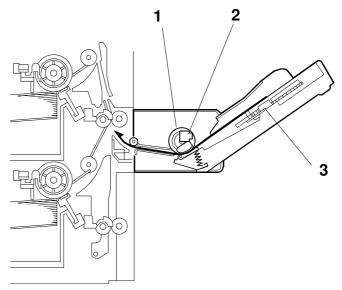
BY-PASS (Machine Code: A899/B415)

1 OVERALL MACHINE INFORMATION 1.1 SPECIFICATIONS

Paper Size:	Standard sizes A6 lengthwise to A3 HLT lengthwise to DLT Non-standard sizes Width: 90 to 305 mm Length: 148 to 432 mm	
Paper Weight:	$52 \text{ g/m}^2 \sim 157 \text{ g/m}^2$, 16 lb ~ 42 lb	
Tray Capacity:	50 sheets (80 g/m ² , 20 lb)	
Paper Feed System:	Friction Pad Paper Feed	

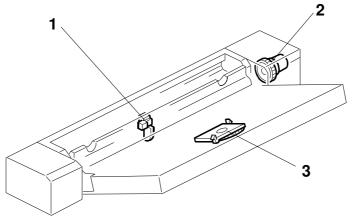
1.2 MECHANICAL COMPONENT LAYOUT



B415V500.WMF

- 1. Paper Feed Roller
- 2. Paper End Sensor
- 3. Paper Size Sensor Board

1.3 ELECTRICAL COMPONENT LAYOUT



B415V501.WMF

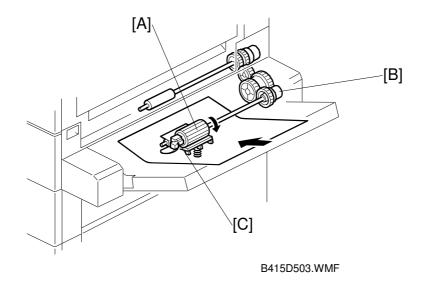
- 1. Paper End Sensor
- 2. Paper Feed Clutch
- 3. Paper Size Sensor Board

1.4 ELECTRICAL COMPONENT DESCRIPTION

Symbol	Name	Function	Index No.
Sensors			
S1	Paper End	Informs the copier/printer when the by-pass tray runs out of paper.	1
S2	Paper Size Sensor Board	Detects the paper width.	3
Magnetic Clutches			
MC1	Paper Feed	Starts paper feed from the by-pass tray.	2

2 DETAILED DESCRIPTIONS

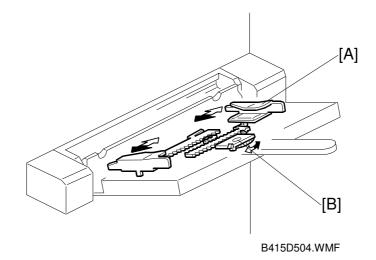
2.1 BASIC OPERATION



The by-pass unit uses a friction pad paper feed mechanism. The transport roller gear in the main copier/printer drives the gear on the paper feed clutch [B] through a series of gears.

When paper is placed in the tray, the paper end sensor [C] switches off. When the Start button is pressed, the paper feed clutch [B] is activated and the paper feed roller [A] feeds the paper one sheet at a time.

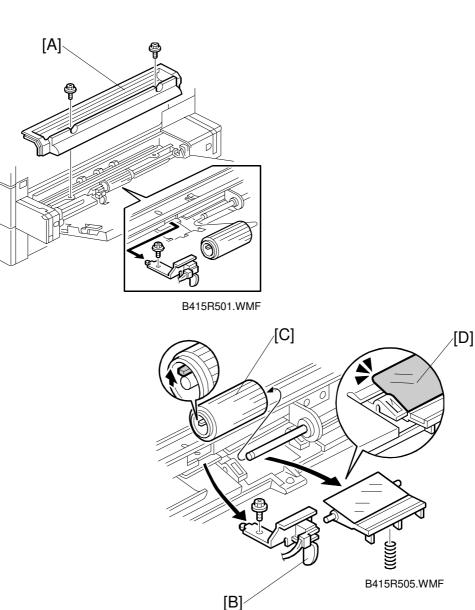
2.2 PAPER SIZE DETECTION



The paper size sensor board [B] monitors the paper width. The rear side fence [A] is connected to the terminal plate. The pattern for each paper width is unique. Therefore, the copier/printer determines which paper has been placed in the by-pass tray by the signal output from the board. However, the copier will not determine the paper length from the by-pass tray hardware (refer to Original Size Detection in the manual for the base copier for details on how paper length is determined).

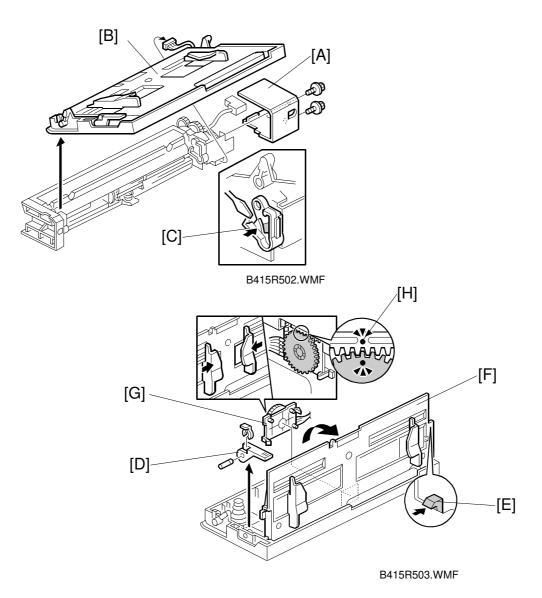
3 REPLACEMENT AND ADJUSTMENT

3.1 PAPER FEED ROLLER/FRICTION PAD/PAPER END SENSOR



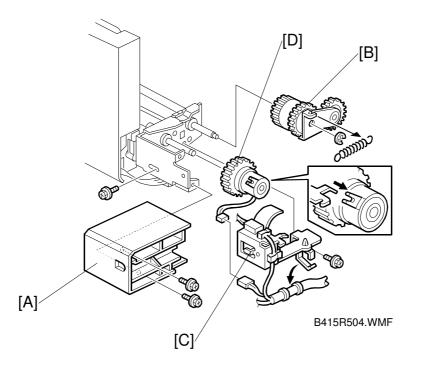
- 1. Remove the upper cover [A] (2 screws).
- 2. Remove the paper end sensor bracket [B] (1 screw).
- 3. Remove the paper feed roller [C] (snap-fit).
- 4. If removing the friction pad [D], do so at this time.

3.2 PAPER SIZE SENSOR BOARD



- 1. Remove the rear cover [A] (2 screws).
- 2. Remove the by-pass tray [B] (1 connector, 2 release levers [C]).
- 3. Remove the lever [D] (1 snap ring, 1 pin).
- 4. While pushing the release lever [E], remove the paper tray [F].
- 5. Remove the by-pass width sensor [G].
- **NOTE:** When installing the by-pass width sensor [G], move the side fence inward all the way so that the seal on the side face gear faces the surface with the seal [H] on the by-pass width sensor.

3.3 PAPER FEED CLUTCH



- 1. Remove the rear cover [A] (2 screws).
- 2. Remove the spring.
- 3. Remove the drive gear and drive gear bracket [B] (1 E-ring, 1 spring).
- 4. Remove the paper feed clutch bracket [C] (2 screws).
- 5. Remove the paper feed clutch [D] (1 connector).