PAPER FEED UNIT
(Machine Code: G914)

1. OVERALL MACHINE INFORMATION

1.1 SPECIFICATIONS

1.1.1 STINGER - P3

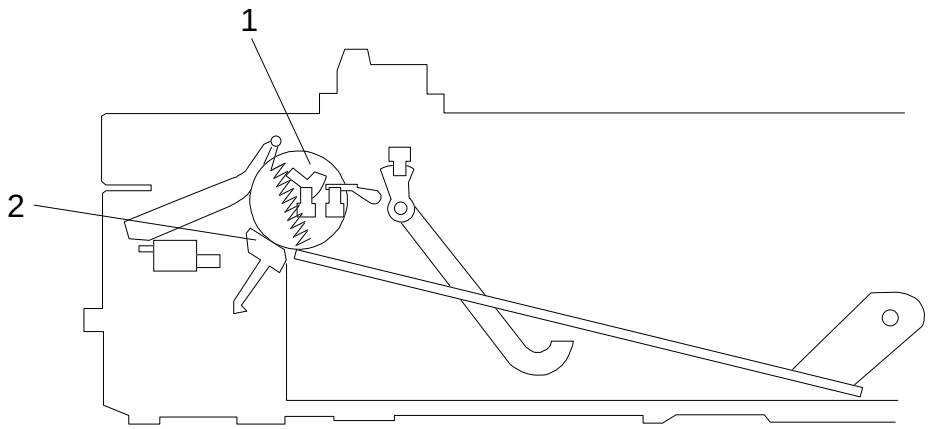
Copy Paper Size:	Maximum A3/11" x 17" Minimum A5 (lengthwise)
Copy Paper Weight:	60 ~ 90 g/m^2, 16 ~ 24 lb
Dimensions (W x D x H):	450 mm x 528.8 mm x 125 mm
Tray Capacity:	500 sheets
Weight:	Less than 5.7 kg (13 lb)

1.1.2 STINGER - P4

Copy Paper Size:	Maximum A4/8.5" x 11" (sideways) Minimum A5 (lengthwise)
Copy Paper Weight:	60 ~ 90 g/m^2, 16 ~ 24 lb
Dimensions (W x D x H):	360 mm x 385 mm x 123 mm
Tray Capacity:	500 sheets
Weight:	Less than 4.0 kg (9 lb)

1.2 MECHANICAL COMPONENT LAYOUT

Stinger - P3



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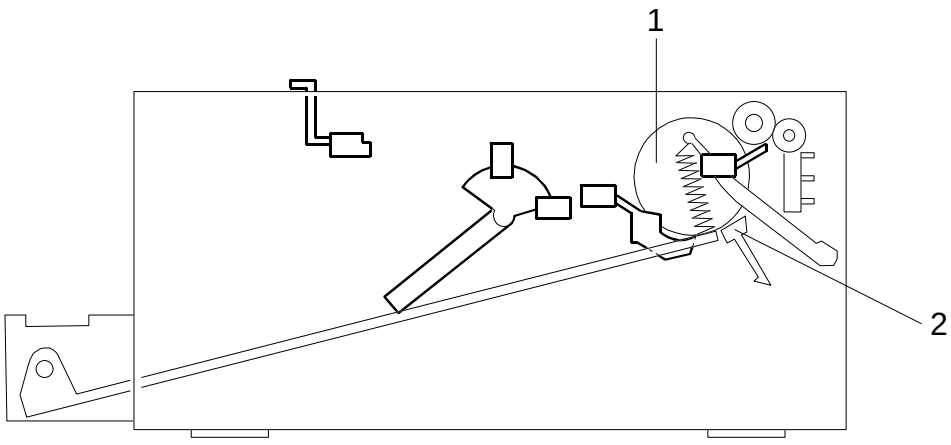
Stinger - P4



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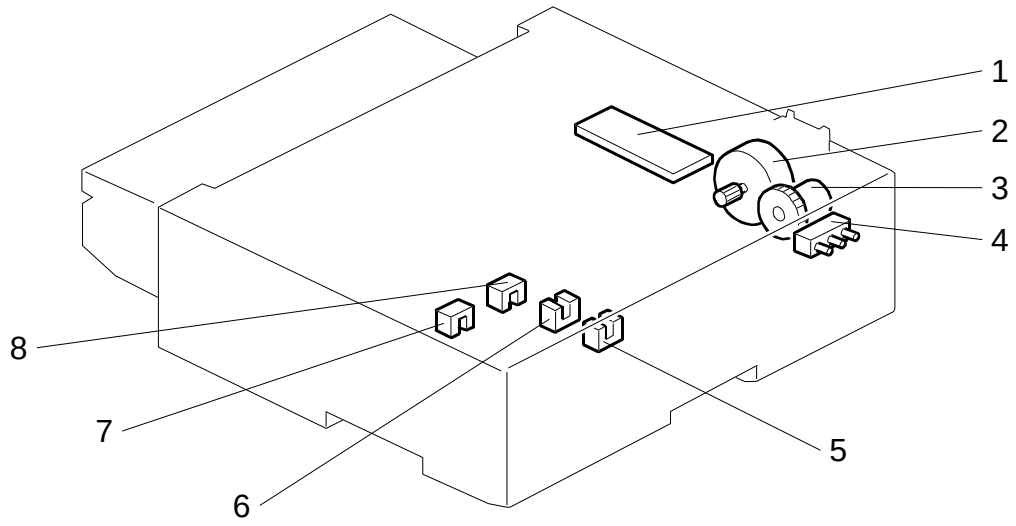
1. Paper Feed Roller
2. Friction Pad

1.3 ELECTRICAL COMPONENT LAYOUT

Stinger - P3



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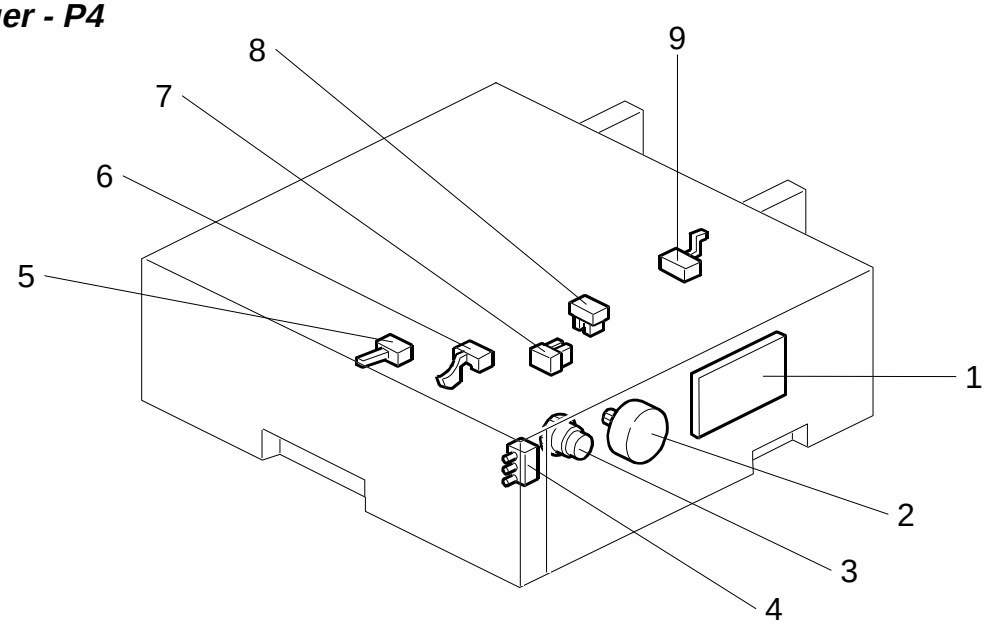
Stinger - P4



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1. Paper Feed Unit Board
2. Paper Feed Motor
3. PFU Paper Feed Clutch
4. PFU Paper Size Switch
5. PFU Paper Feed Sensor
6. PFU Paper End Sensor
7. PFU Paper Near-end Sensor
8. PFU Paper Near-end Sensor
9. PFU Cassette Sensor (Stinger - P4 only)

1.4 ELECTRICAL COMPONENT DESCRIPTION

Symbol	Name	Function	Index No.
Motor			
M1	Paper Feed Motor	Drives all the rollers	2
Sensors			
S1	PFU Paper Feed Sensor	Detects the paper from the paper tray and also detects misfeeds.	5
S2	PFU Paper End Sensor	Informs the CPU when there is no paper in the tray	6
S3, S4	PFU Paper Near-end Sensor	Informs the CPU of the estimated remaining paper amount (there are 4 signal patterns)	7, 8
S5	PFU Cassette Sensor (Stinger - P4 only)	Detects whether the main cassette is installed	9
Switch			
SW1	PFU Paper Size Switch	Detects the paper size selected by the dial	4
Clutch			
MC1	PFU Paper Feed Clutch	Starts paper feed	3
PCB			
PCB1	PFU Paper Feed Unit Board	Interfaces the sensor signals with the printer	1

2. DETAILED SECTION DESCRIPTIONS

2.1 PAPER SIZE DETECTION

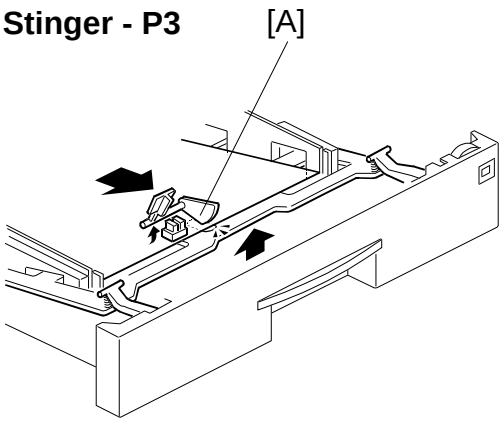
Refer to Paper Size Detection for Stinger - P3 (section 2 of the manual for the main body).

2.2 PAPER LIFT

Refer to Paper Lift, (section 2 of the manual for the main body).

2.3 PAPER END DETECTION

Stinger - P3



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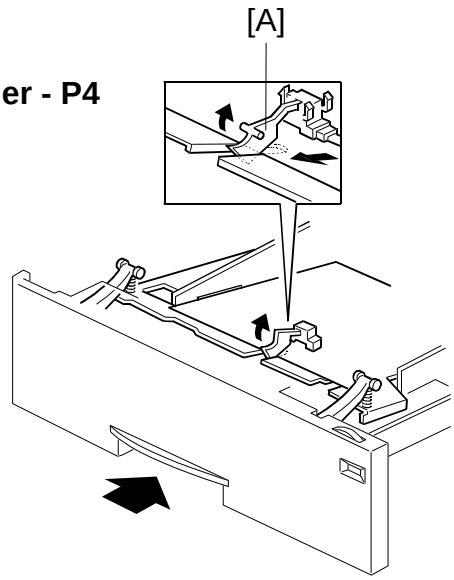
Stinger - P4



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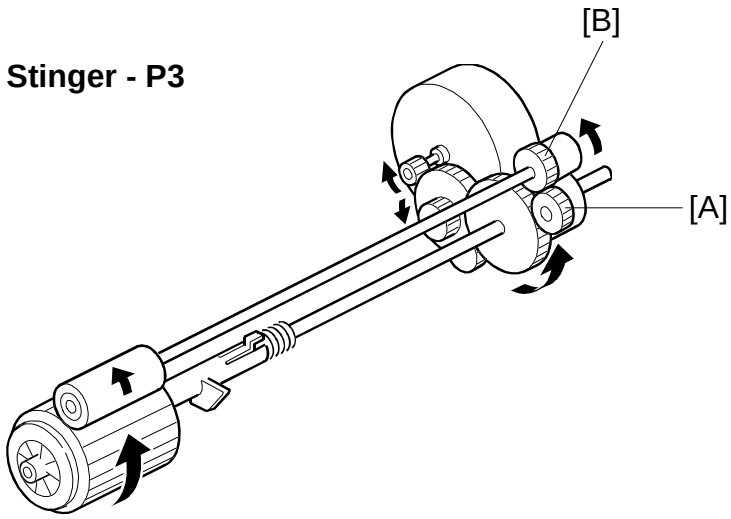
When the paper tray runs out of paper, the actuator [A] of the paper end sensor drops into the cutout in the tray bottom plate and this activates the paper end sensor.

2.4 PAPER NEAR END DETECTION

When the paper in the paper tray is running out, the actuator of the tray paper near end sensor activates the paper near end sensors. The signals from the sensors indicate whether there are 450, 250, or 50 sheets remaining. There is no indicator on the machine's operation panel; it is only possible to check from a PC.

2.5 PAPER FEED

Stinger - P3



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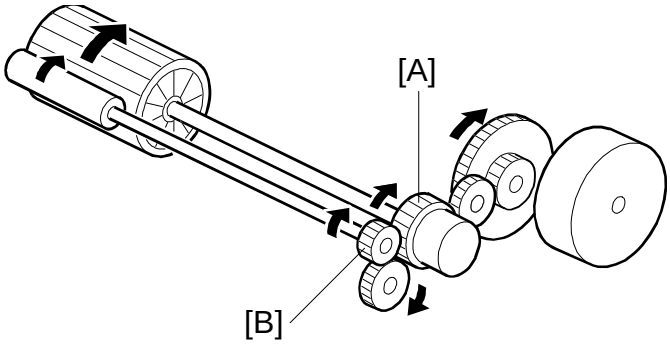
Stinger - P4



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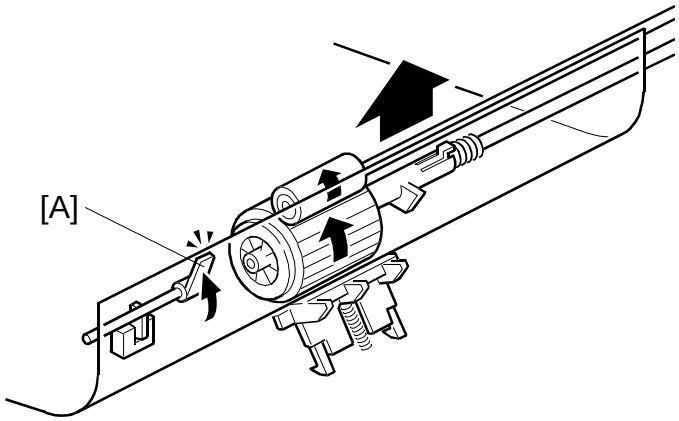
The paper feed motor drives the PFU paper feed clutch gear [A] and the drive roller gear [B] through several gears.

The paper feed unit uses a feed roller and friction pad mechanism. The friction pad only allows the top sheet to be fed.

Stinger - P3



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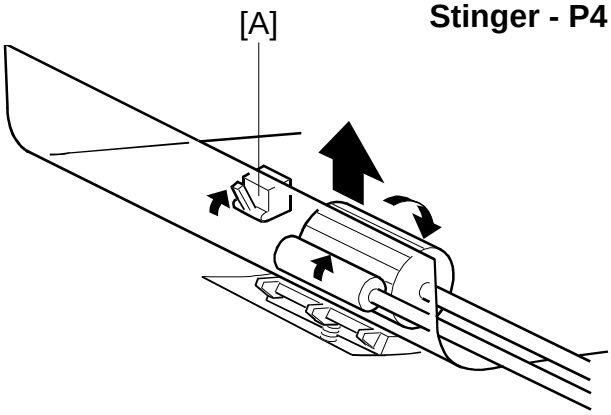
Stinger - P4



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The PFU paper feed clutch turns on at the same time as the paper feed motor starts. The paper actuates the PFU paper feed sensor [A], and the drive roller feeds the paper to the registration rollers.

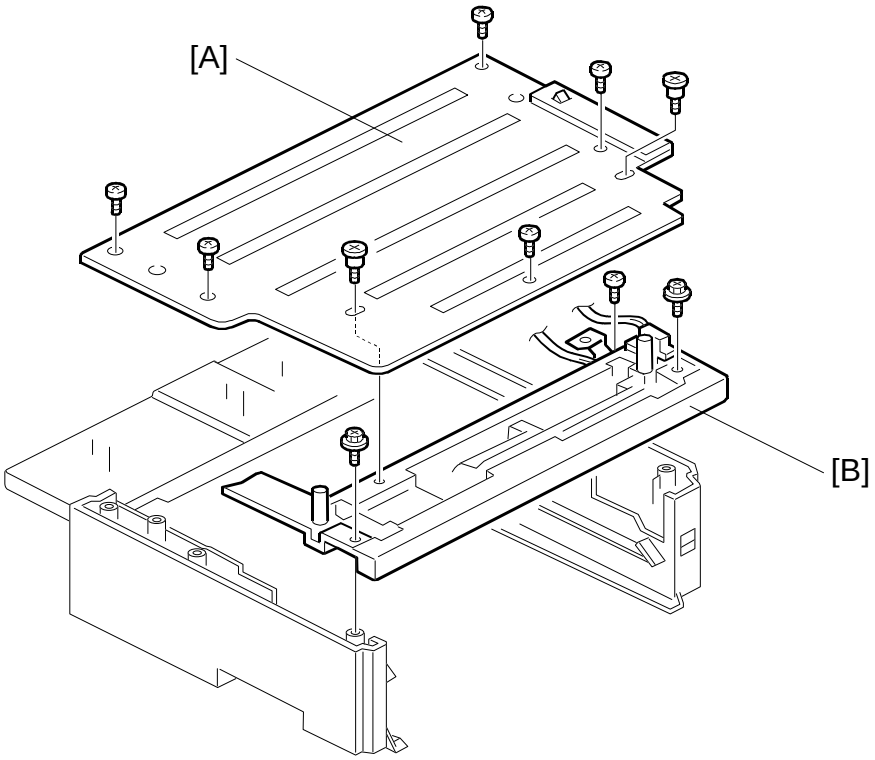
3. INSTALLATION

See the “Paper Feed Unit Installation” sheet that comes with the Operating Instructions.

4. REPLACEMENT AND ADJUSTMENT

4.1 PAPER FEED UNIT (OPTION FOR STINGER - P3)

4.1.1 PAPER FEED ASSEMBLY REMOVAL



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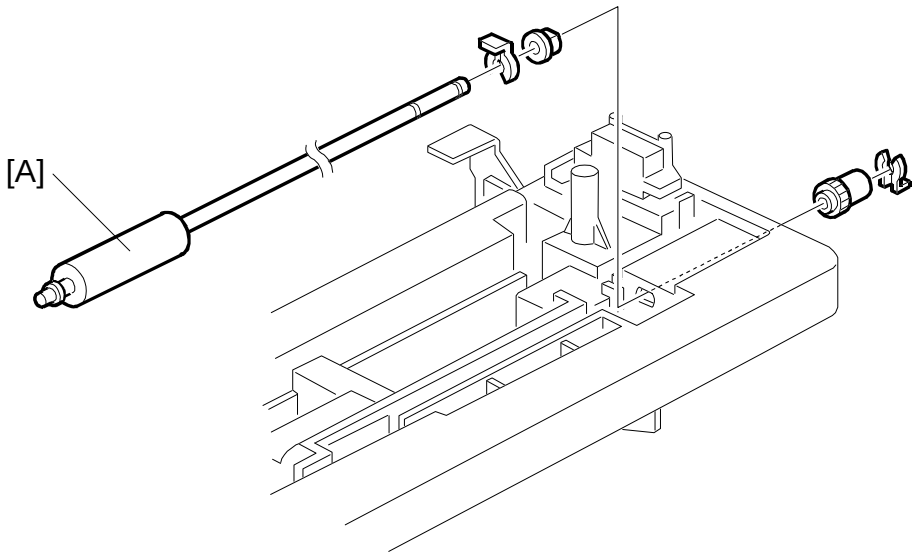
1. Remove the top cover [A] (7 screws).
2. Remove the paper feed assembly [B] (3 screws and 5 connectors).

4.1.2 DRIVE ROLLER REPLACEMENT



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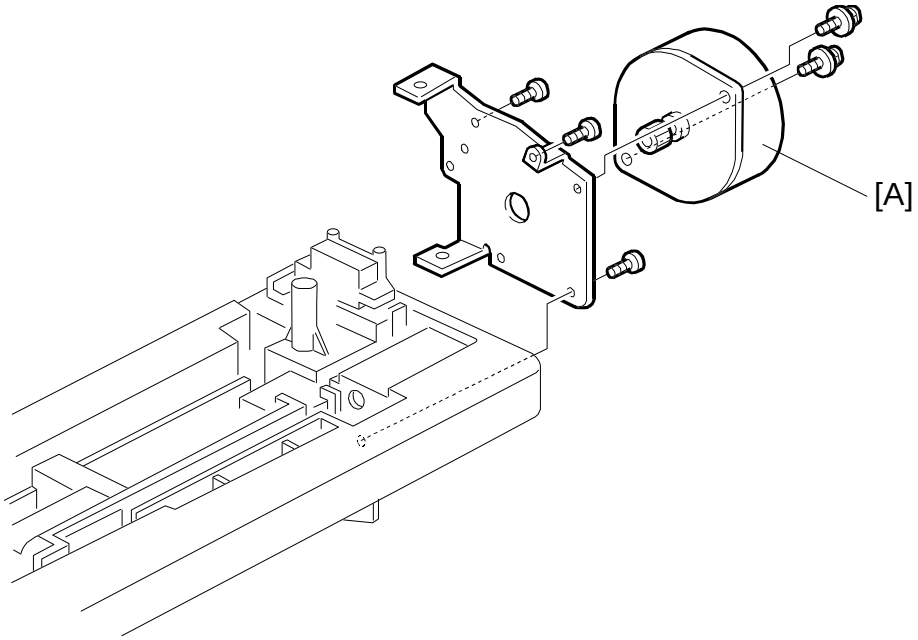
1. Remove the paper feed assembly. (Refer to Paper Feed Assembly Removal.)
2. Replace the drive roller [A] (2 snap rings).
   Do not touch the drive roller with your bare hands.

4.1.3 PAPER FEED MOTOR REPLACEMENT



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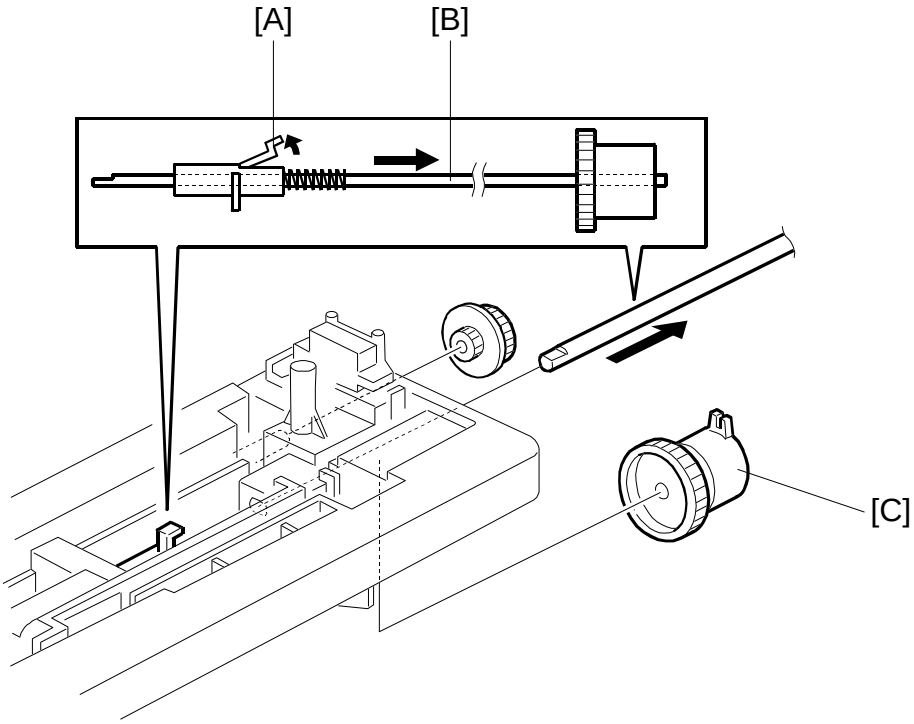
1. Remove the paper feed assembly. (Refer to Paper Feed Assembly Removal.)
2. Replace the paper feed motor [A] (2 screws).

4.1.4 PAPER FEED CLUTCH REMOVAL



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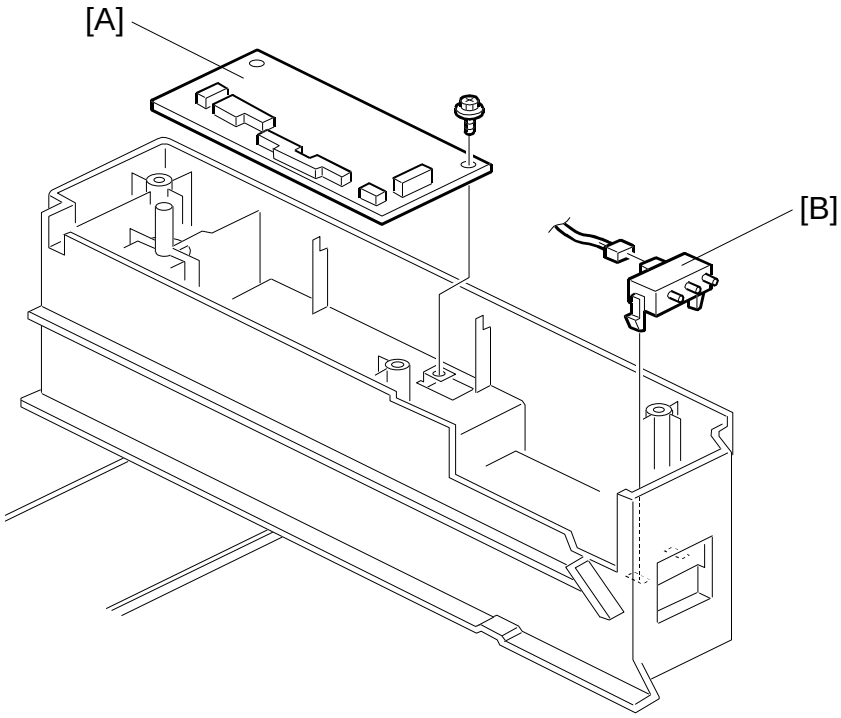
1. Remove the paper feed assembly. (Refer to Paper Feed Assembly Removal.)
2. Remove the paper feed roller. (Refer to Paper Feed Roller Replacement in the service manual for the main body.)
3. While unhooking the hooks [A], pull the shaft [B] out to the right, as shown.
4. Replace the paper feed clutch [C].

4.1.5 PAPER FEED UNIT BOARD/PAPER SIZE SWITCH REPLACEMENT



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Paper Feed Unit Board

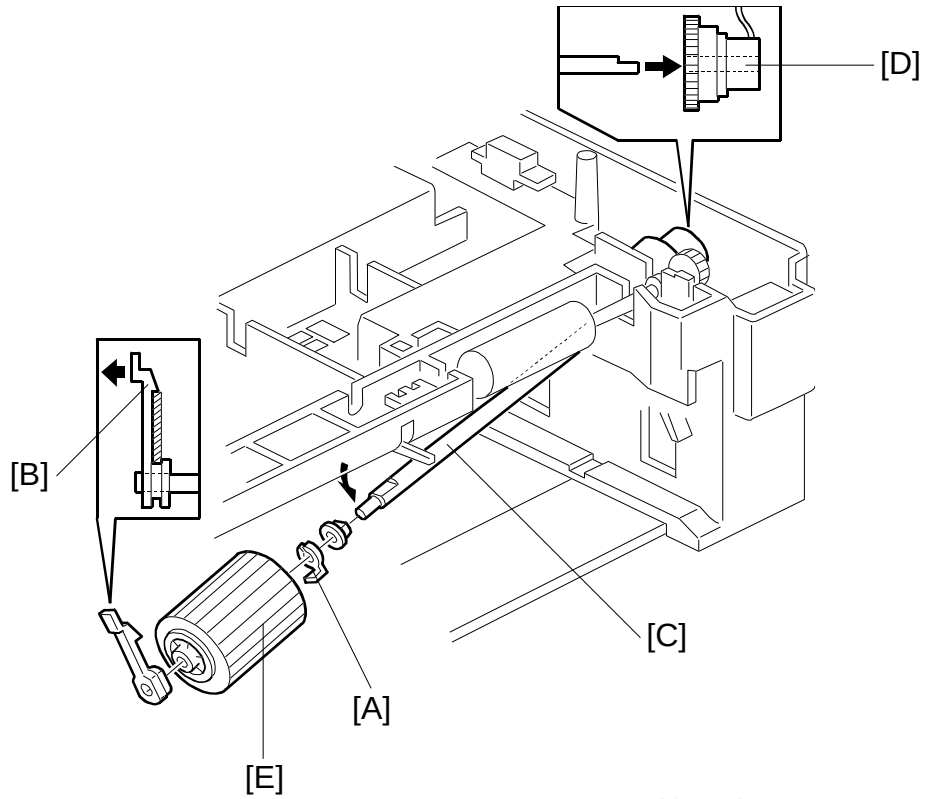
1. Remove the top cover. (Refer to Paper Feed Assembly Removal.)
2. Replace the paper feed unit board [A] (1 screw and 8 connectors).

Paper Size Switch

1. Remove the top cover. (Refer to Paper Feed Assembly Removal.)
2. Replace the paper size switch [B] (1 connector).

4.2 PAPER FEED UNIT (OPTION FOR STINGER - P4)

4.2.1 PAPER FEED ROLLER/PAPER FEED CLUTCH REPLACEMENT



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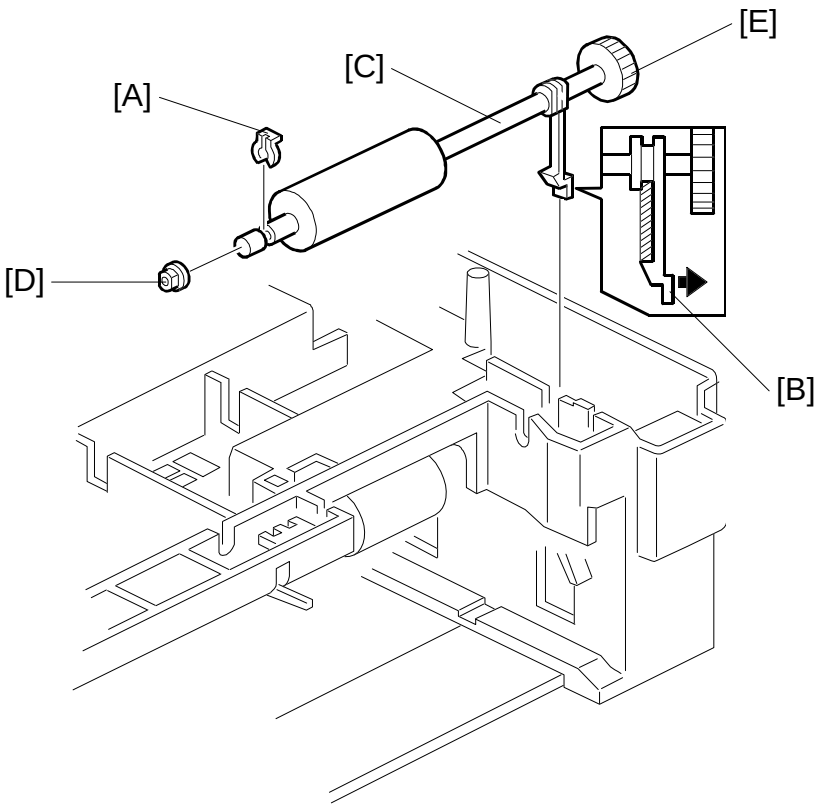
1. Draw out the paper cassette.
2. Remove the snap ring [A].
3. Release the lever [B] as shown.
4. Lower the shaft [C], then remove the paper feed clutch [D].
5. Replace the paper feed roller [E].
   Do not touch the paper feed roller with your bare hands.

4.2.2 PAPER DRIVE ROLLER REPLACEMENT



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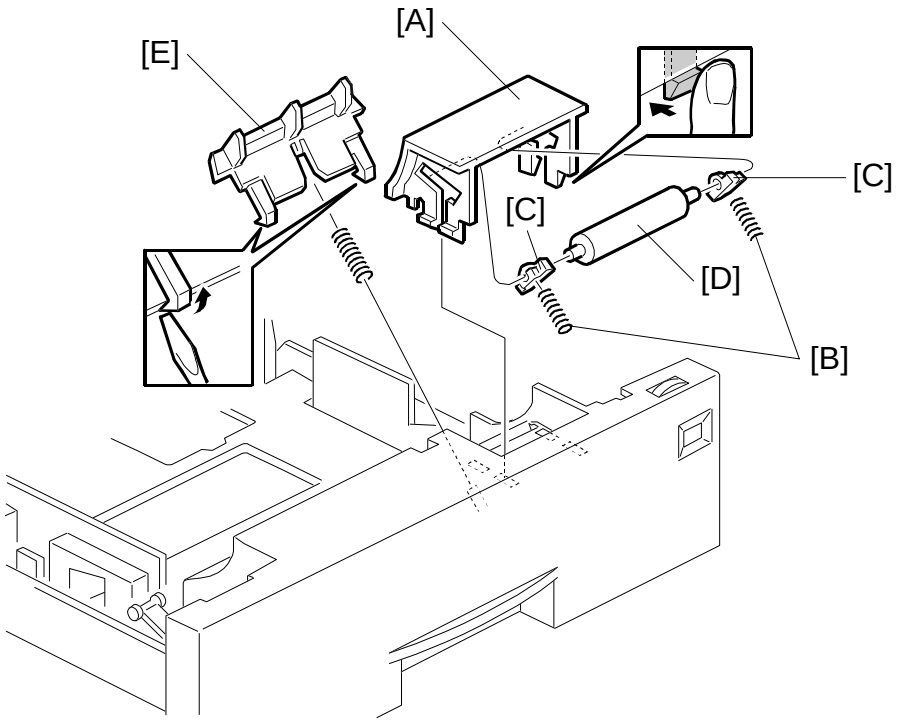
1. Draw out the paper cassette.
2. Remove the snap ring [A].
3. While releasing the lever [B], remove the paper drive roller assembly [C].
4. Replace the paper drive roller (bushing [D], gear [E], and lever [B]).
   Do not touch the paper drive roller with your bare hands.

4.2.3 DRIVE ROLLER IDLER/FRICTION PAD REPLACEMENT



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Drive Roller Idler

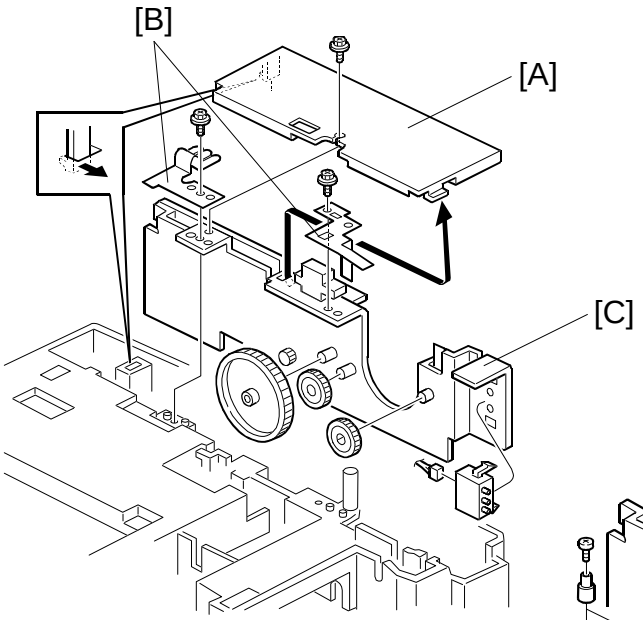
1. Draw out the paper cassette.
2. Remove the relay roller cover [A] (4 hooks).
3. Remove the two springs [B] and two bushings [C].
4. Replace the relay roller [D].

Friction Pad

1. Draw out the paper cassette.
2. Replace the friction pad [E] (2 hooks and 1 spring).

Be sure to unhook the hooks. Otherwise, the hooks may be broken.

4.2.4 PAPER FEED MOTOR/PAPER FEED UNIT BOARD REPLACEMENT



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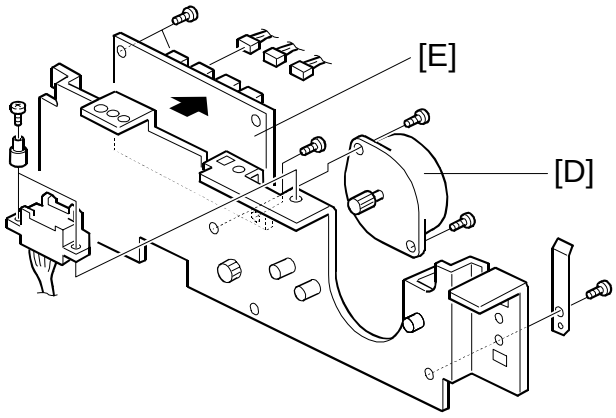

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Paper Feed Motor

1. Remove the paper feed roller shaft. (Refer to Paper Feed Roller Replacement.)
2. Remove the paper drive roller assembly. (Refer to Paper Drive Roller Replacement.)
3. Remove the cover [A] (1 screw).
4. Remove the two grounding plates [B] (1 screw each).
5. Remove the paper feed motor assembly [C].
6. Replace the paper feed motor (2 screws) [D].

Paper Feed Unit Board

1. Remove the paper feed motor assembly [C]. (Refer to Paper Feed Motor Replacement.)
2. Replace the paper feed unit board [E] (2 screws and all connectors).