

**FINISHER**

# 1. OVERALL MACHINE INFORMATION

## 1.1 SPECIFICATION

Paper Size:	Maximum: 11" x 17"/A3 Minimum: 5 1/2" x 8 1/2"/A5 sideways
Paper Weight:	Standard copying/Stack mode 14 ~ 43 lb/52 ~ 163 g/m <sup>2</sup> Staple mode 17 ~ 21 lb/64 ~ 80 g/m <sup>2</sup>
Paper Capacity:	Standard copying/Stack mode 2,000 sheets: 8 1/2" x 11"/A4 or smaller size (20 lb/80 g/m <sup>2</sup> ) 1,000 sheets: 8 1/2" x 14"/B4 or larger size (20 lb/80 g/m <sup>2</sup> )

Staple mode  
See the following table:

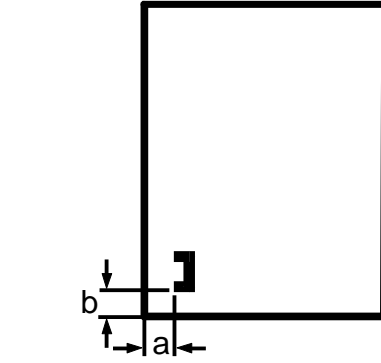
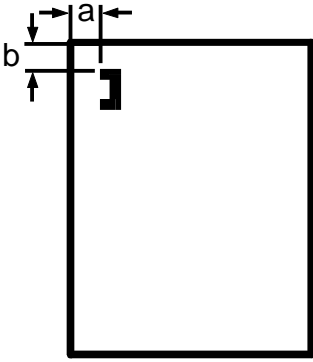
Number of Originals \ Size	8 1/2" x 11"/A4 or smaller size	8 1/2" x 11"/B4	11" x 17"/A3
2 ~ 10 sheets	100 sets	100 sets	100 sets
11 ~ 20 sheets	100 sets	50 sets	50 sets
21 ~ 30 sheets	67 sets	34 sets	34 sets
31 ~ 40 sheets	50 sets	25 sets	--
41 ~ 50 sheets	40 sets	20 sets	--

Stapler Capacity:	8 1/2" x 11"/A4 or smaller size (20 lb/80 g/m <sup>2</sup> ): from 2 to 50 sheets 8 1/2" x 14"/B4 (20 lb/80 g/m <sup>2</sup> ): from 2 to 50 sheets 11" x 17"/A3 (20 lb/80 g/m <sup>2</sup> ): from 2 to 30 sheets
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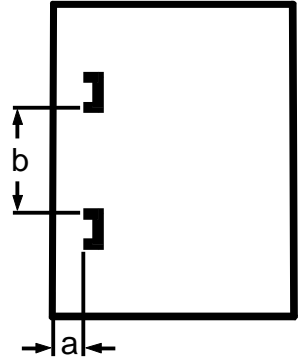
Staple Replenishment:	Cartridge exchange (5,000 pieces/cartridge)
Power Source:	DC 24 V (from copier)
Power Consumption:	60 VA (average)

Stapling Position:

(1 staple)



(2 staples)



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$a = 0.2" \pm 0.08" (5 \pm 2 \text{ mm})$   
 $b = 0.2" \pm 0.1" (5 \pm 2.5 \text{ mm})$

$a = 0.2" \pm 0.08" (5 \pm 2 \text{ mm})$   
 $b = 0.2" \pm 0.1" (5 \pm 2.5 \text{ mm})$

$a = 0.2" \pm 0.08" (5 \pm 2 \text{ mm})$   
 $b = 5.20" \pm 0.08" (132 \pm 2 \text{ mm})$   
 (8 1/2" x 11"/A4 or smaller size)  
 $b = 10.5" \pm 0.08" (265 \pm 2 \text{ mm})$   
 (8 1/2" x 14"/B4 or larger size)

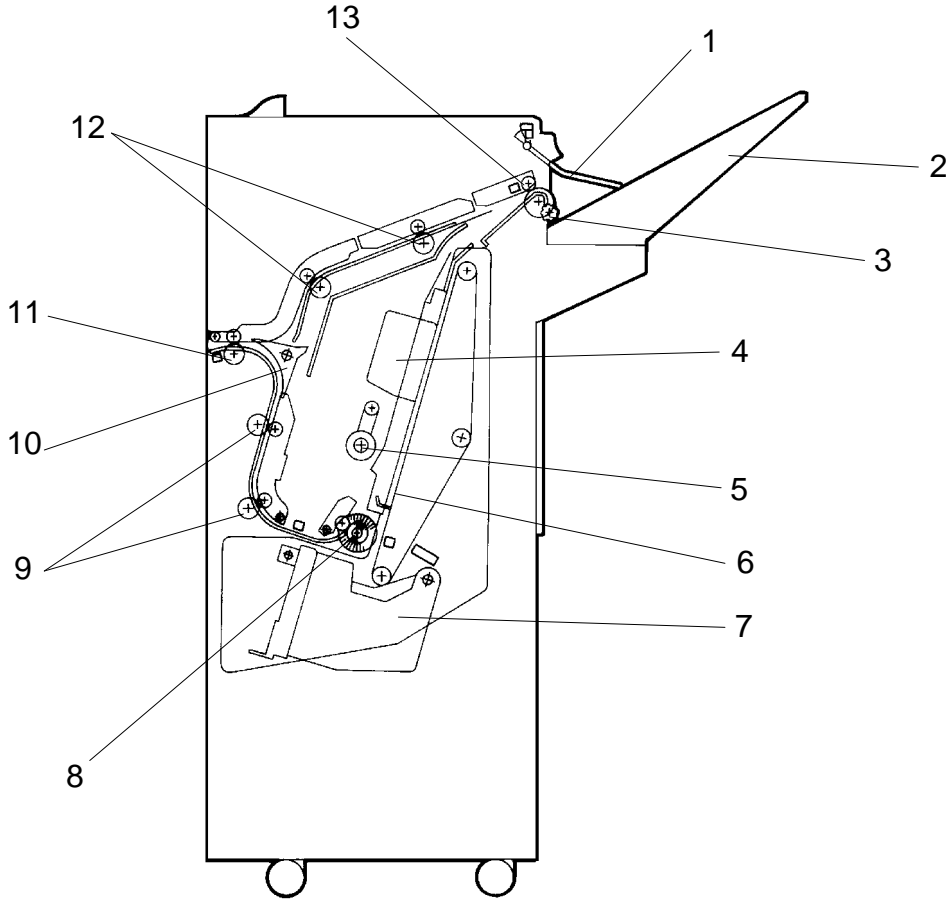
Dimensions:

24.4" x 27.5" x 36.4"  
 (620 mm x 699 mm x 925 mm)

Weight:

110 lb/50 kg

## 1.2 MECHANICAL COMPONENT LAYOUT



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- |                                  |                             |
|----------------------------------|-----------------------------|
| 1. Stack Height Sensor Feeler    | 8. Alignment Brush Roller   |
| 2. Shift Tray                    | 9. Lower Transport Rollers  |
| 3. Shift Tray Positioning Roller | 10. Junction Gate           |
| 4. Jogger Unit                   | 11. Entrance Rollers        |
| 5. Positioning Roller            | 12. Upper Transport Rollers |
| 6. Stack Feed-out Belt           | 13. Exit Rollers            |
| 7. Stapler Unit                  |                             |

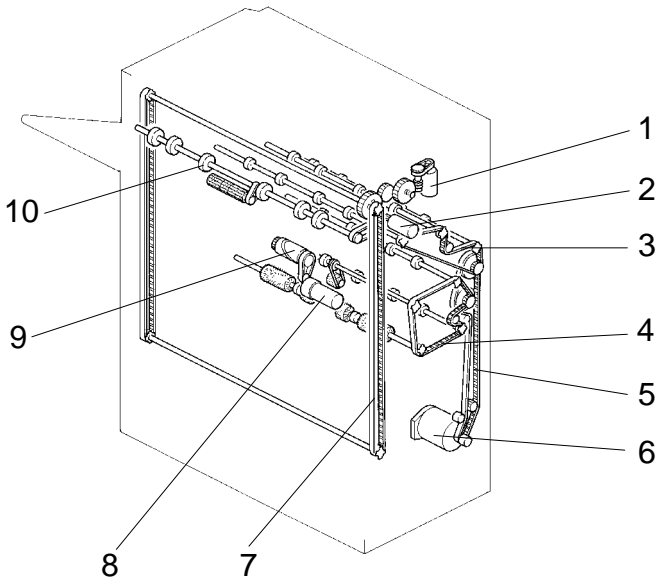
### 1.3 ELECTRICAL COMPONENT DESCRIPTION

Refer to the electrical component layout on the reverse side of the Point to Point (water proof paper) index numbers.

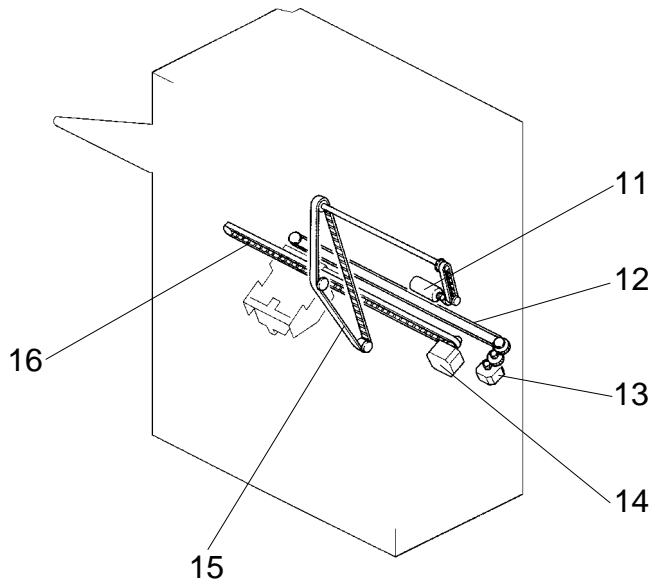
Name	Function	Index No.
<b>Motors</b>		
Transport Drive	Drives transport rollers.	12
Shift Tray Lift	Moves the shift tray up or down.	4
Exit Drive	Drives the exit and shift tray positioning rollers.	5
Exit Unit Lift	Lifts the exit roller unit.	1
Stack Feed-out	Drives the stack feed-out belt.	8
Jogger	Moves the jogger fences.	11
Stapler Drive	Moves the stapler unit.	10
Shift	Moves the shift tray side to side.	21
Staple	Drives the staple hammer.	18
<b>Sensors</b>		
Entrance	Detects copy paper entering into the finisher.	3
Jogger Unit Entrance	Detects copy paper entering into the jogger unit.	6
Jogger Unit Paper	Detects copy paper in the jogger unit.	17
Stack Feed-out Belt HP	Detects the home position of the stack feed-out belt.	16
Jogger HP	Detects the jogger home position.	23
Exit	Detects misfeeds in exit area.	25
Stack Height 1	Detects copy paper stack height in staple mode.	26
Stack Height 2	Detects copy paper stack height in sort/stack mode.	28
Shift Tray Lower Limit	Detects the lower limit of the shift tray position.	14
Stapler Hammer HP	Detects the staple hammer home position.	19
Exit Unit HP	Detects the exit roller upper unit home position.	29
Exit Unit Half Turn	Detects the exit roller upper unit position.	27
Shift Tray Half Turn	Detects shift tray side to side position.	20
Stapler Unit HP	Detects the stapler unit home position.	22
Front Door Safety (Switch)	Cuts dc power when the front door is opened.	24
Shift Tray Upper Limit (Switch)	Detects the upper limit of the shift tray position.	2
Staple End	Detects staple end conditions	30
Cartridge Set	Detects if the staple cartridge is installed or not.	31
<b>Solenoids</b>		
Positioning Roller	Lowers the positioning roller in the jogger unit.	9
Junction Gate	Drives the junction gate.	7

Name	Function	Index No.
<b>PCBs</b>		
Transport Drive Motor Control	Controls the transport drive motor operation.	13
Main Control	Controls overall finisher operation.	15

## 1.4 DRIVE LAYOUT



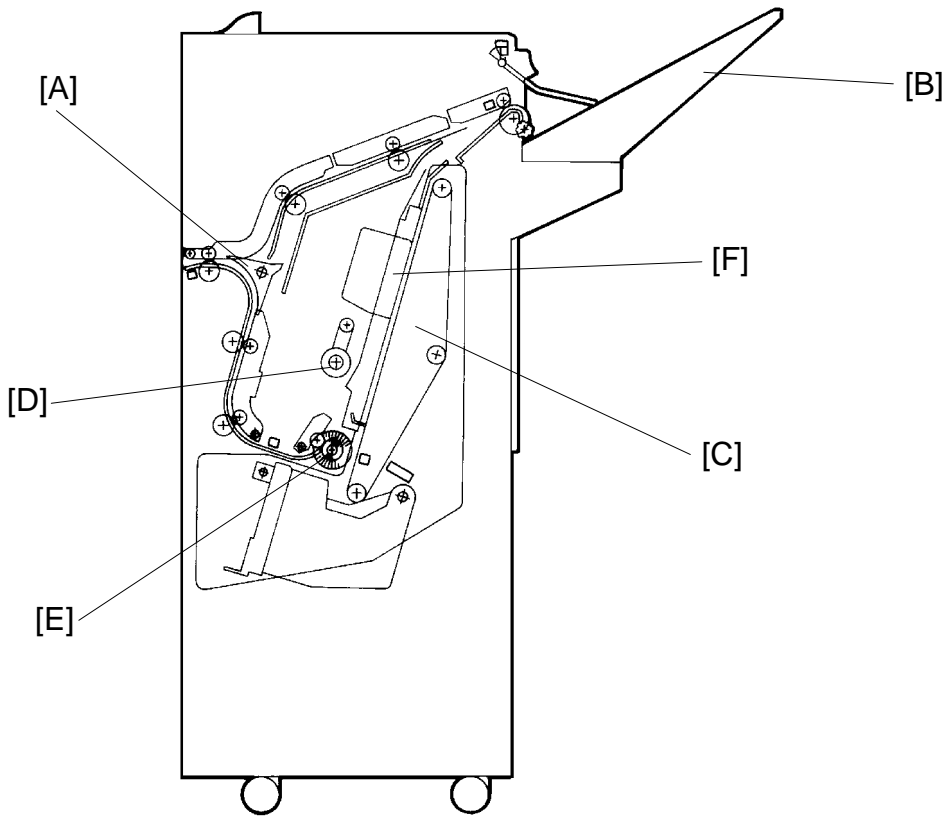
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- |                               |                          |
|-------------------------------|--------------------------|
| 1. Shift Tray Lift Motor      | 9. Shift Cam             |
| 2. Exit Drive Motor           | 10. Exit Roller          |
| 3. Upper Transport Drive Belt | 11. Stack Feed-out Motor |
| 4. Lower Transport Drive Belt | 12. Jogger Drive Belt    |
| 5. Transport Drive Belt       | 13. Jogger Motor         |
| 6. Transport Drive Motor      | 14. Stapler Drive Motor  |
| 7. Shift Tray Lift Belt       | 15. Stack Feed-out Belt  |
| 8. Shift Motor                | 16. Stapler Drive Belt   |

## 1.5 BASIC OPERATION



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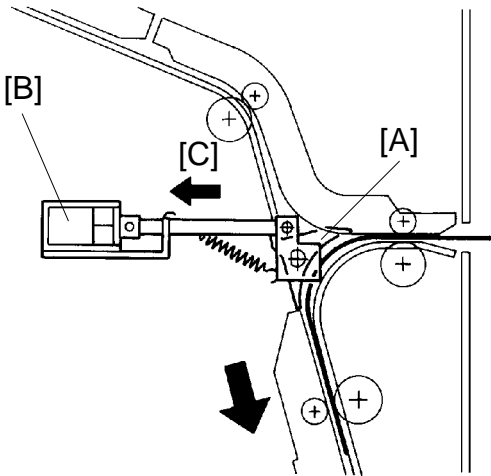
After the copy is completed, the paper is directed to the finisher. If the sort/stack mode is selected, the junction gate [A] directs the paper upwards to transport it to the shift tray [B]. In these modes, the shift tray is shifted side to side to stagger and separate sets of copies. The amount of shift is approximately 30 mm.

When the staple mode is selected, the junction gate directs the paper below to transport the paper to the jogger unit [C]. Each time a copy is delivered to the jogger unit, the positioning roller [D], the alignment brush roller [E], and the jogger fences [F] square the stack of copies. After the final copy of the set is squared, the set is stapled, and then delivered to the shift tray.

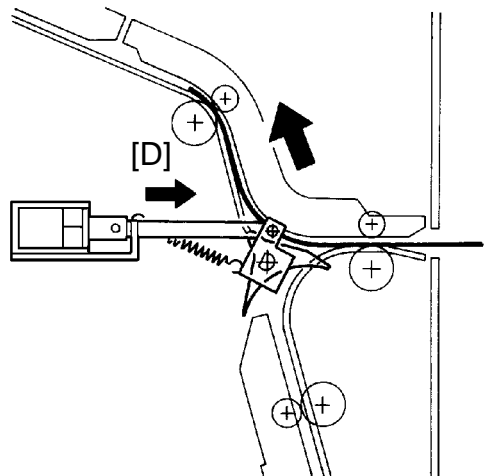


## 2. SECTIONAL DESCRIPTION

### 2.1 PAPER DELIVERY SWITCHING



(1) Staple Mode



(2) Sort/Stack Mode

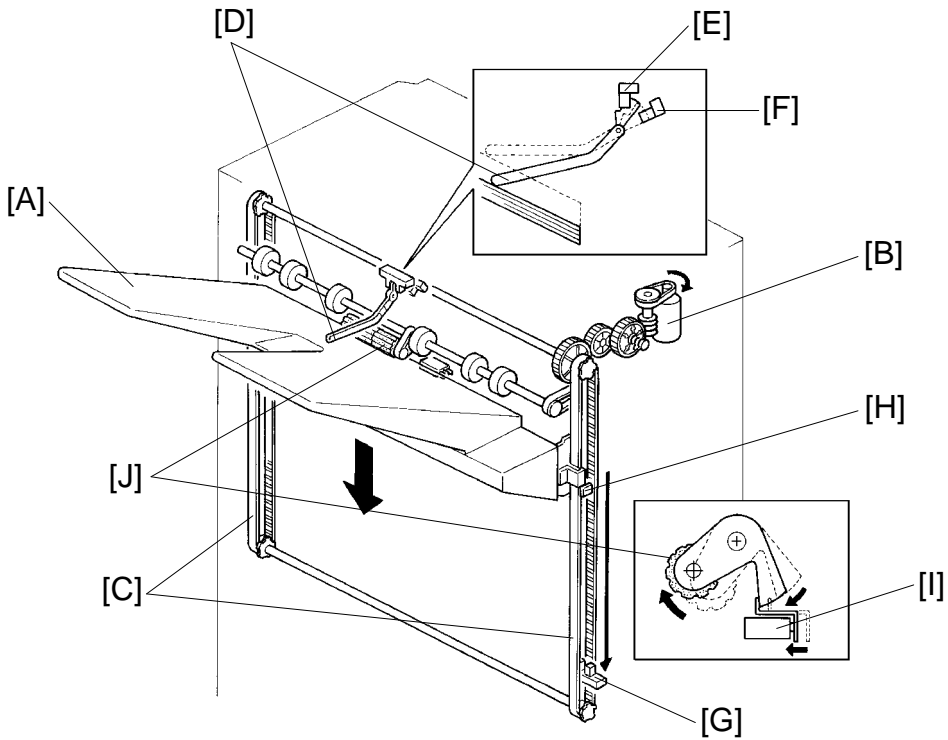
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Depending on the selected finishing mode, the copies are directed up or down by the junction gate [A]. A two-way solenoid is used to control the junction gate.

- (1) When the exit sensor of the copier is activated while in staple mode, the solenoid [B] pulls the plunger in the arrow [C] direction. The junction gate directs the copies down to transport them to the jogger unit.
- (2) When the exit sensor of the copier is activated while in the sort/stack mode, the solenoid pushes the plunger in the arrow [D] direction. The junction gate directs the copies up to deliver them to the shift tray.

The junction gate keeps its position until a different finishing mode is selected.

## 2.2 SHIFT TRAY UP/DOWN MECHANISM



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The vertical position of the shift tray [A] is controlled by the shift tray lift motor (dc motor) [B] through the gears and the timing belts [C]. When the main switch is turned on, the tray position is initialized to the upper position. The tray's upper most position is detected when the shift tray pushes up the actuator [D] to deactivate the stack height sensor 1 [E].

While copying, the actuator [D] is gradually raised as the copy stack grows. In the sort/stack mode, when the stack height sensor 2 [F] remains actuated for 4 seconds, the shift tray lift motor [B] rotates, lowering the tray unit for 50 ms.

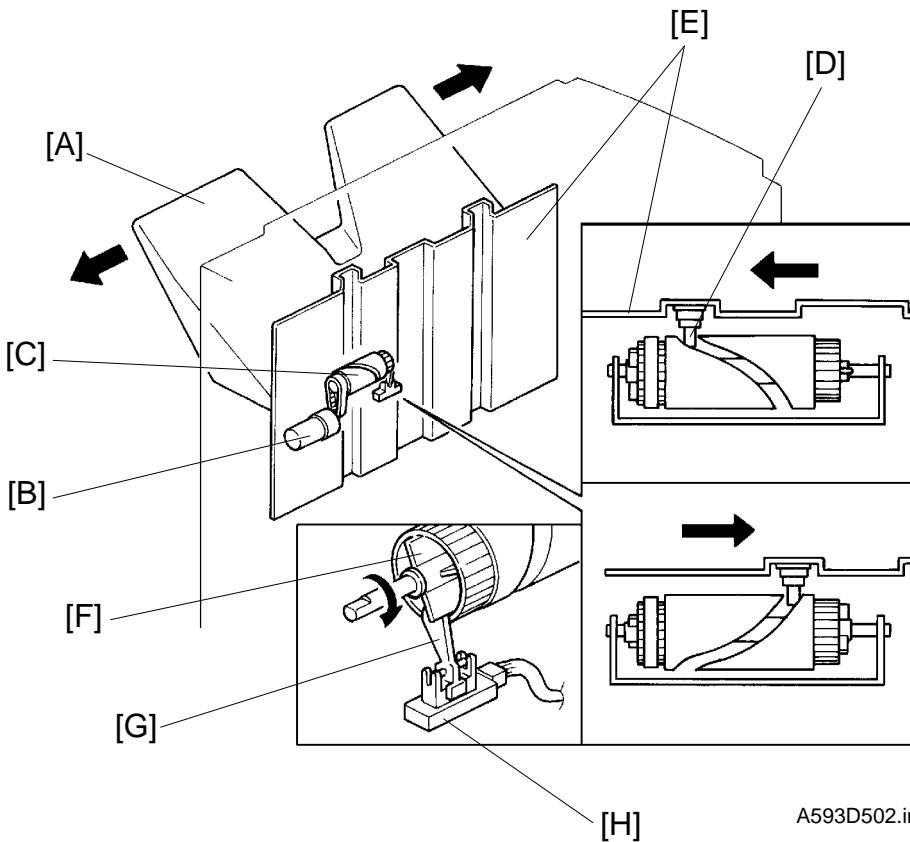
In staple mode, when the stack height sensor 1 remains deactivated for 4 seconds, the motor rotates lowering the tray until the sensor [E] is actuated.

When the tray reaches its lower limit position, the lower limit sensor [G] is actuated by the actuator [H], and copy operation stops.

After the copy process is finished and the machine stops, the tray is raised to its upper most position 4 seconds after the copies are removed.

A mechanical safety switch [I] is installed to prevent the drive gears from being damaged if the sensor does not work. When the shift tray pushes up the shift tray positioning roller [J], the shift tray lift motor stops.

## 2.3 SHIFT TRAY SIDE TO SIDE SHIFT MECHANISM



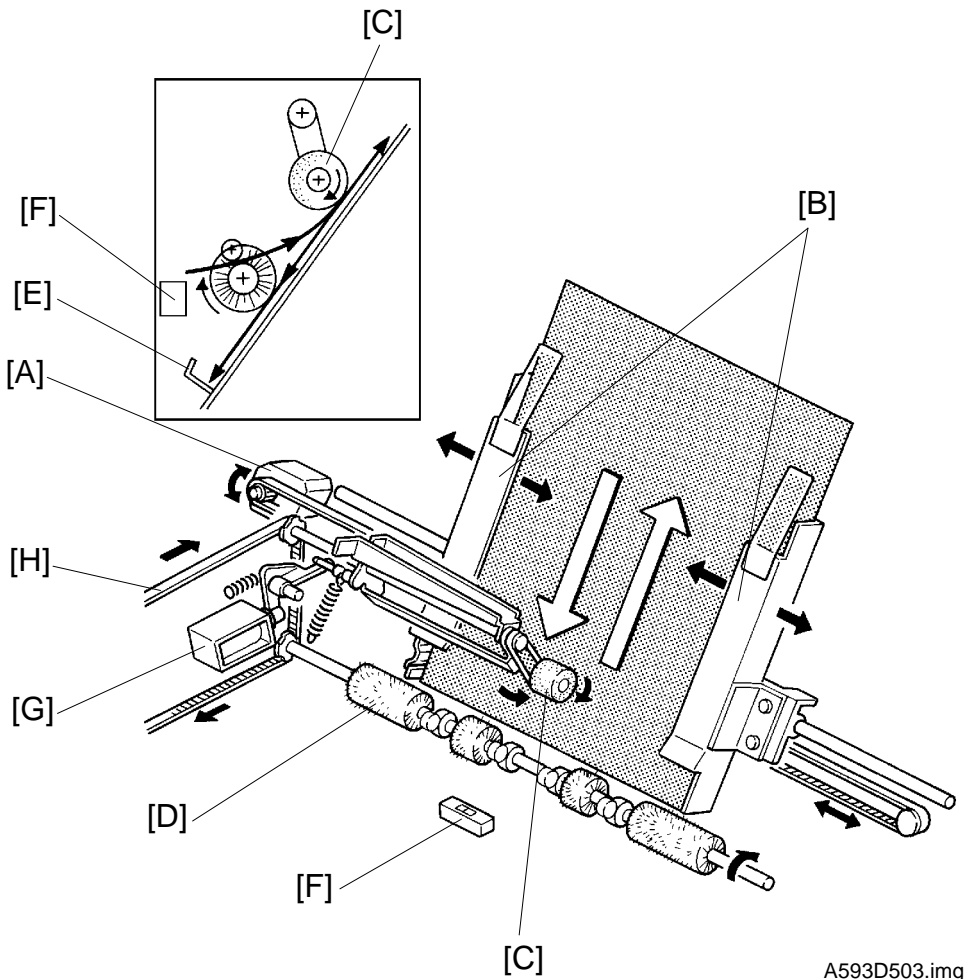
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In the sort/stack mode, the shift tray [A] moves side to side to stagger and separate sets of copies.

The horizontal position of the shift tray is controlled by the shift motor (dc motor) [B] and the shift cam (helical cam) [C]. After one set of the original is copied and delivered to the shift tray, the shift motor [B] starts rotating, driving the shift cam through the timing belt. The pin [D] fixed to the shift tray base plate [E] is positioned in the groove on the shift cam, creating the side to side movement required to stagger copies.

When the shift cam rotates 180 degrees (The tray is fully shifted.), the plate [F] on the shift cam pushes the actuator [G] of the shift tray half turn sensor [H] and the shift motor stops. The next set of copies is then delivered. The motor rotates repeating the same process and moving the tray back to the previous position.

## 2.4 STAPLE UNIT PAPER POSITIONING



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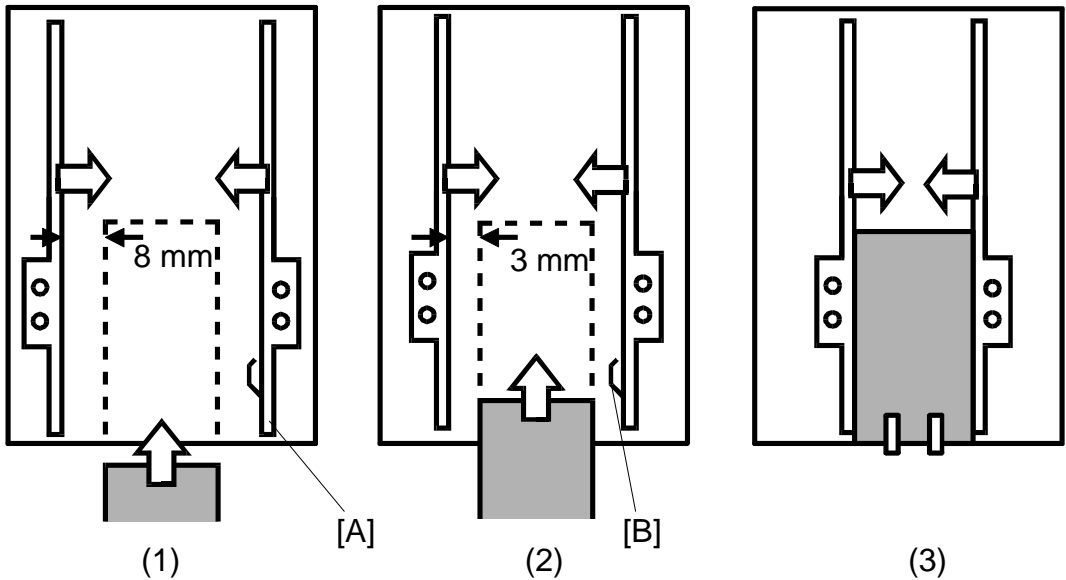
In the staple mode, copies are vertically and horizontally aligned in the jogger unit before being stapled.

For horizontal paper alignment, the jogger motor [A] moves both the front and the rear jogger fences [B] to align the copies.

For vertical paper alignment, the positioning roller [C] and the alignment brush roller [D] push the copy against the stack stopper [E].

After the trailing edge of the copy passes the jogger unit entrance sensor [F], the positioning roller solenoid [G] is energized for 280 ms pushing the positioning roller into contact with the paper. The positioning roller rotates to push the paper back and align the trailing edge of the paper against the stack stopper. Both the positioning roller and the alignment brush roller are driven by the transport drive motor through the timing belt [H].

## 2.5 JOGGER MOVEMENT



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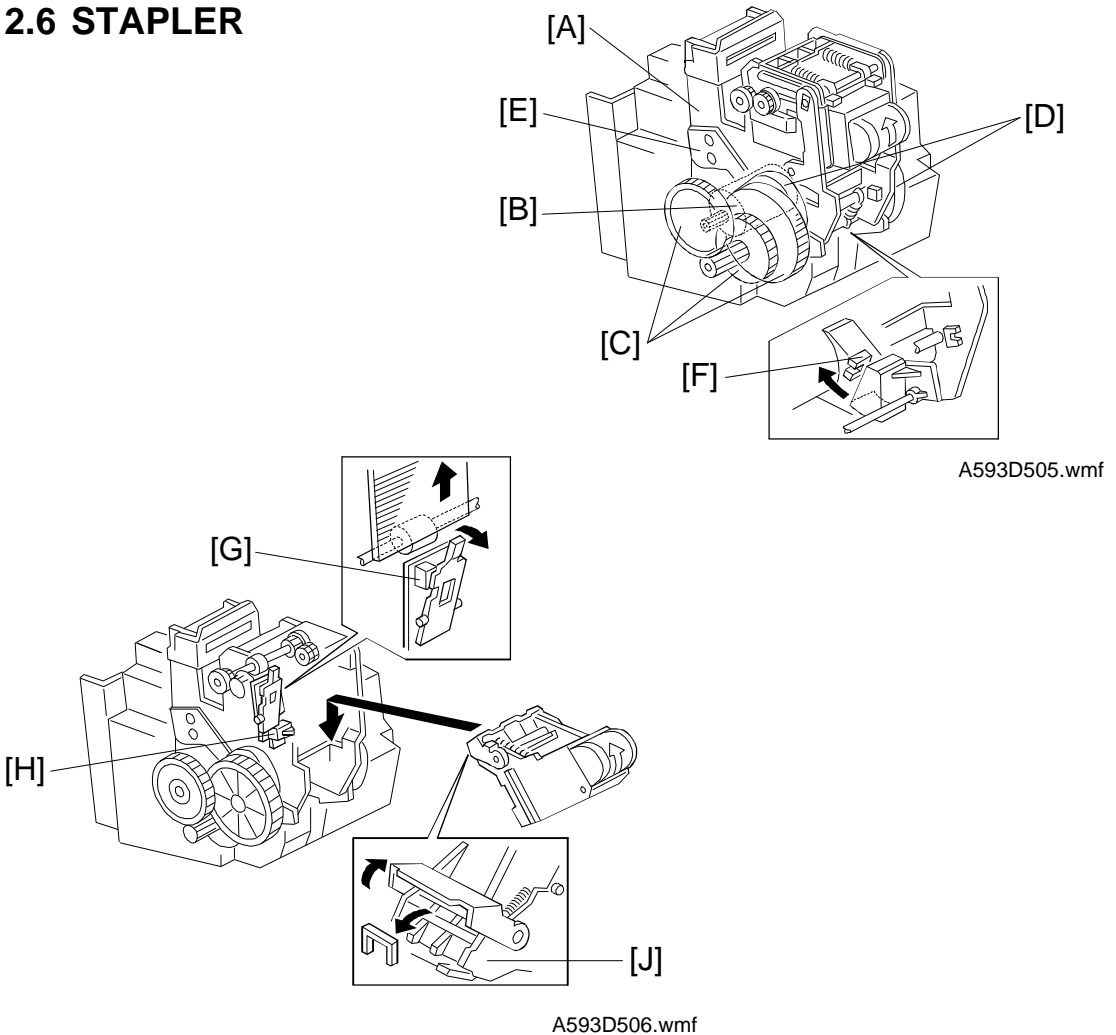
When the Start key is pressed, the copier sends the paper size information to the finisher. In accordance with that data, the jogger motor (stepper motor) starts rotating to position the front and rear jogger fences [A] 8 mm away from the selected paper's edges. (1)

After the trailing edge of the copy passes the jogger unit entrance sensor, each jogger fence moves inward 5 mm. They stop 3 mm away from the paper edges. (2)

Just after the positioning roller pushes the copy back, each jogger fence moves inward 3 mm more so that the leaf spring [B] on the rear jogger fence pushes the copy side edge slightly.

After a copy is stacked in the jogger tray, the jogger fences move back 8 mm from the copy edge for the next copy.

## 2.6 STAPLER



The staple hammer [A] is driven by the staple motor [B] via gears [C], two eccentric cams [D], and two links [E].

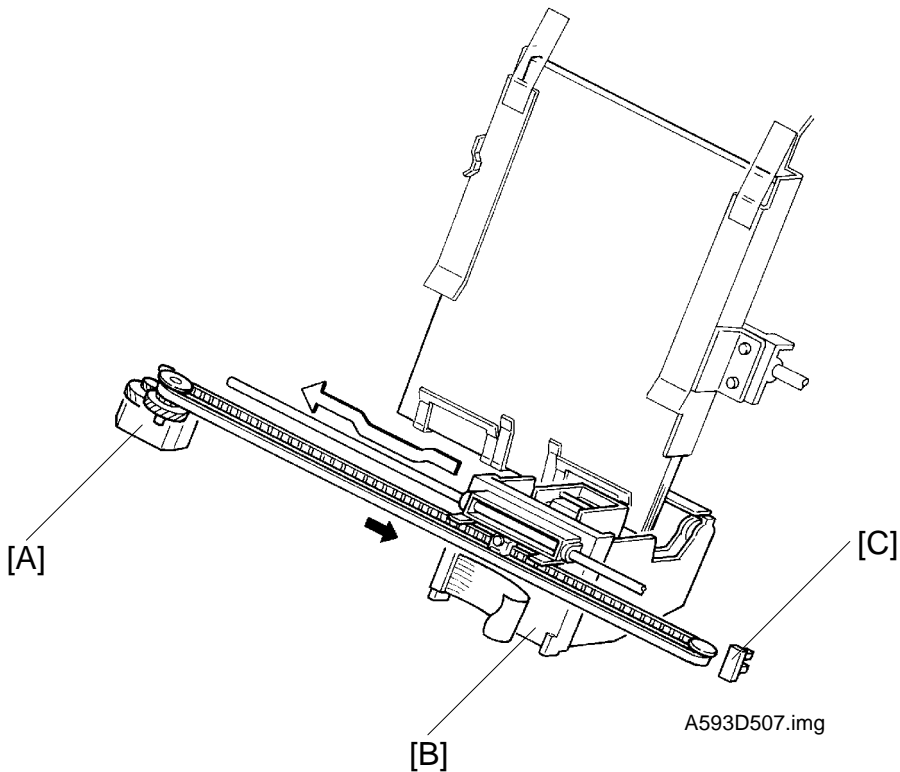
When the aligned copies are brought to the staple position by the positioning roller, alignment brush roller and jogger fences, the stapler motor starts rotating. When the cams complete one rotation, the stapler home position sensor [F] turns on, detecting the end of the staple operation. The stapler motor then stops.

There are two sensors in the staple unit. One is the staple end sensor [G] to detect staple end conditions. The other is the cartridge set sensor [H] to detect when the staple cartridge is not installed.

When a staple end or no staple cartridge condition is detected, a message is displayed advising the operator to set the staple cartridge.

The staple cartridge has a clinch area [J], in which the jammed staples are left. Operators can remove the jammed staples from the cartridge.

## 2.7 STAPLER UNIT SIDE TO SIDE MOVEMENT



Customers can select one of the following three different staple modes:

- Staple 1: Top left
- Staple 2: Bottom left
- Staple 3: Top/Bottom left

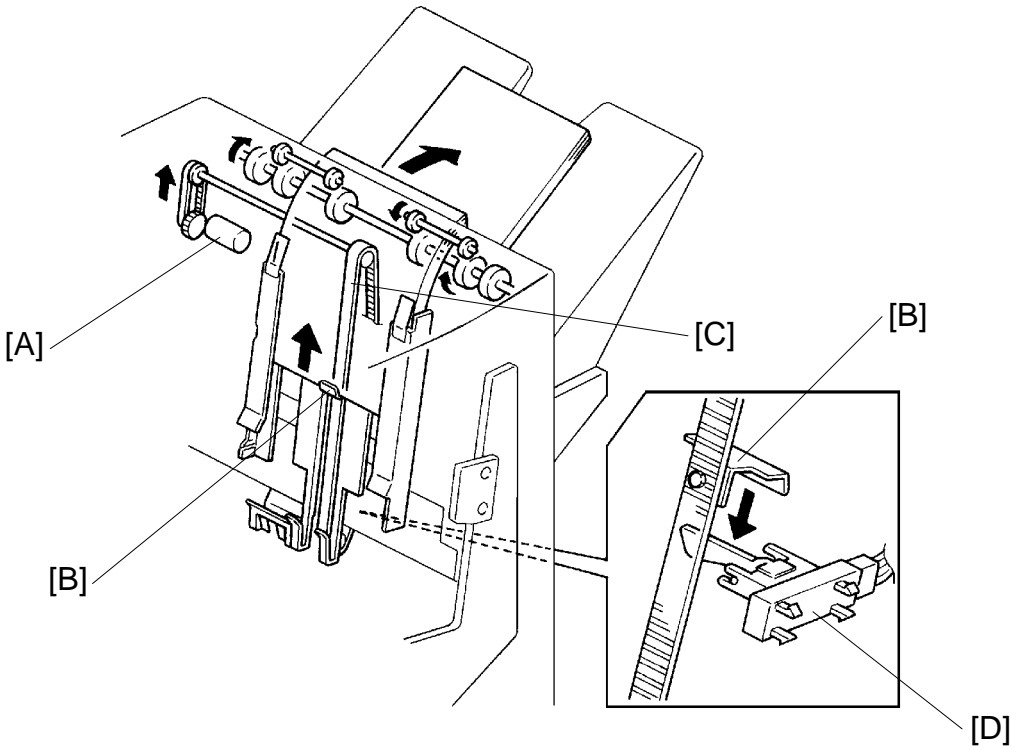
The stapler drive motor [A] (stepper motor) moves the stapler unit [B] from side to side. When the Start key is pressed, the stapler moves from its home position to the staple position.

If the staple mode 3 is selected, the stapler unit moves to the front staple position first, then moves to the rear staple position. However, for the next copy set, it staples in the reverse order; that is, at the rear side first and then at the the front.

After the job is completed, the stapler unit moves back to its home position. (The stapler unit home position sensor [C] is actuated.)

The staple position can be changed using SP mode.

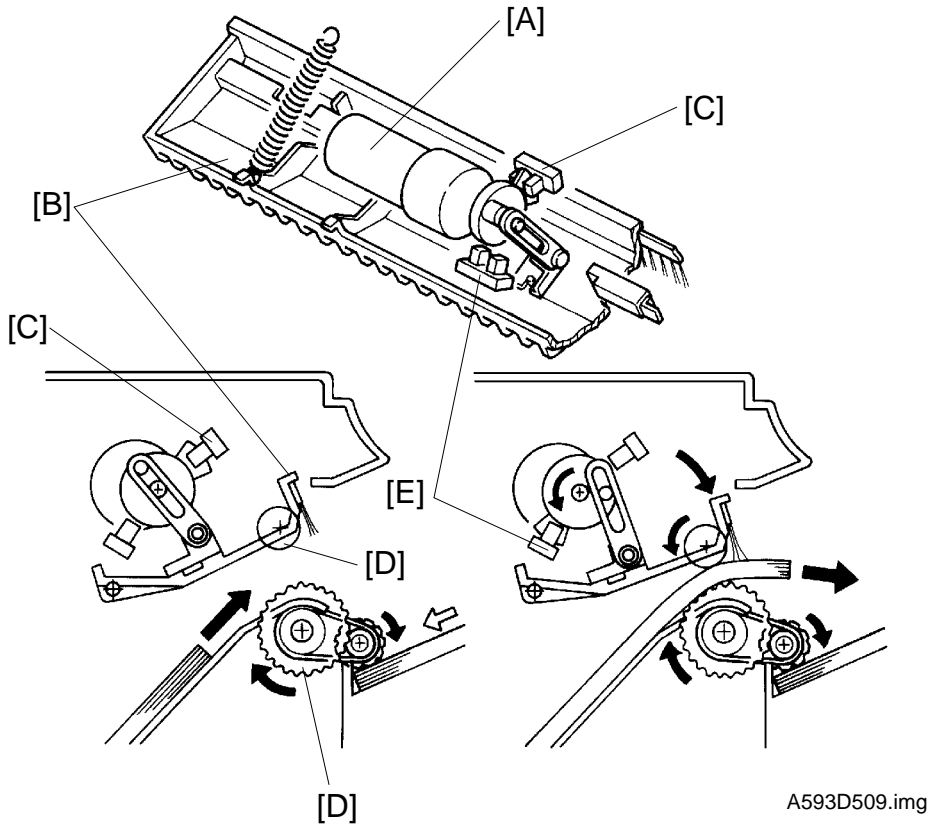
## 2.8 FEED-OUT TO SHIFT TRAY



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After being stapled, the stack feed out motor [A] starts rotating. The pawl [B] on the lift belt [C] transports the set of stapled copies up, and feeds it to the shift tray. Approximately 0.6 second after the stack feed out motor starts, the motor stops for 400 ms. At this moment, the exit rollers catch the stapled copies to feed them out to the shift tray. Then the motor rotates again until the pawl actuates its home position sensor [D].





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In staple mode, when stapling is completed, the exit unit lift motor [A] starts rotating to open the exit unit [B]. This is to prevent paper jams when a thick paper stack is exiting. The exit unit lift motor stops when the exit unit half turn sensor [C] is actuated. While the paper stack is exiting, the exit unit lift motor starts rotation again to close the exit unit. The upper and lower exit rollers [D] catch the stack of copies to feed them out. The exit unit lift motor stops when the exit guide home position sensor [E] is actuated.

The exit unit lift motor does not work in sort/stack mode.

The exit drive motor starts rotating to drive the exit rollers [D] when the first copy activates the entrance sensor. The exit drive motor speed is reduced just before each copy paper is completely fed out. This is to ensure an even copy stack.

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## 3. INSTALLATION

### 3.1 ACCESSORY CHECK

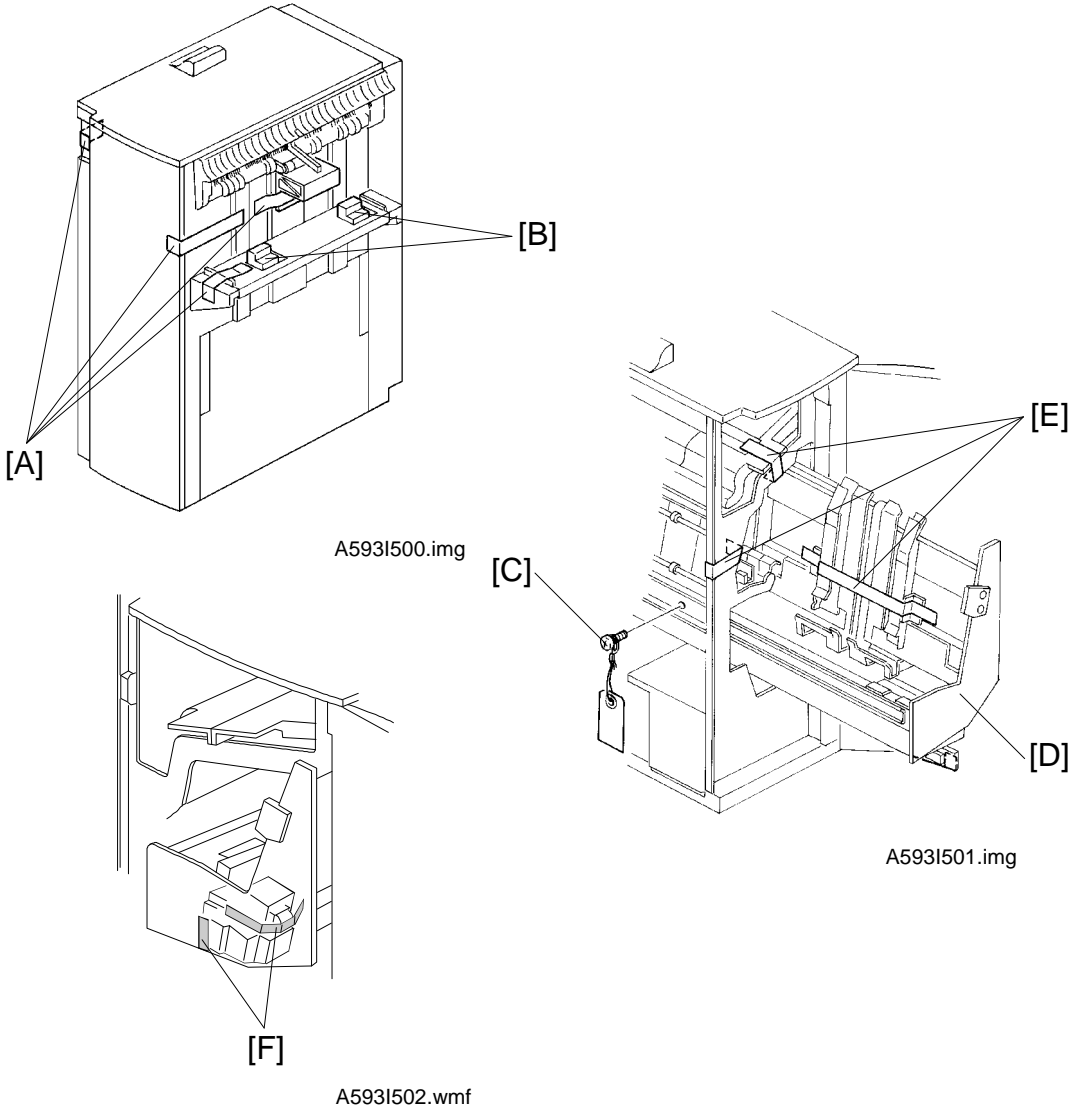
Check the quantity and condition of the accessories in the box according to the following list.

1. Installation Procedure ..... 1
2. Relay Guide ..... 1
3. Shift Tray ..... 1
4. Staple Cartridge ..... 1
5. Panhead Screw 4 x 8 ..... 10
6. Ground Screw ..... 1

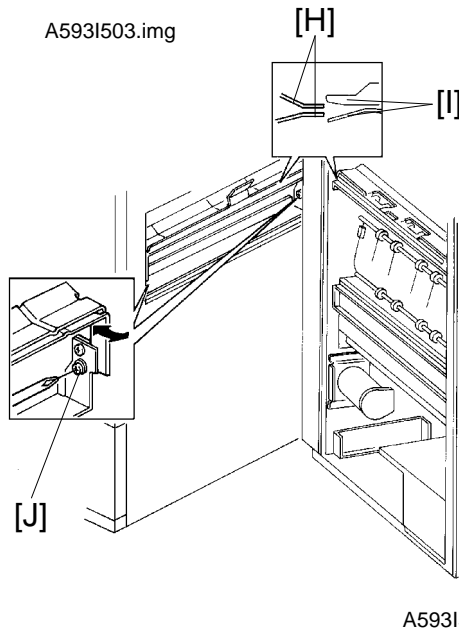
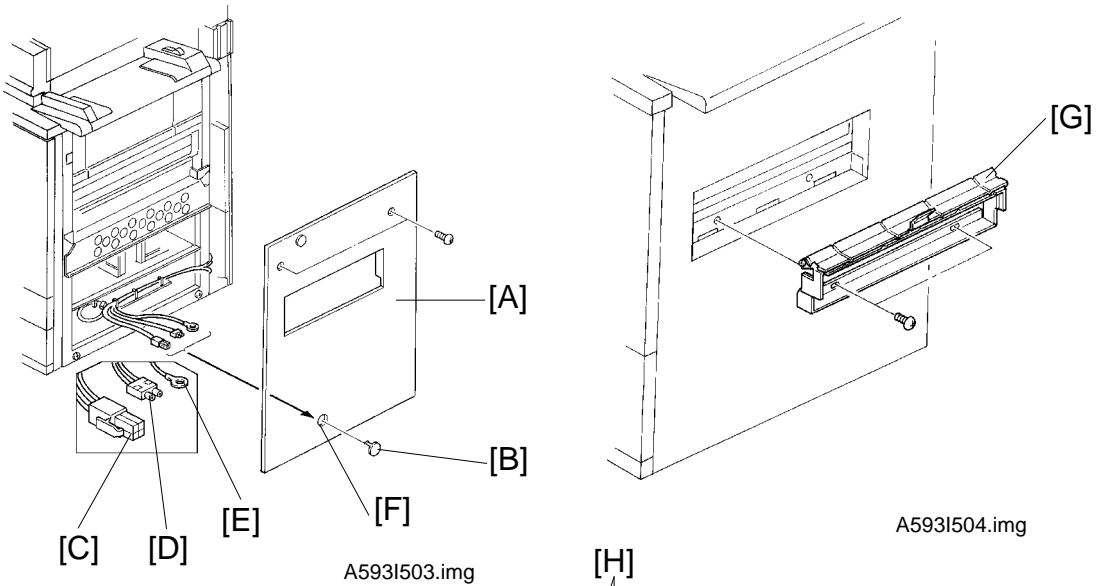
## 3.2 INSTALLATION PROCEDURE

### CAUTION

Unplug the copier power cord before starting the following procedure.



1. Remove the strips of filament tape [A] on the finisher and remove the styrofoam blocks [B]. Remove the fixing screw [C].
2. Open the finisher front door and pull out the transport unit [D]. Then, remove the strips of filament tape [E].
3. Push the transport unit in its original position and close the front door.



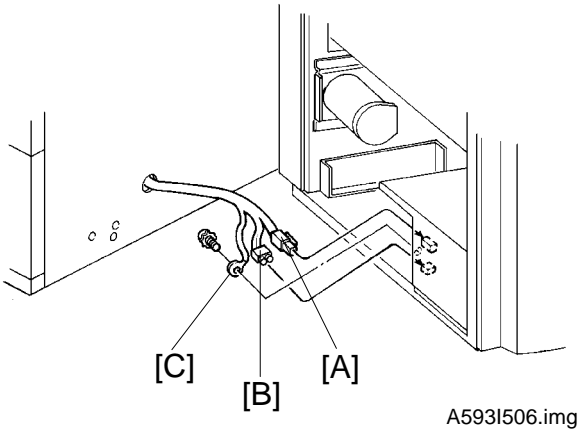
4. Remove the copier right cover [A] (2 screws) and plastic cap [B]. Pass the 4P connector [C], fiber cable [D], and ground wire [E] of the interface harness through the lower hole [F] of the right cover. Then, reinstall the right cover.

**NOTE:** Since the 2P connector is not used for this finisher installation, keep it in the copier.

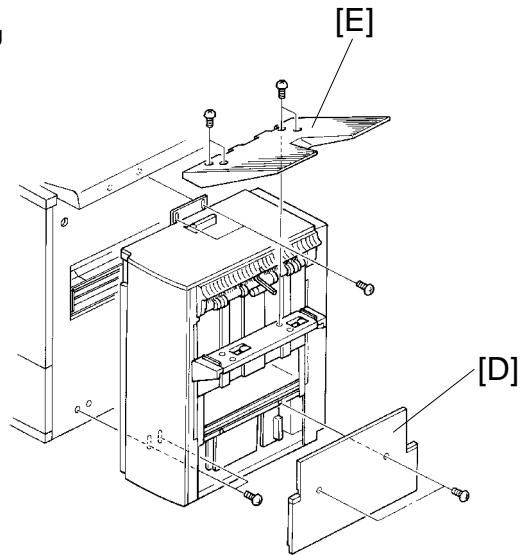
5. Install the relay guide [G] (2 screws).

6. Bring the finisher near the main copier and confirm that the height of the relay guide exit plates [H] are aligned between the finisher entrance plates [I].

**NOTE:** If not, adjust the height of the relay guide exit plates (loosen the 2 screws [J]).



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7. Connect the 4P connector [A], fiber cable [B], and fix the ground wire [C] (1 screw with a star washer).

**NOTE:** 220/230/240 V market only

The finisher unit meets EN 60 950, Class III safety standards, which do not require an earth connection. However, it should be grounded to ensure proper operation.

8. Remove the finisher right cover [D] (2 screws).
9. Connect the finisher to the main copier (4 screws) and reinstall the finisher right cover.
10. Install the finisher shift tray [E] (4 screws).
11. Plug in the power cord and turn on the copier main switch.
12. Test the operation of the finisher.

**NOTE:** The stapler will not be stapling for the first 10 or so copies until the first staple comes to the proper position from the cartridge.

## 4. SERVICE TABLES

### 4.1 TEST POINT TABLE (Main Board)

Number	Function
TP1	24 V
TP2	GND
TP3	5 V

### 4.2 FUSE TABLE

Number	Rated Current	Location
Fuse 1	5A	Main PCB
Fuse 1	8A	Transport Drive Motor Control PCB

### 4.3 DIP SW TABLE

#### 4.3.1 Motor Test Mode

DIP100				DIP101				Motor
1	2	3	4	1	2	3	4	
0	0	0	1	1	0	1	1	Transport Drive Motor
0	0	1	0	1	0	1	1	Exit Drive Motor
0	1	0	0	1	0	1	1	Stack Feed-out Motor
1	0	0	0	1	0	1	1	Shift Tray Lift Motor

0: OFF    1: ON

Factory Setting	DIP100				DIP101			
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0

After setting the DIP SW101, turn on one of the DIP SW100 to start the appropriate motor, turn off the DIP SW 100 to stop the motor.

DIP SW100-4 ON: The finisher shift tray is raised during a continuous copy run if the copies have been removed from the tray.

## 4.4 Free Run Test Mode

DIP101				Function
1	2	3	4	
0	0	1	1	Motor Free Run
0	1	1	1	Staple Free Run
1	1	1	1	Shift Free Run

0: OFF    1: ON

Free run test mode starts when the SW100 on the main board is pressed, and stops when the SW101 is pressed.

### Operation:

#### 1. Motor Free Run

The motors of the finisher are energized in the following order:  
 Transport drive motor → Exit motor → Stack feed out motor  
 Shift motor → Shift tray lift motor → Exit unit lift motor

The PCB checks the speed of the transport drive, exit and stack feed motors, and mechanical lock of the other motors.

#### 2. Staple Free Run

The finisher works as if 5 sets of 5 LT papers are being stapled and delivered. The machine is then initialized and repeats the same operation.

#### 3. Shift Free Run

The finisher works as if 10 sets of 5 LT papers are being sorted. The shift tray is lowered for each of the 2 sets and then returns to its home position to repeat the same operation.

## 4.5 PM TABLE

**NOTE:** Amounts mentioned in the PM interval are copy numbers.

C: Clean R: Replace L: Lubricate

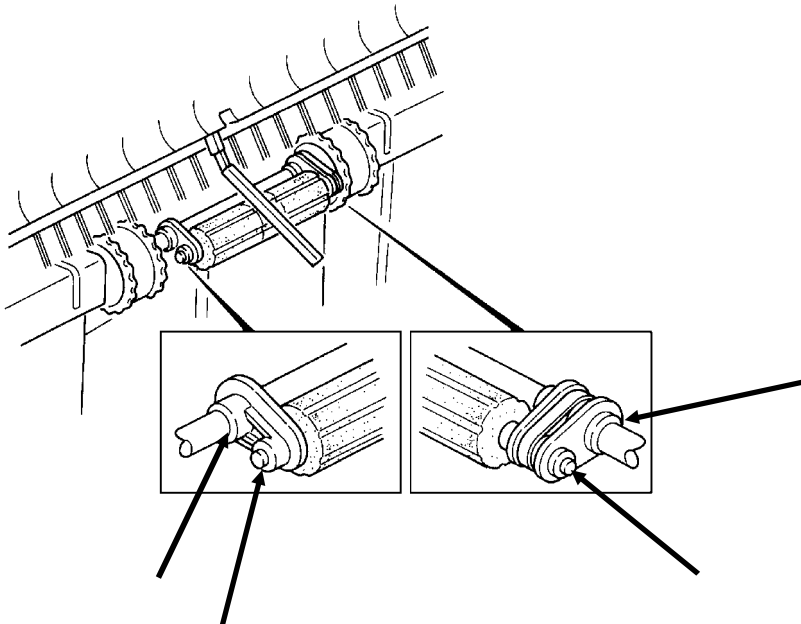
ITEM	EM	1.5M	NOTE
Rollers	C		Alcohol
Antistatic Brush	C		Dry cloth
Brush Rollers		R	2 large and 2 small rollers
Bushings	L		Launa oil; if it makes noise
Sensors		C	Blower brush
Stapler	I		Replace after 200K staples.

## 4.6 LUBRICATION POINTS

At an EM call or when the parts are getting dry, lubricate the following parts using a suitable lubricant.

### 4.6.1 Shift Tray Positioning Roller Arm

Lubricant: Launa-40 oil or equivalent

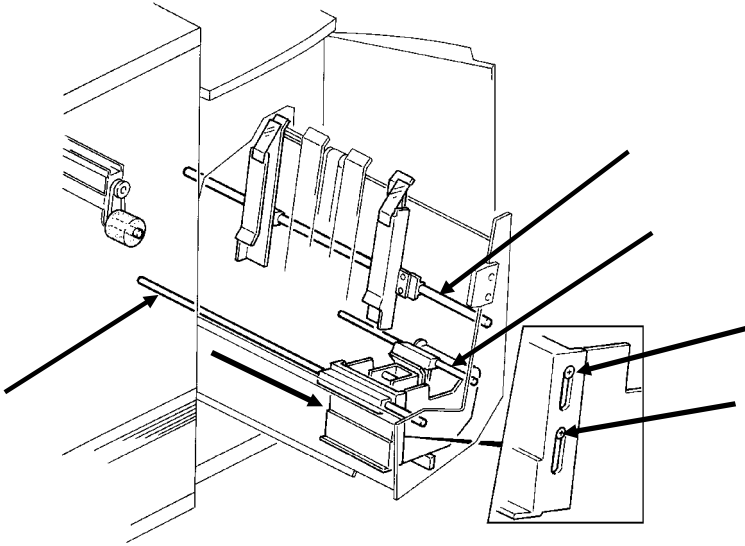


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### 4.6.2 Jogger/Staple Unit Shafts

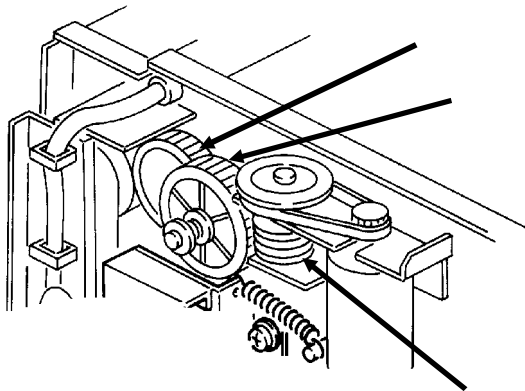
Lubricant: Launa-40 oil or equivalent



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### 4.6.3 Shift Tray Drive Gears

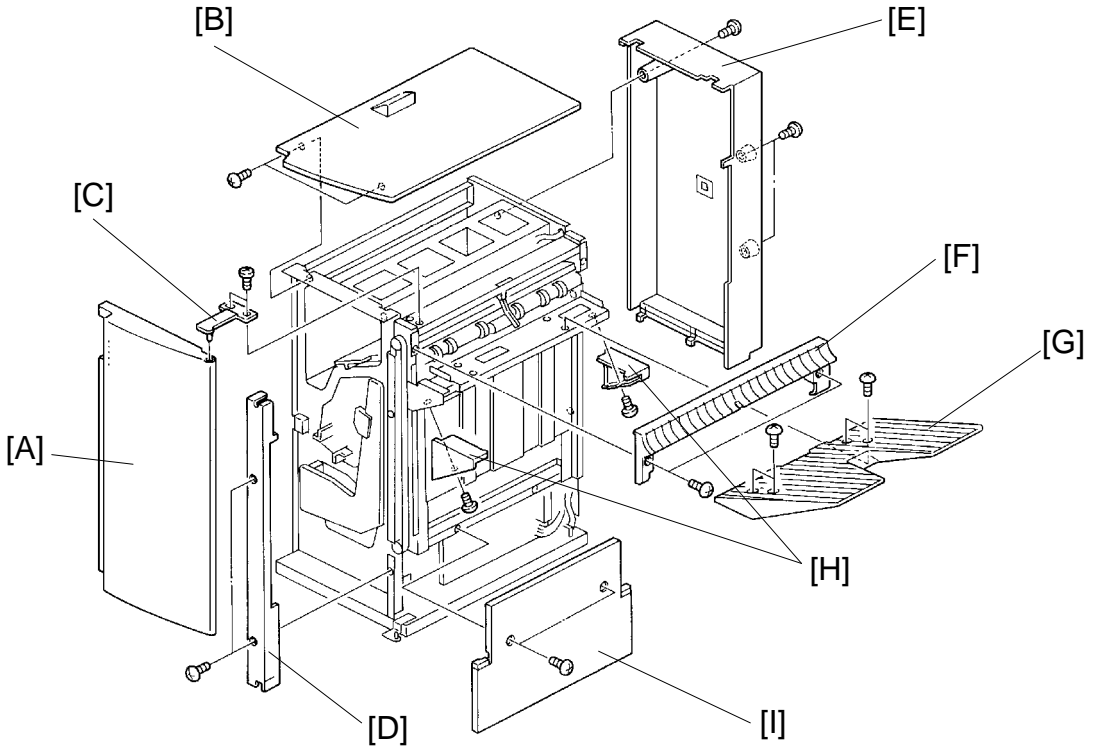
Lubricant: Grease G-501



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## 5. REPLACEMENT AND ADJUSTMENT

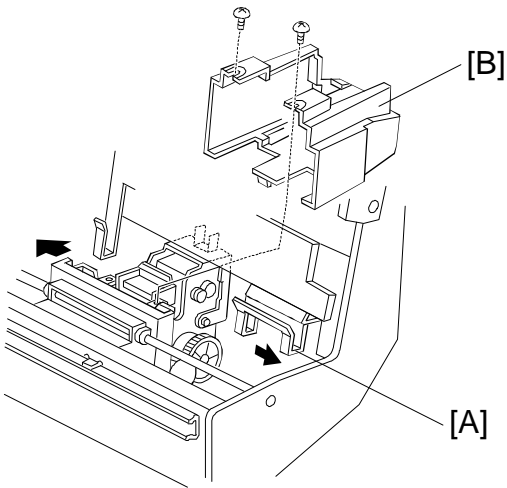
### 5.1 EXTERIOR REMOVAL



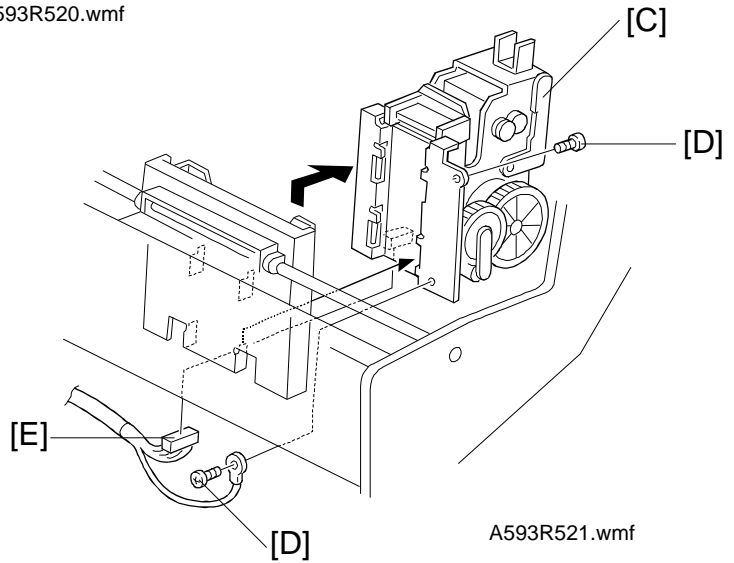
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1. Open the front door [A] and remove the upper cover [B] (2 screws).
2. Remove the upper door bracket [C] (2 screws) and remove the front door [A].
3. Remove the front shift cover [D] (2 screws).
4. Remove the rear cover [E] (3 screws).
5. Remove the right upper cover [F] (2 screws).
6. Remove the shift tray [G] (4 screws).
7. Remove the front and rear tray cover [H] (1 screw each).
8. Remove the right cover [I] (2 screws).

## 5.2 STAPLE UNIT REMOVAL



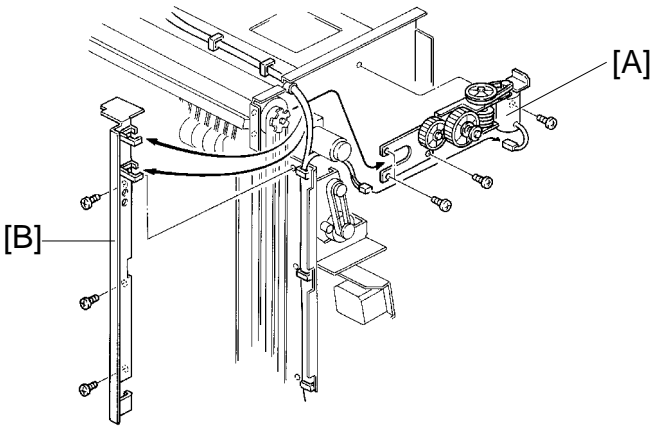
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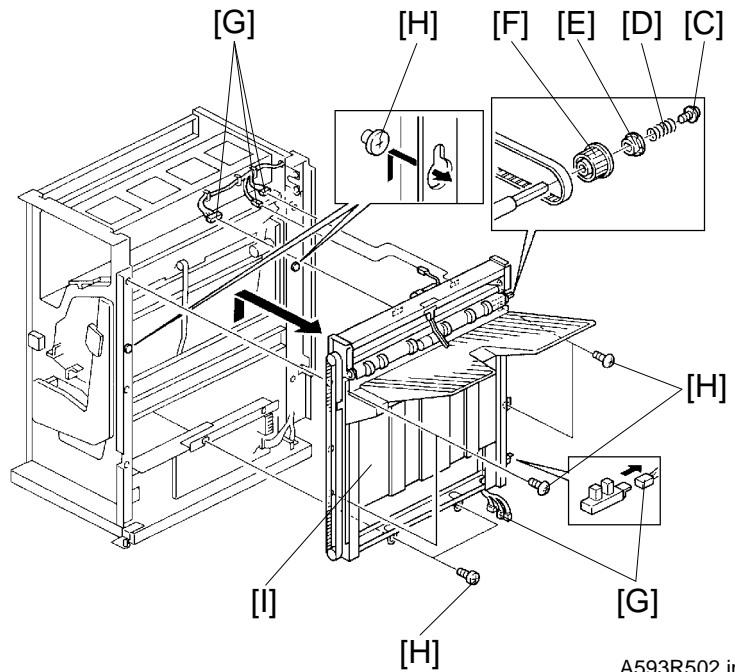
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1. While holding the stack stopper [A] at the front side, remove the staple unit cover [B] (2 screws).
2. While holding the stack stopper at the front side, remove the staple unit [C] (2 screws [D] and 1 connector [E]).

### 5.3 SHIFT TRAY UNIT REMOVAL



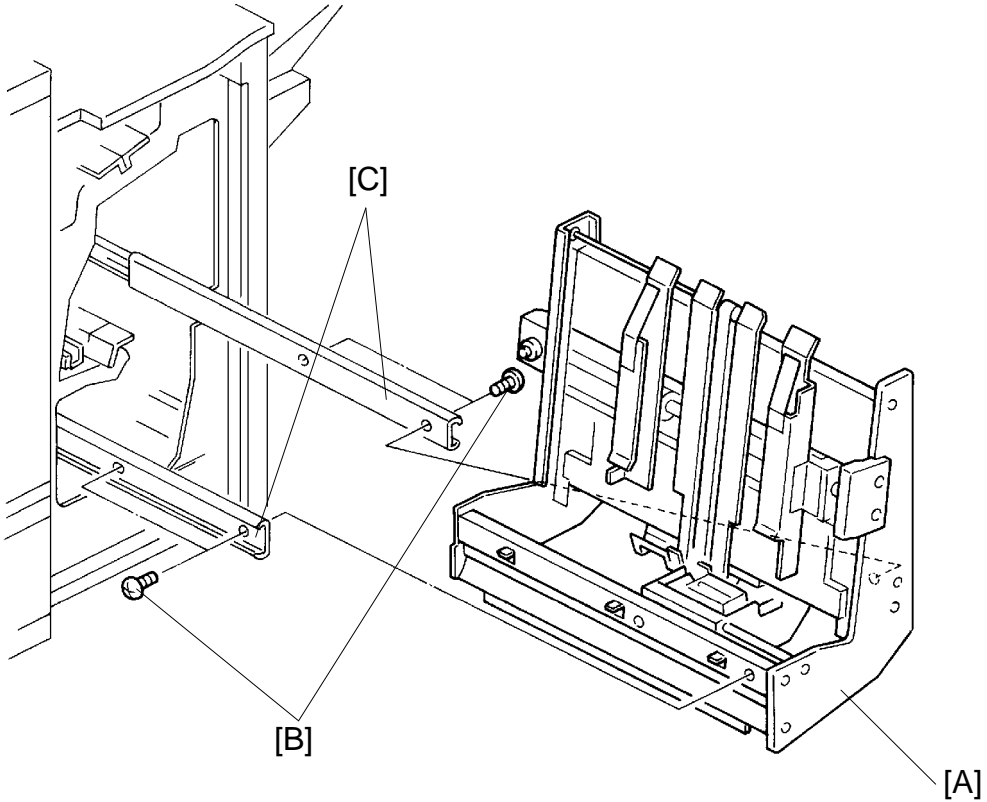
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A593R502.img

1. Remove the front door, upper cover, front shift cover, rear cover, right upper cover, and the right cover.
2. Remove the shift tray lift motor assembly [A] (4 screws).
3. Remove the harness holder plate [B] (3 screws).
4. Remove the screw [C] spring [D], bushing [E] and pulley [F].
5. Disconnect the 7 connectors [G].
6. Remove the 6 screws [H].
7. Lift the shift tray unit [I] off from the hooks [J] and remove.

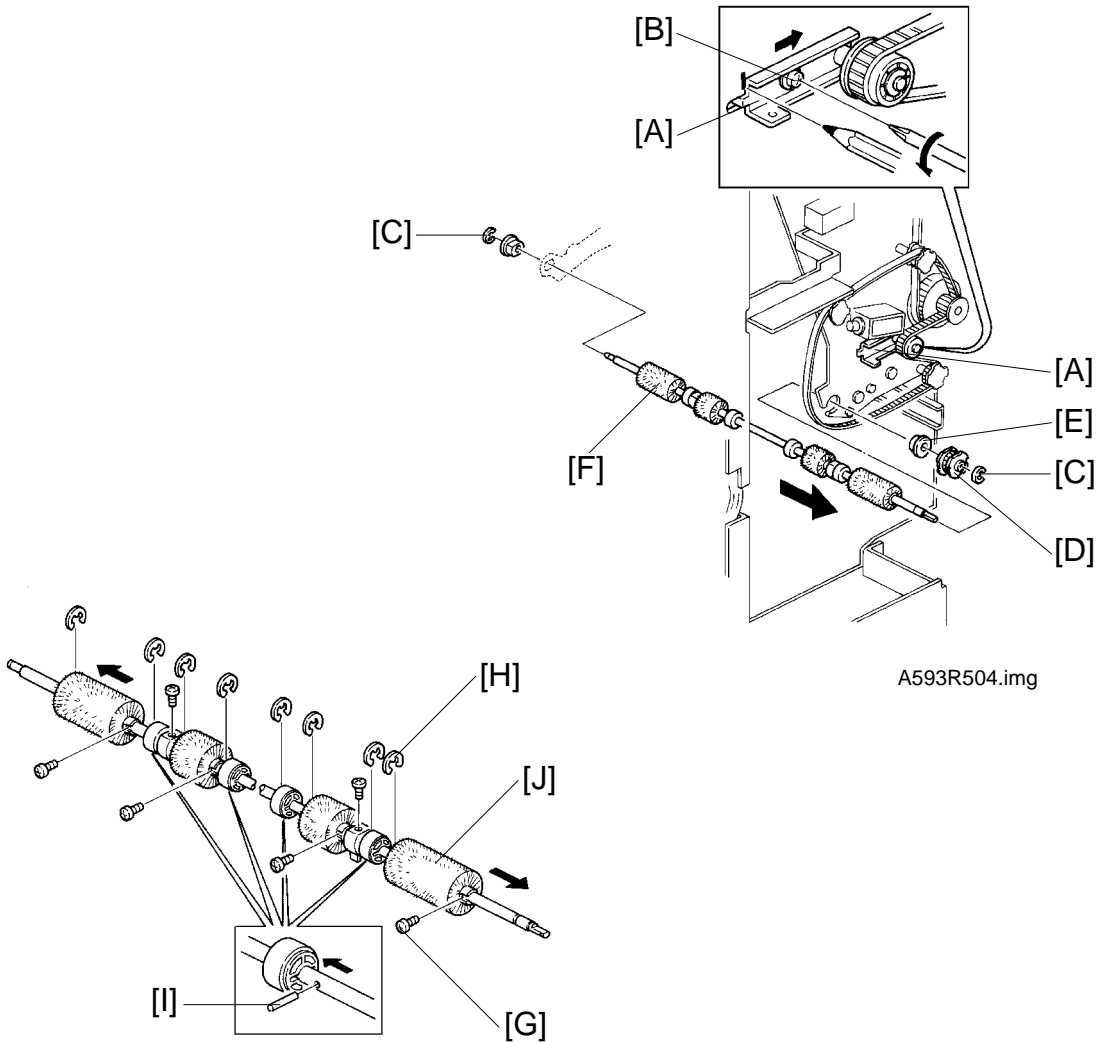
## 5.4 JOGGER UNIT REMOVAL



A593R503.img

1. Open the front door.
2. Slide out the jogger unit [A].
3. Remove the four screws [B] fixing the unit to the slide rails [C].
4. Lift the jogger unit off from the slide rails.

## 5.5 ALIGNMENT BRUSH ROLLER REPLACEMENT



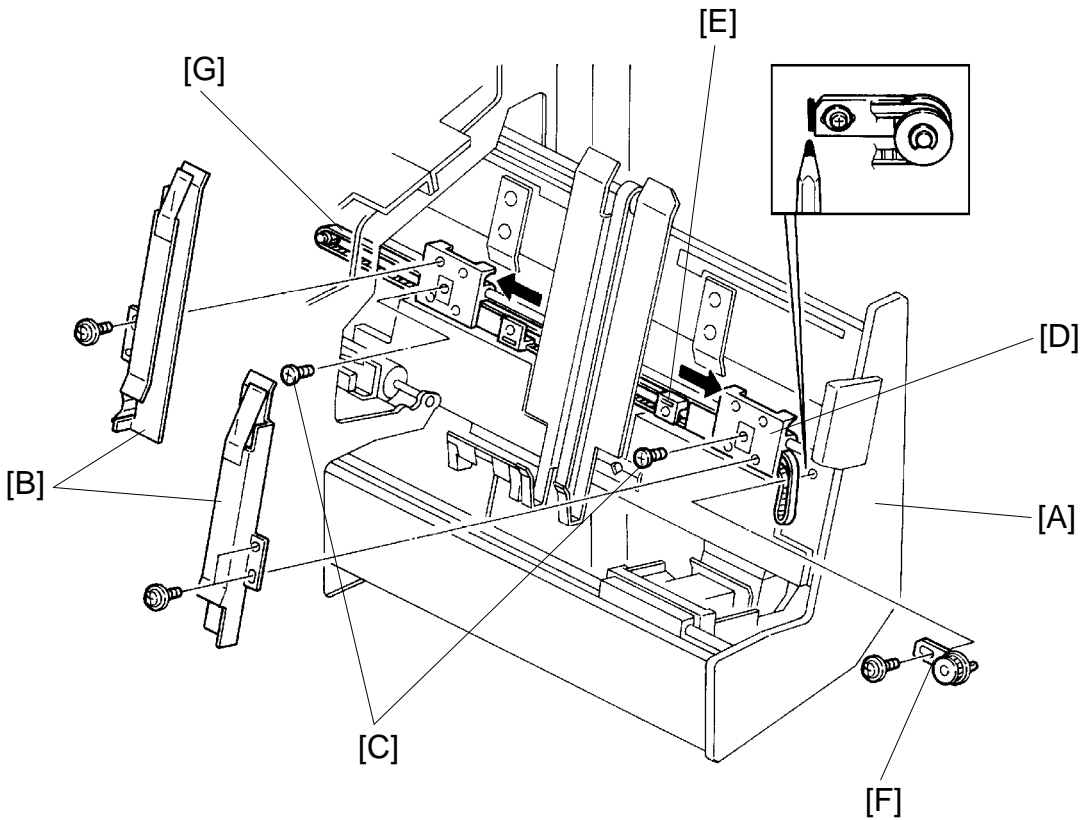
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1. Remove the rear cover.
2. Mark the position of the tension bracket [A] and loosen the screw [B].
3. Remove the 2 E-rings [C], slide out the pulley [D] and bushing [E], and remove the alignment brush roller assembly [F].
4. Remove the screws [G], E-rings [H], pins [I], and remove the brush rollers [J].

**NOTE:** 1. When reassembling, put the bracket [A] back to the marked position.  
2. Do not lose the pins [I].

## 5.6 JOGGER DRIVE BELT REPLACEMENT

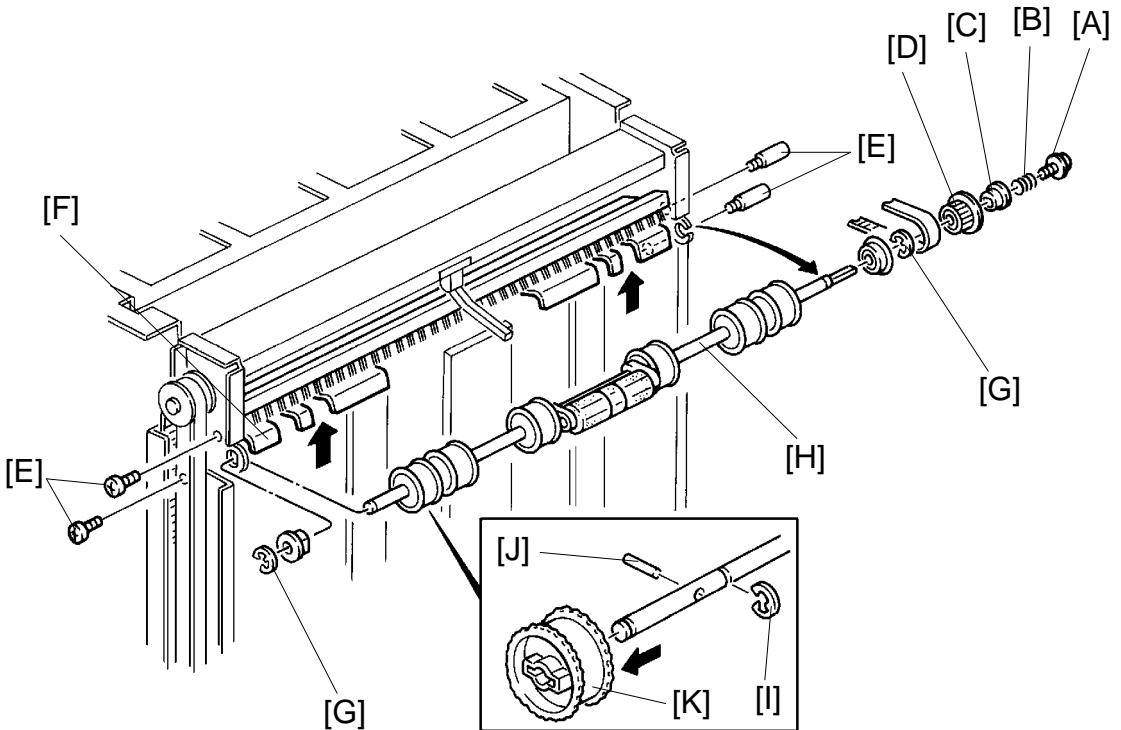


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1. Open the front door and slide out the staple unit [A].
2. Remove the front and rear jogger fences [B] (2 screws each).
3. Remove the 2 screws [C] fixing the jogger fence sliders [D] to the belt clammers [E].
4. Mark the position of the tension bracket [F] and remove it (1 screw).
5. Remove the jogger drive belt [G] with the belt clammers [C].

**NOTE:** When reassembling, put the bracket [F] back to the marked position.

## 5.7 EXIT ROLLER REPLACEMENT



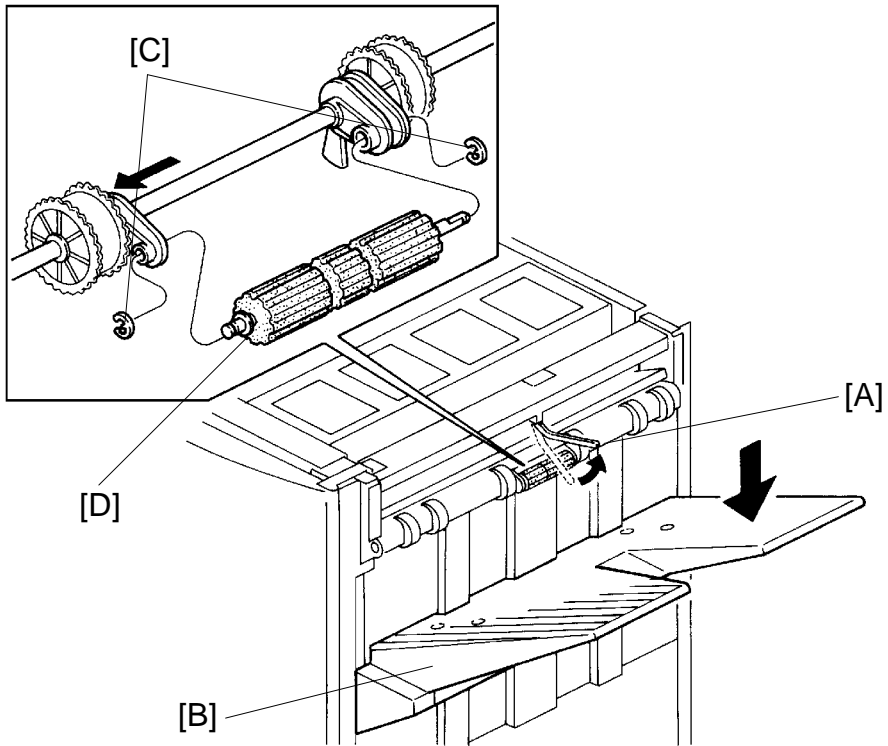
A593R507.img

1. Remove the upper cover, front door, front shift cover, rear cover, and right upper cover.
2. Remove the screw [A], spring [B], bushing [C], and pulley [D].
3. Remove the 4 screws [E] fixing the lower exit guide plate [F].
4. Remove the 2 E-rings [G] and remove the exit roller assembly [H].
5. Remove the E-rings [I], pins [J] and replace the exit rollers [K].

**NOTE:** Do not lose the pins [J].



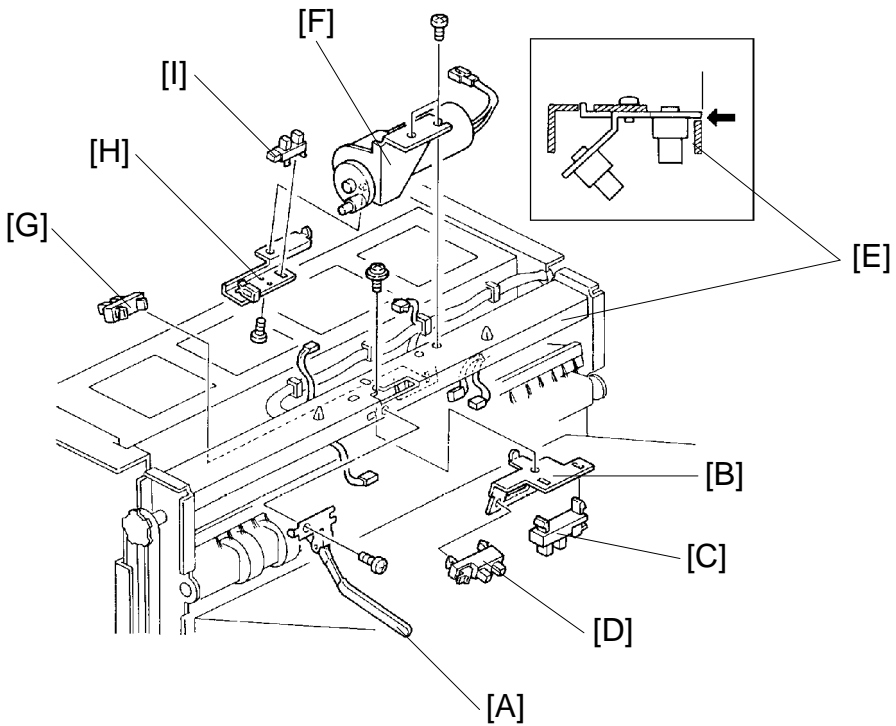
## 5.8 SHIFT TRAY POSITIONING ROLLER REPLACEMENT



A593R508.img

1. Raise the stack height sensor actuator [A] and hold it until the shift tray automatically lowers.
2. Turn off the main switch before the shift tray returns to its home position.  
**NOTE:** If the machine is in a condition that does not allow the shift tray to be lowered electrically, then remove the shift tray [B].
3. Remove the 2 E-rings [C] and replace the reverse roller [D].

## 5.9 SENSOR REPLACEMENT



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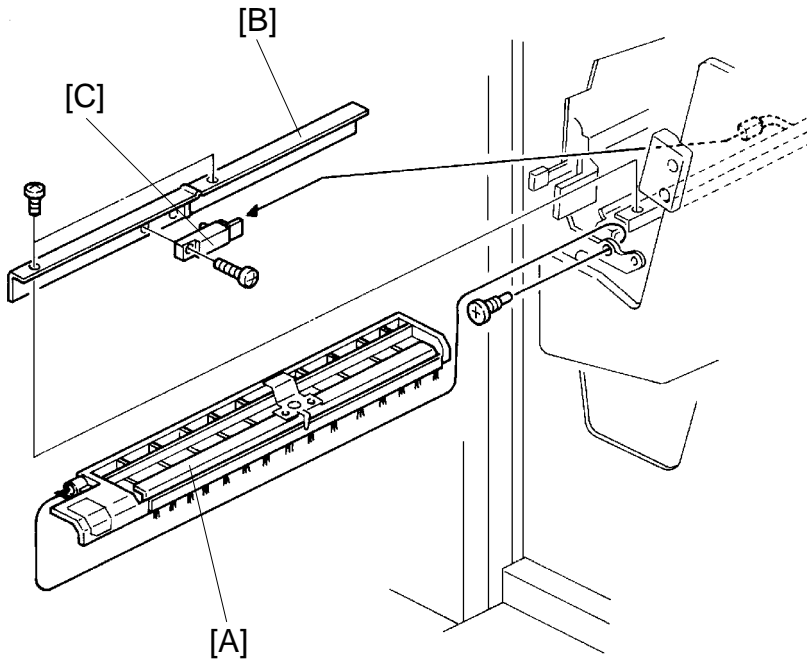
### Stack Height Sensors

1. Remove the upper cover.
2. Remove the stack height sensor actuator [A] (1 screw).
3. Remove the bracket [B] (1 screw).
4. Replace the stack height sensor 1 [C] and the stack height sensor 2 [D].

**NOTE:** When reinstalling the bracket [B], align the edge of the bracket with the stay [E].

### Exit Unit Home Position Sensor/Exit Unit Half Turn Sensor

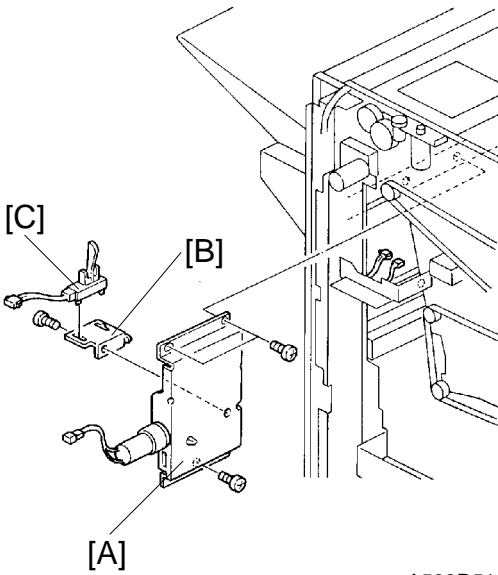
1. Remove the upper cover.
2. Remove the exit unit lift motor [F] (2 screws).
3. Replace the exit unit half turn sensor [G].
4. Remove the bracket [H] (1 screw) and replace the exit unit home position sensor [I].



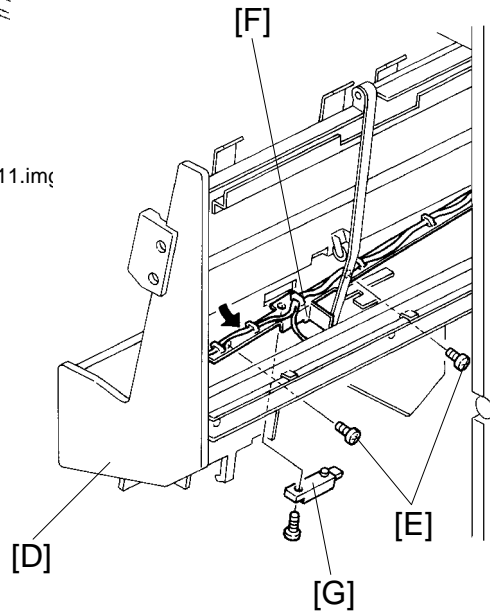
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### Jogger Unit Entrance Sensor

1. Remove the jogger entrance guide [A] (1 screw).
2. Remove the sensor bracket [B] (2 screws).
3. Replace the jogger unit entrance sensor [C] (1 screw).



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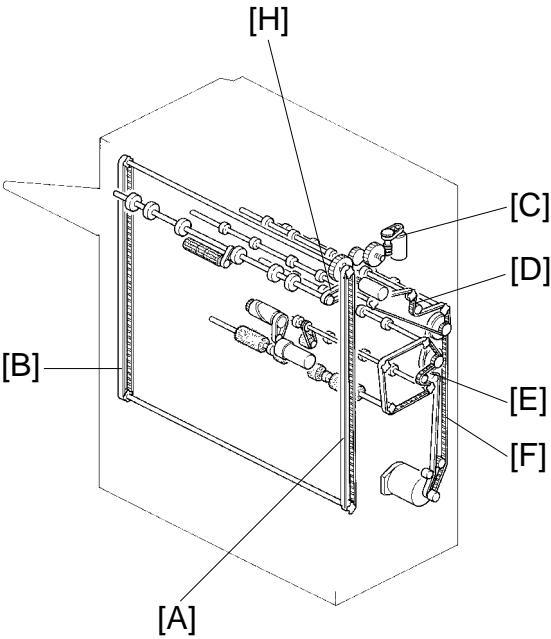
### Shift Tray Half Turn Sensor

1. Remove the rear cover.
2. Remove the shift motor bracket [A] (3 screws).
3. Remove the sensor bracket [B] (1 screw) and replace the shift tray half turn sensor [C].

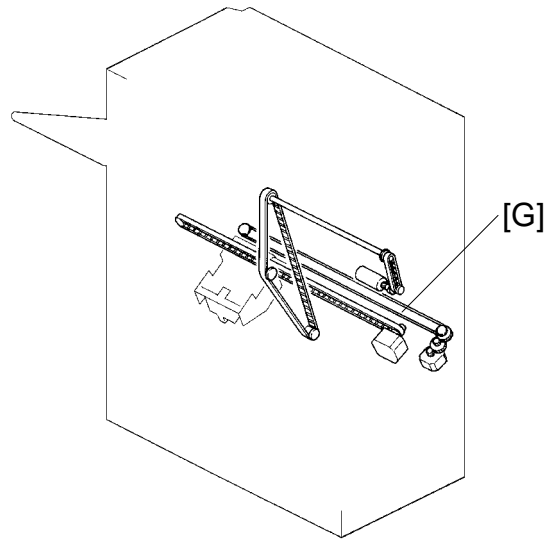
### Jogger Unit Paper Sensor

1. Open the front cover and slide out the staple unit [D].
2. Remove the 2 screws [E] fixing the bracket [F].
3. Slightly pull out the bracket in the direction shown and remove the jogger unit paper sensor [G] (1 screw).

## 5.10 BELT TENSION ADJUSTMENT



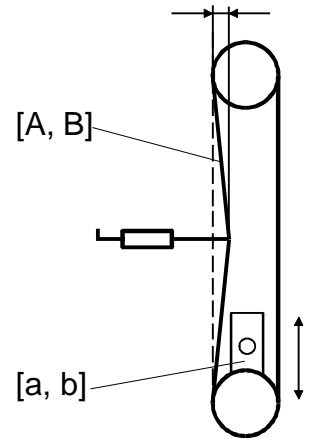
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A593R514.img

1. Remove the rear cover and adjust the belt [A] tension with tightener [a]. Remove the upper cover, the front door, and the front shift cover. Adjust the belt [B] with tightener [b].

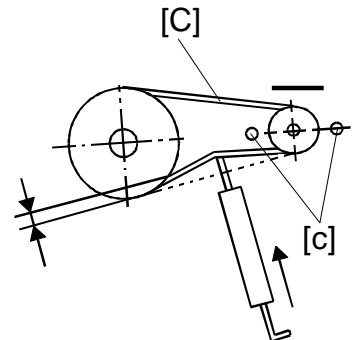
Standard: 6 mm deflection at  $50 \pm 20$  g pressure.



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2. Remove the upper cover and the rear cover. Loosen the two screws [c] and adjust the belt [C] tension by changing the motor position.

Standard: 2 mm deflection at  $40 \pm 20$  g pressure.



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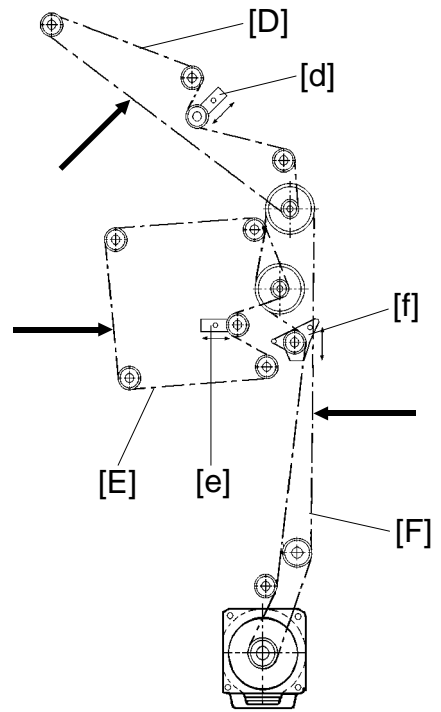
3. Remove the rear cover and adjust the belt [D] [E] [F] tension with tightener [d] [e] [f].

<Standard>

[D]: 6 mm deflection at  $60 \pm 20$  g pressure

[E]: 6 mm deflection at  $170 \pm 30$  g pressure

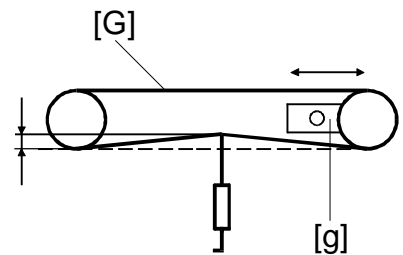
[F]: 6 mm deflection at  $60 \pm 20$  g pressure



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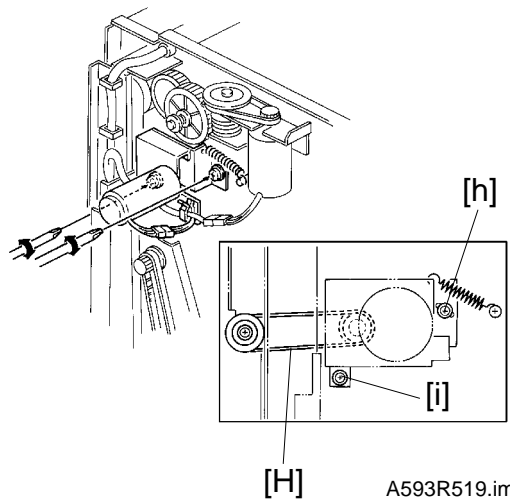
4. Open the front door and slide onto the jogger unit. Adjust the belt [G] tension with tightener [g].

Standard: 10 mm deflection at  $65 \pm 20$  g pressure



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5. Remove the rear cover. Loosen the 2 screws [h] and [i]. Retighten the screw [h] and then retighten [i]. The belt [H] tension is automatically adjusted due to spring tension.



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