






Manual Feeder (Machine Code: D333) SERVICE MANUAL

March 2007
Subject to change

Conventions and Trademarks

Conventions

Symbol	What it means
	Screw
	Connector
	E-ring
	C-ring
	Clamp

Standard Paper Sizes

Notation	Paper Size (W x L)	
	Architecture	Engineering
A	9 x 12 in.	8.5 x 11 in.
B	12 x 18 in.	11 x 17 in.
C	18 x 24 in.	17 x 22 in.
D	24 x 36 in.	34 x 22 in.
E	36 x 48 in.	34 x 44 in.

Warnings, Cautions, Notes

In this manual, the following important symbols and notations are used.

WARNING

- A Warning indicates a potentially hazardous situation. Failure to obey a Warning could result in death or serious injury.

CAUTION

- A Caution indicates a potentially hazardous situation. Failure to obey a Caution could result in minor or moderate injury or damage to the machine or other property.

★ Important

- Obey these guidelines to avoid problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine

↓ Note

- This information provides tips and advice about how to best service the machine.

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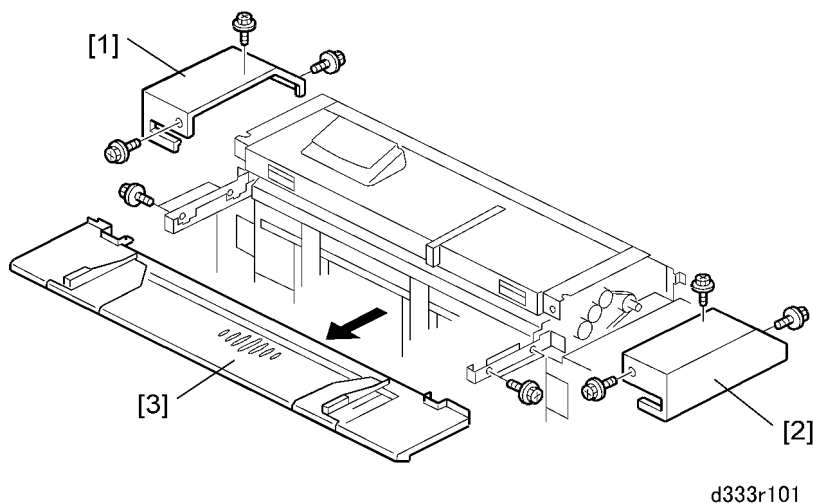
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1. Replacement and Adjustment

Common Procedures

1



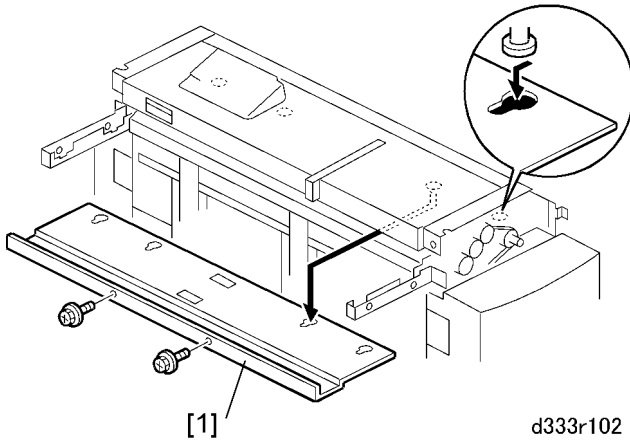
1. Remove:

- [1] Right cover (⚙️x3)
- [2] Left cover (⚙️x3)
- [3] Paper feed table (⚙️x4)

Sensors and Switches

1

Paper Set Sensor, Paper Width Sensors



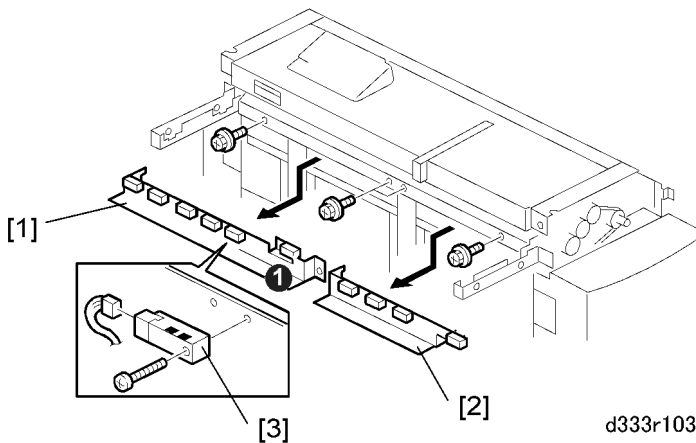
1. Remove (See p.5 "Common Procedures")

- Left right cover
- Left cover
- Paper feed table

2. Remove the plate [1] (2x).

Note

- Pull the plate forward to disconnect the keyhole of the plate from the stud.



3. Remove

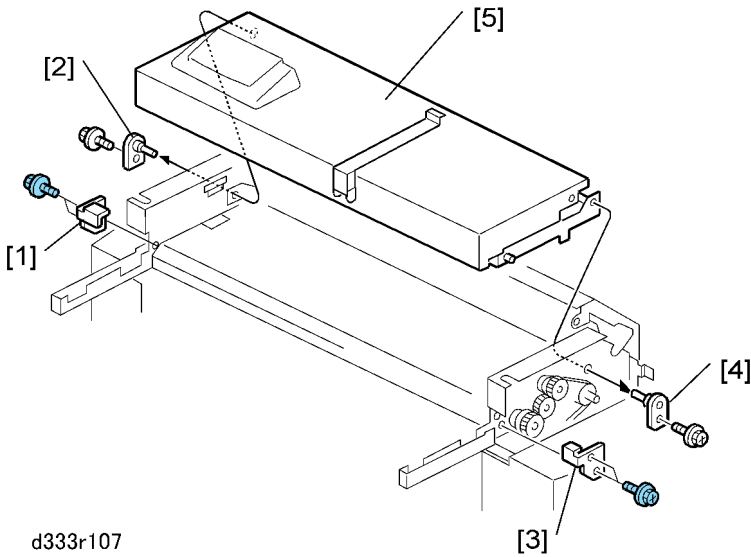
- [1] Sensor mount (⌀x2)
- [2] Sensor mount (⌀x2)
- [3] Paper width sensor (⌀x1, ㄱx1).

↓ Note

- The ① indicates the paper set sensor.
- The EU unit has only the left set of sensors [1]. The NA unit has both sets of sensors [1] and [2].

1

Relay Sensor, Rear Cover Microswitch

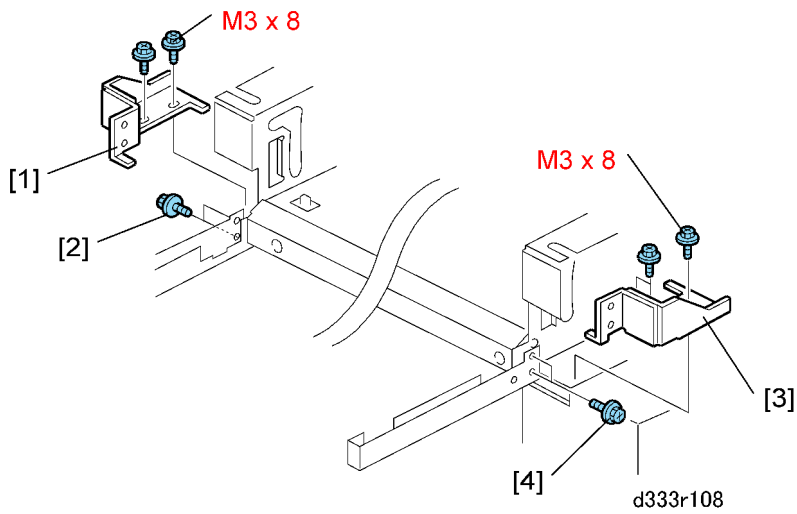


1. Remove (See p.5 "Common Procedures")

- Left right cover
- Left cover
- Paper feed table

2. Remove:

- [1] Bracket (⌀x2)
- [2] Lock pin (⌀x1)
- [3] Bracket (⌀x2)
- [4] Lock pin (⌀x1)
- [5] Feed cover

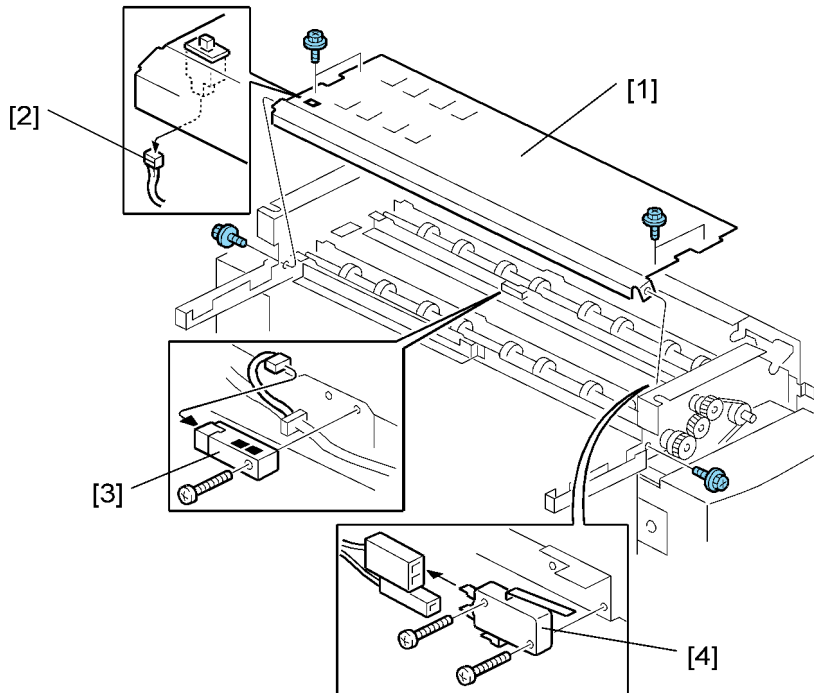


3. Remove:

- [1] Bracket (⌀x2)
- [2] Cover plate screws (⌀x2)
- [3] Bracket (⌀x3)
- [4] Cover plate screws (⌀x2)

★ Important

- At reinstallation the longer screws (M3x8) must be reattached as shown above.

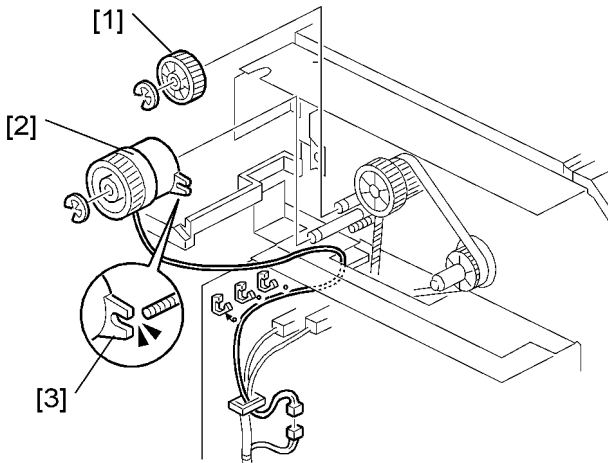


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4. Remove:

- [1] Cover plate (⌀x2)
- [2] Rear cover push-switch connector (⌀x1)
- [3] Relay sensor (⌀x1, ⌀x1)
- [4] Rear cover microswitch (⌀x2, ⌀x2)

Paper Feed Clutch



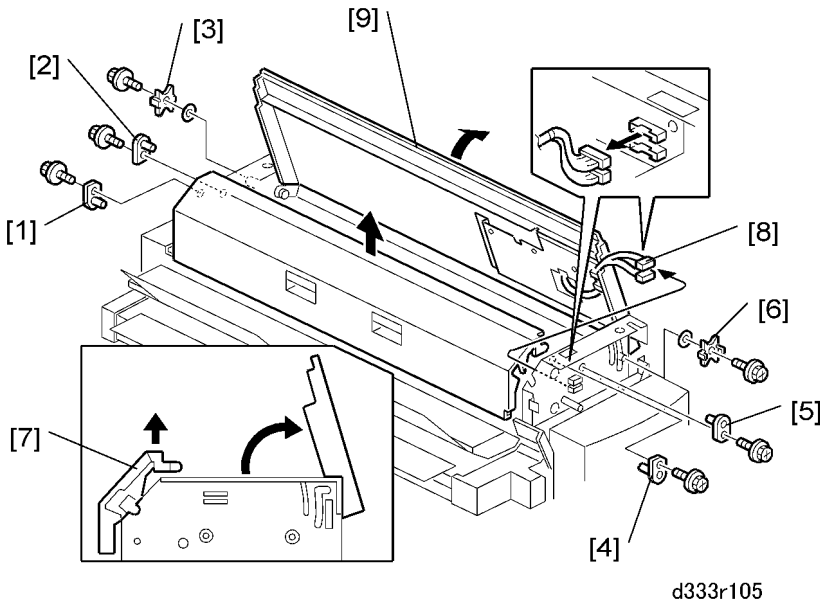
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1. Remove: (See p.5 "Common Procedures")
 - Left cover of manual feeder (🔧x3)
 - Upper left cover of folder unit (🔧x2)
2. Remove:
 - [1] Gear (⚙️x1)
 - [2] Paper feed clutch (⚙️x1, 🔧x3, 🛠️x1)

Reinstallation

- Make sure that the clutch arm [3] is engaged with the pin.

Operation Panel



1. Remove (See p.5 "Common Procedures")

- Left right cover
- Left cover
- Paper feed table

2. Remove:

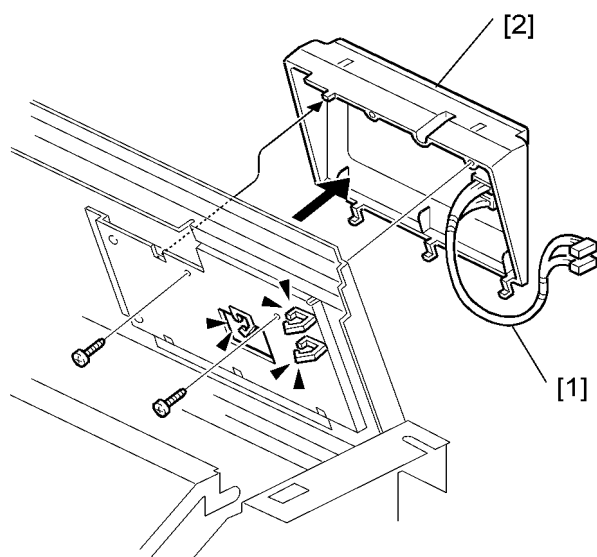
- [1] Lock pin (1x1)
- [2] Lock pin (1x1)
- [3] Sprocket lock (1x1, Spacer x1)

3. Remove:

- [4] Lock pin (1x1)
- [5] Lock pin (1x1)
- [6] Sprocket lock (1x1, Spacer x1)

4. Remove the transport cover [7].

5. Raise the feed cover [8].



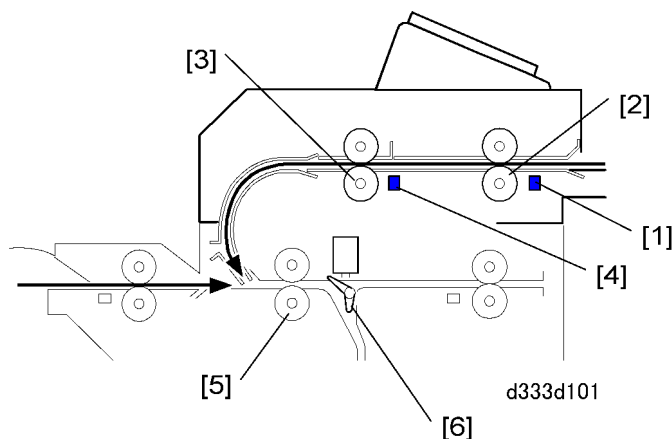
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6. Remove the operation panel (⌘x2, ⌘x3, ⌘x2).

2. Detailed Descriptions

2

Paper Feed

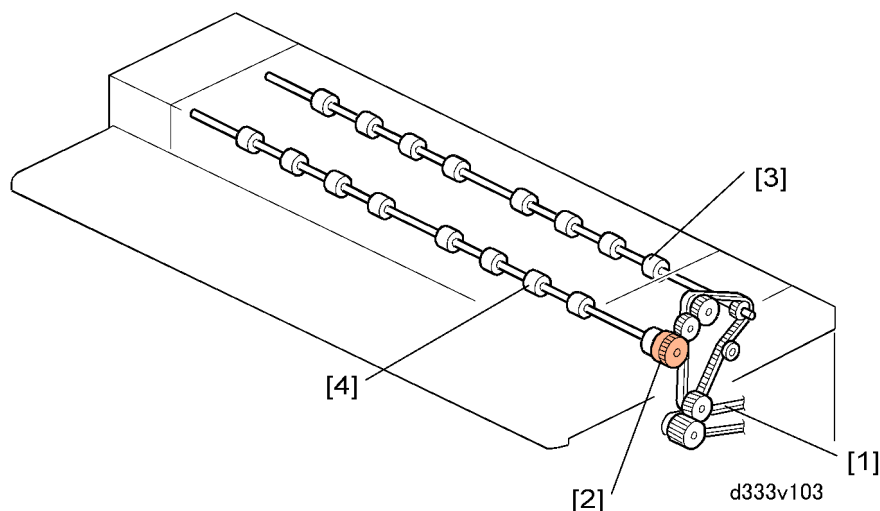


The paper set sensor [1] detects the leading edge of the paper on the paper feed table. (The paper set sensor also functions as a paper width sensor.)

The paper feed clutch (see below) drives the entrance roller [2] and feed roller [3].

The relay sensor [4] detects the leading and trailing edge of the paper to monitor paper feed timing for jam detection.

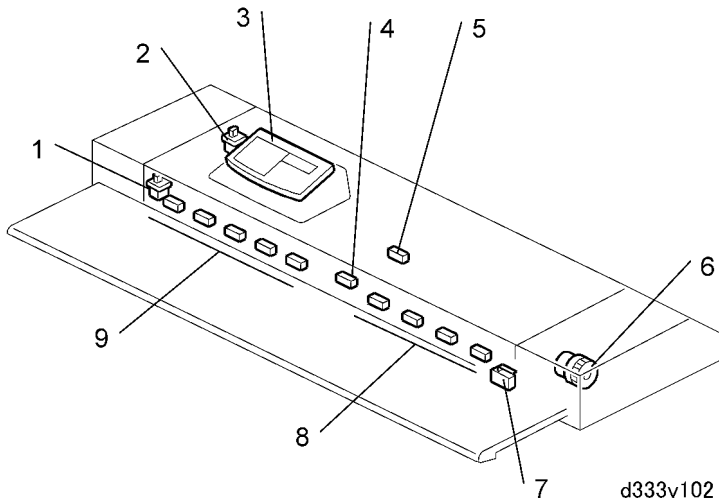
The folder unit transport rollers [5] feed the paper the open junction gate [6] which sends the paper to the fan folder unit below.



A timing belt [1] driven by the folder unit transport motor below also drives the paper feed mechanism of the manual feed unit.

The paper feed clutch [2] and its timing belt drive the entrance roller [3] and feed roller [4].

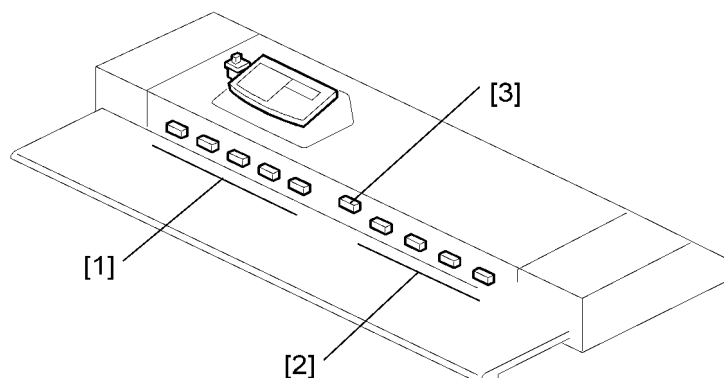
Electrical Components



2

- 1 Feed Cover Push-switch
- 2 Transport Cover Push-switch
- 3 Operation Panel
- 4 Paper Set Sensor/Paper Width Sensor
- 5 Relay Sensor
- 6 Paper Feed Clutch
- 7 Feed Cover Microswitch
- 8 Paper Width Sensors (120 V machine only)
- 9 Paper Width Sensors

Paper Width Sensors



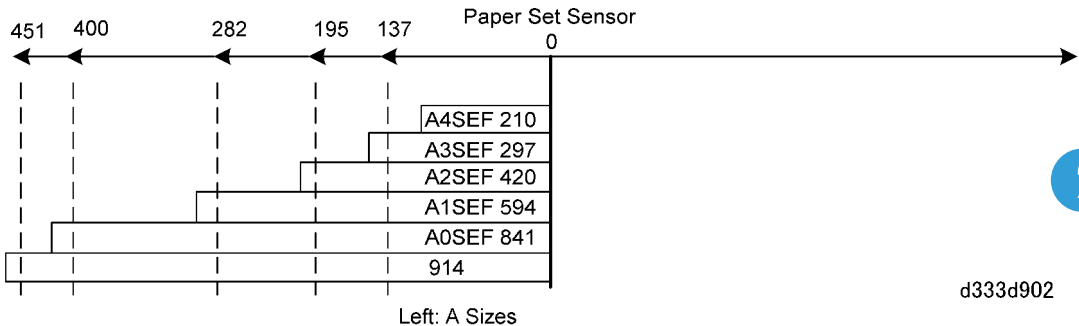
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Multiple sensors are used to detect the width of the paper when it is set on the feed table:

- **Metric.** 6 sensors: 5 paper width sensors [1] and the paper set sensor [3] which also functions as a width sensor. Sensor group [2] above is not in the 220-240 V machine.
- **Inch.** 10 sensors: 9 paper width sensors and the paper set sensor [3] which also functions as a width sensor. Sensor group [1] and [2] are both in the 120 V machine. Sensor group [1] above is for Engineering paper sizes, sensor group [2] above is for Architecture paper sizes.

Metric

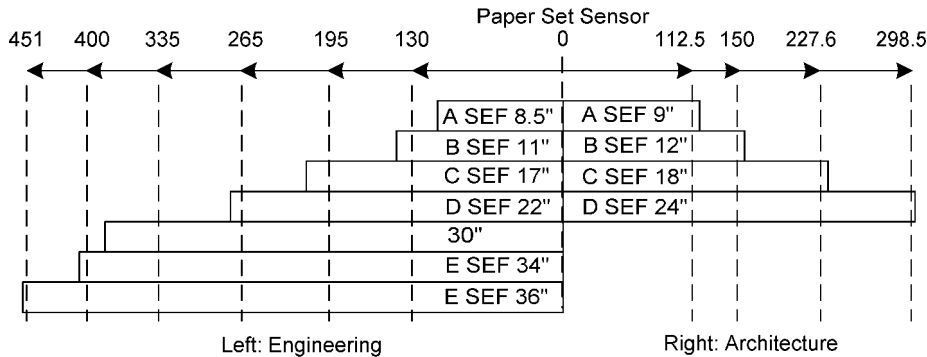
Sensor Positions: mm



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Inch

Sensor Positions: mm



The sensors on the left detect A series (Metric) or Engineering (USA) sizes.

The sensors on the right detect Architecture (USA) sizes only.

The original set sensor detects A4 or 8 1/2" "A" size SEF originals. The other original width sensors detect the larger sizes shown above.

Description of Electrical Components

Component		Function
Board		
PCB3	Operation Panel	Provides the display and keys to operate the manual feeder unit when it is not used with the main machine.
Sensors		

Component		Function
S11	Paper Set Sensor (A4/8.5"/9" SEF)	Detects 1) when paper is set on the paper feed table, and 2) detects A4/8.5"/9" SEF paper.
S12	Paper Width Sensor (36")	Detects the width of the paper when it set on the paper feed table.
S13	Paper Width Sensor (24")	Detects the width of the paper when it set on the paper feed table (120V machine only).
S14	Paper Width Sensor (18")	
S15	Paper Width Sensor (12")	
S16	Paper Width Sensor (30 in.)	
S17	Paper Width Sensor (A0 SEF/34")	Detects the width of the paper when it set on the paper feed table.
S18	Paper Width Sensor (A1 SEF/22")	
S19	Paper Width Sensor (A2 SEF/17")	
S20	Paper Width Sensor (A3 SEF/11")	
S21	Relay Sensor	Detects the leading and trailing edges of the paper in the feed path to monitor feed timing and detect jams when they occur.
Switches		
SW12	Transport Cover Push SW	Detects when transport cover is open/closed.
SW13	Feed Cover MSW	Detects when feed cover is open/closed.
SW14	Feed Cover Push SW	Detects when feed cover is open/closed.
Clutch		
MC3	Paper Feed Clutch	Drives the entrance rollers and paper feed rollers that feed the paper to the folder unit below.

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