

# Service Manual

## Paper Feeder **PF-92**

**Canon**

Jan 19 2006

**TONER**  
[www.tonerplus.com.ua](http://www.tonerplus.com.ua)



## Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

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This manual may contain technical inaccuracies or typographical errors due to improvements or changes in products. When changes occur in applicable products or in the contents of this manual, Canon will release technical information as the need arises. In the event of major changes in the contents of this manual over a long or short period, Canon will issue a new edition of this manual.

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## Caution










Use of this manual should be strictly supervised to avoid disclosure of confidential information.

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# Symbols Used



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This documentation uses the following symbols to indicate special information:

Symbol	Description
	Indicates an item of a non-specific nature, possibly classified as Note, Caution, or Warning.
	Indicates an item requiring care to avoid electric shocks.
	Indicates an item requiring care to avoid combustion (fire).
	Indicates an item prohibiting disassembly to avoid electric shocks or problems.
	Indicates an item requiring disconnection of the power plug from the electric outlet.
 Memo	Indicates an item intended to provide notes assisting the understanding of the topic in question.
 REF.	Indicates an item of reference assisting the understanding of the topic in question.
	Provides a description of a service mode.
	Provides a description of the nature of an error indication.

The following rules apply throughout this Service Manual:

1. Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.

In the diagrams,  represents the path of mechanical drive; where a signal name accompanies the symbol, the arrow  indicates the direction of the electric signal.

The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.

2. In the digital circuits, '1' is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low". (The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (\*) as in "DRMD\*" indicates that the DRMD signal goes on when '0'.

In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.

All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine."



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## Chapter 1 PRODUCT DESCRIPTION

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1.1 Product Specifications

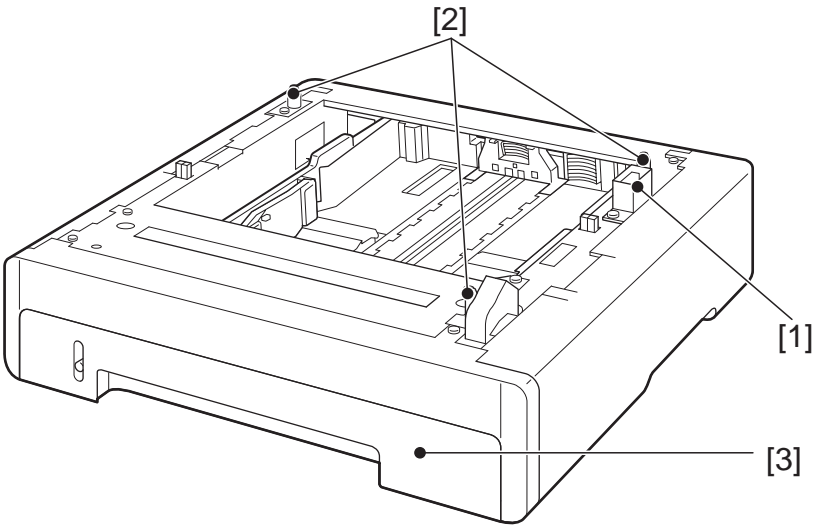
1.1.1 Product Specifications

T-1-1

Item	Specifications
Paper types	Plain paper (60 to 90 g/m2), heavy paper (91 to 163 g/m2), envelope (Envelope DL, Envelope COM10, Envelope C5, Envelope Monarch, Envelope B5), label sheet, transparency ((Black and white printing only)
Paper sizes	A4, B5, LGL, LTR, Executive, Index Card, envelope user-defined sheet (762 to 215.9 mm in length, 127.0 to 355.6 mm in width)
Cassette capacity	250 sheets (64 g/m2)
Control panel	none (input from host keys)
Display	none (input from host keys)
Dimensions	407(W) x 360(D) x 100(H) [mm]
Weight	Approx. 3.7 kg
Power supply rating	DC24V

1.2 Name of Parts

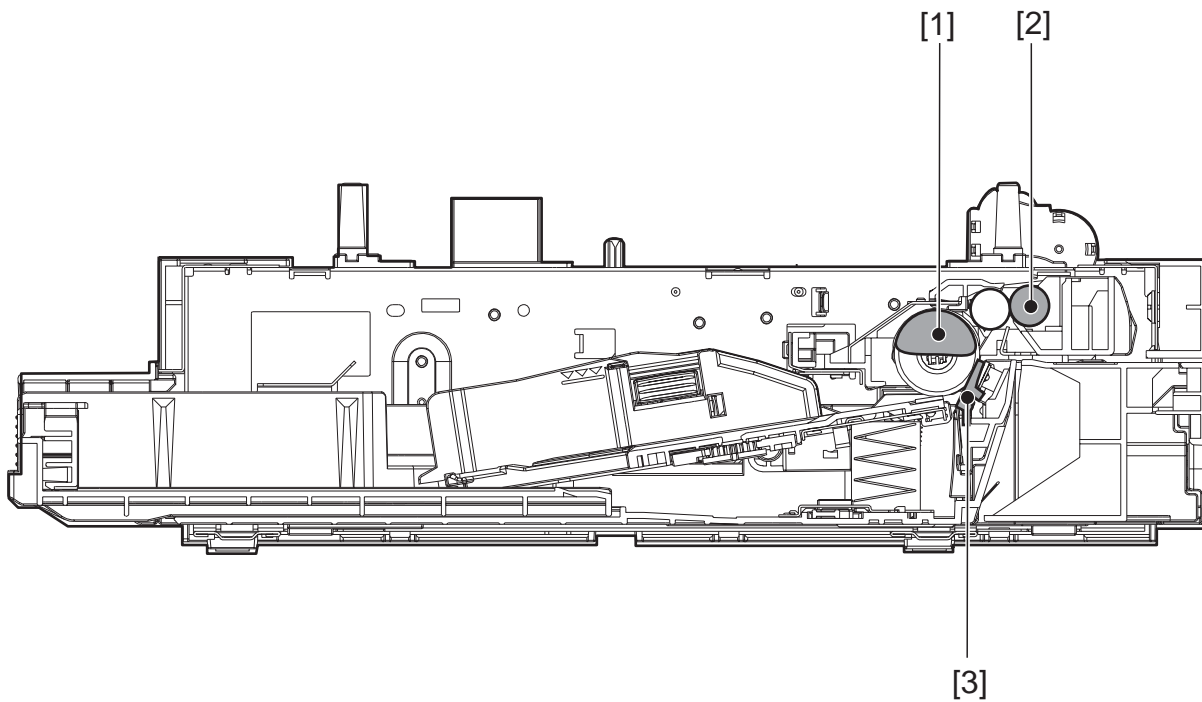
1.2.1 External View



F-1-1

- [1] Connector
- [2] Positioning pins
- [3] Cassette

## 1.2.2 Cross Sectional View



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- [1] Paper feeder pick-up roller
- [2] Paper feeder feed roller

- [3] Paper feeder separation pad

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## Chapter 2 TECHNICAL REFERENCE

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## 2.1 Basic Construction

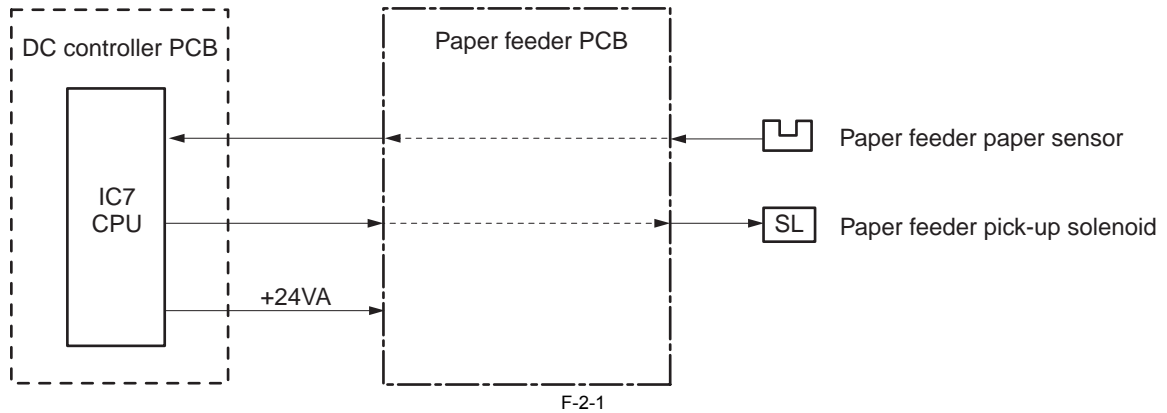
### 2.1.1 Outline

The 250-sheet paper feeder has a function of picking up paper in the cassette of the paper feeder and feeding it to the printer.

The DC controller of the printer controls the operational sequence of the paper feeder.

The DC controller drives the paper feeder pick-up solenoid (SR4) at necessary timing through the paper feeder PCB in order to operate paper pick-up. The DC controller also detects paper presence of paper feeder by using the paper feeder paper sensor (SR6).

The paper feeder is supplied with +24V<sub>A</sub> from the printer.



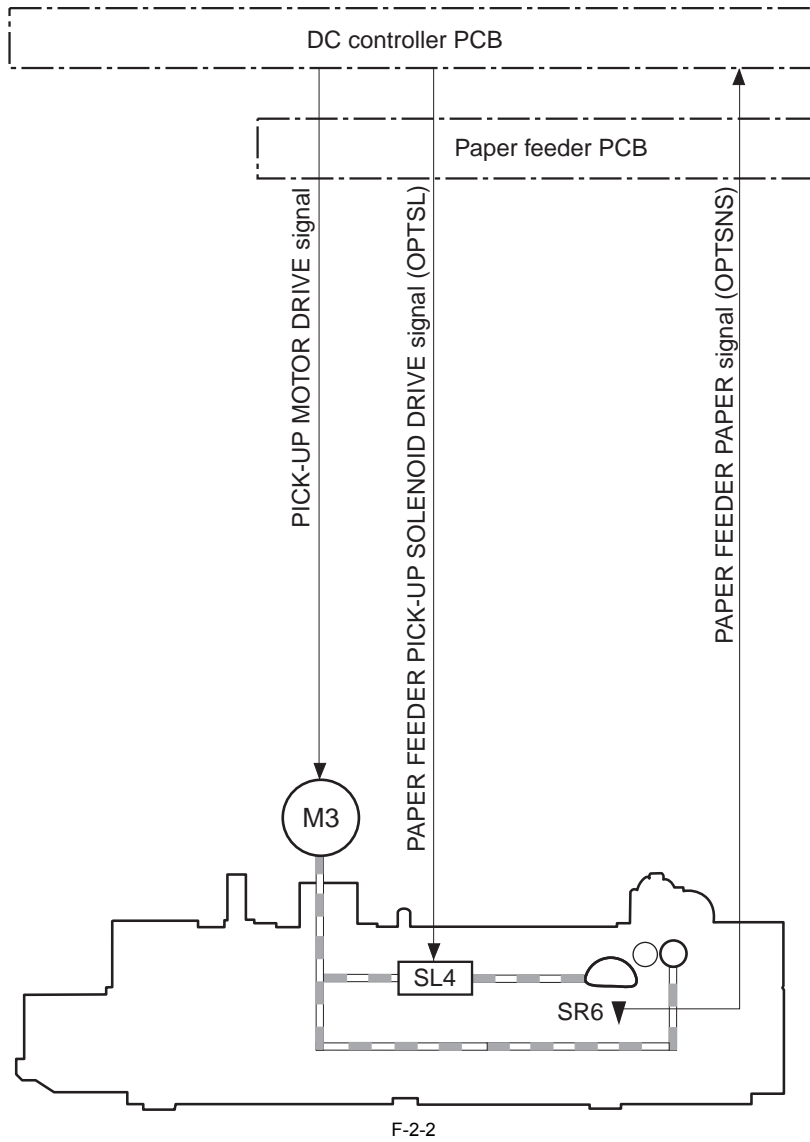
## 2.2 Basic Operation

### 2.2.1 Outline

The paper feeder has a function of picking up and feeding the paper set in the cassette of the paper feeder to the printer.

The rollers of the paper feeder are driven by the pick-up motor (M3) in the printer via gears.

The DC controller PCB in the printer turns the paper feeder pick-up solenoid (SL4) ON when the scanner motor reaches at its specified rotational count. Accordingly the paper feeder pickup roller contacts with print surface and the paper in the cassette is fed into the printer one by one.



## 2.3 Detection Jams

### 2.3.1 Outline

This printer is provided with the following paper detection sensors to detect the presence of paper and whether the paper feed is operated normally or not.

- Registration paper sensor (SR1)

The CPU determines a paper jam by checking whether paper is present at the sensor or not at the check timing. The check timing is stored in the memory of the CPU. If the CPU determines a jam, it stops the print operation and notifies the formatter of a jam occurrence.

### 2.3.2 Pick-up delay jam

The printer performs the retry control, which executes the pick-up operation three times, in order to retrieve the pick-up delay jam caused by the pick-up error. When the registration paper sensor (SR1) does not detect the leading edge of the paper within approx. 4.5 seconds after the pick-up solenoid (SL1) was turned ON, the CPU tries to pick up the paper three times.

### 2.3.3 Pick-up stationary jam

The CPU determines the pick-up stationary jam, when the registration paper sensor (SR1) does not detect the trailing edge of the paper within approx. 8.6 seconds after it detected the leading edge.

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## Chapter 3 DISASSEMBLY AND ASSEMBLY

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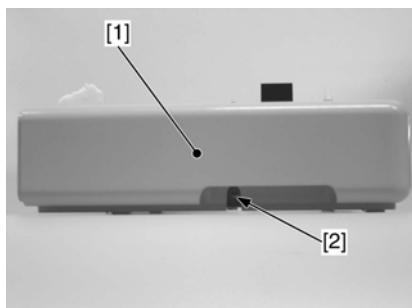


## 3.1 External Covers

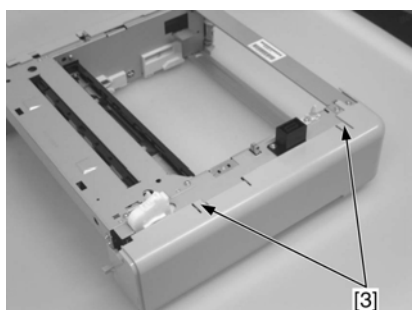
### 3.1.1 Right Cover

#### 3.1.1.1 Removing the Right Cover

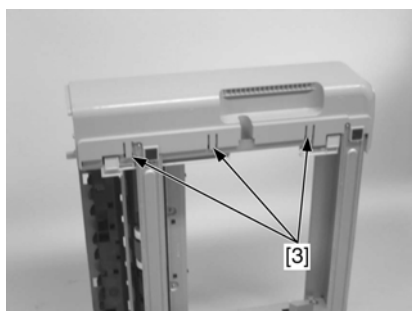
- 1) Remove the front cover. (page 3-1)Reference[Removing the Front Cover]
- 2) Remove the right cover [1].
  - 1 screw [2]
  - 5 claws [3]



F-3-1



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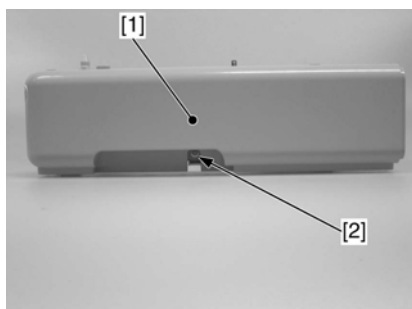


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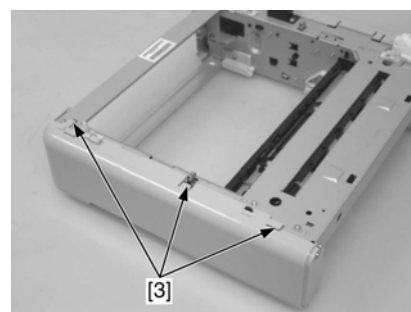
### 3.1.2 Left Cover

#### 3.1.2.1 Removing the Left Cover

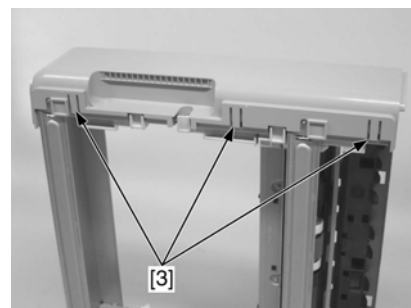
- 1) Remove the front cover. (page 3-1)Reference[Removing the Front Cover]
- 2) Remove the left cover [1].
  - 1 screw [2]
  - 6 claw [3]



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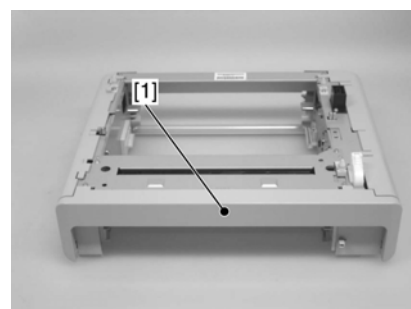


F-3-6

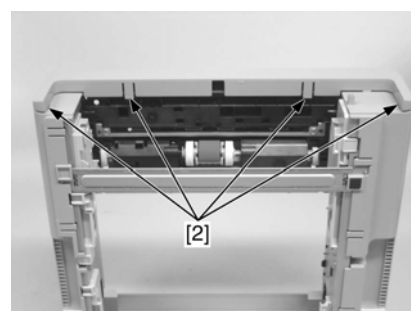
### 3.1.3 Front Cover

#### 3.1.3.1 Removing the Front Cover

- 1) Remove the front cover [1].
  - 5 claws [2]



F-3-7



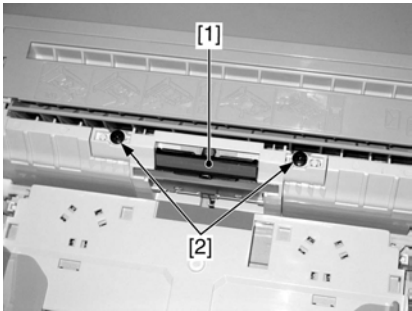
F-3-8

## 3.2 Document Feeding System

### 3.2.1 Separation Pad

#### 3.2.1.1 Removing the Separation Pad

- 1) Remove the separation pad [1].
  - 2 screws [2]

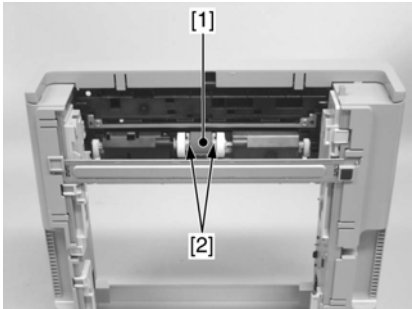


F-3-9

3.2.2 Pickup Roller

3.2.2.1 Removing the Pickup Roller

- 1) Remove the pickup roller [1].
- 2) Remove the pickup roller [1].
  - 2 claws [2]



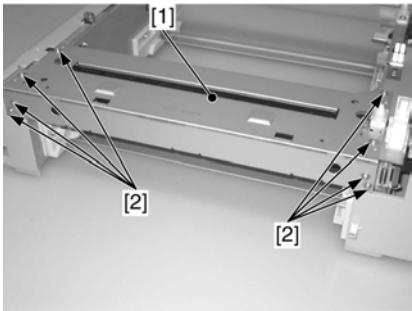
F-3-10

3.3 Electrical System

3.3.1 Paper Sensor

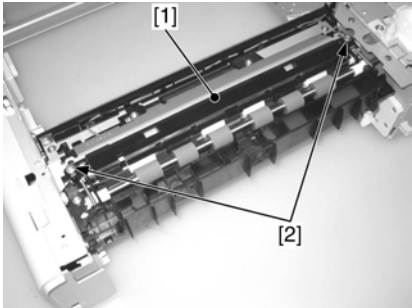
3.3.1.1 Removing the Paper feeder paper sensor

- 1) Remove the front cover. (page 3-1)Reference[Removing the Front Cover]
- 2) Remove the plate [1].
  - 8 screw [2]



F-3-11

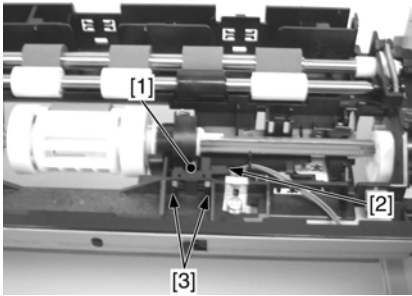
- 3) Remove the Pickup Feeder cover [1].
  - 2 screw [2]



F-3-12

- 4) Remove the Paper feeder paper sensor [1].

- 1 connector [2]
- 2 screw [3]

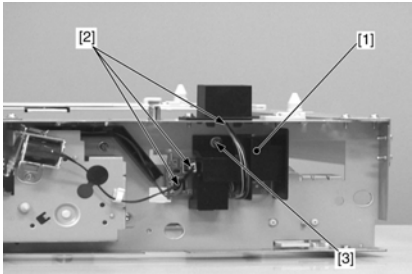


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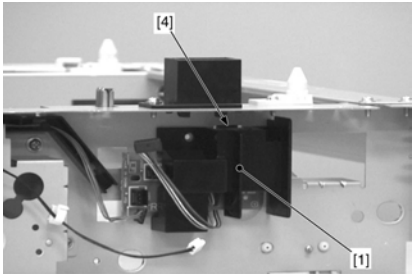
3.3.2 Feed Driver PCB

3.3.2.1 Removing the paper feeder PCB

- 1) Remove the front cover. (page 3-1)reference[Removing the Front Cover]
- 2) Remove the right cover. (page 3-1)Reference[Removing the Right Cover]
- 3) Remove the PCB cover [1].
  - 3 connectors [2]
  - 1 screw [3]
  - 1 claw [4]

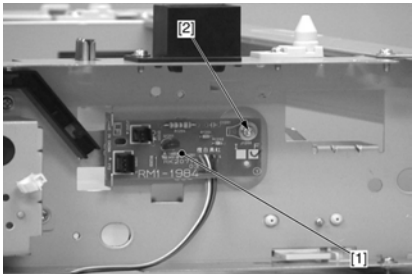


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- 4) Remove the paper feeder PCB [1].
  - 1 screw [2]



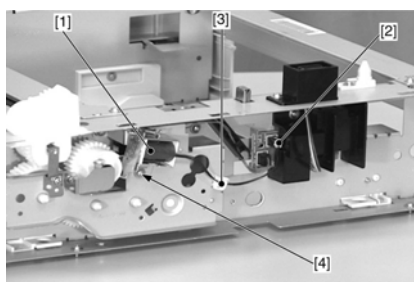
F-3-16

3.3.3 Pickup Solenoid

3.3.3.1 Removing the paper feeder Pickup Solenoid

- 1) Remove the front cover. (page 3-1)Reference[Removing the Front Cover]
- 2) Remove the right cover. (page 3-1)Reference[Removing the Right Cover]
- 3) Remove the paper feeder solenoid [1].
  - 1 connector [2]

- 1 screw [3]



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## Chapter 4 MAINTENANCE AND INSPECTION

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    4.1.1 Periodically Replaced Parts ..... 4-1





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## 4.1 Periodically Replaced Parts

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### 4.1.1 Periodically Replaced Parts

The machine does not have parts that require periodical replacement.



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## Chapter 5 TROUBLESHOOTING

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## 5.1 Service Tools

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### 5.1.1 Special Tools

There is no special tools needed to service the machine other than the standard tools set.





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## Chapter 6 APPENDIX

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# Contents

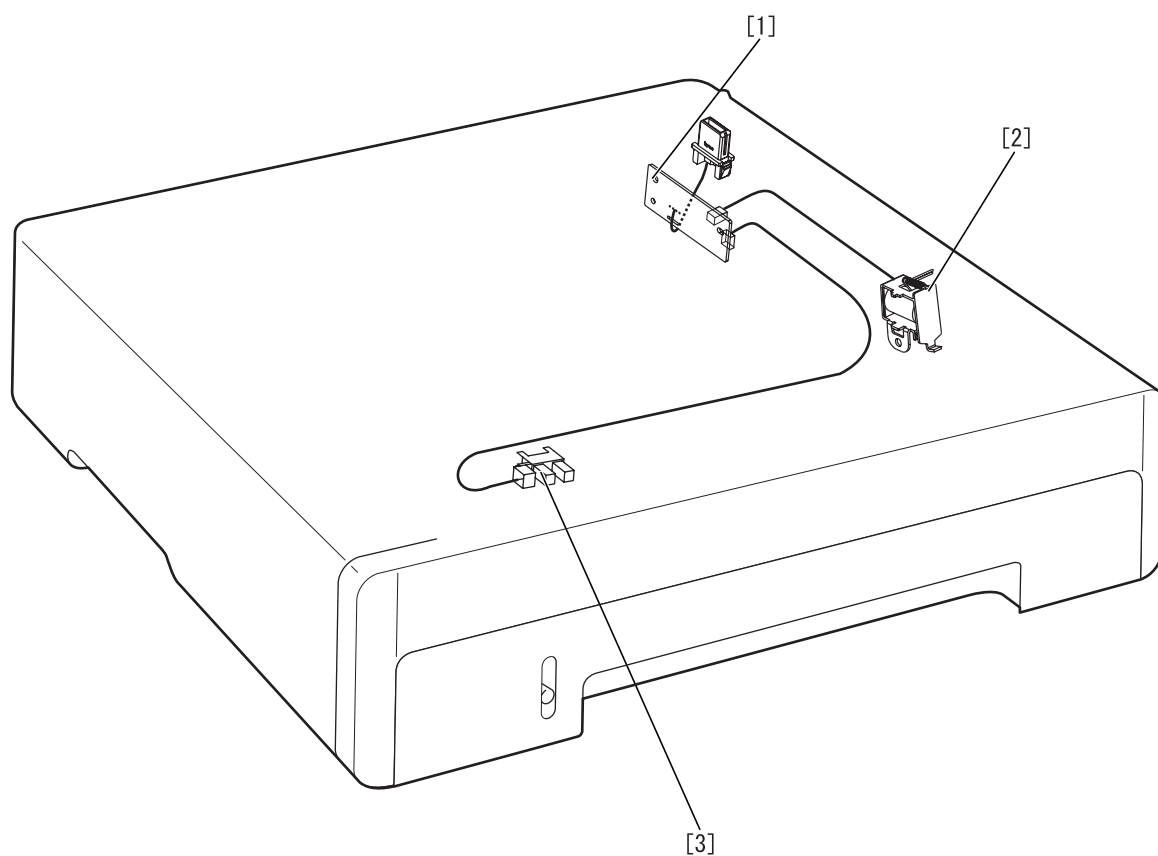
6.1 Outline of Electrical Components..... 6-1

6.1.1 Outline of Electrical Components..... 6-1



## 6.1 Outline of Electrical Components

### 6.1.1 Outline of Electrical Components



F-6-1

- [1] Paper feeder PCB
- [2] Paper feeder pick-up solenoid (SL4)
- [3] Paper pick-up feeder unit



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