BOOKLET FINISHER
(Machine Code: A763)

1. OVERALL MACHINE INFORMATION

1.1 SPECIFICATIONS

Paper Size:

Tray	Modes		Sizes
Proof tray			A3 to A5, DLT to HLT
Shift tray	No staple mode		A3 to A5, DLT to HLT
	Staple Mode	Top or bottom	A3 to B5 lengthwise, DLT to HLT
		2 staple	A3, A4 sideways, B5 sideways, DLT to HLT sideways
Booklet tray			A3 to B5, DLT to LT

Paper Weight:

Tray	Weight
Stack mode	52 g/m^2 to 163 g/m^2, 14 to 42 lb
Staple mode	64 g/m^2 to 80 g/m^2, 17 to 21 lb
Saddle stitch mode	64 g/m^2 to 80 g/m^2, 17 to 21 lb 64 g/m^2 to 128 g/m^2, 17 to 34 lb (Cover sheet only)

Paper Capacity (80 g/m^2, 20 lb):

Tray	Modes	Paper size	Capacity
Proof tray		A4-S, LT-S or shorter	150 sheets
		A4-L, LT-L or longer	75 sheets
Shift tray	No staple	A4-S, LT-S or shorter	1000 sheets
		A4-L, LT-L or longer	500 sheet
	Staple	A4-S, LT-S or shorter	750 sheets
		A4-L, LT-L or longer	500 sheets
Staple tray	One size Mixed sizes	1-5 sheets	25 sets
		6-10 sheets	15 sets
		11-15 sheets	10 sets

(-L": Lengthwise ,-S: Sideways)

Staple Capacity (80 g/m^2, 20 lb):

Modes	Paper size	Total capacity
Staple	A4-S, LT-S or shorter	2-50 sheets
	A4-L, LT-L or longer	2-30 sheets
Saddle stitch		2-15 sheets

(-L": Lengthwise, -S: Sideways)

Staple Position:	Staple mode: 3 positions 1 staple: 2 positions (Front, Rear) 2 staples: 1 position Saddle stitch mode: 1 position
Staple Replenishment:	Cartridge Staple: 5000 staples Saddle stitch: 2000 staples
Power Source:	24Vdc (from copier)
Power Consumption:	60 W
Dimensions (W x D x H):	800 x 728 x 980 mm, 31.5 x 28.7 x 38.6 inches
Weight:	45 kg

1.2 ELECTRICAL COMPONENT DESCRIPTION

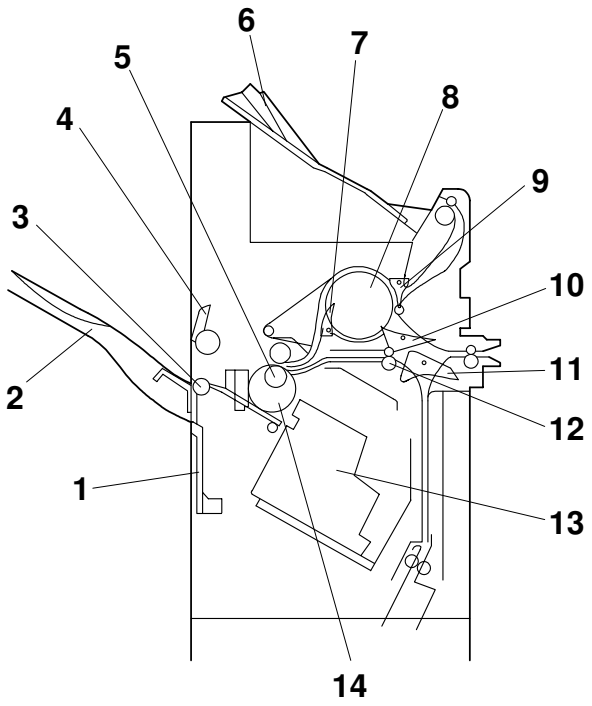
Symbol	Name	Function	Index No.
Motors			
M1	Entrance	Drives the entrance roller.	49
M2	Transport Roller	Drives the 1st and 2nd transport rollers.	47
M3	Buffer Roller	Drives the buffer roller and the proof tray exit roller.	48
M4	Jogger	Moves the jogger fence.	44
M5	Stapler	Moves the stapler unit.	52
M6	Staple Hammer	Drives the staple hammer in the stapler unit.	51
M7	Guide Plate	Moves the upper exit guide plate up and down.	46
M8	Exit Motor	Drives the exit roller.	45
M9	Tray Lift	Moves the shift tray up and down.	50
M10	Booklet Transport	Drives the relay roller and the positioning roller.	56
M11	Positioning Plate	Moves the positioning plate up and down.	54
M12	Shutter Guide	Moves the shutter guide up and down.	55
M13	Booklet Jogger	Drives the jogger fences.	57
M14	Front Stapler	Drives the staple hammer in the front stapler.	60
M15	Rear Stapler	Drives the staple hammer in the rear stapler.	53
M16	Folder Roller	Drives the folder rollers.	59
M17	Folder Plate	Moves the folder plate.	58
Sensors			
S1	Entrance	Detects copy paper entering the finisher and detects misfeeds.	3
S2	Buffer Roller Entrance	Detects copy paper entering the buffer roller or proof tray exit guide and detects misfeeds.	2
S3	Straight Path	Detects copy paper passig under the buffer roller and detects misfeeds.	21
S4	Staple Tray Paper	Detects copy paper in the stapler tray.	8
S5	Jogger HP	Detects the home position of the jogger rear fence.	19
S6	Stapler Unit HP	Detects the home position of the stapler unit.	16
S7	Staple Hammer HP	Detects the home position of the staple hammer.	14
S8	Staple Position	Detects when the stapler is in the stapling position.	14
S9	Upper Exit Guide	Detects the upper position of the upper exit guide.	4

Symbol	Name	Function	Index No.
S10	Exit Guide Motor	Generates pulses to check the exit guide motor.	7
S11	Exit	Checks for misfeeds at the shift tray.	18
S12	Exit Motor	Generates pulses to check the exit motor.	13
S13	Shift Tray Paper	Detects copy paper on the shift tray.	20
S14	Shift Tray height	Detects when the top of the copy paper stack in the shift tray is at the correct height.	1
S15	Shift Tray HP	Detects the home position of the shift tray.	12
S16	Lift Motor 1	Generates pulses to check the lift motor, to control lift motor position, and to detect the motion direction of shift tray.	11
S17	Lift Motor 2	Generates pulses to check the lift motor, to control lift motor position, and to detect the motion direction of shift tray.	10
S18	Proof Tray Exit	Checks for misfeeds at the proof tray.	6
S19	Proof Tray Limit	Detects when the paper stack height in the proof tray is at its upper limit.	5
S20	Finisher Set	Detects whether the finisher is installed into the copier or not.	20
S21	Shutter	Detects whether the shutter is closed or not.	15
S22	Trailing Edge 1	Detects the relay roller release timing.	24
S23	Trailing Edge 2	Detects the relay roller release timing.	23
S24	Trailing Edge 3	Detects the relay roller release timing.	22
S25	Booklet Entrance	Check for paper misfeeds.	32
S26	Positioning Plate Paper	Detects copy paper in the positioning plate.	34
S27	Positioning Plate HP	Detects the home position of the positioning plate.	35
S28	Positioning Roller	Detects whether the positioning roller is released or not.	31
S29	Booklet Jogger HP	Detects the home position of the jogger fences in the booklet unit.	39
S30	Front Staple End	Detects staples in the cartridge of the front stapler.	43
S31	Rear Staple End	Detects staples in the cartridge of the rear stapler.	25
S32	Stapler Unit Set	Detects whether the stapler unit is installed or not.	26
S33	Shutter Guide HP	Detects the home position of the shutter guide.	33
S34	Folder Plate HP	Detects the home position of the folder plate.	29

Symbol	Name	Function	Index No.
S35	Folder Plate Return	Detects the return position of the folder plate.	30
S36	Folder Plate Motor	Generates pulses to check the folder motor and its position.	36
S37	Folder Roller Position	Detects the position of the folder roller.	28
S38	Folder Roller HP	Detects the home position of the folder roller.	-
S39	Folder Roller Motor	Generates pulses to check the folder roller motor and its position.	39
S40	Booklet Exit	Checks for misfeeds at the booklet tray.	41
S41	Booklet Tray Paper	Detects copy paper in the booklet tray.	40
S42	Booklet Entrance Guide	Detects whether the booklet entrance guide is opened or not.	27
S43	Lower Door	Detects whether the lower door is opened or not.	42
S44	Booklet Exit Cover	Detects whether the booklet exit cover is opened or not.	38
S45	Upper Door	Detects whether the upper door is opened or not.	16
Switches			
SW1	Upper Cover Safety	Cuts the +24V for the motor.	77
SW2	Shift Tray Safety	Cuts the +24V for the motor.	82
SW3	Shutter Position	Cuts the +24V for the motor.	76
SW4	Upper Exit Guide 1	Cuts the +24V for the motor.	80
SW5	Upper Exit Guide 2	Cuts the +24V for the motor.	79
SW6	Shift Tray Upper Limit	Cuts the +24V for the lift motor.	81
SW7	Cartridge Set	Detects the staple cartridge in the stapler.	83
SW8	Staple End	Detects the staples in the cartridge.	83
SW9	Thermo	Detects the lift motor temperature.	78
SW10	Lower Door Safety	Cuts the +24V for the motor.	87
SW11	Booklet Entrance Guide Safety	Cuts the +24V for the motor.	84
SW12	Booklet Exit Safety	Cuts the +24V for the motor.	88
SW13	Front Staple Hammer HP	Detects the home position of the staple hammer in the front stapler unit	86
SW14	Rear Staple Hammer HP	Detects the home position of the staple hammer in the rear stapler unit	85

Symbol	Name	Function	Index No.
Solenoids			
SOL1	Booklet Gate	Drives the booklet gate.	72
SOL2	Buffer Roller Entrance Gate	Drives the buffer roller entrance gate.	71
SOL3	Proof Tray Gate	Drives the proof tray gate.	70
SOL4	Buffer Roller Exit Gate	Drives the buffer roller exit gate.	68
SOL5	Transport Belt	Moves the transport belt to the stopper.	69
SOL6	Paddle	Releases the paddle stopper.	97
SOL7	Front Guide Release	Releases the front guide plate.	66
SOL8	1st Booklet Unit Gate	Drives the 1st booklet unit gate.	73
SOL3	2nd Booklet Unit Gate	Drives the 2nd booklet unit gate.	74
SOL4	Relay Roller	Releases the relay roller.	75
PCBs			
PCB1	Finisher	Controls the upper unit.	61
PCB2	Lift Motor Sensor	Generates pulses to check the lift motor, to control lift motor position, and to detect the motion direction of the shift tray.	63
PCB3	Booklet Unit	Controls the booklet unit.	65
PCB4	Trailing Edge Sensor	Detects the relay roller release timing.	64
Others			
HR1	Stapler Interface	Interfaces the stapler and the finisher board.	62

1.3 MECHANICAL COMPONENT LAYOUT



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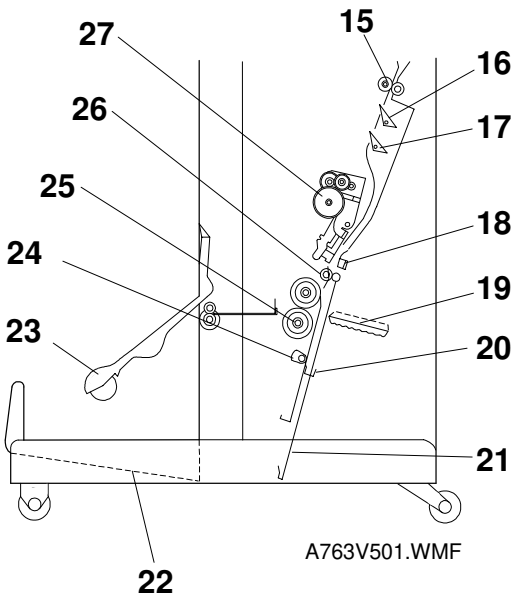

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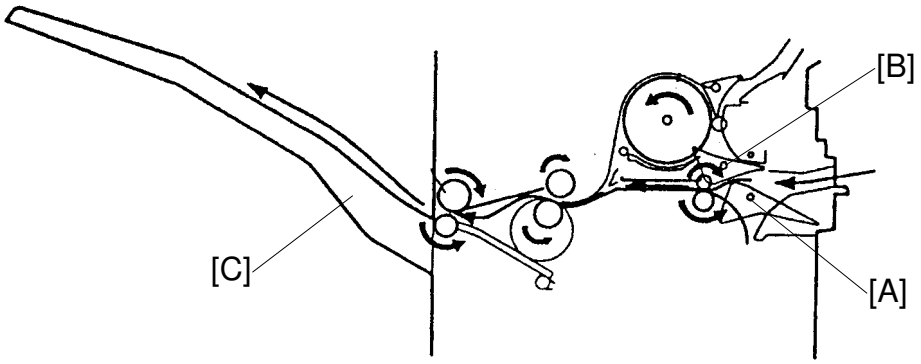
1. Shutter
2. Shift Tray
3. Lower Exit Roller
4. Upper Exit Guide
5. 2nd Transport Roller
6. Proof Tray
7. Buffer Roller Exit Gate
8. Buffer Roller
9. Proof Tray Gate
10. Buffer Roller Entrance Gate
11. Booklet Gate
12. 1st Transport Roller
13. Stapler Unit
14. Transport Belt
15. Booklet Unit Entrance Roller
16. 1st Booklet Unit Gate
17. 2nd Booklet Unit Gate
18. Anvil
19. Folder Plate
20. Positioning Plate
21. Shutter Guide
22. Booklet Tray
23. Exit Guide
24. Positioning Roller
25. Folder Roller
26. Relay Roller
27. Booklet Stapler Unit

2. DETAILED DESCRIPTIONS

2.1 JUNCTION GATE MECHANISM

2.1.1 SHIFT TRAY MODE

A4/LT sideways or shorter



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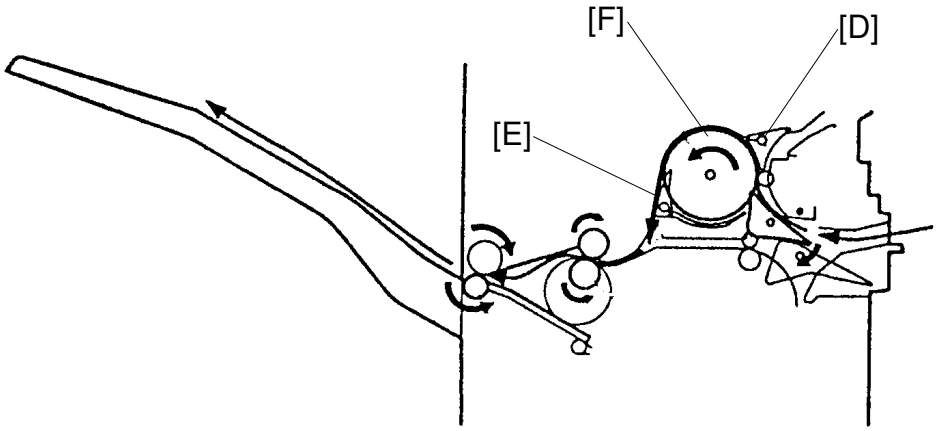
The booklet gate [A] and buffer roller entrance gate [B] are closed and the copy paper goes directly to the shift tray [C].

Longer than A4 sideways



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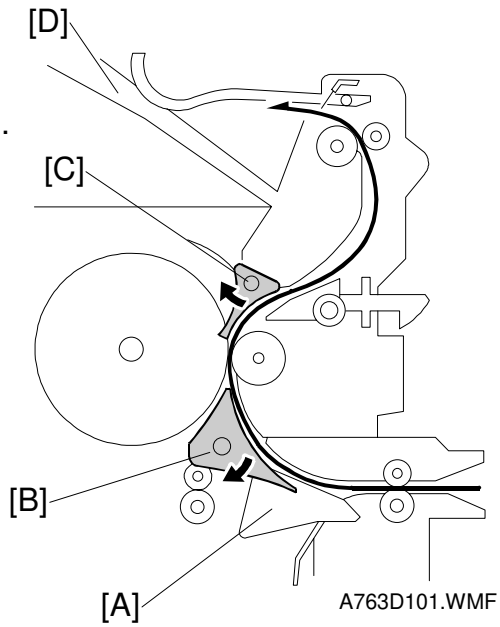
The booklet gate, proof tray gate [D], and buffer roller exit gate [E] are closed, and the buffer roller entrance gate is opened. The copy paper passes through the buffer roller [F]. This paper path creates a distance between copies.

2.1.2 PROOF TRAY MODE

The booklet gate [A] is closed. The buffer roller entrance gate [B] and proof tray gate [C] are closed. The copy paper goes to the proof tray [D].



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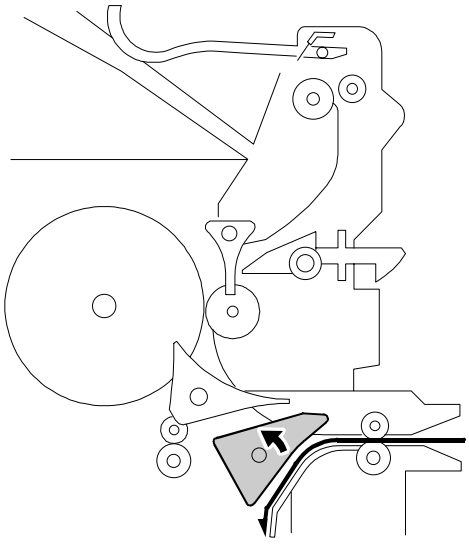
2.1.3 BOOKLET STITCH MODE

The booklet gate is opened and the copy paper goes to the booklet unit.



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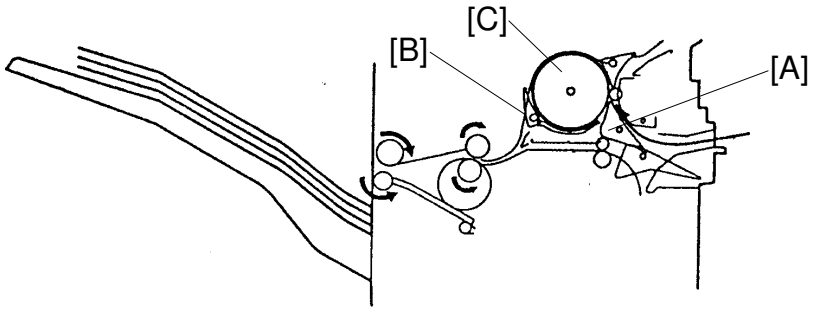
2.2 PRE-STACK MECHANISM

This mechanism improves productivity in staple mode and shift mode.

During stapling, the copier has to wait. This mechanism reduces the wait by holding the first two sheets of a job while the previous job is still being stapled. It only works during the second and subsequent sets of a multi-set copy job.



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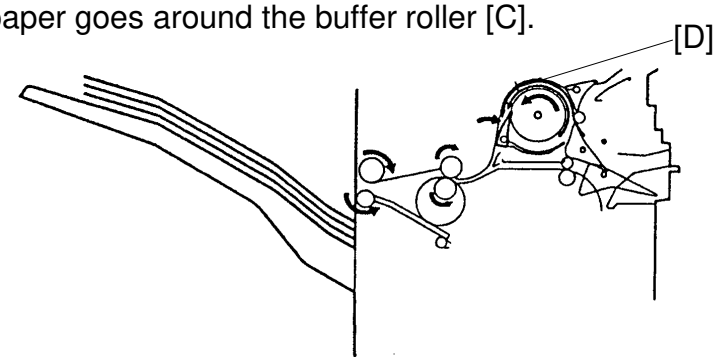
The buffer roller entrance gate [A] and buffer roller exit gate [B] are opened. Then, the 1st sheet of paper goes around the buffer roller [C].



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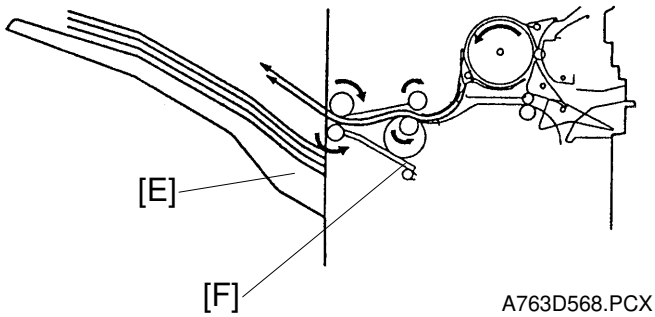
When the 2nd copy [D] comes to the buffer roller, the buffer roller exit gate is closed. The two sheets of paper go to the shift tray [E] or staple tray [F].



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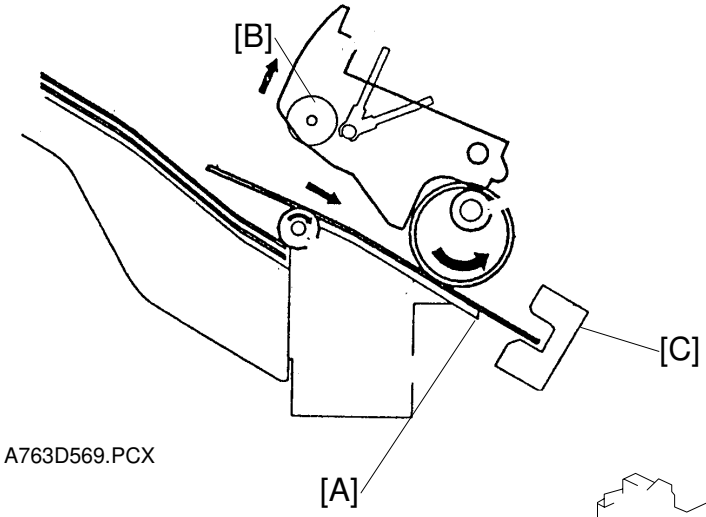
2.3 PAPER SHIFT MECHANISM



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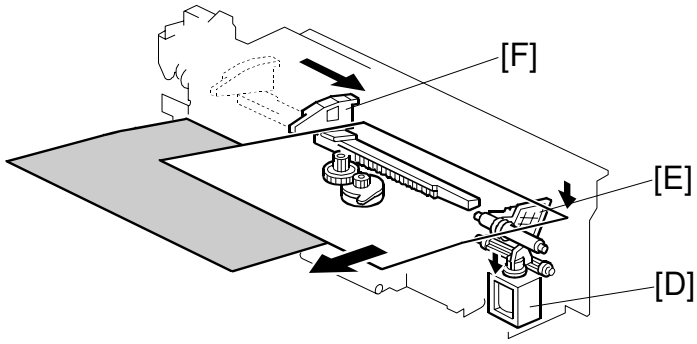

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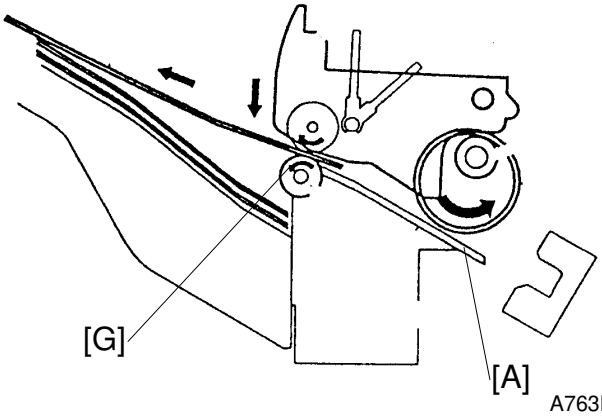

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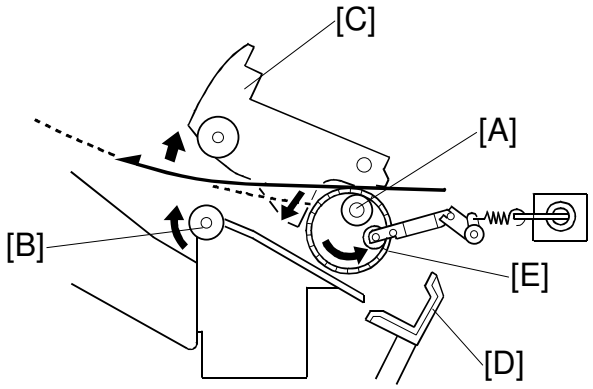
In sort and stack mode, only the 1st sheet of copy paper from the 2nd set is shifted to the front to separate each set of copies.

When the copy paper comes into the staple tray [A], the upper exit guide [B] (which contains the upper exit roller) opens. The paper switches back to the stopper [C]. Then the front guide release solenoid [D] turns on and the front guide [E] is released, the shift motor moves jogger fence [F] to the front, and the copy paper shifts to the front by 30 mm.

After copy paper has been shifted, the upper exit guide closes and the lower exit roller [G] turns in the opposite direction to feed out the copy paper.

2.4 PAPER POSITIONING MECHANISM



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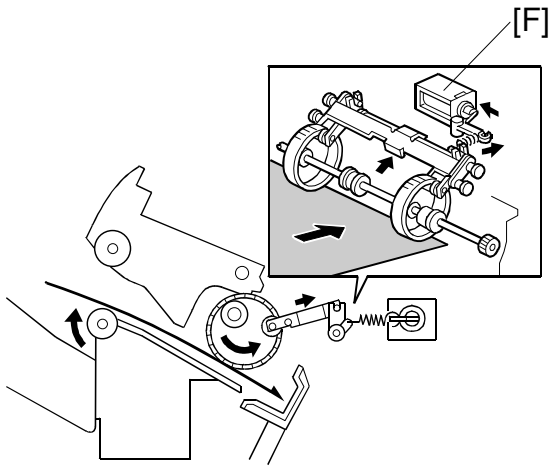

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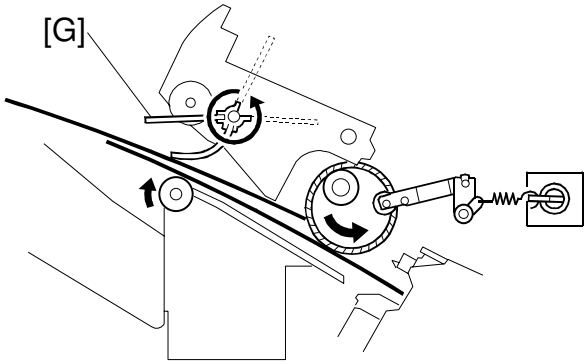

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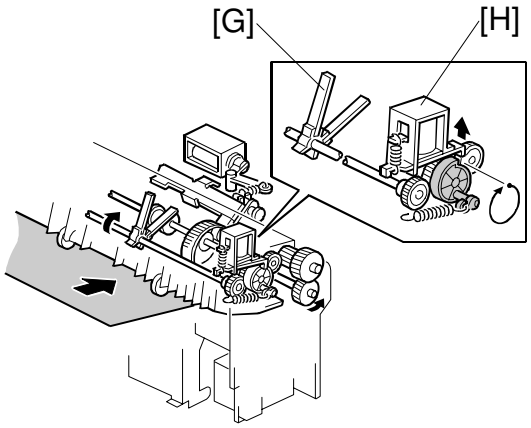

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When the trailing edge of the 1st copy paper passes the 2nd transport roller [A], the lower exit roller [B] stops and turns reverse. At the same time, the upper guide plate motor turns on and opens the upper exit guide [C]. The copy paper is sent to the stopper [D] by the lower exit roller and feed belt [E], and it is aligned the by jogger motor.

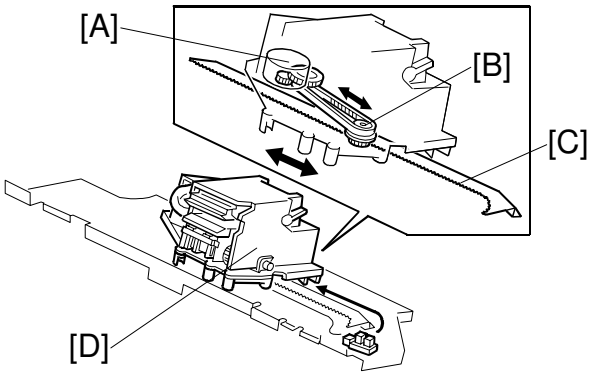
The feed belt solenoid [F] turns on to move the feed belt to the stopper. This function prevents excessive buckling of the paper between belt and stopper.

The paddles [G] send the paper to the stopper starting from the 2nd copy paper. When the trailing edge of the 2nd copy paper passes the 2nd transport roller, the paddle solenoid [H] turns on and the drive from the transport roller transmits to the paddle shaft.

2.5 STAPLER UNIT MOVEMENT MECHANISM

2.5.1 DRIVE

The stapler motor [A] drives the stapler unit drive gear [B] via a timing belt. The stapler unit guide has a rack gear [C]. The stapler unit moves along the rack gear via the stapler unit [D] drive gear.



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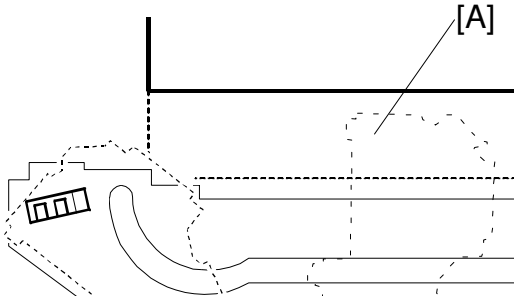
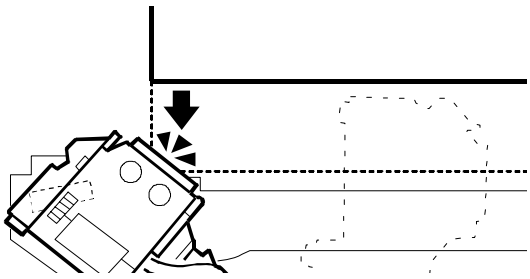
2.5.2 MOVEMENT

Front and Rear Stapling

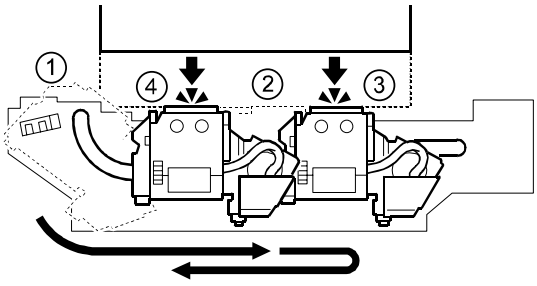
When the print key is pressed, the stapler unit moves to the center. The stapler unit moves to the front (or rear) stapling position when the copy paper comes into the finisher and stays until the copy job finishes. It returns to home position when the job is finished.





Tow-position Stapling

When the print key is pressed, the stapler unit moves to the center. The stapler unit moves to the rear stapling position first and moves to the front stapling position when stapling. Then it goes back to the center until the copy job finishes. It returns to home position when the job is finished.



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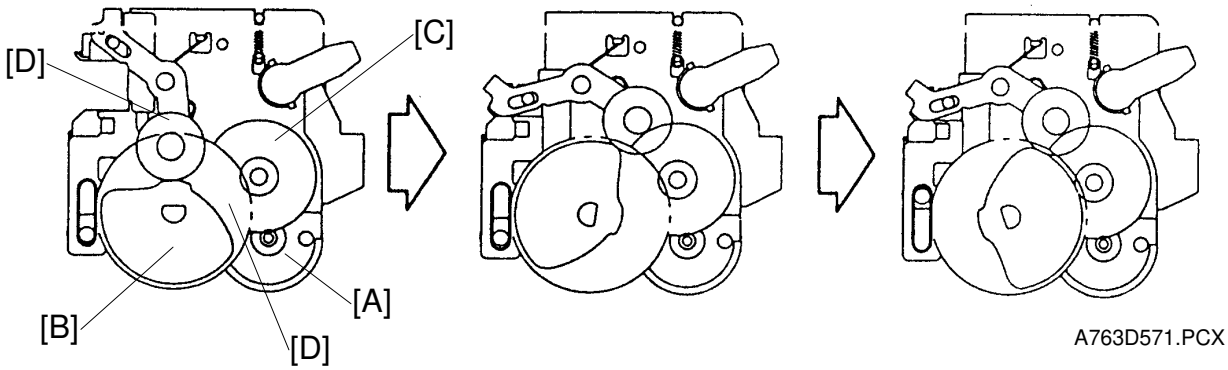
Options

2.6 STAPLER



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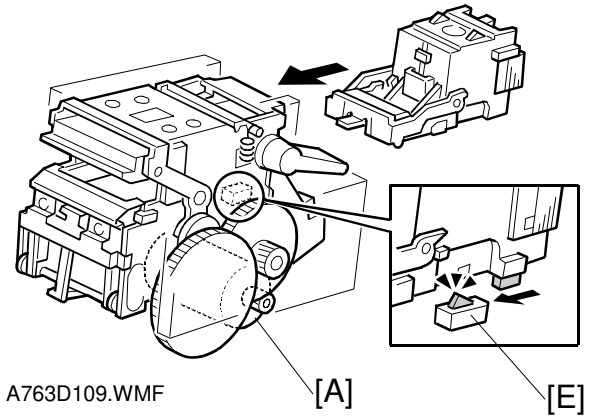

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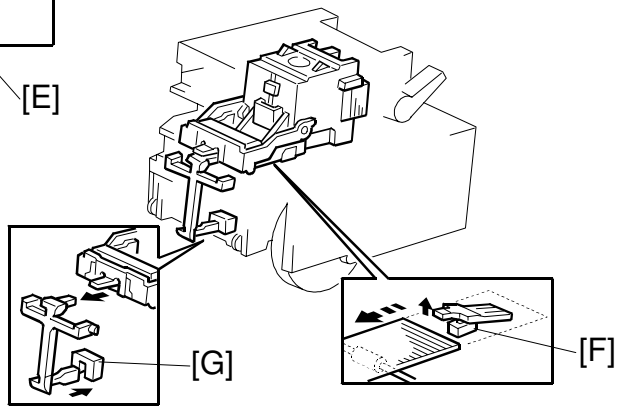

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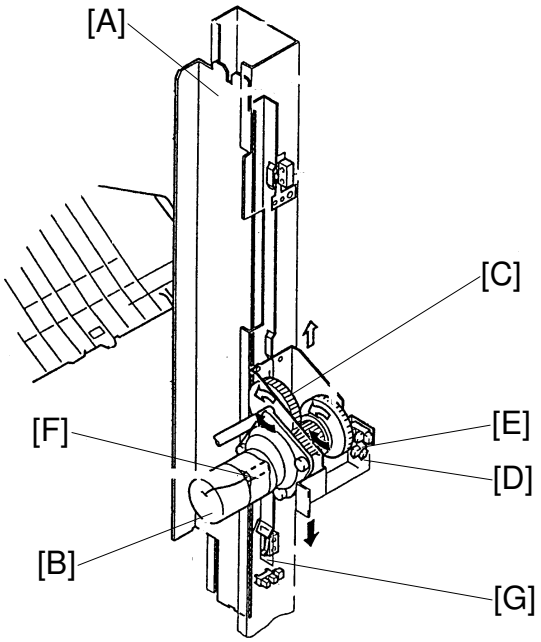
The staple hammer motor [A] drives the cam [B] via 2 gears [C, D] and the guide roller on the staple hammer moves on the cam [D] . When the guide roller moves to the highest position on the cam, the copy paper is stapled.

The stapler unit contains the cartridge set switch [E], staple end switch [F] and staple position sensor [G].

The staple position sensor detects whether the staple sheet has come to the staple unit or not.

2.7 SHIFT TRAY MECHANISM



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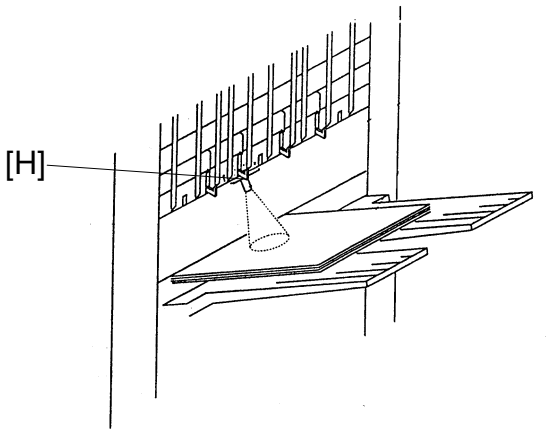

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The guide gear [A] on which the shift tray is mounted is driven by the lift motor [B] via gear [C].

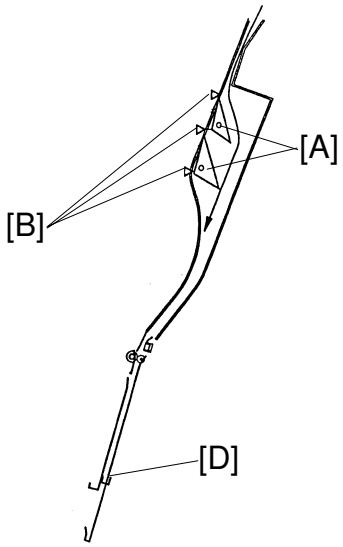
The finisher board detects the direction of the motor rotation and motor position using the lift motor sensors 1 [D] and 2 [E].

The lift motor contains a thermoswitch [F]. When it detects 73.5º C, the finisher board stops the lift motor until its temperature reaches approximately 40º C.

The shutter position switch [G] cuts the lift motor power for safety when the upper exit guide plate opens.

The shift tray height sensor [H] detects the distance between the sensor and the top of the copy paper on the shift tray.

2.8 BOOKLET UNIT GATE MECHANISM



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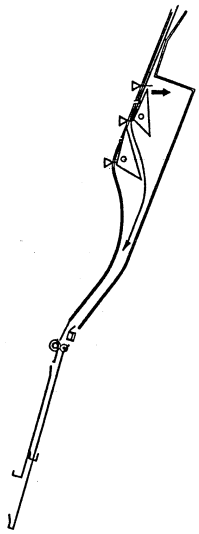

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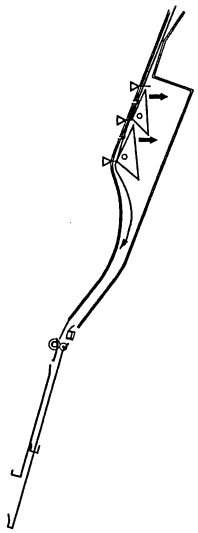

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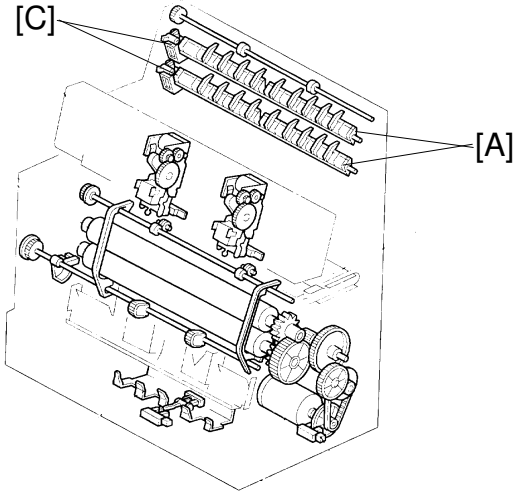


A763D563.PCX

There are two junction gates [A] and three paper sensors [B] at the entrance area of the booklet unit.

Depending on paper size, the appropriate gate solenoid(s) [C] are energized to close the gate(s) in order to transport paper to the positioning plate [D] through a suitable paper path.

This is done for the following reasons:

- To detect the trailing edge of paper with the correct sensor.
- To prevent the leading edge of the next sheet from hitting the trailing edge of the previous sheets on the positioning plate.

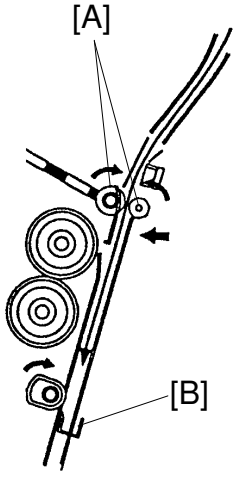
The following tables show the relation between paper sizes and solenoids/sensors:

	A3, 11" x 17"	**B4, 11" x 14"**	**A4, 8 1/2" x 11"**
1st Solenoid (Gate)	OFF (Opened)	ON (Closed)	ON (Closed)
2nd Solenoid (Gate)	OFF (Opened)	OFF (Opened)	ON (Closed)

	A3, 11" x 17"	**B4, 11" x 14"**	**A4, 8 1/2" x 11"**
Trailing Edge Sensor 1	ON	ON	ON
Trailing Edge Sensor 2	OFF	ON	ON
Trailing Edge Sensor 3	OFF	OFF	ON

2.9 RELAY ROLLER AND POSITIONING PLATE MECHANISM

When the first sheet of paper comes to the booklet unit, the booklet transport motor turns on to drive the relay roller [A]. The two relay rollers are out of contact with each other before the paper comes. When the leading edge of the paper passes trailing edge sensor 1, the relay roller solenoid is energized to make the two relay rollers contact each other to transport the paper to the positioning plate [B]. When the trailing edge of the paper comes to the trailing edge sensor that the paper passes last, the relay roller solenoid is de-energized. This solenoid on/off cycle is done for each sheet of paper.

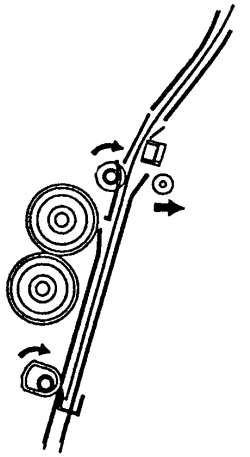


A763D573.PCX

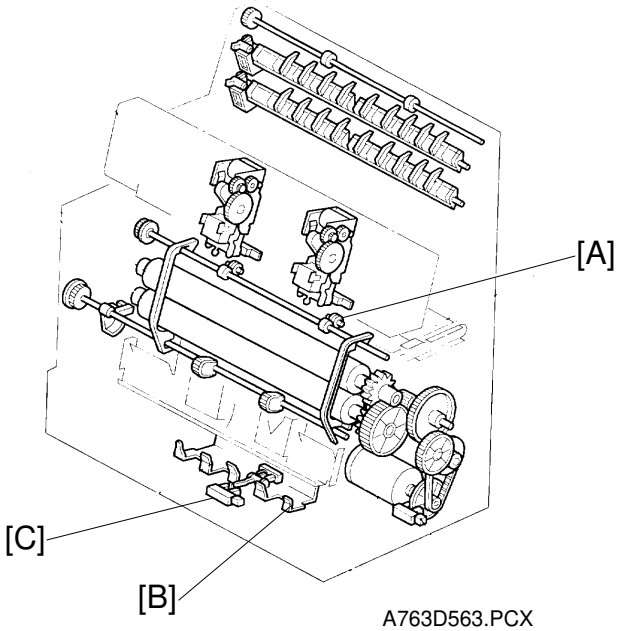
Before paper comes, the positioning plate moves up from the home position to a position that is suitable for the selected paper size in order that the middle of the paper just comes to the stapling position.

The positioning plate motor drives the positioning plate using pulse counts.

Only when the first sheet of paper reaches the positioning plate, the positioning plate sensor [C] detects the paper.

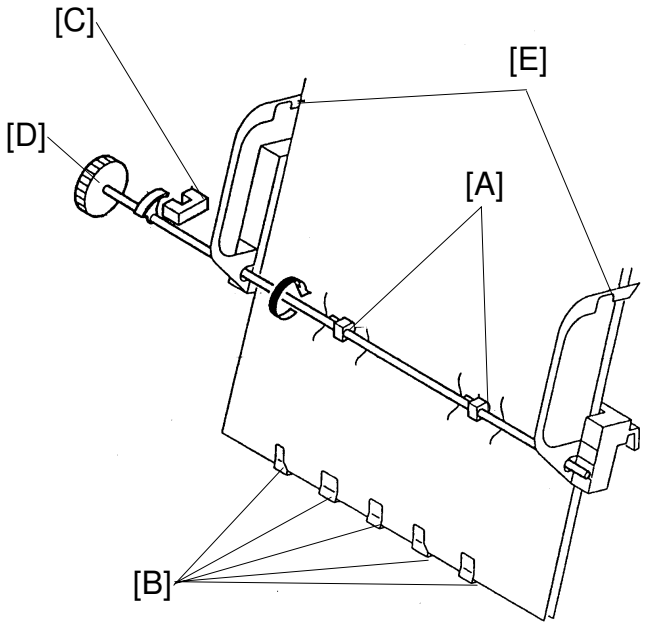


A763D574.PCX

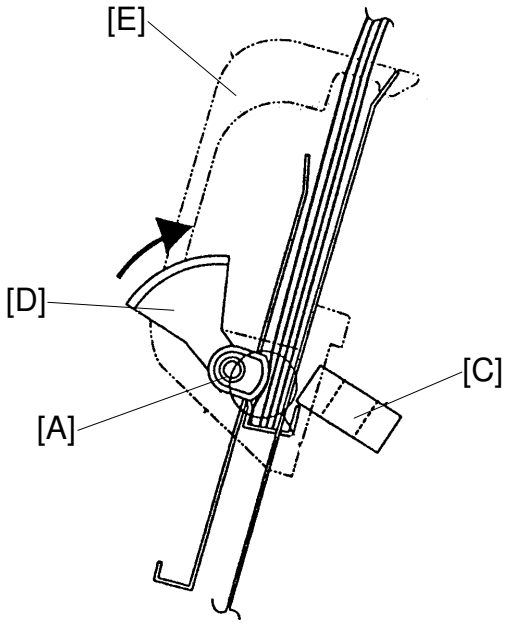


A763D563.PCX

2.10 POSITIONING ROLLER MECHANISM



A763D554.PCX



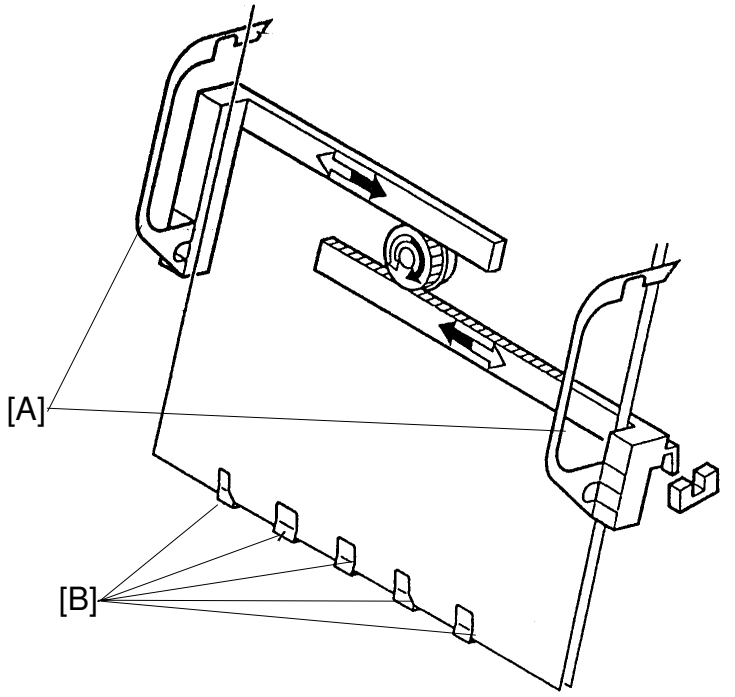
A763D555.PCX

The booklet transport motor also drives the positioning roller [A] to vertically align paper against the positioning plate [B].

The positioning roller is not round but elliptical in shape so that it moves away from the paper while the paper is being horizontally aligned.

The positioning roller sensor [C] detects the actuator [D] on the roller shaft to determine the rotation of the positioning roller. When the sensor is de-actuated, the roller is away from the paper and the jogger fences [E] start moving.

2.11 BOOKLET UNIT JOGGER MOVEMENT MECHANISM



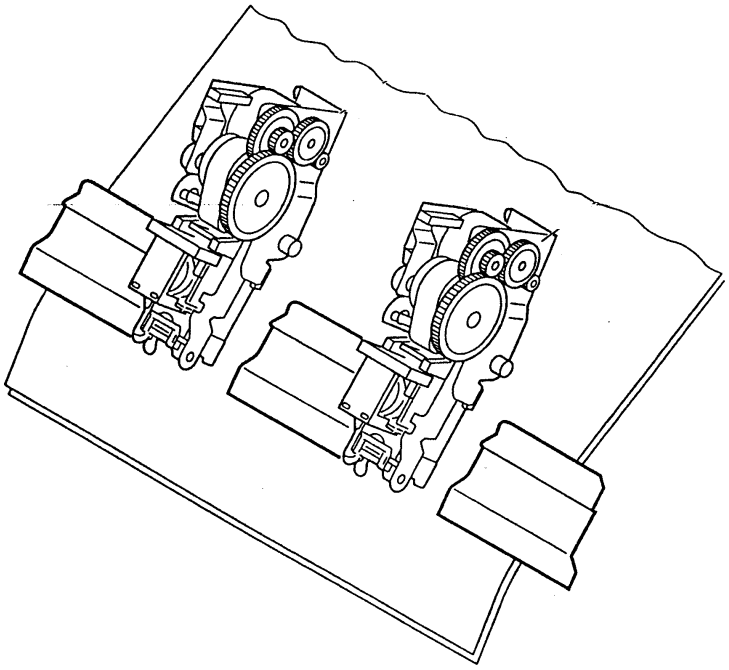
A763D557.PCX

When the start key is pressed, the booklet jogger motor turns on to move the jogger fences [A] to the waiting positions that are 10 mm from each of the paper side edges.

Each time a sheet of paper reaches the positioning plate [B], the jogger fences move toward the paper to align the paper once. The fences move back a short distance and move forward again the paper to align for the second time. Then, the fences go back to the waiting position.

When the last sheet is aligned, the fences stay at the aligning positions during stapling.

2.12 BOOKLET STAPLER UNIT



A763D575.PCX

There are two staplers whose positions are fixed.

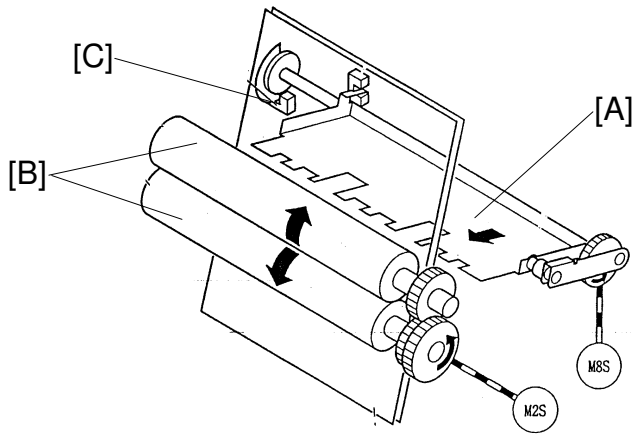
When the jogger fences finish aligning the last sheet, the jogger fences stay at the aligning positions and stapling starts. The two staplers do not operate at the same time, the rear stapler operates first, then the front one. This is for the following reasons:

- To prevent paper from becoming waved in the area between the two stapled positions.
- To minimize necessary electric power.

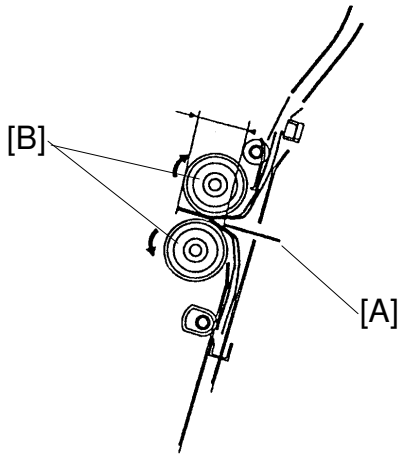
The staple hammer HP switch in each stapler detects a stapling cycle and the staple end sensor detects the presence of staples in the cartridge.

The stapler unit, including the two staplers, can be pulled out to enable staple cartridge replacement or jam removal. The stapler unit set sensor detects when the stapler unit is back in the right position.

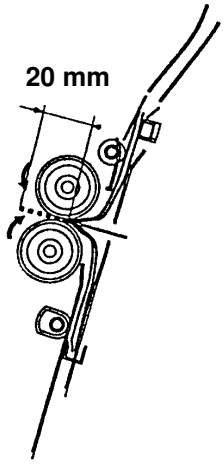
2.13 PAPER FOLDER MECHANISM



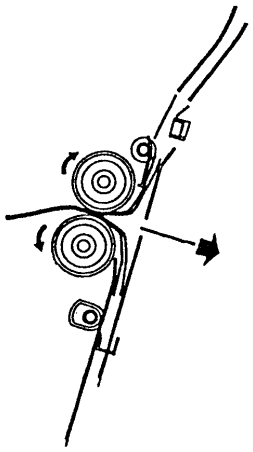
A763D559.PCX



A763D560.PCX



A763D561.PCX



A763D562.PCX

The positioning plate moves down from the stapling position to a position such that the middle of the paper just comes to the folding position. It depends on the paper size.

At the same time, the shutter guide motor moves the shutter guide, which is covering the folder rollers to prevent paper arriving at the positioning plate from being caught by the rollers, down to the home position.

Shortly after that, the folder plate motor and the folder roller motor start rotating. The folder plate [A] moves to push the middle of the stapled sheets of paper toward the folder rollers [B] until the folder plate return sensor [C] is de-actuated. Then, the folder plate comes back to the home position.

After that, the folder rollers and booklet exit roller feed the paper to the booklet tray.

In the case of 10 sheets or more of A4 or 8 1/2" x 11" paper, folding is done twice for 20 mm of the leading edge to fold the paper more firmly.

When the leading edge of the folded paper passes 20 mm from the folder rollers, the folder roller motor reverses to feed the paper back 20 mm. During this action, the folder plate stays at the return position. (Figure A763D561)

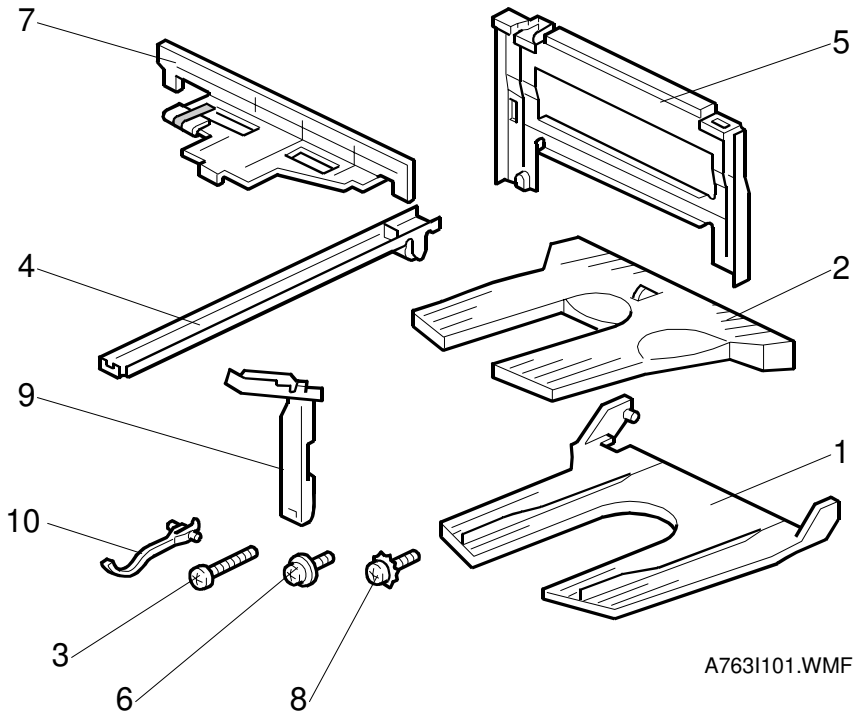
Then, the folder roller motor rotates forward again to feed the set of papers out and the folder plate goes back to the home position. (Figure A763D562)

3. INSTALLATION

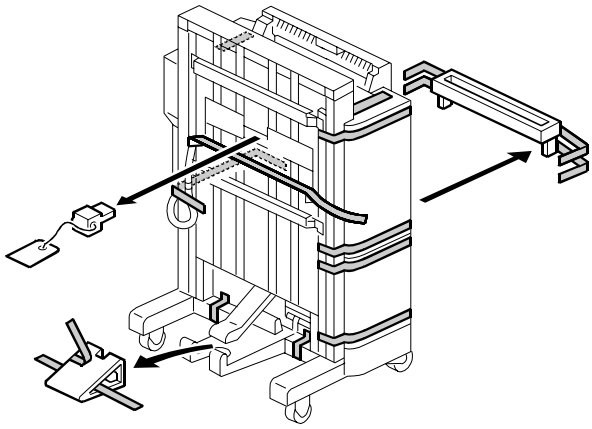
3.1 ACCESSORY CHECK

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

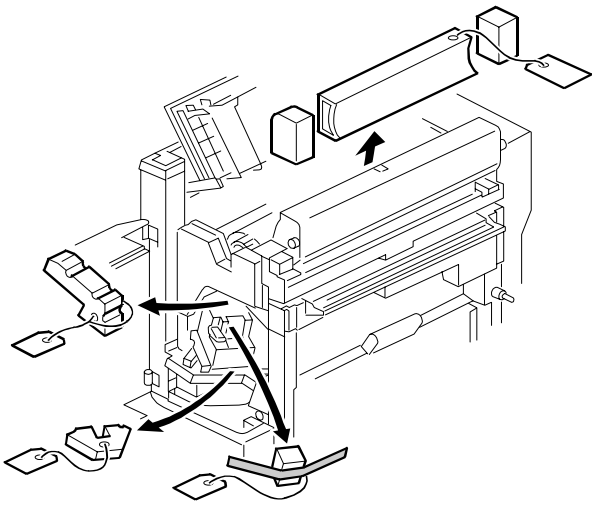
Description	Q'ty
1. Upper Tray	1
2. Shift Tray	1
3. Tapping Screw -M4 x 6	1
4. Rail Ass'y	1
5. Joint Bracket	1
6. Tapping Screw - M4 x 16	2
7. Rail Bracket	1
8. Tapping Screw - M4 x 6	1
9. Harness Cover	1
10. Sensor Feeder	1



3.2 INSTALLATION PROCEDURE



A763I102.WMF

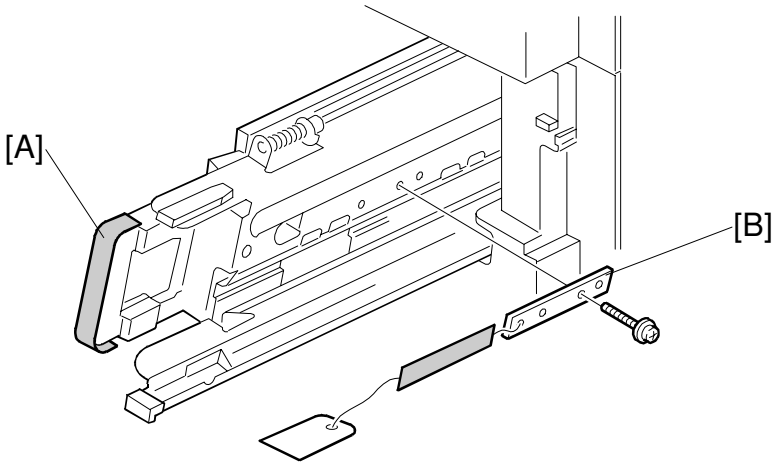


A763I104.WMF

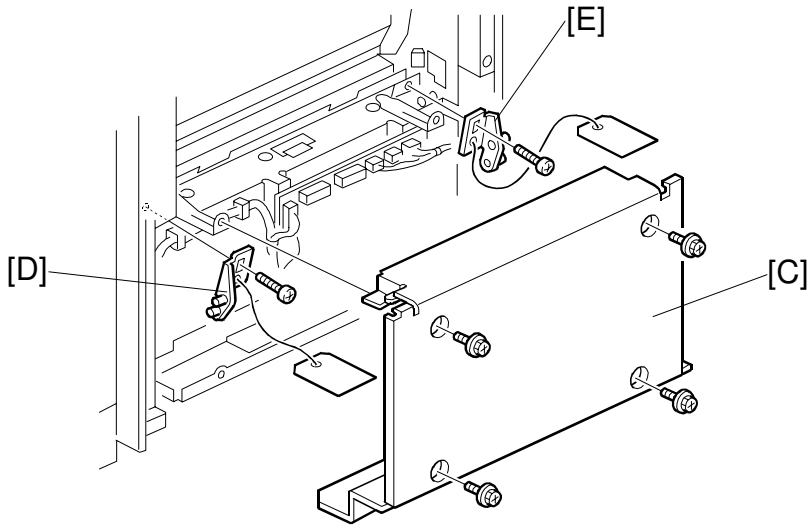
⚠CAUTION

Keep the power cord unplugged when starting the following procedure.

1. Unpack the finisher and remove the tapes and shipping retainers.

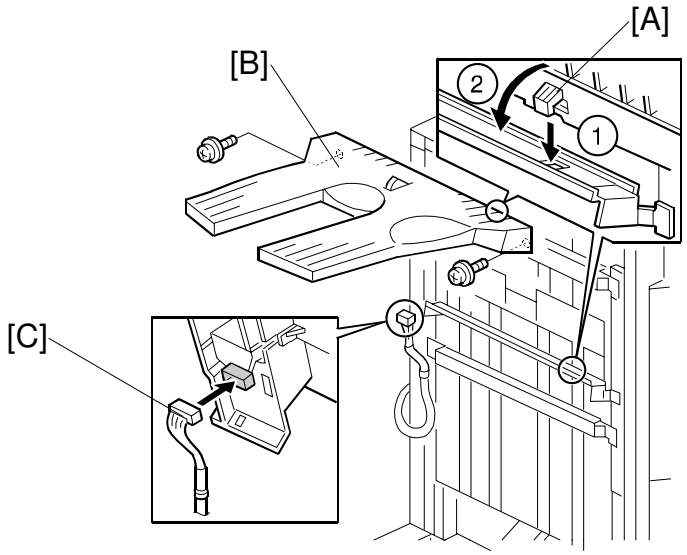


A763I105.WMF

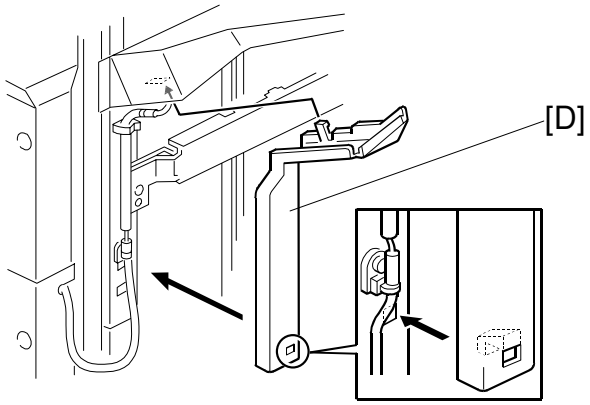


A763I103.WMF

2. Open the front under door and pull out the staple unit [A].
3. Remove the stapler unit lock plate [B] (1 screw).
4. Push in the stapler unit and shut the front lower door.
5. Remove the right lower cover [C] (4 screws).
6. Remove the front pressure release bracket [D] (1 screw).
7. Remove the rear pressure release bracket [E] (1 screw).

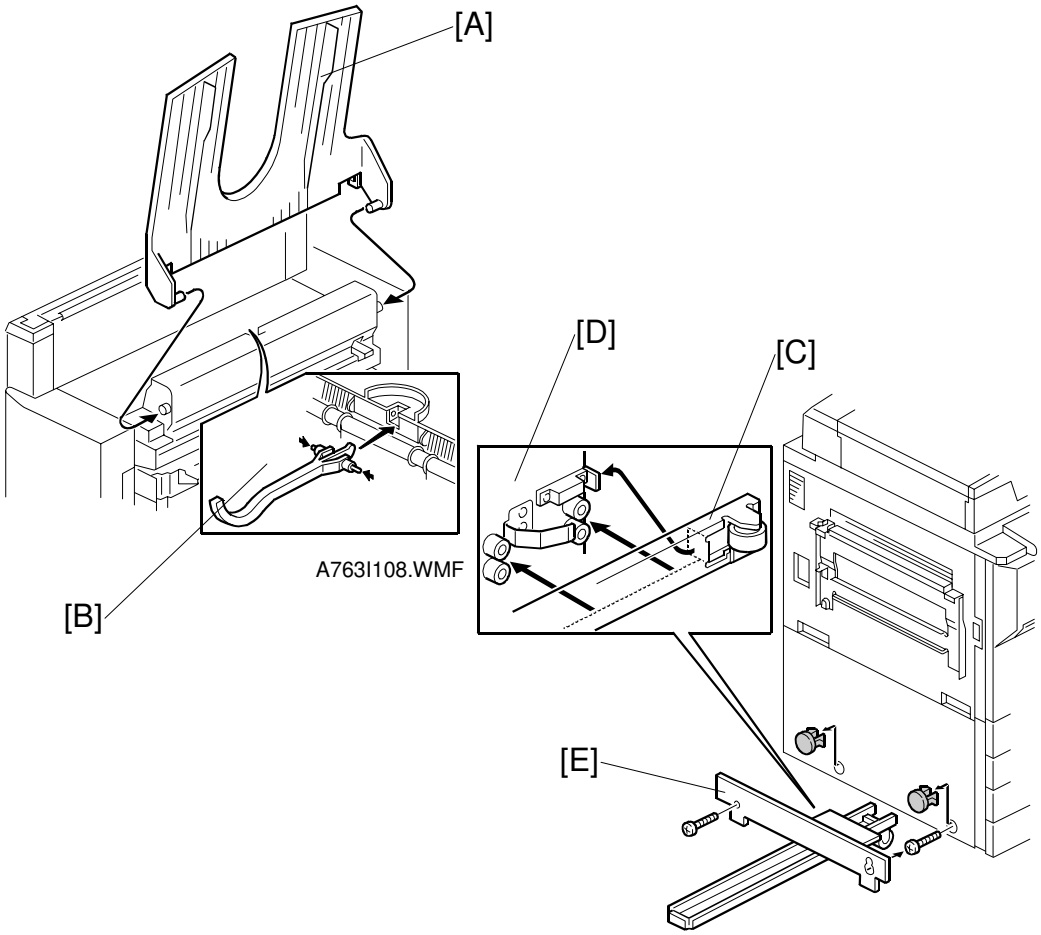


A763I106.WMF

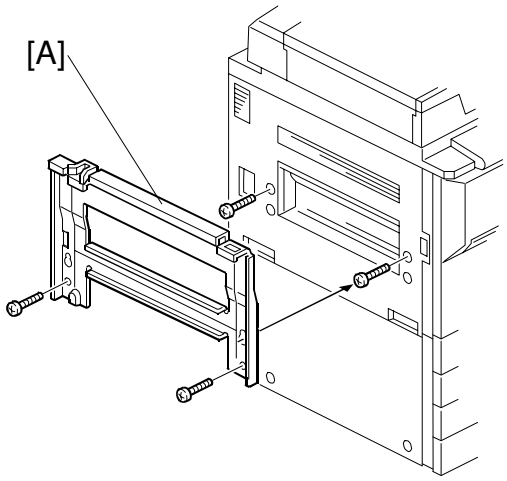


A763I107.WMF

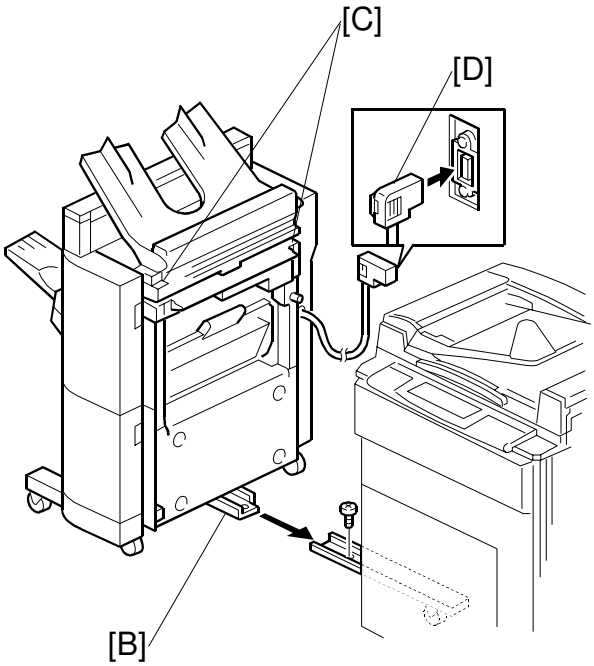
8. Set the hooks [A] of the shift tray [B] in the notches in the shift tray bracket, and secure the tray with two M4 x 6 screws.
9. Connect the shift tray sensor harness [C].
10. Install the harness cover [D] (2 hooks).



11. Install the upper tray [A] (2 pins).
12. Attach the sensor feeler [B] (2 pins).
13. Attach the rail [C] to the rail bracket [D] as shown.
14. Install the rail bracket [E] on the left lower cover of the copier (2 screws).



A763I109.WMF



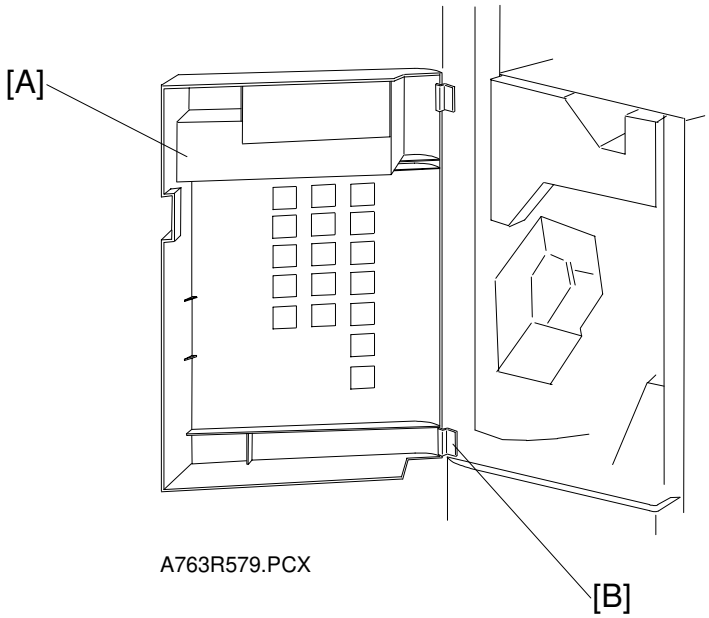
A763I111.WMF

15. Install the joint bracket [A] on the left side of the copier (4 screws).
16. Secure the rail [B] to the booklet finisher with 1 M4 screw.
17. Align the finisher on the joint bracket and lock the 2 hooks [C] of the finisher on the joint bracket.
18. Connect the finisher cable [D] to the copier.
19. Plug in the power cord and turn the main switch on, and perform stapler initial setting as follows.
    1) Enter User Program mode.
    2) Press System Settings.
    3) Press Basic Page 2.
    4) Press Staple Initialization.
    5) Press the OK key.

4. REPLACEMENT AND ADJUSTMENT

4.1 REMOVAL

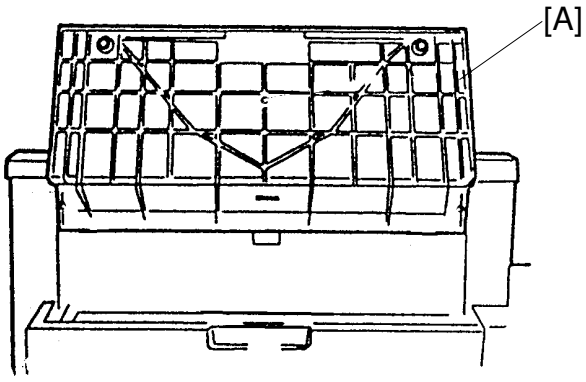
4.1.1 UPPER DOOR



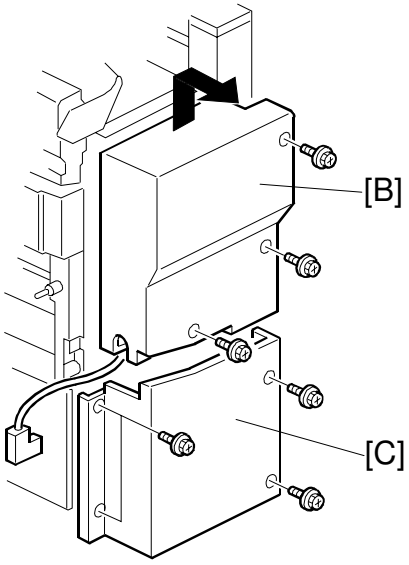
A763R579.PCX

1. Open the upper door [A].
2. Remove the lower hinge [B] (1 screw).
3. Push up the upper door and remove it.

4.1.2 UPPER REAR COVER



A763R580.PCX



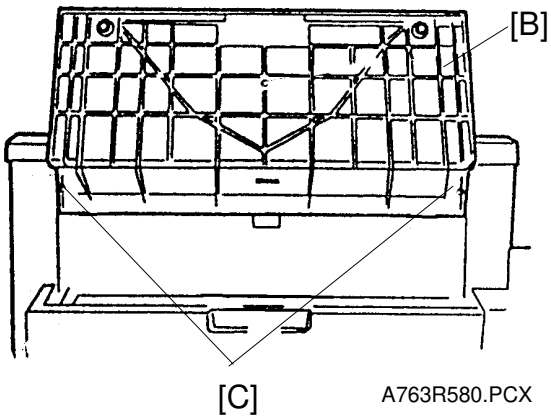
A763R104.WMF

1. Hold up the proof tray and open the top cover [A].
2. Unhook the upper rear cover [B] and remove it (3 screws).

4.1.3 LOWER REAR COVER

1. Remove the lower rear cover [C] (4 screws).

4.1.4 TOP COVER



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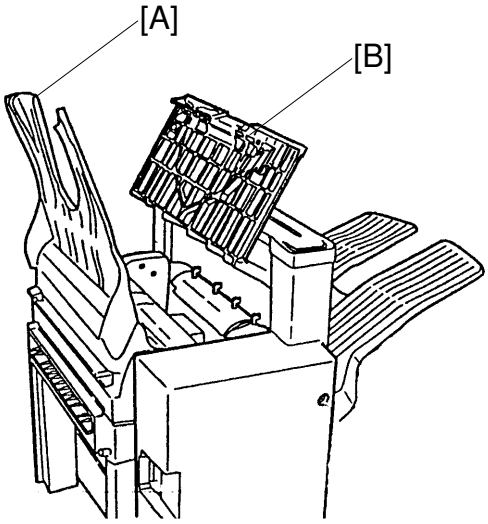
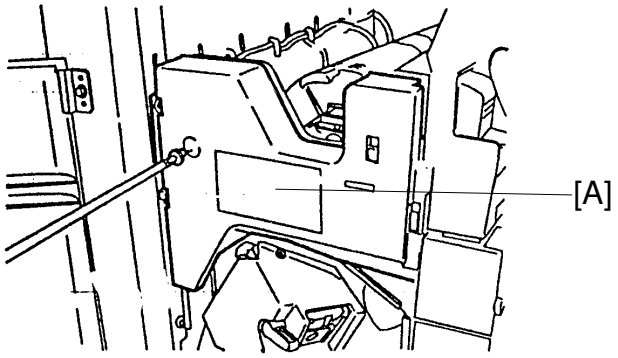


A763R581.PCX

1. Hold up the upper tray [A] and open the top cover [B].
2. Push the hooks [C] of the top cover and remove it.

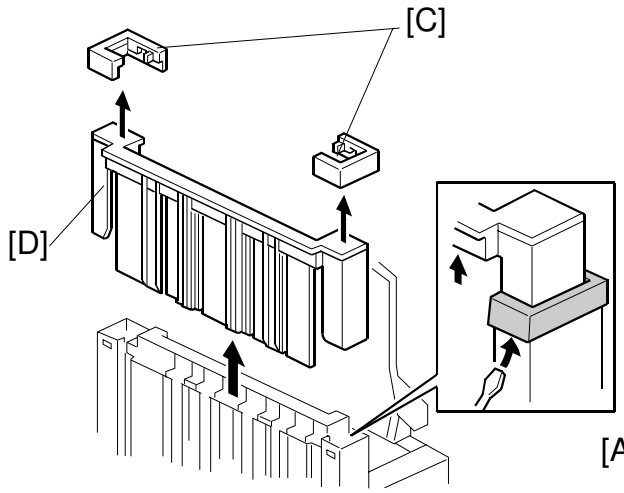
4.1.5 UPPER INNER COVER



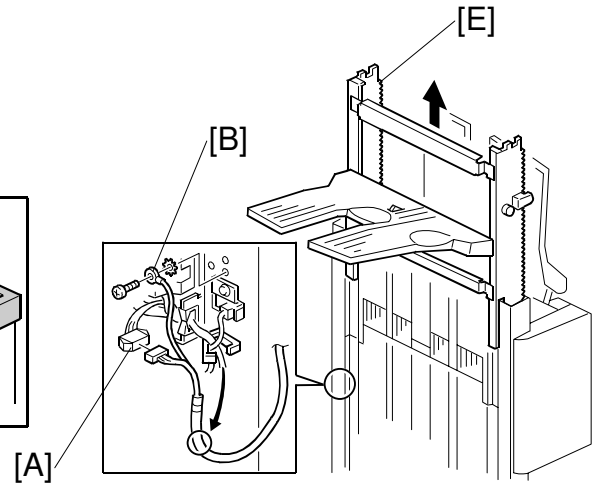
A763R582.PCX

1. Open the upper door.
2. Remove the upper inner cover [A] (1 screw).

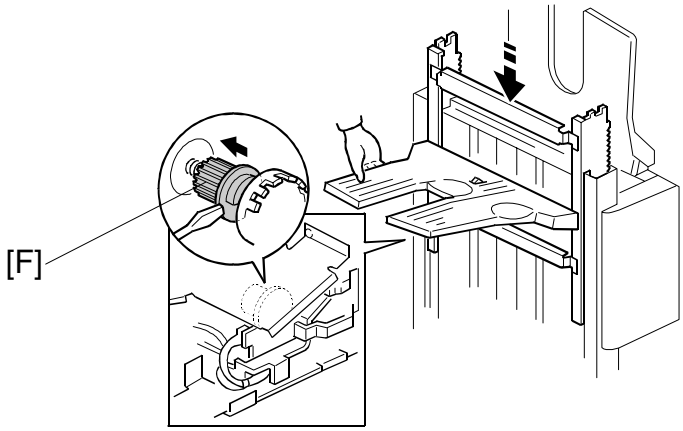
4.1.6 SHIFT TRAY UNIT



A763R106.WMF



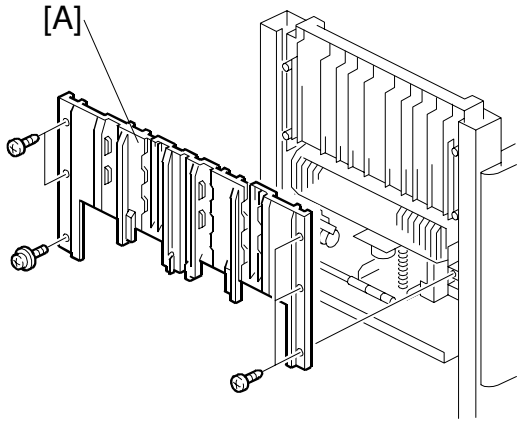
A763R107.WMF



A763R108.WMF

1. Remove the upper and lower rear covers.
2. Disconnect the connector [A] and remove the grounding wire [B] (1 screw).
3. Unhook the two stoppers [C] and remove them.
4. Remove the slide guide [D] by pulling it up.
5. Remove the shift tray unit [E] by pulling it up.
   NOTE: When reinstalling the shift tray unit, release the clutch gear [F] of the tray lift motor by carefully inserting a screwdriver.

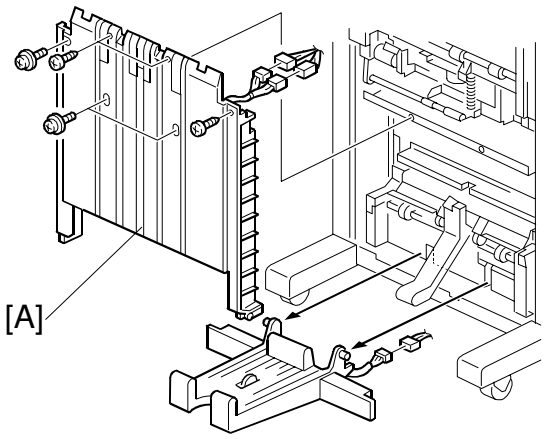
4.1.7 UPPER SHIFT GUIDE



A763R112.WMF

1. Remove the slide guide and shift the shift tray unit down by releasing the clutch gear of the tray lift motor (see Shift Tray Unit Removal).
2. Remove the upper shift guide [A] (6 screws (5 x M4, 1 x M3)).

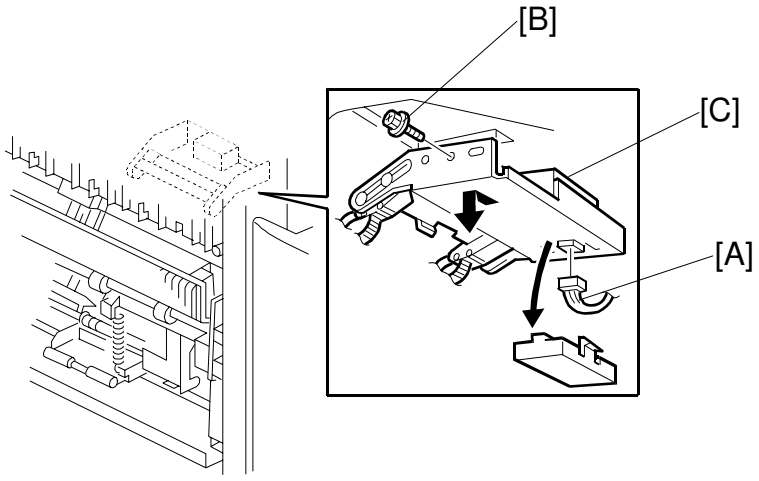
4.1.8 LOWER SHIFT GUIDE



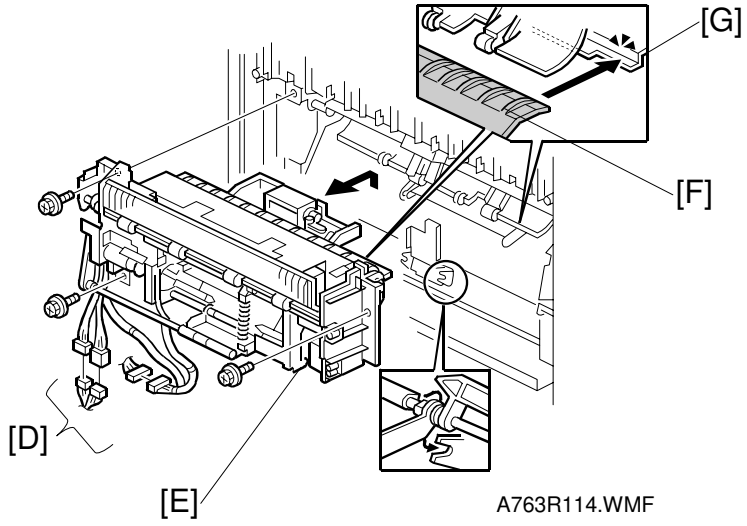
A763R109.WMF

1. Remove the shift tray unit.
2. Remove the lower shift guide [A] (2 connectors, 6 screws (3 x M4, 3 x M3)).

4.1.9 EXIT UNIT



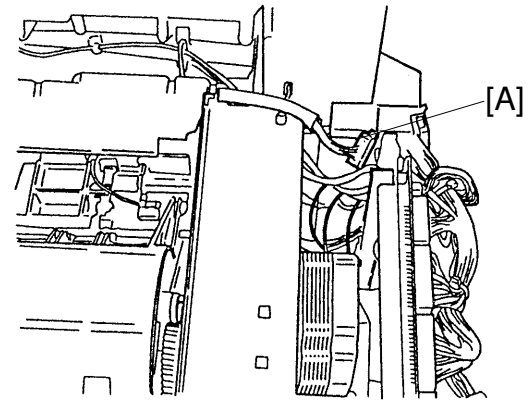
A763R113.WMF



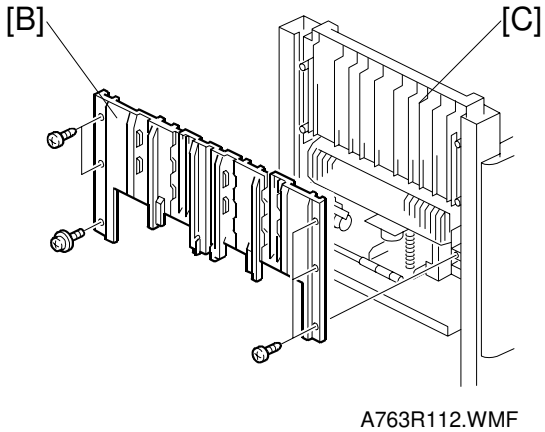
A763R114.WMF

1. Remove the shift tray unit, and the upper and lower shift guides.
2. Disconnect the connector [A] and remove the screw [B] that secures the transport belt unit [C].
3. Disconnect the 4 connectors [D].
4. Hold up the exit unit [E] and remove it with the transport belt unit (3 screws, 1 clamp).
   NOTE: When installing the exit unit, make sure to position the exit unit guide plate (black) [F] over the transport guide plate [G].

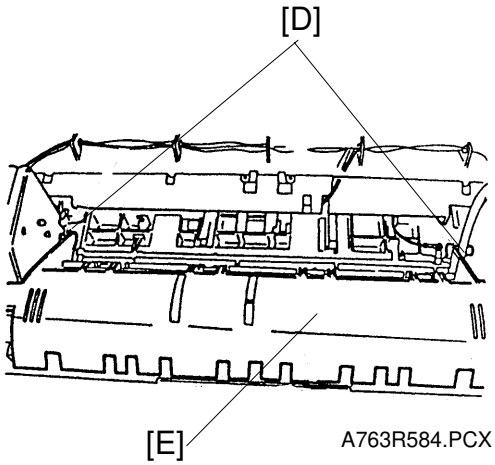
4.1.10 BUFFER ROLLER UNIT



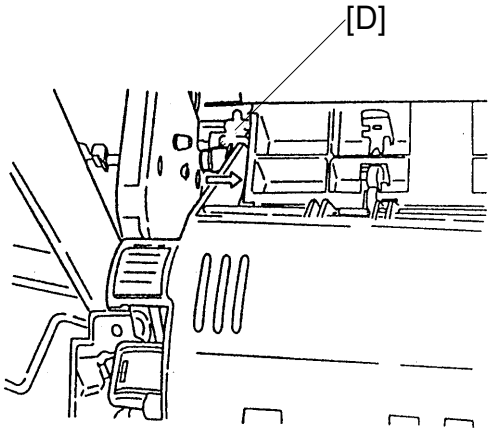
A763R583.PCX



A763R112.WMF



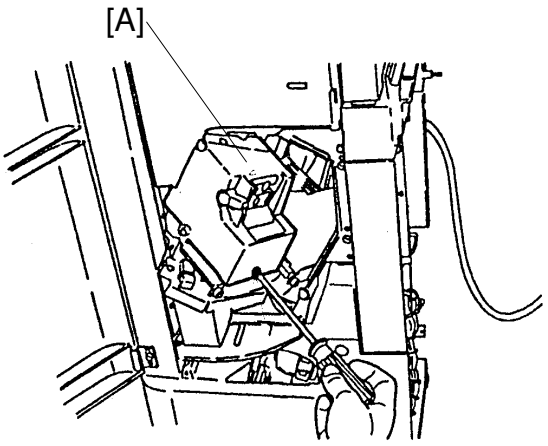
A763R584.PCX



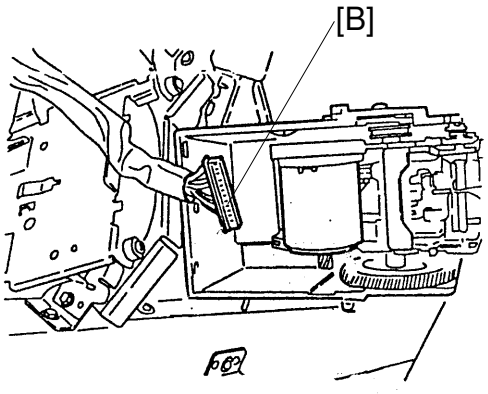
A763R585.PCX

1. Remove the upper rear cover and the top cover.
2. Disconnect the connector [A].
3. Remove the upper shift guide [B] (6 screws) and the guide holder [C] (2 screws).
4. Unhook the shafts [D], and remove the buffer roller unit [E] (2 clamps).

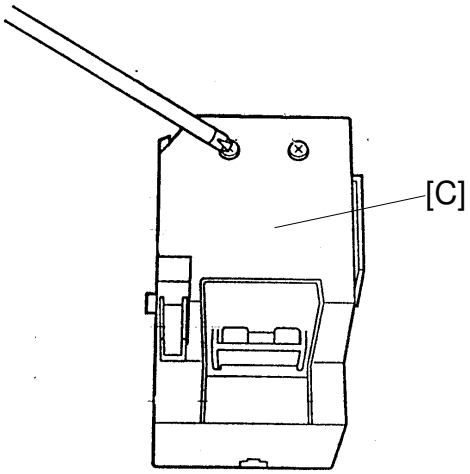
4.1.11 STAPLER



A763R586.PCX



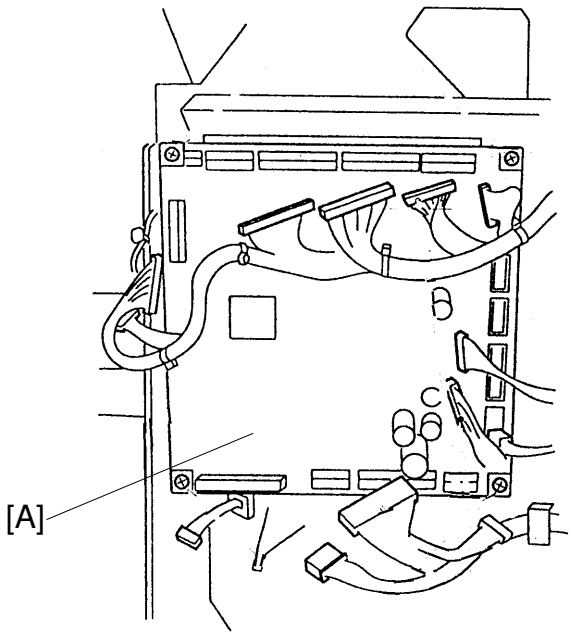
A763R587.PCX



A763R588.PCX

1. Open the upper front door.
2. Slide the stapler [A] towards the front.
3. Remove the stapler (1 screw, 1 connector [B]).
4. Remove the cover [C] from the stapler (2 screws).

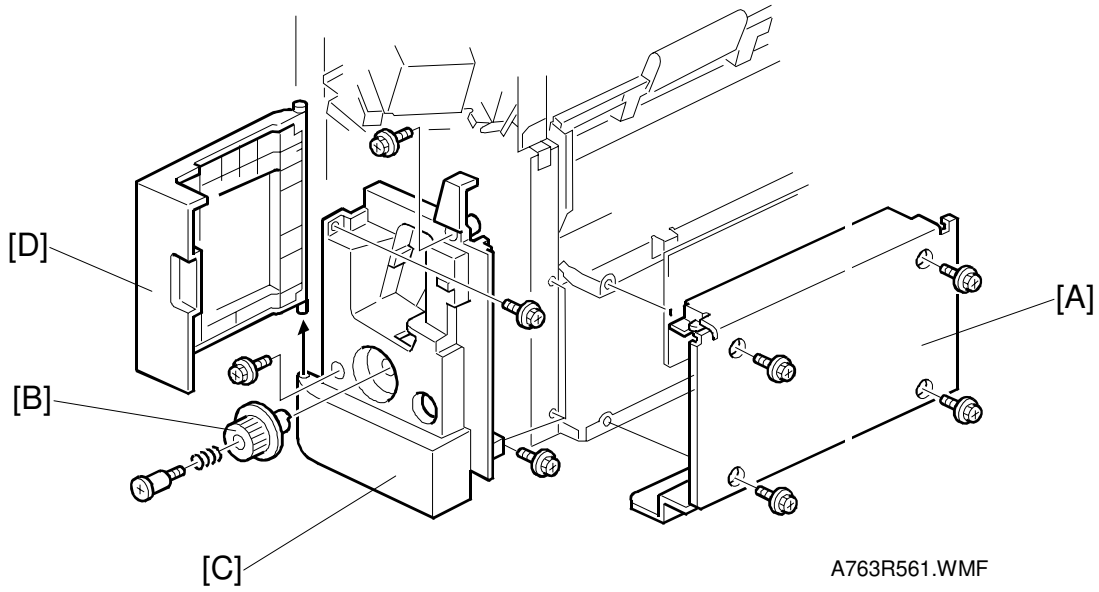
4.1.12 FINISHER BOARD



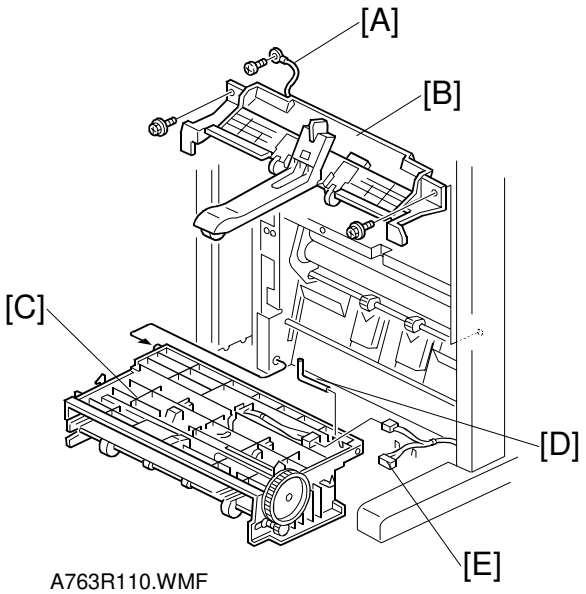
A763R589.PCX

1. Remove the upper rear cover.
2. Remove the finisher board [A] (4 screws, 19 connectors).
   NOTE: Do the following adjustments after replacing the board:
   - Shift tray height
   - Jogger fence position
   - Stapling position

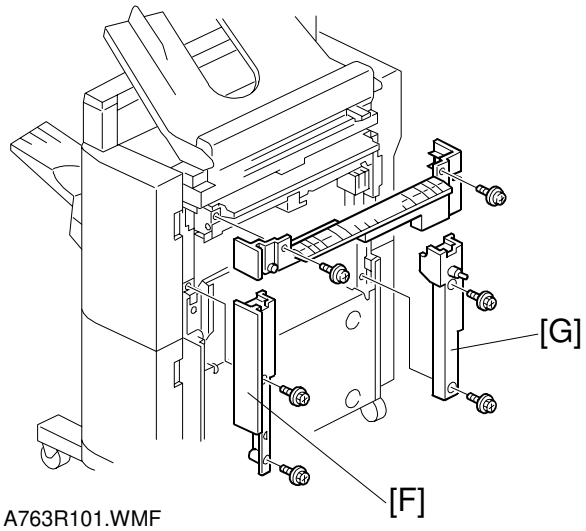
4.1.13 BOOKLET UNIT



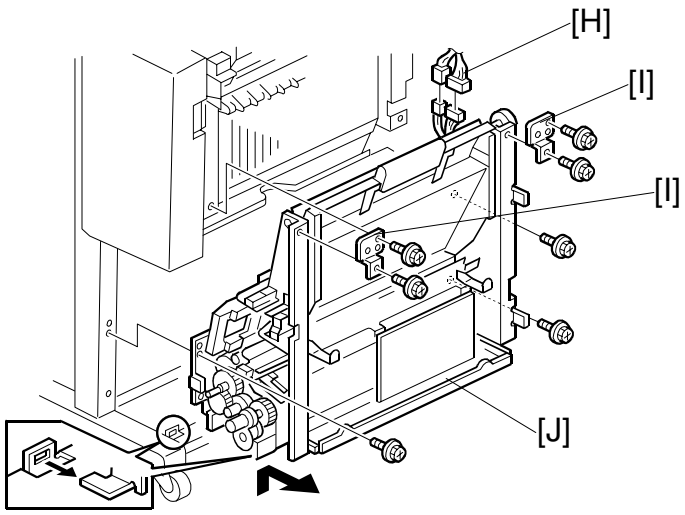
1. Remove the following items.
   - Upper and lower rear covers.
   - Shift tray unit.
   - Lower shift guide.
2. Remove the lower right cover [A] (4 screws).
3. Remove the folder roller knob [B] (1 stepped screw).
4. Remove the lower inner cover [C] and lower door [D] (5 screws).



A763R110.WMF



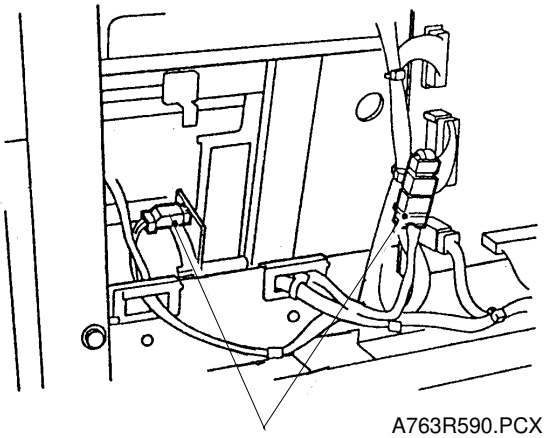
A763R101.WMF

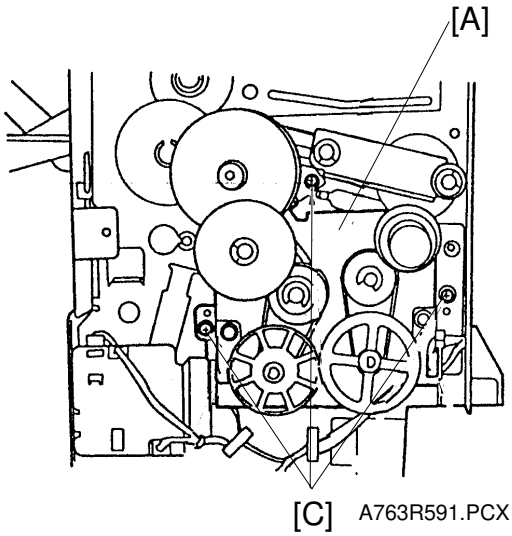


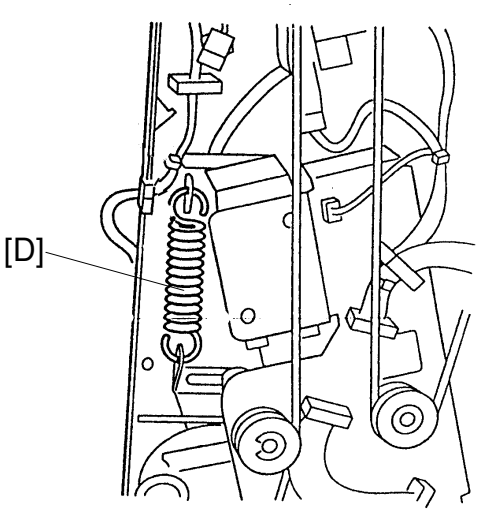
A763R111.WMF

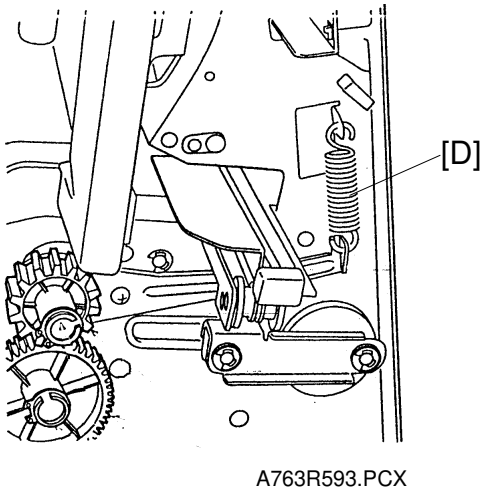
5. Remove the grounding wire [A] (1 screw) and upper booklet exit guide [B] (2 screws).
6. Open the lower booklet exit guide [C] and remove it (1 L-pin [D], 2 connectors [E]).
7. Remove the right front and right rear covers [F , G] (2 screws each).
8. Disconnect the two connectors [H].
9. Remove the two joints [I] and then pull out the booklet unit [J] from the right side (3 screws).

4.1.14 FOLDER ROLLERS

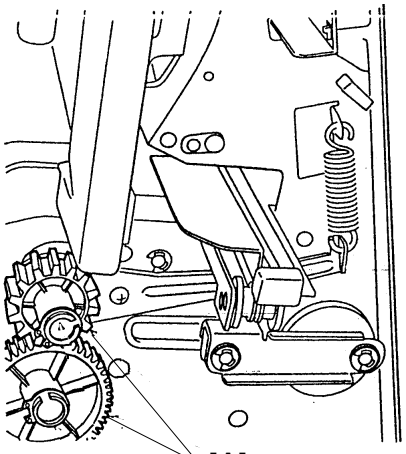




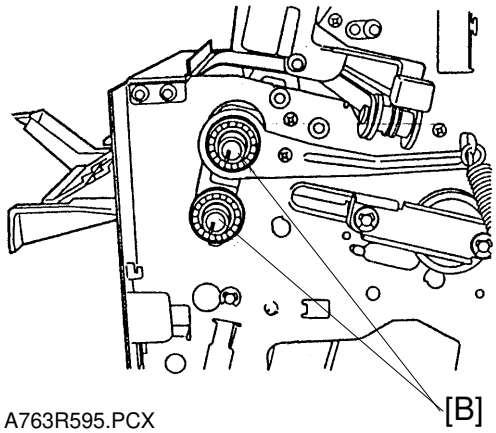




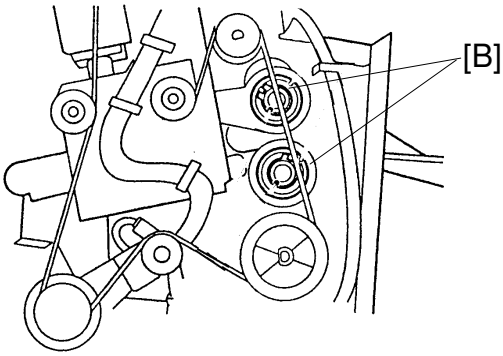
1. Remove the booklet unit
2. Remove the drive unit [A] (4 connectors [B], 3 screws [C]).
3. Remove the front and rear tension springs [D].



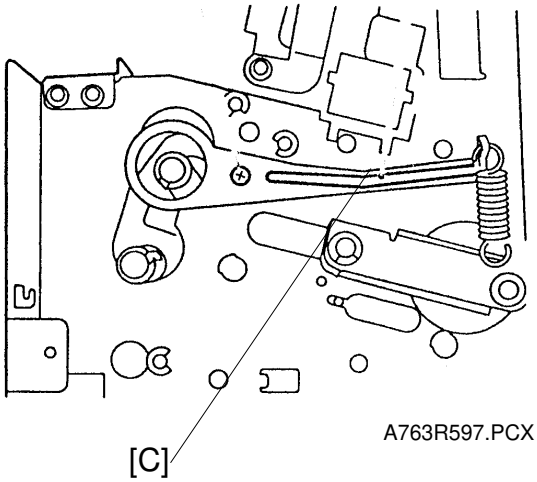
4-105B.PCX



A763R595.PCX



A763R596.PCX



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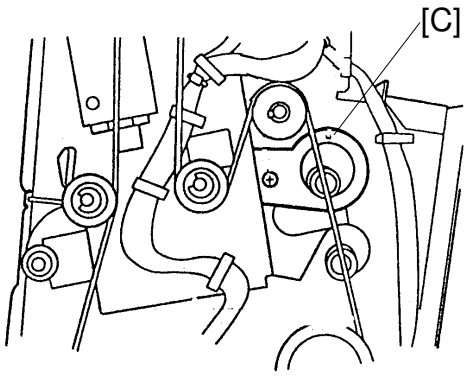
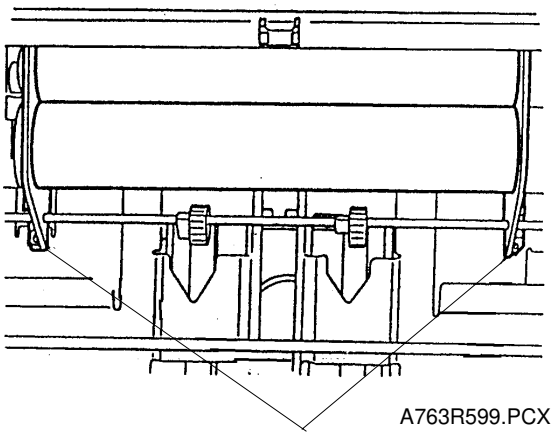
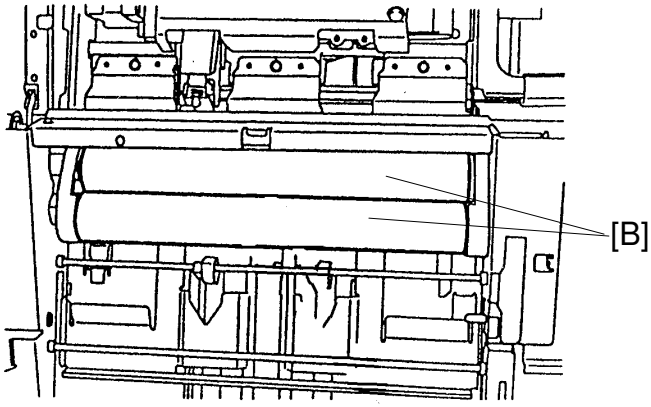


A763R598.PCX

4. Remove the gears [A] and ball bearings [B] (4 C-rings).
5. Remove the front and rear tighteners [C] (1 stepped screw each).



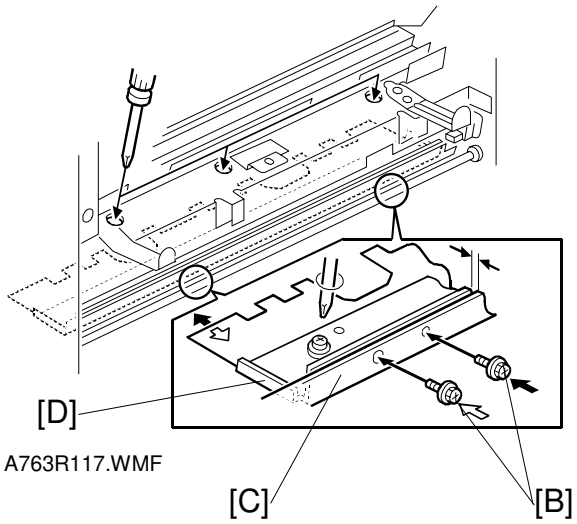
A763R599.PCX



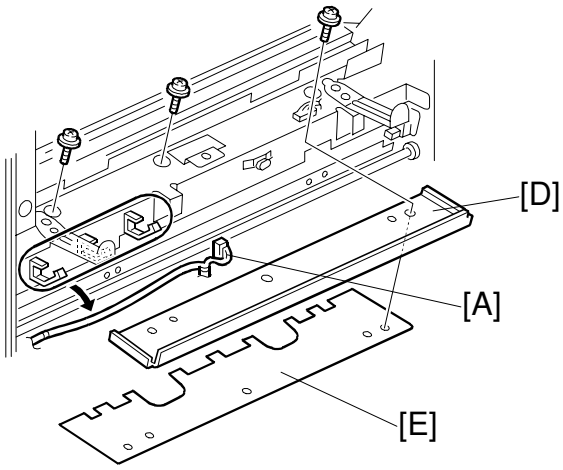
A763R549.PCX

6. Remove the jogger plates [A] (1 screw each).
7. Slide the folder rollers [B] to the front and remove them.

4.1.15 FOLDER PLATE



A763R117.WMF

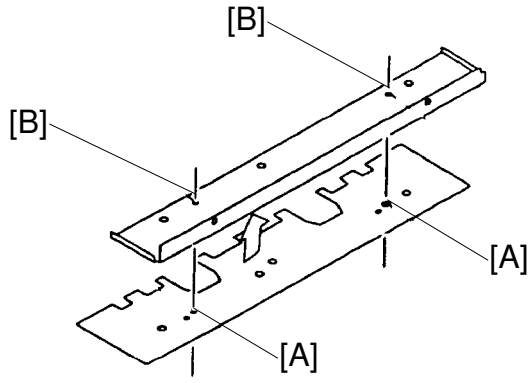


A763R116.WMF

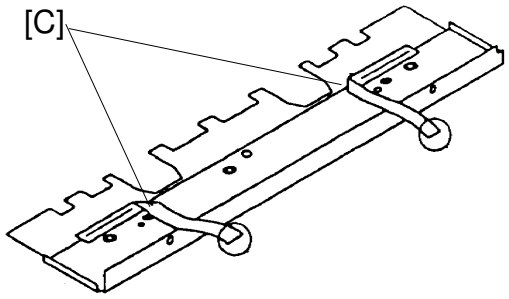
Removal

1. Remove the following items
   - Lower right cover (see “Booklet Unit Removal”)
   - Folder roller knob (see “Booklet Unit Removal”)
   - Lower door and lower inner cover (see “Booklet Unit Removal”)
   - Booklet board
2. Release the harness [A] from the clamps.
3. Insert two positioning screws [B] in the holes provided in the folder table [C].
4. Tighten the screws until the ends touch the securing plate [D] for the folder plate.
5. Remove the folder plate [E] and the securing plate (3 screws).

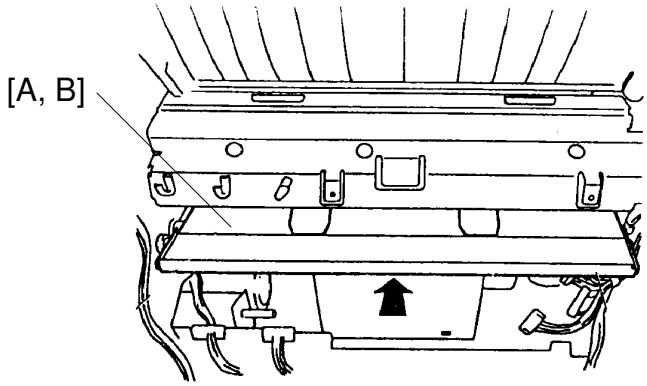
Reinstalling



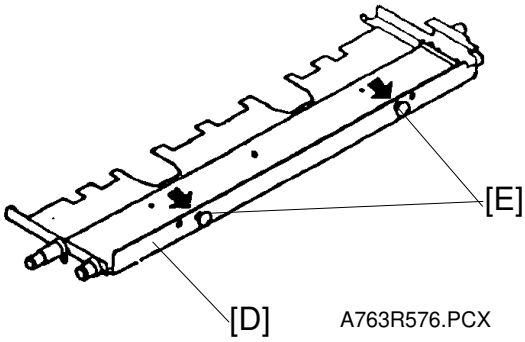
A763R575.PCX



A763R578.PCX



A763R577.PCX

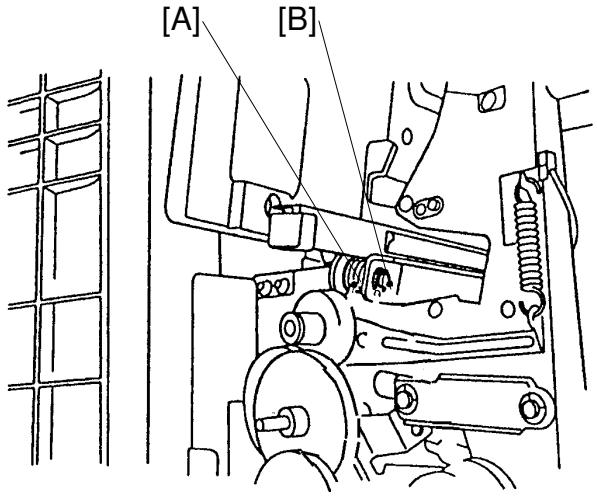


A763R576.PCX

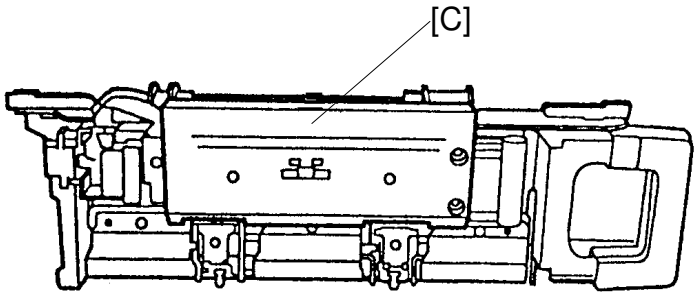
1. Line up the two small holes [A] in the folder plate with the two small protrusions on the bottom of the securing plate [B]. Then, push the two protrusions through the holes.
   Note: Be sure that the three screw holes are also lined up.
2. Temporarily fix the two plates together by attaching two strips of electrical tape [C] along the line where they meet (see the illustration).
   NOTE: 1) Be sure to fold the two strips back toward you so that they can easily be removed.
   2) Be careful not to attach the tape too close to the three screw holes.
3. Reattach the two plates [A, B] to the folder table [D] (3 screws).
   NOTE: Tighten these three screws while holding the securing plate against the two positioning screws [E] that were installed in step 3 of the "Removal" procedure.
4. Remove the two strips of tape.

4.1.16 BOOKLET STAPLER UNIT

Removal

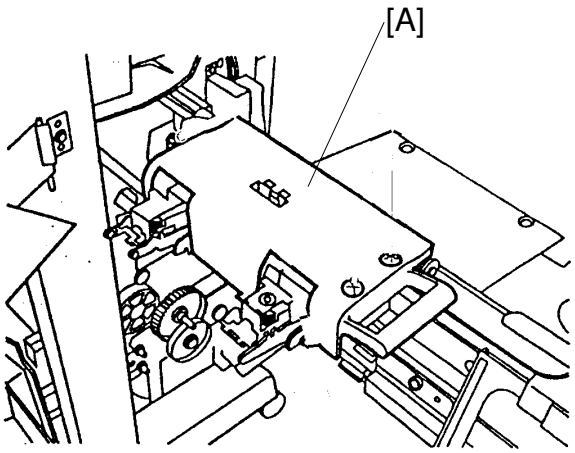


A763R562.PCX



A763R563.PCX

1. Remove the lower door and inner cover (see “Booklet Unit Removal”).
2. Remove the guide roller [A] and shaft [B] (1 E-ring).
3. Pull out the booklet stapler unit [C].



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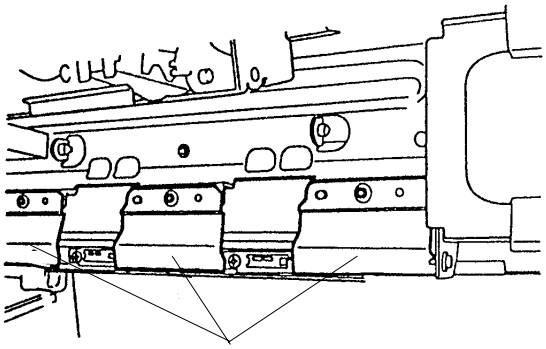
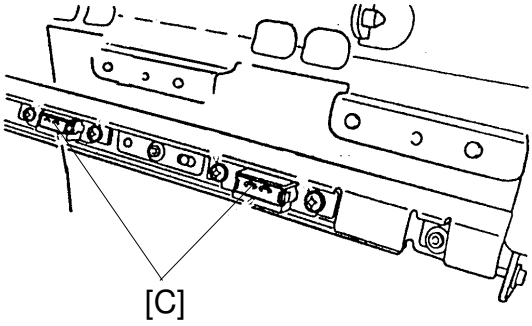


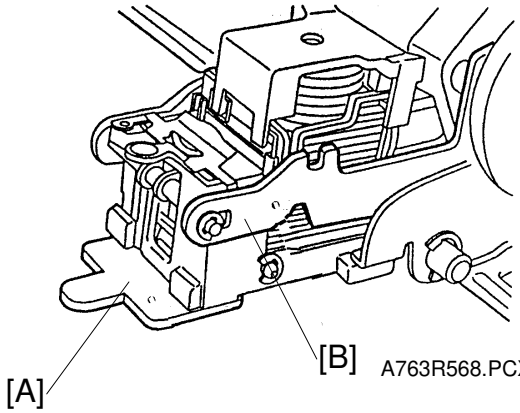
A763R565.PCX



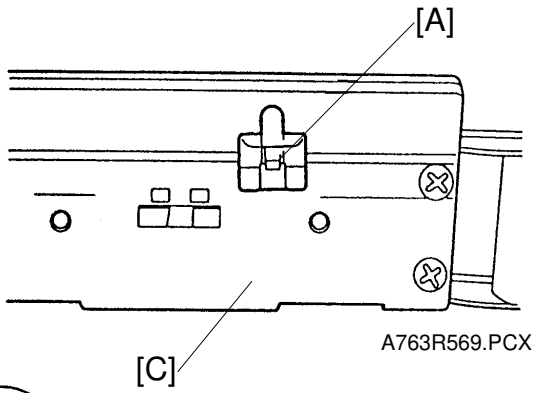
A763R567.PCX

Adjustment

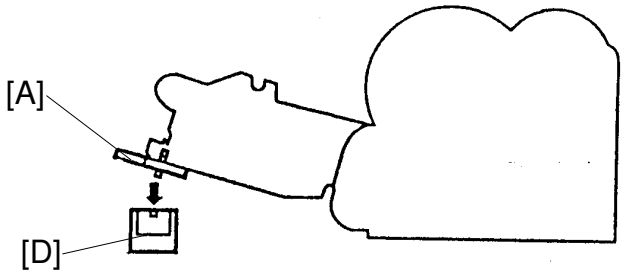
1. Remove the booklet stapler cover [A] (3 screws).
2. Remove the three paper guides [B] (1 screw each).
3. Loosen the two screws on each of the anvils [C].



A763R568.PCX



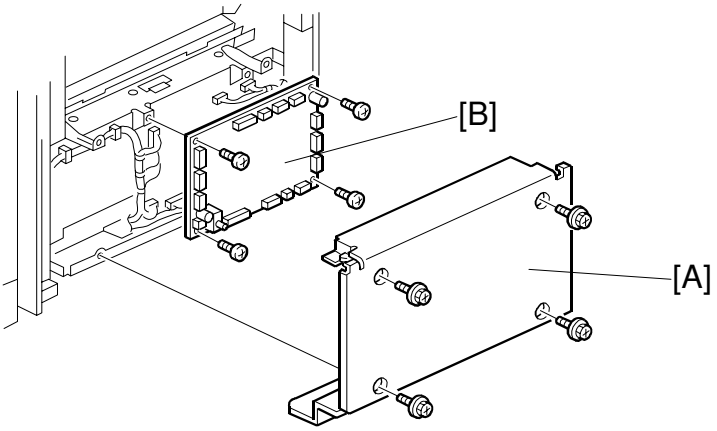
A763R569.PCX



A763R570.PCX

4. Insert the anvil positioning plate [A] into the staple slot of the stapler [B].
   NOTE: The anvil positioning plate is stored in the booklet stapler cover [C].
5. Rotate the gear to move down the stapler. Then align the anvil positioning plate and the anvil [D]. Then secure the anvils (2 screws each).

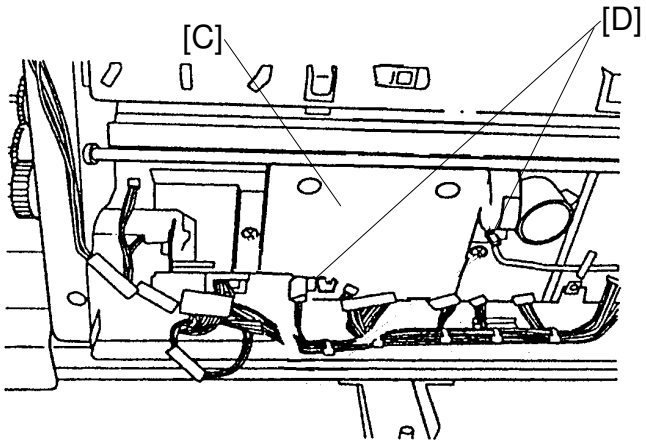
4.1.17 BOOKLET BOARD



A763R115.WMF

1. Remove the lower right cover [A] (4 screws).
2. Remove the booklet board [B] (4 screws, 14 connectors).
   NOTE: After replacing the board, adjust the booklet stapling position.

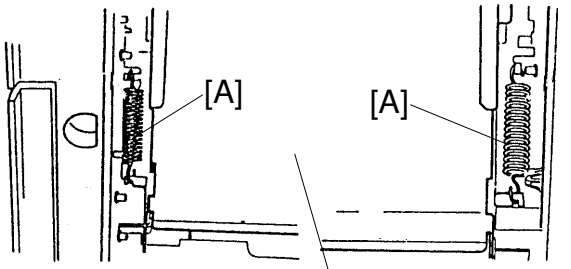
4.1.18 POSITIONING PLATE UNIT



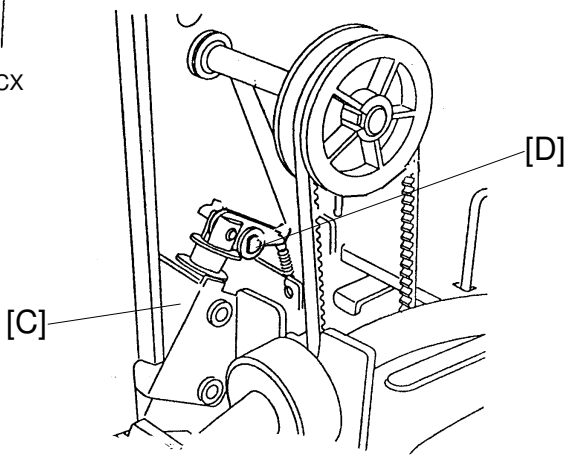
A763R571.PCX

1. Remove the booklet board (4 screws, 14 connectors).
2. Slide the paper positioning unit [C] to the right and remove it (2 screws, 2 connectors [D]).

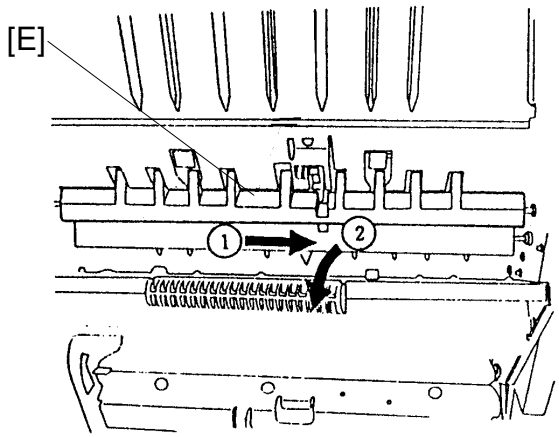
4.1.19 1ST AND 2ND BOOKLET UNIT GATES



A763R572.PCX



A763R573.PCX

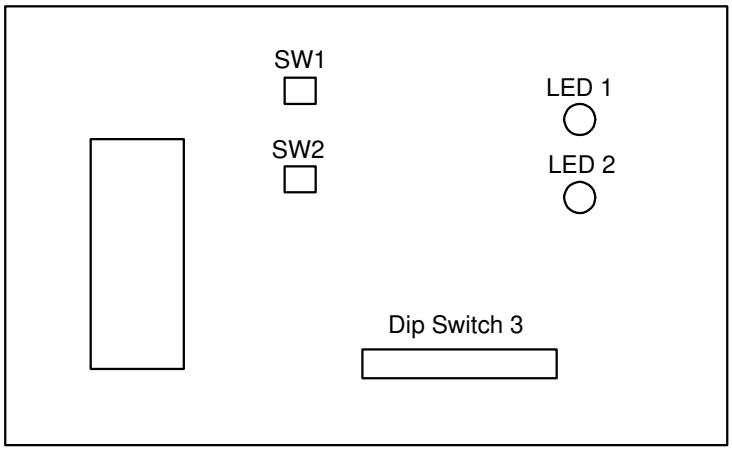


A763R574.PCX

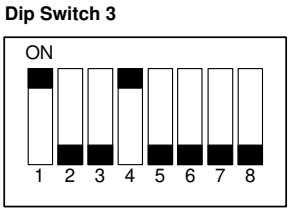
1. Remove the upper and lower rear covers.
2. Release the two tension springs [A] of the booklet entrance guide [B].
3. Remove the booklet unit gate solenoids [C] (1 screw and 1 spring each).
4. Pull out the link of the solenoid [D].
5. Remove the booklet unit gates [E].

4.2 ADJUSTMENT

4.2.1 SHIFT TRAY HEIGHT



A763R550.WMF

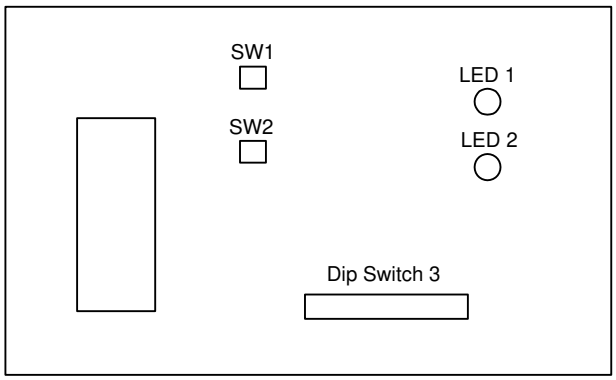


A763R551.WMF

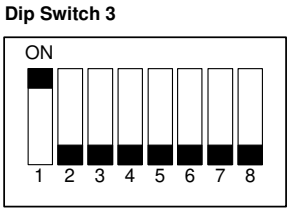
After replacing the finisher board or shift tray height sensor, always do this adjustment.

1. Remove the upper rear cover.
2. Turn on dip switches 3 -1 and -4 on the finisher board.
3. Put blank paper (A4/8 1/2" x 11") on the shift tray.
4. Press switch 1 (SW1) on the finisher board.
   The finisher automatically adjusts the shift tray height when switch 1 is pressed.
   - After performing the adjustment, the shift tray will return to home position.
   - During the adjustment, LED 1 flashes. After performing the adjustment, LED 1 turns on and remains on.
   - If the automatic adjustment fails, the finisher stops and LED 1 turns off.
5. Turn off dip switches 3 -1 and -4, then turn off the copier main switch.

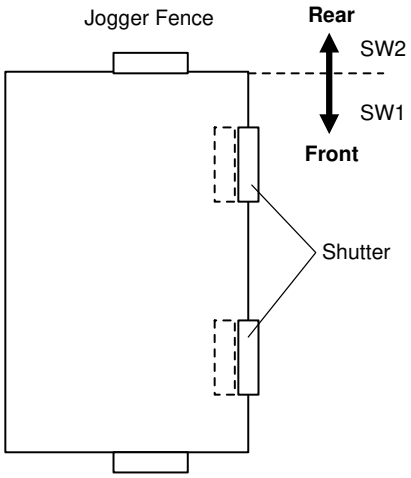
4.2.2 JOGGER FENCE POSITION



A763R550.WMF



A763R552.WMF



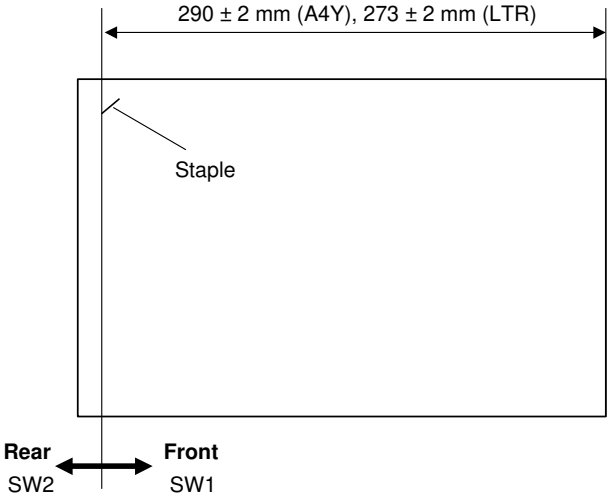
A763R553.WMF

After replacing the finisher board or if a paper alignment fault occurs, do this adjustment.

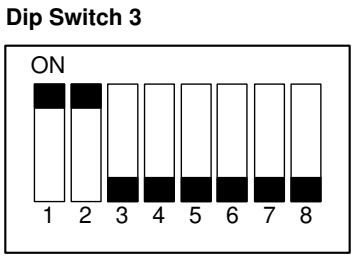
Doing this adjustment once will affect all paper sizes.

1. Remove the upper rear cover.
2. Turn on dip switch 3-1 on the finisher board.
3. Press the following switch on the finisher board.
   Using A4: Switch 1 (SW1)
   Using 8 1/2" x 11": Switch 2 (SW2)
   - After pressing the switch, the upper exit unit will open and the jogger fences will move to the A4 or 8 1/2" x 11" position.
4. Place 10 sheets of A4/8 1/2" x 11" paper between the jogger fences and push them until they touch the shutters.
5. Adjust the jogger fence position by pressing switch 1 or 2.
   - Switch 1: Move to the front (0.35 mm/press)
   - Switch 2: Move to the rear (0.35 mm/press)
6. Press switches 1 and 2 simultaneously to store the adjustment data.
   - After pressing the switches, the upper exit unit will close.
7. Turn off dip switch 3-1, then turn off the copier main switch.

4.2.3 STAPLING POSITOIN



A763R555.WMF

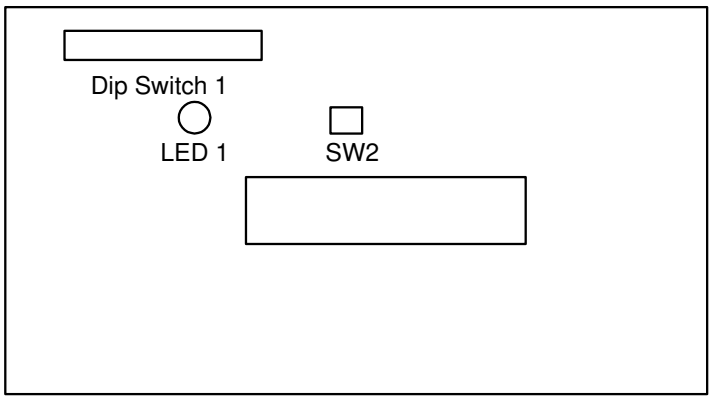


A763R554.WMF

After replacing the finisher board, do this adjustment. Doing this adjustment once will affect all paper sizes and all stapling positions.

1. Remove the upper rear cover.
2. Turn on dip switches 3 -1 and -2 on the finisher board.
3. Press the following switch on the finisher board.
   Using A4: Switch 1 (SW1)
   Using 8 1/2" x 11": Switch 2 (SW2)
   - After pressing the switch, the upper exit unit will open and the transport belt will rotate.
4. Within five seconds after pressing the switch, place one sheet of A4/8 1/2" x 11" paper between the jogger fences and push it until it touches the shutter. When the staple tray paper sensor detects the paper, the stapler will staple (rear, 1 point).
5. Take out the stapled paper manually and check the staple position.
   Staple position: Good → Turn off dip switches 3 -1 and -2 to end the procedure.
   Staple position: No good → Change the staple position by doing the following steps.
6. Adjust the staple position by pressing switch 1 or 2.
   Switch 1: Move the front (0.3 mm/press)
   Switch 2: Move to the rear (0.3 mm/press)
7. Press switches 1 and 2 simultaneously to store the adjustment data. After pressing the switches, check the staple position again.
8. Turn off dip switches 3 -1 and -2, then turn off the copier main switch.

4.2.4 BOOKLET STAPLING POSITION



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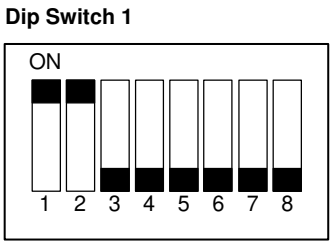

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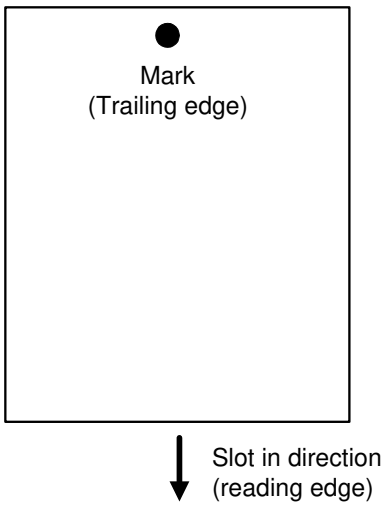

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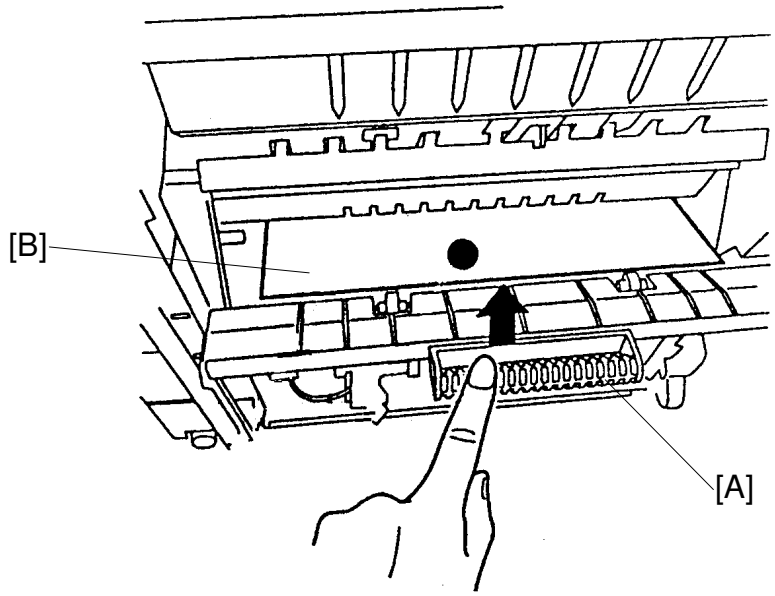
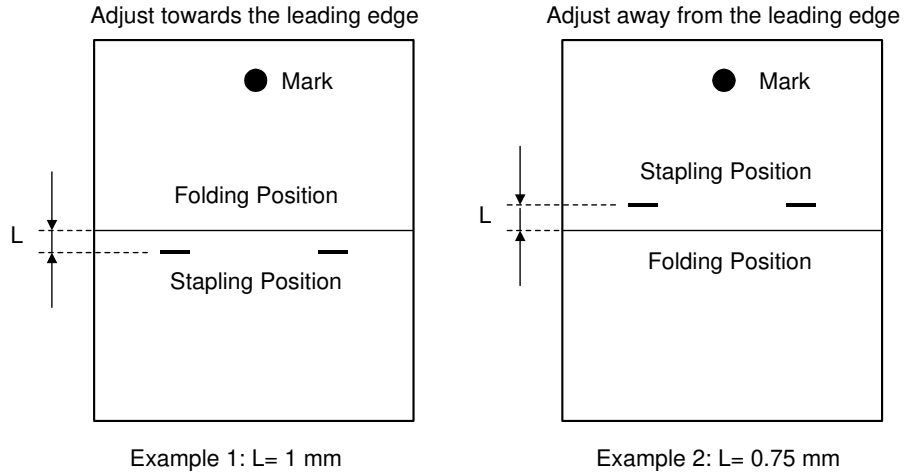
After replacing the booklet board, dip switches 1 -6, -7, -8 on the new board must be set up the same way as on the old board.

1. Remove the lower right cover (see “Booklet Unit Removal”) and lower rear cover.
2. Turn on dip switches 1 -1 and -2 on the booklet board.
3. Tape the actuators of the booklet entrance guide sensor (S42) and the booklet entrance guide safety switch (SW11), so that S42 and SW11 remain actuated.
4. Press switch 2 (SW2) on the booklet board.
   - After pressing the switch, the booklet transport motor (M10) will start to rotate.
5. Put a mark on the trailing edge of some A3/11" x 17" paper (two sheets).



A763R548.PCX

6. Open the booklet entrance guide [A], then slide in the two sheets of paper [B] until their leading edges touch the positioning plate.
7. Press switch 2 on the booklet board.
   - The booklet finisher makes a booklet automatically.



Example 1: L= 1 mm

Example 2: L= 0.75 mm

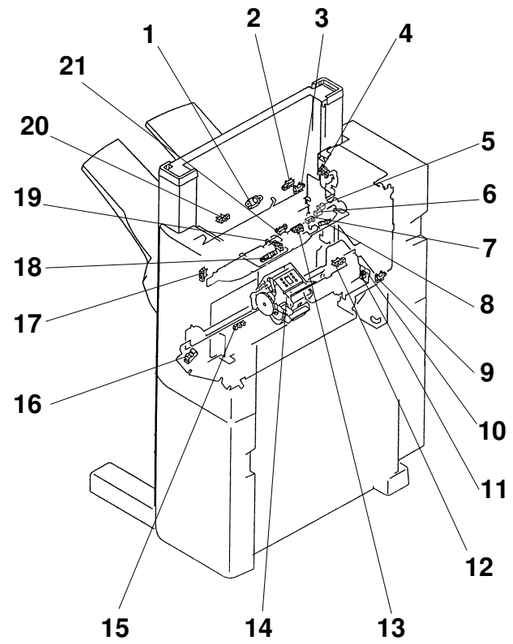
A763R559.WMF

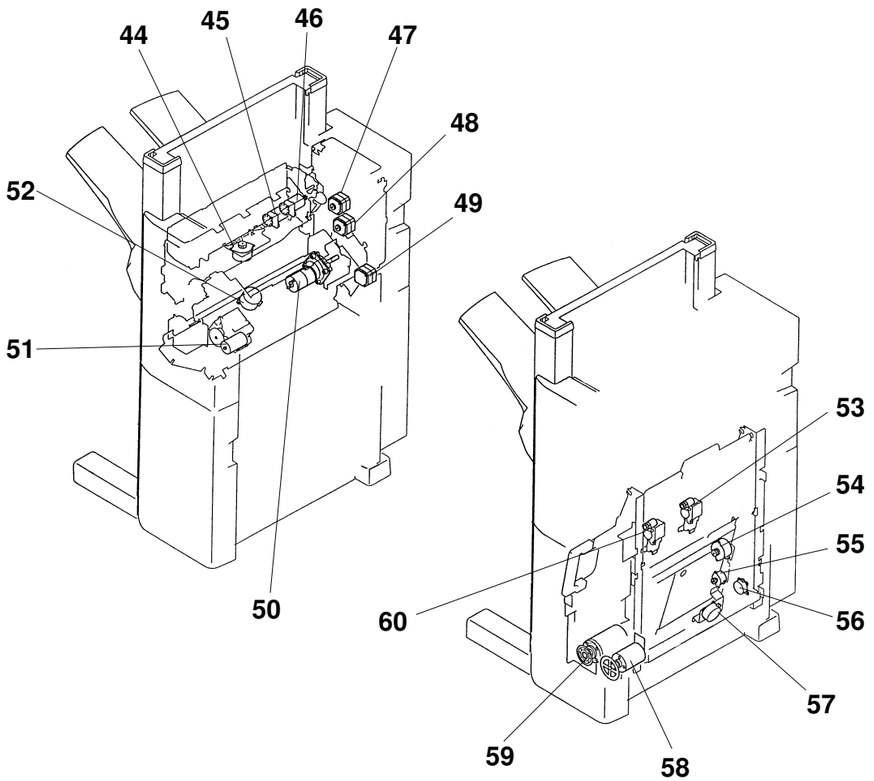
Dip switch 1 -6, -7, -8 setting			Adjustment (0.25 mm/ step)
-6	-7	-8	
OFF	ON	ON	+3
OFF	ON	OFF	+2
OFF	OFF	ON	+1
OFF	OFF	OFF	0
ON	OFF	ON	-1
ON	ON	OFF	-2
ON	ON	ON	-3
ON	OFF	OFF	Do not use

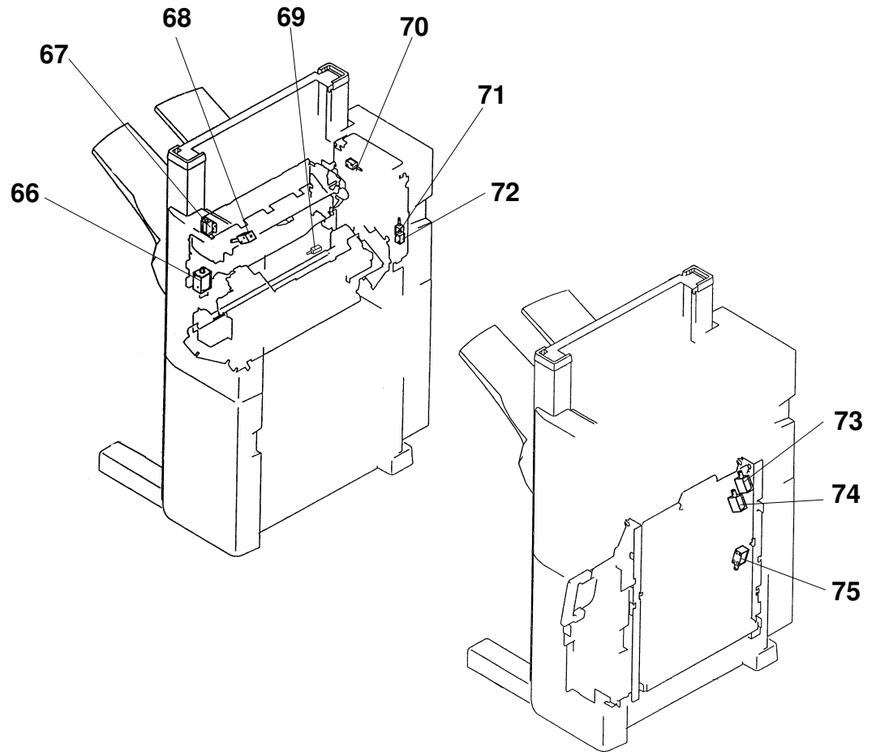
8. Measure the distance (L) between the stapling position and the folder position.
9. Adjust the stapling position with dip switches 1 -6, -7, -8.
   Inputting a lower value than the current setting moves the stapling position towards the leading edge. Adjusting by 1 step moves the stapling position 0.25 mm.

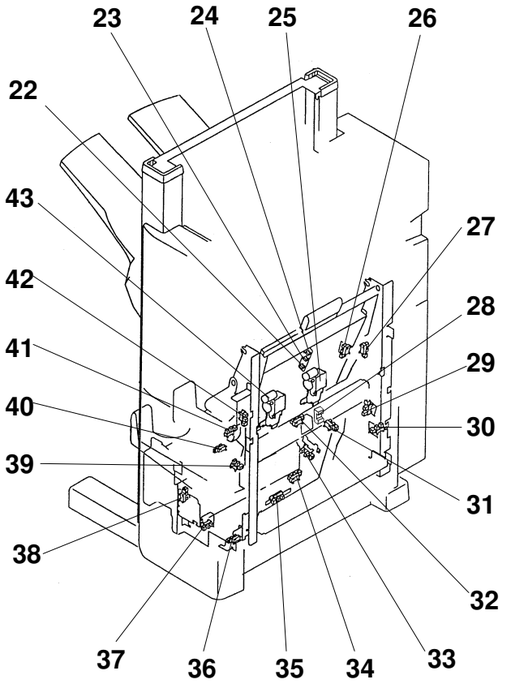
   Example 1:
   To move the stapling position 1 mm towards the leading edge.
   If dip switch 1 is currently set to +2, set the dip switch to reflect -2 (this moves the stapling position 4 steps towards the leading edge).
   Example 2:
   To move the stapling position 0.75 mm away from the leading edge.
   If dip switch 1 is currently set to -1, set the dip switch to reflect +2 (this move,s the stapling position 3 steps away from the leading edge).
10. Turn off dip switched 1-1 and -2, then turn off the copier main switch.

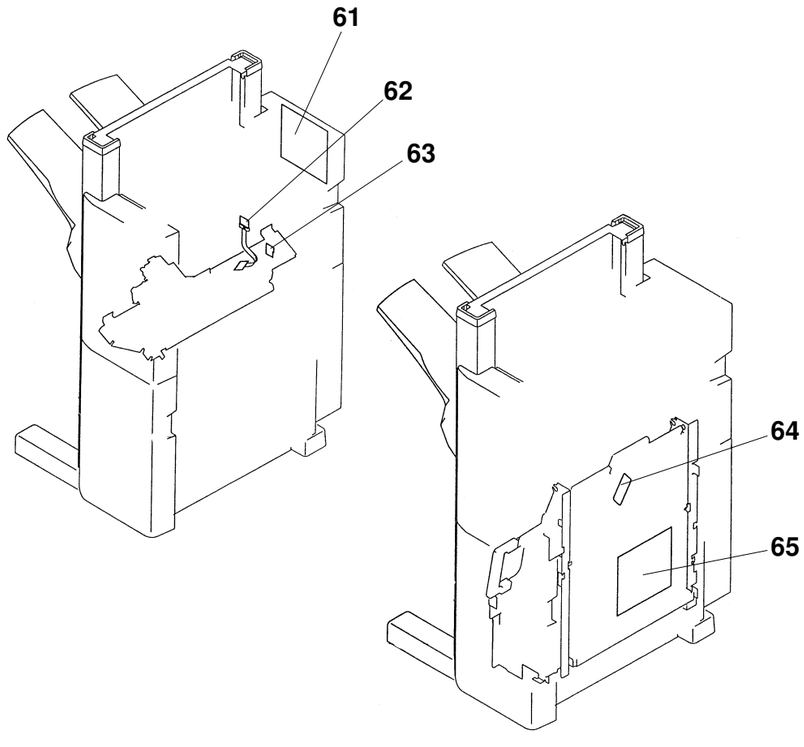
ELECTRICAL COMPONENT LAYOUT (A763) (1/2)

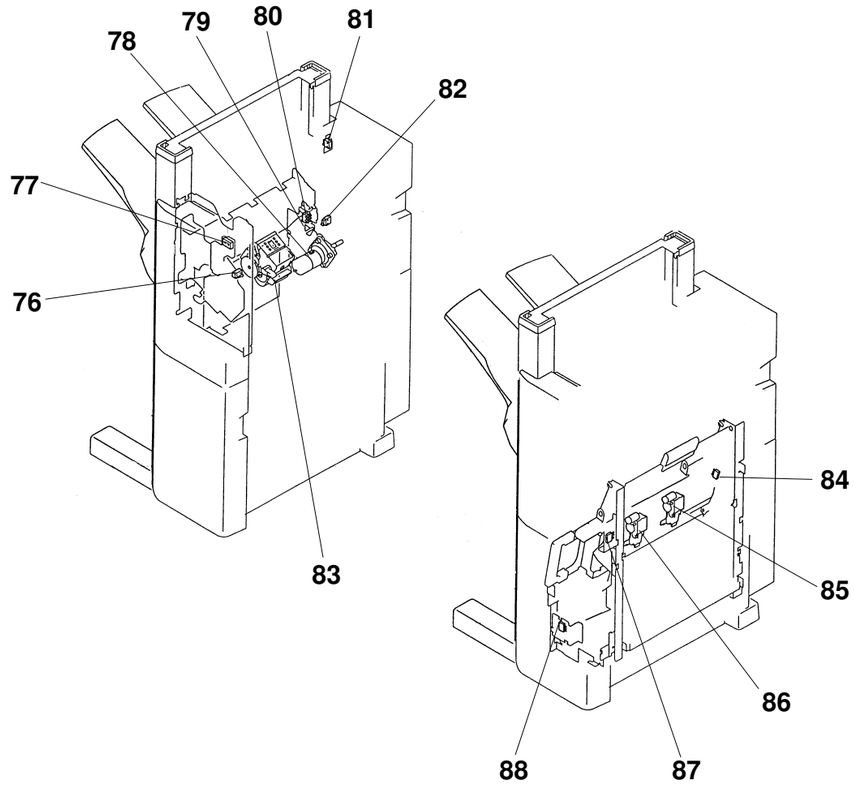












ELECTRICAL COMPONENT LAYOUT (A763) (2/2)

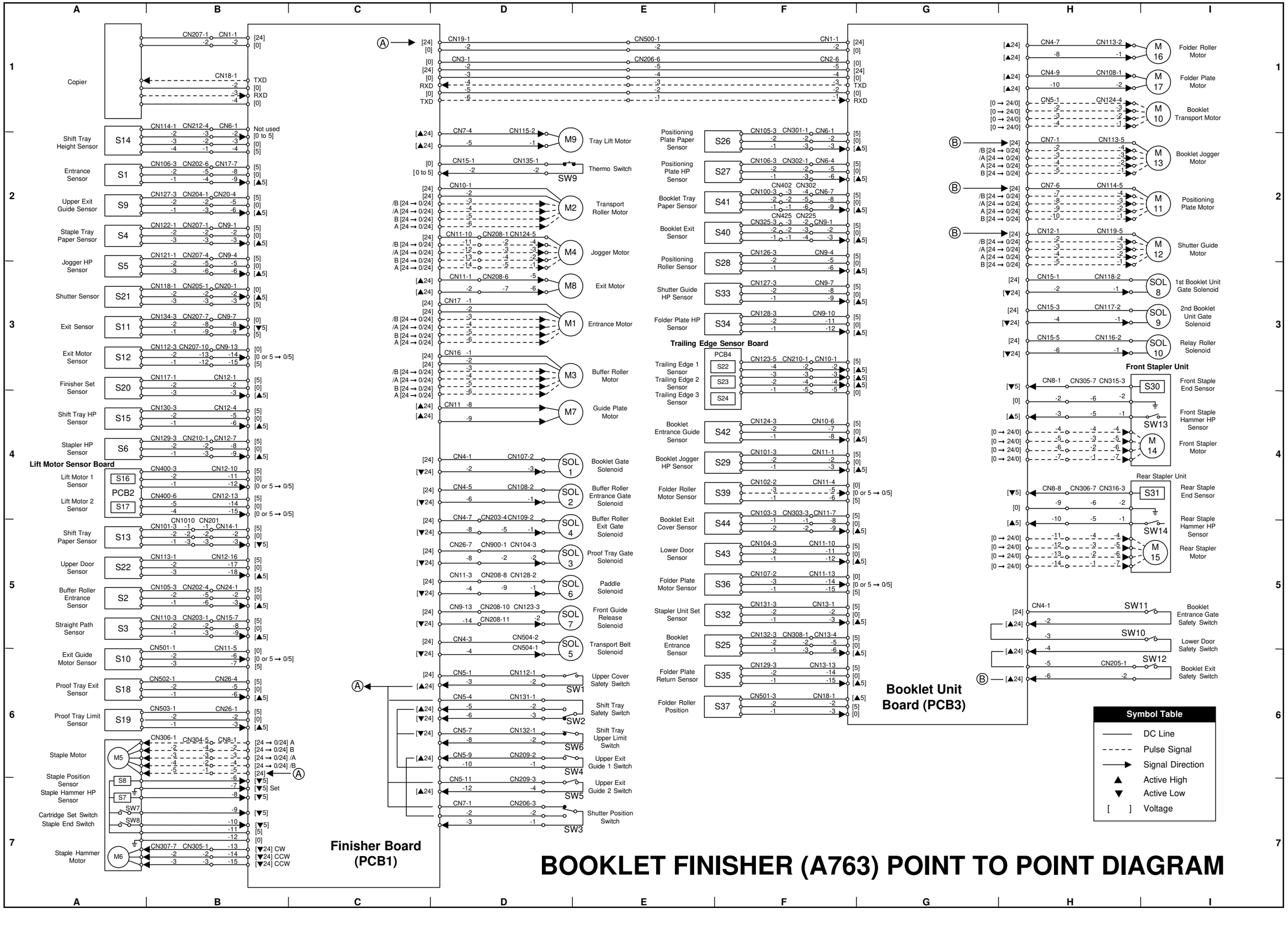
Symbol	Name	Index No.	P to P
Motors			
M1	Entrance	49	E3
M2	Transport Roller	47	E2
M3	Buffer Roller	48	E3
M4	Jogger	44	E2
M5	Stapler	52	A6
M6	Staple Hammer	51	A7
M7	Guide Plate	46	E4
M8	Exit Motor	45	E3
M9	Tray Lift	50	E2
M10	Booklet Transport	56	I1
M11	Positioning Plate	54	I2
M12	Shutter Guide	55	I2
M13	Booklet Jogger	57	I2
M14	Front Stapler	60	I4
M15	Rear Stapler	53	I5
M16	Folder Roller	59	I1
M17	Folder Plate	58	I1

Symbol	Name	Index No.	P to P
Switches			
SW1	Upper Cover Safety	77	E6
SW2	Shift Tray Safety	82	E6
SW3	Shutter Position	76	E7
SW4	Upper Exit Guide 1	80	E6
SW5	Upper Exit Guide 2	79	E7
SW6	Shift Tray Upper Limit	81	E6
SW7	Cartridge Set	83	A7
SW8	Staple End	83	A7
SW9	Thermo	78	E2
SW10	Lower Door Safety	87	I5
SW11	Booklet Entrance Guide Safety	84	I5
SW12	Booklet Exit Safety	88	I6
SW13	Front Staple Hammer HP	86	I4
SW14	Rear Staple Hammer HP	85	I5

Symbol	Name	Index No.	P to P
Sensors			
S1	Entrance	3	A2
S2	Buffer Roller Entrance	2	A5
S3	Straight Path	21	A5
S4	Staple Tray Paper	8	A2
S5	Jogger HP	19	A3
S6	Stapler Unit HP	16	A4
S7	Staple Hammer HP	14	A7
S8	Staple Position	14	A7
S9	Upper Exit Guide	4	A2
S10	Exit Guide Motor	7	A6
S11	Exit	18	A3
S12	Exit Motor	13	A3
S13	Shift Tray Paper	20	A5
S14	Shift Tray height	1	A2
S15	Shift Tray HP	12	A4
S16	Lift Motor 1	11	A4
S17	Lift Motor 2	10	A4
S18	Proof Tray Exit	5	A6
S19	Proof Tray Limit	6	A6
S20	Finisher Set	20	A6
S21	Shutter	15	A3
S22	Trailing Edge 1	24	F3
S23	Trailing Edge 2	23	F3
S24	Trailing Edge 3	22	F4
S25	Booklet Entrance	32	F5
S26	Positioning Plate Paper	34	F2
S27	Positioning Plate HP	35	F2
S28	Positioning Roller	31	F3
S29	Booklet Jogger HP	39	F4
S30	Front Staple End	43	I3
S31	Rear Staple End	25	I4
S32	Stapler Unit Set	26	F5
S33	Shutter Guide HP	33	F3
S34	Folder Plate HP	29	F3
S35	Folder Plate Return	30	F6
S36	Folder Plate Motor	36	F5
S37	Folder Roller Position	28	F6

Symbol	Name	Index No.	P to P
Sensors			
S39	Folder Roller Motor	37	F4
S40	Booklet Exit	41	F2
S41	Booklet Tray Paper	40	F2
S42	Booklet Entrance Guide	27	F4
S43	Lower Door	42	F5
S44	Booklet Exit Cover	38	F5
S45	Upper Door	16	F6

Symbol	Name	Index No.	P to P
Solenoids			
SOL1	Booklet Gate	72	E4
SOL2	Buffer Roller Entrance Gate	71	E4
SOL3	Proof Tray Gate	70	E5
SOL4	Buffer Roller Exit Gate	68	E4
SOL5	Transport Belt	69	E5
SOL6	Paddle	67	E5
SOL7	Front Guide Release	66	E5
SOL8	1st Booklet Unit Gate	73	I3
SOL3	2nd Booklet Unit Gate	74	I3
SOL4	Relay Roller	75	I3
PCBs			
PCB1	Finisher	61	C7
PCB2	Lift Motor Sensor	63	A4
PCB3	Booklet Unit	65	G6
PCB4	Trailing Edge Sensor	64	F3
Others			
HR1	Stapler Interface	62	-


Copier
Shift Tray Height Sensor
Entrance Sensor
Upper Exit Guide Sensor
Staple Tray Paper Sensor
Jogger HP Sensor
Shutter Sensor
Exit Sensor
Exit Motor Sensor
Finisher Set Sensor
Shift Tray HP Sensor
Stapler HP Sensor
Lift Motor Sensor Board
Lift Motor 1 Sensor
Lift Motor 2 Sensor
Shift Tray Paper Sensor
Upper Door Sensor
Buffer Roller Entrance Sensor
Straight Path Sensor
Exit Guide Motor Sensor
Proof Tray Exit Sensor
Proof Tray Limit Sensor
Staple Motor
Staple Position Sensor
Staple Hammer HP Sensor
Cartridge Set Switch
Staple End Switch
Staple Hammer Motor
Finisher Board (PCB1)
Tray Lift Motor
Thermo Switch
Transport Roller Motor
Jogger Motor
Exit Motor
Entrance Motor
Buffer Roller Motor
Guide Plate Motor
Booklet Gate Solenoid
Buffer Roller Entrance Gate Solenoid
Buffer Roller Exit Gate Solenoid
Proof Tray Gate Solenoid
Paddle Solenoid
Front Guide Release Solenoid
Transport Belt Solenoid
Upper Cover Safety Switch
Shift Tray Safety Switch
Shift Tray Upper Limit Switch
Upper Exit Guide 1 Switch
Upper Exit Guide 2 Switch
Shutter Position Switch
Positioning Plate Paper Sensor
Positioning Plate HP Sensor
Booklet Tray Paper Sensor
Booklet Exit Sensor
Positioning Roller Sensor
Shutter Guide HP Sensor
Folder Plate HP Sensor
Trailing Edge Sensor Board
Trailing Edge 1 Sensor
Trailing Edge 2 Sensor
Trailing Edge 3 Sensor
Booklet Entrance Guide Sensor
Booklet Jogger HP Sensor
Folder Roller Motor Sensor
Booklet Exit Cover Sensor
Lower Door Sensor
Folder Plate Motor Sensor
Stapler Unit Set Sensor
Booklet Entrance Sensor
Folder Plate Return Sensor
Folder Roller Position
Booklet Unit Board (PCB3)
Folder Roller Motor
Folder Plate Motor
Booklet Transport Motor
Booklet Jogger Motor
Positioning Plate Motor
Shutter Guide Motor
1st Booklet Unit Gate Solenoid
2nd Booklet Unit Gate Solenoid
Relay Roller Solenoid
Front Stapler Unit
Front Staple End Sensor
Front Staple Hammer HP Sensor
Front Stapler Motor
Rear Stapler Unit
Rear Staple End Sensor
Rear Staple Hammer HP Sensor
Rear Stapler Motor
Booklet Entrance Gate Safety Switch
Lower Door Safety Switch
Booklet Exit Safety Switch
Symbol Table
DC Line
Pulse Signal
Signal Direction
Active High
Active Low
Voltage
BOOKLET FINISHER (A763) POINT TO POINT DIAGRAM