User Manual

EZDT2 / EZDT4

GODEX

P/N. 920-012511-04
Rev. B, 05.2010

Safety instructions

Please read the following instructions carefully.

1. Keep the equipment away from humidity.
2. Before you connect the equipment to the power outlet, please check the voltage of the power source.
3. Make sure the printer is off before plugging the power connector into the power jack.
4. It is recommended that you connect the printer to a surge protector to prevent possible transient overvoltage damage.
5. Be careful not to get liquid on the equipment to avoid electrical shock.
6. For safety and warranty reasons, ONLY qualified service personnel should open the equipment.
7. Do not repair or adjust energized equipment under any circumstances.

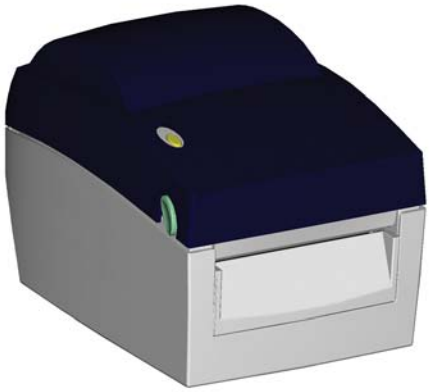
1. Barcode printer

1-1. Box content

Please check that all of the following items are included with your printer:

- Barcode printer
- Power cord
- AC adapter
- USB cable
- Label stock
- Quick reference guide
- CD (with QLabel label software / user manual)

EZDT2



EZDT4

1-2. Specifications

Model	EZDT2	EZDT4
Print Method	Direct Thermal	
Resolution	203 dpi (8 dot/mm)	
Print Speed	4 IPS (102 mm/s)	
Print Width	2.12” (54 mm)	4.25” (108 mm)
Print Length	Min. 0.16” (4 mm)** ; Max. 68” (1727 mm)	
Memory	4MB Flash (2MB for user storage) ; 8MB SDRAM	
Sensor Type	Adjustable reflective sensor. Fixed transmissive sensor, central aligned	
Media	Types: Continuous form, gap labels, black mark sensing, and punched hole; label length set by auto sensing or programming	
	Width: 0.6” (15 mm) Min. - 2.36” (60 mm) Max. Thickness: 0.003” (0.06 mm) Min. - 0.008” (0.20 mm) Max. Label roll diameter: Max. 5” (127 mm) Core diameter: 1”, 1.5” (25.4 mm, 38.1 mm)	Width: 1” (25.4 mm) Min. - 4.64” (118 mm) Max. Thickness: 0.003” (0.06 mm) Min. - 0.008” (0.20 mm) Max. Label roll diameter: Max. 5” (127 mm) Core diameter: 1”, 1.5” (25.4 mm, 38.1 mm)
Printer Language	EZPL, GEPL (Godex Eltron® Printer Language), GZPL (Godex Zebra® Printer Language)	
Software	Label design software: QLabel-IV (for EZPL only) Driver & DLL: Windows 2000, XP and Vista	
Resident Fonts	Bitmap fonts: 6, 8, 10, 12, 14, 18, 24, 30, 16X26 and OCR A & B Bitmap fonts 90°, 180°, 270° rotatable, single characters 90°, 180°, 270° rotatable Bitmap fonts 8 times expandable in horizontal and vertical directions Scalable fonts 90°, 180°, 270° rotatable	

Download Fonts	Bitmap fonts 90°, 180°, 270° rotatable, single characters 90°, 180°, 270° rotatable Asian fonts 90°, 180°, 270° rotatable and 8 times expandable in horizontal and vertical directions Scalable fonts 90°, 180°, 270° rotatable	
Barcodes	1-D Bar codes: Code 39, Code 93, Code 128 (subset A, B, C), UCC/EAN-128 K-Mart, UCC/EAN-128, UPC A / E (add on 2 & 5), I 2 of 5, I 2 of 5 with Shipping Bearer Bars, EAN 8 / 13 (add on 2 & 5), Codabar, Post NET, EAN 128, DUN 14, HIBC, MSI (1 Mod 10), Random Weight, Telepen, FIM, China Postal Code, RPS 128 and GS1 DataBar	
	2-D Bar codes: PDF417, Datamatrix code, MaxiCode, QR code and Micro QR code	
Code Pages	CODEPAGE 437, 850, 851, 852, 855, 857, 860, 861, 862, 863, 865, 866, 869, 737 WINDOWS 1250, 1251, 1252, 1253, 1254, 1255 Unicode (UTF8, UTF16)	
Graphics	Resident graphic file types are BMP and PCX, other graphic formats are downloadable from the software	
Interfaces	USB port (default on) Serial port: RS-232 (DB-9)	
Control Panel	One Tri-color LED: Power (Green, Orange and Red) Control key: FEED	
Real Time Clock	Standard	
Power	Auto Switching 100-240VAC, 50-60Hz	
Environment	Operation temperature: 41°F to 104°F (5°C to 40°C) Storage temperature: -4°F to 122°F (-20°C to 50°C)	
Humidity	Operation: 30-85%, non-condensing. Storage: 10-90%, non-condensing.	
Agency Approvals	CE(EMC), FCC Class A, CB, CCC	
Dimension	Length: 8.58” (218 mm) Height: 6.77” (172 mm) Width: 3.94” (100 mm)	Length: 8.58” (218 mm) Height: 6.53” (166 mm) Width: 6.61” (168 mm)
Weight	2.65 lbs (1.2Kg) ,excluding consumables	3.3 lbs (1.5Kg) ,excluding consumables
Options	Ethernet 10/100Mbps print server (default off; disables USB when in use) Cutter Module Label Dispenser (peel) External label roll holder for 10” (250 mm) O.D. label rolls External label rewinder	Parallel port (Centronics 36-pin) Ethernet 10/100Mbps print server (default off; disables USB when in use) Cutter Module Label Dispenser (peel) External label roll holder for 10” (250 mm) O.D. label rolls External label rewinder

**Specifications are subject to change without notice. All company and/or product names are trademarks and/or registered trademarks of their respective owners.*

*** Minimum print height specification compliance can be dependent on non-standard material variables such as label type, thickness, spacing, liner construction, etc. Godex is pleased to test non-standard materials for minimum height printing capability.*

1-3. Interfaces

Serial port

Default setting : Baud rate 9600, no parity, 8 data bits, 1 stop bit, XON/XOFF protocol and RTS/CTS

RS232 housing (9-pin to 9-pin)

DB9 socket		DB9 plug
---	1 — 1	+5V, max 500mA
RXD	2 — 2	TXD
TXD	3 — 3	RXD
DTR	4 — 4	N/C
GND	5 — 5	GND
DSR	6 — 6	RTS
RTS	7 — 7	CTS
CTS	8 — 8	RTS
RI	9 — 9	N/C
Computer		Printer

【Note】 The total current to the serial port may not exceed 500 mA.

USB port

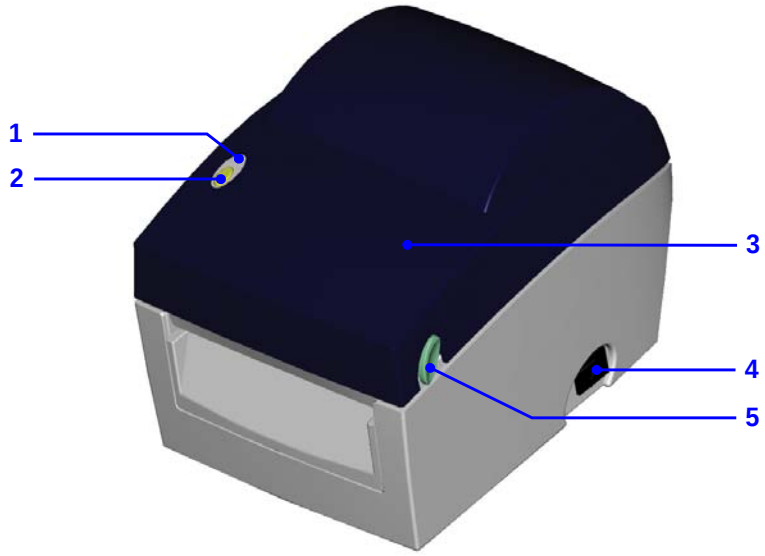
Connector type : Type B

Pin No.	1	2	3	4
Function	VBUS	D-	D+	GND

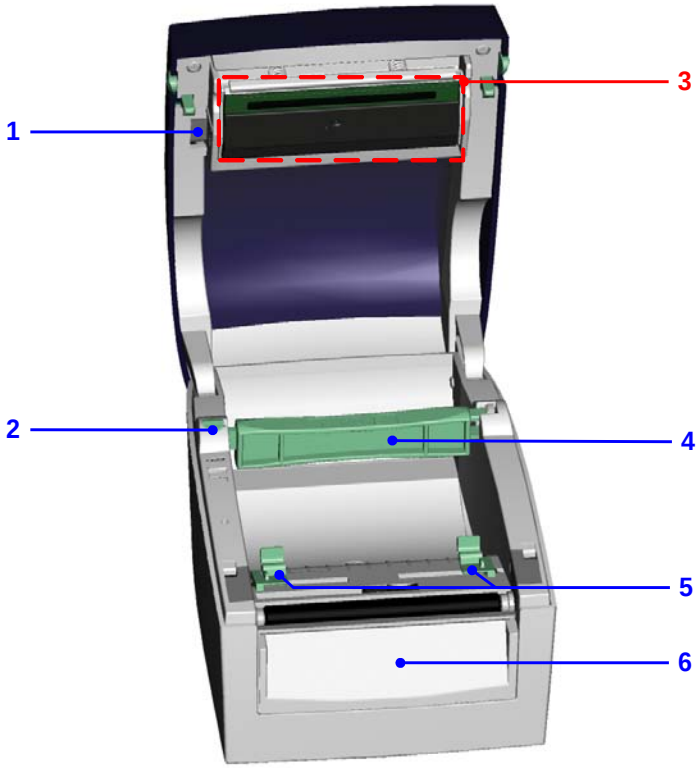
Internal interface

UART1 wafer		Ethernet module
N.C	1 — 1	N.C
TXD	2 — 2	RXD
RXD	3 — 3	TXD
CTS	4 — 4	RTS
GND	5 — 5	GND
RTS	6 — 6	CTS
E_MD	7 — 7	E_MD
RTS	8 — 8	CTS
E_RST	9 — 9	E_RST
+5V	10 — 10	+5V
GND	11 — 11	GND
+5V	12 — 12	+5V

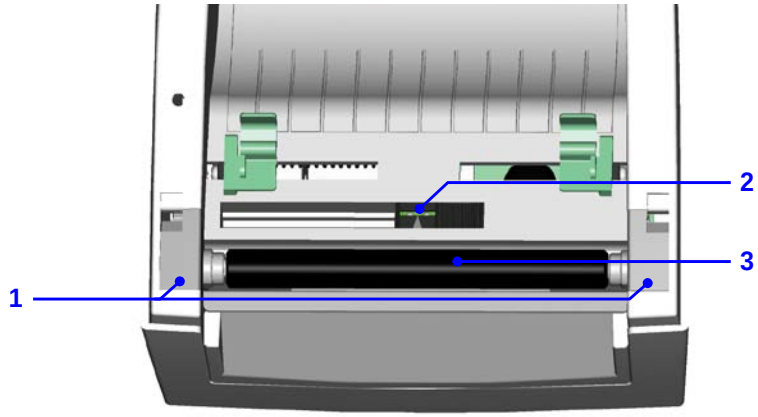
1-4. Getting to know your printer



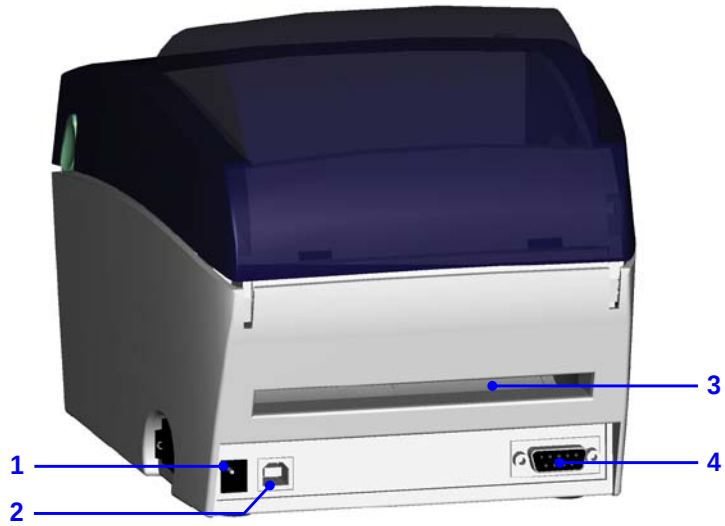
1.	LED indicator
2.	FEED function button
3.	Printer cover
4.	On/off switch
5.	Release buttons



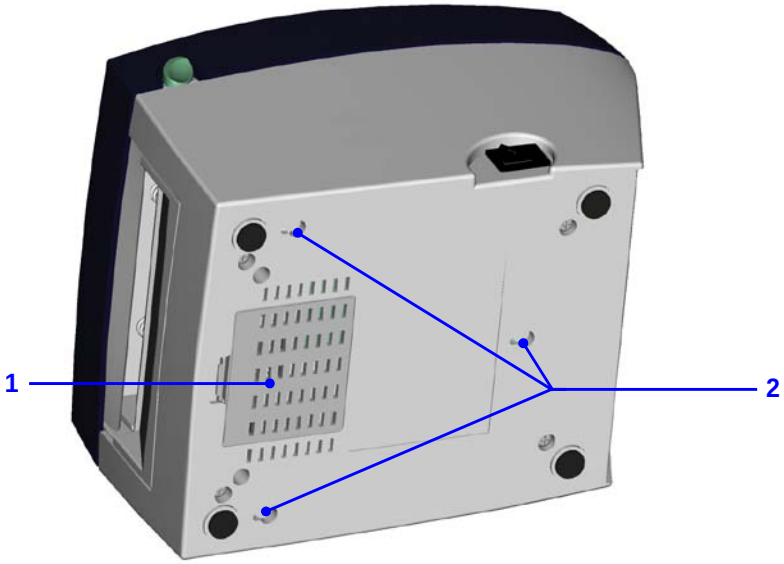
1.	Print head release lever
2.	Label roll holder
3.	Print mechanism
4.	Label supply hub
5.	Label guides
6.	Front cover



1.	Platen cover
2.	Label sensor
3.	Platen roller



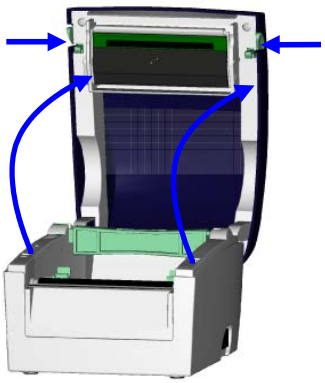
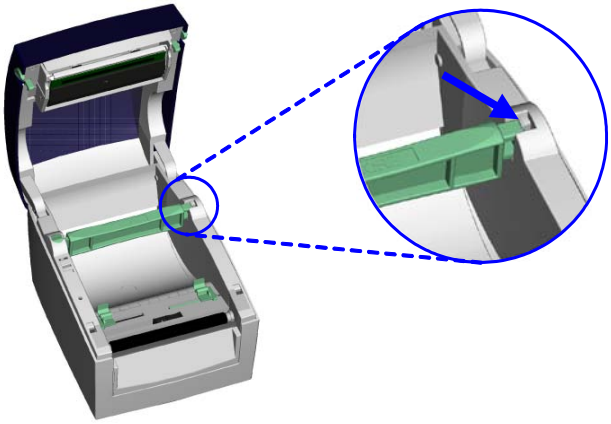
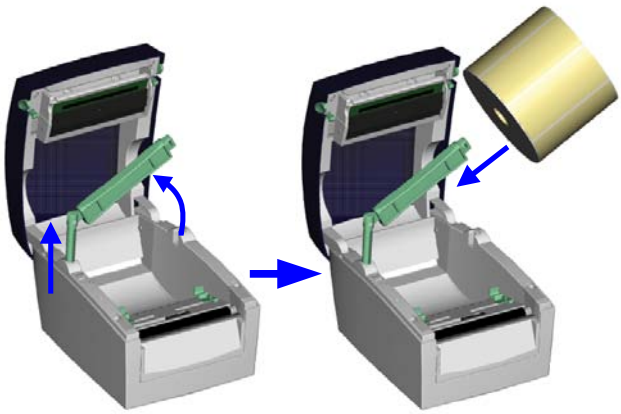
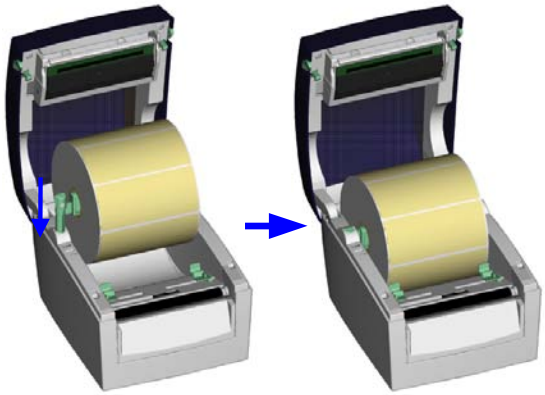
1.	Power jack
2.	USB port
3.	Feed slot for continuous labels
4.	Serial port (RS-232)

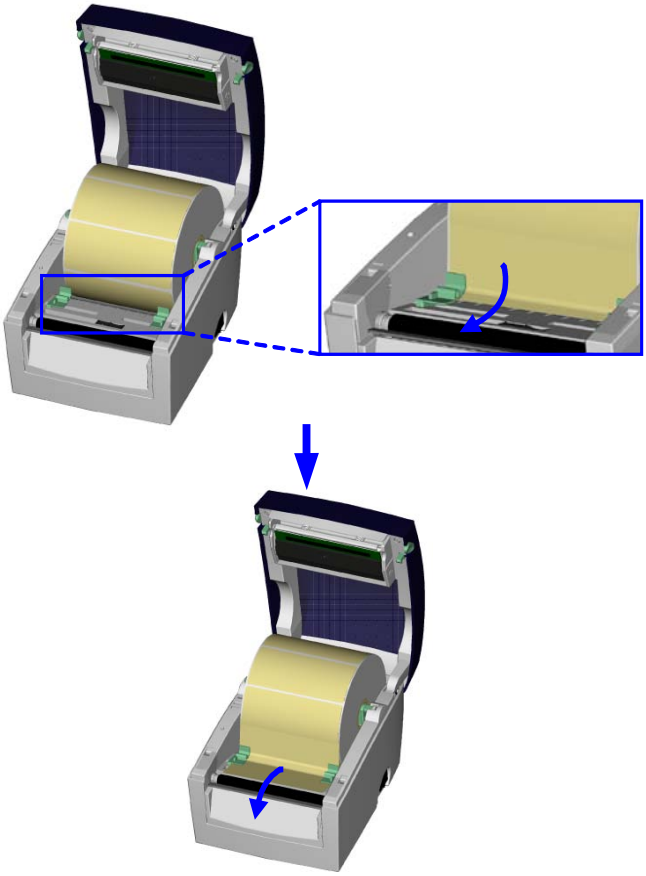
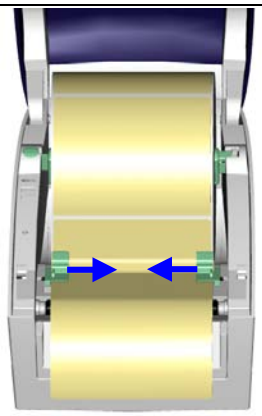
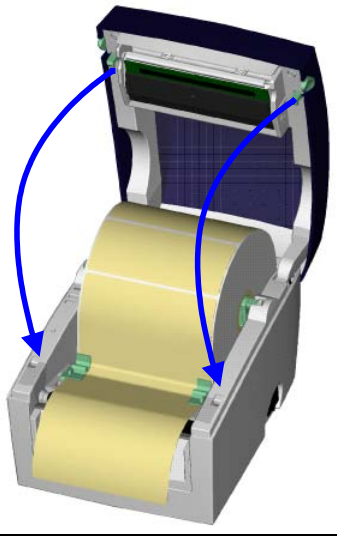


1.	Cover on bottom of printer
2.	Mounting points

2. Printer setup

2-1. Loading the label roll

1. Place the printer on a flat surface and open the printer cover.	
2. Release the label supply hub.	
3. Lift the label roll holder and pull it out as far as possible. 4. Install the label roll on the label supply hub.	
5. Now press the label roll holder down until it clicks into place. 6. Return the label roll holder to its original position.	

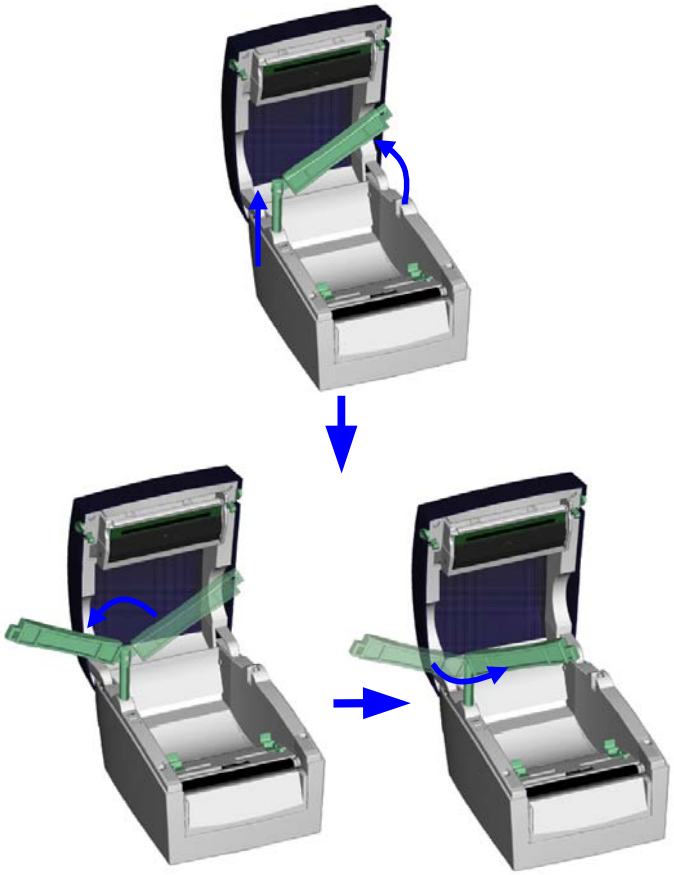
7. Pass the label under the paper guides and pull it forward.	
8. Adjust the paper guides to the width of the label liner.	
9. Close the printer cover to finish loading the labels.	

2-2. Installing the label roll holder

1. Pull the label roll holder out as far as it will go.

2. Fold out the label supply hub as shown in the illustration.

3. Now rotate the label roll holder to return the label supply hub to its original position. Press down the label supply hub until it clicks into place.

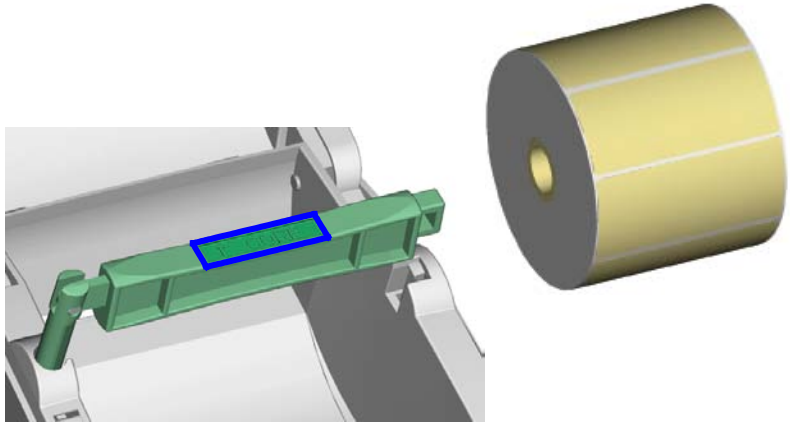


A. To load label stock with a 1" core, the locking notch must be at the top of the label supply hub.

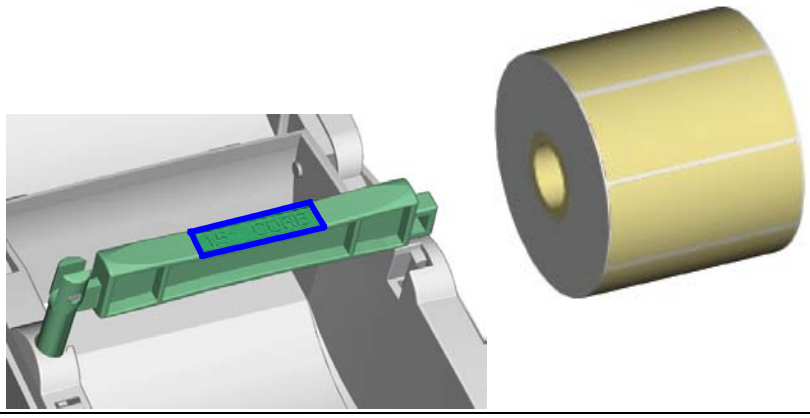
B. To load label stock with a 1.5" core, the locking notch must be at the bottom of the label supply hub.

【Note】
The hub is also marked on both sides to indicate the core size, as shown in the illustration.

1" core

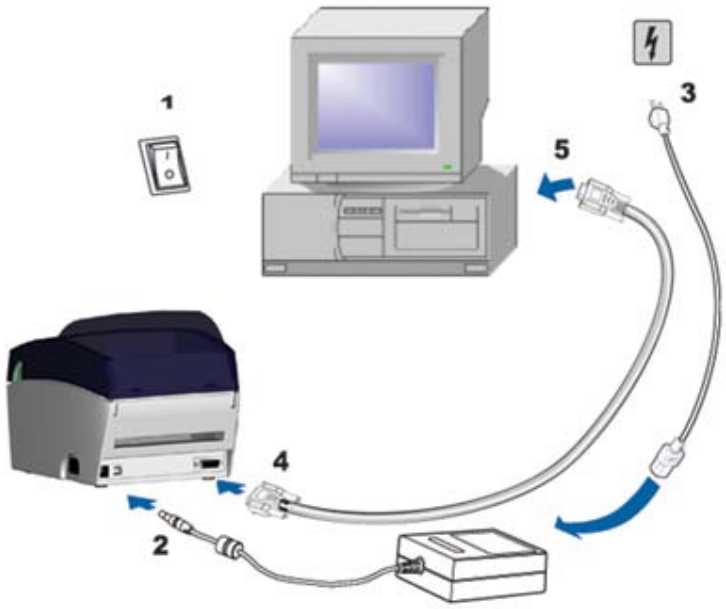


1.5" core



2-3. Connecting the printer to the host computer

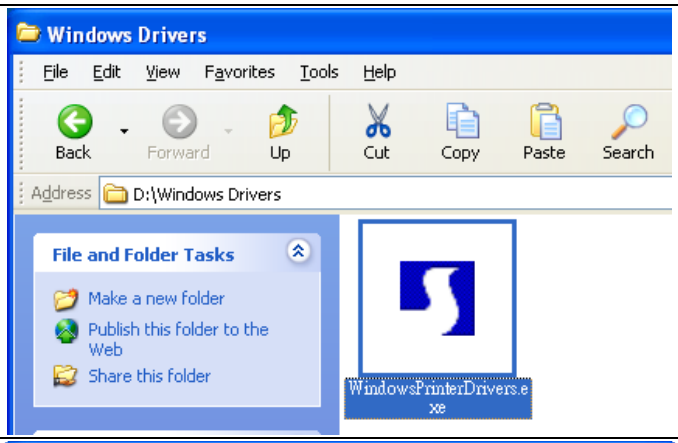
1. Please make sure that the printer is switched off.
2. Connect the power cord to the power supply and to the AC adapter, then connect the adapter to the printer.
3. Connect the printer with the host computer via the USB port or serial port.
4. Switch on the printer. The LED indicator should light up.



2-4. Installing the driver

1. Insert the product CD in the CD/DVD drive of the host computer and open the "Windows Drivers" folder on the CD.

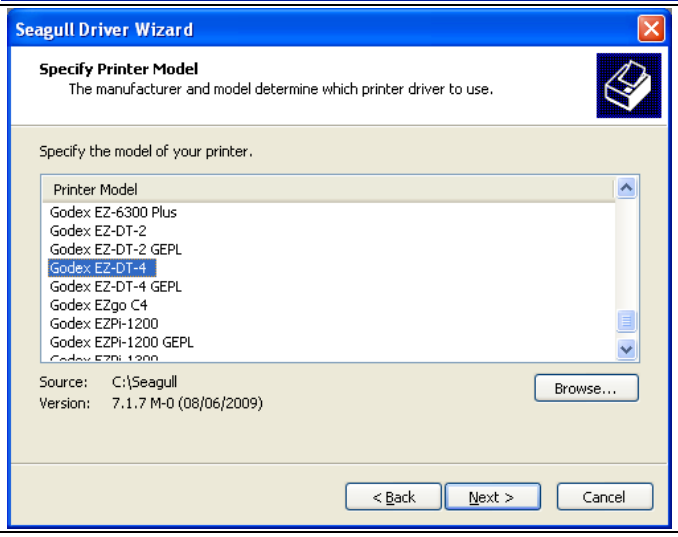
2. Execute the file with the same icon as the file selected in the illustration on the right.

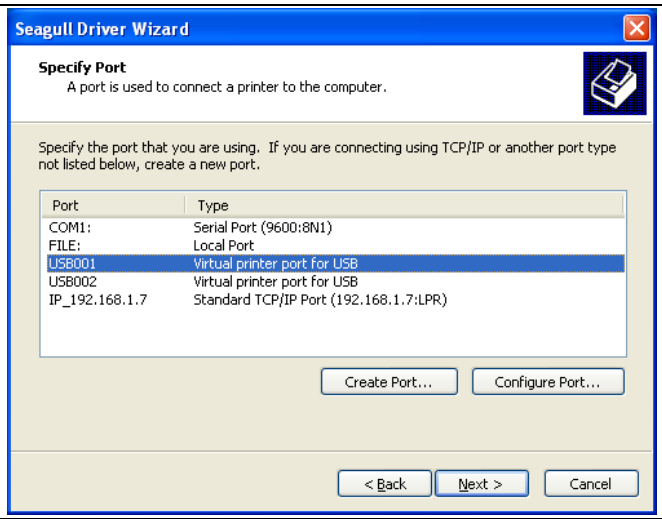
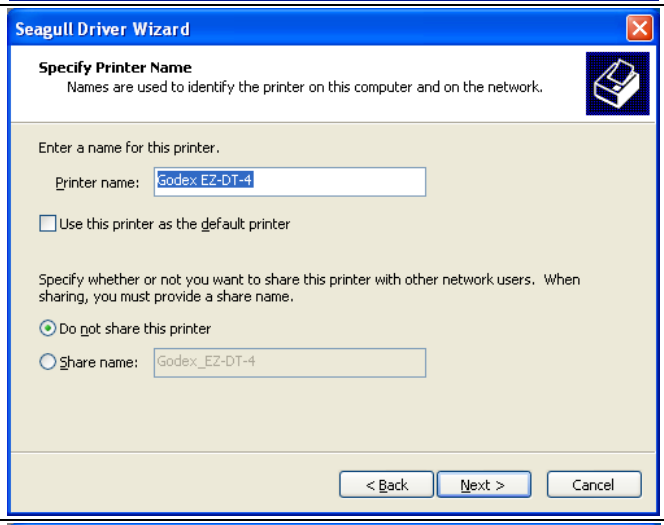
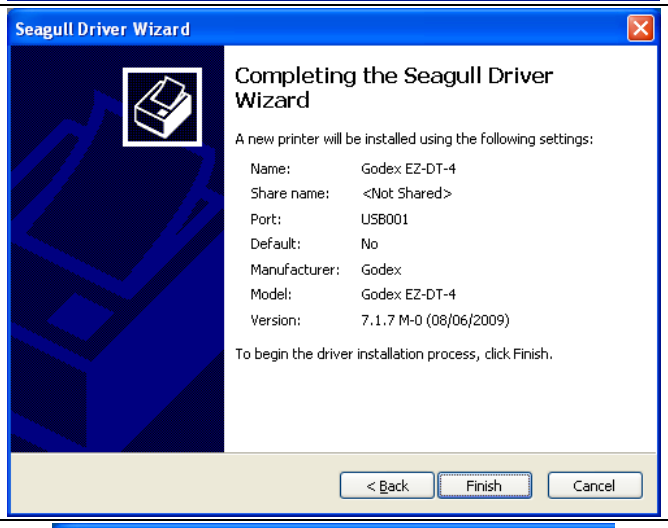
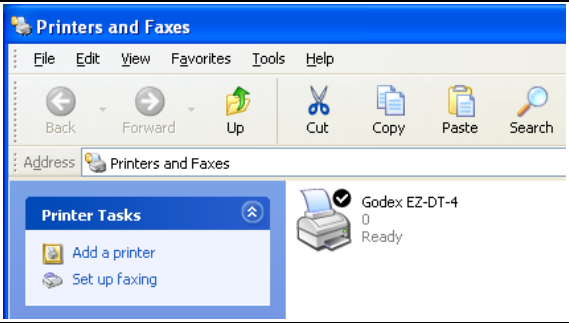


3. Follow the instructions in the installation wizard.

4. Select "Install printer drivers" to start with the driver installation.

5. Specify your printer model and continue with the installation.



6. Specify the port used to connect the printer to the host computer.	
7. Enter a printer name. The printer will be listed under this name in the "Printers and Faxes" folder. 8. Specify whether or not you want to share the printer with other network users and assign the printer a share name.	
9. When you have configured all the settings, a summary of the printer settings is displayed, which you should check. 10. If all settings are correct, click Finish to start copying the driver files.	
11. Once copying is complete, the new printer should be visible in the "Printers and Faxes" folder.	

3. Operator panel

3-1. FEED button

When you press the FEED button, the printer moves the label to the defined stop position. If you are using continuous labels, pressing the FEED button will move label stock until you release the button again. If you are using individual labels, pressing the FEED button will move only one label. If the label does not stop at the correct position, you need to run the auto-detection function on the label stock (see Section 3-3).

3-2. LED status

**Note: This description applies only to firmware versions G3.000 or higher.*

Press the FEED button and keep it pressed, then switch on the printer. You will hear two beeps and the LED lights up red. Release the FEED button. The printer will now automatically measure the label size (see Section 4-3.) and then print a test page (see Section 4-4.)

	**LED indicator**	**Status**	**Description**
	Green	**Standby mode**	The printer is ready for operation.
	Red (flashing)	**Error mode**	The printer has detected an error. (see Section **3-5. Error alerts**)

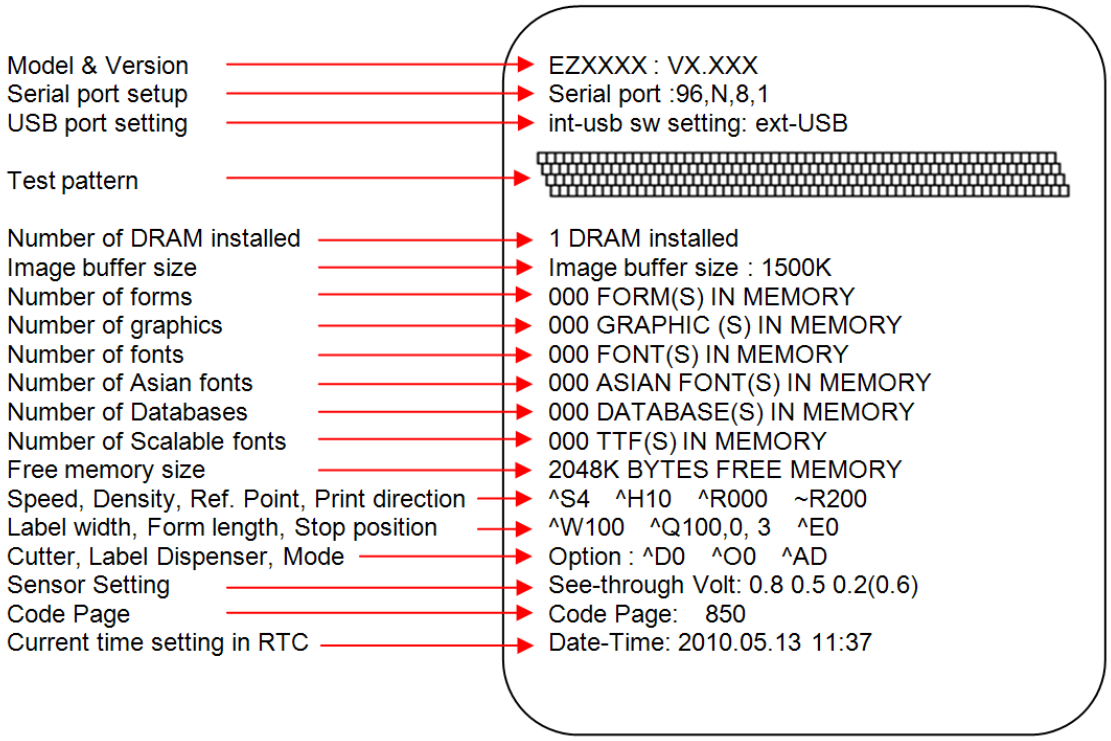
3-3. Label size calibration

The printer can automatically detect and store label height.
That means the host computer does not need to transmit the label height to the printer.

1. Check that the label sensor is positioned correctly.
2. Check that the label stock is loaded correctly.
3. Switch off the printer.
4. Switch on the printer, keeping the FEED button pressed. When the LED starts to flash red, release the FEED button. The printer will now measure the label stock and store the label height.
5. Once the printer has successfully measured the label stock, it will print a self-test label.

3-4. Self test

The self-test function helps you find out whether the printer is functioning normally.
The printer prints the following test page:



3-5. Error alerts

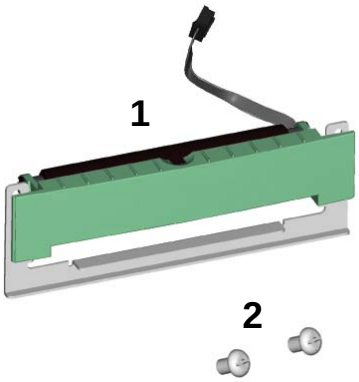
LED indicator	Beeps	Description	Solution
Red	2 x 4 beeps	The print mechanism is not correctly closed.	Open the print mechanism and close it again.
Red (flashing)	None	High temperature at the print head.	Once the print head has cooled down, the printer switches to standby mode.
Red	2 x 2 beeps	No paper is detected.	Make sure that the label sensor is positioned correctly. If the sensor still does not detect the paper, run the auto-detection function again.
		The paper is finished.	Replace the label roll.
Red	2 x 2 beeps	Paper feed problem.	Possible reasons: the print medium has become trapped around the rubber roll; the sensor cannot detect a gap or black mark between the labels; there is no paper. Please reset the sensor.
Red	2 x 2 beeps	The memory is full. The printer prints the message "Memory full".	Delete unnecessary data or install additional memory.
Red	2 x 2 beeps	Unable to find file. The printer prints the message "Filename cannot be found".	Use the "~X4" command to print all files. Then check whether the files exist and whether the names are correct.
Red	2 x 2 beeps	A file of the same name already exists. The printer prints the message "Filename is repeated".	Change the name of the file and try storing it again.

4. Accessories

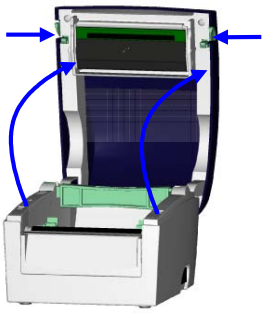
4-1. Installing the label dispenser

1	Label dispenser
2	Screws (set of 2)

【Note1】 Remember to switch off the printer before installing the label dispenser.
【Note 2】 A label liner thickness of 0.006 mm ± 10% and a weight of 65 g/m^2 ± 6% are recommended.
【Note3】 The label dispenser will take labels up to a max. width of 110 mm (DT4) or 54 mm (DT2).

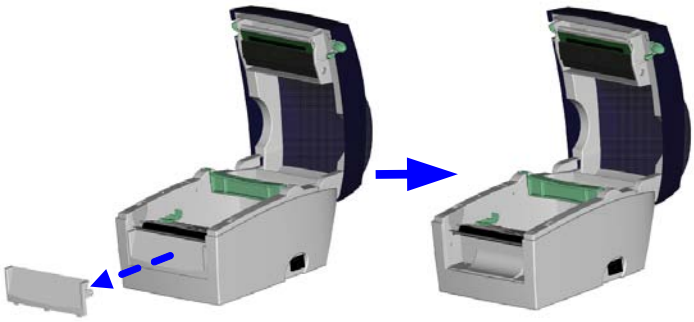


1. Place the printer on a flat surface and open the printer cover.



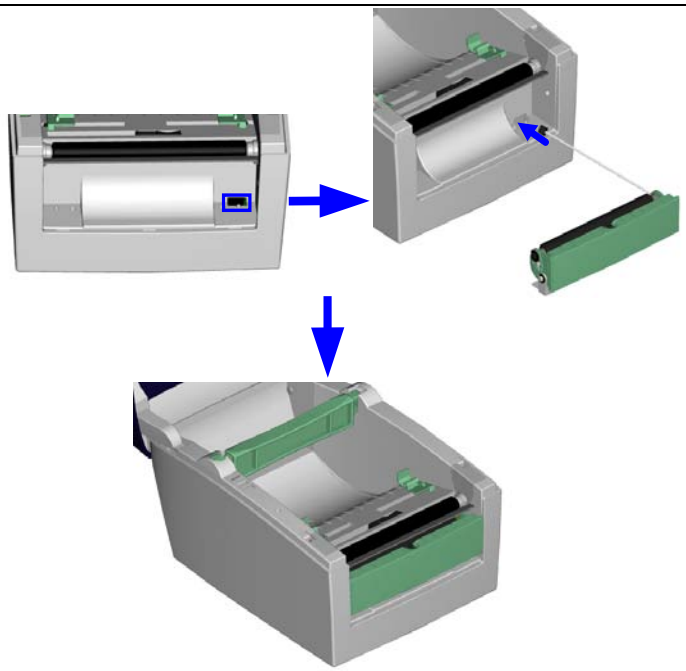
2. Remove the front cover.

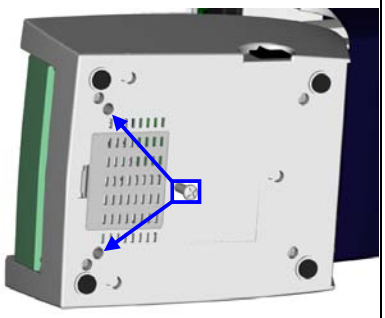
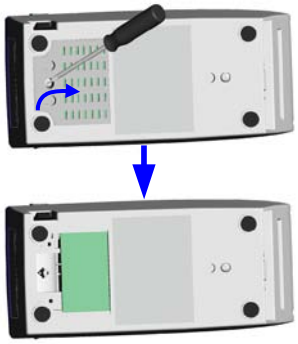
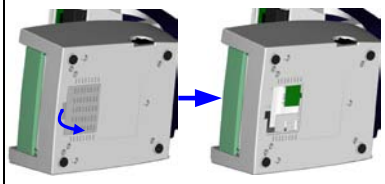
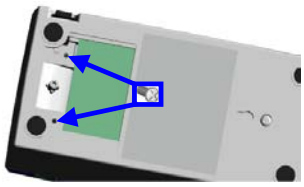
【Note】
You can use a coin or screwdriver to open the cover.

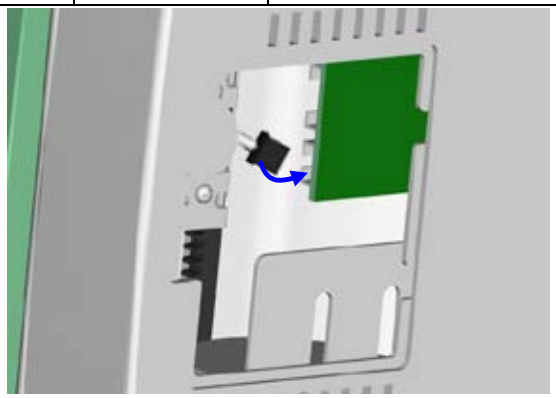


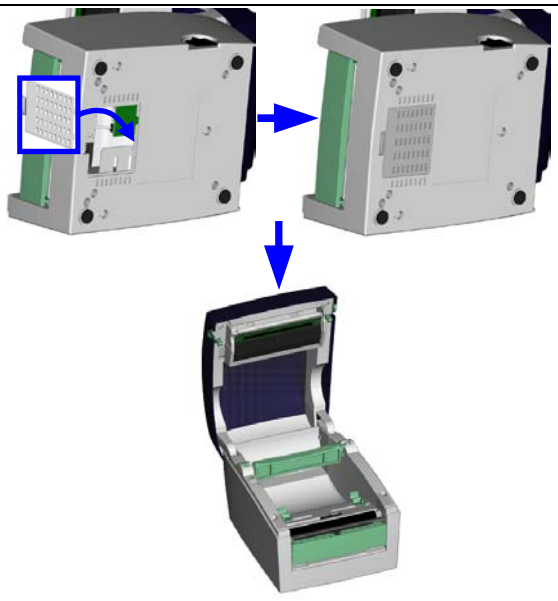
3. Pass the dispenser cable through the opening as shown in the illustration.

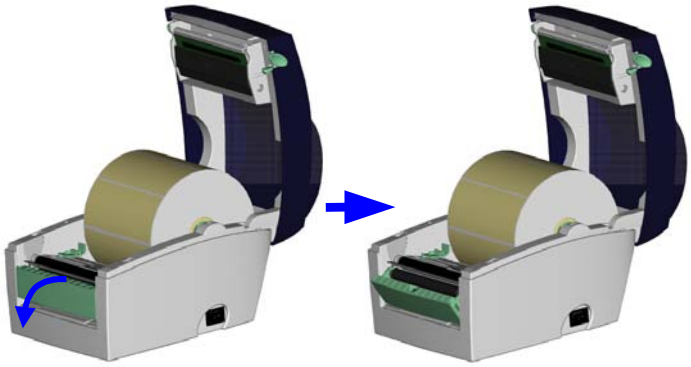
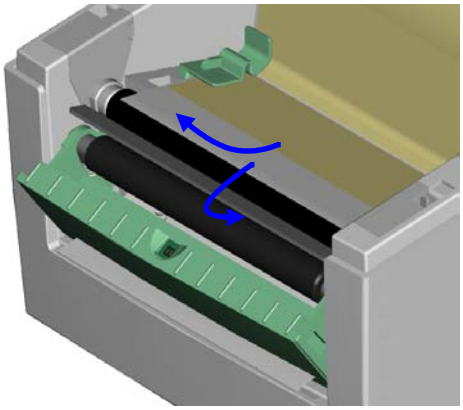
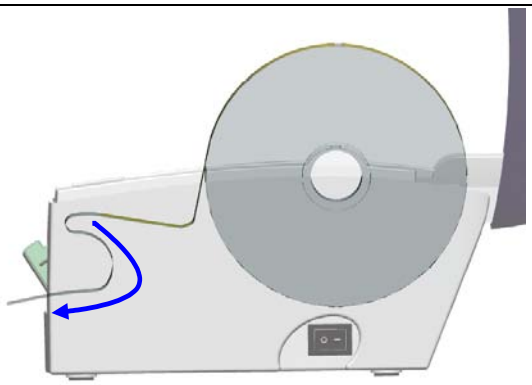
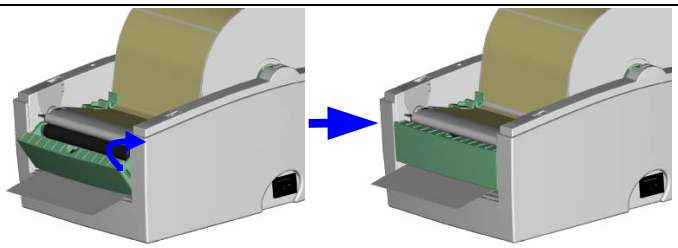
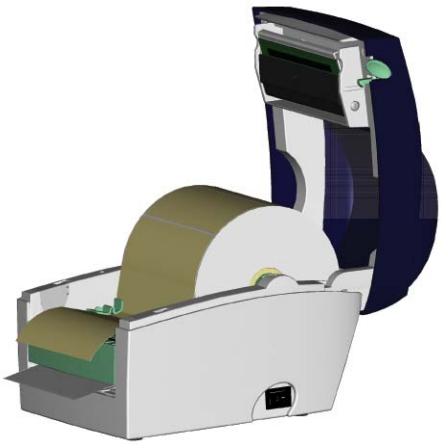
4. Fit the label dispenser in the recess provided.



<table>
<tr><th colspan="2">EZDT4</th><th colspan="2">EZDT2</th></tr>
<tr><td>5.
Turn the printer upside down and tighten the screws to secure the label dispenser.</td><td>  </td><td>5.
Turn the printer upside down and remove the screw that secures the cover on the bottom of the printer.</td><td>  </td></tr>
<tr><td>6.
Open the cover on the bottom of the printer to access the motherboard.</td><td>  </td><td>6.
Tighten the screws to secure the label dispenser.</td><td>  </td></tr>
<tr><td colspan="2">【Note】
You can use a coin or screwdriver to open the cover.</td><td colspan="2"></td></tr>
<tr><td colspan="2">7. Connect the cable to the motherboard.

【Note】
The motherboard has two connectors, one for the cutter and the other for the dispenser. Please make sure that you are using the correct connector.</td><td colspan="2">  </td></tr>
<tr><td colspan="2">8. Close the cover again (EZDT2: and secure it with the screw).

9. Place the printer the right way up again.</td><td colspan="2">  </td></tr>
</table>

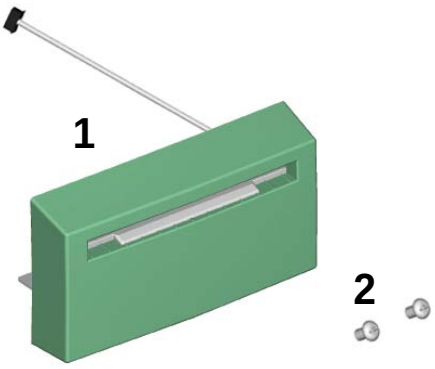
10. Open the dispenser by folding it out. 11. Load the labels, following the instructions in Section 2-1.	
12. Remove the first label and pass the label liner over the roller and the tear-off plate. *【Note】* *The label stock should be at least 25 mm high.* *【Suggestion】* *When using the label dispenser, set the stop position to 9 mm (DT2: 8 mm).*	
13. Pass the label liner through the printer and dispenser as shown in the illustration.	
14. Fold up the dispenser cover to close it.	
15. Switch on the printer and press the FEED button to measure the label stock.	

4-2. Installing the cutter

1	Cutter module
2	Screws (set of 2)

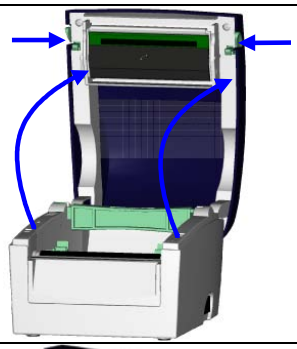
【Important】
Remember to switch off the printer before installing the cutter.

【Note 1】
Do not use to cut adhesive labels! Glue residue will be left on the cutter blade and impair its functioning. The cutter has a blade life of 1,000,000 cuts when using paper weighing up to 120 g/m² and 500,000 cuts when using paper weighing between 120 g and 170 g/m².

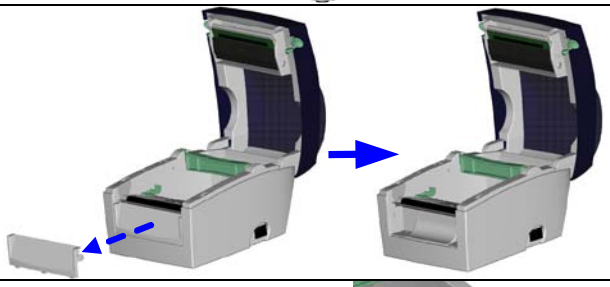


【Note 2】
You can cut paper with a max. width of 114 mm.
【Note 3】
Labels should be at least 30 mm high (DT4).
(DT2: 40 mm)
【Suggestion】
During installation of the cutter, set the stop position in Qlabel and/or in the driver to 30.

1. Place the printer on a flat surface and open the printer cover.

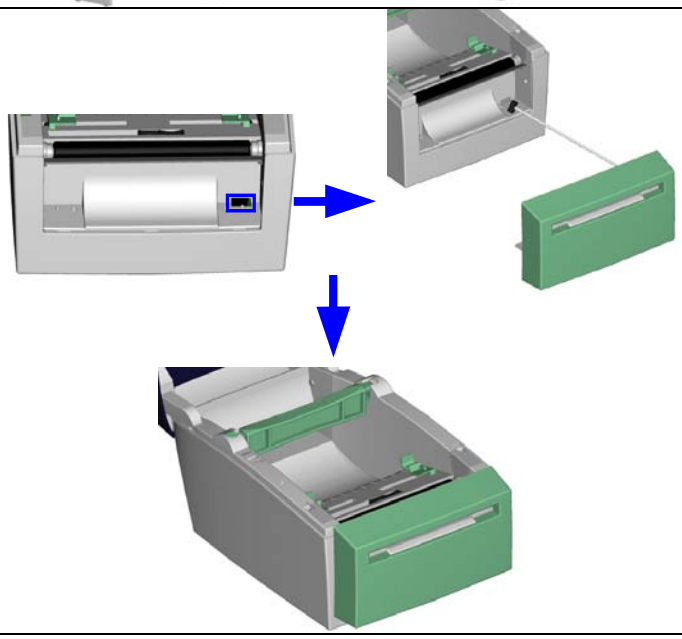


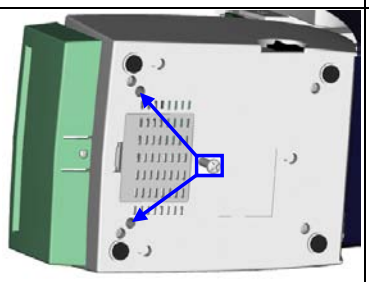
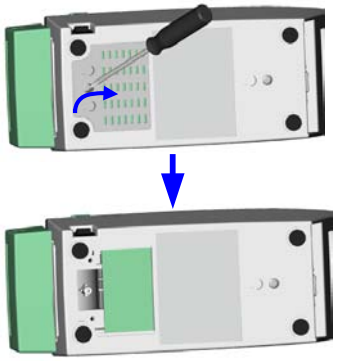
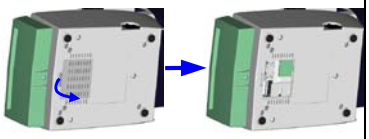
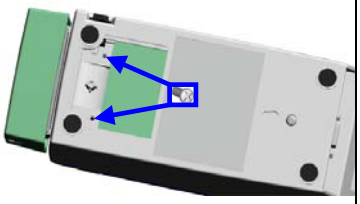
2. Remove the front cover.

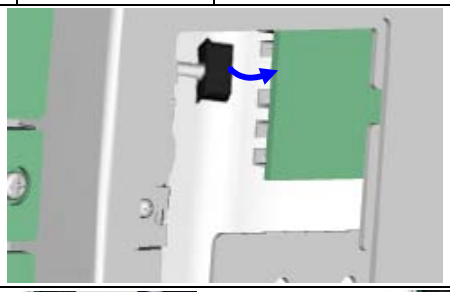


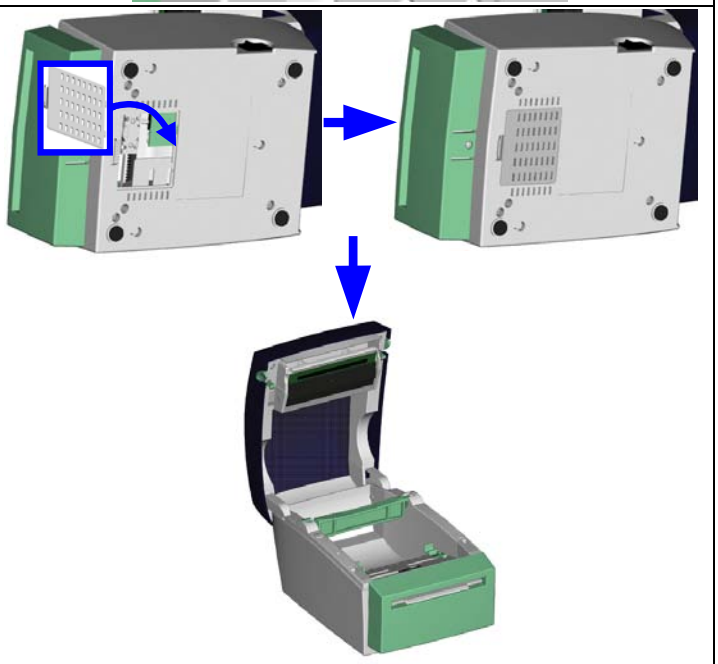
3. Pass the cutter cable through the opening as shown in the illustration.

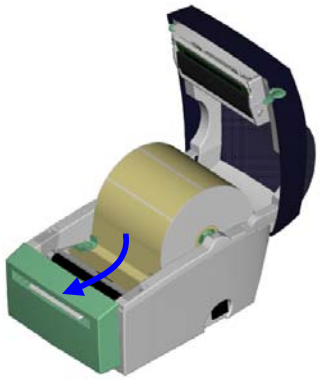
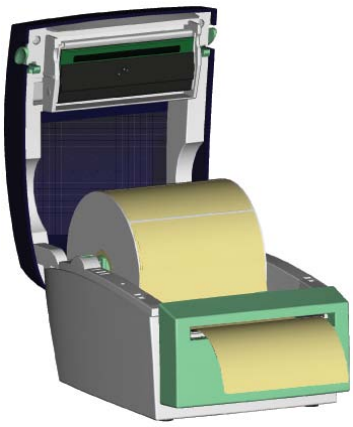
4. Fit the label cutter in the recess provided.



<table>
<tr><th colspan="2">EZDT4</th><th colspan="2">EZDT2</th></tr>
<tr><td>5.
Turn the printer upside down and tighten the screws to secure the cutter.</td><td>  </td><td>5.
Turn the printer upside down and remove the screw that secures the cover on the bottom of the printer.</td><td>  </td></tr>
<tr><td>6.
Open the cover on the bottom of the printer to access the motherboard.</td><td>  </td><td>6.
Tighten the screws to secure the label cutter.</td><td>  </td></tr>
<tr><td colspan="2">7. Connect the cutter to the motherboard.

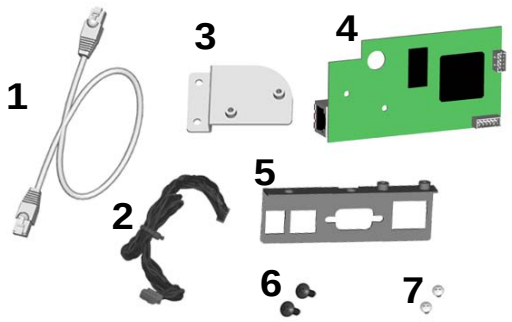
【Note】
Please make sure that you are using the correct connector.</td><td colspan="2">  </td></tr>
<tr><td colspan="2">8. Close the cover on the bottom of the printer (EZDT2: and secure it with the screw).

9. Place the printer the right way up again. In the next step, load the label stock.</td><td colspan="2">  </td></tr>
</table>

10. Follow the instructions in Section 2-1.	
11. Pass the start of the label roll through the cutter and press the FEED button to finish.	

4-3. Installing the Ethernet module – EZDT2 thermal printer

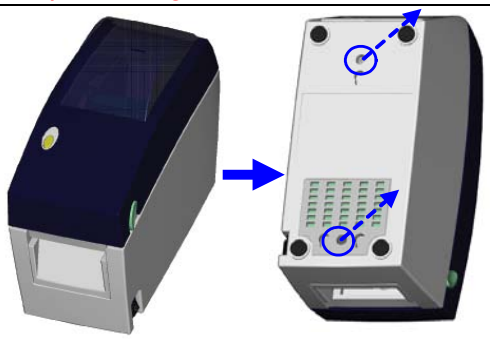
1	Ethernet cable, 1.8 m
2	Connection cable (module to motherboard)
3	Bracket
4	Ethernet module
5	Motherboard back panel
6	Screws for Ethernet module (set of 2)
7	Fastening screw (1 screw)



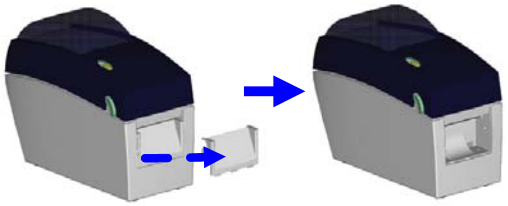
【Caution】Please make sure that you take precautions to prevent electrostatic discharge during the installation.

【Note】Please make sure that anti-static precautions are adopted during the installation.

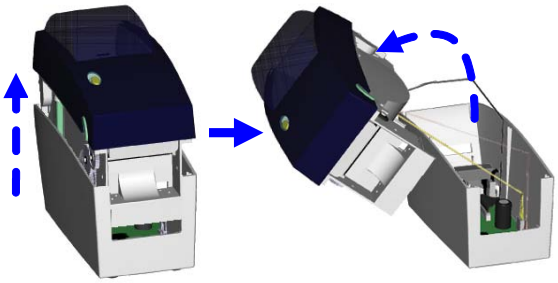
1. Make sure that the printer is switched off and the power cord disconnected from the printer. You should work on a clean, flat surface.
   Turn the printer upside down and remove the two screws marked in the illustration from the printer housing.



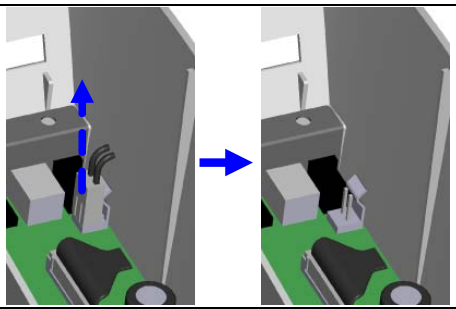
2. Place the printer the right way up again and lift the front cover.

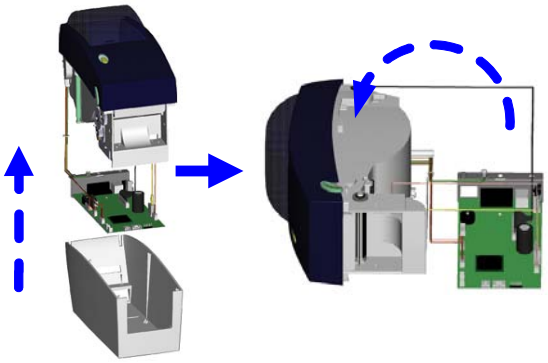
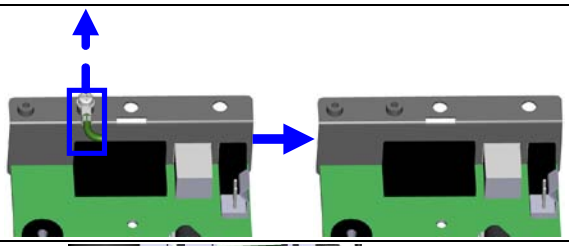
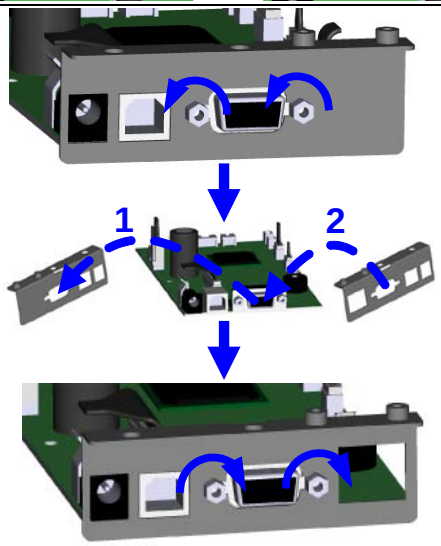
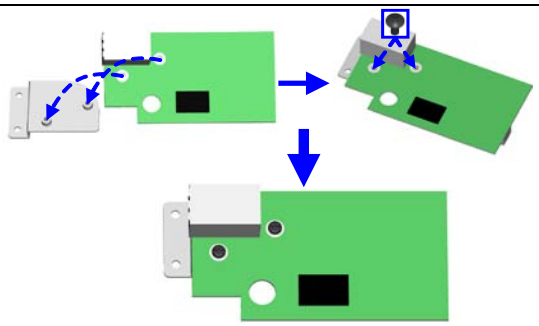
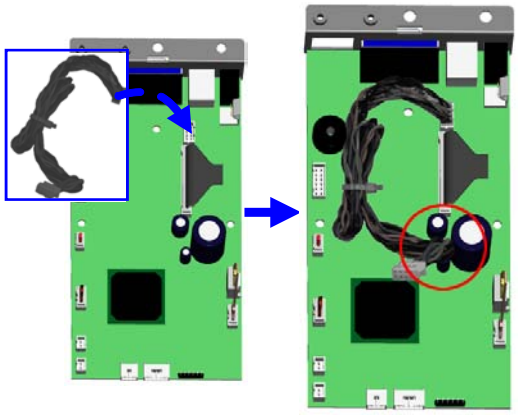


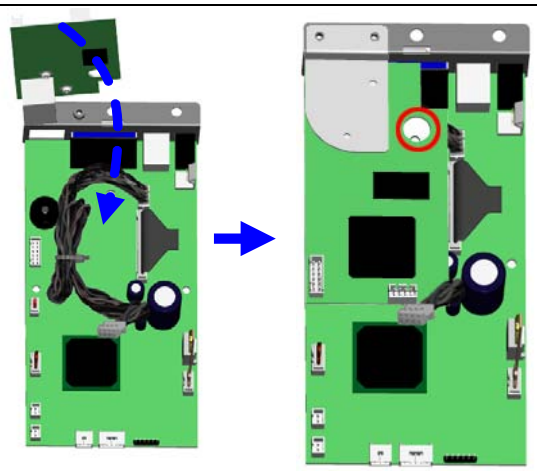
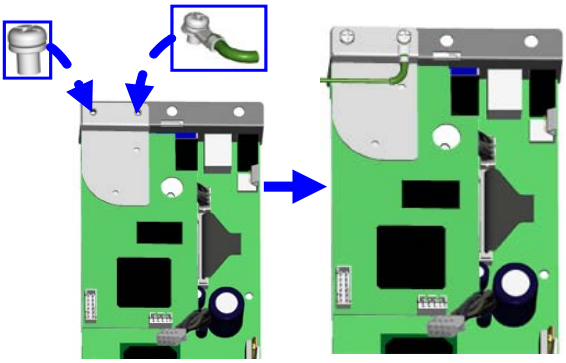
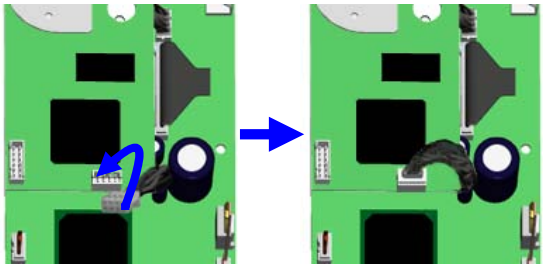
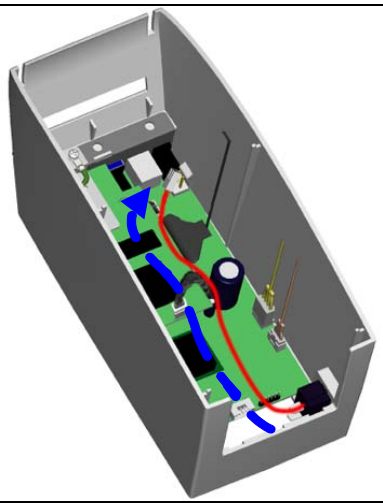
3. Gently lift the print mechanism.

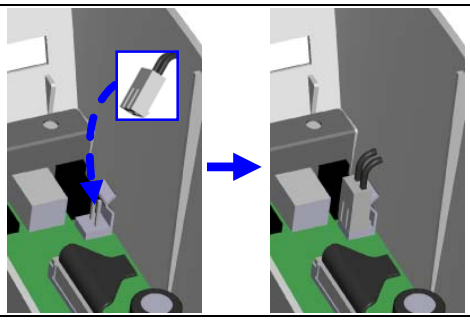
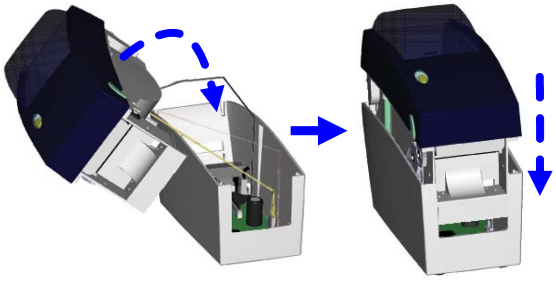
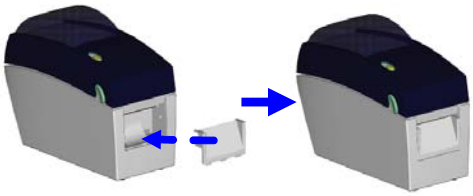
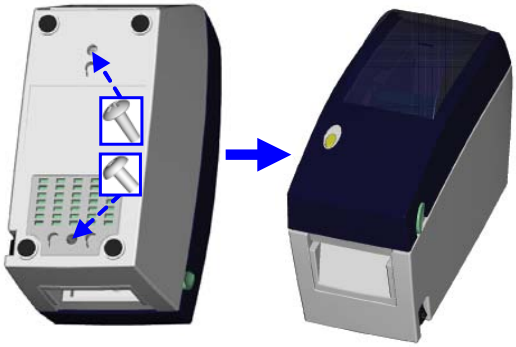


4. Disconnect the motherboard power supply.



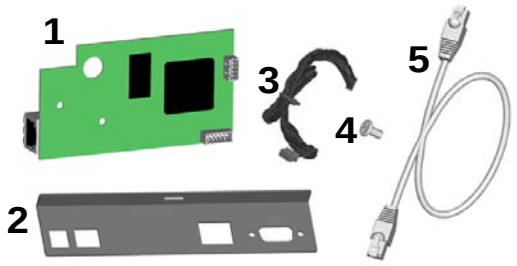
5. Now remove the print mechanism and the motherboard and put them down, placing the print mechanism to the left of the motherboard.	
6. Remove the earthing screw and disconnect the earthing cable.	
7. Remove the two hex screws to the left and right of the RS-232 (serial) port. 8. Remove the motherboard back panel and replace it with the back panel supplied. Secure the new back panel using the two hex screws.	
9. Secure the Ethernet module on the bracket.	
10. Plug the connection cable into the socket on the motherboard and position it between the capacitators to secure it, as shown in the illustration.	

11. Align the Ethernet module with the new motherboard back panel. *【Note】* *Please make sure that the connection cable does not cover the hole marked.*	
12. Secure the Ethernet module on the motherboard using the fastening screw supplied and the earthing screw.	
13. Now plug the other end of the connection cable into the Ethernet module socket.	
14. To avoid damage to the cable when reassembling the printer, all cables on the right of the motherboard should be routed close to the right-hand side of the housing.	

15. Connect the motherboard to the power supply.	
16. Place the print mechanism back inside the bottom part of the printer housing.	
【Caution】Please make sure that you position all cables in such a way that they are not damaged when you reassemble the printer.	
17. Replace the front cover.	
18. Secure the print mechanism using the two screws you removed earlier.	
19. Installation of the Ethernet module is now complete.	
【Note】 *Once you have finished installing the Ethernet module, the command "^XSET,USBETHERNET,1" must be sent to the printer to enable the Ethernet module. While the Ethernet module is enabled, the USB port is disabled. To enable it again, send the command "^XSET,USBETHERNET,0" to the printer.*	

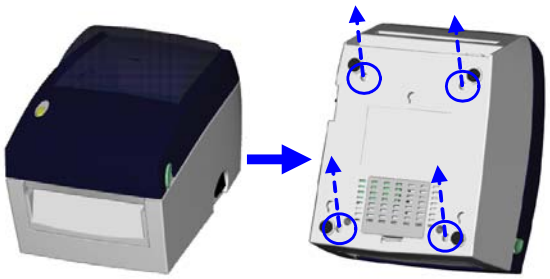
4-4. Installing the Ethernet module – EZDT4 thermal printer

1	Ethernet module
2	Motherboard back panel
3	Connection cable (module to motherboard)
4	Screw for Ethernet module (1 screw)
5	Ethernet cable, 1.8 m

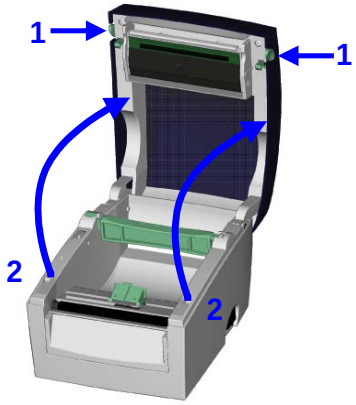


【Caution】Please make sure that you take precautions to prevent electrostatic discharge during the installation.

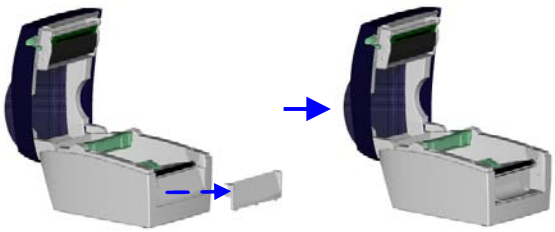
1. Make sure that the printer is switched off and the power cord disconnected from the printer. You should work on a clean, flat surface. Turn the printer upside down and remove the two screws marked in the illustration from the printer housing.

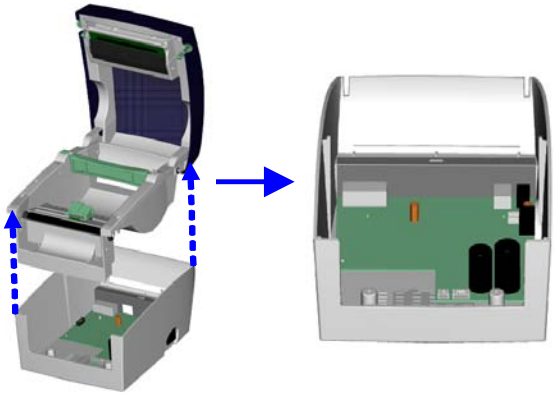
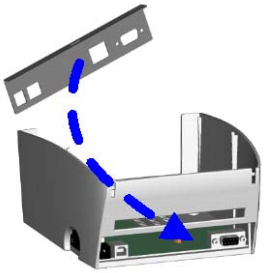
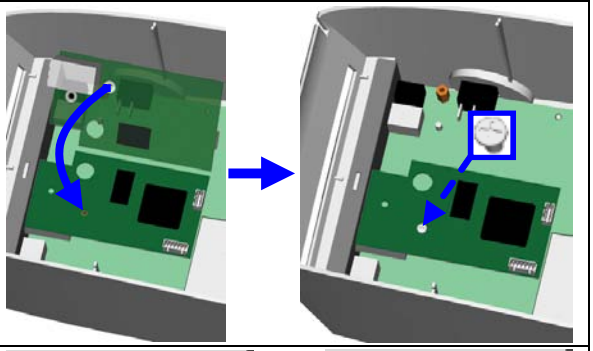
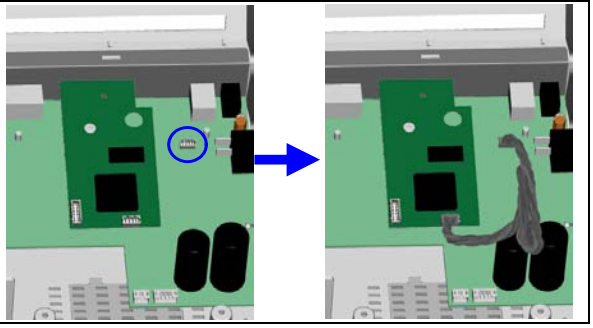


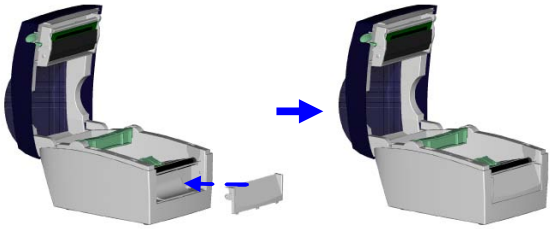
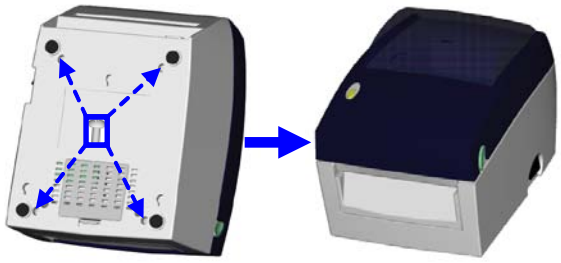
2. Press the release buttons on either side of the printer cover and pull them forward. You can now open the printer cover.



3. Place the printer the right way up again and lift the front cover.



4. Lift the print mechanism and disconnect all cables from the motherboard to make the work easier for you.	
5. Remove the two hex screws to the left and right of the RS-232 (serial) port. 6. Lift the motherboard, holding it by the side with the RS-232 interface, and remove it. Please make sure that the motherboard is no longer attached to the mounting point marked.	 
7. Remove the motherboard back panel and replace it with the back panel supplied. Secure the new back panel using the two hex screws. 8. Now replace the motherboard.	
9. Align the Ethernet module with the new motherboard back panel. Secure the Ethernet module using the screw supplied.	
10. Connect the Ethernet module to the motherboard using the connection cable as shown in the illustration.	

11. Connect all print mechanism cables to the motherboard and replace the print mechanism in the printer housing.	
12. Replace the front cover.	
13. Secure the print mechanism using the four screws you removed earlier.	

【Note】

Once you have finished installing the Ethernet module, the command "^XSET,USBETHERNET,1" must be sent to the printer to enable the Ethernet module. While the Ethernet module is enabled, the USB port is disabled. To enable it again, send the command "^XSET,USBETHERNET,0" to the printer.

5. Maintenance and adjustment

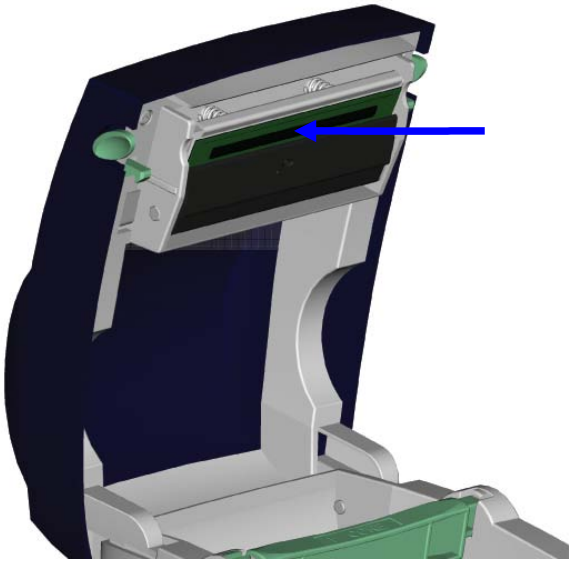
5-1. Cleaning the print head

Dirt on the print head or ribbon, or glue residue from the label liner may result in inadequate print quality. The printer cover must therefore always be closed. Keeping dirt and dust away from the paper or labels ensures a good print quality and a longer lifespan of the print head. Here is how you clean the print head:

1. Switch off the printer.
2. Open the printer cover.
3. To remove any label residue or other dirt from the print head (see blue arrow), please use a soft lint-free cloth dipped in alcohol.

【Note 1】
The print head should be cleaned once a week.

【Note 2】
Please make sure that there are no metal fragments or other hard particles on the soft cloth used to clean the print head.

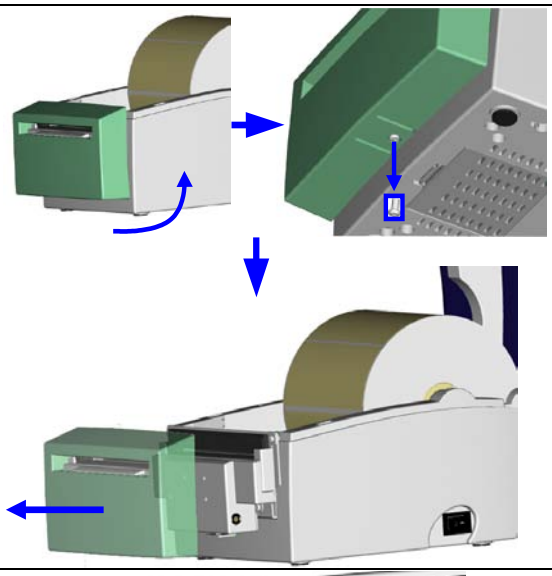


5-2. Adjusting the cutter

While using the cutter, paper jams may occur.
You can solve this problem by adjusting the cutter.

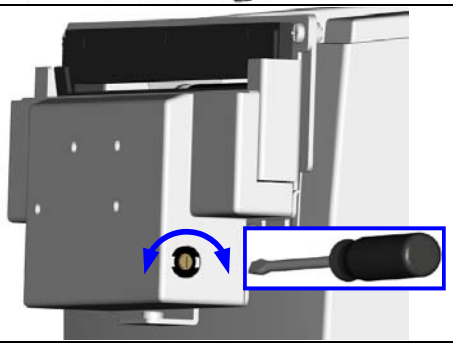
1. Turn the printer upside down. A screw is located on the bottom of the cutter housing.

2. Unscrew the screw and remove the housing.



3. The adjustment screw is located on the side of the cutter. Use a screwdriver and turn the screw anticlockwise to loosen the cutter blade and pull out the jammed label.

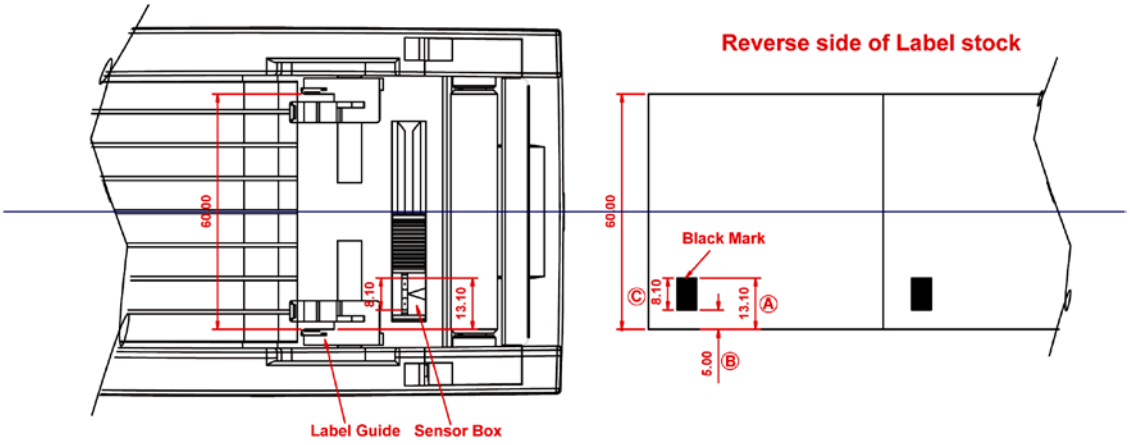
4. When you have cleared the jam, turn the screw clockwise to secure the cutter blade again.



5-3. Labels with black marks

If you are using black-mark label stock that has the printer's maximum feed width, the printer may not recognise the black marks because they are outside the sensor range. When using label stock with black marks, you should therefore observe the following restrictions:

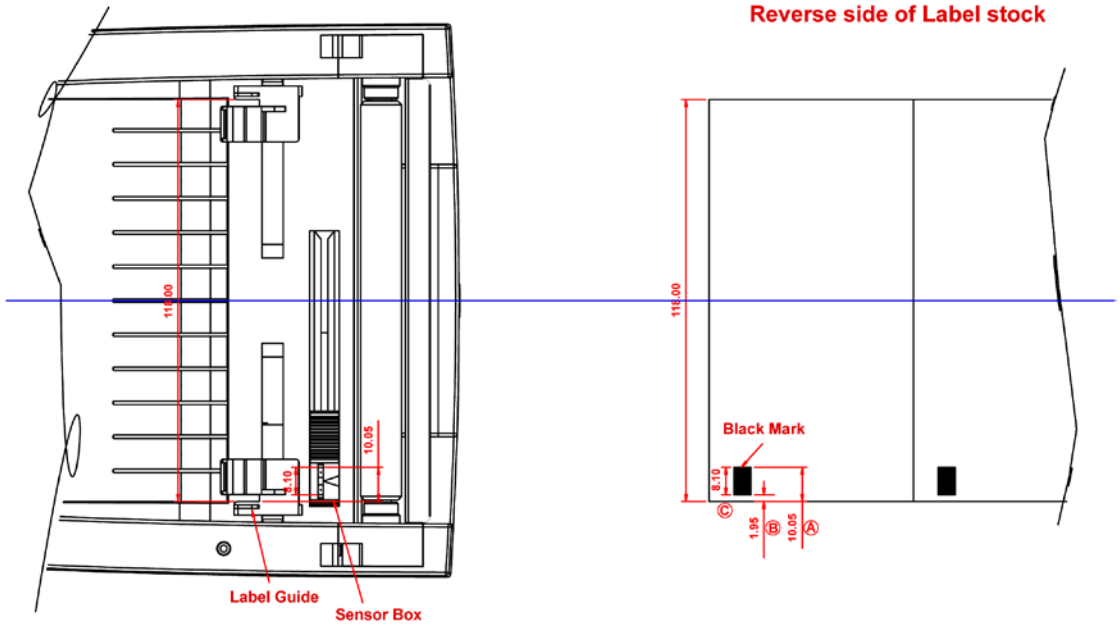
EZDT2



For 60 mm wide label stock, the black marks should have the following positions and sizes:

- A > 13.1 mm high
- B < 5mm high
- C > 8.1 mm high

EZDT4



For 118 mm wide label stock, the black marks should have the following positions and sizes:

- A > 10.05 mm high
- B < 1.95 mm high
- C > 8.1 mm high

5-4. Troubleshooting

Problem	Solution
The printer is switched on but the LEDs do not light up.	◆ Check the power supply.
The LED lights up red (ERROR) and printing is interrupted.	◆ Check whether is an error in the software settings or the print commands. ◆ Replace the print medium with a suitable medium. ◆ Check whether there is a label jam. ◆ Check whether the label stock is finished. ◆ Check whether the print mechanism is closed (the print head is not positioned correctly). ◆ Check whether the print medium is covering the sensor. ◆ Check whether the cutter is functioning normally and whether it is cutting at all. (Only if a cutter is installed,)
The label stock passes through the printer but no image is printed.	◆ Please make sure that the label stock is loaded the right way up and that it is suitable material. ◆ Choose the correct printer driver. ◆ Choose the correct label stock and a suitable printing mode.
The label stock jams during printing.	◆ Clear the paper jam. Remove any label material left on the thermal print head and clean the print head using a soft lint-free cloth dipped in alcohol.
The label stock does not move correctly and there is no printed image on some parts of the label.	◆ Check whether any label material is stuck to the thermal print head. ◆ Check for errors in the application software. ◆ Check whether the starting position has been set incorrectly. ◆ Check the power supply.
There is no printed image on part of the label.	◆ Check the thermal print head for dust or other dirt. ◆ Use the internal “~T” command to check whether the thermal print head will carry out a complete print job. ◆ Check the quality of the print medium.
The printed image is positioned incorrectly.	◆ Check whether there is paper or dust covering the sensor. ◆ Check whether the label liner is suitable. Please contact your dealer. ◆ Check the paper guide settings.
A label is missed out during printing.	◆ Check the label height setting. ◆ Check whether there is dust covering the sensor.
The printed image is blurred.	◆ Check the darkness setting. ◆ Check the thermal print head for glue residue or other dirt.
The cutter does not cut off the labels in a straight line.	◆ Check whether the label stock is positioned straight.
The cutter does not cut off the labels completely.	◆ Check whether the label is more than 0.16 mm thick.
When using the cutter, the labels are not fed through or cut off incorrectly.	◆ Check whether the cutter has been correctly installed. ◆ Check whether the paper guides are functioning correctly.
The stripper is not functioning correctly.	◆ Check whether there is dust on the label dispenser. ◆ Check whether the label stock is positioned correctly.

【Note】If any problems occur that are not described here, please contact your dealer.