

BY-PASS TRAY UNIT
(Machine Code: B490)

1. REPLACEMENT AND ADJUSTMENT

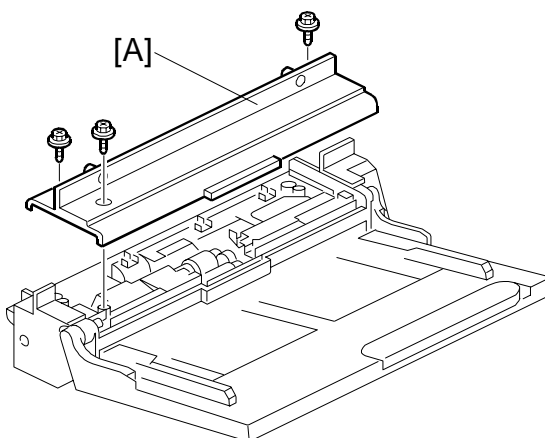
⚠ CAUTION
 Turn off the main power switch and unplug the machine before beginning any of the procedures in this section.

NOTE: This manual uses the following symbols.

- ☞ : See or Refer to
 🔩 : Screws
 🔌 : Connector
 🔗 : Clip ring
Ⓢ : E-ring

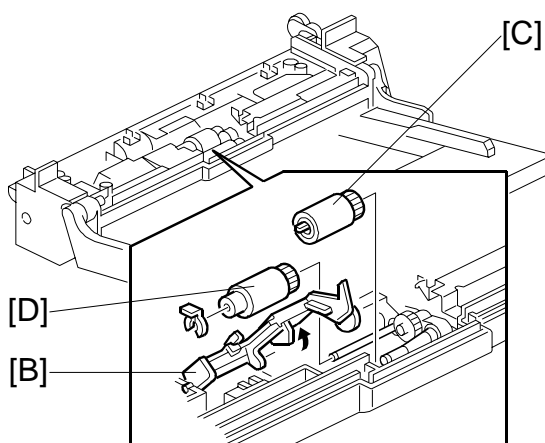
1.1 PICKUP/FEED ROLLER

1. Bypass tray (🔩 x 3)
2. Upper cover [A] (🔩 x 3)



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3. Lift the paper end sensor feeler [B].
4. Pick-up roller [C] (1 hook)
5. Paper feed roller [D] (🔗 x 1)

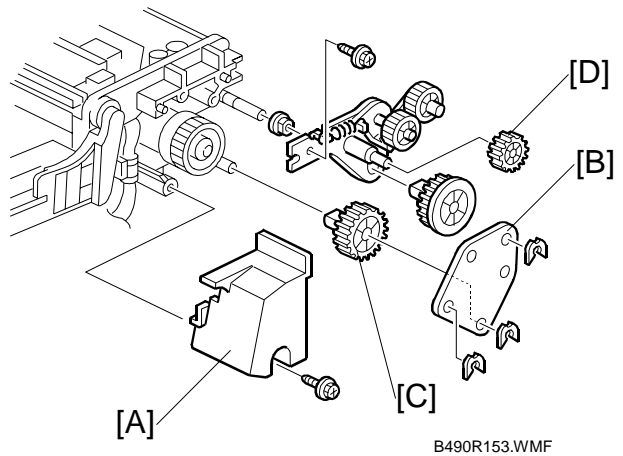


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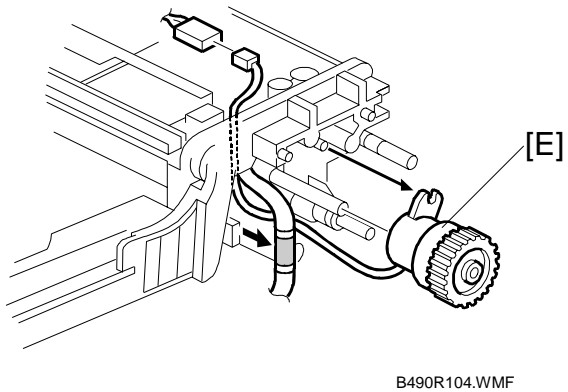
Peripherals

1.2 PAPER FEED CLUTCH

1. Upper cover (☛ 1.1)
2. Rear cover [A] (🔩 x 1)
3. Gear holder [B] (Ⓢ x 3)
4. Gears [C][D]

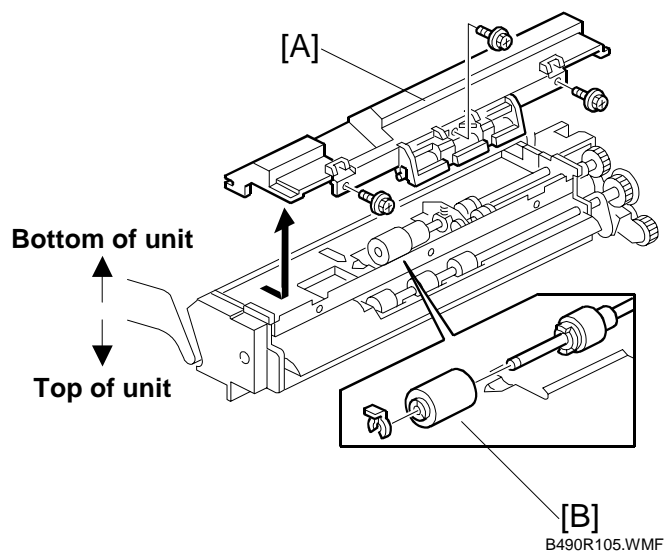


5. Clutch [E] (🔩 x 1)



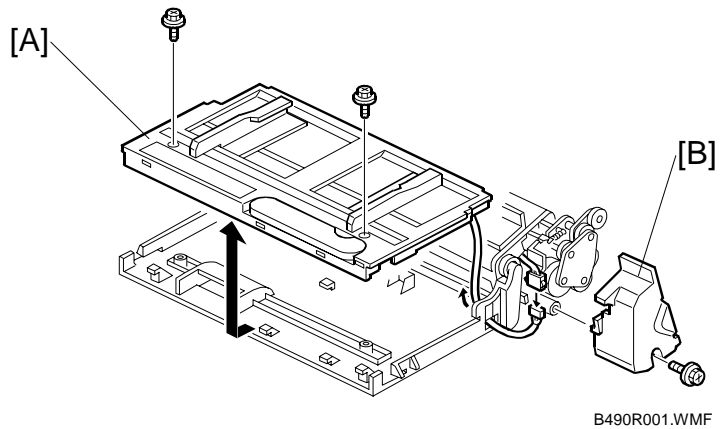
1.3 REVERSE ROLLER

1. Bypass tray (☛ 1.1)
2. Turn the unit upside down.
3. Bottom cover [A] (🔩 x 3)
4. Reverse roller [B] (🔩 x 1)

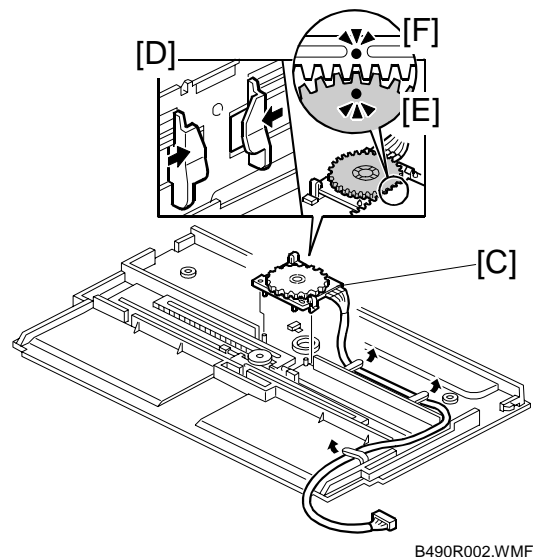


1.4 PAPER SIZE SENSOR BOARD

1. Paper tray [A] (⚙ x 2)
2. Rear cover [B] (⚙ x 1)



3. Paper size sensor board [C]

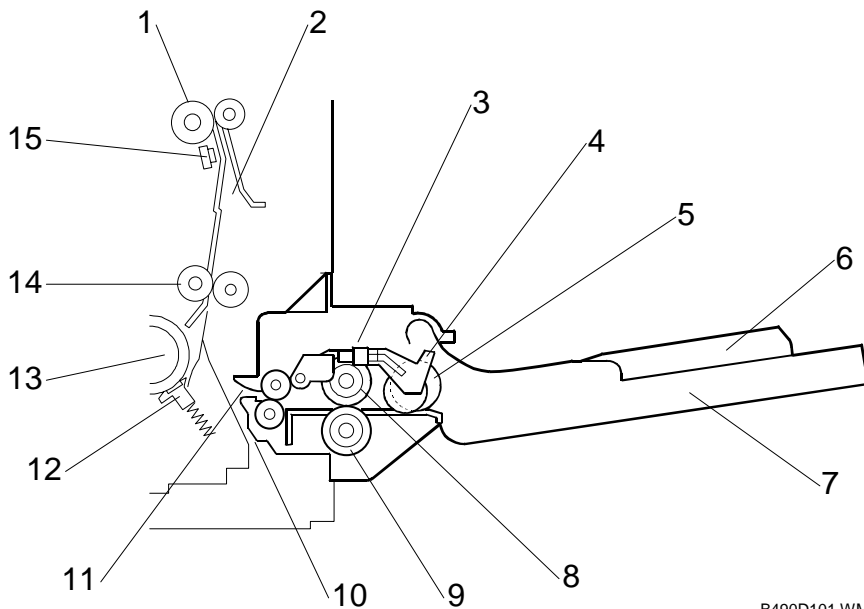


Reassembling

1. Move the side fences to the centermost positions [D].
2. Align the sensor-board position mark [E] with the side-fence position mark [F] and install the sensor board.

2. DETAILED DESCRIPTIONS

2.1 MECHANICAL COMPONENT LAYOUT

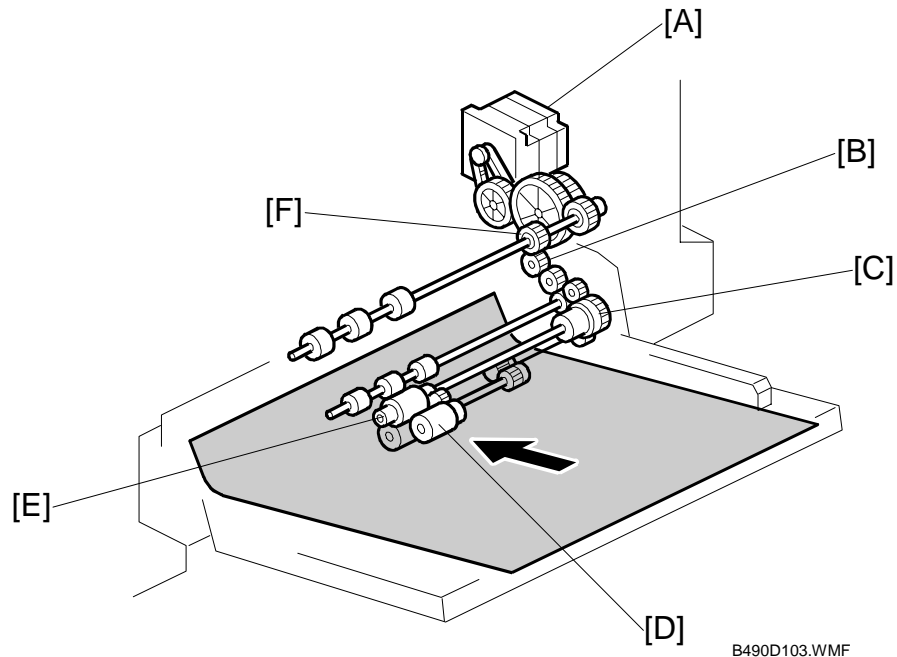


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- | | |
|---------------------------------|--|
| 1. Registration roller (copier) | 9. Reverse roller |
| 2. Registration guide | 10. Paper path (optional paper tray) |
| 3. Paper end sensor | 11. Paper path (bypass tray) |
| 4. Feeler link | 12. Friction pad (copier) |
| 5. Pickup roller | 13. Feed roller (copier) |
| 6. Side fence | 14. Vertical transport roller (copier) |
| 7. Bypass tray | 15. Registration sensor (copier) |
| 8. Feed roller | |

2.2 PAPER FEED


2.2.1 DRIVE



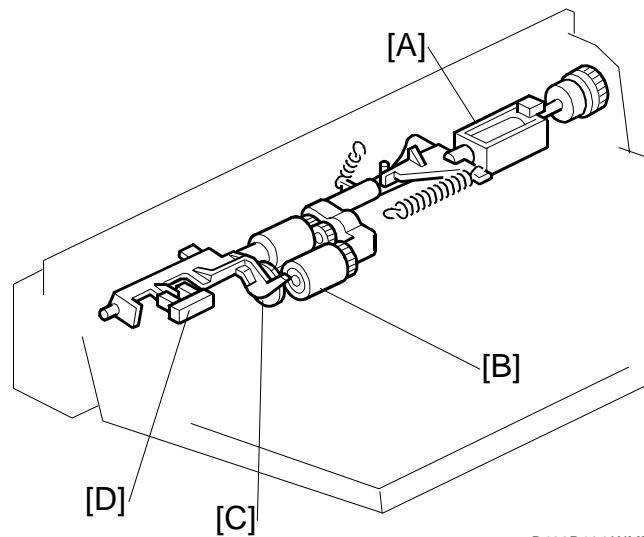
Power Source

The paper feed motor [A] inside the copier drives all the rollers and gears in the bypass tray unit by way of a timing belt and gears. The transport roller gear [F] (in the copier) contacts the leftmost gear [B] (in the bypass unit).

Rollers

An FRR (feed and reverse roller) feed mechanism is used (☛  *Paper Feed Methods*). The pickup roller [D] and feed roller [E] turn only when the clutch [C] transmits the drive power.

2.2.2 PAPER FEED MECHANISM



Pickup Roller Mechanism

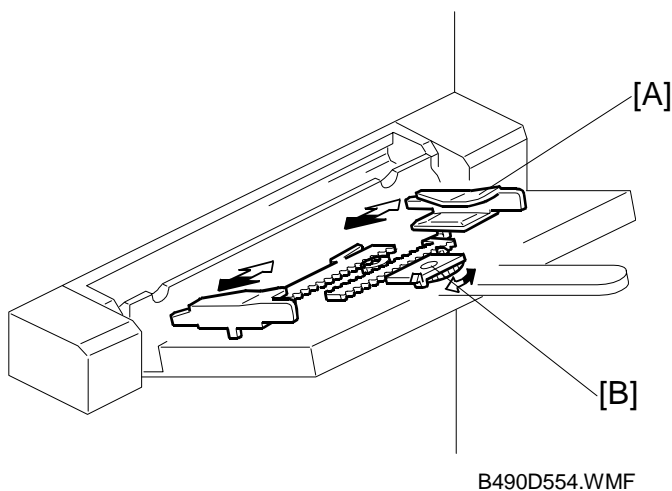
When paper is not being fed, the pickup roller [B] stays away from the paper stack. When paper feed starts, the pickup solenoid [A] turns on and lowers the pickup roller by way of a mechanical link.

Paper End Detection

When the paper on the tray is all used, the feeler [C] falls into the cutout. This action is detected by the paper end sensor [D] by way of a mechanical link.

The paper end sensor also functions as a paper set sensor.

2.3 PAPER SIZE DETECTION



The side fences [A] are mechanically linked with the gear on the paper size sensor board [B]. The gear turns when the fences are moved. The gear has terminals which make different electric circuits when the gear is turned, so the machine determines the width of the paper in the by-pass tray by the signals from the paper size sensor board.

The paper length is not detected by this sensor (see Original Size Detection in the manual for the base copier).