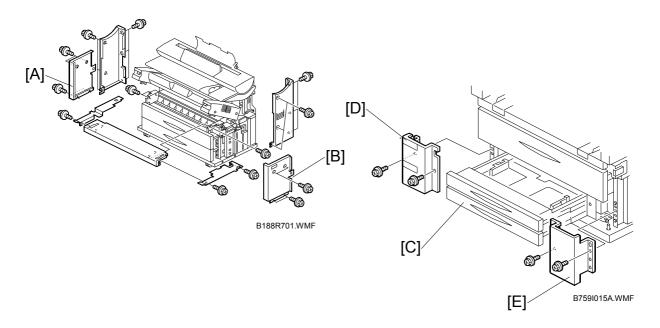
Cassette Tray (Machine Code: B759) 28 April 2005 **CASSETTE UNIT** 

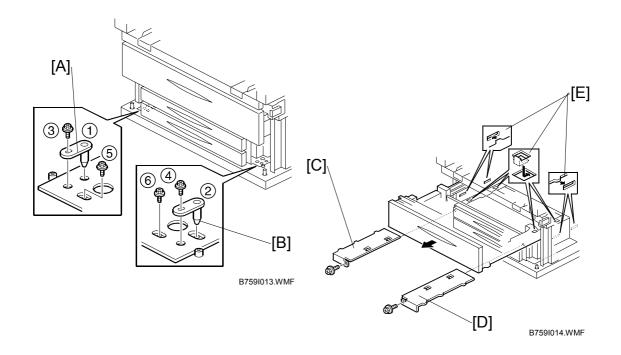
# **REPLACEMENT AND ADJUSTMENT**

#### 1.1 CASSETTE UNIT



- [A]: Left front cover (ℜ x5) [B]: Right front cover (ℜ x5) Do not remove any other covers shown in this illustration.
- [C]: Cassettes. Pull out partially.
- [D]: Left cover plate ( \$\beta\$ x2)
- [E]: Right cover plate ( x2)

**CASSETTE UNIT** 28 April 2005



- Push the cassettes into the machine.
- [A]: Left lock pin ( x2)

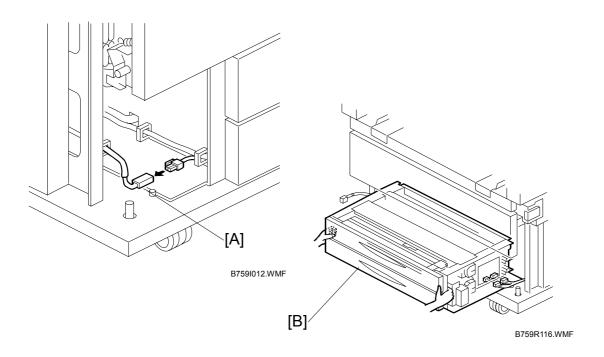
[B]: Right lock pin ( x2)

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

- [C]: Left cover panel ( x1)
- [D]: Right cover panel. (F x1)
- [E]: Disengage the tabs as shown to remove the left, right cover panels.

#### Reinstallation

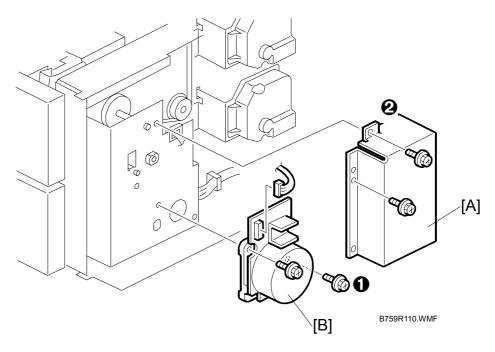
• Reattach the lock pins in the order indicated by the circle numbers.



[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.

#### 1.2 CASSETTE FEED MOTOR



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

[A]: Motor cover ( x2)

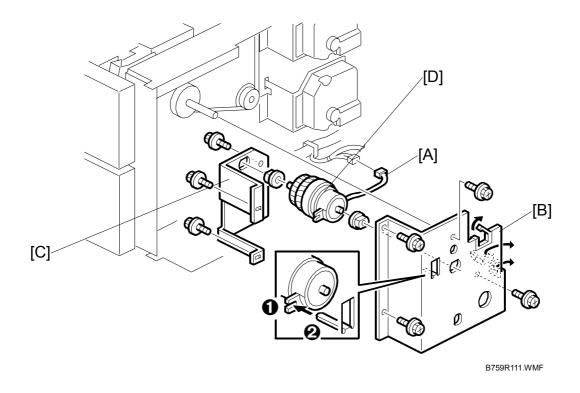
[B]: Cassette feed motor (ℰ x2, 🖆 x1, 🛱 x2)

#### Reinstallation

- Use long screws (M3 x 10) to reattach the motor bracket.
- When you reinstall the cover, attach the top screw 2 first.

# Peripherals

#### 1.3 PAPER TRANSPORT CLUTCH



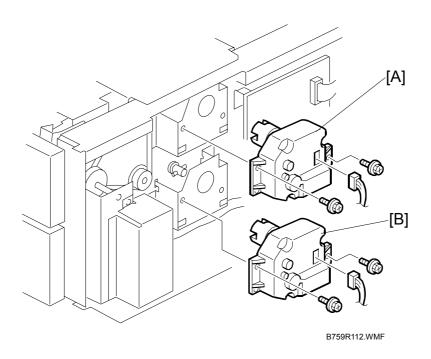
- Remove the covers, panels, and lock pins, and pull the cassette unit partially out of the machine. (►1.1)
- [A]: Clutch connector ( x1, x3)
- [B]: Paper feed clutch cover ( x4 Blue)
- [C]: Paper feed clutch bracket ( \$\hat{\mathcal{E}} x3)
- [D]: Paper feed clutch (Bushings x2)

#### Reinstallation

Make sure that the notch of is correctly engaged with the arm of.

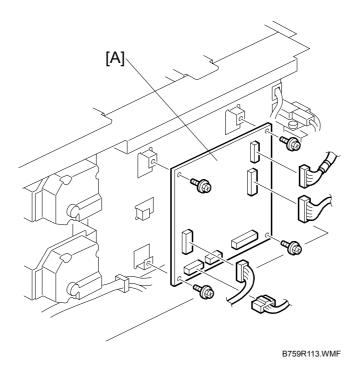
TRAY LIFT MOTORS 28 April 2005

## 1.4 TRAY LIFT MOTORS



- Remove the covers, panels, and lock pins, and pull the cassette unit partially out of the machine. (•1.1)
- [A]: Upper tray lift motor (இ x2, □ x1)
  [B]: Lower tray lift motor (இ x2, □ x1)

## 1.5 CASSETTE CONTROL BOARD

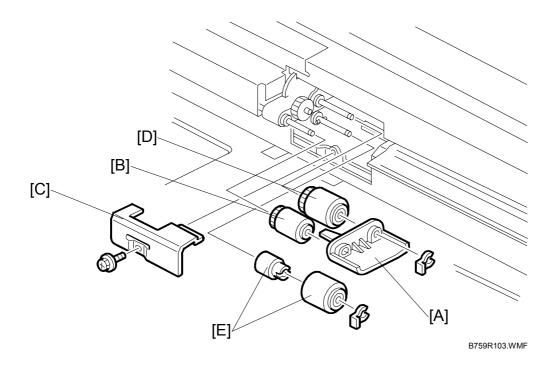


• Remove the covers, panels, and lock pins, and pull the cassette unit partially out of the machine. (☞1.1)

[A]: Cassette tray control board ( x6, F x4)

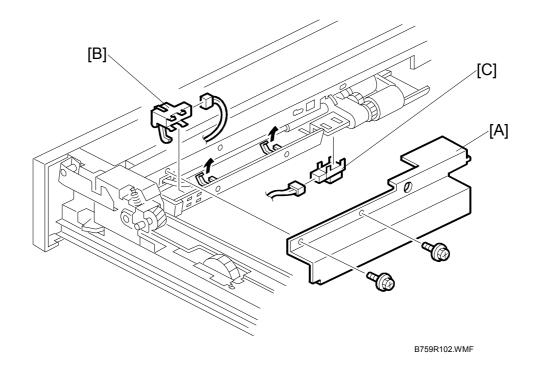
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# 1.6 PICKUP, FEED, REVERSE ROLLERS



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

## 1.7 PAPER END SENSOR, FEED SENSOR

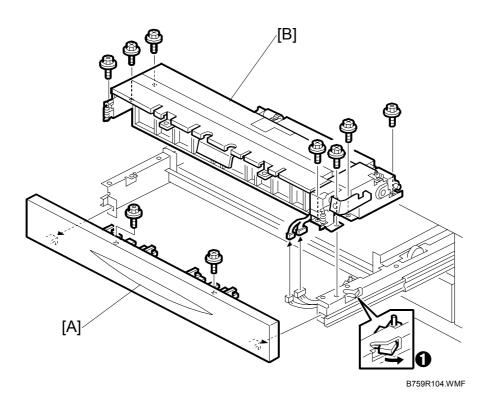


• Pull out the cassette.

[A]: Cover (₱ x2)
[B]: Paper near end sensor (□ x1)
[C]: Paper end sensor (□ x1)

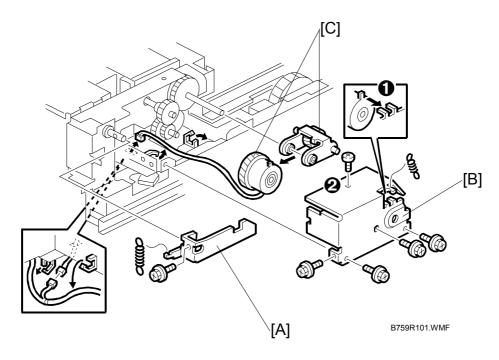
PAPER FEED UNIT 28 April 2005

#### 1.8 PAPER FEED UNIT



- 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 is out in the direction of the arrow.

#### 1.9 PAPER FEED CLUTCH



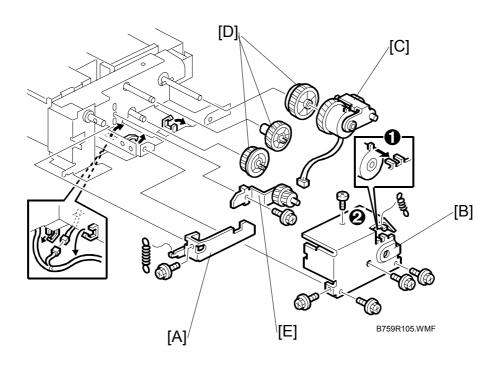
- Remove the paper feed unit (•1.8)
- [A]: Release lever (Spring x1, F x1)
- [B]: Clutch cover (Spring x1, F x5)
- [C]: Paper feed clutch and support bracket (□x1, □x3)

#### Reinstallation

- The clutch tab must be vertical as shown to engage the notch of the cover **①**.
- Reattach the flat-head screw on top of the cover 2.

Peripherals

## 1.10 VERTICAL FEED SENSOR, TRAY LIFT SENSOR

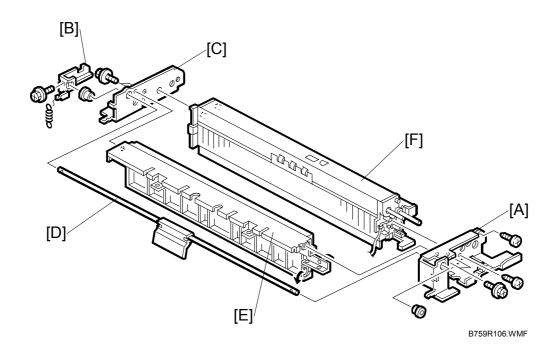


- Remove the paper feed unit (•1.8)
- [A]: Release lever (Spring x1, F x1)
- [B]: Clutch cover (Spring x1, \( \begin{cases} \ x5 \)
- [C]: Paper feed clutch and support bracket (□x1, □x3)
- [D]: Gears
- [E]: Gear mount

#### Reinstallation

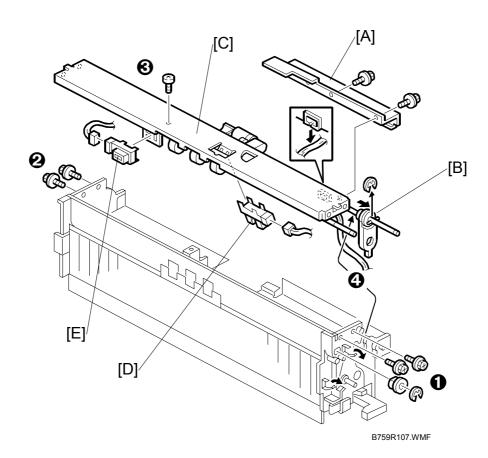
- The clutch tab must be vertical as shown to engage the notch of the cover **①**.
- Reattach the flat-head screw on top of the cover 2.





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

Separate



- [A]: Bracket (⋛ x2, ≒ x1) [B]: Bracket (ℂ x1)

- [C]: Feed roller assembly

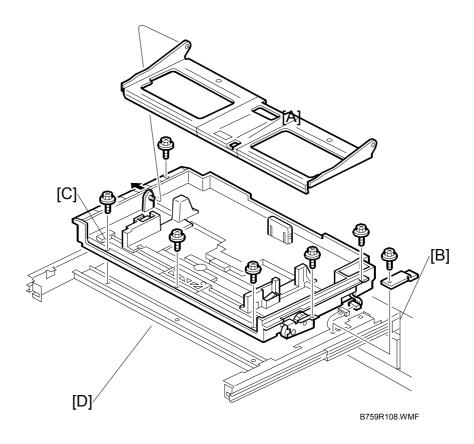
   Right side (© x1, Bushing x1, ¾ x2)

   Left side (¾ x2)

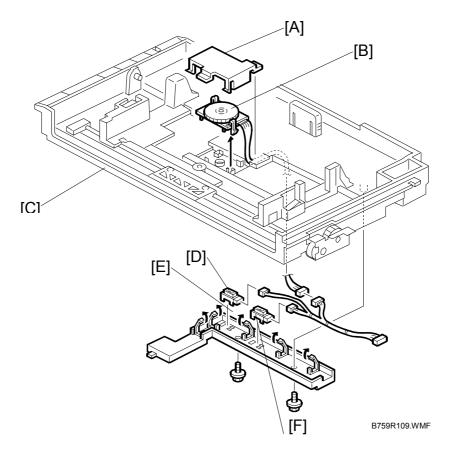
   Top (¾ x1)

  - **④** Below (**₽** x1, **₽** x1)
- [D]: Tray lift sensor (☐ x1)
- [E]: Paper feed sensor (☐ x1)

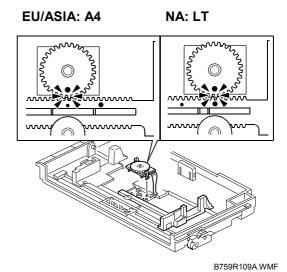
## 1.11 PAPER SIZE SENSORS



- [A]: Bottom plate. Lift and remove.
  [B]: Connector plate (⅔ x1 Blue)
  [C]: Cassette plate screws (ౘ x6)
  [D]: Remove the cassette plate (ౙ x1)



- [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)



#### 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-

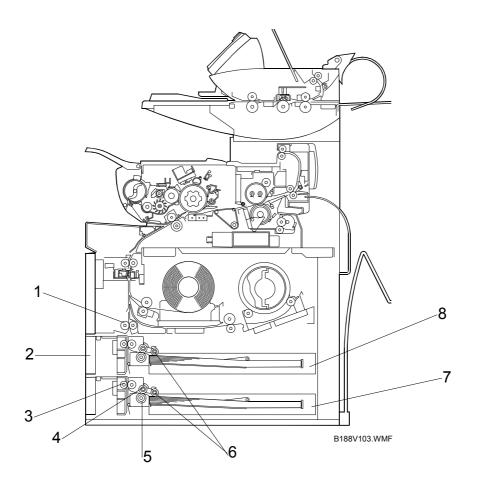
Align the dot on the rotary wheel with the large dot on the rack for NA: LT.

OVERVIEW 28 April 2005

# 2. DETAILS

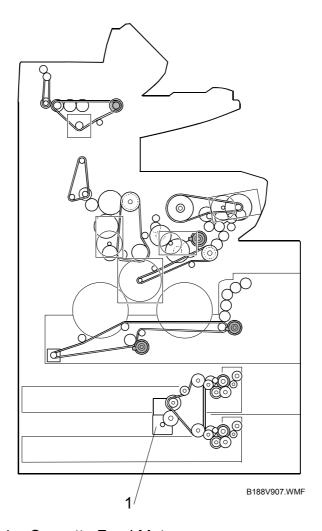
## 2.1 OVERVIEW

#### 2.1.1 MACHINE LAYOUT



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

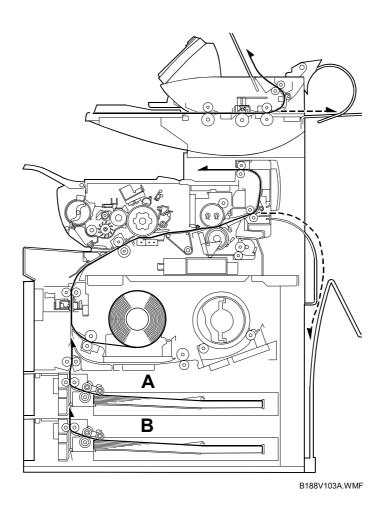
## 2.1.2 DRIVE LAYOUT



1. Cassette Feed Motor

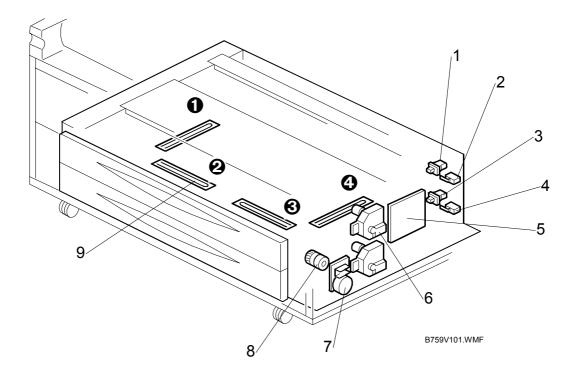
OVERVIEW 28 April 2005

## 2.1.3 CASSETTE PAPER PATH



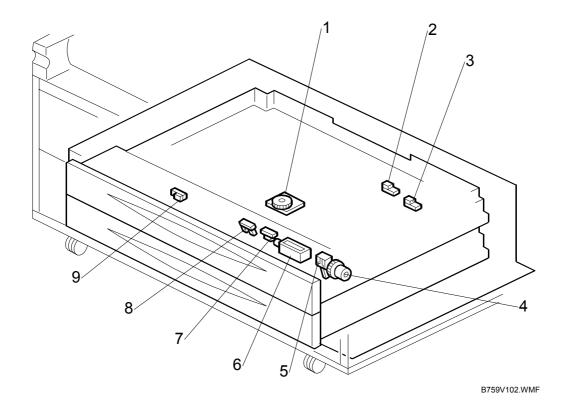
A: 1st Cassette

B: 2nd Cassette



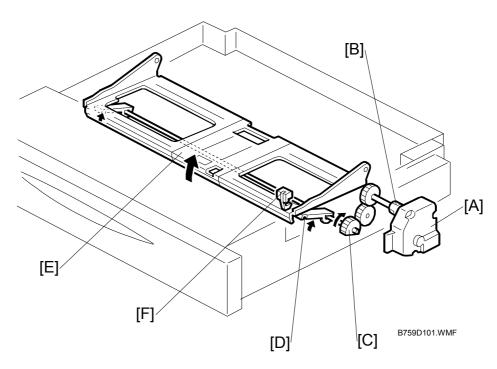
- 1. Cassette Detection Switch 1
- 2. Cassette Open Switch 1
- 3. Cassette Detection Switch 2
- 4. Cassette Open Switch 2
- 5. PFB
- 6. Lift Motor
- 7. Feed Motor
- 8. Transport Clutch
- 9. Tray Heaters **0**,**2**,**3**,**4**

OVERVIEW 28 April 2005



- 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



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].

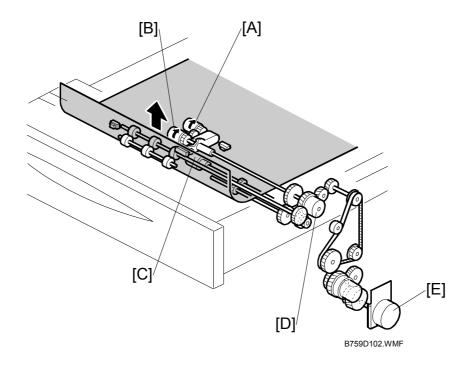
Immediately after the tray is opened, the coupling of the lift motor disengages from the gears and the tray slowly falls under its own weight.

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.  $^{\circ}$ 

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FEED MECHANISM 28 April 2005

#### 2.3 FEED MECHANISM



This paper tray has an FRR paper feed mechanism:

[A]: Pick-up roller

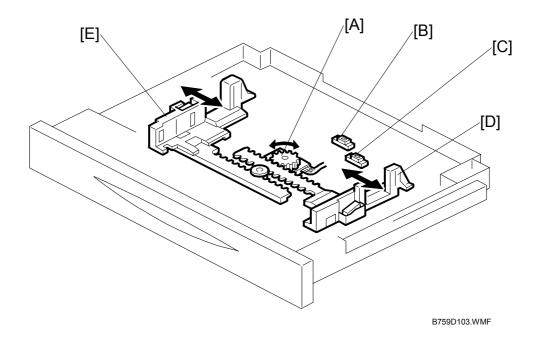
[B]: Feed roller

[C]: Reverse roller

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

# Peripherals

#### 2.4 PAPER SIZE DETECTION



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.

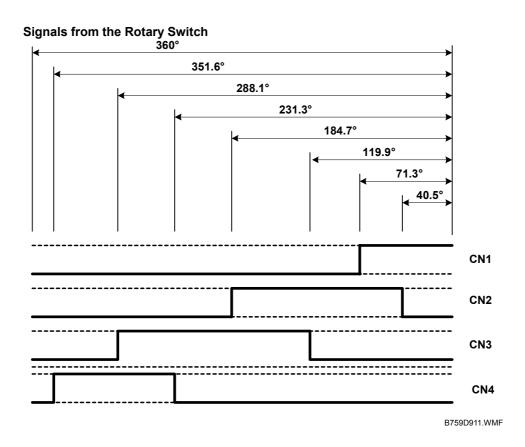
**NOTE:** Only these standard paper sizes are detected.

International: A2 (LEF only), A3, A4, B4

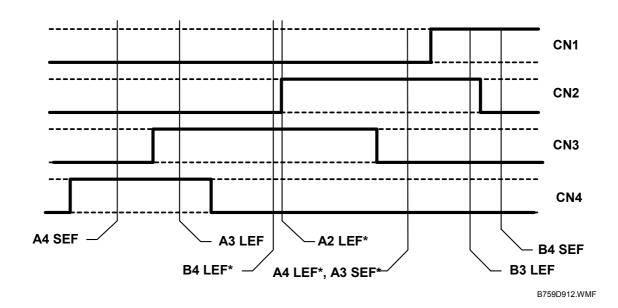
USA: C (LEF only), B, A

The paper size setting must be done manually with the User Tools if the user wants to use other paper sizes.

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



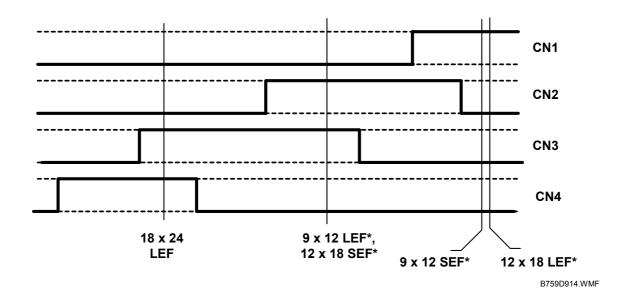
International paper sizes are detected as shown below.



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,	ON	A3 SEF, A2 LEF
B4 LEF, A2 LEF	OFF	A4 LEF, B4 LEF

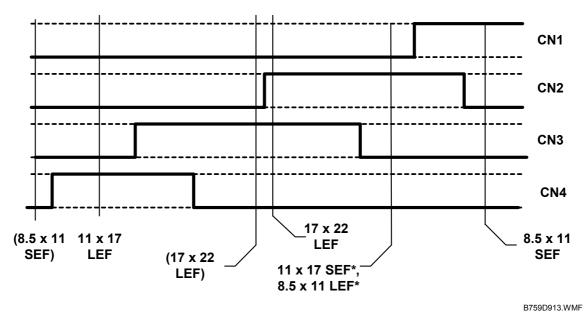
USA Architecture paper sizes are detected as shown below.



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,	Sensor 2 ON	12 x 18 SEF
12 x 18 SEF	Sensor 2 OFF	9 x 12 LEF
9 x 12 SEF,	Sensor 3 ON	9 x 12 SEF
12 x 18 LEF	Sensor 3 OFF	12 x 18 LEF

USA Engineering paper sizes are detected as shown below.



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,	ON	11 x 17 SEF
8.5 x 11 LEF	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.