



# ***T4+ series user's manual***

***Version: 1.2***

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## About this user's manual

Firstly, thank you for purchasing Sbarco's T4+ series printer. T4+ series printer could provide you a reliable, easy and clear way to print all kinds of labels and barcodes you need.

This user's manual is described with a large quantity of illustrations, let the users understand, step by step, how to work this printer to its best. This manual includes also the troubleshooting section which could provide a pre-way to eliminate or find out the troubles, without the help of technician. If users still cannot banish the troubles from the printer, please contact directly the distributors.

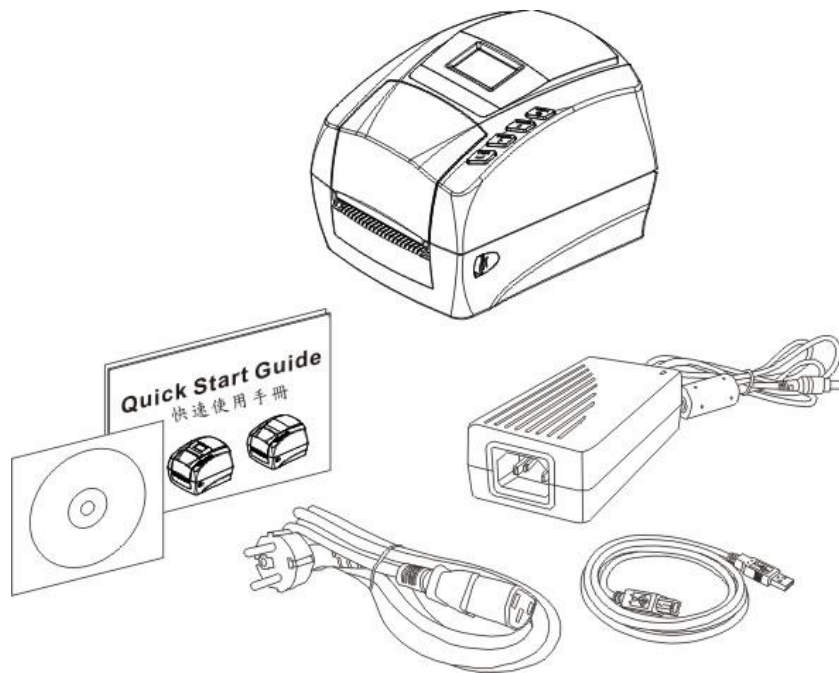


## 1. Introduction

### 1.1 In the box

After unpacking, please inspect carefully and make sure that you receive all the necessary parts as below:

- ✓ Printer
- ✓ Power supply
- ✓ Power Cord (varies by country)
- ✓ Software CD ROM
- ✓ Quick start guide
- ✓ USB cable

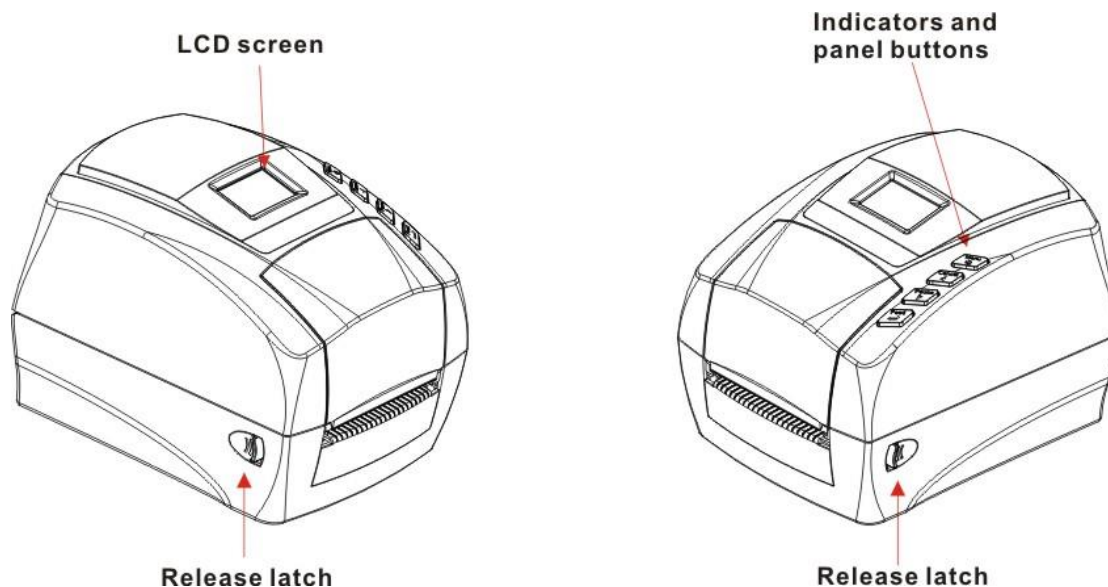


If any parts are missing, please contact the service department of your distributor.

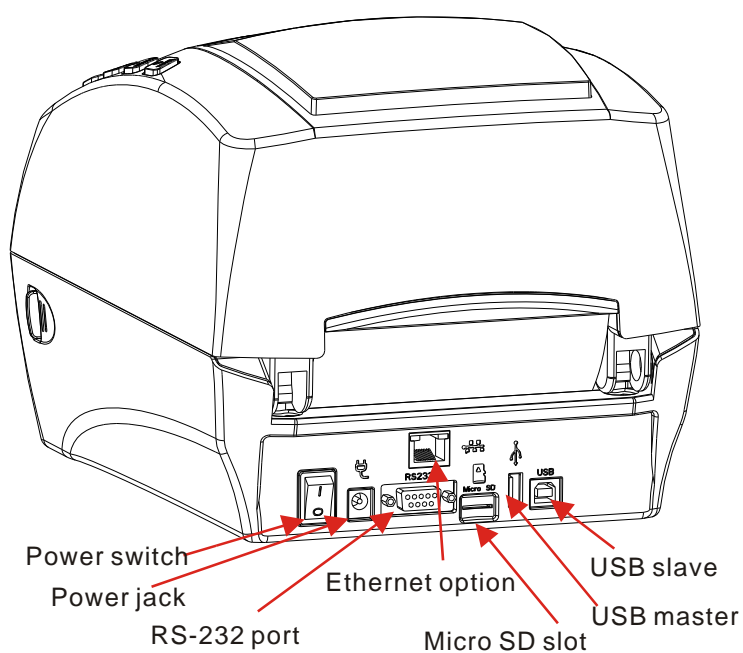
Save the carton and all packing materials in case you need to reship back.

## 1.2 T4+ Printer Features

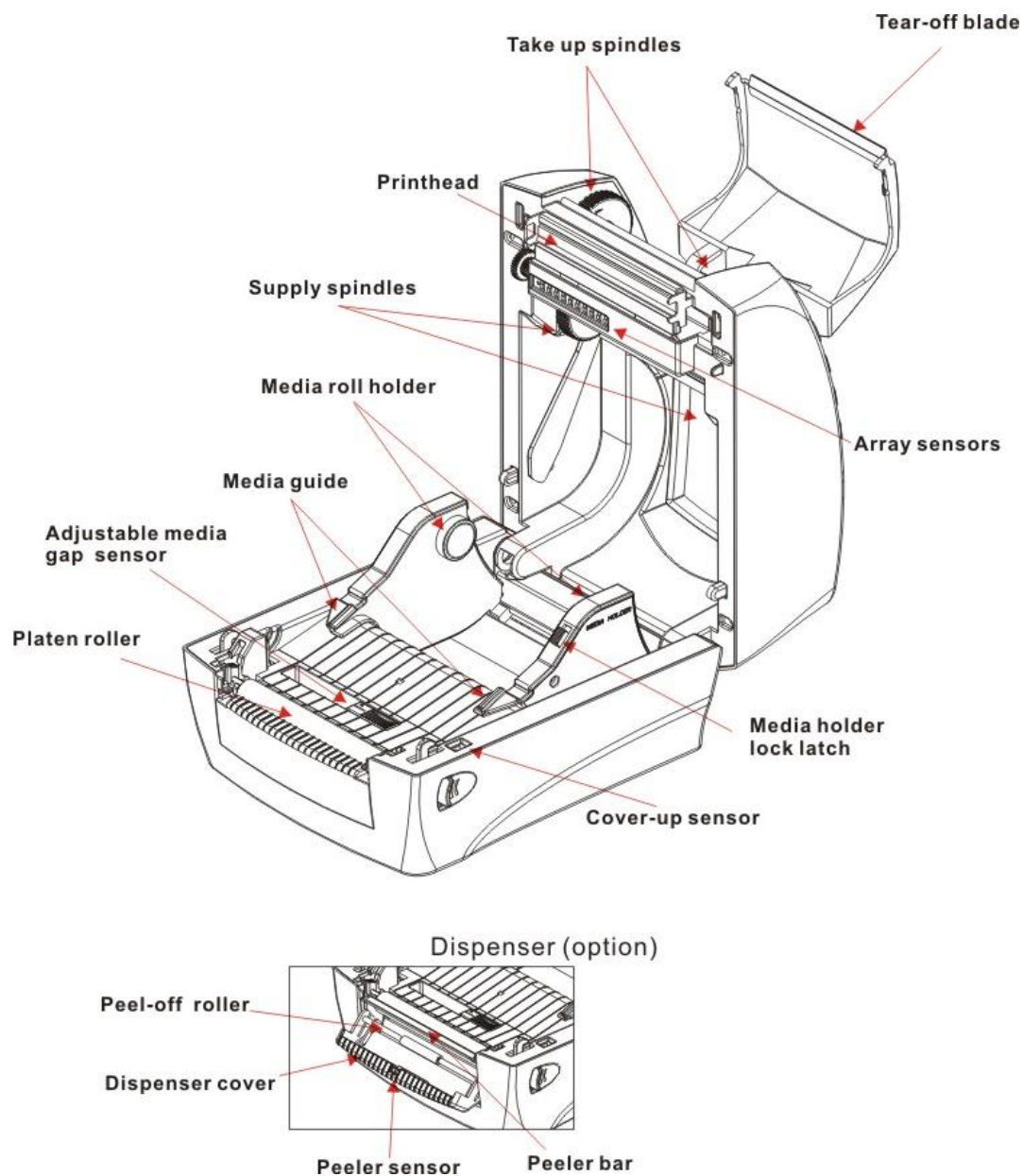
### 1.2.1 Front view



### 1.2.2 Rear view



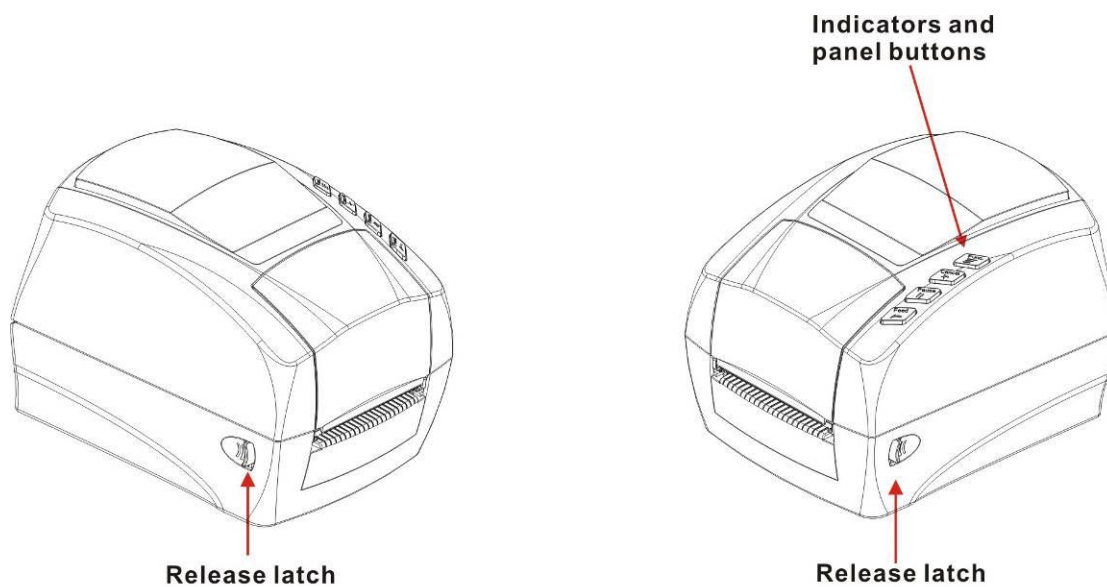
## 1.2.3 Interior view



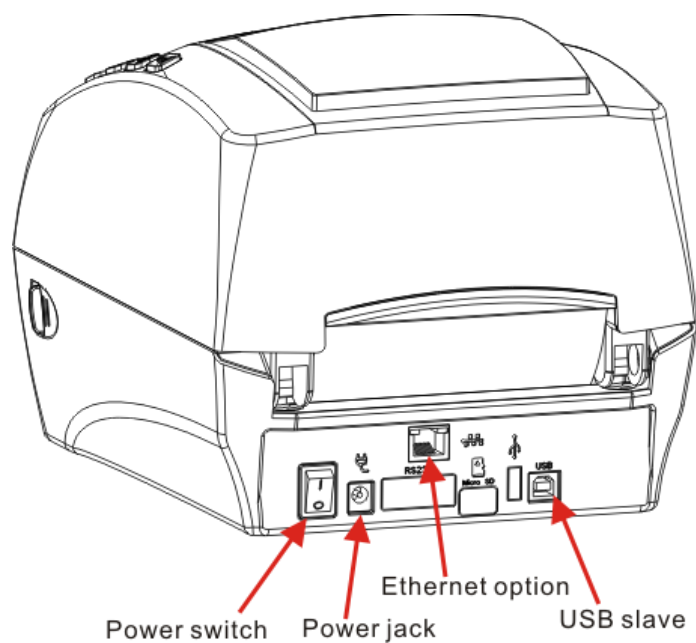


## 1.3 T4e+ / T4De+/T4ES Printer Features

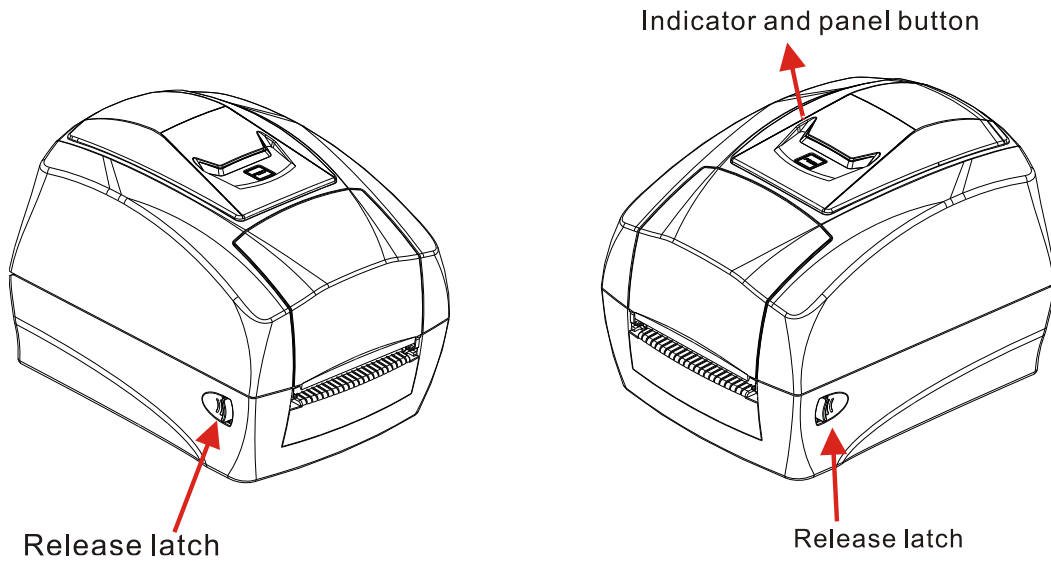
### 1.3.1 T4e+/T4De+ Front view



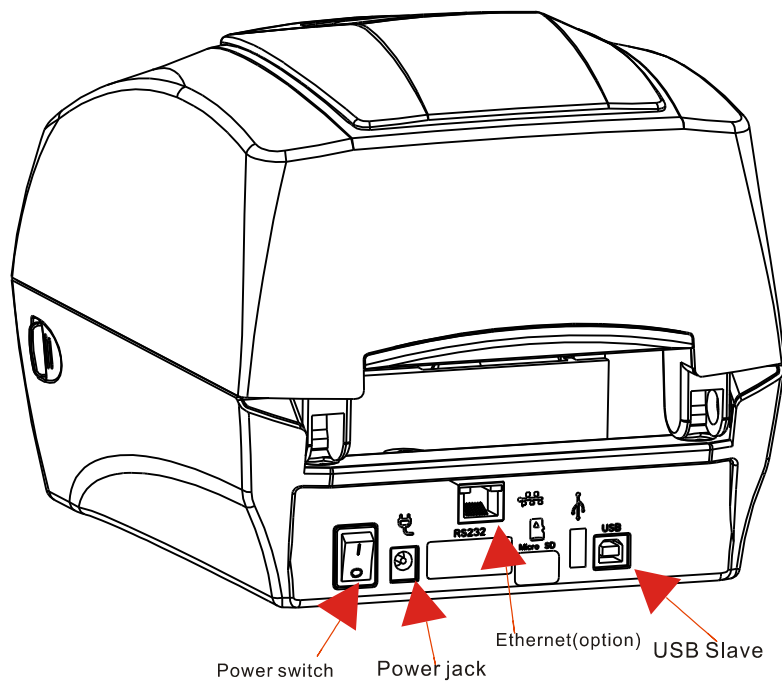
### 1.3.2 Rear view



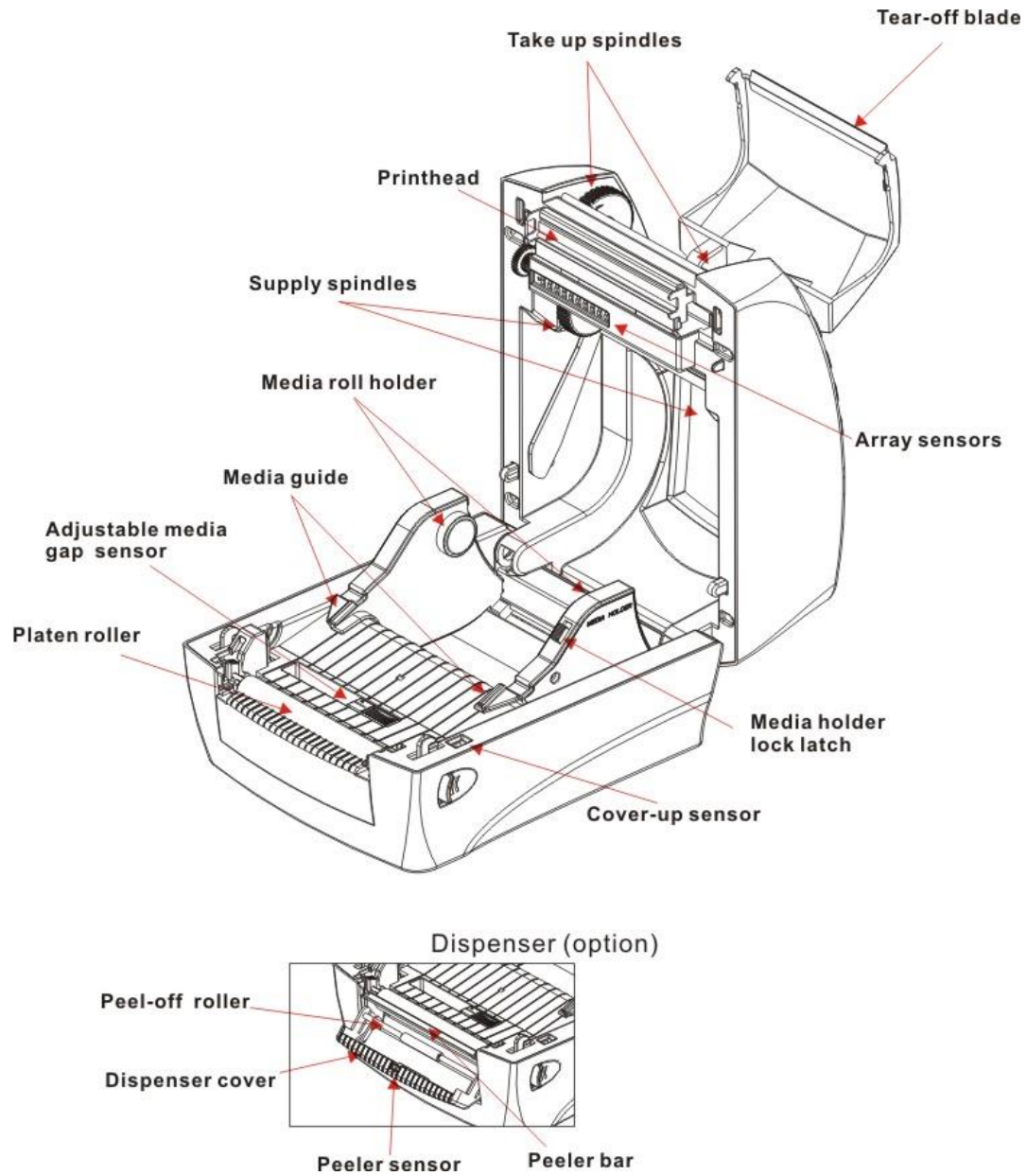
## 1.3.3 T4ES Front view



## 1.3.4 Rear view



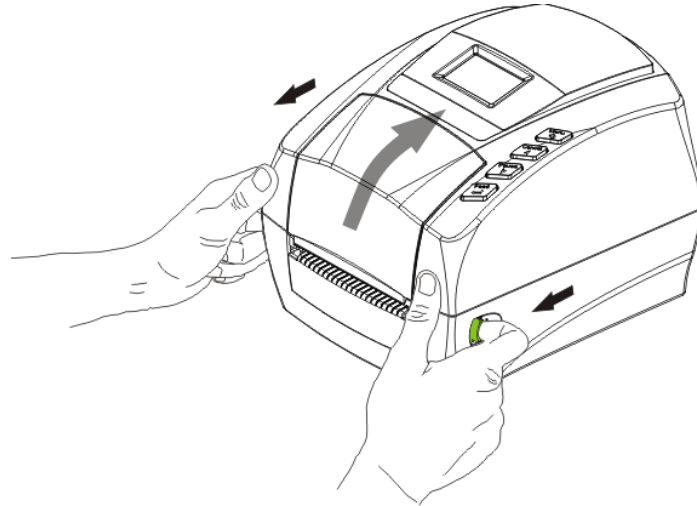
## 1.3.5 Interior view



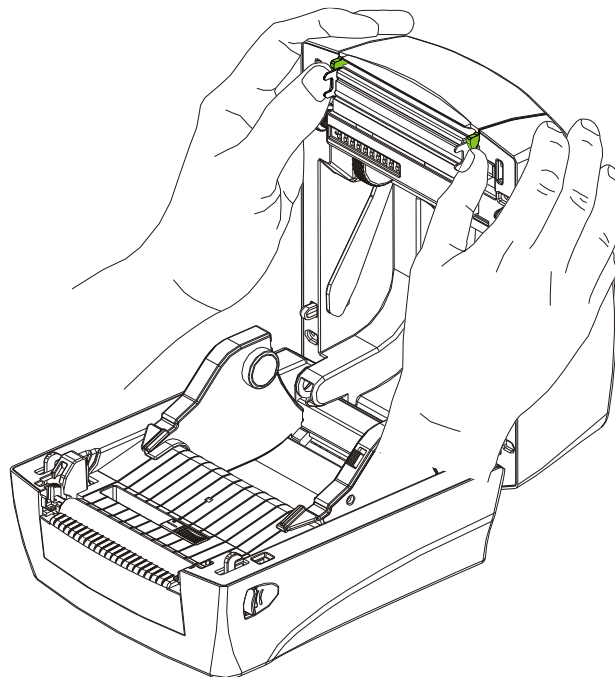
## 2. Getting start

### 2.1 Loading the ribbon

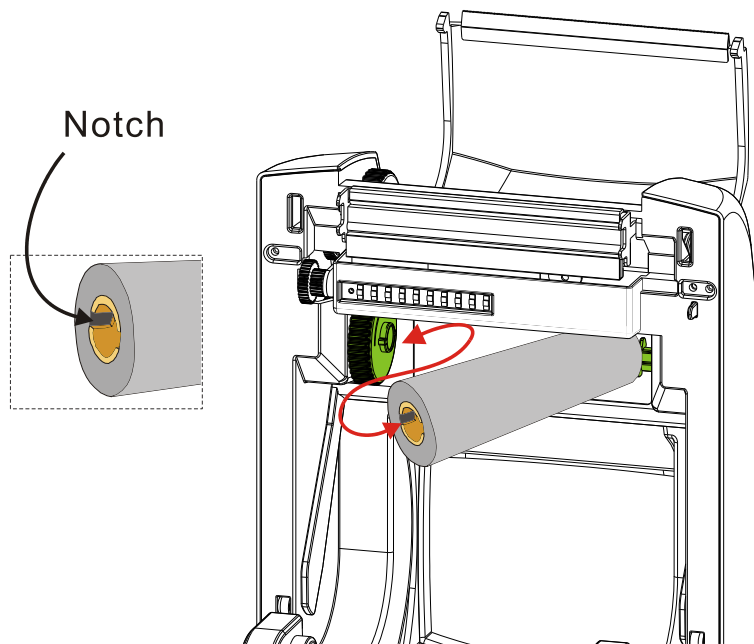
1. Pulling the release latches on two sides toward the front of printer to open the printer cover.



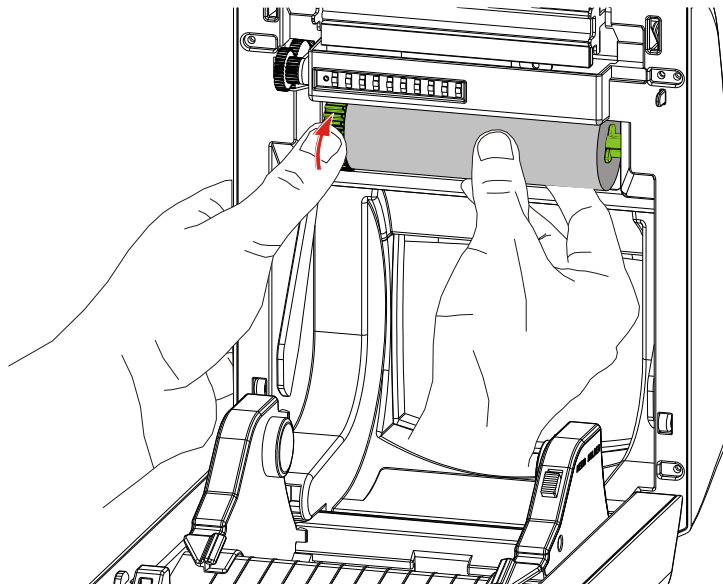
2. Open the ribbon cover by pushing the ribs (as shown in green) of ribbon cover. Do not open the ribbon cover by pushing the cover edge which installed the blade to tear off the label. It might hurt your hands if you push it hard.



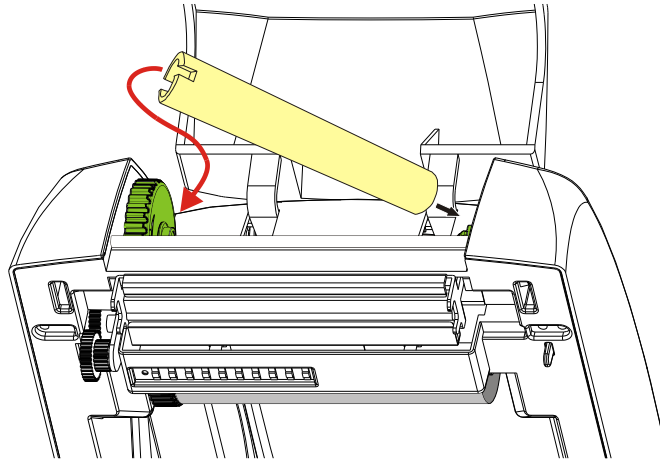
3. Insert the ribbon roll to the supply spindle.



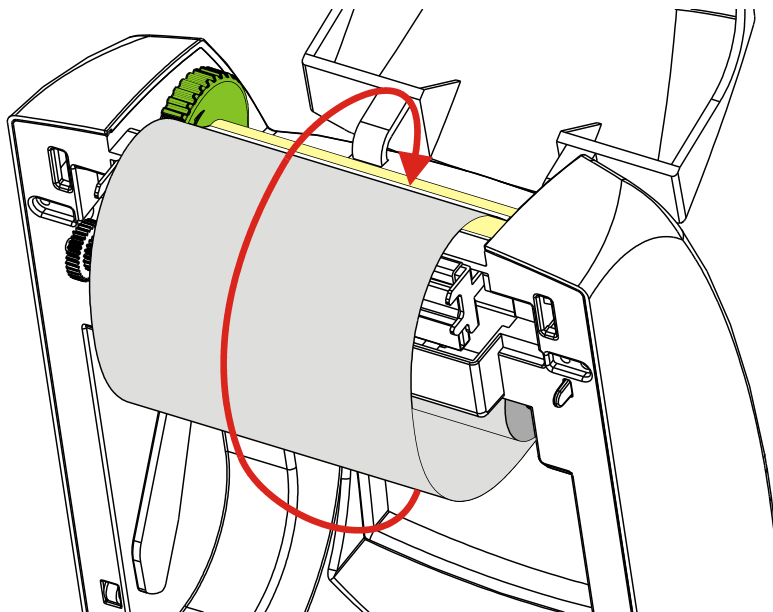
4. Rotate the supply hub until the notches align and lock in to the left side of supply hub.



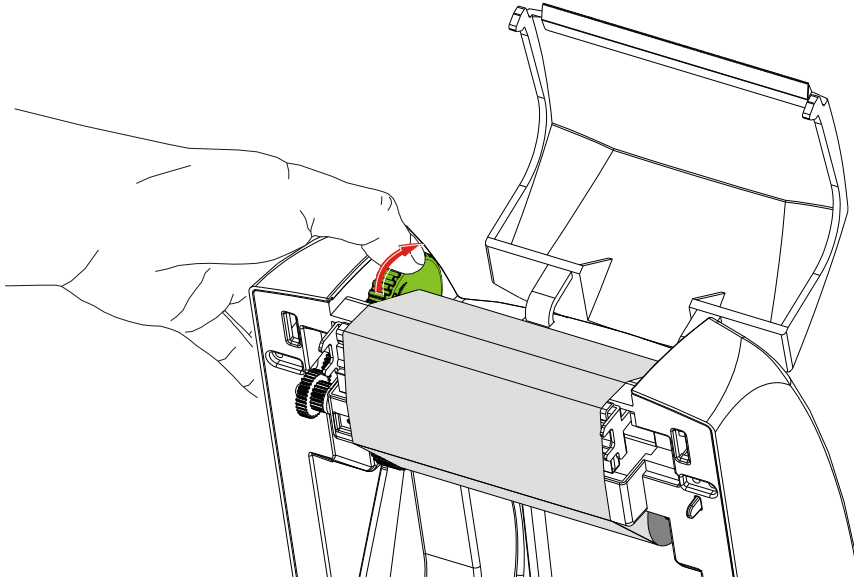
5. Insert an empty media core into the take up spindle. Rotate the take up hub until the notches align and lock on the left side of take up hub.




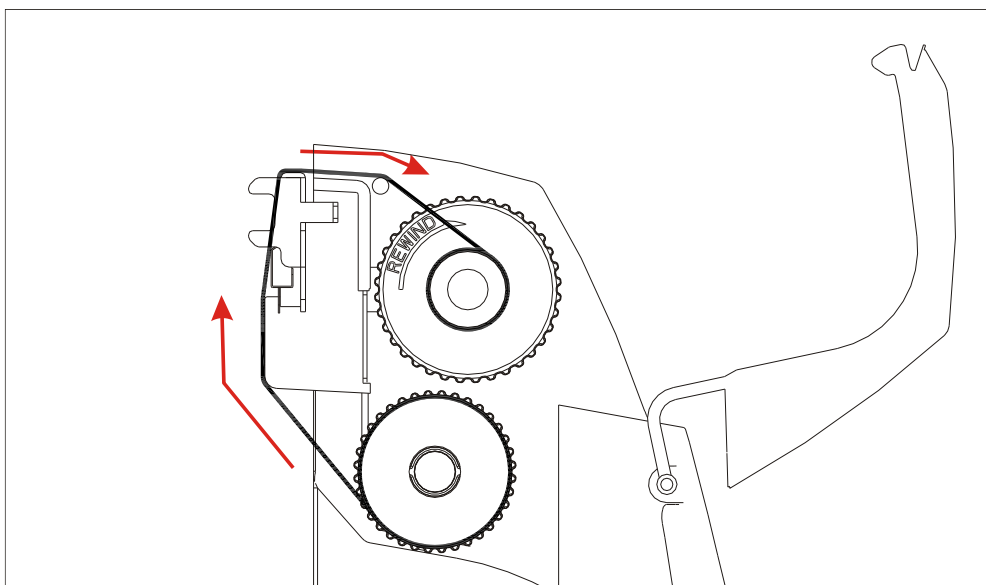
6. Pull the ribbon out from the roll and stick it with the adhesive tape on the empty ribbon take up core.



7. Rotate the take up hub on the left side of ribbon spindle till the ribbon is pulled tight.

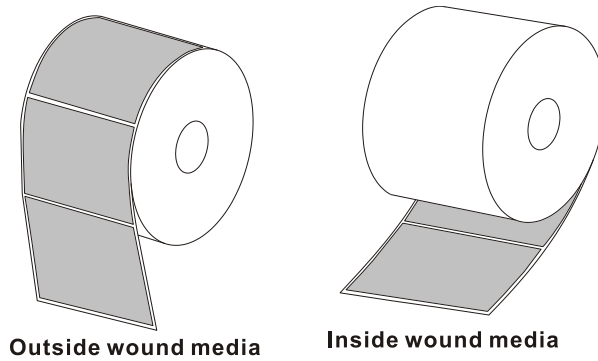


 Note: The loading path of ribbon roll (outside wound)

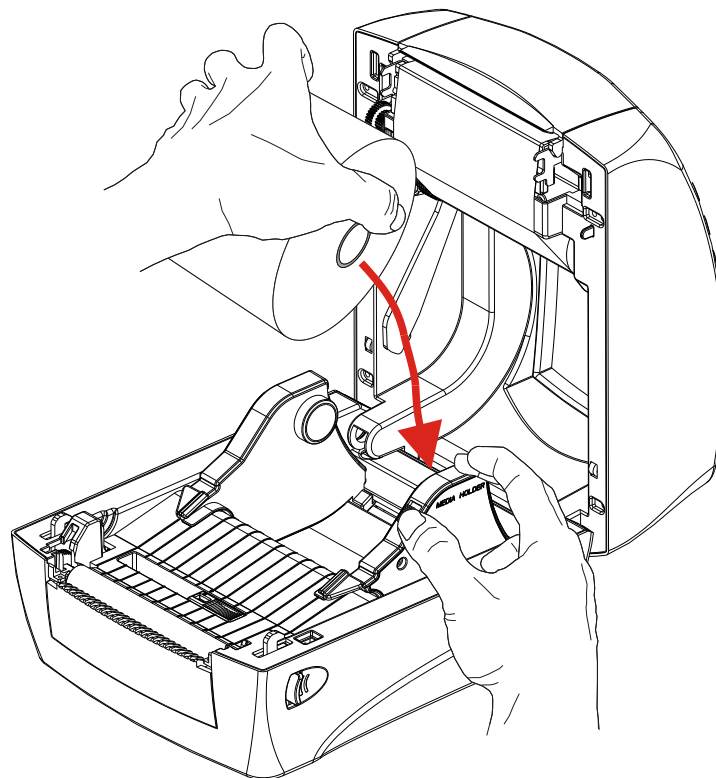


## 2.2 Loading the media

Whether the roll media is inside or outside wound, they could be used in this printer and loaded in the same way.

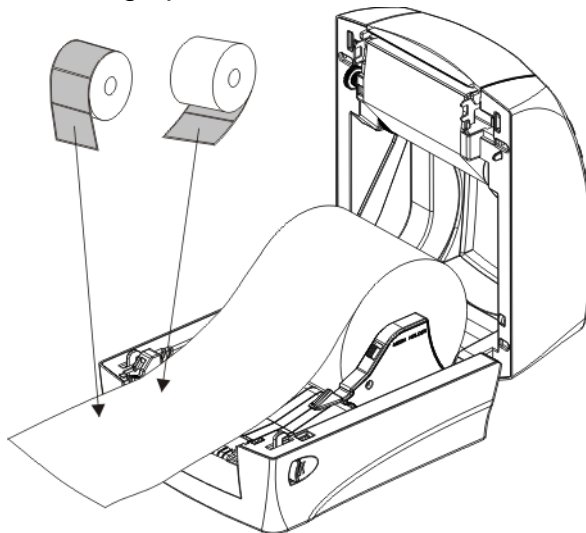


1. Open the printer cover by pulling the release latch toward the front of printer.
2. Press the holder latch and pull the media holders open. Place the media roll on the holders and push media holder toward the roll by pressing the holder latch. Release the latch when the media is on the holder firmly.

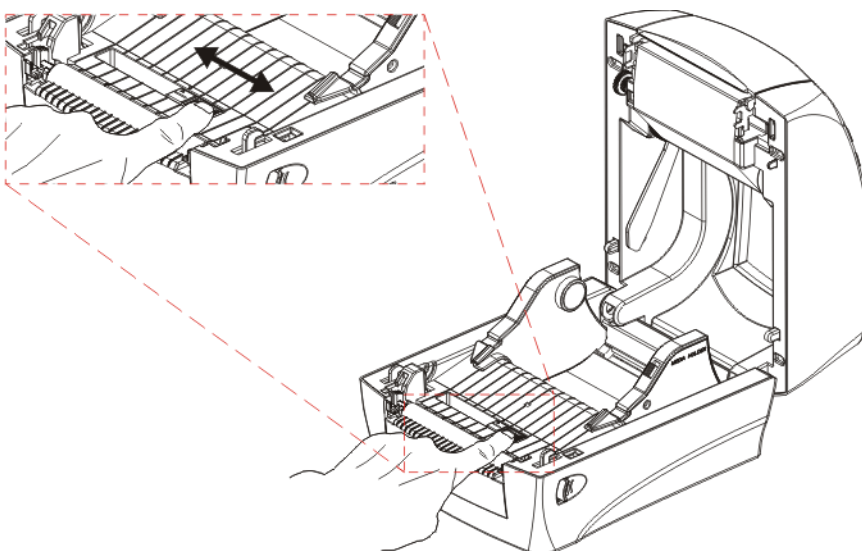




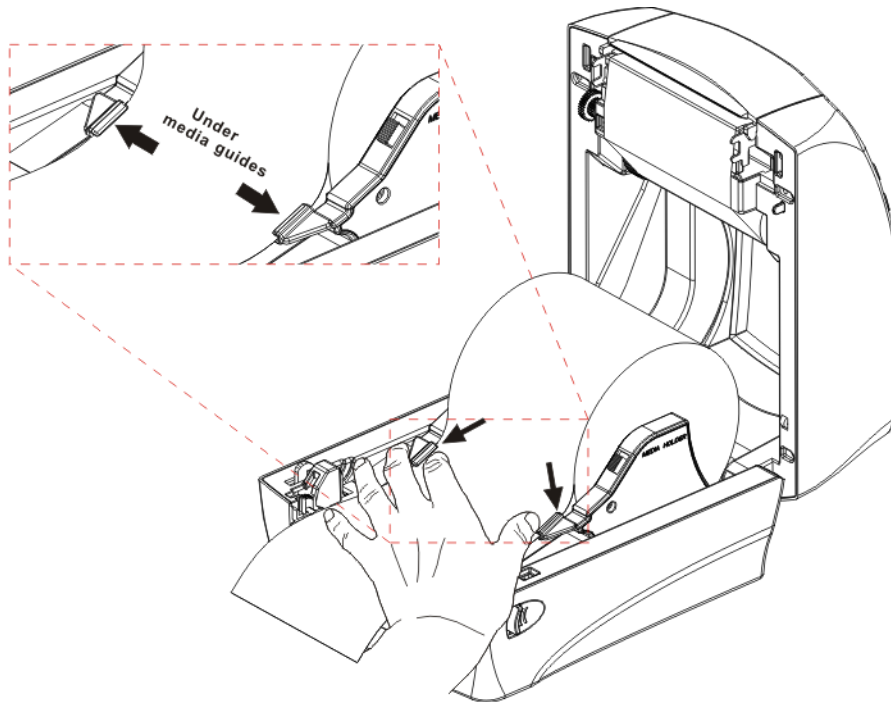
3. Pull the media so it could extend out the printer. Please make sure the printing surface is facing up.



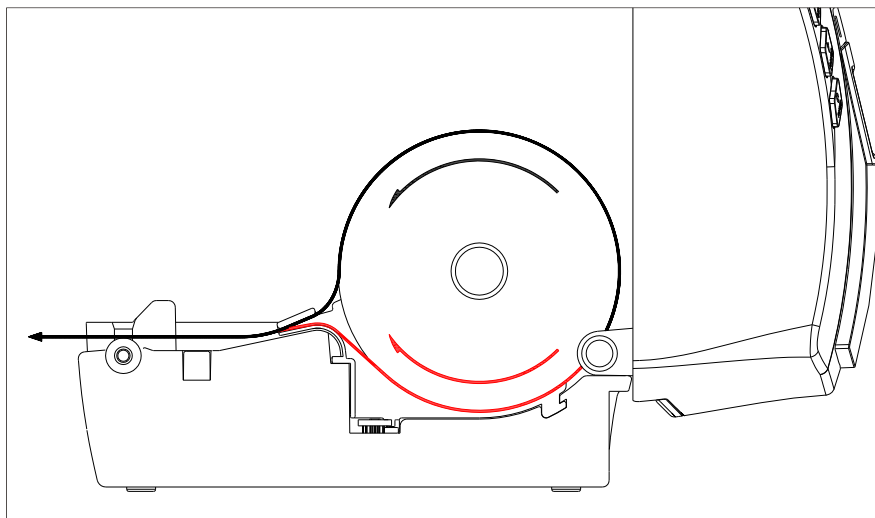
4. Before pushing the media under the guides, adjust the label gap sensor to appropriate position to detect the labels with gap, hole or black mark.



5. Push the media under the both sides of guides.



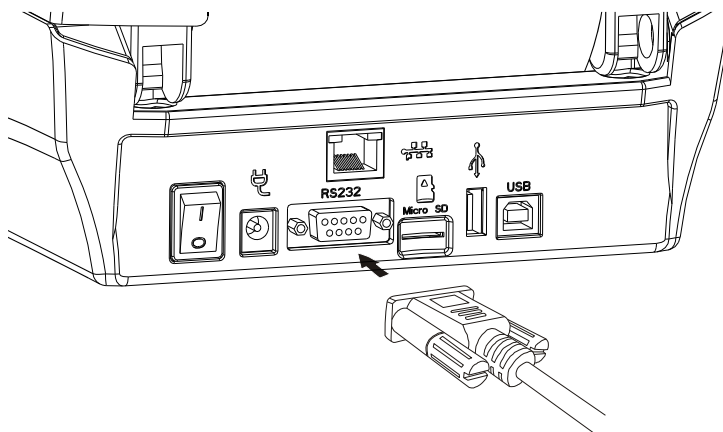
Note: The loading path of label roll (inside and outside wound)



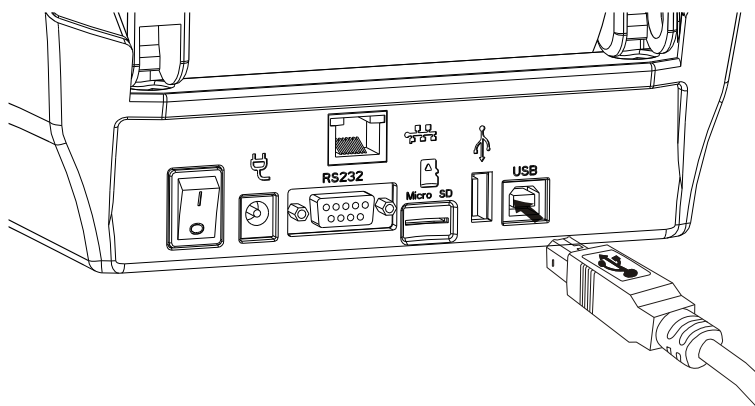
## 2.3 T4+ Connecting interfaces

The following interfaces could be connected to PC to operate the printer:

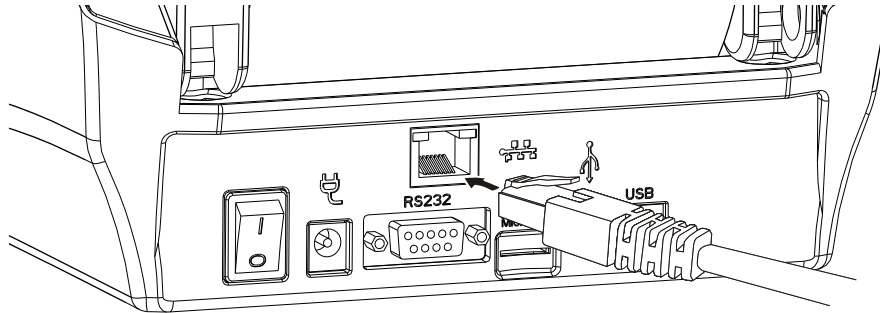
### 2.3.1 RS-232 port (Serial port)



### 2.3.2 USB Slave



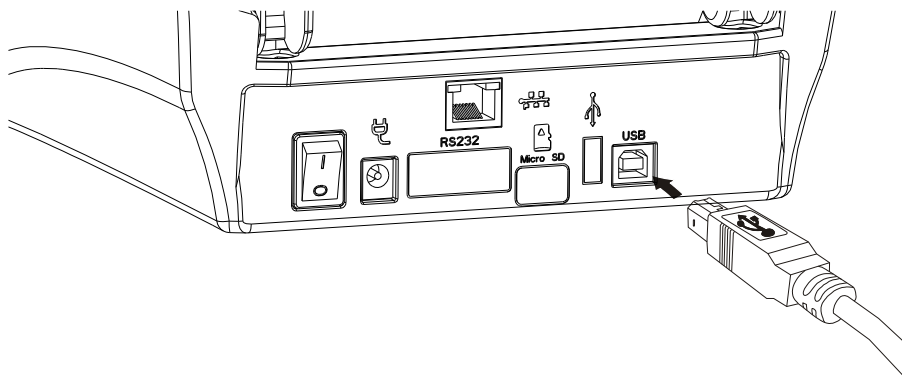
## 2.3.3 Ethernet (Option)



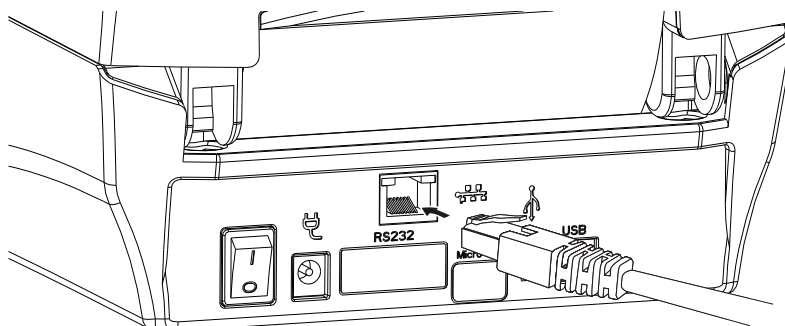
## 2.4 T4e+ / T4De+/T4ES Connecting interfaces

The following interfaces could be connected to PC to operate the printer:

### 2.4.1 USB Slave

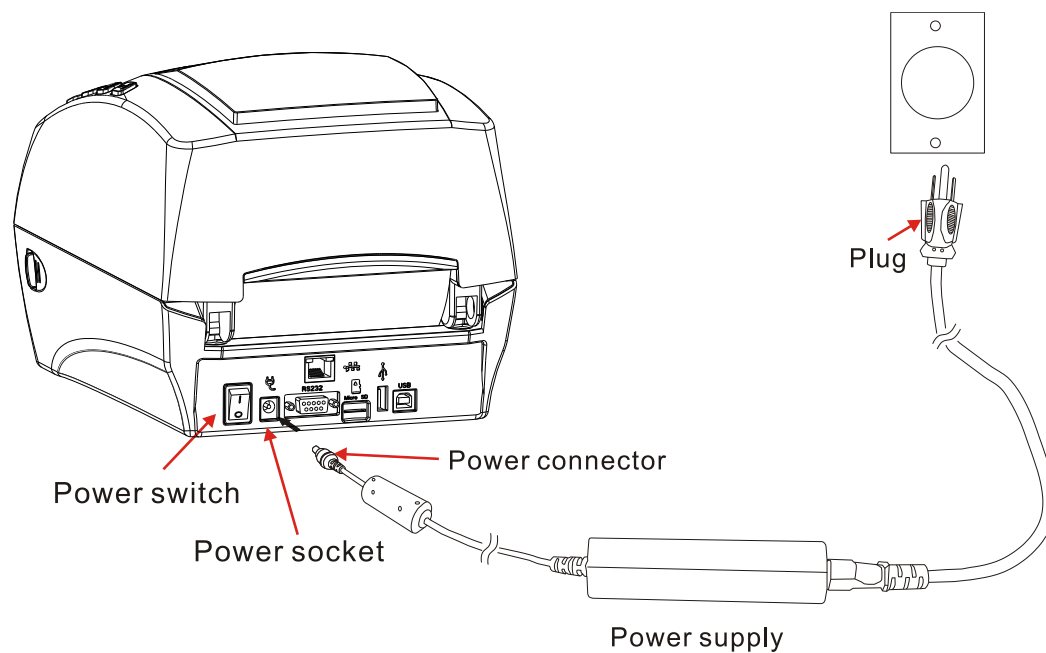


### 2.4.2 Ethernet (Option)



## 2.5 Power on the printer



1. Make sure the printer power switch is off
2. Plug the power connector into the power socket at the rear side of printer.
3. Plug the power cord on the power outlet.
4. Turn the printer power switch to on.





**Caution.** Please ensure that the printer power is off before connecting the interface cable. Connecting the interface cable while printer power is on might cause the damage on printer.

## 2.6 T4+ Control panel





The key functions are available under the printer **READY** mode

Button	Appearance	Function
Menu		Enter the menu list to setup the printer configuration
Feed		Feed a blank label










The key functions are available under the printer **PRINTING** mode

Button	Appearance	Function
Cancel		<ul style="list-style-type: none"> <li>Stop and cancel the current printing job</li> <li>Removes the error status when problem is resolved.</li> </ul>
Pause		Stop and restart the printing process

The key functions are available in **Menu** System

Button	Appearance	Function
Return		Return back to previous menu level
Up		<ul style="list-style-type: none"> <li>Scroll up the menu options</li> <li>Increase the parameter values</li> </ul>
Down		<ul style="list-style-type: none"> <li>Scroll down the menu options</li> <li>Decrease the parameter values</li> </ul>
Enter		Confirm the selected option



## Buttons light

Cancel		Flash in red Bi-sound	Error message <ul style="list-style-type: none"> <li>• Ribbon out (error)</li> <li>• Label out (error)</li> <li>• Top cover opened</li> </ul>
Cancel Menu	 	Flash in red light Flash in blue light Bi-sound	Error message <ul style="list-style-type: none"> <li>• Gap out</li> </ul>
Cancel Pause	 	Flash in red light Flash in blue light Bi-sound	Error message <ul style="list-style-type: none"> <li>• Label out (error)</li> </ul>
Cancel Pause	 	Flash in blue light Flash in blue light (Alternately) Bi-sound	Overheat <ul style="list-style-type: none"> <li>• Overheating protection (Print automatically when the temperature drops)</li> </ul>
Cancel Feed	 	Flash in red light Flash in blue light Bi-sound	Error message <ul style="list-style-type: none"> <li>• Ribbon out (error)</li> </ul>





## 2.7 T4e+ / T4De+ Control panel

The key functions are available under the printer **READY** mode





Button	Appearance	Function
Func.		Enter printer function mode
Feed		Feed a blank label

Note: Press func. key for over 3 seconds to enter the function mode. When printer is in function mode, Func. key will keep flashing till the Func. key is pressed again to escape the function mode.





The key functions are available under the printer **PRINTING** mode

Button	Appearance	Function
Cancel		<ul style="list-style-type: none"> <li>• Stop and cancel the current printing job</li> <li>• Removes the error status when problem is resolved.</li> </ul>
Pause		Stop and restart the printing process










Press func key for over 3 seconds to enter **Function** mode:

Button	Appearance	Function
Func		Quit Function mode
Cancel		Calibrate the label
Pause		Dump mode
Feed		<ol style="list-style-type: none"> <li>1. Press func key to Print self test page</li> <li>2. Press func key for over 3 seconds to factory default</li> </ol>

Press Cancel key for over 3 seconds to enter **Advanced Calibration** mode:





Button	Appearance	Function
Func		High Sensitive mode
Cancel		Quit Cancel mode
Pause		Normal mode
Feed		Low Sensitive mode

## Buttons light



Cancel		Flash in red light	Error message <ul style="list-style-type: none"> <li>• Ribbon out (error)</li> <li>• Label out (error)</li> <li>• Top cover opened</li> </ul>
Cancel Func.	 	Flash in red light Flash in blue light	Error message <ul style="list-style-type: none"> <li>• Gap out</li> </ul>
Cancel Pause	 	Flash in red light Flash in blue light	Error message <ul style="list-style-type: none"> <li>• Label out (error)</li> </ul>
Cancel Pause	 	Flash in blue light Flash in blue light (Alternately)	Overheat <ul style="list-style-type: none"> <li>• Overheating protection (Print automatically when the temperature drops)</li> </ul>
Cancel Feed	 	Flash in red light Flash in blue light	Error message <ul style="list-style-type: none"> <li>• Ribbon out (error)</li> </ul>

## 2.8 T4ES Control Panel

The key functions are available under the printer **READY** mode:

Button	Appearance	Function
Press once		Feed a blank label
Press for 3 seconds to purple light		Label calibration
Press for 6 seconds to blue light		Print self test page
Press for 9 seconds for purple light rapidly flashing		Factory default





The key functions are available under the printer **Printing** mode:



Button	Appearance	Function
Press once		Pause/restart printing
Press for over 3 seconds		Cancel

The key functions are available under the printer **Auto form** mode:

Button	Appearance	Function
Continuously press when turning on the printer		Cancel the auto form

LED light

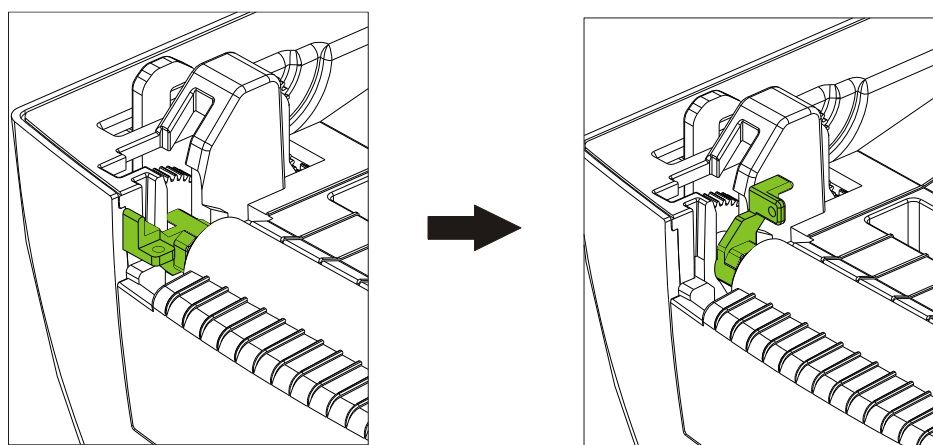
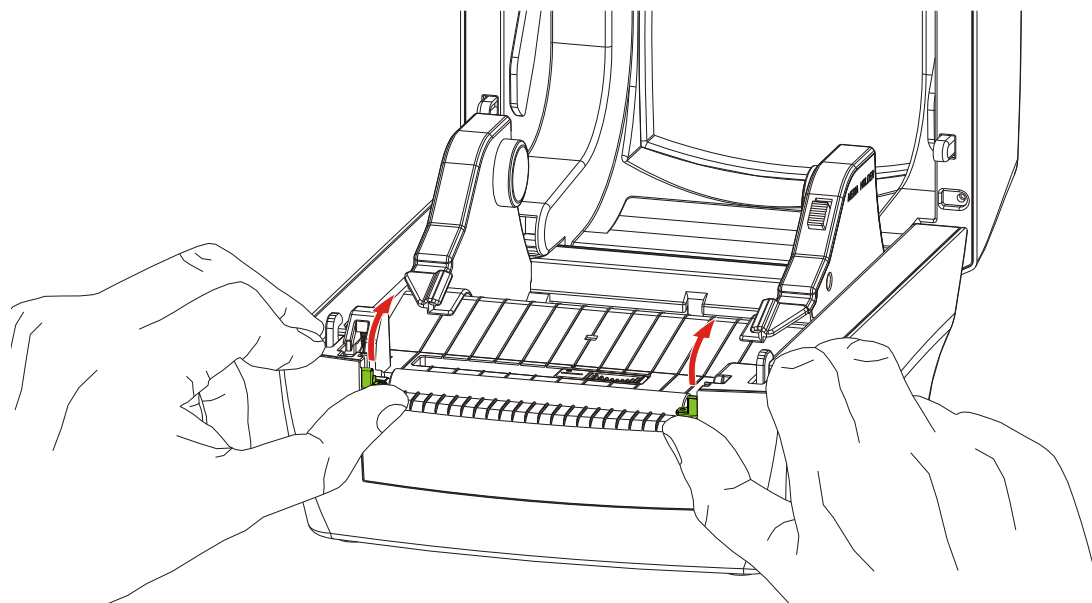
Button	Image	Function
Flash in red light		<ul style="list-style-type: none"> <li>● Label out</li> <li>● Ribbon out</li> <li>● Cover open</li> <li>● Label gap out</li> </ul>
Flash in blue light		<ul style="list-style-type: none"> <li>● Pause</li> <li>● Rapidly flash when transporting data</li> </ul>
Flash in purple light		Label calibration
Flash in blue light after purple light		Print self test page

Constantly flash in purple light		Auto form mode
Rapidly flash in purple light		Reset to factory default

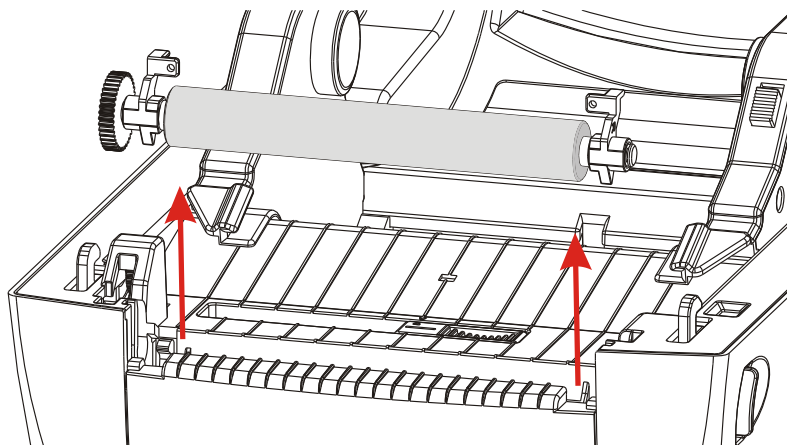
## 3. Printer options

### 3.1 Peeler installation

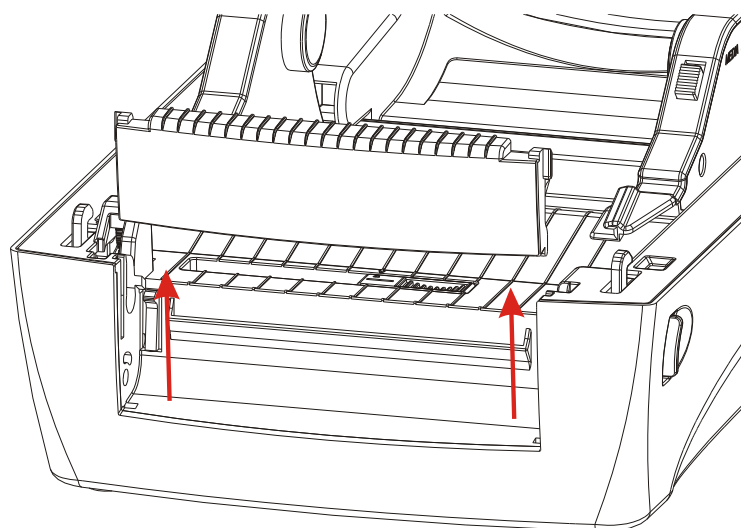
1. Push the platen bearing tabs on the right and left sides upwards and rotate them backwards to the end.



2. Lift vertically the platen from the bottom case of printer.

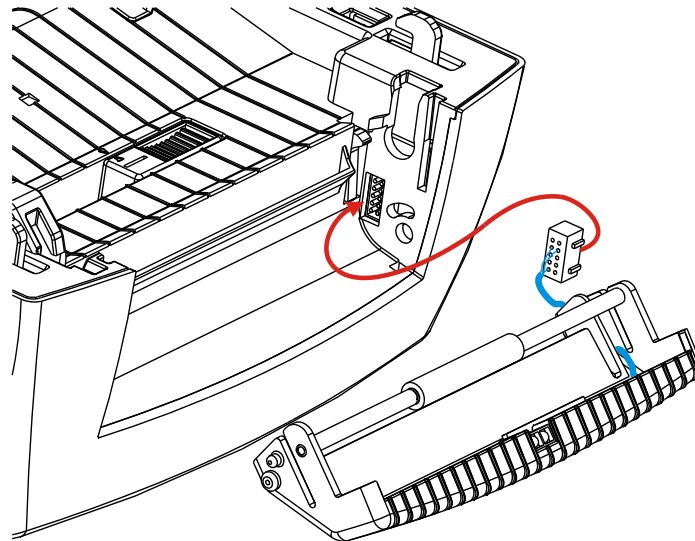


3. Lift vertically the front cover from the bottom case of printer.

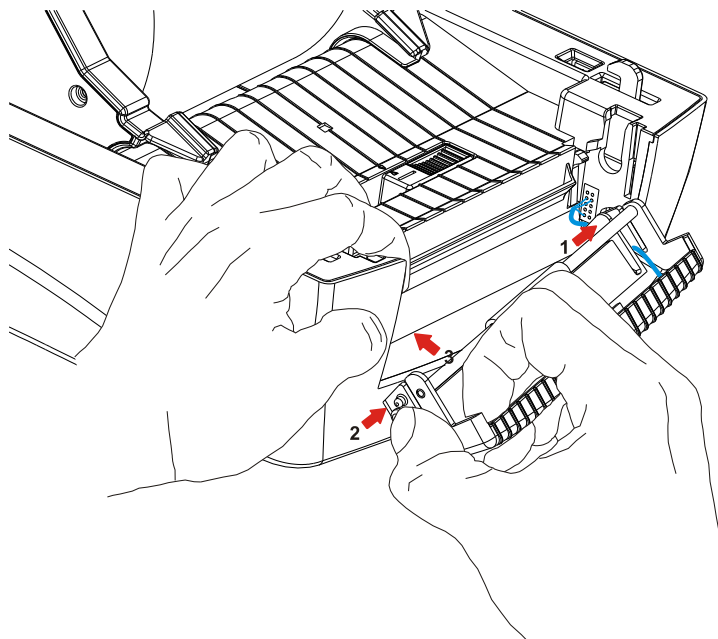




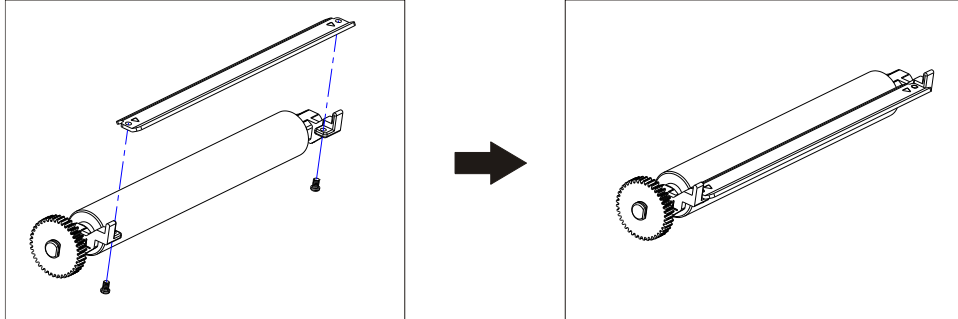
4. Insert the peeler cable to printer. (Please follow the correct connector side as figure shown to insert the cable)



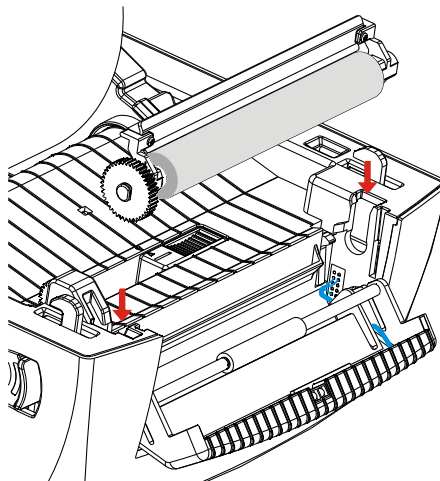
5. Insert firstly the right side of peeler module to the relative holes of printer (arrow 1), press the lower part of left side of module (arrow 2), then push the left side of module to the relative holes of printer to fix firmly the peeler module on printer (arrow 3).



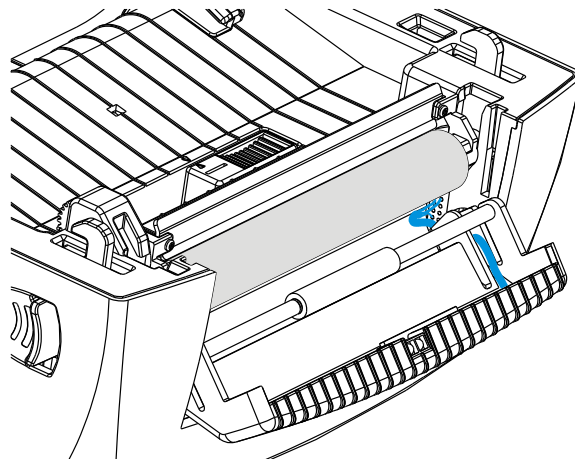
6. Screw up the metal plate on the platen. The metal plate with arrow symbol is upward side.



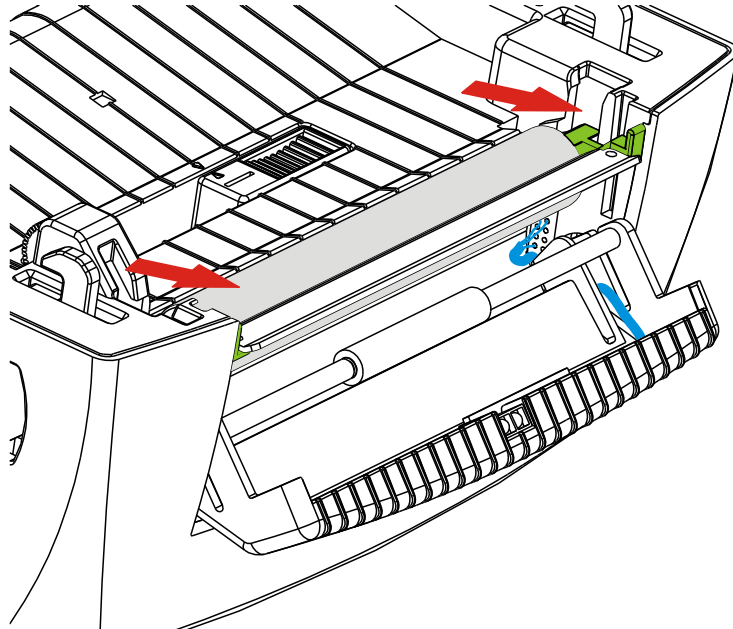
7. Put the platen screwed with metal plate back to printer.



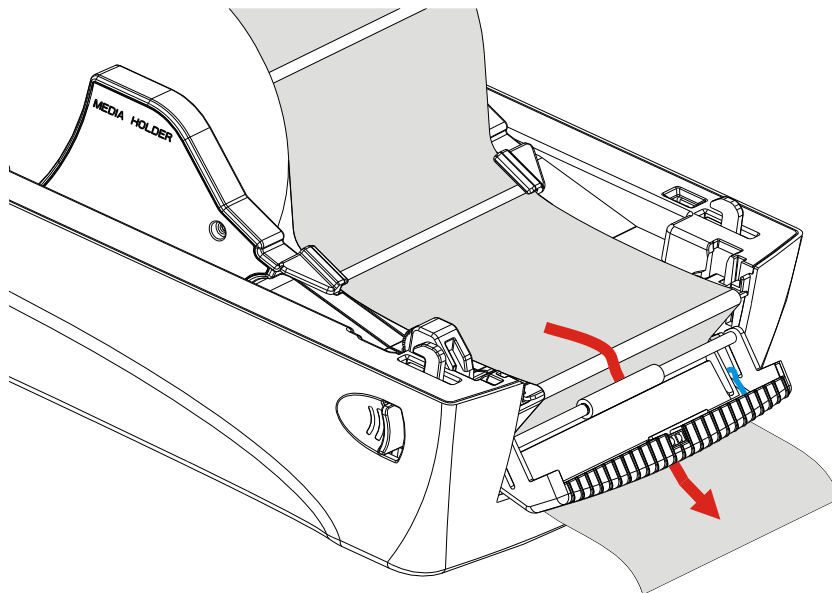
8. Assure the platen is fixed firmly in printer.



9. Push the platen bearing tab forward to lock the platen.

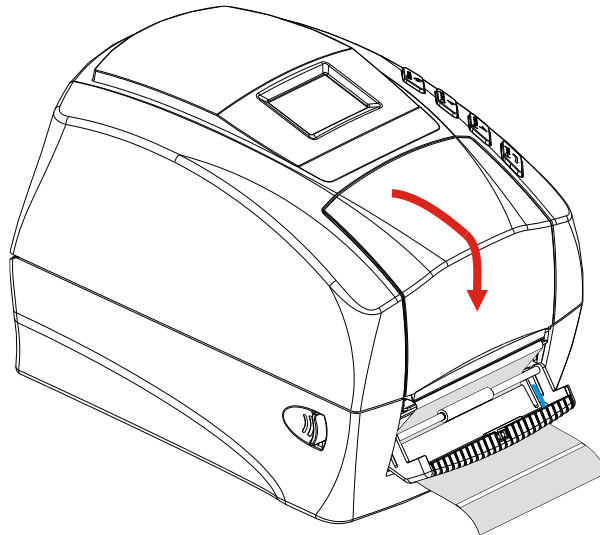


10. Lead the label through the back of peel-off bar, as figure show.

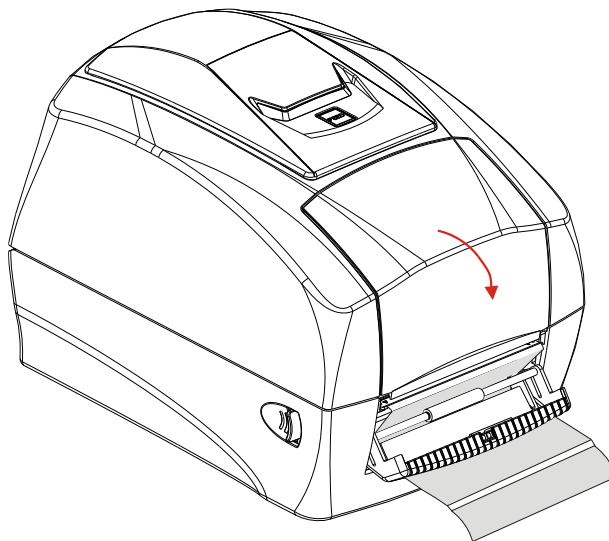


## 11. Close the top cover

(T4+)

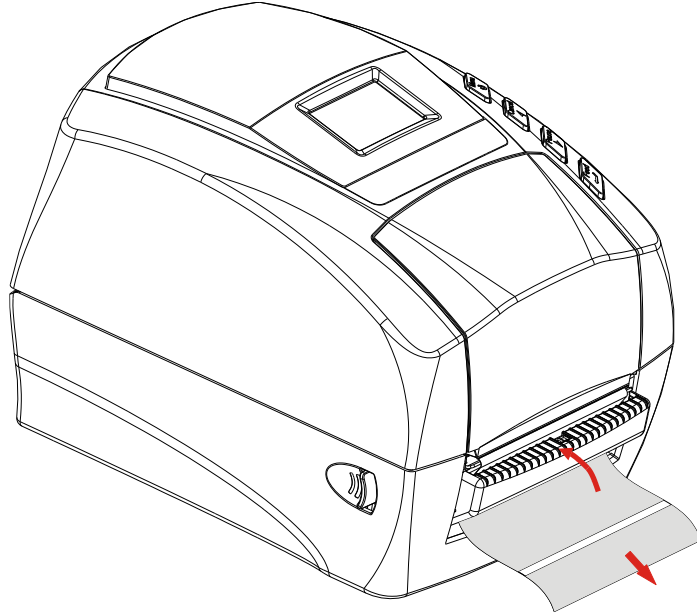


(T4ES)

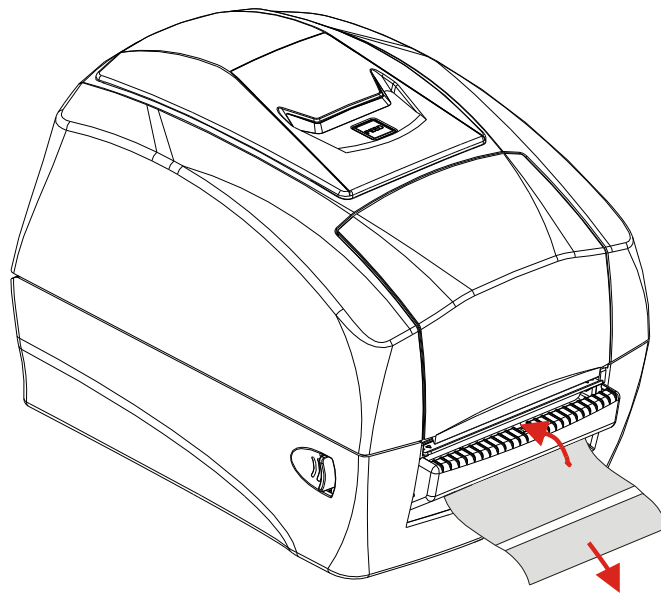


12. Pull the label to the direction as the figure show, then push the peel-off panel back to printer.

(T4+)

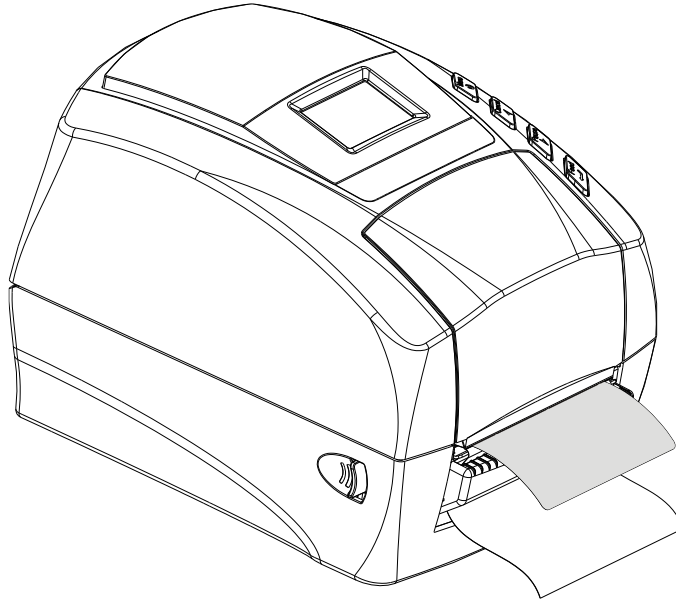


(T4ES)

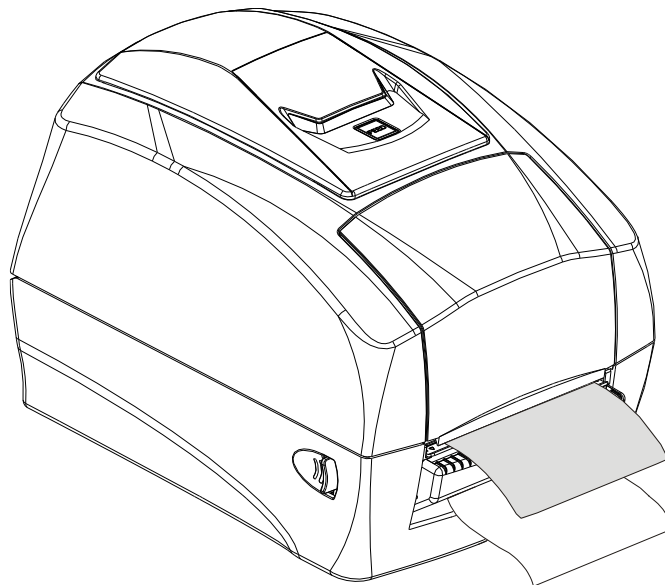


13. Press the Feed button to test the peeler function.

(T4+)



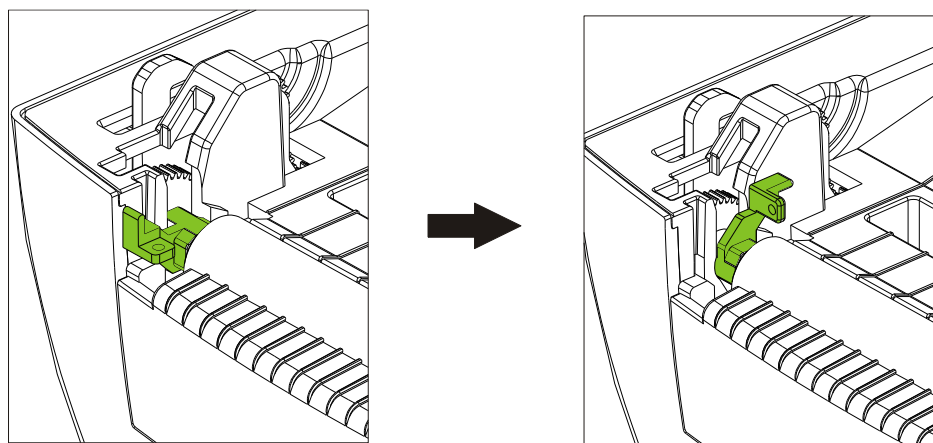
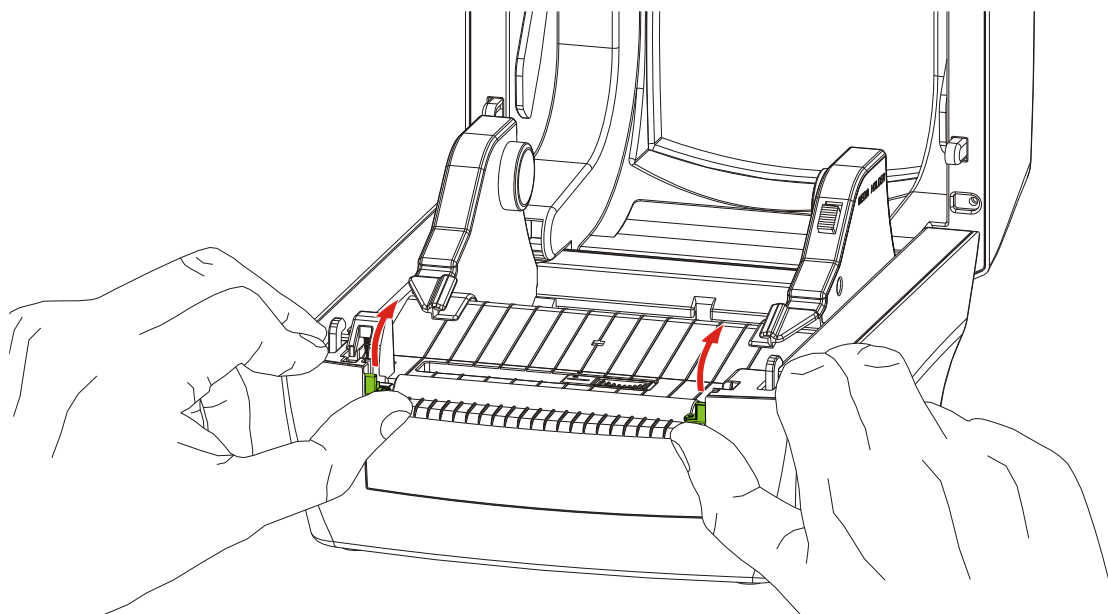
(T4ES)



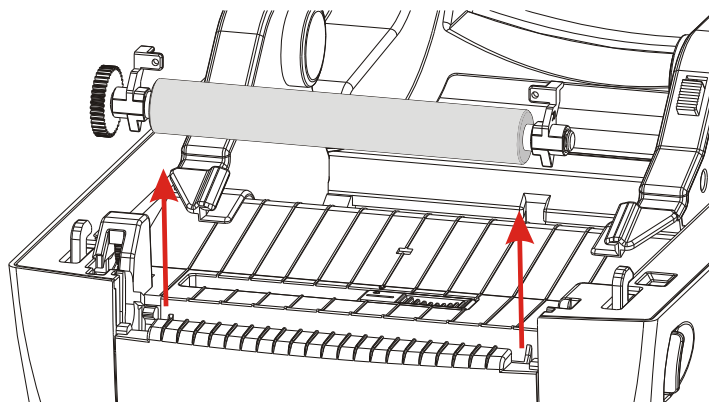
Note: The transfer board need to be installed before installing the peeler kit.

## 3.2 Cutter installation

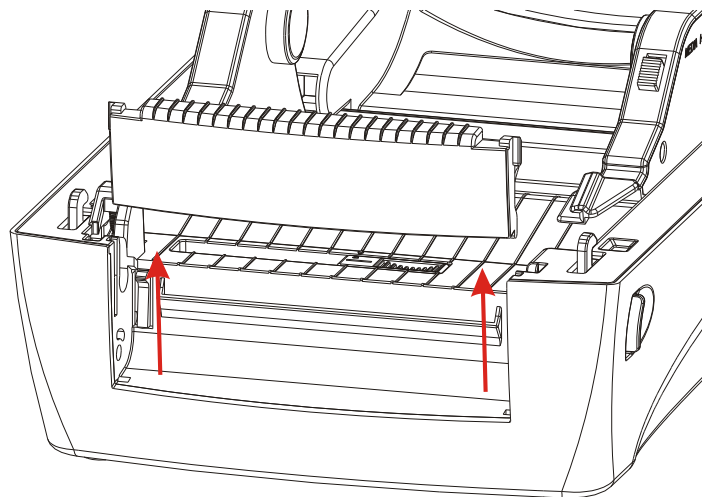
1. Push the platen bearing tabs on the right and left sides upwards and rotate them backwards to the end.



2. Lift vertically the platen from the bottom case of printer.

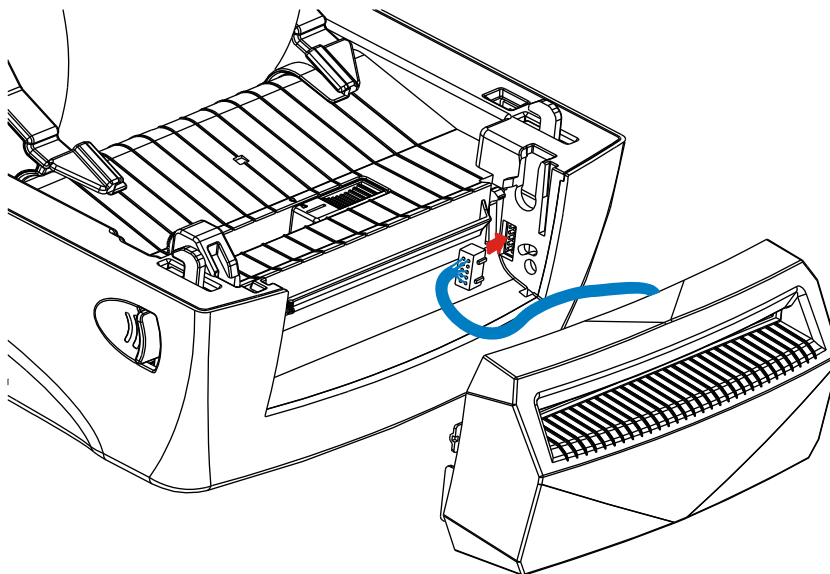


3. Lift vertically the front cover from the bottom case of printer.

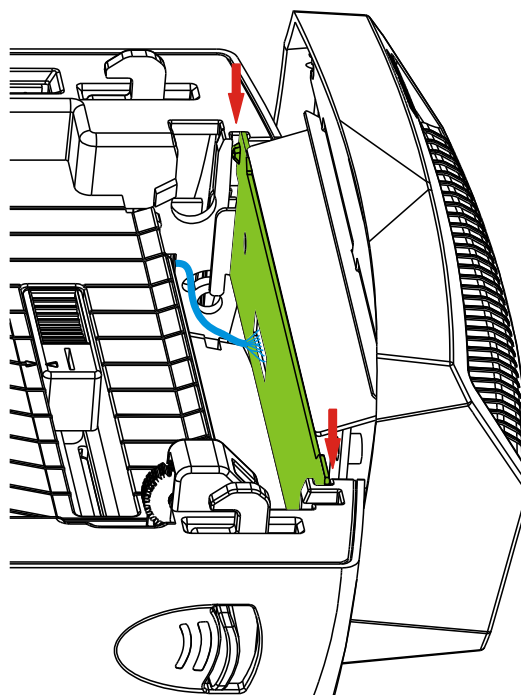




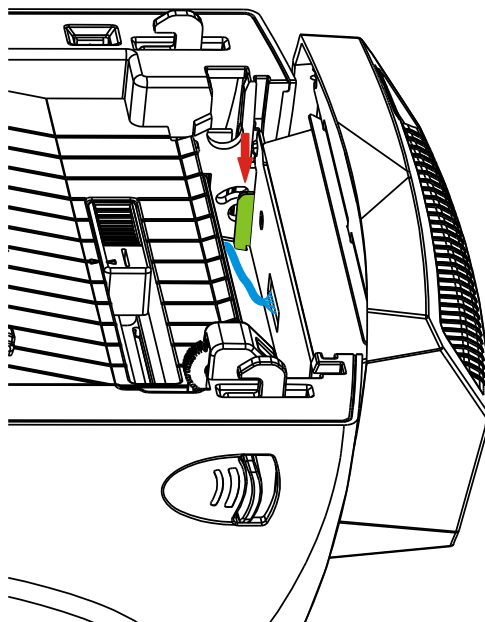
4. Connect the cutter cable to printer.



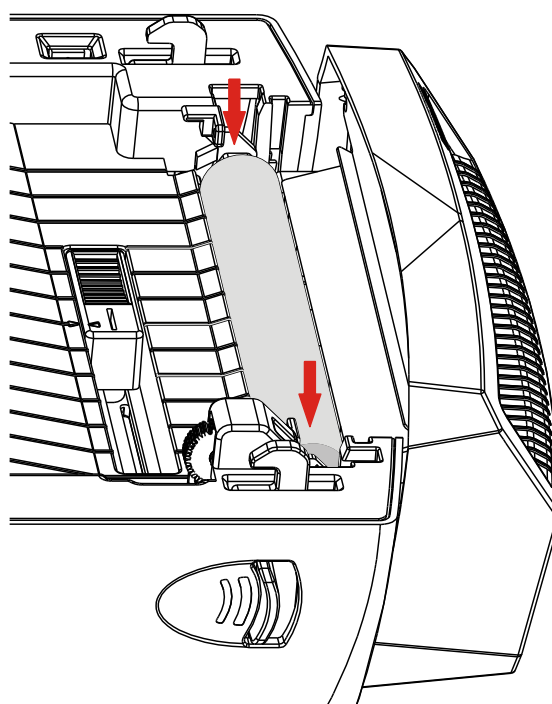
5. Slide vertically the hooks of cutter both side into the slot.



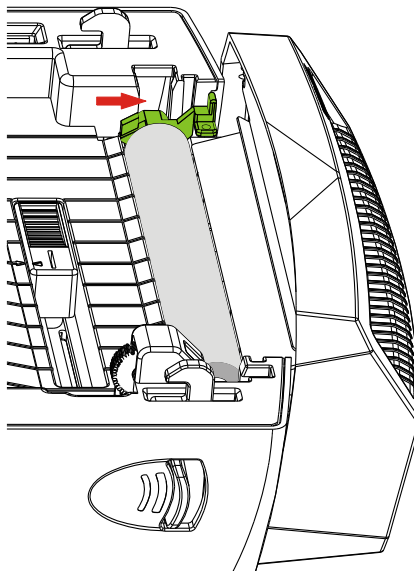
6. Push the cutter hooks to the bottom of two hooks slots, and make sure that lower hooks are fixed firmly on the hooks holes.



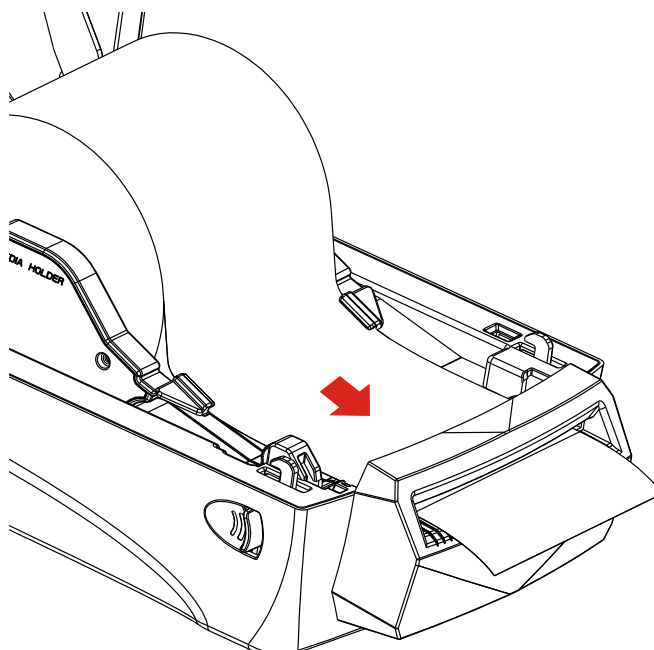
7. Put the platen back in the printer.



8. Lock the platen bearing tabs.

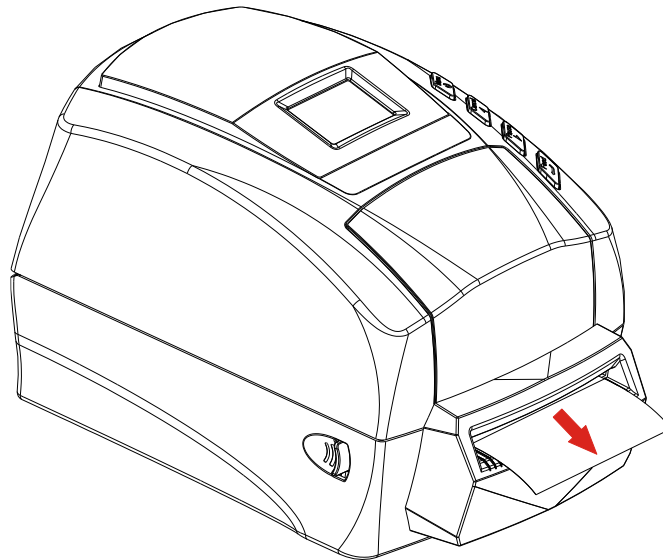


9. Thread the label through the cutter inside slot and press the label under the media guides.

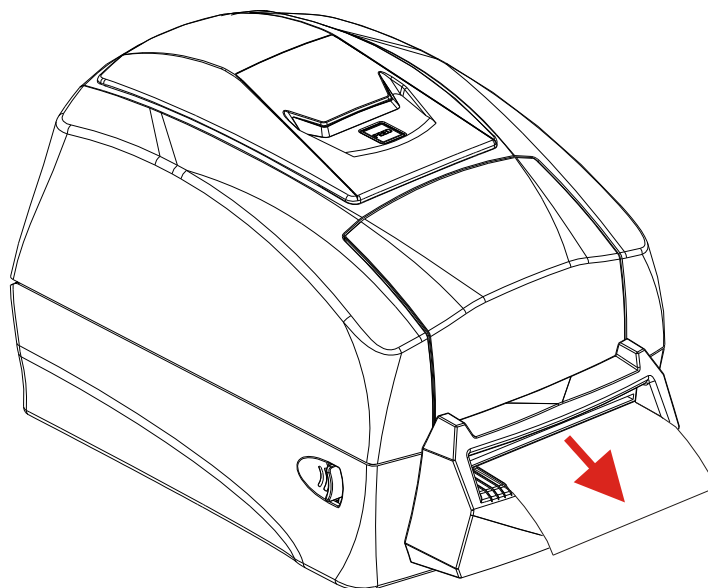


10. Close the printer top cover.

(T4+)



(T4ES)



Note: The transfer board needs to be installed before installing the cutter.



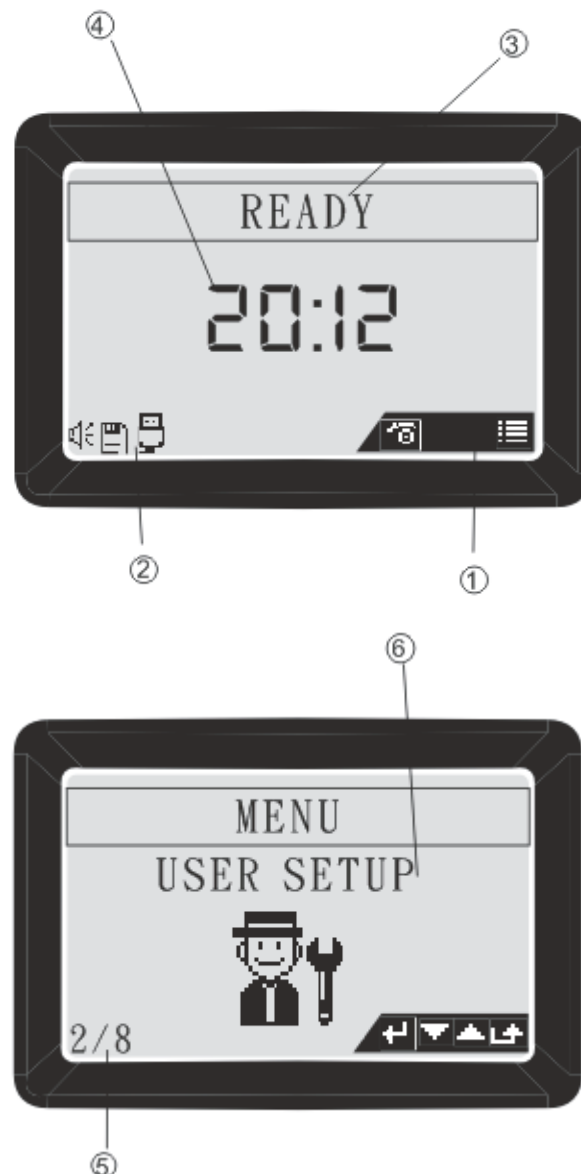
Please do not touch or insert your fingers into the cutter mouth while cutter is active. It will cause extremely hurt.

## 4. LCD screen icons

### 4.1 LCD screen information




LCD screen information consists 6 parts to show the printer status.

- ① Buttons status bar
- ② Device status (when printer is in Ready status)
- ③ Printer current status and setting level
- ④ Time and setting icon
- ⑤ Menu pages
- ⑥ Printer current setting level, it shows only when printer is in menu function




## 4.2 Graphic symbol on LCD screen

Device status bar




















Symbol	Description
	Buzzer on (buzzer symbol will be shown when buzzer is set to on)
	SD card inserted (SD card symbol will be shown when SD card is inserted)
	USB master interface (keyboard or scanner) inserted (USB master symbol will be shown when interface is inserted)






















Button status bar: the symbol will be shown on the button status bar when the button function is available.

Symbol	Description
	Feed labels.
	Scroll down
	Scroll up
	Enter
	Escape
	Main menu
	Pause
	Cancel



## 5. Configuration


### 5.1 Menu structure

Main menu	Sub-menu	Description
 Information		Printer configuration information
 User Setup	 Language	Change menu language
	 LCD Contrast	Contrast of LCD
	 Buzzer	Adjust the buzzer sound
	 Button Sound	Button sound switch
	 Date	Set the RTC Date
	 Time	Set the RTC time
	 Default	Initiate to factory default
	 Password	Set the password to lock the change of parameter
 Comm. Setup	 RS-232	Set RS-232 parameter
	 Ethernet	Ethernet status and set configuration
 Print Setup	 Transfer mode	Thermal transfer or thermal direct
	 Print mode	Set to peeler, cutter or tear off function
	 Speed	Printing speed
	 Darkness	Printing heat value
	 Label type	Select the label type

		Gap sensor	Select label sensor type
		Print width	Set the print width
		Print X offs	Adjust the origin of printer horizontal coordinate
		Print Y offs	Adjust the origin of printer vertical coordinate
		TPH Y offs	Set the print head vertical offset
		Back Y offs	Set the label stop position for peeler, cutter or tear-off mode
		Error reprint	Reprint the previous label when error occurs
		Cancel mode	Stop printing the current job
 Test		Print Config.	Print the printer configuration
		Line Mode	Print in line mode
		Label calibration	Calibrate the label
		Dump mode	Print the dump data
		Cutter	Test cutter function
 Memory		Free size	Show the free memory size in SDRAM and SD card
		List	List the forms, images and fonts in memory device
		Delete files	Delete separately the stored forms, images and fonts in memory
		Clear memory	Delete all stored forms, images and fonts in the memory
 Form		Run the form	Execute the stored form in memory











	 Auto form	Execute automatically the selected form as the printer is power on
 F/W update		Update firmware directly from the SD card



 Note: Only the T4+ model which installed with the LCD screen can show the functions this in chapter.

## 5.2 Parameters setup












### 5.2.1 User Setup



Parameter	Explanation	Default
 Language	<b>Change menu language</b> Languages: English, German, Portuguese, Traditional Chinese, Simplified Chinese, Japanese, Thai, Turkish, Spanish, Persian, Russian, Malaysian	English
 LCD Contrast	<b>Contrast of LCD display</b> Value: from 0~5	Level 2
 Buzzer	<b>Adjust the buzzer sound</b> Value: off, 1~3	Volume 1
 Button Sound	<b>Button sound switch</b> Yes/No	None
 Date	<b>Set Real-Time clock date</b> This parameter allows users to set the date Type: Year/Month/Date	None
 Time	<b>Set Real-Time clock time</b> This parameter allows users to set the time Type: hour/minute/second	None
 Default	<b>Set the parameters to factory default</b> This parameter allows users to set all the parameters back to factory default	None
 Password	<b>Set the password to protect the parameters</b> This function allows users to set the password to lock the parameters change of <b>User</b> , <b>Communication</b> and <b>Print</b> Setup to prevent the other users to change it carelessly. Password value range: 0000~9999	0000

## 5.2.2 Communication setup






Parameter	Explanation	Default
 RS-232	<b>Baud rate</b> Selection: 1200 ~115200	9600
	<b>Parity</b> Selections: None, Odd, Even	None
	<b>Data bits</b> Selections: 7, 8 bits	8 bits
	<b>Stop bits</b> Selection: 1, 2	1
 Ethernet	<b>Status (Ethernet)-Show only the Ethernet status</b> Config. Method- <b>DHCP</b> or <b>Static IP</b> IP address Net Mask Gateway MAC address	
	<b>Configure (Ethernet)-Configure the Ethernet</b> DHCP-Issuing the IP address by DHCP server Static IP- Issuing the IP address by operator	DHCP

## 5.2.3 Print Setup





Parameter	Explanation	Default
 Transfer mode	<b>Change the printing mode</b> This setting could change the printing mode Selection: By Command, Direct thermal, Thermal Transfer	By command
 Print mode	<b>Select the print mode</b> This setting changes the label delivery mode. Selection: Normal, Tear off, Peel off, cut	Normal
 Speed	<b>Adjust the printing speed</b> This setting could change the printing speed Selection: 1, 2, 3, 4 ... ips	3
 Darkness	<b>Adjust print darkness</b> This setting could adjust the printing quality by the printing heat Selection: 0~30	16
 Label type	<b>Select the label type</b> This setting could select the media. Selection: Gap/Notch, Mark, continuous	Gap/Notch
 Label sensor	<b>Change the label sensor type</b> This setting could change the convenient sensor type to detect the label. Selection: By command, see-through, reflective	By command
 Print width	<b>Adjust the print width</b> This setting determines the printable area by setting the printing dot. Selection: 120~832 dots	832 dots
 Print X offs	<b>Adjust the horizontal origin of coordinate</b> Selection: -600~+600 dots	00
 Print Y offs	<b>Adjust the vertical origin of coordinate</b> Selection: -600~+600 dots	00
 TPH Y offs	<b>Adjust the print head vertical offset</b> Selection: -720~+120 dots	000
 Back Y offs	<b>Set the label stop position</b> Selection: -120~+400 dots	000

 <p>Error reprint</p>	<p><b>Repeat the previous label when error occurs</b></p> <p>When the error occurs and the printing stops, this function will reprint the label which was interrupted.</p> <p>Selection: Enable, Disable</p>	<p>Enable</p>
 <p>Cancel mode</p>	<p><b>Set the cancel mode</b></p> <p>This function allows users to cancel printing immediately or after completing a label</p> <p>Selection: Page complete, immediate</p>	<p>Page complete</p>



## 5.2.4 Test

Parameter	Explanation
 Print Configuration	Print all the printer configurations
 Line Mode	Print in line mode
 Label calibration	Calibrate the label
 Dump mode	Print the Dump mode information
 Cutter	Cutter function test












## 5.2.5 Memory

Parameter	Explanation
 Free size	Shows the available memory size on SD card and Flash.
 List	List the stored forms, images and fonts in SD card and Flash.
 Delete files	Delete the stored forms, images and fonts in SD card and Flash.
 Clear memory	Clear all the stored forms, images and fonts in SD card and Flash.









## 5.2.6 Form

Parameter	Explanation
 Run the form	Execute the form stored in the SD card or Flash.
 Auto form	This function allows users to run automatically the selected form stored in memory when users re-power on the printer.

## 5.2.7 Warning message

Icon	Explanation
 No form found	Form in SD card or Flash is not found. Check if the files are exactly stored in the memory device
 No Image found	Image in SD card or Flash is not found. Check if the image is exactly stored in the memory device
 No font found	Font in SD card or Flash is not found. Check if the font is exactly stored in the memory device
 No F/W found	Firmware files are not stored in the SD card when updating the firmware.
 No Batt. found	Battery is not installed in the printer when setting time and date Check if the battery power runs out or not installed well
 Password error	Wrong password is entered Enter the correct password to modify the protected parameters
 No cutter found	Cutter is not installed on printer when execute the cutter test
 No SD found	SD card is not installed in printer when updating the printer Check if printer is well inserted in printer
 Cutter jam	Cutter jams when execute the cutter test Check if the labels stick in cutter
 No Ether found	Ethernet module is not installed in printer Check if the Ethernet module is installed or well installed
 Flash ROM Full	Internal flash ROM is full Delete un-necessary files to store the current files

## 5.2.8 Printer status

Icon	Status description
 Feed	Feeding the label
 Cancel	Cancel the current printing job.
 Pause	Pause the current printing job.
 Wait peel	Wait to peel the printed label to print the next label
 Wait on demand	Wait to press the feed button to print next label. (*This function is available only on sending the command)
 Value saved	Save the change of parameters to printer
 Dumping data	Catch the data from communication port and send to printer to print out.
 Push to cal	Press the “Feed” button to calibrate the label. (*This function is available on “Label Cal”)












Note: Only the T4+ model which installed with the LCD screen can show the functions this in chapter.



## 6. Troubleshooting

### 6.1 LCD error message

LCD Displayed	Possible problem	Resolution
 Label gap out	Improper sensor type	Ensure the sensor type, reflective or see-through, is selected correctly
	Label sensor cable is disconnected or loose	Reconnect or tighten up the sensor cable
	Sensor windows are dirty	Clean the receiver sensors and emitter sensor
	Improper media sensor position	Adjust the media sensor to correct position
	Load the continuous label, but the label type is set to Gap/notch or Mark type	Load the correct media or set the label type to current using media type
 Label out	Label runs out	Reload new media roll
 Ribbon out	Ribbon runs out	Reload new ribbon roll
	Ribbon roll is not loaded correctly	Ensure the ribbon supply and take up core are fixed correctly
 Cover open	Printer cover is open	Close the printer cover
 Update fail	Firmware update fails	Re-update the firmware
 TPH fail	TPH cable is disconnected	Connect the TPH cable
	TPH is faulty damaged	Replace a new TPH
 Check sum error	Firmware update fails.	Re-update the firmware
 No cutter found	Cutter is not installed when printing	Check if cutter is installed in printing
 Cutter jam	Cutter jams when printing	Check if labels stick in cutter
No time shown on LCD	Battery is dropped	Reload the battery and reset time
	No electricity in battery	Reload new battery and reset time



Note: Only the T4+ model which installed with the LCD screen can show the functions this in chapter. Problems occur will be shown on Flashing the Cancel button in red.

## 7. Specifications

### 7.1 T4+ series general specifications

Model	T4+	T4e+	T4De+	T4ES
Resolution	203/300 dpi			
Print mode	Direct Thermal/Thermal Transfer			
CPU	32-bit CPU			
Memory	RAM: 128MB SDRAM ROM: 128MB Flash ROM Expendable slot for Micro SD card (up to 32GB)	RAM: 64MB SDRAM ROM: 128MB Flash ROM		
Print speed	203 dpi 1 to 5 ips (option up to 6 ips ) /300 dpi 1 to 4 ips			
Max. print length	150" (3810mm)			
Print width	4.1" (104mm)			
Sensor type	Moveable see-through and reflective sensor Ribbon sensor Cover open sensor	Moveable reflective sensor Ribbon sensor Cover open sensor		
Display	Backlight LCD display 128x64 dots	N/A		
Control panel	4 multi-functional keys 4 status LED light 1 error LED light	4 functional keys 4 status LED light 1 error LED light	1 multi-functional key 1 LED light (Red, blue, purple)	
Media	Maximum label width: 4.33" (110mm) Minimum label width: 0.59" (15mm) Maximum roll diameter: 5" (127mm) Core diameter: 1.0" (25.4mm) Media thickness: 0.002" (0.06mm) to 0.0075" (0.2mm) Media type: Continuous, die-cut, tag, fan-fold, black mark			

Ribbon	OD: 1.535" (39mm) Max length: 100m Width: 1.0" (25.4mm) to 4.3" (110mm) ID: 0.5" (12.7mm) Ribbon type: Wax, wax/resin, resin			
Interfaces	USB slave port USB master port Serial port RS-232 Option: Ethernet port 10/100Mbps, Bluetooth	USB slave port Option: Serial port RS-232, Ethernet port 10/100Mbps, Bluetooth		
1D barcodes	Code39 standard or extended, Code39 with check digit, Code93, Code128 UCC, Code128 auto A,B,C modes, Codabar, EAN8, EAN8/13 2&5 digit add-on, EAN13, Interleaved 2 of 5, Interleaved 2 of 5 with check digit, Interleaved 2 of 5 with human readable check digit, UCC/EAN 128, UPC A, UPC A 2&5 digit add-on, UPC E, UPC E 2&5 digit add-on, UPC Interleaved 2 of 5, Code11			
2D barcodes	Data Matrix, MaxiCode, PDF417, QR code			
Fonts	5 internal expandable bitmap fonts (alpha-numeric) 2 internal expandable bitmap fonts (numeric only) Downloadable soft font 4 directions: 0, 90, 180, 270 degrees			
Image	PEPL: PCX, Direct binary graphic PDPL: PCX, BMP, HEX			
Options	Peeler kit Cutter Ethernet module			
Power	Switching power adapter Input: 100 to 240V, 1.8A, 50~60Hz Output: 24V, 2.5A			
Audio	Beep sound when error occurs	N/A		
Real Time Clock	Factory default	N/A	Factory default	N/A
Environment	Operation: 5℃ to 45℃ (40°F to 112.9°F) Storage: -20℃ to 50℃ (-4°F to 121.9°F)			
Humidity	Operation: 10% to 90% non condensing Storage: 5% to 95% non condensing			

Printer dimension	Width: 200.00mm (7.83") Length: 263.19mm (10.36") Height: 188.29mm (7.41") Weight: 2KG
Certification	CE, FCC class A, CB, CCC, BSMI



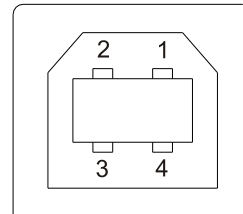
**CAUTION: Risk of explosion if battery is replaced by an incorrect type.**  
**Dispose of used batteries according to the instructions.**

## 7.2 Universal Serial Bus (USB) port pin assignment

Connector type: Type A and B



USB A (Master)



USB B (Slave)

Pin	Function
1	VBUS
2	D-
3	D+
4	GND

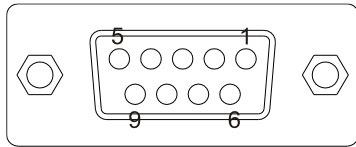


Note: Master VBUS provides +5V max current 500mA. Slave VBUS is N/C.

For more information about USB, please visit the website:

[www.usb.org](http://www.usb.org).

## 7.3 Serial port pin assignment



Pin	Printer side
1	N/C
2	TXD
3	RXD
4	DSR
5	GND
6	DTR
7	CTS
8	RTS
9	+5V

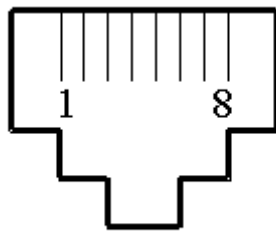


Note: Serial port provides +5V max current 500mAh



Note: Serial port is available on T4+ model

## 7.4 Ethernet module port pin assignment



Pin	Signal
1	Tx+
2	Tx-
3	Rx+
6	Rx-

## **Appendix A**

### **Standalone operation on T4+, T4e+, T4ES and T4De+**

SBARCO provides users to operate the T4+ series printer alone without connecting PC to print labels by using normal USB interface keyboard or scanner. Especially, users can select whenever any forms stored in printer's memory or SD card to print through the LCD monitor on T4+

This section shows the way how to operate the standalone operation on T4+, T4e+, T4ES and T4De+.



## Description of keyboard

With normal keyboard, T4+ series could be executed standalone operation without connecting PC. The description of keyboard function is as below:



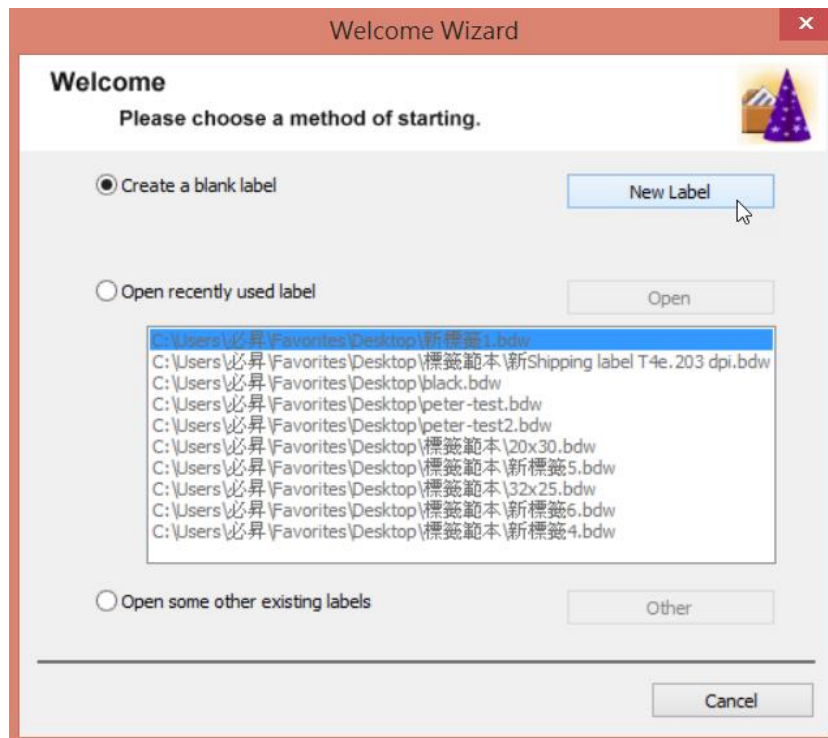
Printer Status	Main Menu	Sub Menu	Key function	Description
Ready			F1	Enter / Exit LCD Menu
			F4	Feed
Printing			F2	Cancel printing job.
			F3	Pause printing job.

Printer Status	Main Menu	Sub Menu	Key function	Description
Form Operation	FORM	RUN THE FORM AUTO FORM	~ ! @ # \$ % ^ & * ( ) - + ` 0 ~ 9 _ =	Data
			{ }   : " < > ? [ \ ; , . /	
			A ~ Z	
			a ~ z	
			0 ~ 9	
			Space	
			ESC	Control Key
			Caps Lock	
			Left Shift	
			Right Shift	
			Backspace	
			Home	
			Delete	
			End	
			←	
			→	
			Num Lock	

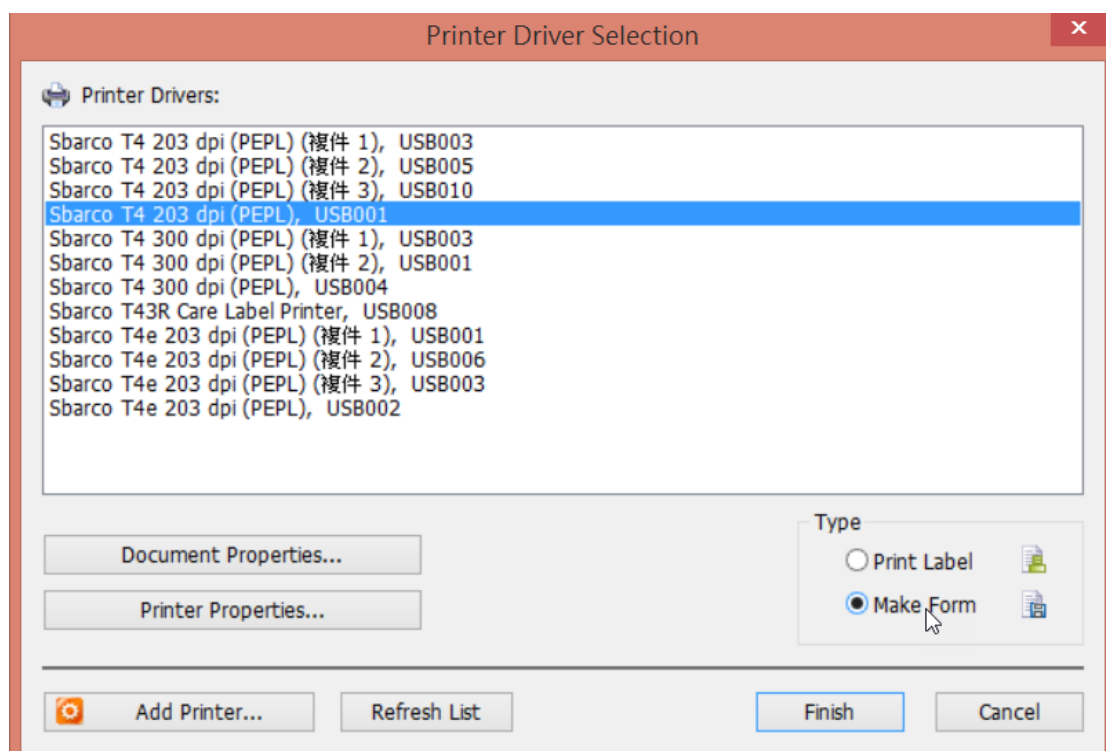
Printer Status	Main Menu	Sub Menu	Key functoin	Description
LCD Menu	MENU ITEM		↑	Scroll up.
			↓	Scroll down.
			ESC	Return to last menu level.
			Enter	Enter menu item.
	SETTING		↑	Scroll up.
			↓	Scroll down.
			ESC	Return.
			Enter	Save
	USER SETUP	DATE	↑	Scroll up.
		TIME	↓	Scroll down.
		PASSWORD	ESC	Return.
			Enter	Save / Next setting item.
	PRINT SETUP	DARKNESS	↑	Add Value
		PRINT WIDTH	↓	Reduce Value
		PRINT X OFFS		
		PRINT Y OFFS		
		TPH Y OFFS	ESC	Return
		BACK Y OFFS		
			Enter	Save
	TEST	PRINT CONFIG	↑	Add item
		PRINT TEST		
		LABEL CAL.		
		DUMP MODE	↓	Next item
		CUTTER		
	MEMORY	FREE SIZE	ESC	Return
		LIST		
		DELETE FILES		
		CLEAR MEMORY		
	FORM	RUN THE FORM	Enter	Select / Run funtcion.
		AUTO FORM		
	F/W UPDATE			

## Form making in T4+

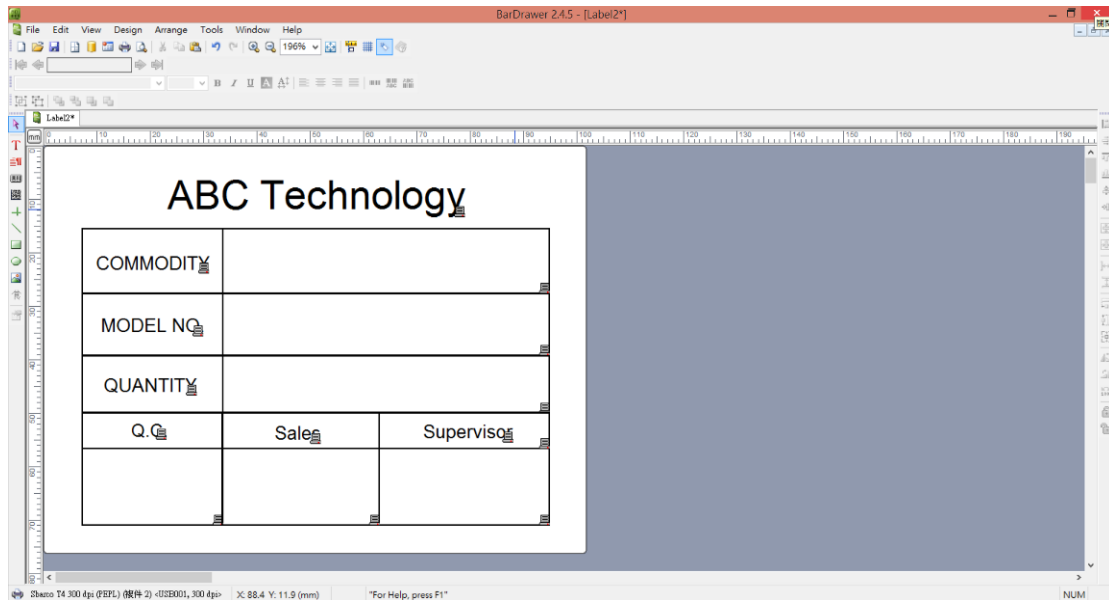
### 1. Create a new blank label



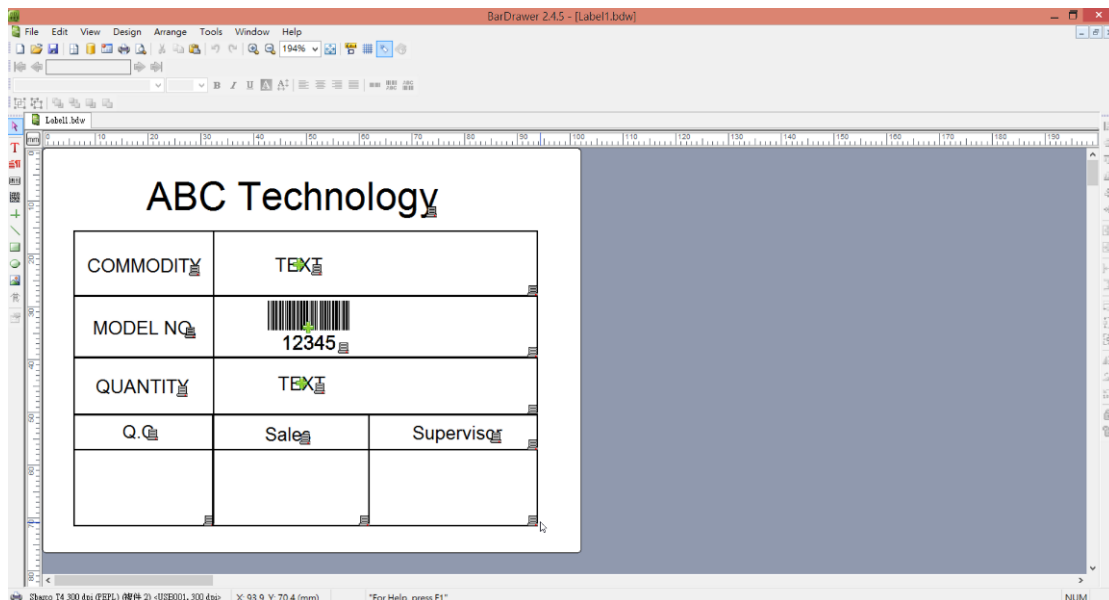
### 2. Select "form" type and press Finish button



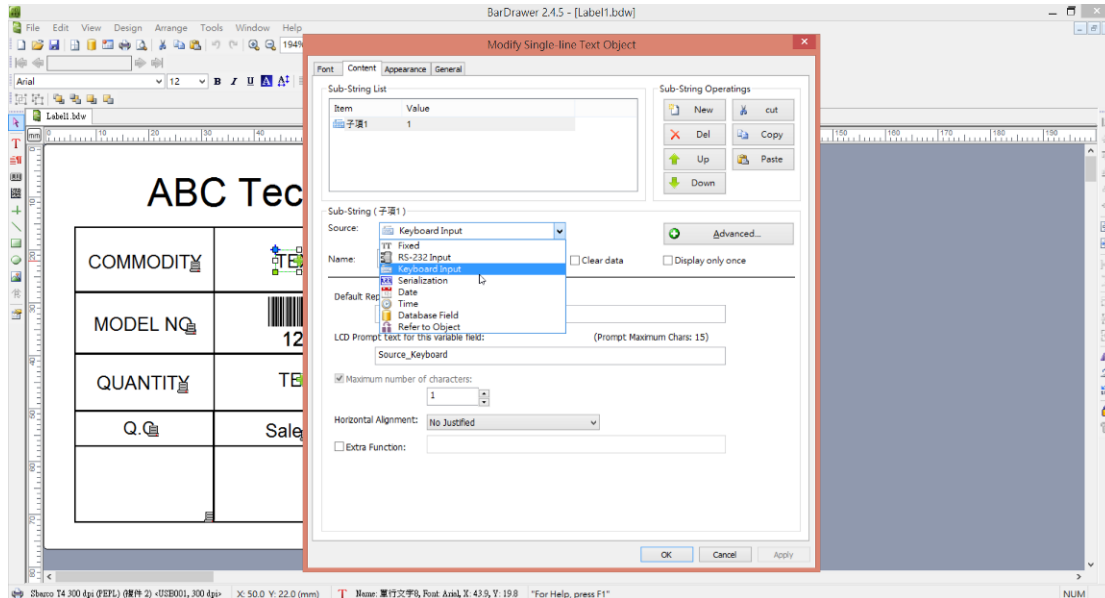
### 3. Edit a form



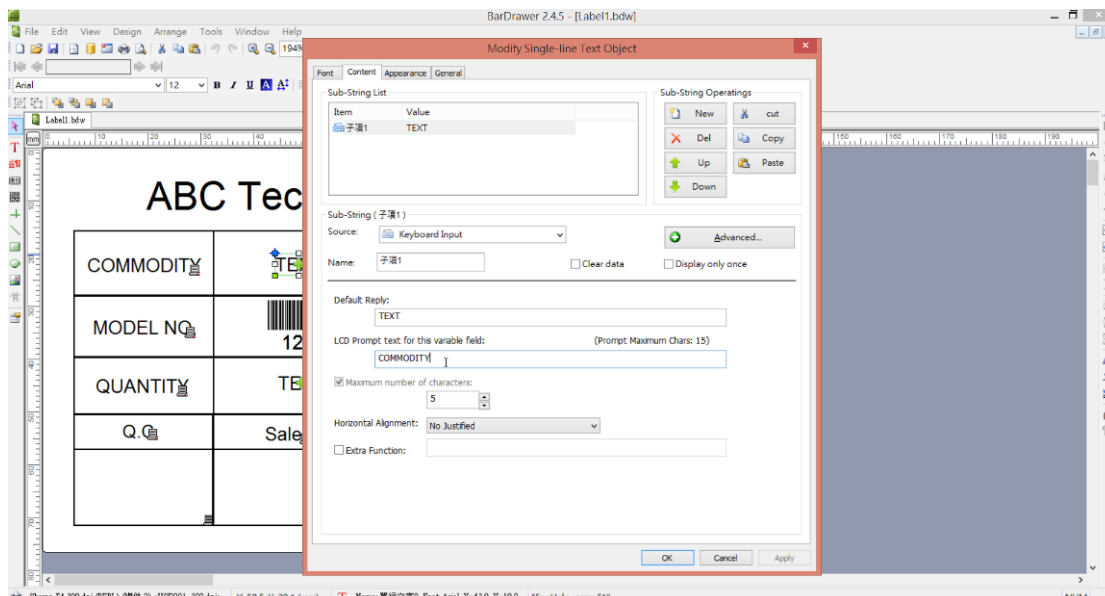
### 4. Enter the “Text” or Barcode in editing field



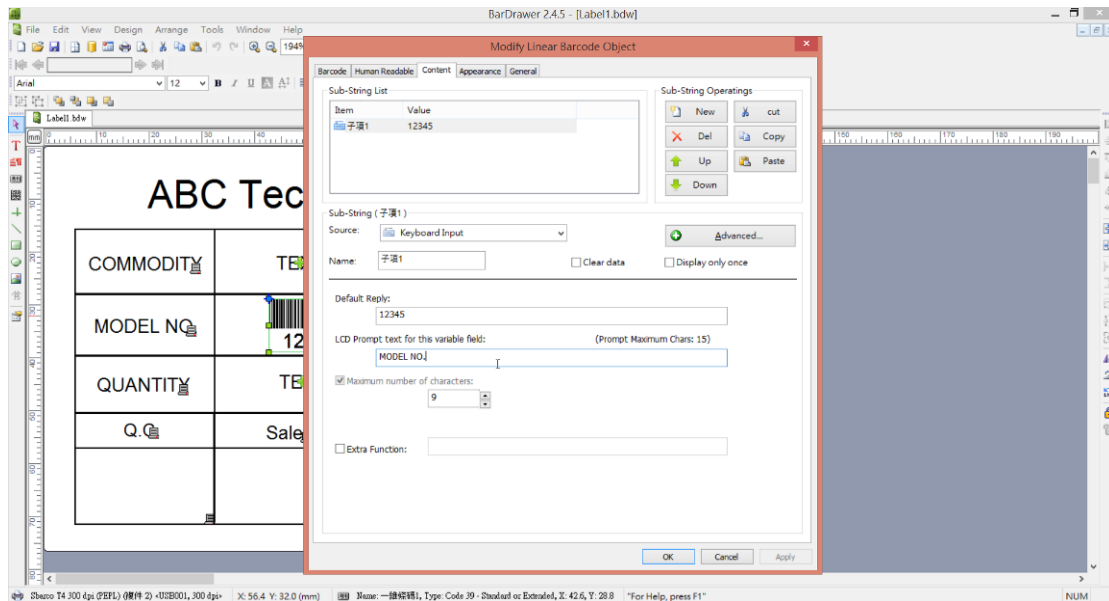
- Click twice on the "Text", select "Keyboard input" in Source field.



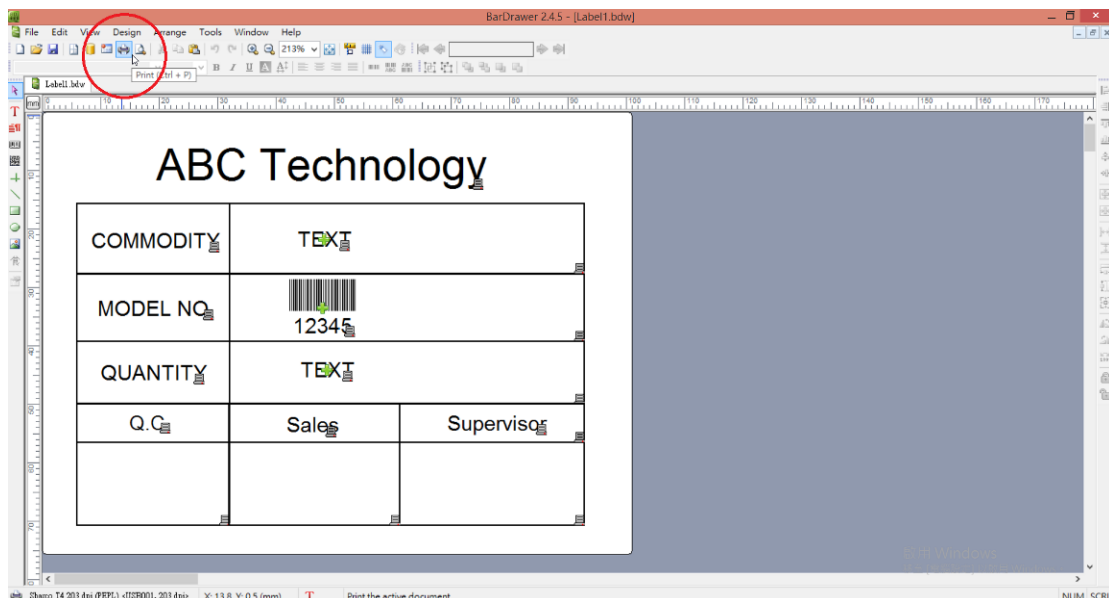
- Enter the prompt text would like to be shown on LCD monitor. Enter also the max. characters.

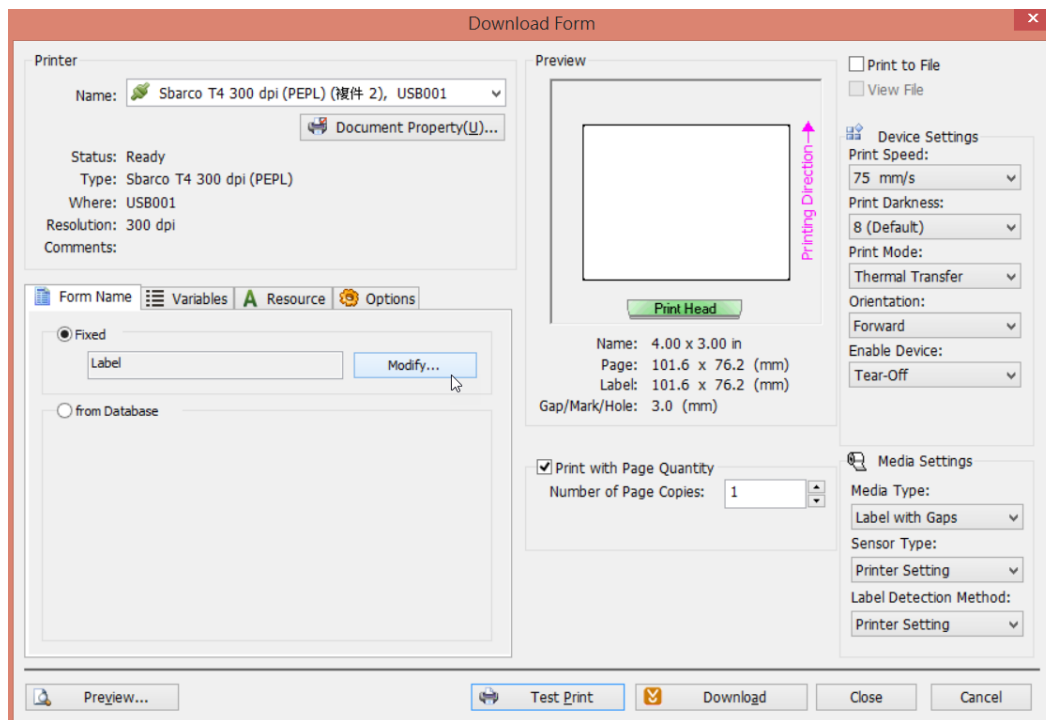


7. Follow the last step for the other variable text.

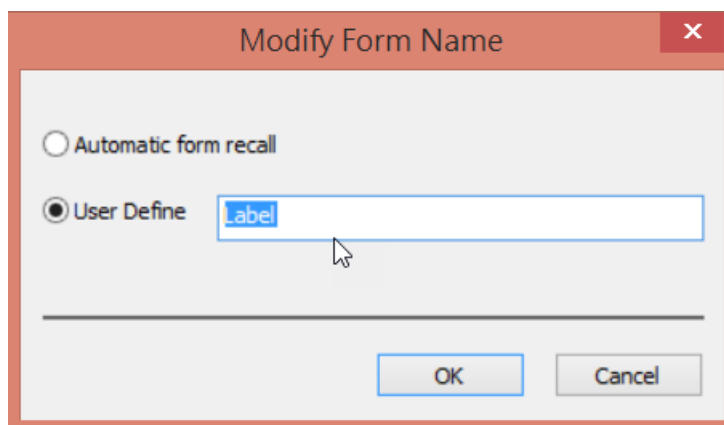


8. Press “Print” button and “Modify” button to modify the form name

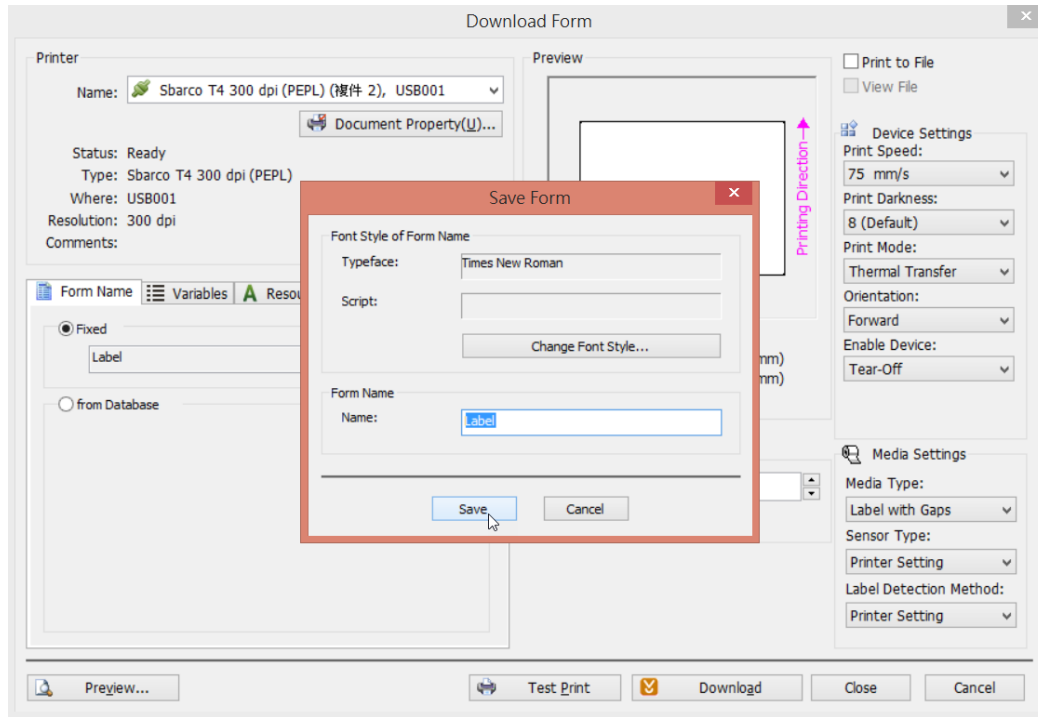




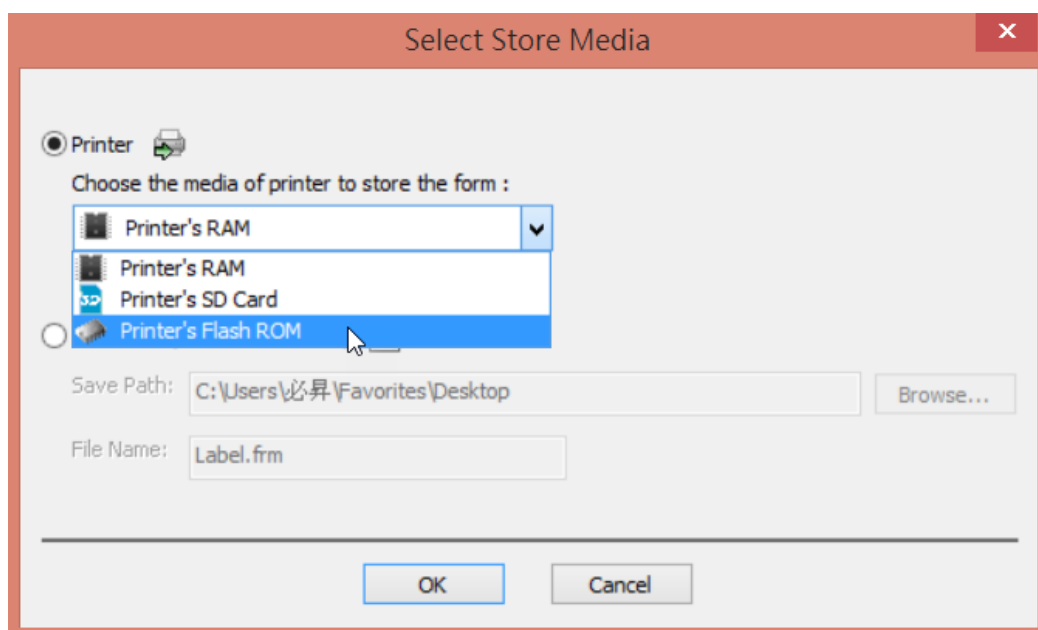
## 9. Modify the form name



- After modifying the form name, press “Download” and “Save” to load the form to memory device.

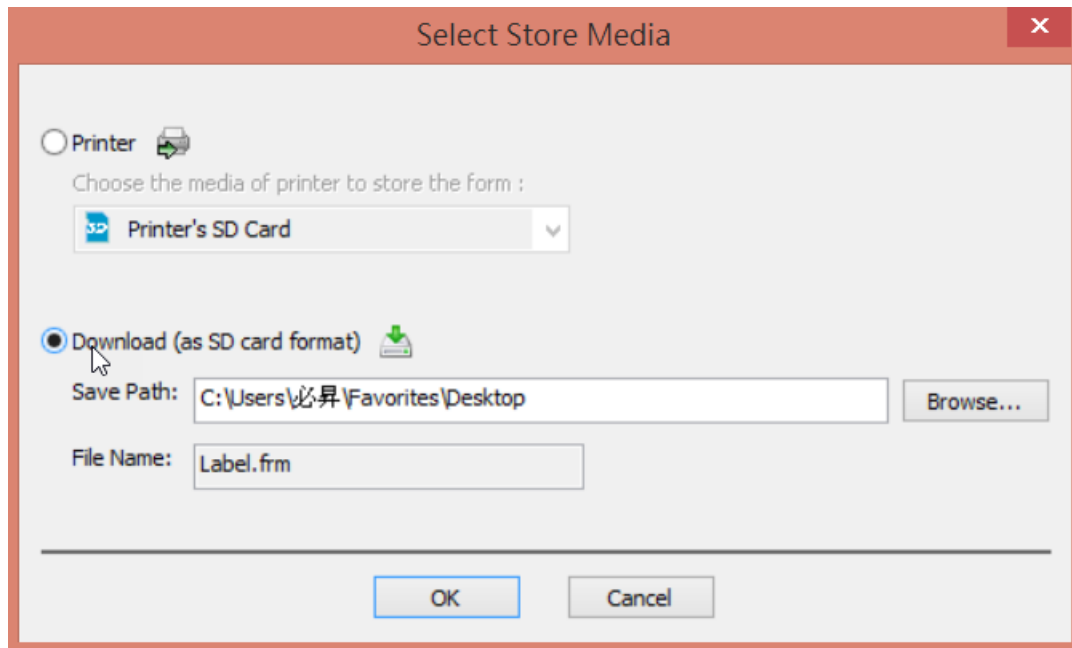


- There 3 ways you could store the form into Printer's: RAM, Flash ROM or SD card.





12. The form could be also stored in PC or SD card inserted in PC



13. After downloading the form into the printer's flash ROM, check the FORM LIST in memory of printer menu. The form name "Label" will be shown in FORM list.



 Note:

- ✓ This feature is available only on T4+
- ✓ **R**: Form is stored in printer's SDRAM. The Form will disappear when printer's power is off
- ✓ **F**: Form is stored in printer's Flash ROM. The Form is saved in memory even power off the printer
- ✓ **D**: Form is stored in SD card.

14. Select the form Shipping label in the menu of “RUN THE FORM”

RUN THE FORM

R:แอปไปลงนมปัง

**F:Label**

D:苹果面包

2/3

15. Follow the prompt text you set to enter the data from the keyboard:

SHIPPING LABEL  
COMMODITY

Enter the commodity

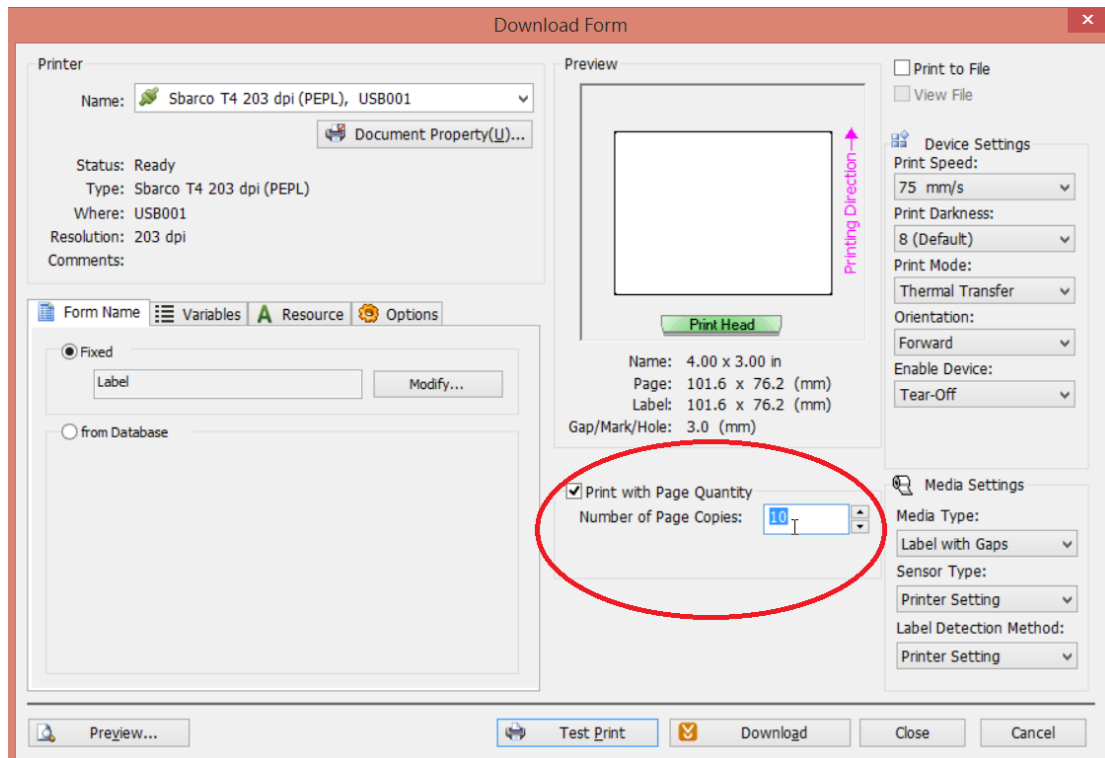
SHIPPING LABEL  
MODEL NO.

Enter the model No

SHIPPING LABEL  
QUANTITY

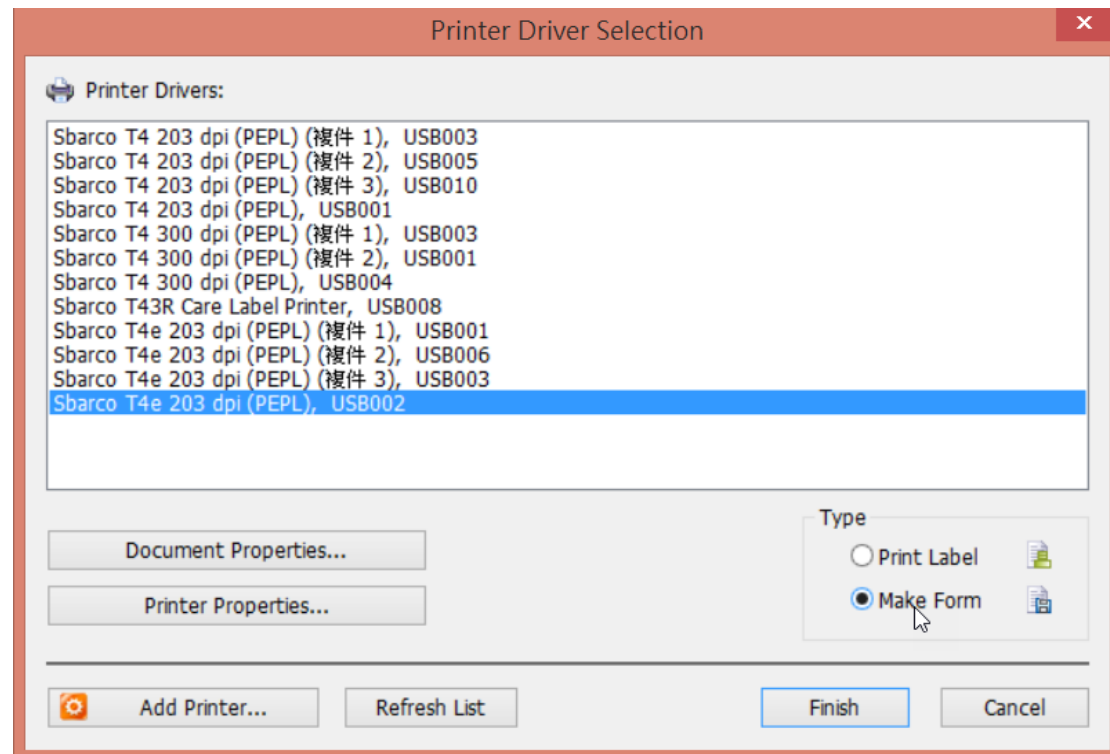
Enter the quantity

16. Then, the printer will print the label quantity you set, if you set already the print quantity.

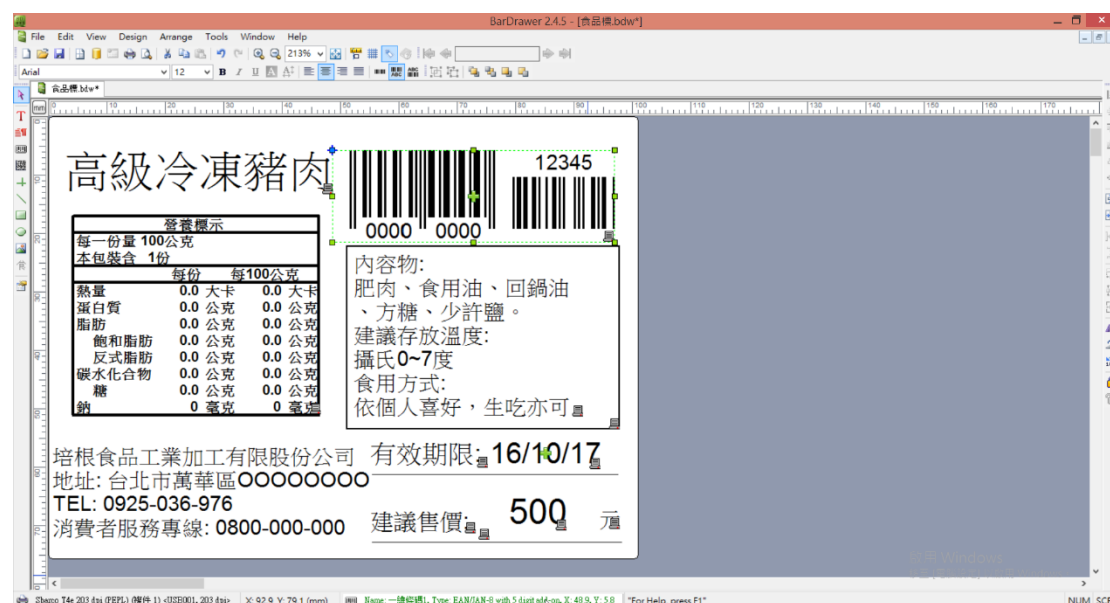


## Form making in T4e+ / T4De+ (Scan to print)

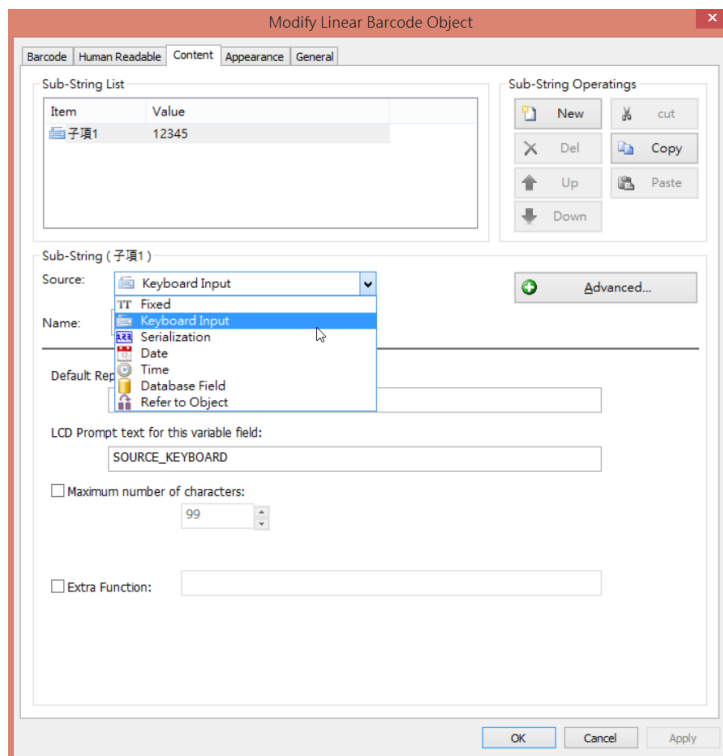
### 1. Create a new form



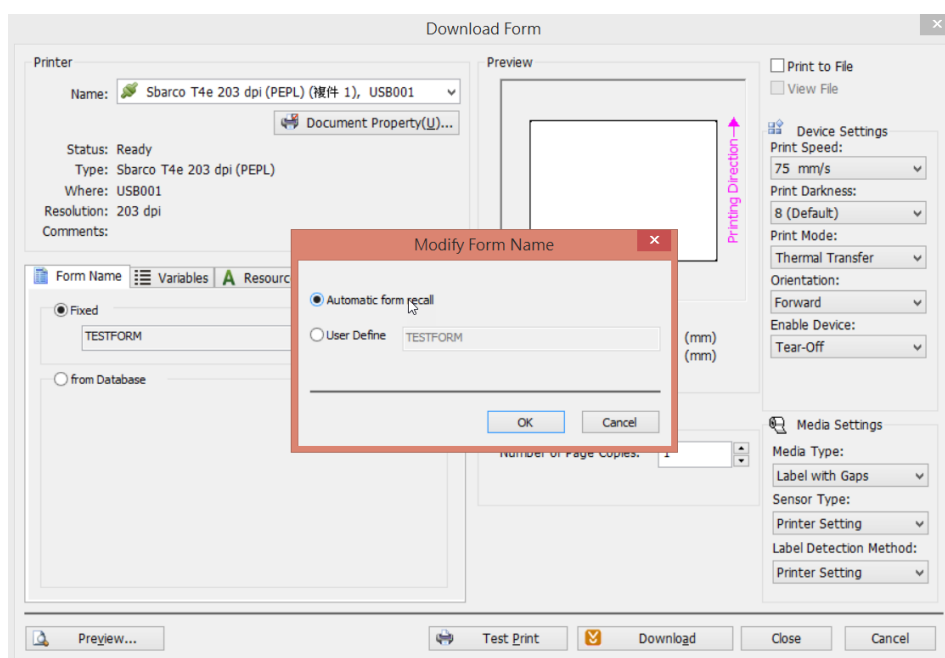
### 2. Edit a label



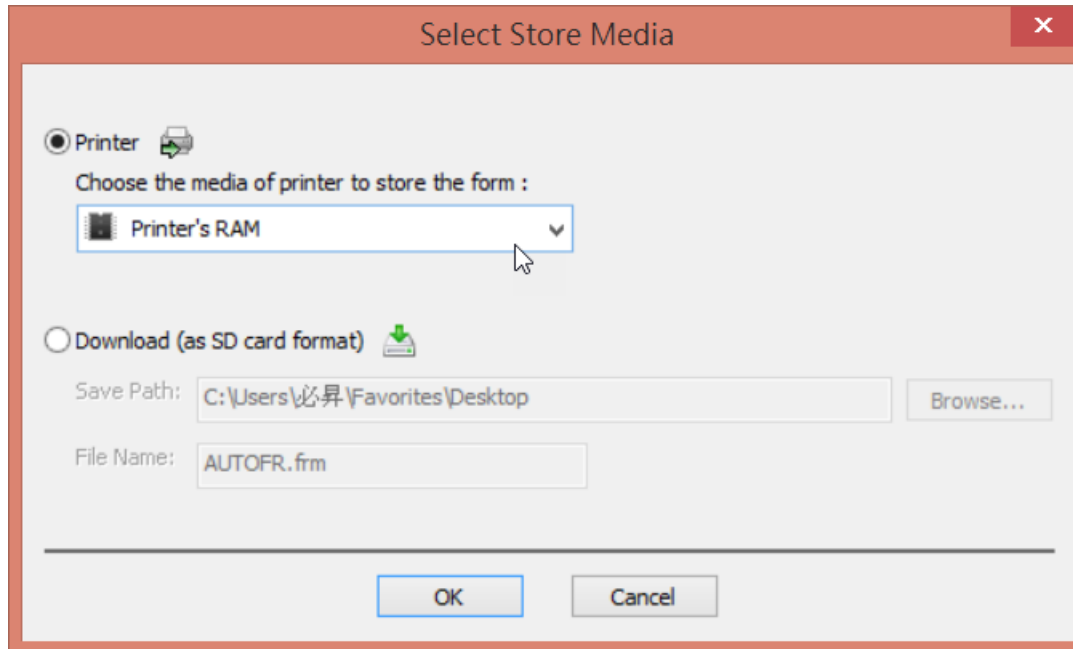
### 3. Click twice on barcode to set the Source “Keyboard Input”



### 4. In print, set the form as “Automatic form recall”. The form name will be changed automatically to “AUTOFR”



## 5. Save the Auto form in printer

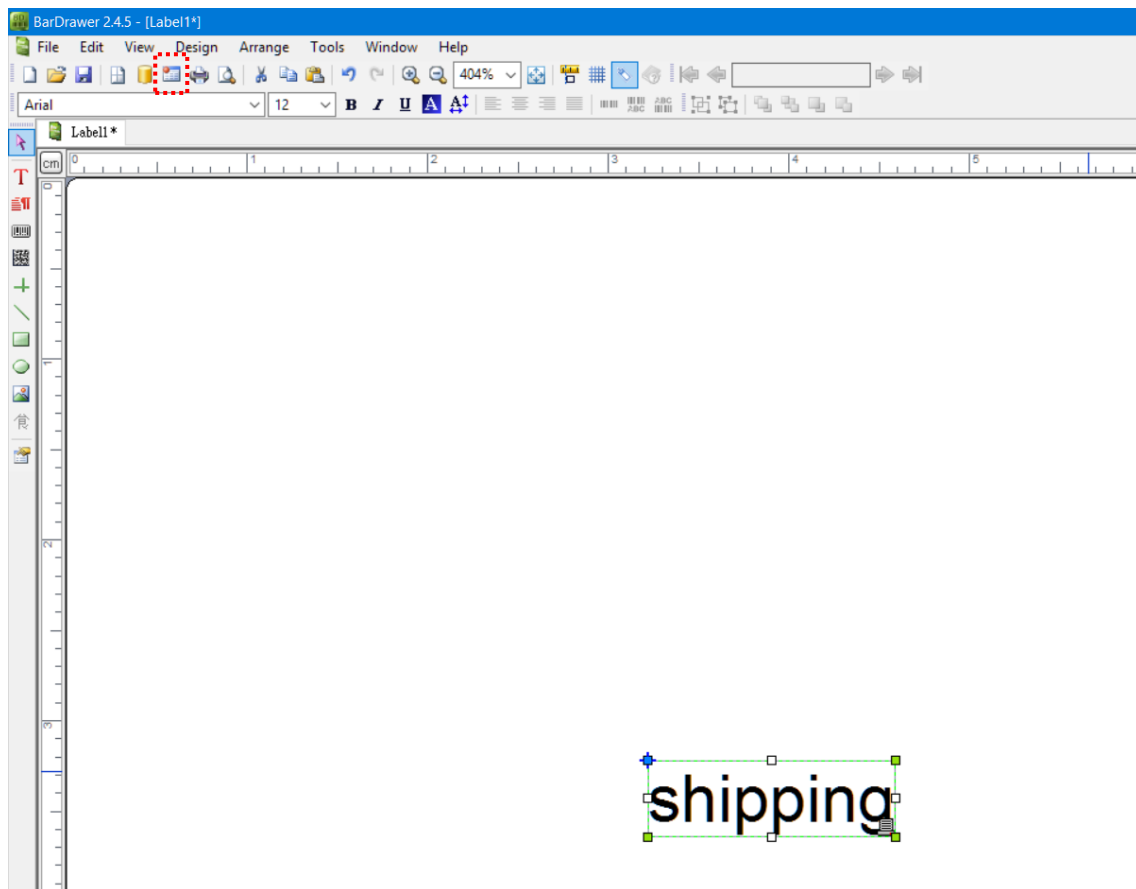


6. When the Auto form is sent and saved in T4e+ / T4De+ printer, the light of FUNC key on panel will extinguishes. It means it is Auto Form mode. The Scanner with USB interface could be plugged into the printer for "Scan to Print" function.
7. Pressing "FUNC" key could quit the AUTO FORM mode, and light of FUNC key will be on. When repower the printer, it will enter automatically the AUOTO FORM mode.

## Instruction Guide of SD card

After saved files into SD card, all of these files can be managed through PC. You can check description and detailed steps in the following parts:

1. After complied file, insert SD card into printer.
2. The function of saving editing record can be activated by “records setup”.



- Click the “records setup”, then check “enable the storage function”. Choose the items which are needed to be recorded, and then click “>>”. Besides, “<<” can be used to delete item.

The "Records Setup" dialog box is shown with the following elements:

- Enable the storage function:** A checkbox labeled "Enable the storage function" is checked and circled with a red dashed line and a red circle containing the number 1.
- Storage Folder:** A text field containing "Printer's SD Card".
- File Name:** A text field containing "shipping.csv".
- Column Separator:** A dropdown menu set to "Comma".
- Available Fields:** A list of fields circled with a red dashed line and a red circle containing the number 2. The fields are:
  - Time of Printer (highlighted in blue)
  - Date of Printer
  - Number of Label Copies
  - Number of Label Sets
  - IT shipping
- Selected Fields:** A table with two columns, "Order" and "Name", circled with a red dashed line and a red circle containing the number 3. The table is currently empty.
 

Order	Name
- Navigation Buttons:** Two buttons, ">>" and "<<", are located between the "Available Fields" and "Selected Fields" lists. The ">>" button is circled with a red dashed line and a red circle containing the number 3.
- OK/Cancel Buttons:** Located at the bottom of the dialog box.



- You can add or remove items according to your need. Click “OK” after you completed selection.

The 'Records Setup' dialog box is shown with the following configuration:

- ☒ Enable the storage function
- Storage Folder:
- File Name:  Column Separator:

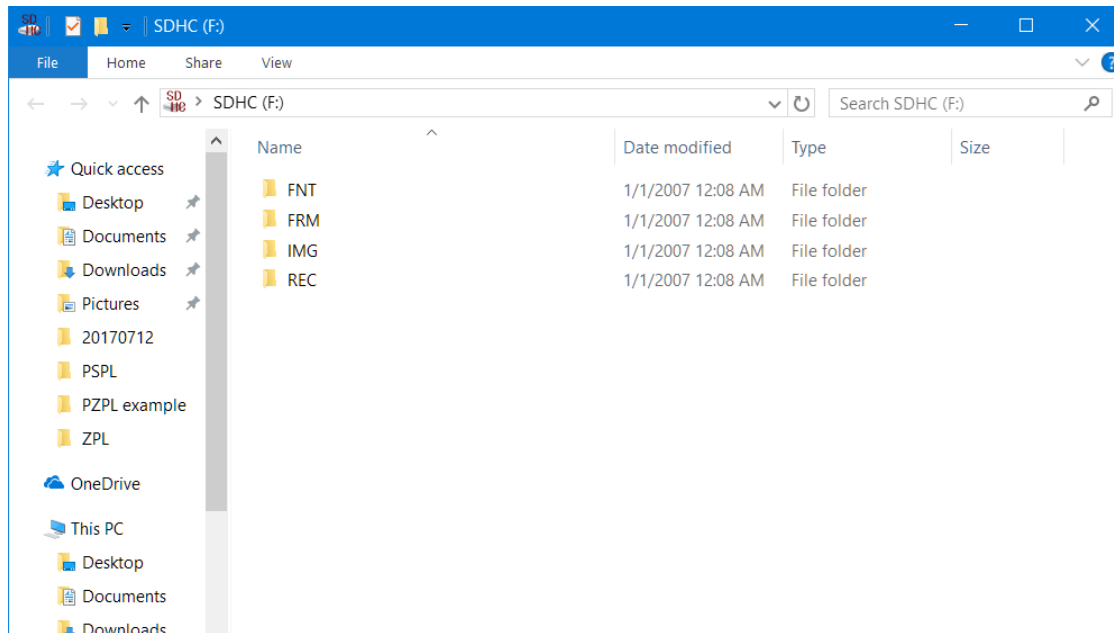
Field Selection:

Available Fields:	Selected Fields:																				
<input checked="" type="checkbox"/> Number of Label Copies <input type="checkbox"/> Number of Label Sets	<table border="1"> <thead> <tr> <th>Order</th> <th>Name</th> </tr> </thead> <tbody> <tr> <td>TT</td> <td>Single-line Text</td> </tr> <tr> <td></td> <td>Time of Printer</td> </tr> <tr> <td></td> <td>Date of Printer</td> </tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Order	Name	TT	Single-line Text		Time of Printer		Date of Printer												
Order	Name																				
TT	Single-line Text																				
	Time of Printer																				
	Date of Printer																				

Navigation buttons: >> (between fields), << (between fields), ↑ (up), ↓ (down).

Buttons:

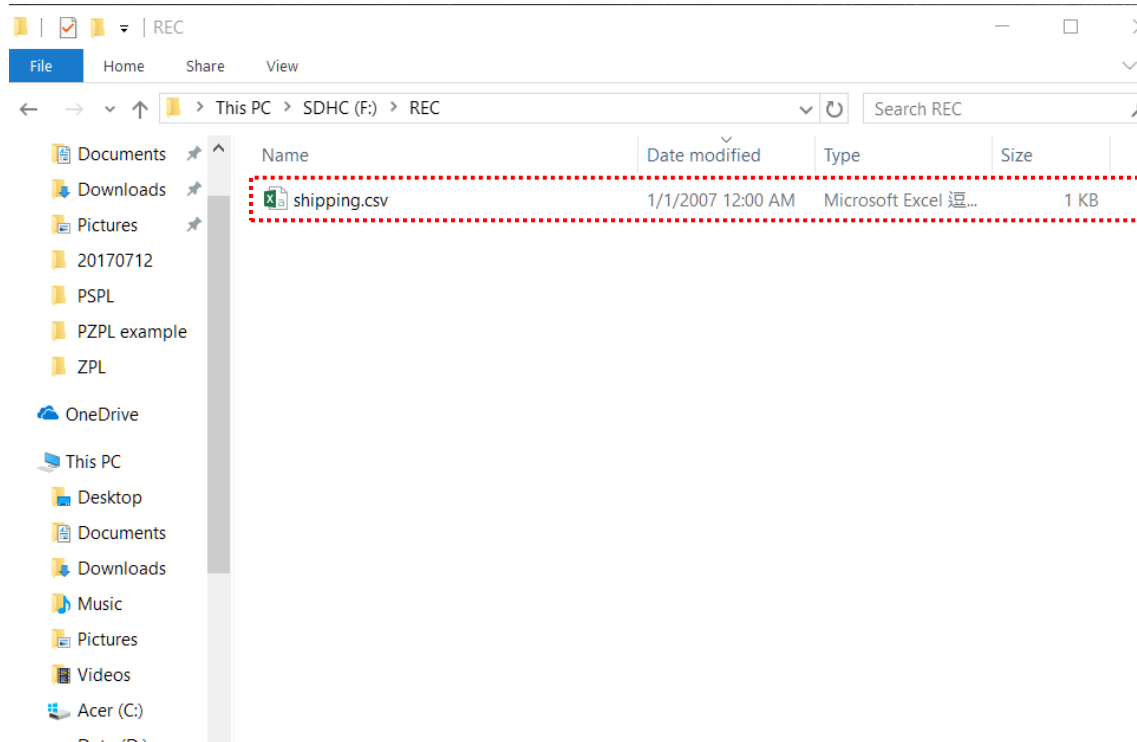
5. Remove SD card from printer and insert it into PC, the description of folders is showed below:



Folder	Category of file	Extension
FRM	from	.frs
REC	record	.csv
IMG	image	.ims
FNT	font	.fns

## Check Out Printing Records

If you need to check out printing records, open the folder “REC” and then find out the file which is named the same as form.



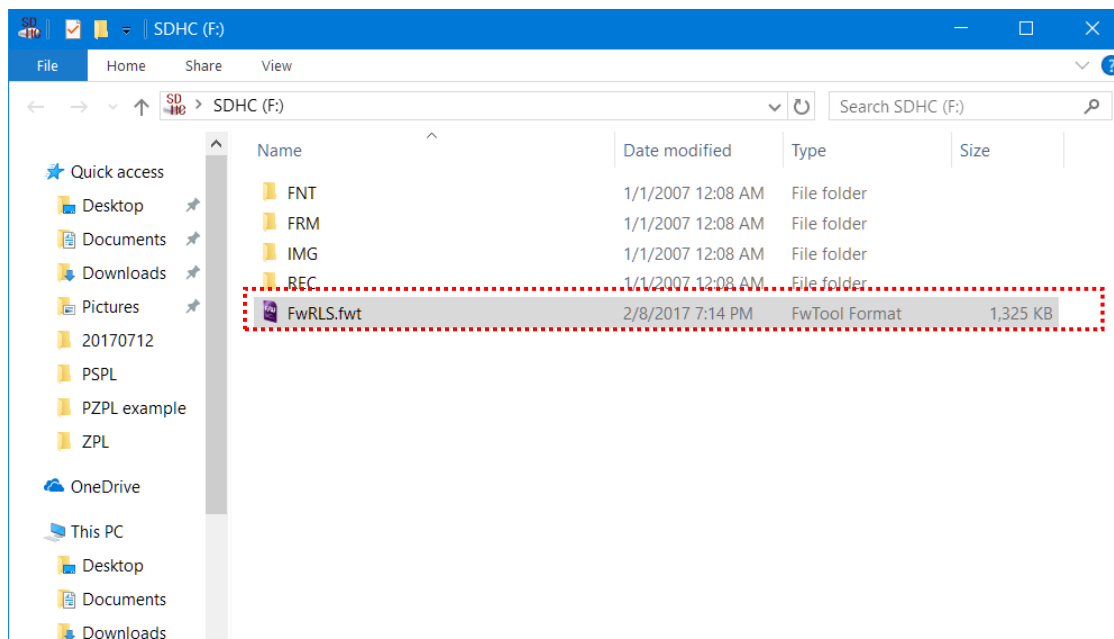
After opening the file, all of the printing records will show up via Excel file format.

	A	B	C	D	E	F	G	H	I	J
1	shipping	00:01AM	7/1/2001							
2	shipping	00:01AM	7/1/2001							
3	shipping	00:01AM	7/1/2001							
4	shipping	00:01AM	7/1/2001							
5	shipping	00:01AM	7/1/2001							
6										
7										
8										
9										

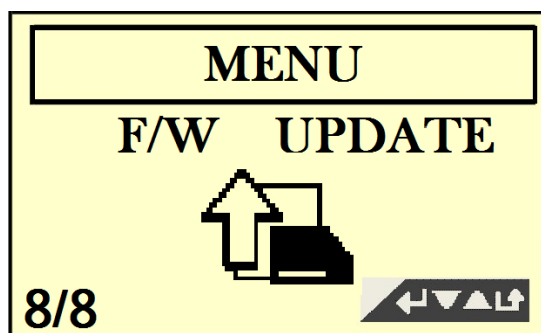
## Download Firmware

This part is the instruction of how to download firmware through SD card.  
There are steps in the following:

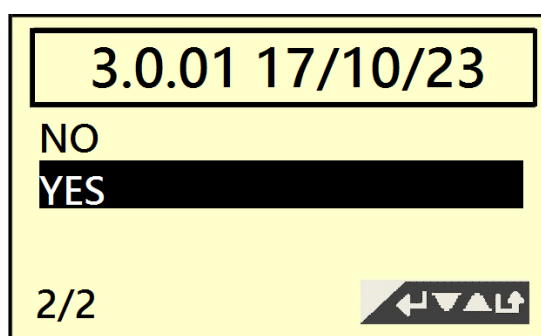
1. Save firmware file into SD card. Note that the file must be named "FwRLS.fwt".



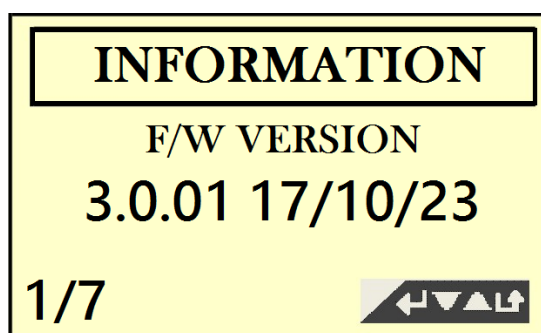
2. Press "MENU", and then choose "F/W update".



3. Press "YES", and then the printer will update to the firmware version which has been chosen.



4. You can check out the firmware version in "INFORMATION".



## Files converter (frm.→frs.)

Put the files you want to convert into a new folder, and then copy the converter named Transfer2FRS.exe from the CD to the folder.

### < New folder >

B Drive (F:) > New folder

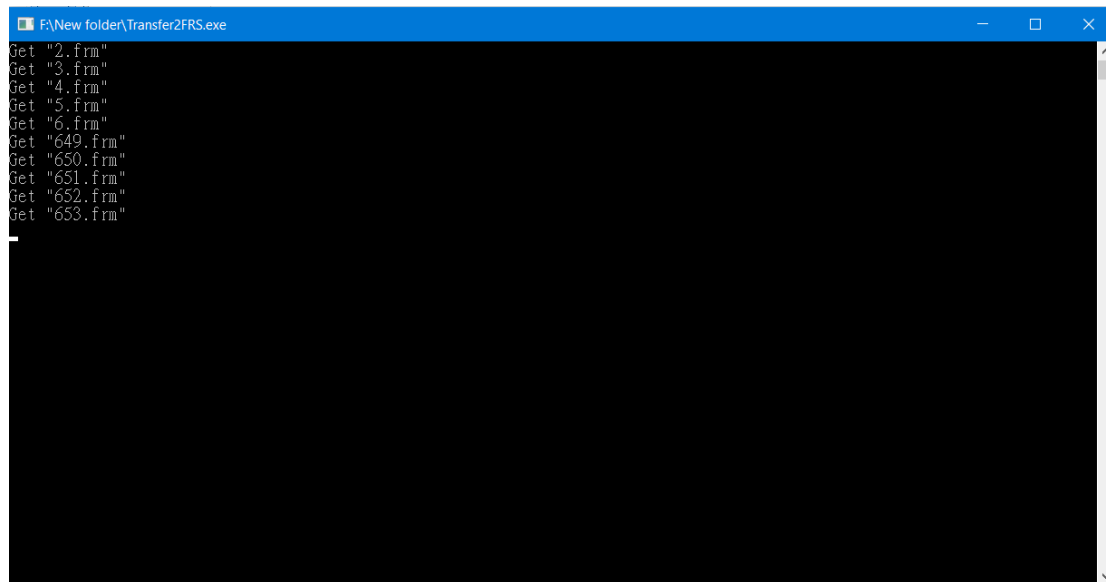
Name	Date modified	Type	Size
Application (1)			
Transfer2FRS.exe	2018/2/21 下午 02:...	Application	2,933 KB
Pro/E Format File (30)			
2.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB
3.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB
4.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB
5.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB
6.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB
649.frm	2018/4/2 上午 11:...	Pro/E Format File	88 KB
650.frm	2018/4/2 上午 11:...	Pro/E Format File	88 KB
651.frm	2018/4/2 上午 11:...	Pro/E Format File	88 KB

### < CD >

3 Drive (F:) > Application

Name	Date modified	Type	Size
Fonts	2017/12/1 上午 11:...	File folder	
PrnDrv-1.6.5-140626	2017/12/1 上午 11:...	File folder	
BarDrawer-2.4.6-20180315.msi	2018/3/15 上午 11:...	Windows Installer ...	17,249 KB
BarDrawerManual 2.3.2 - 20140423-繁中....	2014/5/16 上午 09:...	PDF File	6,575 KB
InstallManual-1.2.pdf	2011/11/10 下午 0:...	PDF File	7,902 KB
Transfer2FRS.exe	2018/2/21 下午 02:...	Application	2,933 KB

## < Execute converter >



## < Convert completely >

B Drive (F:) > New folder			
Name	Date modified	Type	Size
Application (1)			
Transfer2FRS.exe	2018/2/21 下午 02...	Application	2,933 KB
FRS File (12)			
2.frs	2018/4/3 下午 02:...	FRS File	87 KB
3.frs	2018/4/3 下午 02:...	FRS File	87 KB
4.frs	2018/4/3 下午 02:...	FRS File	87 KB
5.frs	2018/4/3 下午 02:...	FRS File	87 KB
6.frs	2018/4/3 下午 02:...	FRS File	87 KB
649.frs	2018/4/3 下午 02:...	FRS File	88 KB
650.frs	2018/4/3 下午 02:...	FRS File	88 KB
651.frs	2018/4/3 下午 02:...	FRS File	88 KB
652.frs	2018/4/3 下午 02:...	FRS File	88 KB
653.frs	2018/4/3 下午 02:...	FRS File	88 KB
654.frs	2018/4/3 下午 02:...	FRS File	88 KB
655.frs	2018/4/3 下午 02:...	FRS File	88 KB
Pro/E Format File (10)			
2.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB
3.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB
4.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB
5.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB
6.frm	2018/4/2 上午 11:...	Pro/E Format File	87 KB

## < Move to SD card >

Insert an empty SD card into the printer, and it will be added 4 folders automatically. Copy the converted files to the folder named FRM.

## < SD card >

USB Drive (E:) >				
Name	Date modified	Type	Size	
FNT	2007/4/4 下午 12:...	File folder		
FRM	2007/4/4 下午 12:...	File folder		
IMG				
REC				

## < FRM folder >

B Drive (E:) > FRM				
Name	Date modified	Type	Size	
2.frs	2018/4/3 下午 02:...	FRS File	87 KB	
3.frs	2018/4/3 下午 02:...	FRS File	87 KB	
4.frs	2018/4/3 下午 02:...	FRS File	87 KB	
5.frs	2018/4/3 下午 02:...	FRS File	87 KB	
6.frs	2018/4/3 下午 02:...	FRS File	87 KB	
649.frs	2018/4/3 下午 02:...	FRS File	88 KB	
650.frs	2018/4/3 下午 02:...	FRS File	88 KB	
651.frs	2018/4/3 下午 02:...	FRS File	88 KB	
652.frs	2018/4/3 下午 02:...	FRS File	88 KB	
653.frs	2018/4/3 下午 02:...	FRS File	88 KB	
654.frs	2018/4/3 下午 02:...	FRS File	88 KB	
655.frs	2018/4/3 下午 02:...	FRS File	88 KB	



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## Modification record

Version	Date	Modification	Page
Ver 1.0	22-Oct-17	First release.	N/A
Ver 1.1	03-Apr-18	Add converter	75
Ver 1.2	29-Aug-18	Add T4ES	5, 16, 23, 31, 39, 55