Cassette Tray
(Machine Code: B759)

1. REPLACEMENT AND ADJUSTMENT

1.1 CASSETTE UNIT

B188R701.WMF

B759I015A.WMF
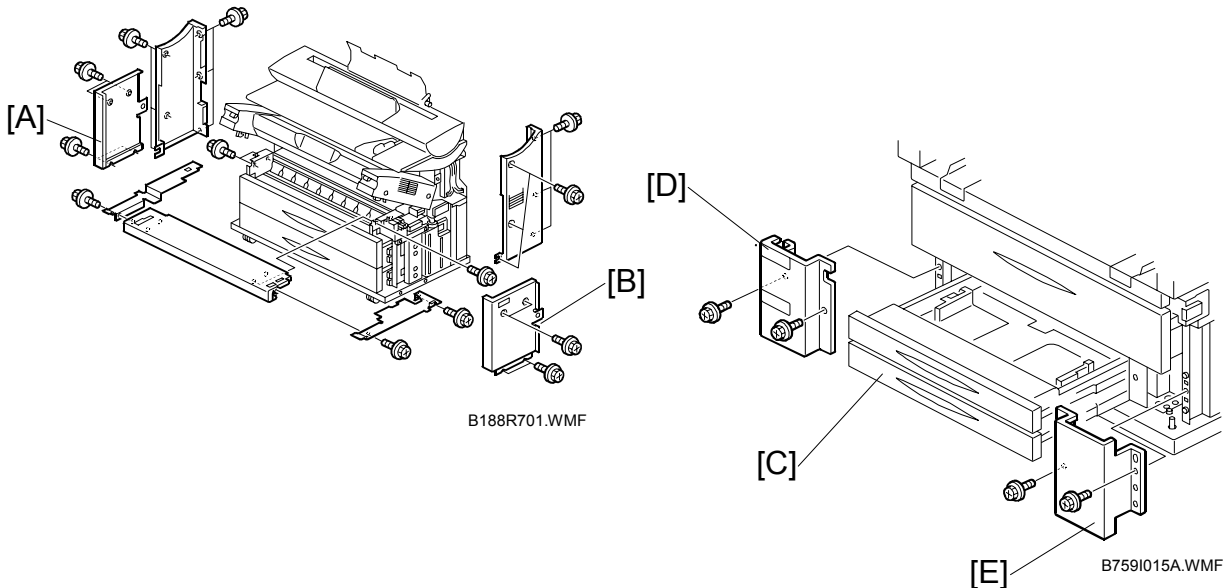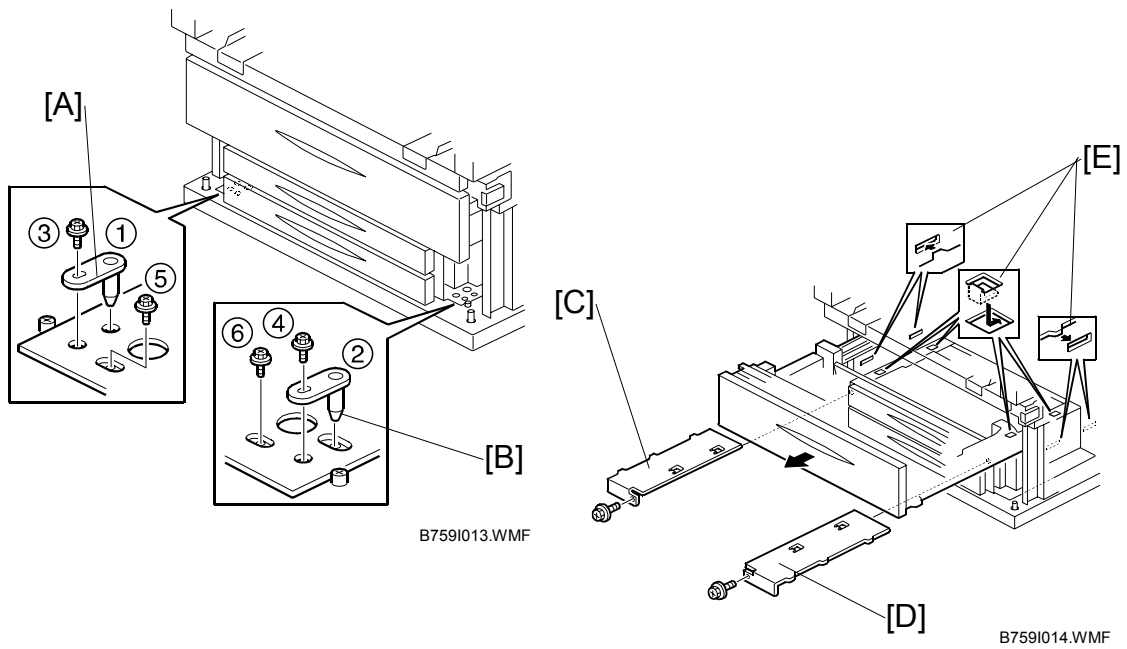
[A]: Left front cover ($\mathscr{F}$ x5)
[B]: Right front cover ($\mathscr{F}$ x5)
    Do not remove any other covers shown in this illustration.
[C]: Cassettes. Pull out partially.
[D]: Left cover plate ($\mathscr{F}$ x2)
[E]: Right cover plate ($\mathscr{F}$ x2)

Peripherals

B759I013.WMF

B759I014.WMF

- Push the cassettes into the machine.

[A]: Left lock pin ($\mathscr{F}$ x2)

[B]: Right lock pin ($\mathscr{F}$ x2)

　　NOTE: Ignore the circle numbers. You can remove the screws in any order.

[C]: Left cover panel ($\mathscr{F}$ x1)

[D]: Right cover panel. ($\mathscr{F}$ x1)

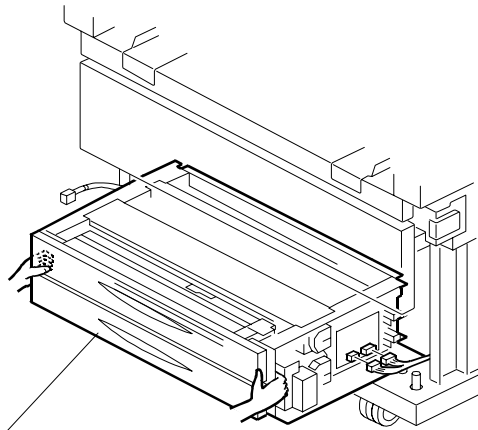[E]: Disengage the tabs as shown to remove the left, right cover panels.

Reinstallation

- Reattach the lock pins in the order indicated by the circle numbers.
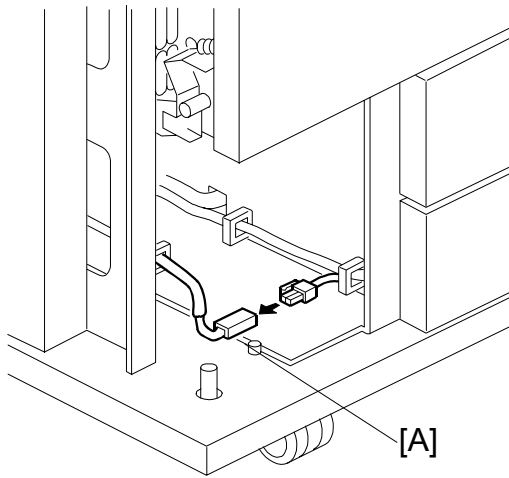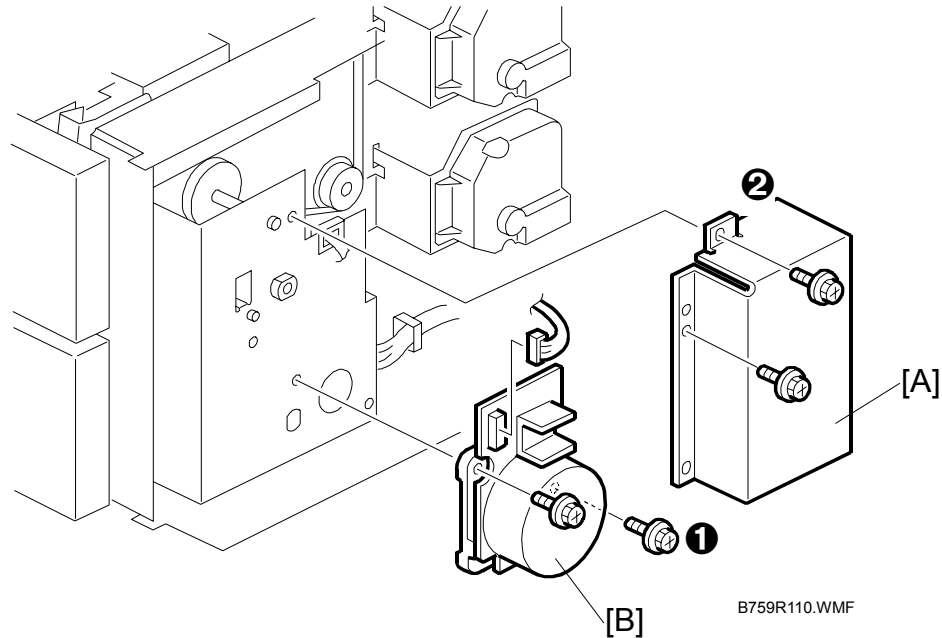
B759I012.WMF

[B]

B759R116.WMF

[A]: Left connector (⊞ x1)
[B]: Cassette unit. Pull the cassette unit partially out of the machine until you can
      see the cassette tray control board.
       NOTE: It is not necessary to remove the cassette unit from the machine.

Peripherals

1.2 CASSETTE FEED MOTOR

B759R110.WMF

- Remove the covers, panels, and lock pins, and pull the cassette unit partially out of the machine. (☛1.1)
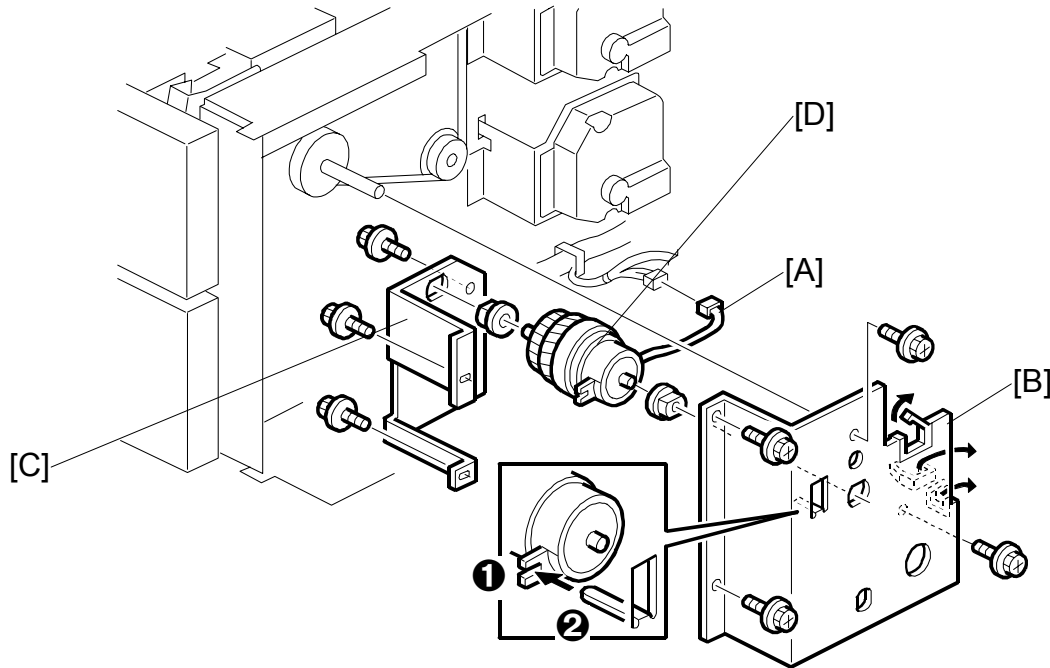
[A]: Motor cover (🔩 x2)

[B]: Cassette feed motor (🔩 x2, ▤ x1, 🔌 x2)

Reinstallation

- Use long screws ❶ (M3 x 10) to reattach the motor bracket.
- When you reinstall the cover, attach the top screw ❷ first.
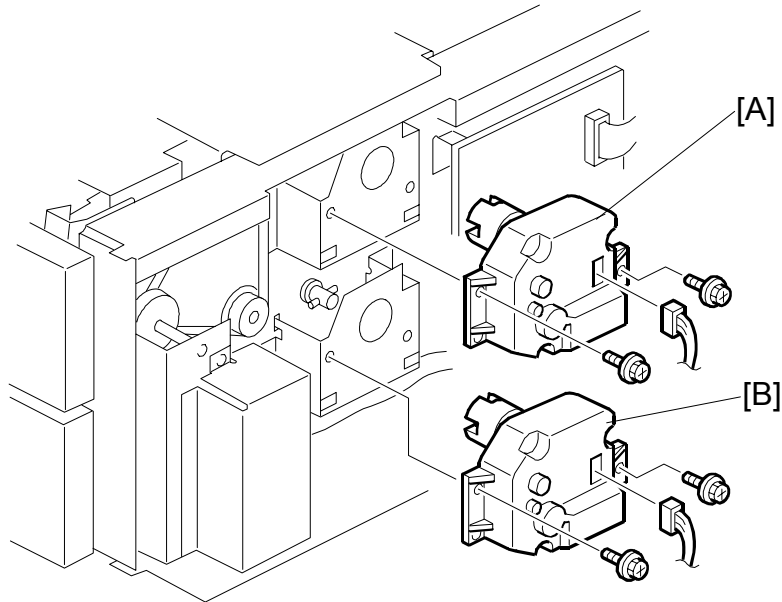
1.3 PAPER TRANSPORT CLUTCH

B759R111.WMF

- Remove the covers, panels, and lock pins, and pull the cassette unit partially out of the machine. (☛1.1)

[A]: Clutch connector (🖳 x1, 🔌 x3)

[B]: Paper feed clutch cover (🔩 x4 – Blue)

[C]: Paper feed clutch bracket (🔩 x3)

[D]: Paper feed clutch (Bushings x2)

Reinstallation

- Make sure that the notch ❶ is correctly engaged with the arm ❷.
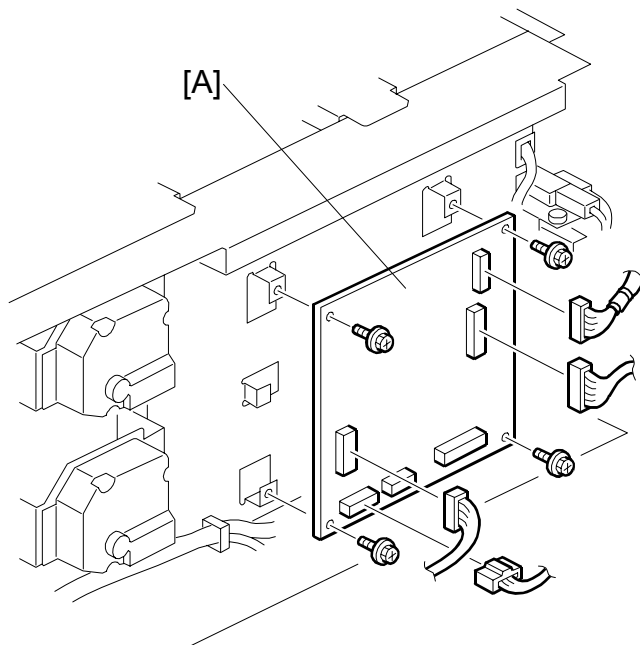
Peripherals

1.4 TRAY LIFT MOTORS

B759R112.WMF

- Remove the covers, panels, and lock pins, and pull the cassette unit partially out of the machine. (☛1.1)

[A]: Upper tray lift motor (🖉 x2, 🔌 x1)

[B]: Lower tray lift motor (🖉 x2, 🔌 x1)
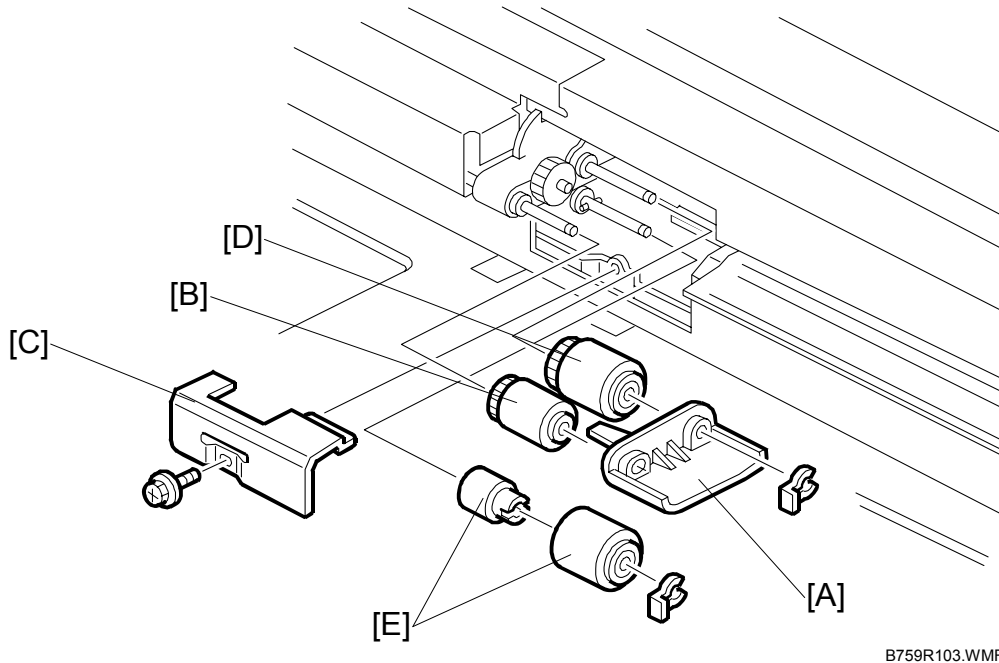
1.5 CASSETTE CONTROL BOARD

[A]

B759R113.WMF

- Remove the covers, panels, and lock pins, and pull the cassette unit partially out of the machine. (☛1.1)
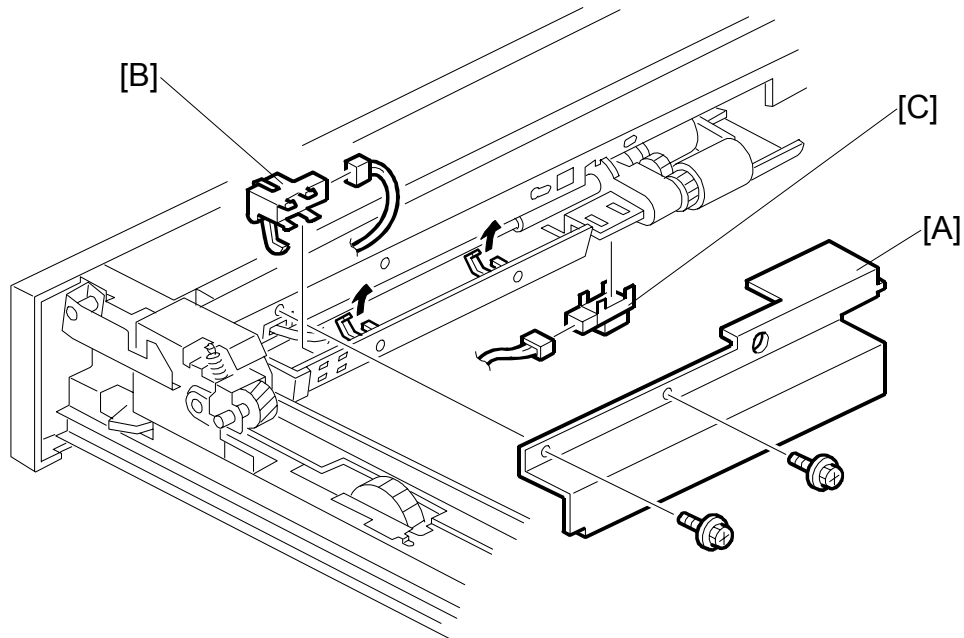- [A]: Cassette tray control board (⬚ x6, ✐ x4)

Peripherals

1.6 PICKUP, FEED, REVERSE ROLLERS

B759R103.WMF

- Pull out the cassette.
[A]: Upper paper guide (🔩 x1)
[B]: Pickup roller
[C]: Lower paper guide (🔩 x1)
[D]: Feed roller
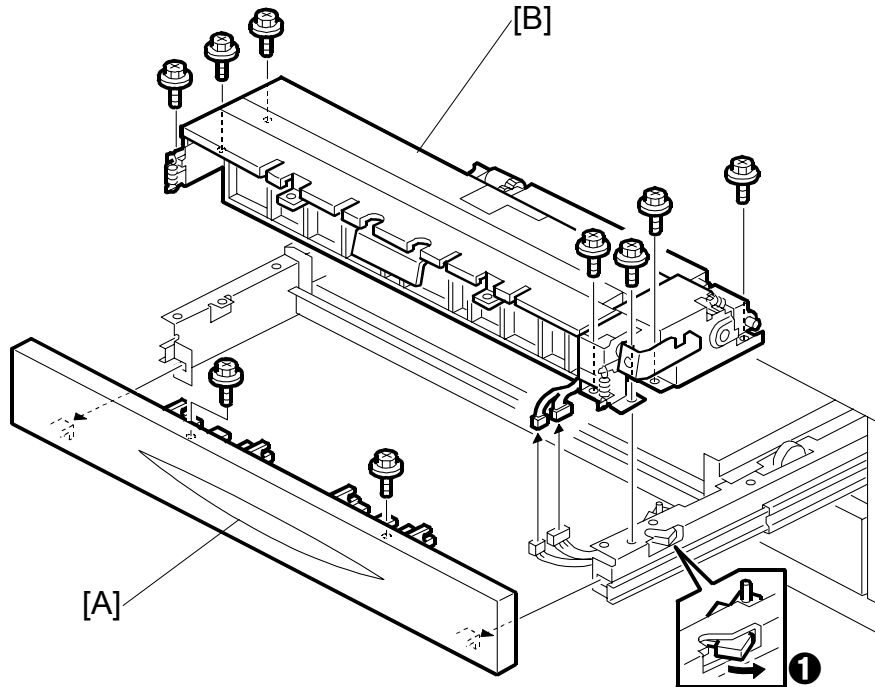[E]: Reverse roller, torque limiter (🔩 x1)

1.7   PAPER END SENSOR, FEED SENSOR

B759R102.WMF

- Pull out the cassette.
[A]: Cover (🗝 x2)
[B]: Paper near end sensor (🔌 x1)
[C]: Paper end sensor (🔌 x1)

Peripherals
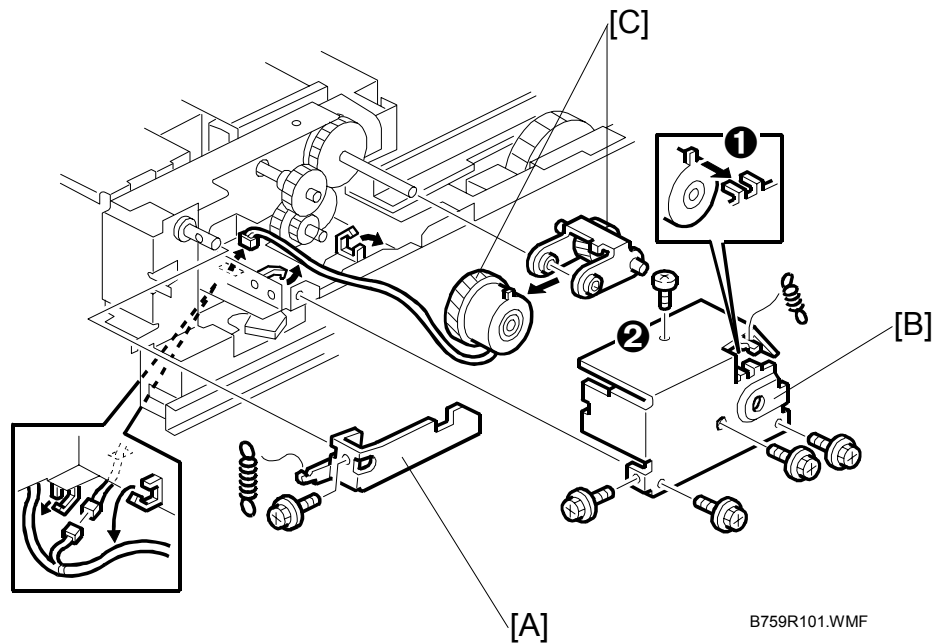
1.8 PAPER FEED UNIT

B759R104.WMF

- Pull out the cassette.
[A]: Cassette drawer cover (🔩 x2)
[B]: Paper feed unit (🔩 x7 – Blue, 🔌 x2)
      Before you lift the paper feed unit, make sure the release tab ❶ is out in the
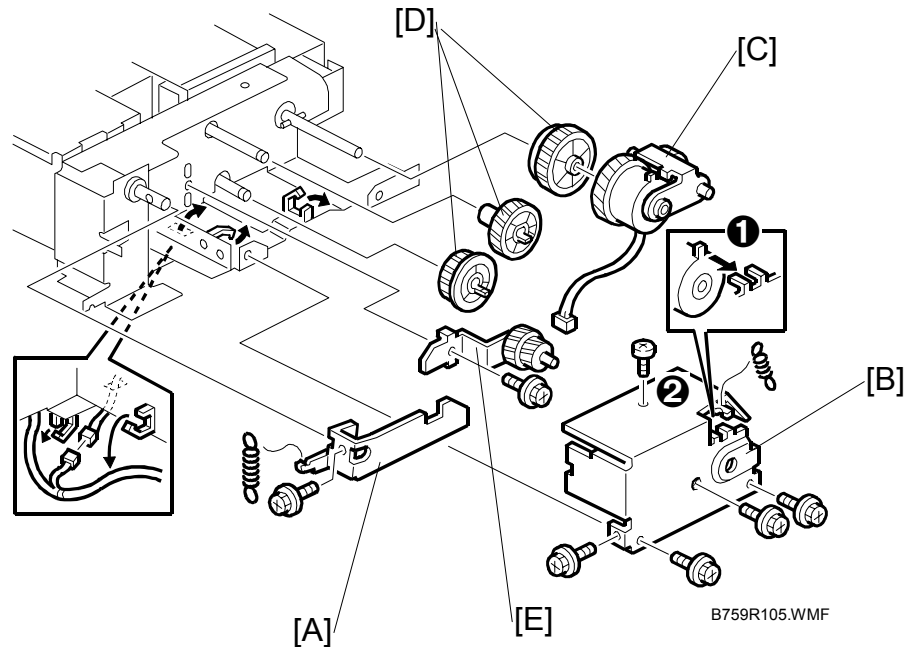   direction of the arrow.

1.9 PAPER FEED CLUTCH

B759R101.WMF

- Remove the paper feed unit (☛1.8)
[A]: Release lever (Spring x1, 🔩 x1)
[B]: Clutch cover (Spring x1, 🔩 x5)
[C]: Paper feed clutch and support bracket (📇x1, 🔩 x3)

Reinstallation

- The clutch tab must be vertical as shown to engage the notch of the cover ❶.
- Reattach the flat-head screw on top of the cover ❷.

Peripherals

1.10 VERTICAL FEED SENSOR, TRAY LIFT SENSOR

B759R105.WMF

- Remove the paper feed unit (☛1.8)
- [A]: Release lever (Spring x1, 🗝 x1)
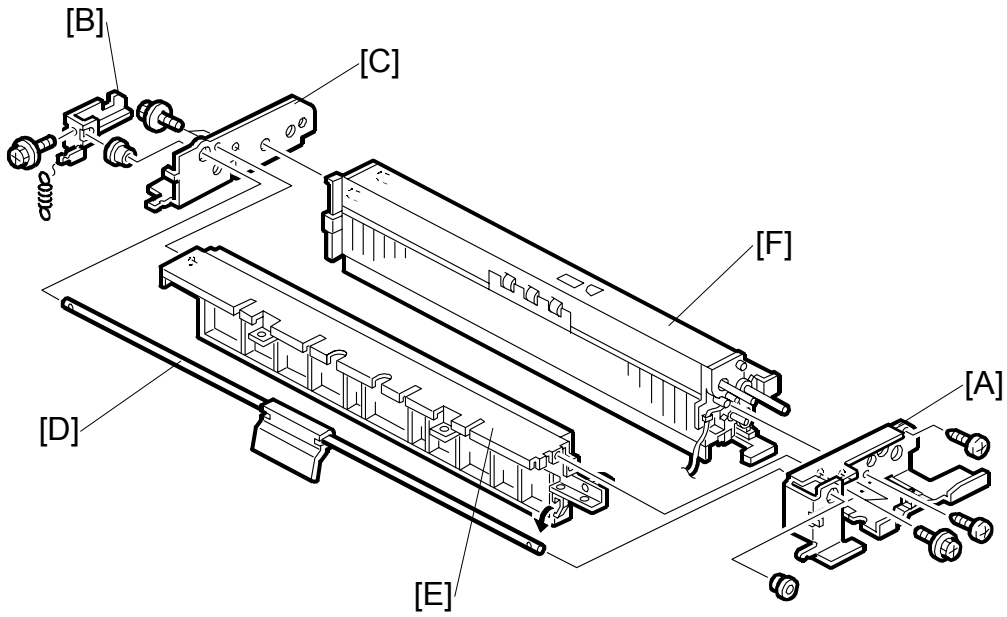- [B]: Clutch cover (Spring x1, 🗝 x5)
- [C]: Paper feed clutch and support bracket (▤x1, ▥ x3)
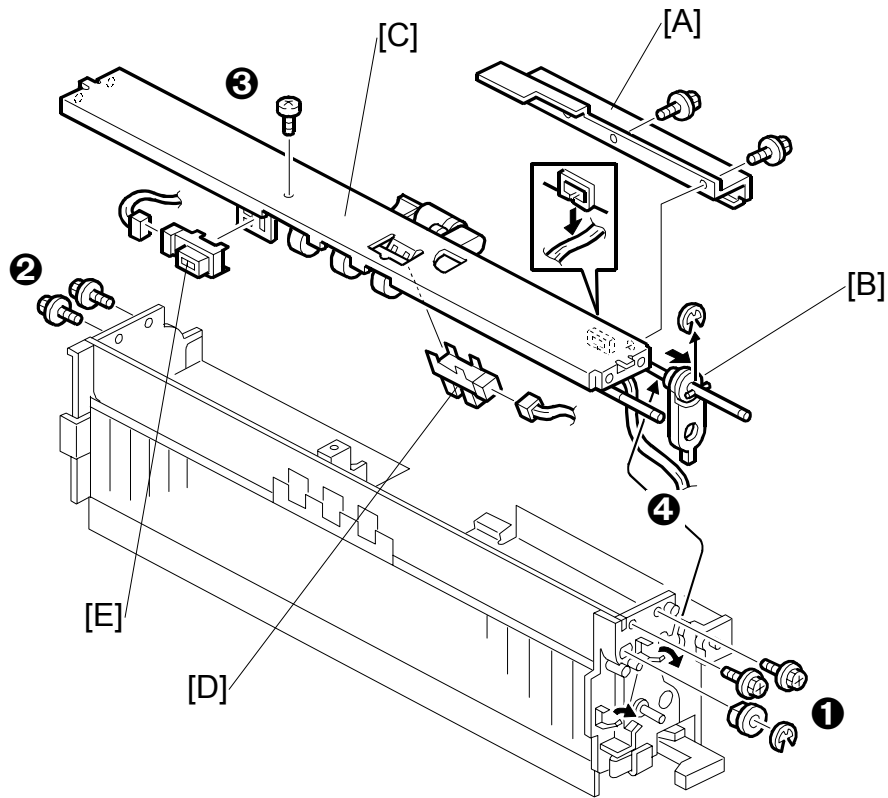- [D]: Gears
- [E]: Gear mount

Reinstallation

- The clutch tab must be vertical as shown to engage the notch of the cover ❶.
- Reattach the flat-head screw on top of the cover ❷.

B759R106.WMF

[A]: Right bracket (✗ x3, Bushing x1)
[B]: Cassette release lever (Spring x1, ✗ x1, Bushing x1)
[C]: Left bracket
[D]: Bottom plate lift arm
[E]: Vertical feed assembly   Separate
[F]: Paper feed assembly.

B759R107.WMF

[A]: Bracket (✗ x2, 🔧 x1)
[B]: Bracket (🔗 x1)
[C]: Feed roller assembly
    ❶ Right side (🔗 x1, Bushing x1, ✗ x2)
    ❷ Left side (✗ x2)
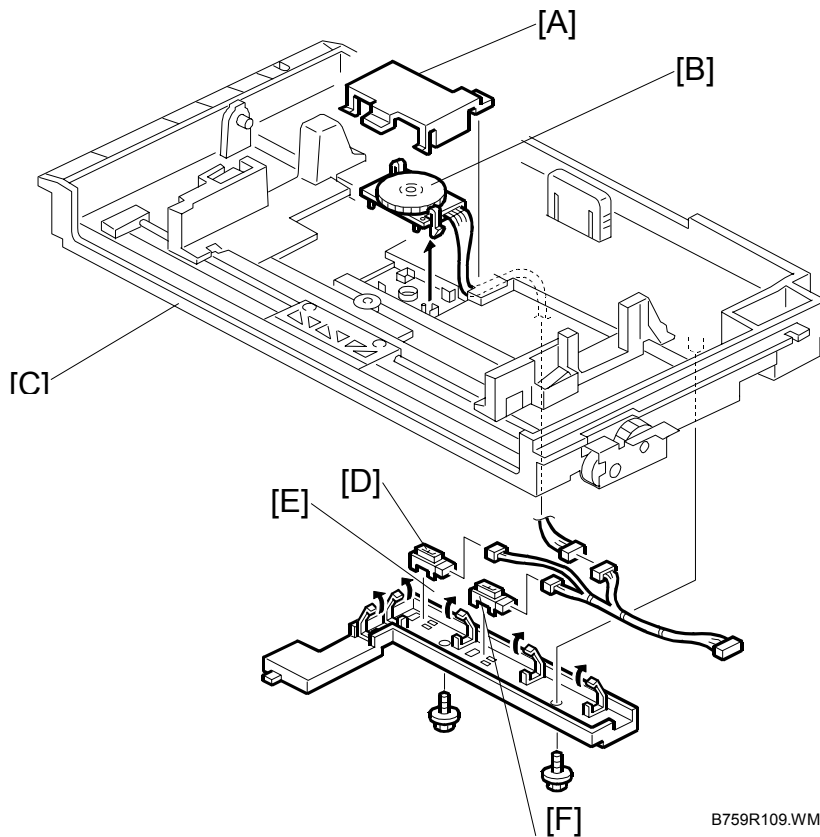   ❸ Top (✗ x1)
    ❹ Below (🔌 x1, 🔧 x1)
[D]: Tray lift sensor (🔌 x1)
[E]: Paper feed sensor (🔌 x1)

1.11 PAPER SIZE SENSORS
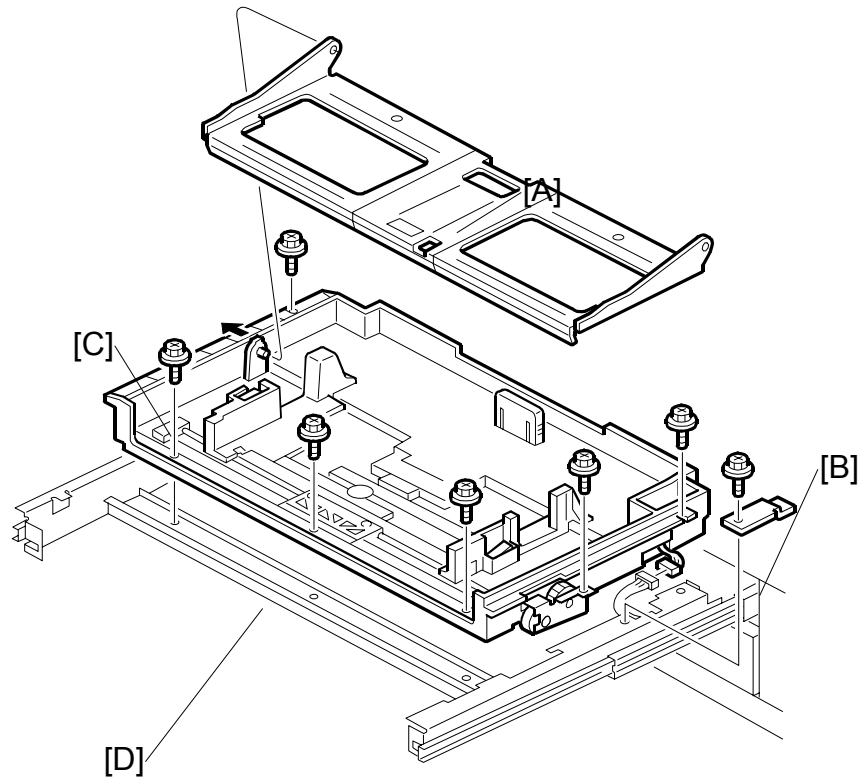

B759R108.WMF

[A]: Bottom plate. Lift and remove.
[B]: Connector plate ($\mathscr{F}$ x1 – Blue)
[C]: Cassette plate screws ($\mathscr{F}$ x6)
[D]: Remove the cassette plate ($\overline{\underline{\underline{\Box}}}$ x1)

Peripherals

B759R109.WMF

[A]: Switch cover (Tabs x2, 🖉 x1)
[B]: Paper size sensor 1 (width) (Tabs x2)
[C]: Turn over the cassette plate
[D]: Sensor cover (🖉 x2)
[E]: Paper size sensor 2 (🖉 x1)
[F]: Paper size sensor 3 (🖉 x1)

EU/ASIA: A4   NA: LT
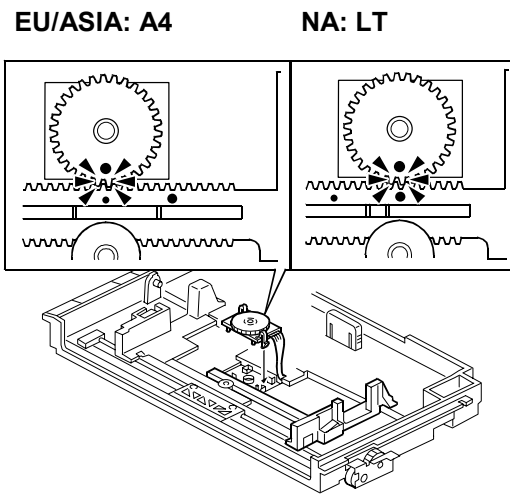
B759R109A.WMF

Reinstallation

When you reattach paper size sensor 1 (width):

1. Set the side fences to **A4** or **LT**.

2. Align the dot on the rotary wheel with the small dot on the rack for EU/ASIA (A4)

   -or-

   Align the dot on the rotary wheel with the large dot on the rack for NA: LT.

Peripherals
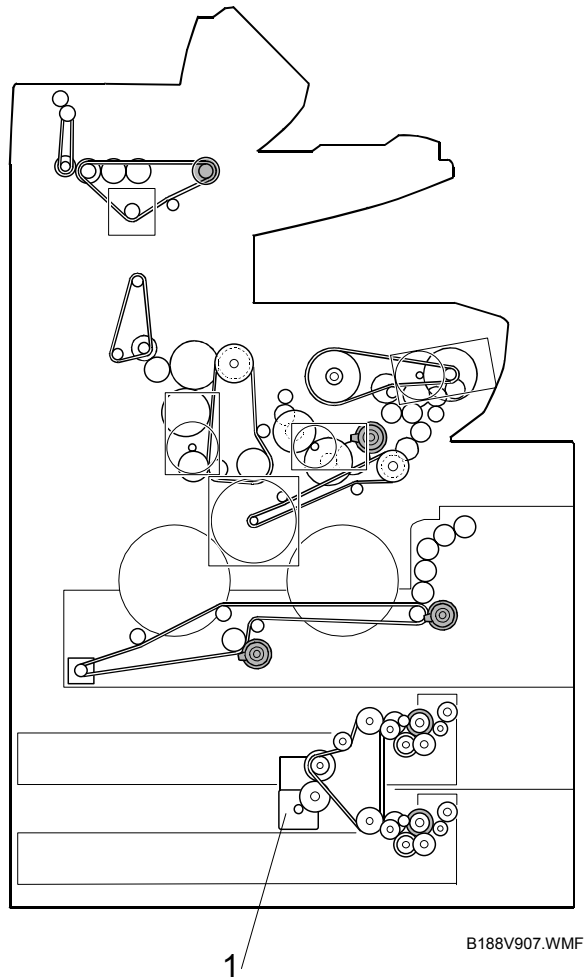
2.   DETAILS

2.1   OVERVIEW

2.1.1   MACHINE LAYOUT
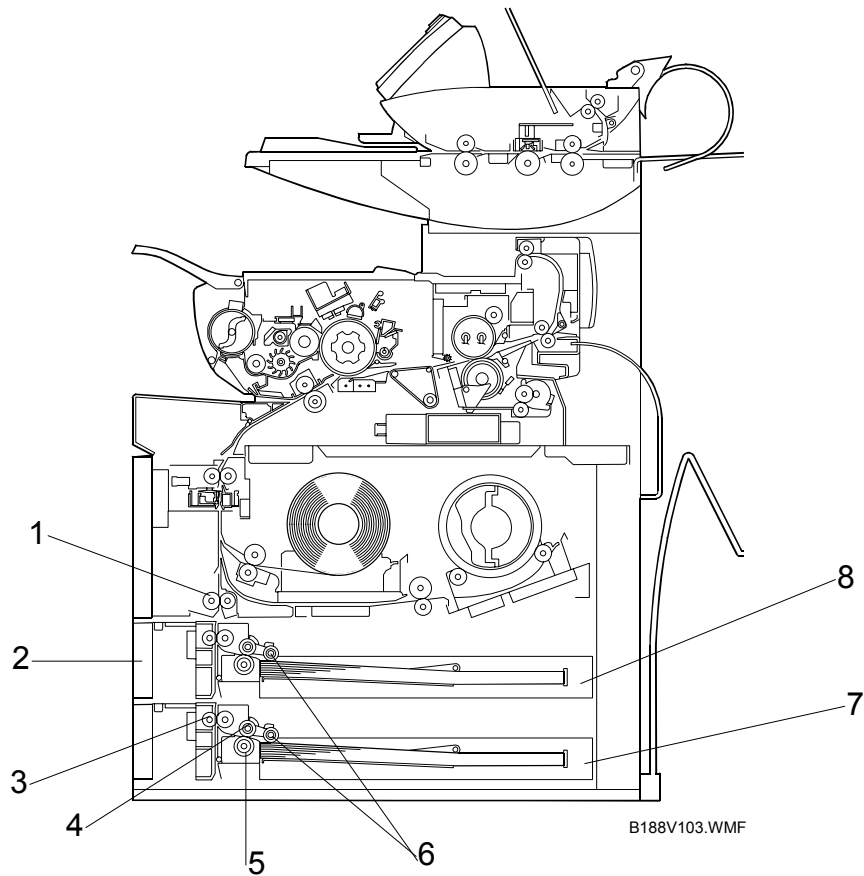
B188V103.WMF

1. Relay Roller
2. Cassette Tray
3. Transport Roller
4. Feed Roller
5. Separation Roller
6. Pickup Roller
7. 2nd Cassette
8. 1st Cassette

2.1.2 DRIVE LAYOUT

B188V907.WMF

1

1. Cassette Feed Motor

Peripherals

2.1.3 CASSETTE PAPER PATH
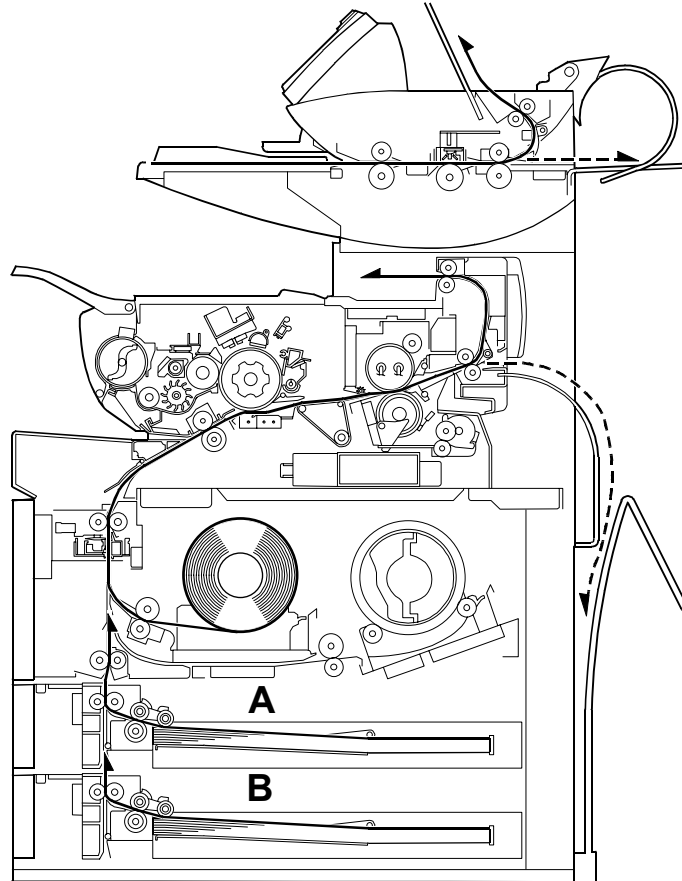
B188V103A.WMF

A: 1st Cassette

B: 2nd Cassette
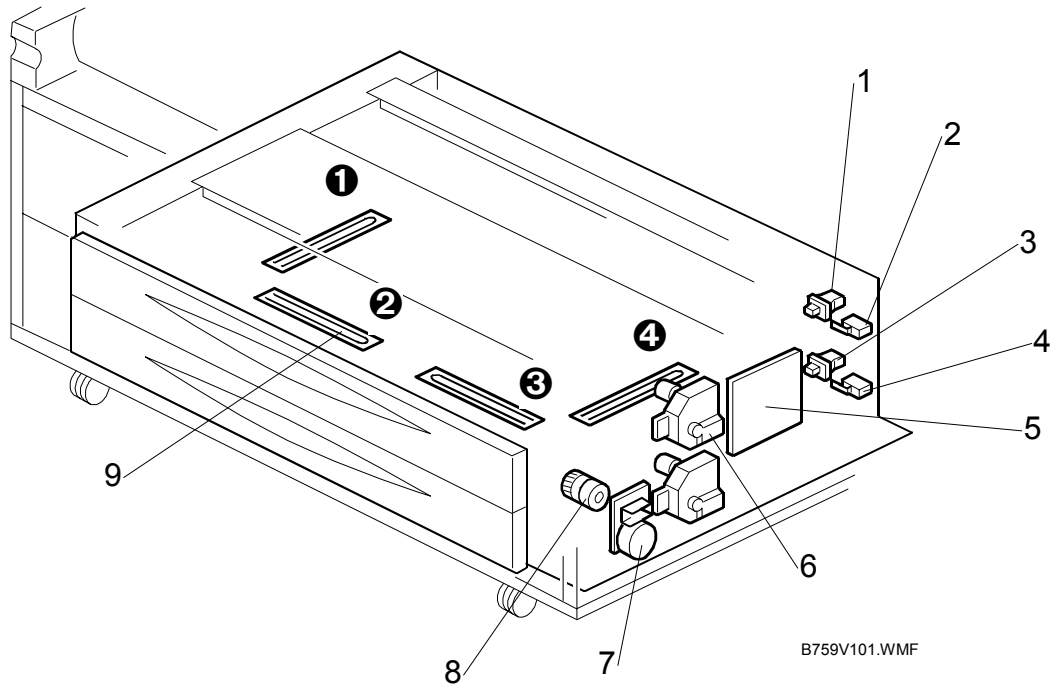
B759V101.WMF

1. Cassette Detection Switch 1
2. Cassette Open Switch 1
3. Cassette Detection Switch 2
4. Cassette Open Switch 2
5. PFB
6. Lift Motor
7. Feed Motor
8. Transport Clutch
9. Tray Heaters ❶,❷,❸,❹

Peripherals
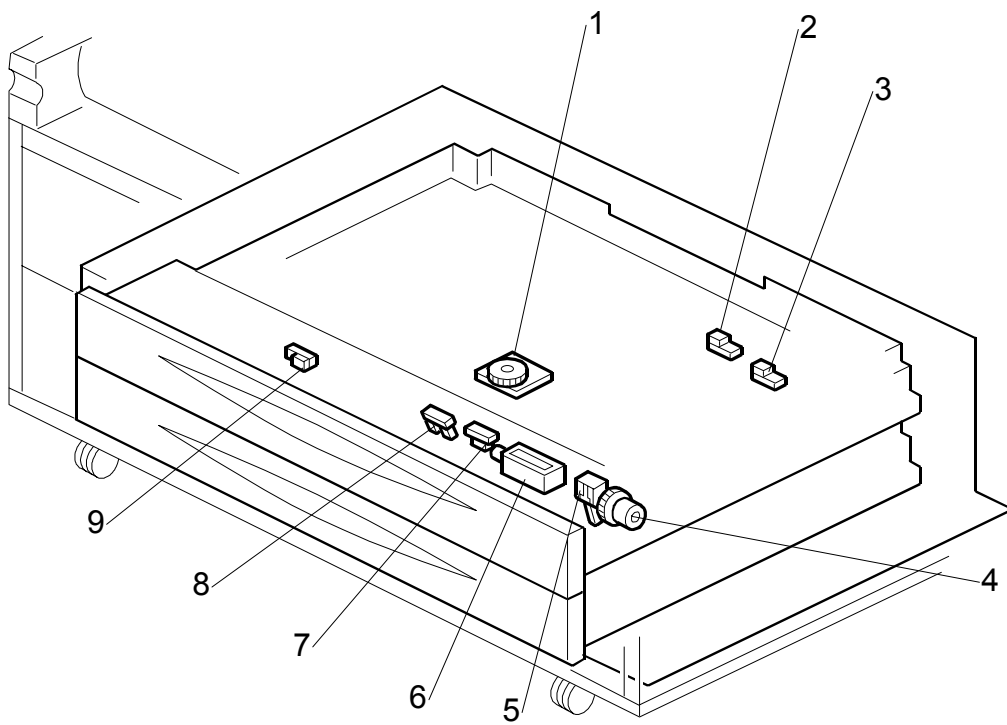
B759V102.WMF

1. Paper Width Switch
2. Paper Length Sensor
3. Paper Length Sensor
4. Paper Feed Clutch
5. Paper Near End Sensor
6. Pickup Solenoid
7. Paper End Sensor
8. Tray Lift Sensor
9. Paper Feed Sensor

2.2 TRAY LIFT MECHANISM

B759D101.WMF

The lift motor [A] on the right side of the tray turns the coupling [B] and three gears.

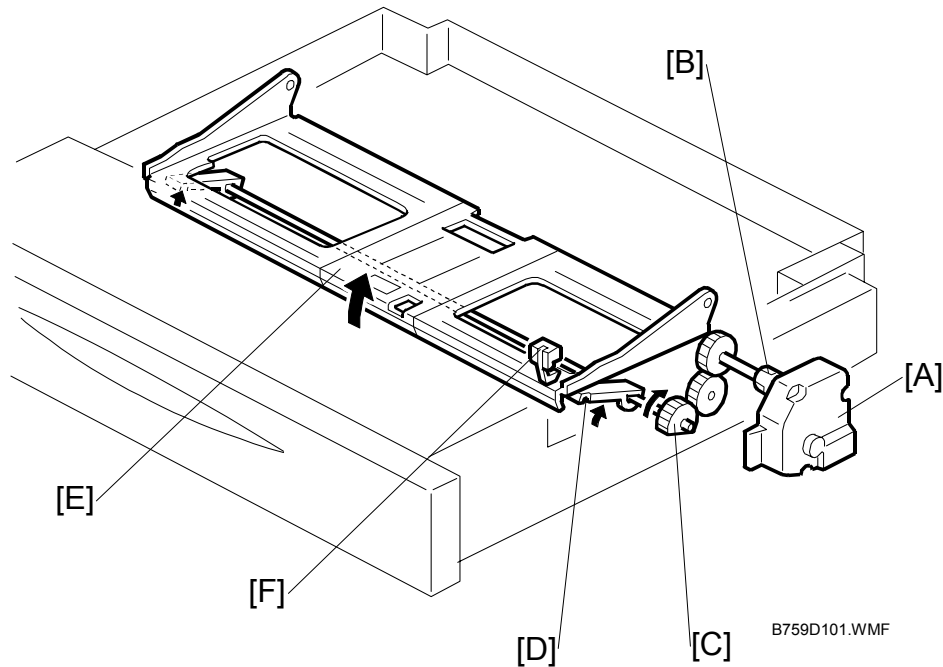The third gear [C] turns a shaft. This shaft pushes the lift arm [D] up and lifts the bottom plate [E].

Immediately after the tray is opened, the coupling of the lift motor disengages from the gears and the tray slowly falls under its own weight.

The paper near end sensor [F] is located away from the stack, and is turned on by the bottom plate when paper is almost finished. °

Peripherals

2.3 FEED MECHANISM

B759D102.WMF
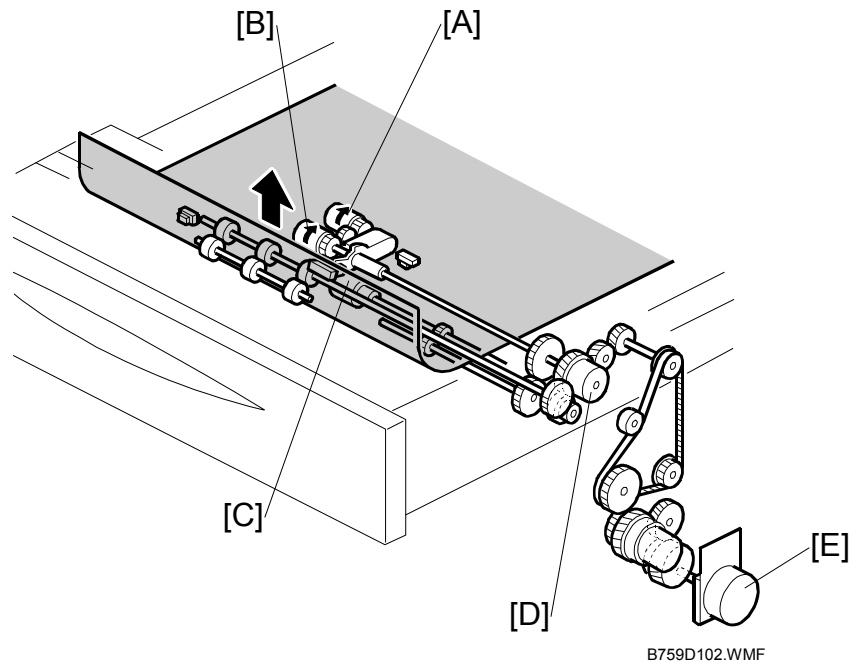
This paper tray has an FRR paper feed mechanism:

[A]: Pick-up roller
[B]: Feed roller
[C]: Reverse roller

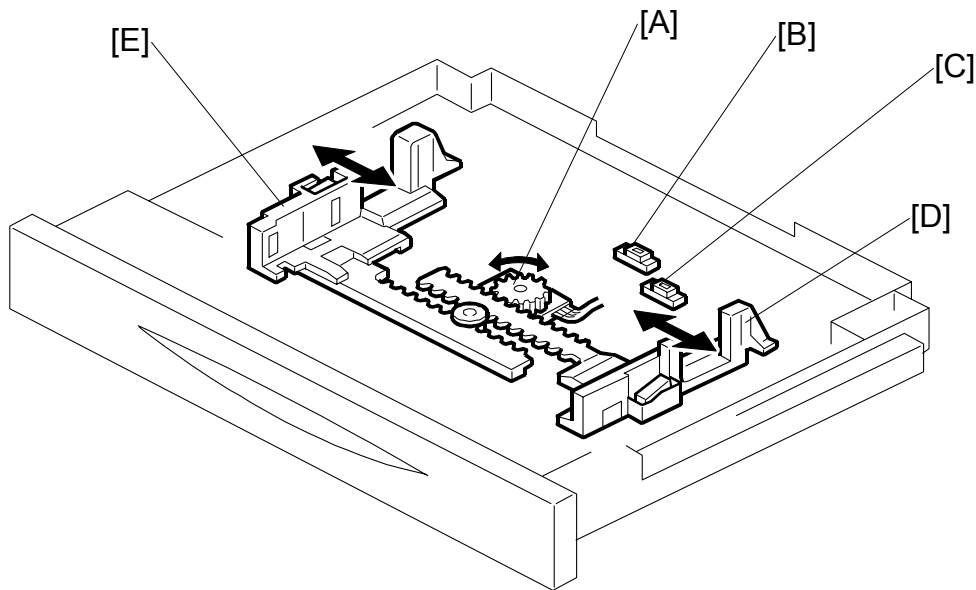The pick-up roller and feed roller are controlled by the feed clutch [D]. Power comes from the feed motor [E].

2.4 PAPER SIZE DETECTION

B759D103.WMF

Paper size sensor 1 (width) [A] and two paper length sensors (paper size sensor 2 [B] and paper size sensor 3 [C]) automatically detect the size of the paper in the paper tray.

Paper size sensor 1 is a rotary switch. It detects the positions of the side fences [D] and [E]. The user must align the side fences with the sides of the paper stack correctly or the machine cannot detect the correct size.

The information from these three sensors is used to detect the size of the paper in the tray. See the diagrams on the next few pages.

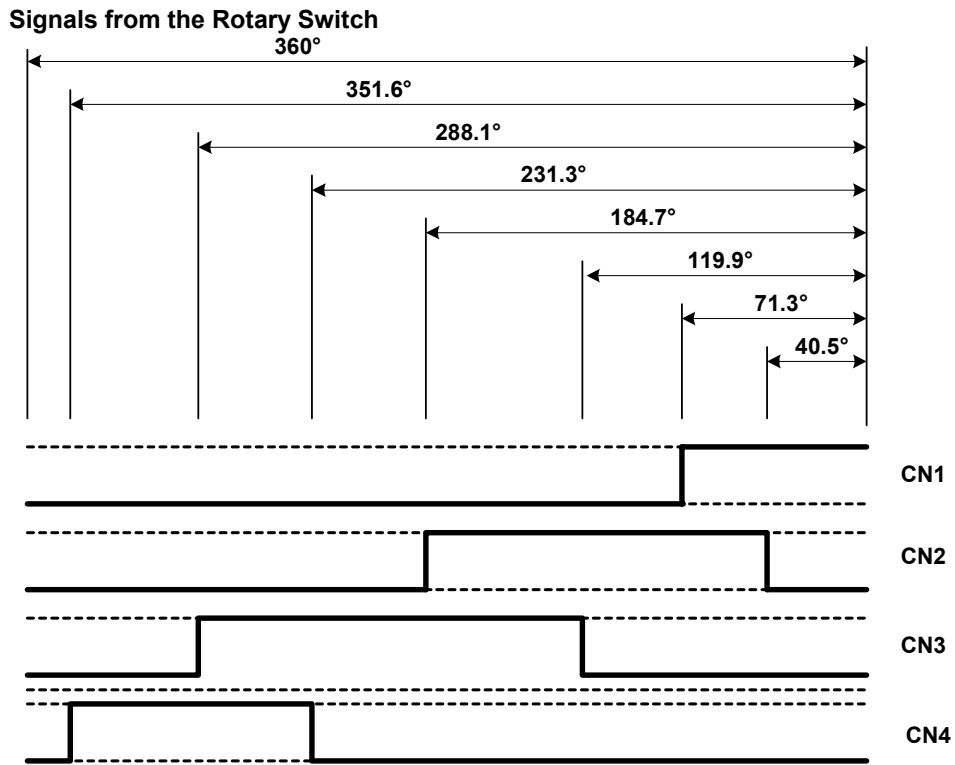**NOTE:** Only these standard paper sizes are detected.
International: A2 (LEF only), A3, A4, B4
USA: C (LEF only), B, A
The paper size setting must be done manually with the User Tools if the user wants to use other paper sizes.

Peripherals

There are four outputs from the rotary switch. These outputs depend on the angle of rotation, as shown below.

Signals from the Rotary Switch

B759D911.WMF

International paper sizes are detected as shown below.
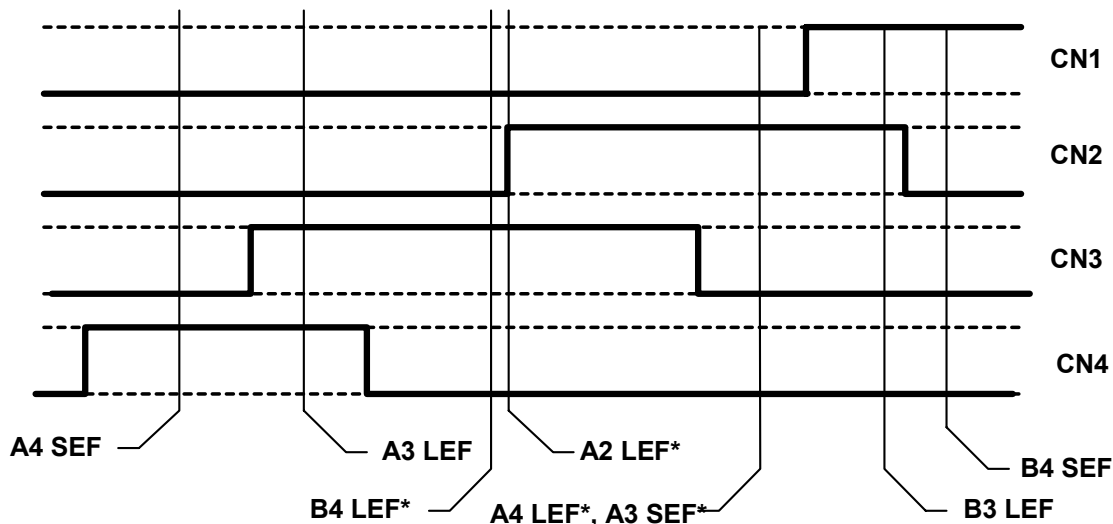
B759D912.WMF

In the diagram, some sizes have an asterisk (* mark) next to them. In these cases, the size that is detected also depends on the outputs from paper size sensor 2, as shown in the following table.

With*	With Length Sensor Status	Then These Sizes Are Detected:
A4 LEF, A3 SEF, B4 LEF, A2 LEF	ON	A3 SEF, A2 LEF
	OFF	A4 LEF, B4 LEF

Peripherals

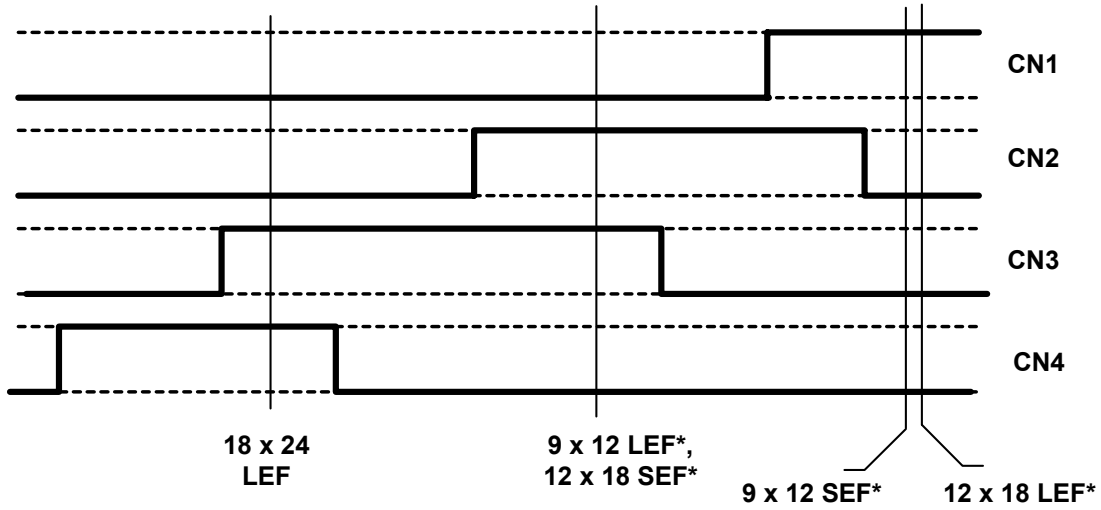USA Architecture paper sizes are detected as shown below.

B759D914.WMF

In the diagram, some sizes have an asterisk (* mark) next to them. In these cases, the size that is detected also depends on the outputs from paper size sensors 2 and 3, as shown in the following table.

With*	With Length Sensor Status	Then These Sizes Are Detected:
9 x 12 LEF, 12 x 18 SEF	Sensor 2 ON	12 x 18 SEF
	Sensor 2 OFF	9 x 12 LEF
9 x 12 SEF, 12 x 18 LEF	Sensor 3 ON	9 x 12 SEF
	Sensor 3 OFF	12 x 18 LEF

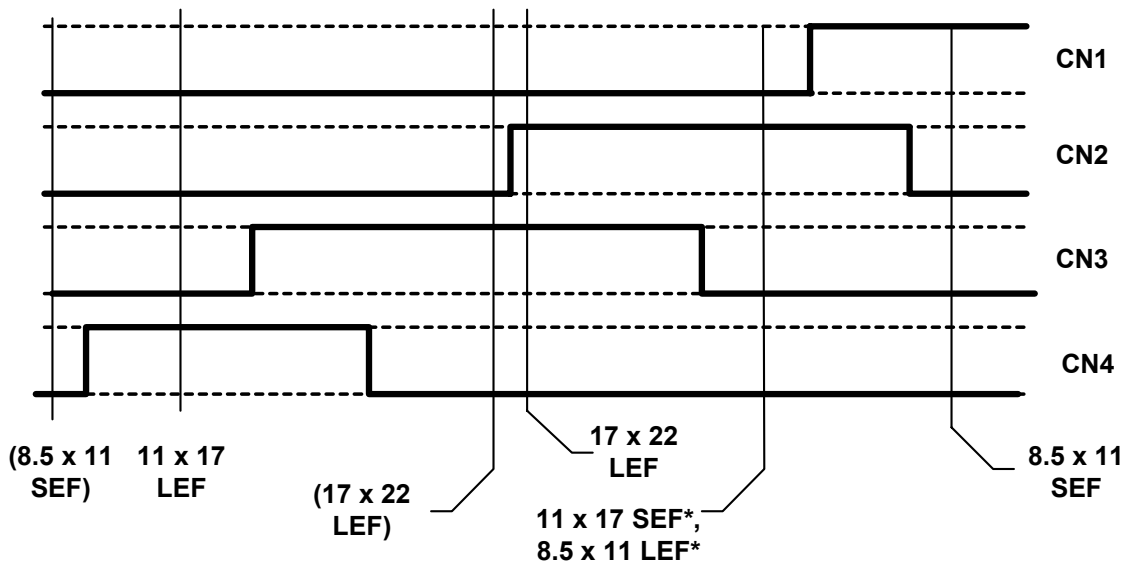USA Engineering paper sizes are detected as shown below.

B759D913.WMF

In the diagram, some sizes have an asterisk (* mark) next to them. In these cases, the size that is detected also depends on the outputs from paper size sensor 2 (length), as shown in the following table.

With*	With Length Sensor Status	Then These Sizes Are Detected:
11 x 17 SEF, 8.5 x 11 LEF	ON	11 x 17 SEF
	OFF	8.5 x 11 LEF

For the paper sizes in brackets (e.g., 8.5 x 11 SEF), the sensor also detects this size if the outputs are as shown. But the normal position for this paper size is the one without the brackets.

Peripherals