User's Guide

APR530
Thermal Label Printer

METTLER TOLEDO

APR530

ENERGY STAR

METTLER TOLEDO

Product Name: Label Printer APR530

Product SN: ABC1234567890

ABC1234567890

METTLER TOLEDO

APR530 Thermal Label Printer

METTLER TOLEDO Service

Essential Services for Dependable Performance of Your APR530 Thermal Label Printer

Congratulations on choosing the quality and precision of METTLER TOLEDO. Proper use of your new equipment according to this Manual and regular calibration and maintenance by our factory-trained service team ensures dependable and accurate operation, protecting your investment. Contact us about a service agreement tailored to your needs and budget. Further information is available at www.mt.com/service.

There are several important ways to ensure you maximize the performance of your investment:

1. **Register your product**: We invite you to register your product at www.mt.com/productregistration so we can contact you about enhancements, updates and important notifications concerning your product.

2. **Contact METTLER TOLEDO for service**: The value of a measurement is proportional to its accuracy – an out of specification scale can diminish quality, reduce profits and increase liability. Timely service from METTLER TOLEDO will ensure accuracy and optimize uptime and equipment life.

    a. **Installation, Configuration, Integration and Training**: Our service representatives are factory-trained, weighing equipment experts. We make certain that your weighing equipment is ready for production in a cost effective and timely fashion and that personnel are trained for success.

Safety Information

Only use the device according to this manual. If you do not use the device according to these documents or if the device is modified, the safety of the device may be impaired and Mettler-Toledo GmbH assumes no liability.

General Precautions

- Use the device in accordance with this manual.

- The device is intended for indoor use only.

- Any other type of use is considered as not intended.

Misuse

- Do not use the device other than for printing operations.

- Do not use the device in hazardous environments.

- Do not modify the device.

- Do not use the device beyond the limits of the technical specifications.

Safety Notes

- Ensure that the power socket outlet of the device is earthed and easily accessible, so that it can be deenergized rapidly in emergencies.

- Ensure that the supply voltage at the installation site lies within the range of 100-240 V.

- Ensure that there is a space of at least 3 cm (1.25") at the rear in order to prevent the power cable from being bent too strongly.

- Check the power cable regularly for damage. If it is damaged, immediately disconnect the device from the power supply.

Warnings and Cautions

- READ this manual BEFORE operating or servicing this equipment and FOLLOW these instructions carefully.
- SAVE this manual for future reference.

	⚠ **CAUTION**
	EQUIPMENT IS INTENDED FOR INSTALLATION IN RESTRICTED ACCESS LOCATION. ONLY INSTRUCTED PERSONS AND SKILLED PERSONS SHOULD BE ALLOWED TO INSTALL, REPLACE, OR SERVICE THIS EQUIPMENT.
	⚠ **CAUTION**
	MAKE SURE THE PRINTER IS OFF BEFORE PLUGGING THE POWER CONNECTOR INTO THE POWER JACK.
	⚠ **CAUTION**
	CHECK VOLTAGE OF POWER SOURCE BEFORE CONNECTING EQUIPMENT. USE OF A SURGE PROTECTOR IS RECOMMENDED.
	⚠ **CAUTION**
	PRINTER HAS HOT PARTS. TO AVOID BURNED FINGERS, WAIT 30 MINUTES AFTER SWITCHING OFF BEFORE HANDLING PARTS.
	⚠ **CAUTION**
	ONLY USE WITH THE DESIGNATED POWER SUPPLY ADAPTER MODEL.
	⚠ **CAUTION**
	AVOID GETTING LIQUID ON THE EQUIPMENT.
	NOTICE
	OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES.

Disposal of Electrical and Electronic Equipment

In conformance with the European Directive 2012/19/EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements.

Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment.

If you have any questions, please contact the responsible authority or the distributor from which you purchased this device.

Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.

Thank you for your contribution to environmental protection.
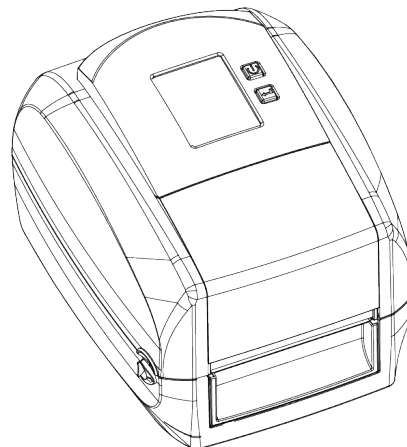
Contents

Contents

1   Introduction

1.1.   Box Contents

Printer

Label Stock
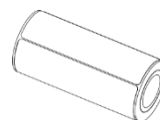
Ribbon Module – Empty Ribbon Core
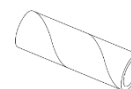
Label Stock
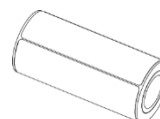
Ribbon
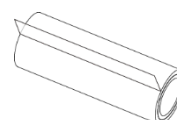
Ribbon Hubs
Set of two
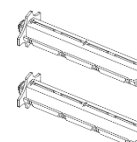
USB Cable
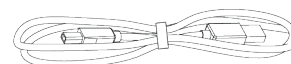
Power Adapter Power Cord

AC Adapter

APR530 Quick Start Guide
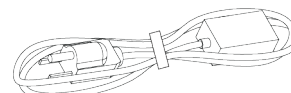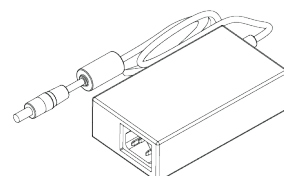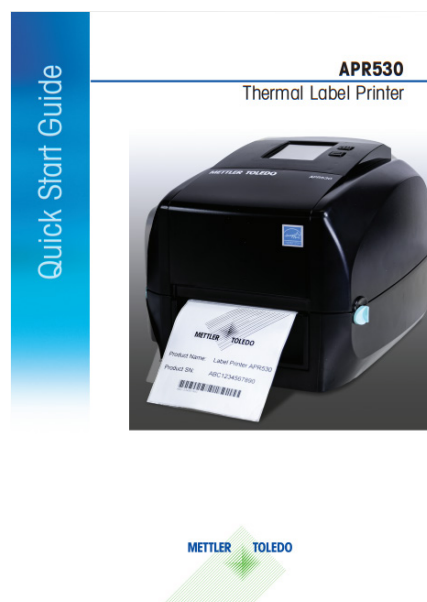
1.2.   Printer Overview

1.2.1.   Front View

PRINTER COVER

POWER BUTTON

FEED BUTTON

TOUCH PANEL

FRONT COVER

COVER RELEASE CATCHES

1.2.2.   Rear View

FAN-FOLD LABEL INSERT
Feed slot for continuous labels

PARALLEL PORT

USB HOST

ETHERNET PORT

CALIBRATION BUTTON

SERIAL PORT

USB PORT

POWER CONNECTOR

1.2.3.   Bottom View
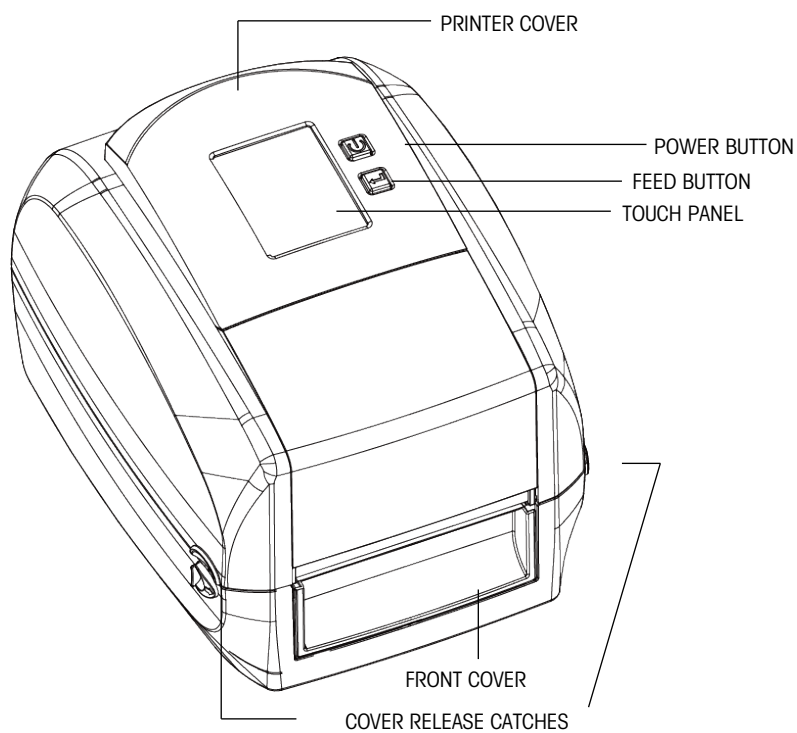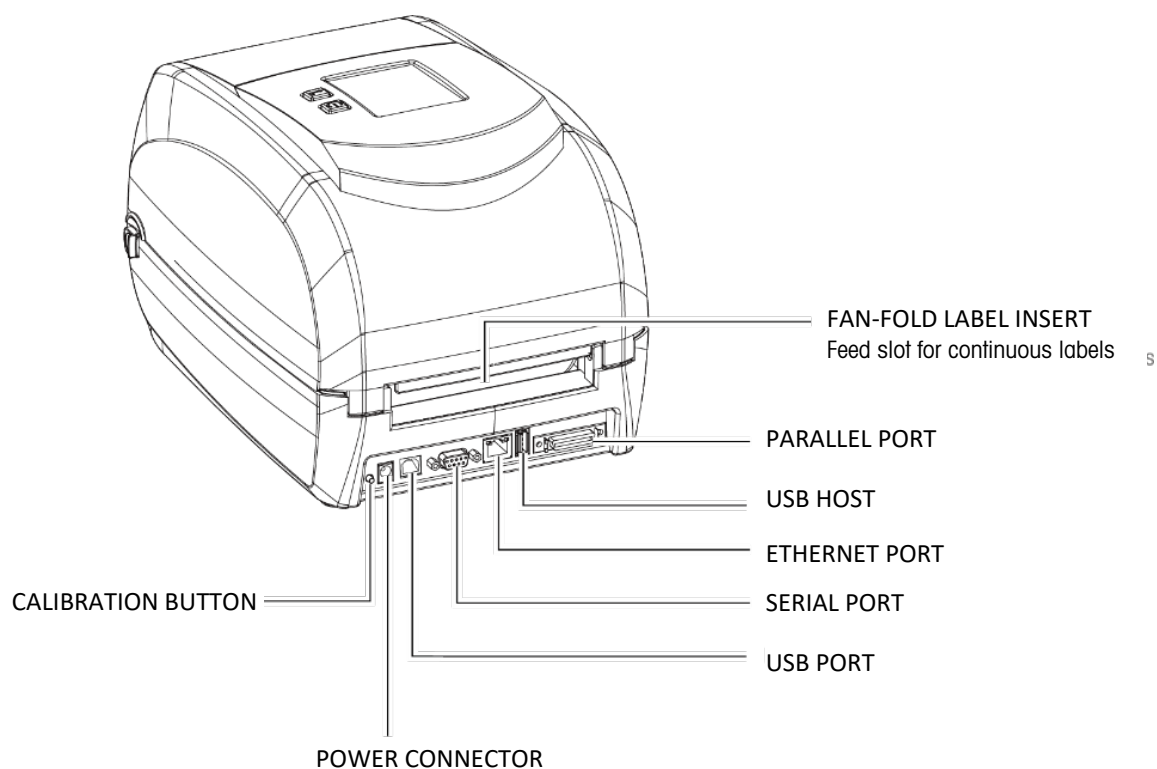
COVER
OF MODULE
CONNECTION
JACKS
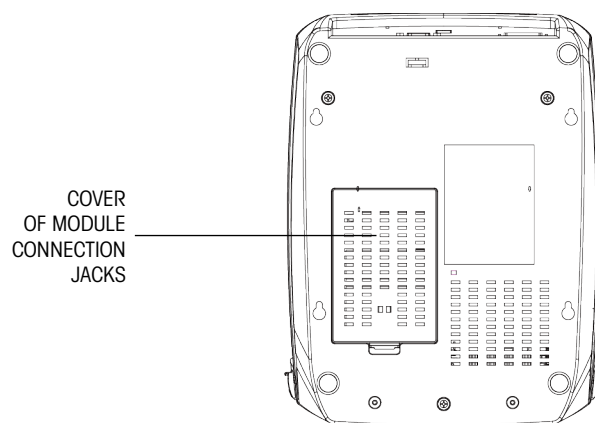
■   The cutouts on the bottom of the printer are not intended for wall-mount use.
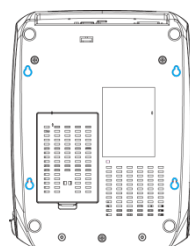
1.2.4. Internal View of Printer

LABEL GUIDE PLATE
Set of 2

PLATEN LOCKS

LABEL SUPPLY HUB
Set of 2

LABEL
SUPPLY
MODULE

LABEL GUIDE
Set of 2

RELEASE CATCH
Release catch for opening the
label supply hub

RELEASE CATCH
Release catch for closing
the printer cover

LABEL SENSOR
MODULE

LABEL SENSOR

GUIDE TRACK

PLATEN MODULE

PLATEN

PLATEN LOCKS

1.2.5. Printing Mechanism

RIBBON REWIND MECHANISM

COVER
Cover for ribbon rewind mechanism

NOTCH OF RIBBON REWIND WHEEL

RIBBON REWIND WHEEL

PRINT HEAD

RIBBON SUPPLY MECHANISM

RIBBON PAPER PRESS BAR

NOTCH OF RIBBON SUPPLY WHEEL

RIBBON SUPPLY WHEEL

2   Setup

2.1.   Opening the Printer Cover

To open the printer cover:

1. Place the printer on a flat surface.

2. Press the two buttons indicated in Figure 2-1 in the direction shown by the arrows.

COVER RELEASE CATCHES
Pull the catches to open the printer cover

Figure 2-1: Cover Release Buttons

3. Lift the printer cover.
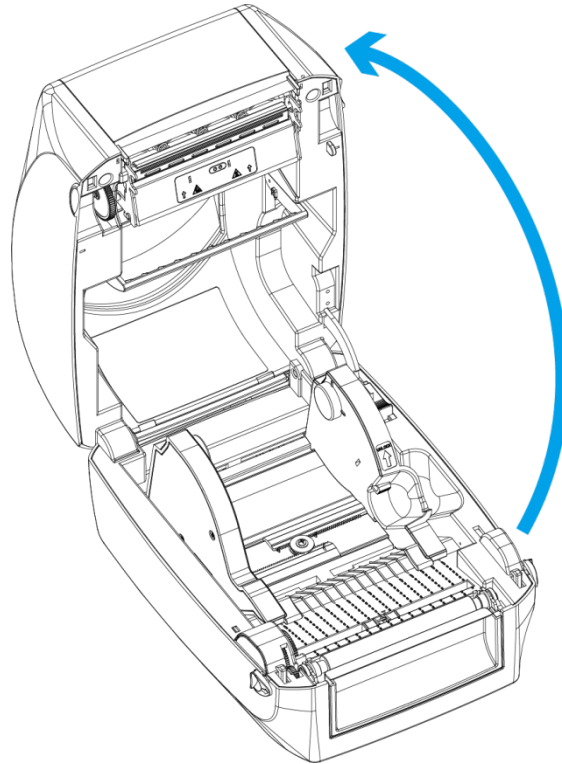
Figure 2-2: Lifting the Cover

2.2. Loading the Ribbon

To install a new ribbon module:

NEW RIBBON   EMPTY RIBBON CORE   RIBBON HUB

Figure 2-3: New Ribbon and Empty Ribbon Core

1.   Adhere the ribbon to the empty ribbon core using the adhesive strip at the end of the ribbon. Note the notch at the ends of the ribbon core.
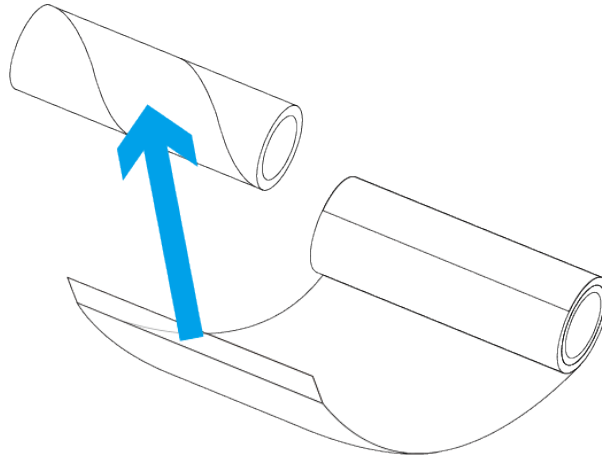
Figure 2-4: Attaching Ribbon to Ribbon Core

2. Slide the ribbon hub into the empty ribbon core/new ribbon assembly. Wind the ribbon two or three turns around the core.
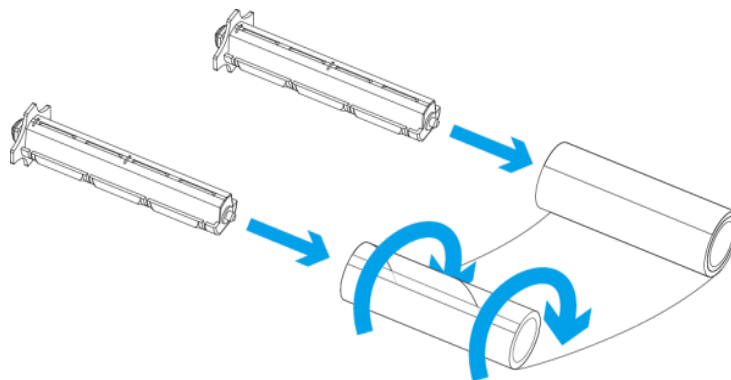
Figure 2-5: Winding the Ribbon around the Ribbon Core

3. The ribbon module assembly is shown below.

RIBBON SUPPLY

RIBBON REWIND
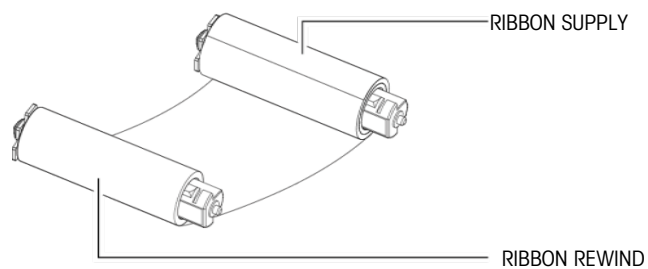
Figure 2-6: Completed Ribbon Module

2.2.1. Loading the Ribbon, Ribbon Supply Module

RIBBON SUPPLY MECHANISM

NOTCH OF RIBBON SUPPLY WHEEL

RIBBON SUPPLY WHEEL
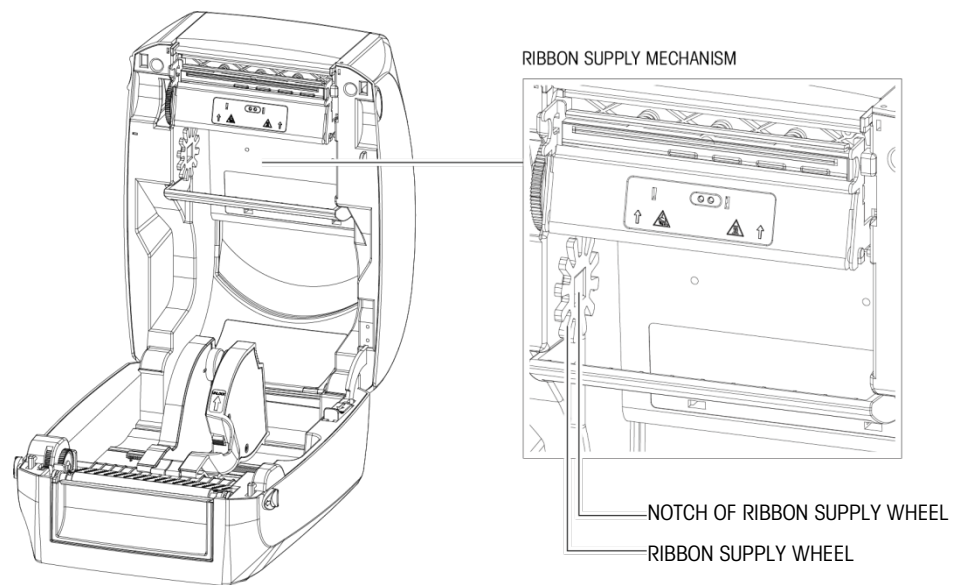
Figure 2-7: Positioning the Ribbon Supply Module

1. Position the left side of the ribbon supply module first. Make sure the ribbon hub holder is inserted into the notch. Next, place the right side of the ribbon hub.

RIBBON SUPPLY MODULE

Left side

Place

HOLDER

NOTCH OF RIBBON SUPPLY WHEEL

Right side

HOLDER   NOTCH
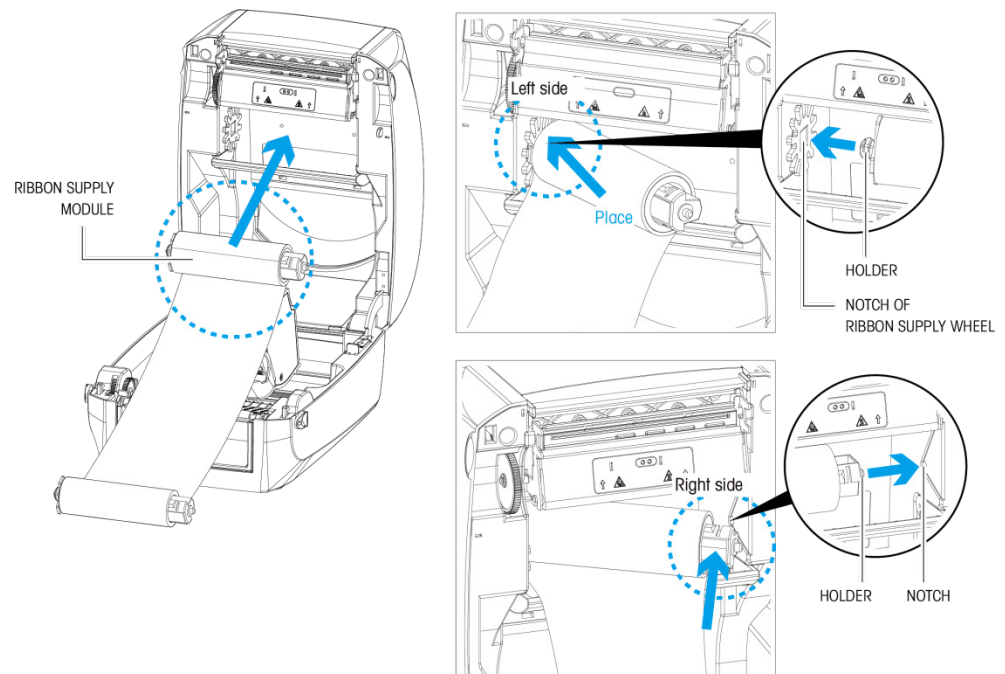
Figure 2-8: Aligning Ribbon Core

2. Unlock the release catch to close the printer cover. Push the release catch forward to unlock it. Ribbon supply module loading is complete.
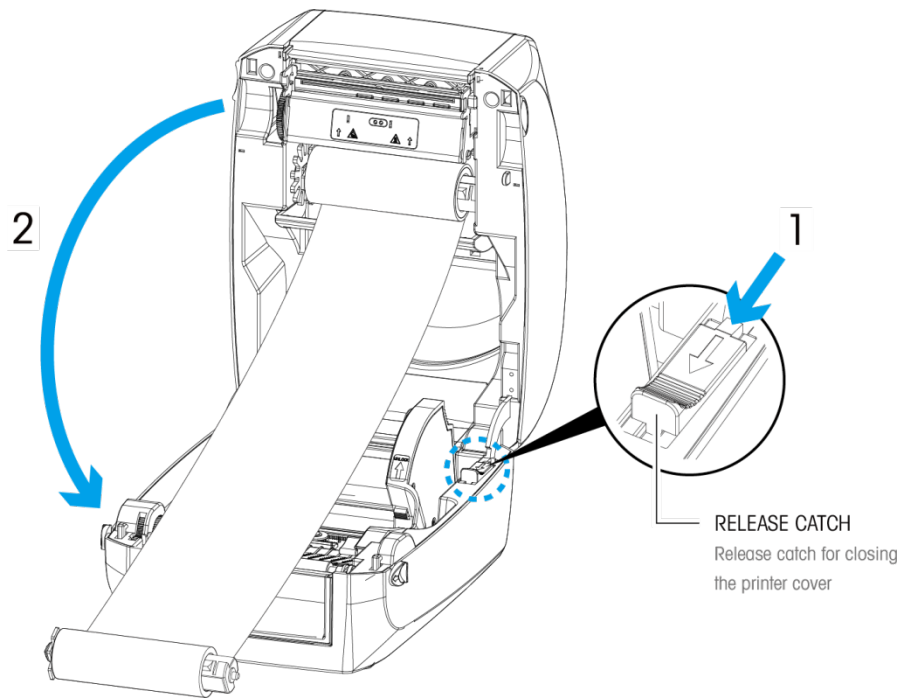
Figure 2-9: Closing the Printer Cover

2.2.2. Loading the Ribbon, Ribbon Rewind Module
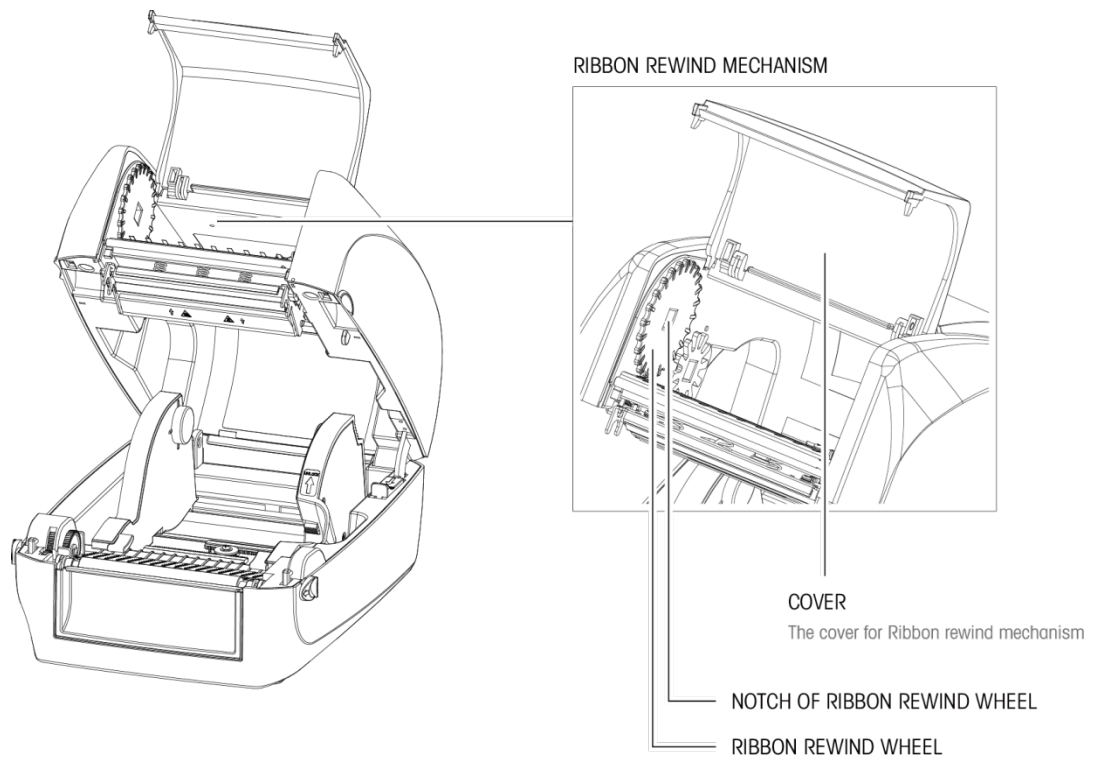
1. Open the ribbon rewind mechanism.
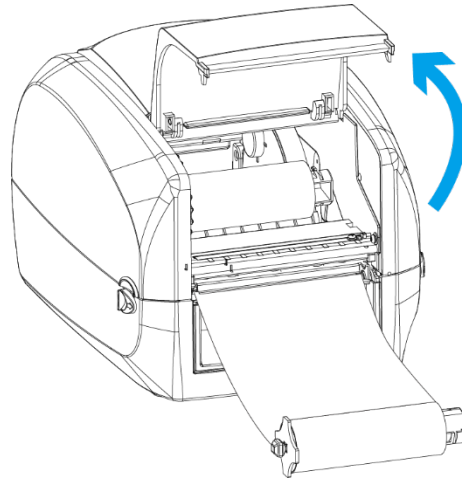
2. Place the ribbon rewind module into the ribbon rewind mechanism. Place the left side of the ribbon hub first, making sure the notch of the ribbon hub is correctly placed. Next, place the right side of the ribbon hub.

■ Note: The dull side of the ribbon should face the label stock.

RIBBON REWIND MODULE

Left side

HOLDER

NOTCH OF RIBBON REWIND WHEEL

Right side

HOLDER   NOTCH
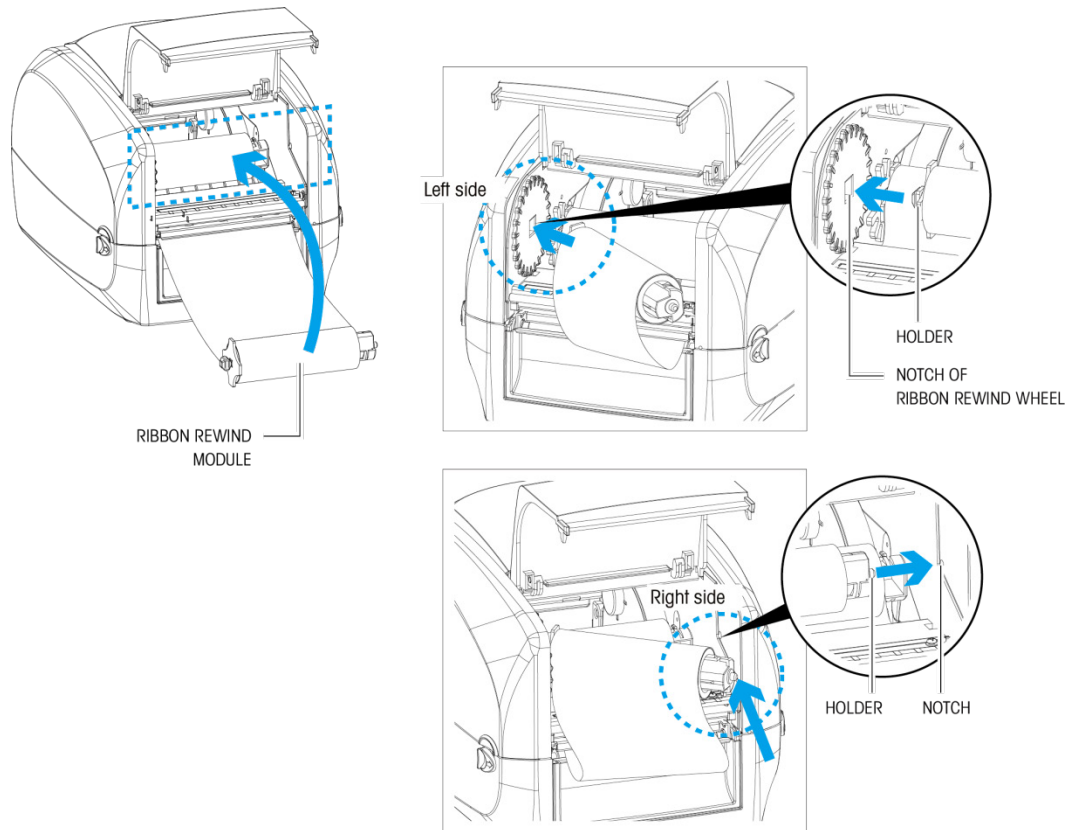
3. Turn the ribbon rewind wheel to tighten the ribbon until it has no wrinkles

RIBBON REWIND WHEEL
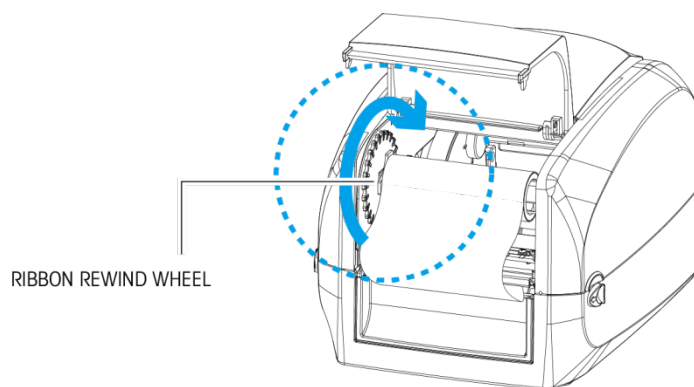
4. Close the ribbon rewind mechanism's cover. The ribbon loading is complete once the ribbon supply module and ribbon rewind module are assembled correctly.
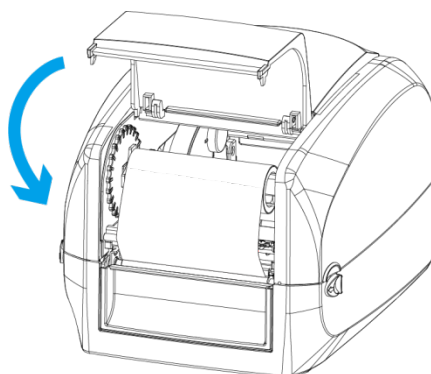
■ Keep the rewind ribbon wheel clean to ensure smooth operation.

2.3.   Loading the Label Roll Module

2.3.1.   Loading the Label Stock into the Printer

LABEL GUIDE PLATE
Set of 2

LABEL SUPPLY HUB
Set of 2

LABEL
SUPPLY
MODULE

LABEL STOCK

LABEL GUIDE
Set of 2

RELEASE CATCH
Release catch for opening
the label supply hub
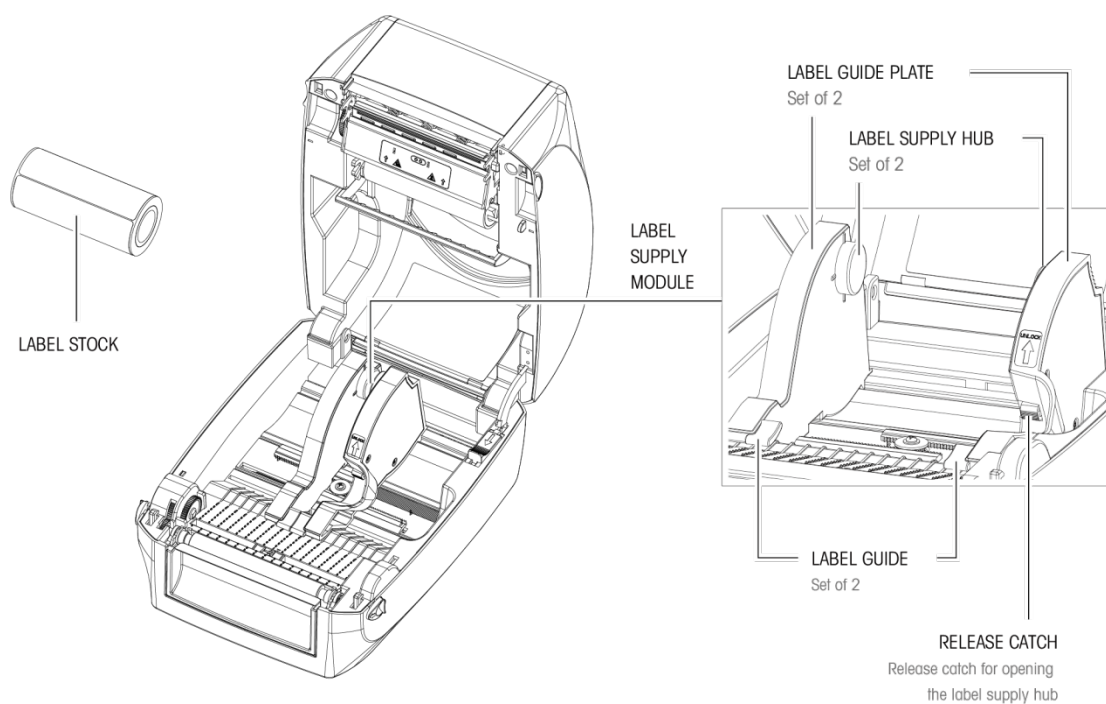
1. Unlock the ribbon catch and pull to open the label guide plate.

LABEL GUIDE PLATE
Set of 2

RELEASE CATCH
Release catch for opening the label supply hub
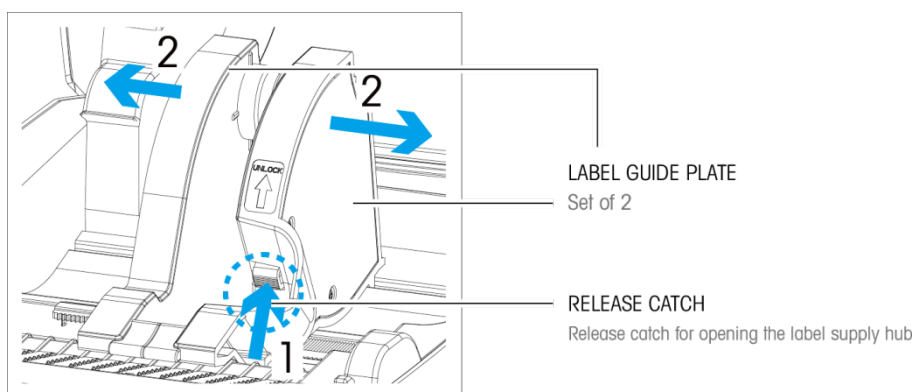
2. Place the label stock in the label supply hubs. Make sure the label stock is aligned to both hubs. Adjust the label guide places to set the label width. Remember to push the release catch when moving the label guide plates.
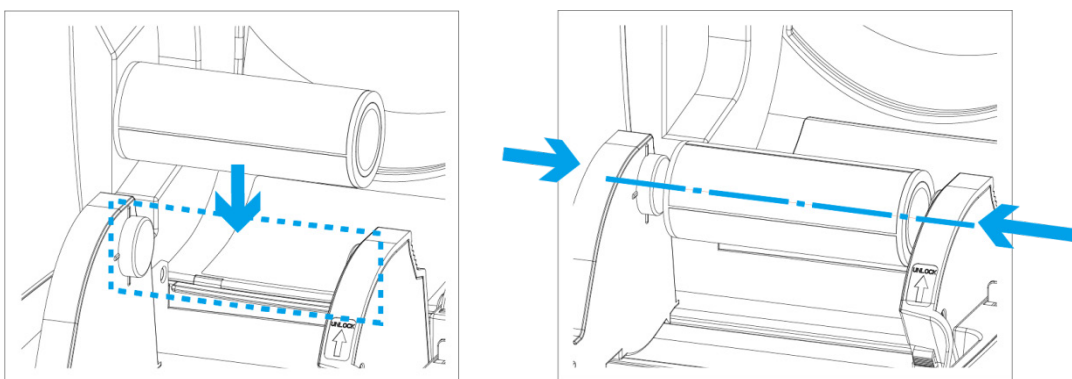
3. Feed the label through the label guides. The guides will help to prevent sideways motion in the label.

LABEL GUIDE
Set of 2

4. Unlock the release catch to close the printer cover.
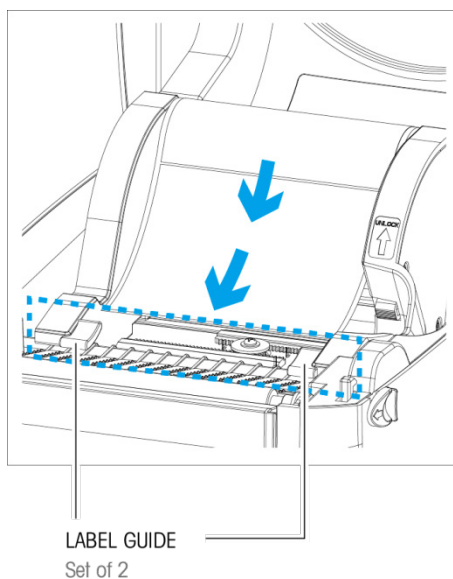
RELEASE CATCH
Release catch
for closing the printer cover
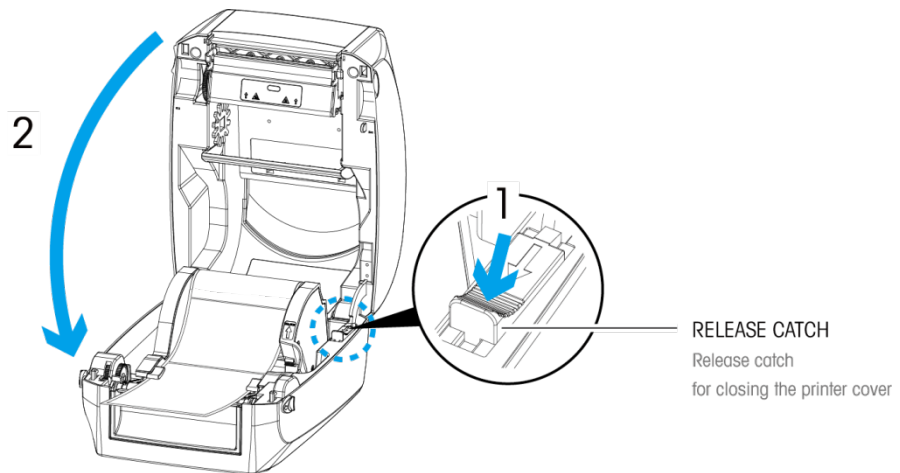
5. Press the FEED key and make sure the label is fed smoothly. Label loading is now complete.
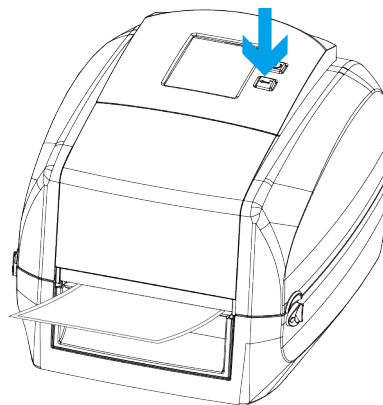
2.4. Connecting the Printer to the METTLER TOLEDO Indicator

1. Make sure that the printer is switched off.

2. Connect the power cord to the AC adapter.

■ The power cable may differ from the one shown here.
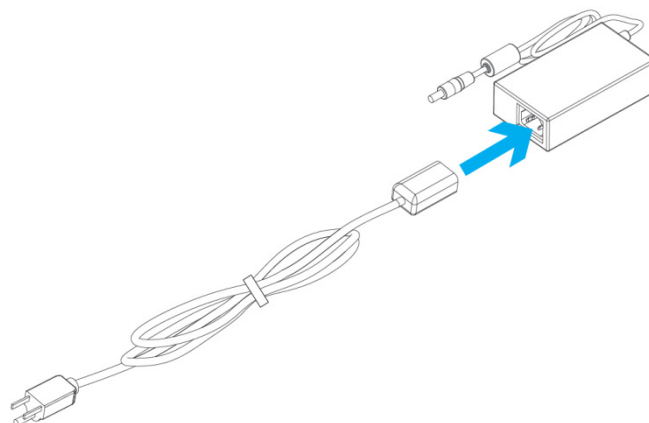
Figure 2-10: Power Cord and AC Adapter

3. Connect the jack of the power adapter to the print and connect the power connector plug to the wall socket.
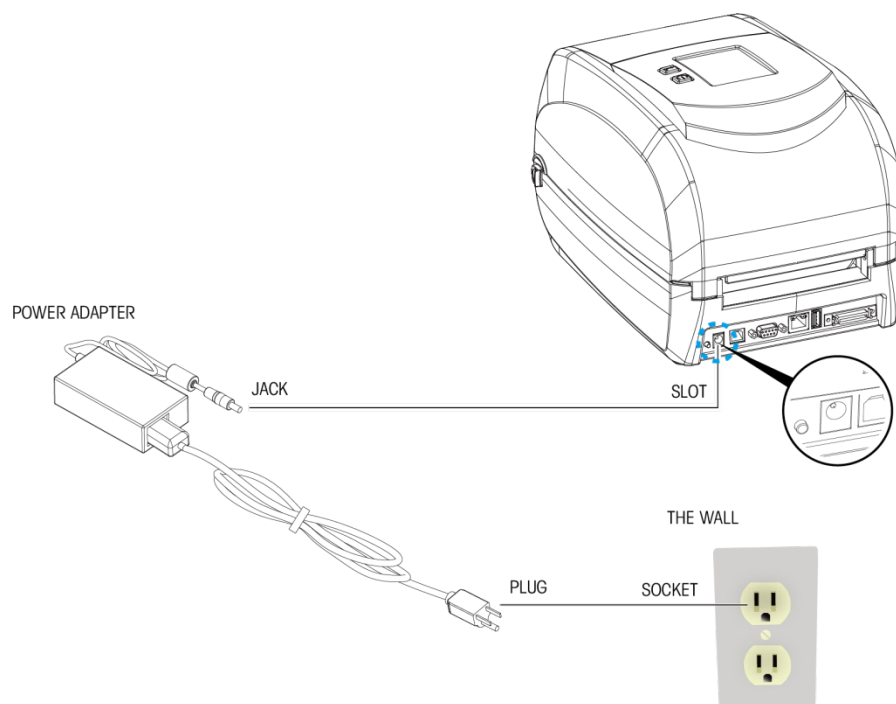
Figure 2-11: Connecting to Power Source

4. Connect the USB/parallel cable to the printer and to the indicator.

Figure 2-12: Computer Connection

5. Switch on the printer. The touchscreen should light up.

Switch On
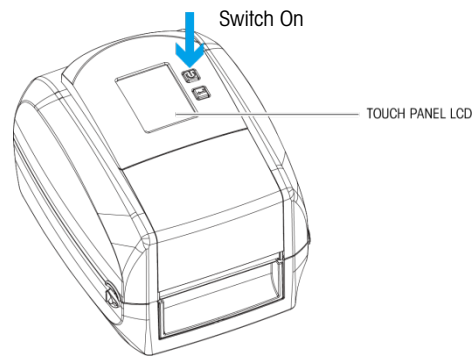
TOUCH PANEL LCD

Figure 2-13: Switching on the Printer

2.5.   Connecting the Printer to the Host Computer

1. Connect the USB/parallel cable to the printer and to the host computer.

USB PORT

USB CABLE

PLUG

PLUG

PC

SOCKET
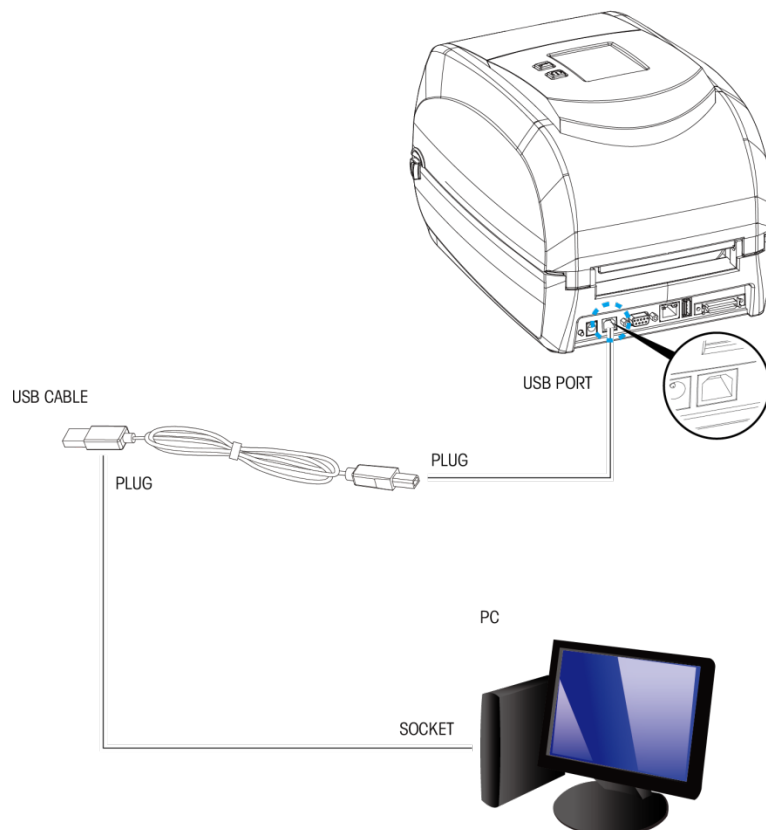
Figure 2-14: Computer Connection

2. Switch on the printer. The touch panel will light up.

Switch On
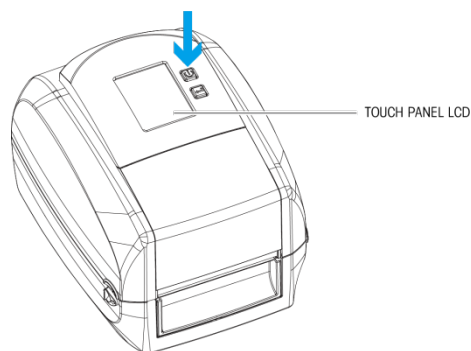
Figure 2-15: Switching on the Printer

2.6. Driver Installation

1. Download the driver from www.mt.com/APR430

2. Open the Seagull Drivers folder and select the icon for the driver file and click it to start the installation.

3. Click "I accept the terms of the license agreement," and then click **Next**.

4. Click **Next** again.
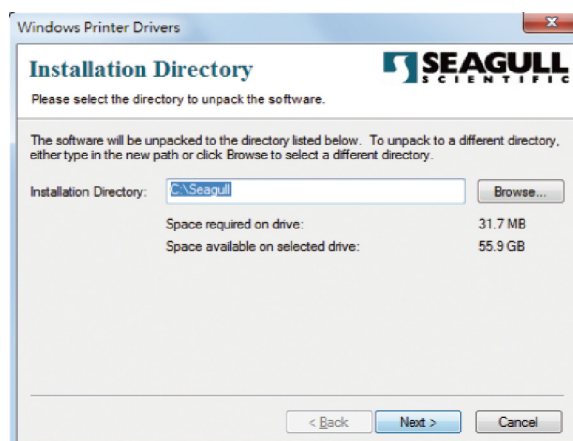
5. Click **Finish**.
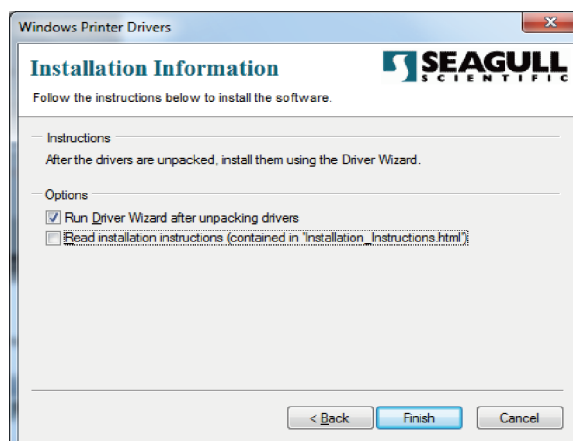
6. The Driver Wizard will guide you through the installation procedure. Select **Install printer drivers** and click **Next**.
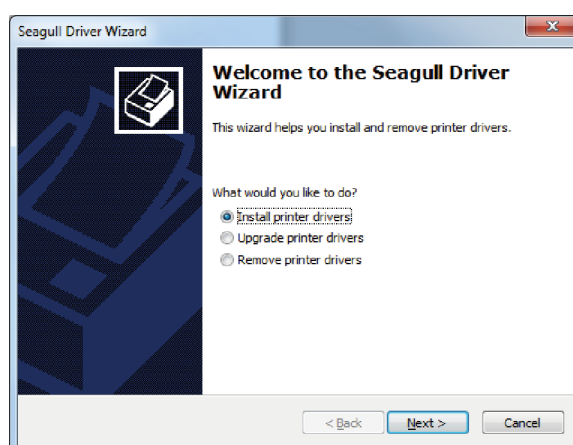
7. For a USB connection, search for the correct printer model and click **Next**.
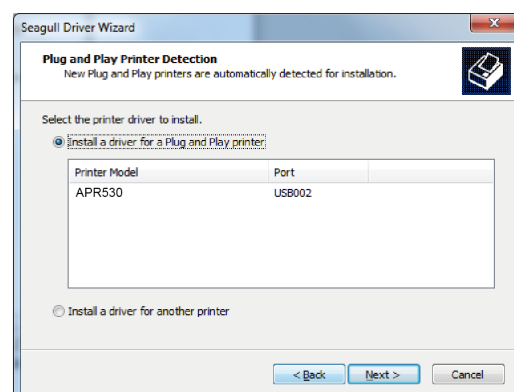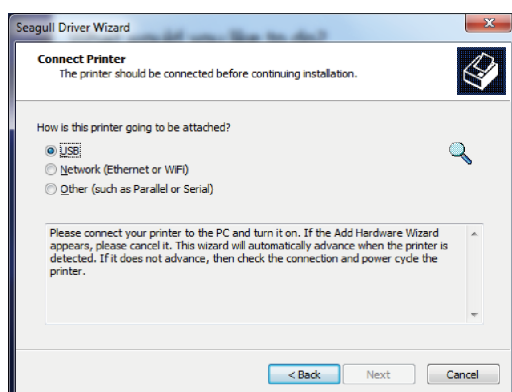
8. Enter the printer name (or use the default), then click **Next** to display the completion dialog (right). Click **Finish** to begin installation.
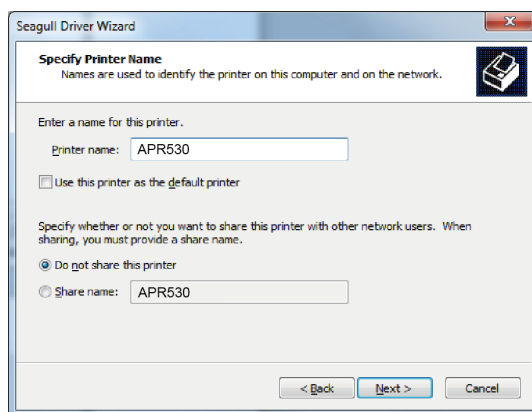
9. Driver installation is complete.
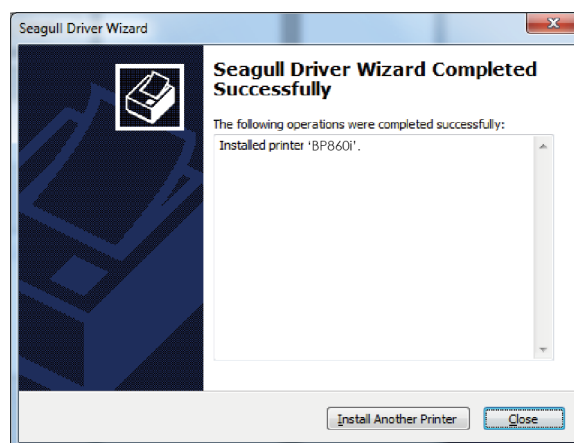
3 Printer Settings and Controls

3.1. Operating Panel
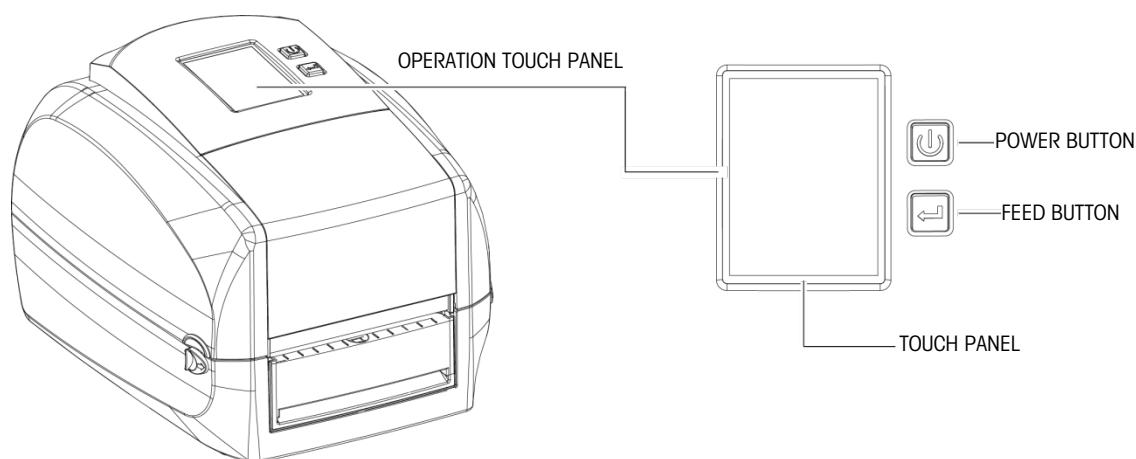
Figure 3-1: APR530 Operating Panel

3.1.1. Power Button

Press the POWER button to turn on the printer, and the START UP SCREEN appears. The printer is on "MT Mode" status, the LCD screen should display the message "MT Mode" on the screen.

When printer is turned on, hold and press down the POWER button for 3 second will turn the printer off.

3.1.2. Feed Button in MT Mode

When you press the FEED button in MT Mode, the printer will move through the fields on the MT Mode label that is active. Out of the box the default MT Mode label has 12 fields meaning that you will need to press the feed button 12 times to feed the label to the defined stop position.

3.1.3. Feed Button In PL Mode:

- 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, run the auto-detection function on the label stock. Refer to section 3.4

3.1.3.1. **Pause Printing Feed Button**

Pressing the FEED button during printing will interrupt printing, and the LCD display message "PAUSE...".

When the FEED button is pressed again, the printer resumes printing. Example: While a 10-label print job is running, the FEED button is pressed to pause the printer. Two of the labels have been printed. To resume printing and print the remaining eight labels, the FEED button must be pressed again.

3.1.3.2. **Cancel Printing Feed Button**

To cancel the current print job, press and hold the FEED button for 3 seconds during printing.

Example: While a 10-label print job is running, the FEED button is pressed. Two of the labels have been printed. The print job is cancelled, and the remaining eight labels will not be printed.

3.2. LCD Interface

3.2.1. Getting started

Press the POWER button to turn the printer on. The START UP SCREEN appears.

If the printer is in "MT Mode" status, the LCD screen will display the message **MT Mode** on screen. Use touch gestures to navigate the main screen and other screens, to configure the printer. Tap the screen with a finger to select on-screen items such as settings icons.

On the **MT Mode** page, two function modes are available for printer setup.

- Print will send a printer command to the METTLER TOLEDO indicator

- Mode will switch the mode to PL (Print Language) Mode for more configuration options
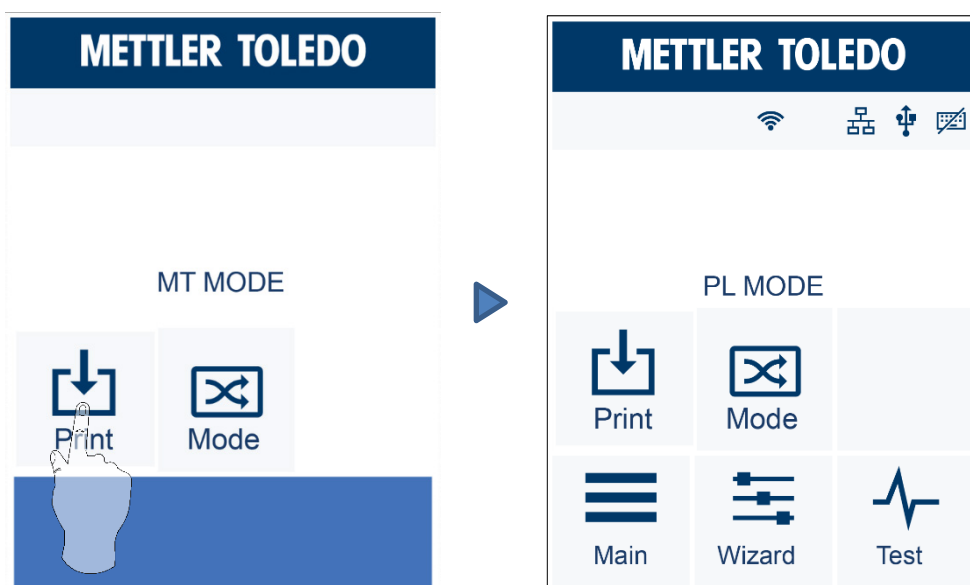
3.2.1.1.   Main

This screen displays details of the **Main** setup menu.
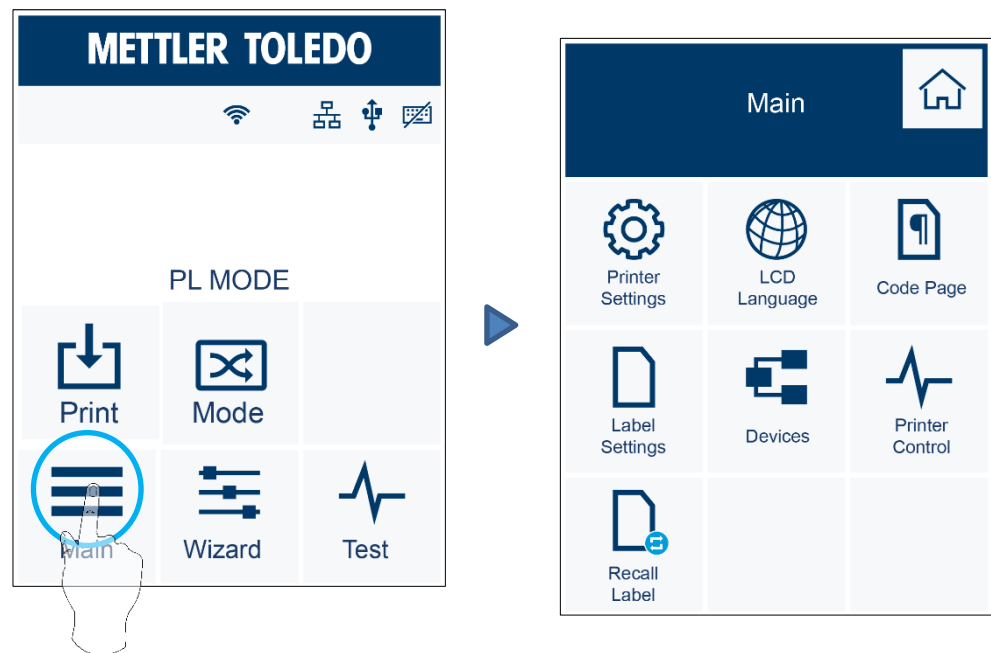
3.2.1.2.   Wizard

Various media setup options display.
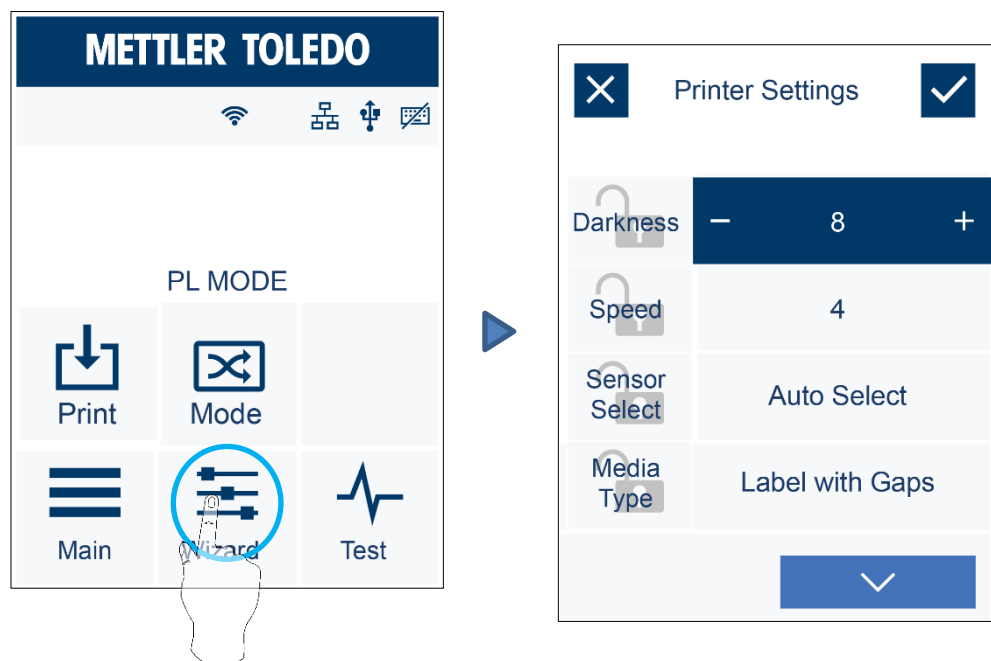
3.2.1.3. **Test**

This screen allows the user to print a self-test page, and to access the **Calibration** menu.
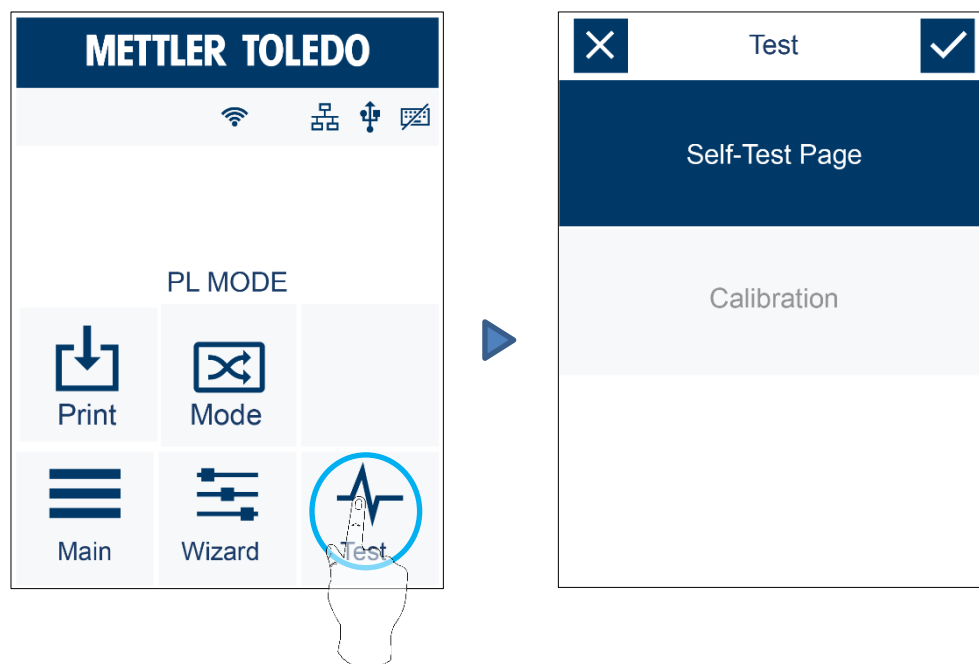
To finish making settings, tap the check mark to return to the main page. To return without saving settings, tap the X.

3.2.1.4. **Lock and Unlock**

If printer functions are locked, settings cannot be modified from Label+, or from any device.
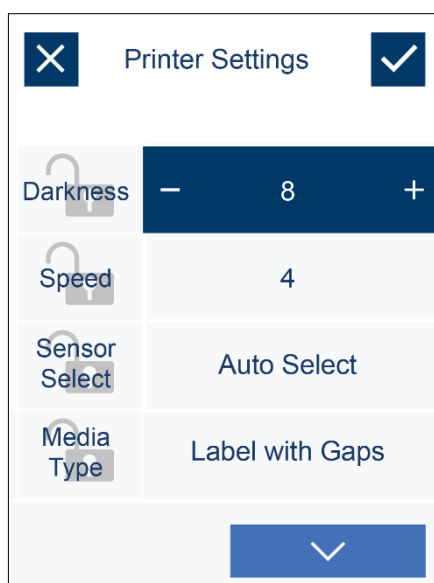
3.2.2. Keyboard Mode

When a plug-in USB keyboard is attached to the printer, the LCD touch panel will display **Enter Standalone**. Press Y on the keyboard to enter the operation dialog.
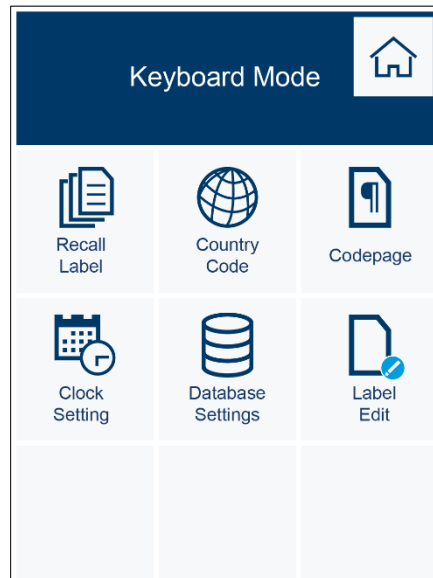
3.2.3. Preview Label Function

The user can choose any label to preview before it is printed.

From the **PL Mode** page, tap the **Main** icon; from the main menu, tap **Recall Label**, to display the **Recall Label** page.
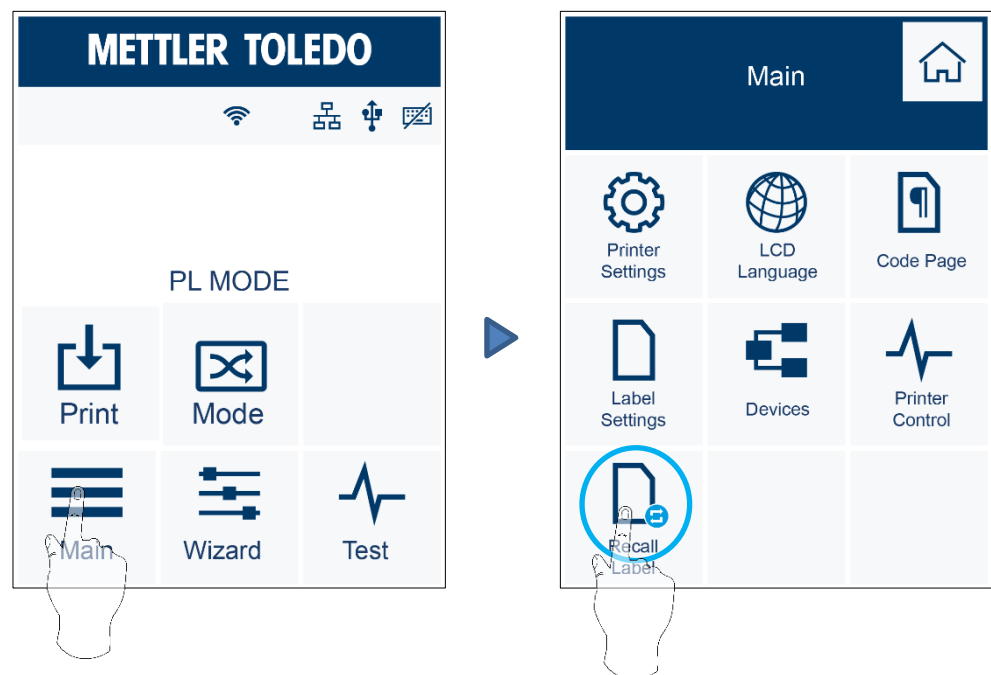
The **Recall Label** page allows an MT Mode label to be selected and previewed.

∧	Scroll up
∨	Scroll down
Preview Label	View selected label
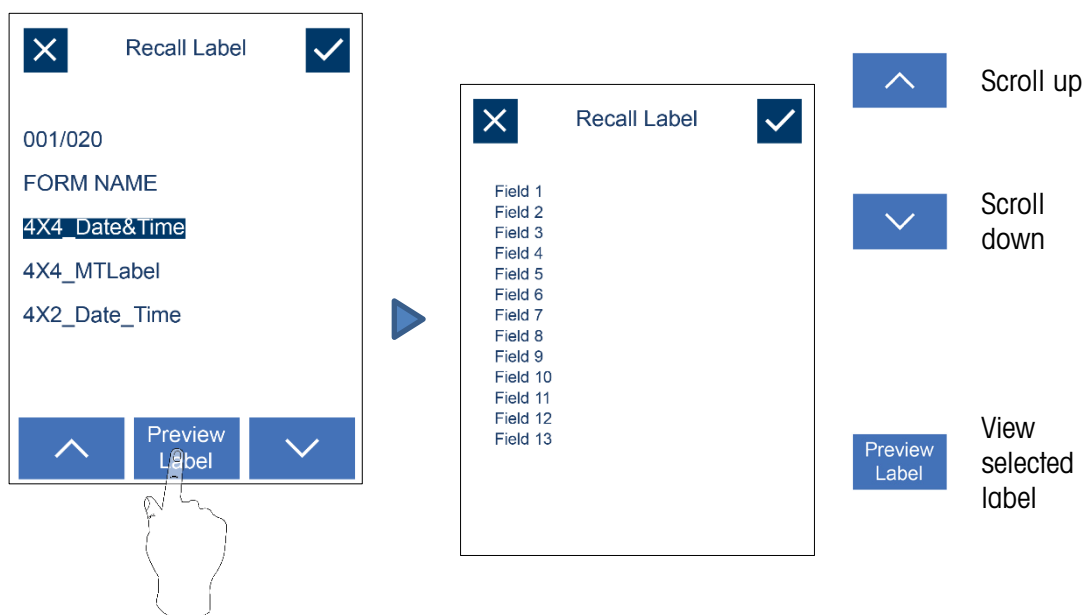
Tap ✓ to display the selected label.

3.3.   LCD Interface Functions

3.3.1.   Main Page
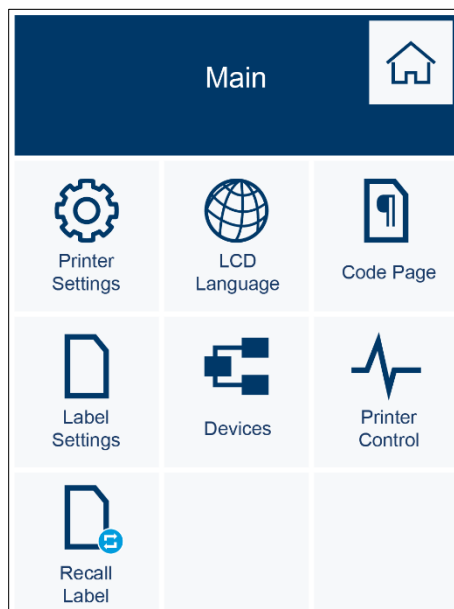
⚙	Printer settings: **Print Speed**, **Darkness**. Also includes a Printing Wizard to facilitate printing.
🌐	Selects any of ten languages for the printer.
¶	Displays table of values describing the character set for a particular language.

	Displays settings for labels: **Rotation**, **Printing position offset**.
	Offers options for Buzzer, Option Setting, Smart Backfeed, Serial Port Setting, LAN Setting, LCD Setting, Clock Setting and Wi-Fi Settings
	Displays self-diagnosis functions for printer: **Calibration**, **Self-Test**, **Clear Memory**.
	Recalls and previews label.

3.3.2. Device Page
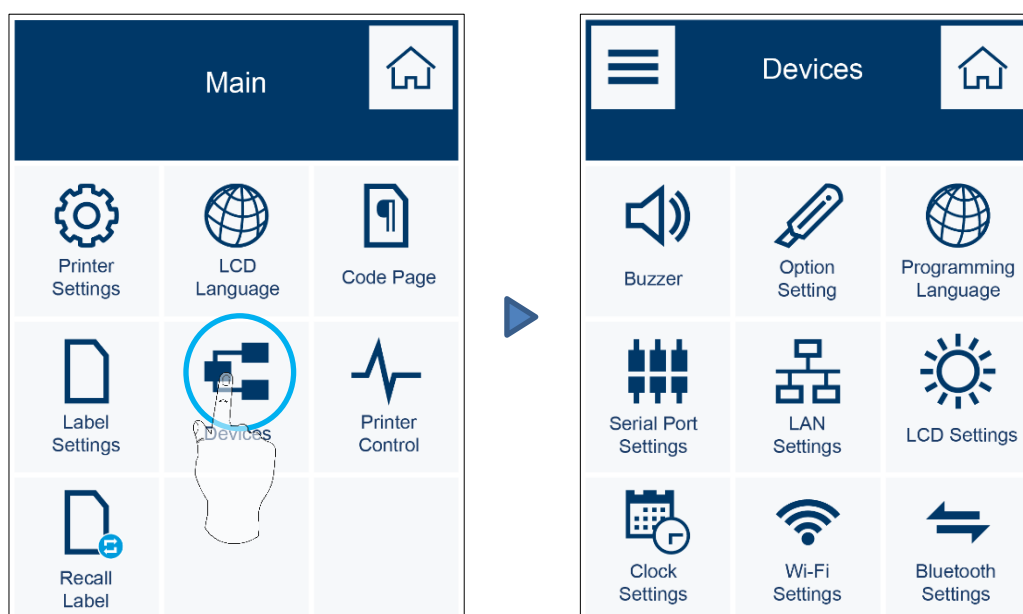
	Sets the buzzer on or off.
	Sets items for options: **Cutter**, **Label dispenser**, **Applicator**.
	Sets programming language.
	Sets serial port items: **Baud Rate**, **Parity**, **Data Bits**, **Stop Bits**.
	Sets LAN items: **DHCP**, **IP Address**, **Subnet Mask**, **Gateway**.
	Sets LCD items: **Password** function on or off, **Correction**.
	Sets clock items: **Year**, **Month**, **Day**, **Hour**, **Minute**, and off or on for the **Visible** function.
	Sets Wi-Fi items.

3.3.3. Setting Items in LCD Setting Mode

	Printer Settings	Darkness	0-19
		Speed	2-3
		Sensor Select	Auto Select
			See-Through
			Reflective
		Media Type	Label with Gaps
			Label with Marks
			Continuous
		Printing Mode	Direct Thermal
			Thermal Transfer
		Tear-off Position	0-40
		Top of Form	OFF
			FULL
			Door Open Only
		Program Language	Auto
			EZPL
			GEPL
			GZPL
	LCD Language		English
			Deutsch
			Français
			Español
			Italiano
			簡體中文
			繁體中文
			Türkçe
			日本語
			Русский
	Code Page		850
			852
			437
			860
			863
			865
			857
			861
			862
			855
			866
			737

		851	
		869	
		Windows 1252	
		Windows 1250	
		Windows 1251	
		Windows 1253	
		Windows 1254	
		Windows 1255	
		Windows 1257	
Label Settings		Rotation (0°, 90°, 180° 270°)	
		X-Offset (-100 ~ +100)	
		Y-Offset (-100 ~ +100)	
		Start Offset (-100 ~ +100)	
	Buzzer	OFF	
		ON	
	Option Setting	None	
		Cutter	
		Label Dispenser	
		Applicator	
	Smart Backfeed	OFF	
		ON	
Devices	Serial Port Setting	Baud Rate	4800
			9600
			19200
			38400
			57600
			115200
		Parity	None
			Odd
			Even
		Data Bits	7
			8
		Stop Bits	1
			2
	LAN Setting	DHCP	OFF / ON
		IP Address	0.0.0.0.
		Subnet Mask	255.255.255.0.
		Gateway	192.168.0.254
	LCD Setting	Password	OFF / ON
		Correction	
	Clock Setting	Year	
		Month	

			Day	
			Hour	
			Minute	
			Visible	OFF / ON
		Test	Configuration	
			Directory	
			TPH Testing	
			Dump Mode	
	Printer Control	Sample Pattern	Self-Test page / Balance	
		Select Memory	Internal / External	
		Clear Memory	Label Format	
			Graphic	
			Bitmap Fonts	
			True Type Fonts	
			Asian Fonts	
			ALL	
		Calibration		
		Reset to Default		
	Wizard	Darkness	0-19	
		Speed	2-3	
		Media Type	Label with Gaps	
			Label with Marks	
			Continuous	
		X-Offset	-100 ~ +100	
		Y-Offset	-100 ~ +100	

3.3.4.   LCD Interface Status

When the printer is in standby status (ready to print), the LCD interface will display **PL Mode or MT Mode**. Printing is only possible when the **PL Mode or MT Mode** status is visible.
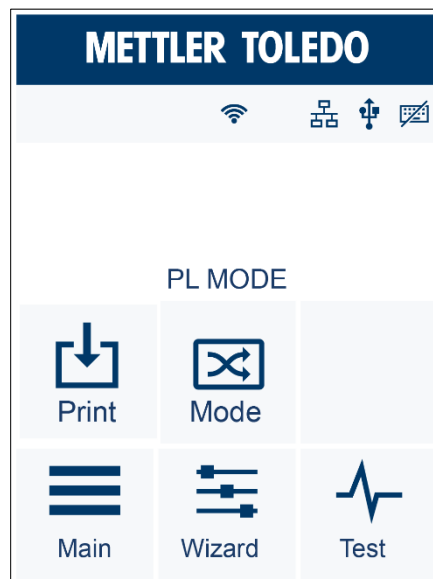
If there is a printer error, the LCD screen will display the error screen to indicate the type of error. Fix the error based on the notification, or contact your supplier.
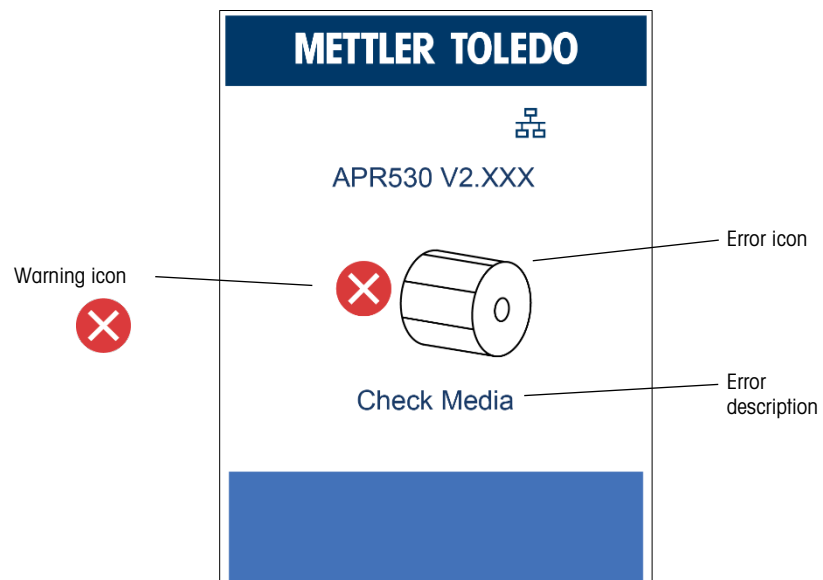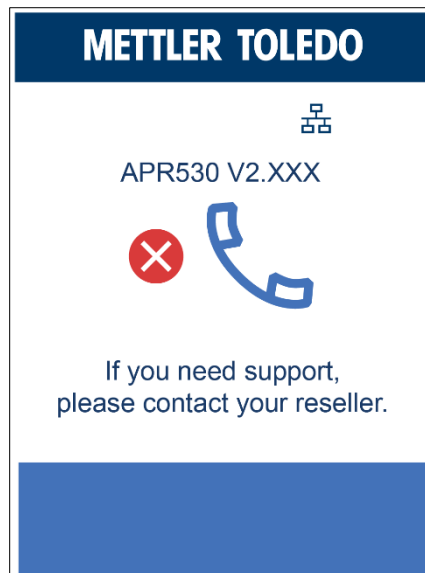
3.4. Label Calibration and Self Test

3.4.1. Label Calibration

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

3.4.2. Self Test

The self-test function makes it possible to check that the printer is running normally. To run the label size calibration and self-test:

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

Model & Version	BP860i VX.XXX
USB ID setting	USB S/N:12345678
Serial port setting	Serial port:96,N,8,1
MAC address of Ethernet port	MAC Addr:xx-xx-xx-xx-xx-xx
IP address setting	IP xxx.xxx.xxx.xxx (DHCP_10MF)
Gateway setting	Gateway xxx.xxx.xxx.xxx
Sub-Mask setting	Sub-Mask xxx.xxx.xxx.xxx
Port status	PORT State L S E U B
(The default value is 1, which means that all ports open)	1 1 1 1 1
	#########################
Number of forms	0000 FORM(S) IN MEMORY
Number of graphics	0000 GRAPHIC(S) IN MEMORY
Number of fonts	000 FONT(S) IN MEMORY
Number of Asian fonts	000 ASIAN FONT(S) IN MEMORY
Number of Databases	000 DATABASE(S) IN MEMORY
Number of Scalable fonts	000 TTF(S) IN MEMORY
Free memory size	63980 KB FREE MEMORY
Speed, Density, Ref. Point, Print direction	^S3 ^H8 ^R000 ~R200 ~Q+0
Label width, Form length, Stop position	^W102 ^Q100,3 ^E16
Cutter, Label Dispenser, Mode	Option:^D0 ^O0 ^AT
Sensor Setting	Ref.:0.4 2.8 1.4 [2.4_8]
Code Page	Code Page:850

3.4.3. Label Calibration Button

The printer includes a hardware button which can be used to make a **Label Calibration** when the printer encounters a Mode Error during start-up or after changing to another label type – such as changing from gapped to continuous label stock.

CALIBRATION BUTTON

Press and hold about 1 ~ 2 seconds
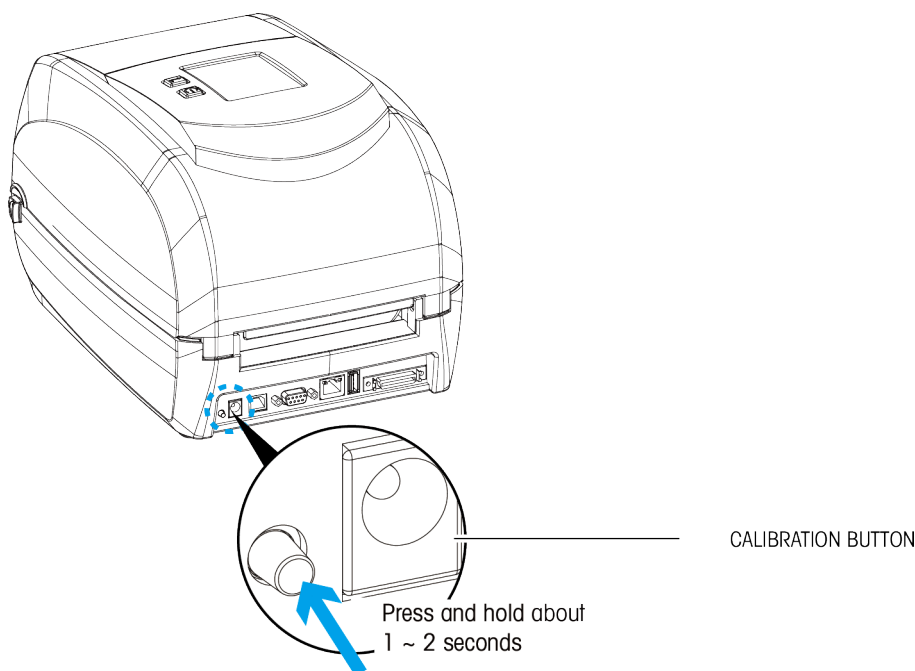
Press the **Calibration** button for 1 ~ 2 seconds; the printer will perform auto-sensing to calibrate the label's parameters.
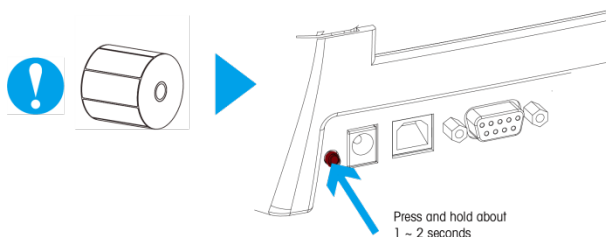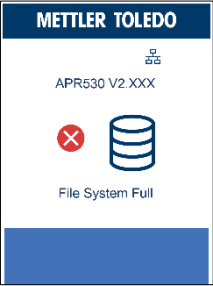
3.5. Error Alerts

In the event of a problem that prevents normal function of the printer, an error message will display on the LCD screen, and the printer will emit some beeps. Refer to the following table for details on error alerts.
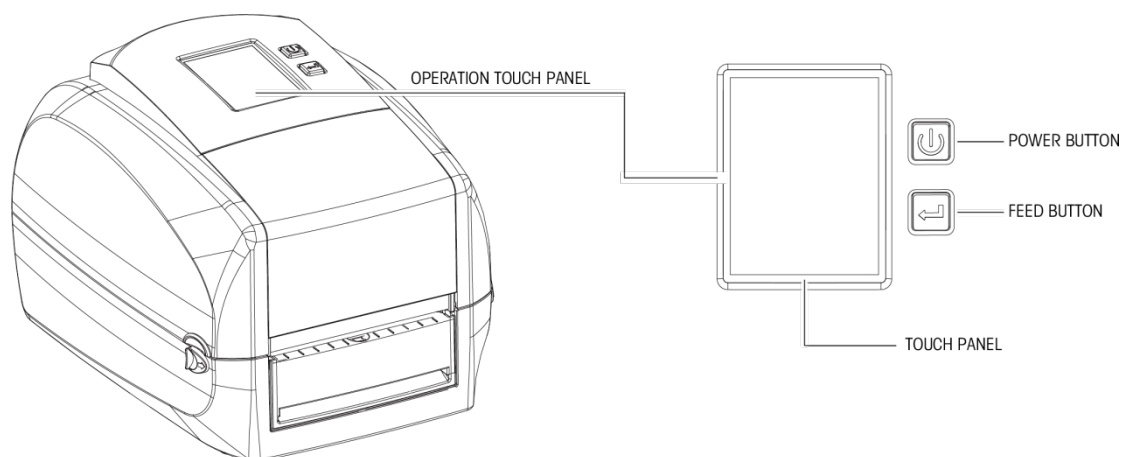
LCD Panel Display	Type	Beeps	Description	Solution
	Door Open Only	2 x 4 beeps	The printing mechanism is not correctly closed	Open the print mechanism and close it again.
	TPH Over Heat	None	High temperature detected at print head	Allow print head to cool down; printer will switch to standby mode.

METTLER TOLEDO / APR530 V2.XXX / Check Ribbon	Media Error	2/3 beeps	No ribbon is installed — Make sure printer is in direct thermal printing mode.
			Ribbon is finished, or label supply hub is not moving — Replace the ribbon roll.

METTLER TOLEDO / APR530 V2.XXX / Check Media	Media Error	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, re-run the auto-detection function.
			Paper is finished — Replace the label roll.
			Printer feed problem — Possible reasons: The print medium has become trapped around the rubber roll. The sensor cannot detect a gap or black mark between labels. There is no paper. Please reset the sensor.

METTLER TOLEDO / APR530 V2.XXX / File System Full	File Error	2 x 2 beeps	The memory is full. The printer prints the message **File System Full** — Delte unnecessary data or install additional memory.
METTLER TOLEDO / APR530 V2.XXX / File Not Found			Unable to find file. The printer prints the message **File Not Found** — Use the "~X4" command to print all files. Then check whether the files exist and whether the names are correct.
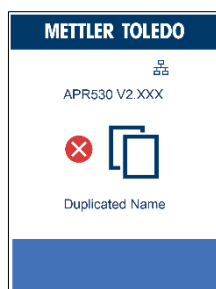
A file of the same name already exists. The printer prints the message **Duplicated Name**

Change the name of the file and try storing it again.

3.6. USB Host

The USB Hose supports the following devices:

- USB memory stuck
- USB keyboard
- USB scanner

3.6.1. Purpose

3.6.1.1. USB Memory Stick

Extends the user memory space for download of Graphic, Font, Label Format, DBF and Command files. The printer's Firmware also can be updated if a copy of the new Firmware is present on the memory stick.

3.6.1.2. USB Keyboard

Connect a USB keyboard for **Keyboard Mode** operation.

3.6.1.3. USB Scanner

Plug in a USB scanner to operate the printer in **Keyboard Mode**.

3.6.2. Use of Extended Memory

The printer supports hot-plugging function; it will create a Folder **\LABELDIR** and switch **User Flash** to **Extended Memory** automatically when a user connects a USB memory stick.

3.6.2.1. Firmware Update

To update firmware using the USB memory stick:

1. Remove the USB memory stick from the printer and plug it into a PC's USB port.

2. Copy a new version of Firmware **xxxx.bin** to the folder **\LABELDIR\FW**.

3. Remove the USB stick from the PC and plug it back into the printer. The printer will update the Firmware automatically
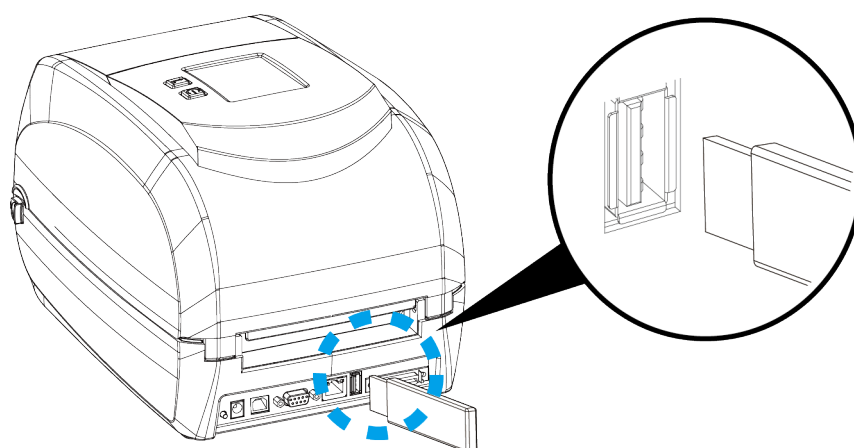
   ■ The **\ LABELDIR \ FW** directory allows only one file exists. If multiple files are present, the printer will not be able to distinguish among them.

   ■ Do not remove the USB memory stick while the update process is under way and the **Flash Writing...** message is displayed on the LCD panel.

3.6.2.2. USB Keybaord

When a USB keyboard is connected to the printer, the LCD touch panel will display **Enter Standalone**. Press the **Y** key on keyboard to enter **Keyboard Mode** operation.

In this mode, it is possible to **Recall Label** and to perform **Country Code Code Page**, **Clock Setting**, **Database Setting** and **Label Edit** settings.

If **Keyboard Mode** is not desired, when the USB keyboard is connected to the printer, press the **N** key to leave.

To leave **Standalone** operation, press the **ESC** key.

When Keyboard Mode has been cancelled, press the keyboard's **F1** key, or reboot, to re-enter it.

3.6.2.3. Scanner

When a USB scanner is connected to the printer, the LCD touch panel will display **Enter Standalone**. Tap the **Feed k**ey to enter **Keyboard Mode** operation.

3.6.2.4. Notes on USB Function

■ The USB Host port on printer does not support USB HUB function.

■ The USB Memory Stick supports the FAT32 disk format and up to 32GB only. Certified vendors are Transcend, Apacer, ADATA, Patriot, Consair and Kingston.

■ The USB Memory Stick only supports download through the printer. On a PC, the user can copy the entire folder **\LABELDIR** from the USB memory stick to the PC, or vice versa. It is not possible to copy individual files to the USB memory stick.

■ The external USB host port provides 500mA of power. It is not recommended for electronics charging use.

4 Setting Ethernet and Wi-Fi using Label+

4.1. Printer with LAN Port

4.1.1. Search Printer

In case the printer is connected by Ethernet LAN port, please click the Printer Setup ⬚ icon in the Generic Tool Set; select LAN Port in the Printer Interface dialog and Save.
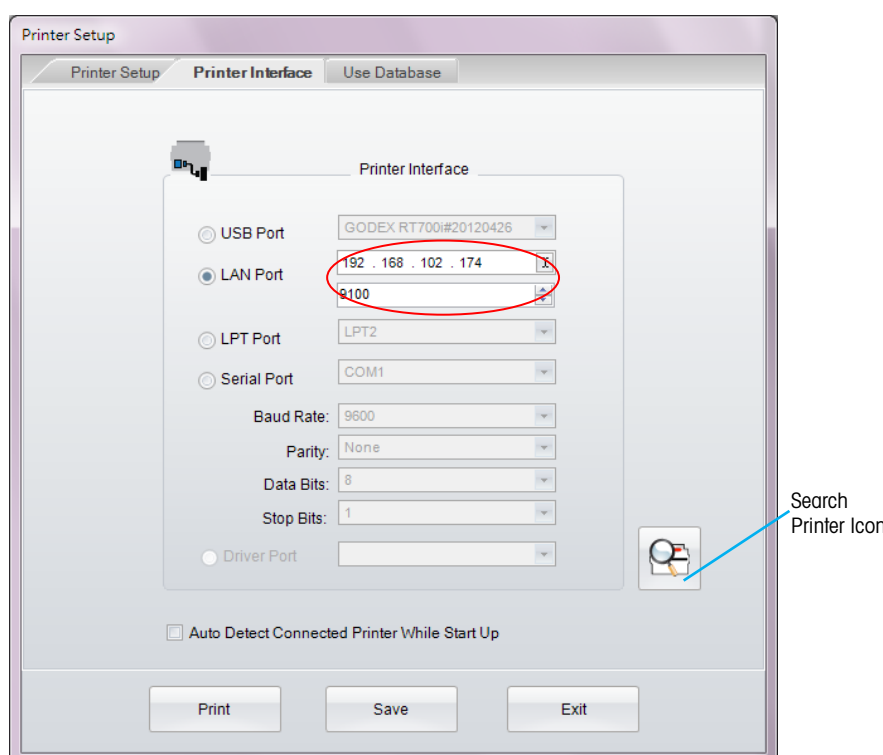
Next, click the Search Printer icon to search the network and find the METTLER TOLEDO printer. The following dialog sill display.
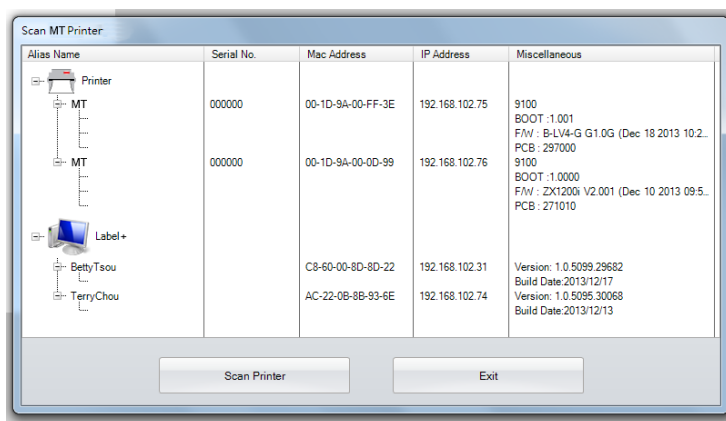
4.1.2. Setting IP Address

Under the Network tab, select IP setting to make modifications.
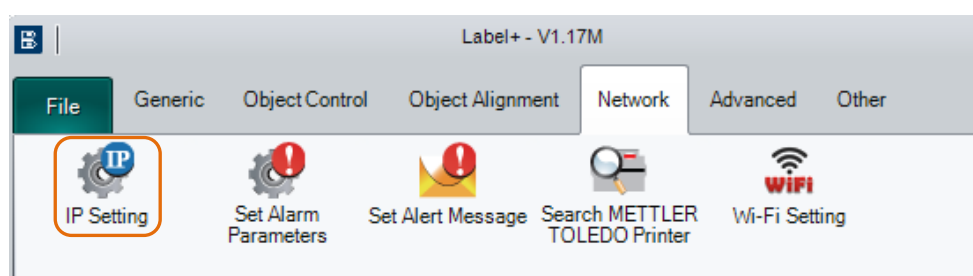
Click the IP Setting icon. The IP address can either be provided automatically by the DHCP Server, or select a Static IP entered manually.

4.1.3. Setting Wi-Fi Settings

Under the Network tab, select Wi-Fi Setting to make modifications.
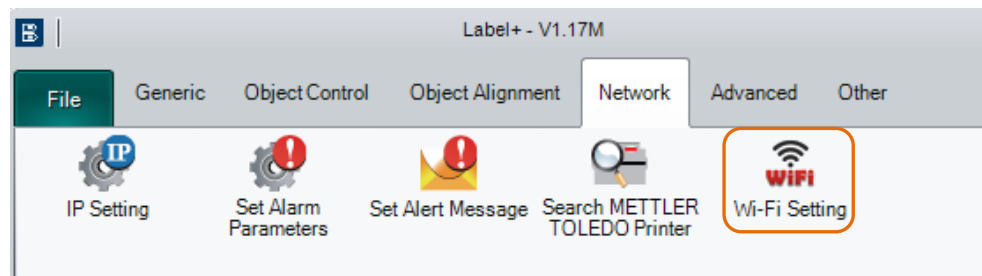
Click the Wi-Fi Setting icon. For more information on the Wi-Fi Tool, see the Label+ Help Guide.
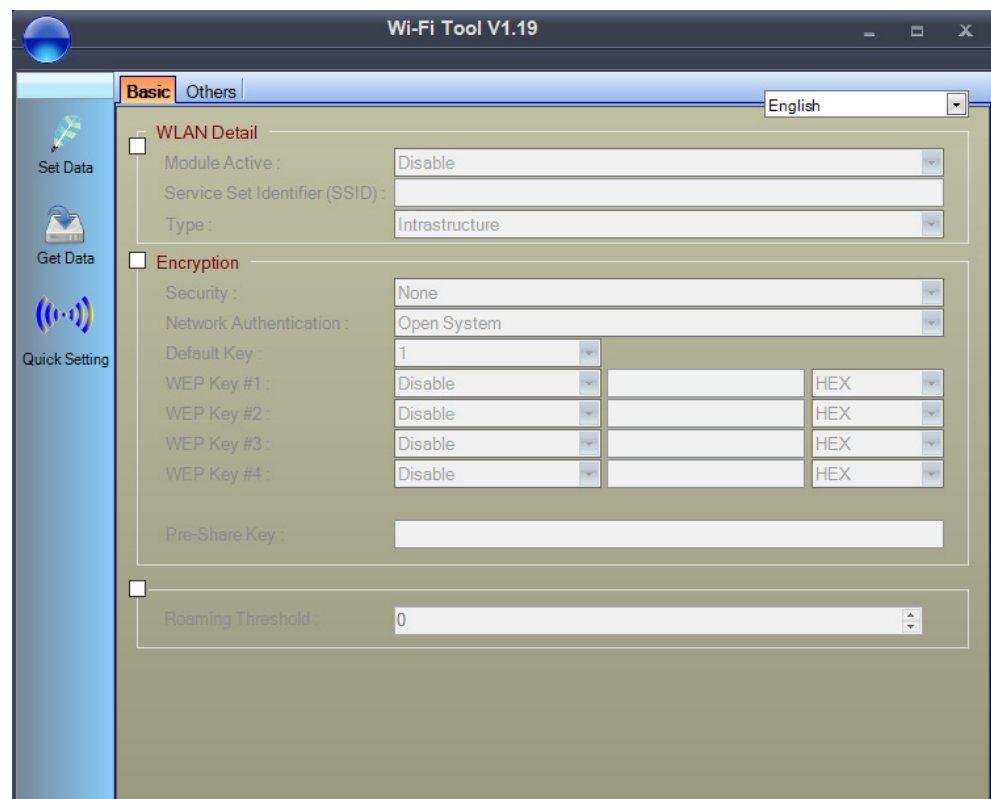
5 Accessories

5.1. Preparation

Before installing the optional modules, please make the following preparations:

1. Turn the printer off. Remember to switch off the printer before installing any module.

2. Open the printer cover and the printing mechanism, by pulling the release catches on both sides of the printer and lift the cover.

   Please refer to the Section 2.1 for further information on opening the printer.
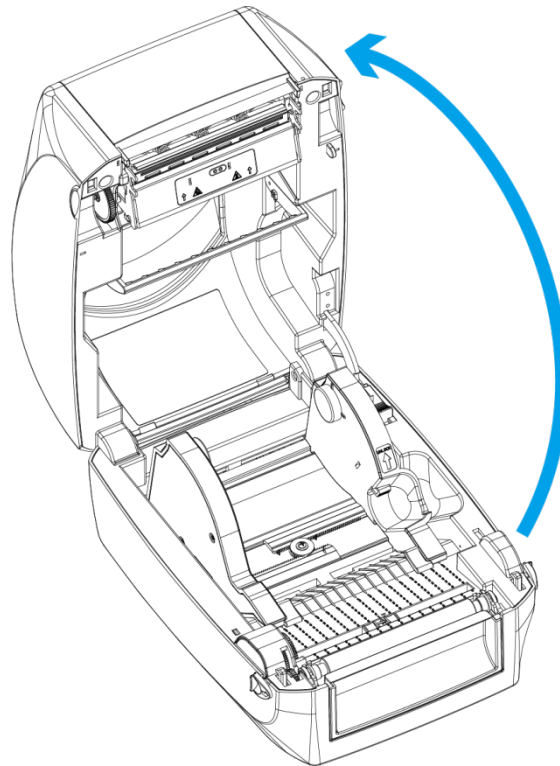
3. Pull upward to remove the front cover.

FRONT COVER
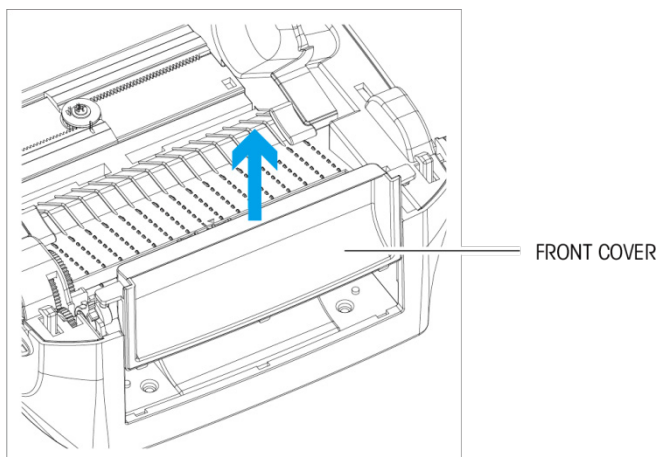
4. Lift up the release clips on both sides of the platen and pull upward to remove the platen.

CLIP

PLATEN MODULE
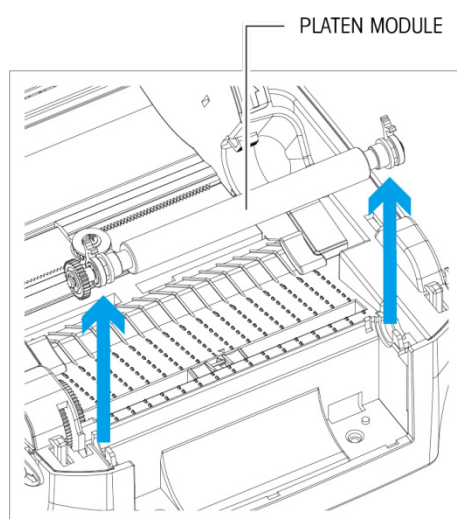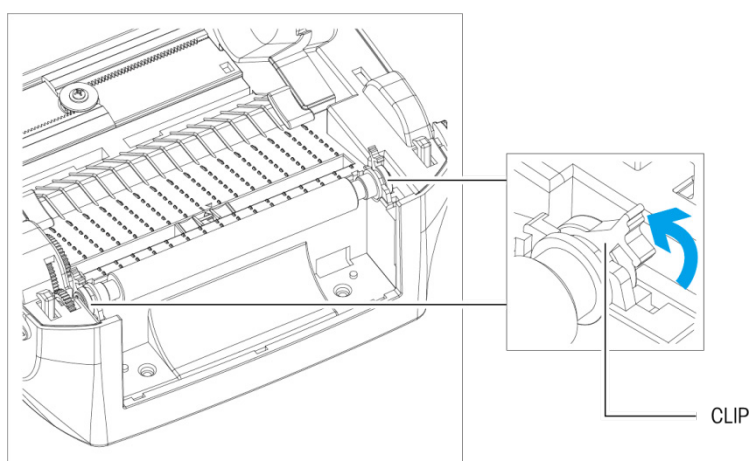
5. Ribbon loading: Refer to section 2.2.

6. Label loading: Refer to section 2.3.

5.2.   Installing the Label Dispenser

5.2.1.   Overview of Label Dispenser

PAPER SENSOR

PAPER FEED ROLLER

CONNECTION CABLE OF LABEL DISPENSER

FRONT COVER
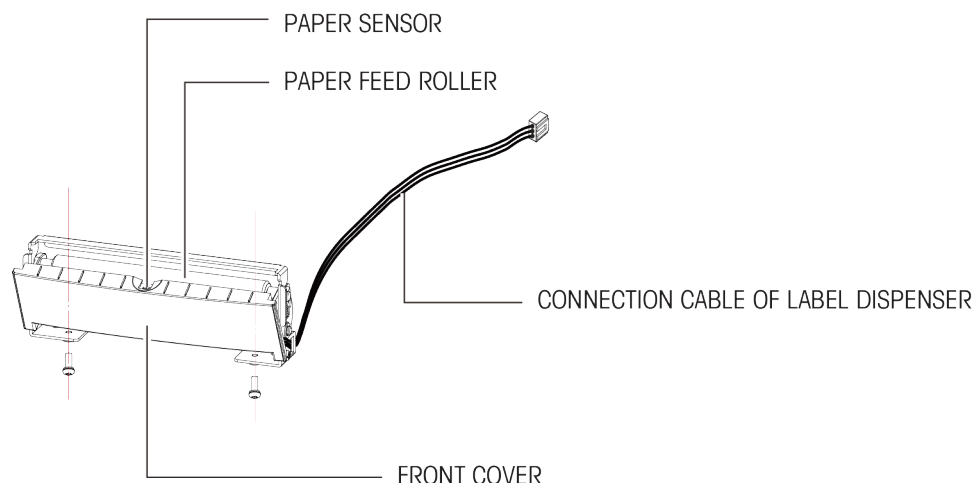
5.2.2.   Preparation

Refer to section 5.1.

5.2.3.   Installation

1. Pass the connection cable through the slot at the front of the printer.

SLOT
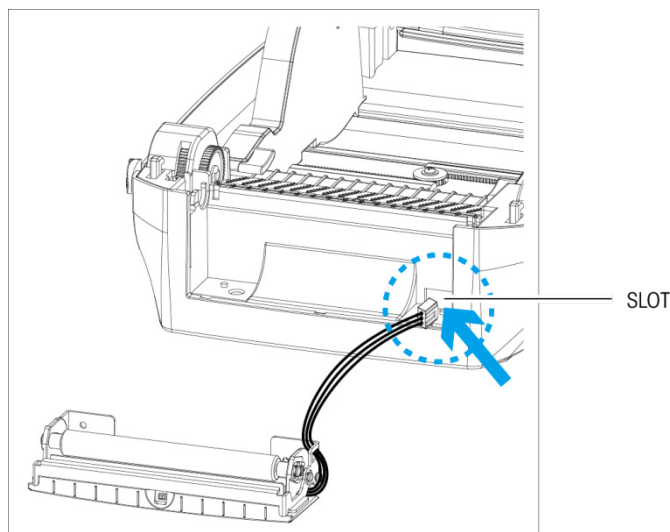
■ A label liner thickness of 0.06 mm ± 10% and a weight of 65 g/m2 ± 6% is recommended.

■ The label dispenser will accept labels up to a max. width of 118 mm.

■ When using the label dispenser, set the stop position (printer command ^E) to 13

2. Position the label dispenser to align the screw holes, then install and tighten the screws.

Open the front cover

Tighten the screws
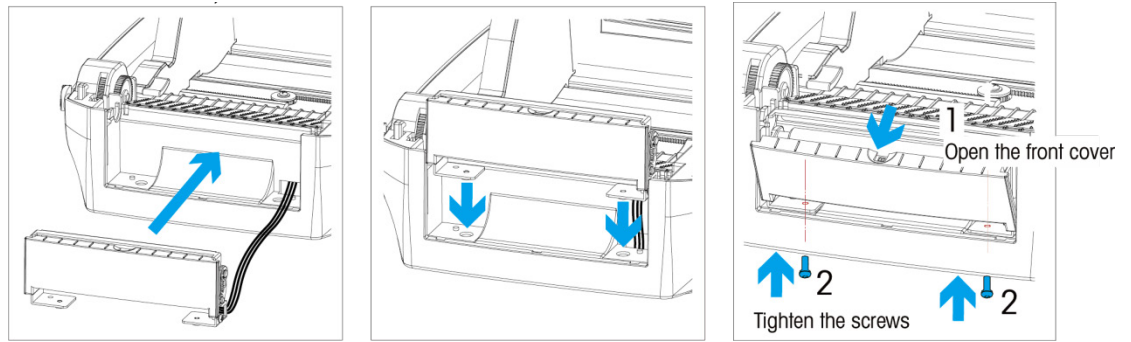
3. Reinstall the platen and lock the platen retaining clips.

Screw Holes

Lock the clip

CLIP
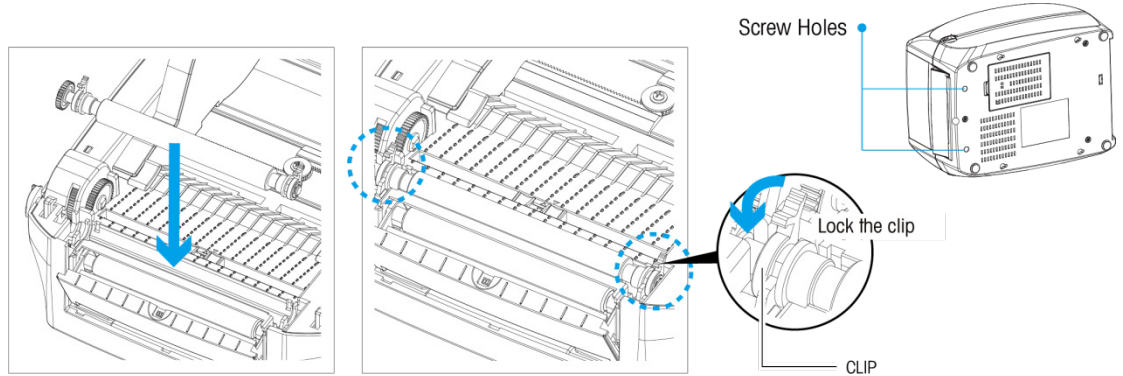
4. Close the printer cover and printing mechanism, and turn the printer on its side.

RELEASE CATCH
Release catch for closing
the printer cover

5. Open the cover on the bottom of the printer.

COVER OF THE MODULE CONNECTION JACKS
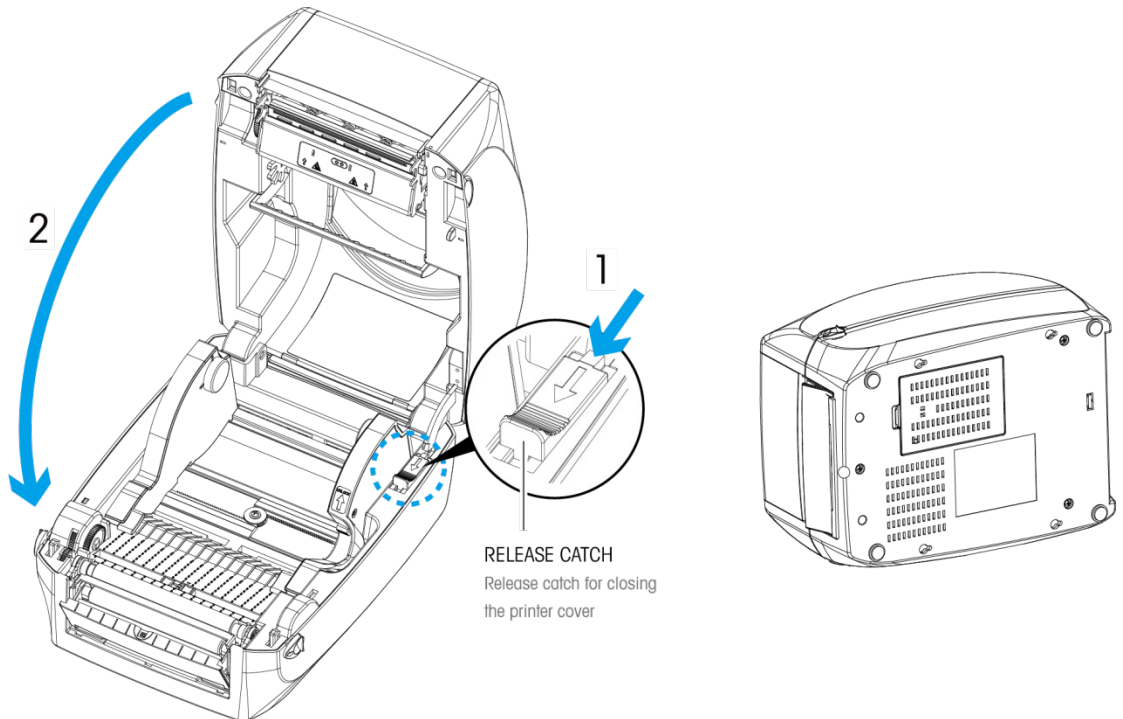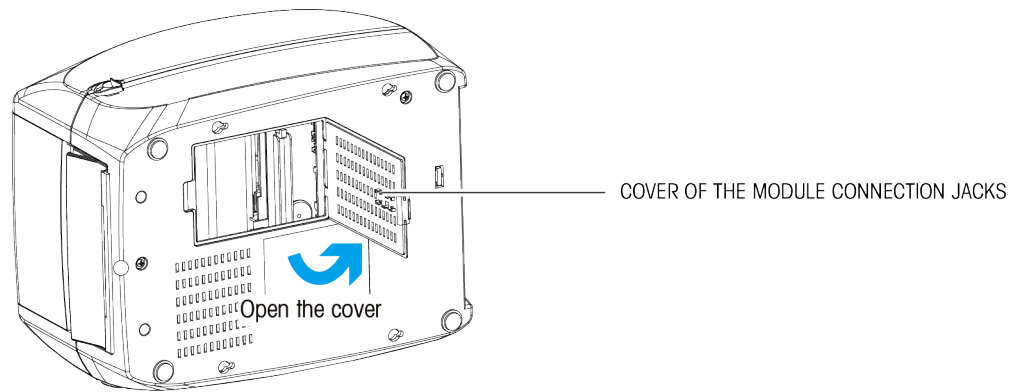
Open the cover

6. Plug the label dispenser connector into the jack.
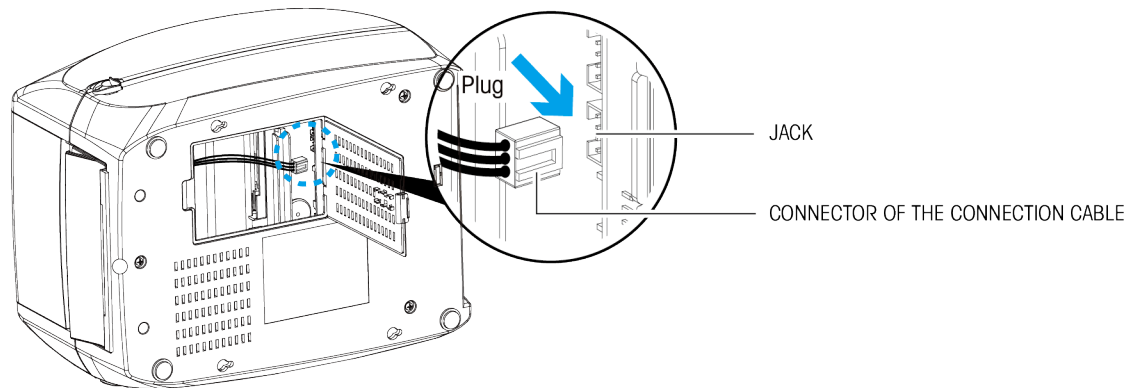
Plug

JACK

CONNECTOR OF THE CONNECTION CABLE

7. Close the cover.

🔹 The printer must be switched off when the connector is plugged in, or the motherboard may be destroyed.

🔹 There are two jacks; the lower jack (as oriented in the image above) is for the label dispenser, the upper for the cutter.

CUTTER JACK

LABEL DISPENSER JACK
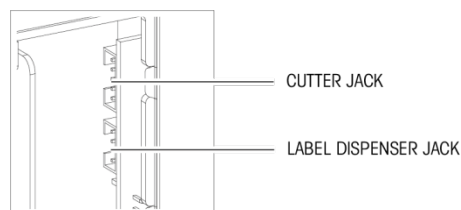
5.2.4. Loading a Label Roll with the Cutter Module

1. Remove the first label from the label stock.

LABEL STOCK

LABEL LINER

Tear a label

THE FIRST LABEL
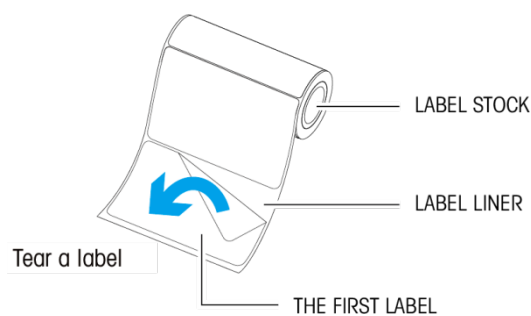
2. Feed the label stock through the label gates and pull the label liner beteween the platen and the steel of the label dispenser.

■ For the label dispenser, the labels should be at least 25mm high.

STEEL
PLATEN
LABEL LINER
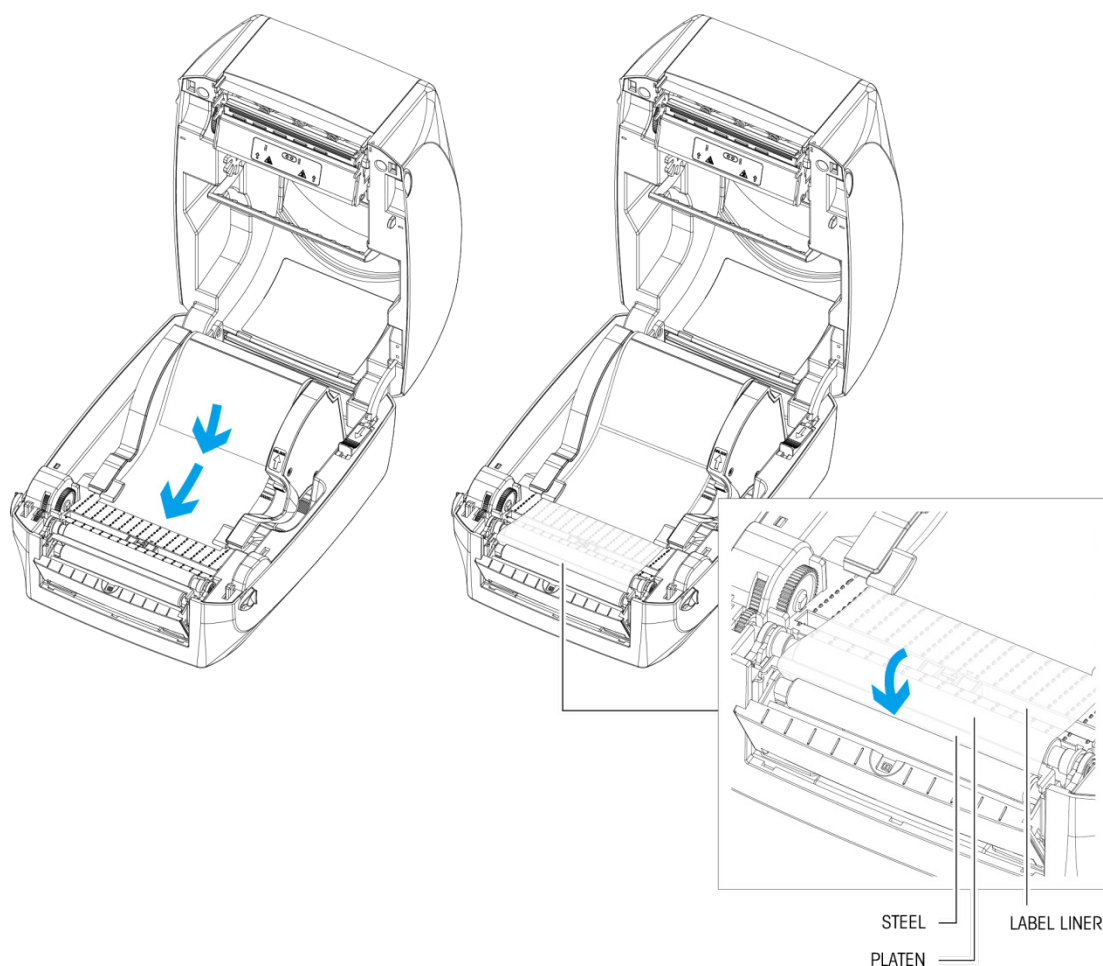
3. Feed the label along the path shown in the following graphics.

LABEL

LABEL LINER

LABEL STOCK

PLATEN

ROLLER
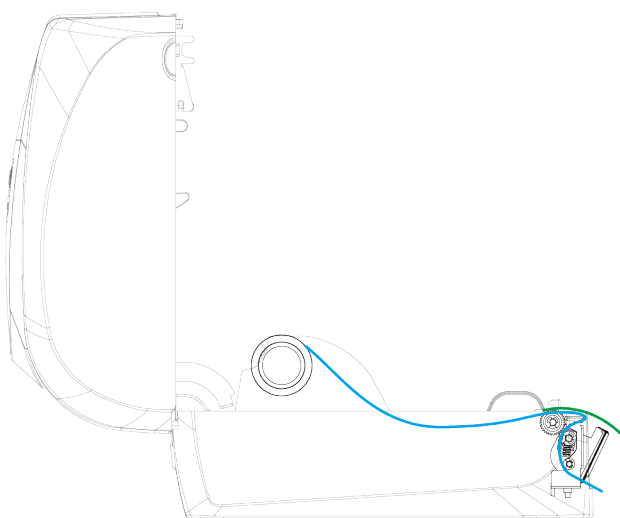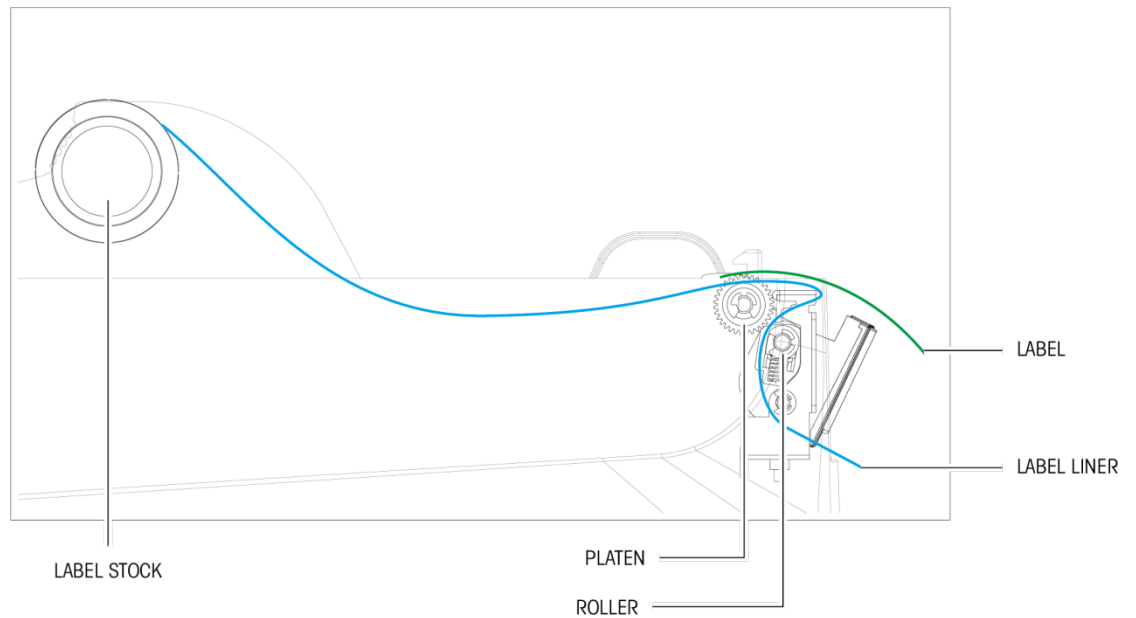
4. Close the label dispenser and printer cover. Label installation is now complete.

Close the cover
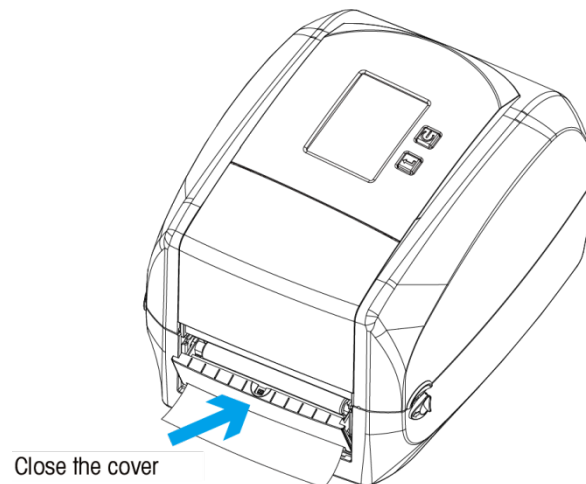
5. Press the FEED button to feed the label. The label will be peeled from the liner when it passes through the label dispenser.

Press the feed key

LABEL

LABEL LINER
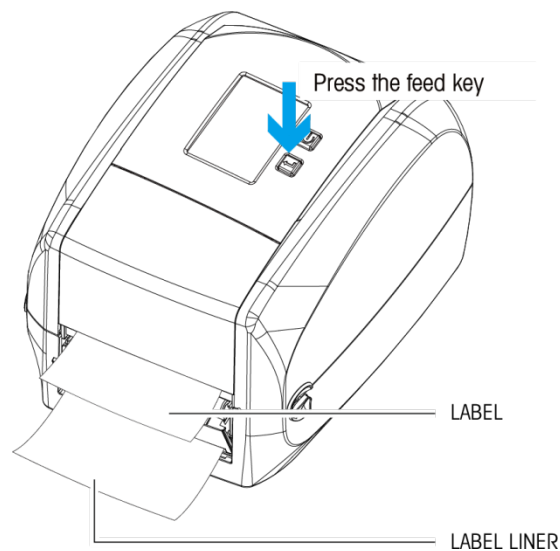
There is a paper sensor on the label dispenser module. When it is covered by a label, it will prevent printing. Remove the last printed label and the printer will then continue to print the next.

PAPER SENSOR
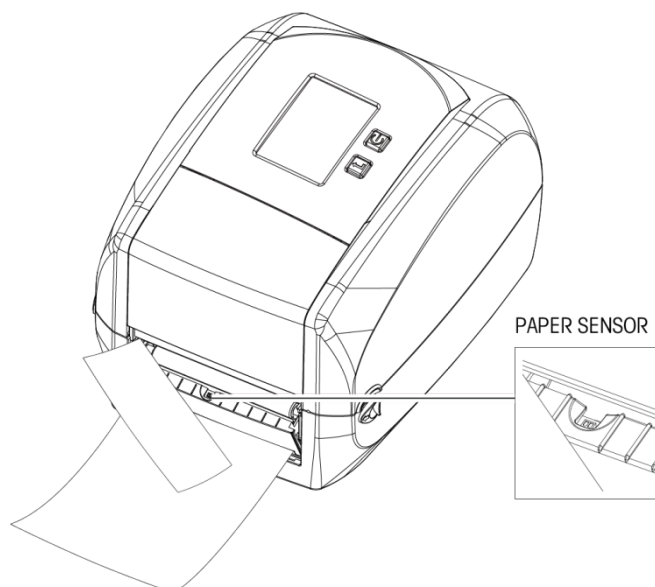
5.3. Installing the Cutter

5.3.1. Overview of the Cutter

CONNECTION CABLE OF CUTTER

FEED-OUT SLOT

COVER
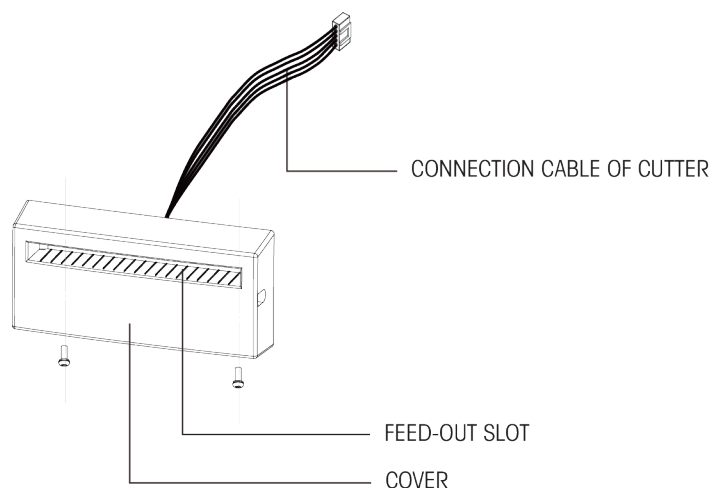
5.3.2. Preparation

Refer to section 5.1.

5.3.3. Installation

Switch the printer off before installing the cutter.

Do not use the cutter with adhesive labels! Glue residue will be left on the cutter blade, impairing its function. The cutter has a blade life of 400,000 cuts when using paper liner which is 250µ thick and 76.2mm (3 inches) wide.

The cutter can cut paper with a maximum width of 118mm.

■ With the cutter installed, set the stop position in Qlabel to 30, and the E value to 30.

1. Pass the connector cable through the slot at the front of the printer.
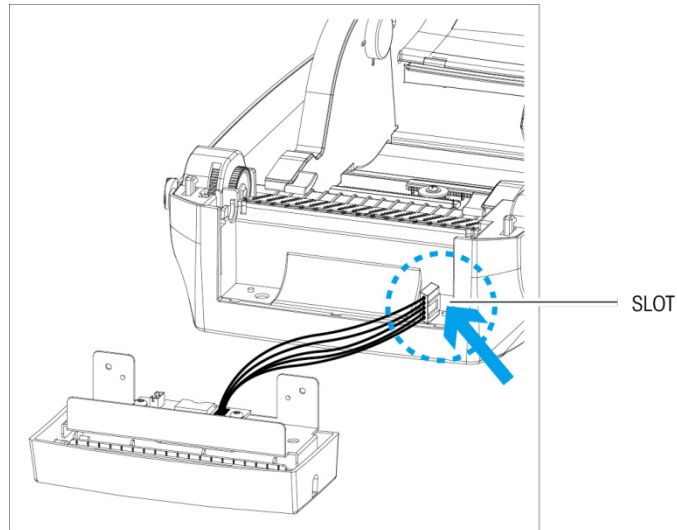
2. Position the cutter to align the screw holes, then install and tighten the screws.
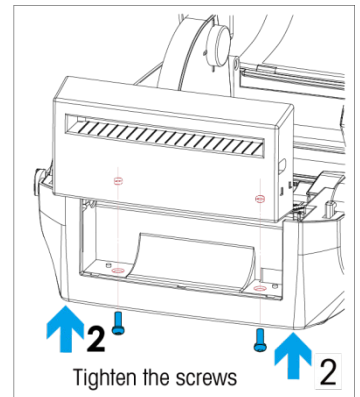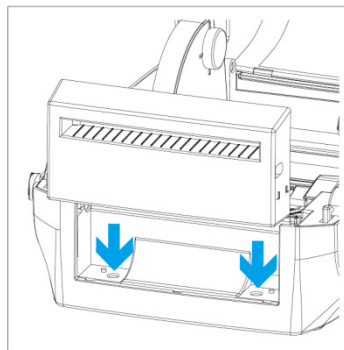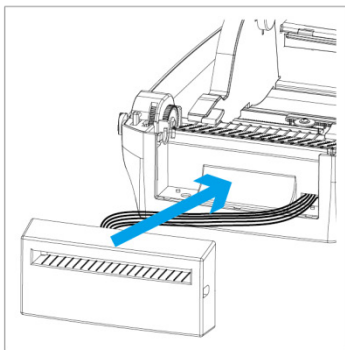

3. Replace the platen and lock the platen retaining clips.
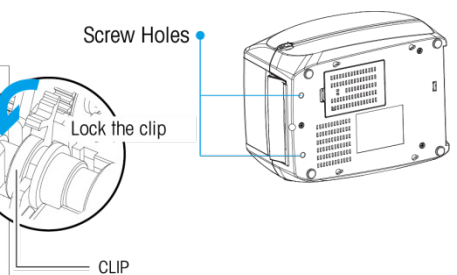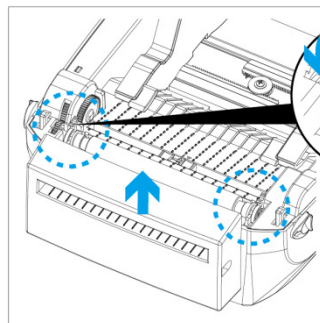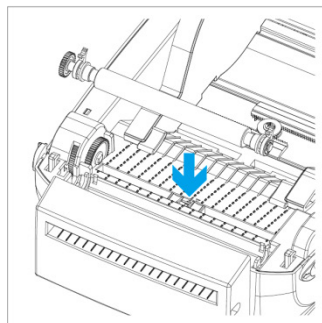
4. Close the printer cover and printing mechanism, then turn the printer on its side.

2

1 Push

RELEASE CATCH
Release catch for closing
the printer cover

5. Open the cover on the bottom of the printer.

COVER OF THE MODULE CONNECTION JACKS
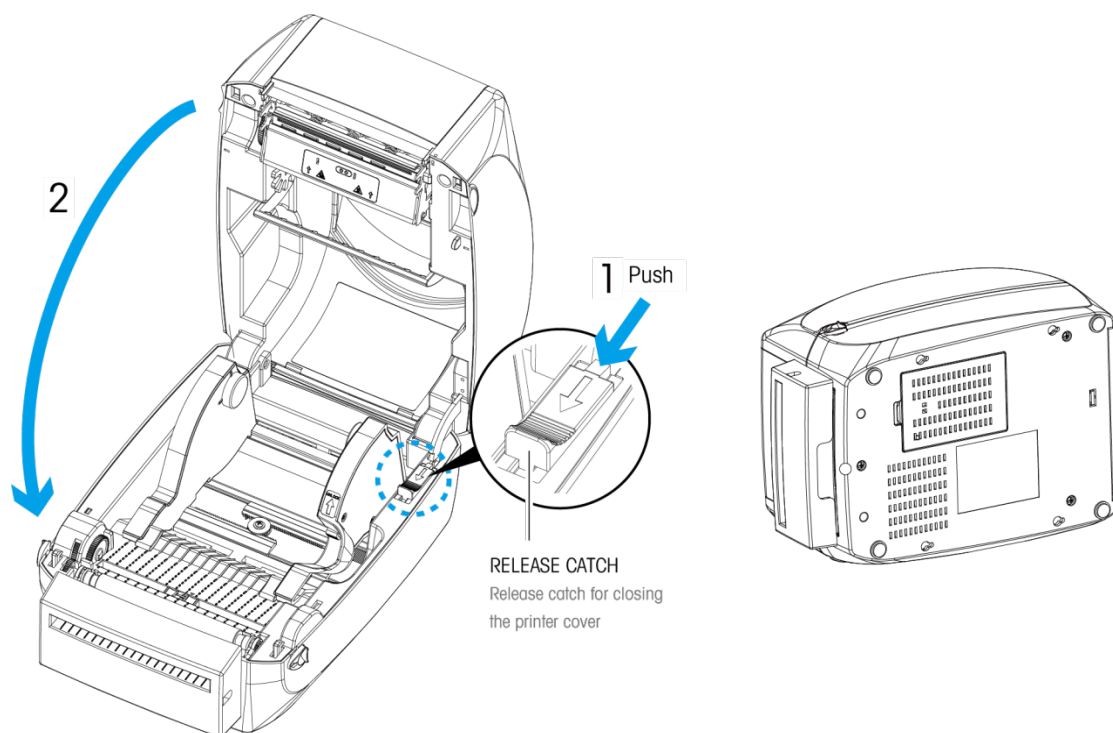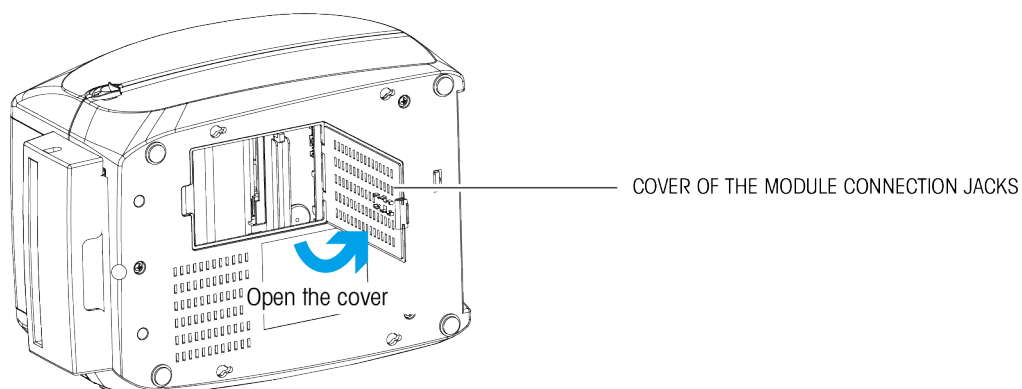
Open the cover

6. Plug the cutter connector into the jack.
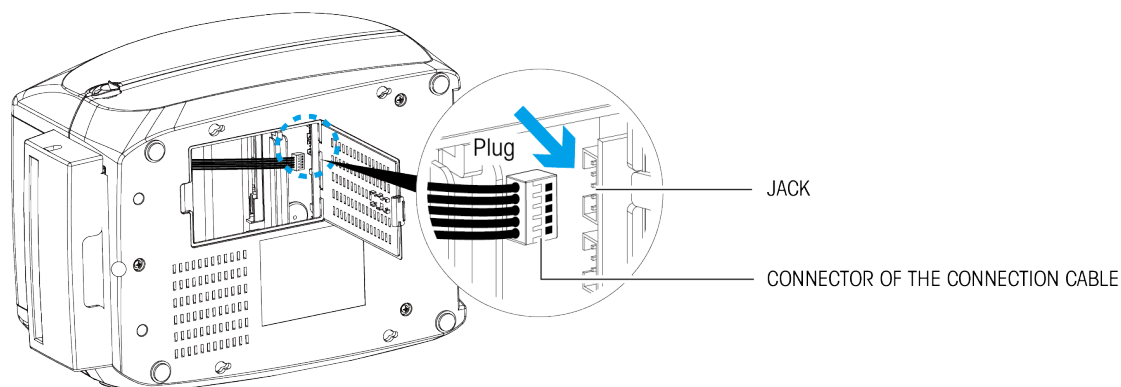
Plug

JACK

CONNECTOR OF THE CONNECTION CABLE

7. Close the cover.

■ The printer must be switched off when the connector is plugged in, or the motherboard may be destroyed.

■ There are two jacks; the lower jack (as oriented in the image above) is for the label dispenser, the upper for the cutter.


CUTTER JACK

LABEL DISPENSER JACK
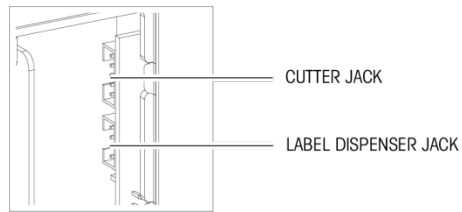
5.3.4. Installing the Label Roll Module in the Printer

1. Pass the labels through the guides and the cutter.

Through the label guides

Through the cutter
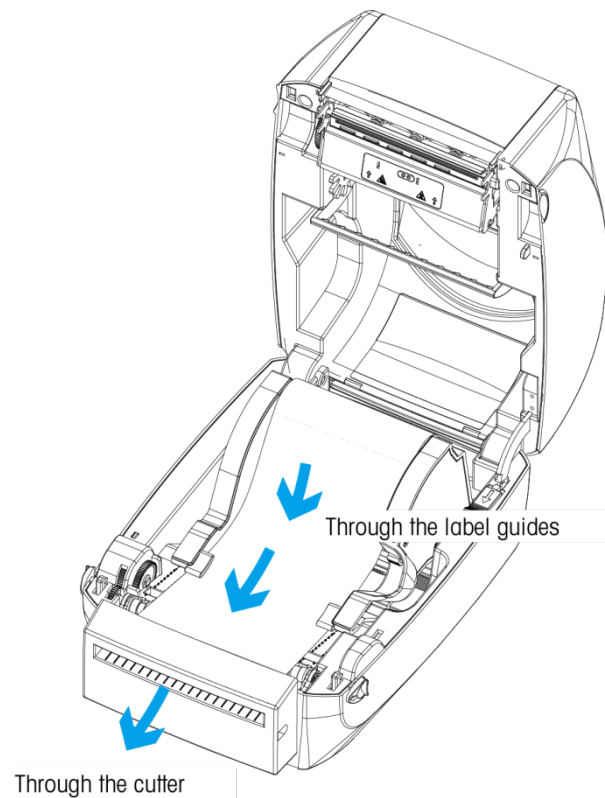
2. Close the top cover and the printing mechanism. To finish, press the FEED button to set the label position.
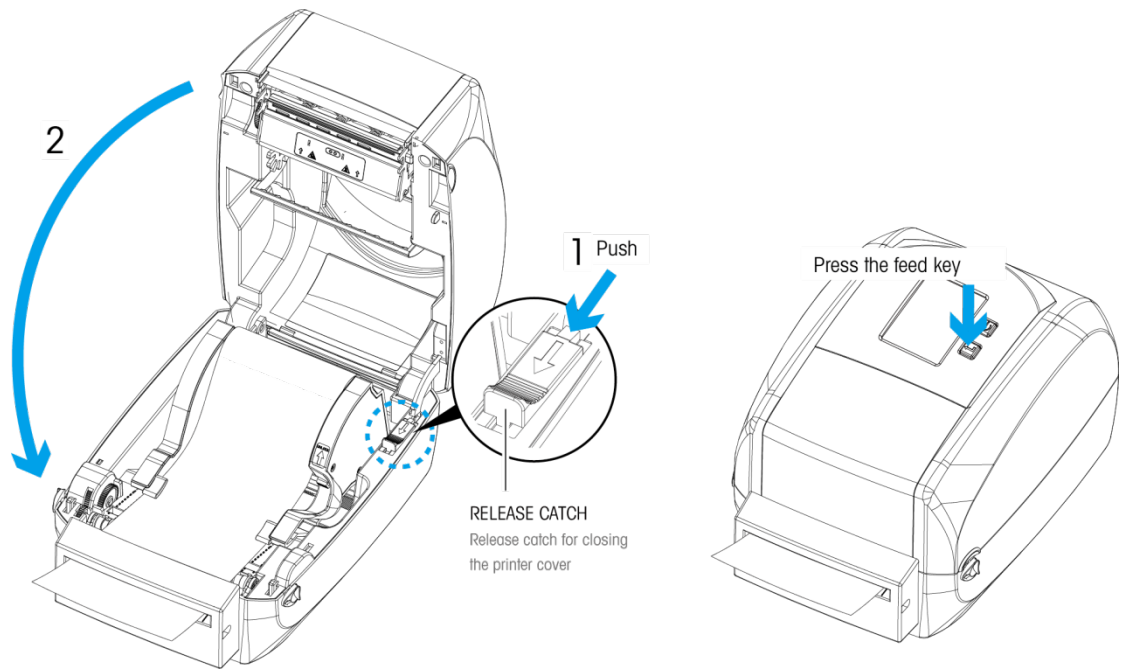
- We advise against using inside wound label stock.

- Labels should be at least 30mm high. When using the printer with the cutter, set he stop postiion (^E) to 30.

5.4. Installing the Wi-Fi Option

5.4.1. Wi-fi Module Installation
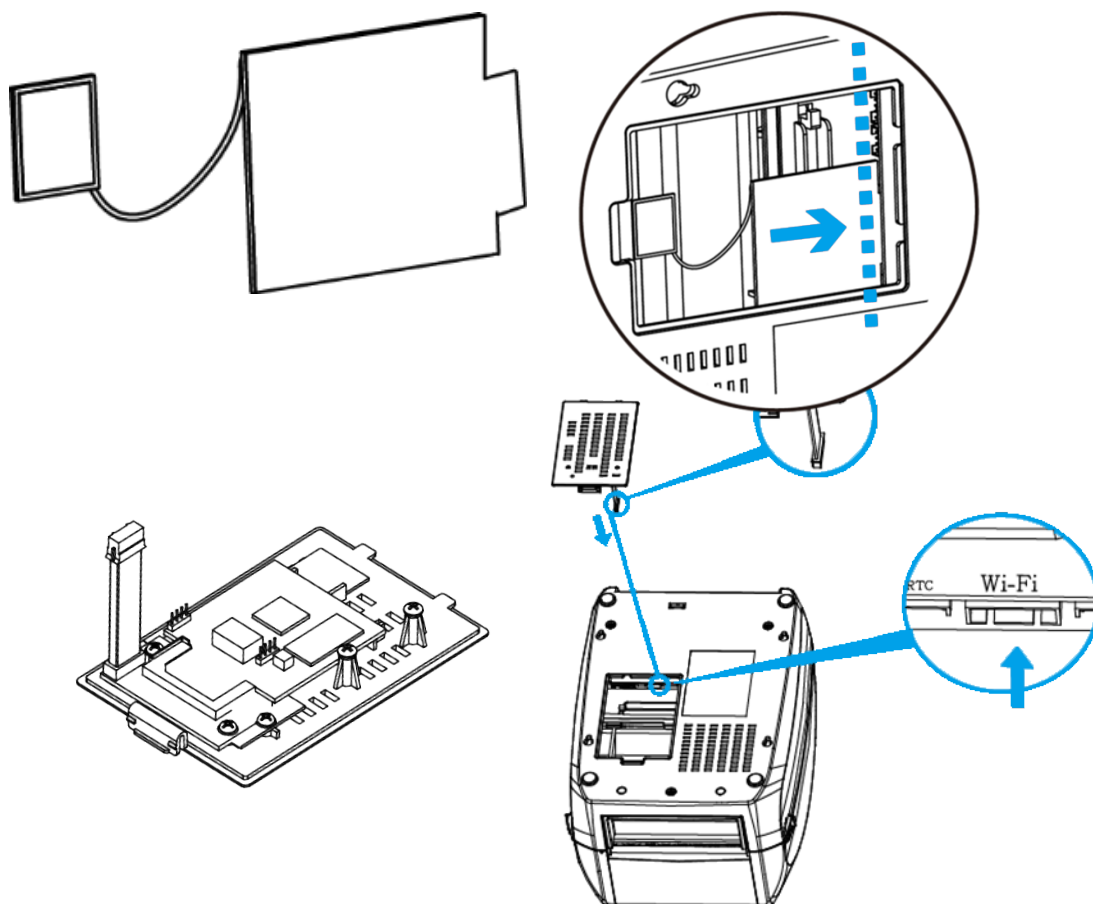
6 Maintenance and Adjustment

6.1. Cleaning the Print Head

Dirt on the print head or ribbon, or glue residue from the label stock may result in inadequate print quality. The printer cover must therefore always be closed during printing. Keeping dirt and dust away from the paper or labels ensures a good print quality and a longer lifespan of the print head.

6.1.1. Cleaning Steps

To clean the print head:

1. Switch off the printer.
2. Open the printe cover.
3. Remove the ribbon.
4. To remove any label residue or other dirt from the print head, use a soft, lint-free cloth dipped in alcohol to wipe the head in the direction indicated by the arrow.
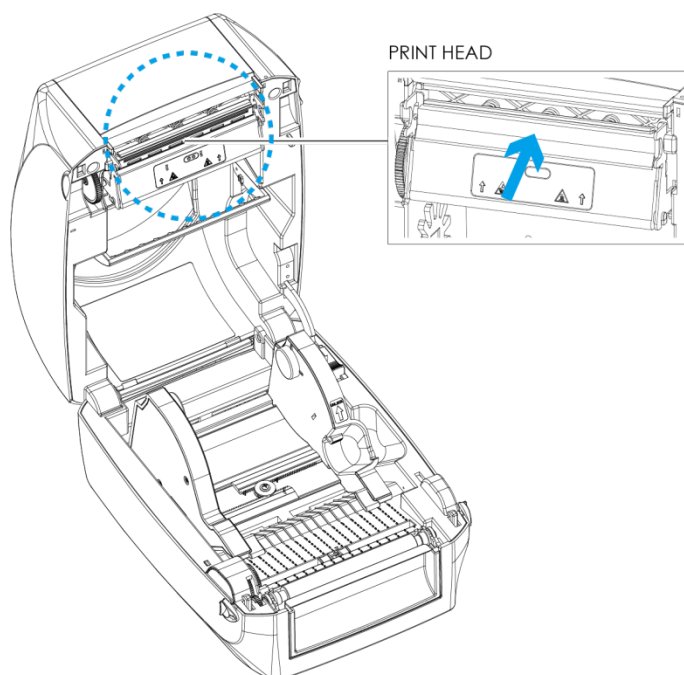
- The print head should be cleaned once a week.

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

6.2. Troubleshooting

Problem	Solution
The printer is switched on but the LED does not light up.	• Check the power supply. Refer to Section 2.4.
The LED lights up red and printing is interrupted.	• Check the software settings (driver settings) or command codes • Look for the error alert in the table in Section 3.3, Error Alerts • Check whether the print mechanism is closed correclty. Refer to section 3.3.
The label stock passes through the printer but no image is printed.	• Make sure the label stock is loaded the right way up and that it is suitable material • Choose the correct printer driver • Choose the correct lable 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. Please refer to section 6.1.
There is no printed image on some parts of the label.	• Check whether any label material or ribbon 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 ribbon for wrinkles
There is no printed image on part of the label or the image is blurred.	• 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 stock is suitable. Contact your supplier • Check the paper guide settings
A label is omitted during printing.	• Check the label height setting • Check whether there is dust covering the sensor • Run the auto-detection function. Refer to section 3.2.
The printed image is blurred.	• Check the darkness setting • Check the termal print head for dust or dirt. Refer to section 6.1 • Check if the ribbon is suitable for the label stock in use
The cutter does not cut off labels in a straight line	• Check whether the label stock is straight
The cutter does not cut off labels completely	• Check whether the label is more than 0.2mm thick
When using the cutter, the labels are not fed through or are cut off incorrectly	• Check whether the cutter has been correctly installed • Check whether the paper guides are functioning properly
The label dispenser is not functioning normally	• Check whether there is dust on the label dispenser • Check whether the label stock is positioned correctly

■ If the problem remains unresolved, please contact your METTLER TOLEDO specialist.

Maintenance and Adjustment

A   Wi-Fi Settings

A.1.   Manual Wi-Fi Installation

1. Turn the printer off.

2. Insert the wireless module (refer to the **Wireless Module Installation Manual**).

3. Turn the printer on. The LCD will display a grey Wi-Fi icon, which means the printer has successfully detected the module.
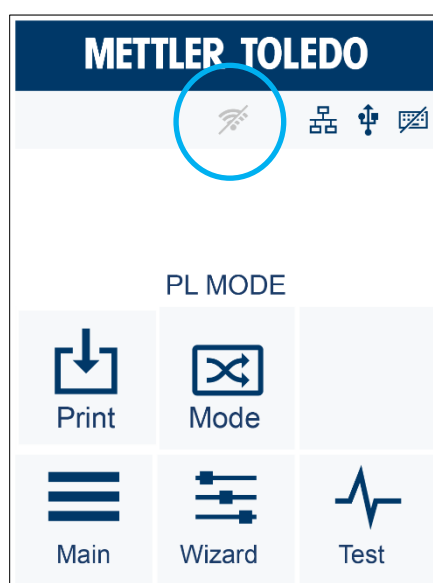
Figure A-1: Wi-Fi Detected, Disconnected

A.2. Connecting with Wireless Access Point via Touch Panel

1. Access the Wi-Fi menu at **Main | Devices | Wi-Fi Settings**:
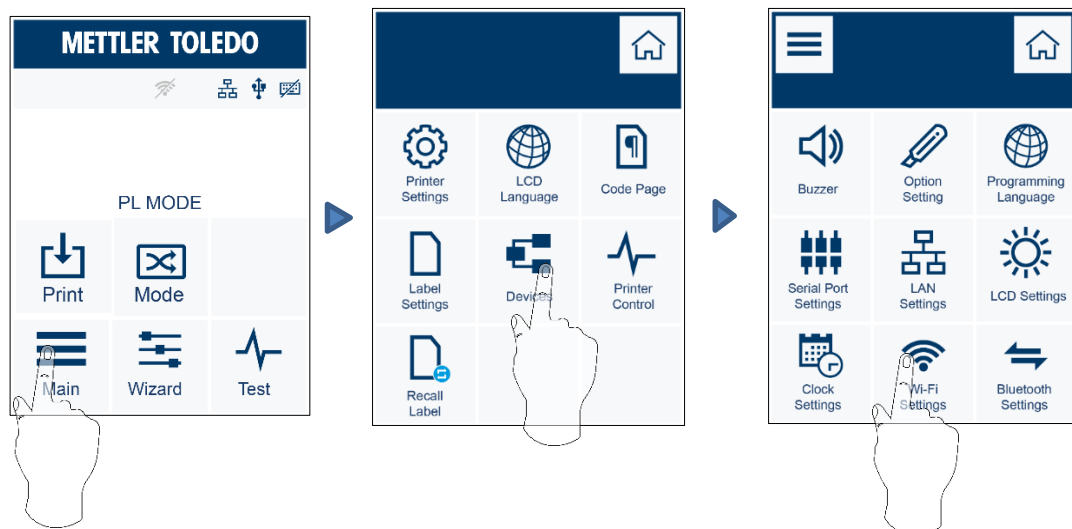
Figure A-2: Accessing the Wi-Fi Menu

2. Select **Search Devices**.
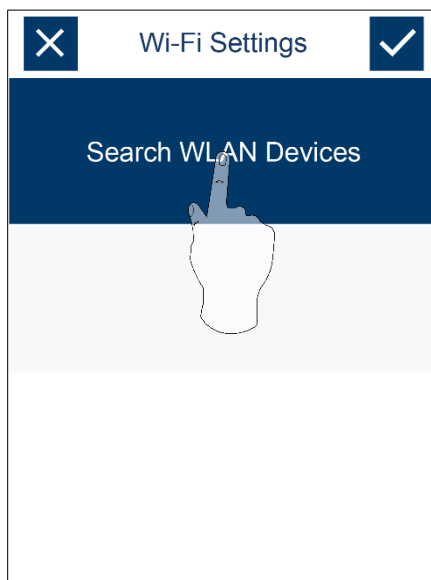
Figure A-3: Search Devices

3. The Wi-Fi device list will display after a few seconds. Choose the assigned Wi-Fi Device using the up and down arrows, then touch **ON**.
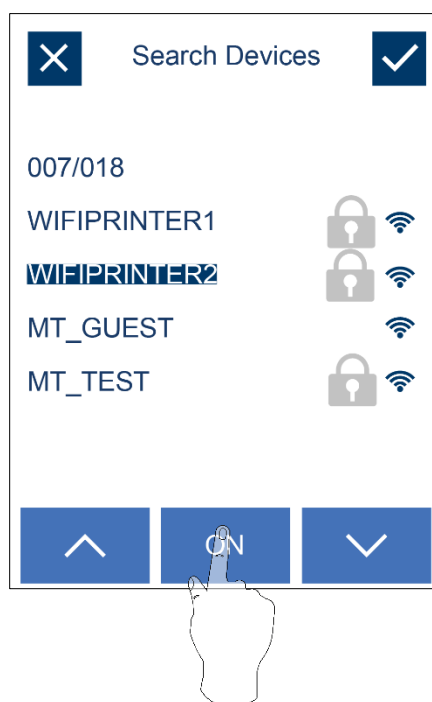
Figure A-4: Connecting to a Wi-Fi Device

4. Touch the Pre-Share Key field.
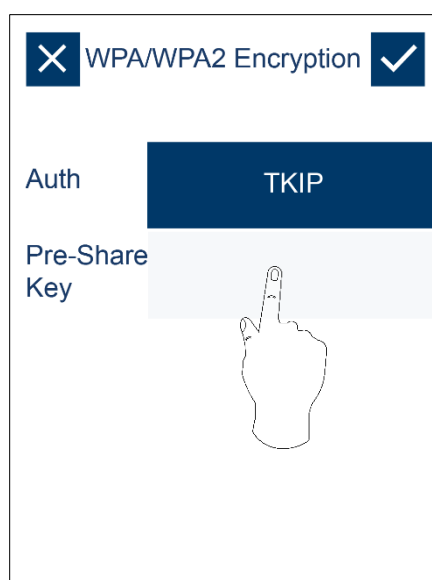
Figure A-5: Accessing Pre-Share Key Field

5. Insert the password and click ☑.

Figure A-6: Entering Pre-Share Key

6. Touch ☑ again to connect.
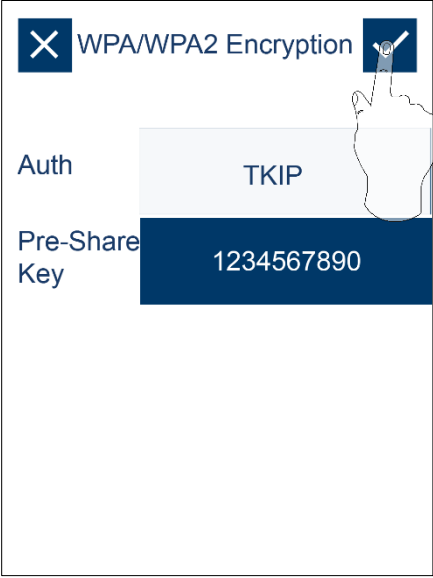
Figure A-7: Confirming Pre-Share Key

7. Once the Wi-Fi module is successfully connected, the printer will restart.
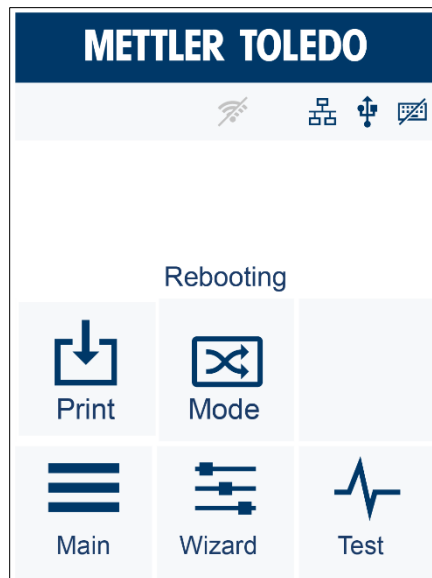
Figure A-8: APR530 Rebooting to Connect to Wi-Fi

8. When the printer is connected to a Wi-Fi device, the Wi-Fi Icon will turn blue.
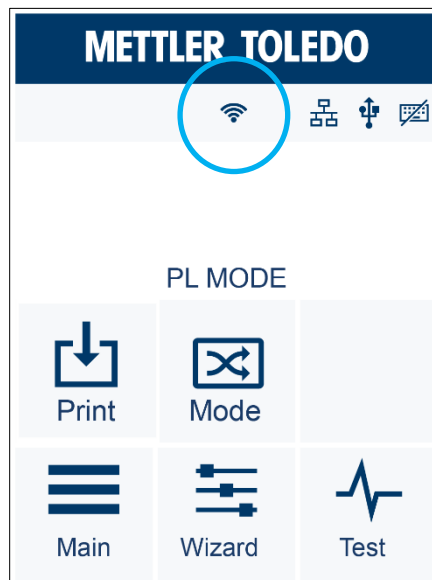
Figure A-9: Wi-Fi Connected

A.3.   Elements of the Wireless Devices Interface
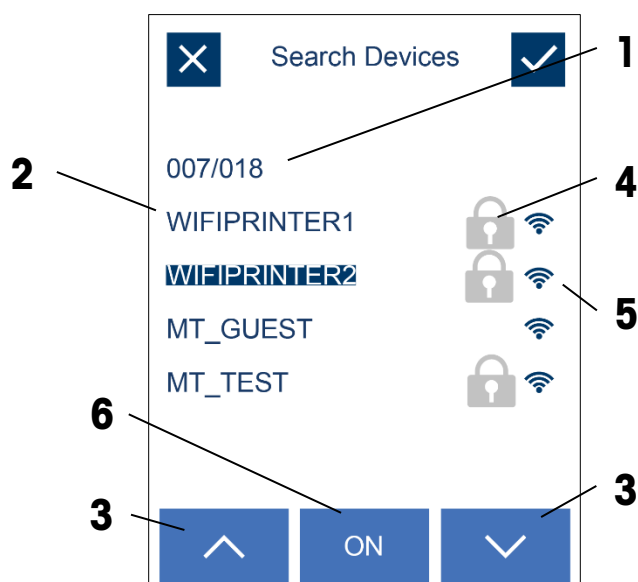
Figure A-10: Elements of the WLAN Devices List Screen

Item	Function	Explanation
1	Serial Number	Number of the currently connected device / Total number of connected devices
2	SSID	List of Wi-Fi options, displaying five devices at a time. Highlighted item is the currently connected device.
3	UP/DOWN	Scrolls through SSID list.
4	Password indication	Device requires password to connect.
5	Signal Strength	More bars indicates better signal strength.
6	ON Button	Click to connect to selected SSID.

A.4. Connecting to Wireless Access Point via GoLabel

1. Open GoLabel V1.12 and click on the assigned printer model (e.g. APR530).

2. Click **OK**.
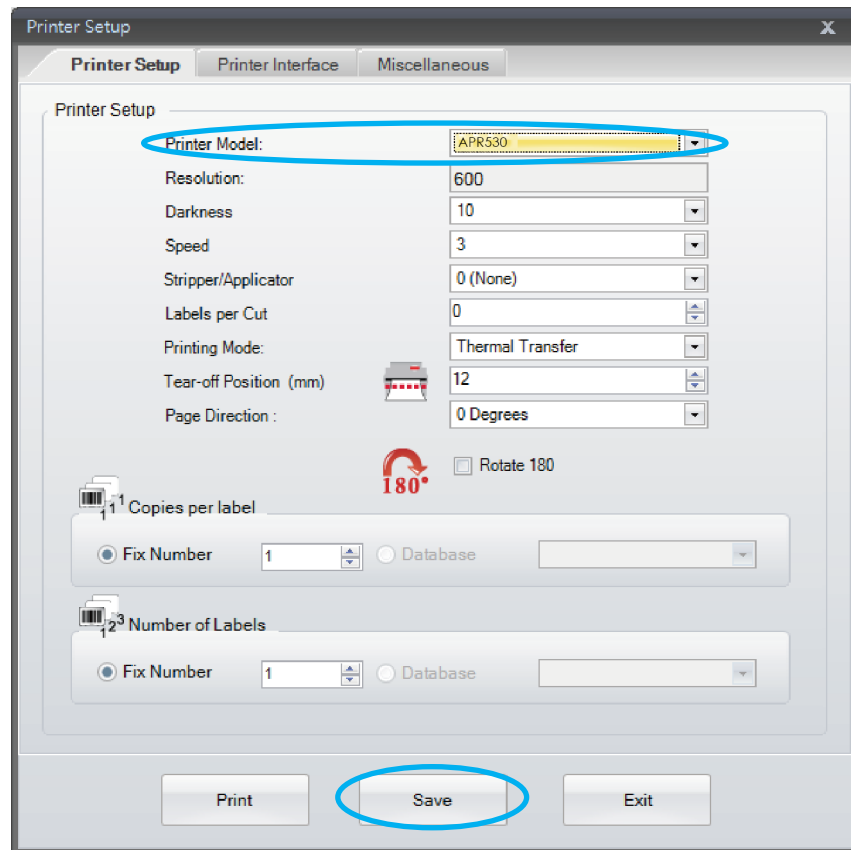
3. Select the **Network** tab, then select **Wi-Fi Setting**.
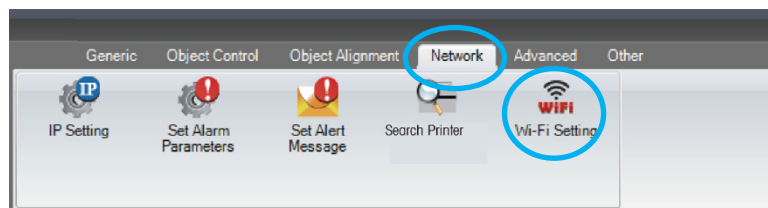
A.5.   Tips and Tricks

A.5.1.   To Set Wi-Fi

1. Press the **Setting Parameter** button.

2. Wait for three seconds; the printer will restart (depending on its current condition).
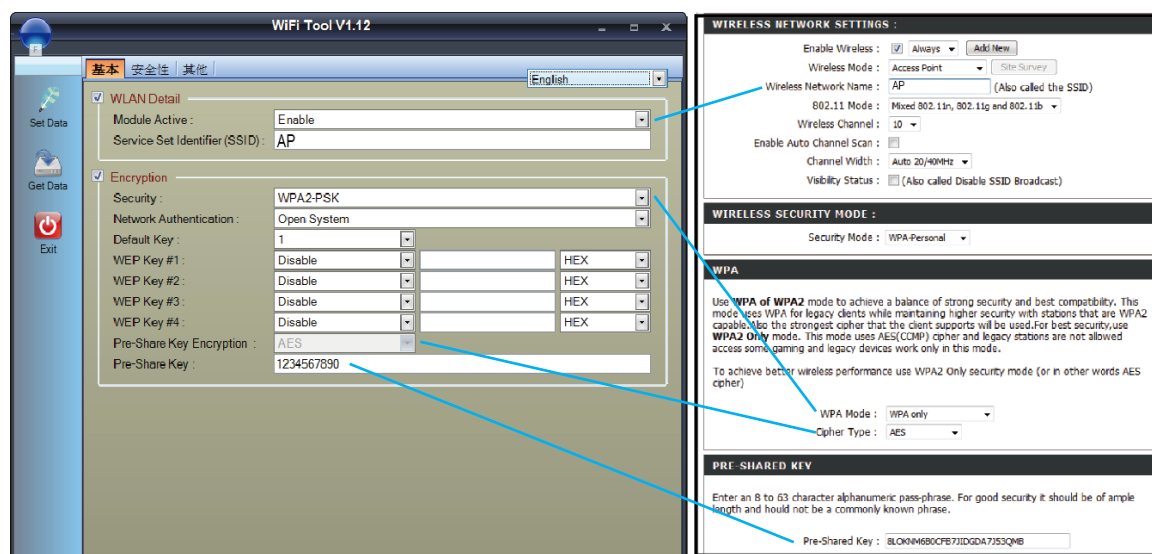
3. After the printer restarts, if the Wi-Fi icon turns blue, the connection was successful.
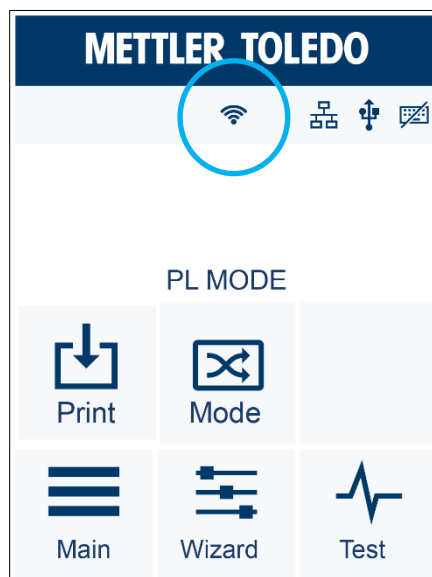
B   Product Specifications

B.1.   APR530 Printer

Standard Features	
Print Method	Thermal Transfer / Direct Thermal
Resolution	300dpi
Terminal Compatibility	Works with most METTLER TOLEDO Terminals
Agency Approvals	CE (EMC), FCC Class A, CB, UL, cUL, CCC, UKCA

Printer Specifications		
MT Mode		ASCII Character Strings
PL Mode		EZPL, GEPL, GZPL, GDPL auto switch
Print Speed		127 mm/s (5 in/s)
Print Width		105.7 mm (4.16 in)
Print Length		Min. 4 mm (0.16 in)** ; Max 762 mm (30 in)
Processor		32 Bit RISC CPU
Memory	Flash	128 MB Flash (60 MB for user Storage)
	SDRAM	32 MB SDRAM
Sensor Type		Adjustable reflective sensor (full range); fixed transmissive sensor, central aligned

Physical Characteristics	
Dimensions (LxWxH)	280 mm x 210 mm x 195 mm (11.0 in x 8.3 in x 7.7 in)
Weight	2.7 kg (5.9 lbs), excluding consumables
Power	Switching power 100-240VAC, 50-60Hz input

Media Characteristics		
Paper	Types	Continuous form, gap labels, black mark sensing, and punched hole; Label length set by auto sensing or programming
	Width	Min. 20.0 mm (0.79 in) – Max. 118 mm (4.64 in)
	Thickness	Min. 0.076 mm (0.003 in) – Max. 0.20 mm (0.008 in)
	Label Roll Outside Diameter	Max. 127 mm (5 in)
	Core Diameter	25.4 mm (1 in) or 38.1 mm (1.5 in)
Ribbon	Types	Wax, Wax/Resin, Resin
	Length	300 m (984.25 ft)
	Width	Min. 30 mm (1.18 in) – Max. 110 mm (4.33 in)
	Ribbon Roll Diameter	68 mm (2.67 in)
	Core Diameter	25.4 mm (1 in)

Printer Software

Software	PC Software for Label Design	Label+ (Create MT Mode and EZPL formats only)
	Driver	Windows 2000, XP, Vista, Windows 7, 8.1 and 10 , Windows Server 2003 & 2008, MAC, Linux
	DLL	Win CE, .NET, Andriod, Windows Mobile, Windows 2000 / XP / VISTA / Windows 7 / Windows 8.1 / Windows
Resident Fonts	Bitmap Fonts	6, 8, 10, 12, 14, 18, 24, 30, 16X26 and OCR A&B Bitmap fonts 0°, 90°, 180°, 270° rotatable, single characters 0°, 90°, 180°, 270° rotatable Bitmap fonts 8 times expandable in horizontal and vertical directions
	TTF Fonts	TTF Fonts (Bold / Italic / Underline). 0°,90°, 180°, 270° rotatable
Download Fonts	Bitmap Fonts	0°, 90°, 180°, 270° rotatable, single characters 0°, 90°, 180°, 270° rotatable
	Asian Fonts	6x16, 24x24. Traditional Chinese (BIG-5), Simplified Chinese(GB2312), Japanese (S-JIS), Korean (KS-X1001) 0°, 90°, 180°, 270° rotatable and 8 times expandable in horizontal and vertical directions
	TTF Fonts	TTF Fonts (Bold / Italic / Underline). 0°,90°, 180°, 270° rotatable
Code Pages		Codepage 437, 737,850, 851, 852, 855, 857, 860, 861, 862, 863, 865, 866, 869 Windows 1250, 1251, 1252, 1253, 1254, 1255, 1257 Unicode UTF8, UTF16BE, UTF16LE
Graphics		Resident graphic file types are BMP and PCX, other graphic formats are downloadable from the software

Comunications

Interfaces	Serial port: RS-232 (DB-9) USB Device port (B-Type, Windows Driver Required) IEEE 802.3 10/100 Base-Tx Ethernet port (RJ-45) USB Host (A-Type) Parallel Port (Mini-Centronics)
Control Panel	Backlight 3.2" Touch Screen LCD Control Key: PL Mode = FEED; MT Mode = Field Feed Calibration Button (Hold to calibrate label size) Power on/standby button

Printer Barcode Types

Barcodes	1-D Bar codes	China Postal Code, Codabar, Code 11, Code 32,Code 39, Code 93, Code 128 (subset A, B, C), EAN-8, EAN-13, EAN 8/13 (with 2 & 5 digits extension), EAN 128, FIM, German Post Code, GS1 DataBar, HIBC, Industrial 2 of 5 , Interleaved 2-of-5 (I 2 of 5), Interleaved 2- o-f 5 with Shipping Bearer Bars, ISBT – 128, ITF 14, Japanese Postnet, Logmars, MSI, Postnet, Plessey, Planet 11 & 13 digit, RPS 128, Random Weight, Standard 2 of 5, Telepen, UPC-A, UPC-E, UPC-A and UPC-E with EAN 2 or 5 digit extension, UCC 128, UCC/EAN-128 K-Mart
	2-D Bar codes	Aztec code, Code 49,Codablock F , Datamatrix code, MaxiCode, Micro PDF417, Micro QR code, PDF417,QR code, TLC 39

Environmental Specifications

Operating Temperature	5°C to 40°C (41°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Operating Humidity	25-85%, non-condensing
Storage Humidity	10-90%, non-condensing

Other	
Accessories	Cutter (Dealer Install)***, External Label dispenser, Wireless LAN (IEEE 802.11 b/g/n, Dealer Install)

■ 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 and maximum print speed specification complicance can be dependent on non-standard material variables such as label type, thickness, spacing, liner construction, etc. METTLER TOLEDO is pleased to test non-standard materials for minimum hight and maximum print speed capability.

** Due to APR530 series WiFi module message communication via the LAN port, make sure the WiFI module has been removed when LAN port use is desired.

*** The cutter is an optional accessory. If the cutter is installed, do not allow children to use the printer.

B.2.   Connections

B.2.1.   Pinout Description
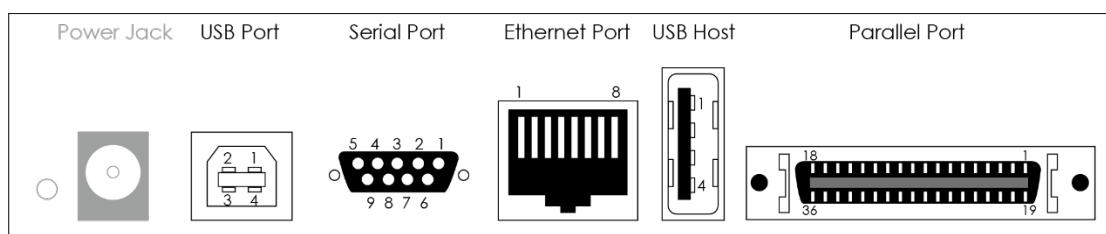
B.2.2.   USB Port

Connector type: B

Pin No.	**1**	**2**	**3**	**4**
	NC	D-	D+	GND

B.2.3.   Serial Port

Default settings are:

9600 Baud, no parity, 8 data bits, 1 stop bit, XON/XOFF protocol and RST/CTS

Pin No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**Type**
	+5V max 500mA	TxD	RxD	N/C	GND	RTS	CTS	RTS	N/C	DB9 Plug
	-	RxD	TxD	DTR	GND	DSR	RTS	CTS	RI	DB9 Socket

Figure B-1: RS232 Housing (9-pin to 9-pin)

■ Serial port total output cannot exceed the maximum current of 500mA.

B.2.4. Ethernet Port

Pin No.	Function
1	Tx+
2	Tx-
3	Rx+
4	NC
5	NC
6	Rx-
7	NC
8	NC

B.2.5.

B.2.6. USB Host

Connector type: A

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

B.2.7. Parallel Port

Type: Centronics Female

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	117	18
	BUZY	SELECT	ACK	FALTN	LPT PERR	DATA0	DATA1	DATA2	DATA3	DATA4	DATA5	DATA6	DATA7	LPT INTN	STROB	SELIN	AUTO	NC
Pin No.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	5V

METTLER TOLEDO Service

To protect your product's future:

Congratulations on choosing the quality and precision of METTLER TOLEDO. Proper use according to these instructions and regular calibration and maintenance by our factory-trained service team ensure dependable and accurate operation, protecting your investment. Contact us about a service agreement tailored to your needs and budget.

We invite you to register your product at www.mt.com/productregistration so we can contact you about enhancements, updates and important notifications concerning your product.

www.mt.com

For more information

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