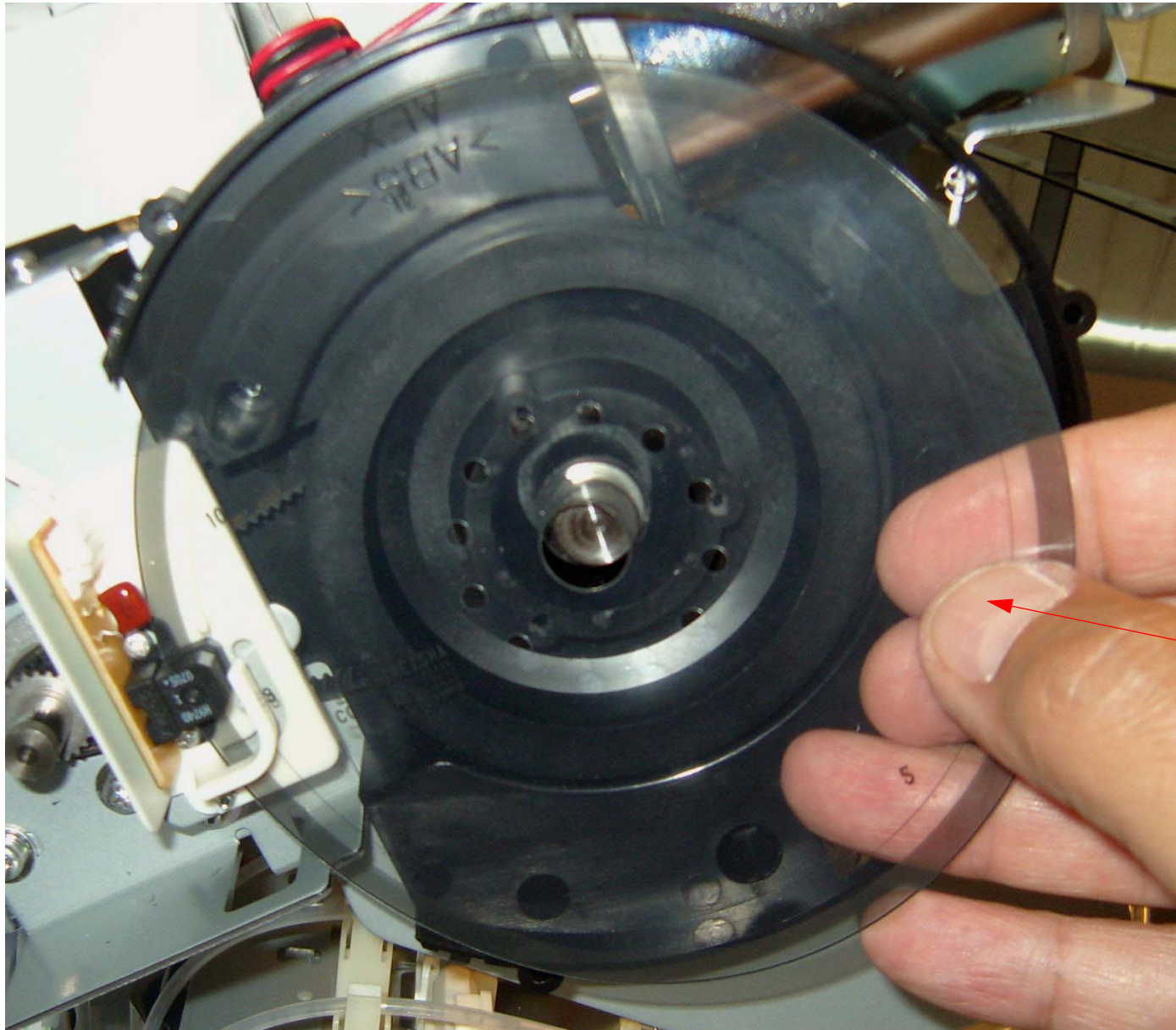
4. Remove **3 Screws** and lift off the ***Paper Feed Encoder Disk Hub***.



1. Remove **3 Screws**.

2. Lift off the ***Paper Feed Encoder Disk Hub***.

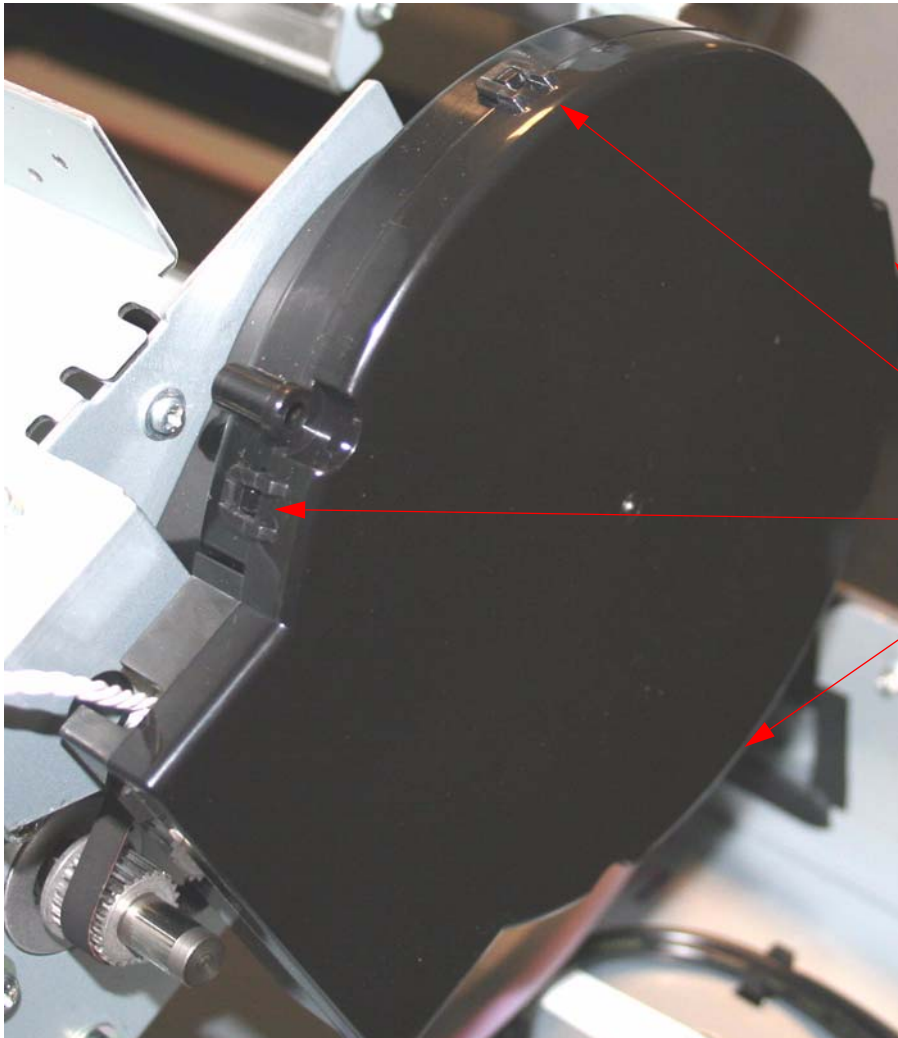
5. Lift off the **Encoder Disk (Paper Feed)**.



Lift off the **Encoder Disk**.

Encoder (Paper Feed) Removal

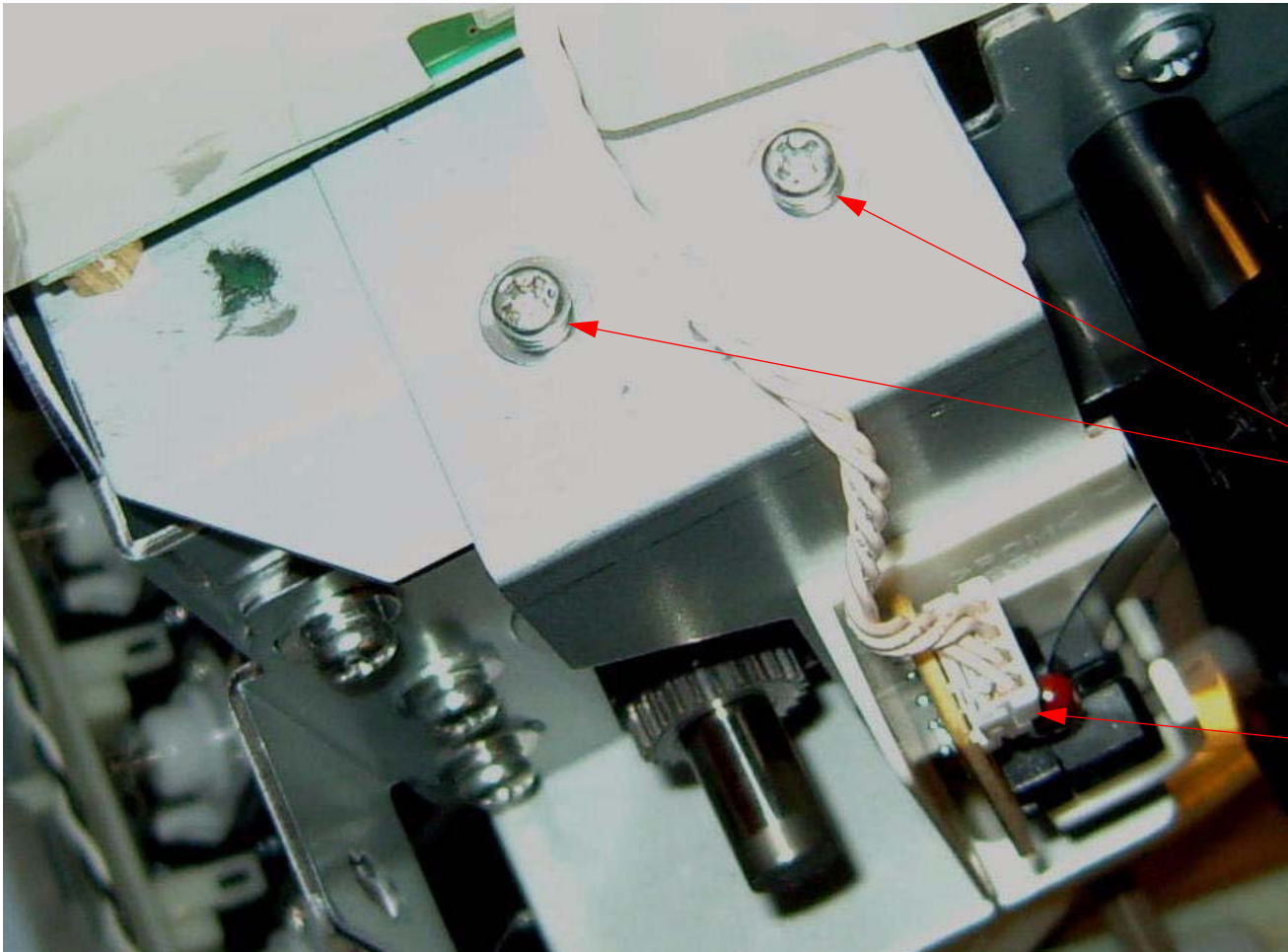
1. Turn off the **Printer** and **UNPLUG from AC.**
2. Remove the **Cover (Left).**
3. Remove the **Paper Feed Encoder Scale Cover.**



1. Release **4 Interlocks.**

2. Remove the **Cover.**

4. Remove the ***Paper Feed Encoder and Bracket.***

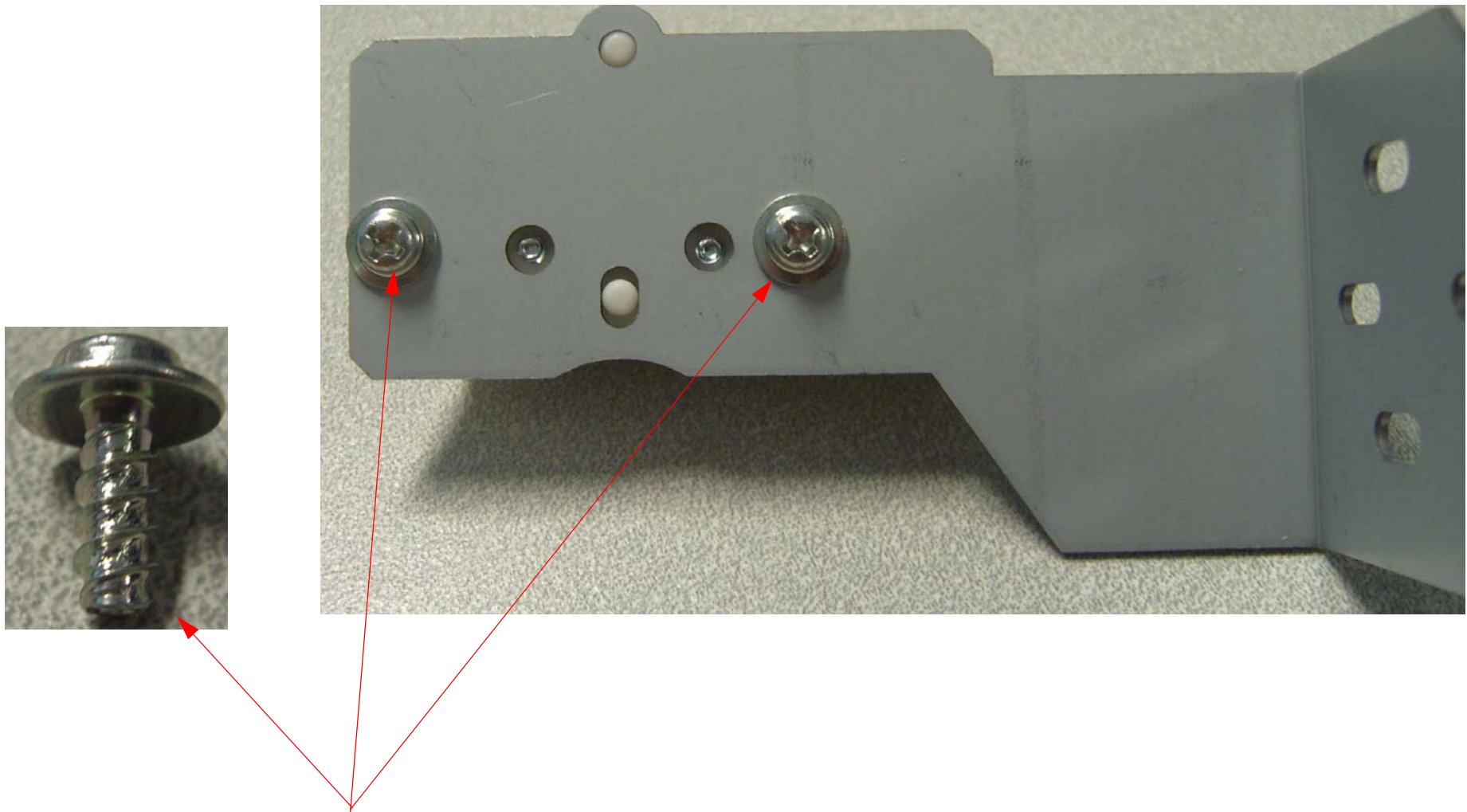


1. Remove **2 Screws.**

2. Unplug the ***Encoder Cable.***

3. Lift off the ***Paper Feed Encoder and Bracket.***

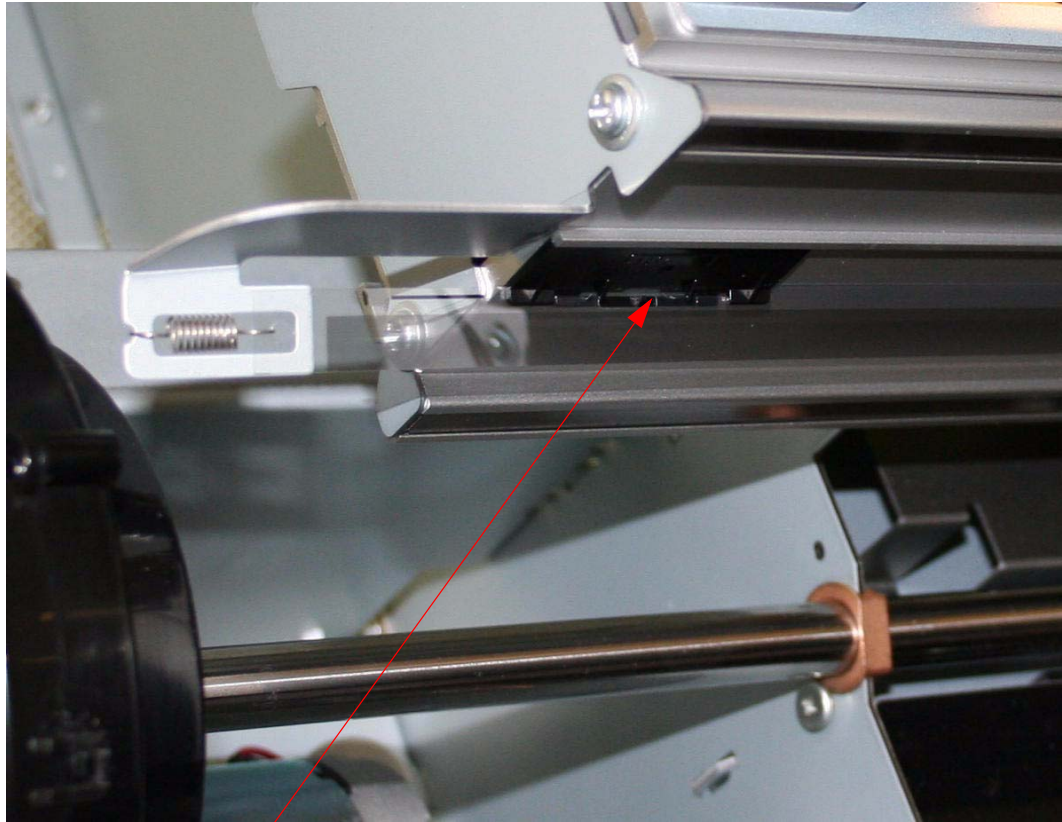
5. Separate the ***Paper Feed Encoder Disk*** from the ***Bracket***.



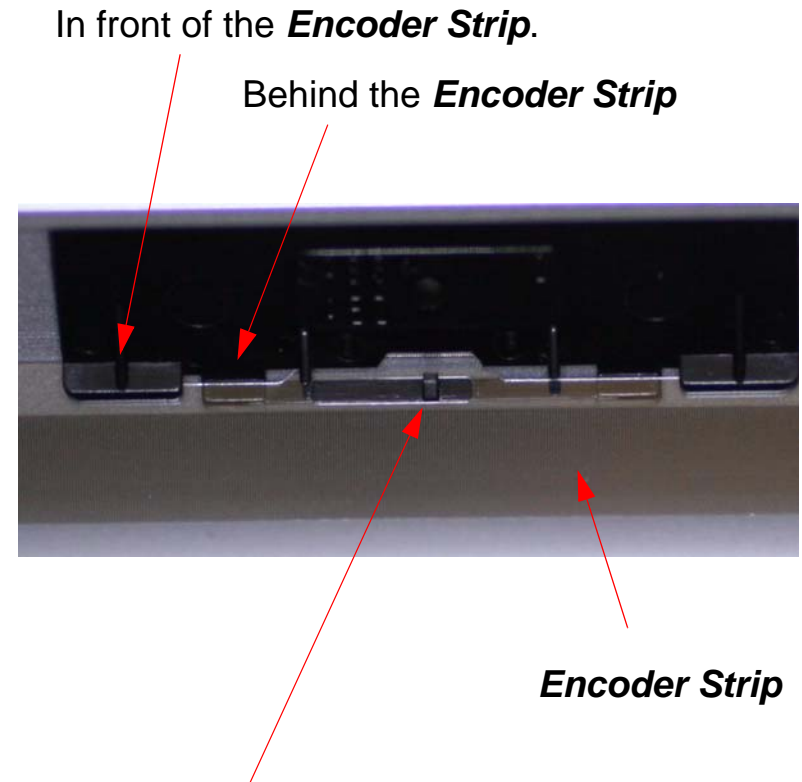
Remove **2 Screws** and separate the ***Encoder*** from the ***Bracket***.

Encoder Strip (Carriage) Replacement

1. Remove the **Left**, **Right**, and **Top Covers**.
2. Inspect the way that the **Encoder Strip** is held by the **Encoder Strip Bracket**.



Encoder Strip Bracket.



This **Tab** on the **Encoder Strip** should be inserted into the corresponding **Slot** on the **Bracket**, and then rotated down 90 degrees to lock it in place.

Note: There are 5 Brackets on the 11880.

3. Remove the **Encoder Strip Tension Spring**, located on the left side of the **Printer**.

Remove the **Encoder Strip Tension Spring**.

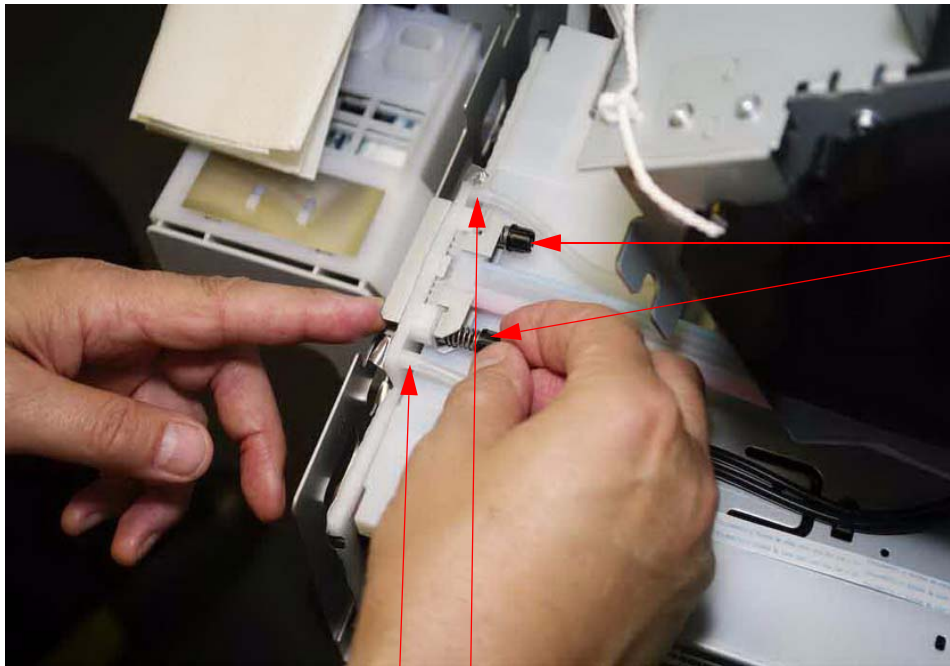


Note: Before completely disconnecting the old Encoder Strip, tape the new Encoder Strip to the cap side end of the old Strip, to facilitate pulling the new Strip through the Carriage Encoder.

4. Working left to right, disconnect the **Encoder Strip** from each **Encoder Strip Bracket**.
5. Tape the new **Strip** to the old **Strip**, and pull the new **Strip** through the **Carriage Encoder**.
6. Attach the new **Strip** to the **Brackets** and add the **Tension Spring**.

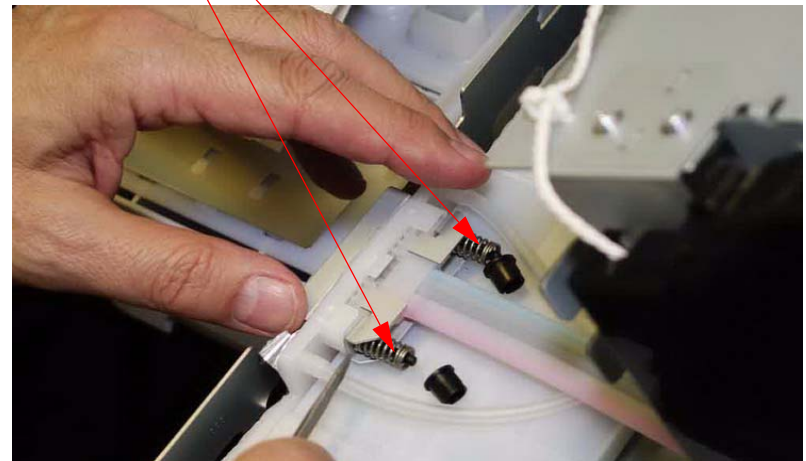
Ink Bay Removal (Left)

1. Drain the **Ink System**.
 - 1.1 Follow the directions in the Ink Draining Procedure chapter located in the Reference Section of the FRG.
2. Remove the **Left Side Cover**
3. Remove the **Spring Fastener** and 2 **Springs**. Unplug the **Pressure Tubes**



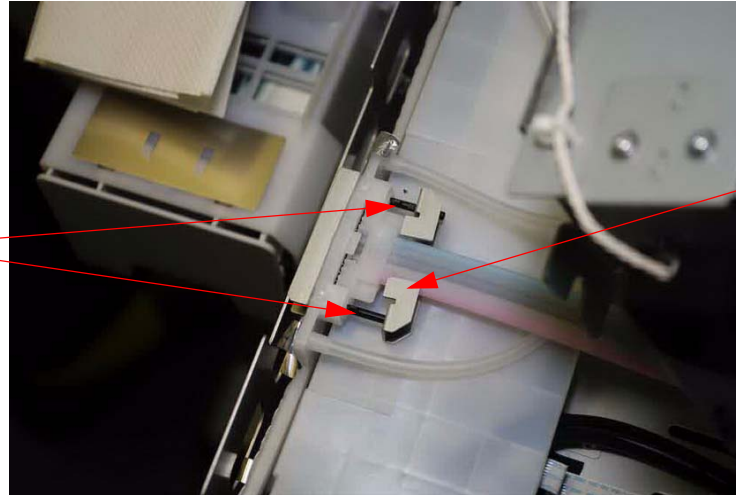
Unplug the **Pressure Tubes**.

Turn and slide the **Spring Fastener** to remove **Black Rod** (keyed), then remove the 2 **Springs**



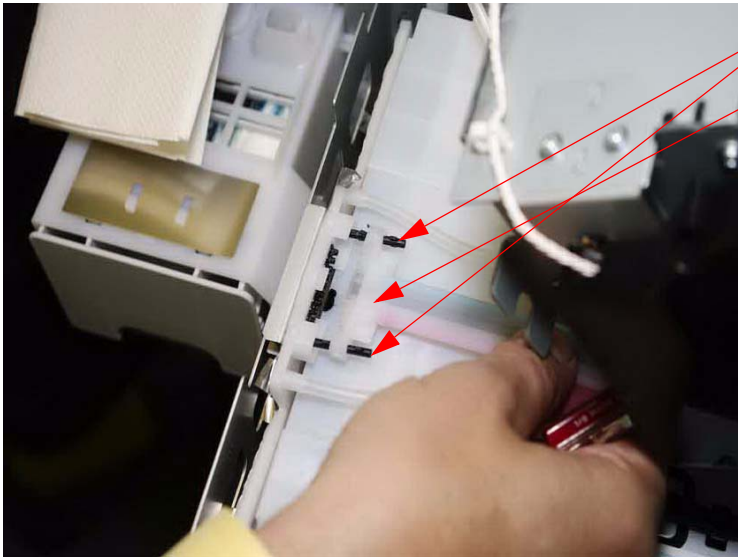
4. Remove the ***Ink Tube Bracket Holder***

Rotate the ***Black Rods***
(keyed)...



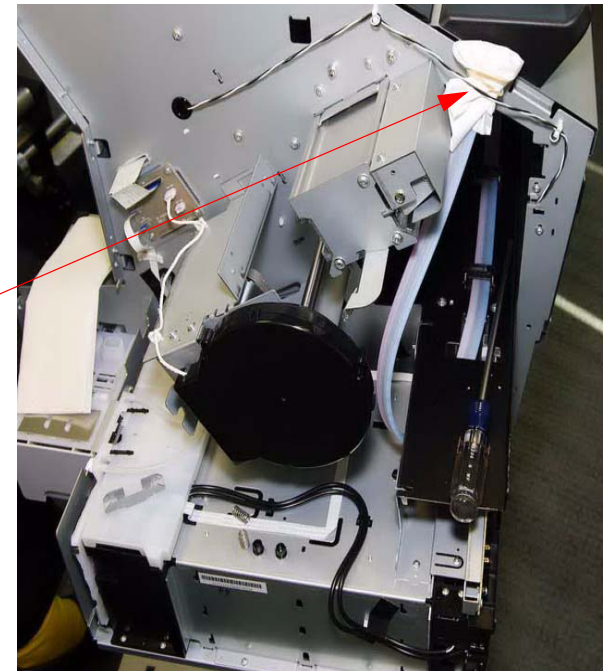
...and slide the ***Ink Tube Bracket Holder***

5. Remove the ***Ink Tubes Assy.***

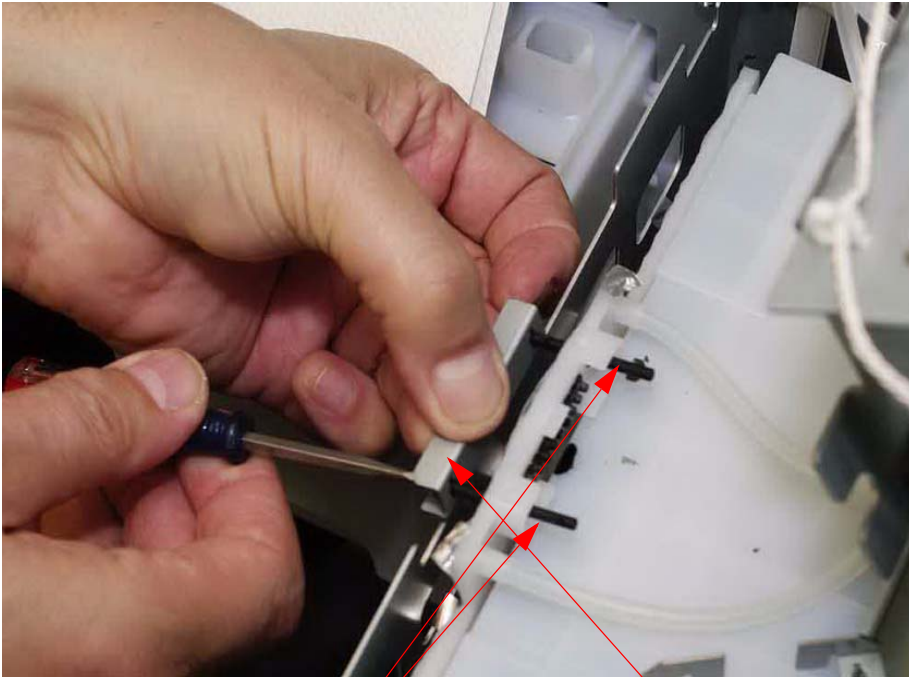


Rotate the ***Black Rod***(keyed) to unplug
the ***Ink Tubes Assy.***

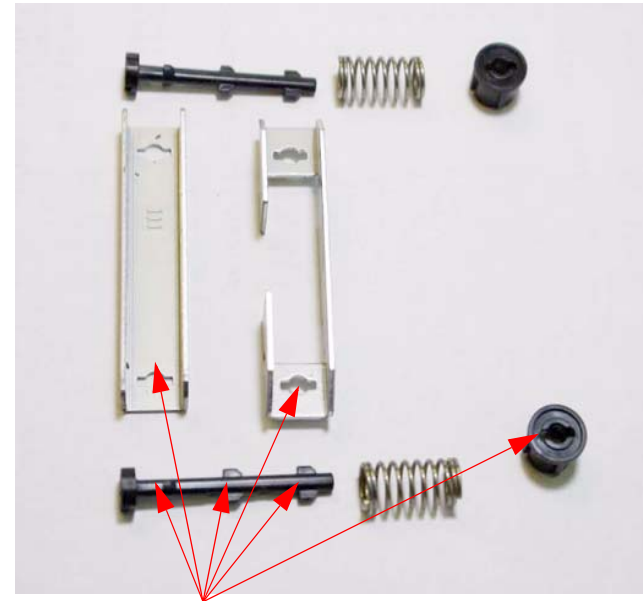
Wrap the ***Ink Tubes Assy.*** with Paper
Towel to prevent leak.
Secure the ***Ink Tubes Assy.*** here



6. Remove the Metal Support Bracket.

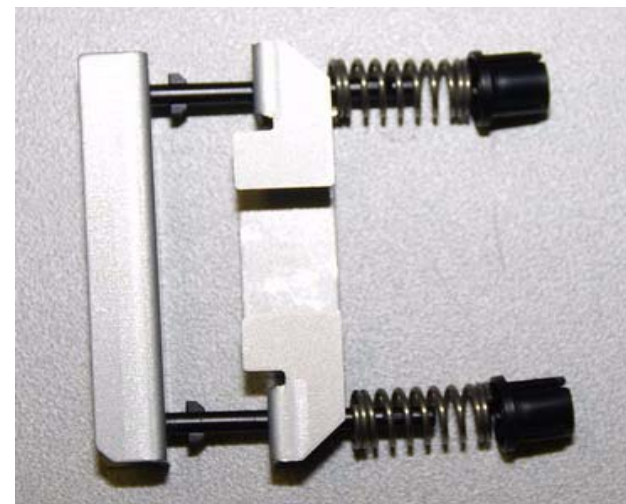


Rotate the **Black Rod** (keyed) to separate the **Metal Support Bracket** and remove the **Black Rods** together with the bracket

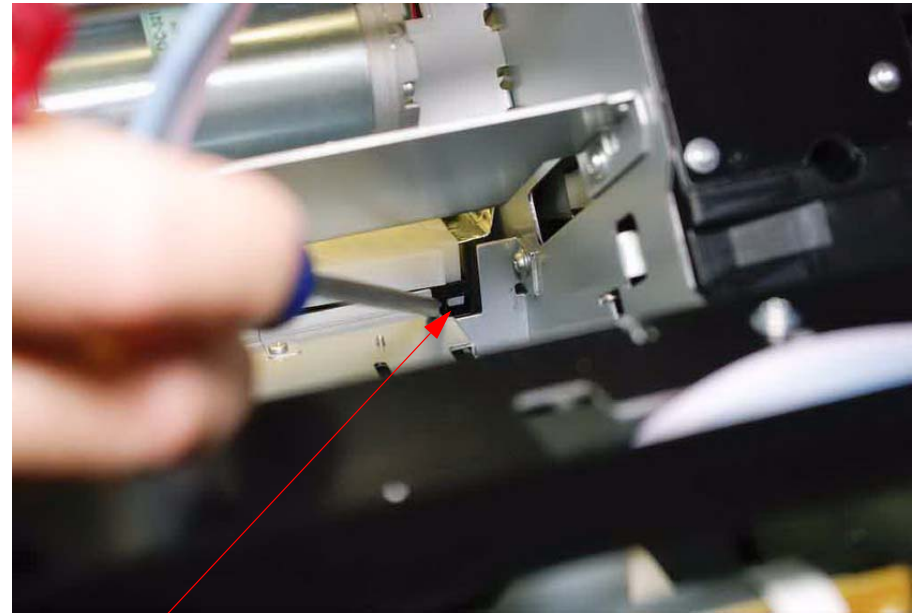


This is a picture of the **Ink Tube Support Assy**. Notice the tabs on the **Black Rods** and the Keyed Holes on the brackets and **Spring Fastener**

This is a picture of the **Ink Tube Support Assy** assem-

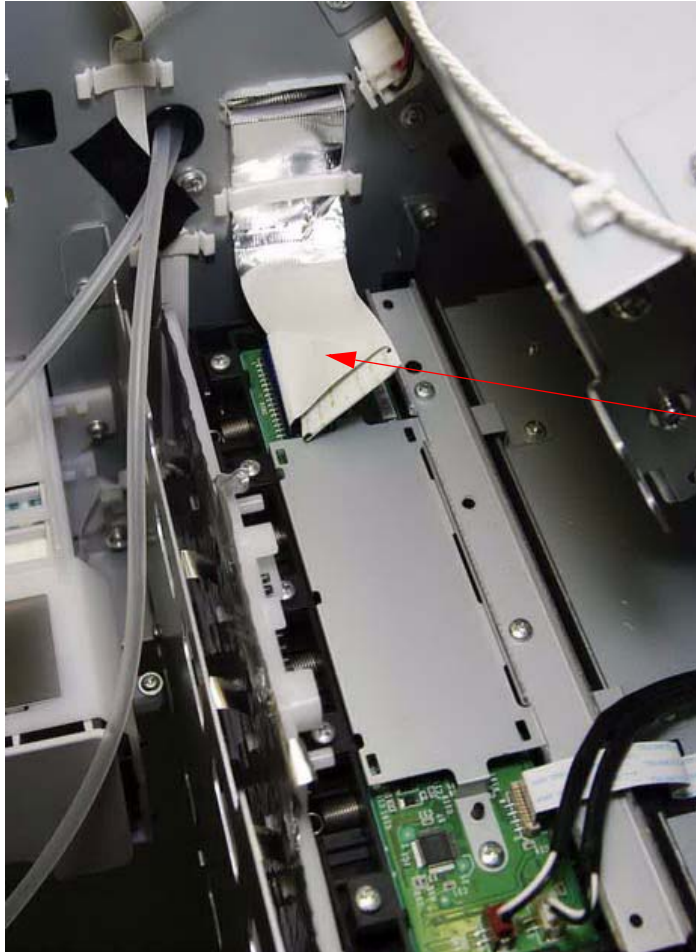


7. Remove the ***Ink Board Cover***.



2 interlocks to remove the ***Ink Board Cover***

8. Unplug ***Ink Board Foil Cable*** from the ***Ink Board***,

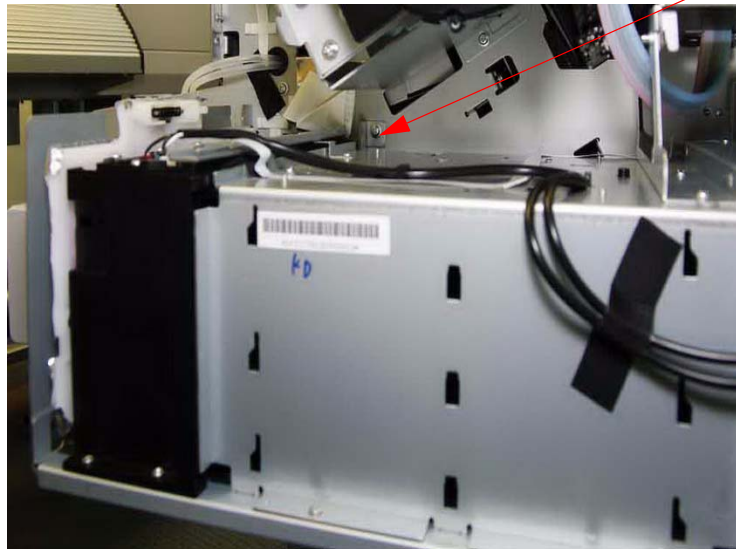
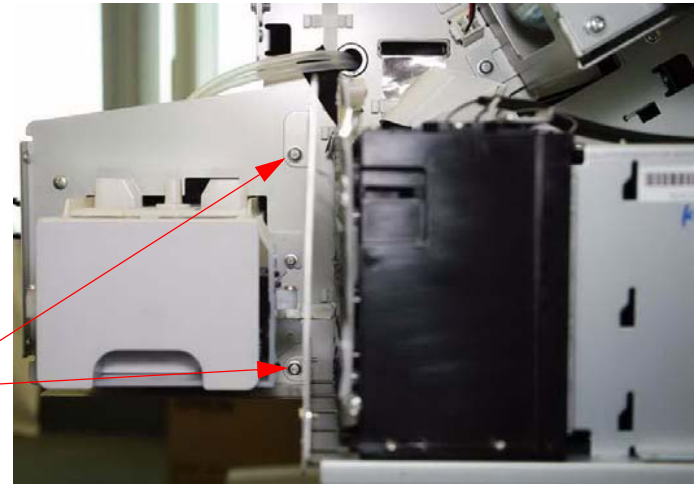


Unplug Ink Board Foil Cable

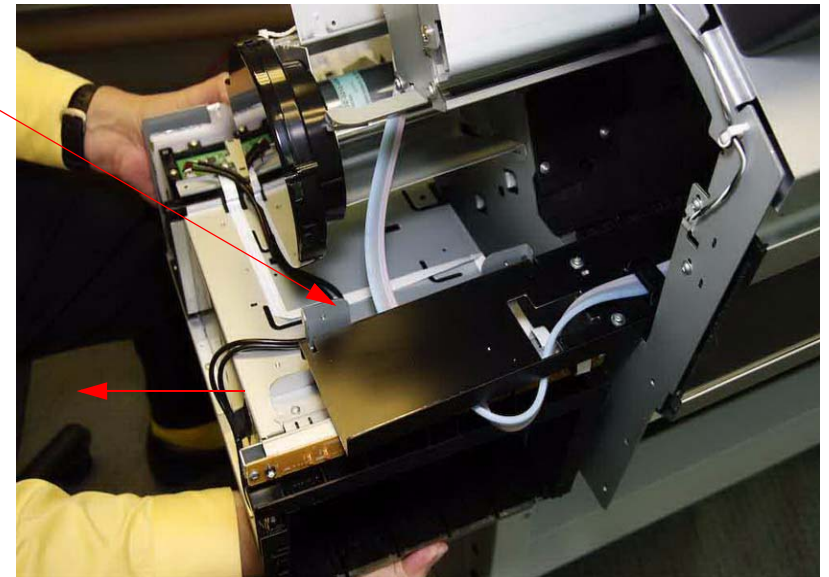
9. Remove the **Left Ink Bay**.



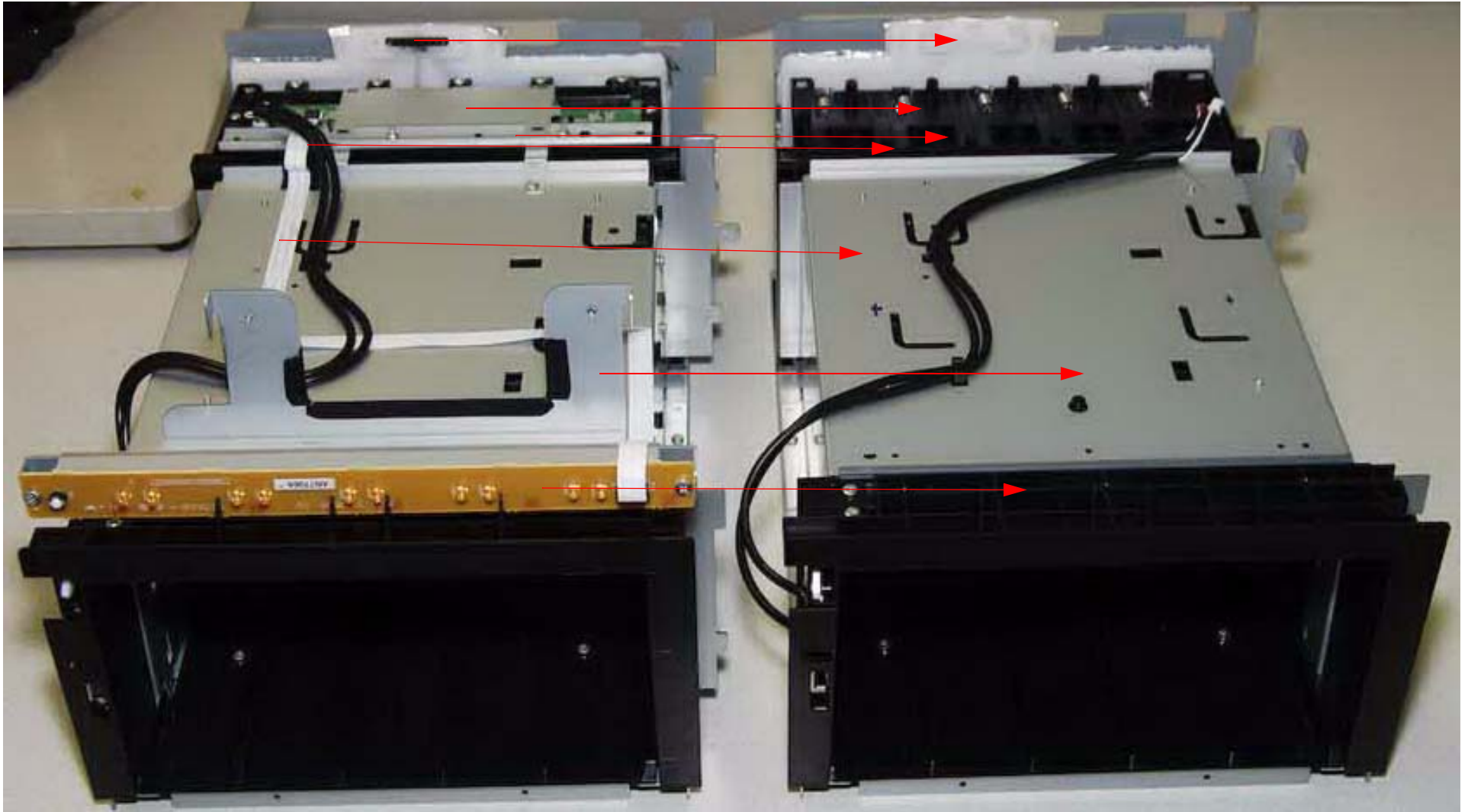
Remove **5 Screws**



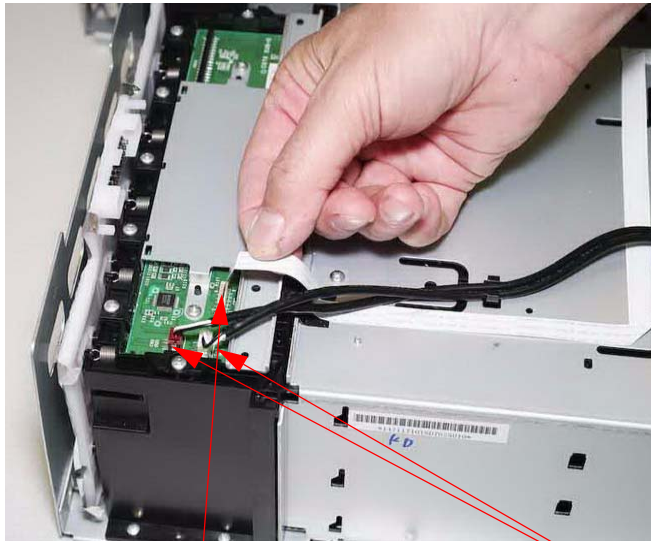
Raise this side and slide the **Left Ink Bay** out.



10. Transfer **Metal Bracket w/ Ink LED board** and **Cable**, **Metal Support Bar w/ Black Tape**, **Ink Board Assy w/ Ink Board Metal Cover**, and **O-Rings Assy**.



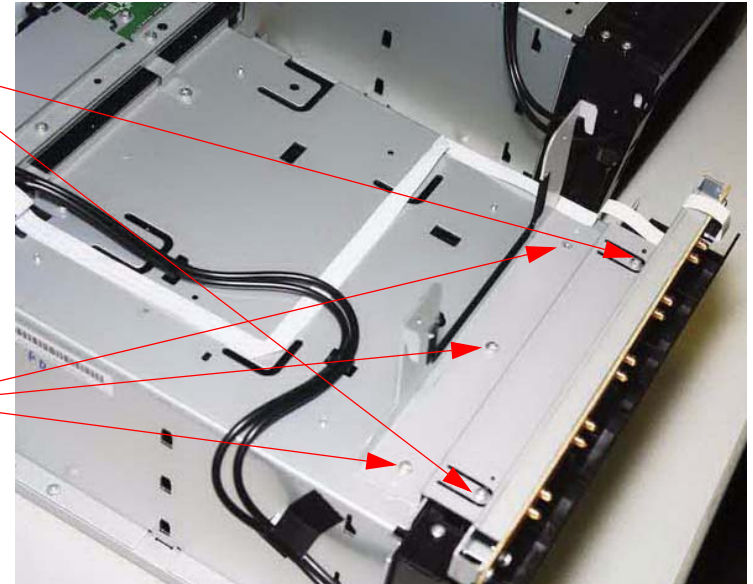
11. Remove the **Metal Bracket with Ink LED Board** and **Cable**.



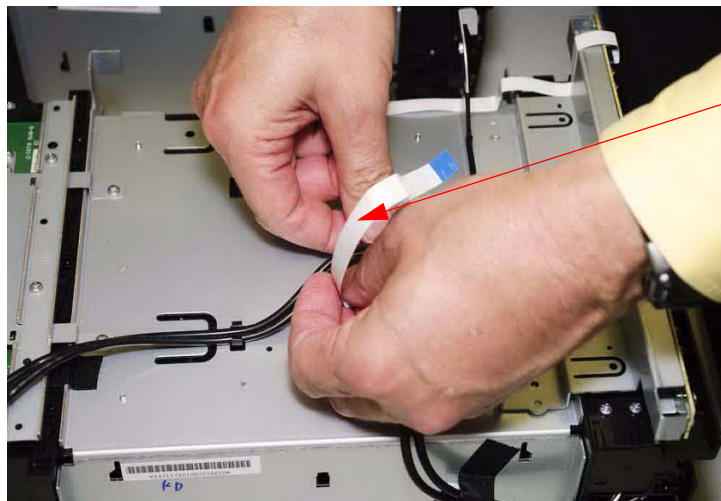
2 **Plastic Screws**



3 **Metal Screws**

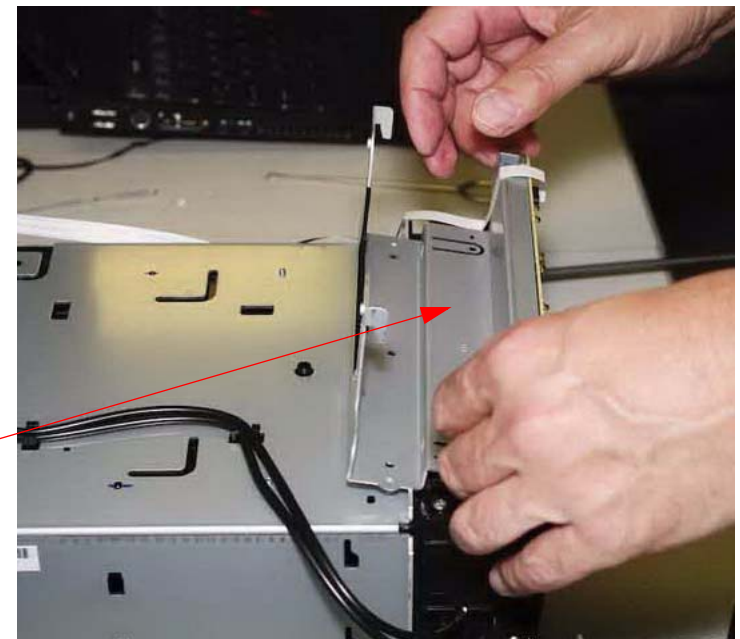


Disconnect **Ink LED Foil Cable** and 2 **Connectors**

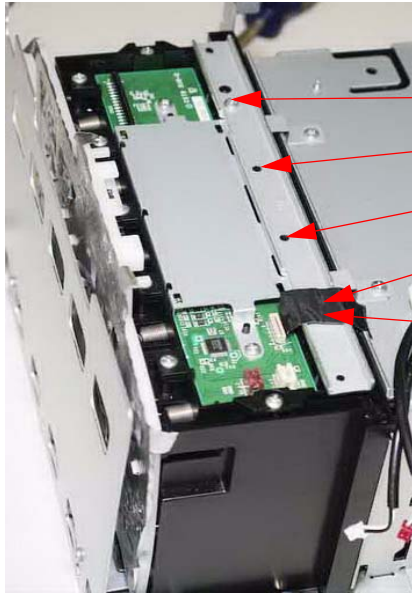


Remove the **Ink LED Foil Cable** from the **Right Ink Bay**.....

Lift the **Metal Bracket with Ink LED Board** and **Cable** from the Ink Bay

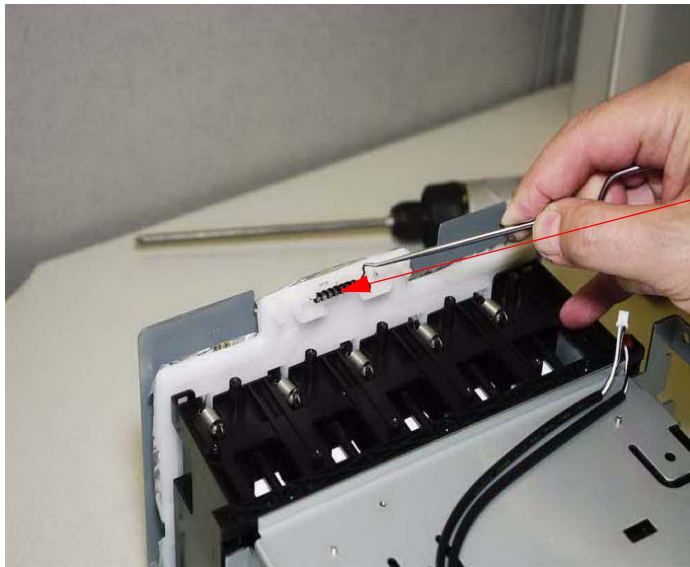


12. Remove **Metal Support Bar with Black Tape**.



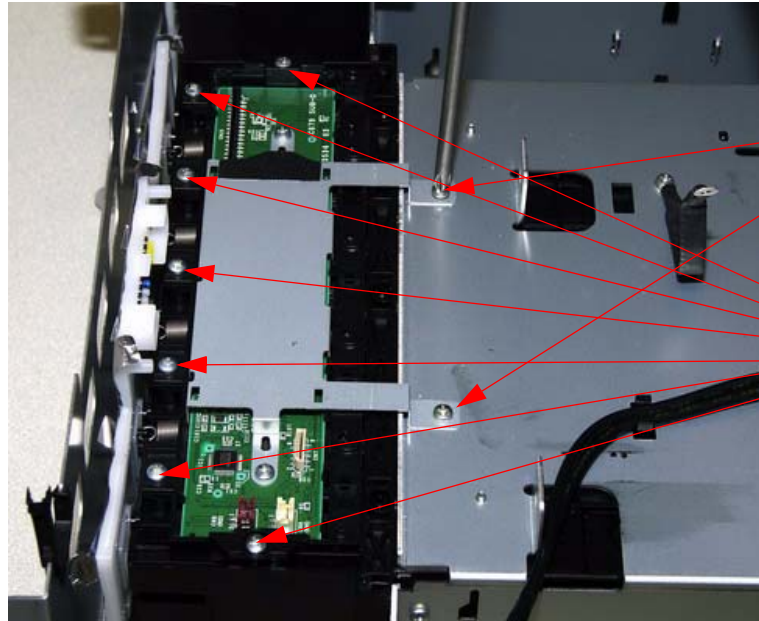
Remove the **Black Tape** first and remove 4 **Plastic Screws** (1 **Screw** is underneath the **Black Tape**).

13. Remove O-Rings Assy



Remove the O-Rings Assy,

14. Remove the ***Ink Board Assy w/ Ink Board Metal Cover***.

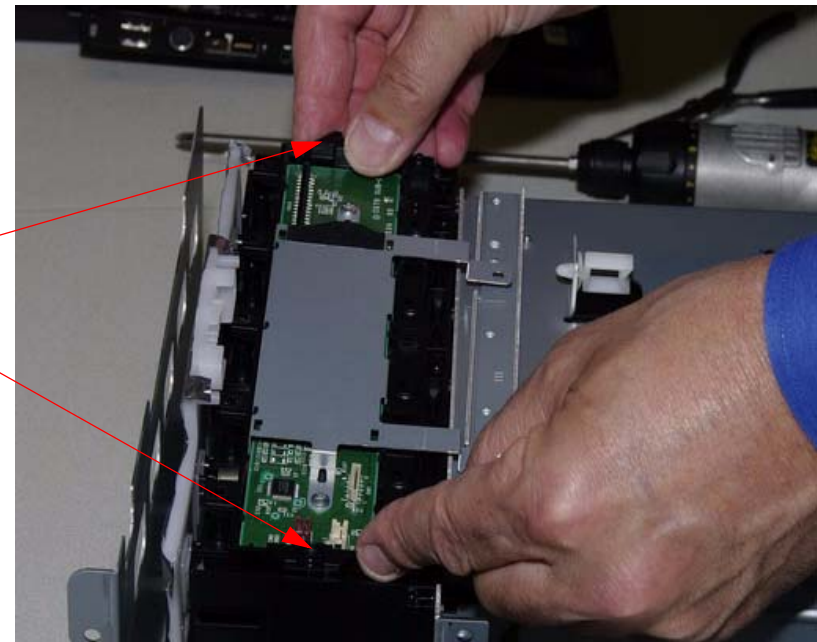


2 Metal Screws

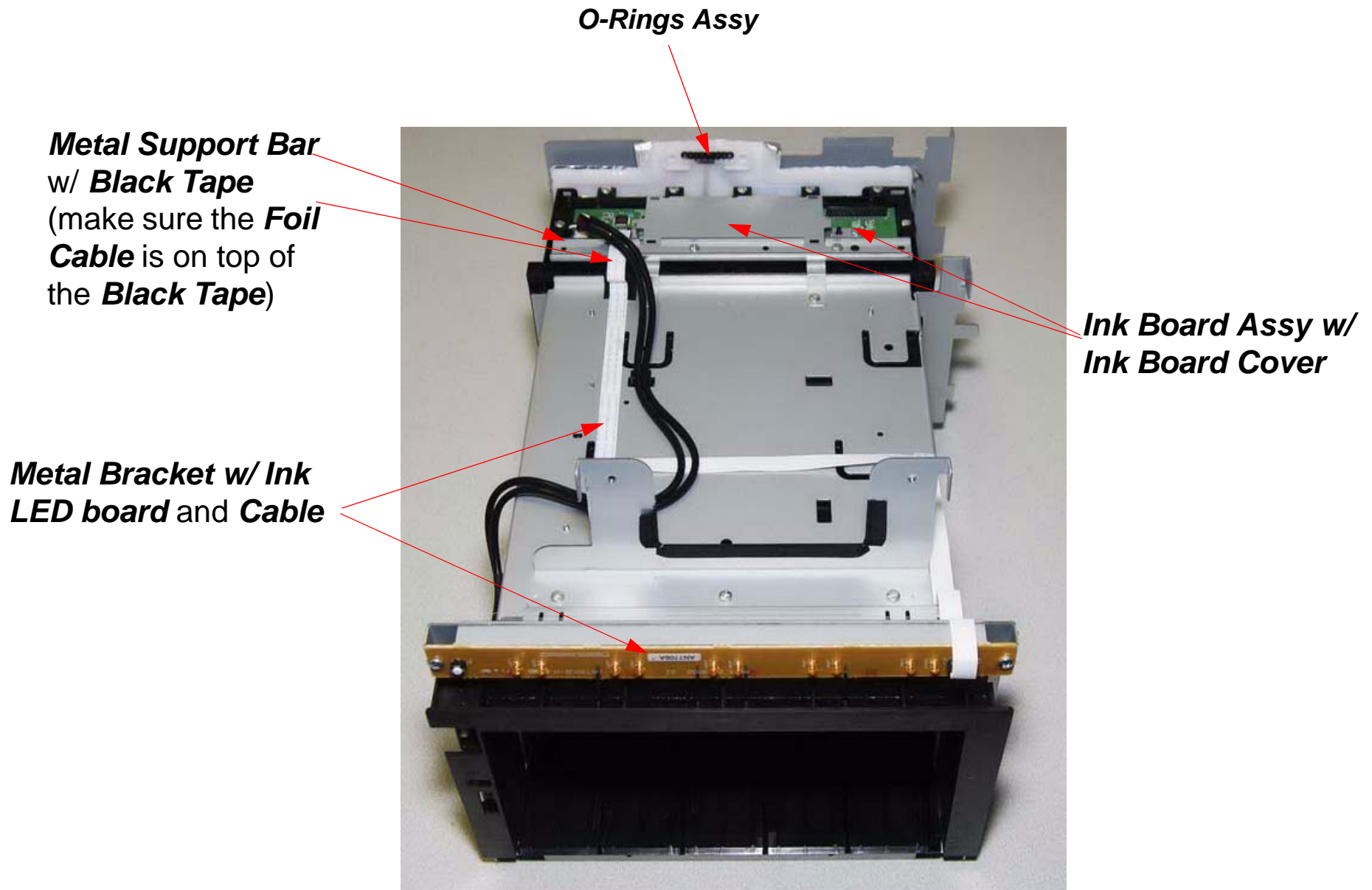


7 Plastic Screws

Lift to remove the ***Ink Board Assy with the Ink Board Metal Cover*** from the ***Right Ink Bay***

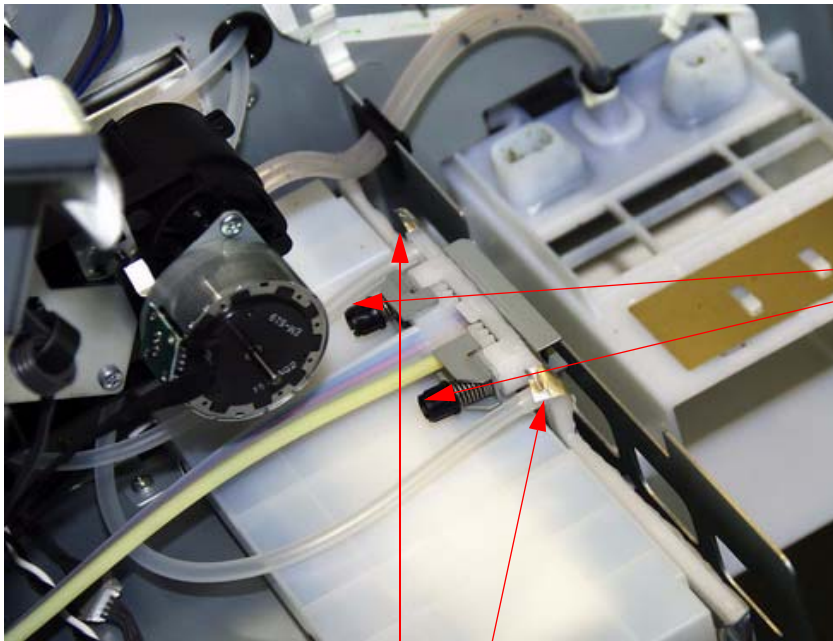


15. Make sure all items removed are transferred to the new **Left Ink Bay** before installing. .



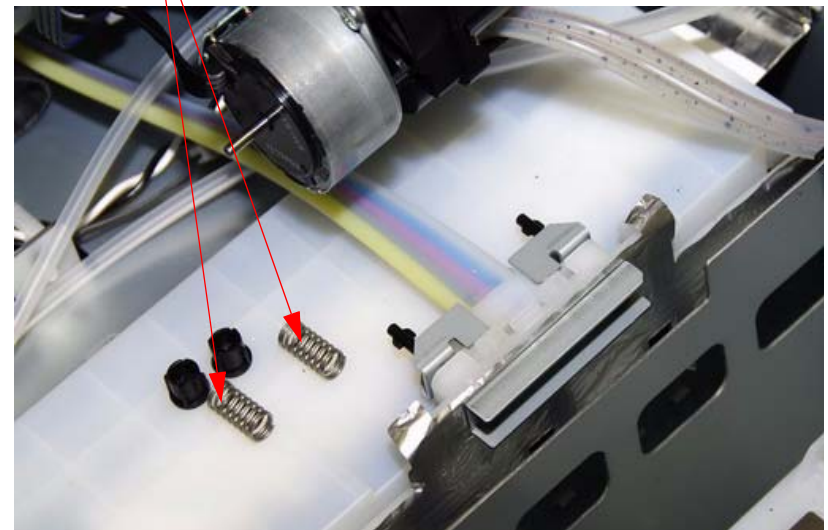
Ink Bay Removal (Right)

1. Drain the **Ink System**.
 - 1.1 Follow the directions in the Ink Draining Procedure chapter located in the Reference Section of the FRG.
2. Remove the **Right Side Cover**
3. Remove the **Spring Fastener** and 2 **Springs**. Unplug the **Pressure Tubes**



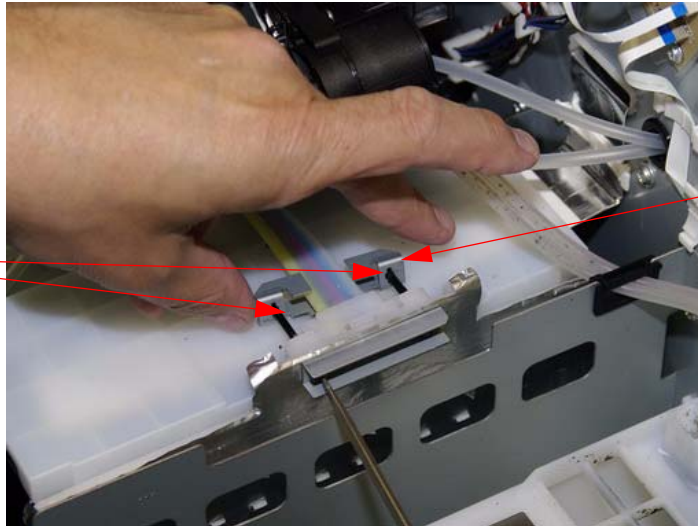
Unplug the **Pressure Tubes**.

Turn and slide the **Spring Fastener** to remove **Black Rod** (keyed), then remove the 2 **Springs**



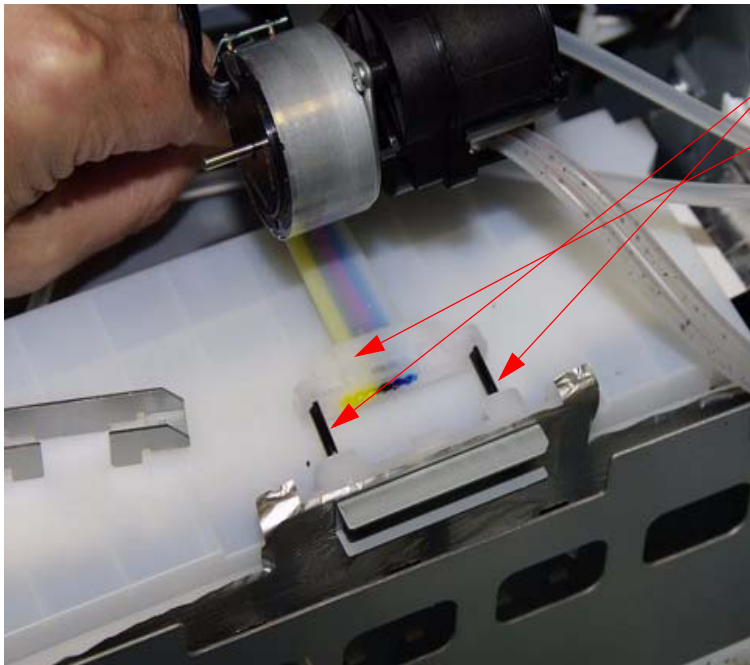
4. Remove the ***Ink Tube Bracket Holder***

Rotate the ***Black Rods***
(keyed)...



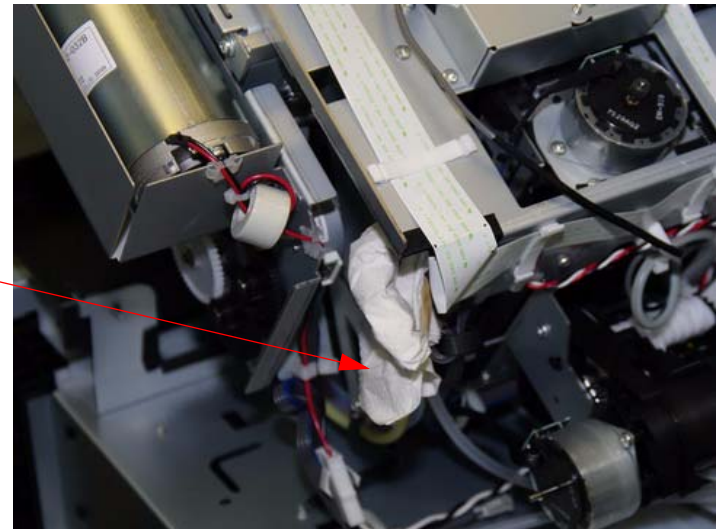
...and slide the ***Ink Tube Bracket Holder***

5. Remove the ***Ink Tubes Assy.***

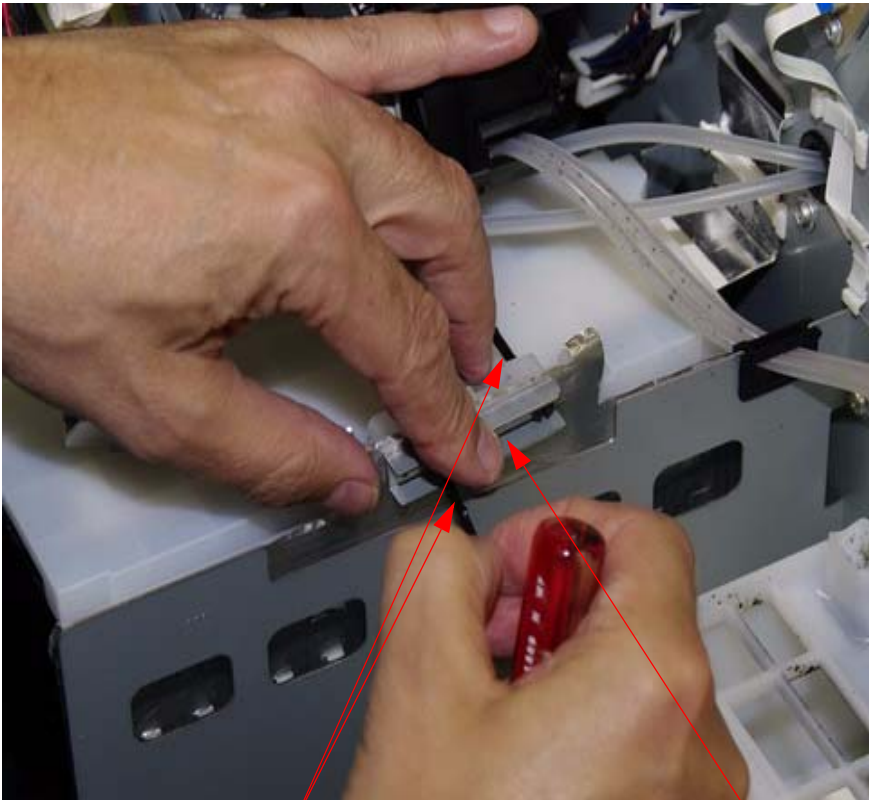


Rotate the ***Black Rod***(keyed) to
unplug the ***Ink Tubes Assy.***

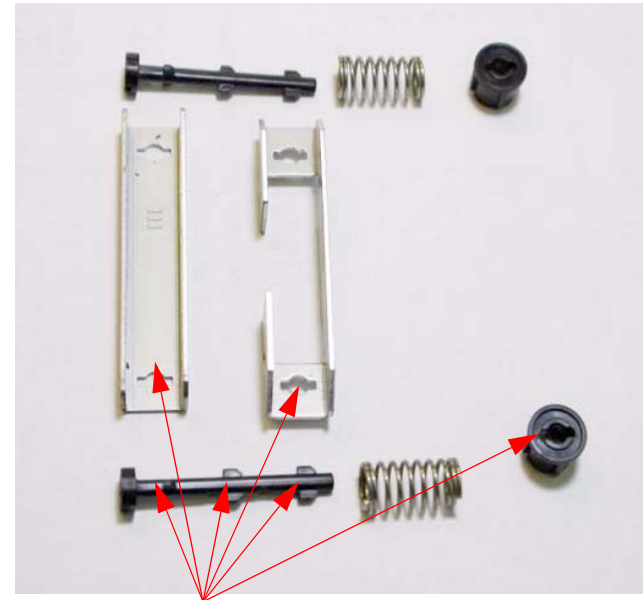
Wrap the ***Ink Tubes Assy*** with Paper
Towel to prevent
leak. Secure the ***Ink Tubes Assy.*** here



6. Remove the Metal Support Bracket.

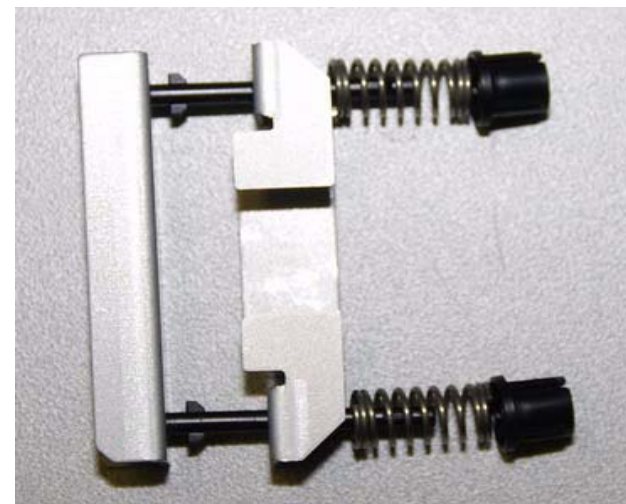


Rotate the **Black Rod** (keyed) to separate the **Metal Support Bracket** and remove the **Black Rods** together with the bracket

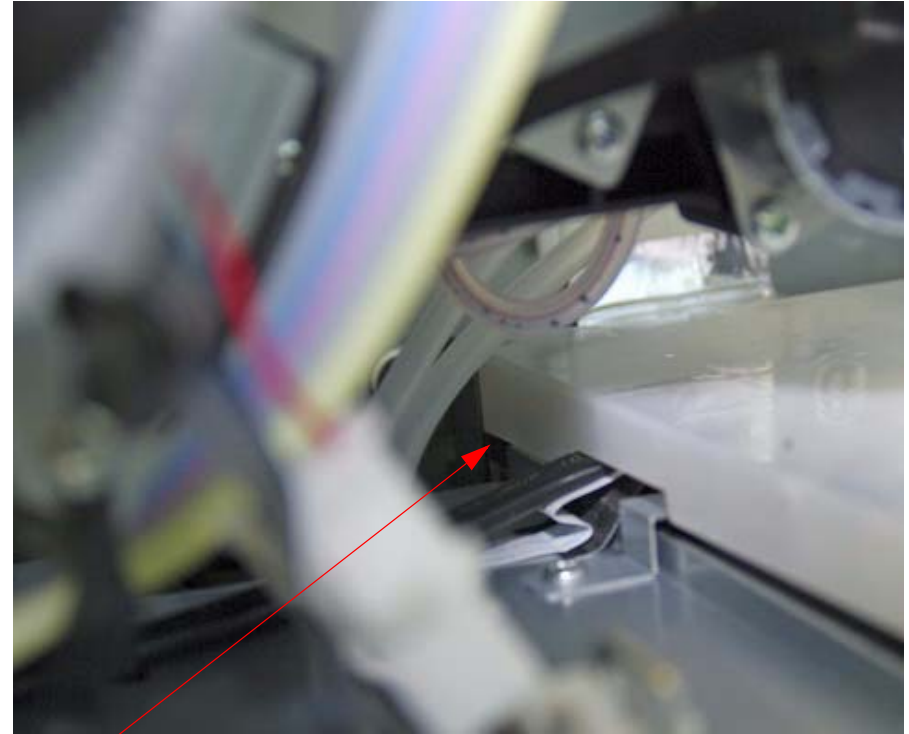
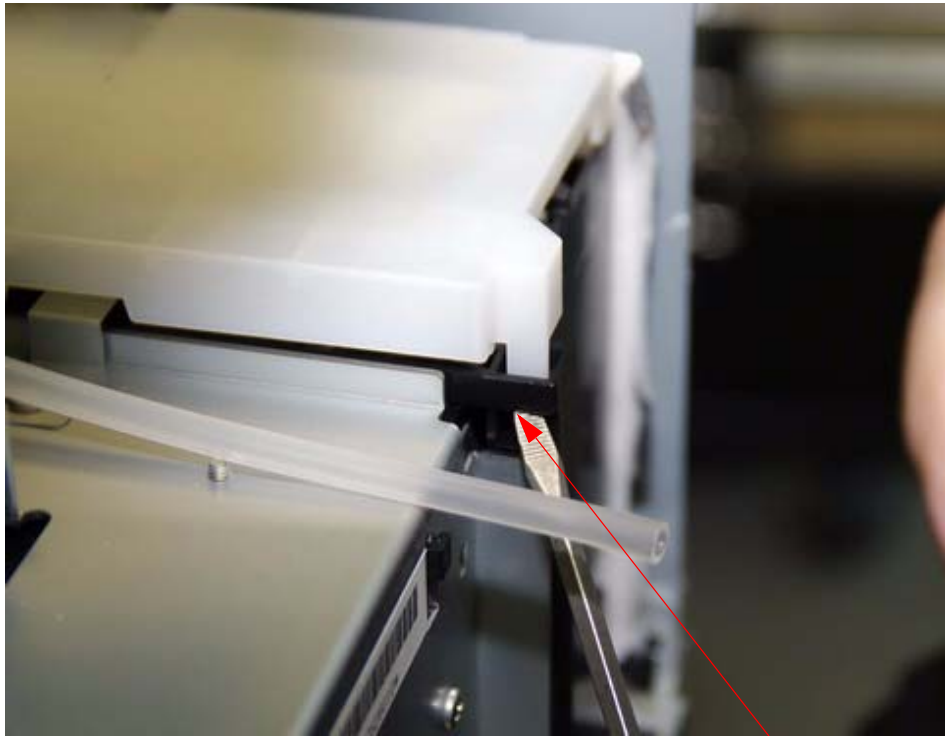


This is a picture of the **Ink Tube Support Assy**. Notice the tabs on the **Black Rods** and the Keyed Holes on the brackets and **Spring Fastener**

This is a picture of the **Ink Tube Support Assy** assem-

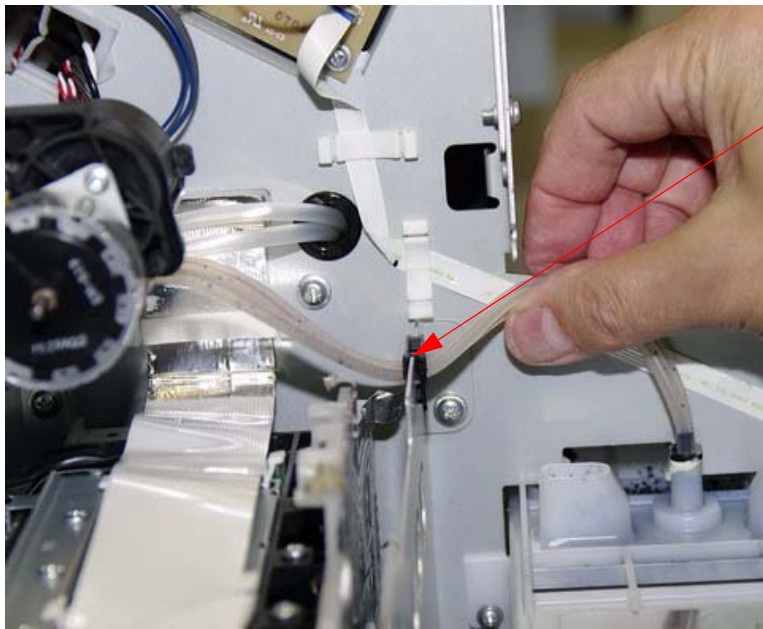


7. Remove the ***Ink Board Cover***.



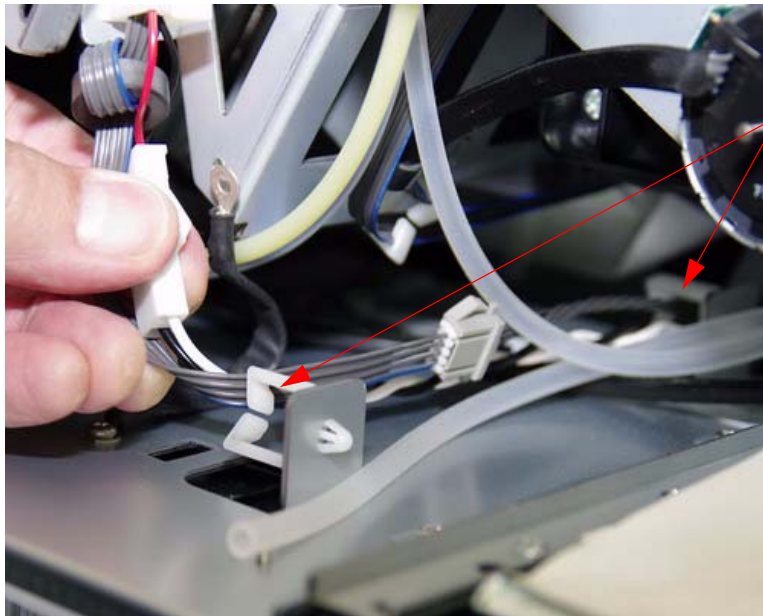
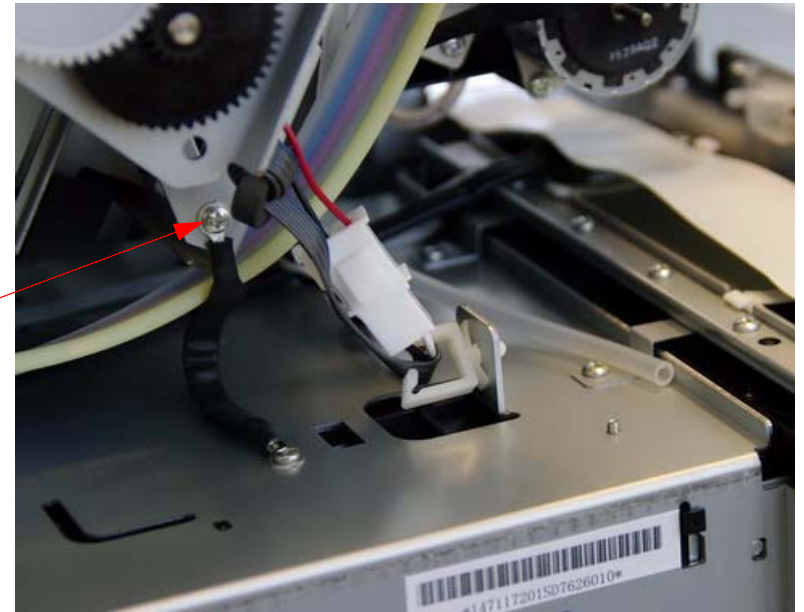
2 interlocks to remove the ***Ink Board Cover***

8. Unhook/unplug tubes, cables, and **Ground Wire** from the **Right Ink Bay** ,



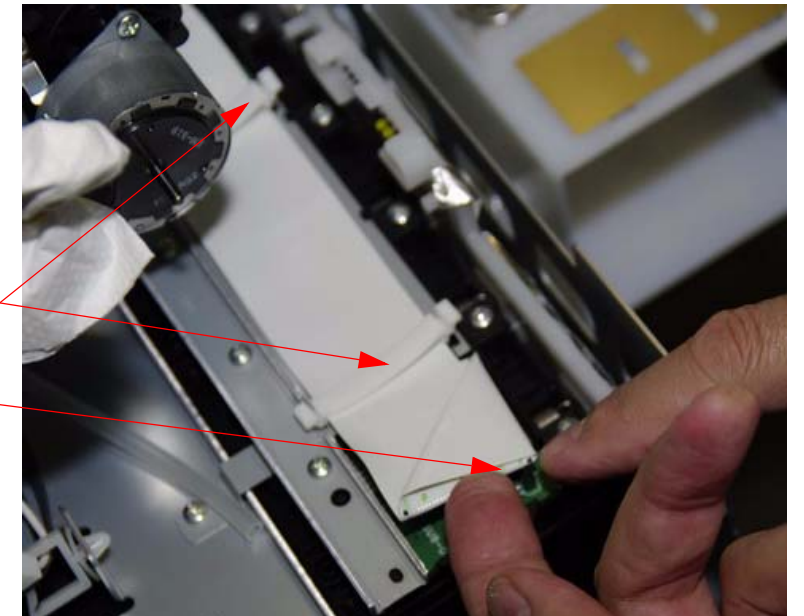
Remove **Tube** from the Fastener.

Remove 1 screw to release the **Ground Wire** from the Cleaning Unit. (New Ink Bay comes with a **Ground Wire**)

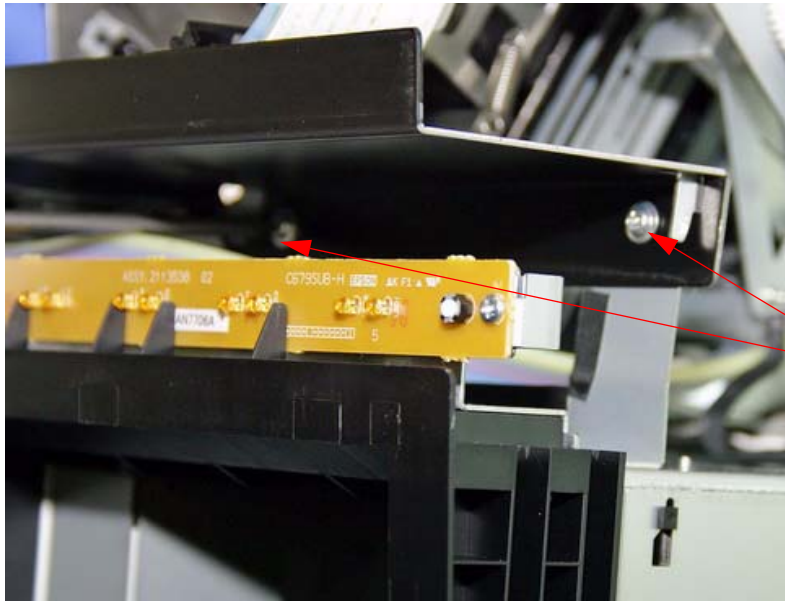


Free cables from Fasteners.

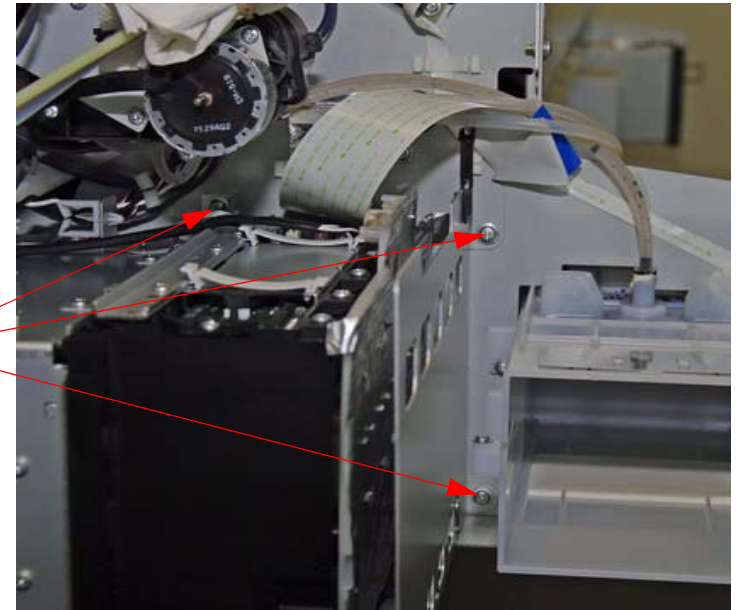
Free **Foil Cable** from **Fasteners** and disconnect the **Foil Cable**.



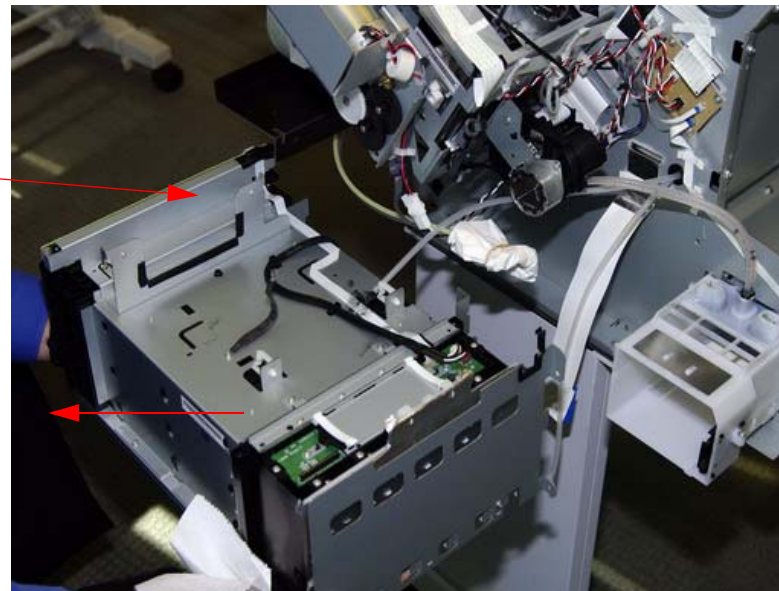
9. Remove the **Right Ink Bay**.



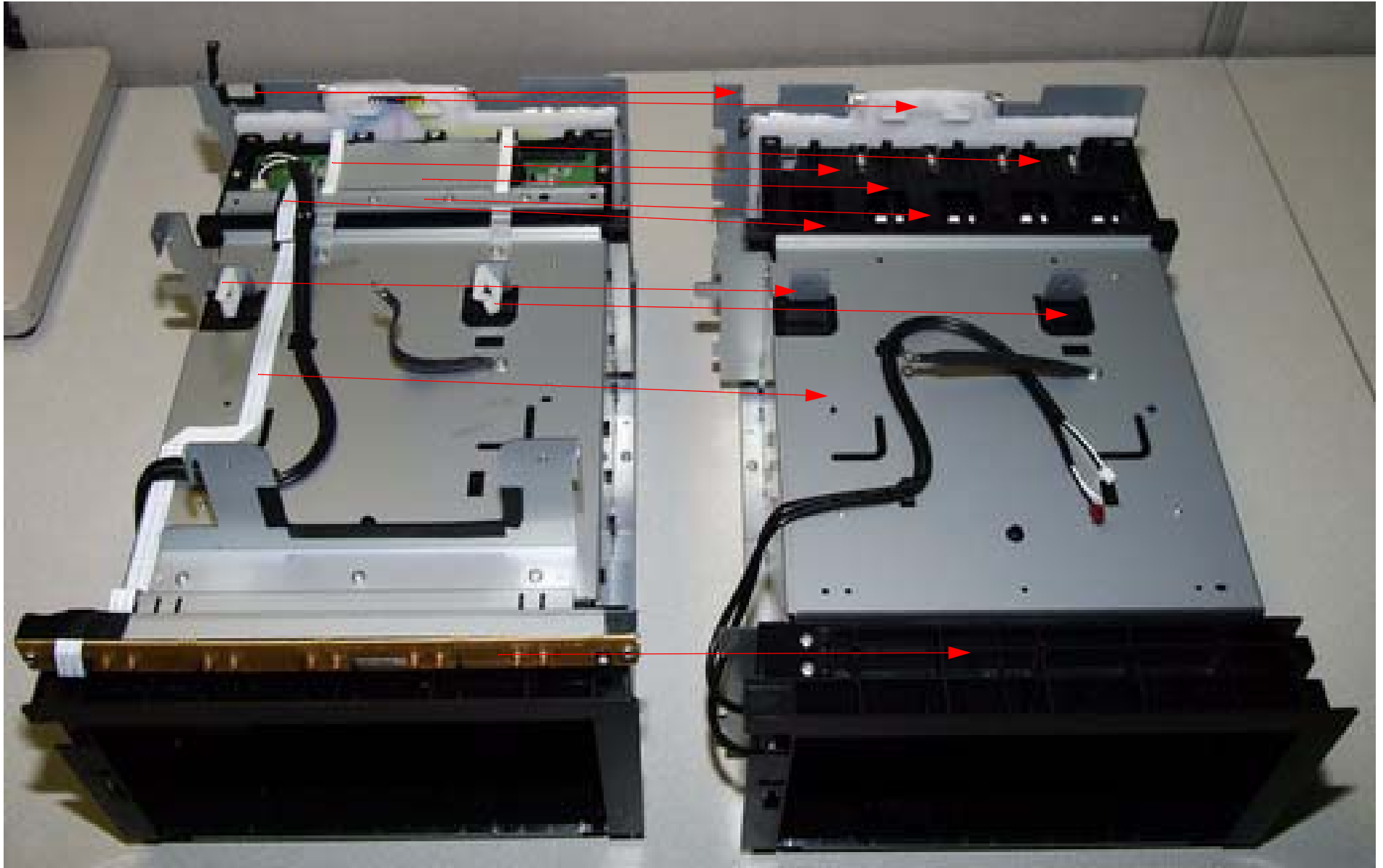
Remove **5 Screws**



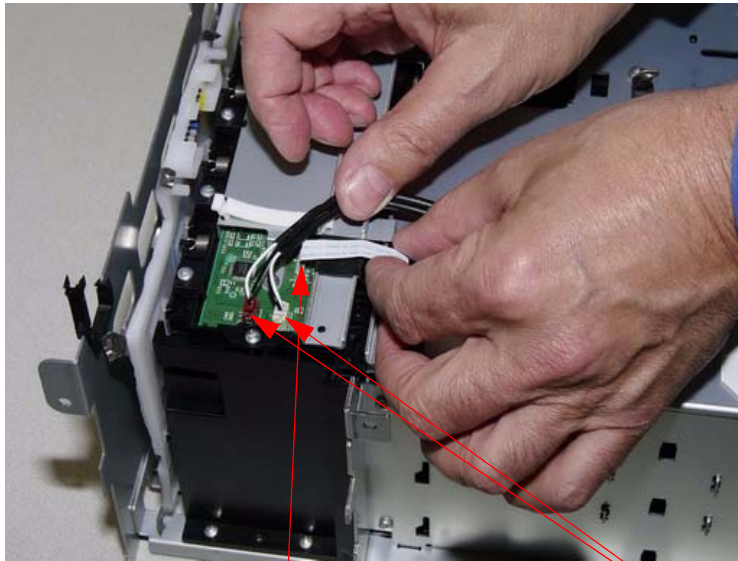
Lift this side up and then
Slide the **Right Ink Bay** out.



10. Transfer **Metal Bracket w/ Ink LED board** and **Cable**, **Metal Support Bar w/ Black Tape**, **Ink Board Assy w/ Ink Board Metal Cover**, **5 Fasteners** and **O-Rings Assy**.



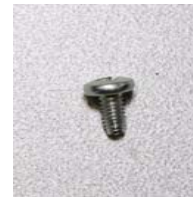
11. Remove the **Metal Bracket with Ink LED Board** and **Cable**.



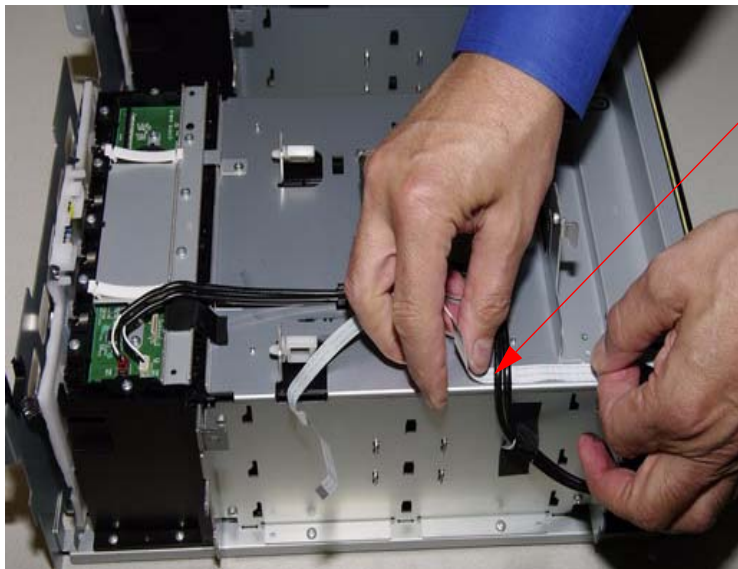
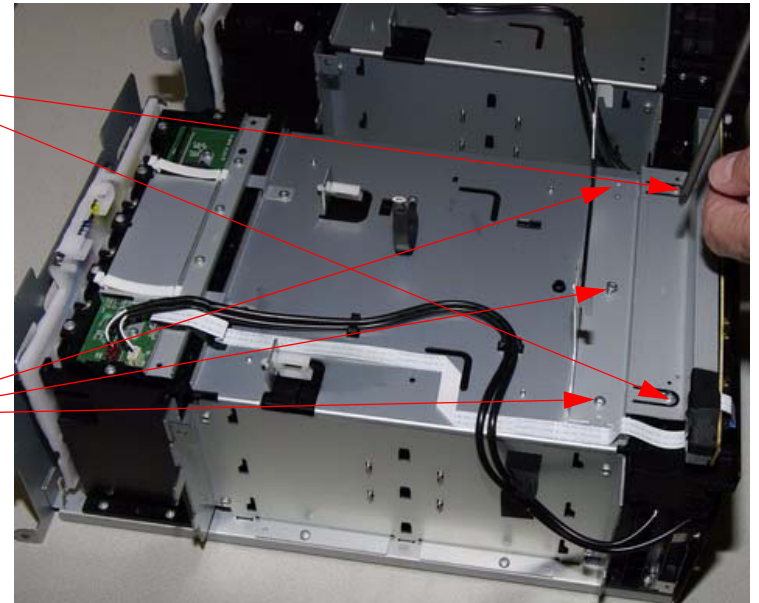
Disconnect **Ink LED Foil Cable** and 2 **Connectors**



2 **Plastic Screws**

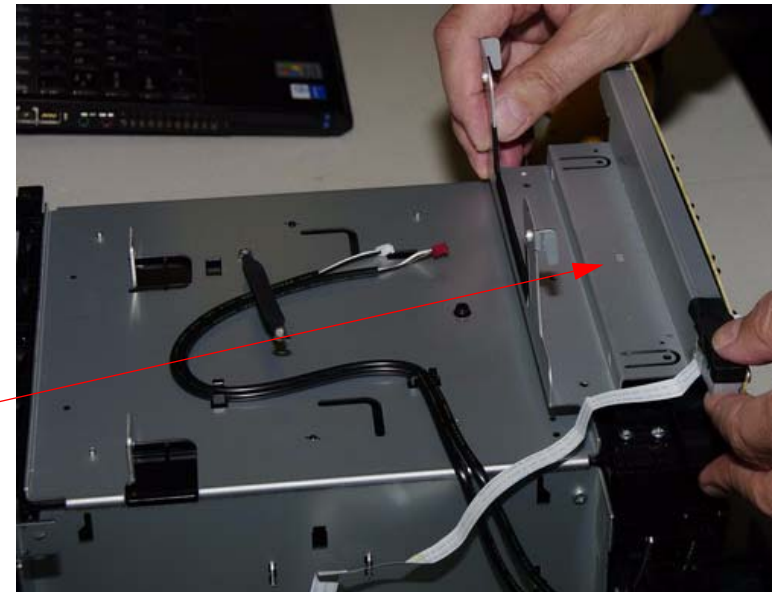


3 **Metal Screws**

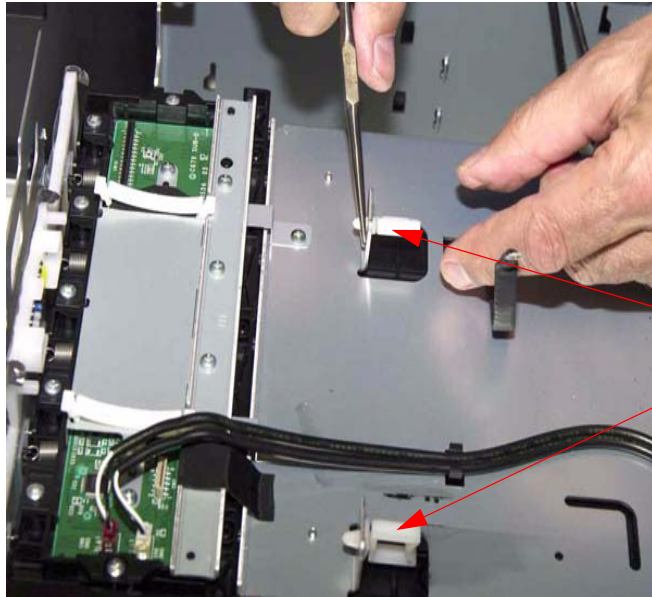


Remove the **Ink LED Foil Cable** from the **Right Ink Bay**.....

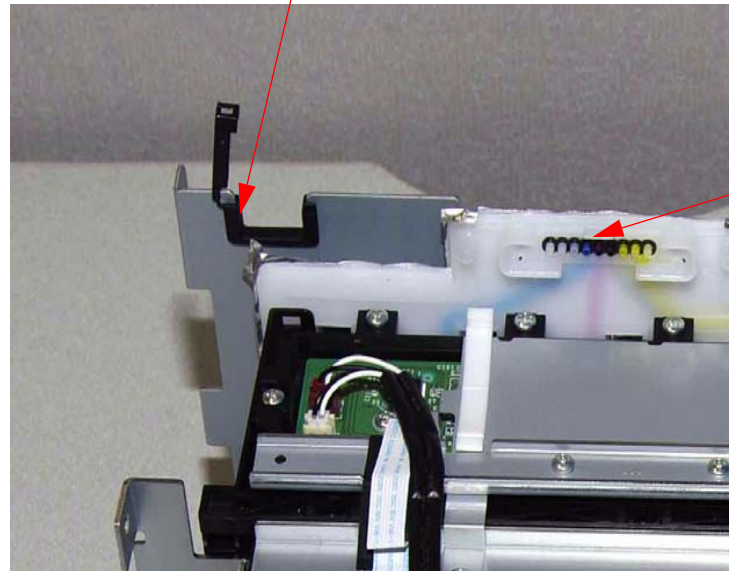
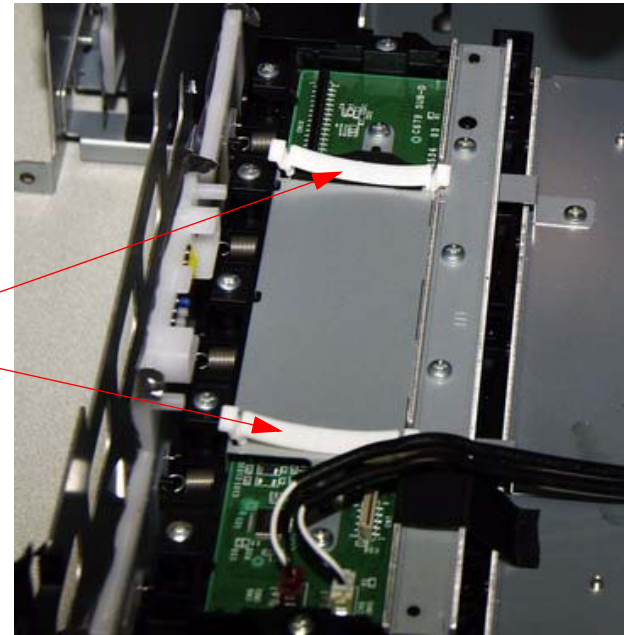
Lift the **Metal Bracket with Ink LED Board** and **Cable** from the Ink



12. Remove 5 **Fasteners** and the **O-Rings Assy**.

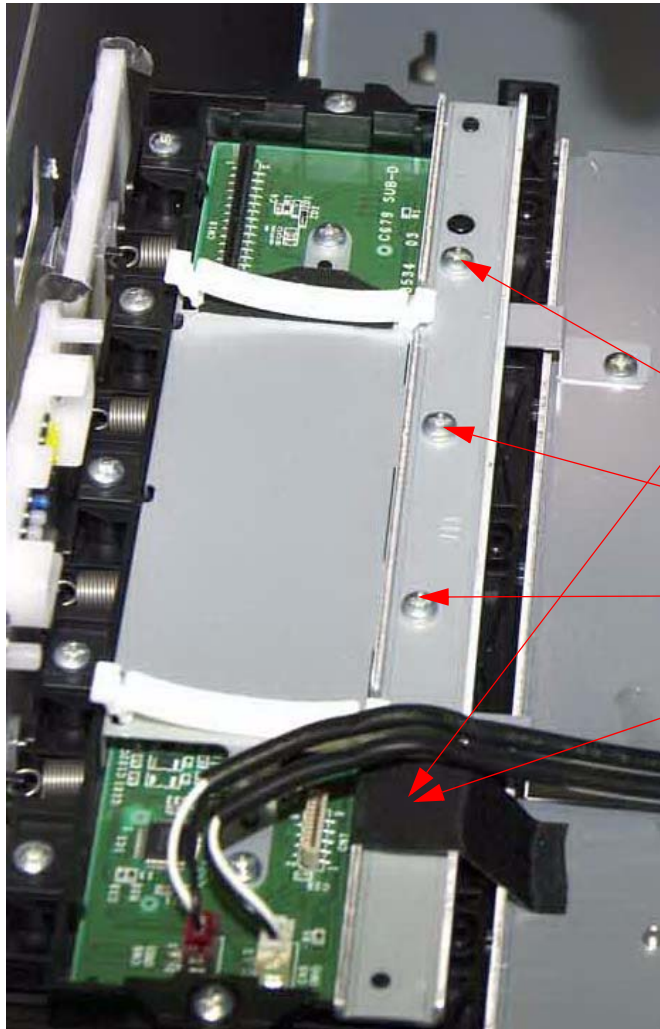


5 **Fasteners**



O-Rings Assy

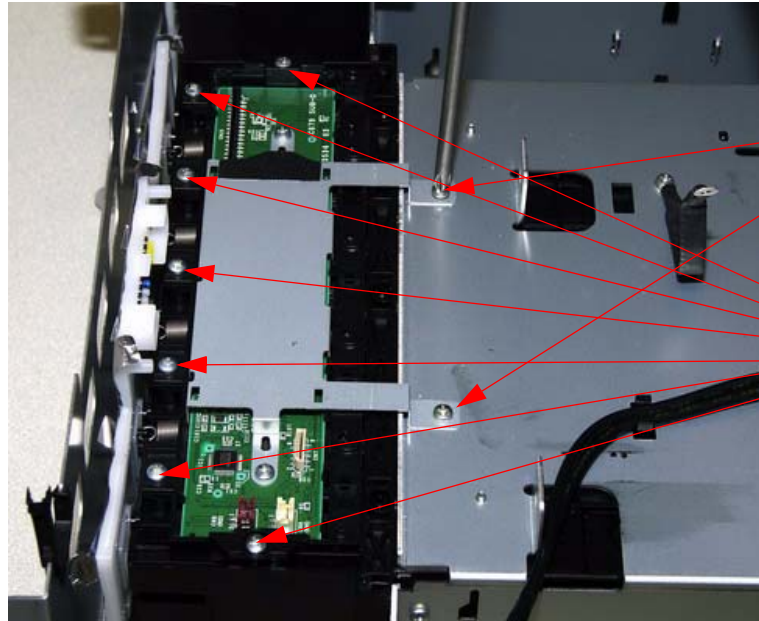
13. .Remove ***Metal Support Bar with Black Tape***.



Remove the ***Black Tape*** first and remove 4 ***Plastic Screws*** (1 ***Screw*** is underneath the ***Black Tape***).



14. Remove the ***Ink Board Assy w/ Ink Board Metal Cover***.

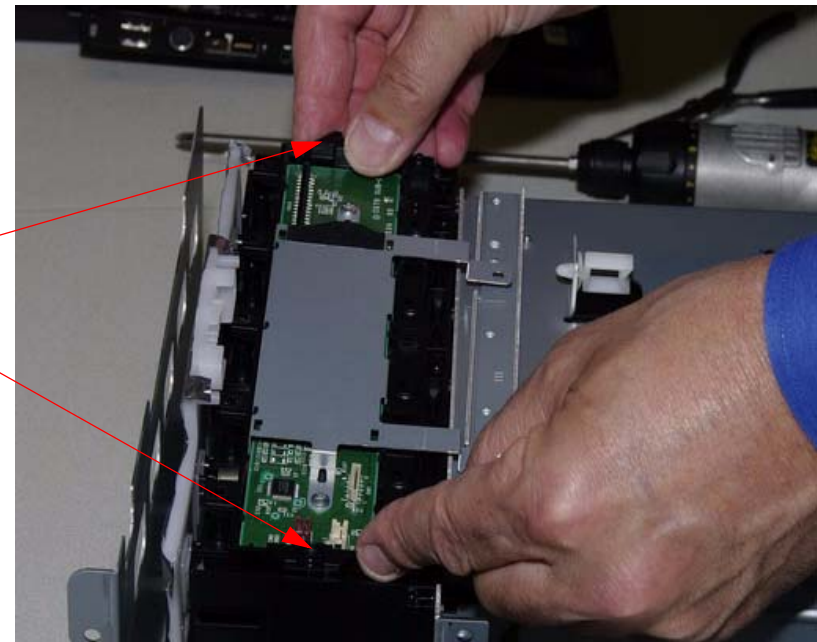


2 Metal Screws

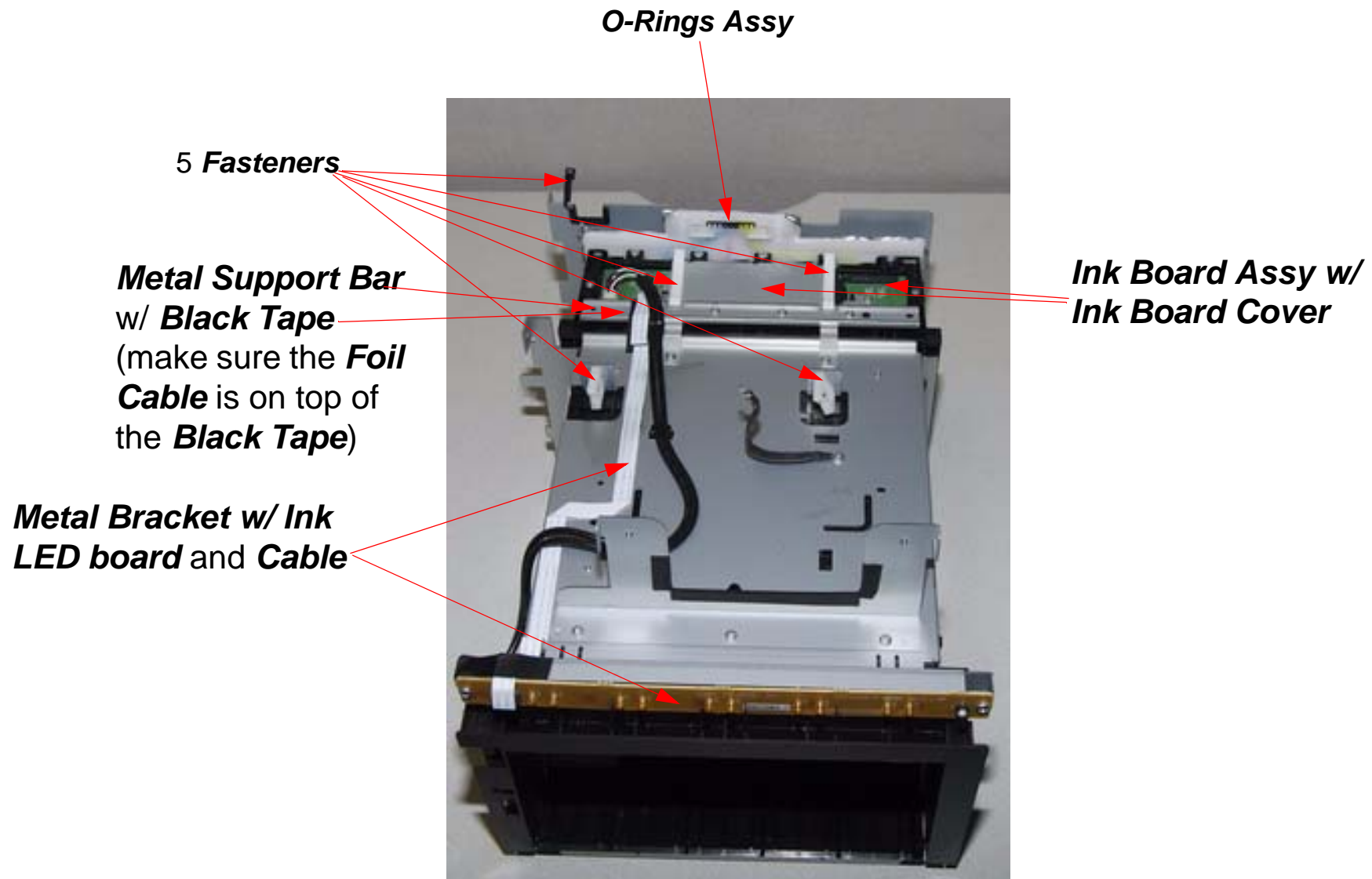


7 Plastic Screws

Lift to remove the ***Ink Board Assy with the Ink Board Metal Cover*** from the ***Right Ink Bay***



15. Make sure all items removed are transferred to the new **Right Ink Bay** before installing. .



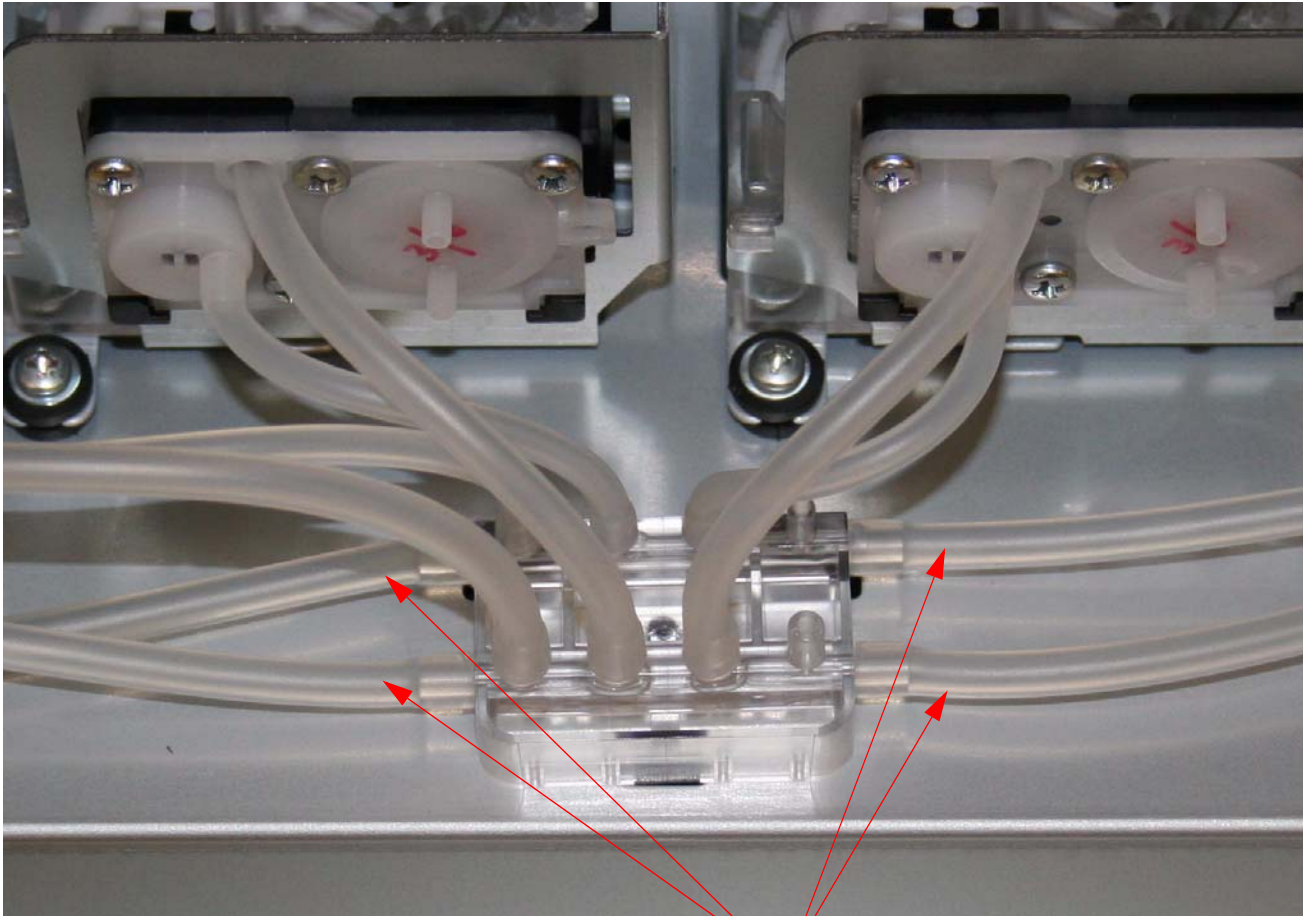
16.

17.

18.

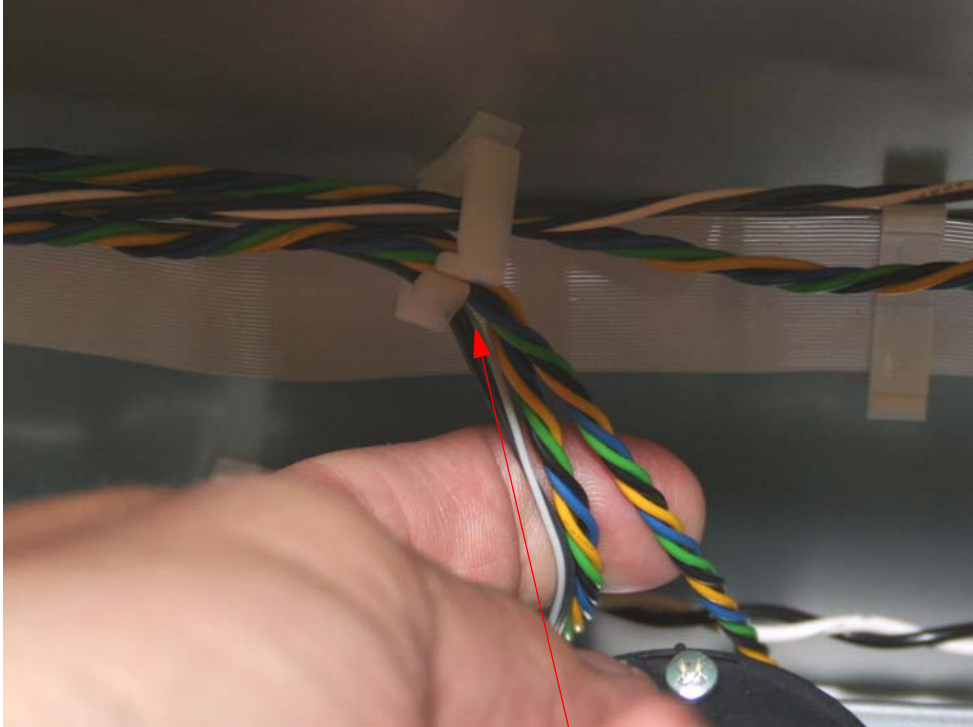
Pressure Pump Assembly Removal

1. Turn off the **Printer** and **UNPLUG from AC.**
2. Remove the **Cover (Rear).**
3. Disconnect **4 Air Pressure Tubes** from the **Pressure Pump Assembly.**

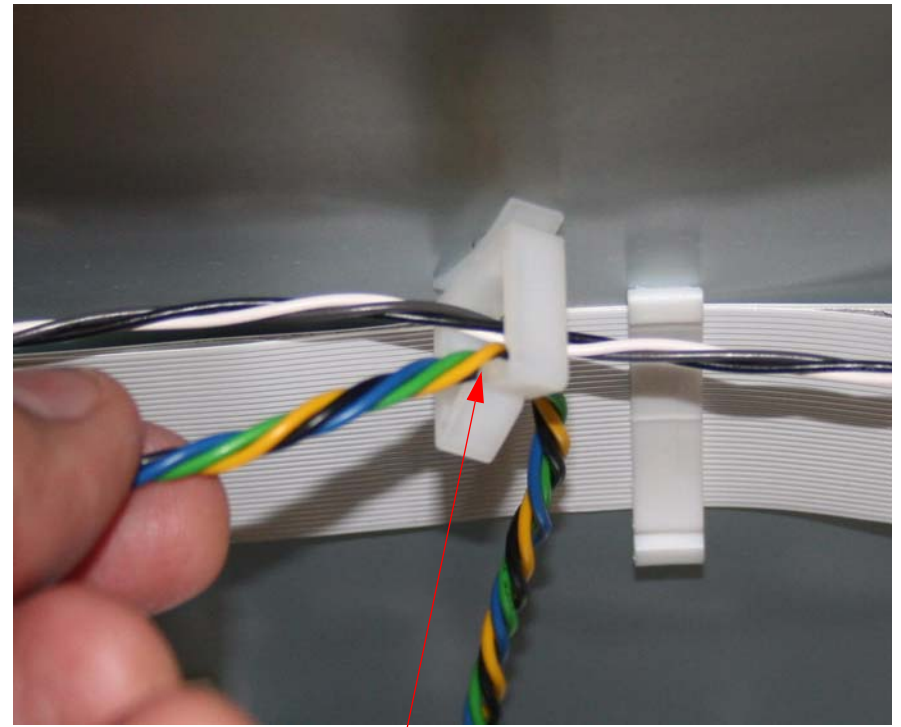


Disconnect **4 Air Pressure Tubes.**

4. Free the **Pressure Motor Encoder** and the **Pressure Sensor Cables** from the **Fasteners**, and unplug them from the **Main Board**.



1. Free and unplug these **2 Pressure Motor Encoder Cables** and the **Pressure Sensor Cable**.



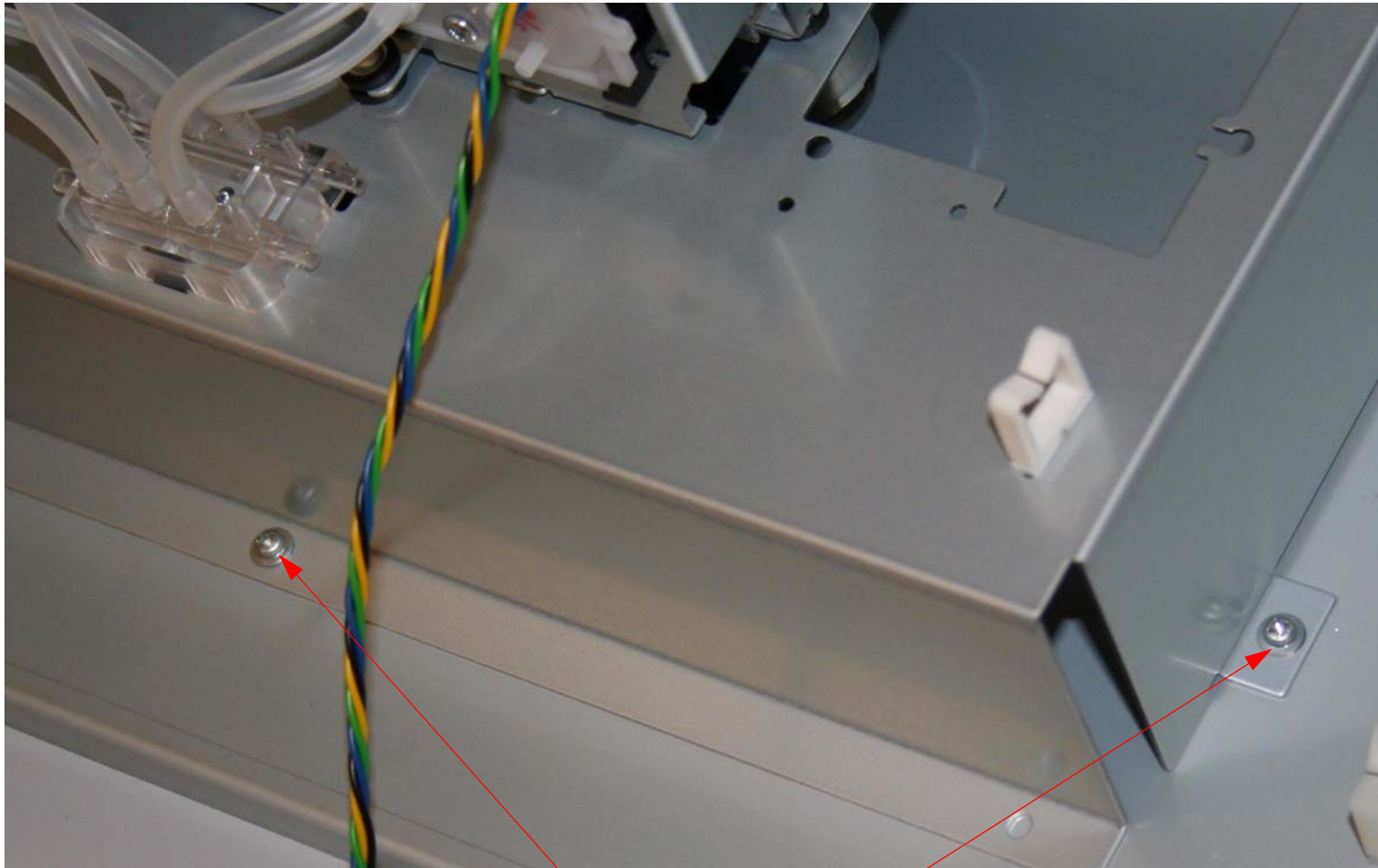
2. Free and unplug this **Pressure Motor Encoder Cable**.

5. Free the **3 Pressure Pump Motor Cables** from the **Fasteners**, and unplug them from the **Main Board**.



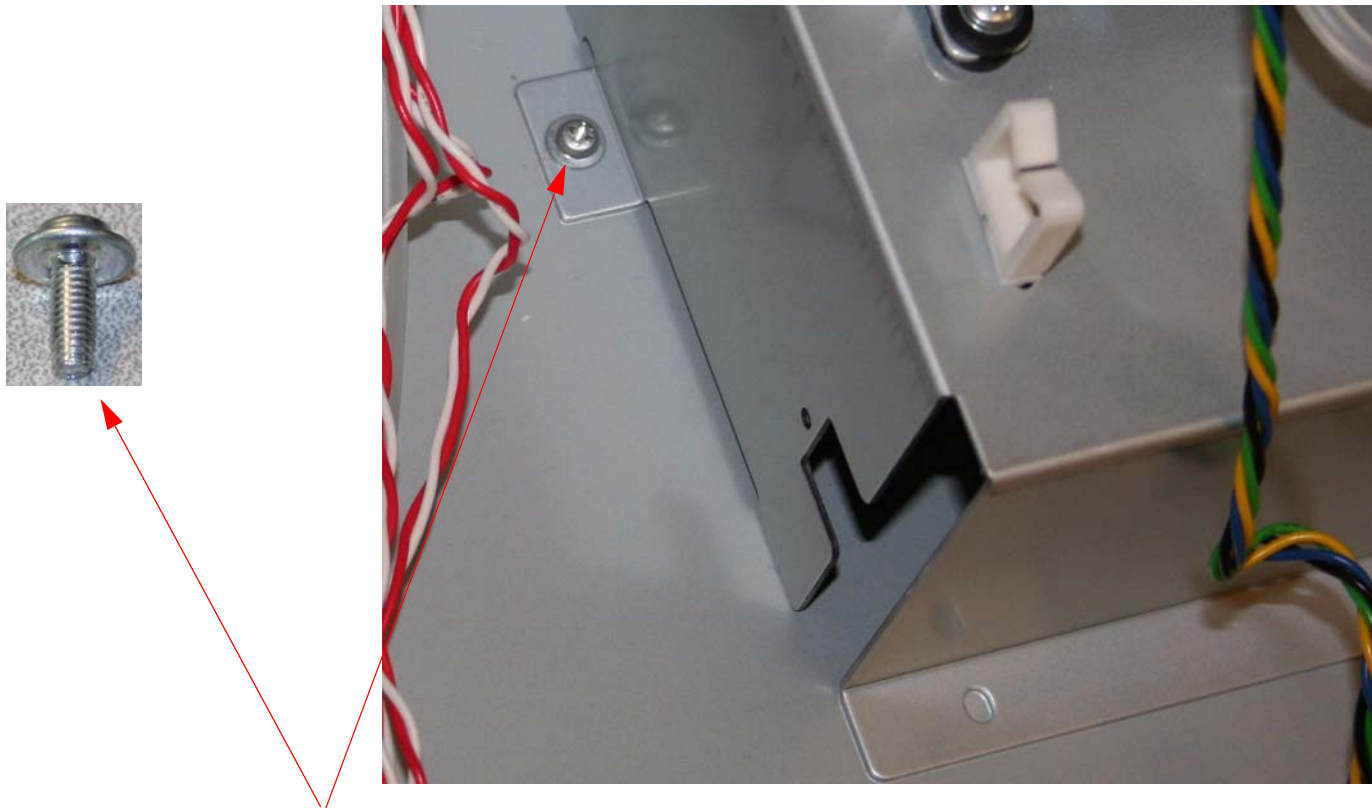
Free these **3 Cables** from **the Fasteners**, and unplug them from the **Main Board**.

6. Remove **2 Screws** that fasten the right and center of the **Pressure Pump Assembly** to the **Printer**.



Remove **2 Screws**.

7. Remove **1 Screw** that fastens the **Pressure Pump Assembly** to the **Printer**, and lift out the **Assembly**.



1. Remove **1 Screw**.

2. Lift out the **Pressure Pump Assembly**.

Print Head Removal

Note: The Print Head Nozzle Plate on the Pro 11880 is as fragile as tin foil. Any contact with the Nozzle plate will damage the Print Head.

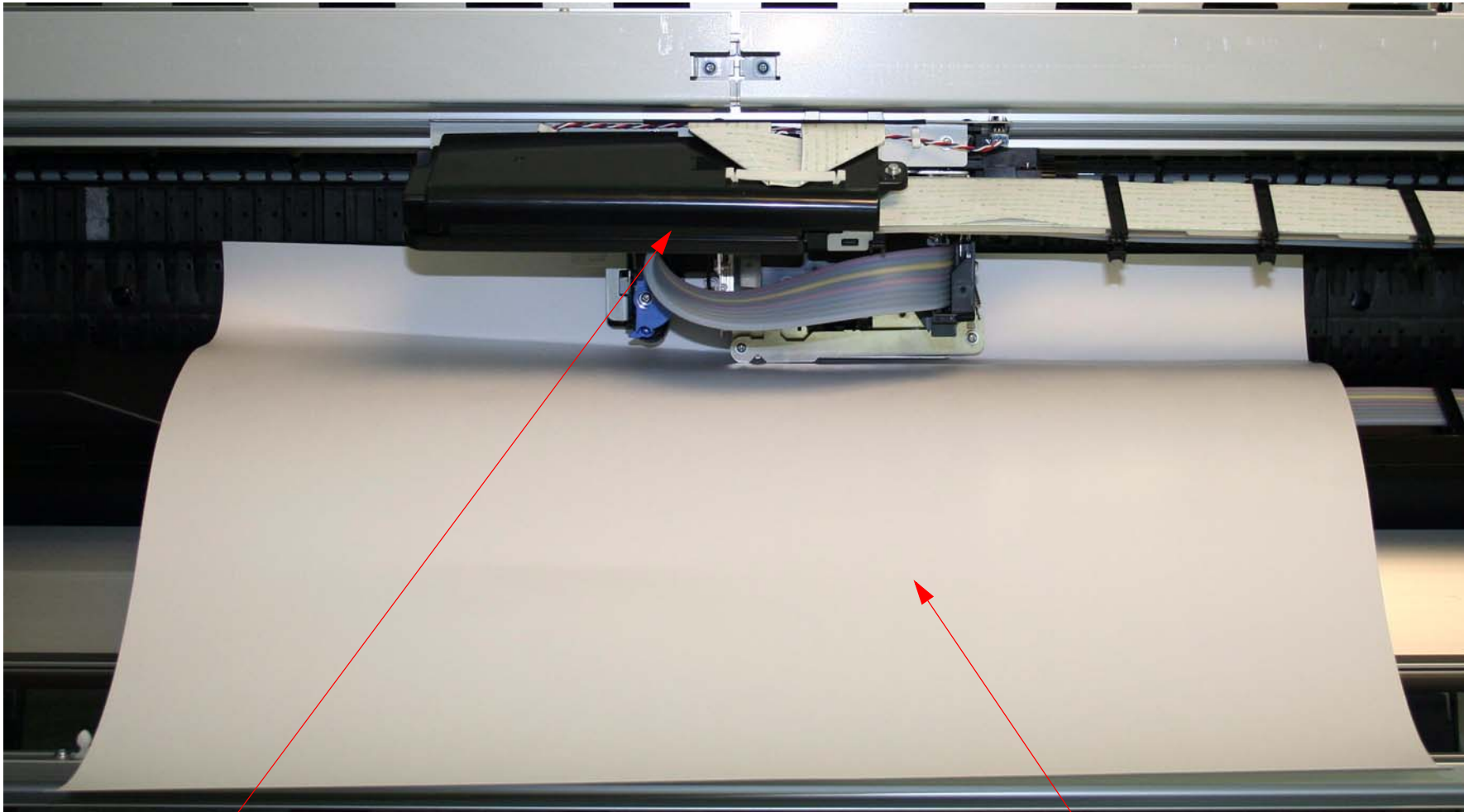
Print Head Removal Overview

- Input the **New Print Head's Head Rank ID** (if the Print Head is to be replaced).
- Release the **Carriage Mechanism**.
- Remove the **Ink Cartridges** to bleed off the **Ink System** pressure.
- Unplug the **Printer**.
- Remove the **Old Print Head**.

Print Head Removal Detail

1. If you are replacing the **Print Head**, run the **Adjustment Wizard** and input the new **Print Head's** calibration value (**Head Rank ID**).
2. Release the **Carriage Mechanism**, following the directions found in the Carriage Release Chapter, located in the Reference Section.
3. Release (partially remove) all **9 Ink Cartridges**, to ensure that the **Ink System** is un-pressurized.
4. **Unplug the Printer.**
5. Remove the **Top Cover**.

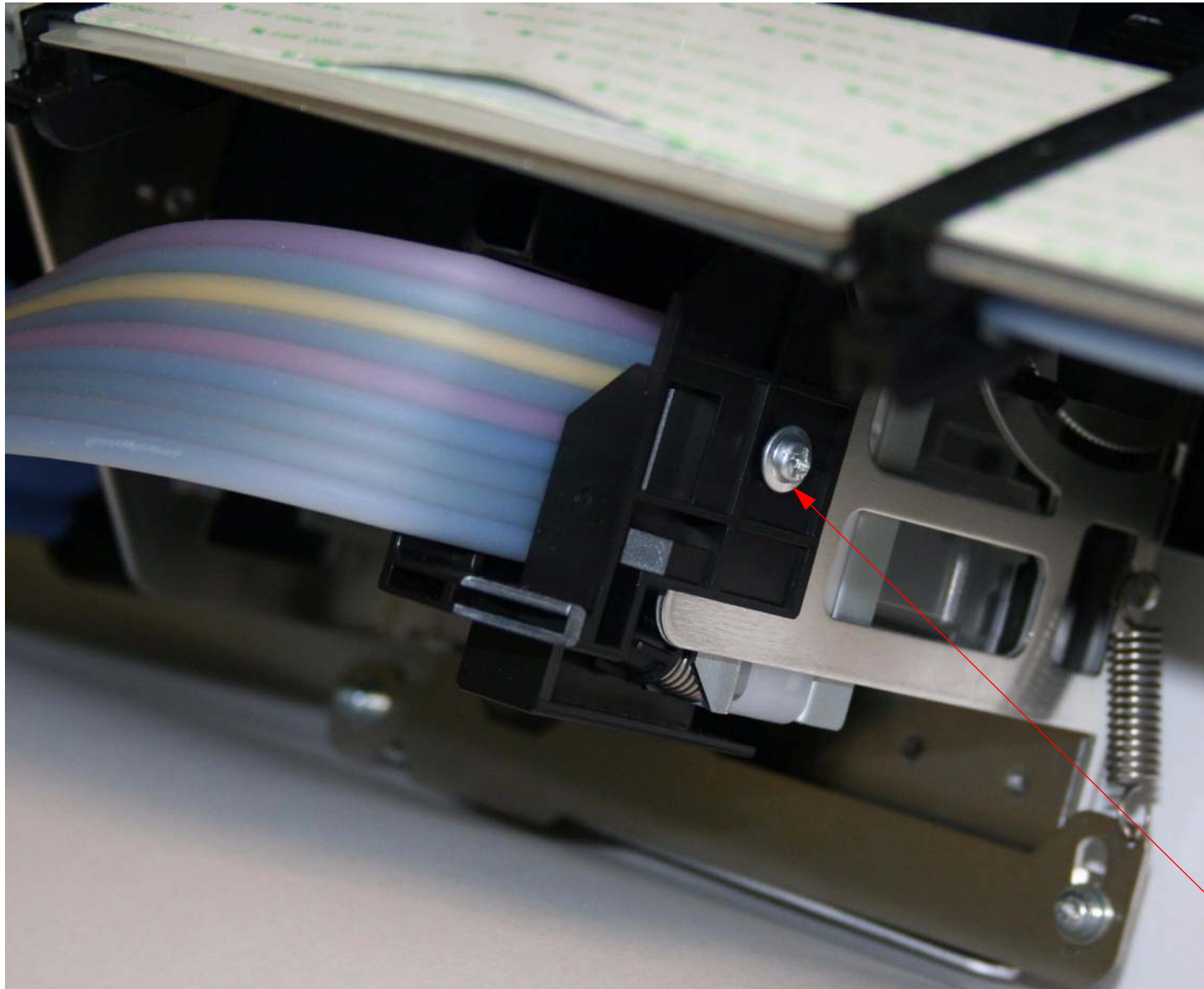
6. Move the **Carriage Mechanism** off the **Cap Assembly**, and place paper under the **Mechanism**.



1. Move the **Carriage Mechanism** off the **Cap Assembly**.

2. Place paper under the **Carriage Mechanism** to catch **Ink** and **Screws**.

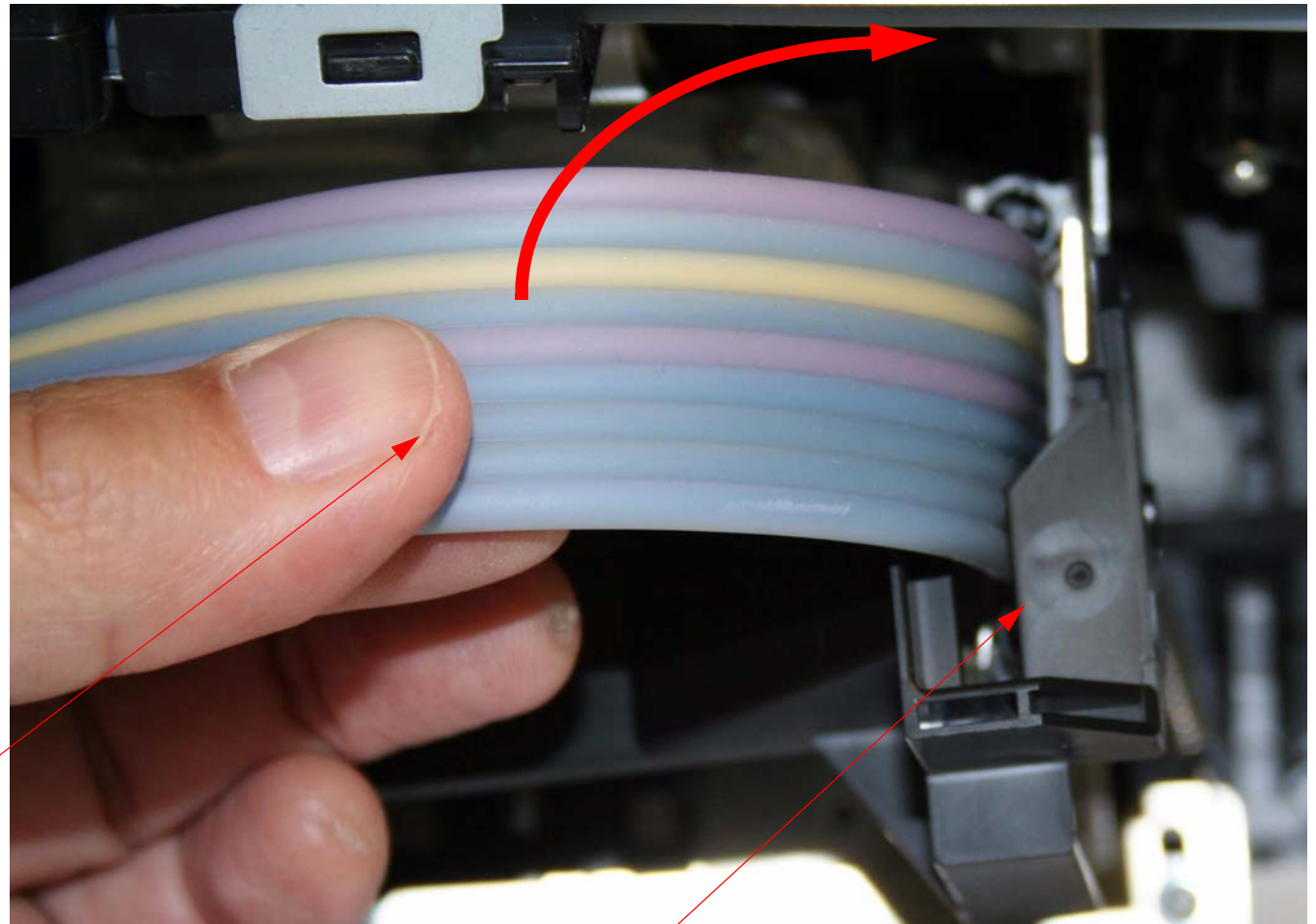
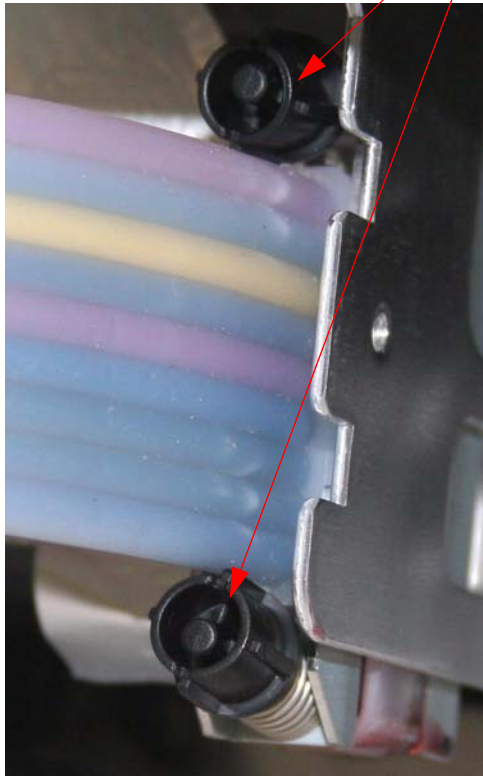
7. Remove **1 Screw** that fastens the **Ink Tube Brace** to the **Carriage Mechanism**.



Remove **1 Screw**.

8. Remove the **Ink Tube Brace**.

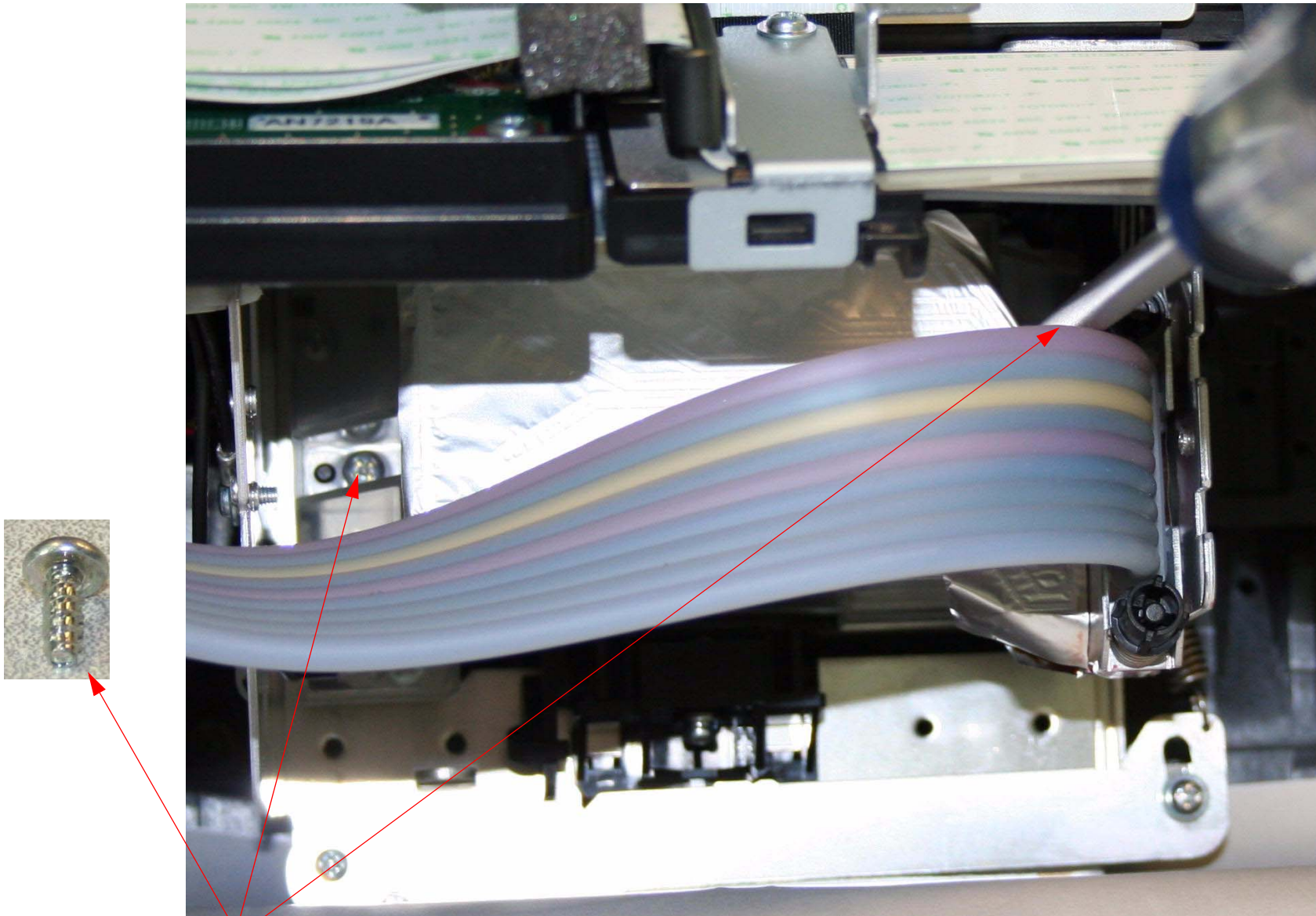
Note: There are 2 spring loaded Fasteners underneath the Ink Tube Brace. It is very important to **not stress the fasteners** when removing the Ink Tube Brace. Stressing the Fasteners will causes ink to drip.



1. Move the **Ink Tubes** so that they are straight in the area of the **Ink Tube Brace**.

2. Gently slide the **Ink Tube Brace** up and off the **Ink Tubes**.

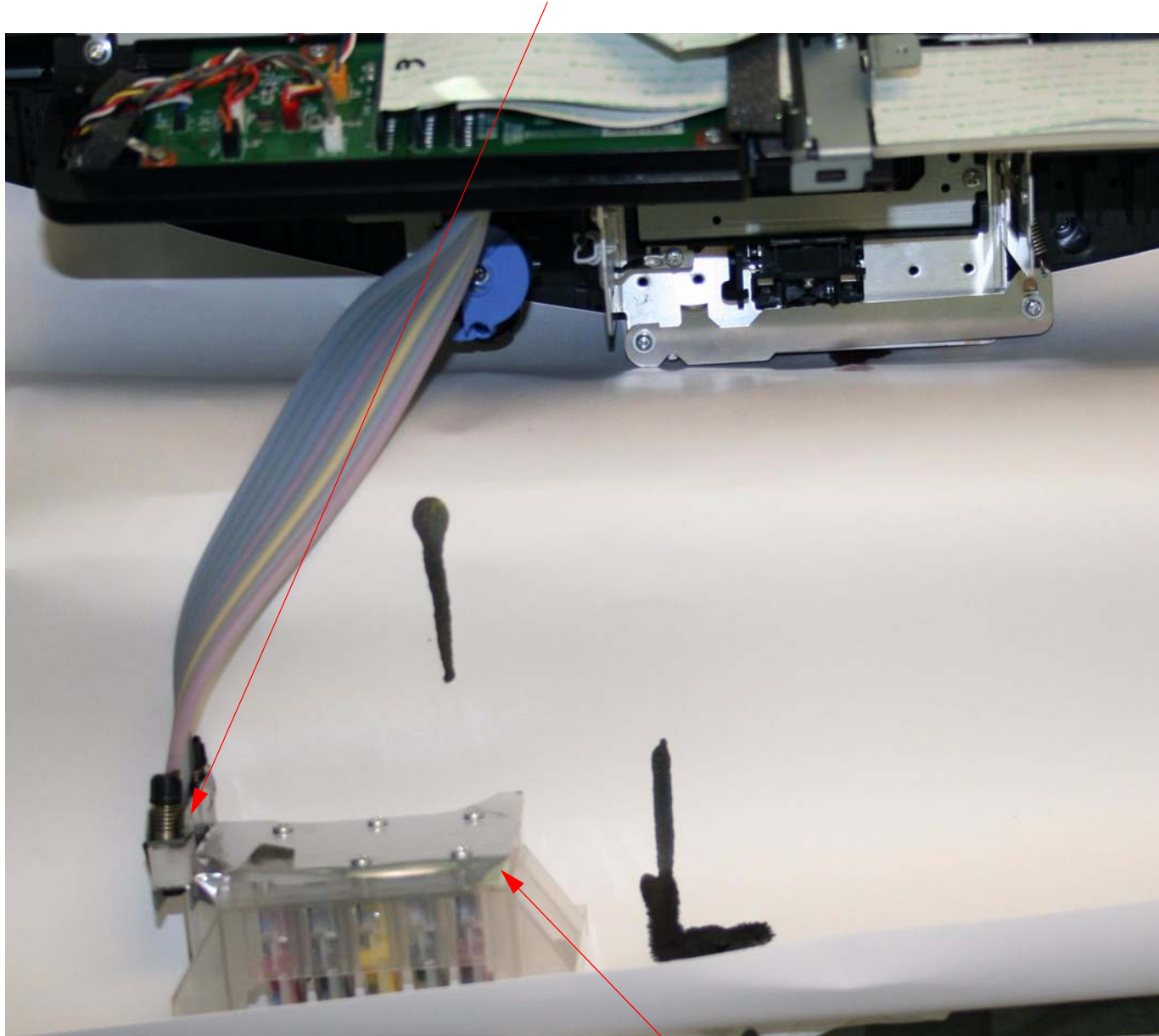
9. Remove **2 Screws** that fasten the **Damper Assembly** to the **Carriage Assembly**.



Remove **2 Screws** that are to the left and the right to the **Damper Bracket**.

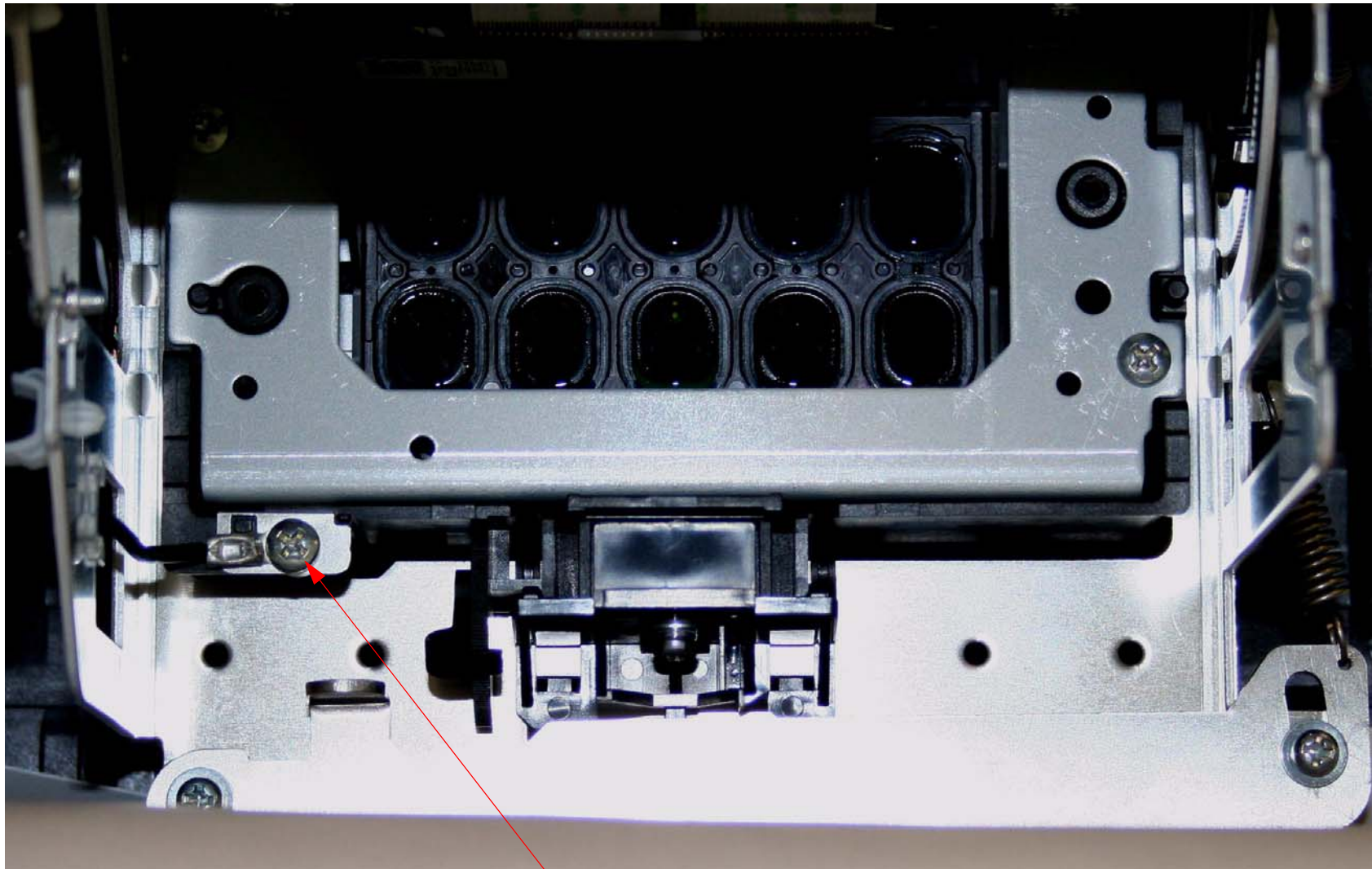
10. Lift off the **Damper Assembly** and place it on the paper.

Note: Do not stress this Connection, it will leak.



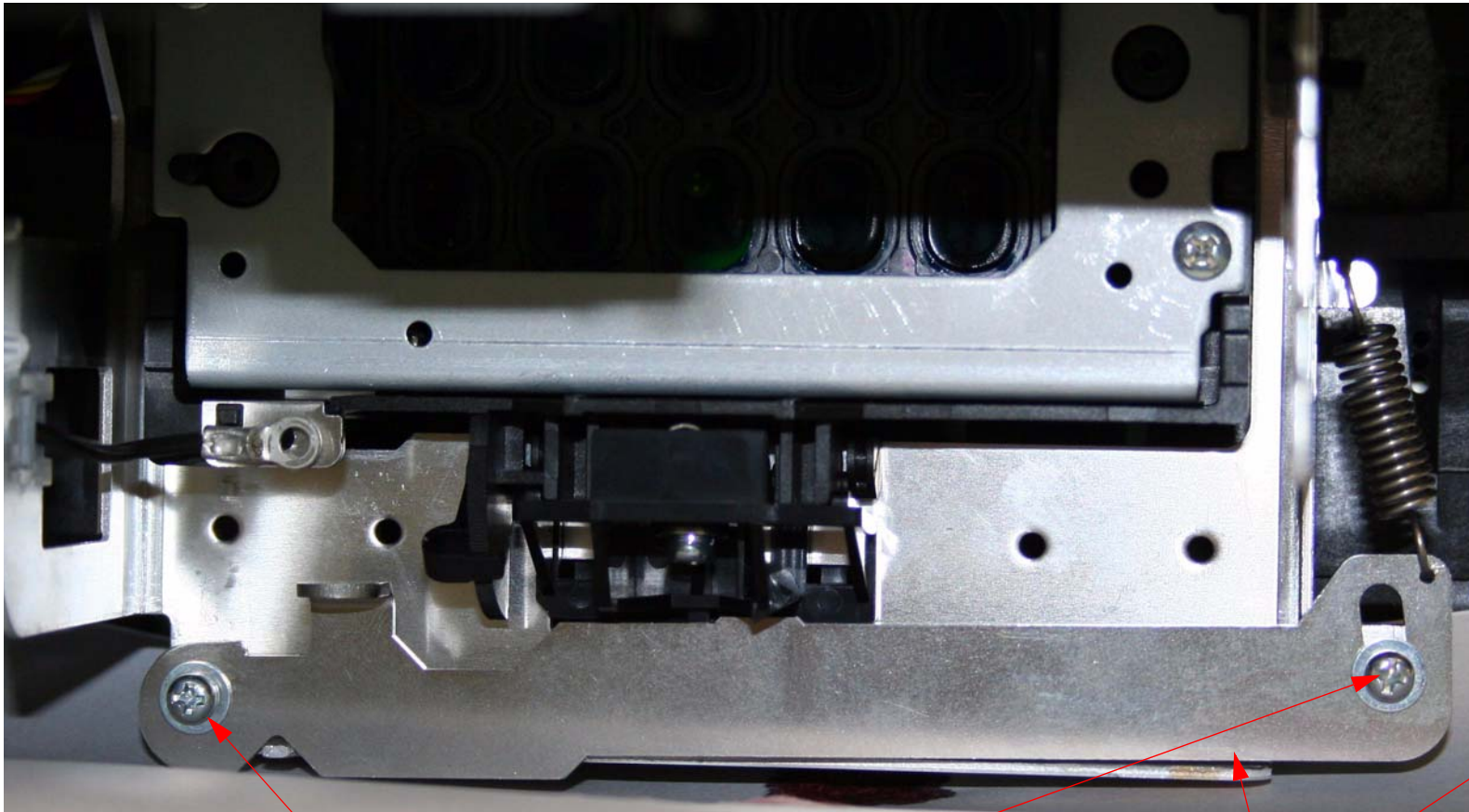
Lift off the **Damper Assembly** and place it to the side.

11. Remove **1 Screw** that fastens the **Ground Strap** to the **Print Head**.



Remove **1 Screw**.

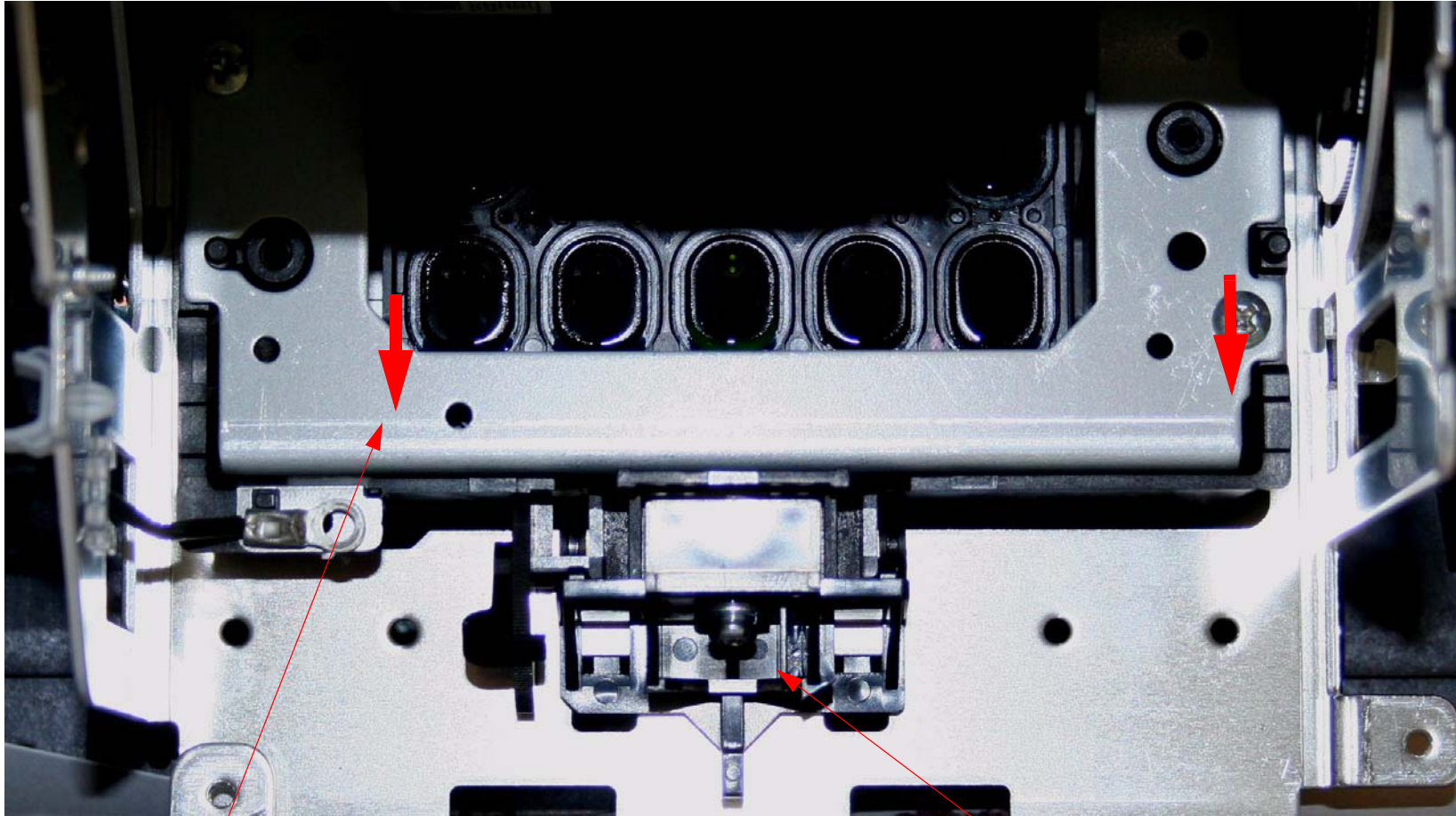
12. Remove **2 Screws**, **1 Spring**, and the **Tension Bar** that fasten the **Print Head Assembly**.



1. Remove **2 Screws**.

2. Remove **Tension Bar** and **Spring**.

13. Slide the **Print Head Assembly** in the direction shown, and lift it out.

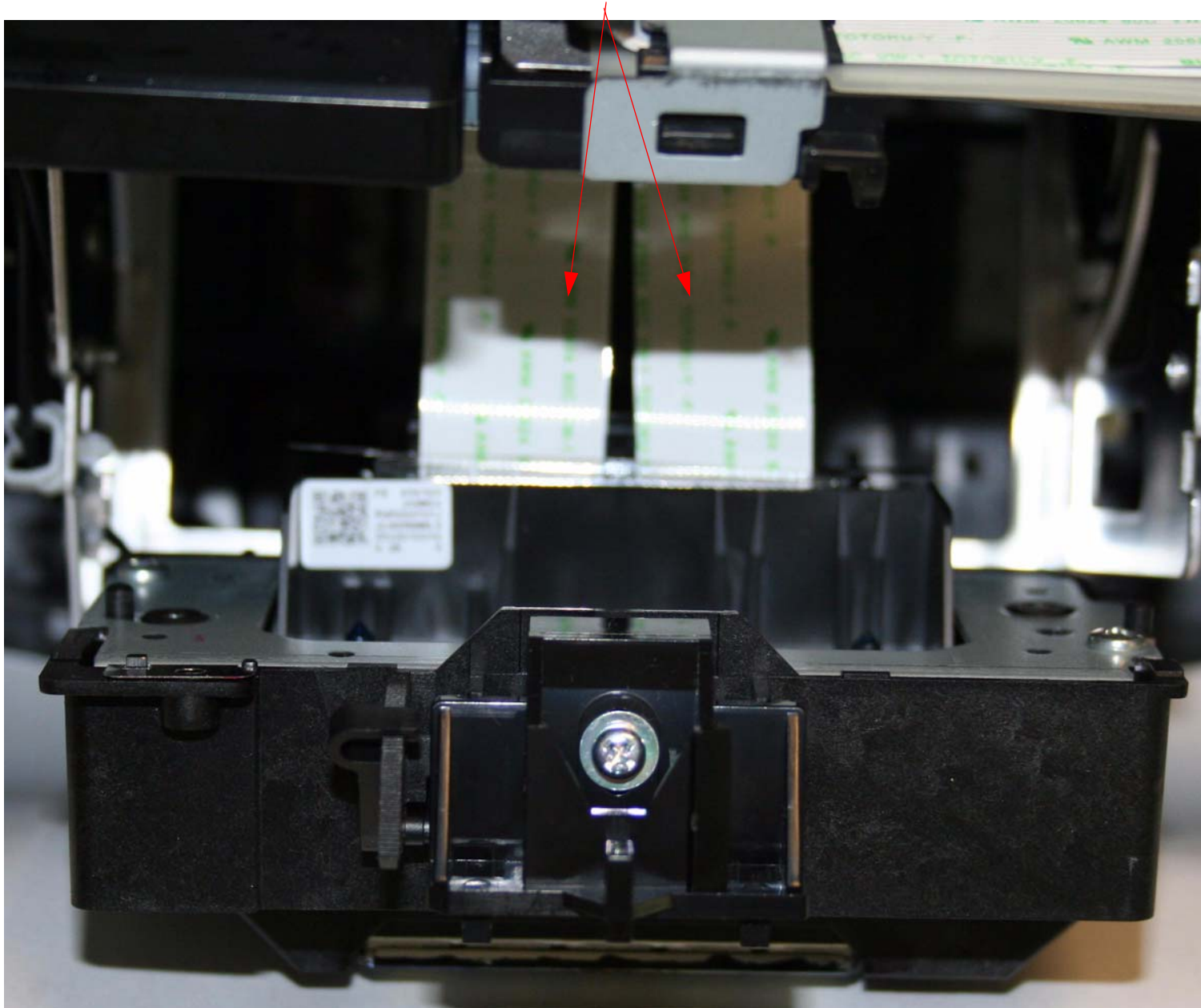


1. Slide the **Print Head Assembly** to release the **Front Interlocks**.

2. Lift the **Print Head Assembly** up and out.

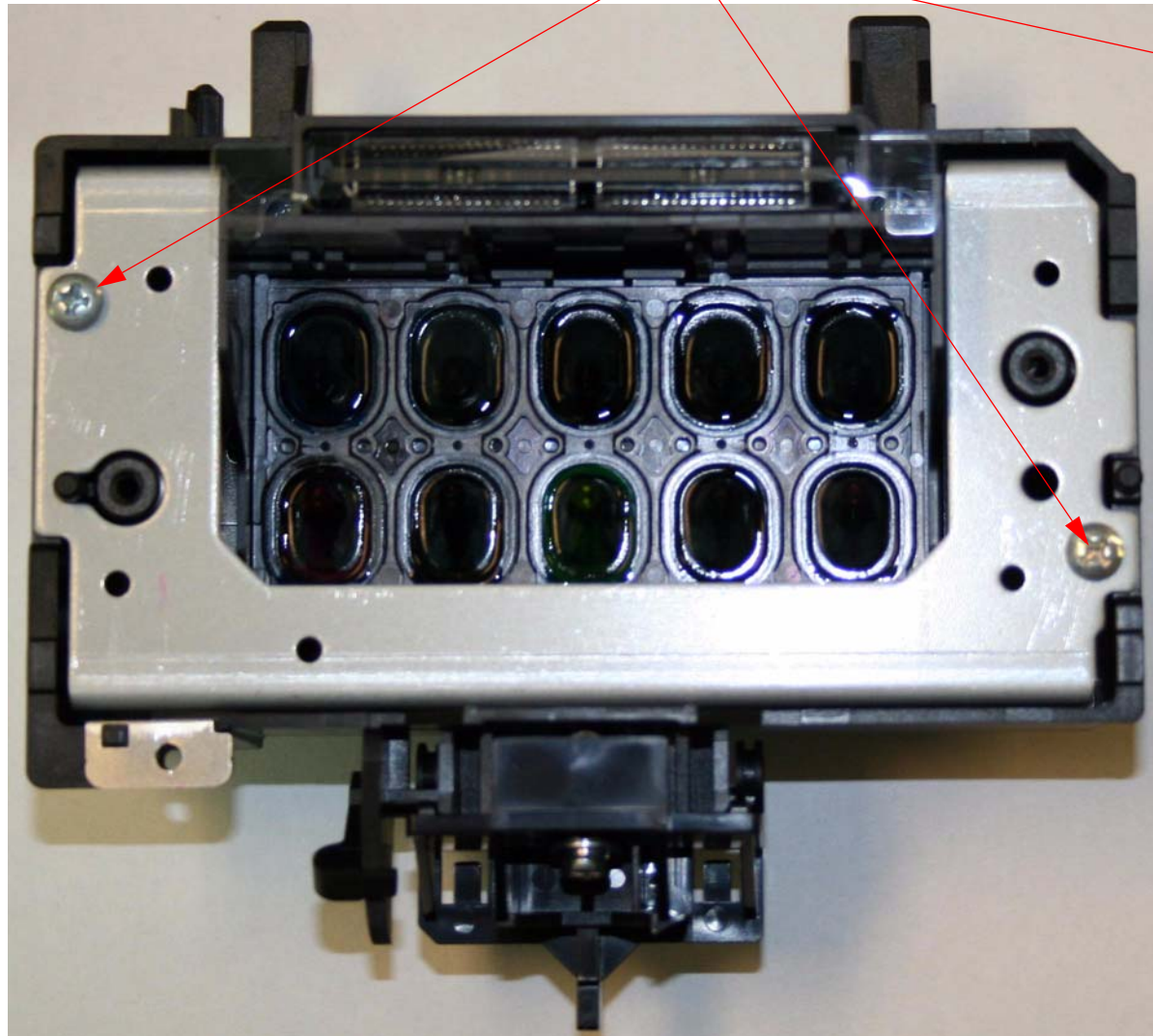
14. Unplug **4 Print Head Cables**.

Unplug **4 Print Head Cables**.



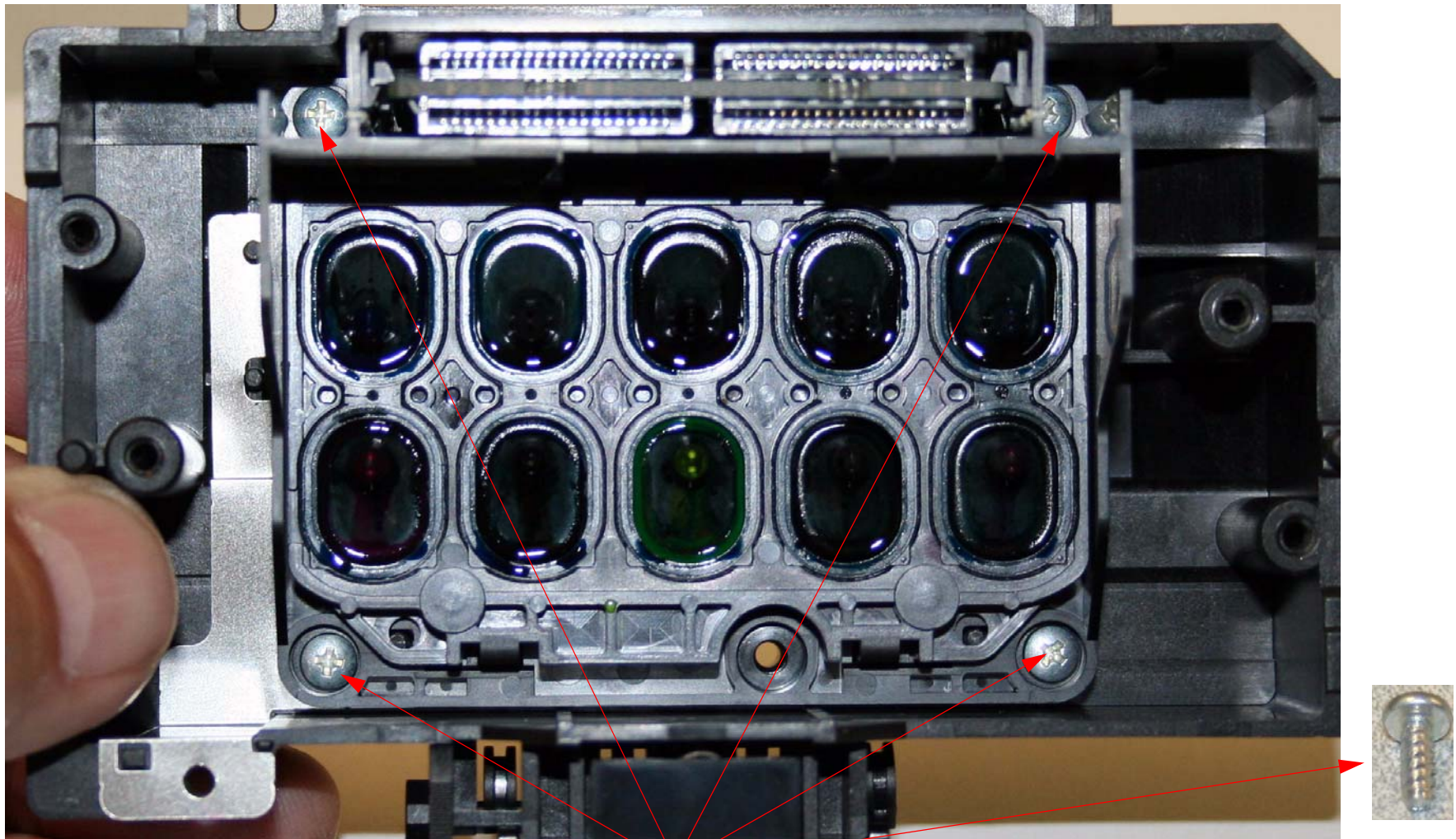
15. Remove **2 Screws** and lift off the **Print Head Bracket**.

1. Remove **2 Screws**.



2. Lift off the **Bracket**.

16. Remove **4 Screws**, and lift the **Print Head** out of the **Print Head Case**.

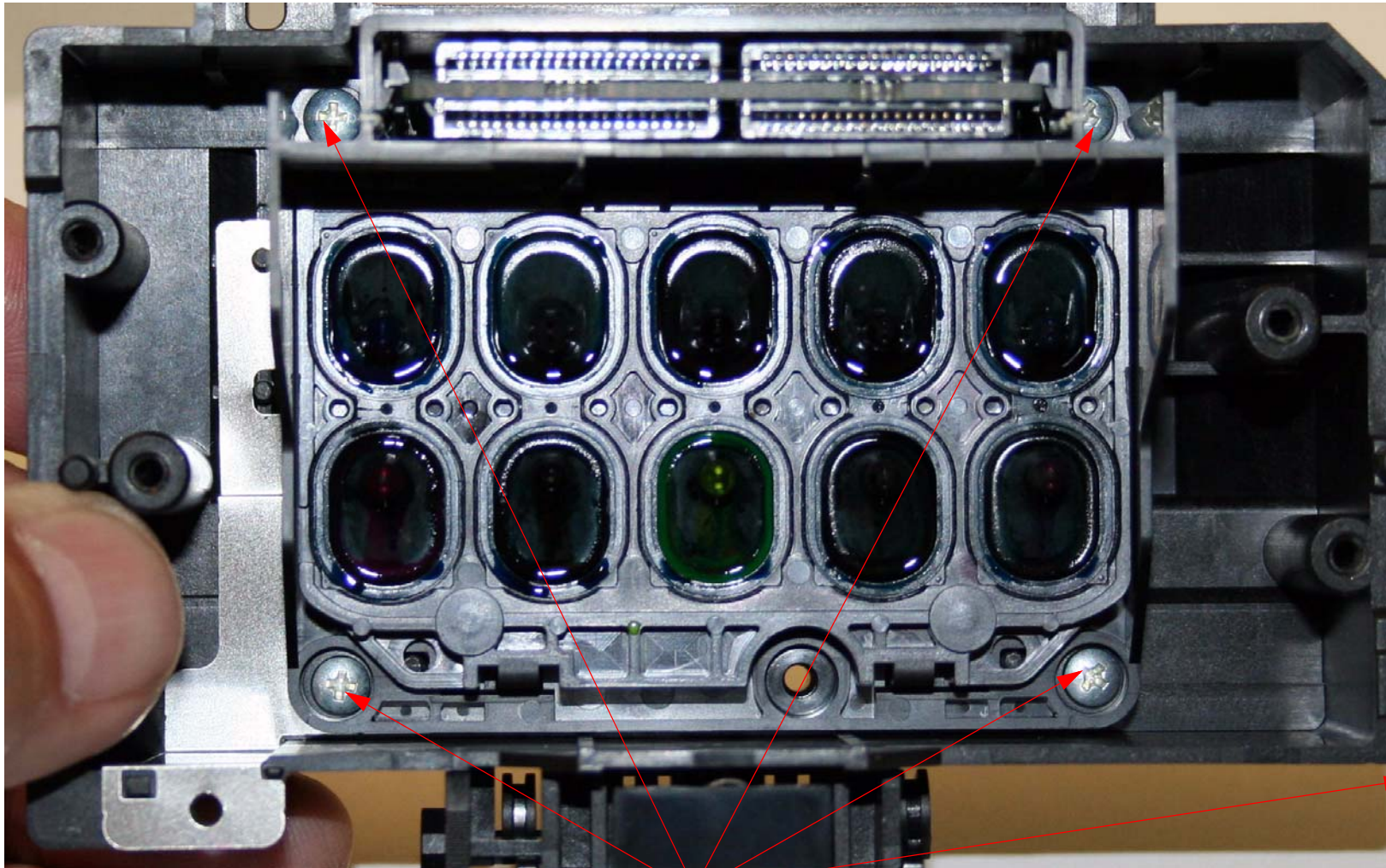


1. Remove **4 Screws**.

2. Lift the **Print Head** from the **Case**.

Print Head Installation

1. Drop the **Print Head** into the **Print Head Case**, and fasten with **4 Screws**.

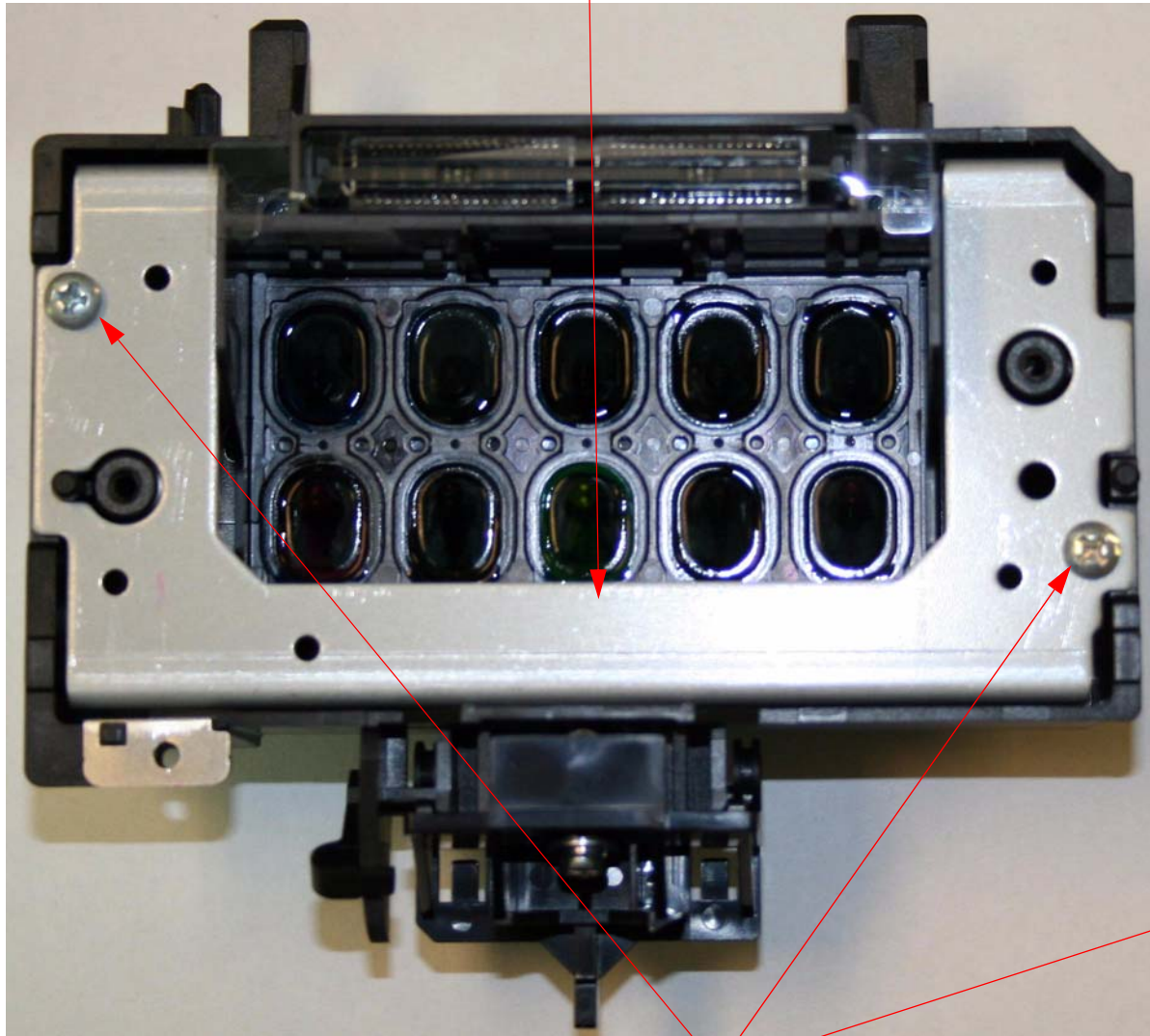


1. Insert the **Print Head** into the **Case**.

2. Install **4 Screws**.

2. Put the **Print Head Bracket** in place, and fasten with **2 Screws**.

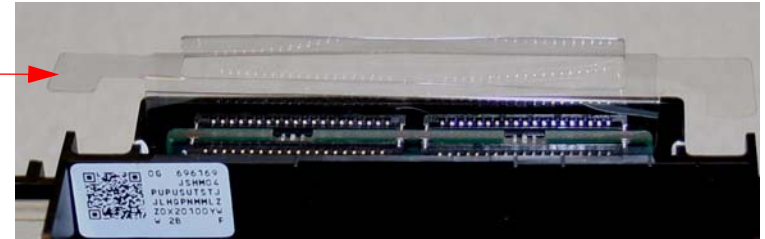
1. Place the **Bracket**.



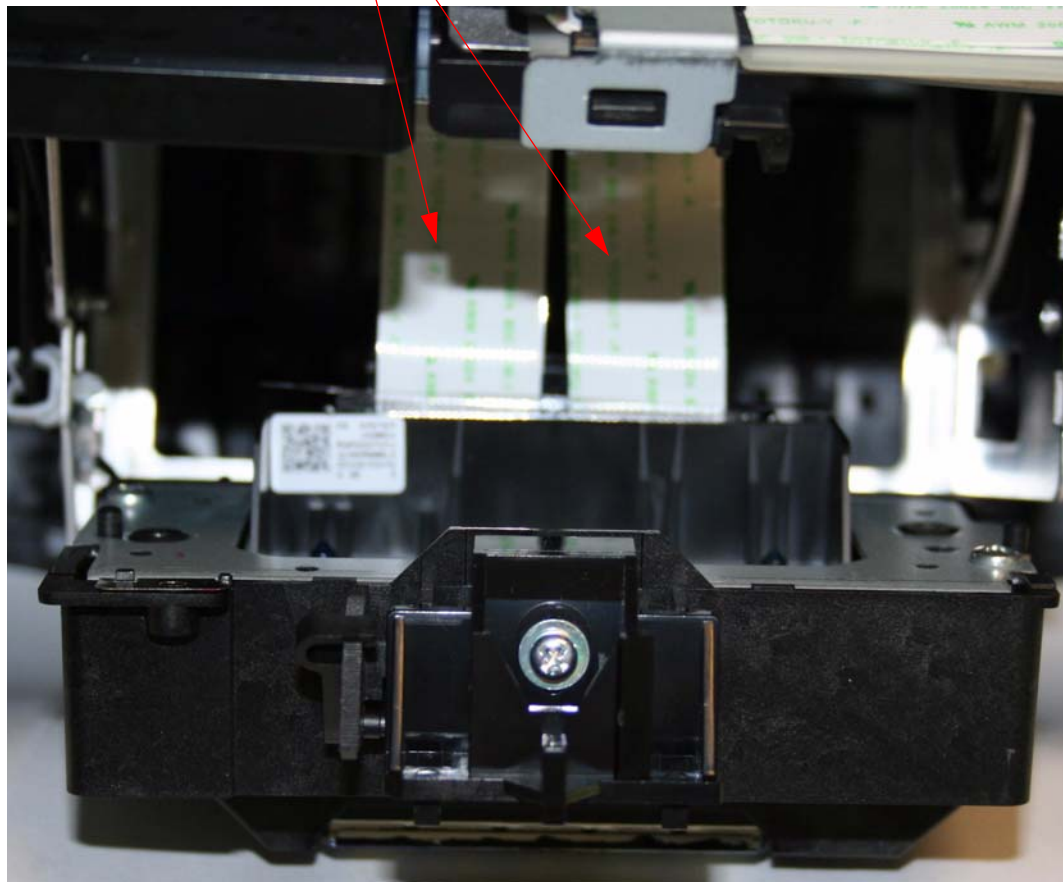
2. Fasten with **2 Screws**.

3. Plug in the **4 Print Head Cables**.

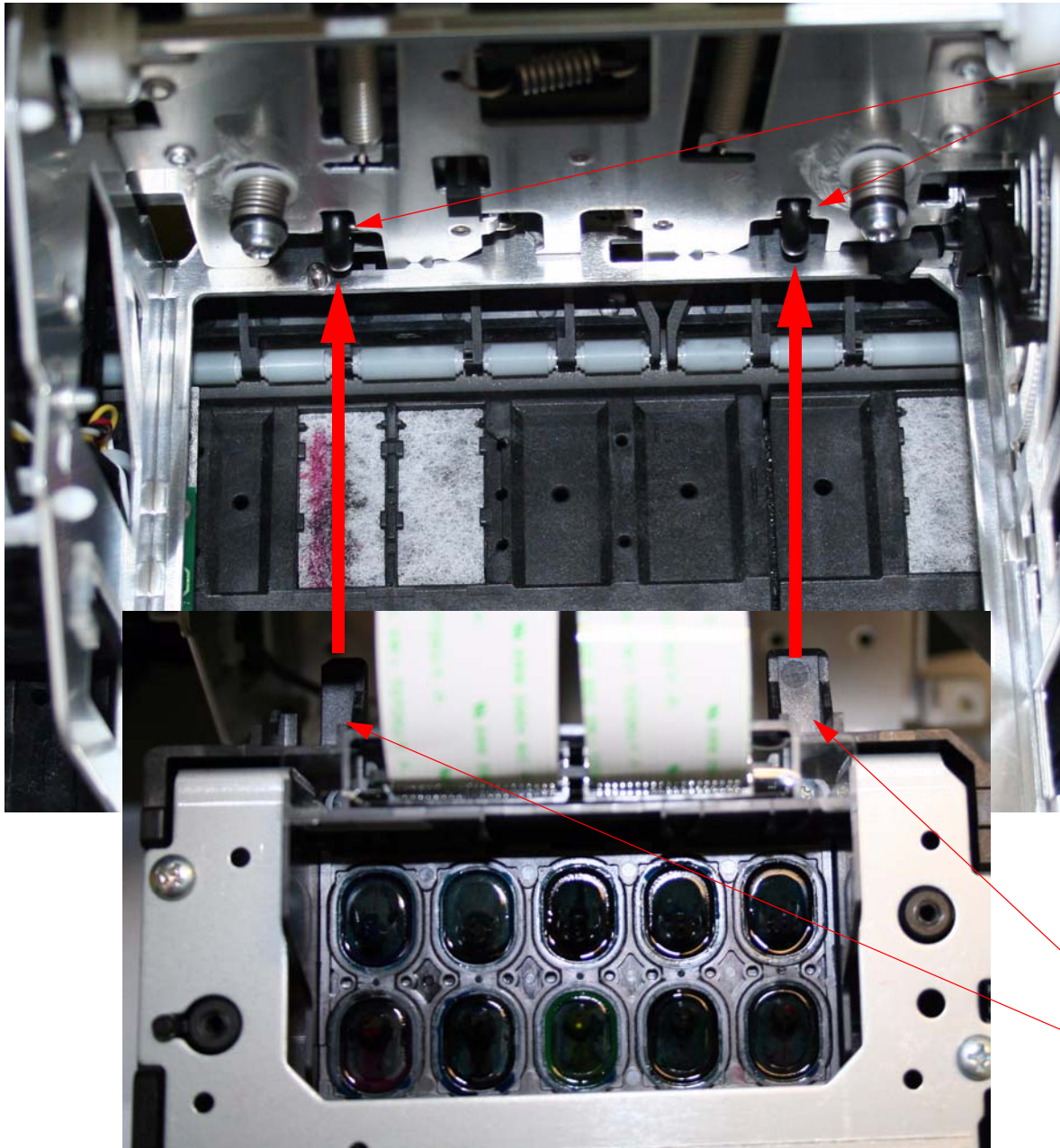
1. Place the **Cable Guard** in position.



2. Plug in **4 Print Head Cables**.



4. Slide the **Print Head** into the **Carriage Mechanism**.



Black Plastic “Wheels”

1. Place the **Black Plastic “Arms”** under the **Black Plastic “Wheels”**.

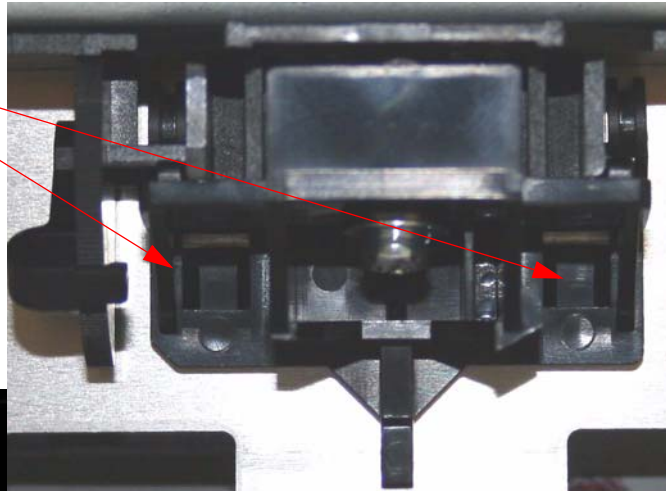
2. Rotate the **Black Plastic “Arms”** up, pushing up the **Black Plastic “Wheels”**.

3. Slide the **Print Head** into place.

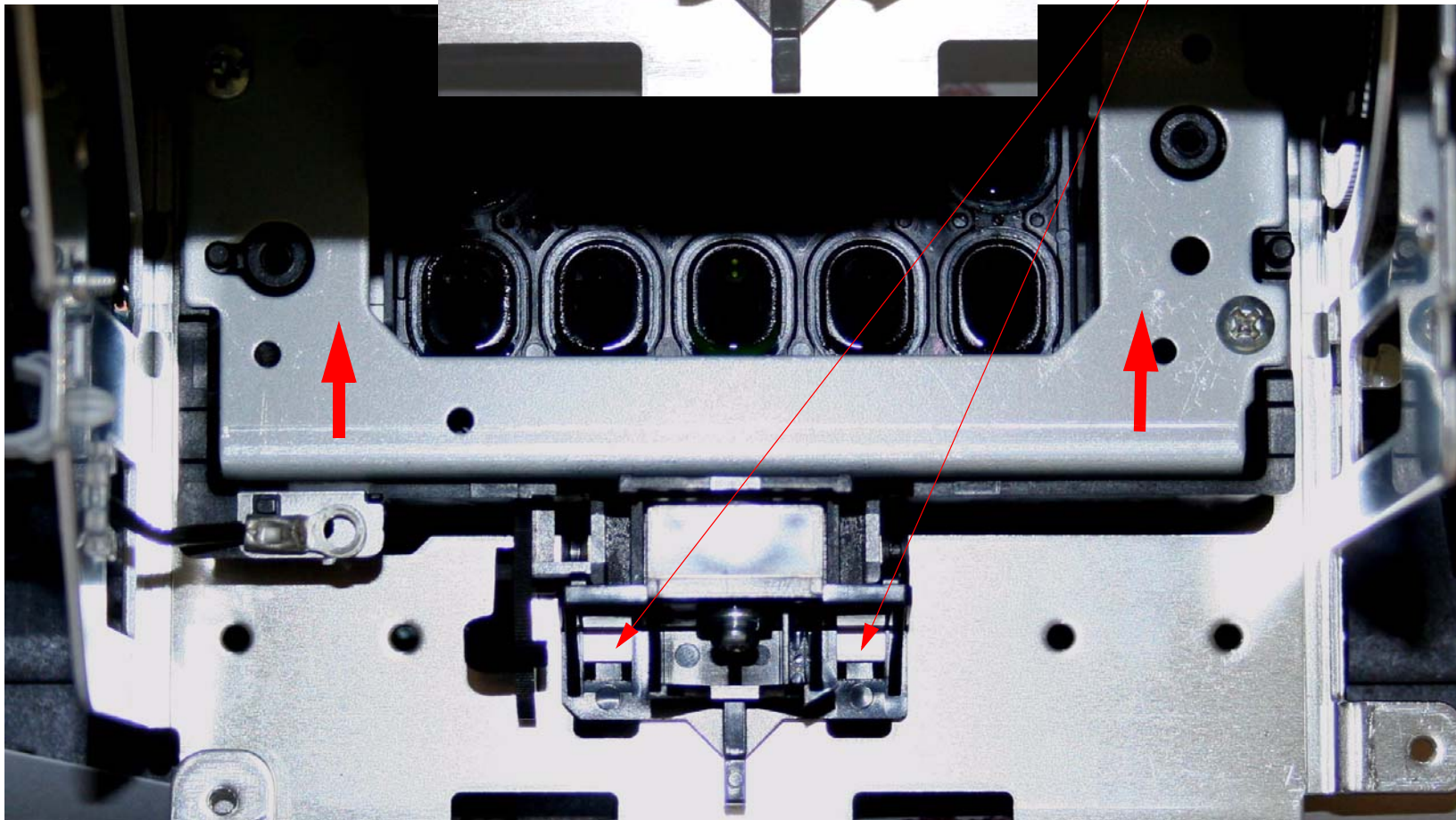
Black Plastic “Arms”

5. Lock in the **Front Interlocks** that hold the **Print Head Assembly**.

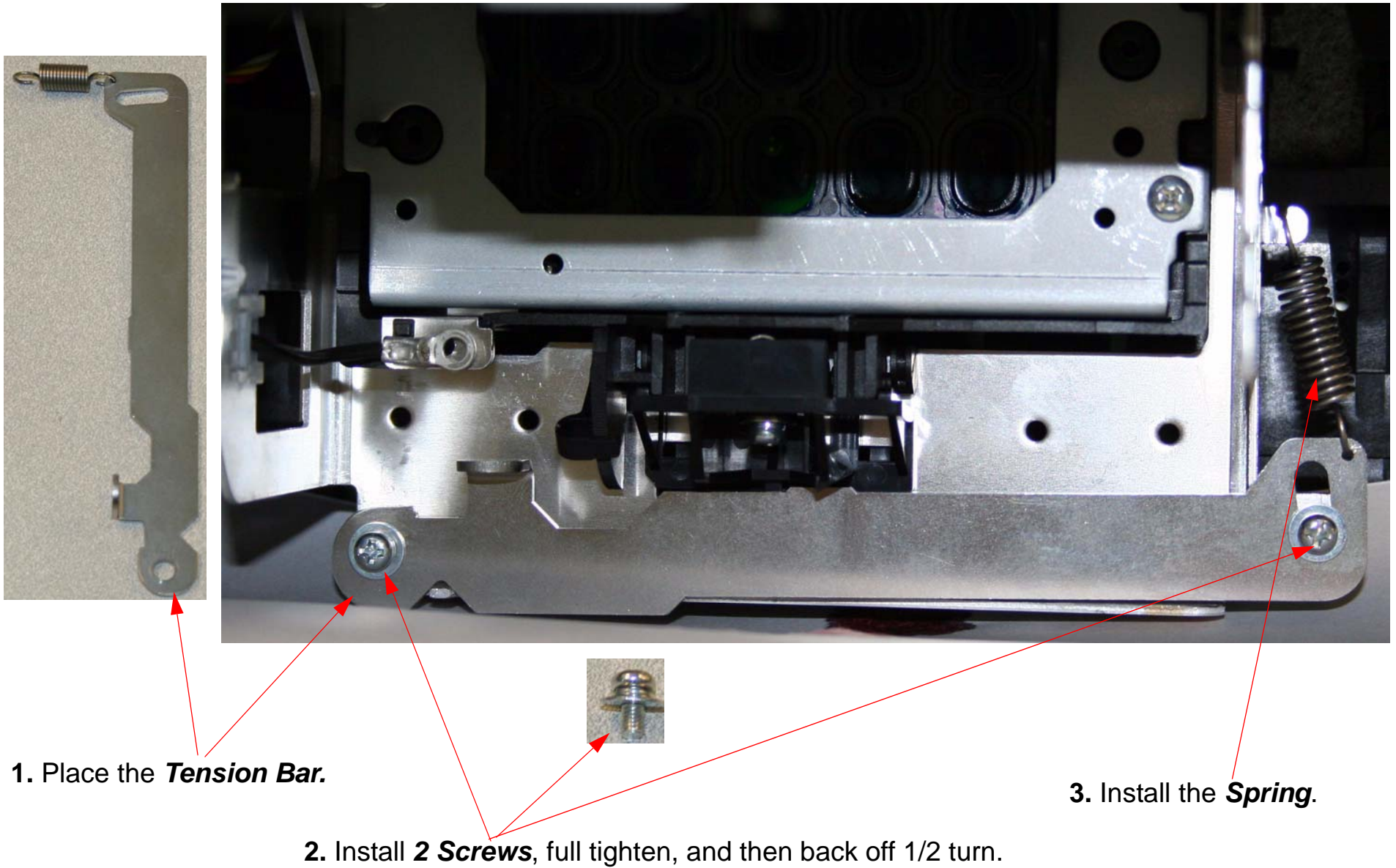
1. Drop the **Interlocks** into the **Slots**.



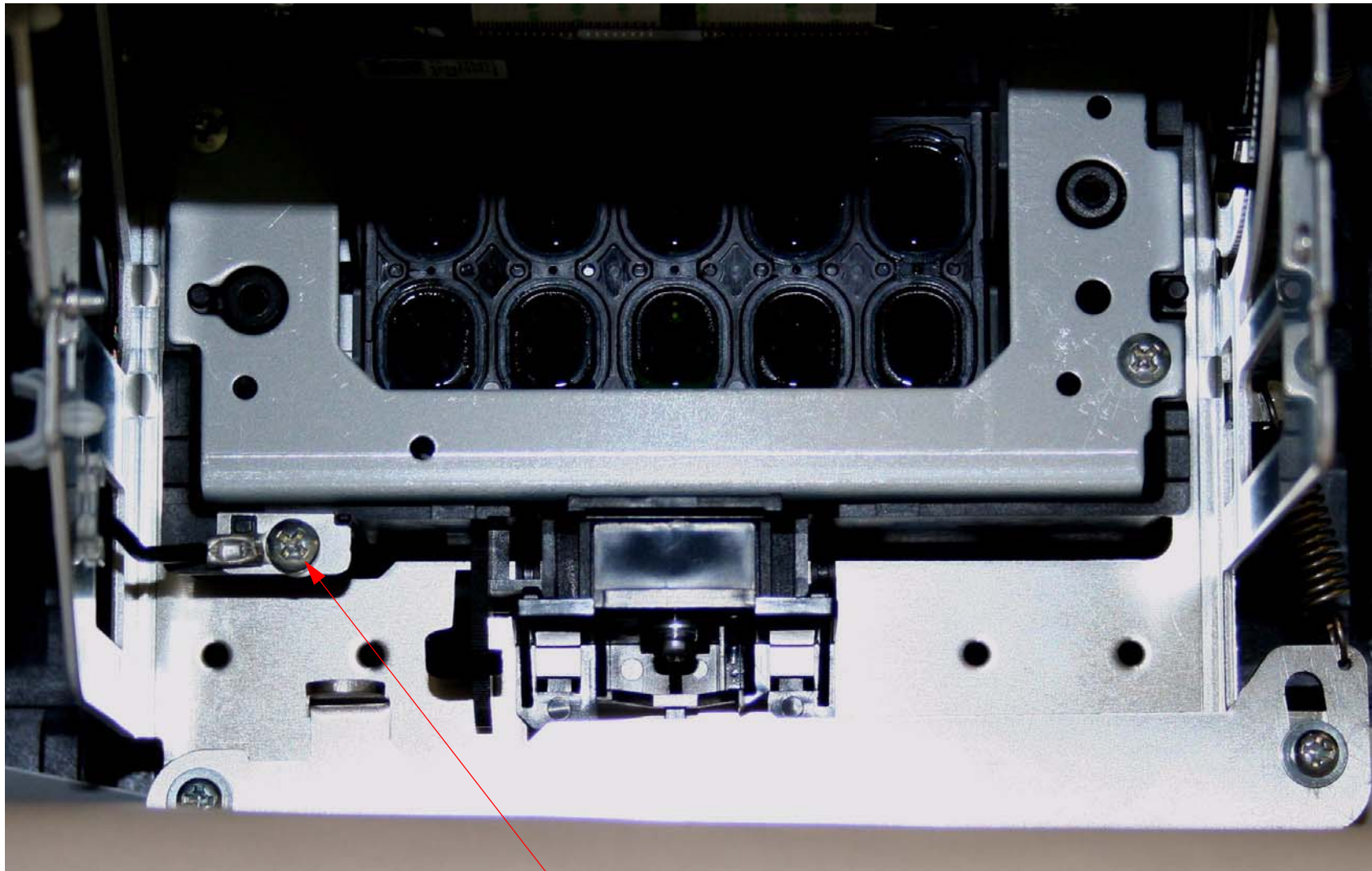
2. Slide the **Print Head Assembly** up to lock the **Front Interlocks**.



6. Install the ***Tension Bar***, **2 Screws**, and **1 Spring**, that fasten the ***Print Head Assembly***.

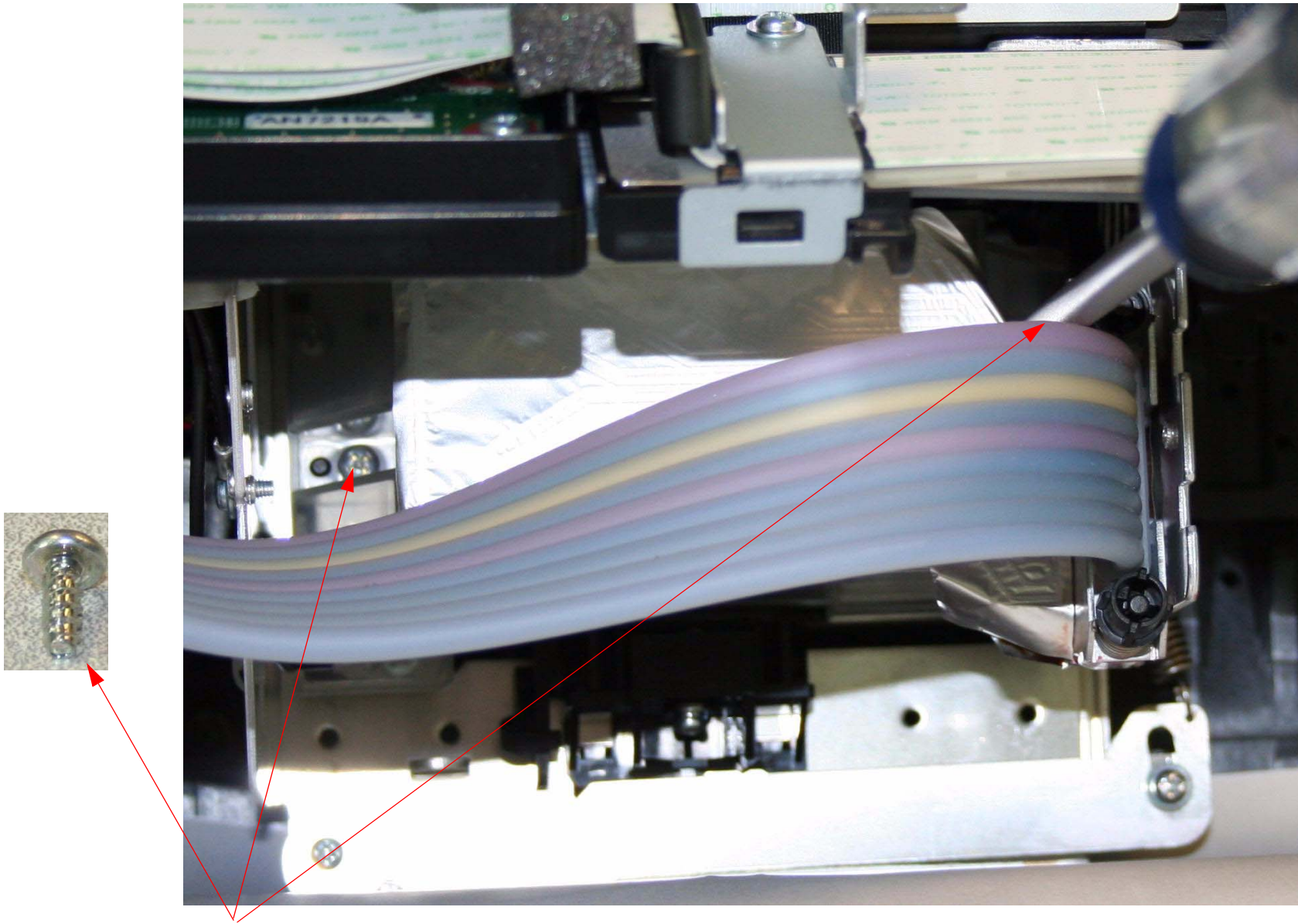


7. Install **1 Screw** that fastens the **Ground Strap** to the **Print Head**.



Install **1 Screw**.

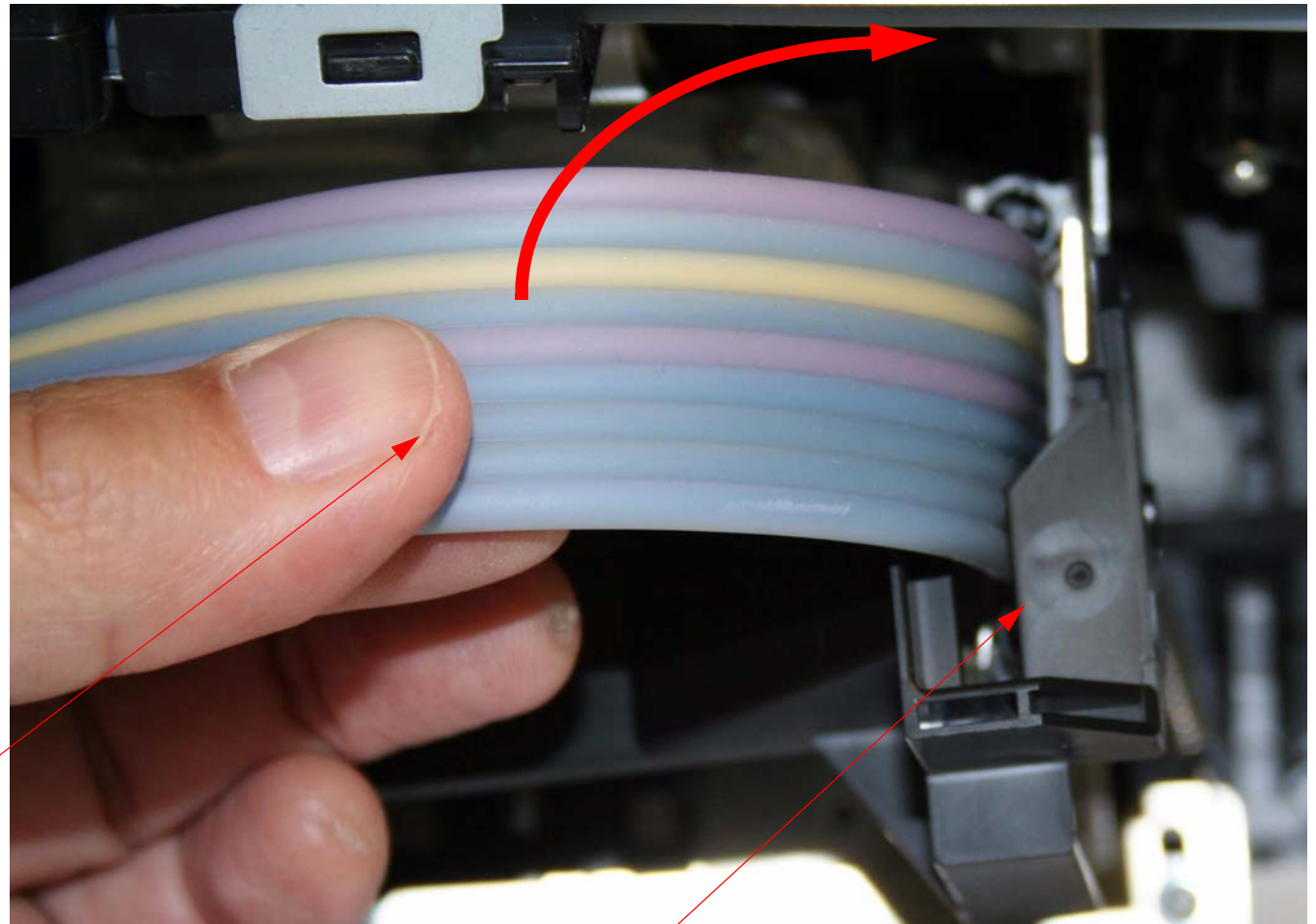
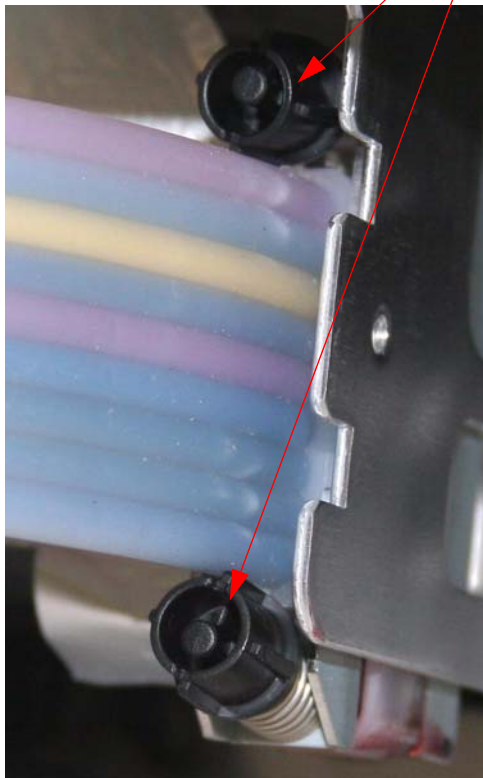
8. Place the **Damper Assembly**, and fasten with **2 Screws**.



Place the **Damper Assembly** and fasten with **2 Screws**.

9. Put the **Ink Tube Brace** in place.

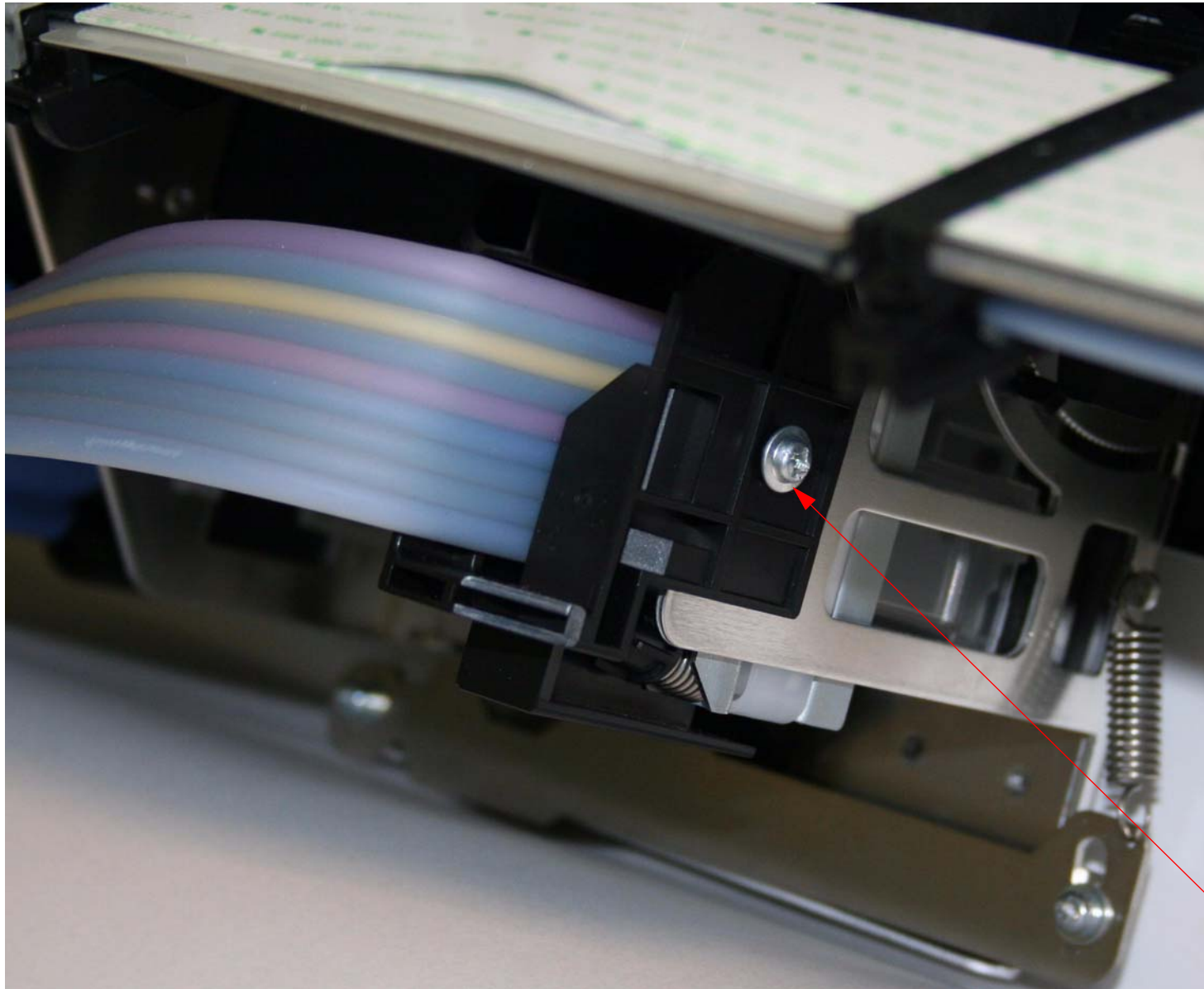
Note: There are 2 spring loaded Fasteners underneath the Ink Tube Brace. It is very important to **not stress the fasteners** when installing the Ink Tube Brace. Stressing the Fasteners will causes ink to drip.



1. Move the **Ink Tubes** so that they are straight in the area of the **Ink Tube Brace**.

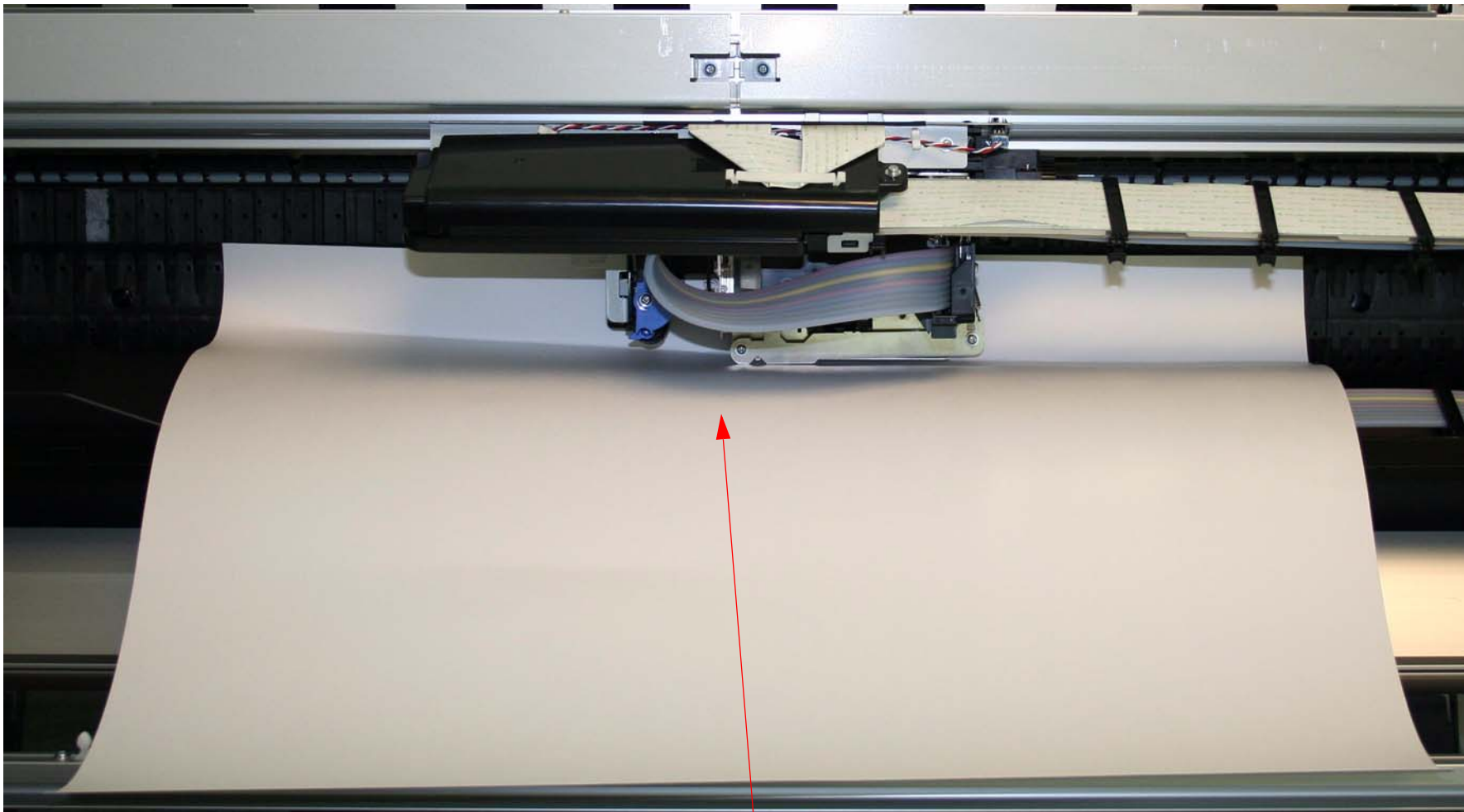
2. Gently slide the **Ink Tube Brace** on the **Ink Tubes**, and into the correct position.

10. Install **1 Screw** that fastens the ***Ink Tube Brace*** to the ***Carriage Mechanism***.



Install **1 Screw**.

11. Remove the paper from under the ***Carriage Mechanism***.



Remove the paper from under the ***Carriage Mechanism***.

12. Plug in the **Printer**, insert the **Ink Cartridges**, and close the **Ink Bay Doors**.

13. Defeat the **2 Front Cover Sensors**.

14. Turn on the **Printer**, and let it come **Ready**.

15. Press the **Menu** button and navigate to **Maintenance**.

16. Press the **Menu** button and navigate to **PWR CLEANING**.

17. Press the **Menu** button, and follow the directions to execute.

Note: Power Cleaning is necessary to prime the “negative pressure” Dampers. Other cleaning cycles do not work as well or quickly. Ensure that you raise and lower the levers when instructed.

18. Print a Nozzle Check pattern (Perform standard cleanings if necessary).

19. Perform the following adjustments in sequence.

19.1 Perform **Clear Counter [when replacing Printhead]**

19.2 Perform **Head Rank ID (if you did not do it before removing the old Print Head)**.

19.3 Perform the **Print Head Slant Adjustment (CR)**

19.4 Perform the **Print Head Slant Adjustment (PF)**

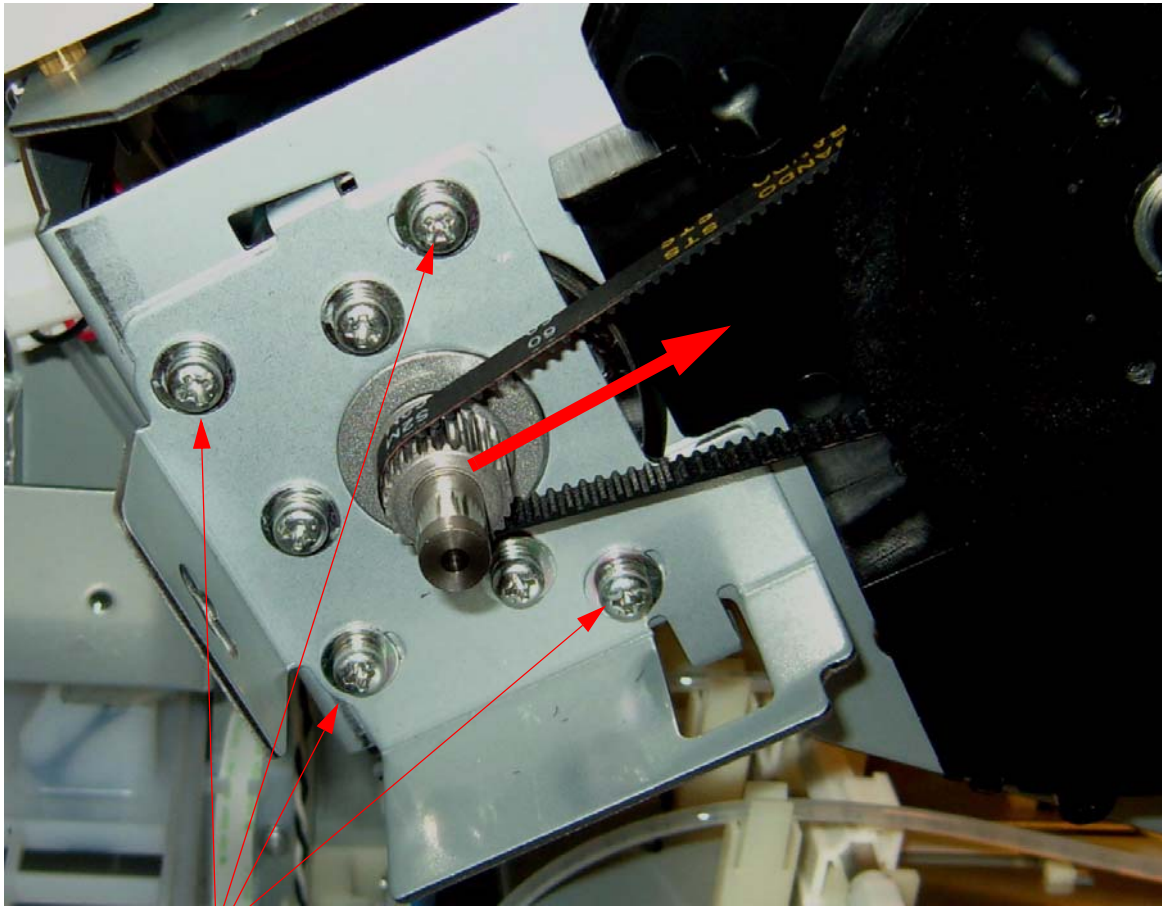
19.5 Perform the **Auto Bi-D Adjustment**

19.6 Perform the **Auto Uni-D Adjustment**

19.7 Perform the **Colorimetric Calibration (When specifically requested by Epson)**

Pulley (Paper Feed) Removal

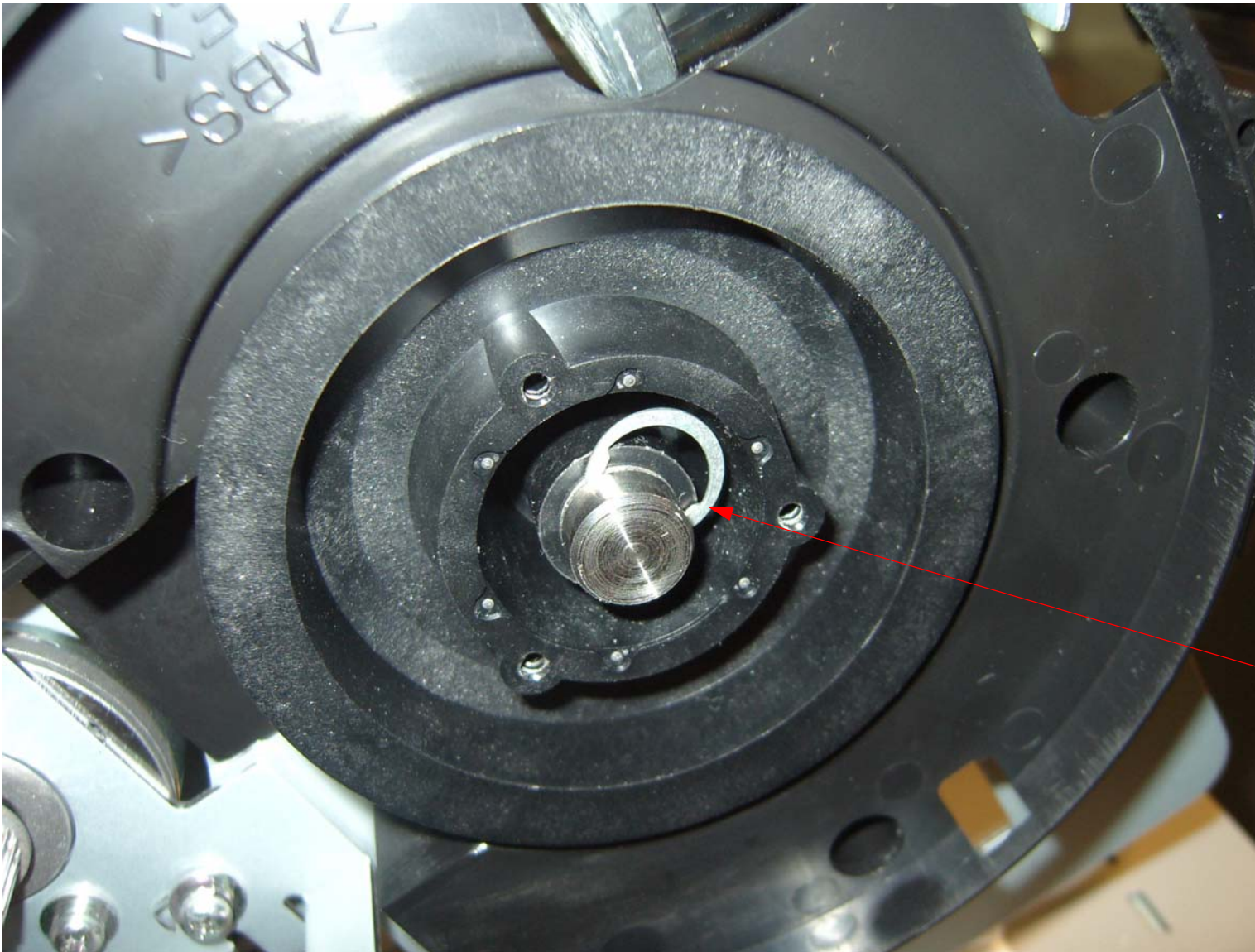
1. Remove the **Encoder Disk (Paper Feed)**.
2. Remove the **Encoder (Paper Feed)**.
3. Loosen the **Paper Feed Belt Tension**.



1. Loosen **4 Screws**.

2. Slide the **Carriage Motor and Bracket** in the direction of the arrow.

4. Remove **1 C Clip** that fastens the **Paper Feed Pulley** to the **Paper Feed Roller**.

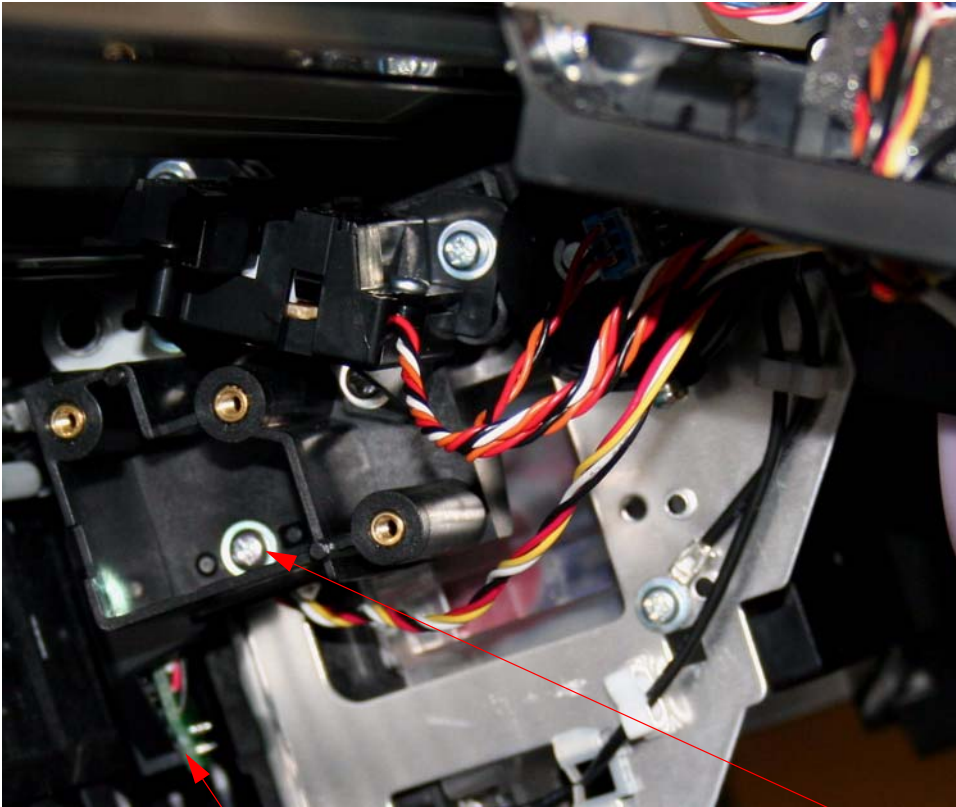


Remove **1 C Clip**.

5. Slide off the **Pulley (Paper Feed)**.

Sensor (Edge Detector) Removal

1. Remove the **Cover (Top)**.
2. Remove the **Cutter Blade Assembly**.
3. Remove **1 Screw** to separate the **Edge Detector** from the **Carriage Assembly**.

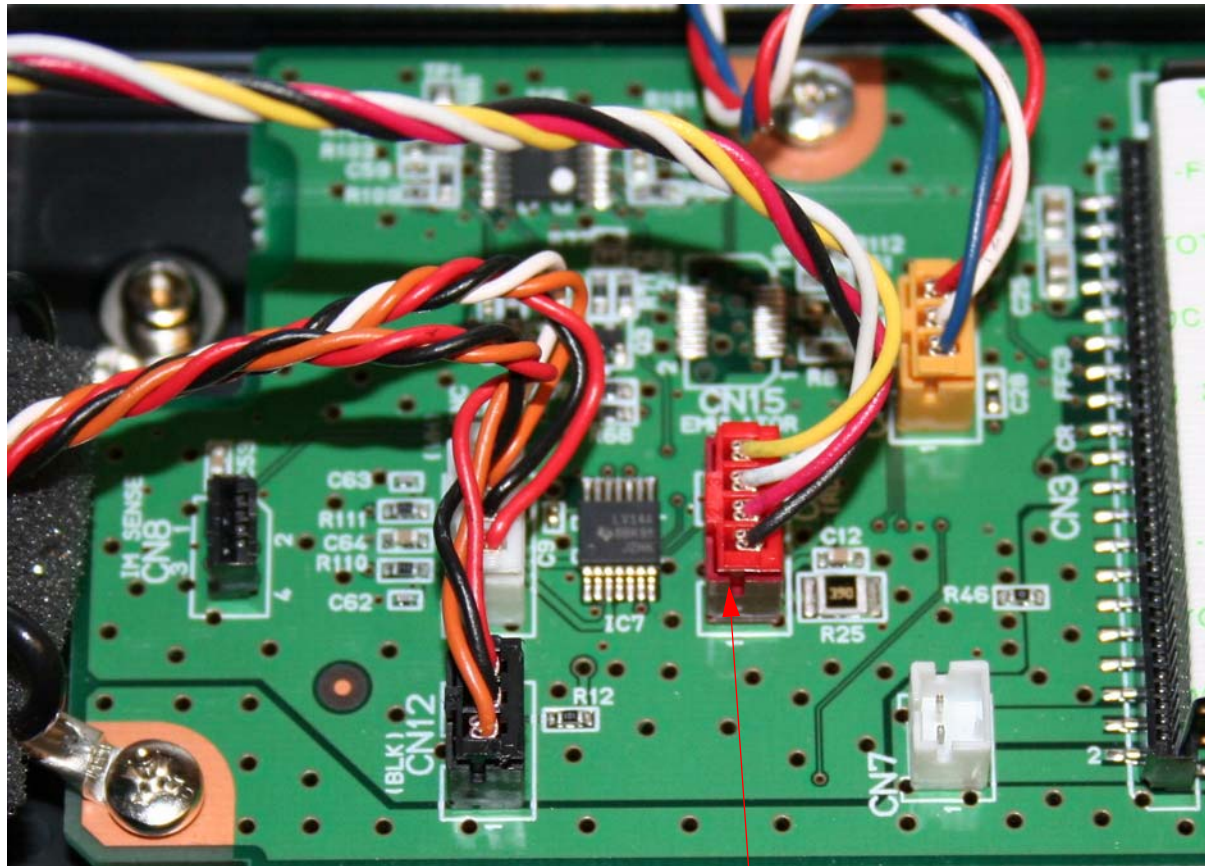


Edge Detector

1. Remove **1 Screw**.

2. Separate the **Edge Detector** from the **Carriage Assembly**.

4. Unplug the **Edge Detector** from the **Carriage Board**.



Unplug **CN10**

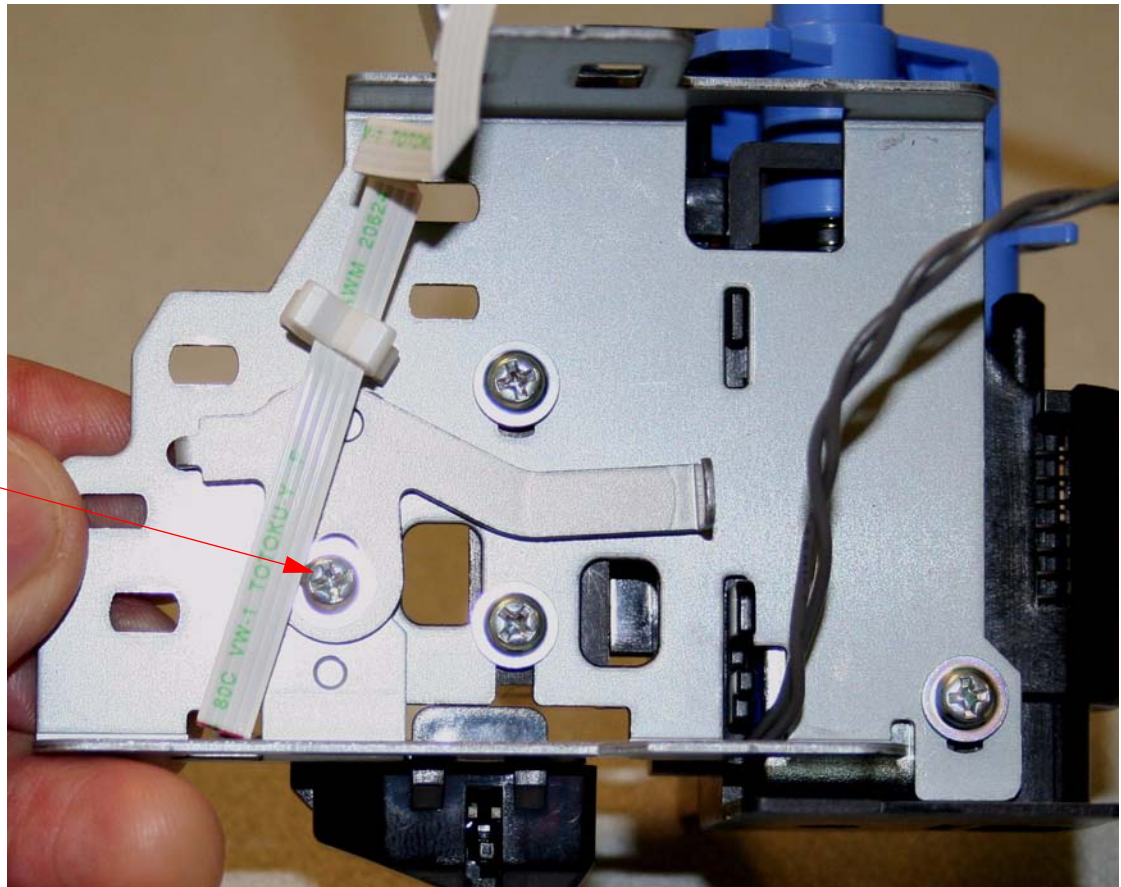
Sensor (Ink Mark) Removal

1. Remove the **Cover (Top)**.
2. Remove the **Cutter Blade Assembly**.
3. Remove **1 Screw** to separate the **Ink Mark Sensor** from the **Cutter Blade Assembly**.

1. Remove **1 Screw**.

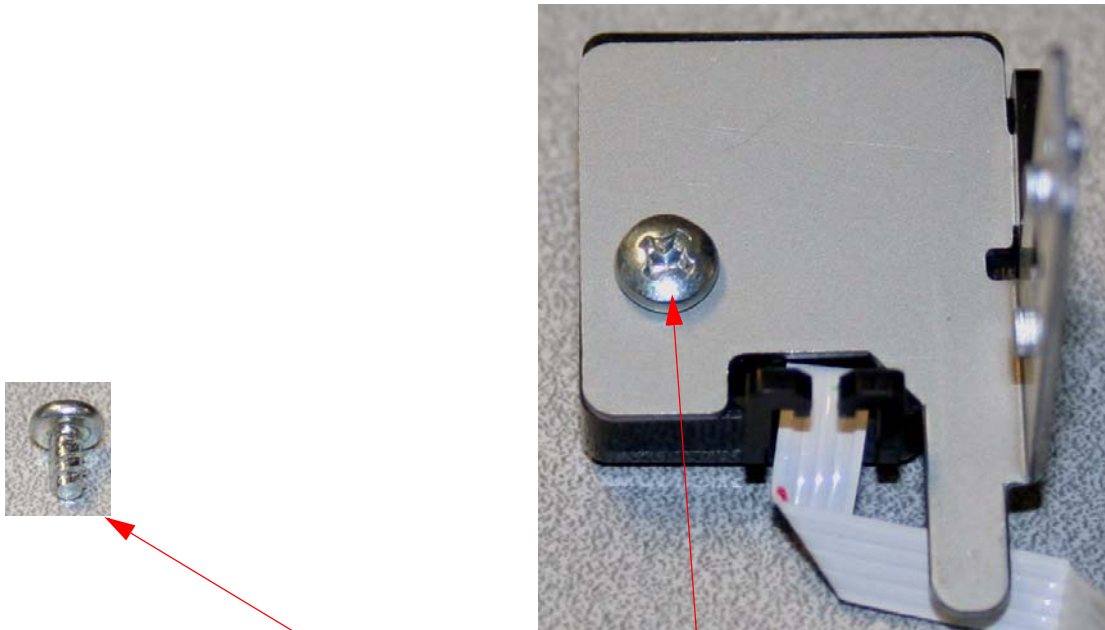


2. Separate the **Ink Mark Sensor Assembly** from the **Cutter Blade Assembly**.



Ink Mark Sensor

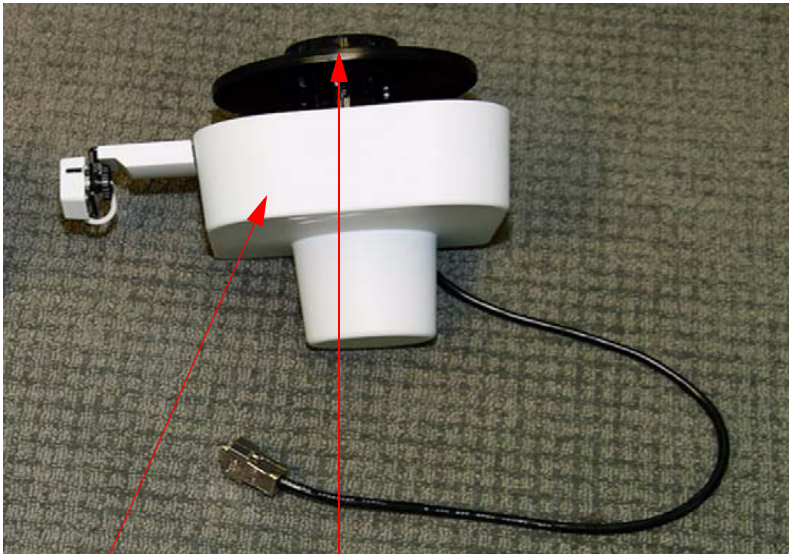
4. Remove **1 Screw** to separate the ***Ink Mark Sensor*** from the ***Frame***.



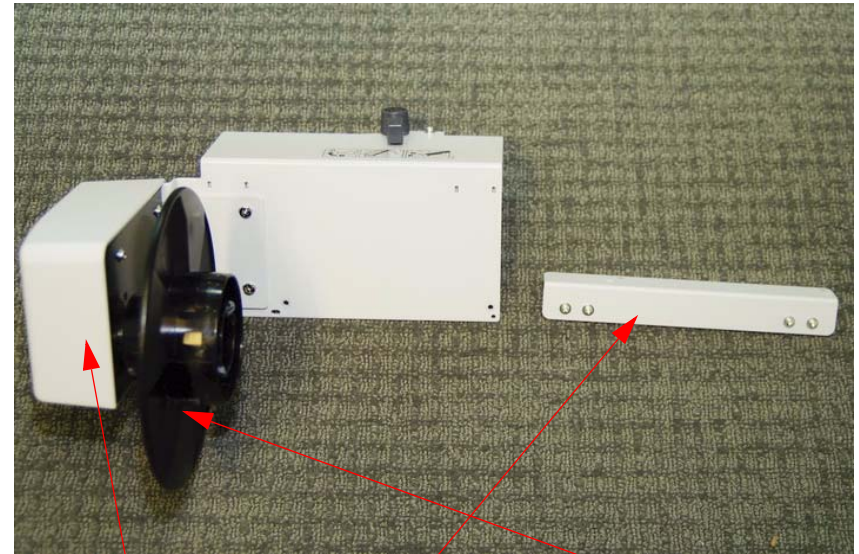
Remove **1 Screw**.

Take-Up Reel Instruction

1. Identify the Parts: **Drive Unit** with **Right Paper Stop**. **Movable Unit** with **Movable Unit Stopper** and **Left Paper Stop**, and the **Reflector**.



Drive Unit w/ Right Paper Stop



Movable Unit w/ Movable Unit Stopper and Left Paper Stop



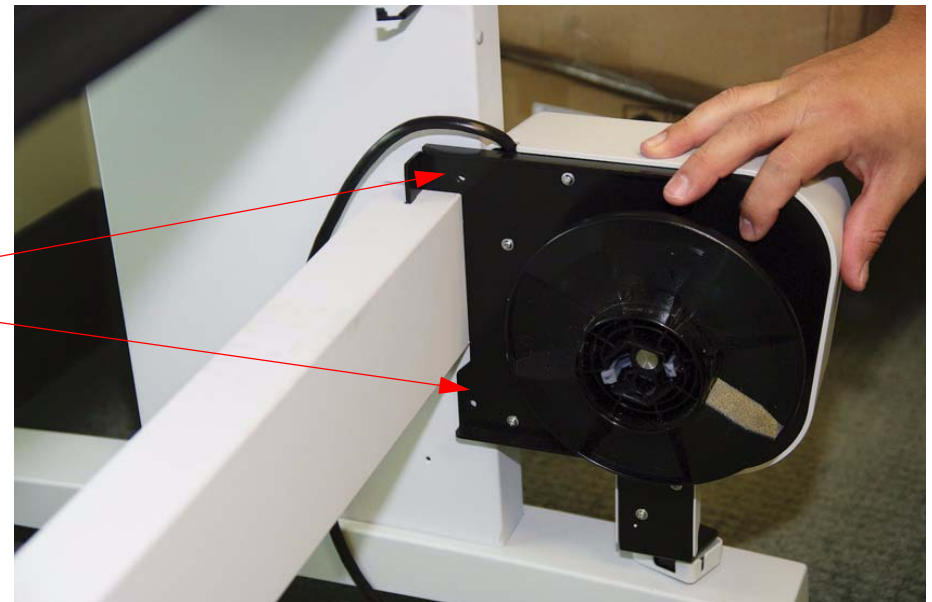
Reflector

2. Install the **Drive Unit** onto the Right Leg of the **Printer Stand**.

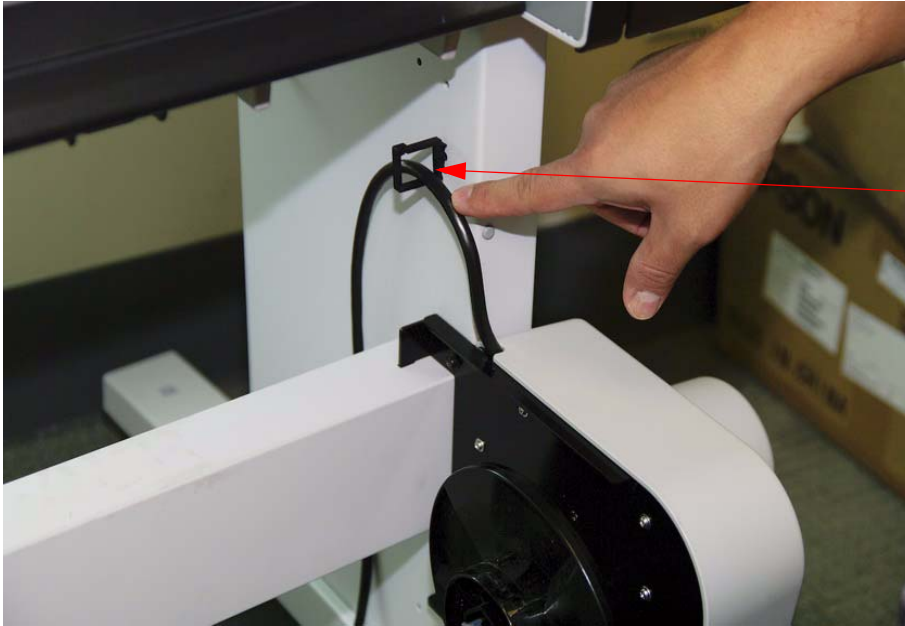


Insert the tab of the **Drive Unit** here into the slot of the crossbar of the **Printer Stand**.

Install 2 **Black Metal Screws** to secure the **Drive Unit**



3. Route and connect the **Data Cable** to the back of the **Printer**.

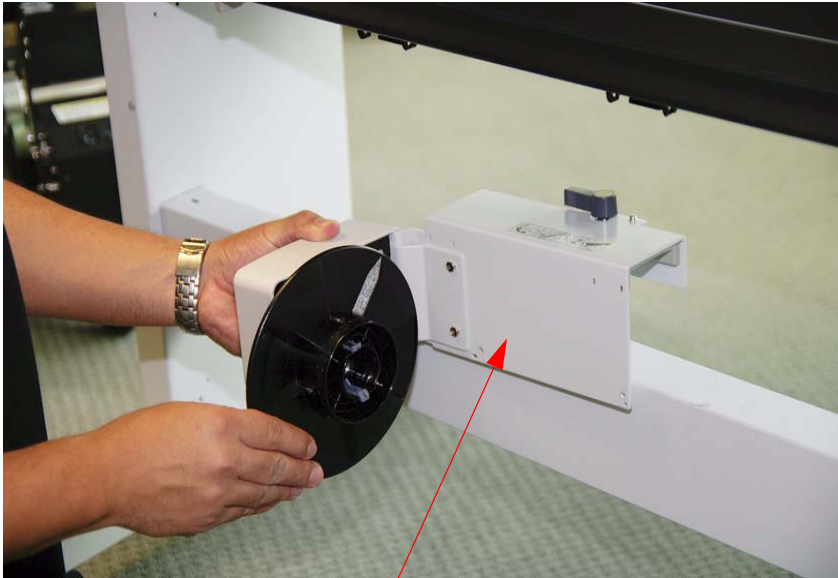


Route the **Data Cable** thru the 2 black clips on the right leg of the **Printer Stand**

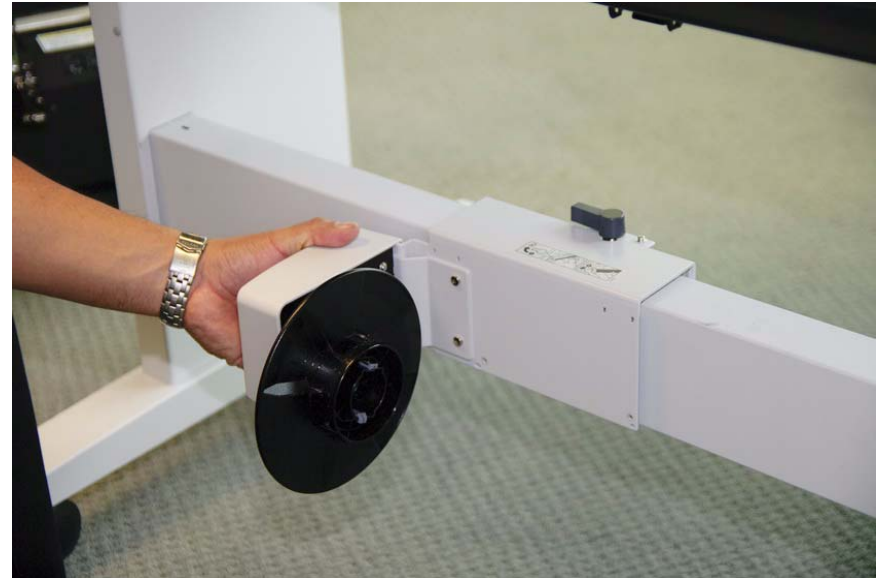


Plug into the connector on the back of the Printer
Make sure the Printer is off when connecting the cable.

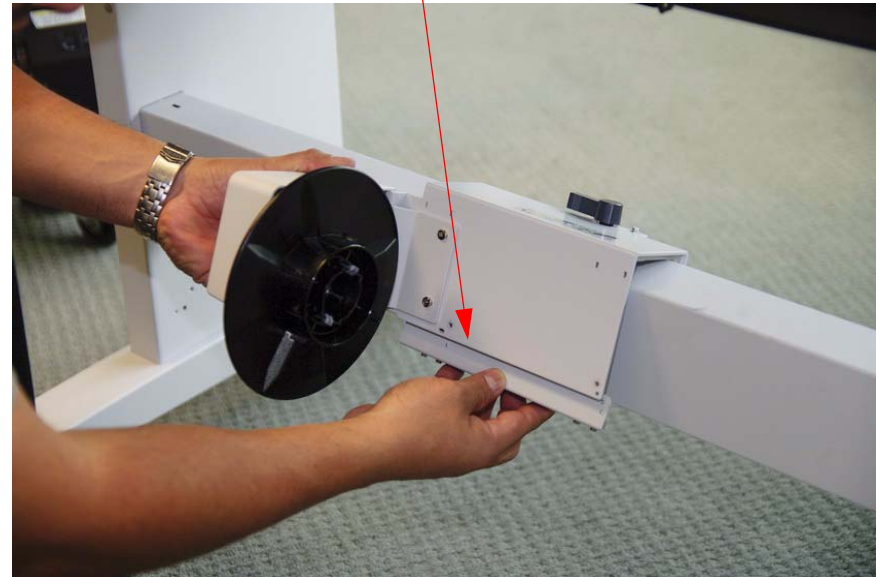
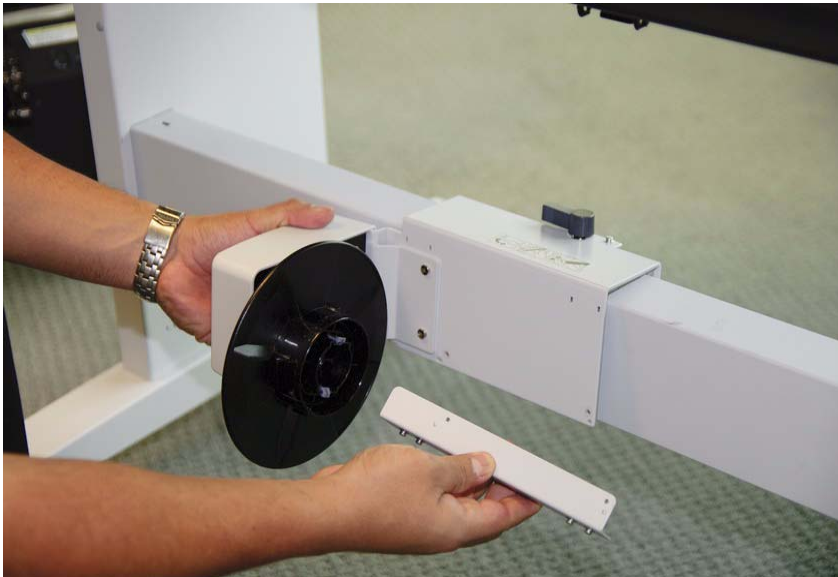
4. Install the **Movable Unit** Part 1.



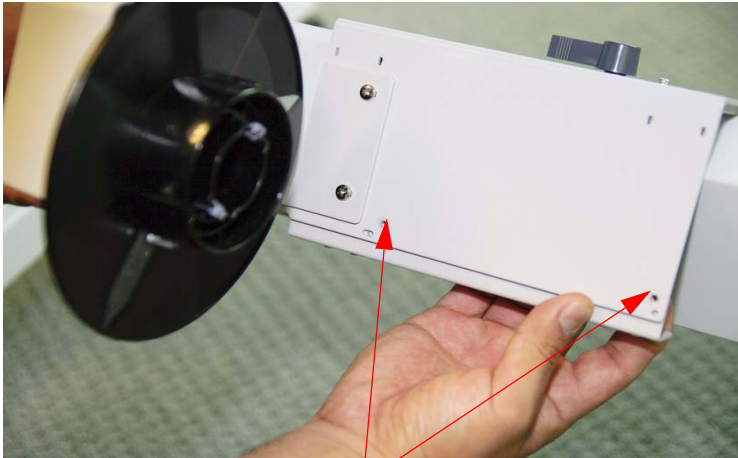
Install the **Movable Unit** to the left side of crossbar of the **Printer Stand**.



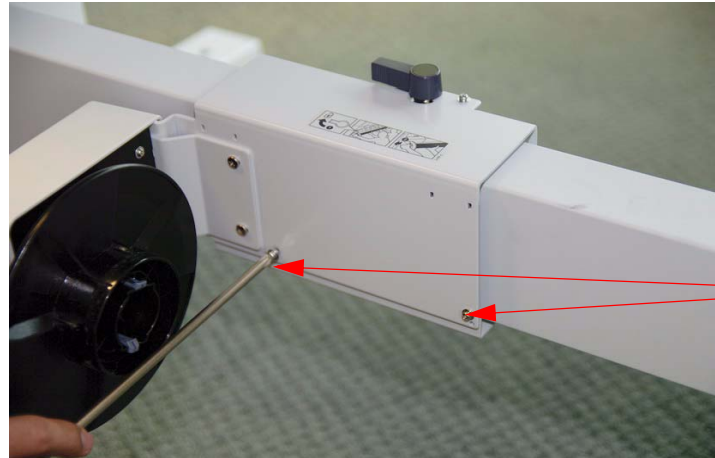
Make sure the **Movable Unit Stopper** is installed behind the bottom section of the **Movable unit**.



5. Install the **Movable Unit** Part 2.



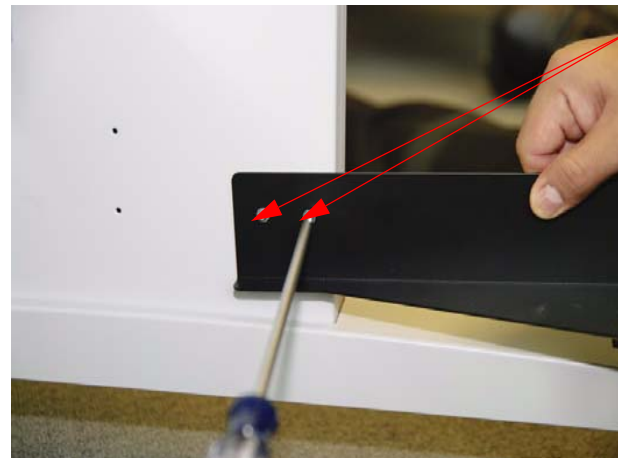
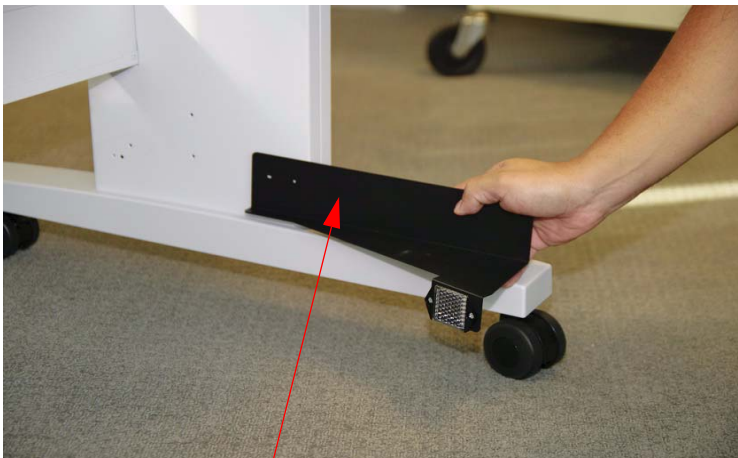
Line up the screw holes



2 **Silver Metal Screws**



6. Install the **Reflector**.



Line up the screw holes and use 2 **Silver Metal Screws** to secure the **Reflector**.

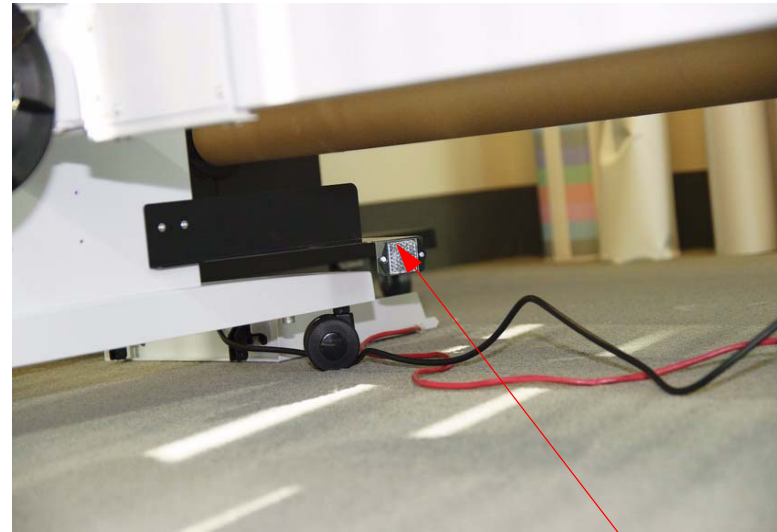


Install the **Reflector** to the left rear leg of the **Printer Stand**

7. Align the **Sensor Unit**.



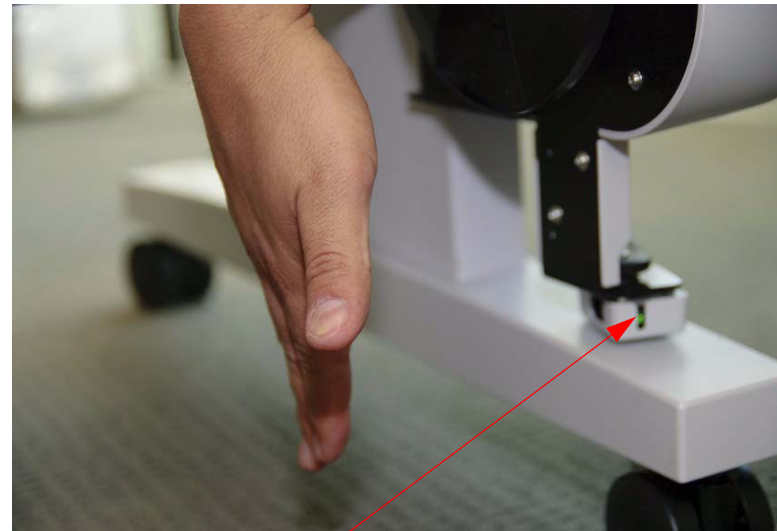
Rotate the **Sensor Unit** of the Drive Unit to align it with the **Reflector**.



The **Sensor Unit** needs to be aligned with the **Reflector** to work properly.



Once the **Sensor Unit** is aligned, the Amber and Green Led will light up on the **Sensor Unit**.

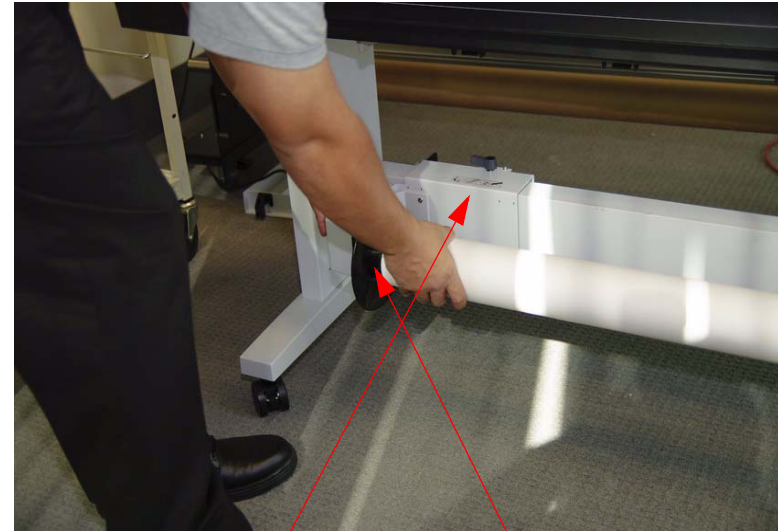


To test the **Sensor Unit**, block the path of the bean with your hand, the Green LED will stay on but Amber LED will go off.

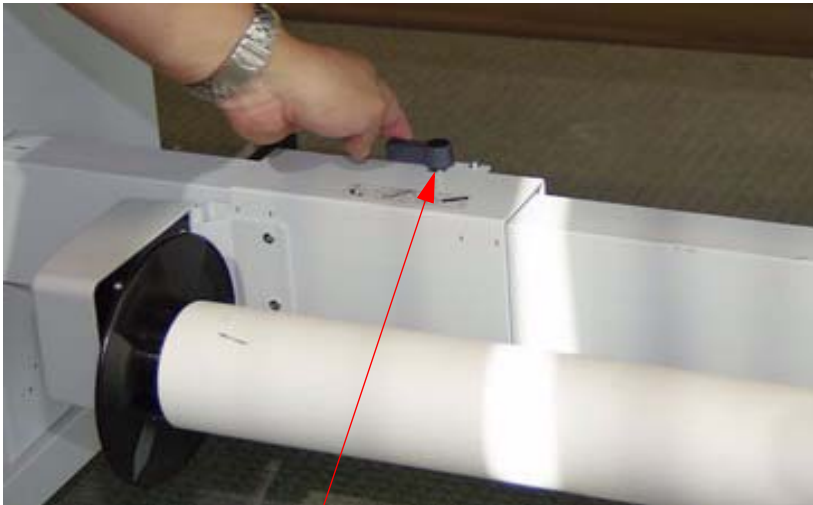
8. Install the **Paper Core**



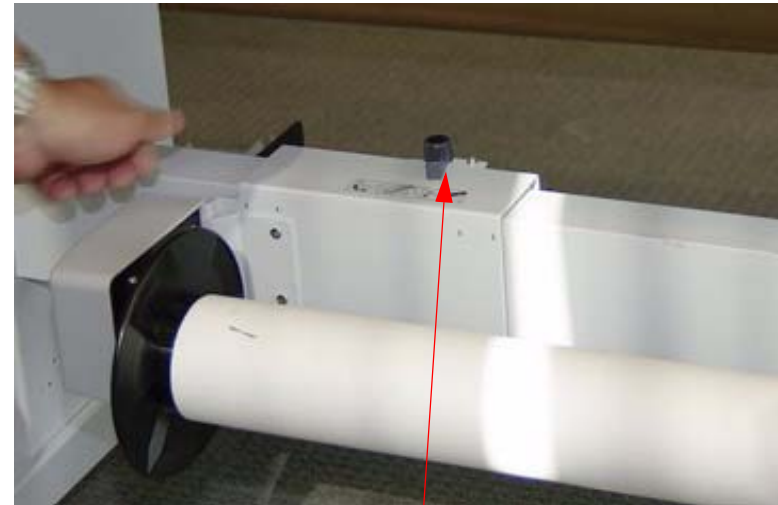
Install the core to the **Right Paper Stop**



Slide the **Movable Unit** so the core is installed onto the **Left Paper Stop**



Flip the Switch to lock the **Movable Unit**



Locked Position

9. Prepare the **Printer** for the **Take-Up Reel**



1. Press **Paper Source Button** (Left Arrow) to set paper source to **Roll Paper (No Cut)**



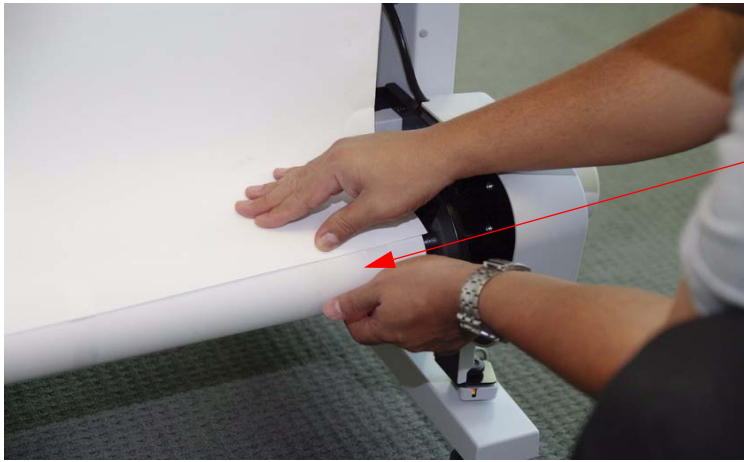
2. Set the **Take-Up Reel** to **Auto Forward** on the **Control Panel**



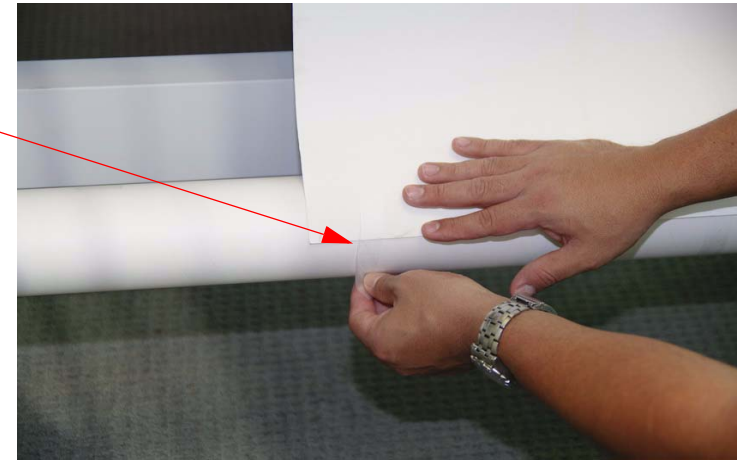
3. Press and hold the **Paper Feed Down button** until the paper reaches the **Core**.



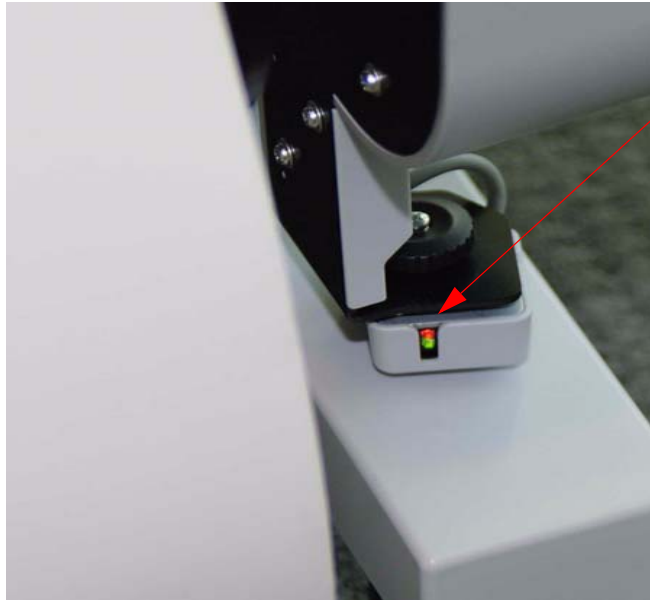
10. Tape the paper to the **Core**



Tape the paper to the **Core** near left, middle, and right side of the paper

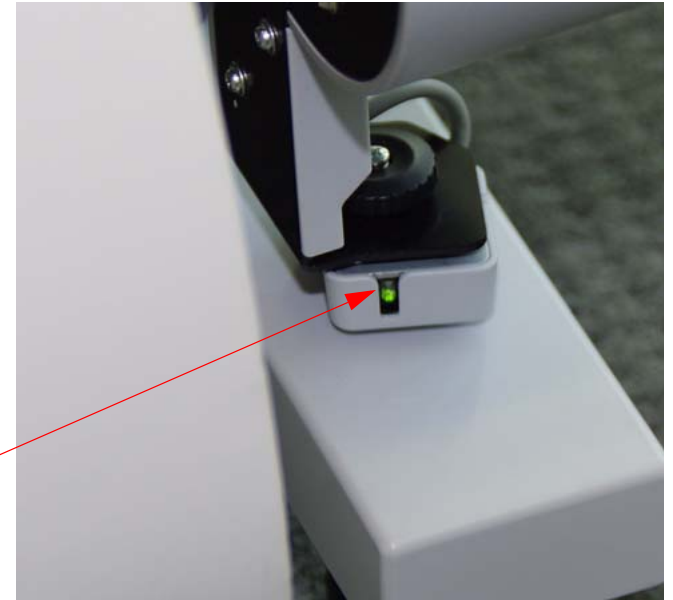


11. Operation of the **Take-Up Reel**.



The **Take -Up Reel** will not operate when the Amber LED is on, which means the paper has not broken the beam of the **Sensor Unit**.

Once enough paper is fed down and breaks the beam of the **Sensor Unit**, the Amber LED will go off and the **Take-Up Reel** will begin to roll the paper onto the **Core**.



*Note: The **Take-Up Reel** does not operate in a fluid motion. It will rotate in increments. The **Take-Up Reel** will not operate immediately after the paper breaks the beam. There will be a delay until enough paper has fed through the printer

Troubleshooting

Error Codes (Maintenance)

0001	Waste Ink Pad Counter is near end of life. (May not be valid)
0002	Carriage Motor / Ink Tube is near end of life (Clear Carriage Motor Counter)
0008	RTC error (Replace the Battery and initialize the RTC with the Adjustment Wizard's RTC & USBID routine.)
0040	Cleaning Unit near end of life (Clear Counter [when replacing Pump Motor])(Pump Assy, Pump Motor, Cap Assy, Wiper Blade, Flushing Box).
0080	Date is not set (initialize the RTC with the Adjustment Wizard's RTC & USBID routine.)
0100	RTC Battery temporarily low (Replace the battery, initialize the RTC with the Adjustment Wizard's RTC & USBID routine.)
0088	RTC Battery low (Replace the battery, initialize the RTC with the Adjustment Wizard's RTC & USBID routine.)

Error Codes (Service)

11xx Series Carriage Error Codes

Carriage Error Code	Error Name	Description	Remedy
1101	Carriage Motor End Of Life Error	The Carriage has made enough passes to wear out the Ink Tubes .	Inspect and replace the Ink Tubes if necessary, and reset the counter (Reset When CR Motor Change)
1125	Carriage Home Position Detection Error	The Pump and Cap Assembly does not release the Carriage Assembly , preventing home position detection. (Note: there is no Home Position Sensor)	<ol style="list-style-type: none"> 1. Check the Carriage Home Position Sensor. 2. Check for mechanical issues that would restrict the Carriage Mechanism from going "home".
1133	Carriage Position Time Out Error	The Carriage Encoder reports that the Carriage Assembly is out of position.	<ol style="list-style-type: none"> 1. Check for proper Carriage movement. 2. Check the Carriage Encoder. 3. Clean the Carriage Encoder Strip. 4. Check for proper Carriage Belt tension. 5. Check the Carriage Motor. 6. Check the Carriage Home Position Sensor.
1135	Carriage Encoder Check Error	The Carriage Encoder signal does not look right to the Main Board .	<ol style="list-style-type: none"> 1. Check the CR Encoder Strip. 2. Check the CR Encoder. 3. Check the Carriage Motor.

Carriage Error Code	Error Name	Description	Remedy
1136	Carriage Motor Step-out Error	The Carriage Encoder Assembly is out of position.	<ol style="list-style-type: none"> 1. Check for proper Carriage movement. 2. Check the Carriage Encoder. 3. Clean the Carriage Encoder Strip. 4. Check for proper Carriage Belt tension. 5. Check the Carriage Motor. 6. Check the Carriage Home Position Sensor.
1137	Carriage Servo Parameter Error	The Carriage Motor Driver Circuit detects abnormal current draw.	<ol style="list-style-type: none"> 1. Check for proper Carriage movement (defective Carriage Bearings, etc.). 2. Check for proper Carriage Belt Tension. 3. Check the Carriage Motor.

12xx Series Paper Feed Error Codes

Paper Feed Error Codes	Explanation	Description	Remedy
1223	Paper Feed Encoder Check Error	The Paper Feed Encoder signal does not look right to the Main Board .	<ol style="list-style-type: none"> 1. Check the PF Encoder Disk. 2. Check the PF Encoder. 3. Check the Paper Feed Motor.
1225	Paper Feed Motor Positioning Time Out	The Paper Feed Encoder reports that the Paper Feed Roller does not move properly.	<ol style="list-style-type: none"> 1. Check for proper Paper Feed Roller movement. 2. Check for proper Paper Feed Belt tension. 3. Check the Paper Feed Encoder. 4. Check the Paper Feed Encoder Disk. 5. Check the Paper Feed Motor
1227	Paper Feed Motor is out of step.	The Paper Feed Encoder reports that the Paper Feed Roller does not move properly.	<ol style="list-style-type: none"> 1. Check for proper Paper Feed Roller movement. 2. Check for proper Paper Feed Belt tension. 3. Check the Paper Feed Encoder. 4. Check the Paper Feed Encoder Disk. 5. Check the Paper Feed Motor
1228	Paper Feed Motor Servo Parameter Error	The Paper Feed Motor Driver Circuit detects abnormal current draw.	<ol style="list-style-type: none"> 1. Check for proper Paper Feed Roller Pressurization(look for binding). 2. Check for proper Paper Feed Belt Tension. 3. Check the Paper Feed Motor.

13xx Series Head Driver Errors

Head Driver Error Codes	Explanation	Description	Remedy
131B	Head Driver (Transmission Gate) Temperature Error	The Thermistor in the Print Head reports an over temperature condition	<ol style="list-style-type: none"> 1. Re-seat the Print Head Cables on the Main Board side. 2. Re-seat the Print Head Cables on the Print Head side. 3. Replace the Print Head. 4. Replace the Main Board.

14xx Series Ink System and Cap Assembly Errors

Ink System Error Codes	Explanation	Description	Remedy
1400	Ink System Presurization Error.	The Pressure Sensor does not report proper pressure within the specified time.	<ol style="list-style-type: none"> 1. Check the Ink Cartridges for leaks. 2. Check the Ink Bay for problems. 3. Check the Pressure Pump Assembly.
1410	Pressure Motor Drive Time Monitor Time Out	The Pressure Pump Motor runs longer than allowed.	<ol style="list-style-type: none"> 1. Cycle power to the Printer. 2. Replace the Main Board.
1425	CSIC Communication Time Out Error	The Printer can not read / write from one or more of the Ink or Maintenance Cartridge CSIC's .	<ol style="list-style-type: none"> 1. Check the Ink and Maintenance Cartridges. 2. Check the CSIC Contacts. 3. Check the CSIC Cables. 4. Replace the Main Board.

Ink System Error Codes	Explanation	Description	Remedy
1430	Cartridge Holder Maintenance Error	The Waste Ink Pad located under the Ink Bay could be filled.	1. Replace the Ink Bay 2. Reset the counter (Reset When Ink System Assy Change)
1434	Ink Cover Unlock Error	The Ink Cover Sensor does not report the Ink Cover opening.	1. Check the operation of the Ink Cover . 2. Check the Ink Bay Cover Release / Sensor Assembly .
1435	Cap Home Position Detection Error	The Cap Assembly "home position" can not be detected.	1. Cycle power to the Printer . 2. Replace the Cap Assembly .
1436	Select Valve Home Position Error	The Suction Valve "home position" can not be detected.	1. Cycle power to the Printer . 2. Replace the Cap Assembly .
1437	Cap Motor Drive Timeout Error	The Cap Motor runs longer than allowed.	1. Cycle power to the Printer . 2. Replace the Main Board .
1441	Air Pressure Motor 1 Acceleration Error	Air Pressure Motor 1 does not spin properly.	Replace Air Pressure Motor 1 .
1442	Air Pressure Motor 2 Acceleration Error	Air Pressure Motor 2 does not spin properly.	Replace Air Pressure Motor 2 .
1443	Air Pressure Motor 3 Acceleration Error	Air Pressure Motor 3 does not spin properly.	Replace Air Pressure Motor 3 .
1461	Air Pressure Motor 1 Lock Error	Air Pressure Motor 1 does not spin properly.	Replace Air Pressure Motor 1 .

Ink System Error Codes	Explanation	Description	Remedy
1462	Air Pressure Motor 2 Lock Error	Air Pressure Motor 2 does not spin properly.	Replace Air Pressure Motor 2 .
1463	Air Pressure Motor 3 Lock Error	Air Pressure Motor 3 does not spin properly.	Replace Air Pressure Motor 3 .
1471	Air Pressure Motor 1 Reverse Detection Error	Air Pressure Motor 1 spins the wrong direction.	Replace Air Pressure Motor 1 .
1472	Air Pressure Motor 2 Reverse Detection Error	Air Pressure Motor 2 spins the wrong direction.	Replace Air Pressure Motor 2 .
1473	Air Pressure Motor 3 Reverse Detection Error	Air Pressure Motor 3 spins the wrong direction.	Replace Air Pressure Motor 3 .

15xx Series Auto Platen Gap and Ink System Pressure Errors

APG and ASF Errors	Explanation	Description	Remedy
1501	Release Phase Detection Error	The <i>Pinch Roller Release Home Position Sensor</i> does not report to the <i>Main Board</i> .	<ol style="list-style-type: none"> 1. Check the operation of the <i>Pinch Roller Release Mechanism</i>. 2. Check the <i>Pinch Roller Release Home Position Sensor</i>. 3. Check the <i>Pinch Roller Release Motor</i>.
150C	Platen Gap Home Position Detection Error	The <i>Platen Gap Home Position Sensor</i> does not report to the <i>Main Board</i> .	<ol style="list-style-type: none"> 1. Check the operation of the <i>Platen Gap Mechanism</i>. 2. Check the <i>Platen Gap Home Position Sensor</i>. 3. Check the <i>Platen Gap Motor</i>.
1511	Platen Gap Motor Drive Timeover Error (APG)	The <i>Platen Gap Motor</i> runs too long.	<ol style="list-style-type: none"> 1. Cycle the <i>Printer's</i> power. 2. Replace the <i>Main Board</i>.
1520	Drive Time Monitor Time Out (CR)	The <i>Carriage Motor</i> runs too long.	<ol style="list-style-type: none"> 1. Cycle the <i>Printer's</i> power. 2. Replace the <i>Main Board</i>.
1535	Pressure Pump Phase Detection Error	The <i>Pressure Pump Home Position Sensor</i> does not report to the <i>Main Board</i> .	<ol style="list-style-type: none"> 1. Check the operation of the <i>Pressure Pump</i> Assembly. 2. Replace the <i>Main Board</i>.
1536	Pressurizing Reset Error	The <i>Pressure Sensor</i> always detects air pressure.	Replace the <i>Air Pressure Assembly</i> .

17xx Series Paper Detection Error

P/W Errors	Explanation	Description	Remedy
1700	Print Position Error	The Edge Detector can not measure the media accurately.	<ol style="list-style-type: none"> 1. Check for proper Carriage movement. 2. Check the Carriage Encoder. 3. Clean the Carriage Encoder Strip. 4. Check the Edge Detector (EdgeAD Sensor)

18xx Series AID (Auto Ink Detection)Error

1800	AID (Auto Ink Detector) Voltage Error.	The AID circuitry counted enough failures to have reached a counter limit. A failure is defined as 3 auto ink detection and cleaning sequences in a row without clearing up the missing nozzles. The failures could be caused by missing nozzles that can not be cleared, or bad AID components.	<ol style="list-style-type: none"> 1. Determine why the AID operation is failing (missing nozzles or bad Aid Components.) 2. Repair the cause of the failure. 3. Using the Adjustment Wizard, perform Clear Counter AID. Note: Adjustment Wizard 1.04 or higher is necessary to perform Clear Counter AID. Earlier versions do not work.
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1Axx, 20xx, Fxxx Series Main Board and Print Head Errors

Main Board Errors	Explanation	Description	Remedy
1A23	RTC Analysis error	The RTC data on the Main Board is invalid.	<ol style="list-style-type: none"> 1. Using the Adjustment Wizard run the RTC USBID adjustment. 2. Check the Battery. 3. Replace the Main Board.
1A26	RTC Communication Error	The RTC circuit on the Main Board is malfunctioning.	<ol style="list-style-type: none"> 1. Unplug the Printer. 2. Remove the Battery for 30 seconds. 3. Re-install the Battery. 4. Using the Adjustment Wizard run the RTC USBID adjustment. 5. Replace the Main Board.
1A37	Thermistor Sensor Error	The Thermistor on the Print Head reports an over temperature condition	<ol style="list-style-type: none"> 1. Re-seat the Print Head Cables on the Main Board side. 2. Re-seat the Print Head Cables on the Print Head side. 3. Replace the Main Board. 4. Replace the Print Head.
1A38	Transistor Environment Temperature Error	The Thermistor on the Print Head reports temperature out of range.	<ol style="list-style-type: none"> 1. Replace the Print Head.
1A39	Print Head Error	The Print Head reports an error.	<ol style="list-style-type: none"> 1. Replace the Print Head.

Main Board Errors	Explanation	Description	Remedy
1A40	IC22 Error	The Destination Setting (Country Setting) on the Main Board is wrong	1. Correct the destination setting. 2. Replace the Main Board .
1A41	Head Rank Id Input Error	TBD	TBD
200A	Firmware Loading Error	There is a problem with the SDRAM	Replace the Main Board .
200B	Insufficient Memory Error	Firmware Error	1. Re-install Firmware. 2. Replace the Main Board .
200C	Servo Interrupt Time Out Error.	A Servo can not be controlled	1. Re-install Firmware. 2. Replace the Main Board .
200D	System Interrupt Time Out Error.	Main Board or Firmware Problem	1. Re-install Firmware. 2. Replace the Main Board .
FXXX	CPU Error	Main Board or Firmware Problem	1. Re-install Firmware. 2. Replace the Main Board .

Paper Sensor Error

Error Message:

PAPER SENSOR ERROR
PRESS THE PAUSE BUTTON
LOAD THE CORRECT PAPER
REFER TO THE MANUAL

Cause of Error:

Incorrect readings from the ink mark sensor while loading paper.

Possible Causes:

Ink Mark Sensor Position Adjustment (to far away could cause incorrect readings from the ***Ink Mark Sensor***).

Defective ***Ink Mark Sensor***.

Defective ***Ink Mark Sensor Cable***.

Defective ***Carriage Board***.

Defective ***Main Board***.

Defective ***Head Cable***.

Borderless Printing Errors

Ensure that the media is one of the supported sizes. The media should be exactly one of the sizes listed below.

10", 13", 16", 17", 24", 36", 44", 50", 54"

The image being printed must be at least 1/4" bigger than the media.

Perform the **Feed Adj. +T&B** adjustment to calibrate the margins.

Perform the Platen Position adjustment (**Bellesta Pos. Adj.**).

Color Shift

Note: *Most color shift issues are not caused by a printer problem, but by the customers “work flow”. “work flow” refers to the customers color management. Usually the printer will accurately print the image that it is sent. If the customer is un-aware of the true color of the image, because of a “work flow” issue, the customer will blame the Printer for the perceived color inaccuracy.*

Missing **Nozzles** can impact color, so they should be checked. Verify that 8 colors are printed, and all the nozzles for each color are working.

Use your computer, driver, image, and paper to verify the operation of the **Printer**. Ensure that you use the proper driver setting for the media being used. If the color appears normal, then the user’s “work flow” is the issue.

Verify that the Printer is filled with Epson Ink. Non-Epson Ink can cause a color shift.

If the color is incorrect using your materials, and the customers, replacing the **Main Board** and the **Print Head** at the same time may correct the issue.

Drop of Ink

Note: *A Drop of Ink refers to ink dripping onto the media.*

Ink drips on the media come from two separate causes. The most common reason is a build up of ink on the nose of the **Print Head**. The second reason is a leak in the ink delivery system, in the **Print Head** area.

Excessive ink build up on the **Print Head Nozzle Plate** is caused by problems with the **Cap, Pump, Wiper Blades,** and **Wiper Blade Cleaner**.

Leaks in the ink delivery system (in the **Print Head** area), usually are caused by a bad connection between the **Ink Supply Tube** and the **Damper**. Sometimes a leaking **Damper** will cause the issue.

Grainy or Ghosting

Note: *Grainy refers to an image that does not have smooth tonal transitions, or sharp resolution.*

Note: *Ghosting refers to components of an image that are intended to be on top of each other (or adjacent) but are offset.*

Note: *A low resolution image can be mis-diagnosed as Grainy.*

Using your **Computer**, **Driver**, and **Application**, verify that it is not the users equipment that is causing the print quality issue.

- Non-Epson media or improper media settings in the driver can cause grainy images.
- Non-Epson Ink can cause Grainy print quality.
- A non-Epson Driver can cause Grainy print quality.

Grainy or ghosted images are usually caused by electronic or mechanical adjustments. The following is a list of adjustments that should be checked.

- **Print Head Slant Adjustment (CR)**
- **Print Head Slant Adjustment (PF)**
- **Auto Bi-D Adjustment**
- **Auto Uni-D Adjustment**

Additionally the proper **Print Head** to media gap should be verified (Standard, Narrow, Wide, Wider, and Widest). Most media prints best at the Standard Gap (one gap away from the closest).

Intermittent or missing Nozzles may also be a factor.

The following components occasionally cause the issue.

- **Carriage Encoder**
- **Carriage Encoder Strip**
- **Carriage Motor**
- **Carriage Belt Tension**

Horizontal Banding

Note: Horizontal Banding is either paper feed related, or Print Head related.

Horizontal Banding is caused by vertical dot placement errors.

Feed Related

Feed related horizontal banding is always spaced at the same interval as the **MicroWeave** step. Observe the area of the image that is currently being printed (the image directly under the **Print Head**). That area exhibits the **MicroWeave** step. Compare the interval of the **MicroWeave** step with the interval of the horizontal banding. If the two have the same interval, the banding is probably feed related.

Increase or decrease (increase or decrease to the extreme limit) the feed step and observe the impact on the banding. Use the **Paper Config** section of the driver, or **Custom Paper** section of the **Printer's** user menu, and increase

or decrease the feed step all the way. If the banding is affected, it is feed related. If the banding is not changed, or a new banding is added, it is not feed related.

Use another **Computer** with the Epson **Driver** and Epson Media to eliminate the users equipment.

Verify that the proper **Spindle** is being used (**High Tension** or **Low Tension Spindle**)

Verify that the media does not bind coming off the roll.

Print Head Related

If the horizontal banding is **Print Head** related, it is usually due to missing, deflected or sympathetic **Nozzles**. the service level **Nozzle Check**, is the best way to inspect the **Print Head's** accuracy. A slightly deflected **Nozzle** can cause horizontal banding, depending on the **Nozzle's** location in the **Nozzle** array.

Missing or deflected **Nozzles** may be caused by problems with the **Cleaning Station**. Before attempting to clear **Nozzle** issues, the **Cap**, **Wiper Blade**, **Wiper Blade Cleaner**, and the **Print Head Nozzle Plate** should be cleaned. Additionally the **Borderless Pads** and **Flushing Box** should be checked to verify that they are not out of position or dirty. If a build up of contaminants makes contact with the **Nozzle Plate**, it will cause reoccurring **Nozzle** drop out.

INK CARTRIDGE ERROR: REPLACE INK CARTRIDGE

Error Message: **INK CARTRIDGE ERROR: REPLACE INK CARTRIDGE**

Explanation of Error:

The **CSIC Chip** reports ink in the **Cartridge**, but the **Ink Out Sensor** (located where the ink leaves the **Cartridge**) reports no ink.

Cause of Error:

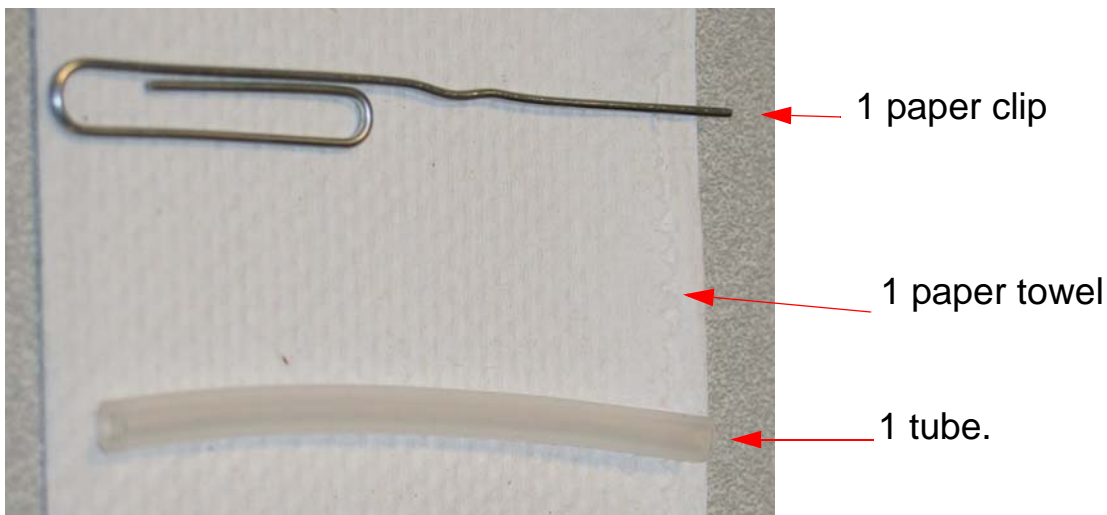
Tiny air bubbles in the **Ink Out Sensor**.

Repair Strategy:

Remove the tiny air bubbles from the **Ink Out Sensor**.

Repair Detail:

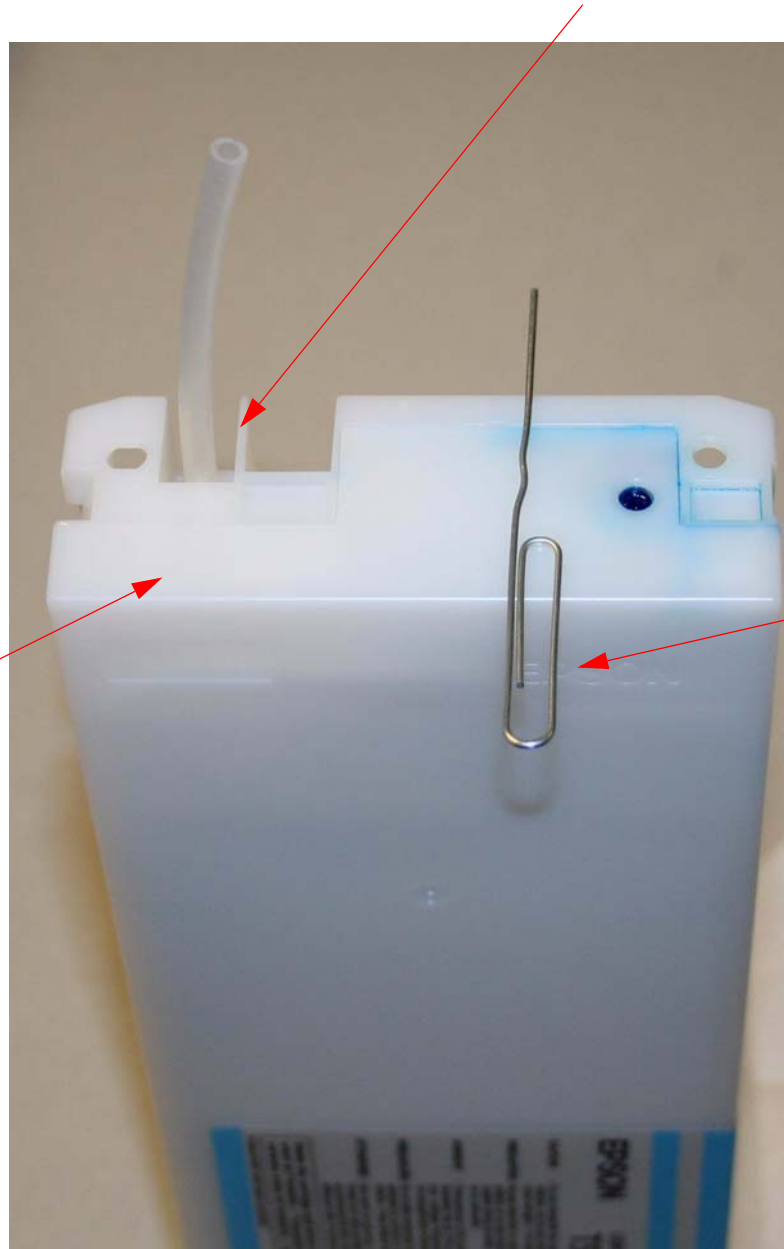
1. Assemble tools.



2. Prepare to inflate the ***Ink Cartridge***.

Attach the hollow tube to the ***Air Pressure Insert Nipple***.

Place the ***Ink Cartridge*** on a flat surface, with this side up.

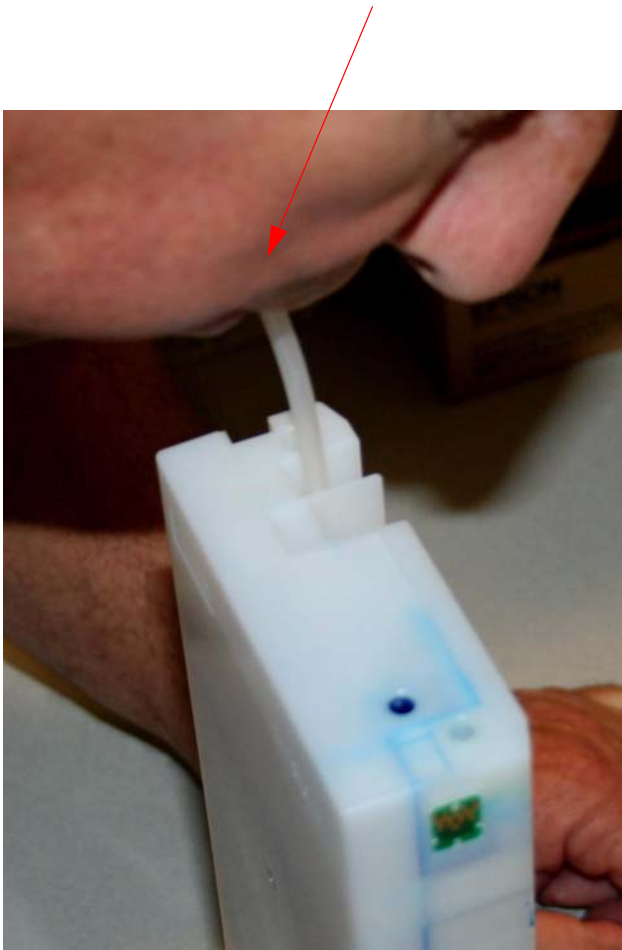


Ensure that the paper clip is handy.

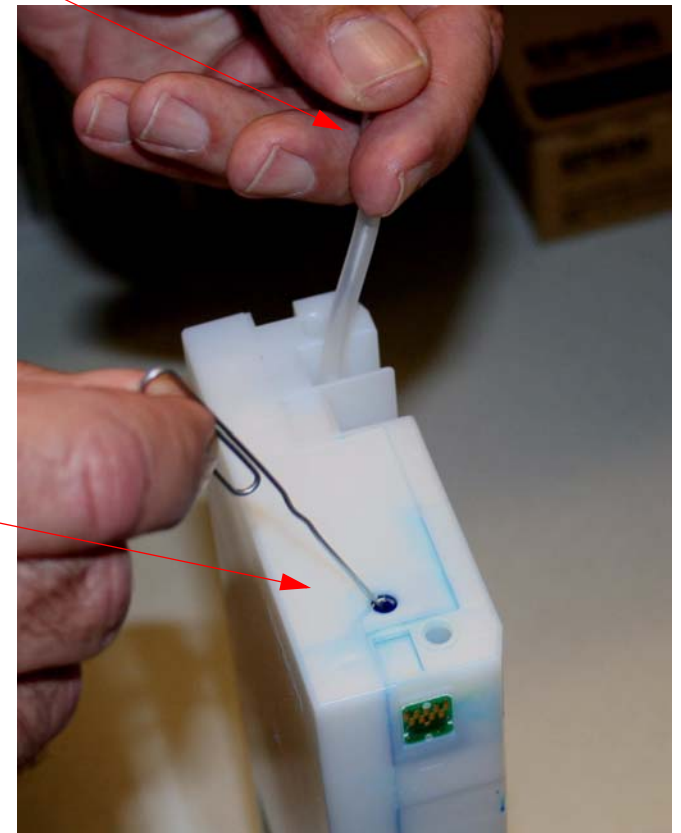
3. Inflate the **Cartridge** and bleed it.

Note: *The ink is in a bag, inside of the sealed Ink Cartridge. When the Cartridge is inflated, the air pressure squeezes the bag of ink, placing the ink under pressure.*

1. Inflate the inside of the **Cartridge**.

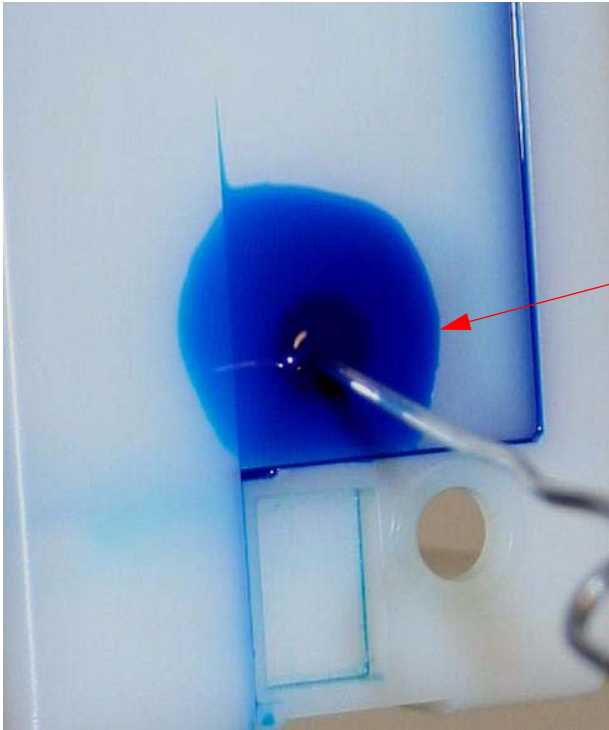


2. Seal the tube trapping the pressure in the **Cartridge**.



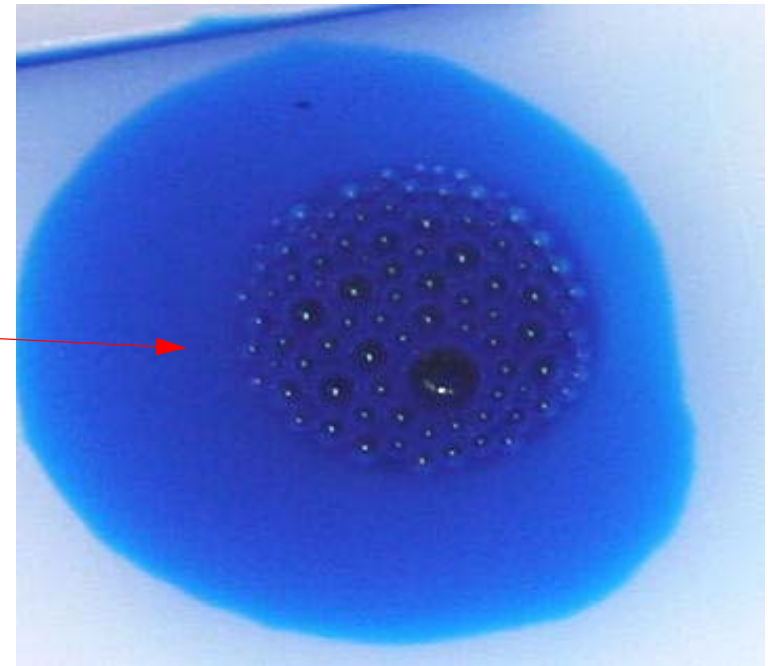
3. Use the paper clip to open the **Ink Valve**, and release a small amount of ink and the trapped air. (See next page)

4. Inspect the released ink.



This image shows the approximate amount of ink that should be released from the **Cartridge**. This particular **Cartridge** did not contain air bubbles in the **ink**.

This **Cartridge** did contain air bubbles in the ink. The small amount of air in the ink is enough to cause the error.



5. Clean up the released ink.



Use the paper towel to absorb the “frothy” Ink. ***The Cartridge should now work.***

No Control Panel Display

Note: *No Control Panel Display* refers to the *Control Panel LCD* not displaying any data.

Note: *Historically, this symptom has been caused by a poorly seated Control Panel Cable.*

1. Re-seat the **Control Panel Cable** at both ends.
2. Replace the **Control Panel Cable**.
3. Replace the **Control Panel**.
4. Replace the **Main Board**.

Paper Jam Error

Note: *The Paper Jam Error indicates that the Carriage Encoder detects movement of the Carriage, but the Carriage Motor draws too much current.*

1. Clean the **Carriage Rail**.
2. Check the **Carriage Belt Tension**.
3. Manually move the **Carriage Mechanism** along the **Carriage Rail**, feeling for unusual drag, or bad **Bearings**.
4. Manually spin the **Carriage Motor** and feel for binding.
5. Replace the **Carriage Motor**.

Random Nozzle Firing

Note: *Random Nozzles refers to Nozzles that fire when they are not commanded to.*

Random **Nozzle** firing is caused by 1 of 4 components

- Head Cables**
- Print Head**
- Main Board**
- Power Supply**
- Carriage Encoder and Encoder Strip**

Head Cable

Inspect the **Head Cables** for worn insulation. Place tape over the worn area or replace the **Cable**.

Print Head or Main Board

If the random **Nozzle** firing is caused by serial communication problems between the **Main Board** and the **Print Head**, the frequency of the random **Nozzle** firing changes when the printing resolution is changed. If changing the printing resolution affects the random **Nozzle** firing, change the **Main Board** and the **Print Head**. Change them one at a time in any order. Test between each change.

Power Supply

Sometimes (very rare) a noisy **Power Supply** causes random **Nozzle** firing.

Encoder and Encoder Strip

There is some evidence that random nozzle firing (especially yellow nozzles) can be triggered by a dirty **Carriage Encoder Strip** or a **Carriage Encoder** that is not properly aligned to the **Encoder Strip**.

Scratch

Note: A scratch is damage to the media surface caused by contact with a roller or other Printer components. Sometimes scratches occur before the media is inserted into the Printer.

Some media is very sensitive to surface abrasions. Contact between the **Pinch Rollers**, the **Paper Feed Roller**, and the media is necessary to support and move it. If the media's coating is too fragile, the **Pinch Rollers** (the **Rollers** that contact the media's coating) can scratch the coating.

Inserting the scratched media back into the paper path, and compare the location of the scratch on the media to adjacent rollers. Check the adjacent rollers for issues.

If the **Print Head** makes contact with the media, it can cause scratching. Usually **Print Head** contact leaves ink residue as well. **Print Head** contact is usually because of excessive media curl, or incorrect platen gap.

Smudge

Note: *A smudge is a mark left on the media by contact. It can be caused by contact with the **Print Head**, or contact with a dirty **Roller**.*

Dirty Roller

A dirty **Roller** usually leaves a mark that repeats at an interval that is equal to the circumference of the **Roller**. Placing the image with the smudge back into the paper path, and aligning the smudge with the **Printer's Rollers** will indicate which **Roller** is dirty.

Print Head

Most **Print Head** contact with the media is the result of the media curling up to meet the **Print Head**. It can also be caused by a build up of contaminants on the **Print Head**, that decrease the distance between the **Print Head** and the media.

Sometimes the platen gap (the distance between the **Print Head** and the media) is set improperly. It can be incorrect because of user settings or because of incorrect measurement of the media thickness. Most media uses the **Standard** platen gap. The **Standard** platen gap is always one step back from the closest platen gap. If the platen gap is incorrect, the **Paper Thickness Sensor** should be checked, as well as the user platen gap settings found in the user menu.

Sometimes there is a build up of contaminants on the nose of the **Print Head** which makes contact with the media. Check for a dirty **Cap**, **Wiper**, **Flushing Box**, or **Borderless Pads**.

Smear

Note: *A smear is caused by something “smearing” the intended image, after the image is printed.*

Many times smearing is a result of non-Epson media or ink. Non-Epson ink or media may dry too slowly, resulting in a smear after the image leaves the **Printer**. Adjusting the **User Menu: Custom Paper: Drying Time:** setting can slow down the **Printer**, allowing the image to dry properly.

Inspect the image while it is being printed. Look for any component or object that is making contact with the image while the image is still in the **Printer**.

Use another **Computer** with the Epson **Driver** and Epson Media to eliminate the user's equipment over saturating the media.

If the **Print Head** makes contact with the media, it can cause smearing. **Print Head** contact is usually because of excessive media curl, or incorrect platen gap.

Stuck In Cut Sheet Mode

Note: *Stuck In Cut Sheet Mode* refers to the Printer always returning to sheet mode after loading paper.

Note: *Historically, this symptom has been caused by the Paper Thickness Sensor registering very thick media. The Printer assumes that very thick media must be cut sheet media.*

Note: *If the symptom is caused by the Paper Thickness Sensor, the Printer will print at the “Wide”, “Wider”, or “Widest” platen gap.*

1. Verify that the **Paper Thickness Sensor** is not mechanically binding.
2. Perform the **Paper Thickness Sensor** Adjustment.

Vertical Banding

Note: *Vertical Banding is caused by horizontal dot placement errors.*

Saturation Related Vertical Banding

If the vertical banding is caused by paper over saturation, the banding will correspond to rippling of the media. The rippling will be visible on the back of the media. This kind of vertical banding is usually about an inch wide.

Under saturated images causes a type of vertical banding that is usually about 1/3 of an inch wide. Use another **Computer** with the Epson Driver and Epson Media to eliminate the users equipment. Non-Epson drivers effect vertical banding if the amount of ink that is applied to the media is too low. Using the Epson driver should look better, if that is the case. Non-Epson media can impact vertical banding if the amount of ink that is required to correctly saturate the media is not applied by the Epson driver or a non-Epson driver.

Alignment Related Vertical Banding

Print an image in bi-directional mode, and in uni-directional mode (**High Speed** checked = bi-directional mode). If the vertical banding is more evident in bi-directional mode, the most likely cause is an improper **Bi-D** alignment. The **Uni-D** adjustment effects vertical banding in both bi-directional mode, and in uni-directional mode.

Carriage Motor Related Vertical Banding

If the vertical banding is more evident in uni-directional mode, the most likely cause is **Carriage Motor** vibration. Replacing the **Carriage Motor** may improve the banding.

Dirty Rails or Encoder Strip

Clean the Carriage Encoder and the Carriage Rails.

Bad Carriage Bearings

Manually move the **Carriage Assembly** and feel for proper **Carriage Bearing** operation.

Adjustments

1800 Error

Overview

The **1800** error indicates that the **Auto Ink Detector** (AID) circuitry has detected enough failures to reach a “counter limit”.

Detail

The **AID Circuitry** counted enough failures to have reached a counter limit. A failure is defined as 3 auto ink detection and cleaning sequences in a row without clearing up the missing nozzles.

The failures could be caused by missing nozzles that can not be cleared, or bad AID components. It does not always indicate that the AID circuitry is defective. Many times the AID circuitry is doing it's job, and reporting missing nozzles.

Troubleshooting

1. Determine why the AID operation is failing (missing nozzles or bad **Aid Components**.)
2. Repair the cause of the failure.
3. Using the **Adjustment Wizard**, perform **Clear Counter AID**.

Note: *Adjustment Wizard 1.04 or higher is necessary to perform **Clear Counter AID**. Earlier versions do not work.*

Note: *Performing **Clear Counter AID** clears the 1800 error.*

AID

Note: The AID function tests the Auto Ink Detector devices.

1. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **AID**.
 - 1.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 1.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\AID**.
2. Start the test.
 - 2.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\AID\Enter** Start.
 - 2.2 Press the **Enter** button to start the test
3. The **Printer** will test the **AID** devices and display the results.



If **NG** is displayed in any of the 4 categories, the device is not functioning properly. In the case of this example the **NG**'s were caused by missing nozzles on the **Print Head**.

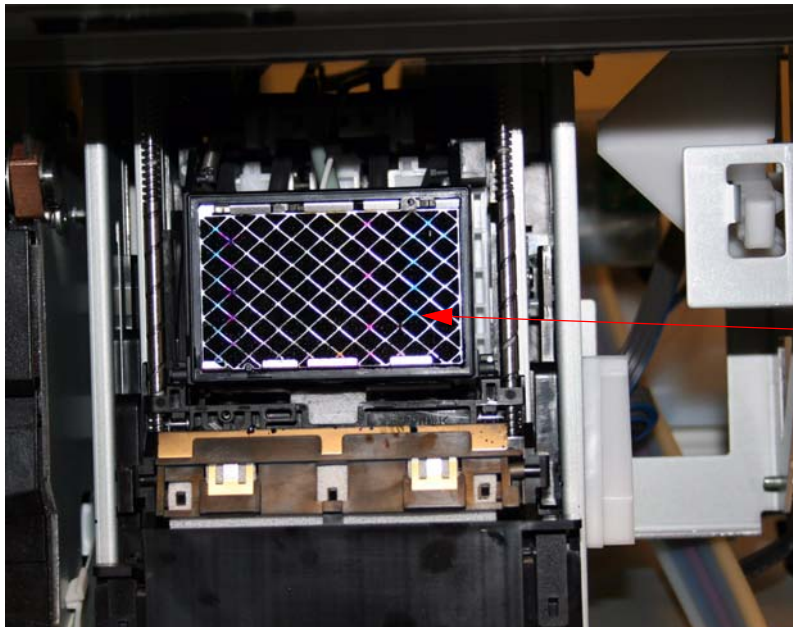
If **OK** is displayed in all of the 4 categories, the device is functioning properly.

AID PG Adjustment

Note: The AID PG Adjustment measures the distance from the Flushing Box AID Grid to the Nozzle Plate on the Print Head.

AID PG Adjustment Jig Part # 1482237

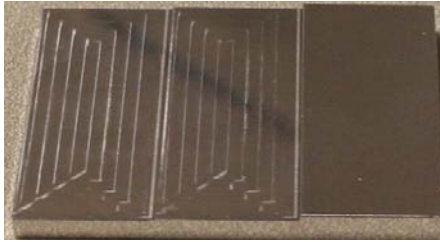
1. From **ServiceMan Mode: Adjustment:** Select **AID PG**.
 - 1.1 **ServiceMan Mode:** **Down**, **Right**, and **Pause** buttons, and turn on the **Printer**.
 - 1.2 Navigate to **ServiceMan Mode: Adjustment\AID PG**.
2. Start the adjustment.
 - 2.1 Navigate to **ServiceMan Mode: Adjustment\AID PG\[Enter] Start**
 - 2.2 Press the **Enter** button to start.
 - 2.3 The **Printer** will release the **Carriage Lock**, and lower the **Flushing Box** into position.



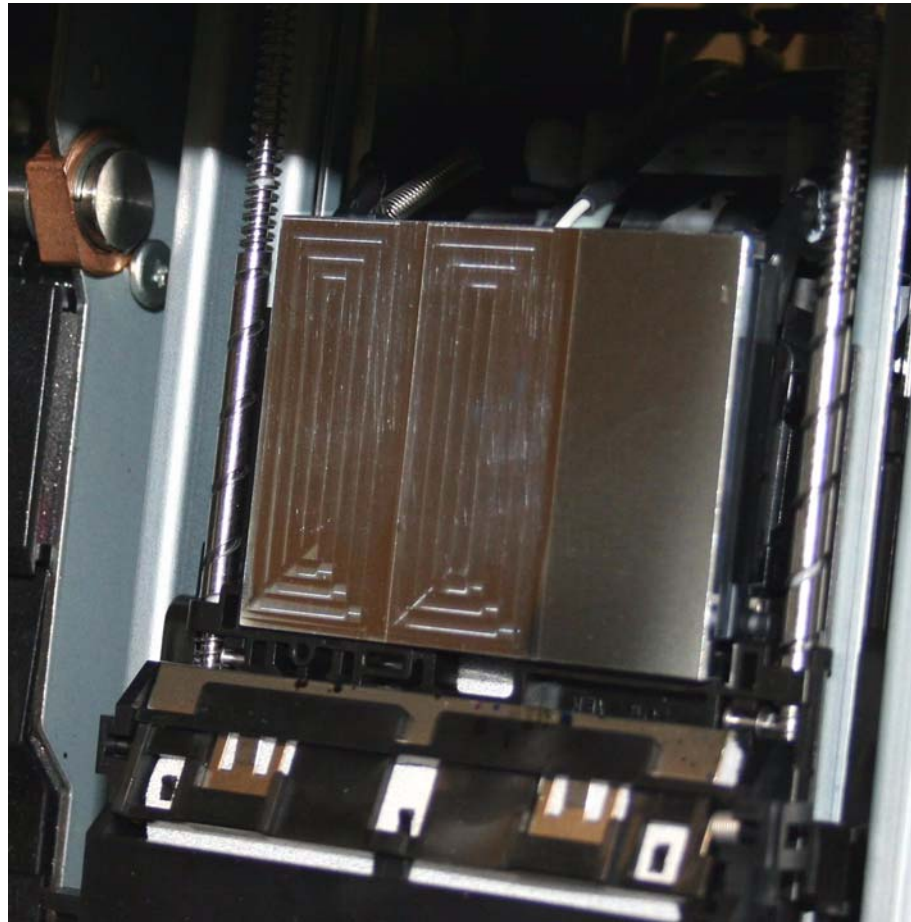
1. Move the **Carriage Assembly** away from the **Cap Assembly**.
2. Observe that the **Flushing Box** is covering the **Capping** station, on the **Cap Assembly**.

Note: The Grid on the Flushing Box is the AID Grid (Auto Ink Detection Grid).

3. Place the PG AID adjustment Jig in place.



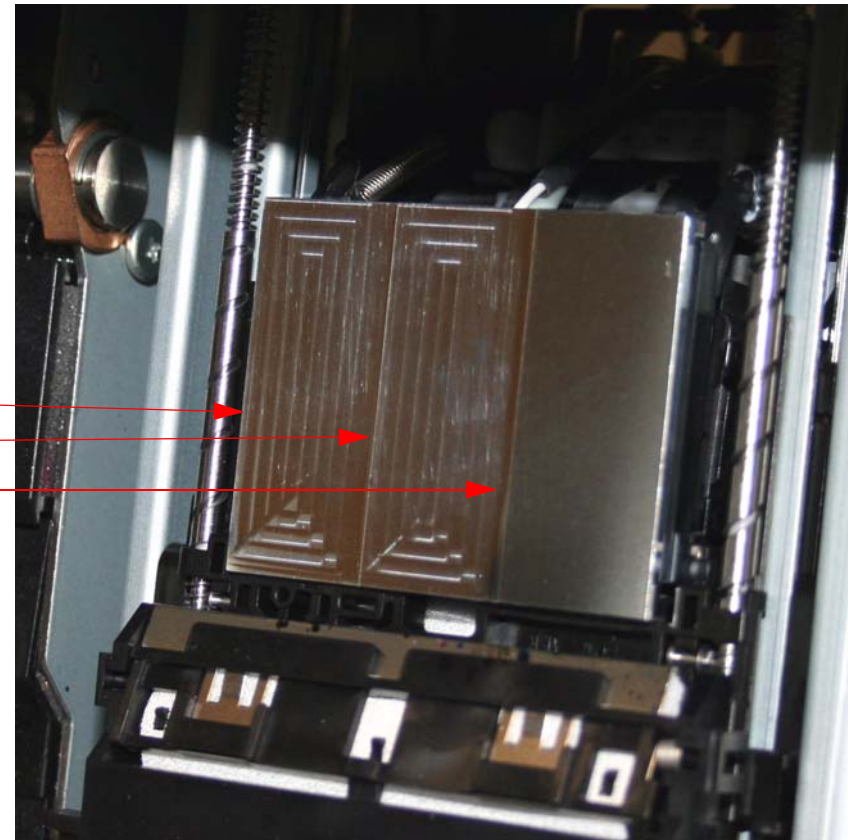
AID PG Adjustment Jig



Place the ***Aid Pg Adjustment Jig*** on the ***Flushing Box*** as shown.

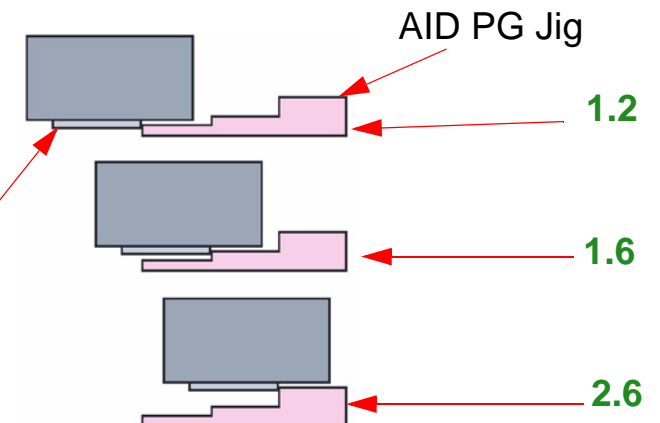
4. Measure the **AID** to **Print Head Nozzle Plate** gap.

1. Move the **Carriage Mechanism** over the **Jig**.
2. Observe which level of the **Jig** the **Nozzle Plate** makes contact with.
3. Select the value that represents the level of the **Jig** that the **Nozzle Plate** makes contact with.
Makes contact here = **1.2mm**
Makes contact here = **1.6mm**
Makes contact here = **2.6mm**
Makes no contact = replace the **Cap Assembly**



4. **Remove the Jig.**
5. Highlight the value identified in step 3, and press the **Enter** button to select it.

Print Head Nozzle Plate



Auto Bi-D Adjustment

Note: *The Auto Bi-D Adjustment ensures that the Printer can print accurately from both (Bi) directions.*

1. Load 24" Doubleweight roll paper (any media is ok).
2. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **Gap Adj.**
 - 2.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 2.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Gap Adj.**
3. Print the alignment pattern.
 - 3.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Gap Adj.\Auto\Auto Bi-D\Print\Enter** **Print.**
 - 3.2 Press the **Enter** button to print the pattern
4. The **Printer** will print the pattern, read the pattern with the **Ink Mark Sensor**, and complete the adjustment.

Auto Uni-D Adjustment

Note: *The Auto Uni-D Adjustment calibrates the horizontal dot timing between each color and black.*

1. Load 24" Doubleweight roll paper (any media is ok).
2. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **Gap Adj.**
 - 2.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 2.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Gap Adj.**
3. Print the alignment pattern.
 - 3.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Gap Adj.\Auto\Auto Uni-D\Print**[Enter]**Print.**
 - 3.2 Press the **Enter** button to print the pattern.
4. The **Printer** will print the pattern, read the pattern with the **Ink Mark Sensor**, and complete the adjustment.

Carriage Timing Belt Tension Adjustment

1. Remove the **Cover (Top)**.
2. Remove the **Cover (Left Side)**
3. Remove the center section of the **Carriage Belt Cover**.

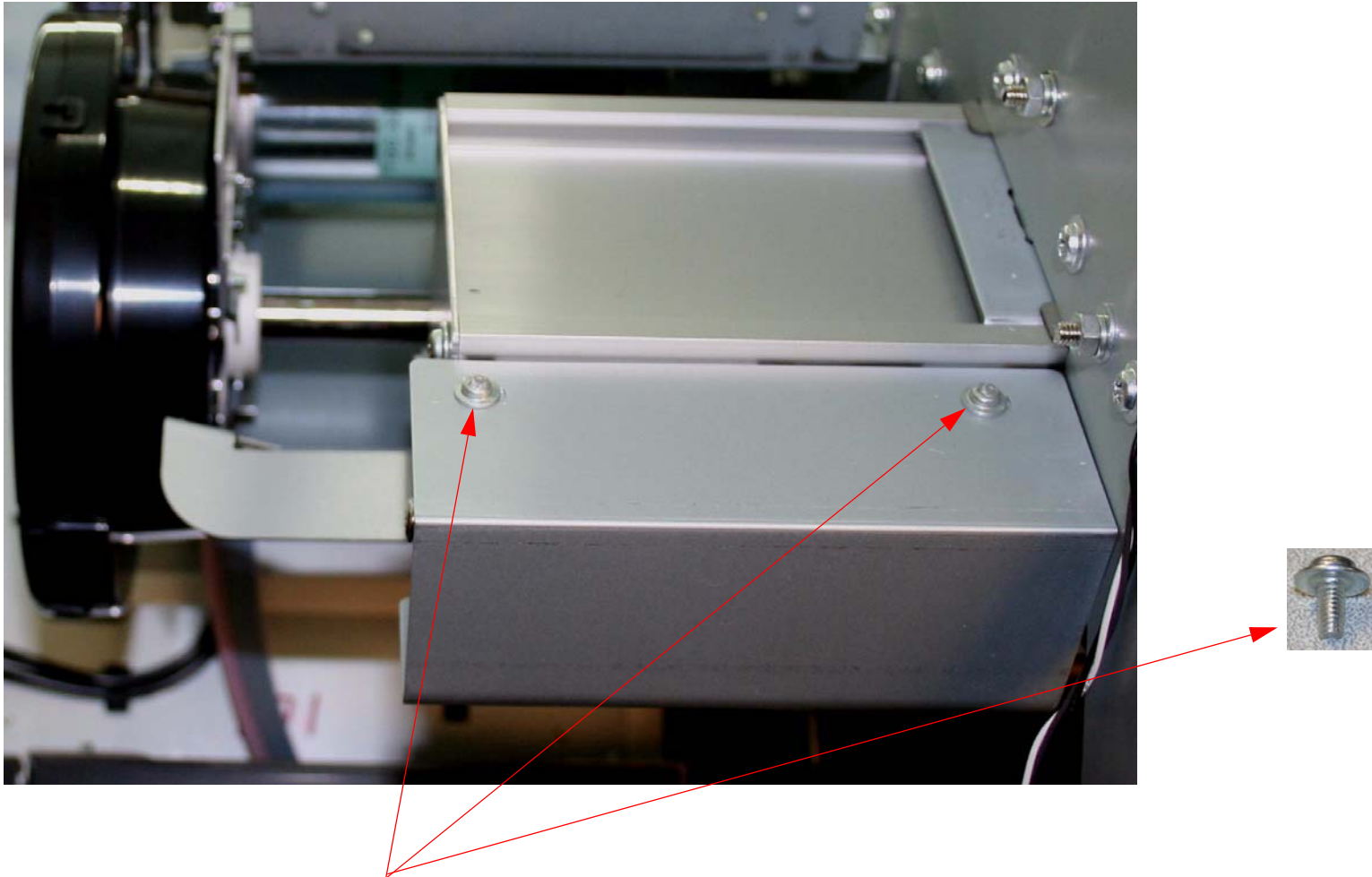


1. Remove 2 **Screws** that fasten the center section of the **Carriage Belt Cover** from the top.
2. Remove 2 **Screws** that fasten the center section of the **Carriage Belt Cover** from the front.



3. Remove the center section of the **Carriage Belt Cover**.

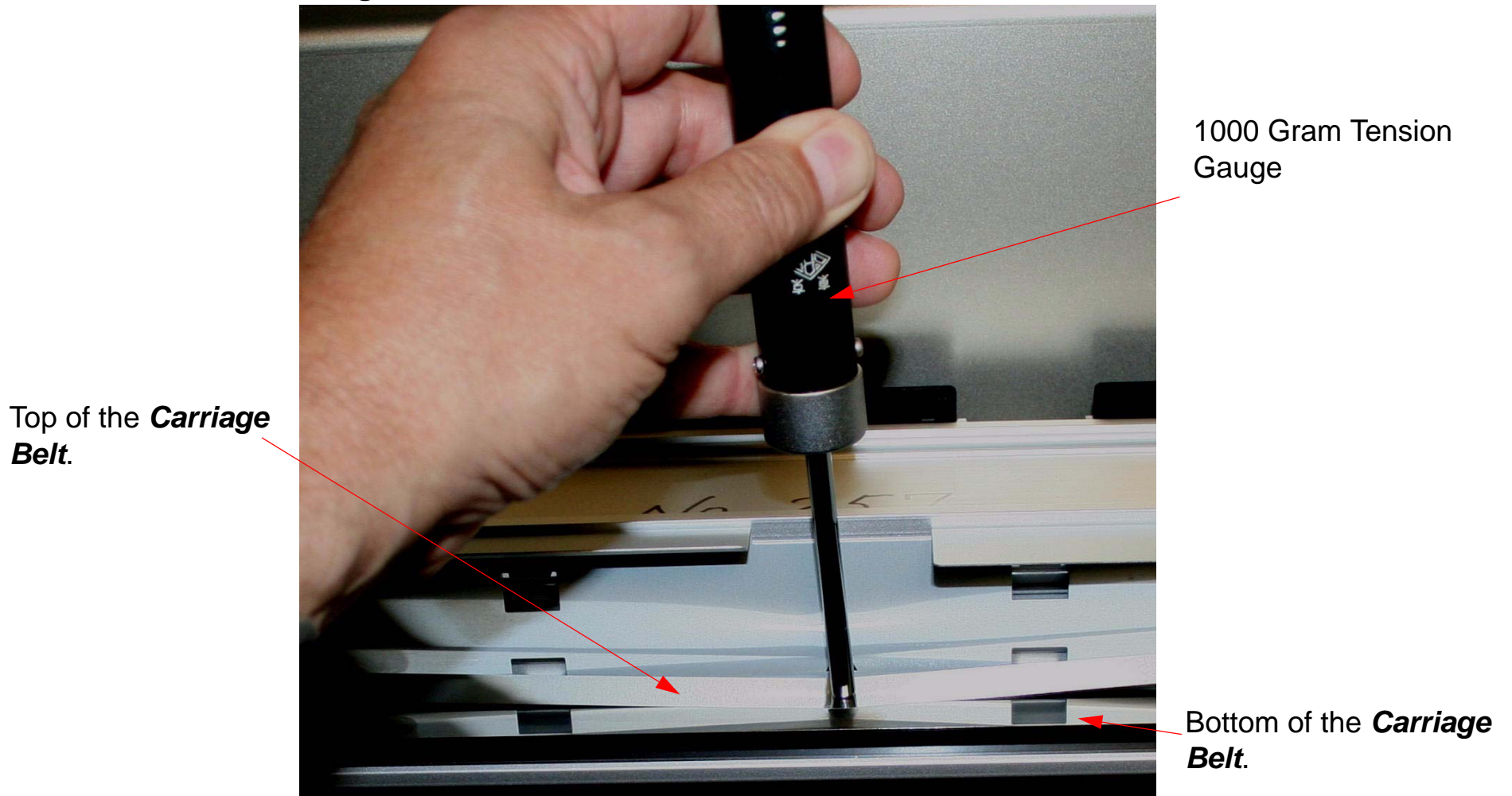
4. Remove **Carriage Belt Pulley Cover**.



1. Remove **2 Screws** that fasten the **Carriage Belt Pulley Cover** to the **Printer**.

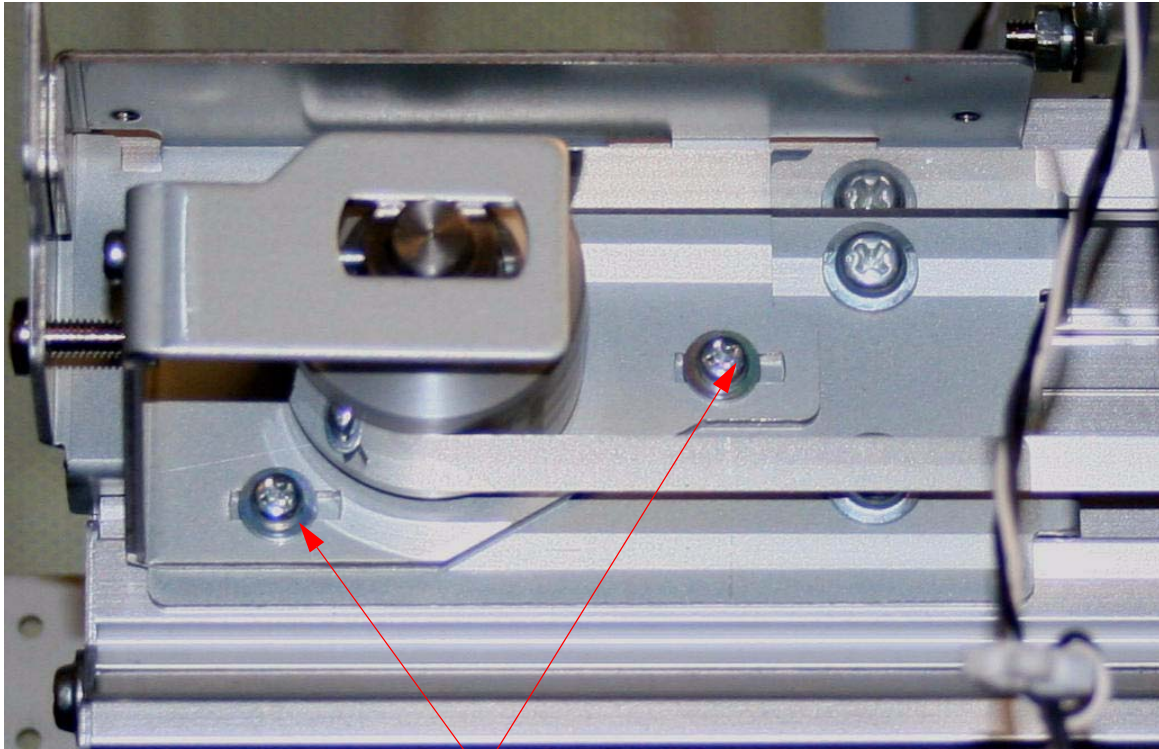
2. Remove the **Carriage Belt Pulley Cover**.

5. Measure the **Carriage Belt** tension.

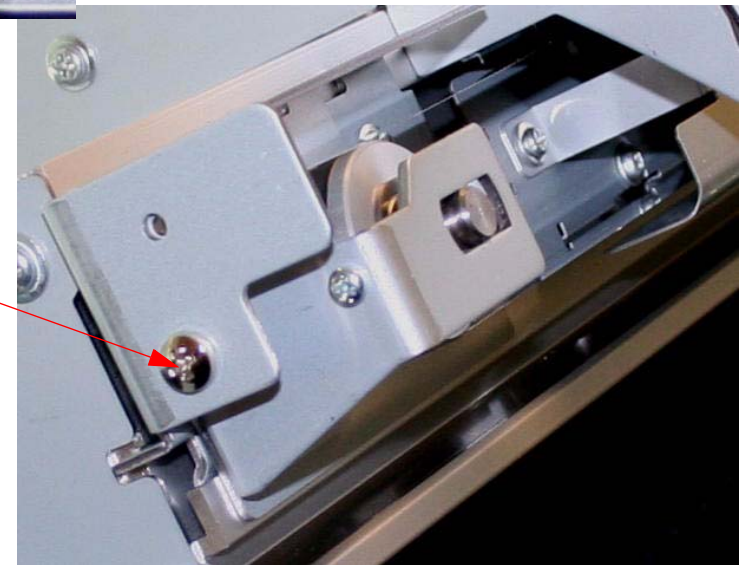


Push down on the **Carriage Belt**. It should take 800 grams of force to make the top of the **Carriage Belt** touch the bottom (+ or - 50grams)

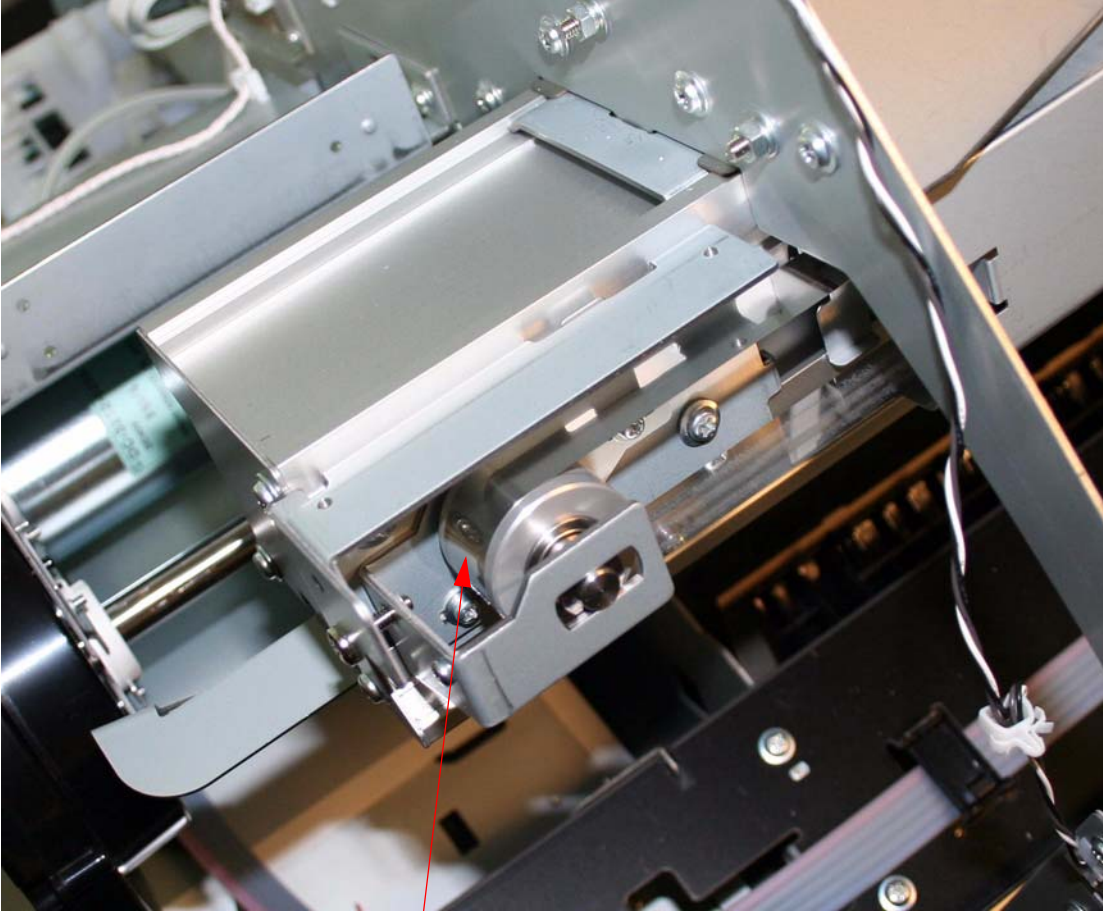
6. Adjust the **Carriage Belt** tension.



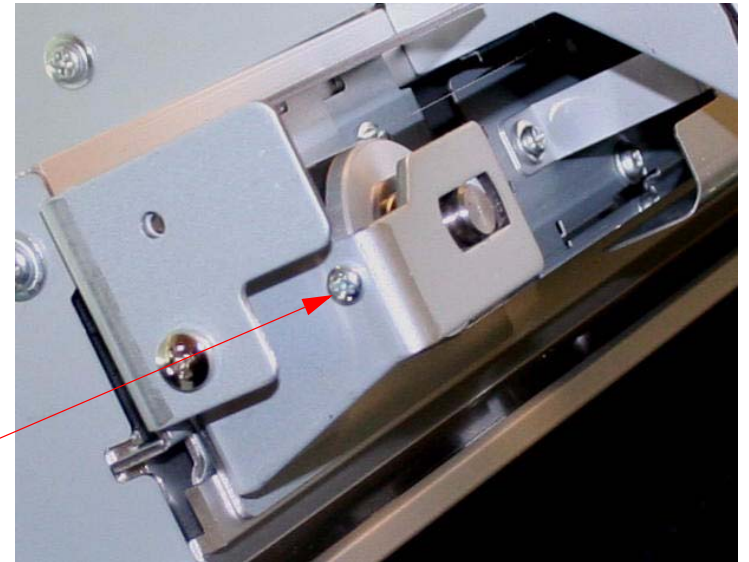
1. Loosen **2 Screws**.
2. Turn this **Screw** to adjust the tension.
Clockwise to tighten the **Belt**.
Counter clockwise to loosen the **Belt**.
3. Repeat measuring the tension and adjusting the tension until it is correct.



7. Adjust the tracking of the **Carriage Belt**.



1. Move the **Carriage Assembly** back and forth while observing the **Carriage Belt** on the **Carriage Belt Pulley**.
2. Turn this **Screw** until the **Carriage Belt** remains centered on the **Carriage Belt Pulley**, when the **Carriage Assembly** is moved back and forth.



Check Network Communication

Note: The *Check Network Communication* adjustment item tests the Ethernet Port on the Printer.

1. Prepare the **Printer's Ethernet Port** for the test.
 - 1.1 Enter the User **Menu** on the **Printer**, and navigate to **NETWORK SETUP**.
 - 1.1.1 Set the **NETWORK SETUP** to **ENABLE**.
 - 1.2 Navigate within the **NETWORK SETUP** menu to **IP ADDRESS SETTING**.
 - 1.2.1 Set the **IP ADDRESS SETTING** to **AUTO**.
2. Connect the **Printer's Ethernet Port** to a DHCP network.
 - 2.1 The DHCP network will assign an IP Address to the **Printer**.
3. Determine the IP Address assigned to the **Printer** by the DHCP network.
 - 3.1 Enter the User **Menu** on the **Printer**, and navigate to **TEST PRINT**.
 - 3.2 Navigate within the **TEST PRINT** menu to **NETWORK STATUS SHEET**.
 - 3.2.1 Print the **NETWORK STATUS SHEET**.
 - 3.3 Locate the **Printer's** IP Address on page 1 of the Network Status Sheet print out.
4. Load paper into the **Printer** (any kind).

Note: Steps 1 - 3 describe a method for assigning an IP Address using a network that supports DHCP protocol. It is also possible to use a direct connection between a computer and the Printer. A cross over ethernet cable and a manual IP Address must be used for a direct connection.

5. From the **Adjustment Wizard** for the Pro 11880, select **Check Network Communication**.

Adjustment Wizard 2

Check Network Communication

Function Key
F1:CL1 F2:CL2 F3:CL3

Use this to check if a communication with the printer can be established via a network.

1. Enter the IP address of the printer, and press [Run]
When the network communication is available, a status sheet is printed automatically.

2. Click the [Finish] button.

IP address

136 . 239 . 96 . 103

Run

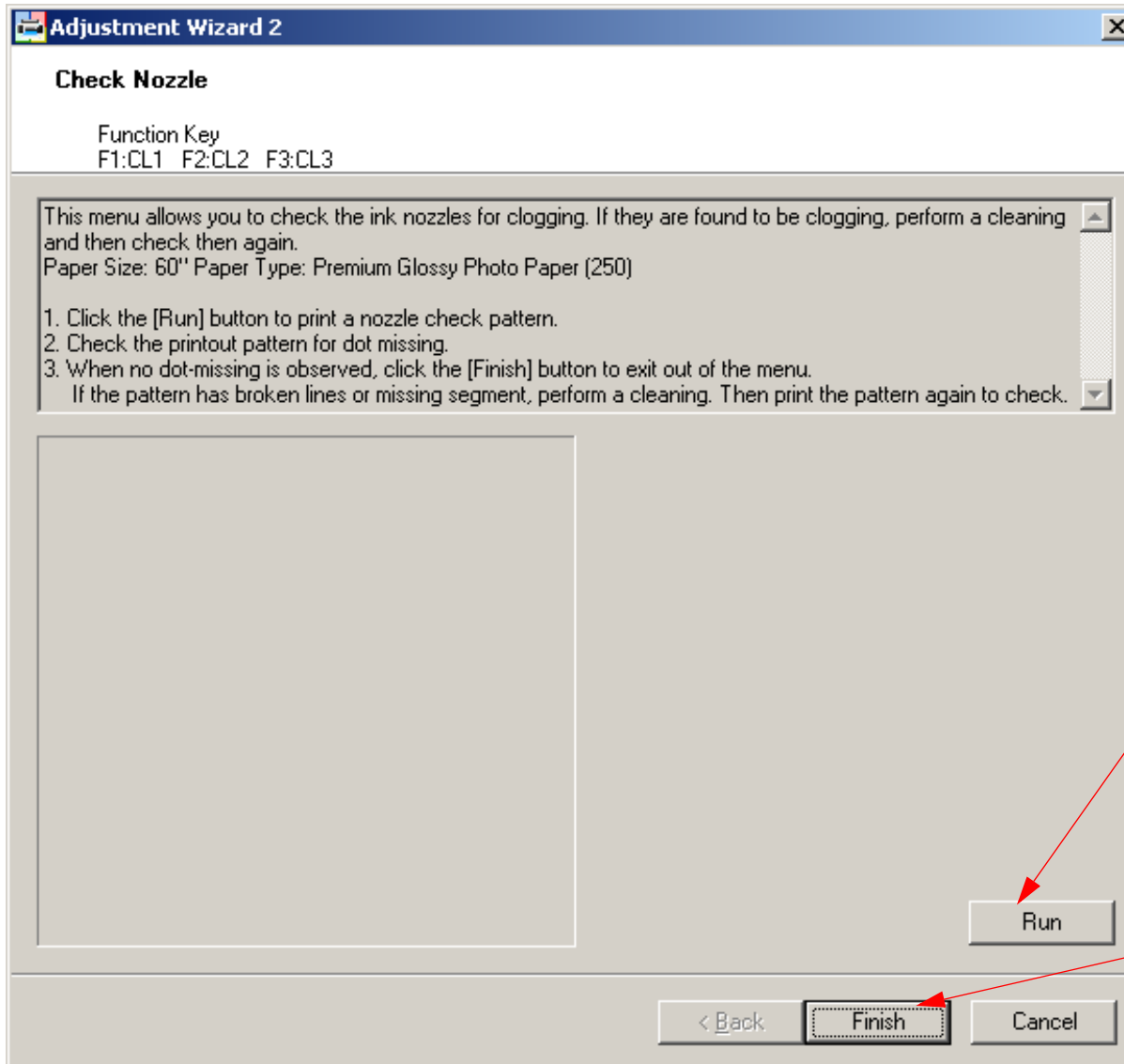
< Back Finish Cancel

1. Enter the **Printer's** IP Address.
2. Click on the **Run** button to start the test.
3. The **Printer** will print out a Status Sheet (test print).
4. Click on **Finish** to return to the main menu.

Check Nozzle

Note: Check Nozzle performs a user Nozzle Check.

1. From the **Adjustment Wizard** for the 11880, select **Check Nozzle**.



1. Load paper.

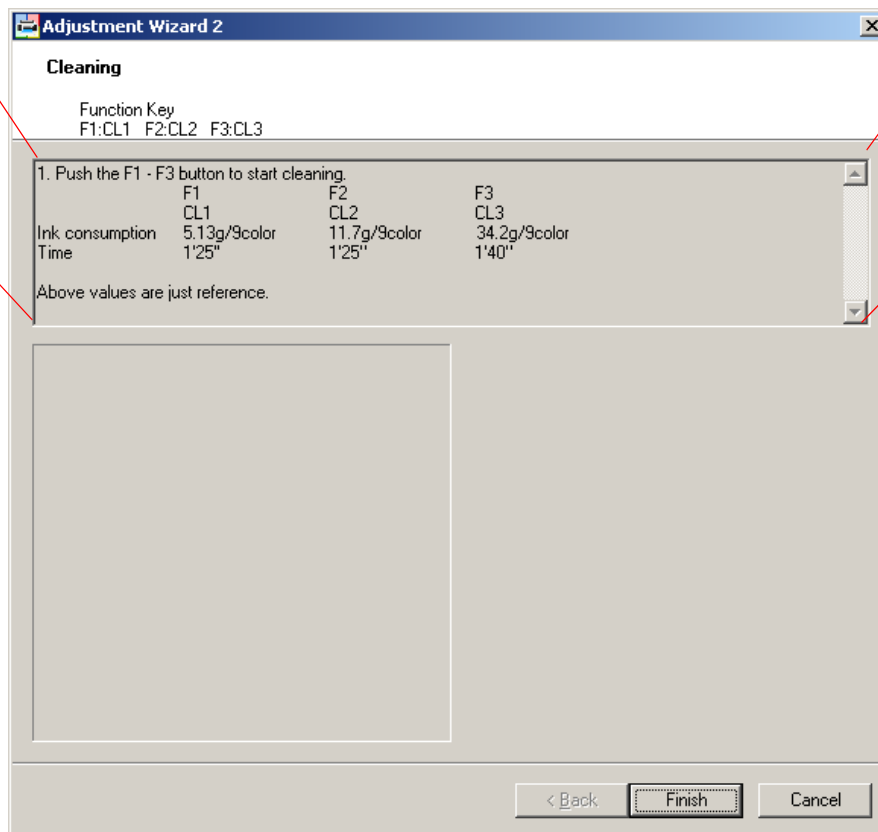
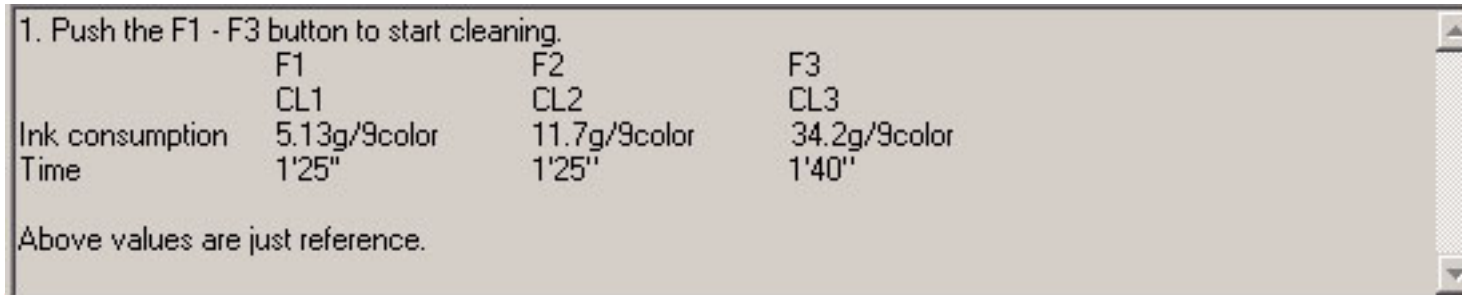
2. Click on **Run** to print the pattern.

3. Click on **Finish** when done.

Cleaning

Note: Cleaning allows various cleaning cycles accessed with the function keys.

1. From the **Adjustment Wizard** for the Pro 7800 / 9800, select **Cleaning**.

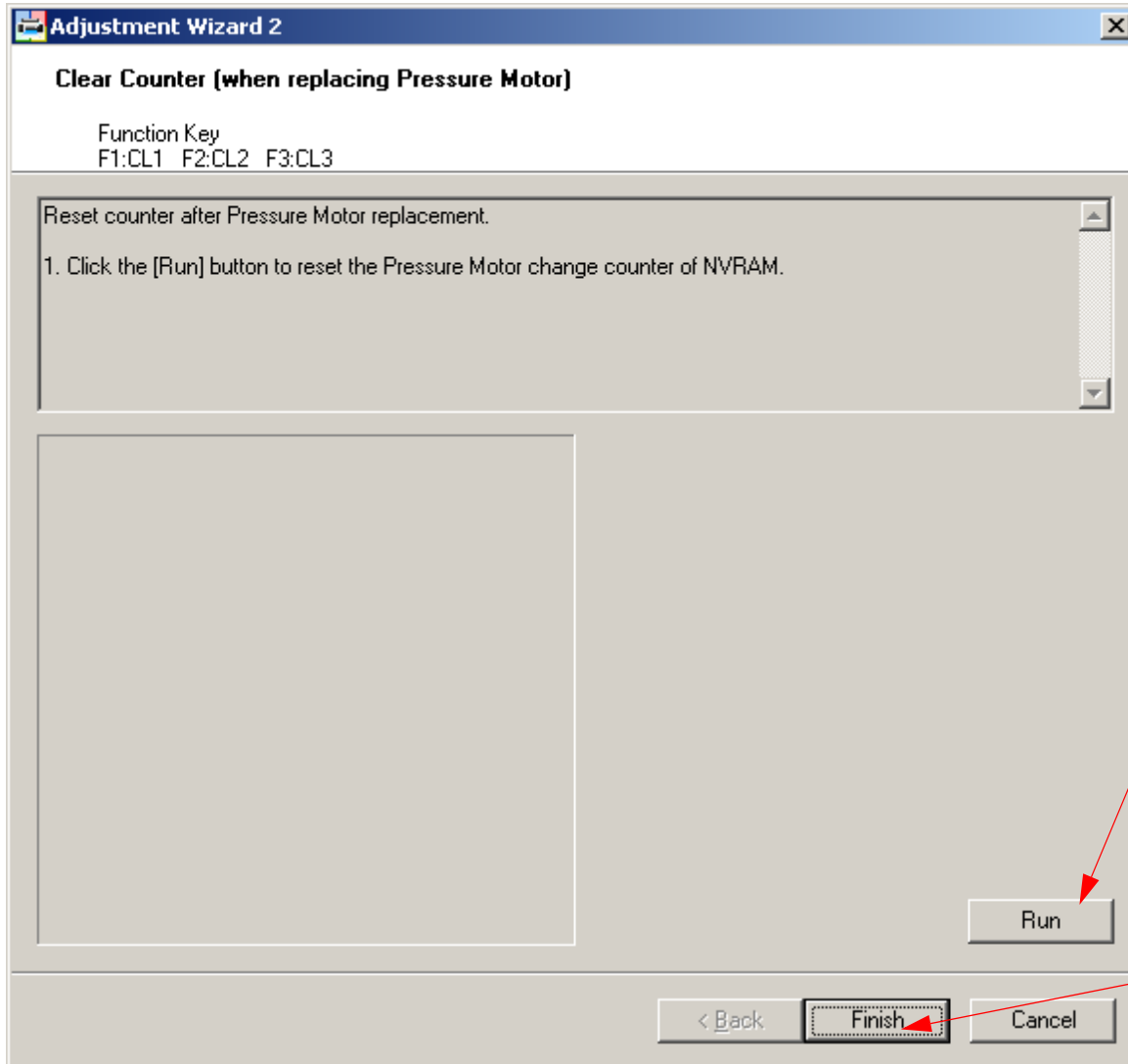


CL1 (5ml)
CL2 (11ml)
CL3 (34ml)

Clear Counter [when replacing AID]

Note: *Clear Counter [when replacing AID] resets the AID Board Counter.*

1. From the **Adjustment Wizard** for the 11880, select **Clear Counter [when replacing AID]**.



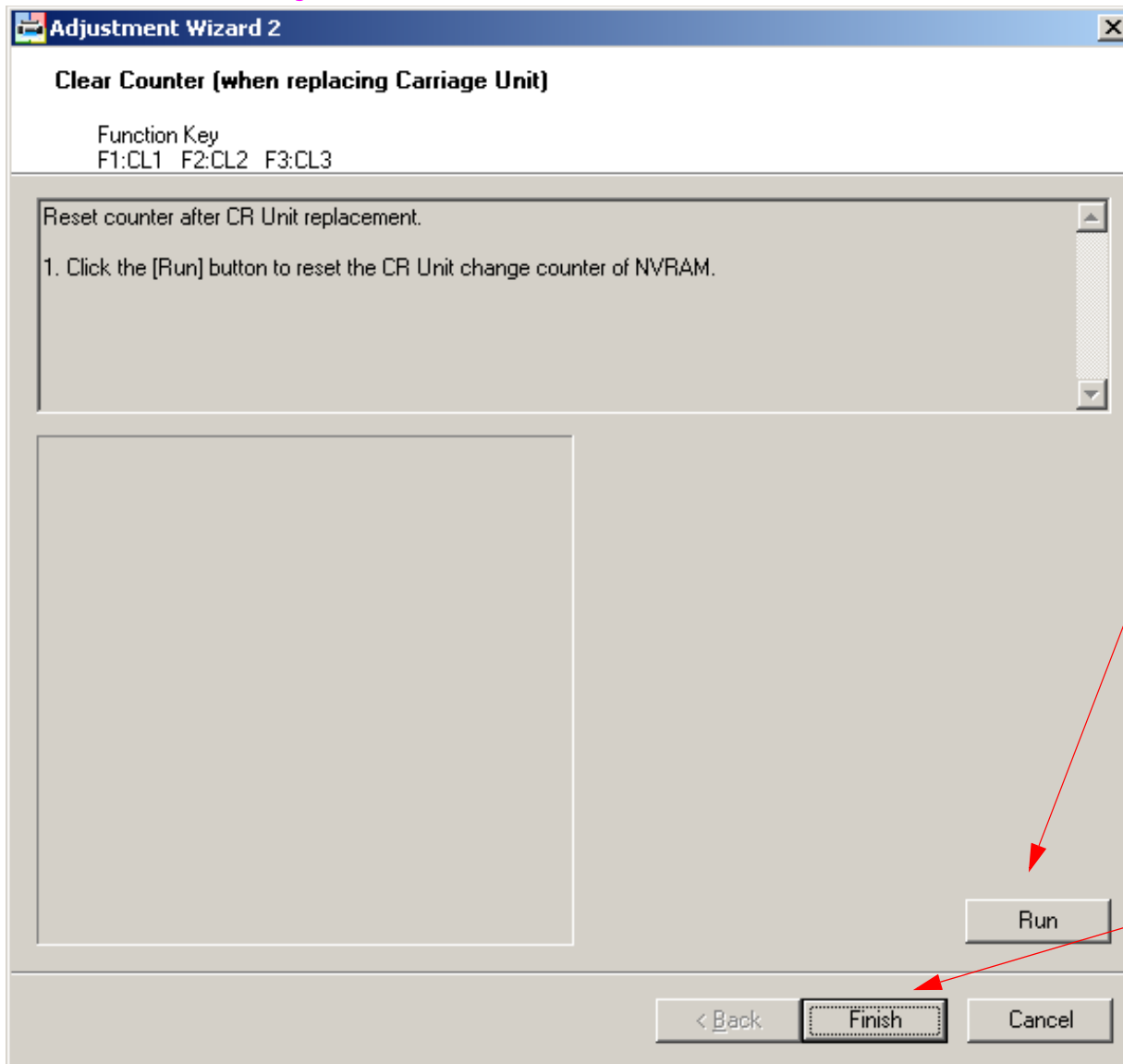
1. Click on **Run** to reset the **AID Board** Counter.

2. Click on **Finish** when done.

Clear Counter [when replacing Carriage Unit]

Note: *Clear Counter [when replacing Carriage Unit]* resets the Carriage Motor counter.

1. From the **Adjustment Wizard** for the 11880, select **Clear Counter [when replacing Carriage Unit]**.



1. Click on **Run** to reset the **Carriage Assembly** counter.

2. Click on **Finish** when done.

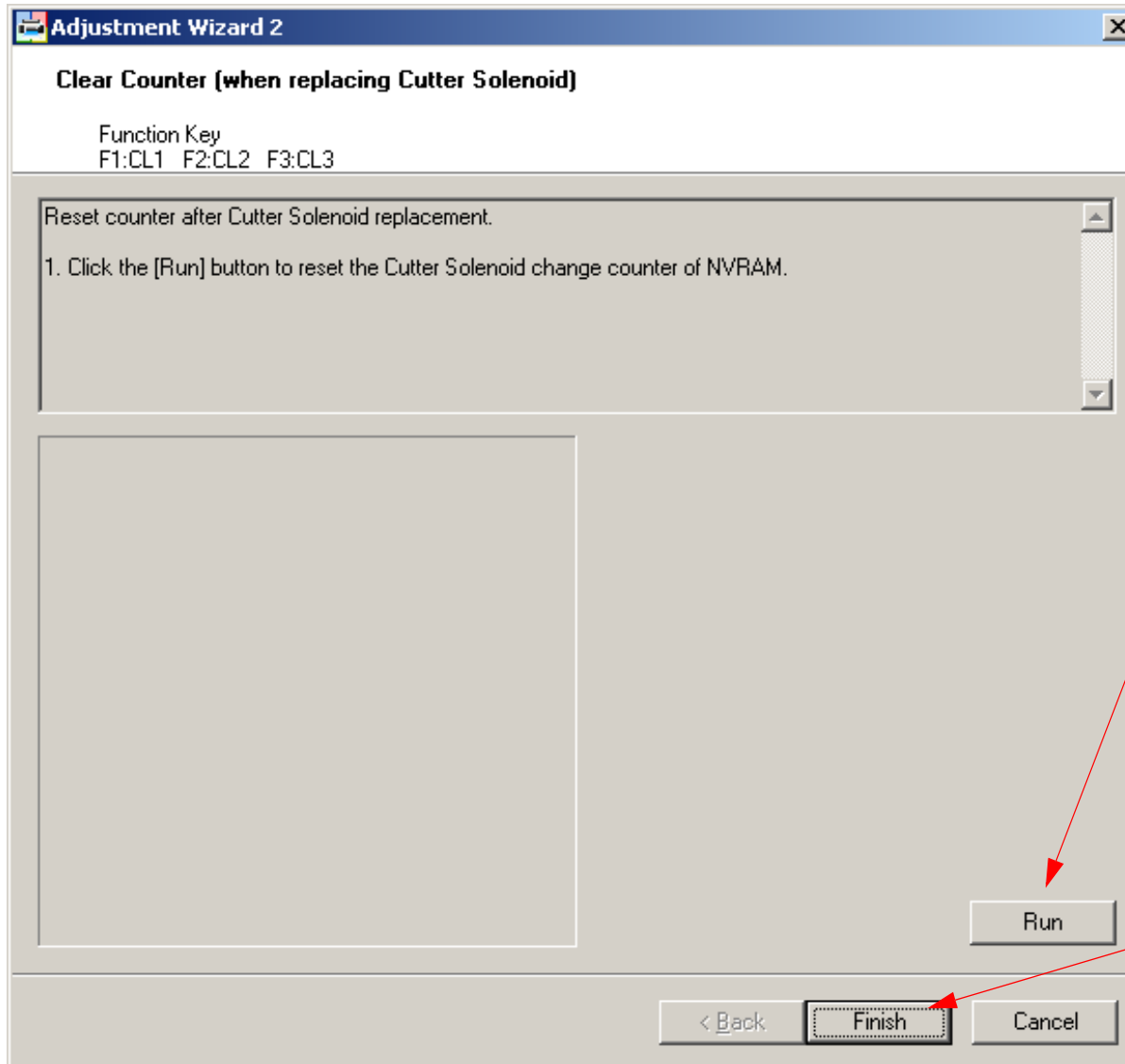
Clear Counter [when replacing Carriage Holder (Ink Pad)]

*Note: Clear Counter [when replacing Carriage Holder (Ink Pad)] clears a counter that does not exist.
Do not Use.*

Clear Counter [when replacing Cutter Solenoid]

Note: *Clear Counter [when replacing Cutter Solenoid]* resets the Cutter Solenoid counter.

1. From the **Adjustment Wizard** for the 11880, select **Clear Counter [when replacing Cutter Solenoid]**.



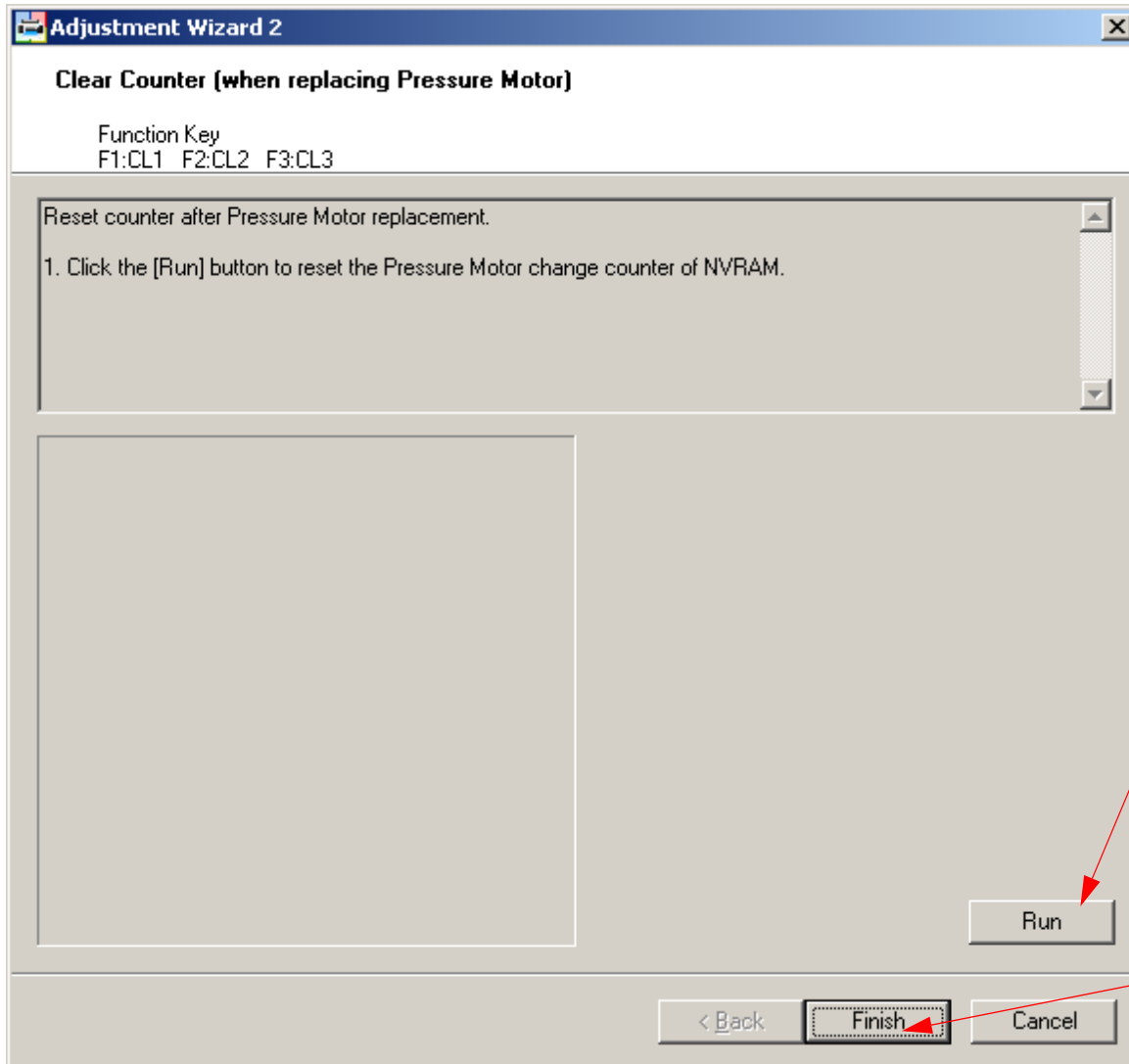
1. Click on **Run** to reset the **Cutter Solenoid** counter.

2. Click on **Finish** when done.

Clear Counter [when replacing INK SYSTEM ASSY]

Note: Clear Counter [when replacing INK SYSTEM ASSY] resets the Cleaning Unit Counter.

1. From the **Adjustment Wizard** for the 11880, select **Clear Counter [when replacing INK SYSTEM ASSY]**.



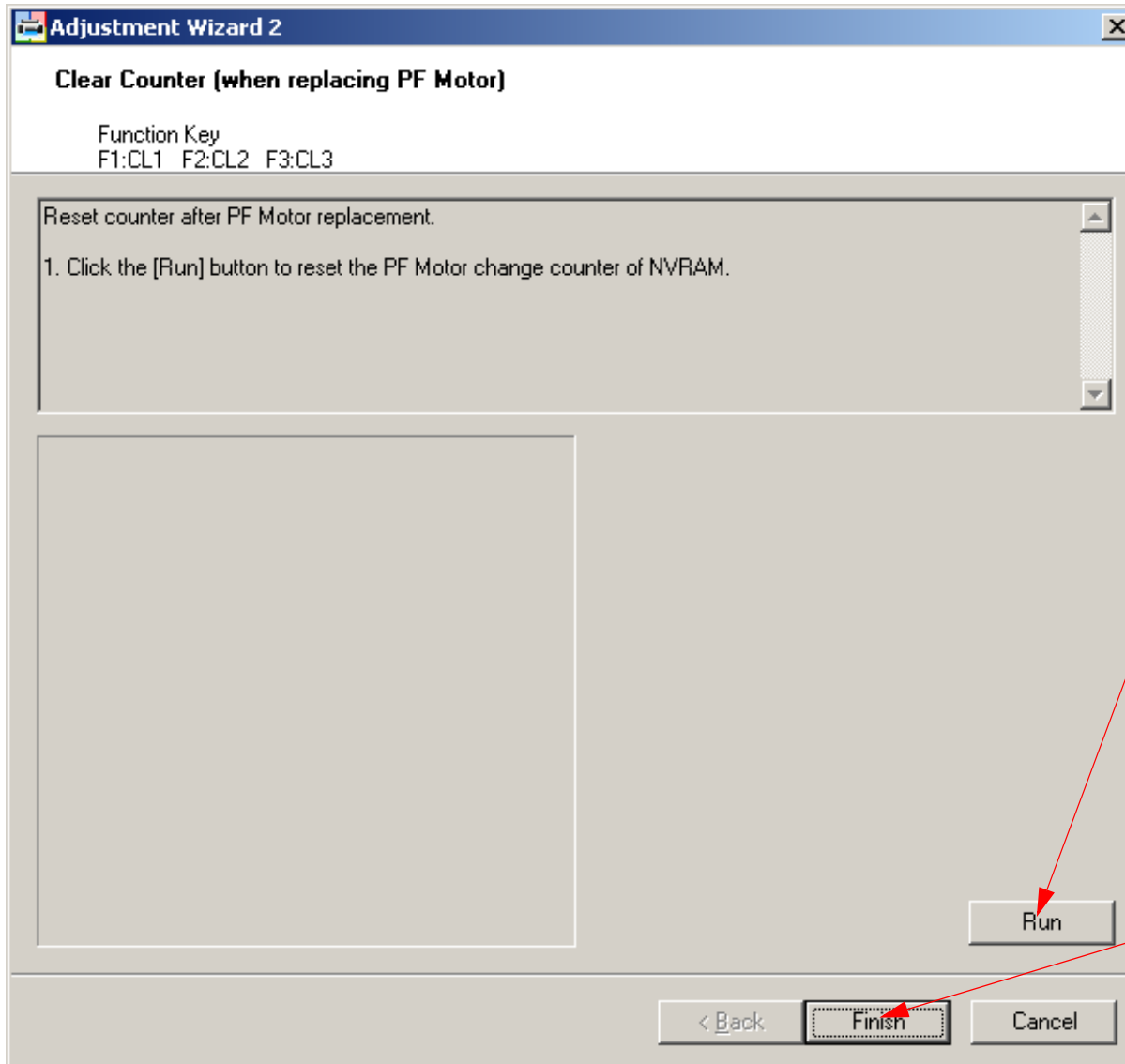
1. Click on **Run** to reset the **Ink System** counter.

2. Click on **Finish** when done.

Clear Counter [when replacing PF Motor]

Note: *Clear Counter [when replacing PF Motor]* resets the Paper Feed Motor Counter.

1. From the **Adjustment Wizard** for the 11880, select **Clear Counter [when replacing PF Motor]**.



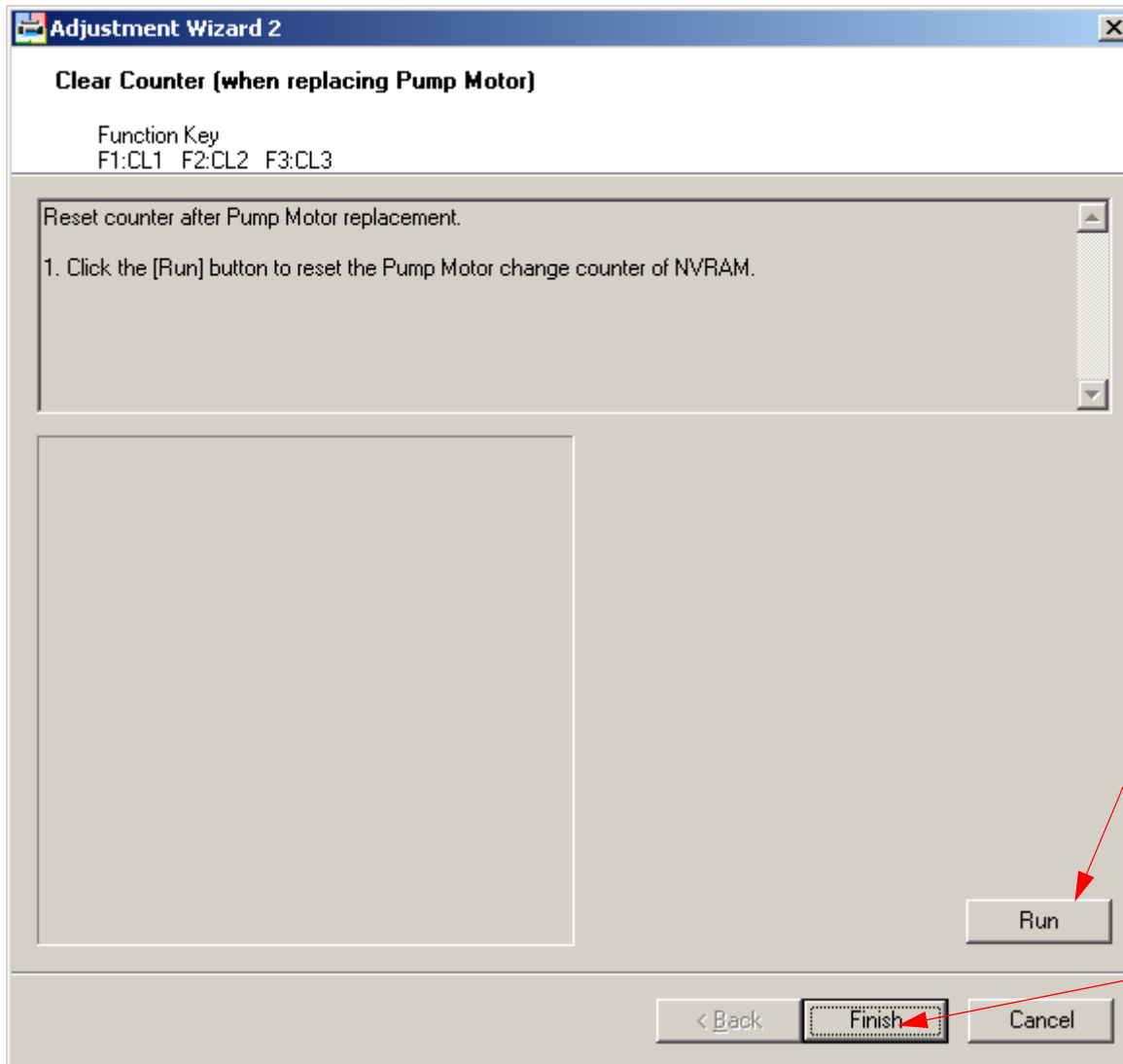
1. Click on **Run** to reset the **Paper Feed Motor** counter.

2. Click on **Finish** when done.

Clear Counter [when replacing Pump Motor]

Note: *Clear Counter [when replacing Pump Motor]* resets the Pump Motor counter.

1. From the **Adjustment Wizard** for the 11880, select **Clear Counter [when replacing Pump Motor]**.



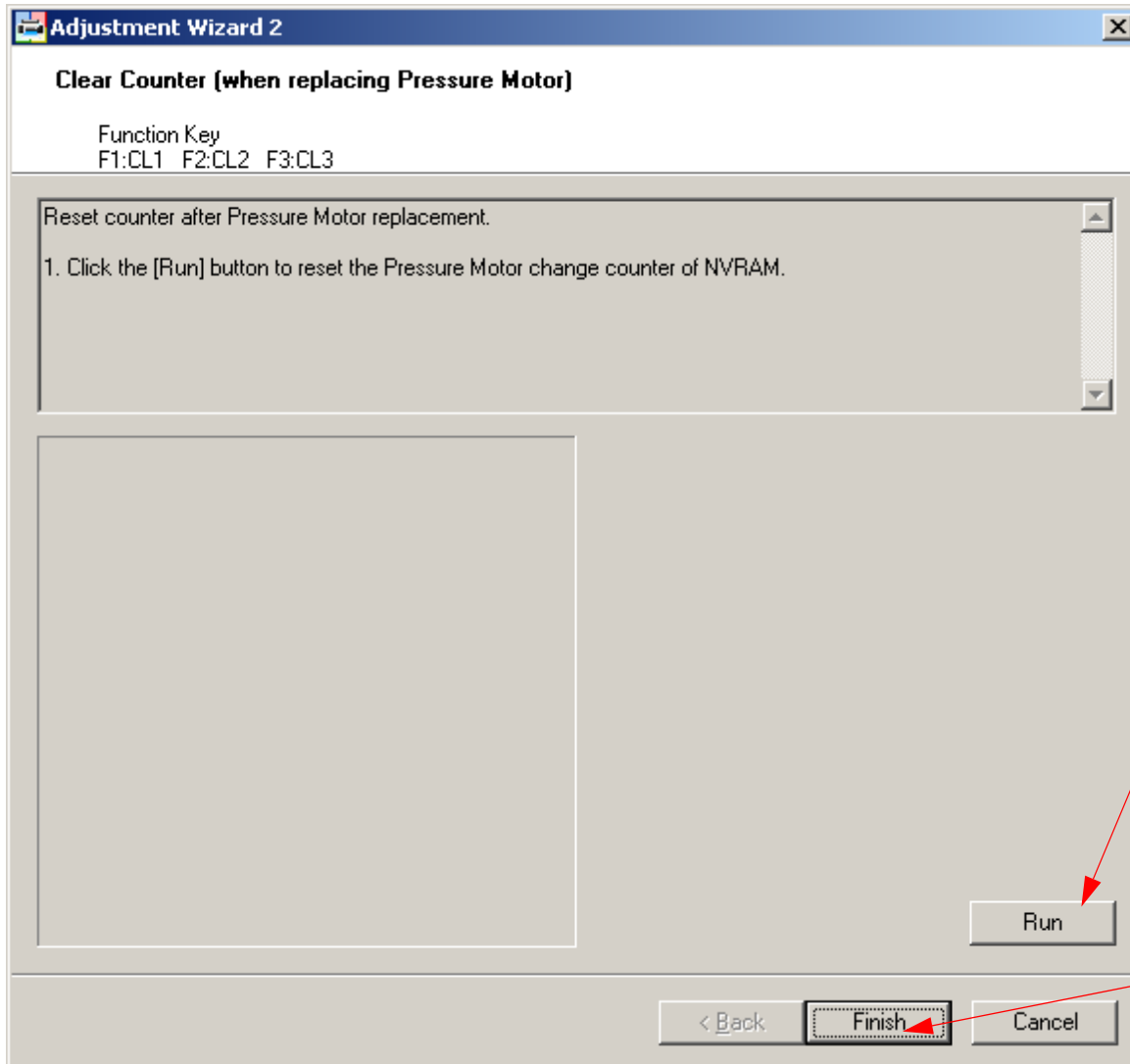
1. Click on **Run** to reset the **Cap Assembly** counter.

2. Click on **Finish** when done.

Clear Counter [when replacing Pressure Motor]

Note: *Clear Counter [when replacing Pressure Motor] resets the Ink System Pressure Pump Assembly Counter.*

1. From the **Adjustment Wizard** for the 11880, select **Clear Counter [when replacing Pressure Motor]**.



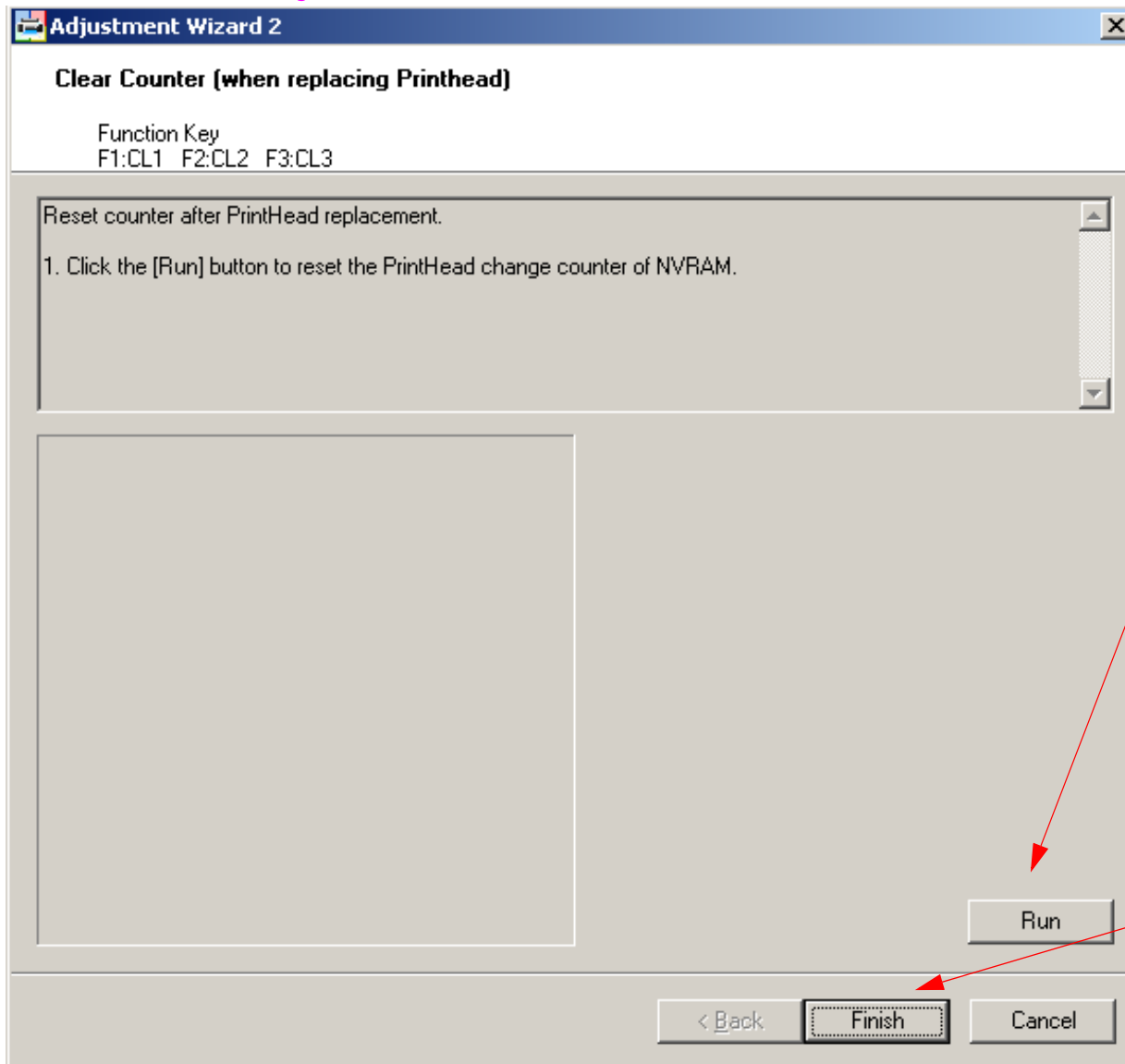
1. Click on **Run** to reset the **Ink System Pressure Pump Assembly** Counter.

2. Click on **Finish** when done.

Clear Counter [when replacing Printhead]

Note: *Clear Counter [when replacing Printhead]* resets the *Print Head Counter*.

1. From the **Adjustment Wizard** for the 11880, select **Clear Counter [when replacing Printhead]**.



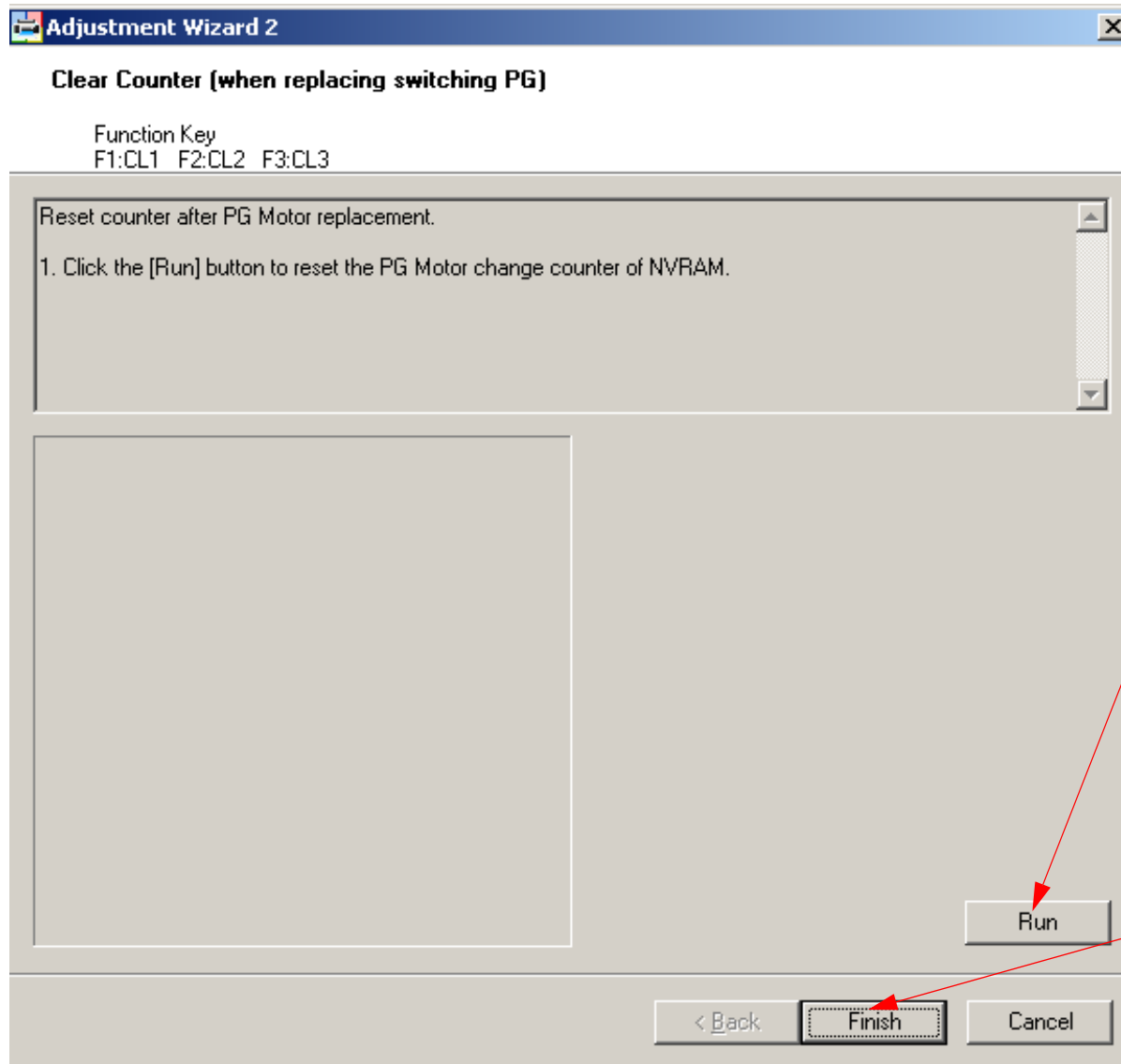
1. Click on **Run** to reset the **Print Head** counter.

2. Click on **Finish** when done.

Clear Counter [when replacing switching PG]

Note: *Clear Counter [when replacing switching PG] resets the Platen Gap Motor counter.*

1. From the **Adjustment Wizard** for the 11880, select **Clear Counter [when replacing Switching PG]**.



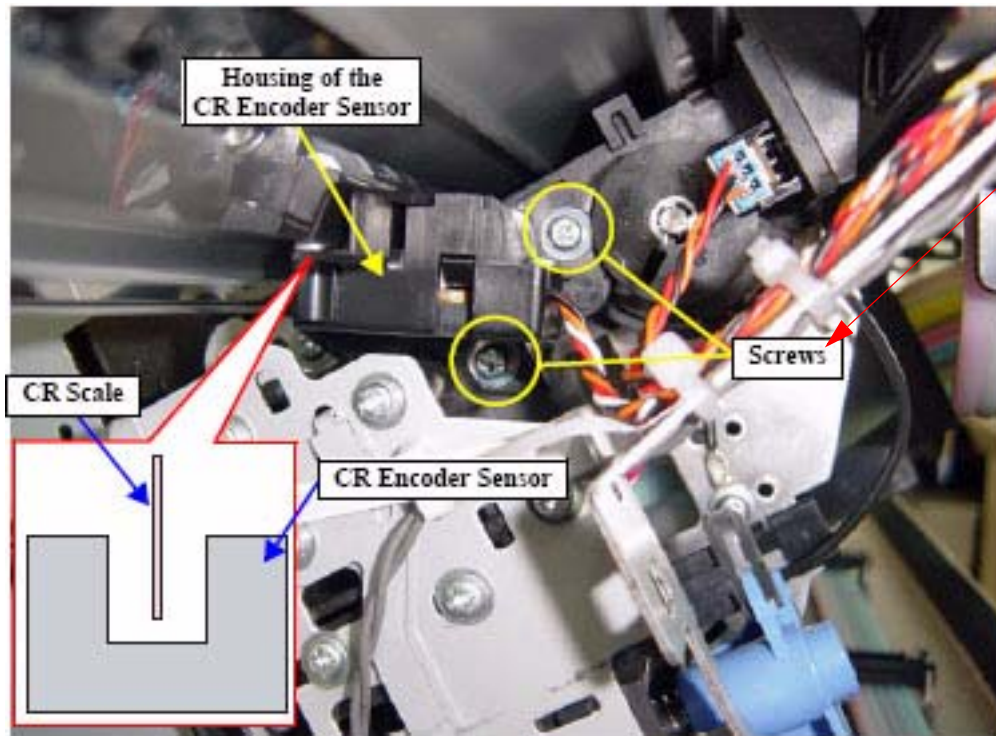
1. Click on **Run** to reset the **Platen Gap Motor** counter.

2. Click on **Finish** when done.

CR Encoder Sensor Position Adjustment

Purpose: The **Carriage Encoder Sensor Position** Adjustment is used to ensure that the **Carriage Encoder Timing Strip** is centered in the **Carriage Encoder Sensor** across the entire length of the **Printer Mechanism**.

1. Remove the **Top and Left Side Cover**.
2. Adjust the **Carriage Encoder Sensor**, until it is centered on the **Carriage Encoder Strip**.



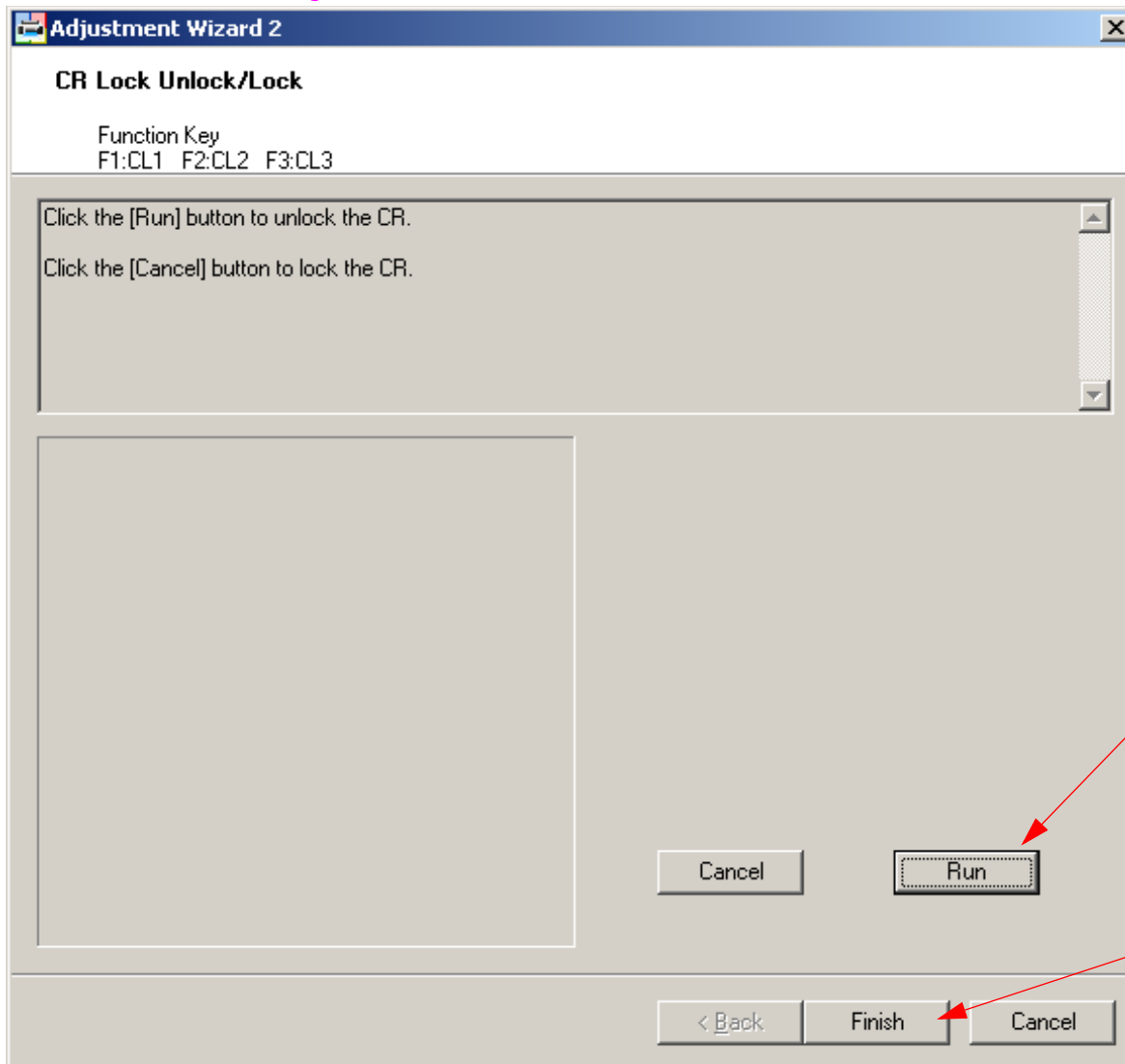
1. Loosen **2 Screws** so that the **Carriage Encoder** can be shifted forward and back.
2. Sight down the **Encoder Strip** and adjust the position of the **Carriage Encoder** until it is centered on the **Encoder Strip**.
3. Tighten **2 Screws** when adjusted.

Note: Move the Carriage Assembly and sight down the Strip. If the Encoder is not centered, the Strip will subtly shift position. Adjust until the shifting is minimized.

CR Lock UnLock/lock

Note: *CR Lock UnLock/lock* unlocks the Carriage Mechanism. (*Does not work*)

1. From the **Adjustment Wizard** for the Pro 11880, select **CR Lock UnLock/lock**.



1. Click on **Run** to start the unlock the Carriage Mechanism.

2. Click on **Finish** when completed.

Cutter Blade Position Adjustment

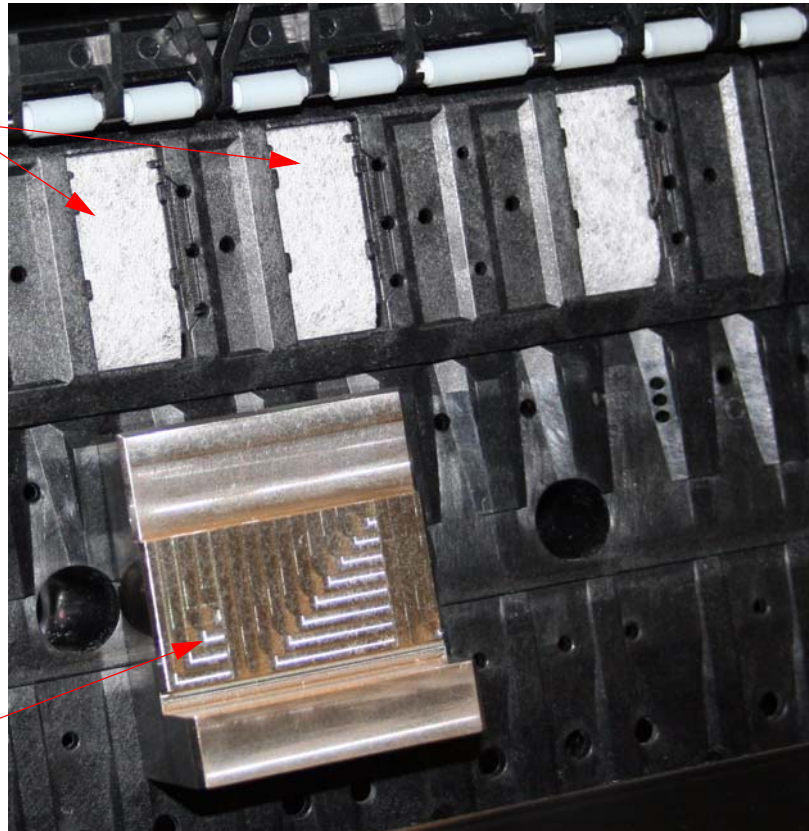
Note: The Cutter Position Adjustment sets the Cutter Blade .5mm away from the Cutter Guide. If the Cutter Position Tool is not available, adjust the Cutter Blade until it almost, but does not touch the Cutter Guide along the entire length of the Platen.

Cutter Blade Adjustment Jig Part # 1482236

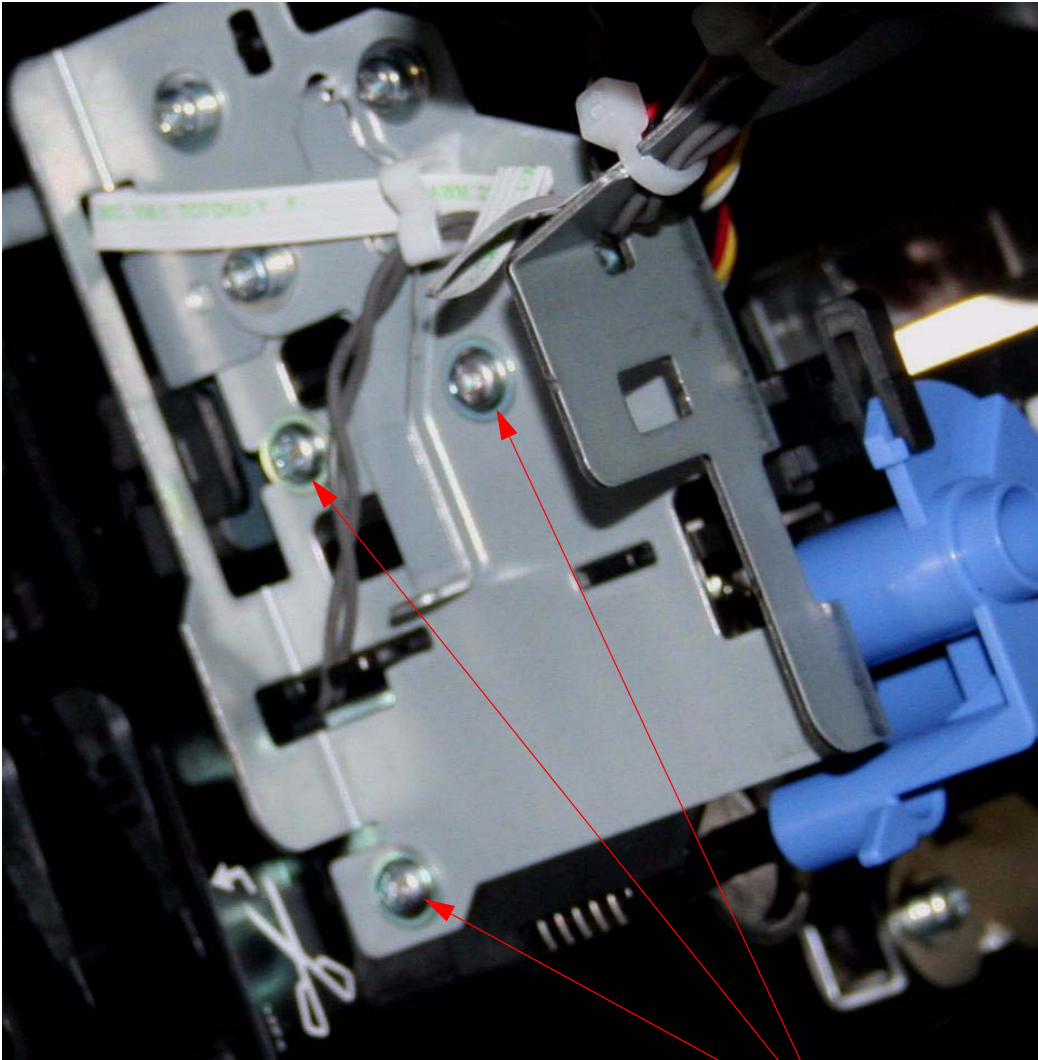
1. Remove the **Top Cover**.
2. Place the Cutter Blade Adjustment Jig on the **Platen** as shown.

Double **Borderless Overspray Pads**

Place the Jig here, directly under the closest double **Borderless Overspray Pads** to the **Cap**.

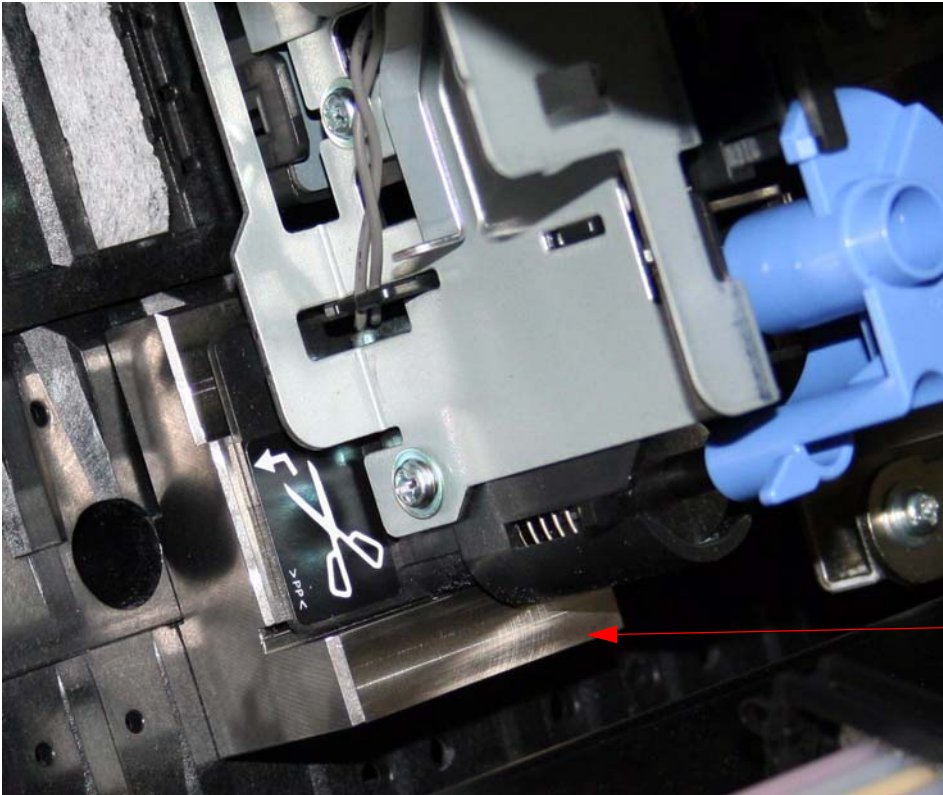


3. Loosen **3 Screws** that fasten the **Cutter Blade Assembly**.



Loosen these **3 Screws** until the **Cutter Blade Assembly** can move.

4. Move the **Carriage Mechanism** until the **Cutter Blade Assembly** is positioned over the Jig, and follow the directions below.



1. Place the **Cutter Blade Assembly** over the Jig.
2. Tighten the **3 Screws** while the **Cutter Blade Assembly** is still in contact with the **Tool**.
3. Move the **Carriage Assembly** back to the capped position.

Fan Adjustment (CR)

Note: The Fan Adjustment (CR) increases or decreases Fan suction by 10%. Fan suction is used to hold the media in place while printing.

1. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **Fan**.
 - 1.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 1.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Fan**.
2. Adjust the **Fan** suction.
 - 2.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Fan\Fan Adjust**.
 - 2.2 Press the **Right Arrow** button to turn on the **Fans**.
 - 2.3 The **Printer** will turn on the **Suction Fans** and display the adjustment menu.



The **Up Arrow** increase suction (up to 10%).

The **Down Arrow** decrease suction (up to 10%).

The **Enter** button stores the suction setting.

The **Left Arrow** exits the Fan Adjust menu.

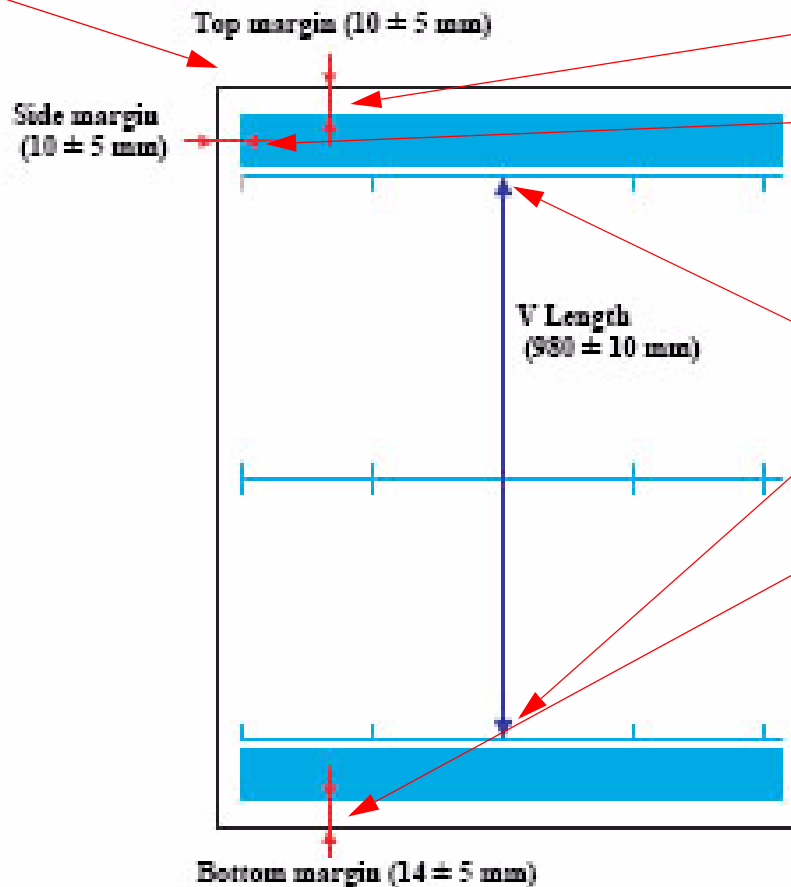
Feed Adj. +T&B Adjustment

Note: *The Feed Adj. +T&B adjustment calibrates the Paper Feed Mechanism, the top, bottom, and side margins.*

1. Load 24" Doubleweight Matte roll paper.
2. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **Feed Adj. +T&B**.
 - 2.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 2.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Feed Adj. +T&B**.
3. Print the alignment pattern.
 - 3.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Feed Adj. +T&B[Enter] Print**.
 - 3.2 Press the **Enter** button to print the pattern
4. The **Printer** will print the pattern.

5. Measure and enter the values.

Leading Edge



1. Measure the Top Margin.

2. Measure the Side Margin.

3. Measure the 980 length

4. Measure the Bottom Margin.

5. Enter the 4 measured values into the **Printer's Control Panel** when prompted.

1. From the **Adjustment Wizard** for the Pro 11880, select the **Head Rank ID**.

1. Enter the Head Rank data located on the **Print Head**.

2. Click on the **Write** button.

3. Click on the **Finish** button.

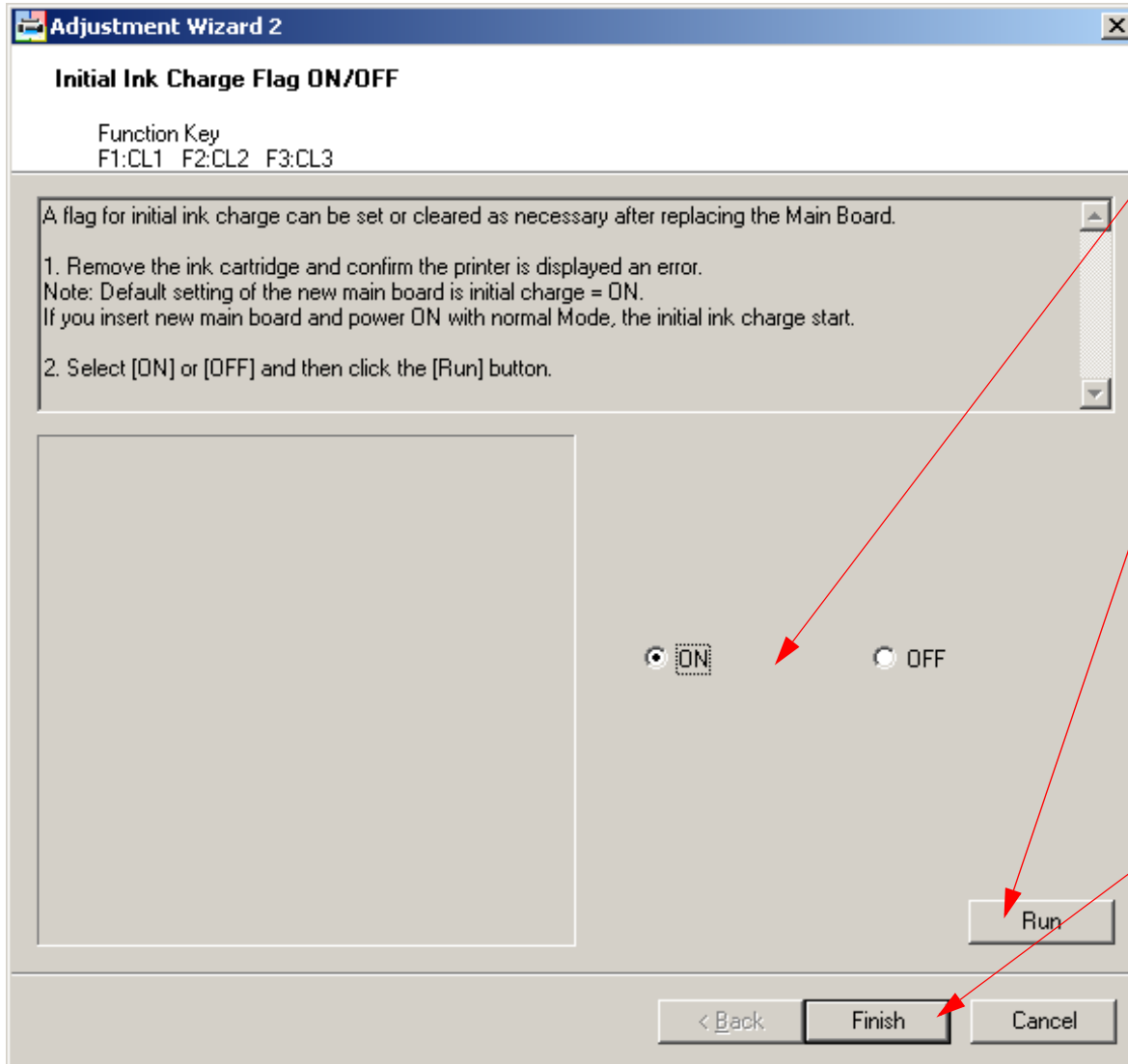
Note: If the utility displays:

“Incorrect Head Rank ID [QR Code] Input”, one or more of the digits entered is incorrect. Check that an Zero was not entered as a O, etc.

Initial Ink Charge Flag On/Off

Note: The Initial Ink Charge Flag when On (Set) commands the Printer to prime the Ink System when the Printer is turned on.

1. From the **Adjustment Wizard** for the Pro 11880, select the **Initial Ink Charge Flag On/Off..**



1. Select **On** to prime the **Printer** the next time it is powered on. Select **Off** to cancel the prime function.

2. Click on the **Run** button to send the command to the **Printer**.

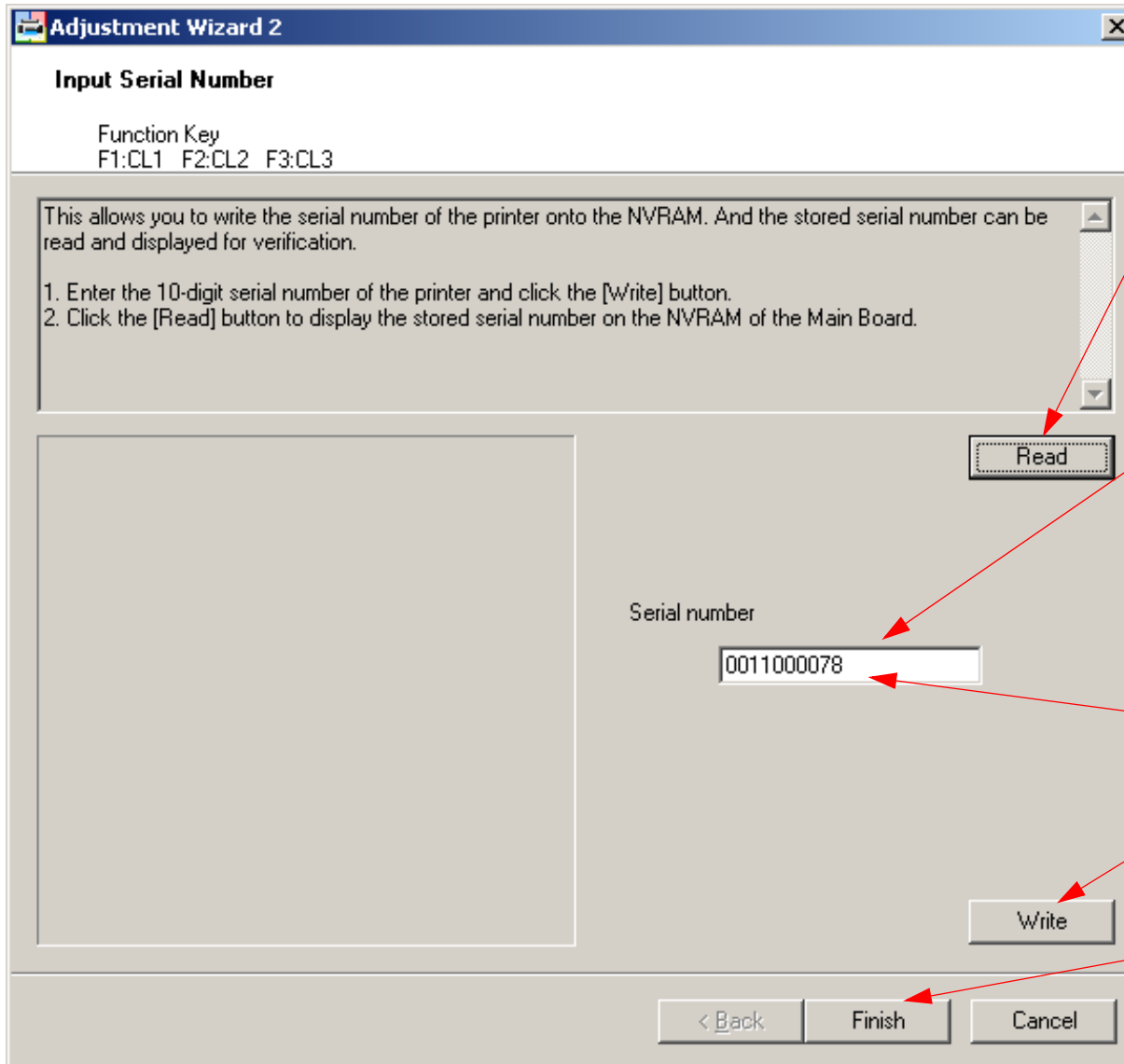
3. Click on the **Finish** Button.

Note: If the Initial Charge flat is turned **On** (Set), the Printer will prime the next time that it is turned on.

Input Serial Number

Note: *Input Serial Number reads or writes the Printer's serial number to the Main Board.*

1. From the **Adjustment Wizard** for the Pro 11880, select **Input Serial Number**.



To Read Serial Number

1. Click on **Read**, to retrieve the **Printer's** serial number from the **Main Board**.

The **Printers** serial number will be displayed here.

To write Serial Number

1. Enter the **Printer's** Serial Number.
2. Click on **Write**.
3. Click on **Finish** when completed.

IM Sensor Adjustment

Note: The IM Sensor Adjustment calibrates the sensitivity of the Ink Mark Sensor.

Note: This Adjustment also prints out the Head Rank ID (in hexadecimal format, **which will not help**).

1. Load 24" Doubleweight roll paper (any media is ok).
2. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **IM Sensor**.
 - 2.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 2.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\IM Sensor**.
3. Print the alignment pattern.
 - 3.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\IM Sensor\Enter** Print.
 - 3.2 Press the **Enter** button to print the pattern
4. The **Printer** will print the pattern, and complete the adjustment.

IM (Ink Mark) Sensor Position Adjustment

Note: This mechanical adjustment fixes the physical position of the Ink Mark Sensor. The Ink Mark Sensor is used for Auto Bi-d and Uni-d Alignments.

IM Sensor Adjustment Jigs: Part #'s (1482238 and 1482239)

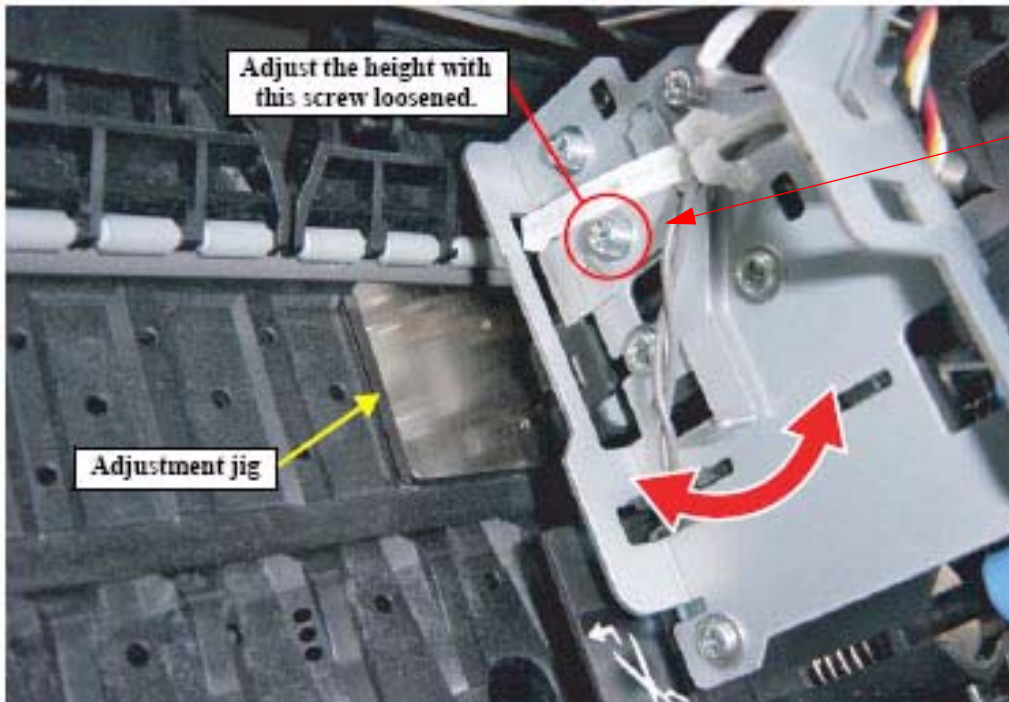
1. Place the **IM Sensor Adjustment Jig** as shown below. The **IM Sensor Adjustment Tool** is 3mm thick.

Second
from the
**Cap, Pinch
Rollers.**



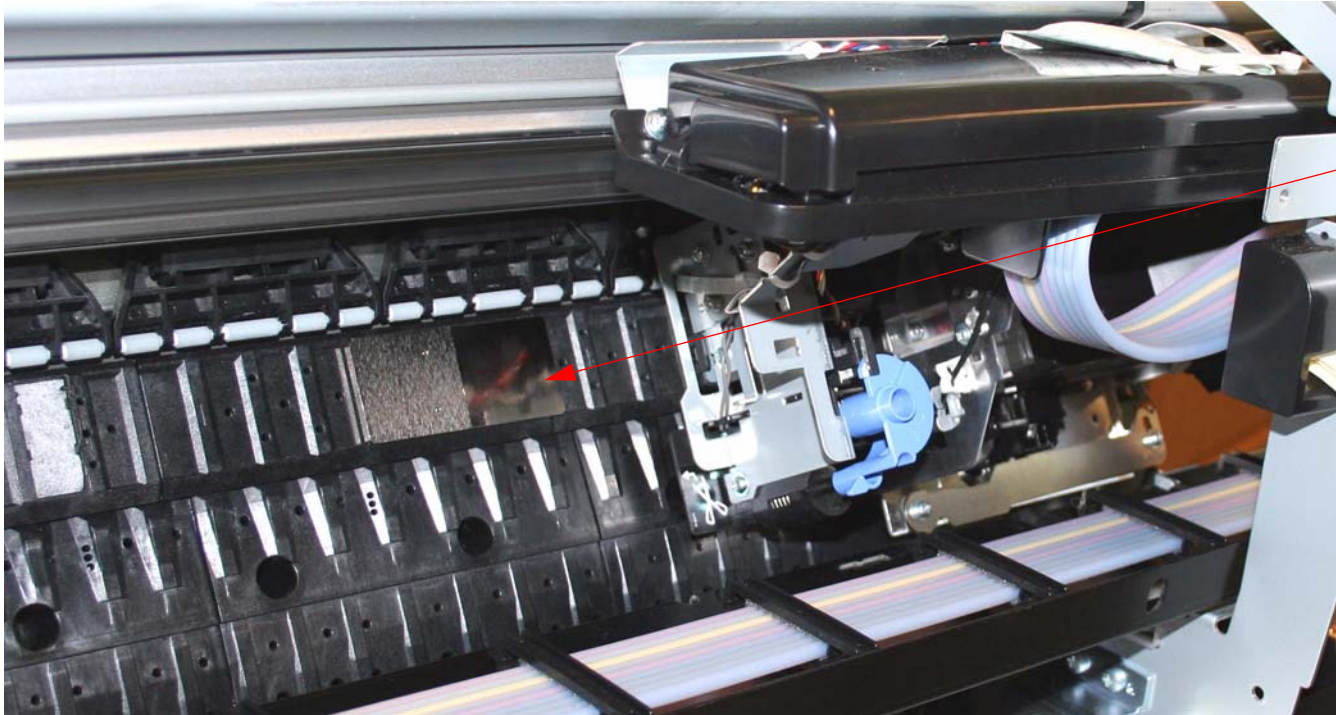
Place the single thickness, **IM Sensor Adjustment Jig** here. Use a 3mm feeler gauge if the **IM Sensor Adjustment Tool** is not available.

2. Move the **IM Sensor** over the **IM Sensor Adjustment Jig**, and adjust the **IM Sensor** position.

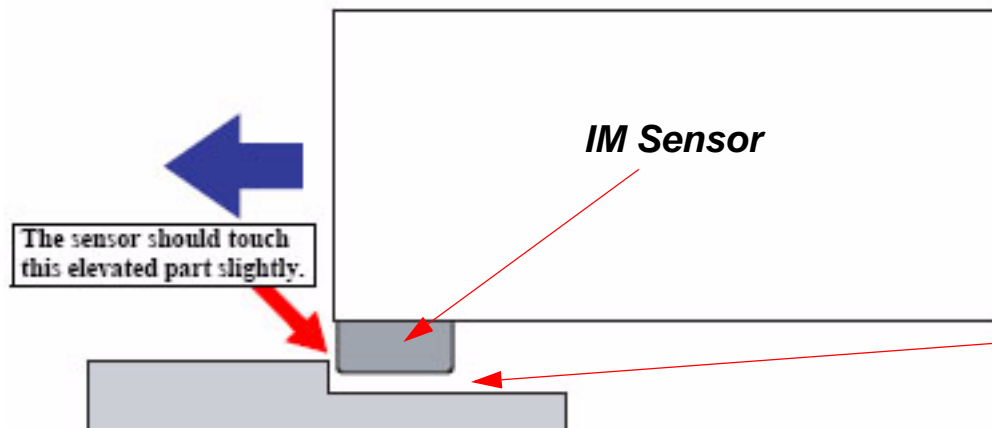


1. Loosen the **IM Sensor Set Screw**.
2. Move the **Carriage / IM Sensor** over the **IM Sensor Adjustment Tool**.
3. Drop the **IM Sensor** until it touches the **IM Sensor Adjustment Tool**.
4. Tighten the **IM Sensor Set Screw**.
5. Move the **Carriage** back to the capped position.

3. Verify the **Proper IM Sensor** position adjustment.



1. Place the 2 thickness, **IM Sensor Adjustment Jig** here.



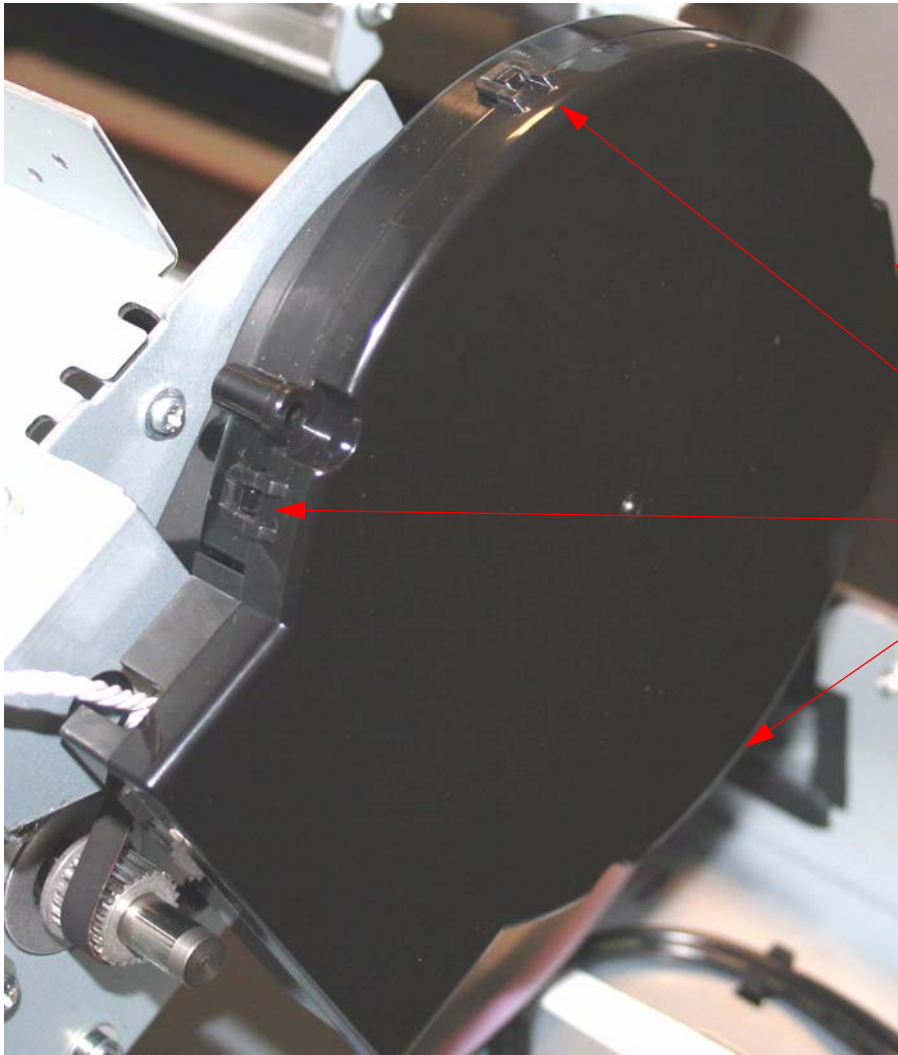
2. Move the **Carriage / IM Sensor** over the **IM Sensor Adjustment Tool**.

3. Verify that the **IM Sensor** misses the lower section, and impacts the higher section of the Jig.

Paper Feed Belt Adjustment

Note: *The Paper Feed Belt Adjustment sets the proper Paper Feed Belt tension.*

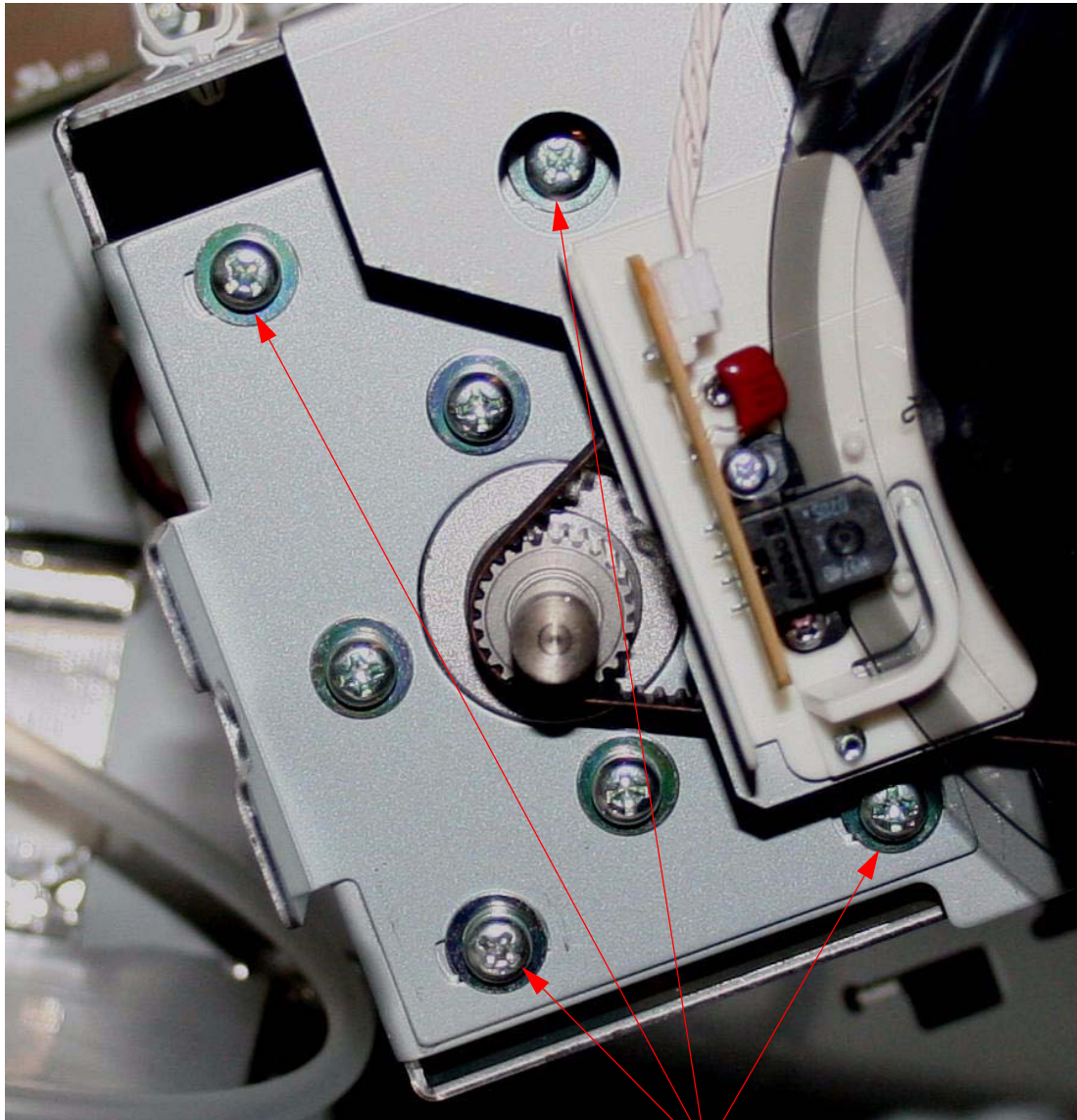
1. Remove the **Left Side Cover**.
2. Remove the **Paper Feed Encoder Scale Cover**.



1. Release **4 Interlocks**.

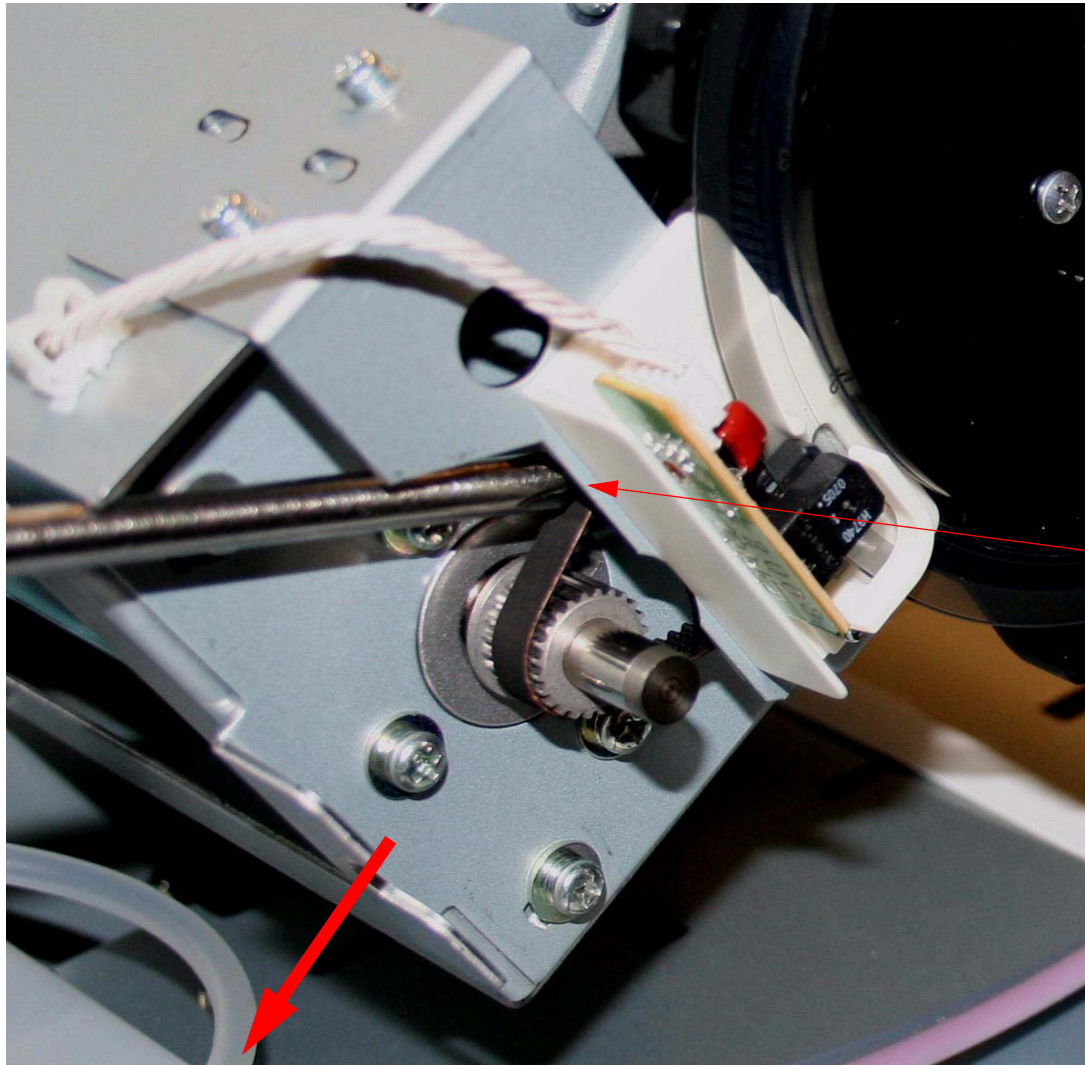
2. Remove the **Cover**.

3. Loosen **4 Screws** that fasten the ***Paper Feed Motor Bracket***.



Loosen **4 Screws** that fasten the ***Paper Feed Motor Bracket***.

4. Slide the **Paper Feed Motor Bracket** until the **Paper Feed Belt** has 1/8" of deflection.



1. Apply tension to the **Paper Feed Belt** by sliding the **Paper Feed Motor Bracket**.

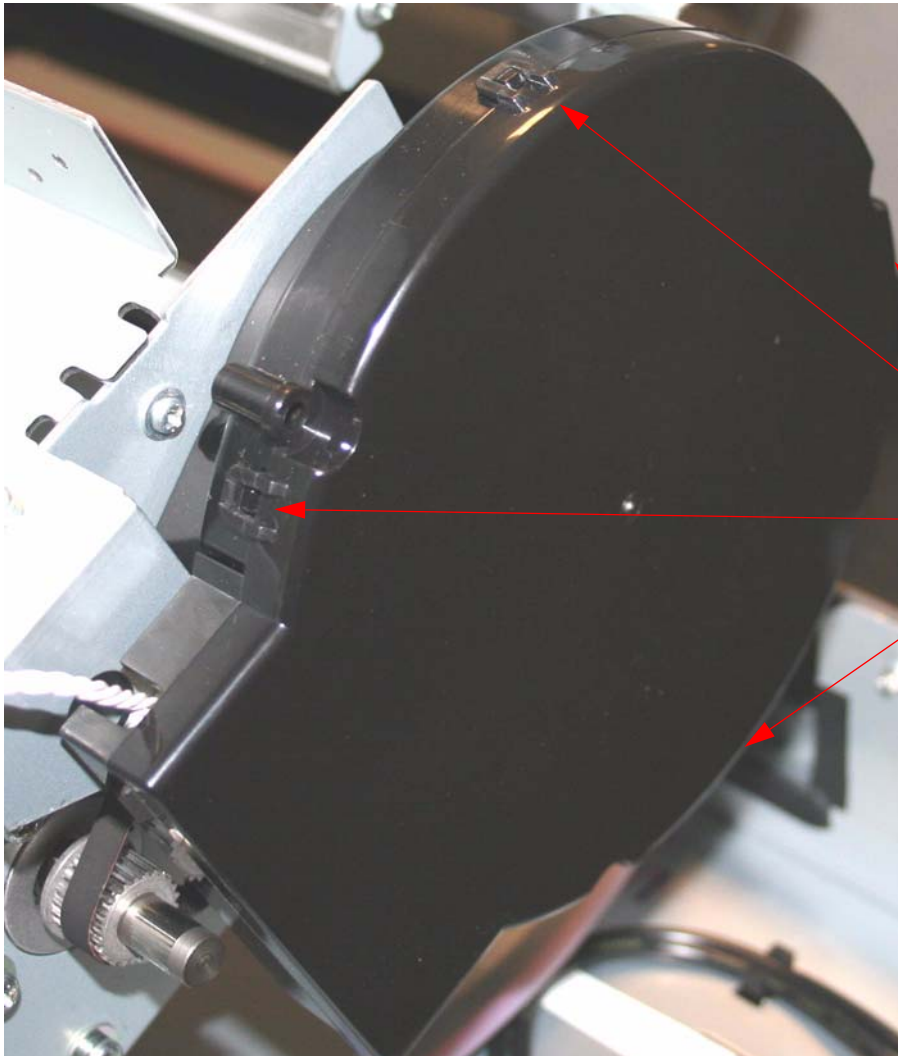
1/8" of deflection

2. Tighten **4 Screws** while maintaining tension.

5. Install the **Encoder Scale Cover**, and **Left Side Cover**.

Paper Feed Encoder Alignment

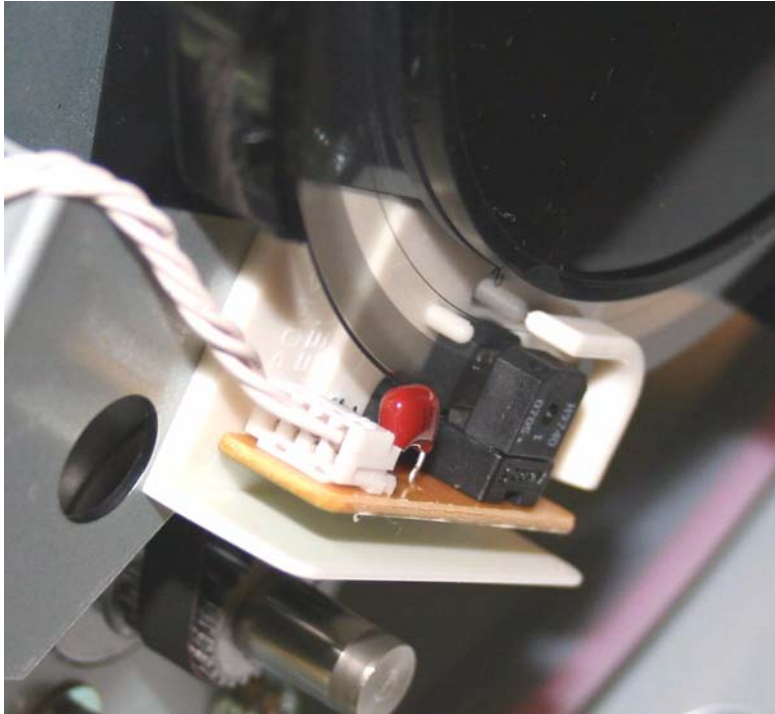
1. Remove the **Left Side Cover**.
2. Remove the **Paper Feed Encoder Scale Cover**.



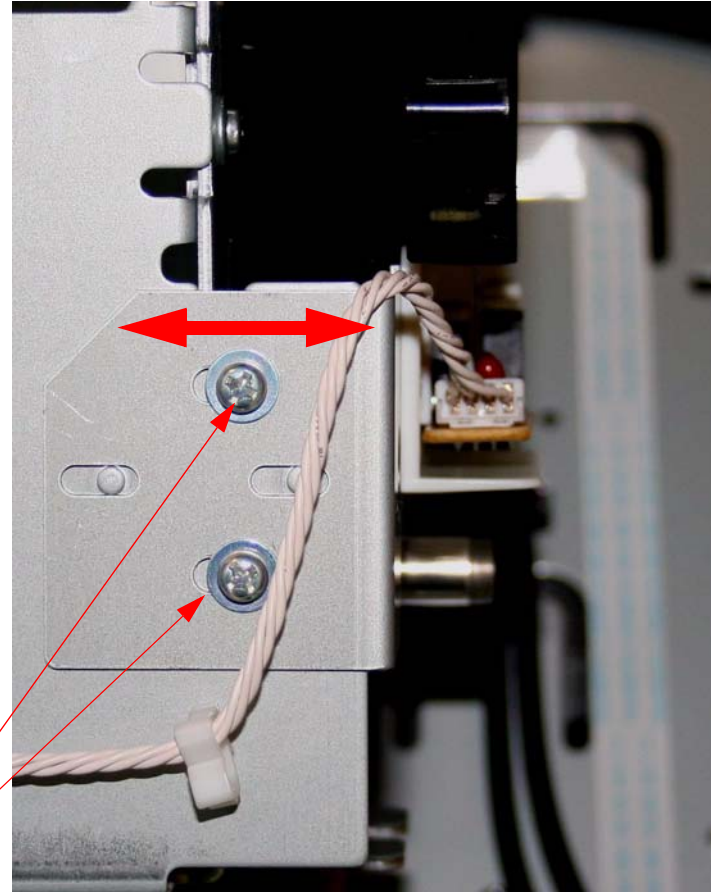
1. Release **4 Interlocks**.

2. Remove the **Cover**.

3. Center the **Paper Feed Encoder** on the Scale.



The **Paper Feed Encoder Bracket** has two **White Plastic Alignment Guides**. 1 on each side of the **Encoder Scale**.



1. Loosen **2 Screws**.

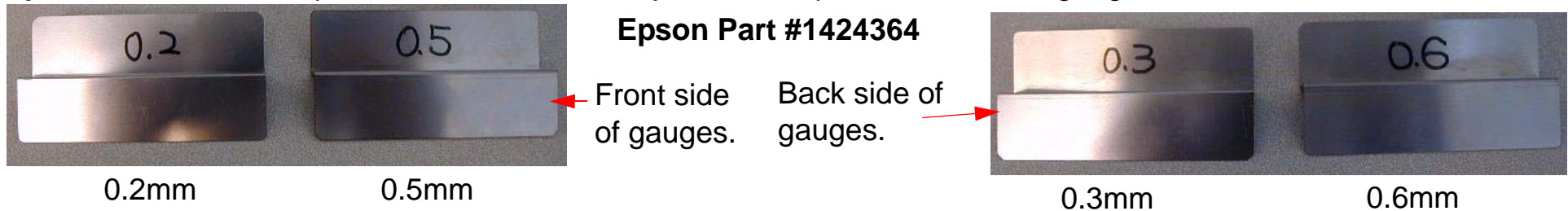
2. Slide the **Paper Feed Encoder Bracket** until the **Encoder Scale** is centered between the **2 White Plastic Guides**.

3. Tighten **2 Screws** when the **Encoder** is centered.

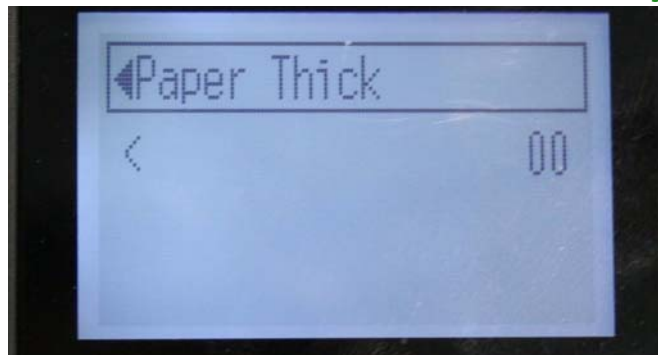
Paper Thickness Sensor Adjustment

Purpose: The **Paper Thickness Sensor** Adjustment calibrates the **Paper Thickness Sensor** so that it correctly recognizes 3 different thickness ranges of media. The **Paper Thickness Sensor** does not measure the thickness of inserted media, it determines the “thickness range” of the media.

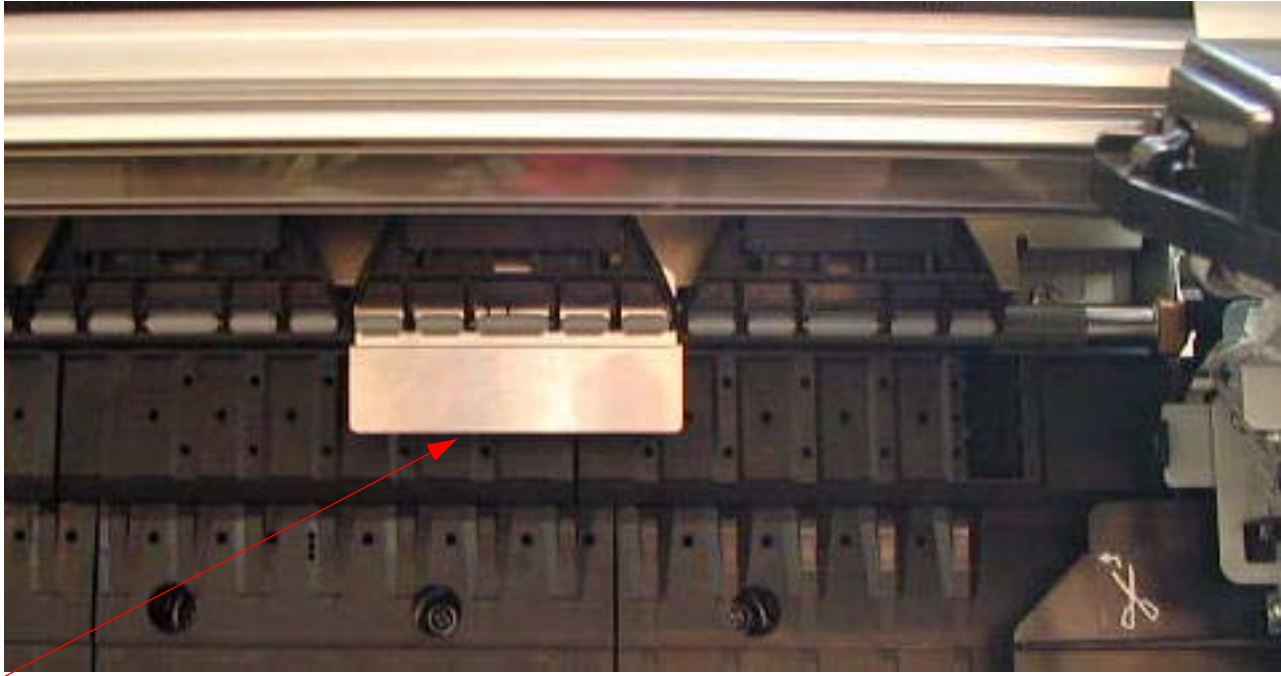
Special Tools: The Paper Thickness Sensor Adjustment requires 4 thickness gauges.



1. Remove the **Top Cover**.
2. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **Paper**.
 - 2.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 2.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Paper**.
3. Display the Sensor data.
 - 3.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Paper\Paper Thick 00**.

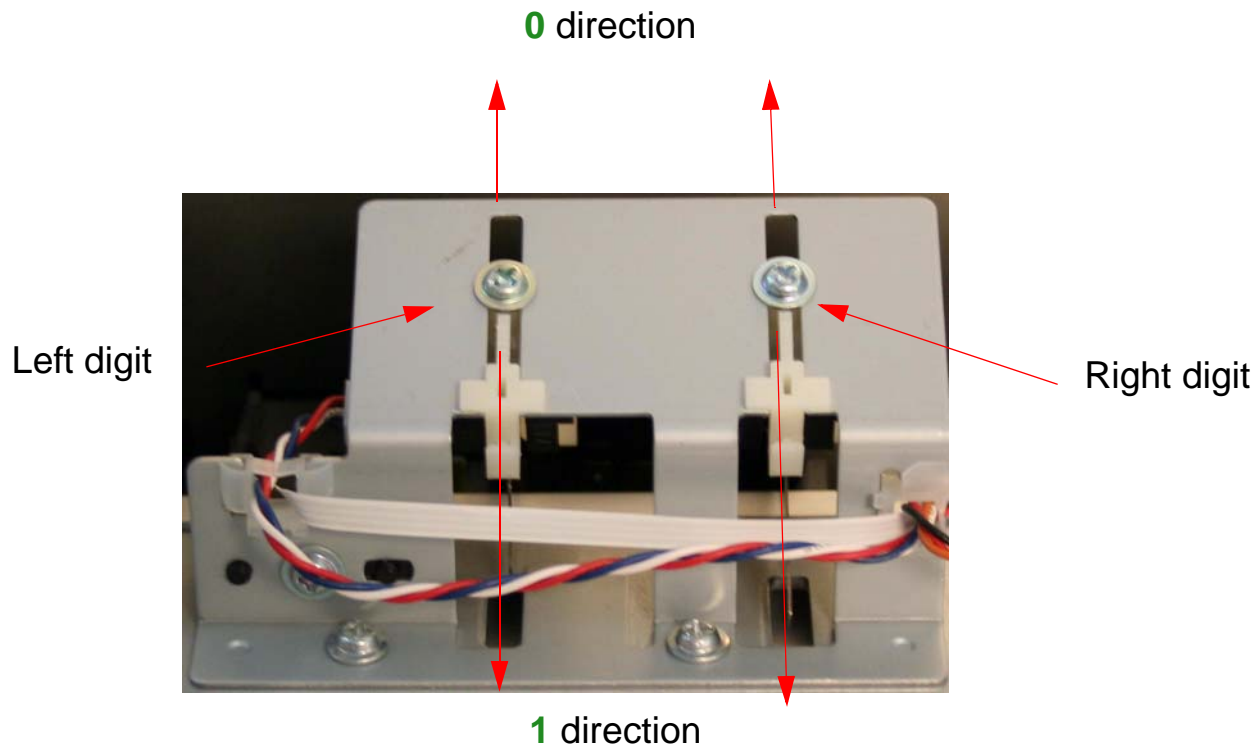


4. Using the **Paper Release Lever**, place the 0.2mm thickness gauge in position.



Place the .2mm thickness gauge between the 2nd from the right **Pinch Rollers** and the **Paper Feed Roller**.

5. The the **LCD** display for the **Paper Thickness Sensor** should display the values listed below when the gauges are inserted.
- 5.1 **00** = When the 0.2mm thickness gauge is inserted.
 - 5.1 **10** = When the 0.3mm thickness gauge is inserted.
 - 5.1 **10** = When the 0.5mm thickness gauge is inserted.
 - 5.1 **11** = When the 0.6mm thickness gauge is inserted.



00 = When the 0.2mm thickness gauge is inserted.

10 = When the 0.3mm thickness gauge is inserted.

10 = When the 0.5mm thickness gauge is inserted.

11 = When the 0.6mm thickness gauge is inserted.

01 = When the Paper Release Mechanism is released.

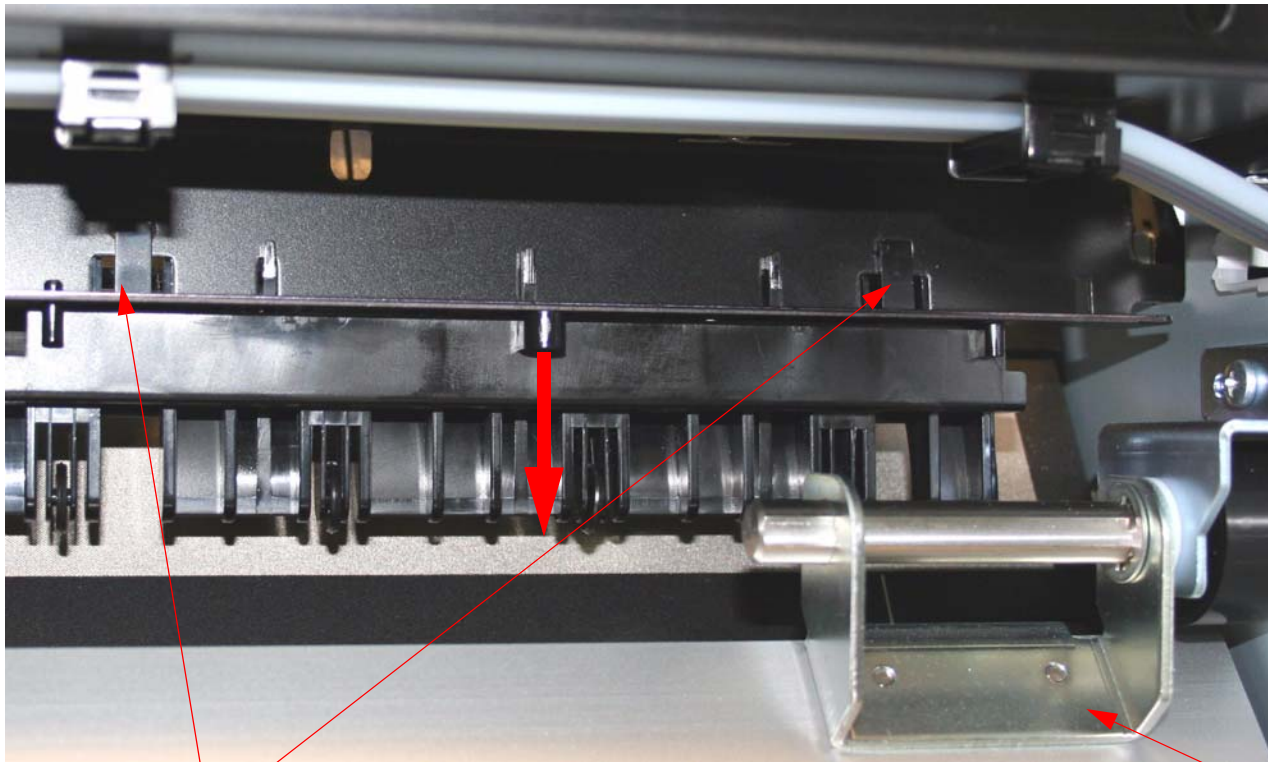
1. Insert the 4 gauges and check that the 4 conditions listed above are true.
2. If the conditions listed are not true, loosen the fastening screws, and move the sensor positions until they are true.

PG Adjustment

Note: The PG Adjustment sets the gap between the Platen and the Print Head Nozzle Plate.

PG Adjustment Gauge part #s: (1.15mm **1482240**)(1.25mm **1482241**)

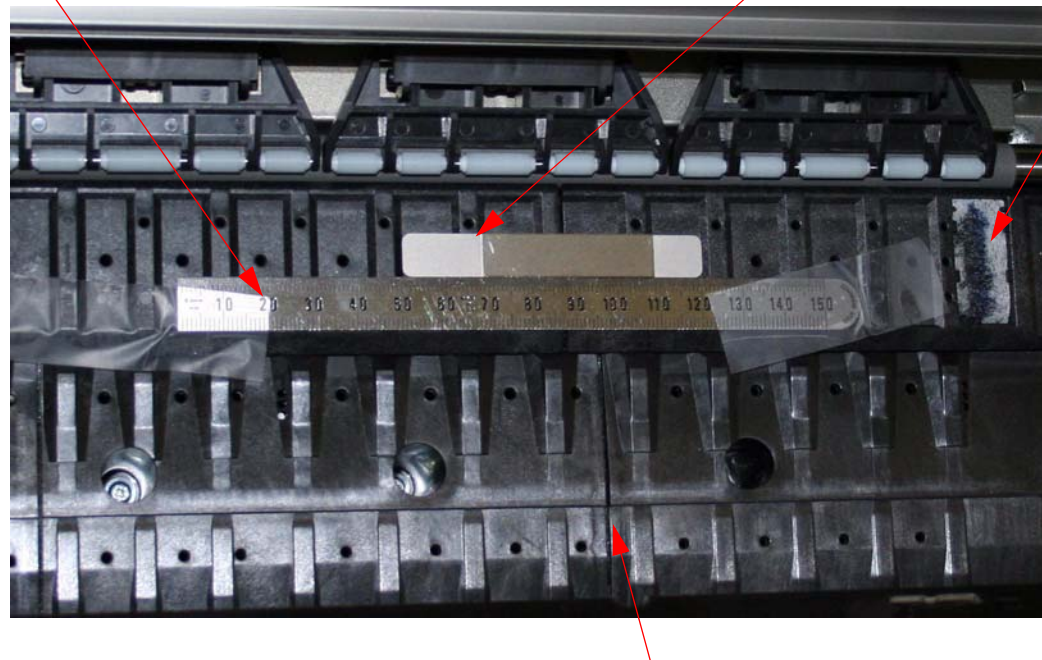
1. Remove the **Top Cover**.
2. Open the **Front Cover** and defeat the **2 Front Cover Sensors**.
3. Remove the **Paper Eject Roller Assembly** from the far right.



Release these **2 Interlocks**, and pull the **Eject Roller Assembly** down to remove it.

**Right Front
Door Hinge**

4. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **PG Adjust**.
 - 4.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 4.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\PG Adjust**.
5. Release the **Carriage Mechanism**.
 - 5.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\PG Adjust\Uncap[Enter] Start**.
 - 5.2 Press the **Enter** to release the **Carriage Mechanism**.
6. Place the **1.15mm PG Gauge** in place.
 1. Tape a ruler that is thinner than the thickest part of the **PG Gauge** to the **Platen** in the position shown.
 2. Place the 1.15 mm PG Gauge on the Ruler with the wide side to the left.

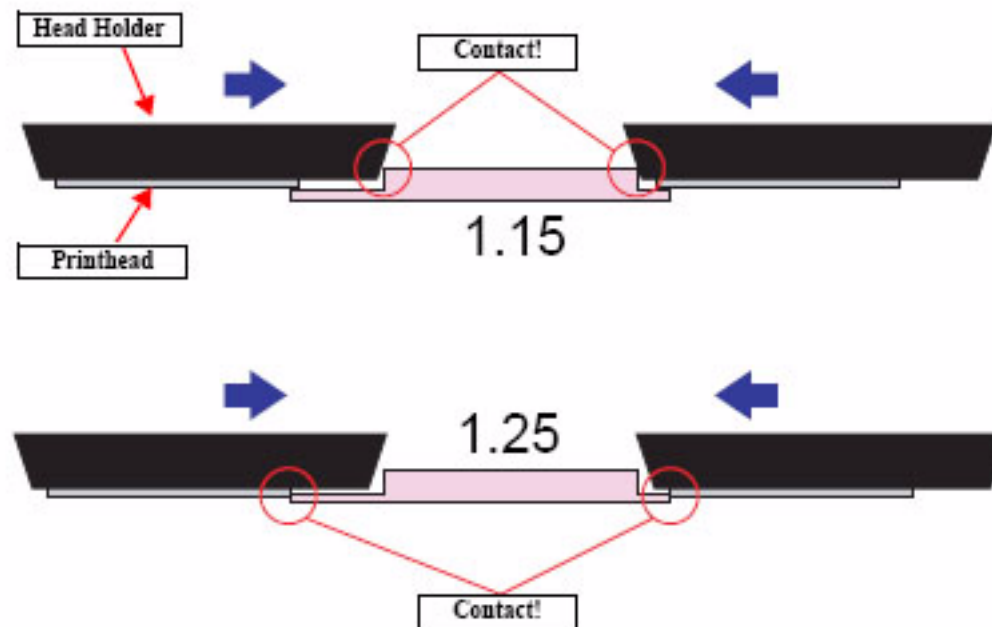


Closest **Borderless Pad** to the **Cap**.

Center the **PG Gauge** over the junction between the first and second **Platen Sections**.

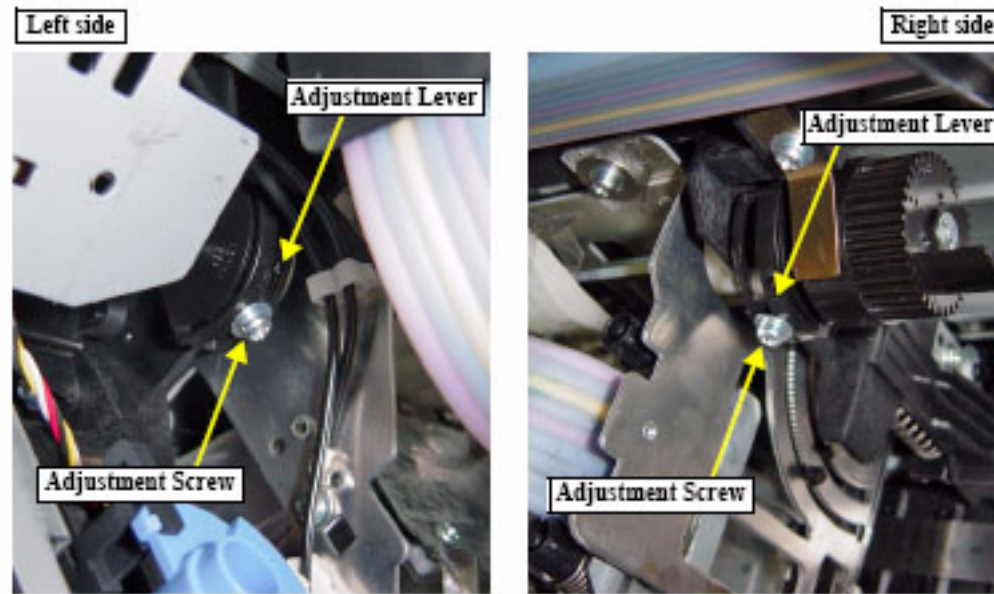
7. Check the PG Adjustment.

1. Look up from the floor, through the gap created by removing the **Paper Eject Roller Assembly**.
2. Move the **Carriage Mechanism** over the **1.15mm PG Gauge** From the left, and from the right. The **Print Head Nozzle Plate** should pass over the lower section of the Gauge, and contact the upper section.



3. Move the **Carriage Mechanism** over the **1.25mm PG Gauge** From the left, and from the right. The **Print Head Nozzle Plate** should contact the lower section of the Gauge.

8. Adjust if necessary.



1. If the left side of the **Nozzle Plate** platen gap is out of adjustment, loosen the **Left Adjustment Screw** and move the **Adjustment Lever** up to increase the gap, and down to decrease the gap.
2. If the right side of the **Nozzle Plate** platen gap is out of adjustment, loosen the **Left Adjustment Screw** and move the **Adjustment Lever** up to increase the gap, and down to decrease the gap.

9. Repeat steps 7 and 8 until the adjustment is correct.

Platen Position Adjustment

Note: The Platen Position Adjustment measures the position of the Borderless “over spray” Pads horizontal location. This is necessary to properly perform borderless printing.

1. Load 24” Doubleweight roll paper (any media is ok).
2. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **Bellesta Pos.**
 - 2.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 2.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Bellesta Pos.**
3. Print the alignment pattern.
 - 3.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Bellesta Pos. Adj.\[Enter] Print.**
 - 3.2 Press the **Enter** button to print the pattern.
4. Press the **Enter** button to store the value 0.

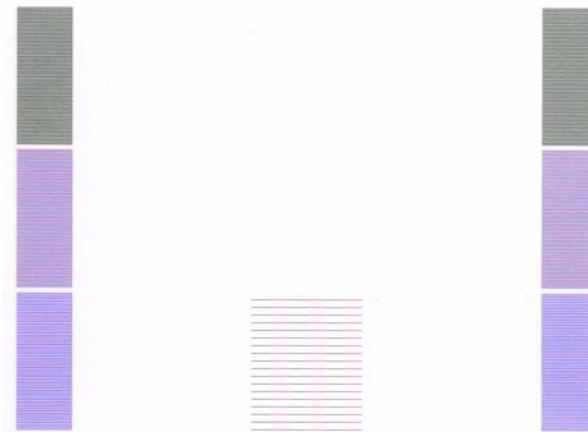


Press the **Enter** button to store the value 0.

Print Head Slant Adjustment (CR)

Note: The Print Head Slant Adjustment (CR) adjusts the Print Head rotation, ensuring that Nozzle 1 for black is linear with Nozzle 1 for yellow (same vertical position).

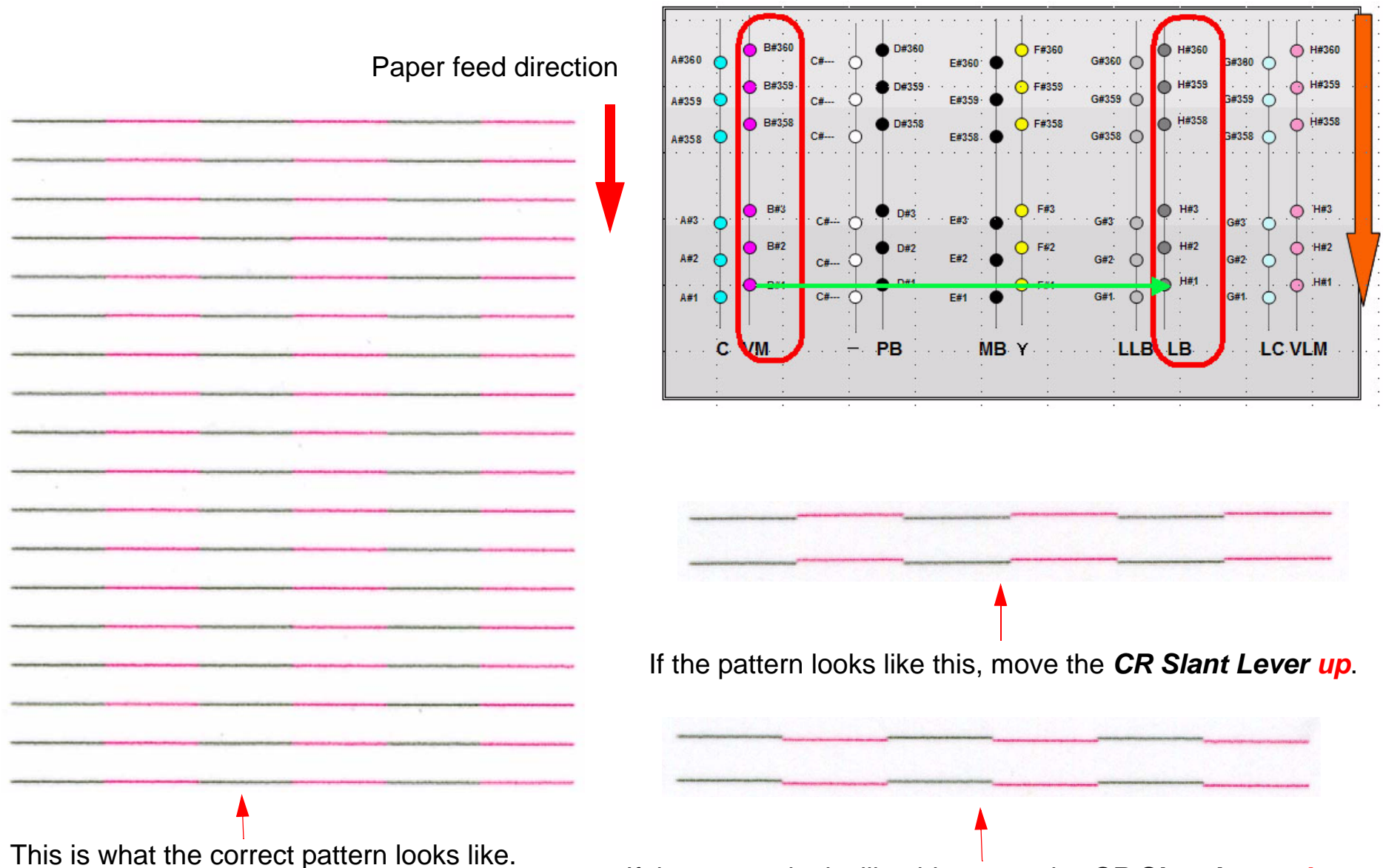
1. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **Head Slant**.
 - 1.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 1.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Head Slant**
2. Load 24" Doubleweight Matte roll paper.
3. Print the adjustment pattern.
 - 3.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Head Slant\CR Slant**[Enter] **Print**
 - 3.2 Press the **Enter** button to print.
 - 3.3 The **Printer** will print the alignment pattern.



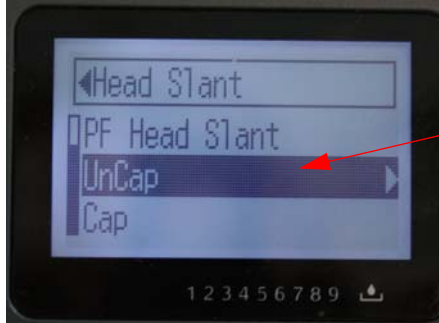
The alignment pattern consists of multiple sets of this pattern.

4. Inspect the printed pattern.

Inspect this pattern. Verify that the vivid magenta lines are linear with the light black lines.

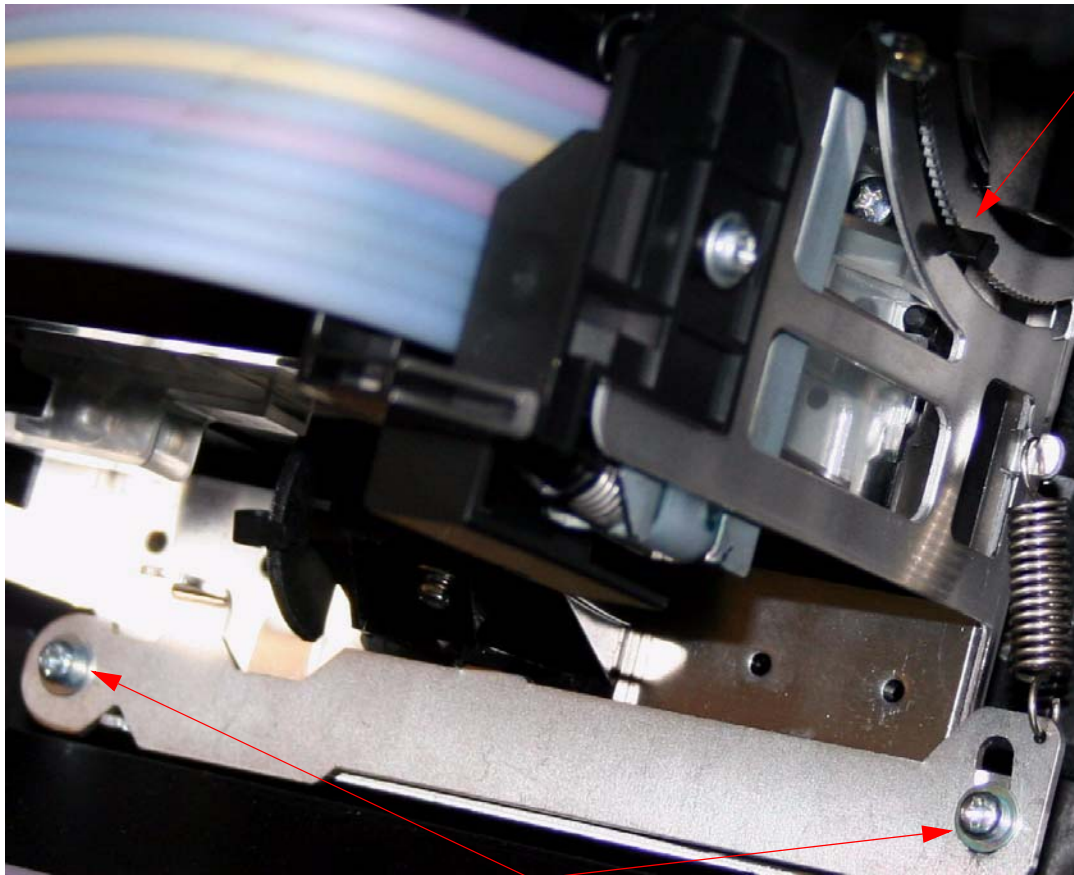


5. Adjust until correct.



1. Release the **Carriage Assembly**.

ServiceMan Mode: **SELF TESTING\Adjustment\Head Slant\Uncap**[Enter] **Start**



2. Loosen these **2 Screws**.

3. Adjust with this **Lever**.

4. Cap the **Carriage Assembly**. Service-Man Mode: **SELF TESTING\Adjustment\Head Slant\Cap**[Enter] **Start**

5. Re-print and adjust, until the pattern is linear.

6. Tighten the **2 Screws**.

7. Re-print to verify that the **Print Head** did not shift when the **2 Screws** were tightened.

Print Head Slant Adjustment (PF)

Note: The *Print Head Slant Adjustment (PF)* adjusts the *Print Head's "heel / toe" parallelism (for each color, Nozzle 1 and Nozzle 360 are equal distance from the media).*

1. From **ServiceMan Mode:Self Testing\Adjustment:** Select **Head Slant**.
 - 1.1 **ServiceMan Mode:** **Down**, **Right**, and **Pause** buttons, and turn on the **Printer**.
 - 1.2 Navigate to **ServiceMan Mode:SELF TESTING\Adjustment\Head Slant**
2. Load 24" Doubleweight Matte roll paper.
3. Print the adjustment pattern.
 - 3.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Head Slant\PF Slant**[Enter] **Print**
 - 3.2 Press the **Enter** button to print.
 - 3.3 The **Printer** will print the alignment pattern.



The alignment pattern consists of multiple sets of parallel lines.

4. Using a lens, inspect the printed pattern.

Paper Feed Direction



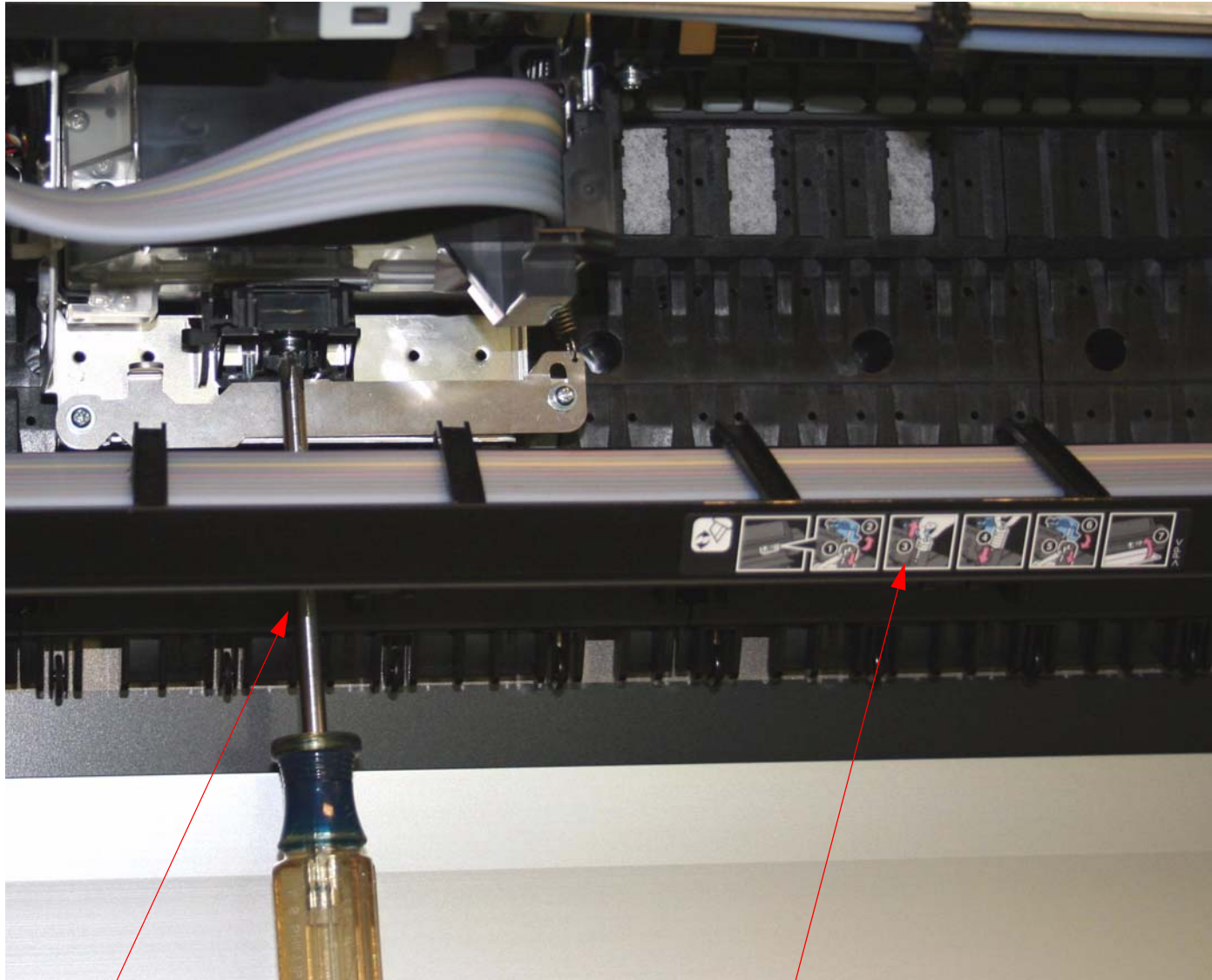
Lines **closer at the trailing edge** side: move the ***PF Slant Lever*** **down**.

Lines equal distance: **adjusted properly**.

Lines **closer at the leading edge** side: move the ***PF Slant Lever*** **up**.

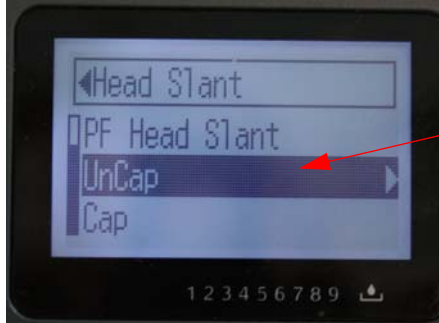
5. To loosen the **PF Slant Adjustment Screw**.

Note: Support the Carriage Mechanism with your hand when loosening and tightening the **PF Slant Adjustment Screw**, to avoid changing the Platen Gap Adjustment.



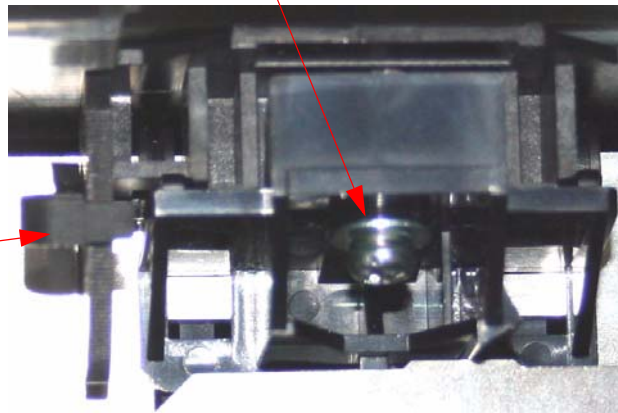
There is a **Hole** allowing access to the **PF Slant Adjustment Screw** 3" to the left of this **Sticker**.

6. Adjust until correct.



1. Release the **Carriage Assembly**.
ServiceMan Mode: **SELF TESTING\Adjustment\Head Slant\Uncap**[Enter] **Start**

2. Loosen this **1 Screw**.



3. Adjust with this **Lever**.

The **PF Slant Lever** is on the front of the **Carriage Mechanism**.

4. Cap the **Carriage Assembly**. ServiceMan Mode: **SELF TESTING\Adjustment\Head Slant\Cap**[Enter] **Start**

5. Re-print and adjust, until the pattern is linear.

6. Tighten the **1 Screws**

7. Re-print to verify that the **Print Head** did not shift when the **1 Screw** is tightened.

RearAD Sensor Calibration

Note: This adjustment sets the “White Level” for the **RearAD Sensor** (sensitivity calibration).

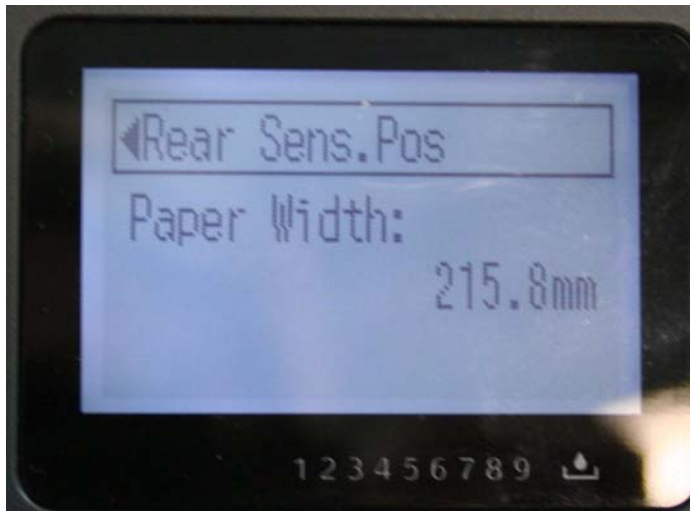
Note: This adjustment can be performed using the customer’s media if it is non-standard (transparent, etc.).

1. Place paper in the paper path, ensuring that it is located adjacent to the **RearAD Sensor**. (The **RearAD Sensor** is at the 6” mark).
2. From **ServiceMan Mode: SELF TESTING\Adjustment**: Select **RearAD**.
 - 2.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.
 - 2.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\RearAD**.
3. Calibrate the **RearAD Sensor**.
 - 3.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\RearAD\ [Enter] Start**
 - 3.2 Press the **Enter** button to calibrate the **RearAD Sensor**.

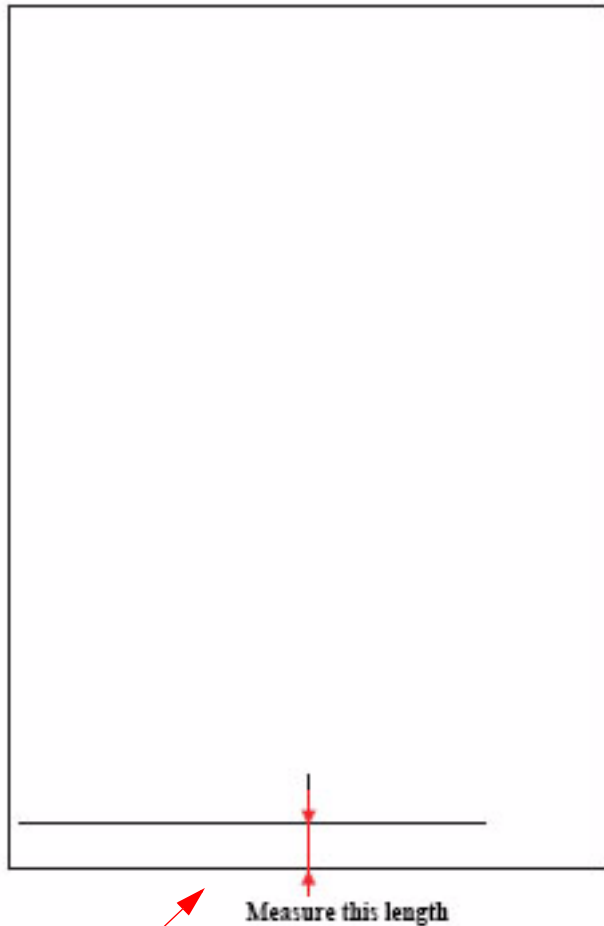
Rear Sensor Position Adjustment

Note: This adjustment calibrates the RearAD Sensors end of media timing, with cut sheet paper.

1. From **ServiceMan Mode: SELF TESTING\Adjustment:** Select **Rear Sens.Pos.**
 - 1.1 **ServiceMan Mode:** **Down**, **Right**, and **Pause** buttons, and turn on the **Printer**.
 - 1.2 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Rear Sens.Pos.**
2. Load the media .
 - 2.1 Navigate to **ServiceMan Mode: SELF TESTING\Adjustment\Rear Sens.Pos\Please Set Cut Sheet.**
 - 2.2 Load a sheet of cut sheet media.
 - 2.2.1 Place a piece of cut sheet media in place.
 - 2.2.2 Press the **Right Arrow** to load the media.
 - 2.2.3 The Printer will load the media and display the media's measured width..



3. Press the **Right Arrow** to print the alignment sheet.
4. Finish the calibration.



1. Measure the distance between the printed line and the closest edge of the media.



2. Using the **Up** or **Down Arrow** buttons, change this value to the measured value.
3. Press the **Enter** button to store the value and complete the adjustment.

RTC & USBID Adjustment

Note: The RTC & USBID Adjustment is used to write the correct time, and USB ID to the Main Board.

1. From the **Adjustment Wizard** for the Pro 11880, select the **RTC & USBID**.

Adjustment Wizard 2

RTC&USBID

Function Key
F1:CL1 F2:CL2 F3:CL3

Initializes the RTC and writes USB ID after exchanging of main board.

1. After replacing the main board, start up Adjustment program and select [RTC&USBID].
2. Check if the date and time displayed on the screen is correct. Enter the date and time if necessary.
3. Enter the 10-digit serial number of the printer. USB ID is automatically created according to the serial number.
4. Click the [Write] button to write RTC&USB ID onto NVRAM of new Main Board.
5. Click the [Next] button to display confirmation screen.

Date: Tuesday, October 02, 20

Time: 1:41:13 PM

Printer S/N:

USB ID:

Write

< Back Next > Cancel

This Screen will open.

Adjustment Wizard 2

RTC&USBID

Function Key
F1:CL1 F2:CL2 F3:CL3

Initializes the RTC and writes USB ID after exchanging of main board.

1. After replacing the main board, start up Adjustment program and select [RTC&USBID].
2. Check if the date and time displayed on the screen is correct. Enter the date and time if necessary.
3. Enter the 10-digit serial number of the printer. USB ID is automatically created according to the serial number.
4. Click the [Write] button to write RTC&USB ID onto NVRAM of new Main Board.
5. Click the [Next] button to display confirmation screen.

Date: Tuesday , October 02, 20

Time: 1:41:13 PM

Printer S/N: 0000000001

USB ID: 00000000018A2DES30

Write

< Back Next > Cancel

1. Verify that the Date and Time information is correct. It can be adjusted if necessary.

2. Enter the **Printer's** serial number.

3. The **Adjustment Wizard** will generate a new USB ID.

4. Click on the **Write** button.

Skew Check

Note: Skew Check measures the amount of paper skew the Printer exhibits.

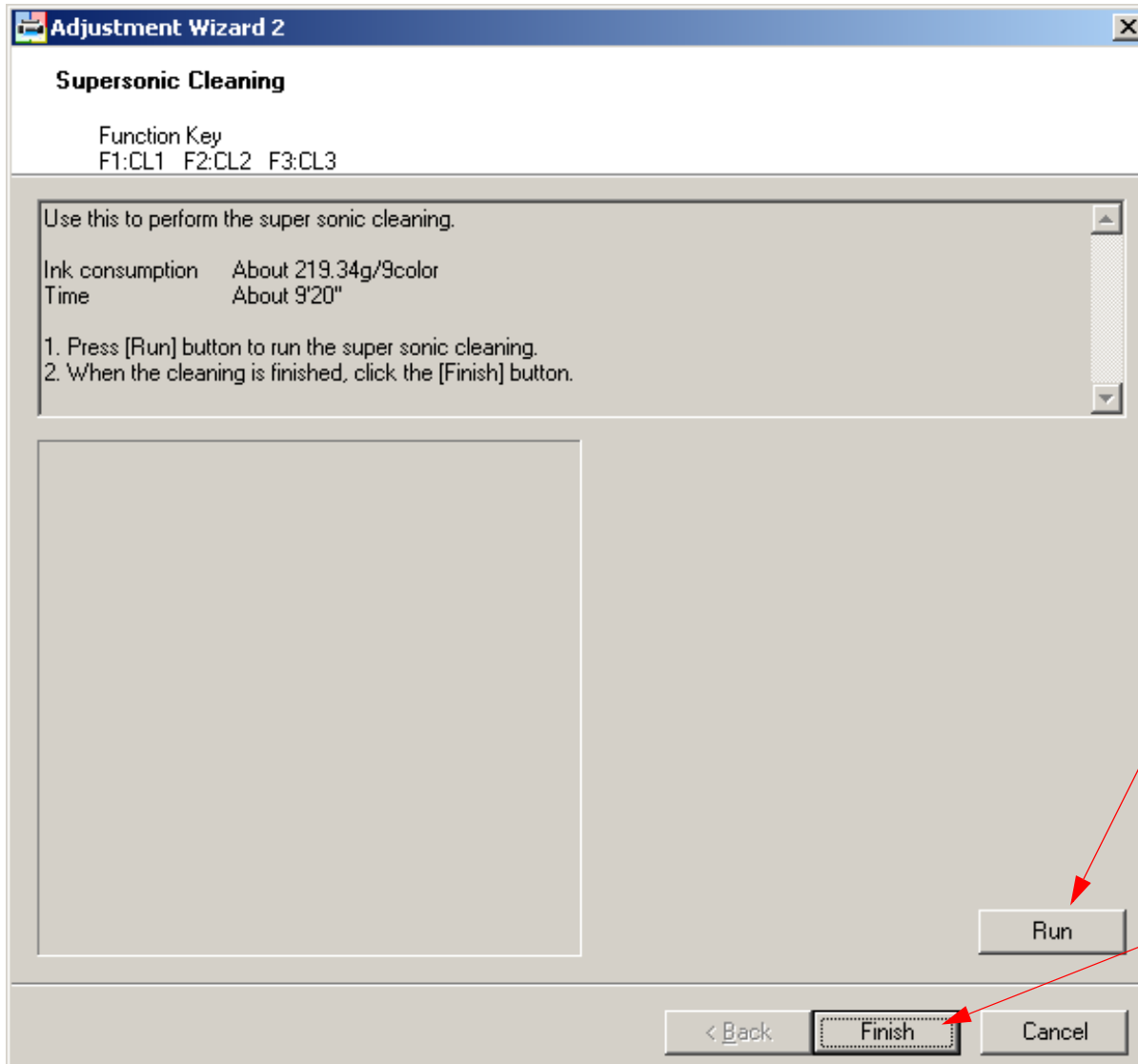
Note: Skew Check must be performed from ServiceMan Mode\Adjustment menu.

Note: Skew Check is not an adjustment. It is a test only.

Supersonic Cleaning

Note: *Supersonic Cleaning performs a strong cleaning with a large ultrasonic (piezo vibration) component. (290ml of ink consumed)*

1. From the **Adjustment Wizard** for the Pro 11880, select **Supersonic Cleaning**.



1. Click on **Run** to start the **Supersonic Cleaning**.

2. Click on **Finish** when completed.

Component Pictures

Board (EDM) Picture

Note: The EDM SIMM (Electronic Data Management) is used for storing Printer information that may be shared with Epson over the internet.



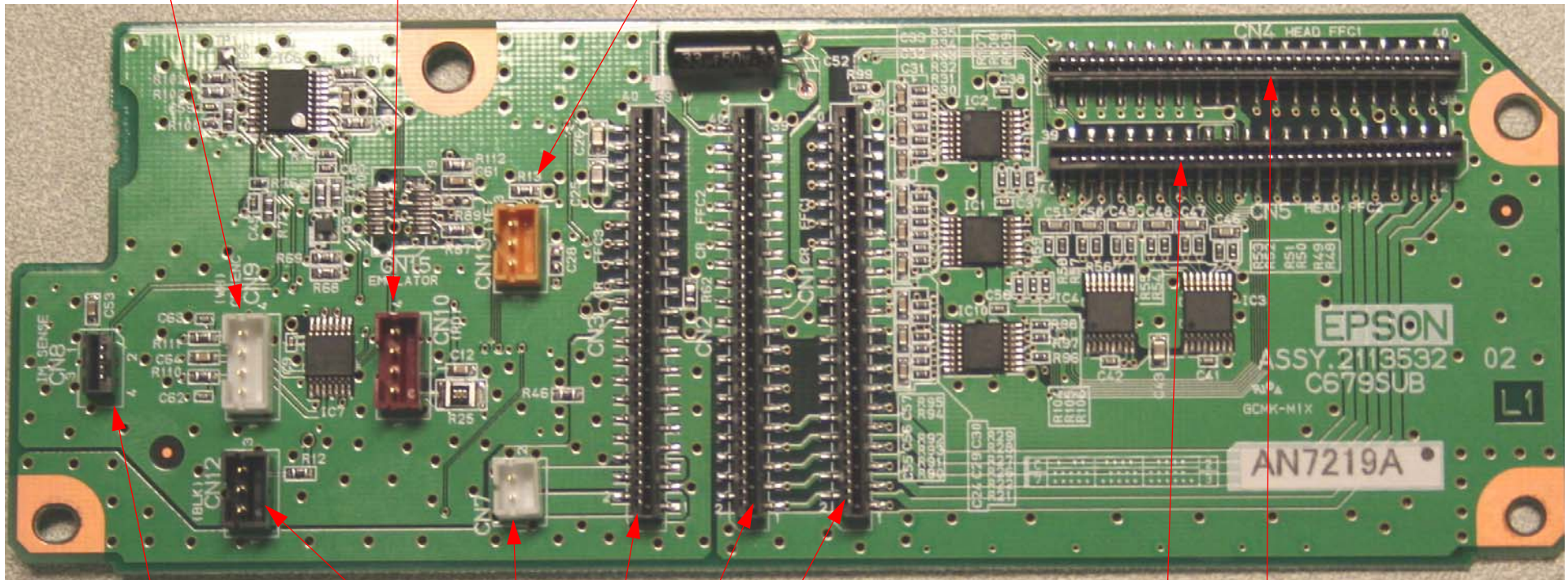
Board (Carriage) Picture

Located on the top of the Carriage Mechanism

(CN10) EdgeAD Sensor

(CN13) Carriage Home Position Sensor

(CN9) Carriage Encoder



(CN8) Ink Mark Sensor

(CN12) Platen Gap Home Position

(CN7) Cutter Solenoid

(CN4) Main Board CN22

(CN1) To Main Board CN20

(CN2) to Main Board CN21

(CN5) Print Head

(CN4) Print Head

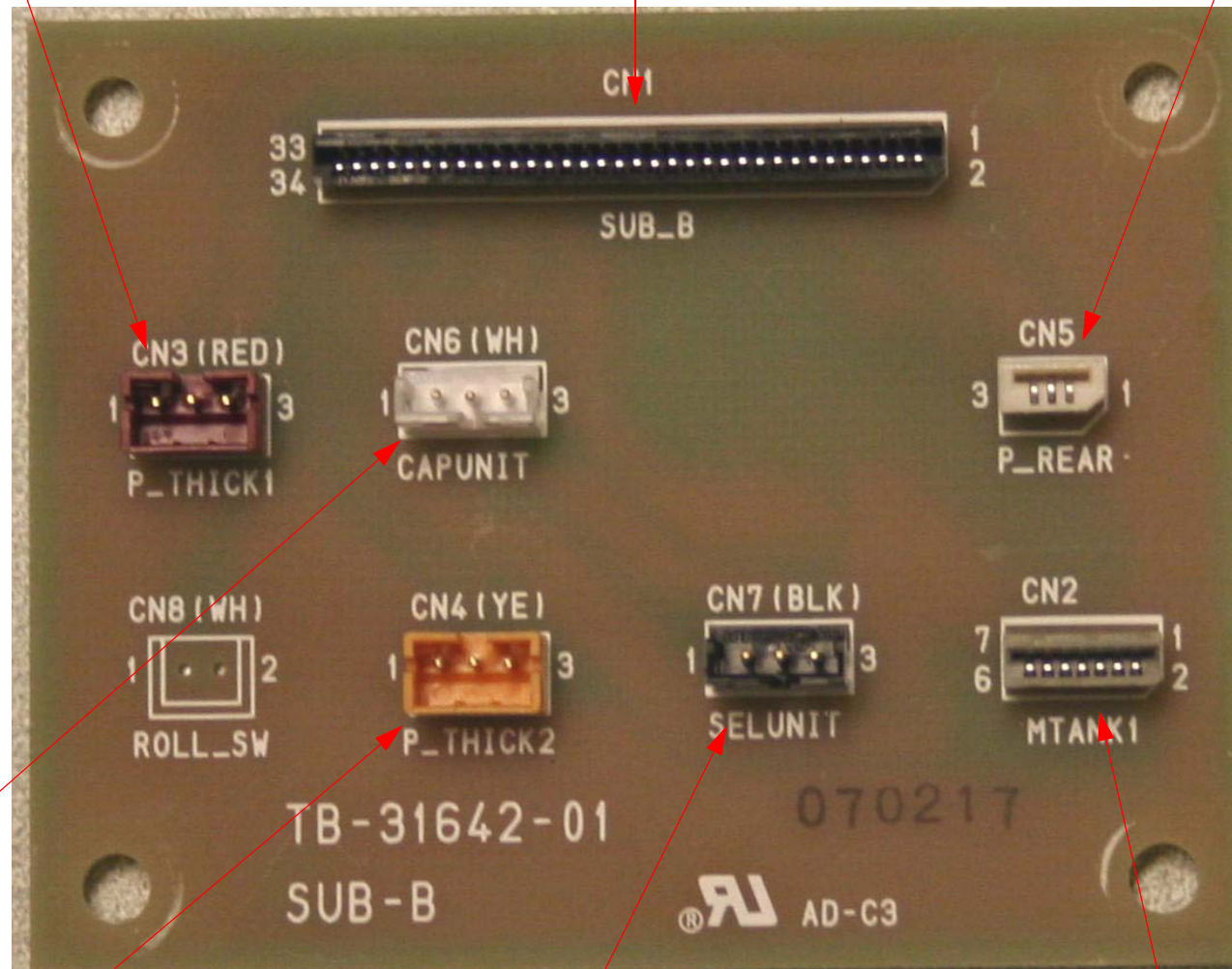
Board (Sub-B) Picture

Located on the Right Side Frame

(CN3) Right Paper Thickness Sensor

(CN1) To Main Board CN23

(CN5) Rear AD Sensor



(CN6) Cap Home Position Sensor

(CN4) Left Paper Thickness Sensor

(CN7) Suction Home Position Sensor

(CN2) Right Maintenance Tank

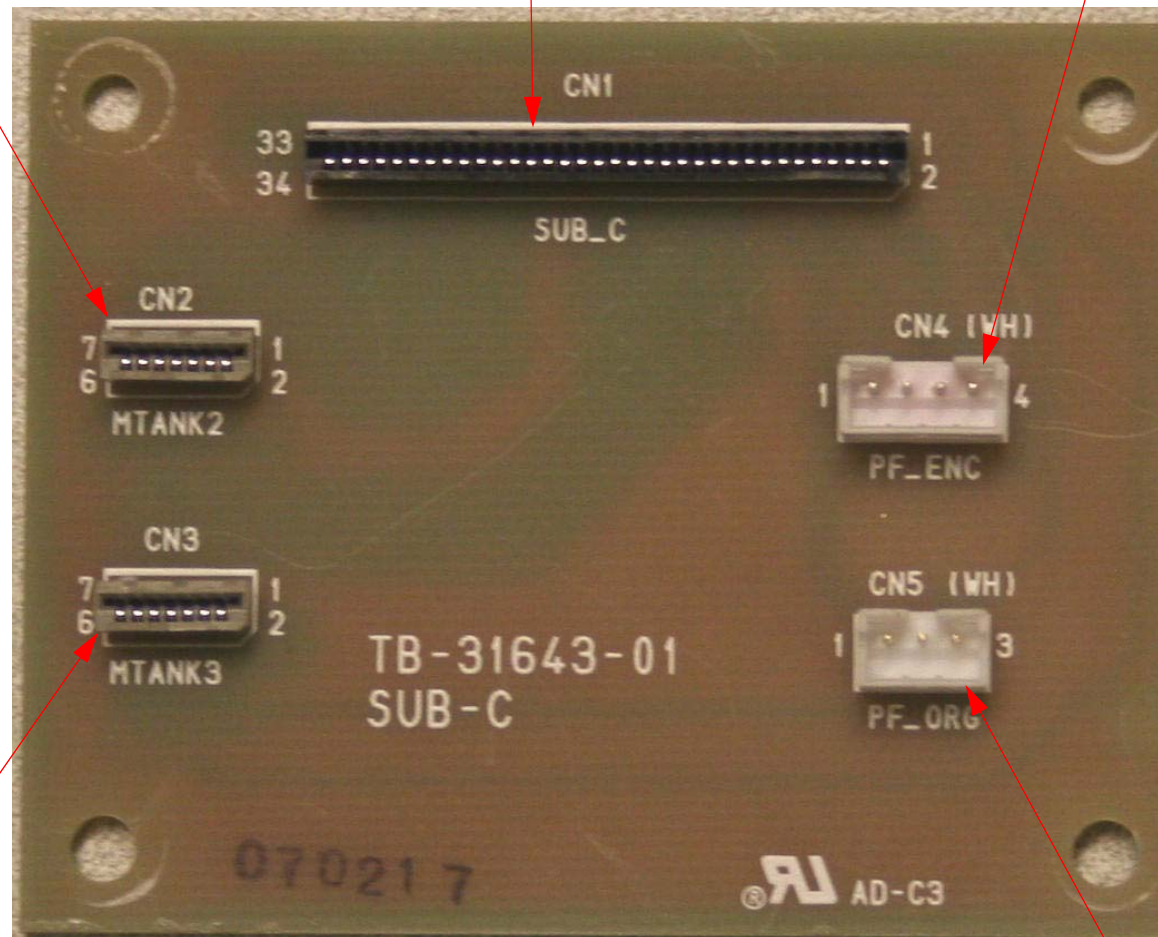
Board (Sub-C) Picture

Located on the Left Side Frame

(CN2) Center Maintenance Tank

(CN1) To Main Board CN24

(CN4) Paper Feed Encoder



(CN3) Left Maintenance Tank

(CN5) Not Used

Board (Sub-D) Picture

Sub Board D is located on the top of both the Left and Right Ink Bays.

(CN8) Ink Cover Solenoid

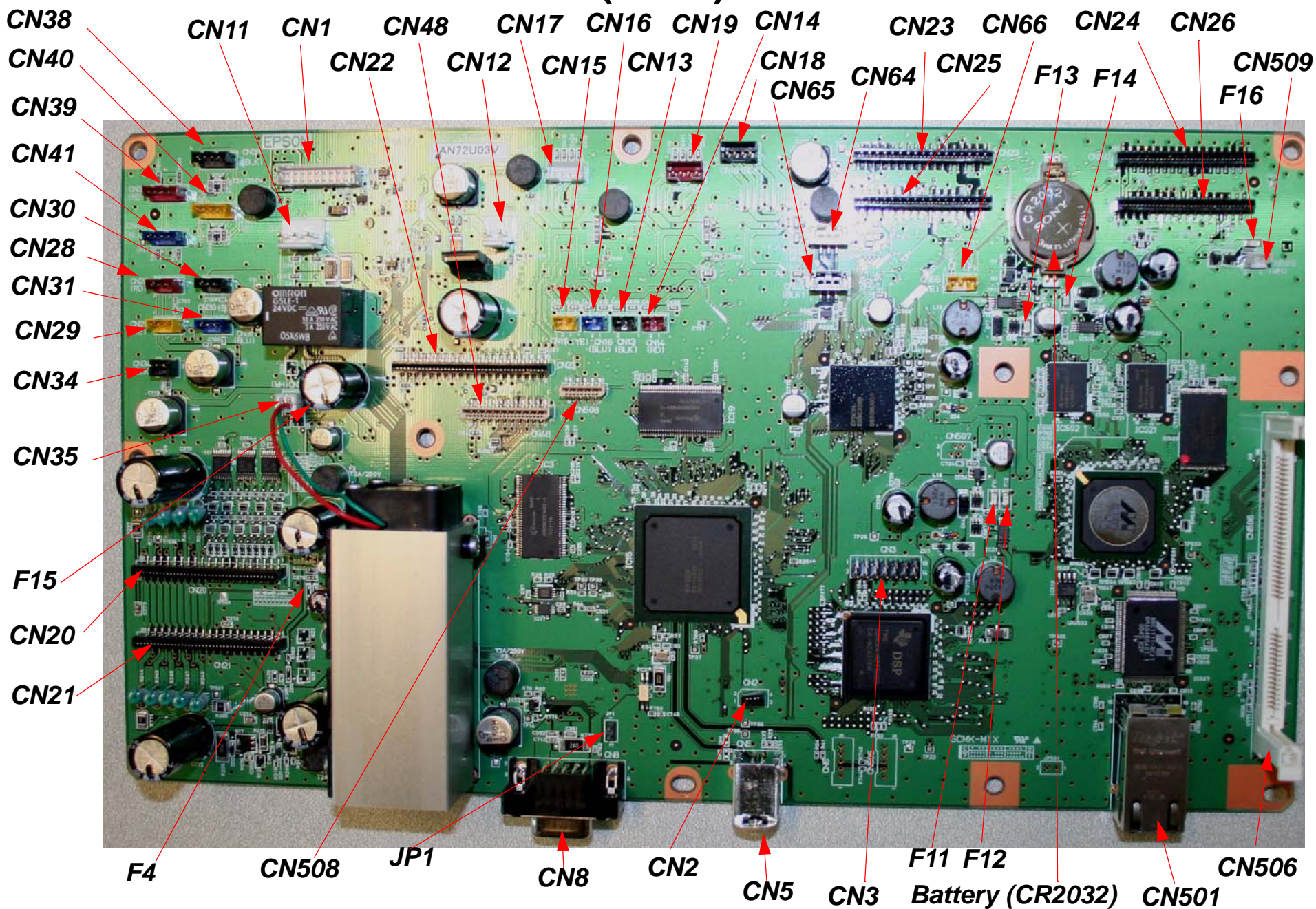
(CN10) To Main Board



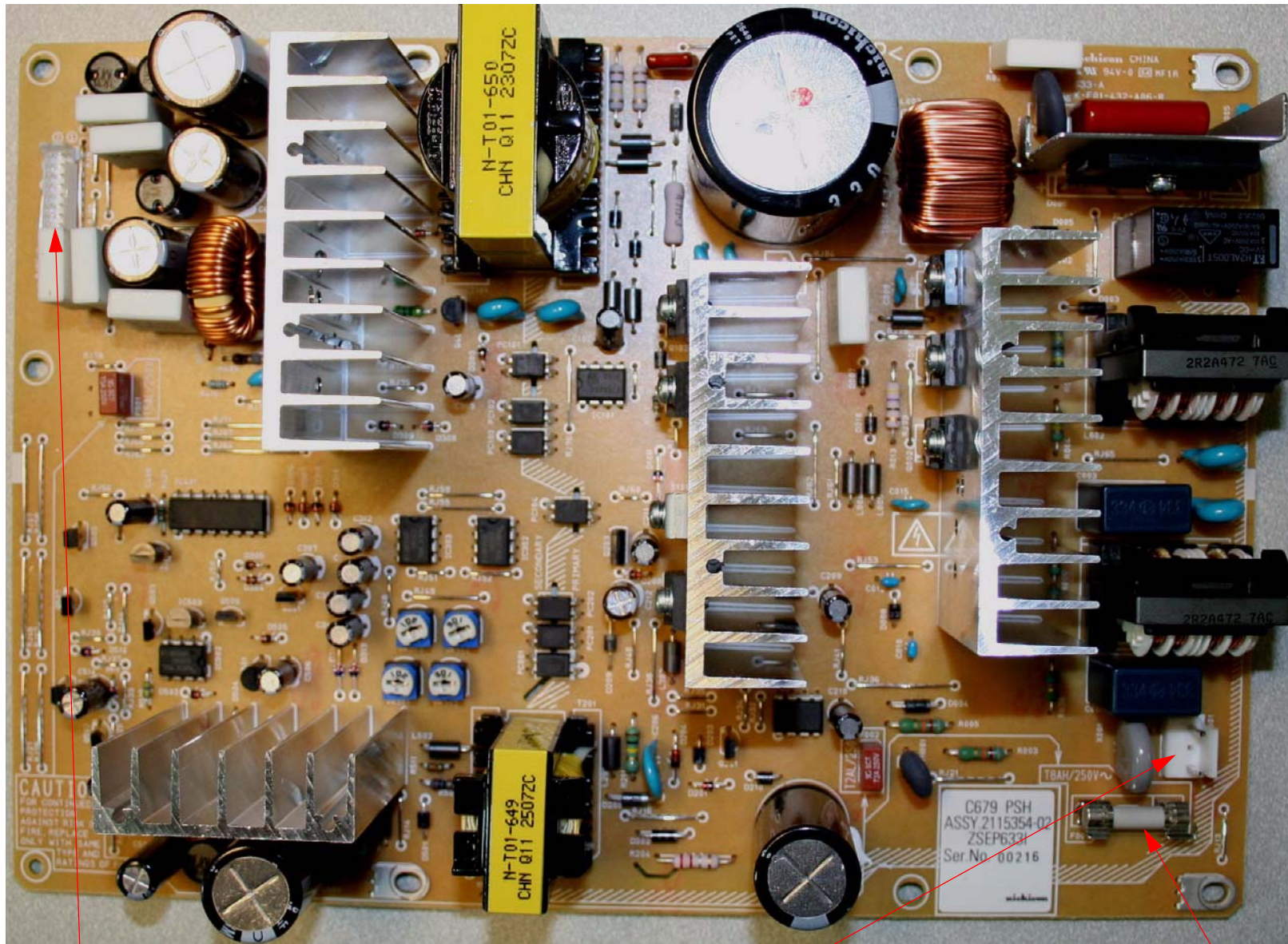
(CN7) Ink LED Board

(CN9) Ink Cover Sensor

Board (Main)Picture



Board (Power Supply) Picture



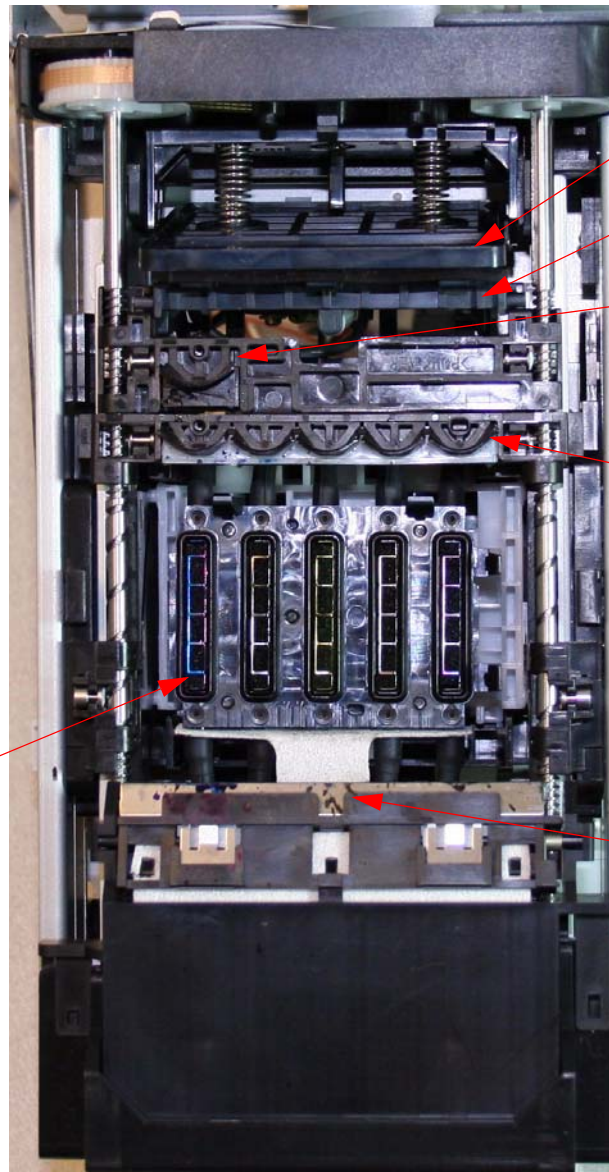
(CN301) to Main Board

(CN001) AC input

(F001) 6.3amp, 250 Volt Fuse

Cleaning Unit

Front View



Flushing Box Cover

Detracted **Flushing Box**

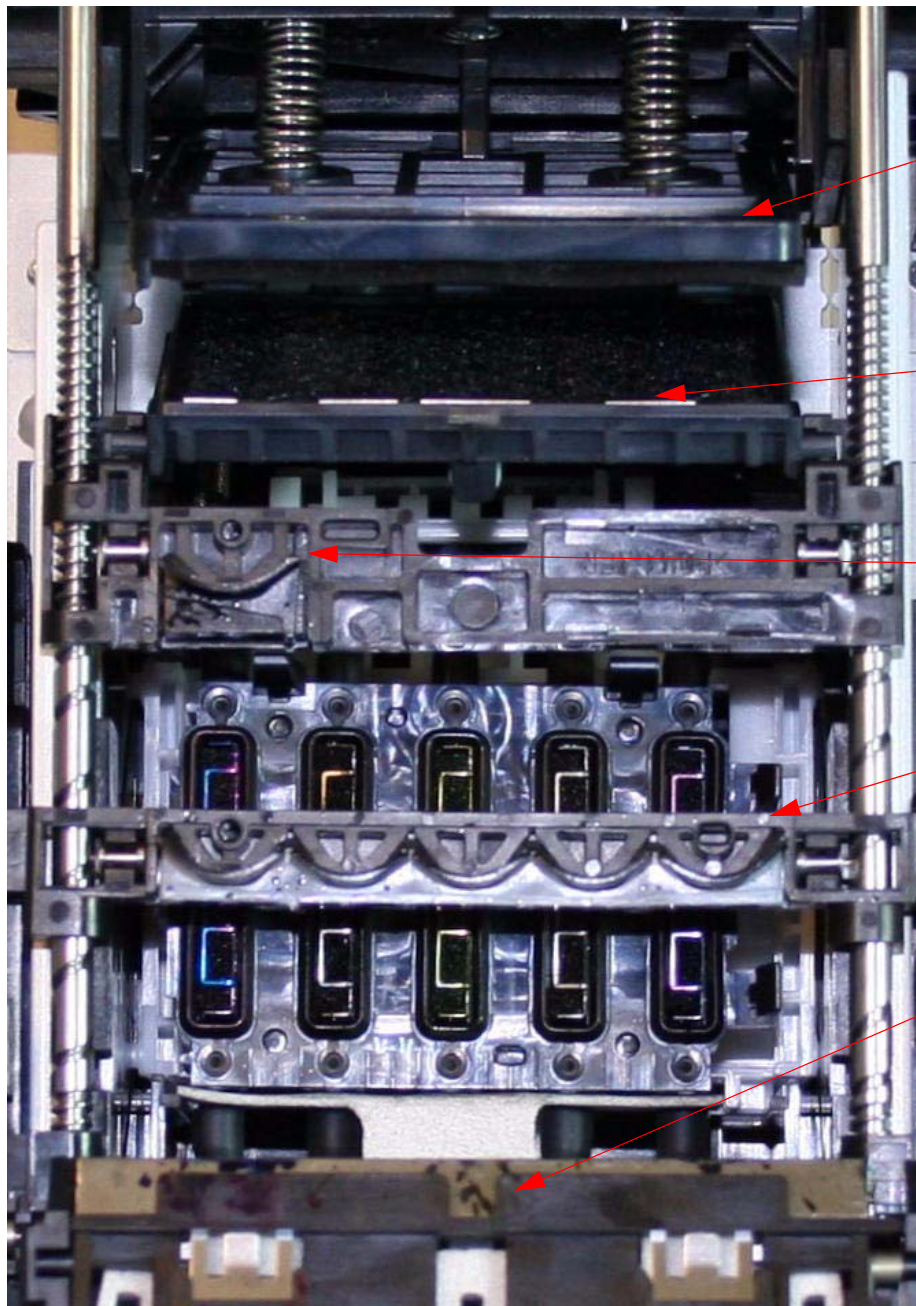
1 Wiper Blade (for cleaning 1 color pair at a time).

5 Wiper Blades (shown 1/2 way through the wiping "stroke")

5 Caps (1 **Cap** for each Color Pair)

Wiper Blade Cleaner

Wiper Blades



Flushing Box Cover

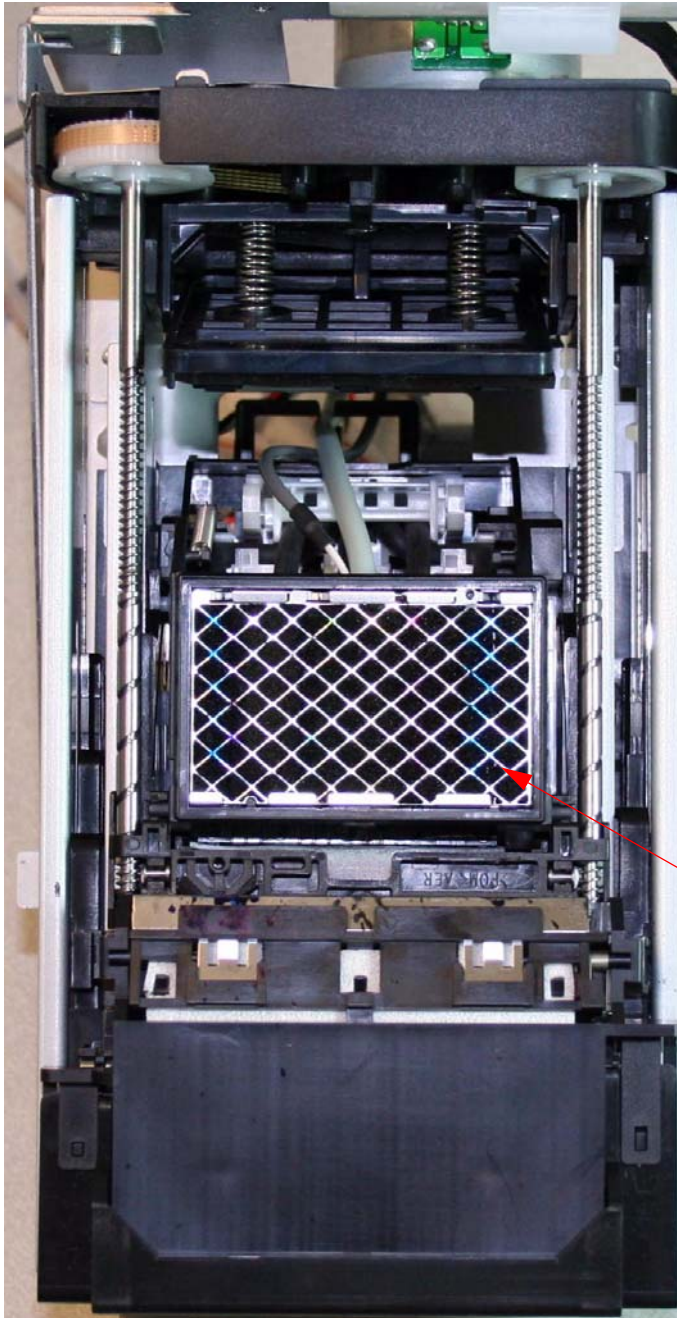
Detracted **Flushing Box**

1 Wiper Blade (for cleaning 1 color pair at a time).

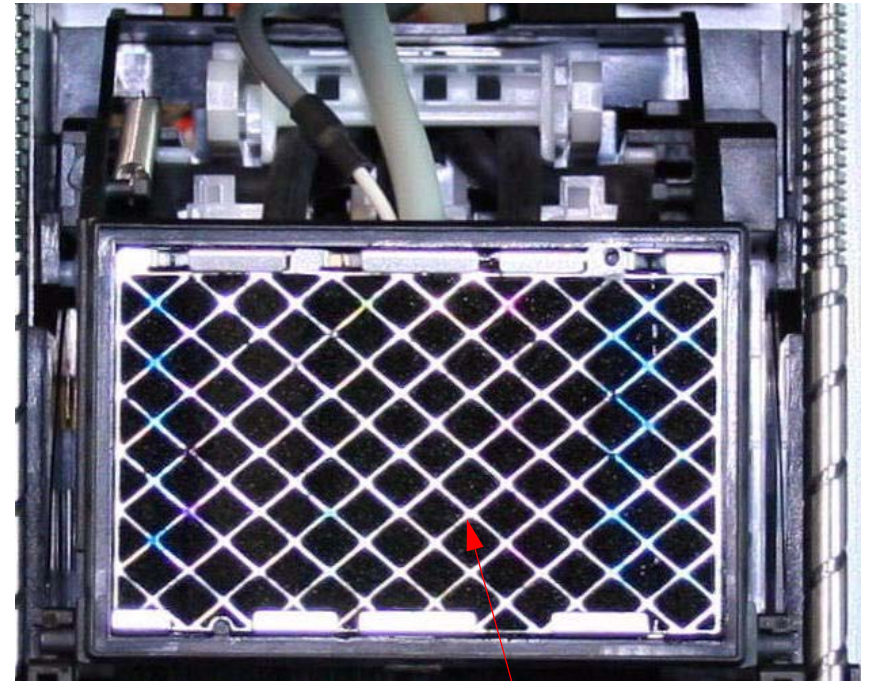
5 Wiper Blades (shown 1/2 way through the wiping "stroke")

Wiper Blade Cleaner

Flushing Box

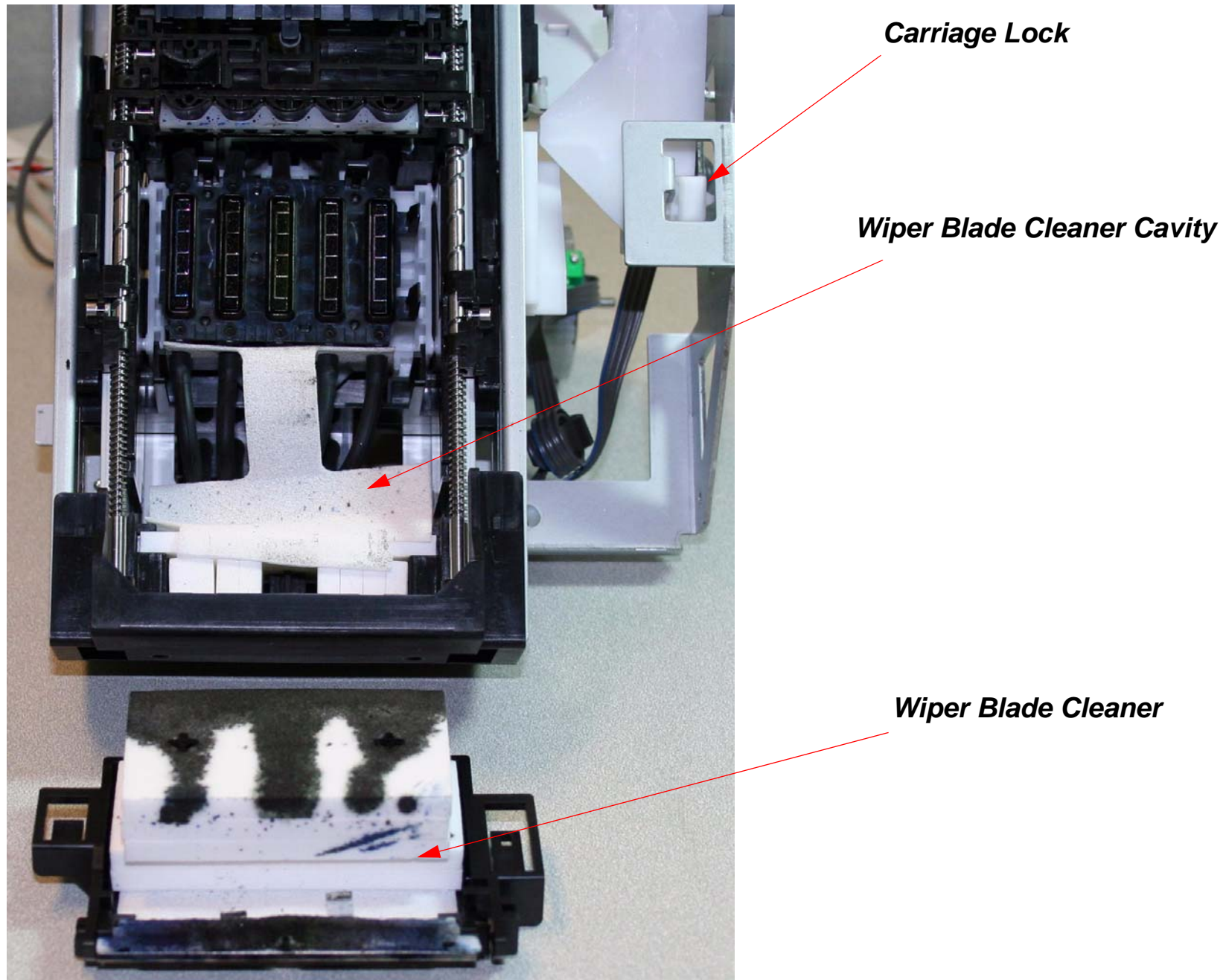


Flushing Box

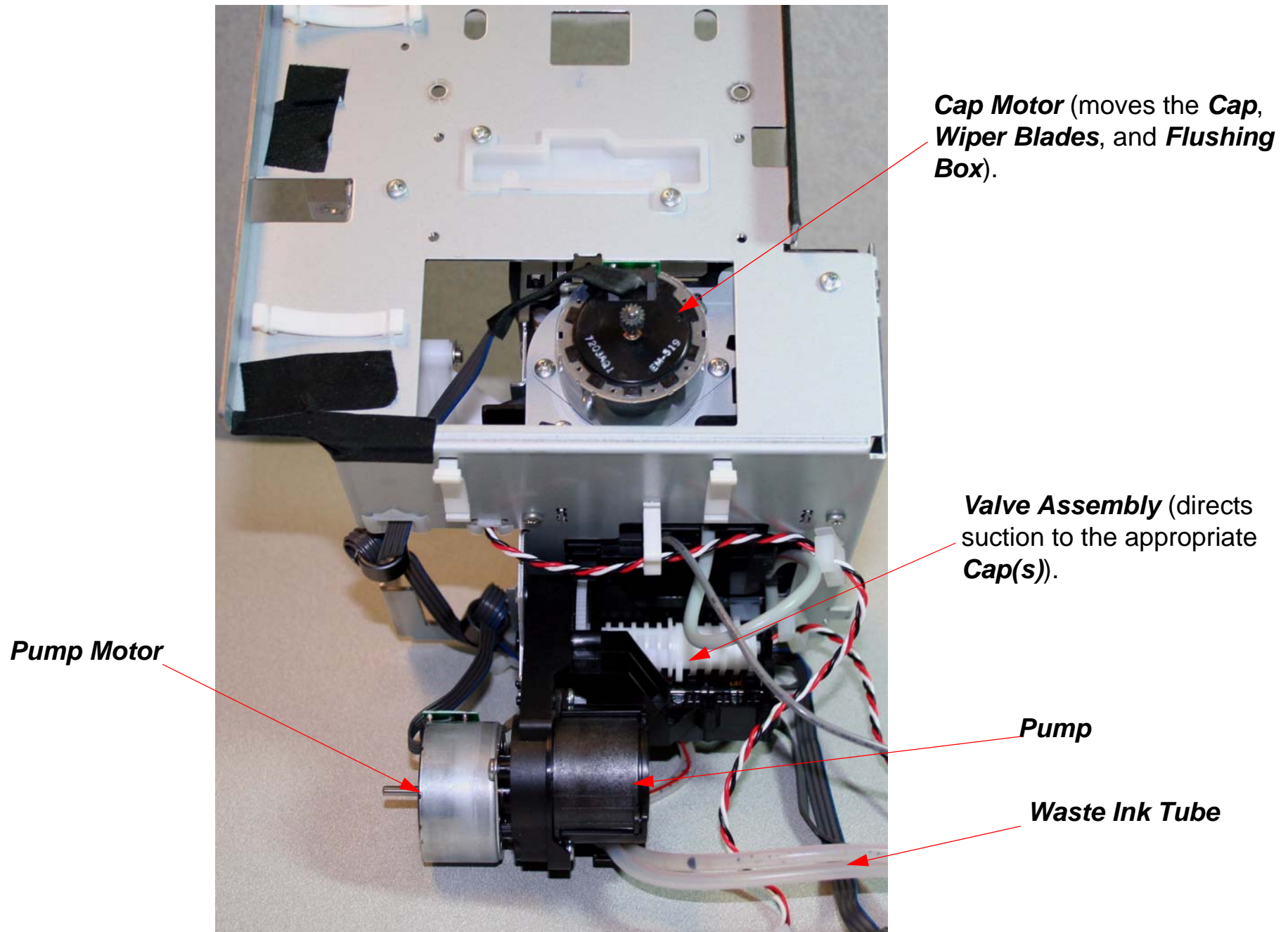


AID (Auto Ink Detector) Grid

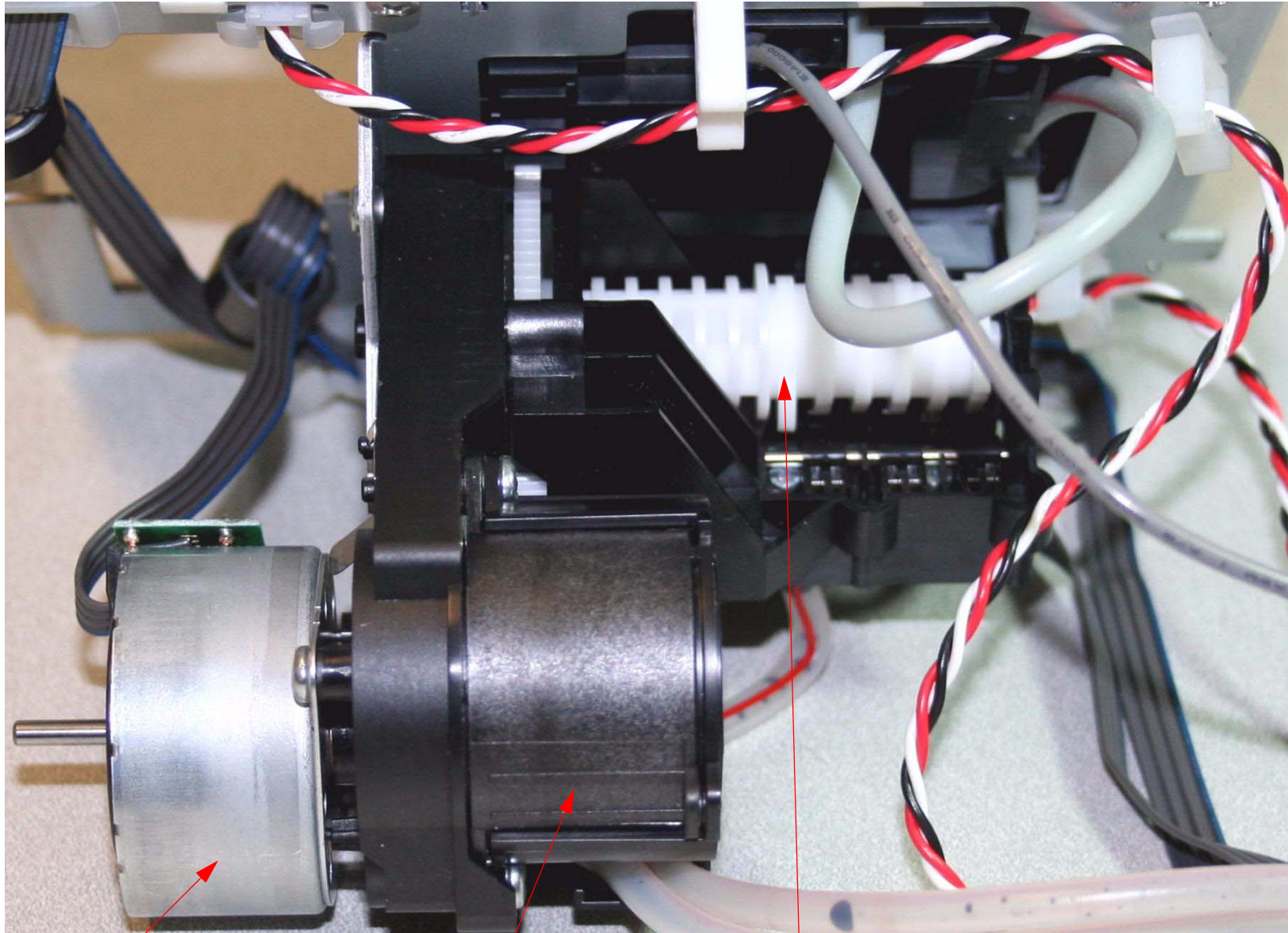
Wiper Blade Cleaner



Rear View



Pump Assembly



Pump Motor

Pump

Valve Assembly (directs suction to the appropriate **Cap(s)**).

Control Panel Picture



CSIC Contact Assembly Pictures

There are 9 CSIC Contact Assemblies located beneath the 2 Sub Board D's, on the top of each Ink Bay..

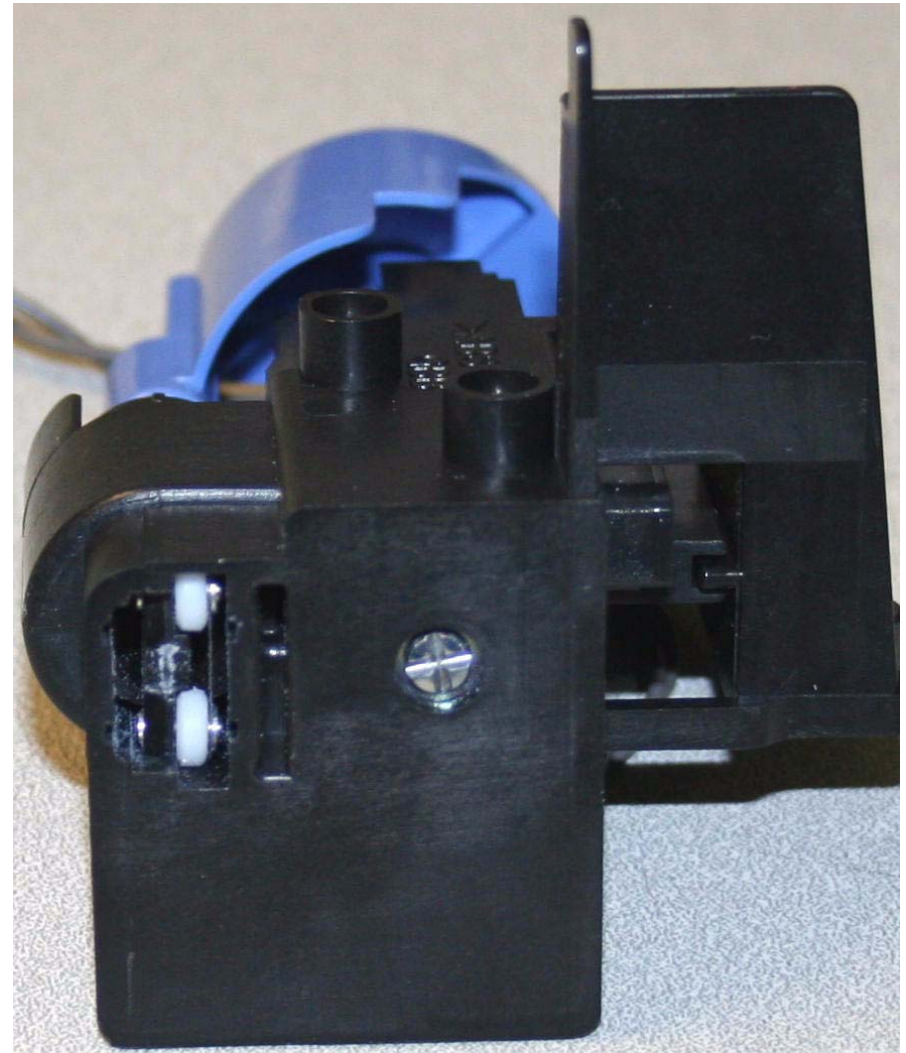


Sub Board D Contact Side.

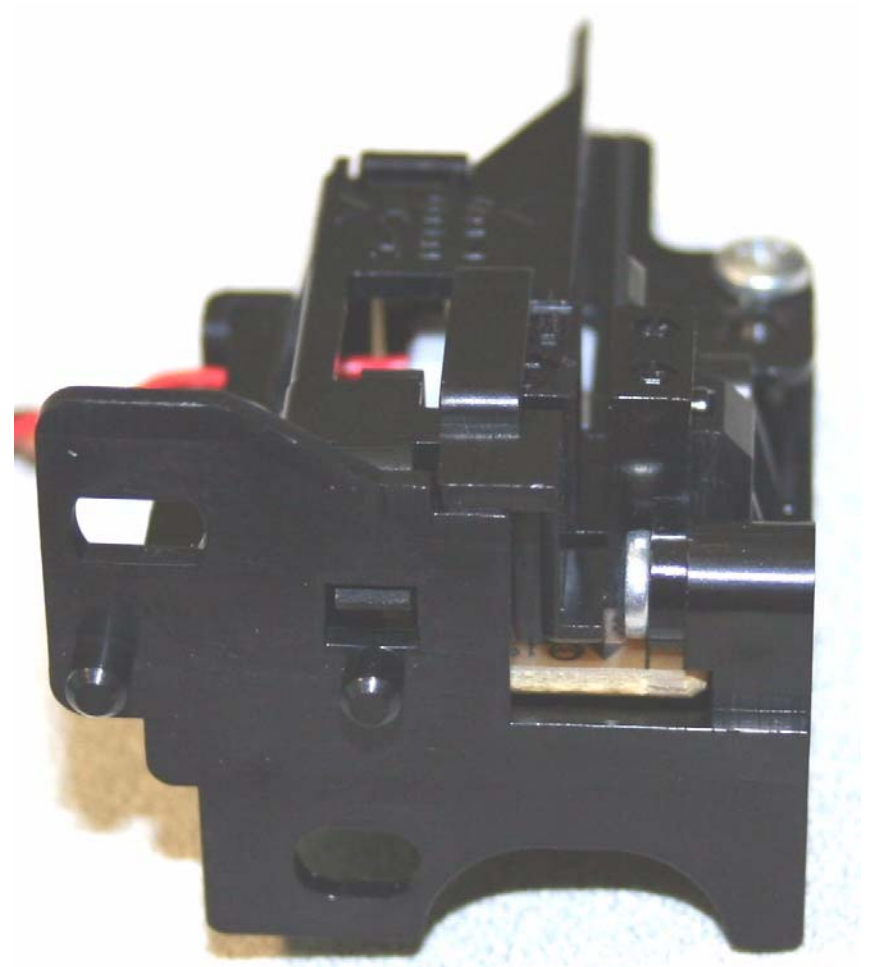
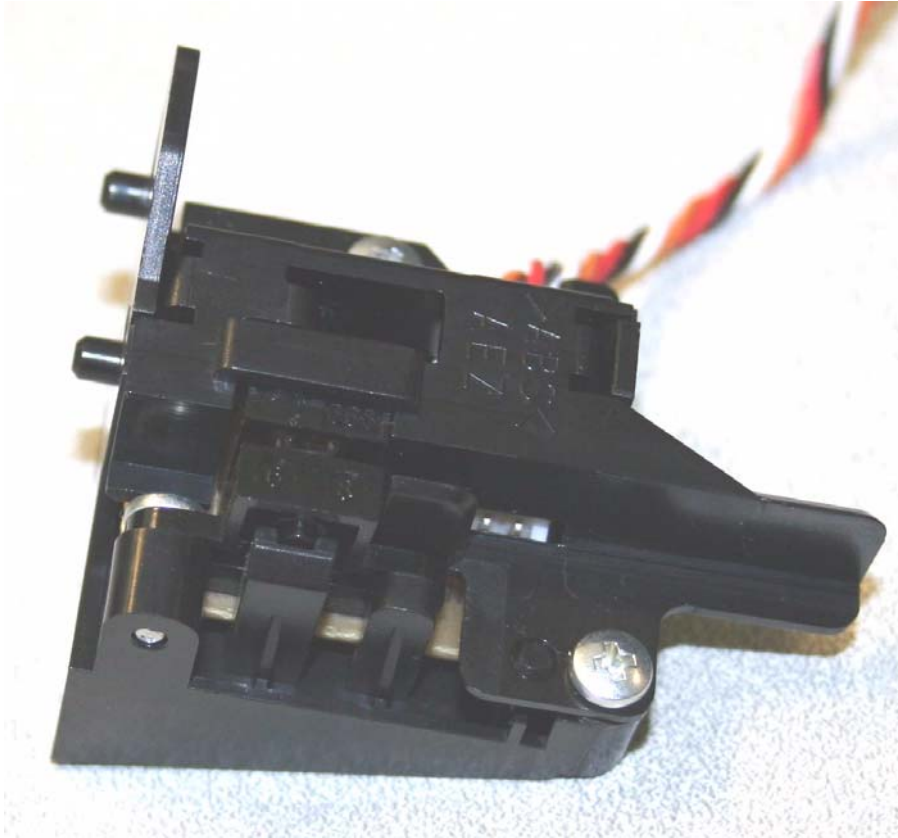


CSIC Contact Side.

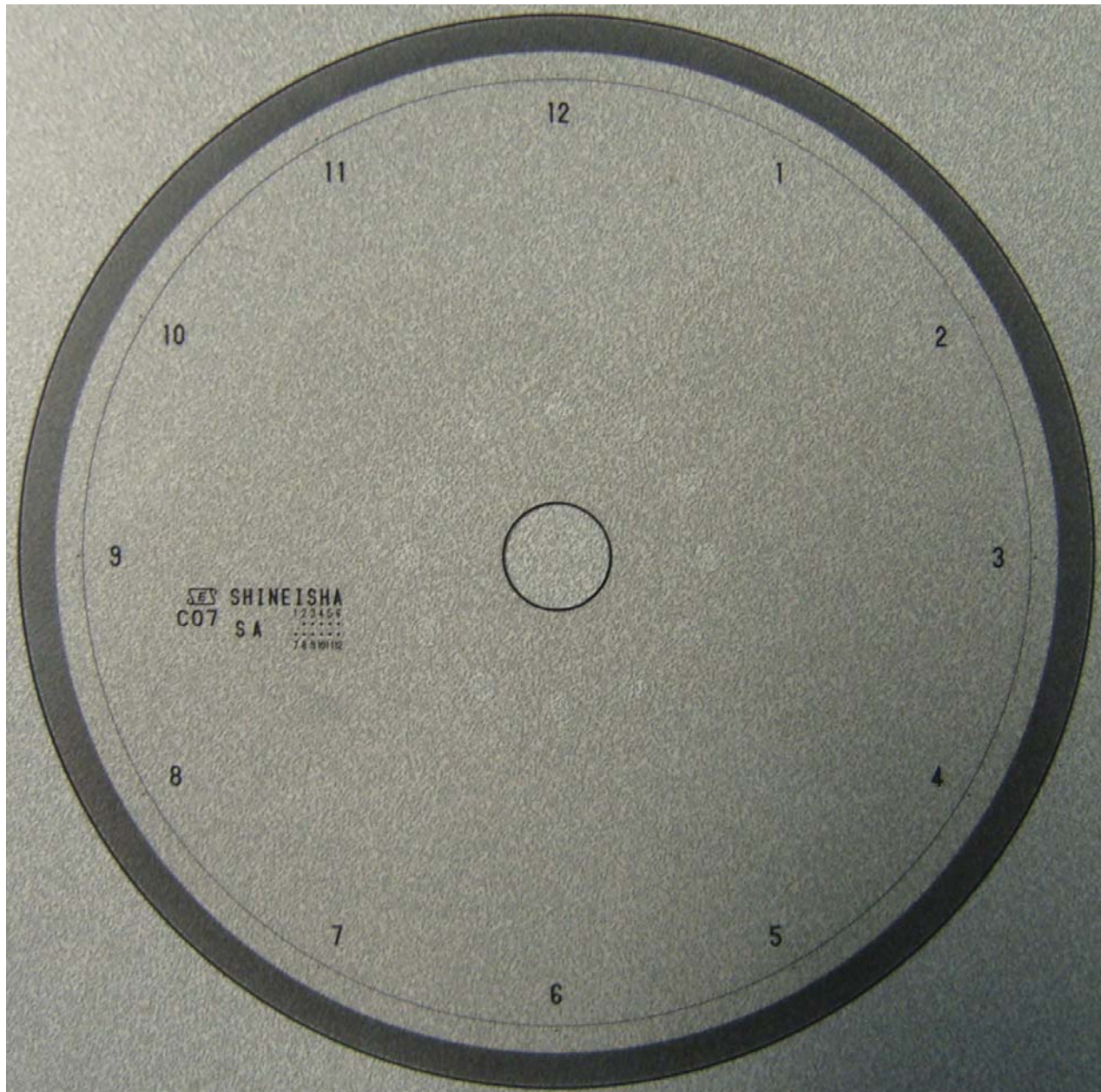
Cutter Blade Assembly Picture



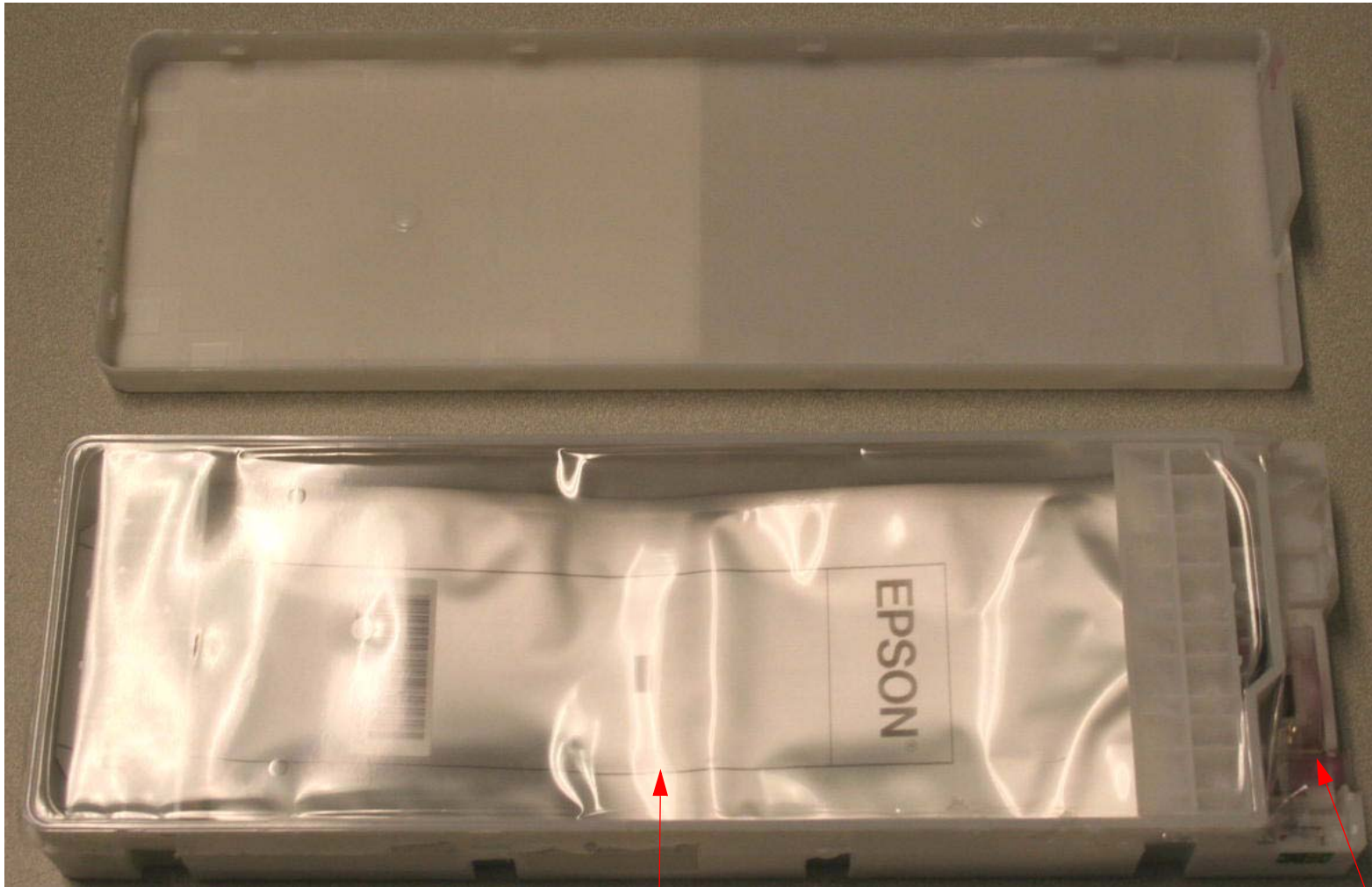
Encoder (Carriage) Pictures



Encoder Disk (Paper Feed) Picture

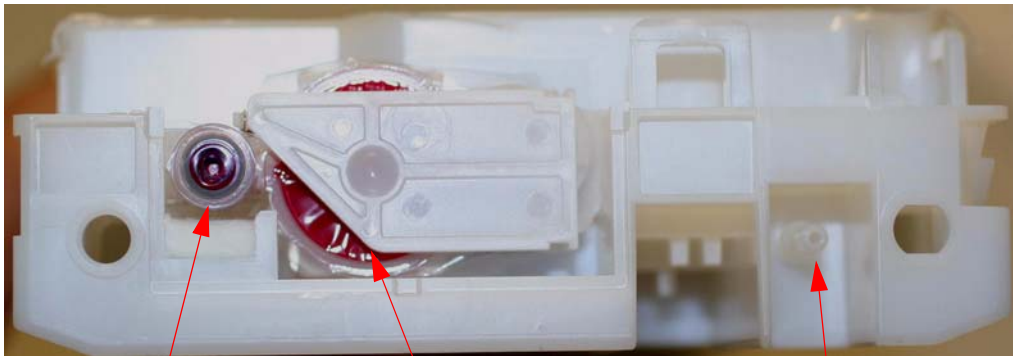


Ink Cartridge Pictures



Ink Sack

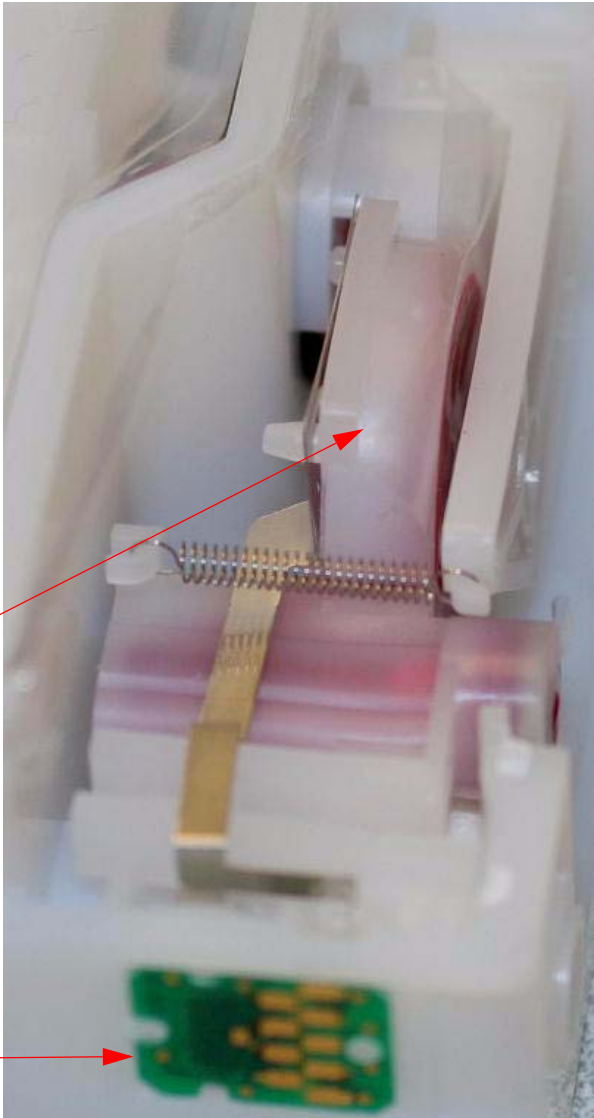
Ink Empty Sensor



Ink Outlet

Ink Out Sensor

Air Pressure Inlet



Ink Out Sensor

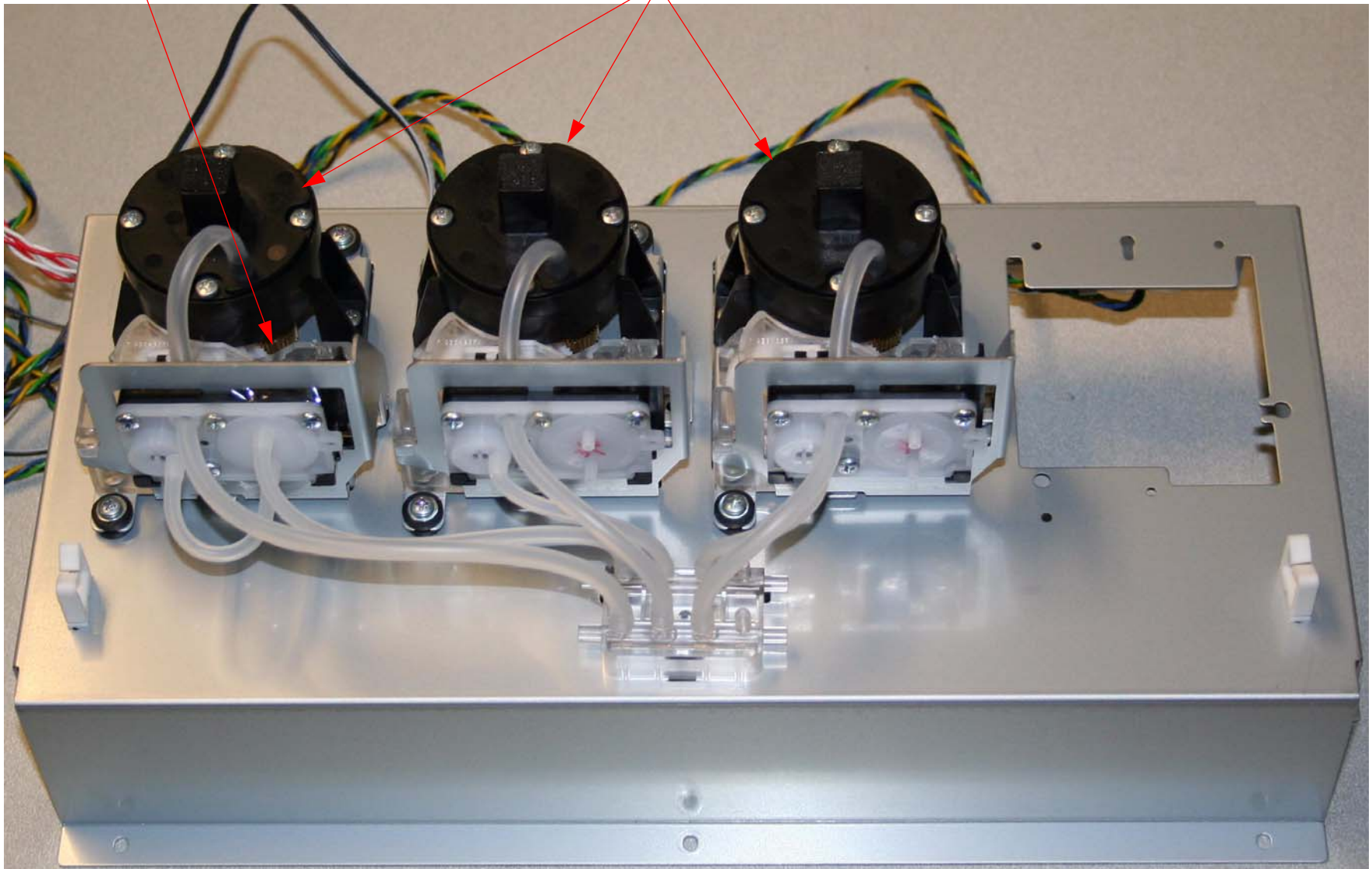
CSIC

Pressure Pump Assembly Pictures

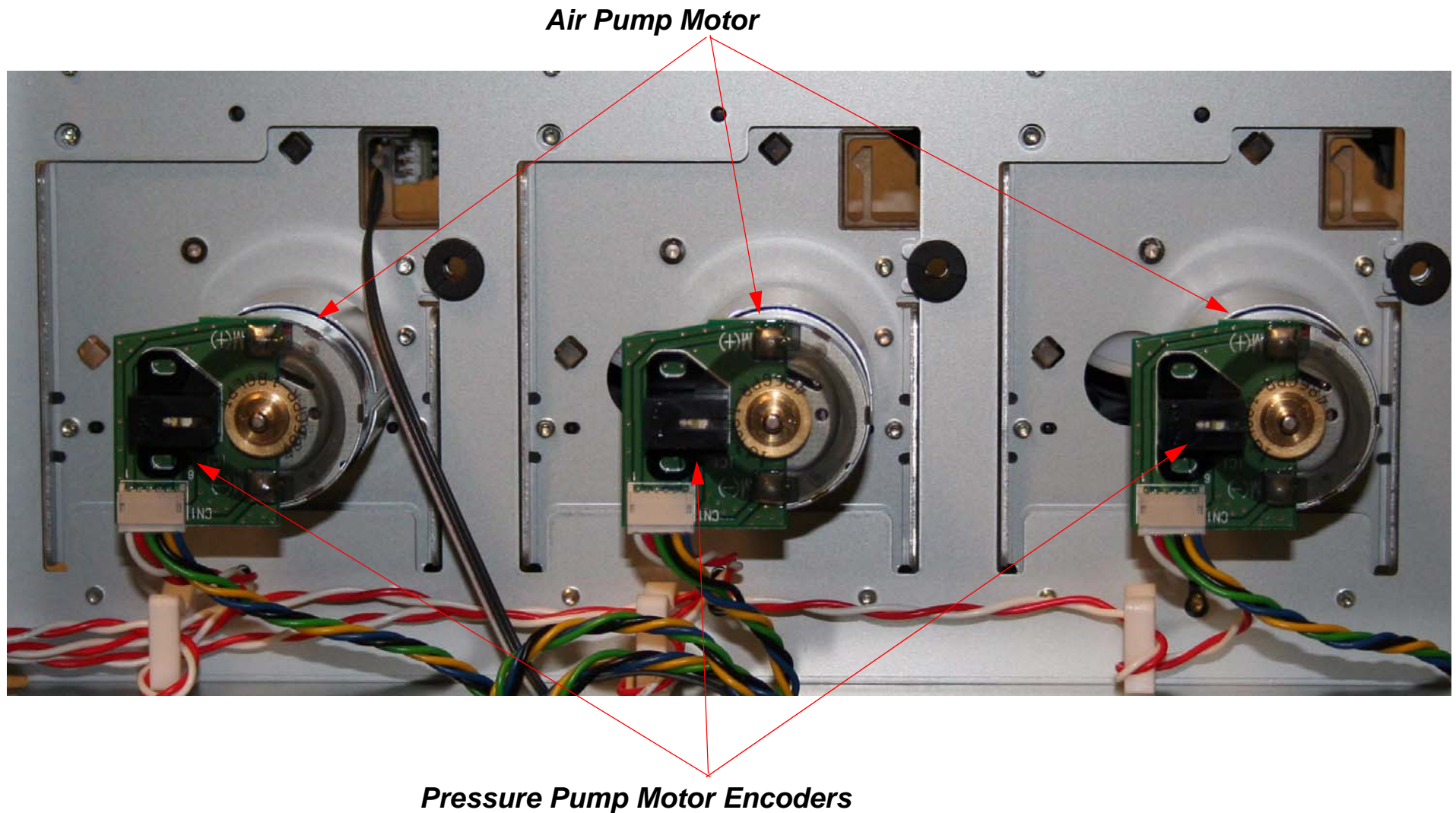
Top View

Pressure Sensor is on this **Pump** only.

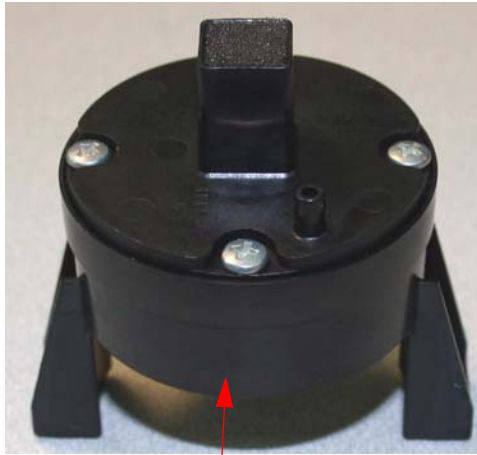
Air Pumps



Bottom View



Pressure Pump

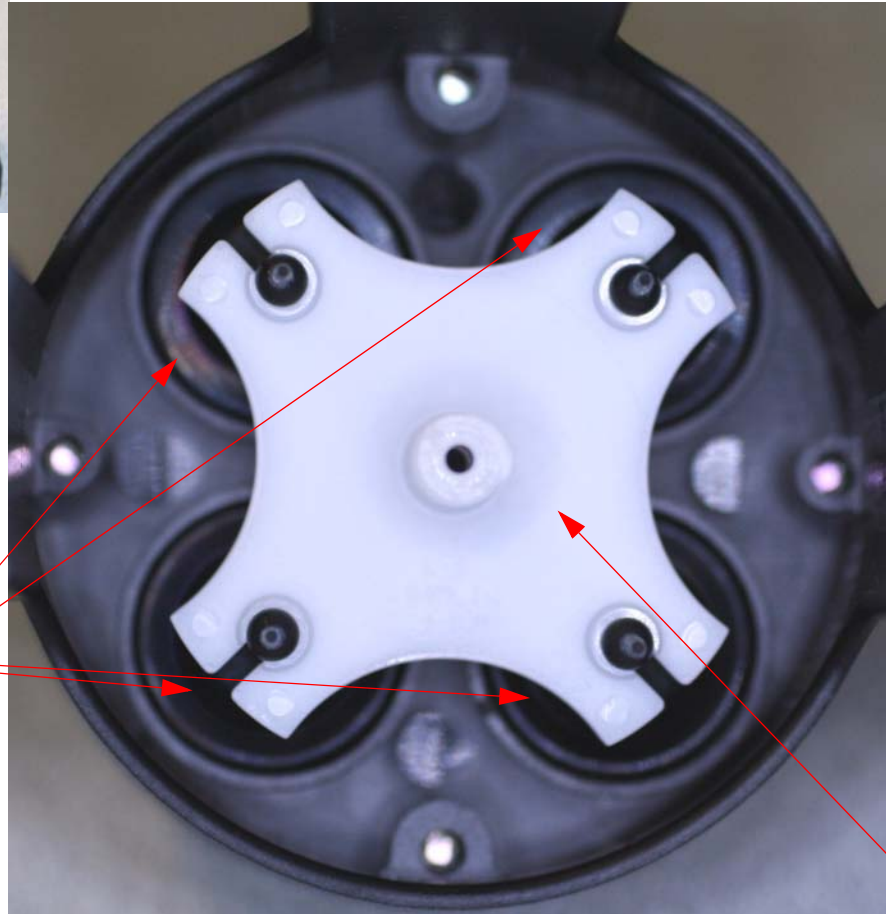


View from the top.



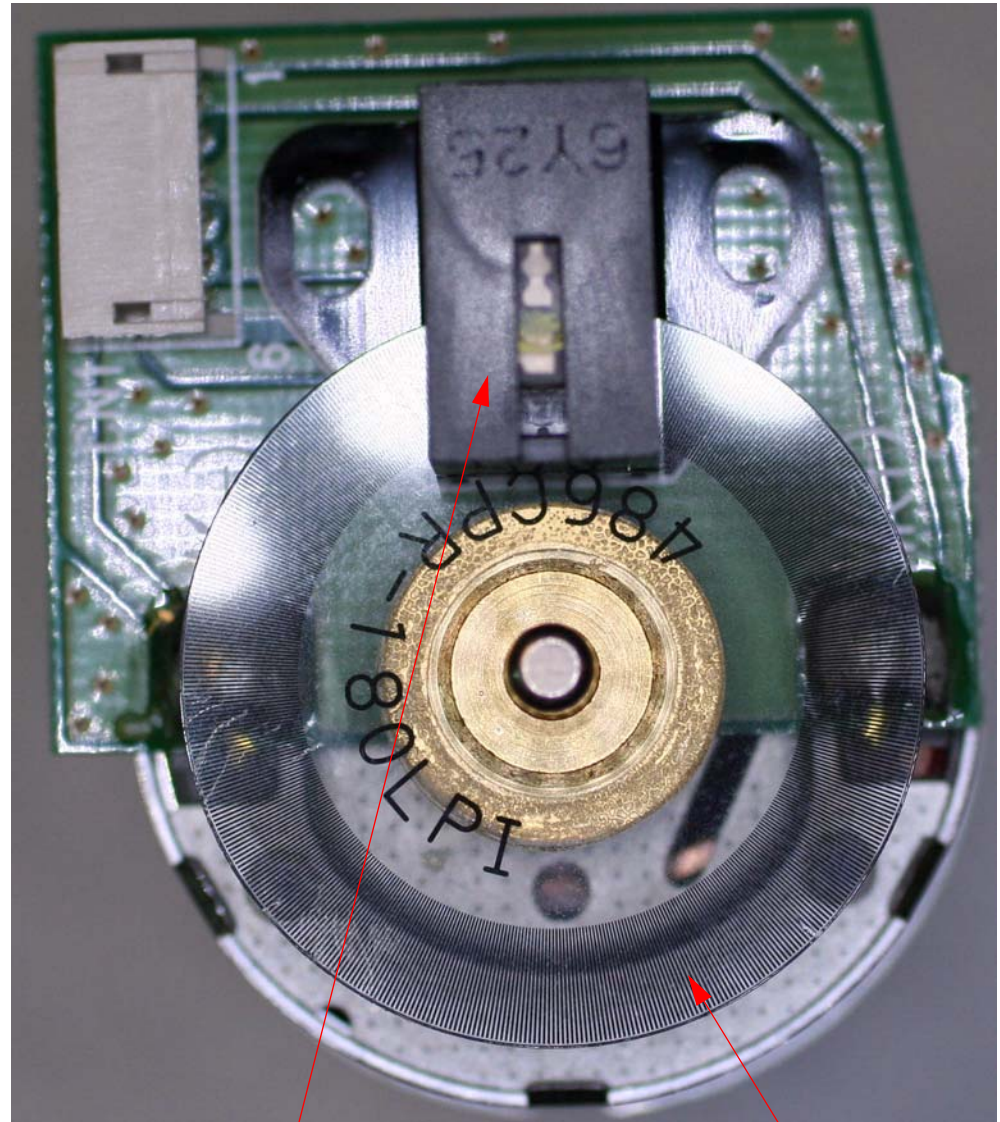
View from the bottom.

4 Diaphragms



This **Actuator** depresses each **Diaphragm** in sequence, generating pressurized air.

Pressure Pump Motor



Encoder

Encoder Disk

Pressure Regulator and Release Mechanism



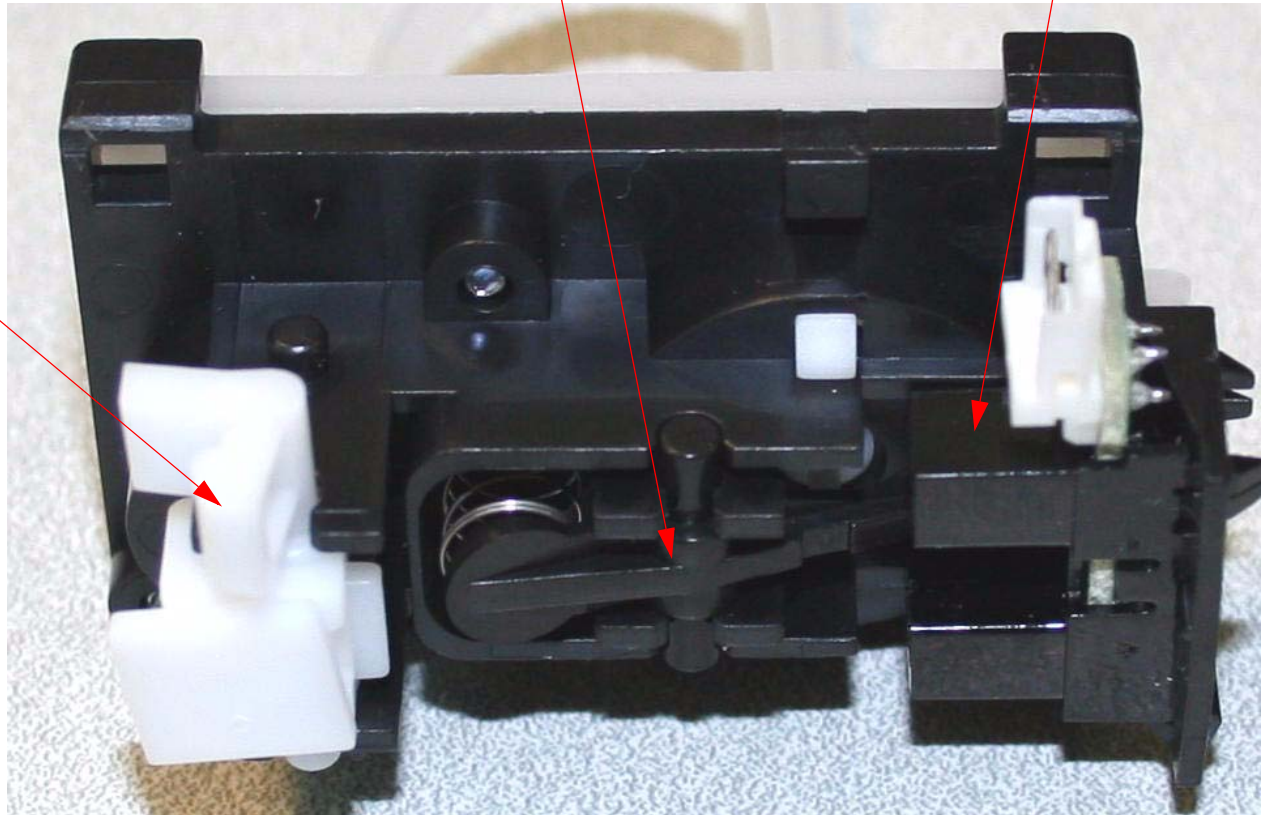
Front View

Note: Only 1 of 3 of these devices on the Pressure Pump Assembly include a Pressure Sensor. All 3 devices include Pressure Release Valves.

Pressure Sensor Acuator

Pressure Sensor

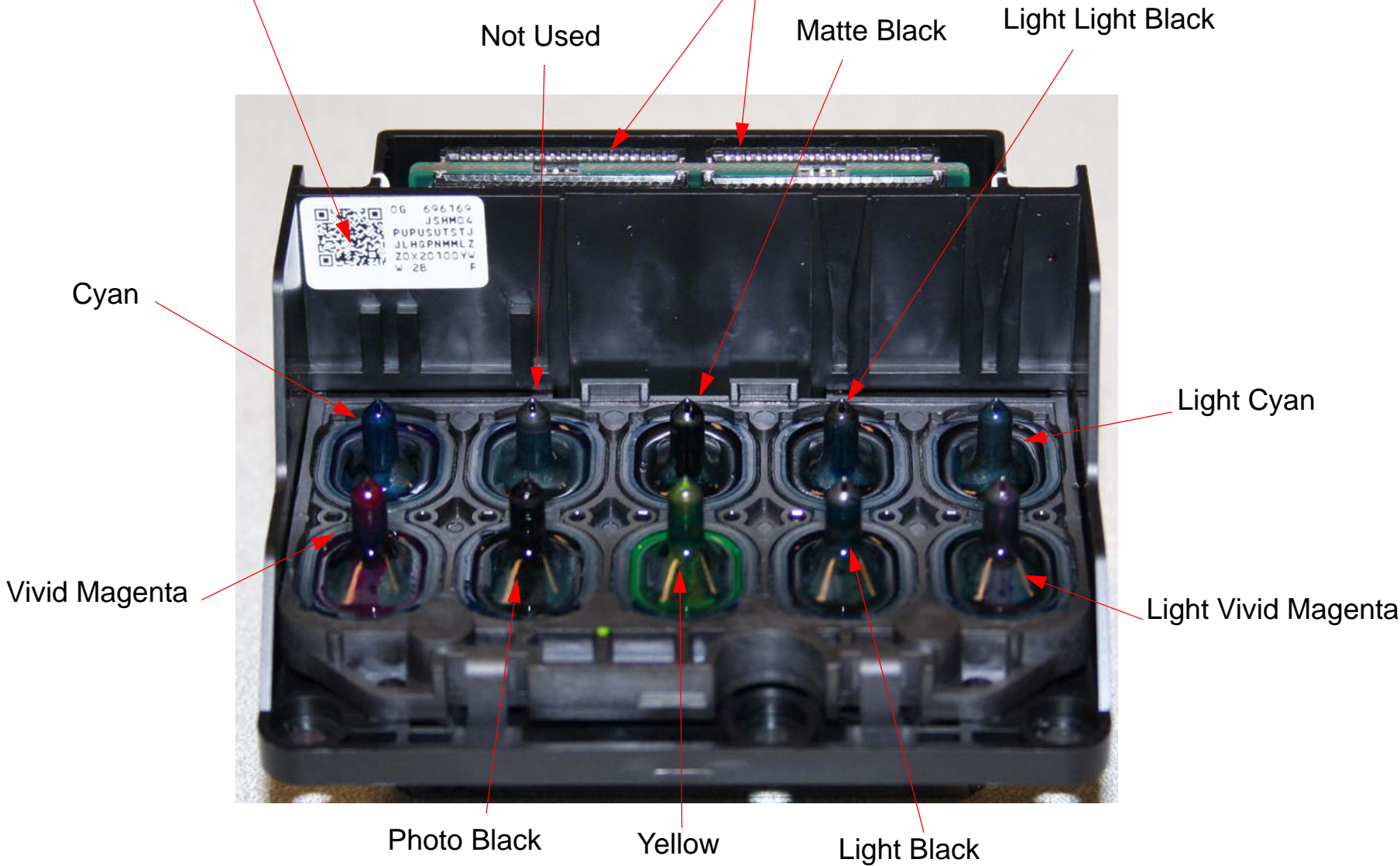
Pressure Release Valve

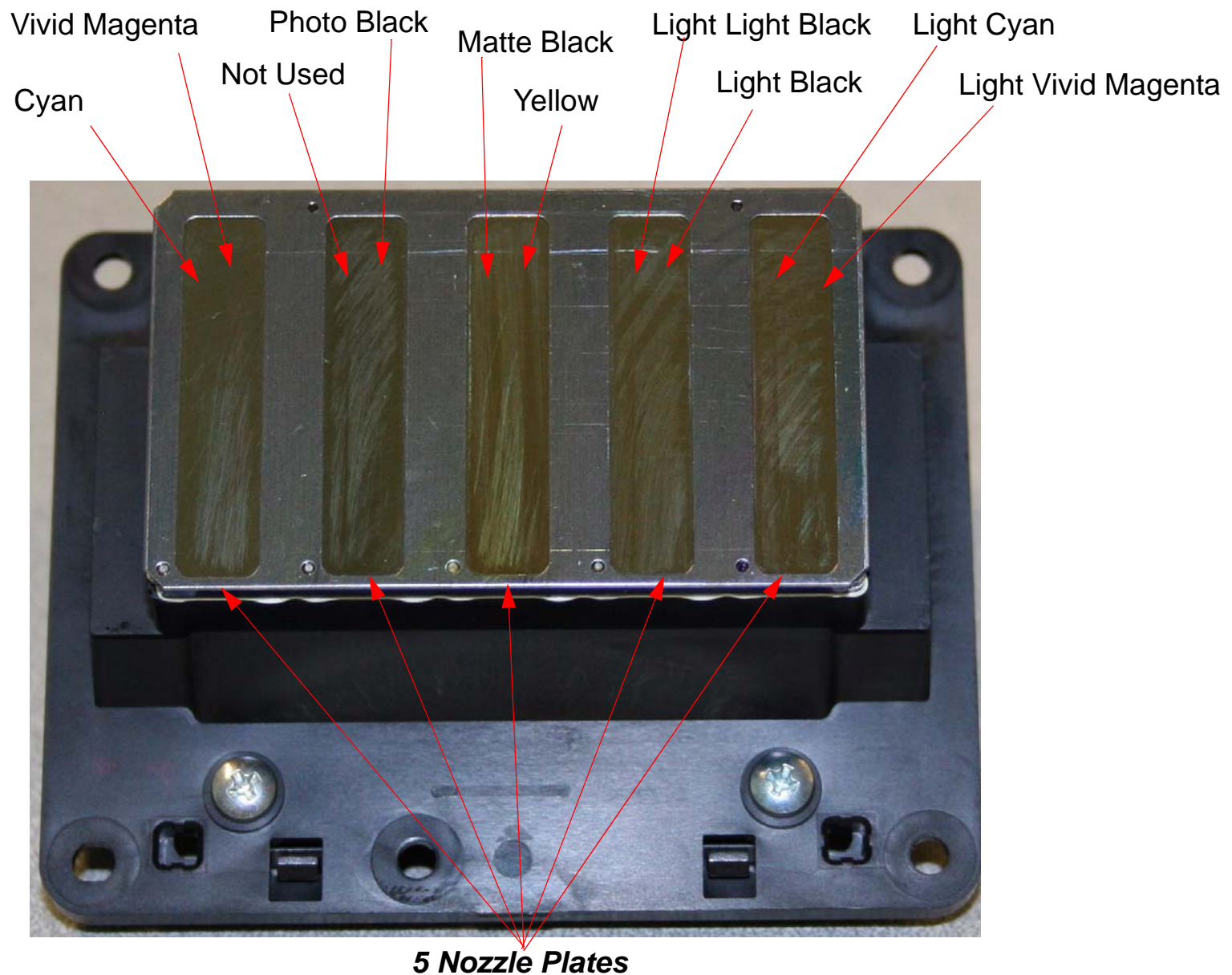


Print Head Pictures

Head Rank (*Print Head* Calibration value)

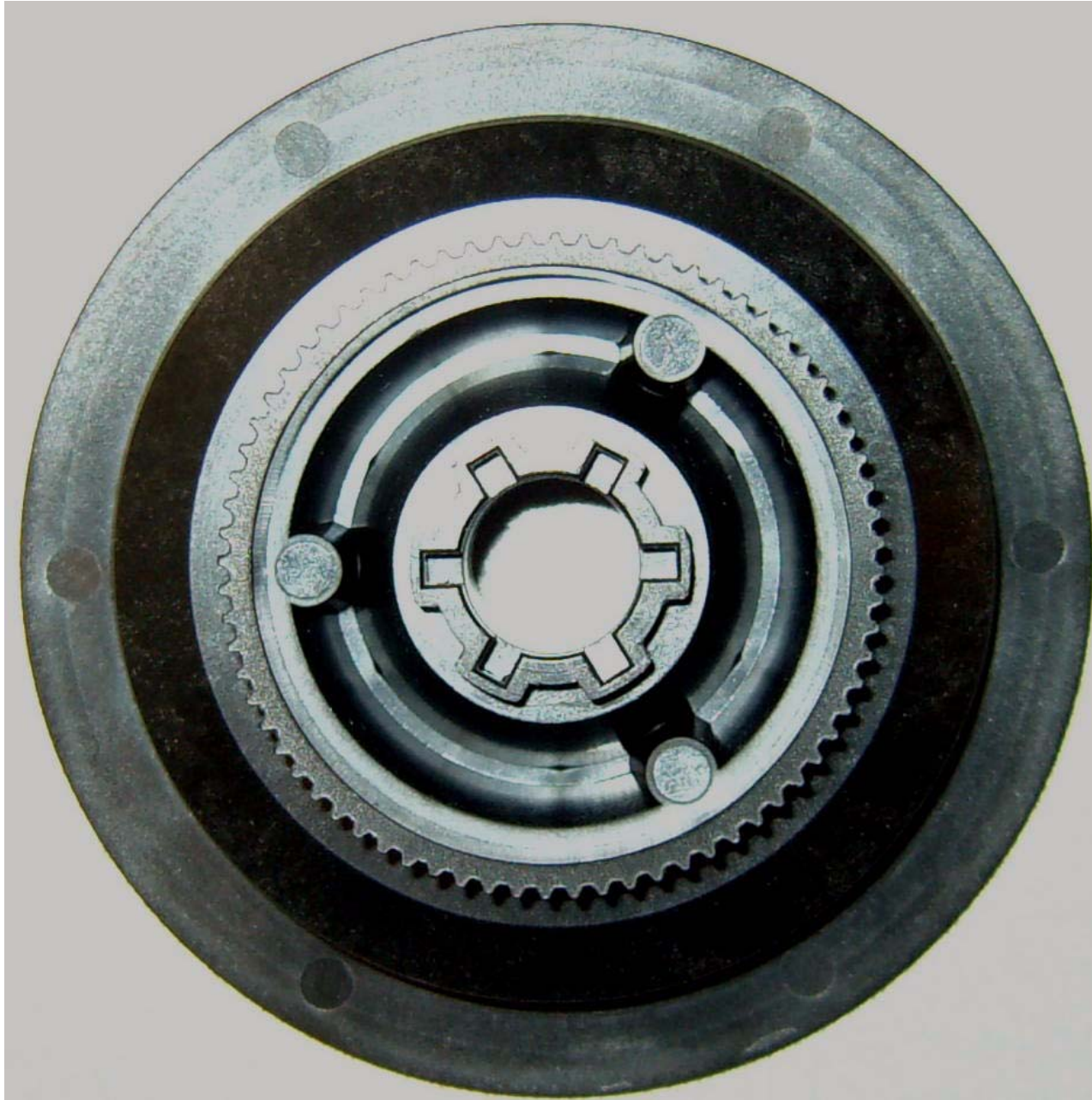
Print Head Cable Connector



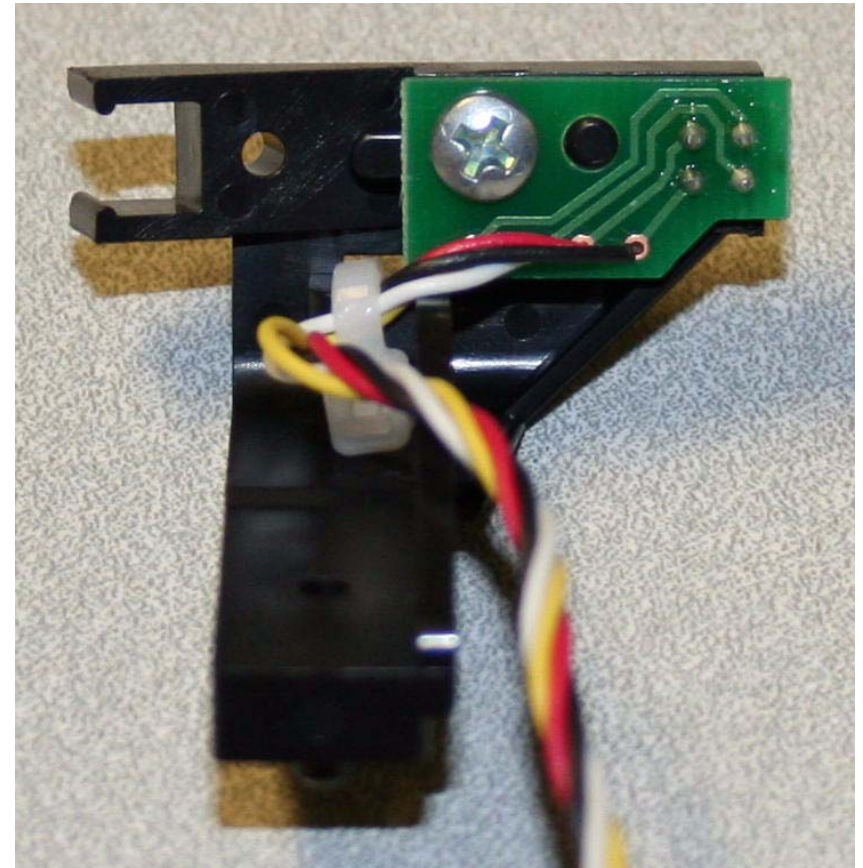


Note: the Nozzle Plates are very fragile and will be damaged with a minimum of force.

Pulley (Paper Feed) Picture



Sensor (Edge Detector) Pictures



Reference

Accessories List

Accessories

Sales Part Number	Description
C64CORE	Replacement 64-inch Take-up Reel Core
C815192	Replacement Manual Cutting Blade (for Manual Media Cutting System)
C12C811231	2" or 3", 64" Dual Tension Media Spindle
C12C815291	Cutter Blade
C12C8890071	Maintenance Tank
C12C890401	Retractable Fabric-based Media Bin

Carriage Release (Automatic)

Note: *Releasing the Carriage Mechanism is a delicate operation. It is extremely easy to damage the Print Head if a mistake is made. These 2 automatic methods are the safest.*

Note: *The best way to re-cap the Carriage Mechanism is to turn on the Printer and allow it to re-cap it's self.*

Automatic Carriage Release Method #1

1. From **ServiceMan Mode: SELF TESTING**: Select **Print Head Exchange**.

1.1 **ServiceMan Mode: Down, Right, and Pause** buttons, and turn on the **Printer**.

1.2 Navigate to **ServiceMan Mode: SELF TESTING\Print Head Exchange**

2. Press the **Right Arrow** to enter the **Print Head Exchange** menu.

3. Press the **Down Arrow** to navigate to the **Head Exchange** menu.

4. Press the **Right Arrow** to release the **Carriage Mechanism**.

4.1 The Printer will display **PLEASE WAIT**.

4.2 The **Printer** will release the **Ink System** pressure.

4.3 The **Printer** will release the **Carriage Mechanism**.

4.4 The **Printer** will display **TURN OFF PRINTER**.

4.5 Open the **Front Cover**.

Note: Failure to open the Front Cover before turning off the Printer will result in re-capping the Carriage Mechanism.

4.6 Turn Off the **Printer**.

Automatic Carriage Release Method #2

Note: *This procedure assumes that the Print Head is to be replaced. It includes Carriage Release, Ink System depressurization, and turning off the Printer. To just release the Carriage Mechanism stop at Step 7.*

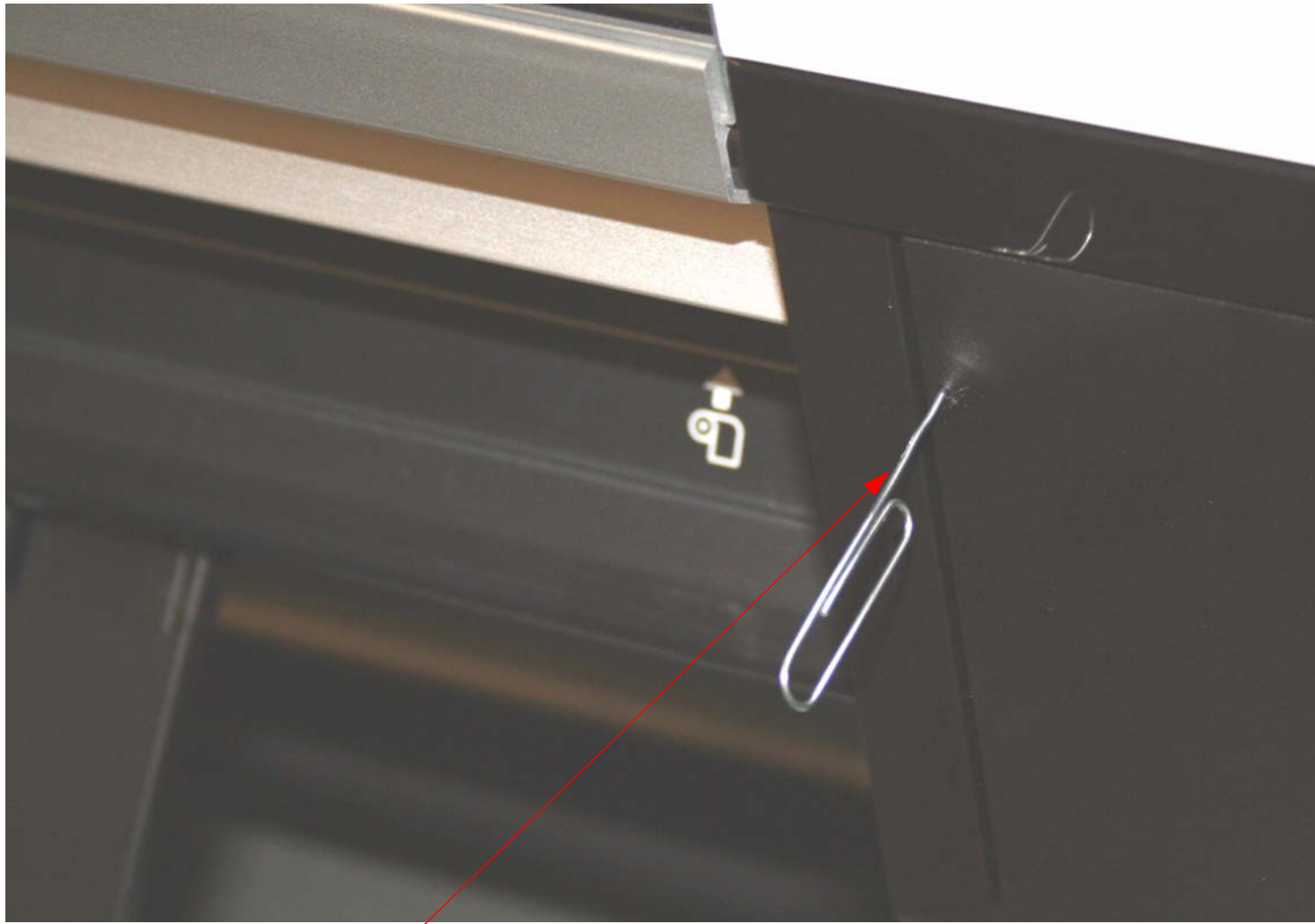
1. Turn on the **Printer**.
2. Press the **Right Arrow** to enter the User menu.
3. Press the **Down Arrow** to navigate to the **Maintenance** menu.
4. Press the **Right Arrow** to enter the **Maintenance** menu.
5. Press the **Down Arrow** to navigate to the **Cutter Replacement**.
6. Press the **Right Arrow** to enter the **Cutter Replacement** menu.
7. Press the **Enter** button to execute.
 - 7.1 The **Printer** will release the **Carriage Assembly** and move it to the left.

8. Open the **Front Cover**.



Open the **Front Cover**.

9. Manually release the **Right Ink Bay Door**.



Insert a paper clip into the **Manual Release Hole**, and release the **Right Ink Bay Door**.

Note: Opening the Ink Bay Door before turning off the Printer ensures that the Ink System Pressure is released.

10. Turn off the **Printer**.

Carriage Release (Manual)

Note: Releasing the Carriage Mechanism is a delicate operation. *It is extremely easy to damage the Print Head if a mistake is made.* There are 3 Carriage Release Procedures documented in the Field Repair Guide. The 2 Automatic methods are the safest. The manual method should only be used if the automatic methods can not be performed.

Note: The best way to re-cap the Carriage Mechanism is to turn on the Printer and allow it to re-cap it's self. If this is not possible, the manual Carriage lock procedure is documented at the end of this Chapter.

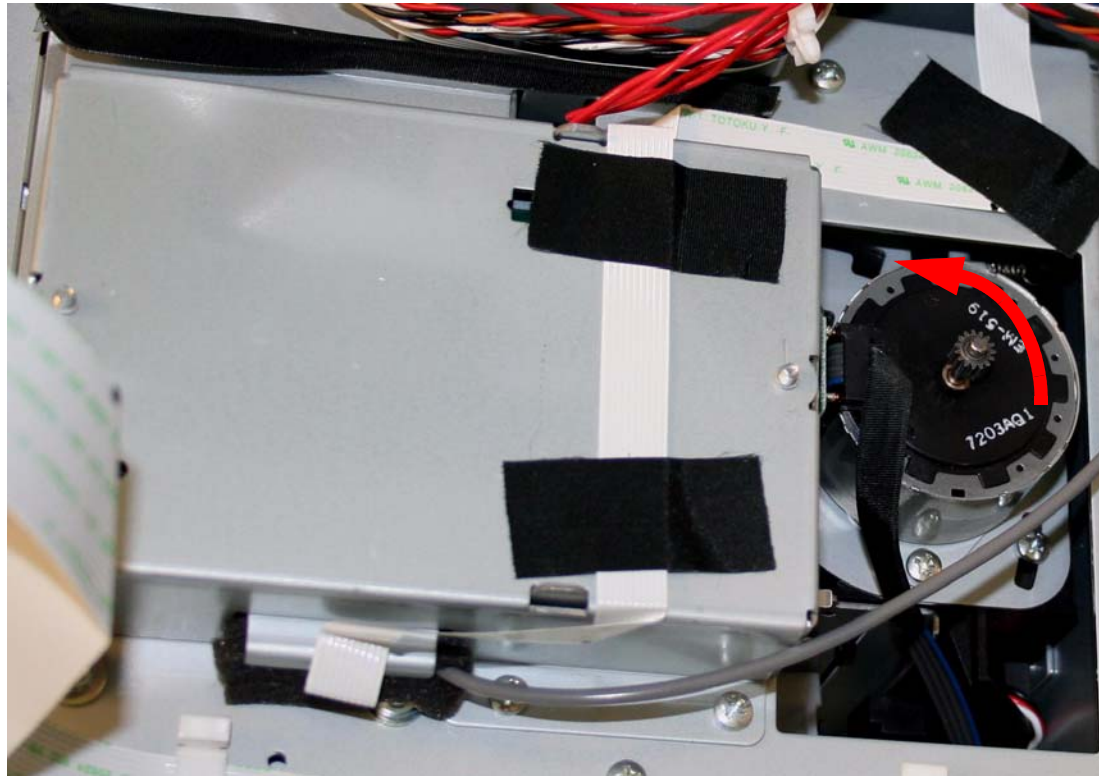
Manual Carriage Release Method

1. Unplug the **Printer**.
2. Remove the **Side Cover**.

Note: Normally to remove the Side Cover the Carriage Mechanism is released and moved away from the Cap position, to allow access to the Control Panel. In the case of the Manual Carriage Release

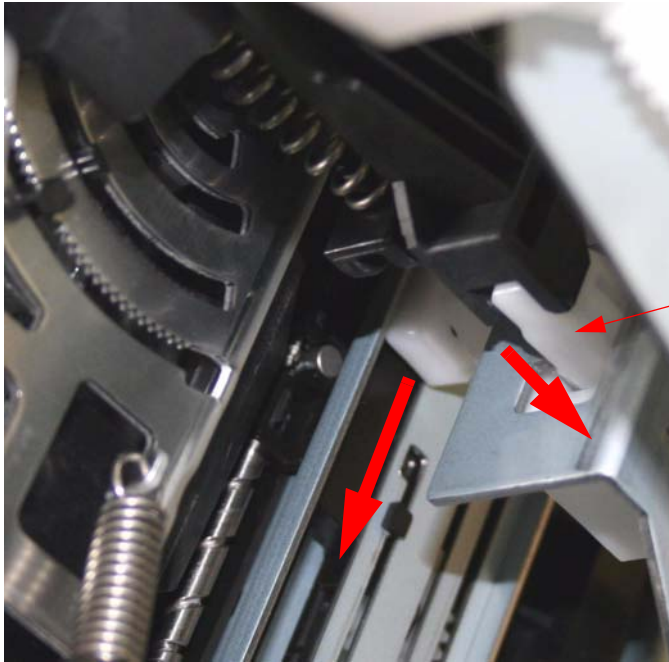
procedure, this is not possible. Gently removing the Side Cover without unplugging the Control Panel Cable first, will unplug the Cable as the Cover is removed.

3. Rotate the **Cap Motor** counter clockwise until the conditions explained in step 4 are satisfied.

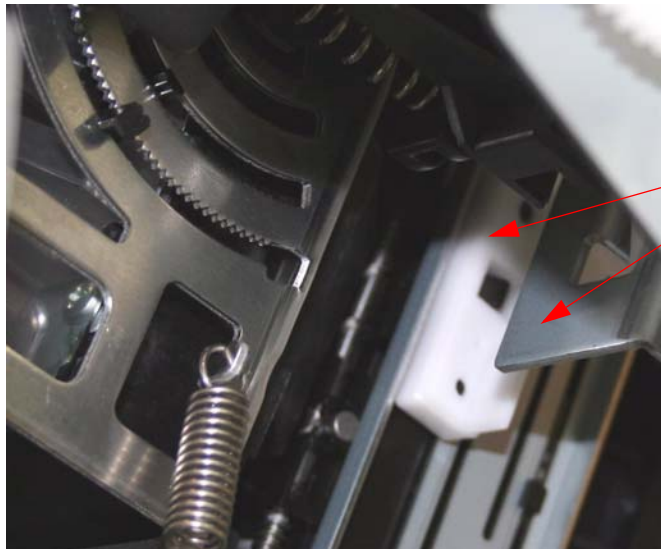


Rotate the **Cap Motor** counter clockwise until the condition explained in **Step 4** is satisfied.

4. Observe when the **Lock Mechanism** is “Unlocked”



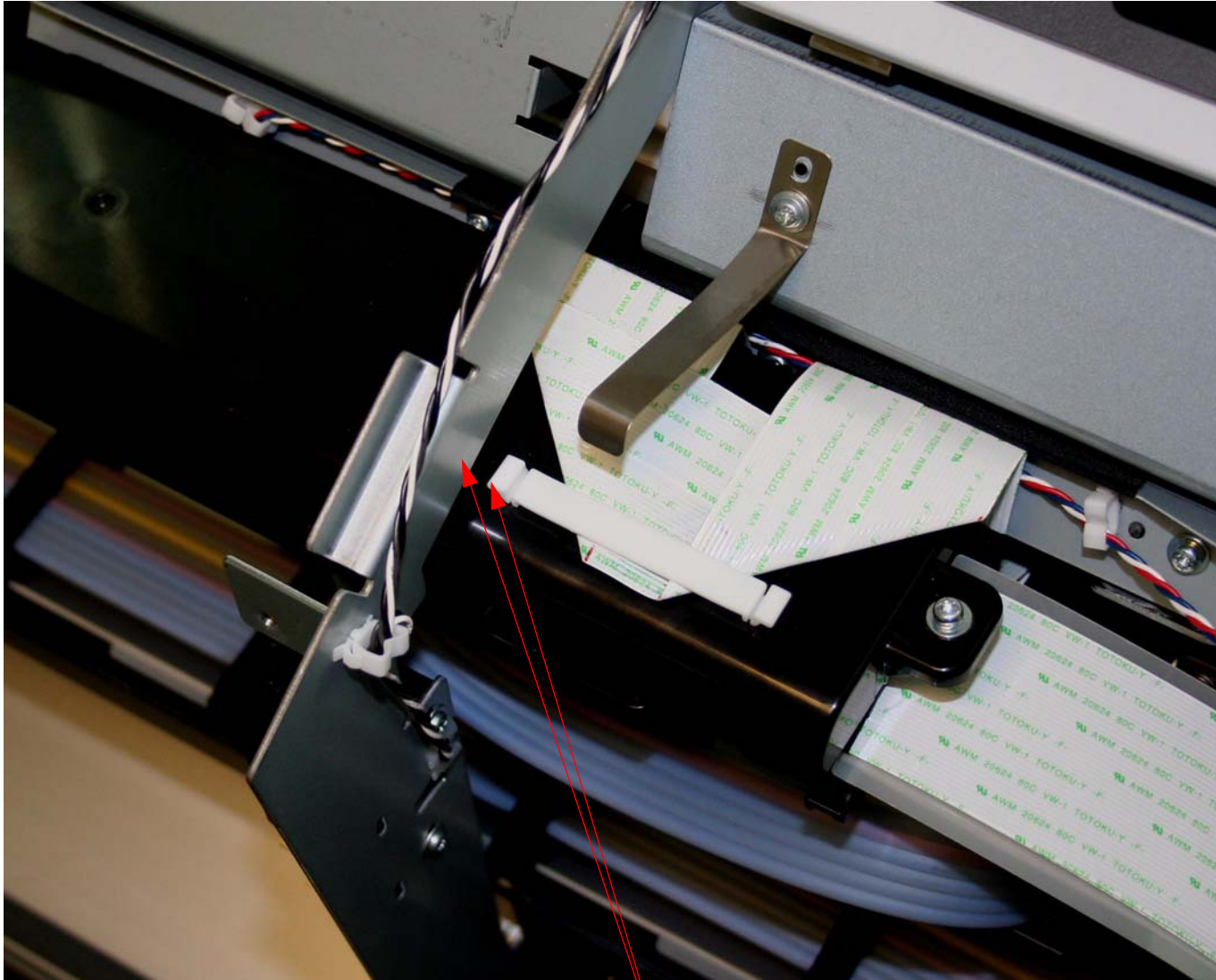
1. Locate the **Locking Mechanism**. (View is from the right side of the **Printer**).
2. Watch the **Lock Mechanism** release as the **Cap Motor** is rotated CCW.



3. Stop rotating the **Cap Motor** when this piece of the **Lock Mechanism** is adjacent to this **Metal Component**, as shown.
4. Move the **Carriage Mechanism** away from the capped position.

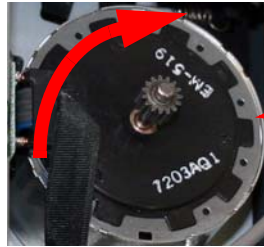
Manual Lock Method

1. Center the **Carriage Assembly** over the **Cap Assembly**.

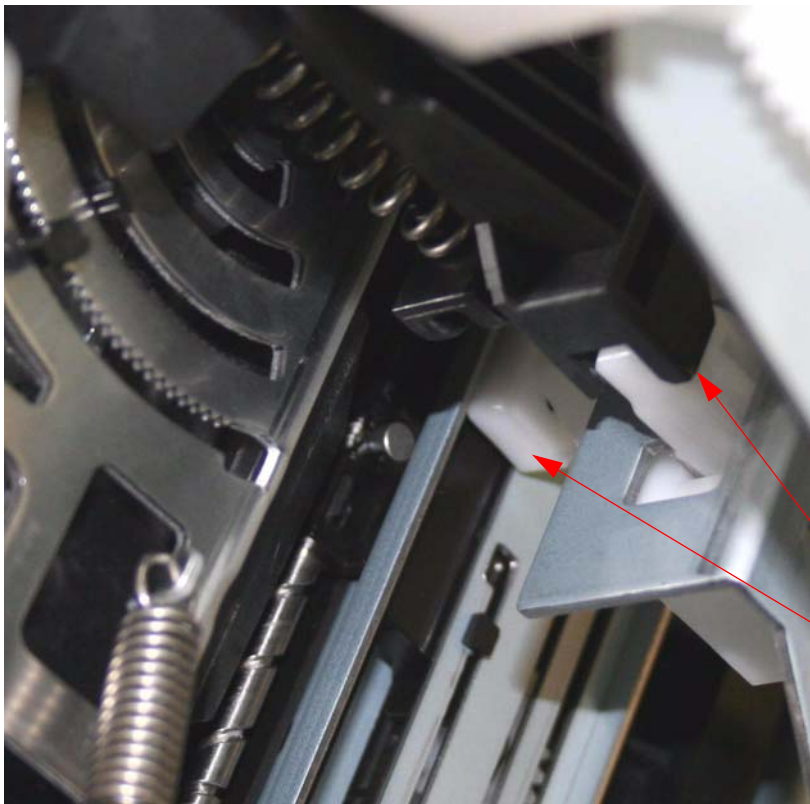


Move the **Carriage Assembly** until the **White Plastic Cable Fastener** is approximately 1/32 of an inch to the right of this **Frame Component**.

2. Rotate the **Cap Motor** clockwise and lock the **Carriage Mechanism**.



1. Rotate the **Cap Motor** CW.



2. Stop rotating the **Cap Motor** CW when the **Lock Mechanism** is in this position.

Cleaning and Draining Cartridges

Note: 8 Cleaning and Draining Cartridges are required to flush the system.

Part #: **1456362**

Description: ***Cleaning Liquid Cartridge.***

Quantity required = **9**

Part #: **1456361**

Description: ***Draining Cartridge.***

Quantity required = **9**

Color Order

Color Order For installed Cartridges (Listed Left to Right)

1. Vivid Light Magenta
2. Light Light Black
3. Matte Black
4. Light Black
5. Light Cyan
6. Not Used
7. Cyan
8. Vivid Magenta
9. Photo Black
10. Yellow

Color Order on the Print Head (Listed Left to Right)

1. Cyan
2. Vivid Magenta
3. Not Used
4. Photo Black
5. Matte Black
6. Yellow
7. Light Light Black
8. Light Black
9. Light Cyan
10. Vivid Light Magenta

User Nozzle Check Color Order (Stair Step) (Listed Left to Right)

1. *Vivid Light Magenta*
2. *Light Light Black*
3. *Matte Black*
4. *Light Black*
5. *Light Cyan*
6. *Cyan*
7. *Vivid Magenta*
8. *Photo Black*
8. *Yellow*

Connectors / Wiring

Main Board Connectors

Connector #:	Connected To:	Pins:
CN1	Power Supply CN1	14
CN2	Not Used	4
CN3	Not Used	14
CN5	USB 2.0	4
CN8	Auto Take -Up Reel Unit	9
CN11	Carriage Motor	3
CN12	Paper Feed Motor	2
CN13	Ink System Pressure Motor	2
CN14	Ink System Pressure Motor	2
CN15	Ink System Pressure Motor	2
CN16	Not Used	2
CN17	Pump Motor	4
CN18	Cap Motor	4
CN19	Platen Gap Motor	4
CN20	Carriage Board (C679 Sub Board) CN1	40
CN21	Carriage Board (C679 Sub Board) CN2	40
CN22	Carriage Board (C679 Sub Board) CN3	40

Connector #:	Connected To:	Pins:
CN23	Sub Board B CN1	34
CN24	Sub Board C CN1	34
CN25	Sub Board D CN1	34
CN26	Sub Board E CN1	34
CN28	Suction Fan	3
CN29	Suction Fan	3
CN30	Suction Fan	3
CN31	Suction Fan	3
CN34	Paper Release Lever Solenoid	2
CN35	Head Driver Cooling Fan	2
CN38	Air Pressure Pump Encoder	4
CN39	Air Pressure Pump Encoder	4
CN40	Air Pressure Pump Encoder	4
CN41	Not Used	4
CN48	Control Panel	20
CN64	Left Front Cover Sensor	3
CN65	Right Front Cover Sensor	3
CN66	Air Pressure Sensor	3
CN501	Ethernet Port	8
CN506	EDM Memory	90

Connector #:	Connected To:	Pins:
CN508	AID Board	9
CN509	Not Used	2

Carriage Board (C594 Sub Board)

Connector #:	Connected To:	Pins:
CN1	Main Board CN20	40
CN2	Main Board CN21	40
CN3	Main Board CN22	40
CN4	Print Head	40
CN5	Print Head	40
CN7	Cutter Solenoid	2
CN8	Ink Mark Sensor	4
CN9	Carriage Encoder Sensor	4
CN10	EdgeAD Sensor	4
CN12	Platen Gap Home Position Sensor	3
CN13	Carriage Home Position Sensor	3

C594 Sub-B Board

Connector #:	Connected To:	Pins:
CN1	Main Board CN23	34
CN2	Right Maintenance Tank	7
CN3	(Right) Paper Thickness Sensor	3
CN4	(Left) Paper Thickness Sensor	3
CN5	RearAD Sensor	3

Connector #:	Connected To:	Pins:
CN6	Cap Home Position Sensor	3
CN7	Suction Home Positon Sensor	3

C594 Sub-C Board

Connector #:	Connected To:	Pins:
CN1	Main Board CN24	26
CN2	Center Maintenance Tank	7
CN3	Left Maintenance Tank	7
CN4	Paper Feed Encoder	4
CN5	Not Used	3

Power Supply

Connector #:	Connected To:	Pins:
CN001	AC Power	2
CN301	Main Board CN1	20

Control Panel

Connector #:	Connected To:	Pins:
CN20	Main Board (CN48)	20

Consumable/Service Parts List

*Ink is intended as a service tool (**Warranty Service Only**), and is not for sale. Use the Service Part Number, and claim it on a warranty form.*

Service Part #	Sales Part #	Ink 700 ML Cartridges	ECCC Cost after 40% discount
WAT591100	T591100	UltraChrome K3 Photo Black	Warranty use only
WAT591200	T591200	UltraChrome K3 Cyan	Warranty use only
WAT591300	T591300	UltraChrome K3 Vivid Magenta	Warranty use only
WAT591400	T591400	UltraChrome K3 Yellow	Warranty use only
WAT591500	T591500	UltraChrome K3 Light Cyan	Warranty use only
WAT591600	T591600	UltraChrome K3 Vivid Light Magenta	Warranty use only
WAT591700	T591700	UltraChrome K3 Light Black	Warranty use only
WAT591800	T591800	UltraChrome (K3) Matte Black	Warranty use only
WAT591900	T591900	UltraChrome K3 Light Light Black	Warranty use only

Service Part #	Sales Part #	Paper Type	ECCC Cost after 40% discount
WAS041385	SO41385	Double Weight Matte Paper 24" x 82' roll	\$42.00
WAS041387	SO41387	Double Weight Matte Paper 44" x 82' roll	\$64.64
WAS041393	S041393	Premium Semimatte Photo Paper(170) 24" x 100" roll	\$69.96
WAS041395	S041395	Premium Semimatte Photo Paper(170) 44" x 100" roll	\$123.00

Service Part #	Sales Part #	Paper Type	ECCC Cost after 40% discount
WAS041603	S041603	Enhanced Matte Paper size A4 (250 sheets)	\$106.32
WAS041725	S041725	Enhanced Matte Paper 17" x 100' roll	\$38.50
WAS041737	S041737	Premium Luster Photo Paper(250) 16" x 100' roll	\$66.00
WAS041779	S041779	Photo Semigloss 16.5" x 100" roll	\$59.97
WAS041827	S041827	Premium Semimatte Photo Paper 17" x 22" (25 sheets)	\$53.97

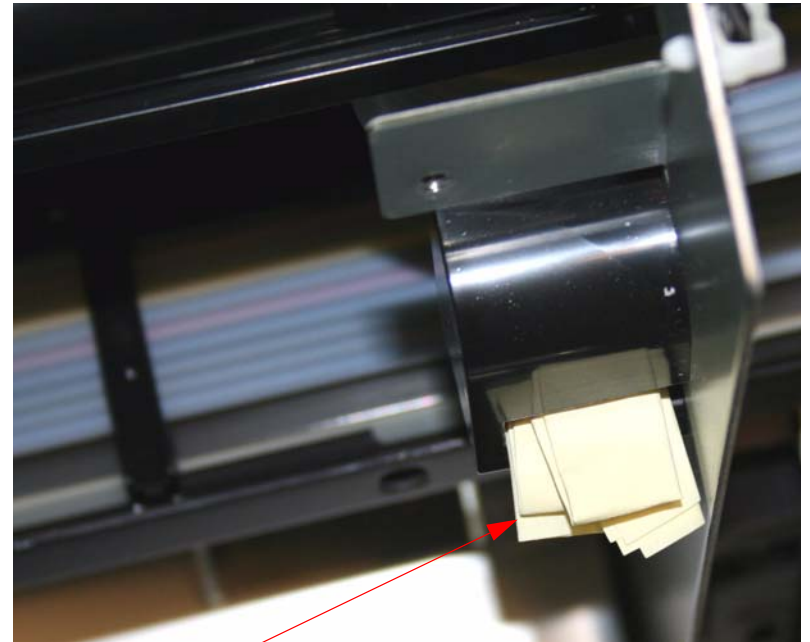
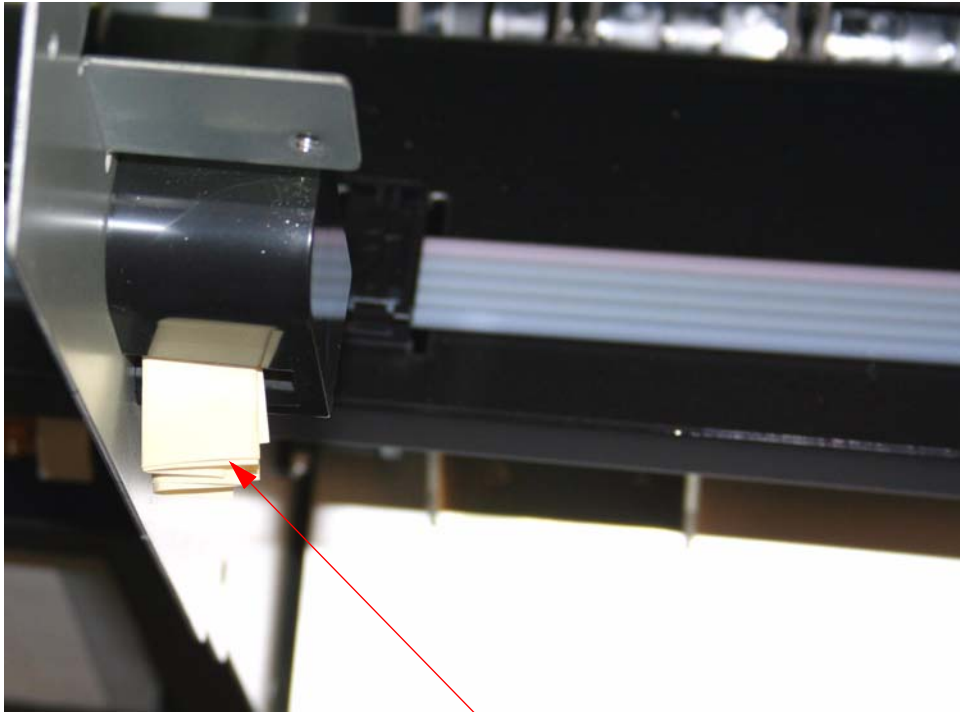
Maintenance Tank and Cutter Blades are available through Sales Channels only.

Sales Part Number	Description
C12C890191	Maintenance Tank
C12C815291	Cutter Blade

Draining and Cleaning Cartridges

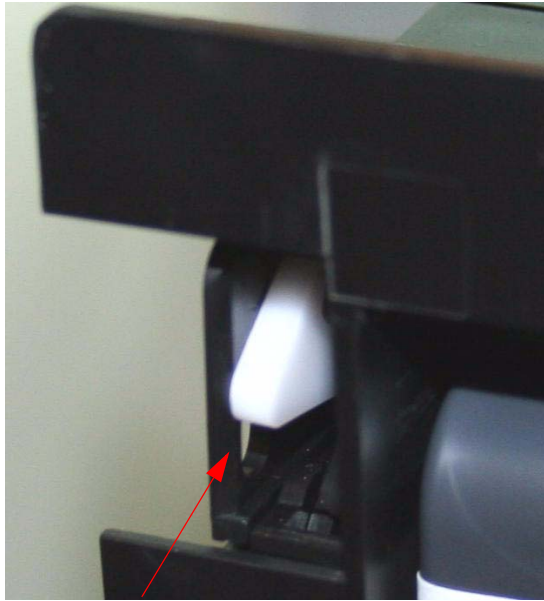
1456361	Draining Cartridge (qty-1) 9 required to drain the Printer
1456362	Cleaning Cartridge (qty-1) 9 required to clean the Printer

Cover Sensor (Front) Bypass Procedure

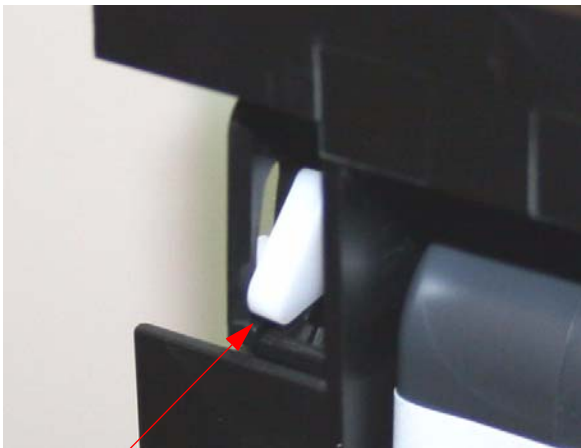


Wedge **2 Cover Sensors** with paper to defeat the **Front Cover Sensors**.

Cover Sensor (Ink) Bypass Procedure



Lever Up = Ink Door Closed



Lever Down = Ink Door Open



Left Ink Door Sensor

Firmware History

This chart explains the meaning of the firmware version characters.

Epson firmware version is represented as: Model and the Release Date.				The values are represented in Hexadecimal	
Example SN00458				HEX	= Decimal
SN0	04	5	8	1	= 1
SP7800	DAY	YEAR	MONTH	2	= 2
	4	2005	Aug	3	= 3
Example SN00157				4	= 4
SN0	01	5	7	5	= 5
SP7800	DAY	YEAR	MONTH	6	= 6
	01	2005	Jul	7	= 7
Example:				8	= 8
				9	= 9
	DAY	YEAR	MONTH	A	= 10
				B	= 11
				C	= 12
				D	= 13
				E	= 14
				F	= 15

Stylus Pro 11880 Firmware Current Ver. F01097.upg

Release date: 07/10/09

1. The firmware control of the AID circuitry was improved. This is the final AID improvement.
2. The firmware supports the new NVRAM chip used on the new style Main Boards. It is downward compatible with the old style Main Boards.

Stylus Pro 11880 Firmware Ver. F0207B.upg

Release date: 11/02/07

1. The firmware control of the AID circuitry was improved.

Stylus Pro 11880 Firmware Ver. F01479.upg

Release date: 9/14/07

1. Initial release.

Stylus Pro 11880 Ver. F00878.upg

Release date: 08/08/07

1. Pre-production release.

Firmware History (Ethernet)

11880 Current Ethernet Firmware Ver. 1.05

Firmware File Name: lpe2105.efu

1. Improves Ethernet functionality.

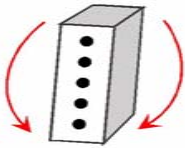
Firmware Update Procedure Using FWUpdate.exe

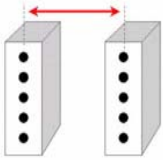
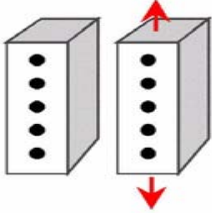
Note: *This procedure is used to update or install firmware. It is the service method because it does not require the Printer to be “Online” to work.*

1. Turn on the **Printer** while depressing the **Up**, **Down**, **Left**, and **Right** buttons.
 - 1.1 The **Printer** will display **UPDATE FIRMWARE**
2. Using **FWUpdate.exe** transmit the current firmware to the **Printer**.
 - 2.1 The Printer will display **UPDATING FIRMWARE**.
 - 2.2 The Printer will display **FIRMWARE UPDATE COMPLETE**.
 - 2.3 The Printer will display **ENERGYSTAR**.
 - 2.4 The Printer will re-initialize and display **EPSON**.
 - 2.5 The Printer will display **PRESS PAUSE BUTTON**.
 - 2.6 The Printer will display **PLEASE WAIT**.
 - 2.7 The Printer display **READY**.

Glossary

Artifact	A defect, that is within an image. It can mean something on the graphic that was not intended, or something missing that was intended. All image quality defects are artifacts.
Bi-Directional Adjustment:	An electronic adjustment, that ensures that a printer can coordinate left to right, with right to left, printing.
Capped Position:	The print head at it's stand by position, with the cap mechanism sealing the nozzles.
Coating:	The top layer of graphics paper (media) that consists of a special substance designed to trap ink and keep it from being absorbed into the paper fibers. Non-paper based ink jet media uses coating to allow the ink to bond with the surface. A coatings purpose is to minimize dot gain, and control saturation.
Color Shift:	An unintended change of a gradient or tone.
Continuous Tone:	The qualities of a photograph that makes an image appear real. The smooth and life-like transition from one color shade to the next, like in a photograph. Epson Ink Jet printers are not continuous tone printers. But when working properly, their printed images fool the human eye into seeing continuous tone transitions.
Debris:	A term that refers to unintended ink on the page deposited by debris dropping from the print head.
Deflected Nozzle:	A nozzle is firing, but the ink drop is not landing where it is intended too. Irregular spacing on the nozzle check pattern indicates this condition.
Dithering:	The dot pattern placed on the printed surface to create an image. Also known as screening.
Dot Gain:	A drop of ink tends to travel out from its point of impact, as the media absorbs it. The purpose of the coating (on the media) is to minimize dot gain.

Drop of Ink:	Ink that appears to have dripped from the print head, or any other component of the ink supply.
Dye Ink:	Ink that colors the printed surface with dye. It is less durable than pigment ink, but has a wider color range (gamut).
Electronic Alignments:	Printer adjustments, which are performed using software routines that, allow the printer to compensate for physical variations in its mechanism.
Error Diffusion:	The type of dithering (screening) proprietary to Epson, that employs a random dot pattern to ensure that the human eye can discern no pattern.
Flight Time:	The time it takes a drop of ink to travel from the print head to the printable surface.
Gamut:	The range of colors that a printer can produce.
Ghosting:	A term that refers to components of an image that are intended to be on top of each other (or adjacent), but are offset.
Gradient:	A smooth transition between one color shade, and the next. A continuous tone image requires a smooth gradient for all its tonal shifts.
Grainy:	A breakdown of the “illusion of continuous tone”. A printed image that does not have smooth tonal transition, and sharp detail.
Head Angular Adjustment:	<p>A term that refers to a mechanical print head alignment that ensures that an ink jet's print heads nozzles are on the same vertical plane. (Also known as the B head slant or the C head slant.) The head is rotated until it is vertically linear.</p> 

Head Gap Adjustment:	<p>An electronic print head adjustment that ensures that the printer knows the exact distance between nozzle sets on separate heads. Also known as Head L/R and Uni-Di...</p> 
Head ID:	<p>The calibration value written on the print head that allows the printers electronics to compensate for the print heads “personality” (inaccuracies).</p>
Head Linear Adjustment:	<p>A mechanical print head alignment that ensures that on a two-head ink jet printer that all the nozzles are on the same horizontal plane. (Also known as Head Height and BC Head Slant.) The right head is moved in relation to the left head.</p> 
Home Position:	<p>The print head’s horizontal reference position, as determined by the Home Position Sensor</p>
Horizontal Banding:	<p>An image defect that extends from the left, to the right margin (parallel to the direction of print head movement). The defect could be a lighter or darker “band” than is intended. It usually repeats, with the same interval, from the top margin to the bottom.).</p>
Horizontal Over-lap:	<p>A type of horizontal banding, where multiple print head passes overlap while printing. The banding looks darker than the intended image. Multiple passes of the print head should place ink on the paper next to, but not on top of earlier passes.</p>

Horizontal Under-lap:	A type of horizontal banding, where multiple print head passes have a space between them. The banding looks lighter than the intended image. Multiple passes of the print head should place ink on the paper exactly next to earlier passes with no space in between.
Illusion of Continuous Tone.	A term that refers to “fooling” the human eye into perceiving a dot matrix image as a photograph (continuous tone image). Epson ink jet printers are not continuous tone printers. However, when working properly, their printed images fool the human eye into seeing continuous tone transitions
Ink Color Contamination:	The intended color of the ink supply has been altered.
Ink Impurities:	Foreign objects in the ink supply.
Margin Shift:	A term that refers to an image with irregular right and left side margins.
Mechanical Alignments:	Printer adjustments, that requires physically moving parts of the mechanism.
Media:	The surface that is being printed on, usually paper.
Metamerism:	The different appearance of colors caused by different light sources and viewing angles
Micro Weave:	The way an Epson Ink Jet printer interlaces (weaves) bands of an image during printing.
Moiré Pattern:	A repetitive pattern, within an image, which is not intended. It can appear like a paisley or herringbone pattern.
Over Saturation:	Too much ink has been applied to the printable surface for the media to support.
Paint Brush Effect:	Something horizontally across the printed surface, that was not intended. Usually caused by an ink soaked fiber hanging off the print head.
Pigment Ink:	Ink that deposits colored particles (pigment) on the printed surface to create an image. It is more durable than dye based ink, but does not have as wide a color range (gamut).

Pixilated:	An image quality issue that is caused by a low-resolution image printed at high resolution.
Platen Gap:	The distance between the print head, and the printable surface.
Rippling:	A term that refers to a condition caused by over saturated paper warping.
Saturation:	The amount of ink applied to the printed surface.
Screening:	The dot pattern placed on the printed surface to create an image. Also known as dithering.
Skew:	Crooked paper in the printer.
Smear:	An image that has been rubbed by something, causing it to be deformed, or smeared. The direction or any repetition of the smear should be noted.
Smudge:	Something on the printed surface, that was not intended. Usually transferred to the page because of contact with a dirty roller or the print head. Any repetition should be noted and measured.
Sublimation Ink:	Ink that is first printed on thermal transfer media, and then transferred using heat to another surface.
Sympathetic Nozzle:	A nozzle that is not intended to fire, firing in conjunction with an intended nozzle.
Tone:	The specific shade of a color.
Under Saturation:	Not enough ink has been applied to the printable surface to properly saturate the media.
UN-sharp:	“Fuzzy” qualities in an image usually caused by too much dot gain.
Vertical Banding, Irregular:	Vertical bands perpendicular to the direction of print head movement, that are not linear. Usually created by paper “rippling”, caused by over saturation.

Vertical Banding, Linear:	An image defect that extends from the top, to the bottom margin (perpendicular to the direction of print head movement). It usually repeats, with the same interval, from the left margin to the right.
White Specks:	A term that indicates that the intended image has small missing areas where no ink has been deposited.

Ink Draining Procedure

Note: This procedure requires 9 Draining Cartridges

Part # 1456361 (for a set of 9 Draining Cartridges)

Note: This procedure requires a new Maintenance Tank

Sales Part # C12C890191

Note: Each step of this procedure must be followed exactly for the procedure to work.

1. Install **New Maintenance Tank**.
2. Remove any paper that might be loaded.
3. Turn on the **Printer** in ServiceMan Mode.
 - 3.1 Press and hold the **Down**, **Right**, and **Pause** buttons, and turn on the **Printer**.
 - 3.2 The Printer will display **SELF TESTING**.
4. Press the **Enter** button to enter the **SELF TESTING** menu.
5. Navigate to the **Print Head Exchange** menu, and press the **Menu** button.
6. Navigate to **Drain**, and press the **Menu** button.
 - 6.1 The **Printer** will display **PRESS INK COVER OPEN BUTTON AND INSTALL DRAIN CARTRIDGE**.
7. Install the **9 Draining Cartridge**.
 - 7.1 Open the **Right and Left Ink Covers**.
 - 7.1.1 The **Printer** will display **INK CARTRIDGE ERROR: PLEASE INSTALL THE CORRECT CARTRIDGE**.
 - 7.1 Remove the **9 Ink Cartridges**.

7.2 Install the **9 Draining Cartridges**.

7.2.1 The **Printer** will display **INKCOVER OPEN: CLOSE RIGHT AND LEFT INK COVERS**.

8. Close the the **Right and Left Ink Covers**.

8.1 The Printer will display **Please Wait**

9. The **Printer** will pressurize the **Ink System**.

10. the Printer will display **Draining (nn)% Please Wait**

10.1 The **Printer** will evacuate the ink (Approximately 20 minutes).

11. The **Printer** will set the Ink Charge Flag.

11.1 The next time that the **Printer** is turned on, with ink installed, it will perform an “Ink Charge” (Prime)

12. The **Printer** will display **REMOVAL ALL DRAIN CARTRIDGE AND TURN OFF PRINTER**.

12.1 Remove **9 Draining Cartridges**.

12.2 Turn off the **Printer**..

Prime, On or Off

Prime, Initial Fill, and Charge mean the same thing. They all refer to filling the Ink System with ink. Controlling the Prime function requires Setting, or Resetting the Init.Fill Flag.

Init.Fill: Reset = The Printer is already primed.

Init.Fill: Set = the Printer will prime the next time it is turned on.

1. Press and hold the **Down**, **Right**, and **Enter** buttons and turn on the **Printer** (**Self Testing** mode).
2. Using the **Down** button, navigate to the **Parameter** menu, and press the **Right** button.
3. Using the **Down** button, navigate to the **Update** menu, and press the **Right** button.
4. Using the **Down** button, navigate to the **InkParameter** menu, and press the **Right** button

Note: the Printer will always display **SET**. This does not mean that the Init.Fill Flag is **SET**.

- 4.1 Change to **Reset**, and press the **Enter** button, to **turn off the Prime** routine.
 - 4.1.1 The **Printer** will display **Update Param?**
 - 4.1.2 Press the **Enter** button.
- 4.2 Change to **Set**, and press the **Enter** button, to **start a Prime** routine.
 - 4.2.1 The **Printer** will display **Update Param?**
 - 4.2.2 Press the **Enter** button.

Revision History

November 6, 2009

1. The Printer Firmware History chapter was updated.
2. The Printer Firmware History chapter was updated.

August 25, 2009

1. A chapter titled 1800 error was added.
2. A chapter titled Firmware History (Ethernet) was added.

October 16, 2008

1. The Firmware History chapter was updated

September 12, 2008

1. The Ink Bay (Left Chapter) was updated.
2. The Ink Bay (Right Chapter) was updated.

May 1, 2008

1. An Ink Draining chapter was added to the Reference section.
2. The Firmware History chapter was updated.

3. A CSIC Contact Picture chapter was added.
4. A Sub Boad D Picture chapter was added.
5. A chapter titled Ink Cartridge Error: Replace Ink Cartridge was added to the Troubleshooting section.
6. A Chapter titled Ink Bay Removal (Left) was added.
7. A Chapter titled Ink Bay Removal (Right) was added.
8. The Chapter titled Cleaning Unit Installation was modified to add directions on how to check the new Cleaning Unit for proper Tube routing.
9. The Troubleshooting chapter was modified to explain the 1800 error code repair procedure.
10. A Chapter titled Take Up Reel Installation was added.

February 12, 2008

1. The Cover (Right Side) Removal chapter was modified to include removal of the ***Paper Release Lever Handle***.
2. A chapter titled Paper Sensor Error was added to the Troubleshooting section.
3. The Main Board Installation Chapter was modified to include information about the “Clear NVRAM” message.

December 5, 2007

1. The Head Rank Chapter located in the Adjustment section was modified to explain how to read and enter the Head Rank properly.
2. Various chapters were updated to add additional instructions and explanations.
3. Various syntax and spelling errors were corrected.

October 24, 2007

1. Various chapters were updated to add additional instructions.

October 19, 2007

Initial Release

Sensors, Motors, Solenoids, and Fans

Home Position Sensors:	Carriage HP Sensor (Detects the Home Position of the Carriage Mechanism) Platen Gap HP Sensor (Detects platen gap home position) Pump Valve HP Sensor (Detects the position of the Suction Valves) Cap Home Position Sensor (detects the home position of the Cap Assembly)
Maintenance/Waste Ink Tank Sensor	Waste Ink CSIC (MainteTank) (qty-3)
Ink Cartridge Sensors:	CSIC's (Customer Satisfaction Ink Cartridge (qty-9) Left and Right Ink Cover Sensor (qty2) (InkCvr) (Detects open and closed for the Ink Covers) Left and Right Ink Button (qty2) (Ink Button)
Encoders:	Carriage Encoder (CR Encoder) (Carriage position and dot timing) Paper Feed Encoder (PF Encoder) (Paper advance timing). Pressure Pump Encoder (qty-3) (Detects the rotation of the Pressure Pump Motors)

Paper Sensors:	RearAD (<i>RearAD</i>) Detects the trailing edge of paper EdgeAD (detects paper width and leading edge) Paper Thickness Sensor (<i>Paper Thick</i>) (2 Sensors) (Detects paper thickness and Paper Release Mechanism open or closed) Paper Slack Sensor (<i>Auto Reel Sens.</i>) (Turns on the Auto Take Up Reel)
Safety Sensors:	Left and Right Front Cover Sensor (qty2)(<i>Cover</i>)(Detects Front Cover open and closed)
Auto Alignment Sensors:	Ink Mark Sensor (Reads bar code, Auto alignments)
Pressure Sensor	Ink System Pressure Sensor (<i>Ink Press</i>) (Detects the Ink System pressure)
Temperature Sensors:	Head Temperature Sensor (<i>Head Temp</i>) (Detects the temperature of the Head Driver Heat Sink) Head Driver Temperature Sensor (<i>Drv. Temp</i>) (Detects the temperature of the Print Head Nozzle Plate)

Motors	<p>Carriage Motor: Moves the Carriage Assembly.</p> <p>Paper Feed Motor: Moves the Paper Feed Roller</p> <p>Pump Motor: (Pump Motor) Runs the Cleaning Pump, switches the Pump Valves</p> <p>Pressure Pump Motor: (qty. 3)(Ink Press Motor) (Runs the Ink System Pressure Pump)</p> <p>Auto Platen Gap Motor (Sets the platen gap)</p> <p>Cap Assembly Motor (Cap Motor)(Moves the Cap Assembly)</p> <p>Take Up Reel Motor (Auto Reel Motor) (Moves the Auto Take Up Reel)</p>
Solenoids	<p>Cutter Solenoid: (Cutter Sol) (Cuts media)</p> <p>Paper Release Lock Solenoid (LeverLock Sol.) (Locks the Paper Release Lever)</p> <p>Left and Right Ink Cover Lock Solenoid (InkCover Sol) (Releases the Ink Covers)</p>
Fans	<p>Head Drive Cooling Fan (Head Drv) (Cools the Print Head Driver Transistors)</p> <p>Paper Suction Fans: (qty. 4)(Paper 1, Paper 2, Paper 3) (Creates suction to hold down the media)</p>

Service Tools

Service Part Number	Description
1047746	1000mm Scale (meter stick)
1057723	Kimoto Micro Trace #300, A-3
1080614	Grease G-26 (40GR)
1424364	Paper Thickness Sensor Position Jig
1456361	Draining Cartridge (qty-1) 9 required to drain the Printer
1456362	Cleaning Cartridge (qty-1) 9 required to clean the Printer
1482236	Cutter Position Jig
1482237	AID PG Adjustment Jig
1482238	Ink Mark Sensor Position Jig 2.5 - 3.1
1482239	Ink Mark Sensor Position Jig 2.8

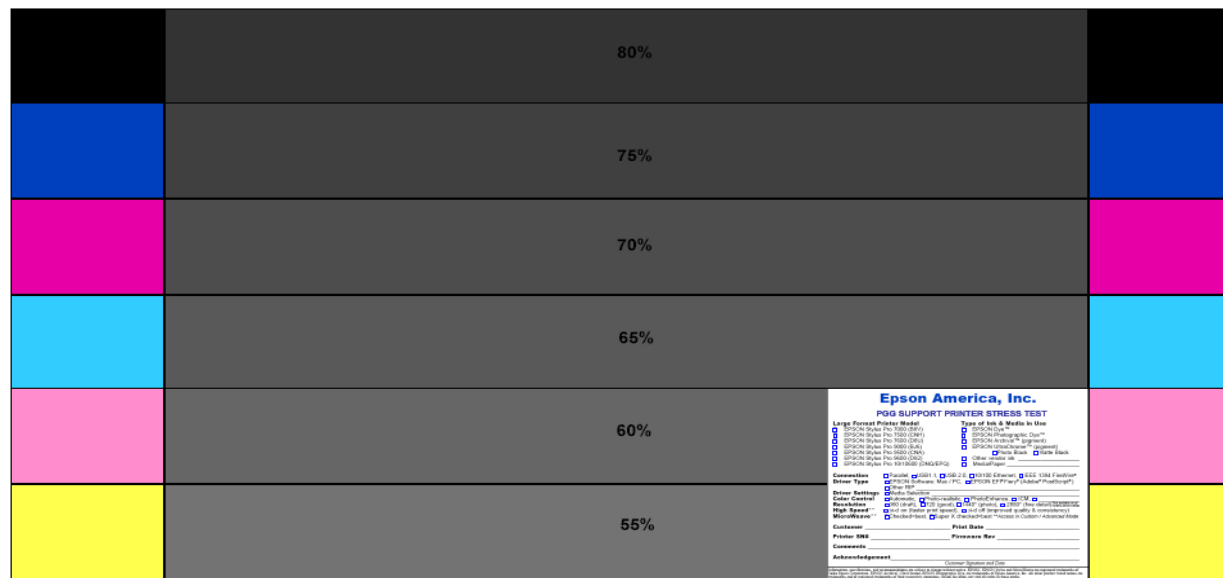
Stress Test (Test Image)

Purpose:

The Printer Stress Test was designed to amplify any print quality issues. It is for diagnosis purposes only. It never looks perfect. There is always some horizontal and vertical banding.

Use:

1. Use it to compare Non-Epson Drivers against the Epson Driver.
2. Use it to look for image quality variances across the entire printable area of the printer.



Is the vertical banding consistent across the entire image?

Is the horizontal banding consistent across the entire image?

Is the density consistent across the entire image?

If the answer to any of the above questions is no, **Contact Epson**. It may be a parallelism issue.

Utilities

Adjustment Wizard2

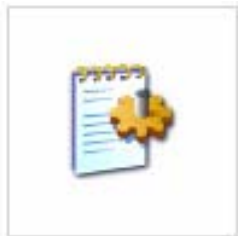
Note: The Adjustment Wizard will only run on a computer that has been registered with Epson.

Note: The Adjustment Wizard is the utility that enables electronic and mechanical alignments of the Pro 11880.

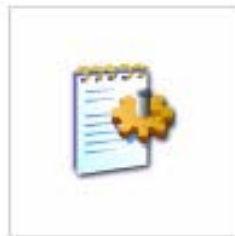
Note: The Adjustment Wizard will work when the Printer is in “Ready” mode, or in **SERVICEMAN MODE**.

Note: Serviceman Mode will allow the Adjustment Wizard to function with the Printer, when the Printer is in an error condition.

1. Ensure that the **Pro 11880 Printer Driver** and **Status Monitor 3** is installed on the system that will be running the **Adjustment Wizard2**.
 - 1.1 Verify that the **Driver** and **Status Monitor 3** are functional, by opening the **Driver** and verifying that **Status Monitor 3** can report on ink levels.
2. Create a folder and copy the **Adjustment Wizard 2** files into it.



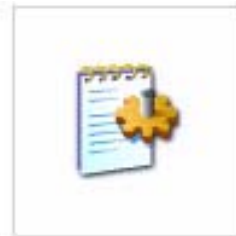
adjust.ini



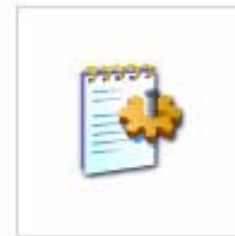
strtlib.ini



Pattern.zip



parts.ini



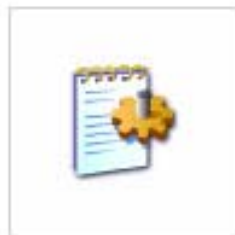
page.ini



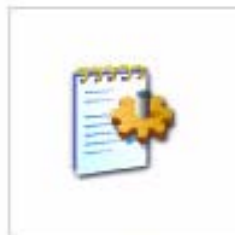
LA



gdiplus.dll



cntclear.ini



adjwiz2.ini



adjwiz2.exe

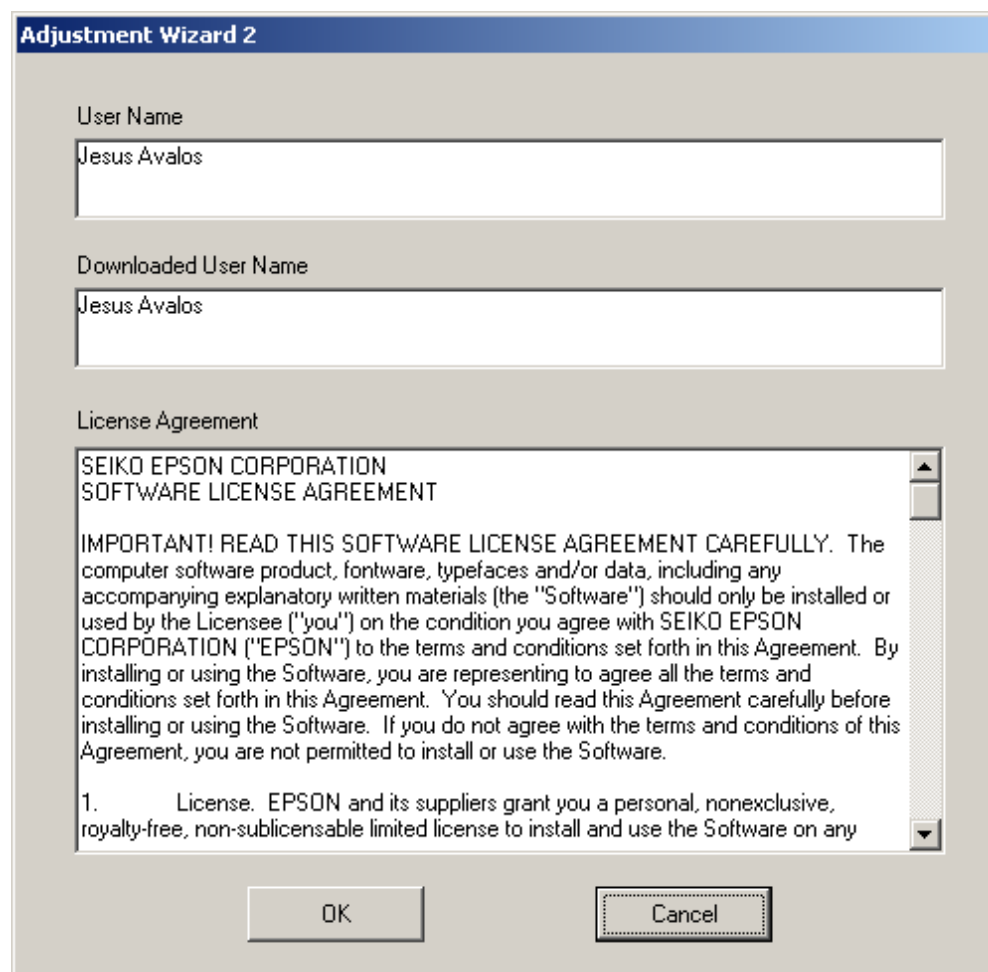


turbine.dll

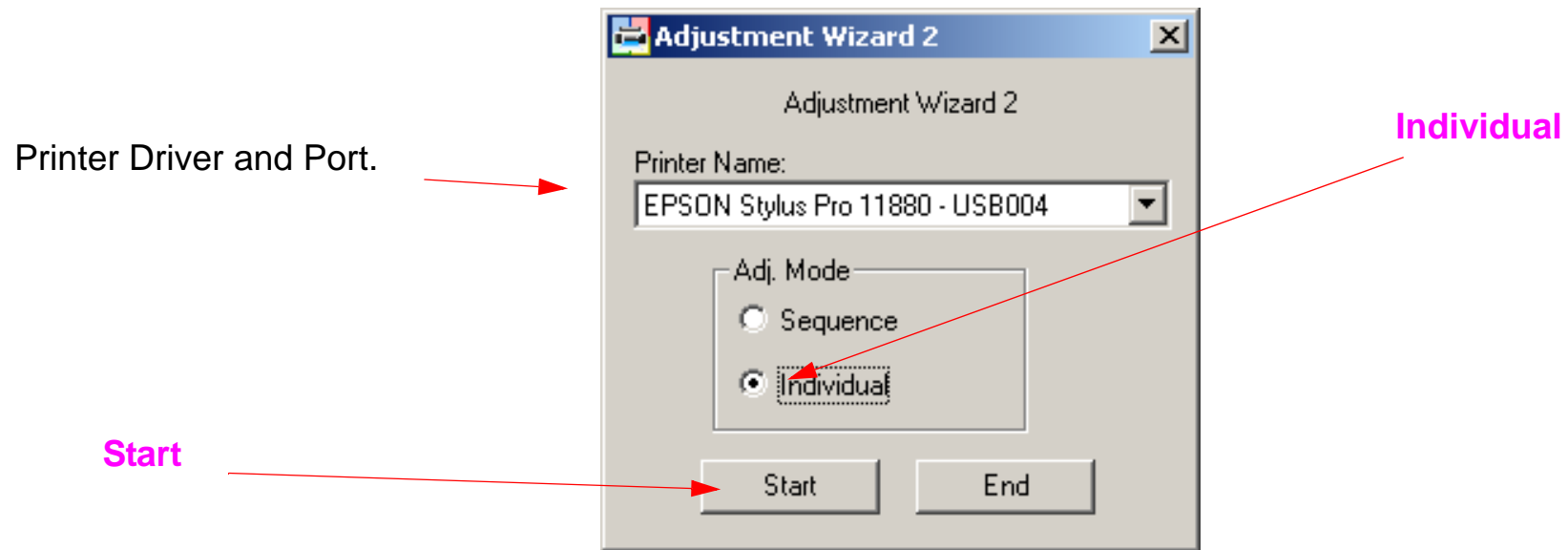
3. Double Click on **Adjwiz2** to start the utility.



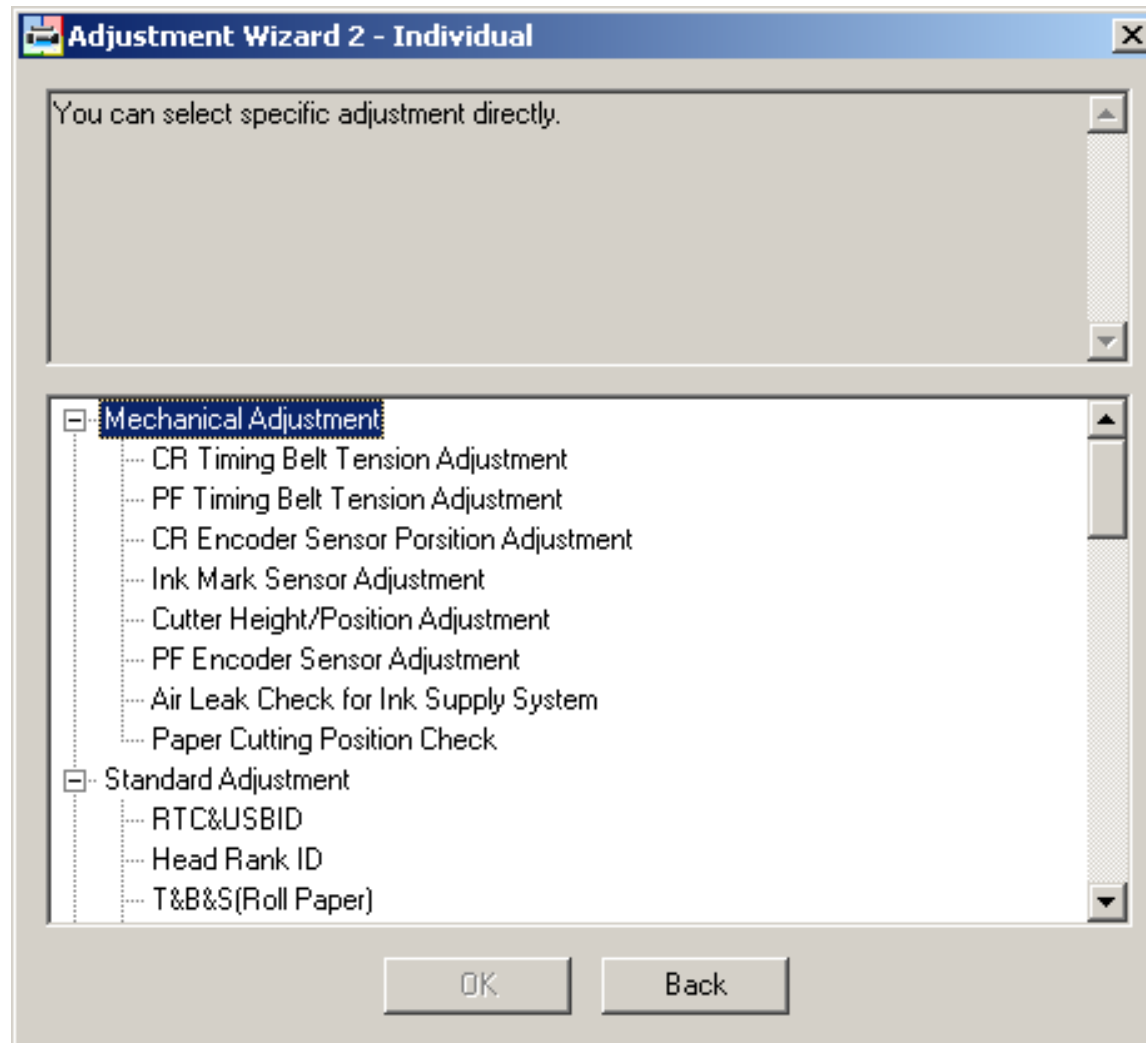
4.



5. Pick the correct printer driver/port, **Individual**, and click **Start**.



6. The utility will look like this.



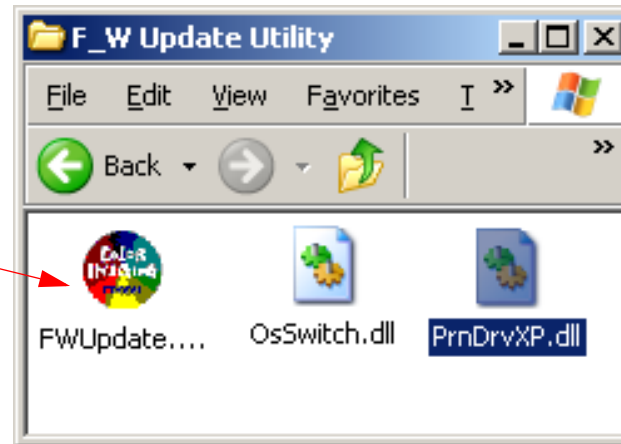
7. Double click on the individual line items to perform each adjustment.

FWUpdate.exe

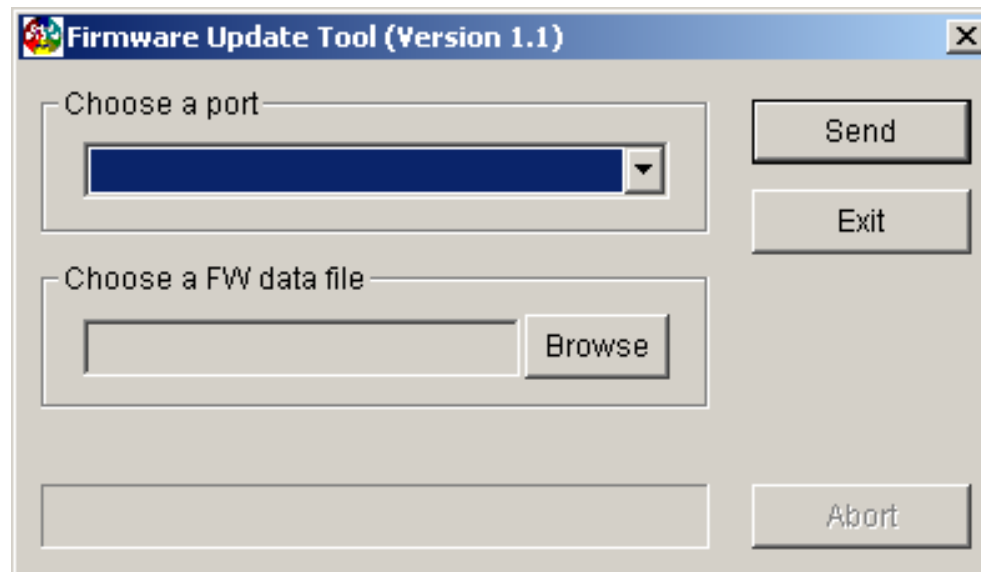
Note: *FWUpdate.exe* is used to copy Firmware to the Printer and works without the printer driver being installed.

1. Double Click on the *FWUpdate.exe* utility Icon.

Double Click on this Icon.

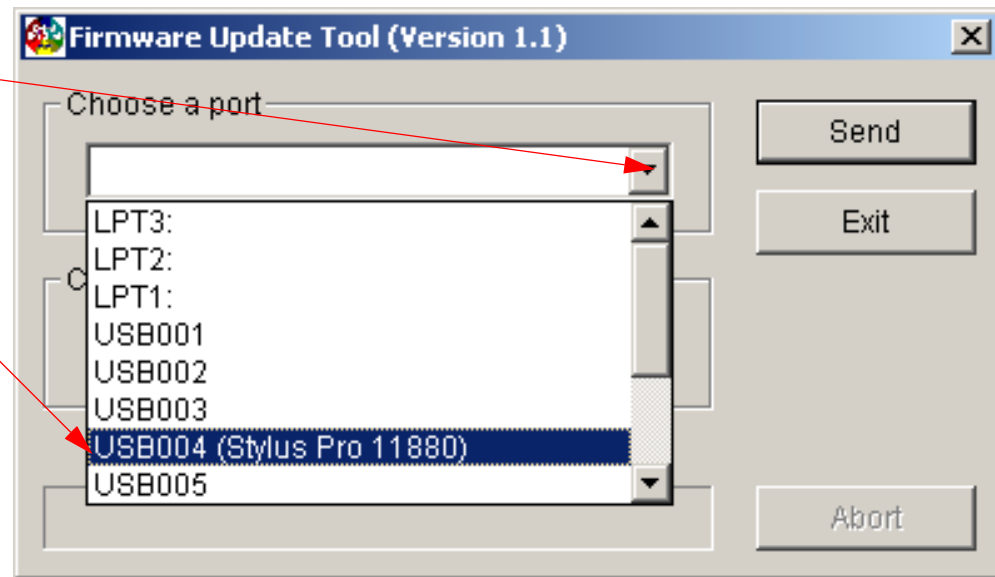


2. The utility will open and look like this.



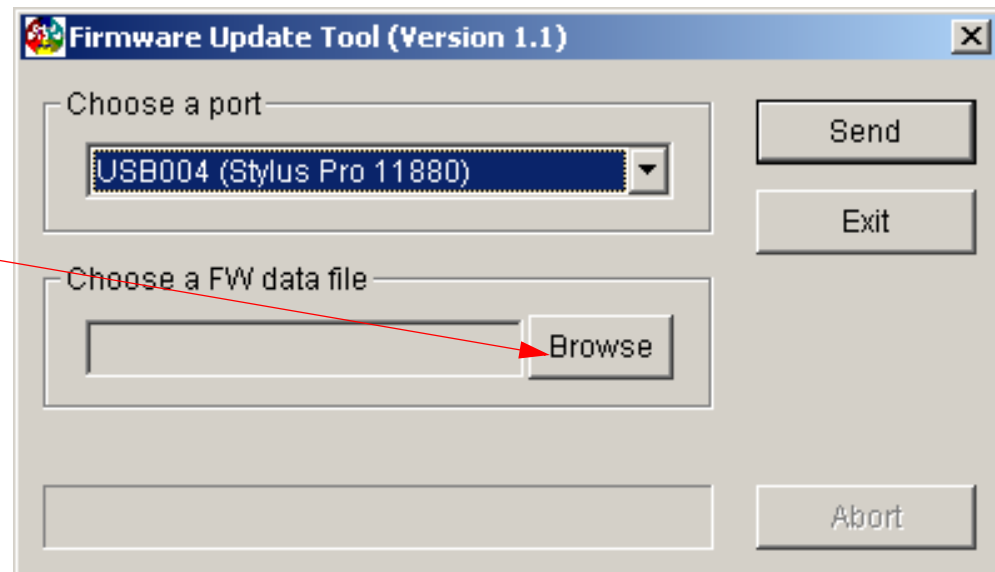
3. Choose a **Port/Printer**.

1. Click on the **Down Arrow** to open up the list of **Ports**.
2. Select the **Port** that is connected to the **Printer** that requires firm-



4. Click on **Browse** and navigate to the **Firmware File** to be uploaded to the **Printer**.

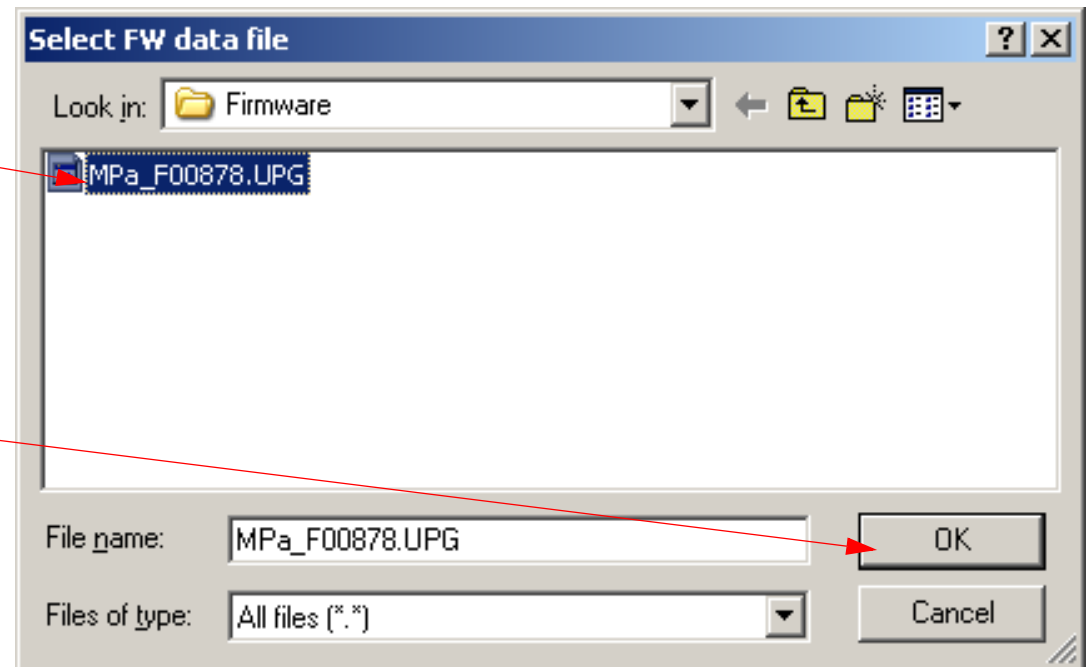
Click on **Browse**.



5. Select the correct *Firmware File*.

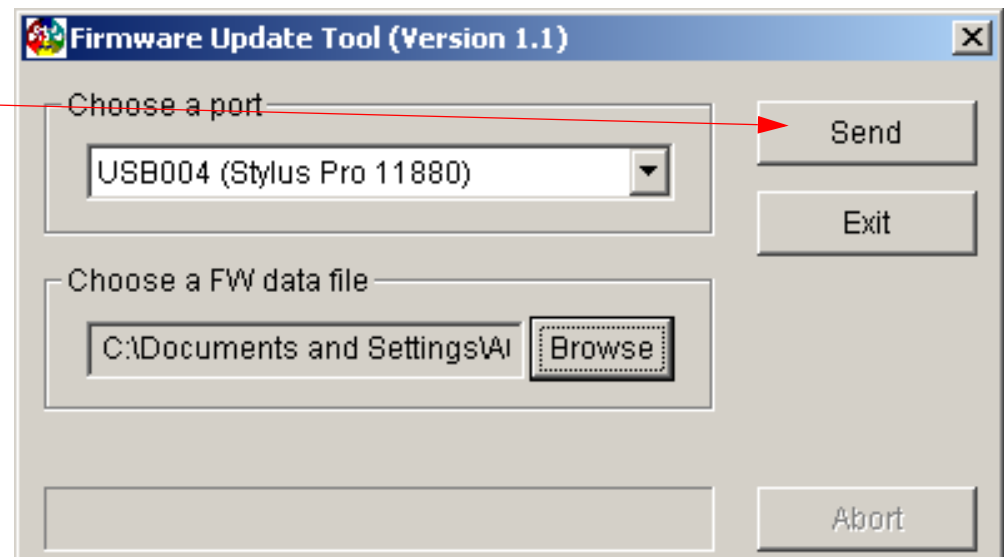
1. Select the correct *Firmware File*.

2. Click on *OK*.



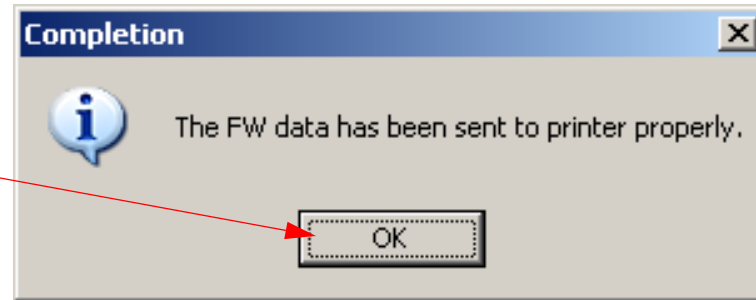
6. Click on *Send* to upload the *Firmware* to the *Printer*.

Click on *Send* to upload the *Firmware*.



7. The utility will display this, click on **OK**.

Click on **OK**



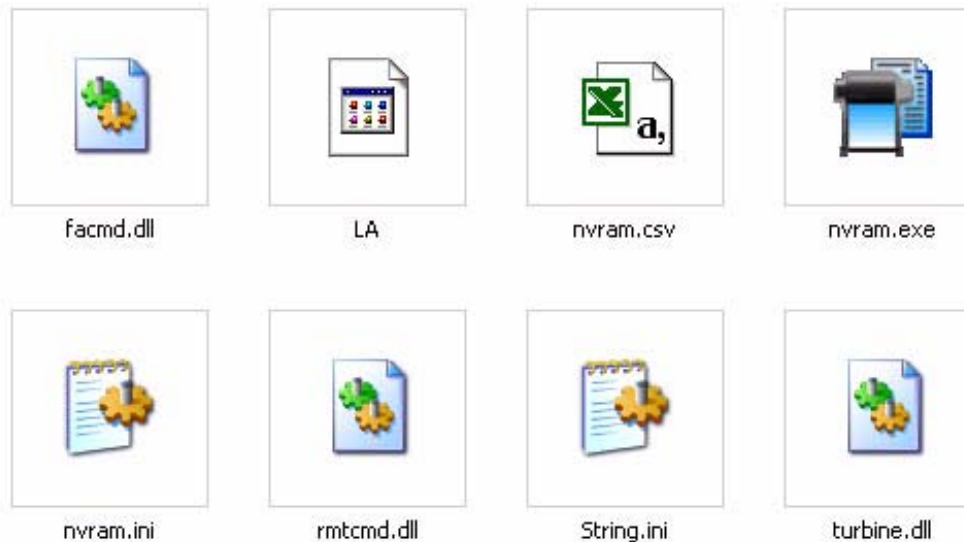
NVRAM.EXE

Note: *NVRAM.EXE is the utility that enables the backup and re-installation of parameters (settings), necessary when exchanging the Main Board of a Pro 11880.*

Note: *The Adjustment Wizard will only run on a computer that has been registered with Epson.*

Installation:

1. Ensure that the appropriate **Printer Driver** and **Status Monitor 3** is installed on the system that will be running the **NVRAM.EXE**.
2. Create a folder and copy the **NVRAM.EXE** files into it.

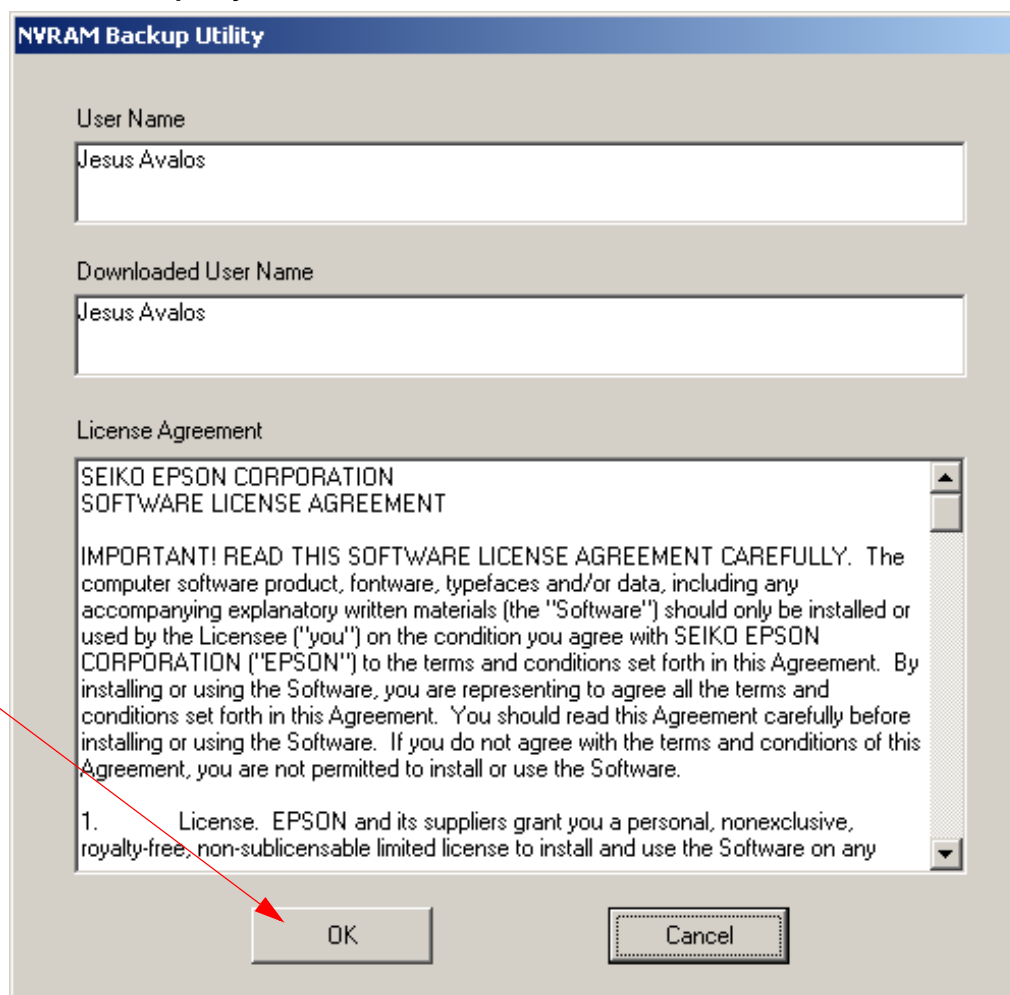


3. Double Click on **NVRAM** to start the utility.



4. The license screen will be displayed.

Click on **OK**.



5. Place the **Printer** in Parameter Backup and Restore Mode

5.0.1 Release the **Paper Lever**, disengage **9 Ink Cartridges**, remove **3 Maintenance Tank**, hold the **Down, Right**, and **Pause** buttons and turn on the **Printer**. The Printer will display **MENU: SELF TESTING**.

Note: Parameter Backup can also be performed in **F/W Download** mode (hold the **UP Arrow** , **Down**

***Arrow** , **Left Arrow** , and **Right Arrow** at Power on.*

Parameter Backup

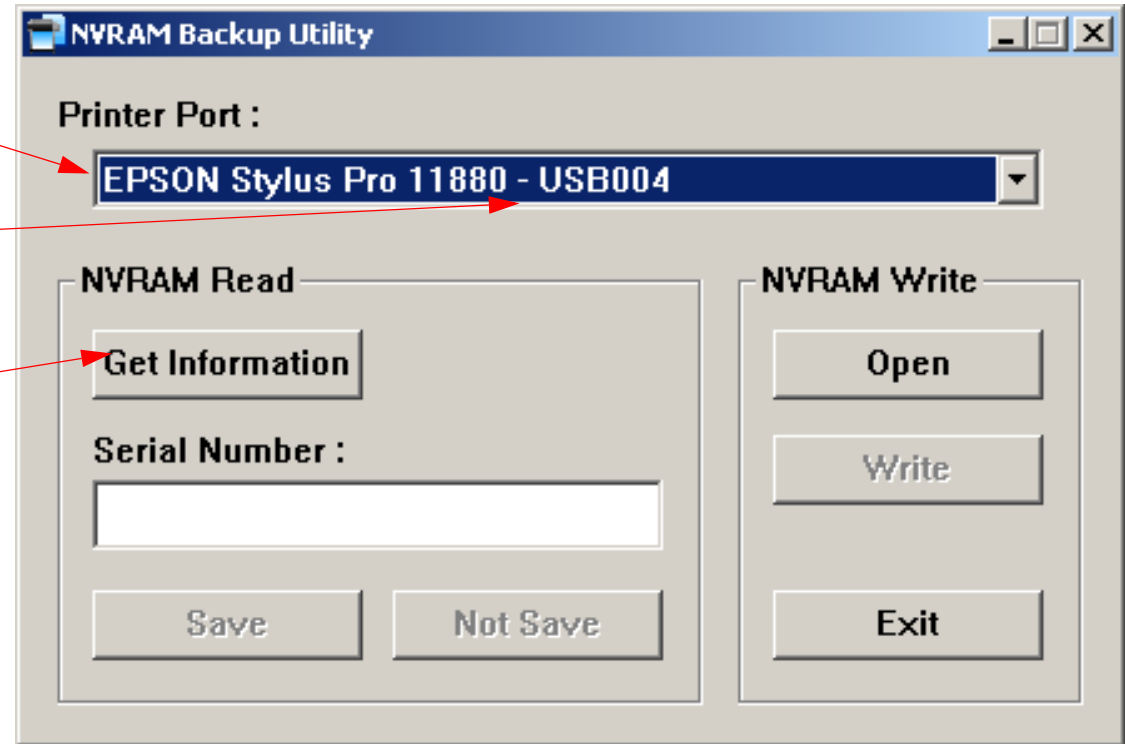
1. Pick the appropriate printer driver.

The port that the driver is associated with, will be displayed.

3. Click on **Get Information**.

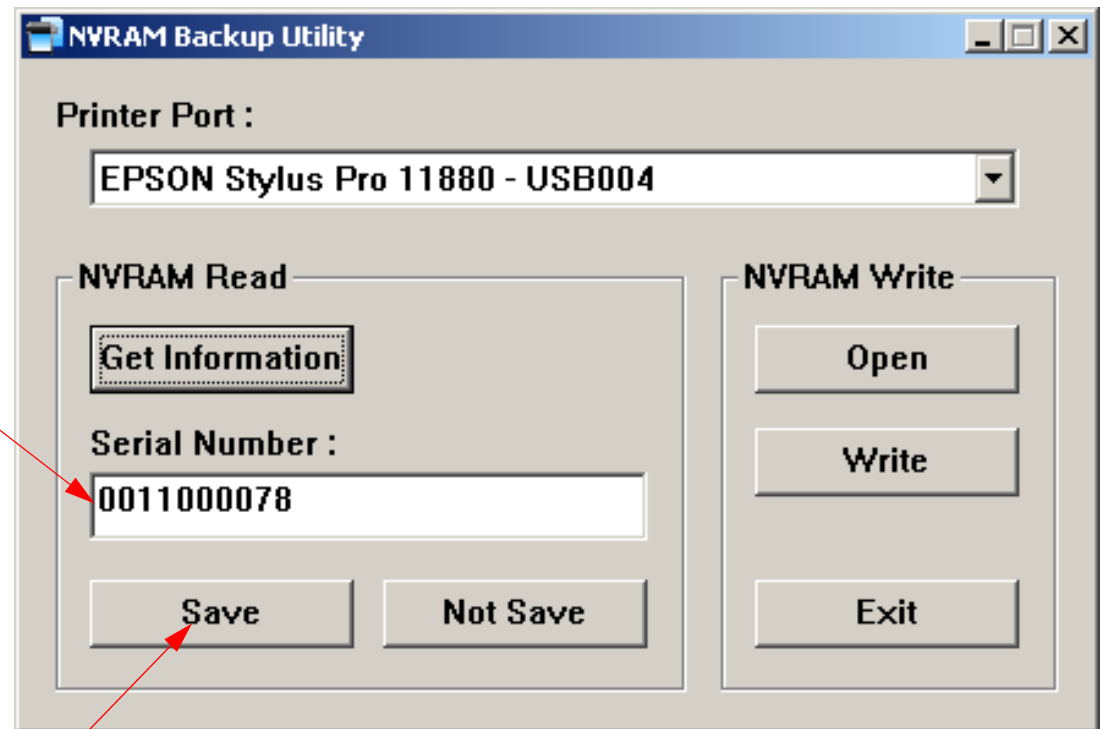
The utility will display this, until it is finished transferring data.

4. Click on **Save** to save the parameters, and assign the file a name.



Parameter Backup (Continued)

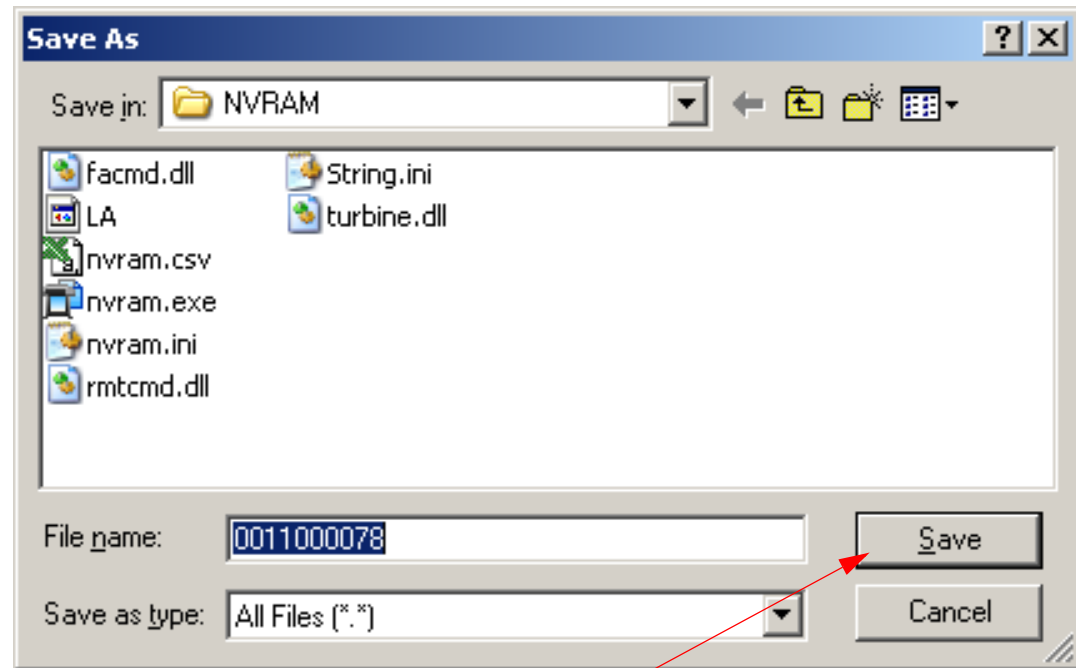
The **Printer's** serial number will be displayed when the parameters are transferred to the computer.



4. Click on **Save** to save the parameters.

Parameter Backup (Continued)

The Printer's serial number will be assigned as the default file name.



5. Click on **Save** to save the parameters.

Parameter Backup (Continued)

Mechanism Working History

History

Item	Value	Limit
CL1	10	-
CL2	2	-
CL3	4	-
CL4	0	-
Maximum temperture	24	-
Minimum temperture	20	-
Total printing	134	-
Pump motor1	180	-
Pump motor2	24250	-
Compressor motor	0	-
CR motor	24250	-

5. Click on **Close** to finish.

Normal Error History

Type	Date
0010	2007/10/16 03:-:-
0001	2007/10/16 01:-:-
0010	2007/10/11 01:-:-
000D	2007/10/11 00:-:-
0010	2007/10/11 00:-:-
0010	2007/10/10 01:-:-

Service Call History

Type	Date
3000	2007/10/06 02:-:-
3000	2007/10/05 07:-:-
3000	2007/10/04 03:-:-
3000	2007/10/02 01:-:-
3000	2007/10/02 01:-:-
3000	2007/09/29 07:-:-

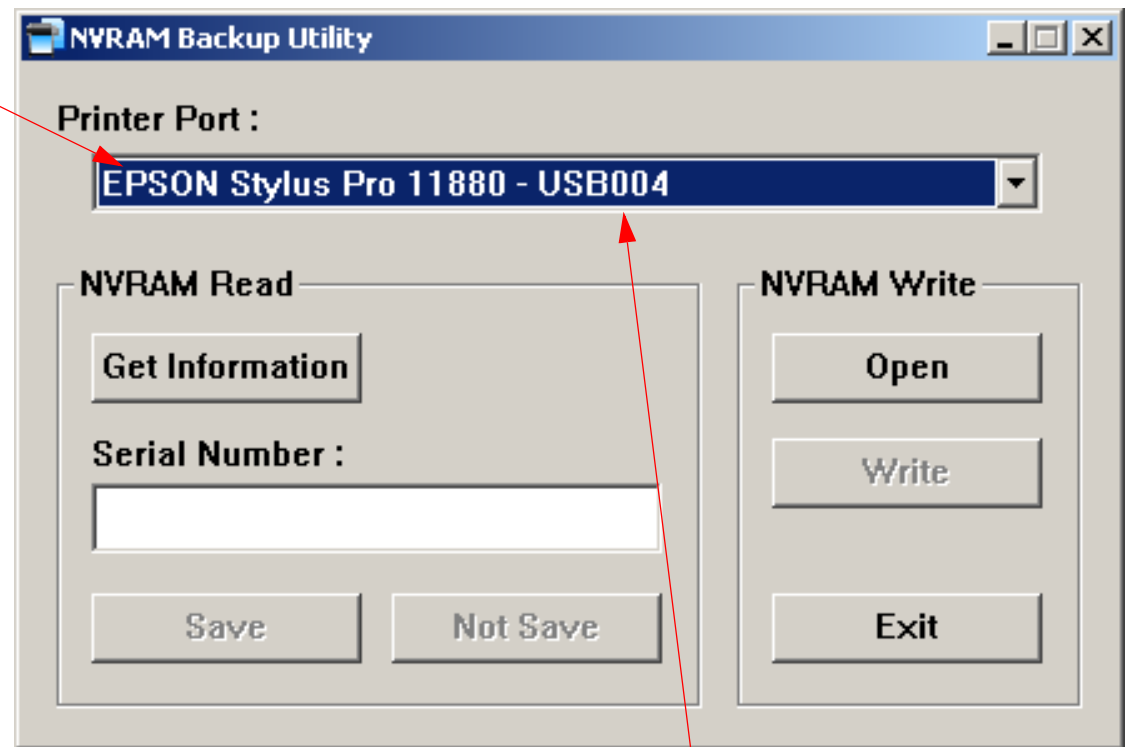
How to print this screen...

Close

Parameter Restore

Note: *Parameter Restore can not be performed in **F/W Download** mode.*

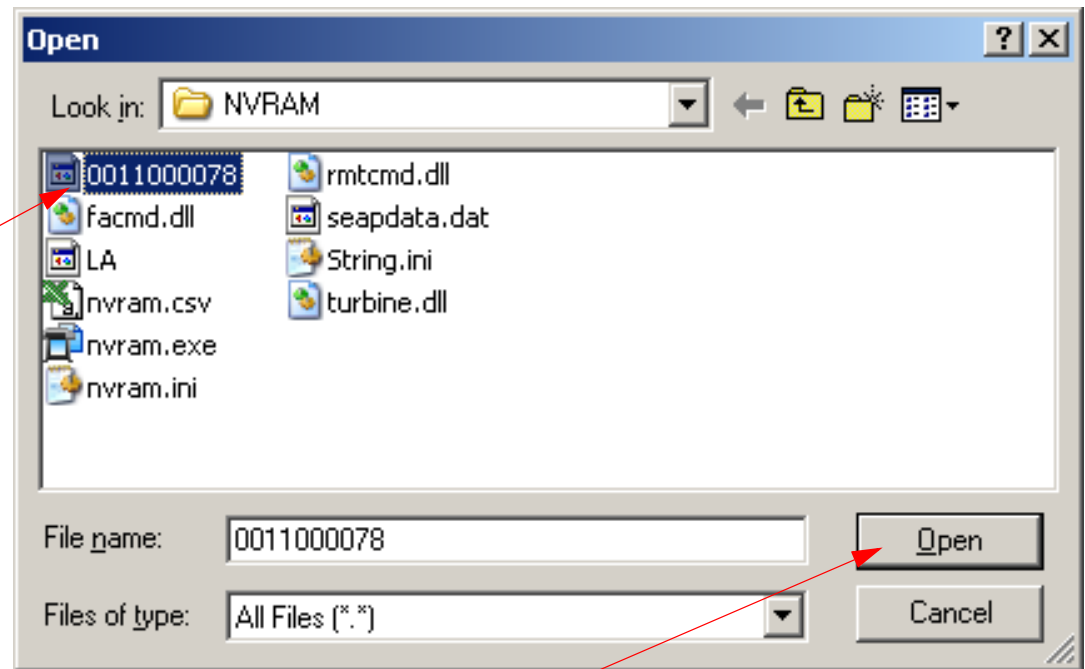
1. Pick the appropriate printer driver.



The port that the driver is associated with, will be displayed.

Parameter Restore (Continued).

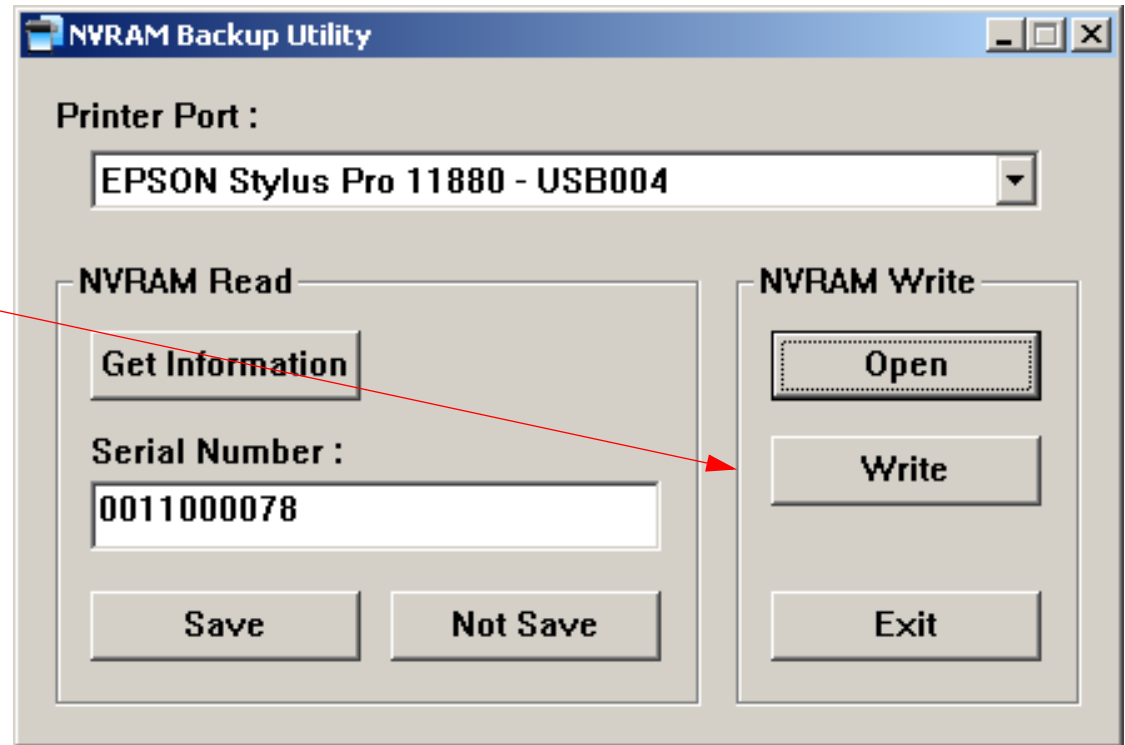
2. Select the *parameter file* to be restored.



3. Click on *Open* to open the file.

Parameter Restore (Continued)

4. Click on **Write** to send the parameters to the **Printer**.



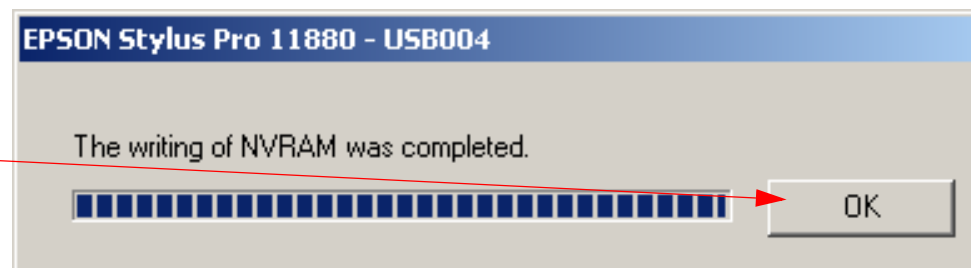
The utility will display this screen while it is transmitting the parameters to the **Printer**.



Do not turn the printer off until the utility is done transferring data.

Parameter Restore (Continued)

5. Click on **OK**.



5. Click on **Exit** to finish.

