

**Bypass Tray BY3000**  
**Machine Code: D370**

**SERVICE MANUAL**

Oct. 2007  
Subject to change

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# Safety and Symbols

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## Replacement Procedure Safety


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### **CAUTION**

- Turn off the main power switch and unplug the machine before beginning any of the replacement procedures in this manual.

### Symbols Used in this Manual


This manual uses the following symbols.

: See or Refer to

: Screws

: Connector

: Clip ring

: E-ring

: Clamp

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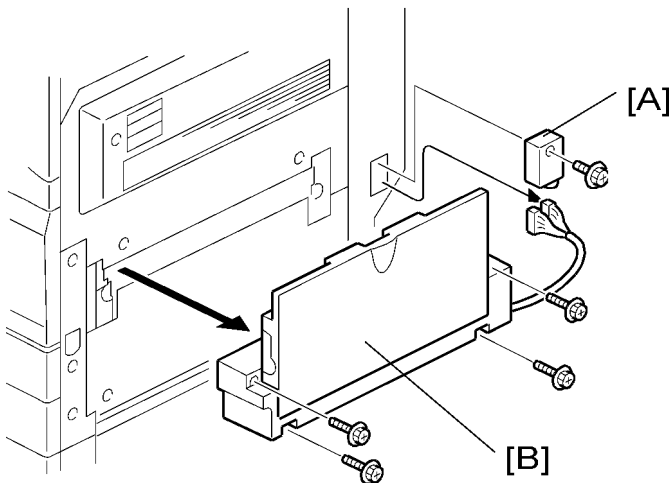
# 1. Replacement and Adjustment

## Tray

1

### By-pass Tray Unit

#### Basic Model



d370r100

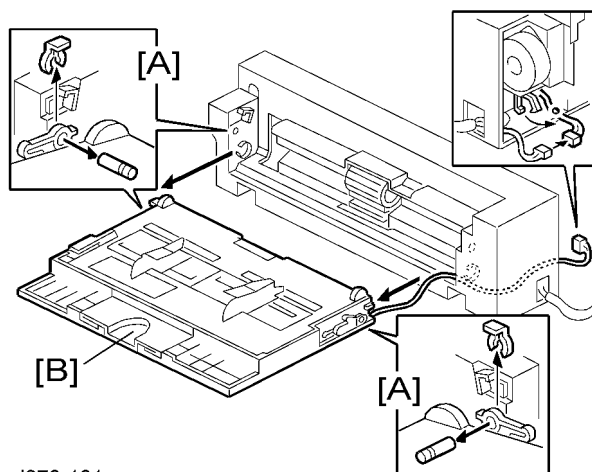
1. Connector cover [A] (🔩 x 1)
2. By-pass tray unit [B] (🔩 x 4, 📏 x 2)

#### Duplex Model

1. Remove the connector cover (🔩 x 1).
2. Disconnect the cable.
3. Release the front and rear link (📏 x 1).
4. Remove the duplex unit.
5. Remove the inner rear cover (🔩 x 2).
6. Remove the paper guide unit
7. Disconnect the by-pass tray cable (📏 x 1).
8. Remove the front and rear pins (📏 x 1 each).
9. By-pass tray unit

## By-pass Tray

1. By-pass tray unit (🔧 By-pass Tray Unit)



d370r101

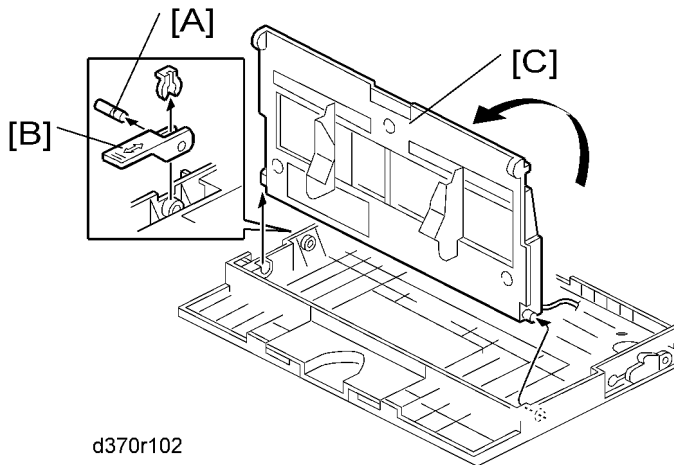
2. Remove the pins [A] (🔧 x 1 each).
3. By-pass tray [B] (🔧 x 1)

# Electrical Components

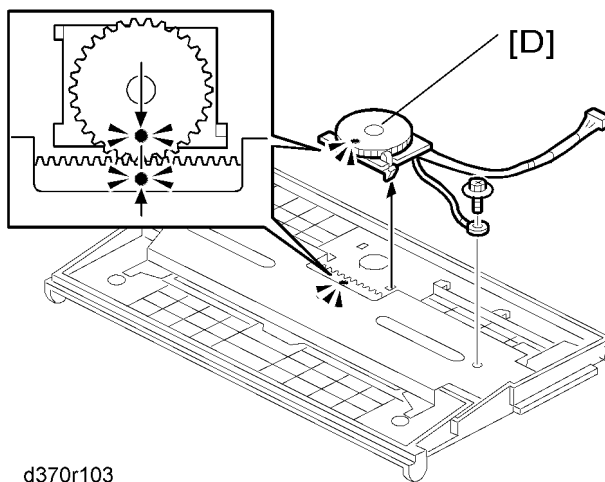
## Paper Size Sensor (Bypass)

1

1. By-pass tray unit (☛ By-pass Tray Unit)
2. By-pass tray (☛ Paper Tray)

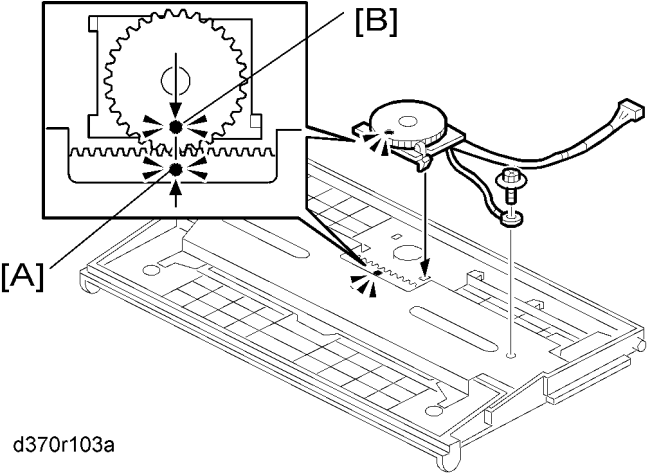


3. Pin [A] (☛ x 1)
4. Pin cover [B]
5. By-pass tray top cover [C]



6. Paper size sensor (bypass) [D] (hook, ☛ x 1, ground cable x 1)

When reinstalling this switch



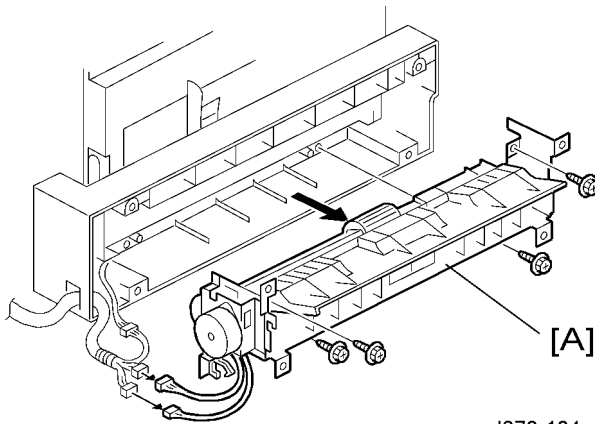
1. Adjust the projection [A] of the left side fence bar (it must be centered).
2. Install the by-pass paper size detection switch so that the hole [B] in this switch faces the projection [A] of the left side fence bar.
3. Reassemble the copier.
4. Plug in and turn on the main power switch.
5. Check this switch operation with SP5803-030 (By-pass paper size < Input Check).

Display on the LCD

| Paper Size | Display  | Paper Size | Display  |
|------------|----------|------------|----------|
| A3 SEF     | 10010000 | B5 SEF     | 11100000 |
| B4 SEF     | 11010000 | B6 SEF     | 00110000 |
| A4 SEF     | 11000000 | A6 SEF     | 10110000 |

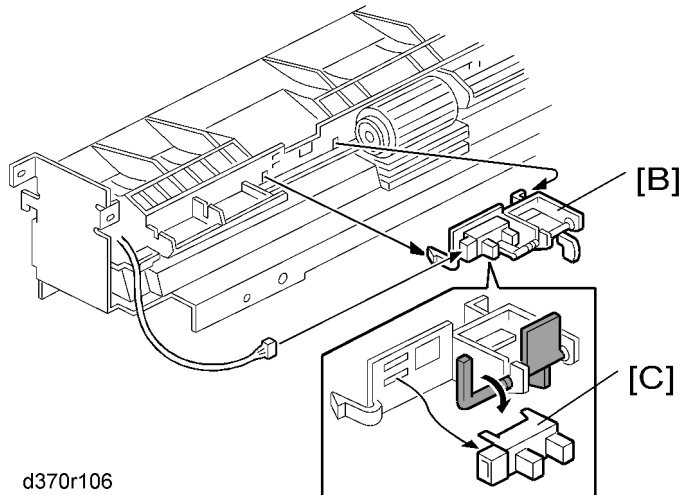
Paper End Sensor (Bypass)

1. By-pass tray unit (☛ By-pass Tray Unit)



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2. By-pass feed unit [A] (⚙ x 4, ⚙ x 1, ⚙ x 2)



d370r106

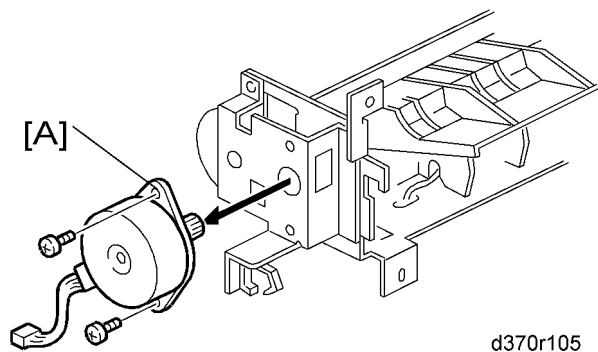
3. Sensor base [B] (⚙ x 1, hooks)  
4. Paper end sensor (bypass) [C] (hooks)


## By-pass Tray Motor

1. By-pass tray unit (⚙ By-pass Tray Unit)  
2. By-pass feed unit (⚙ Paper End Sensor (Bypass))



1



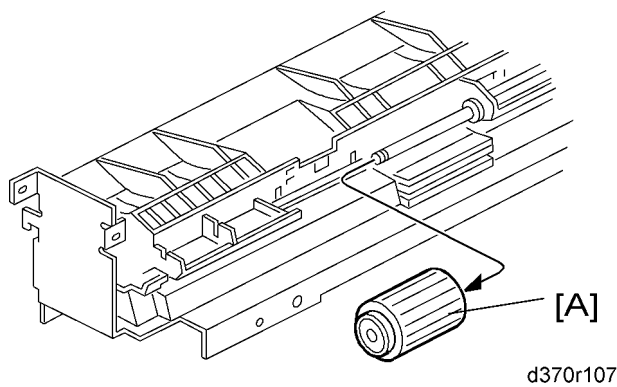
3. By-pass tray motor [A] (  x 2)

# Feed

## By-pass Feed Roller

1

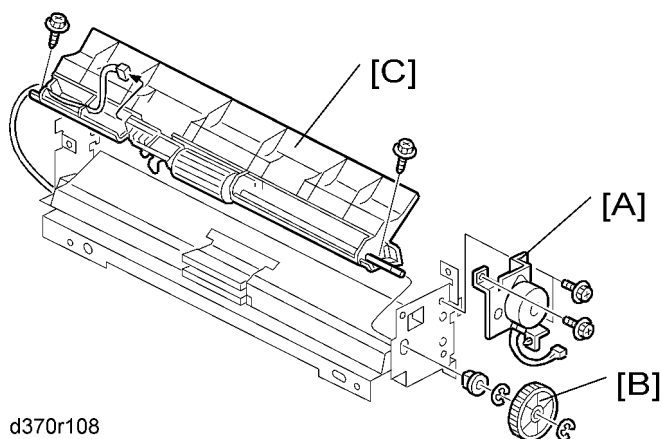
1. By-pass tray unit (☛ By-pass Tray Unit)
2. By-pass paper feed unit (☛ Paper End Sensor (Bypass))
3. Sensor base (☛ Paper End Sensor (Bypass))



4. By-pass feed roller [A]

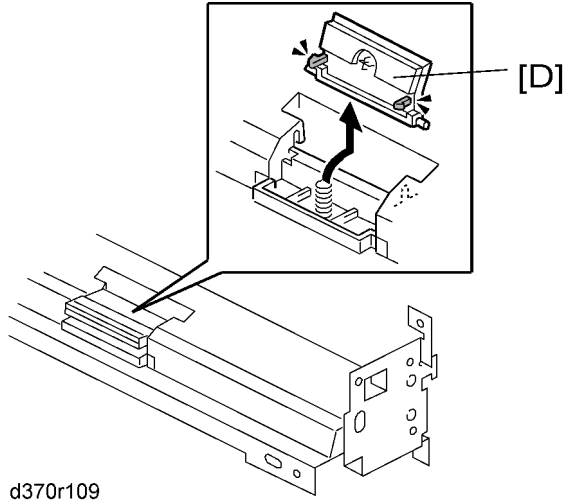
## Separation Pad

1. By-pass tray unit (☛ By-pass Tray Unit)
2. By-pass paper feed unit (☛ Paper End Sensor (Bypass))



3. By-pass tray motor bracket [A] (☛ x 3)

4. Gear [B] (Ⓒ x 2, bushing x 1)
5. Paper guide unit [C] (Ⓓ x 2, Ⓔ x 1)



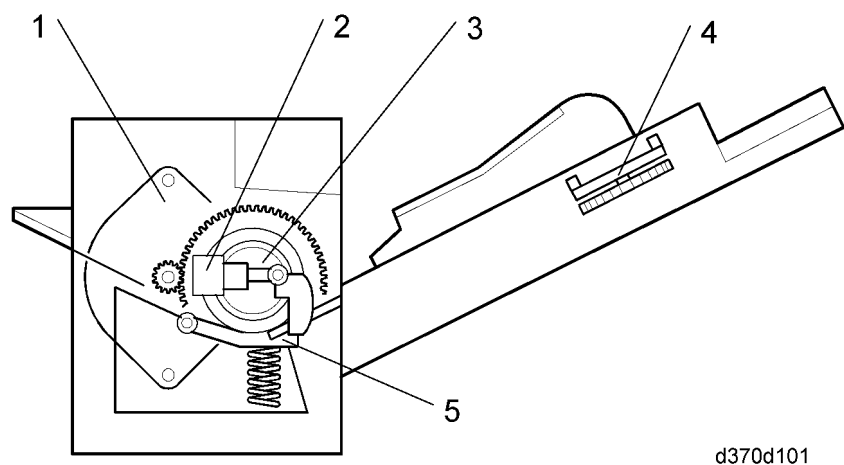
6. Separation pad [D] (spring x 1)

# 2. Detailed Section Descriptions

## Component Layout

### Component Layout

2



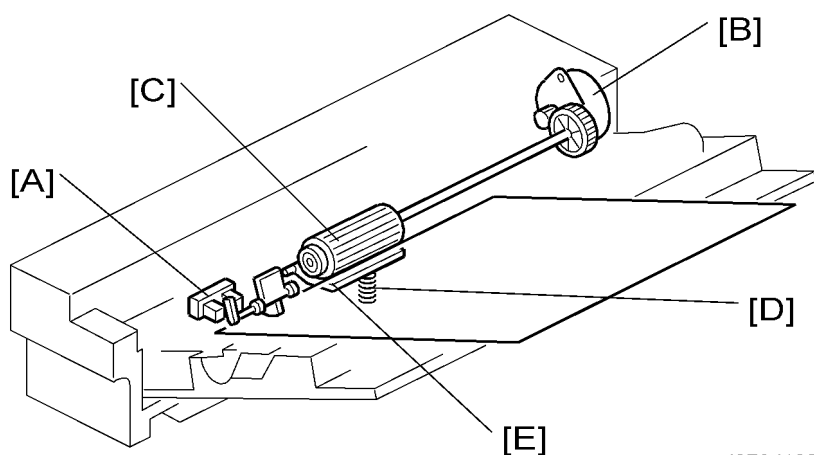
d370d101

| Component                     | Description  |
|-------------------------------|--|
| 1. By-pass Tray Motor         | Drives the paper feed roller.  |
| 2. Paper End Sensor (Bypass)  | Informs the copier/printer when the by-pass tray runs out of paper.  |
| 3. By-pass Feed Roller        | Feeds paper from the by-pass tray.                                   |
| 4. Paper Size Sensor (Bypass) | Detects the paper width.   |
| 5. Separation Pad             | Separates a sheet of paper from the paper stack on the by-pass tray. |

## Overview

### Basic Operation

2

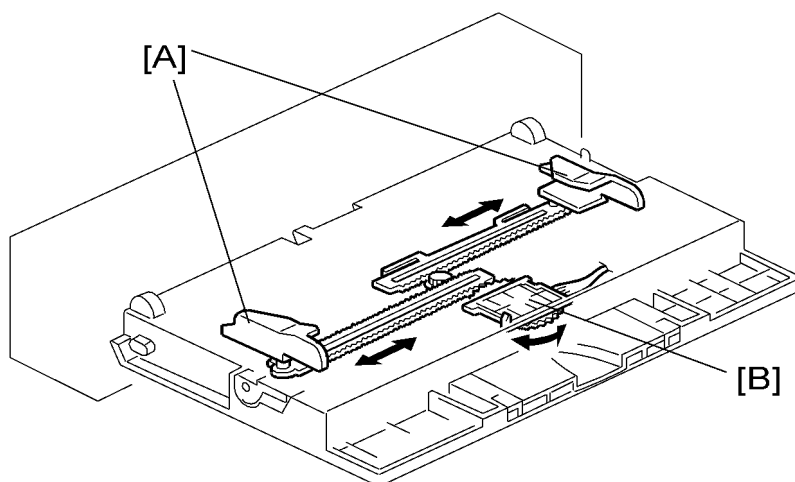


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When the paper end sensor [A] detects paper and the machine gets a by-pass printing job, the by-pass tray motor [B] starts to rotate the by-pass feed roller [C] via the gear.

The by-pass tray has the separation pad system. The spring [D] under the separation pad [E] pushes the paper against the feed roller. As a result, the by-pass feed roller [C] and separation pad [E] feed the top sheet of paper stack on the by-pass tray.

## By-pass Paper Size Detection



d370d103

There are two paper side plates [A] on the by-pass tray. These connect with the paper size sensor [B] through a rack-and-pinion mechanism.

The pattern for each paper width is unique. Therefore, the copier/printer determines which paper has been placed in the bypass tray by the signal output from the board. However, the copier cannot determine the paper length from the by-pass tray hardware.

### Display on the LCD

| Paper Size | Display  | Paper Size | Display  |
|------------|----------|------------|----------|
| A3 SEF     | 10010000 | B5 SEF     | 11100000 |
| B4 SEF     | 11010000 | B6 SEF     | 00110000 |
| A4 SEF     | 11000000 | A6 SEF     | 10110000 |

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