

Tape Dispenser Type D1
Field Service Manual

November, 2017

Introduction



The cause of most accidents is failure to adhere to basic safety rules and observe safety instructions. It is important to prevent potential causes of accidents from occurring. In order to do so, read this manual carefully, and be sure to understand all the safety instructions and correct inspection and servicing procedures that it provides before beginning repair or servicing work.

Repairing or servicing the machine with insufficient knowledge about it could lead to unforeseen accidents.



It is not possible to anticipate and describe in a manual such as this every possible hazard that could arise in the course of repair and servicing. Therefore, besides observing the safety instructions marked in this manual and on the machine's labels, service personnel should be safety-conscious and take other safety precautions as necessary. When performing repair or service work not covered by this manual, you should obtain safety guidance from an appropriately knowledgeable person.

■ Using the Service Manual

- This service manual includes the structural and functional descriptions for the major areas of tape dispenser, along with the descriptions of procedures for disassembly and assembly, design standard and adjustment, maintenance and service requirements, and actions to be taken in the case of malfunctions. These are the information as of May 2016. The parts and components used are subject to change for the quality and performance improvements, or for safety reasons. In such cases, please note that certain part of the descriptions and/or illustrations contained in this manual may differ from the actual product.
- The marking listed below accompanied by  indicates the instruction of particular importance for safety reasons. Never fail to comply with them.

● Safety-related instructions

 **WARNING:** Indicates a high degree of potential danger. Failure to heed the warning may lead to death or serious injury.

 **CAUTION:** Indicates a medium degree of potential danger. Failure to heed the caution may lead to injury or damage to property.

[Examples of Pictorial Symbols]



△ symbol is to note that the instruction calls for close attention (including danger and warning).
Specific hazard to be careful about is indicated in the drawing (e.g. warning for electric shock in the case of illustration on the left).



⊘ A circle with a line through it indicates a prohibited action.
The particular act prohibited is indicated by a picture inside the circle.
(In the example shown here, the prohibited act is disassembly.)



● A black disc indicates an instruction, or sometimes a prohibited action.
The instruction itself is indicated by pictorial symbols drawn in white on the disc. (In the example shown here, the instruction is **Remove the plug from the outlet.**)

● Service work-related instructions

IMPORTANT

: Failure to comply with the instruction will result in the problematic performance and poor quality of the machine.

REFERENCE

: This is the information related to the know-how and key points for the effective service work.

Safety Instructions

1. Cautions regarding the installation location

CAUTION

Installation environment

- **Avoid installing the machine in places exposed to direct sunlight.**
 - Sunlight will cause the temperature in the machine's interior to rise, possibly leading to malfunction of the control system.
 - Sunlight could cause misoperation of the sensors.
 - The heat of direct sunlight could cause deformation of the machine's plastic parts.
 - *Also avoid installation near to a ground glass window; light and heat penetrate such windows although they are opaque.
- **Avoid installing the machine in places subject to high or low temperature or humidity.**
 - High or low temperature or humidity could cause the machine to operate abnormally. Suitable temperature and humidity ranges are:
 - Ambient temperature: 10°C–35°C
 - If the machine is installed near to faucets, water heaters or humidifiers, or in cool (sunless) parts of a building or in the vicinity of water sources, the paper could absorb moisture and curl, leading to misfeeds.
- **Avoid installing the machine in places with open flames, or where reflected heat or other hot air currents (from stoves, etc), or cold air currents from air conditioners, etc will strike it directly.**
- **Avoid installing the machine in poorly ventilated places.**
- **Avoid installing the machine in dusty places.**
- **The machine should not be tilting when it is used.**
 - Install the machine so that it is level. (The machine should be level to within 5 mm in the front-rear direction, and 5 mm in the lateral direction.)
- **Do not install the machine on shaky, sloping or otherwise unstable surfaces.**
 - The machine could fall over on such surfaces, or fall off them, causing injury.

2. Cautions for maintenance, inspection and servicing

WARNING

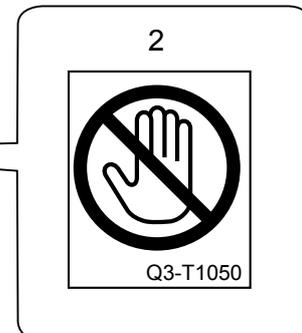
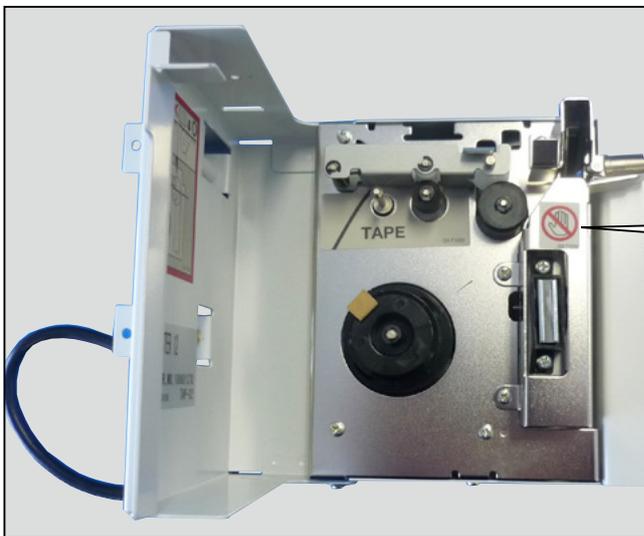
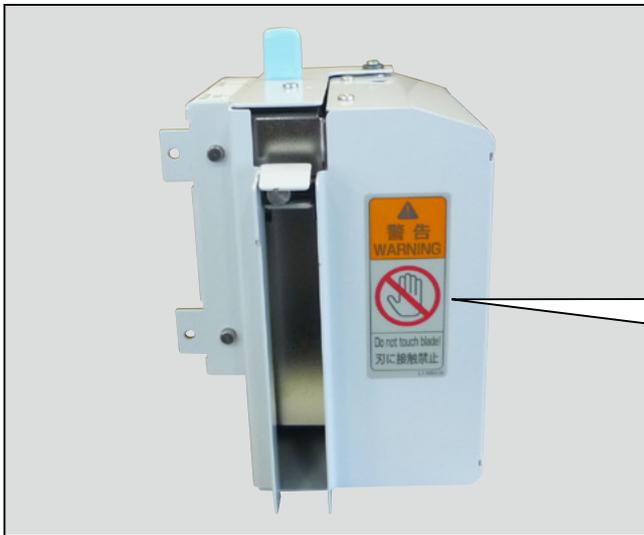
- **Always remove the power cord plug from the outlet before starting work.**
 - Otherwise, your hands/fingers could get damaged beside electrical shock.
 - However, the plug must be left connected to the outlet when performing function checks (of individual motors, a given series of operations, or electrical circuits). When motors are operated alone in function checks, interlocks are deactivated, so be aware of the conditions and positions of related equipment, and take great care not to put your hands or fingers into moving parts.
- Do not put your hands or finger inside the machine while it is operating.
 - Otherwise, your hands/fingers could get caught and injured.
- The tape dispenser contains hazardous blade. Take great care when inspecting or replacing the blades.
 - Otherwise, your hand/fingers could be injured.
- **Working clothes**
 - Wear clothing that enables you to work safely.
Work clothing should be close-fitting.

CAUTION

- **Tools**
 - Use tools that are appropriate for the work.

• Locations of Warning Labels

The locations of the warning labels are shown below. To ensure safe work, read the labels and heed their instructions. Keep the labels clean at all times.





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Mechanism

3

Standard / Adjustment

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Chapter 1

Introduction

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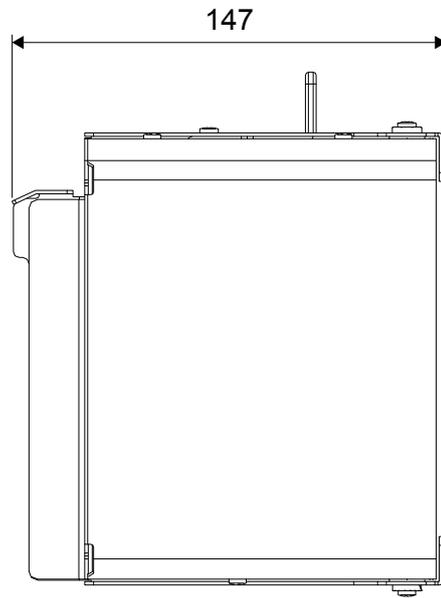
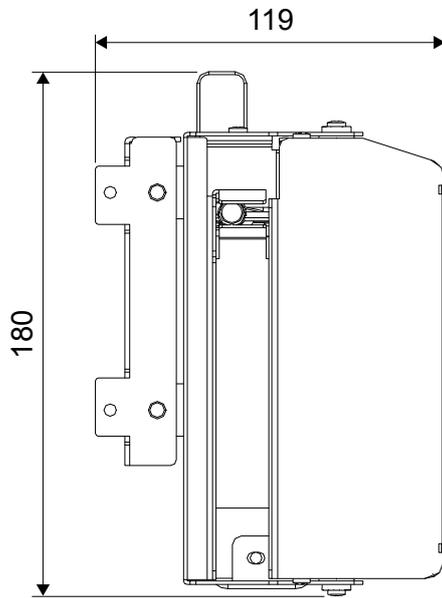
1 Specifications

	Tape Dispenser Type D1
Tape feeding method	Friction feed (by platen)
Tape feed direction	Unidirection
Tape type	Dedicated roll paper
Power supply	24 VDC (supplied from printer)
Weight	Approx. 1.65 kg (not including the stay for attaching the tape dispenser to the printer)
Dimension	119(W)×147(D)×180(H) mm (not including the stay for attaching the tape dispenser to the printer)
Operating temperature	10C°–35C° (50F°–95F°)

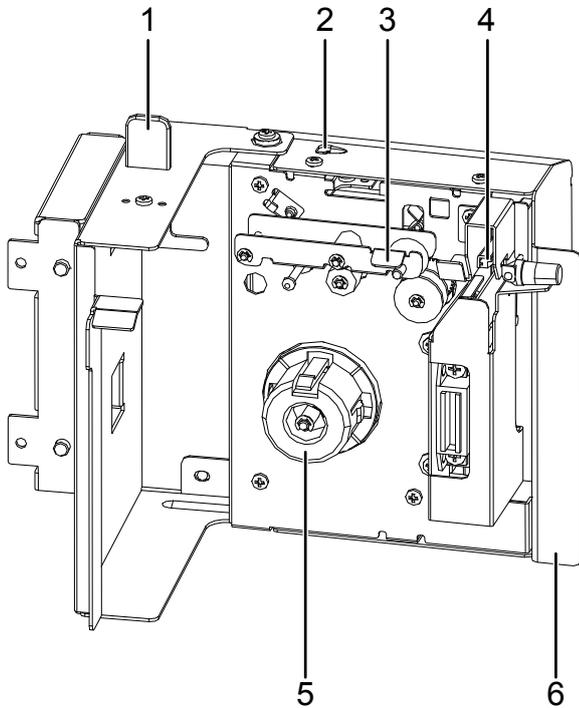
Specifications are subject to change without prior notice due to continual improvements.

2 Dimensions

Unit : mm



1

3 Part Names

No.	Name	Function
1	Slide knob	By holding the knob, change the position of the tape dispenser according to the paper that you use.
2	Tape end LED	The LED flashes when the tape dispenser runs out of the tape.
3	Tape Set Lever	Lift the lever when replacing the tape roll.
4	Cutter	Cuts the tape.
5	Holder	Set the tape roll here.
6	Tape dispenser cover	Open the cover when setting the tape roll.

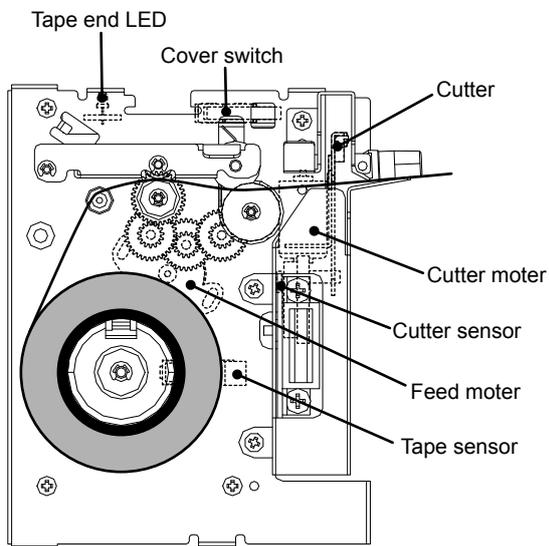
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1 Description

The tape dispenser repeats the following operations when the printer performs batch print.

1. After the printer performs the first batch print, paper feed stops and the drum rotates without paper.
2. The tape dispenser feeds a certain amount of tape by the feed motor.
3. The tape is cut by the cutter motor. The cut tape falls by its own weight.
4. The printer resumes printing.
5. The steps 1 to 4 are repeated according to the number of prints and sets.



2 Function of Parts and Circuit

This product consists of feed motor (1 pce.), cutter motor (1 pce.), cutter sensor, cover switch, tape detection sensor, and tape end LED.

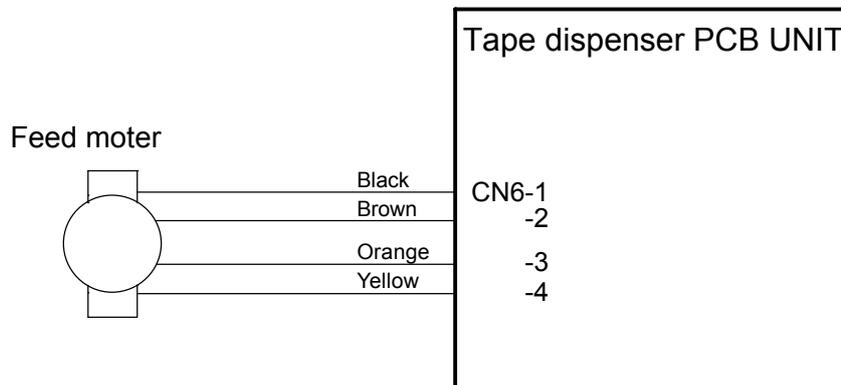
(1) Feed Motor

Description

The tape is fed by driving the feed motor.

The feed motor operates to feed the tape when the cover switch and cutter sensor are turned on.

Circuit

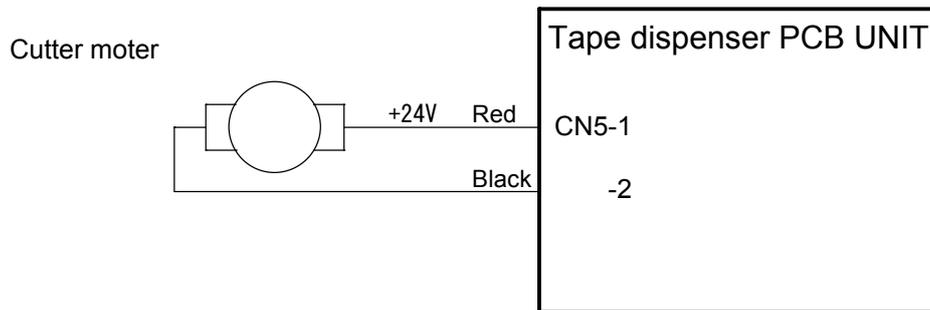


(2) Cutter Motor

Description

The tape is cut by driving the cutter motor.

Circuit



(3) Cutter Sensor

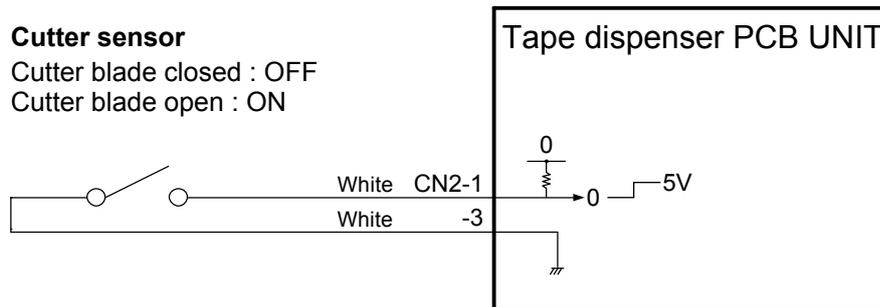
Description

The cutter sensor detects the position of the cutter blade.

The cutter sensor turns OFF when it is ON and normal cutting operation is performed. If it does not turn ON after it turns OFF, cutter mechanism error appears.

When the cutter sensor is OFF, operate the cutter motor until the cutter sensor turns ON to perform normal cutting operation.

Circuit



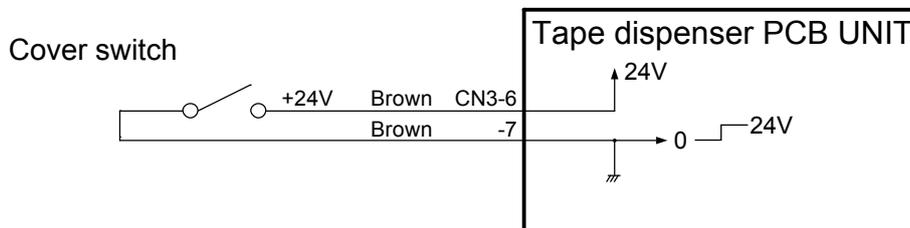
2

(4) Cover Switch

Description

The cover switch detects open/close state of tape dispenser cover. When the tape dispenser cover is closed, the cover switch is ON.

Circuit

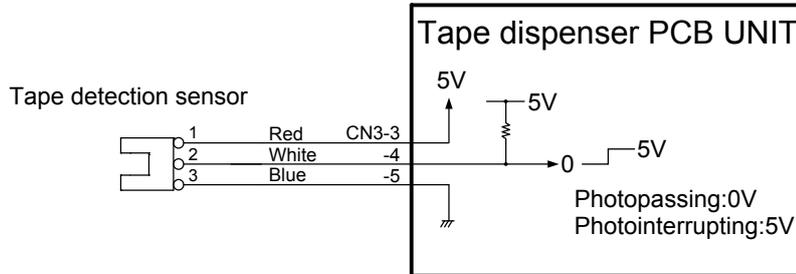


(5) Tape Detection Sensor

Description

The tape end LED flashes when the tape detection sensor status does not change within one or two seconds after the feed motor operates.

Circuit

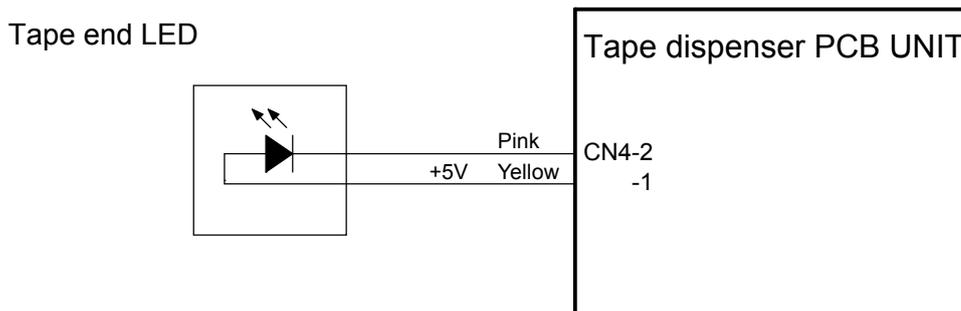


(6) Tape End LED

Description

The tape end LED flashes when the tape end is detected by the tape detection sensor.

Circuit



Chapter 3

Mechanism

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CAUTION

- Always remove the power cord plug from the outlet before starting work.

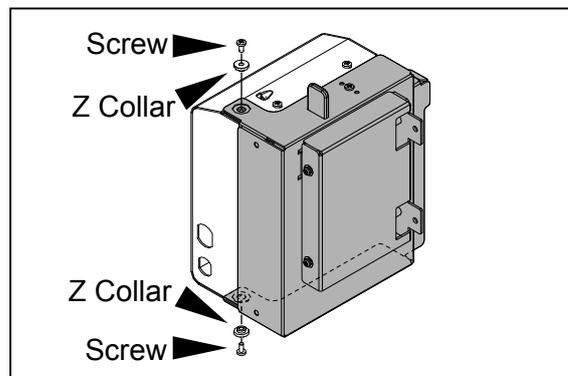
• Cautions Regarding Disassembly and Assembly

- In principle, do not operate this machine with parts removed.
- When assembling:
 - Unless specified otherwise, perform the disassembly procedure in reverse.
 - Make sure that screw types (radius, length) and locations are correct.
 - Be sure to use rosette washers when they are specified.
(Rosette washers are used with installation screws to prevent static electricity.)
- To ensure electrical current, a rosette washer is used with the installation screw on the ground wire. Be sure to use the rosette washer during assembly.

1 Exterior

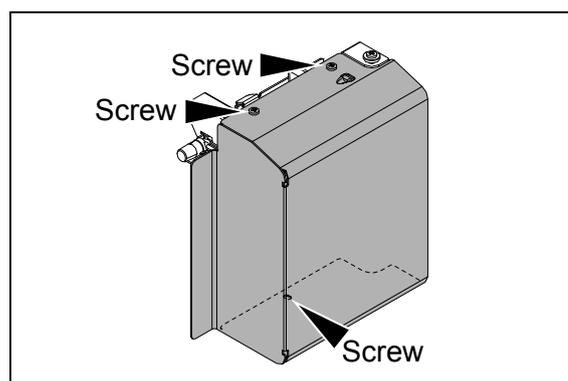
(1) Removing the Moving Unit

1. Remove the two screws to detach the two Z collars and moving unit.



(2) Removing the Front Cover

1. Remove the moving unit. **→See (1) above**
2. Remove the three screws to detach the front cover.



Reinstallation

IMPORTANT

Make sure that the clearance in the figure is 18.5 ± 0.5 mm. If it is not 18–19 mm, loosen the screws in step 2 to adjust it.



2 Electrical System Section

(1) Removing the Tape Dispenser PCB Unit

! WARNING

- Always remove the power cord plug from the outlet before replacing a PCB unit.

1. Remove the moving unit.

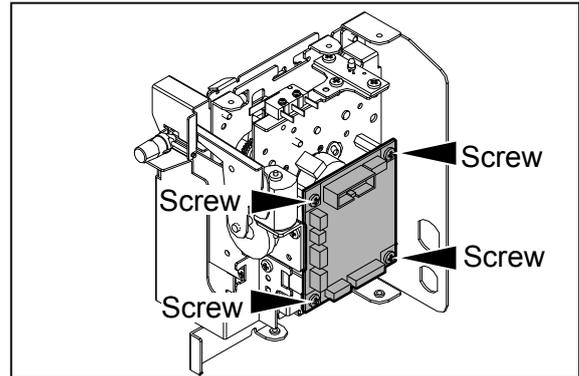
→ See Page 20

2. Remove the front cover.

→ See Page 20

3. Disconnect six connectors.

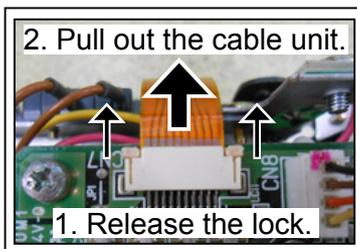
4. Remove the four screws to detach the Tape dispenser PCB unit.



3

IMPORTANT

- Carefully release the lock when disconnecting the flat cable. Failure to do so may damage the PCB unit.



Reinstallation

- Connect the flat cable in the correct direction. Connect it with the terminal surface up.

(2) Removing the LED PCB Unit

WARNING

- Always remove the power cord plug from the outlet before replacing a PCB unit.

1. Remove the moving unit.

→ See Page 20

2. Remove the front cover.

→ See Page 20

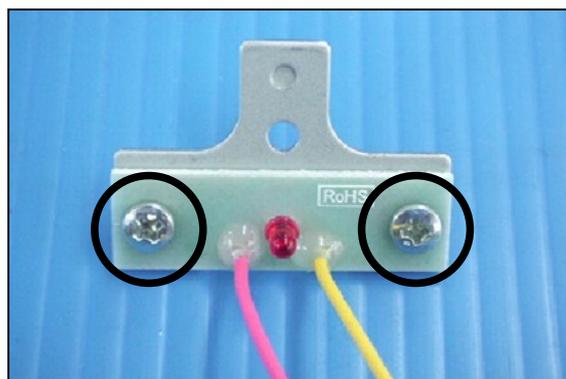
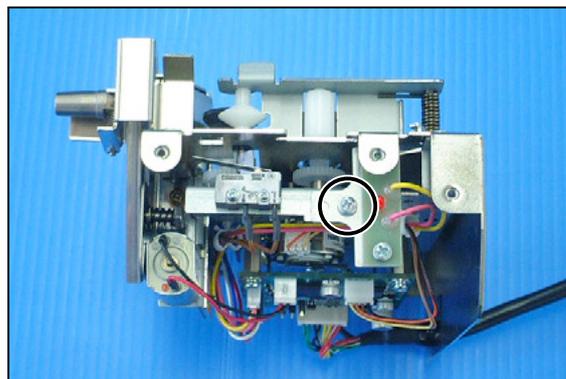
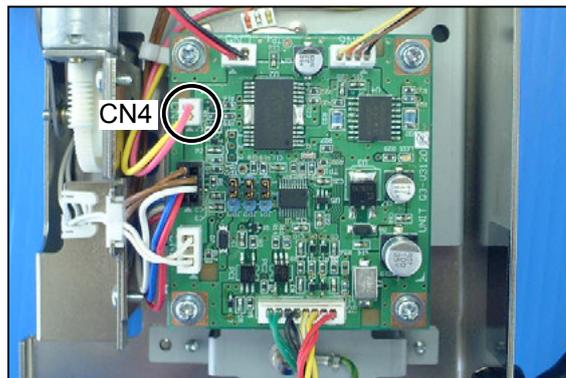
3. Disconnect the connector CN4 on the tape dispenser PCB unit.

4. Remove one screw to detach the LED PCB unit.

5. Remove the two screws to detach the LED PCB.

Reinstallation

- When attaching the LED PCB, take note of the direction to attach.



3 Tape Feed Section

(1) Removing the Cutter Unit

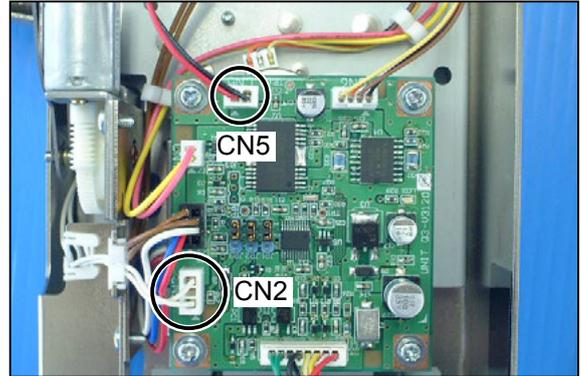
1. Remove the moving unit.

→See Page 20

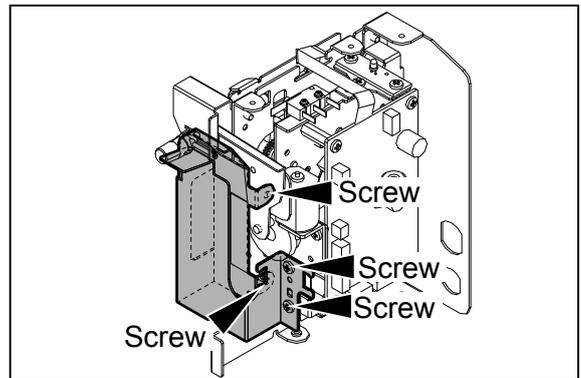
2. Remove the front cover.

→See Page 20

3. Disconnect the connectors CN2 and CN5 on the tape dispenser PCB unit.



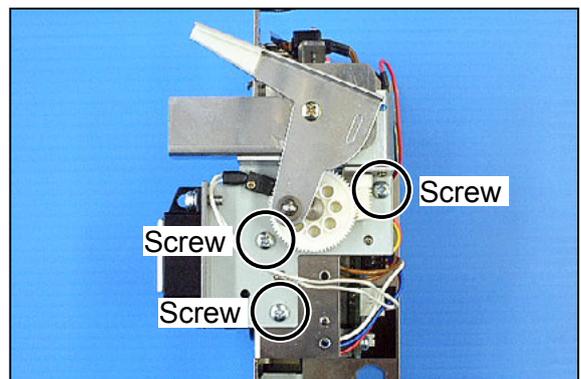
4. Remove the four screws to detach the cutter cover (lower).



5. Remove the three screws to detach the cutter unit.

WARNING

- Keep hands and fingers away from the cutter unit's blades. Do NOT touch the blades.



3

Reinstallation

- When replacing the cutter unit, attach the spacer:
 1. Wipe the spacer attaching part with alcohol.

! WARNING

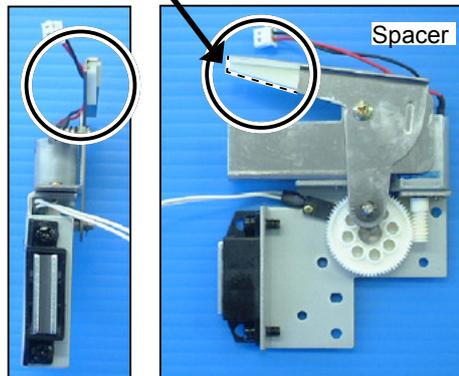
- Care should be taken when handling the cutter unit.

2. Apply instant adhesive to the spacer and attach the spacer to the cutter of the cutter unit.

IMPORTANT

- If the instant adhesive overflows, wipe it off.

Attach the spacer so that it does not protrude from the cutter.



(2) Removing the Cutter Cover (Upper)

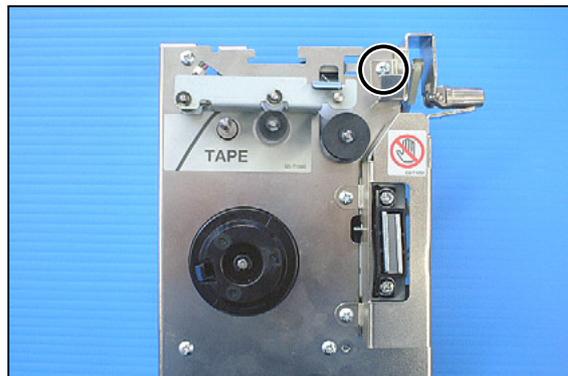
1. Remove the Moving unit.

→ See Page 20

2. Remove the front cover.

→ See Page 20

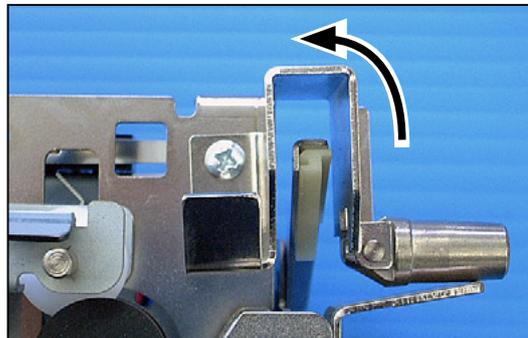
3. Remove one screw to detach the cutter cover (upper).



Reinstallation

IMPORTANT

- When attaching the cutter cover (upper), move it counterclockwise so that there is no play and then secure it.



(3) Removing the Feed Motor

1. Remove the moving unit.

→See Page 20

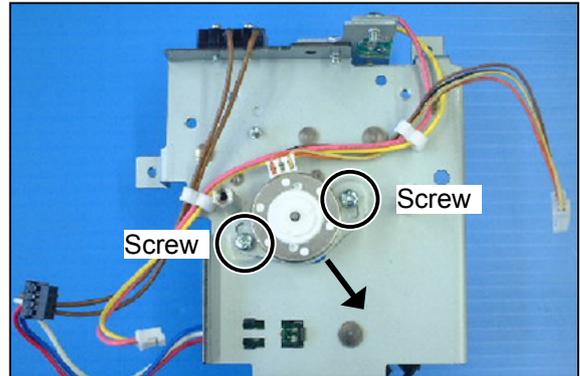
2. Remove the front cover.

→See Page 20

3. Remove the tape dispenser PCB UNIT.

→See Page 21

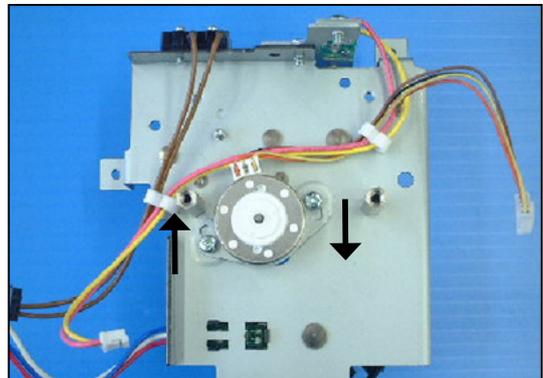
4. Remove the two screws to detach the feed motor, sliding it in the direction of the arrow.

**3**

Reinstallation

IMPORTANT

- When attaching the cutter cover (upper), move it counterclockwise so that there is no play and then secure it.



(4) Removing the Tape Detection Sensor

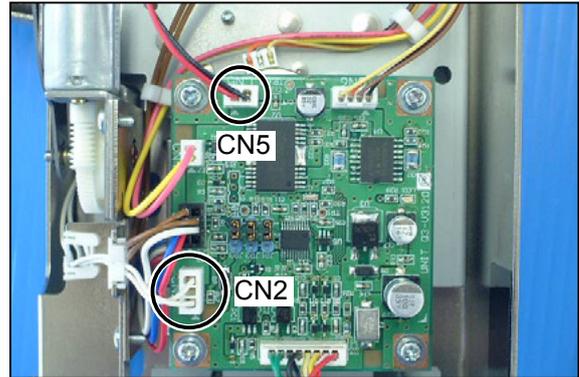
1. Remove the moving unit.

→See Page 20

2. Remove the front cover.

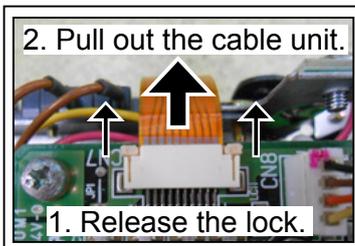
→See Page 20

3. Disconnect the connectors CN2 and CN5 on the tape dispenser PCB unit.



IMPORTANT

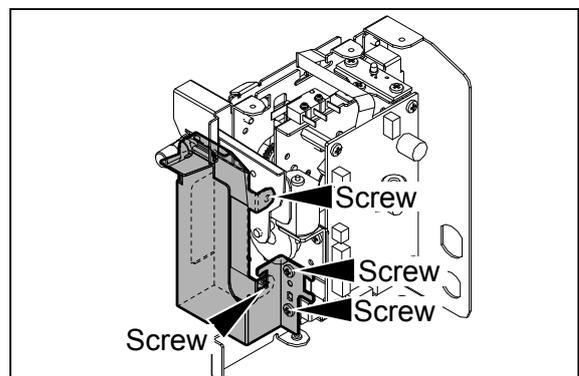
- Carefully release the lock when disconnecting the flat cable. Failure to do so may damage the PCB unit.



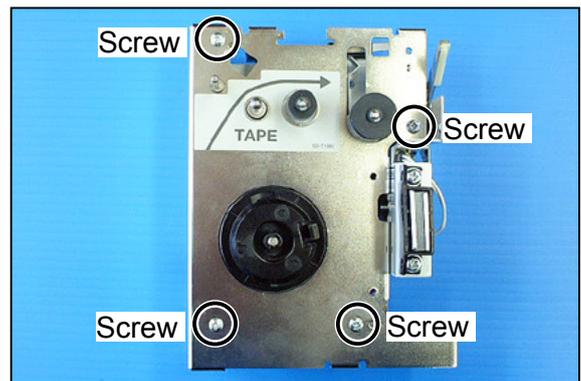
Reinstallation

- Connect the flat cable in the correct direction. Connect it with the terminal surface up.

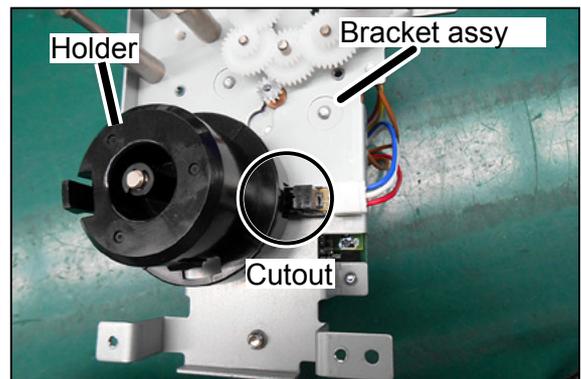
4. Remove the four screws to detach the cutter cover (lower).



5. Remove the four screws to detach the bracket assy.



6. Turn the holder to move the cutout so that the tape detection sensor can be seen.



7. Disconnect the connector, and remove the tape detection sensor from the bracket assy.

3

Chapter 4 Standards/Adjustment

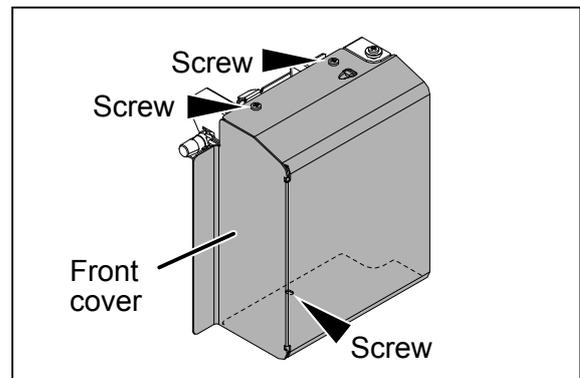
1 Mechanical System	30
(1) Adjusting the Tape Exit Width	30

1 Mechanical System

(1) Adjusting the Tape Exit Width

Adjustment procedure

1. Make sure that the clearance in the figure is 18.5 ± 0.5 mm. If it is not 18–19 mm, loosen the three screws securing the front cover to adjust the clearance.



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1 Guaranteed Periodical Maintenance Cycle

- The service person will visit the user periodically after delivery. The maintenance operation described in the periodical maintenance list is performed and instructs how to follow the operation.

2 Cleaning and Oiling

(1) Cleaning

1. Paper shreds: Clean with a brush or dry cloth.

(2) Oiling

1. Bearing section: Oil the edge surface and bearing sections with oiler, rotating the lever and roller.
2. Gear section: Grease the gear section after removing paper shreds on the bottom of gear.

3 Periodical Maintenance Check List

(1) Periodical Checking

Section to be checked	Description	Remarks
Sensor	Cleaning	Remove dust with a blower brush.
Roller	Cleaning	Remove paper shreds.
Driving parts and bearings	Cleaning, oiling and checking	The rotation should be smooth.



Chapter 6

Troubleshooting

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1 Troubleshooting Guide

Countermeasures for the Defective Operation

When the messages listed below are displayed on the LCD or when trouble such as malfunctioning or a paper jam occurs, proceed with an inspection following the procedure for the item and take measures accordingly.

► Message List

Message	Remarks	No.	Page
TAPE DISPENSER EMPTY. OPEN TAPE DISPENSER COVER		(1)	37
SET A NEW TAPE ROLL AND CLOSE TAPE DISPENSER COVER		(2)	37
CLOSE TAPE DISPENSER COVER		(3)	38
E020	Error : Tape dispenser cutter motor locked	(4)	38
E021	Error : Communication with the tape dispenser is not performed normally	(5)	38

(1) TAPE DISPENSER EMPTY. OPEN TAPE DISPENSER COVER is Displayed

Step	Cause/Detective section	Items to be checked	Result	Countermeasure
1	Tape	Is the tape roll set on the holder properly?	YES	Go to step 2.
			NO	Set the tape roll on the holder properly.
2	Tape detection sensor	When the tape detection sensor is checked with HELP-071, is 1 displayed if the sensor is photopassing and is 0 displayed if photointerrupted?	YES	Go to step 3.
			NO	Check the bundled wire and connectors, and then replace the tape detection sensor.
3	Feed motor	Does the tape dispenser work properly when checked using HELP-071 (tape insertion)?	YES	Finish
			NO	Check the bundled wire and connectors, and then replace the feed motor.
4	Tape dispenser PCB unit	Does replacing the tape dispenser PCB unit solve the problem?	YES	Finish
	Main PCB unit		NO	Replace the main PCB unit.

HELP-071→See page 50

(2) SET A NEW TAPE ROLL AND CLOSE TAPE DISPENSER COVER” is Displayed

Step	Cause/Detective section	Items to be checked	Result	Countermeasure
1	Tape	Is the tape roll set on the holder properly?	YES	Go to step 2.
			NO	Set the tape roll on the holder properly.
2	Tape detection sensor	When the tape detection sensor is checked with HELP-071, is 1 displayed if the sensor is photopassing and is 0 displayed if photointerrupted?	YES	Go to step 3.
			NO	Check the bundled wire and connectors, and then replace the tape detection sensor.
3	Feed motor	Does the tape dispenser work properly when checked using HELP-071 (tape insertion)?	YES	Finish
			NO	Check the bundled wire and connectors, and then replace the feed motor.
4	Tape dispenser PCB unit	Does replacing the tape dispenser PCB unit solve the problem?	YES	Finish
	Main PCB unit		NO	Replace the main PCB unit.

HELP-071→See page 50

(3) CLOSE TAPE DISPENSER COVER is Displayed

Step	Cause/Detective section	Items to be checked	Result	Countermeasure
1	Tape	Is the tape roll set on the holder properly?	YES	Go to step 2.
			NO	Set the tape roll on the holder properly.
2	Cover switch	When cover switch is checked with HELP-071, is "0" displayed if cover is opened and is "1" displayed if closed?	YES	Go to step 3.
			NO	Check bundled wire and connectors, and then replace the cover switch
3	Tape dispenser PCB unit	Does replacing the tape dispenser PCB unit solve the problem?	YES	Finish
	Main PCB unit		NO	Replace the main PCB unit.

HELP-071→See page 50

(4) E020 is Displayed

Step	Cause/Detective section	Items to be checked	Result	Countermeasure
1		Does the cutter work properly when checked using HELP-071?	YES	Go to step 2.
			NO	Go to step 3.
2	Cutter sensor	Measure the voltage with a tester when turning the cutter sensor on and off. Is it normal?	YES	Replace the tape dispenser PCB unit.
			NO	Replace the cutter unit.
3	Cutter motor	Measure the voltage at the connector with a tester when the cutter motor is activated using HELP-071. Is it +24V?	YES	Replace the cutter unit.
	Tape dispenser PCB unit		NO	Replace the tape dispenser PCB unit.

HELP-071→See page 50

(5) E021 is Displayed

Step	Cause/Detective section	Items to be checked	Result	Countermeasure
1		Is the wiring harness (including the ground wire) of the tape dispenser securely connected to the printer?	YES	Securely connect the connector (the ground wire).
			NO	Go to step 2.
2	Tape dispenser PCB unit	Does replacing the tape dispenser PCB unit solve the problem?	YES	Finish
	Main PCB unit		NO	Replace the main PCB unit.

2 Error Display

This machine has a self-diagnosis function. The state of the machine is always checked with this function and is displayed with code on the control panel. The following are the code display, cause and detection timing.

Code display	Detection timing	Cause	Page
E020	Error : Tape dispenser cutter motor locked	The tape dispenser cutter motor is defective. The tape dispenser cutter is defective. The tape dispenser cutter home position sensor is defective. The tape dispenser PCB unit is defective. Disconnection/Poor connector connection.	38
	Tape cutting is defective.		
E021	Error : Communication with the tape dispenser is not performed normally	The tape dispenser PCB unit is defective. Blowout of fuse F3 on the main PCB unit. The main PCB unit is defective. Disconnection/Poor connector connection.	38
	Communication between the main PCB and the tape dispenser PCB is defective.		

Chapter 7

HELP Mode

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3	HELP Mode Functions and Operation Procedures 44	
	• Accessing HELP Modes	44
	• HELP Mode Descriptions	46

1]HELP Mode List

HELP mode No.	Item	Function	Page
HELP-000	ROM Version Display	Mode Name: Resolution Serial Number Date and Time Version: Main PCB, Panel PCB, Tape Dispenser ROM Service Call Contact Number (if available)	46
HELP-001	ROM Update	Main PCB, Panel PCB, Relay PCB/Tape Dispenser ROM	47
HELP-071	Tape Dispenser Option Setting/Operation Check	[Page 1] Tape dispenser option setting	50
		[Page 2] Tape dispenser option setting	
		[Page 3] Check Operation	

2 Overview

The PRINTER's HELP modes can be broadly classified into the following types:

◆ **Modes for PCB software version display / version upgrade**

These modes display the version numbers of the main PCB unit's software, panel PCB unit's software, and tape dispenser PCB unit's software (option).

◆ **Modes for adjustment / specification setting**

These modes memorize settings made on the control panel in battery PCB unit's EEPROM. The tape dispenser is an option. All of these adjustments and settings are required at the time of installation.

IMPORTANT

- New adjustments and appropriate settings must be made after initialization setting has been implemented (using HELP-027).

◆ **Modes for function checks**

These modes permit the running of function checks on: individual motors, given series of operations, and electrical circuits.

When these modes are used to check motor functioning, the motor being checked is run by itself, but interlocks are suspended. When such checks are run, take care not to put hands or fingers in **motor-related moving parts that could start up unexpectedly.**

WARNING



Failure to heed the above could result in crushed or otherwise injured hands or fingers.

◆ **Modes for sensor and switch displays**

These modes provide displays of the conditions of sensors and switches.

3 HELP Mode Functions and Operation Procedures

• Accessing HELP Modes

- Using the NUMERIC keys, enter the number of the HELP mode you want to access.

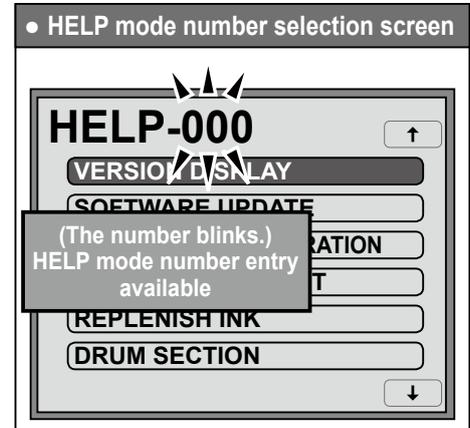
Example: To access HELP mode H-011, enter **[0]**, **[1]**, **[1]**.

IMPORTANT

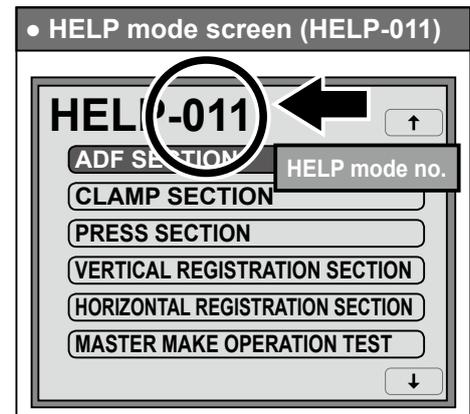
- The HELP mode number cannot be selected by the PRINT SPEED keys  and .

REFERENCE

- The HELP mode number can be selected by the PRINT DARKNESS keys  and , and the PRINT POSITION keys  and .
- Press the PRINT key. The HELP mode specified in step 1 will be accessed.
From this point on, follow the procedure given below for the particular mode accessed.



Ex : enter 0, 1, 1, PRINT key

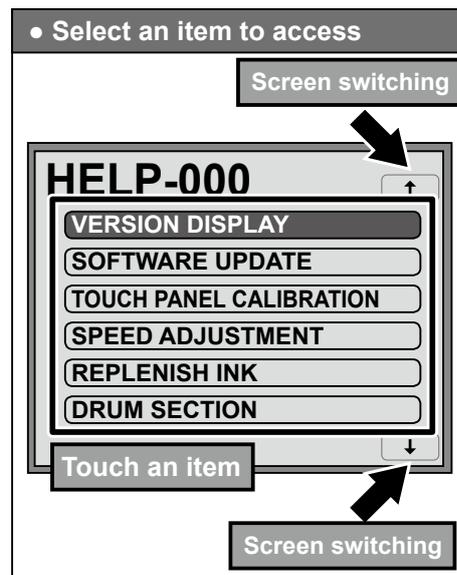


REFERENCE

- You can access a HELP mode by touching an item.
- You can switch the screen by touching the arrow on the screen upper right or screen lower right.
- The "HELP-000" screen reappears by pressing the C (clear) key.

IMPORTANT

- Description of HELP modes is in RICOH DD5450/ DD5440 Service Manual.



● HELP Mode Descriptions

HELP-000 VERSION DP-F650:400x400 0000000:0000000000 2014/03/17 Mon.12:12:12 MAIN PCB Version:1.** PANEL PCB Version:1.** RELAY PCB Version:1.** TAPE DISPENSER PCB Version:1.** 0900000000	ROM Version Displays <ul style="list-style-type: none"> ● Mode Name: Resolution ● Serial Number ● Date and Time ● Main PCB Version / Panel PCB Version /Relay PCB Version / Tape Dispenser ROM Version (Only when the tape dispenser is installed) ● Service Call Contact Number (if available)
--	---

● Operation procedure

1. Call the HELP mode “H-000”.

Enter “000” by the NUMERIC keys and then press the PRINT key.

HELP-000
 VERSION
 DP-F650:400x400
 0000000:0000000000
 2014/03/17 Mon.12:12:12
 MAIN PCB Version:1.**
 PANEL PCB Version:1.**
 RELAY PCB Version:1.**
 TAPE DISPENSER PCB Version:1.**
 0900000000

2. Check the display.

Check the ROM version displayed.

Mode Name: Resolution Serial Number Date and Time Main PCB Version Panel PCB Version Relay PCB Version Tape Dispenser ROM Version* (Only when the tape dispenser are installed) Service Call Contact Number* (if available)	<div style="border: 1px solid black; padding: 5px; background-color: #e0e0e0;"> HELP-000 VERSION ● DP-F650:400x400 ● 0000000:0000000000 ● 2014/03/17 Mon.12:12:12 MAIN PCB Version:1.** PANEL PCB Version:1.** RELAY PCB Version:1.** TAPE DISPENSER PCB Version:1.** ● 0900000000 </div>
--	---

3. Return to the HELP mode.

Press the STOP key.
The HELP mode selection display will reappear.

→ To exit the HELP mode : Turn the power switch OFF.

→ To access another HELP mode : Enter the desired mode number using the numeric keys.

HELP-001

SOFTWARE UPDATE

MAIN PCB

PANEL PCB

RELAY PCB

TAPE DISPENSER PCB

ROM Update

Update ROM via **USB INTERFACE** or the **USB FLASH DRIVE**.
PCBs to be updated:

- Main PCB
- Panel PCB
- Relay PCB
- Tape Dispenser PCB (with Tape Dispenser installed)

IMPORTANT

- Never turn off the power during updating; otherwise you may need to replace the main PCB.
- Update of the tape dispenser PCB :
Before updating the software, turn off the power and set the following;
 - JP1 2-3: Connect (Connect the jumper pin to 2-3.)
 - JP2 2-3: Connect (Connect the jumper pin to 2-3.)
 - JP3: Open (Remove the jumper pin.)
 - JP5: Remain as it is. (The jumper pin is connected to 1-2.)
 After updating the software, turn off the power and reset the settings as below;
 - JP1 1-2: Connect (Connect the jumper pin to 1-2.)
 - JP2 1-2: Connect (Connect the jumper pin to 1-2.)
 - JP3 1-2: Connect (Connect the jumper pin to 1-2.)
 - JP5: Remain as it is. (The jumper pin is connected to 1-2.)
 (Note: Never connect the jumper pin of JP3 and JP5 to 2-3. Doing so may damage the PCB.)
- Depending on the network environment, the download may fail when using a LAN/USB adapter.

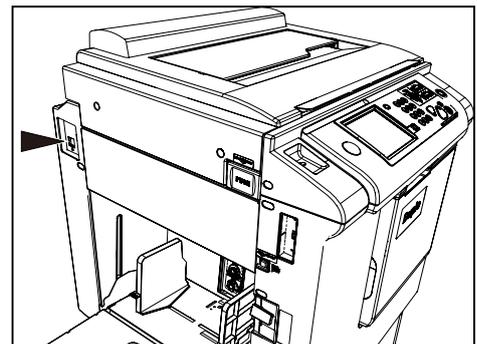
● Operation procedure

The binary file for updating is a package file including the update data for MAIN PCB, PANEL PCB, RELAY PCB, and TAPE DISPENSER PCB.

Each board is updated individually with the same file. Even the new package file is released, some boards keep a previous version. Compare the "ROM Version Displays" (HELP-000) and the Readme file in the update file (.zip), and make sure that update only the board with new version.

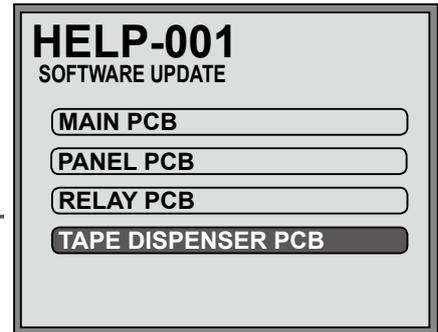
- 1.** Turn off the power to the printer.

- 2.** Connect the computer and the printer with a USB cable or a LAN cable (cross cable).



- 3.** Turn on the printer in HELP mode and call “HELP-001.”

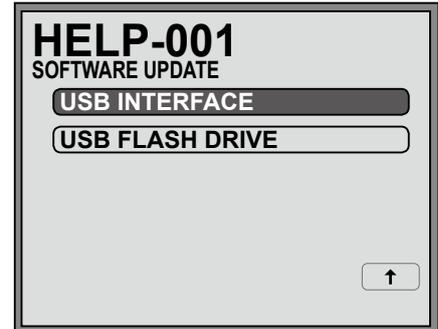
Enter “000” by the NUMERIC keys and then press the PRINT key.



- 4.** Select the PCB to be updated.

- 5.** Select “USB INTERFACE.”

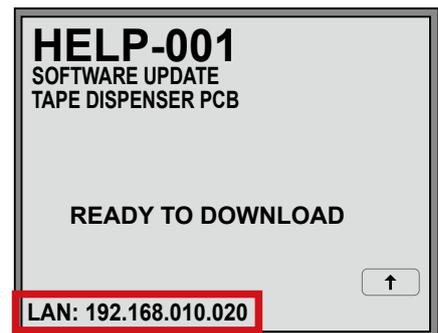
Do NOT select “USB FLASH DRIVE.”



- 6.** READY TO DOWNLOAD will appear.
The printer is ready for updating.

REFERENCE

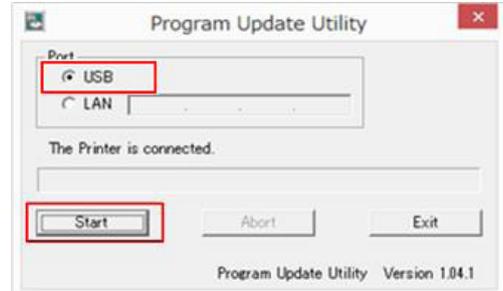
The IP address will appear in the bottom left of the screen when connecting with the LAN cable.



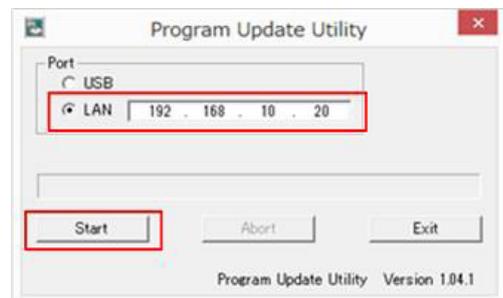
7. Start the “Program Update Utility” on the computer. (For Windows XP/Vista/7/8/10 only)

There is “Program Update Utility” in the update file (.zip).

- When selecting “USB”
Click [Start], then select update data on the file selection screen.
Update will start.



- When selecting “LAN”
Enter the IP address.
Click [Start] then select update data on the file selection screen.
Update will start.



8. “DOWNLOADING PLEASE WAIT“ will appear on the screen of the printer. And then “COPYING PLEASE WAIT” will appear .

9. When Complete. appears, update is complete.

10. The exit screen will appear on the printer and update will be complete.

11. Return to the HELP mode.

Press the **STOP** key.
The HELP mode selection display will reappear.

- To exit the HELP mode : Turn the power switch OFF.
- To access another HELP mode : Enter the desired mode number using the numeric keys.

12. Turn off the printer and remove the USB cable or the LAN cable.

HELP-071
TAPE DISPENSER
A B C D E F G H I J

1. **000**

2. **00010100**

3. **00000000**

4. **10000**

↓

Tape Dispenser Option Setting/Operation Check (3 pages in total)

Page 1:

- Tape dispenser option setting
- Tape dispenser settings

Page 2:

- Tape dispenser option setting
- Tape dispenser settings

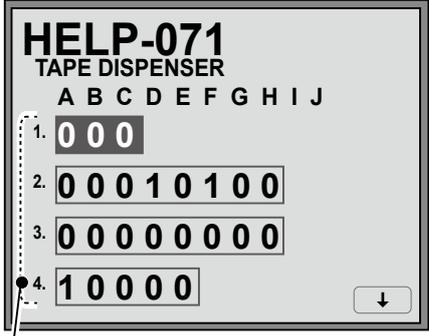
Page 3:

- Check operation.

• Operation procedure

1. Call the HELP mode “H-071”.

Enter “071” by the NUMERIC keys and then press the PRINT key.



2. Function Setting (Display: Page 1)

Setting

1. Select and touch the item to be set.
2. Use the "0" and "1" NUMERIC keys to enter binary value for the desired correction value.
3. Press the **X** key to store the set values.

► **Setting function**

Item	Value	Setting	
1	ABC	000	Tape dispenser disable (Default)
		001	-
		010	-
		011	Tape dispenser enabled
A	0	Tape insertion after printing (Default)	
	1	Tape insertion while printing, and cut after ejecting paper.	
B	0	-	
	1	-	
C	0	Small classification mode (Default)	
	1	Large/small classification mode (Enabled only when printing is OFF.)	
2	D	0	Online classification disabled (Default)
		1	Online classification enabled (Default)
E	0	Online small classification mode (Default)	
	1	Online large classification mode (Enabled only when printing is OFF)	
F	0	-	
	1	-	
G	0	-	
	1	-	
H	0	-	
	1	-	
3	A-H	-	

Item	Value	Setting
A	0	-
	1	-
B		Factory setting (Do not change.)
C	0	-
	1	-
D	0	-
	1	-
E		-

3. Function Setting (Display: Page 2)

Touch the **arrow** on the screen lower right once to switch to Page 2.

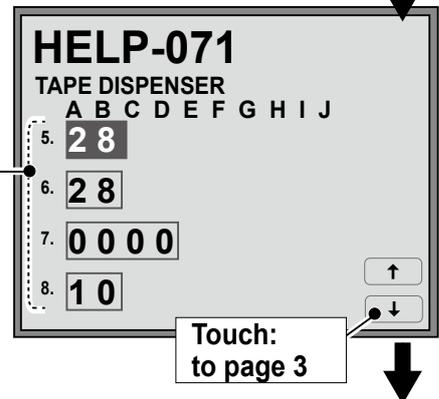
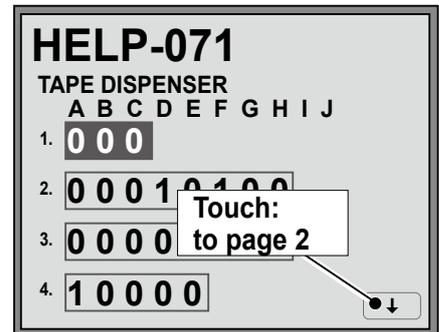
Setting

1. Select and touch the item to be set.
2. Use the NUMERIC keys to enter binary value for the desired correction value.
3. Press the **X** key to store the set values.

▶ **Setting function**

Item	Value	Setting
5	AB	Small classification tape length:23-50 cm Set by 1 cm (Default: 28 cm)
6	AB	Large classification tape length: 23-50 cm Set by 1 cm (Default:28 cm)
7	ABCD	-
8	AB	-

- Press the MASTER MAKING key with tape dispenser enabled. After tape with the large classification tape length is ejected, the tape is cut. Press the TEST PRINT key. After the tape with the small classification tape length is ejected, the tape is cut. Press the HOME key. Cutting is performed.

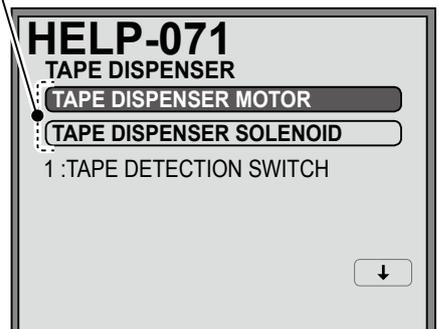
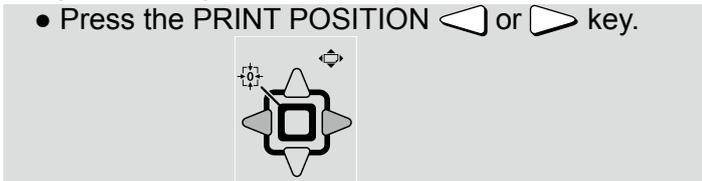


4. Function Setting (Display : Page 3)

HELP-071-1 ABC="011":

1. Select and touch the item to be set.
2. Press the PRINT POSITION key : operation is performed.

- Press the PRINT POSITION or key.



INSERT TAPE:

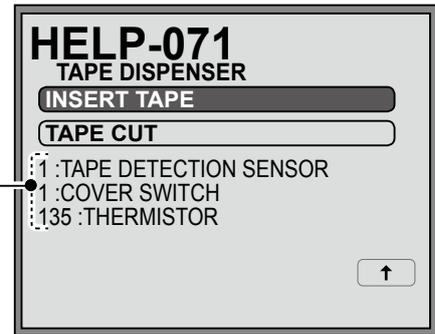
1. Press the PRINT POSITION  key.
After tape with the large classification tape length is ejected, the tape is cut.
2. Press the PRINT POSITION  key.
After tape with the small classification tape length is ejected, the tape is cut.

Sensors/Switch Checking

Check the following Sensors and Switches.

▶ Status of Sensors /Switches

Sensor/Switch	0	1
Tape Detection Sensor	Photopassing	Photointerrupting
Cover Switch	ON: Close	OFF: Open
Thermistor	-	



5. Return to the HELP mode.

Press the STOP key.
The HELP mode selection display will reappear.

- To exit the HELP mode : Turn the power switch OFF.
- To access another HELP mode : Enter the desired mode number using the numeric keys.

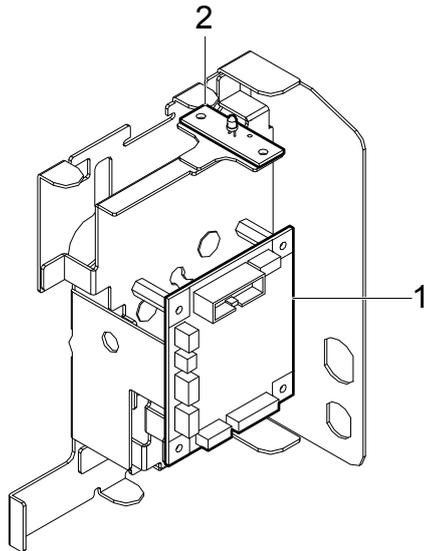
Chapter 8

Others

1	Electrical Parts Layout and Their Functions	54
	(1) PCB UNIT	54
	(2) Switch/Sensor/Motor/Others	55
	(3) Connector Layout and Functions	56
2	Overall Wiring Layout	57

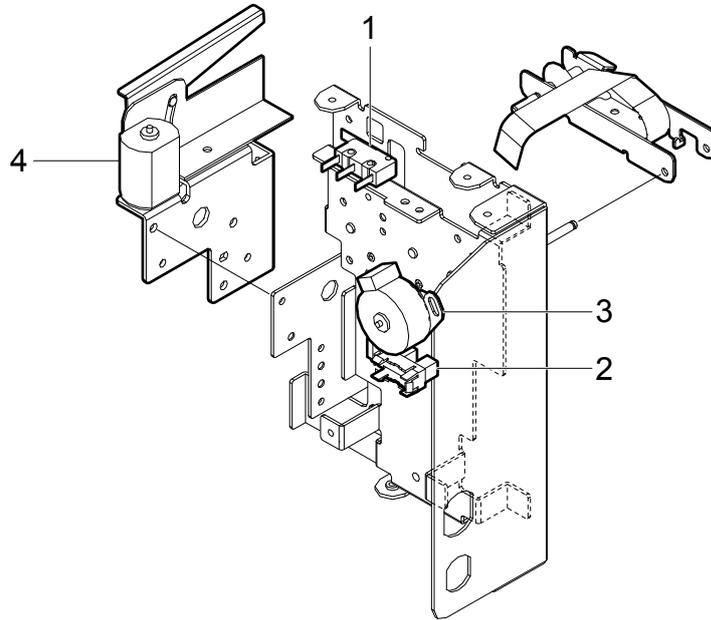
1 Electrical Parts Layout and Their Functions

(1) PCB UNIT



Item	No.	Functions
Tape dispenser PCB unit	1	Controlling the whole tape dispenser
LED PCB unit	2	Tape end LED

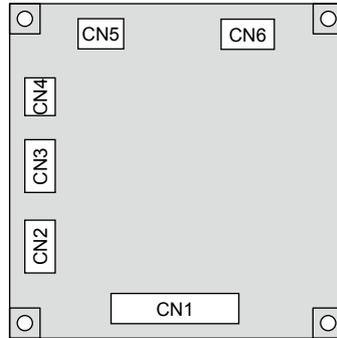
(2) Switch/Sensor/Motor/Others



Item	No.	Functions
Micro switch	1	Cover open/closed detection
Sensor	2	Tape is detected. (set or not)
Motor	3	Tape driving motor
Cutter unit	4	Cutter driving motor, cutter position detection

(3) Connector Layout and Functions

1. Tape dispenser PCB UNIT



2 Overall Wiring Layout

