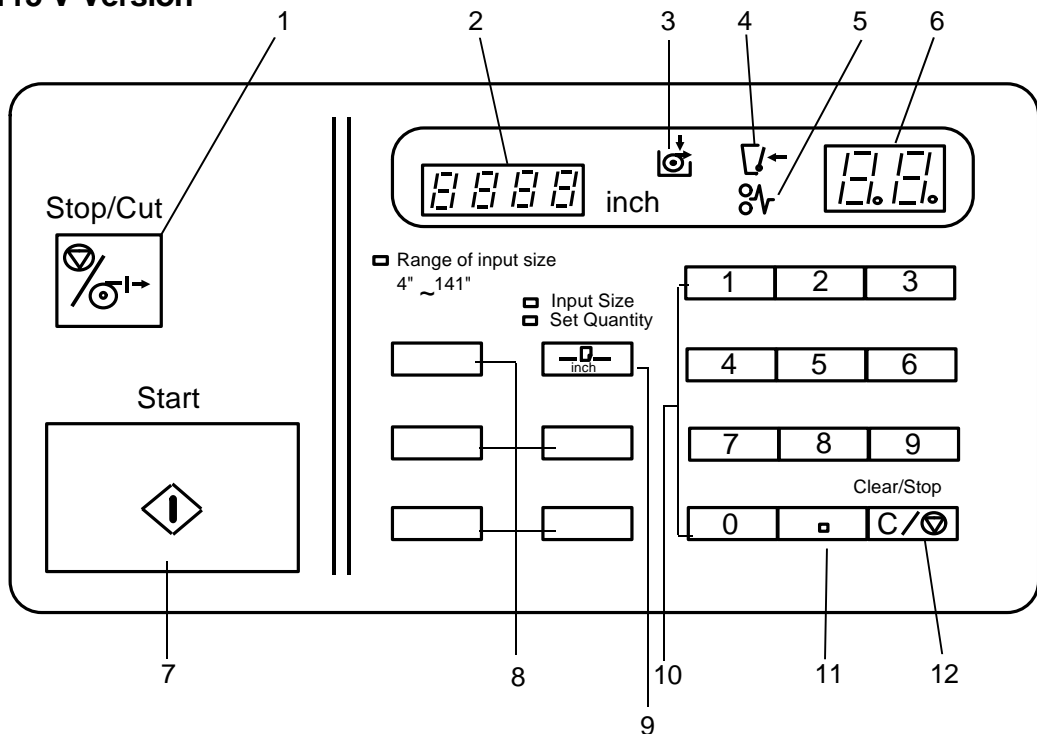


1. SPECIFICATIONS

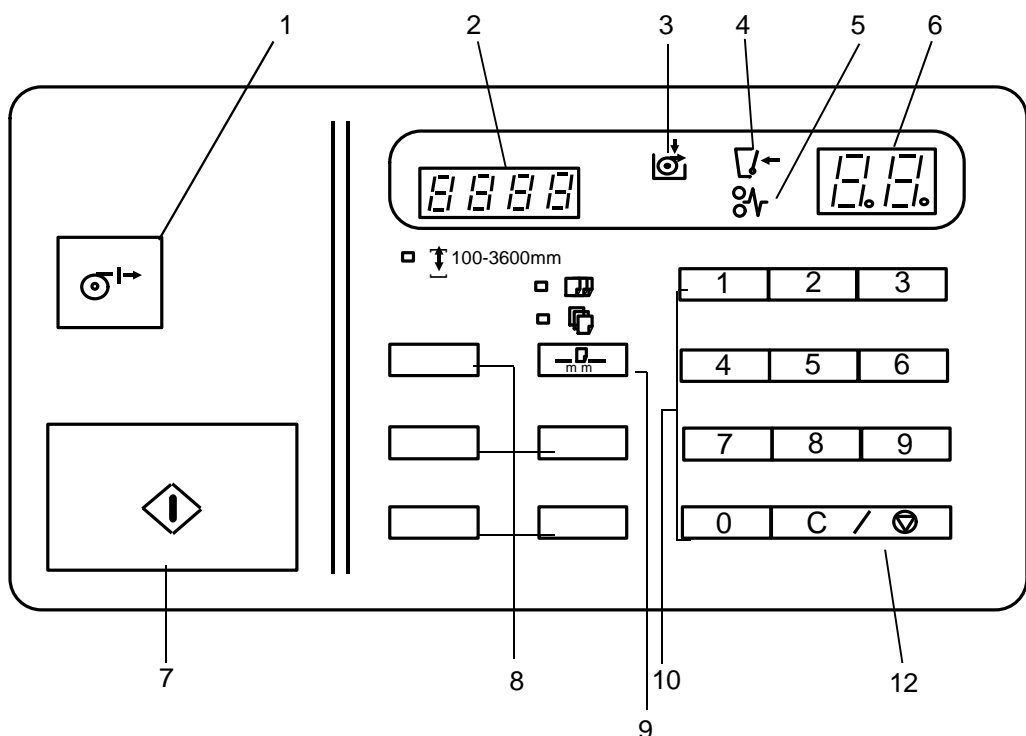
Roll Paper Size:	Width: 210 mm (8 $\frac{1}{2}$ in.) to 1030 mm (36 in.) Length: 150 meters
Cut Size:	100 mm (4 in.) to 3600 mm (141 in.) —Change between millimeters and inches by DIP switch —1 mm or 0.1 in. per step —Maximum length can be changed to 5,000 mm or 200 in. by SP mode.
Cutting Speed:	8.5 seconds (A1 size)
Paper Transport Velocity:	100 mm/s
Repeat Quantity:	1 to 99
Auto Reset:	2 minutes (Can be changed to 1 minute, 5 minutes, or no auto reset by SP mode.)
Control:	Microprocessor
Total Counter:	6 digits (displayed by SP mode)
Power Source:	115 V, 60 Hz, 0.8 A 220 V, 50 Hz, 0.5 A 240 V, 50 Hz, 0.5 A
Power Consumption:	Maximum = 150 W
Dimensions (W x D x H):	1,350 x 250 x 361 millimeters 53.15 x 9.84 x 14.21 inches
Weight:	34 kg, 75 lb

2. OPERATION PANEL

- 115 V Version -



- 220/240 V Version -



1. Stop/Cut Key

Press to stop paper feeding and cut the paper.

2. Length Counter

Displays the cut length.

3. Load Roll Paper Indicator

Lights when it is time to install a new roll of paper.

4. Cover Open Indicator

Lights when one of the covers is open

5. Misfeed Indicator

Lights if paper misfeeds within the roll cutter.

6. Cut Quantity Counter

Displays the number of sheets to be cut.

7. Start Key

Press to start machine operation.

8. Length Program Keys

Frequently used cut lengths can be stored and recalled using these keys.

9. Quantity/Size Select Key

Press to select "Input Size" or "Set Quantity".

10. Number Keys

Use to enter the desired length and cut quantity.

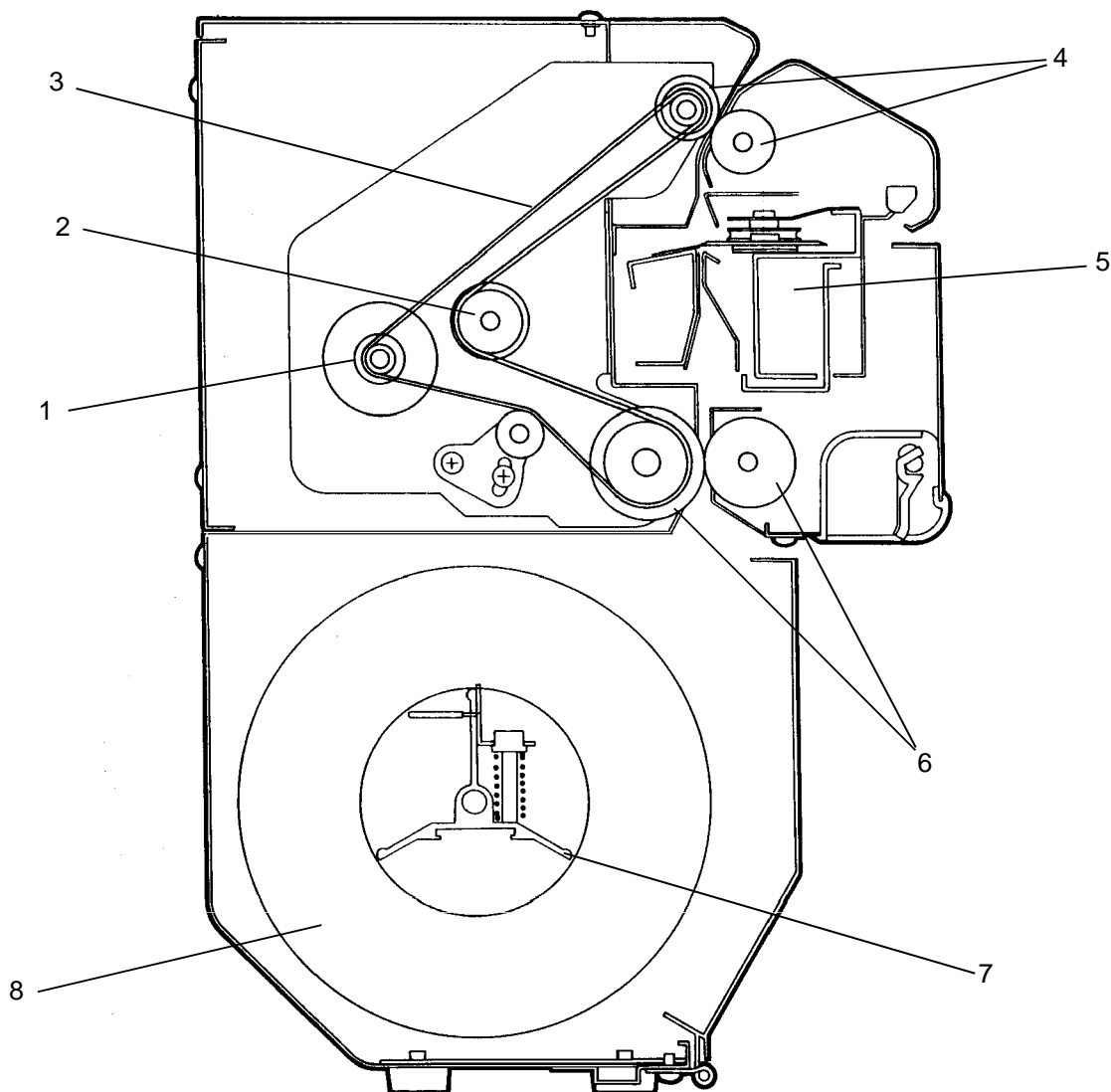
11. Decimal key

Press to enter a decimal point.

12. Clear/Stop Key

Press to cancel the length and cut quantity entered. While feeding, press to stop the machine.

3. MECHANICAL COMPONENT LAYOUT



1. Main Motor Pulley—16Z

2. Idle Pulley

3. Timing Belt

4. Exit Rollers

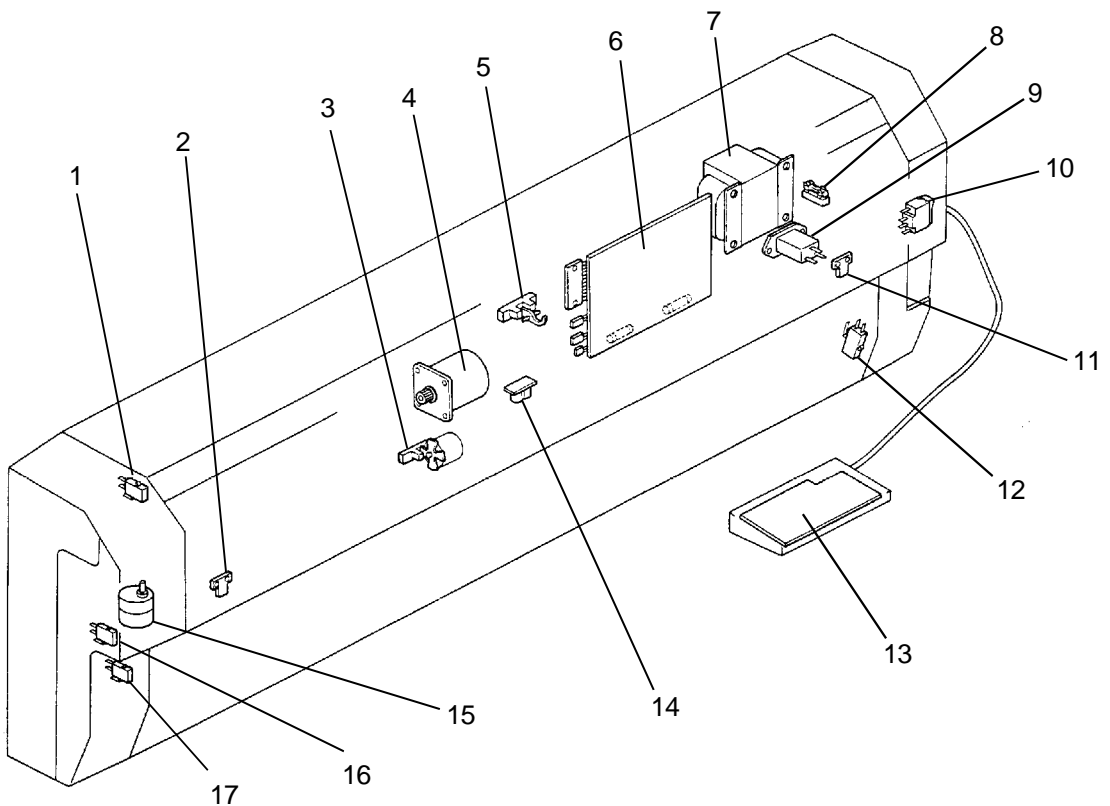
5. Cutter Unit

6. Paper Feed Rollers

7. Paper Roll Spool

8. Paper Roll

4. ELECTRICAL COMPONENT LAYOUT AND DESCRIPTION



SYMBOL	NAME	FUNCTION	LOCATION
Motors			
M1	Main Motor	Drives all mechanical components except the cutter unit.	4
M2	Cutter Motor	Drives the cutter.	15
Switches			
SW1	Main Switch	Supplies power to the unit.	10
SW2	Unit Safety Switch	Cuts power when the entire roll cutter unit is lifted.	12
SW3	Upper Safety Switch	Cuts power when the upper cover is opened.	1

SYMBOL	NAME	FUNCTION	LOCATION
SW4	Middle Safety Switch	Cuts power when the middle cover is opened.	16
SW5	Lower Safety Switch	Cuts power when the lower cover is opened.	17

Sensors

S1	Paper End Sensor	Detects when the roll paper runs out.	14
S2	Left Cutter Sensor	Detects whether or not the cutter is at the left home position.	2
S3	Right Cutter Sensor	Detects whether or not the cutter is at the right home position.	11
S4	Paper Exit Sensor	Misfeed detector. Also detects the leading edge of paper to start paper length pulse count.	5
S5	Pulse Generator	Supplies timing pulses to the main board. (Photointerrupter)	3

Printed Circuit Boards

PCB1	Main Board	Controls all cutter unit functions.	6
PCB2	Operation Panel	Contains the operator controls and indicators.	13

Others

TR	Transformer	Steps down the line voltage to 20 Vac and 10 Vdc.	7
FU	Fuse	Protects the unit from excess voltage input.	8
NF	Noise Filter	Filters out electrical noise on the ac power input lines.	9

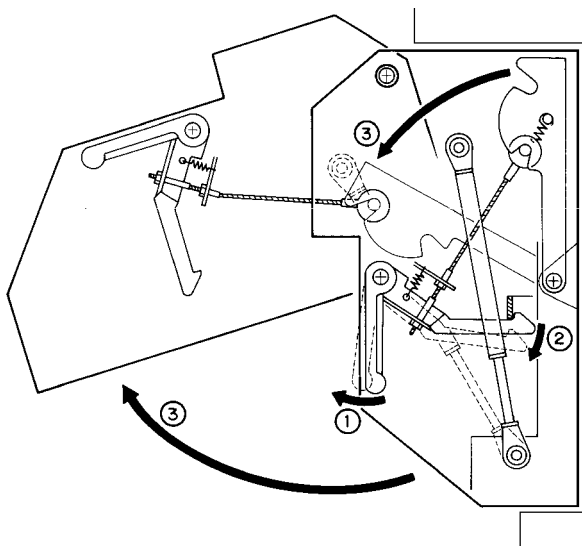
5. MECHANICAL OPERATION

5.1 BASIC OPERATION

The paper feed rollers, which are turned by the main motor, feed paper from the paper roll through the cutter unit to the paper exit sensor. When the paper exit sensor detects the leading edge of the paper, the roll cutter's microprocessor starts measuring the length of the paper. (The paper length is measured by counting the number of steps as the main motor [stepper motor] turns.) When the paper reaches the proper length, paper feed stops and the cutter unit cuts the paper. After that, the exit rollers hold the paper until it is pulled out by the operator. When the paper is pulled out, the machine returns to the stand-by condition.

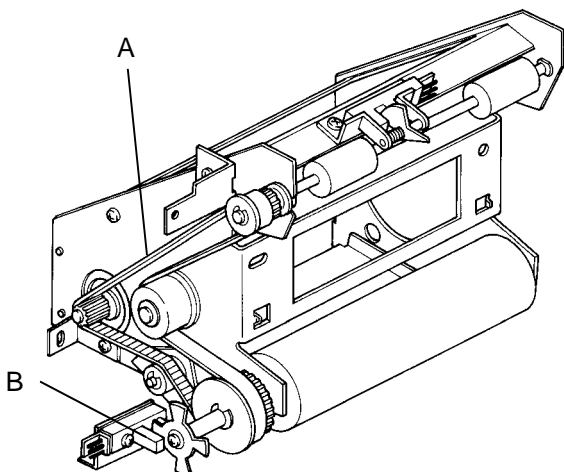
5.2 OPENING AND CLOSING MECHANISM

To load a roll of paper the roll cutter must be opened as shown in the illustration. Gas springs on either end of the machine aid in opening the unit, and lock pins hold the unit in place when it is in either the fully opened position or when it is closed.

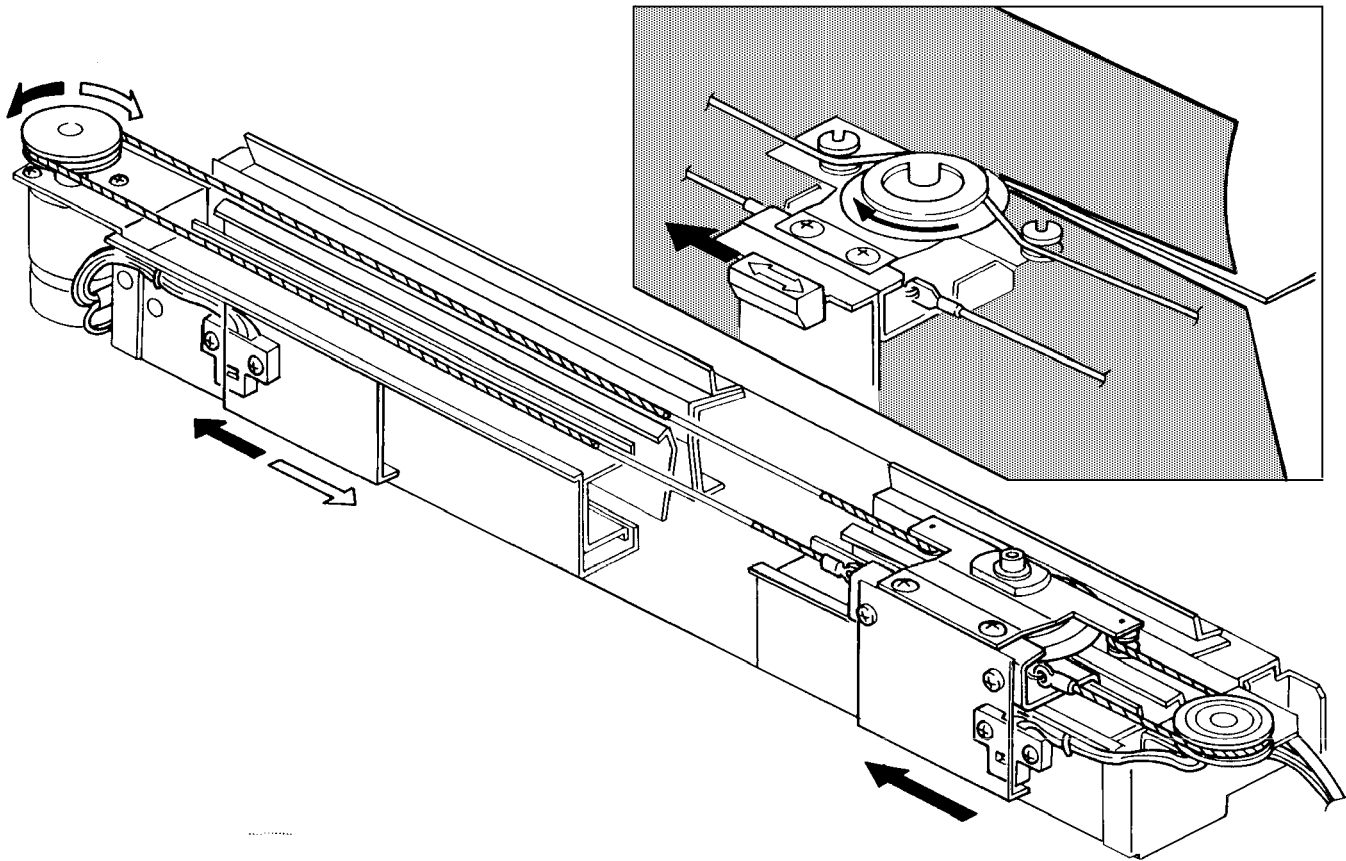


5.3 DRIVE MECHANISM

All rollers are driven by the main motor (stepper motor) through a timing belt [A]. A pulse generator [B] makes timing pulses as the main motor turns. These pulses are used to control all machine operations.



5.4 CUTTER OPERATION



The cutter unit uses a sliding rotary cutting blade which is pulled past a fixed blade by a drive wire. The rotary cutting blade allows the cutter unit to cut paper in both directions. There are home position sensors at both ends of the cutter unit. The cutter motor turns off, stopping the cutting action, when the rotary cutting blade turns on one of these sensors.

5.5 SERVICE CALL CONDITIONS

Code E1 (Abnormal Drive Motor)

Code E1 lights if the CPU does not receive the input signal from the pulse generator for one second after the drive motor turns on.

Code E2 (Abnormal Cutter Motor)

Code E2 lights if both left and right cutter sensors turn on at the same time or the left or right sensor does not turn on/off 2 seconds after the cutter motor turns on. To reset E1 and/or E2, turn the main switch off and on.

6. SERVICE TABLES

6.1 SERVICE PROGRAM MODE

– SP Mode Operation –

1. While simultaneously pressing the "0" and "Clear/Stop" keys, turn on the Main switch.
2. Enter the proper numbers in the Length Counter and Cut Quantity Counter as shown in the following table.
3. Press the Quantity/Size Select key. (This step is not necessary for input mode.)

Type	Length Counter	Function	Cut Quantity Counter			
			0	1	2	3
Set Mode	1	Auto Reset (minutes)	2	1	5	None
	2	Maximum Cut Length (mm)	3600	5000	—	—
	3	Key Tone	ON	OFF	—	—
	4	Count Up/Down	Up	Down	—	—
Input Mode	61	Roll End Sensor	No paper	Paper present	—	—
	62	Paper Exit Sensor	No paper	Paper present	—	—
	63	Left Cutter Sensor	OFF	ON	—	—
	64	Right Cutter Sensor	OFF	ON	—	—
	65	Cover Switches (x4)	ON	OFF	—	—
	66	Pulse Generator	Photointerrupter open	Photointerrupter blocked	—	—
Output Mode	70	Free Run	OFF	ON	—	—
	71	Main Motor	OFF	ON	—	—
	72	Cutter Motor	OFF	ON	—	—
	73	Total Counter (operate)	OFF	ON	—	—

Type	Length Counter	Function	Cut Quantity Counter			
			0	1	2	3
Other	81	Total Counter (check)	—	—	—	—
	91	Cut Length Adjustment	—	—	—	—

6.2 TEST POINTS AND DIP SWITCHES

6.2.1 Test Points

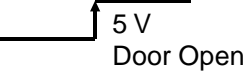
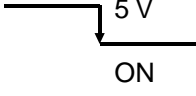

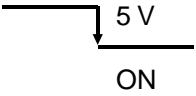
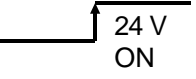
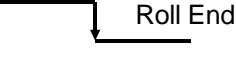
Function	TP No.
GND	TP-1
V _A (24 V)	TP-2
Paper End Sensor	TP-3
V _C (5 V)	TP-4

6.2.2 DIP Switch

The DIP switch is used to set the machine for either millimeters or inches

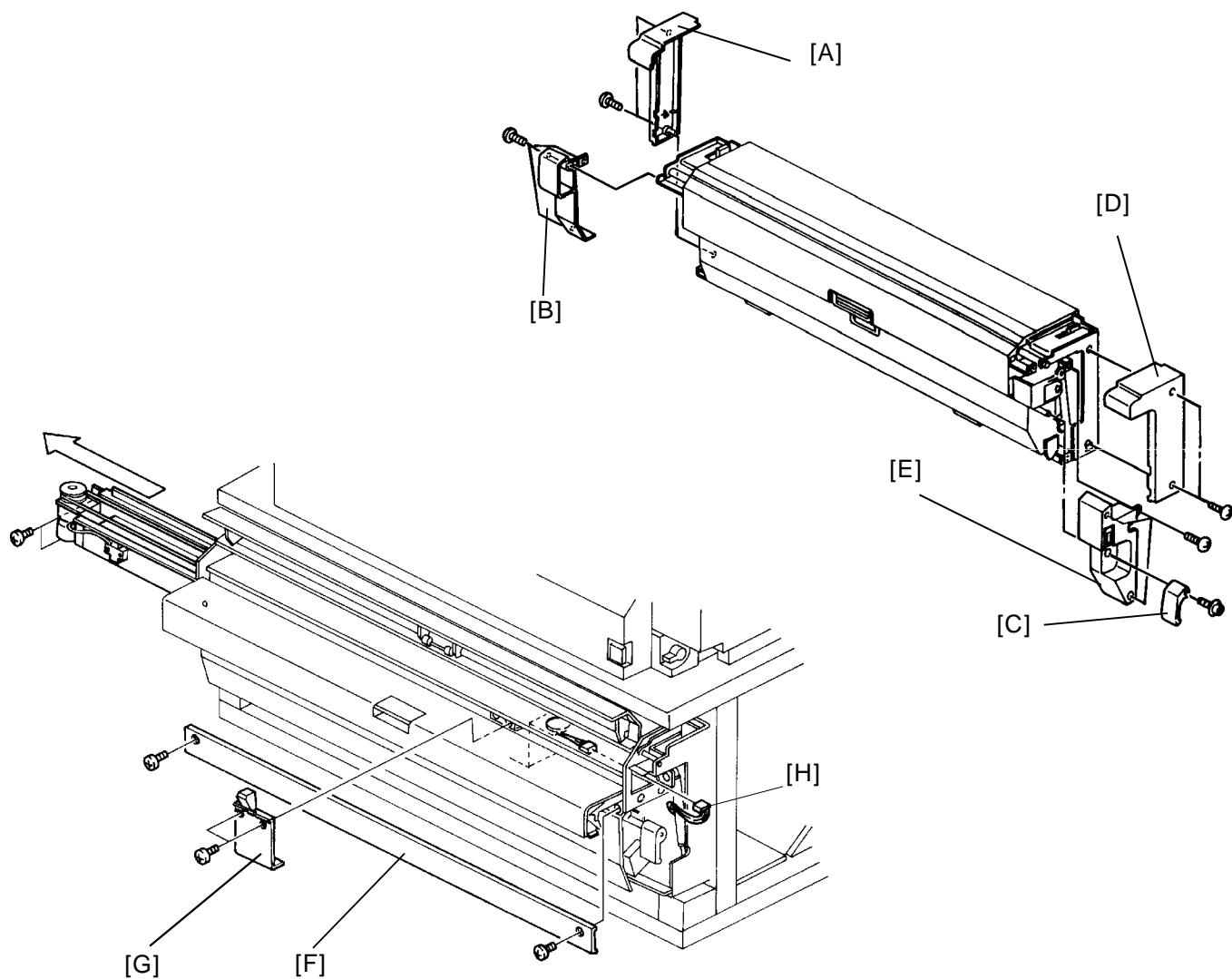
SW No.	OFF	ON	Note
1	Millimeters	Inches	Length counter
2	—	—	Not used

6.3 SIGNAL LEVELS

Signal Name	I/O	CN No.	Signal Level
Safety Switch	I	102-2	
Paper Exit Sensor	I	102-3	
Pulse Generator	I	102-4	
Left Cutter Sensor	I	102-5	
Right Cutter Sensor	I	102-7	
Cutter Motor	O	102-8 and 102-9	
Paper End Sensor	I	101-2	

7. REPLACEMENT AND ADJUSTMENT

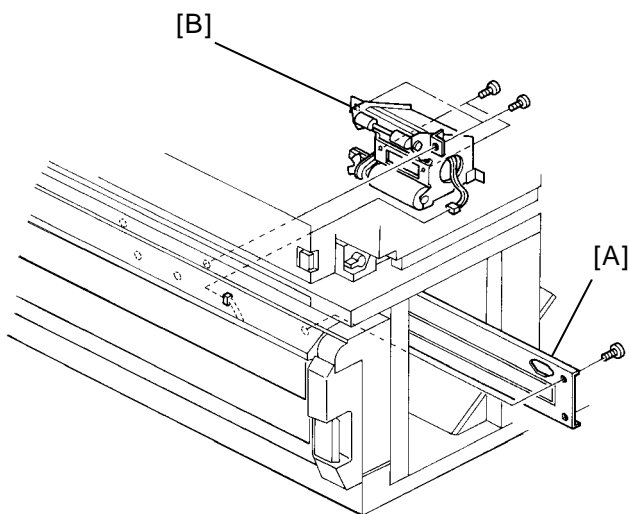
7.1 CUTTER UNIT REMOVAL



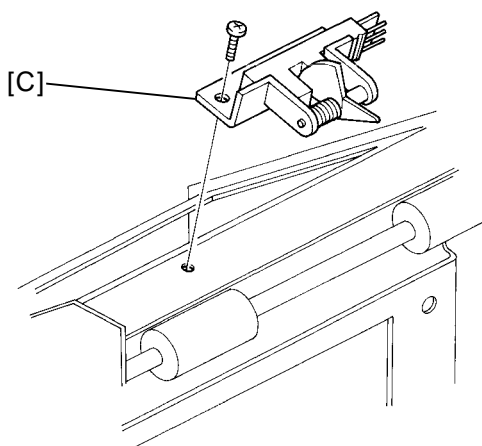
1. Remove the left covers [A,B], the release knob [C], and the right covers [D,E].
2. Remove the cutter front cover [F] and the knob plate [G].
3. Disconnect the cutter connector [H].
4. Remove the 4 screws (2 at each end) that secure the cutter unit and slide out the unit in the arrow direction.

7.2 REPLACEMENT OF THE PAPER EXIT SENSOR AND PULSE GENERATOR

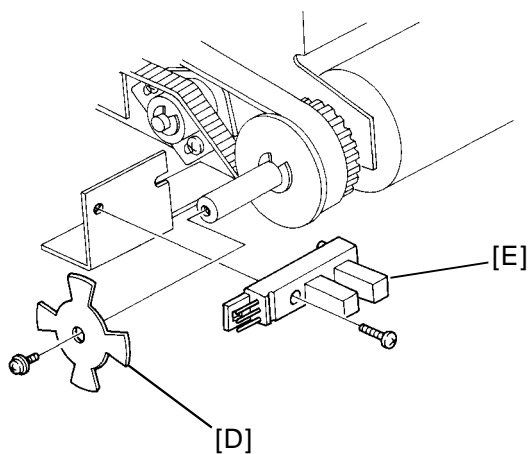
1. Remove the rear cover [A].
2. Disconnect the connectors of the paper exit sensor and the pulse generator.
3. Remove the main motor unit [B]



4. Remove the paper exit sensor [C] from the main motor unit.



5. Remove the pulse generator disc [D] and the pulse generator photointerruptor [E].



7.3 CUT LENGTH ADJUSTMENT

1. Cut 100 mm and 500 mm sheets with the roll cutter and then measure their length.
2. Select SP mode 91. (Cut length adjustment)
3. Enter the actual length of the "100 mm" sheet. (Enter up to one digit past the decimal point.)
4. Press the Quantity/Size Select key.
5. Enter the actual length of the "500 mm" sheet. (Enter up to one digit past the decimal point.)
6. Turn off the main switch. (The new data will be saved in RAM.)
7. Again cut "100 mm" and "500 mm" sheets and check their length.
8. If the length of each of these sheets is not correct, repeat steps 2 through 7.

8. INSTALLATION PROCEDURE

8.1 ACCESSORY CHECK

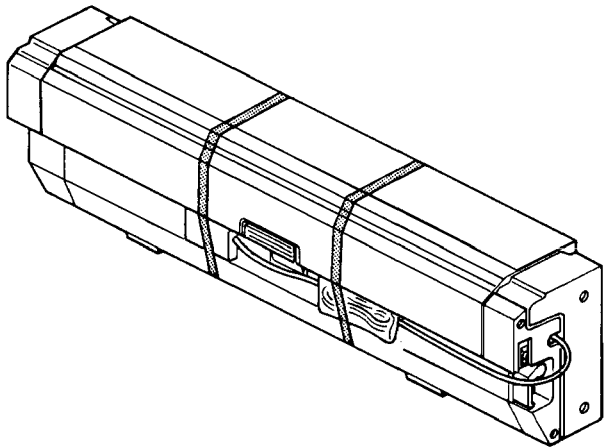
Check the accessories and their quantities according to the following list:

- | | |
|----------------------------|-------|
| 1. Paper Size Labels | 1 set |
| 2. Paper Spool | 1 pc |
| 3. Power Supply Cord | 1 pc |
| 4. Pan Head Screw..... | 8 pcs |
| 5. Mounting Plate | 1 pc |
| 6. Decal | 1 pc |
| 7. Nylon Clip..... | 2 pcs |

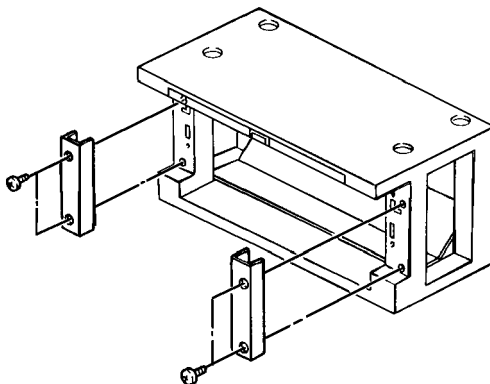
CAUTION: The A023 copier must be placed on the table before the roll paper cutter is installed. Otherwise, the table may become unbalanced during installation.

8.2 INSTALLATION PROCEDURE

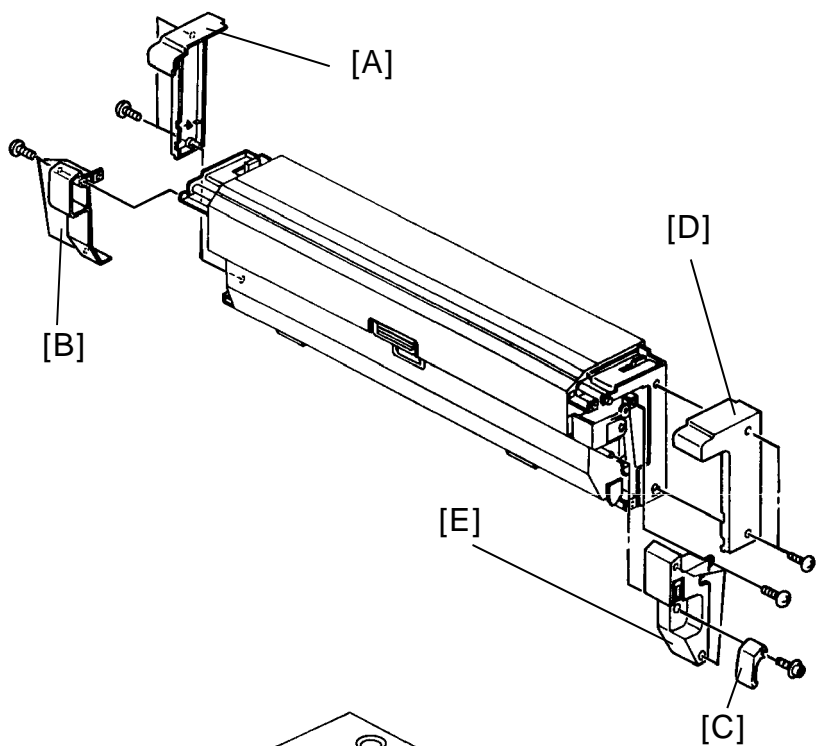
1. Remove all strips of shipping tape from the unit.



2. Remove the left and right cover plates from the table.

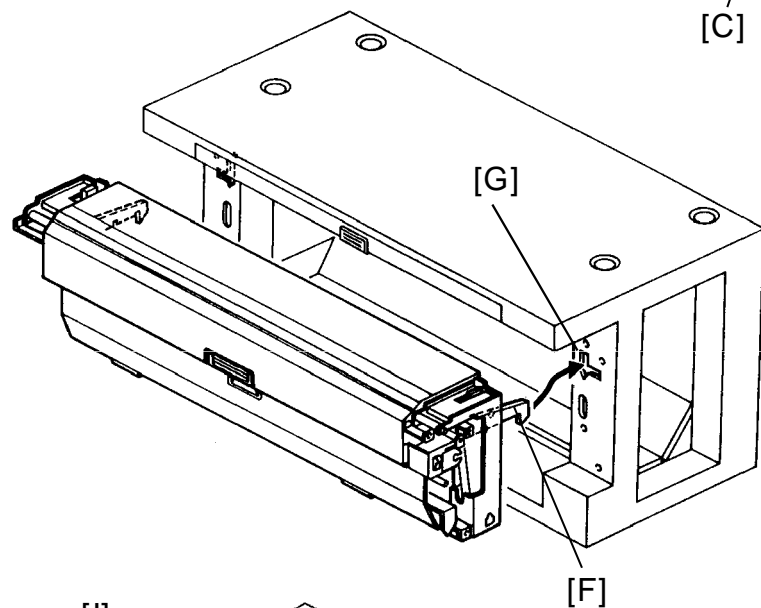


3. Remove the left covers [A,B], the release knob [C], and the right covers [D,E].

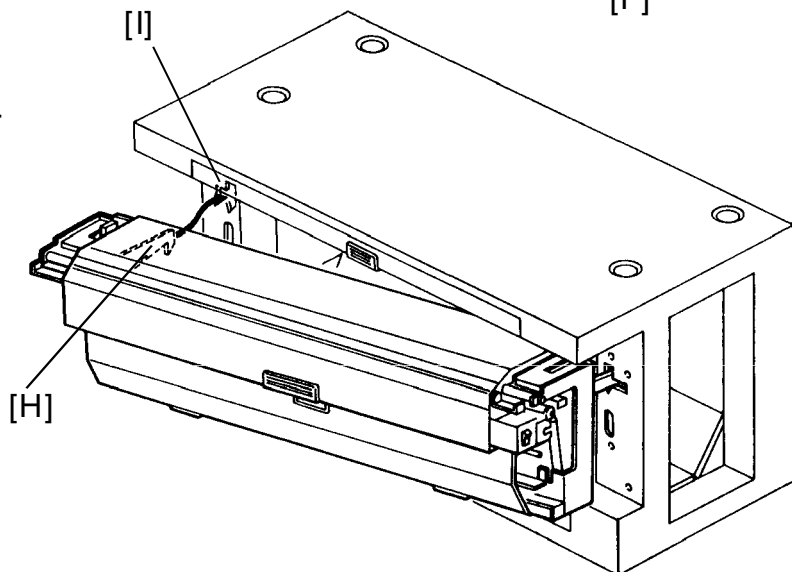


4. Hook the right mounting arm [F] in the right mounting slot [G].

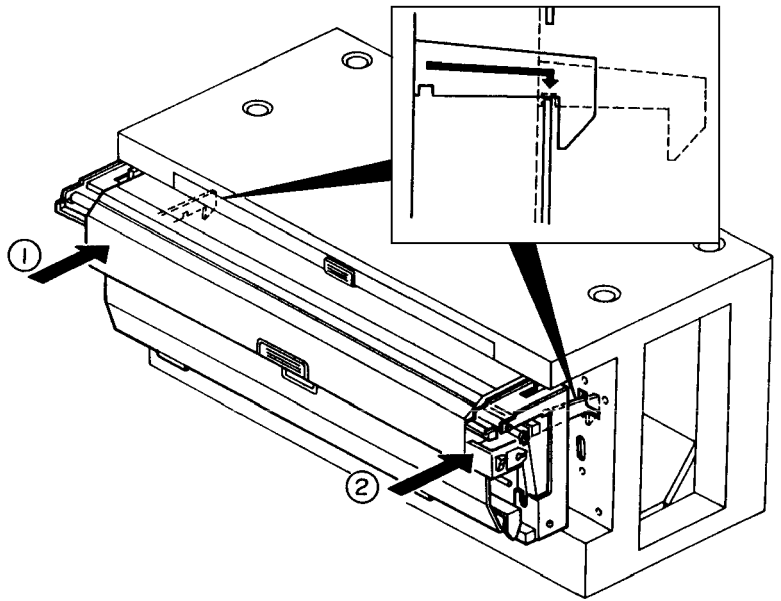
NOTE: The right mounting arm must be set first for proper alignment.



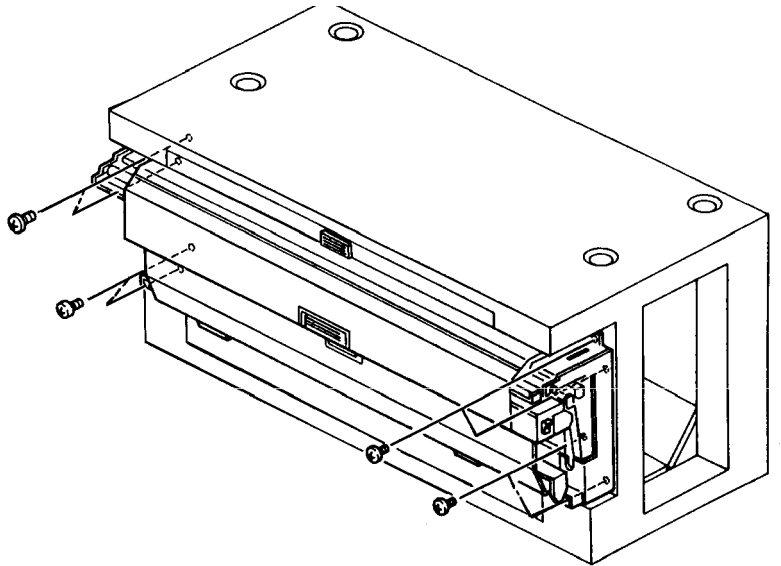
5. Hook the left mounting arm [H] in the left mounting slot [I].



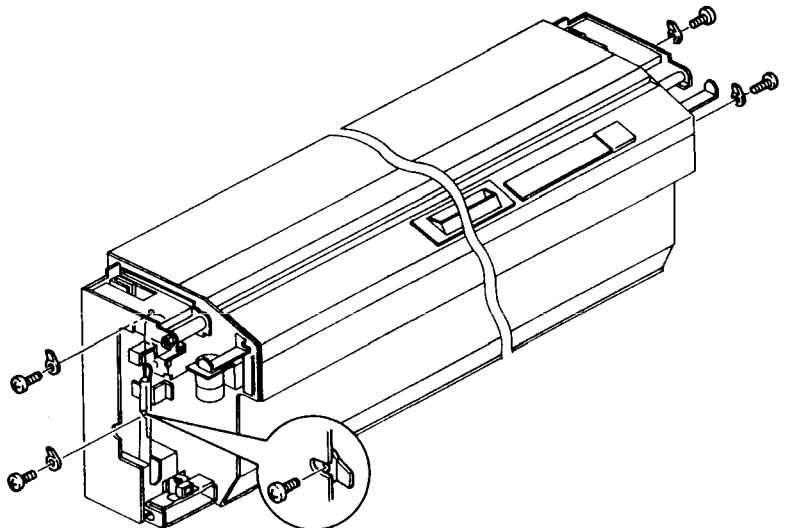
6. Push the roll cutter in at position (1) until the left mounting arm is set securely. Then, push in at position (2) until the right mounting arm is set securely.



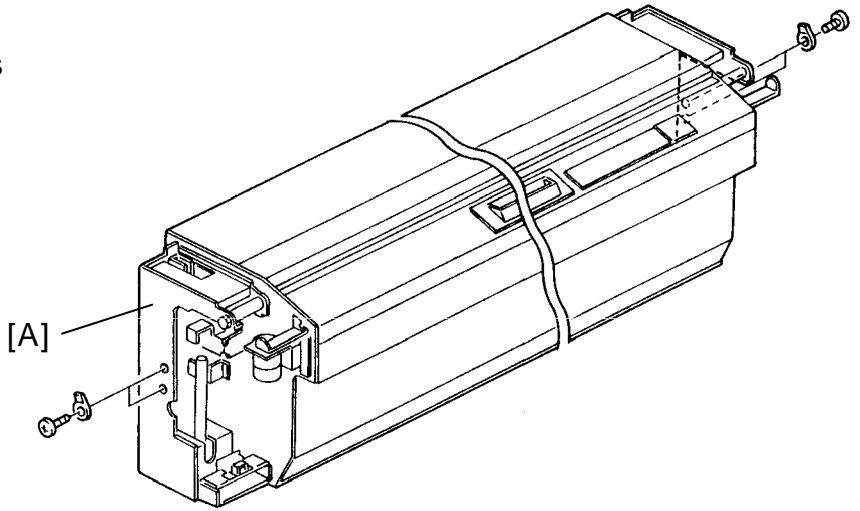
7. Secure the roll paper cutter to the table with 8 screws.



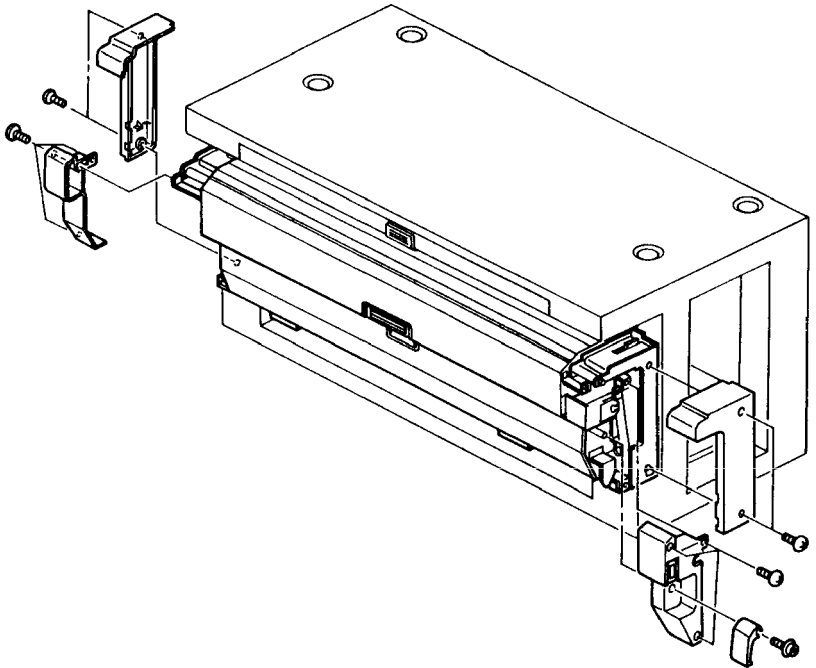
8. Remove 4 spacers from the right and left sides (2 spacers each) of the unit.



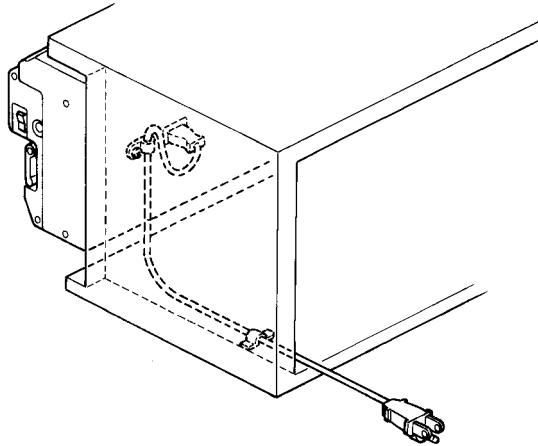
- Secure the 2 spacers to the left and right side brackets [A] respectively. (For future use if the machine is moved.)



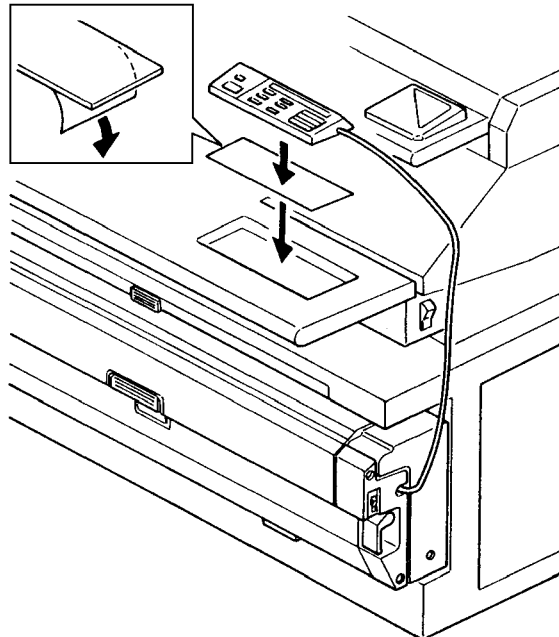
- Install the left and right covers and the release knob.



11. Install the power cord using the two nylon clamps as shown.

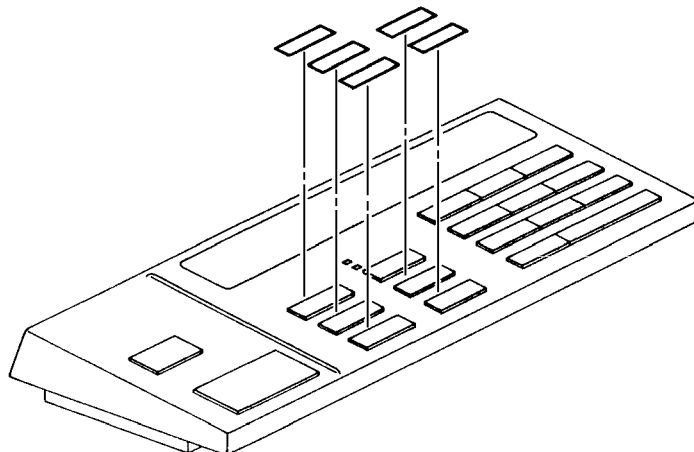


12. Peel the paper from the back of the mounting plate which is packed as an accessory, and stick it in the depression in the paper feed table.

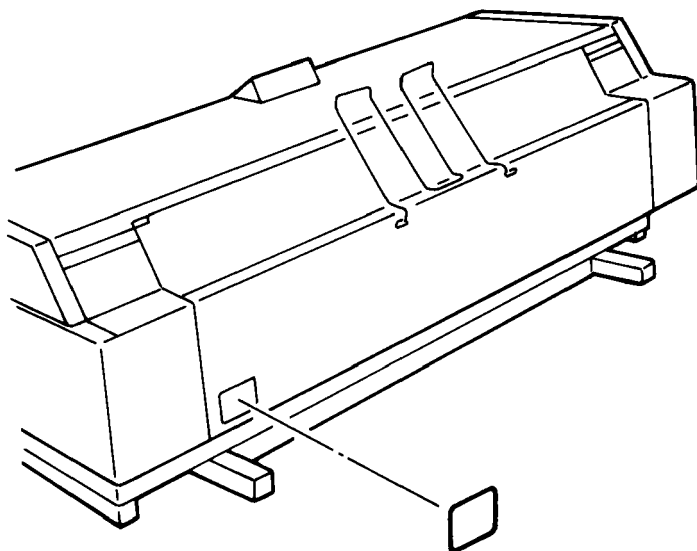


13. Place the operation panel unit on the mounting plate.

14. Register the desired standard paper lengths and stick the labels on the operation panel.



15. Adhere the decal to the main copier



16. Remove all shipping retainers from the roll cutter.

17. Mount a roll of paper on the paper spool and place it in the cutter unit.

18. Plug in the power cord and turn on the main switch of the roll cutter unit.

