LCT
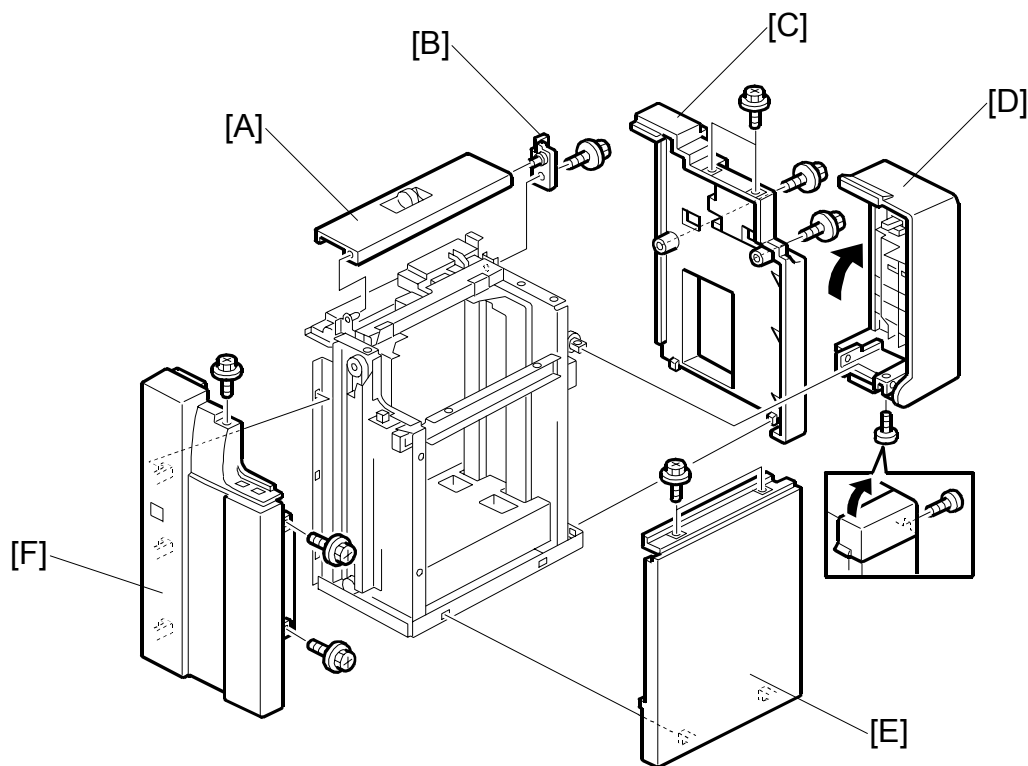## (Machine Code: B473)

1.   REPLACEMENT AND ADJUSTMENT
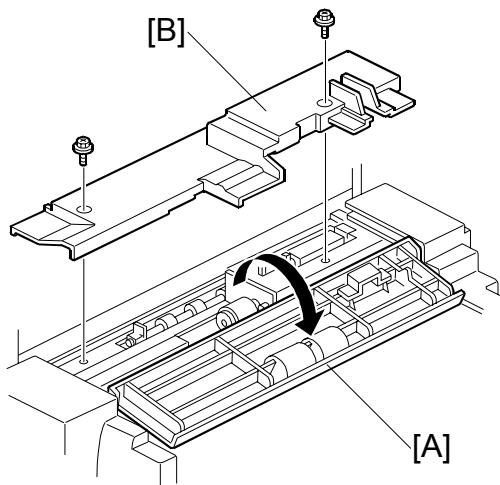
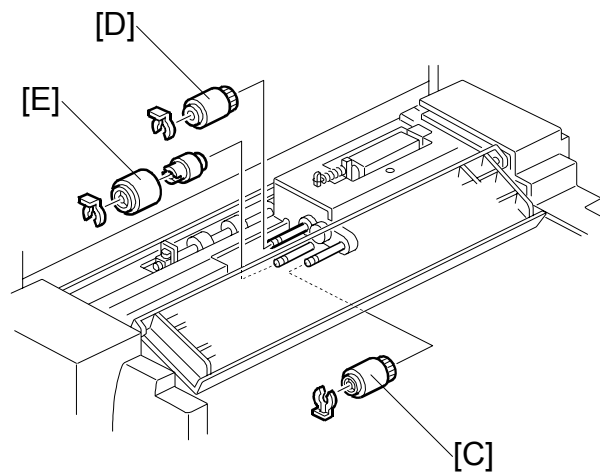## 1.1   EXTERNAL COVERS

B473R001.WMF

[A]: Transport cover
[B]: Transport cover hinge ($\mathscr{F}$ x 1)
[C]: Rear cover ($\mathscr{F}$ x 4)
[D]: Top cover ($\mathscr{F}$ x 1)
[E]: Right cover ($\mathscr{F}$ x 2)
[F]: Front cover ($\mathscr{F}$ x 3)

Peripherals

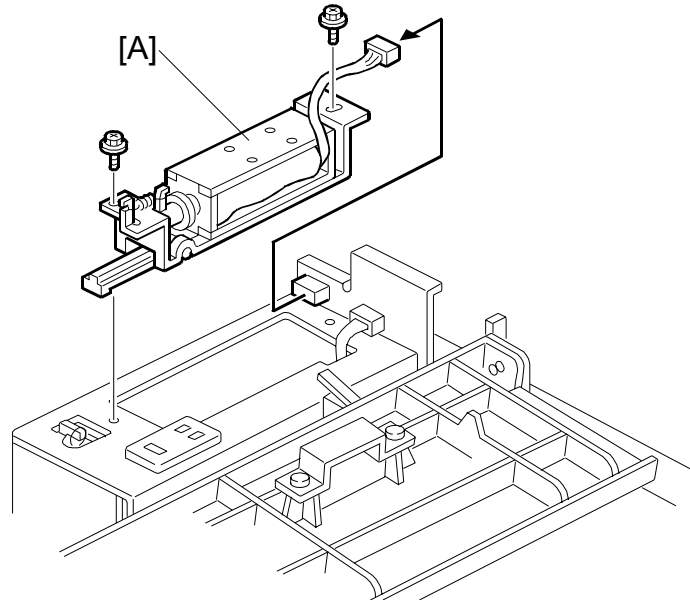## 1.2 PICK-UP/FEED/SEPARATION ROLLERS

B473R002.WMF

B473R003.WMF

[A]: Open the transport cover
[B]: Bracket cover ($\mathscr{J}$ x 2)
[C]: Pick-up roller (⬯ x 1)
[D]: Feed roller (⬯ x 1)
[E]: Separation roller (⬯ x 1)

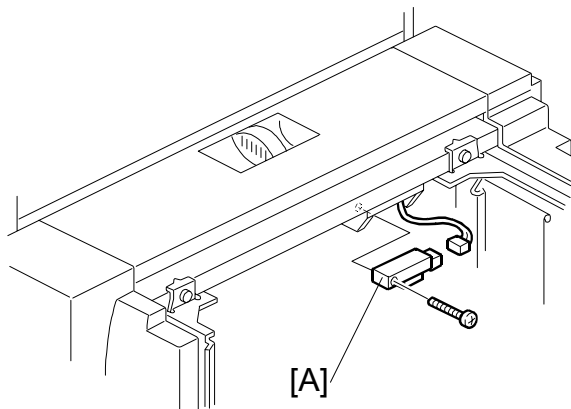## 1.3 PICK-UP SOLENOID

[A]

B473R004.WMF

Rear cover ($\hat{F}$ x 4)

Open the transport cover (☛ 1.2)
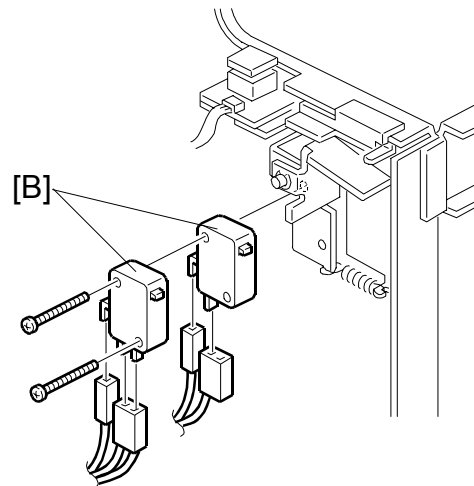
Bracket cover (☛ 1.2)

[A]: Pick-up solenoid ($\hat{F}$ x 2, 🖑 x 1)

1.4 PAPER END SENSOR, UPPER COVER SWITCHES
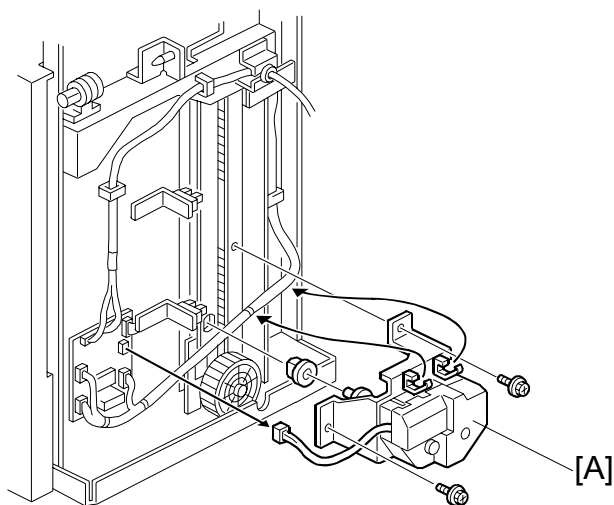
B473R005.WMF

[A]

[B]

B473R006.WMF

Open the top cover.

Right cover (☛ 1.1)

[A]: Paper end sensor (🔩 x 1)

[B]: Upper cover switches 1, 2 (🔌 x 2)

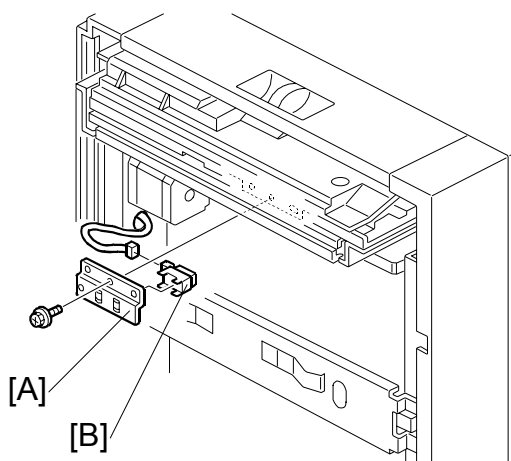## 1.5 TRAY MOTOR

B473R007.WMF

Rear cover (☛ 1.1)

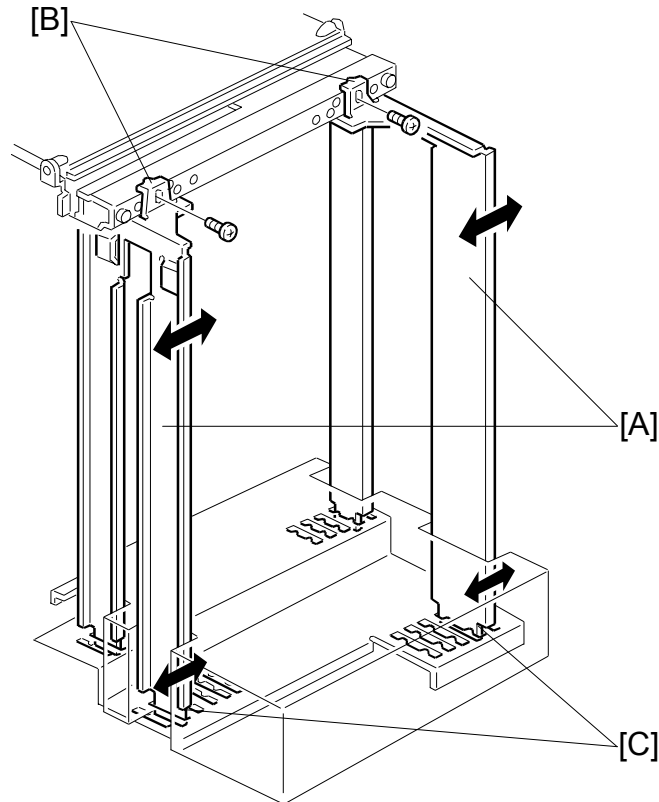[A]: Tray motor (🔩 x 2, 🔌 x 1)

1.6 PAPER STACK SENSOR

B473R008.WMF

Disconnect the LCT from the machine

[A]: Sensor cover (🔩 x 1)

[B]: Paper stack sensor (🔌 x 1)

Peripherals

1.7 PAPER SIZE ADJUSTMENT

B473R109.WMF

The side fences [A] can be adjusted for A4 Sideways, B5 Sideways, or LT sideways at the top [B] and bottom brackets [C].
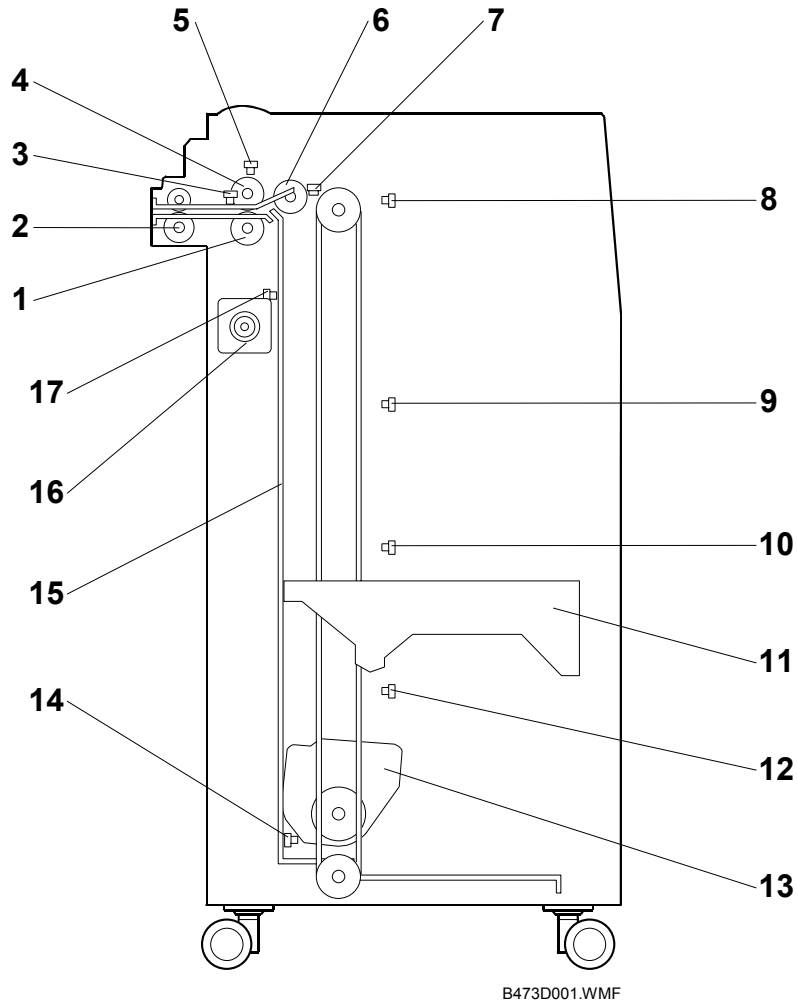
After changing the side fences to accept another paper size, you must execute SP5959 005 (Paper Type – Tray 4) and select the paper size of the side fence positions. For details, see SP5959 in section "5. Service Tables" of the B064/B065 manual.

2. DETAILS

2.1 OVERVIEW

2.1.1 LCT MAIN COMPONENTS

B473D001.WMF

Peripherals

1. Separation Roller
2. Transport Roller
3. Feed Sensor
4. Feed Roller
5. Lift Sensor
6. Pick-up Roller
7. Paper End Sensor
8. Paper Near End Sensor
9. Paper Height Sensor 1
10. Paper Height Sensor 2
11. Paper Tray
12. Paper Height Sensor 3
13. Paper Tray Motor
14. Low Limit Sensor
15. Tray Drive Belt
16. Feed Motor
17. Stack Sensor

Pick-up, Separation, Feed. Non-contact, maintenance free FRR sysem. (📖 Handling Paper> Paper Feed Methods> **Forward and Reverse Roller (FRR)**))

Tray Lift. Tray lift motor and timing belt raise and lower the paper tray.

Paper Size Detection. The side fences cannot be adjusted by customers. The paper size must be entered with SP5959 005. For details, see SP5959 in section "4. Service Tables."

Paper Height Detection. A feeler and four photointerrupters are used.

Paper End Detection. A reflective sensor on the upper stay detects paper end.

2.1.2 LCT DRIVE LAYOUT
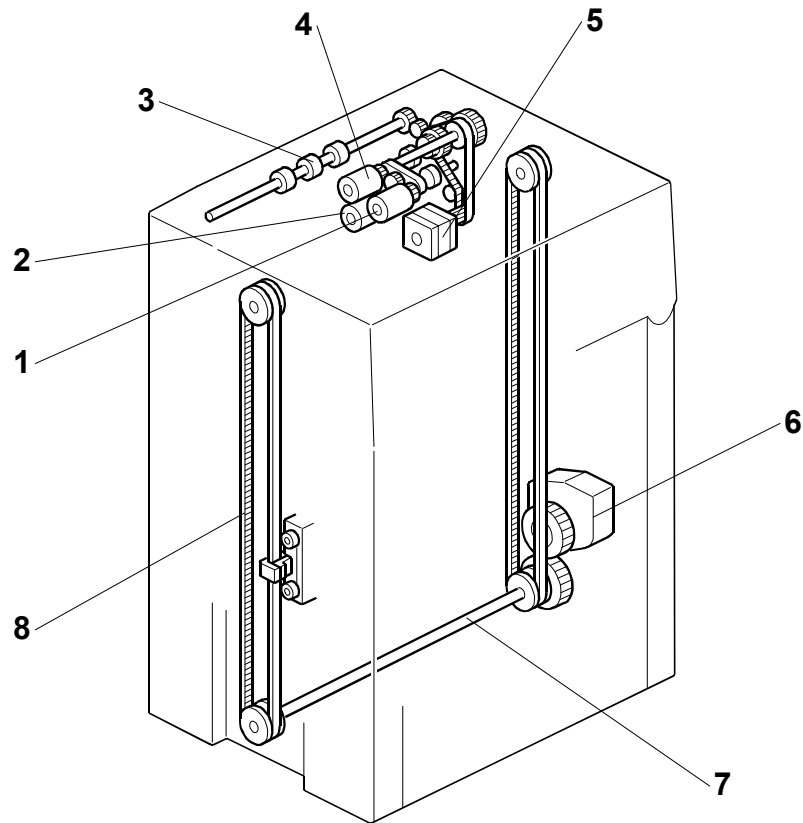
B473D003.WMF

1. Pick-up Roller

2. Separation Roller

3. Transport Rollers

4. Feed Roller

5. Feed Motor

6. Tray Motor

7. Tray Lift Shaft

8. Tray Drive Belt

Peripherals

2.2 PAPER FEED AND SEPARATION

A standard FRR system is used. It consists of the pick-up, feed, and separation rollers.

2.2.1 STARTING PAPER FEED
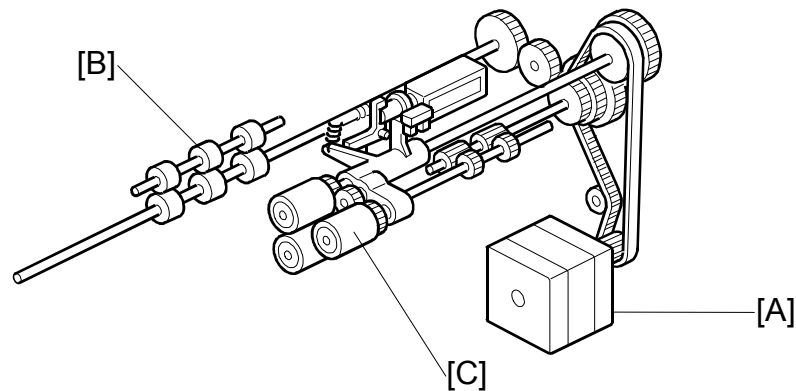
B473D004.WMF

The feed motor [A] drives the transport rollers [B].

The separation roller [C], which is free to rotate in the direction indicated by the arrow, remains at rest.

2.2.2 FEED AND SEPARATION

B473D005.WMF

The feed motor [A] switches on, then the pick-up solenoid [B] switches on and transfers drive to the paper feed roller [C] and pick-up roller [D].
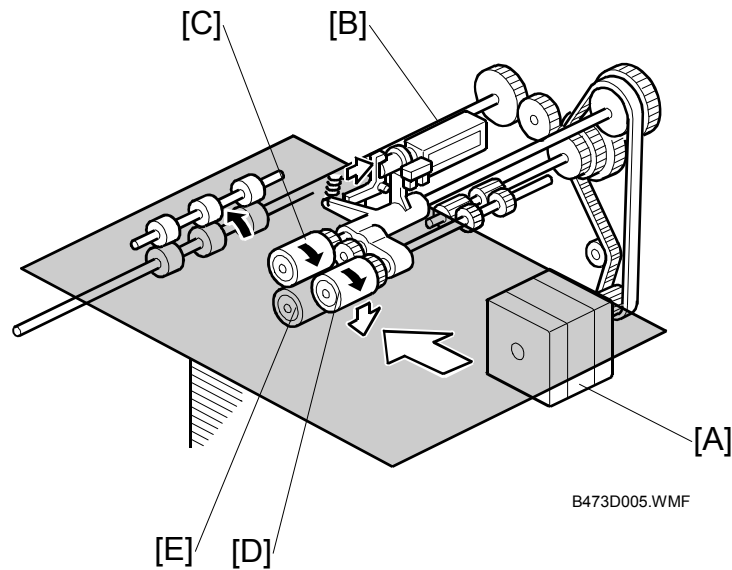
The rotating pick-up roller lowers and feeds the first sheet when it contacts the top of the stack.

The separation roller [E], in contact with the feed roller, only allows one sheet out of the tray.

As soon as the paper feed sensor (not shown) detects the leading edge of the paper, it switches off the pick-up solenoid which raises the pick-up roller. The feed roller feeds the sheet to the registration roller.

This process is repeated for each sheet.

Peripherals

2.3 PAPER LIFT
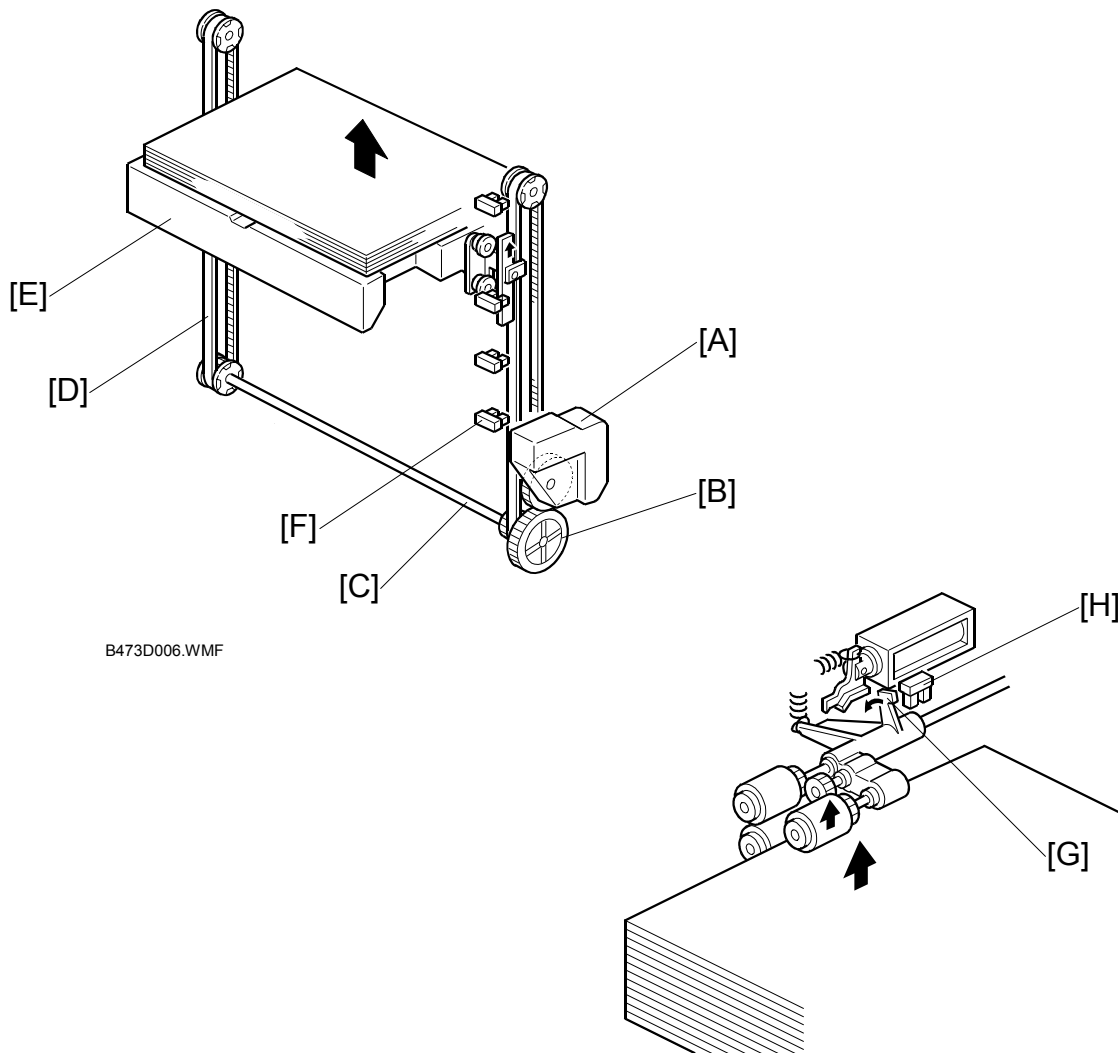
B473D006.WMF

B473D158.WMF

Tray motor [A] → Gear [B] → Shaft [C] → Tray belts [D] raise and lower the paper tray [E].

After paper is set in the LCT and the upper cover is closed, if the paper height sensor [F] is not activated, the tray motor lowers the tray and stops. When the paper height sensor activates, the tray motor lifts the tray.

After several sheets have been fed, the paper level lowers, the actuator [G] activates the lift sensor [H], and switches on the motor again. The motor raises stack until the actuator de-activates the lift sensor.

This cycle repeats to maintain the correct height of the stack until the end of the job.

B473D108.WMF
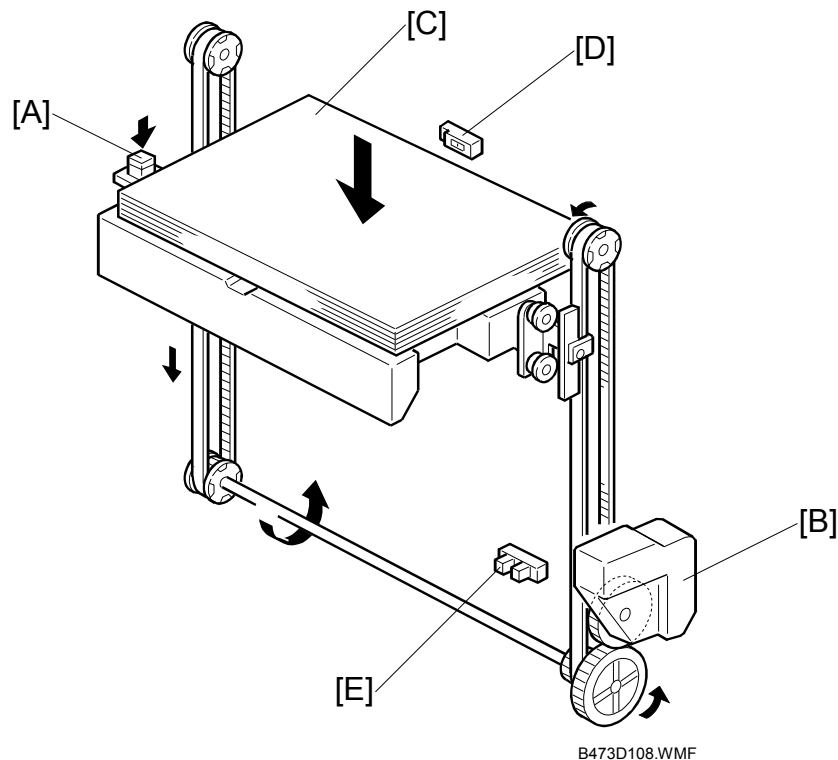
Pressing the tray down button [A] reverses the rotation of the tray motor [B] and lowers the tray [C].

The tray lowers until the stack sensor [D] detects the top of the stack and stops the tray motor.

- This mechanism lowers the tray by 5 cm, which gives the user enough space to add 500 sheets of paper.
- If the down switch is then pressed again, the bottom plate moves down once again by 5 cm. This allows the customer to replenish paper in convenient amounts and at the same position.

A lower limit sensor [E] (triggered by an actuator on the bottom of the tray) is also provided to stop the tray motor if the stack sensor should fail.
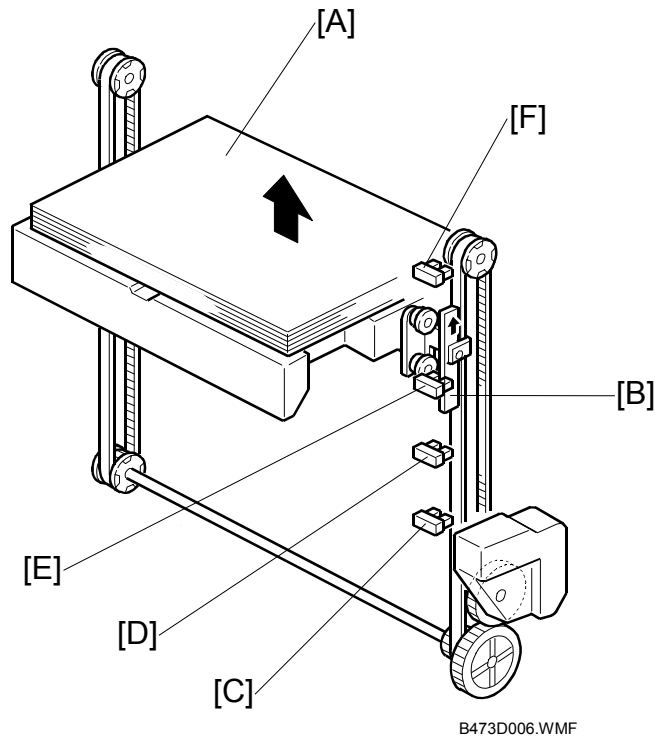
Summary

The tray raises when:

- The main power switch is turned on
- When the lift sensor switches on during copying
- The top cover is closed and the lift sensor switches on

The tray lowers when:

- The tray down button is pressed.
- The paper end sensor signals that there is no paper in the tray.

Peripherals

2.4 PAPER HEIGHT DETECTION

B473D006.WMF

As paper is consumed from the top of the stack [A], the paper tray rises and the actuator [B] attached to the tray passes through paper height sensor 3 [C], paper height sensor 2 [D], and paper height sensor 1 [E] until the actuator reaches the paper near end sensor [F].

The operation panel displays a message for each paper height until the actuator reaches the near-end sensor, then a message warns the user that the tray is nearly empty.

The table summarizes the relation between sensor detection and the number of sheets remaining in the stack.
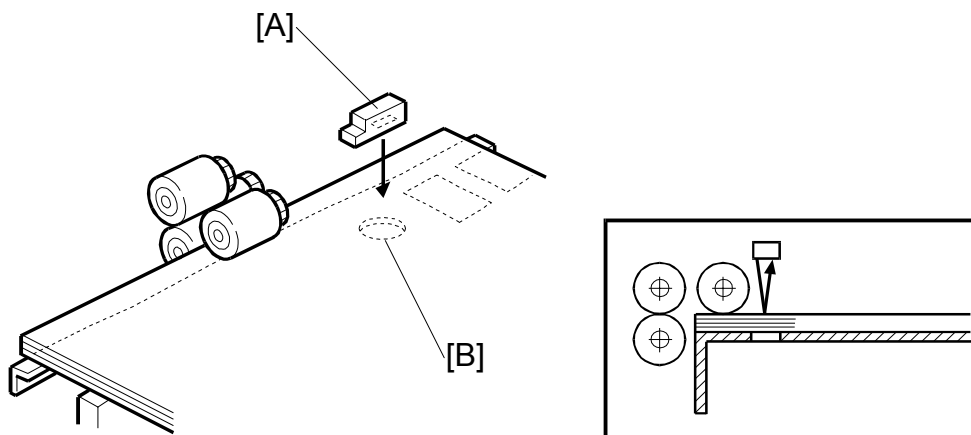
Sheet Remaining	Bars *1	Sensors			
		Near-end	P.Height 1	P.Height 2	P.Height 3
75	1	●	—	—	—
1500	2	○	●	—	—
2500	3	○	○	●	—
3500	4	○	○	○	●

*1: The number of vertical bars in the paper height display on the operation panel.

●: Actuator blocking the sensor gap.
○: Sensor gap is open

2.5 PAPER END DETECTION

B473D111.WMF

The paper end sensor [A] monitors the light reflected by each sheet on top of the stack.

When the last sheet feeds, the cutout [B] is exposed, and the paper end sensor receives no reflected light from below because there is no paper and this signals paper end.

Peripherals