WS2 Series Printer

Technical Manual

WS208 / WS212

WS2-r03-18-01-21TM

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Revision History

Manual Version	Suggestion / Comment	Release Date (Year / Month / Date)
WS2_Technical_Manual_ENG_02	P14. Changed the picture of BT module card onto the WS2 P13. Filled in the BT installation procedure and try to update this manual before 3/22. P13. Just wrote (Bluetooth option available depending on region)	2019 / 03 /25
WS2_Technical_Manual_ENG_03	P15. Added a section of which the title is *Peeler and Wireless LAN Module* P32. Updated the main block diag. at section 5.1 P34. Updated the system diag. at section 5.2 P36. Updated the wiring diag. at section 5.3	2021 / 01 /07
	P5. Added a prompt of installation of the peeler on the WLAN card at section 1.2 P9. Added a prompt of installation of the peeler on the WLAN card at section 1.3	2021 / 01 /15

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Preface

This manual describes technical information about WS2 printers, including installation guides, operating guides, printer setting tool help, network architecture overview and technical drawings. It doesn't contain programming examples. For more information about printer programming, see related documents.

Who should read this manual

This manual is intended for dealers, technicians and operators who need to install and manage the hardware, firmware and network of WS2 printers.

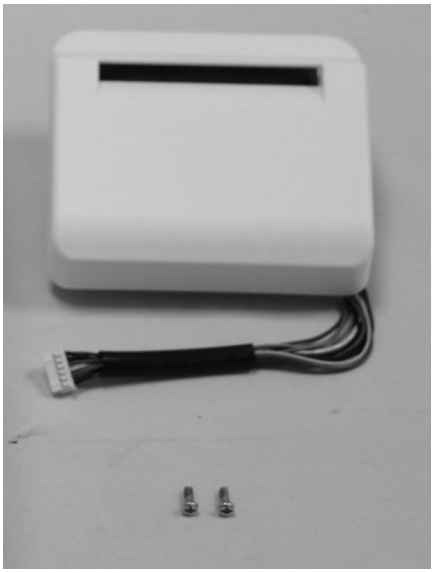
Related Documents

- WS2 Series Operator Manual

1 Accessories Installation

This chapter describes how to install accessories on your printer.

1.1 Cutter



A cutter is used to cut the label after it is printed out. Full cutter cuts a label off from a media roll.

To install a cutter:

Step 1. Remove the base frame

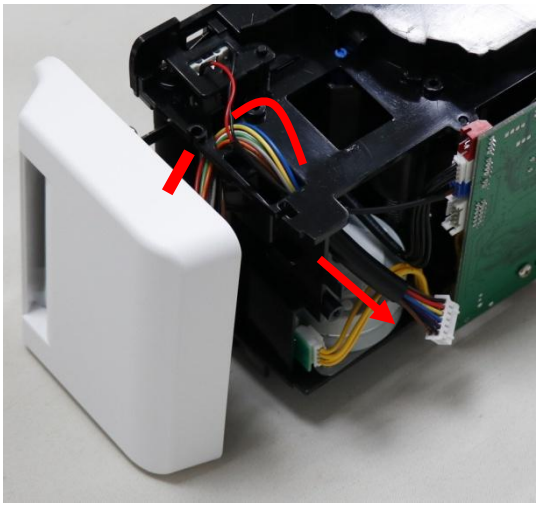
This part describes how to dismantle your printer.

1. Open the top cover and Remove tear bar.
2. Turn over your printer.
3. Loosen and remove 3 screws from the base.
4. Remove the base frame.

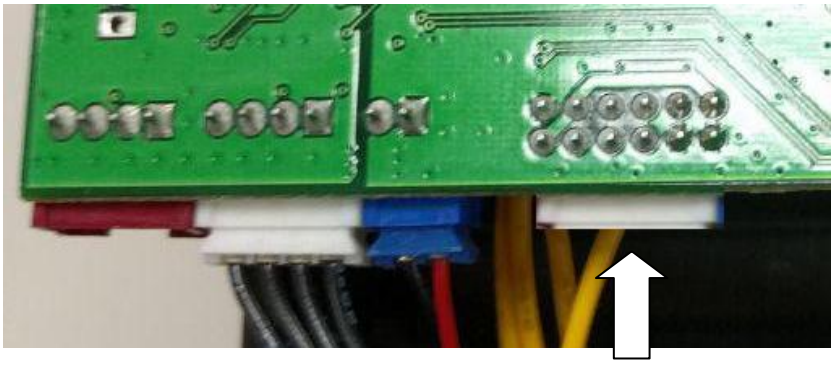
Step 2. Connect the cutter to the main board and Secure the cutter to your printer

This part describes how to thread the cutter cable and connect to the main board.

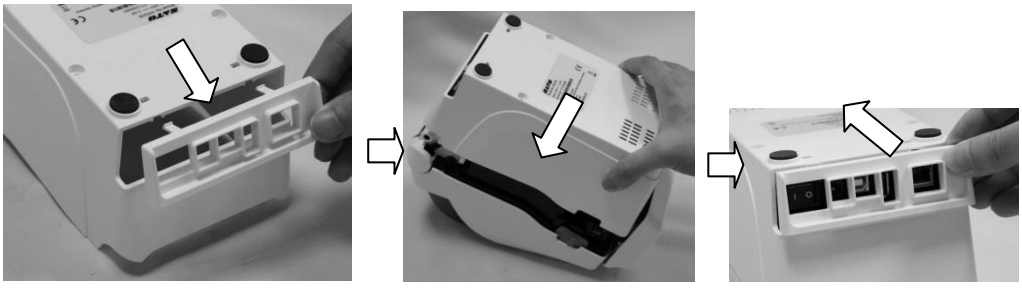
1. Thread the cutter cable through 2 square holes as below.



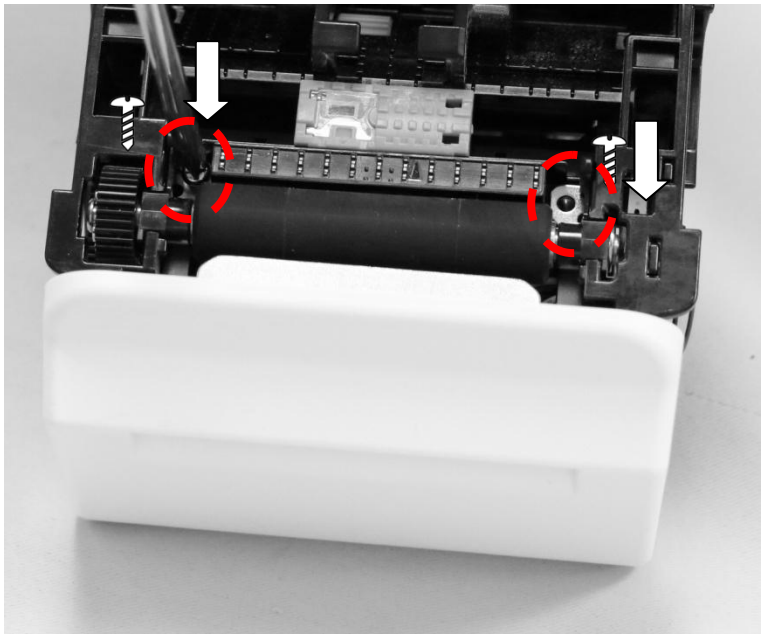
2. Plug the cutter connector to **J8** as below.



3. Remove interface cover and reinstall the base cover. Put the interface cover back.



4. Secure it with 3 screws.
5. Turn over and lift top cover to secure cutter.
6. Align the 2 screw holes of the cutter on both sides of the platen roller.



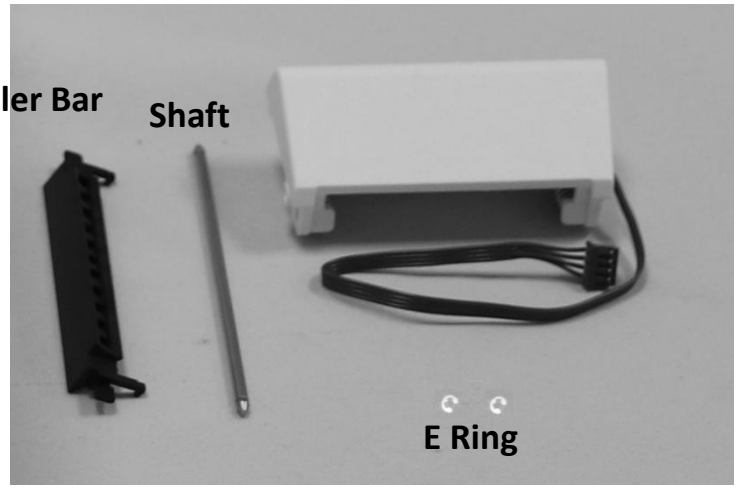
7. Secure the cutter with 2 screws.

Step 3. Test the cutter

This part describes how to use the cutter to cut your label.

1. Place the media roll between the holders. Make sure the print side is up and the media roll is clamped tightly by the holders.
2. Pull the media until it reaches out of your printer. Thread the media under the media guides.
3. Thread the media into the slot of the cutter.
4. Close the top cover.
5. Send a print job or press the **FEED** button to test if the cutter works.

1.2 Peeler



A peeler automatically removes the liner from the printed label. The peeler sensor detects if a peeled label is taken away.

To install a peeler:

In the case peeler and wireless LAN modules are used together, please refer to section 1.5 of this manual for installation instructions.

Step 1. Remove the base frame

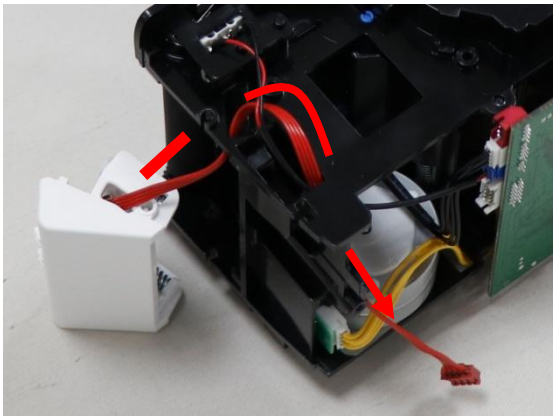
This part describes how to dismantle your printer.

1. Open the top cover and Remove tear bar.
2. Turn over your printer.
3. Loosen and remove 3 screws from the base.
4. Remove the base frame.

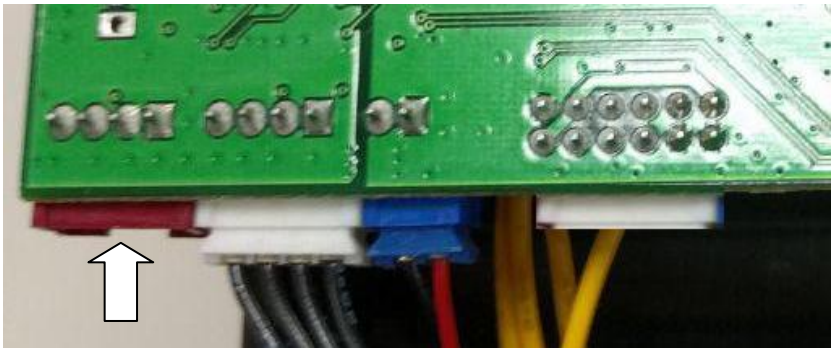
Step 2. Connect peeler to the main board then secure it

This part describes how to thread the peeler cable and plug to the mainboard.

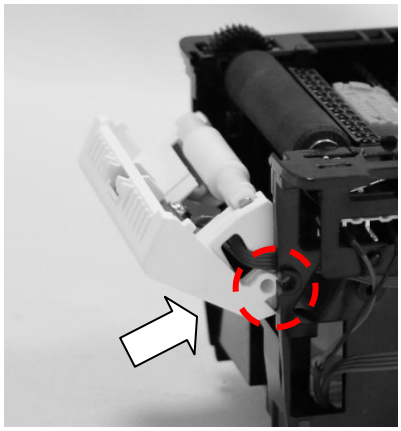
1. Thread the peeler cable through two square holes as below.



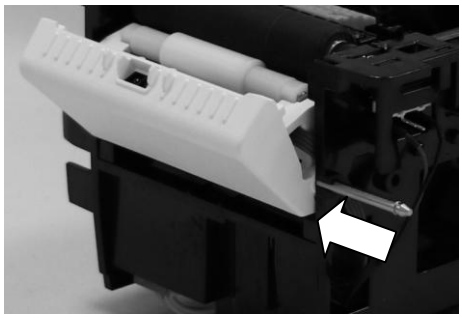
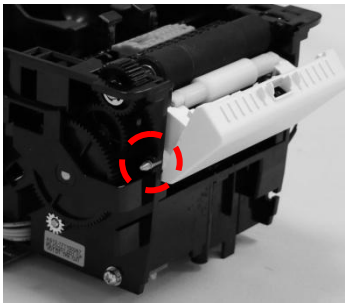
2. Plug the peeler connector to **J14** as below.



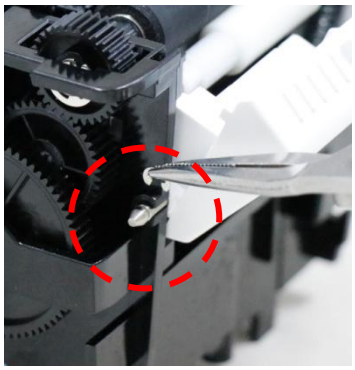
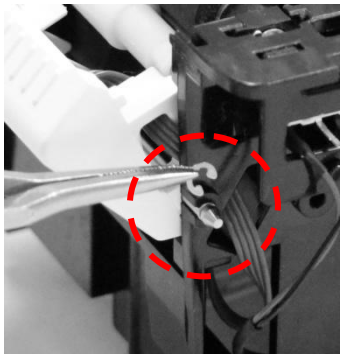
3. Put peeler in the printer and align two side of hole.



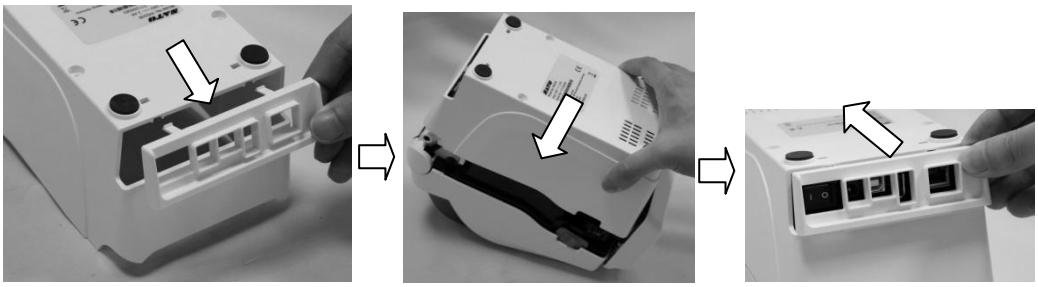
4. Insert shaft to two align hole from left to right.

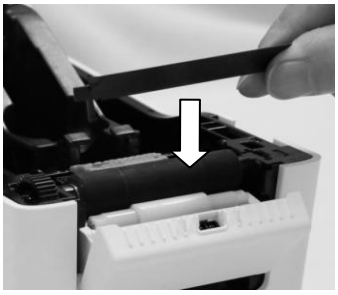
5. Adjust shaft position to make sure notch exceed printer module.
6. Use sharp nose pliers to fix shaft with E Ring on both side.

7. Remove interface cover and reinstall the base cover. Put the interface cover back.



8. Secure it with 3 screws.
9. Turn over your printer and open top cover.
10. Insert peeler bar to the gap between peeler module and roller.

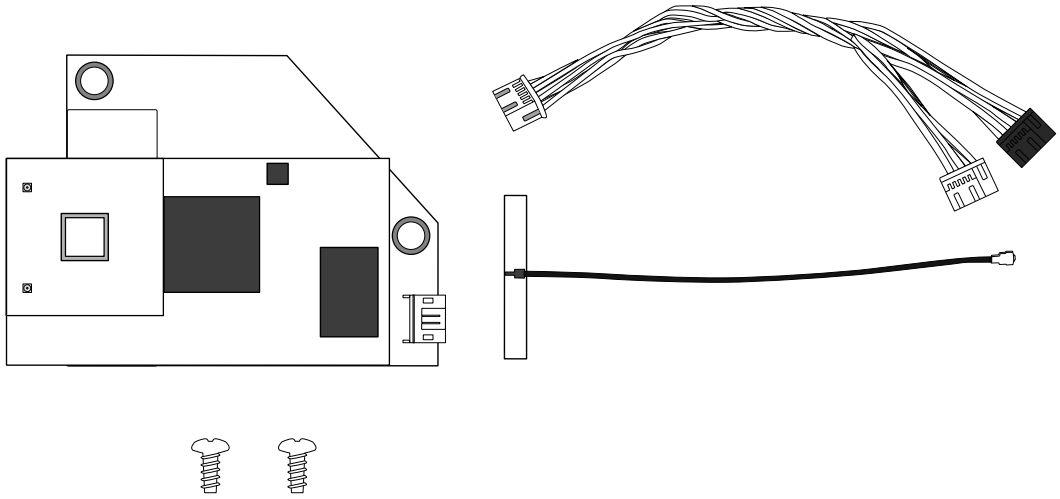


Step 3. Test the peeler

This part describes how to use the peeler to peel the liner.

1. Open the peeler.
2. Place the media roll between the holders. Make sure the print side is up and the media roll is clamped tightly by the holders.
3. Pull the media until it reaches out of your printer. Thread the media under the media guides.
4. Remove 1-3 labels from the liner at the start of the media.
5. Thread the liner under the plate (beside the platen roller) and the peeler, until the first label touches the platen roller.
6. Close the peeler and close the top cover.
7. Send a print job or press the **FEED** button to test if the peeler works.

1.3 Wireless LAN Module



The Wireless LAN module provides Wireless LAN connectivity for your printer.

To install a Wireless LAN module:

In the case peeler and wireless LAN modules are used together, please refer to section 1.5 of this manual for installation instructions.

Step 1. Remove the base frame

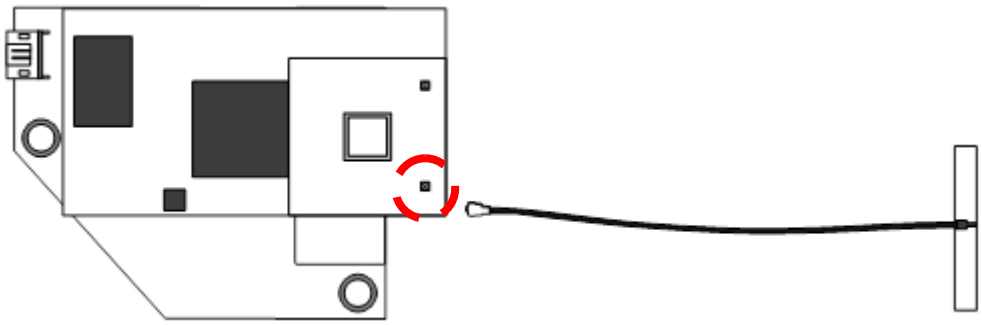
This part describes how to dismantle your printer.

1. Turn over your printer.
2. Loosen and remove 3 screws from the base.
3. Remove the base frame.

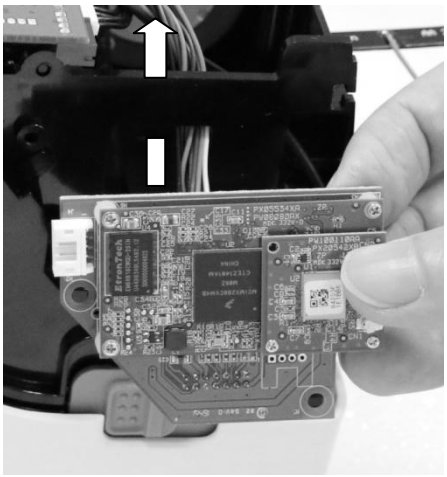
Step 2. Secure the Wireless LAN card and connect it to the main board

This part describes how to thread the Wireless LAN card cable and connect it to the main board.

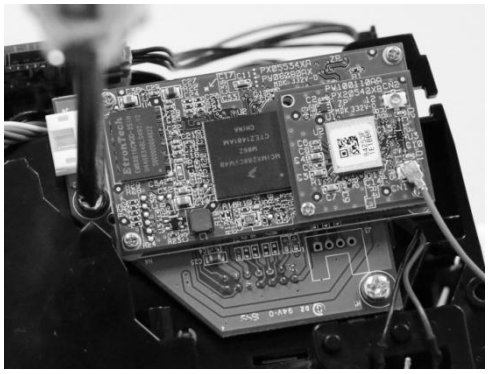
1. Check the cable is connected on wireless module board.
2. Check the antenna is connected to port **CN1**.



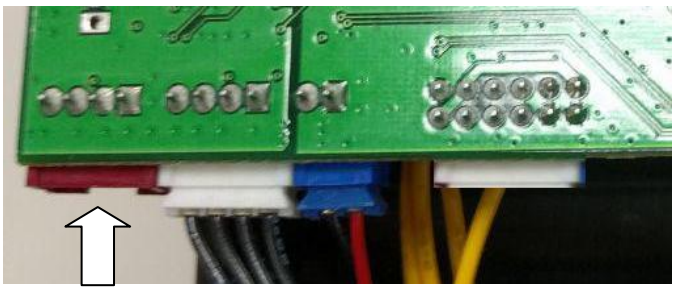
3. Locate the left side of printer. Find 2 screw holes above the top cover latch.
4. Thread the cable through the square hole.



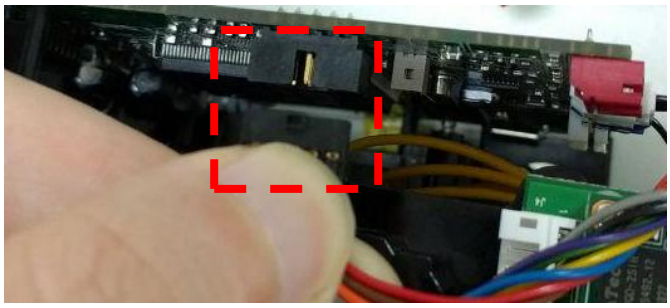
5. Align the two holes and secure the card with 2 screws.



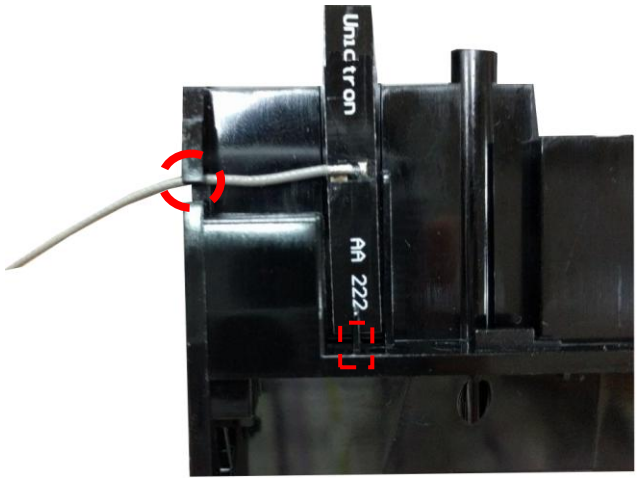
6. Plug the Wireless LAN cable 1 (red connector) to **J14** as below.



7. Loosen a screw to lift up main board.
8. Plug the Wireless LAN cable 2 (black connector) to **J15** as below. Hide extra cable under the mainboard.



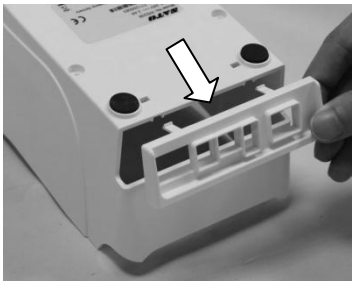
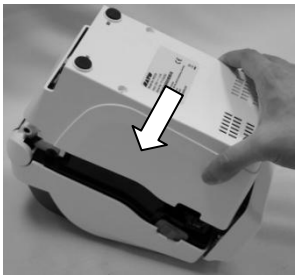
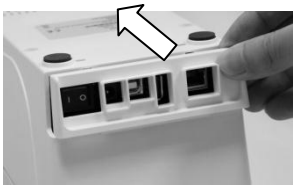
9. Tear the back tape off from Wireless LAN antenna card.
10. On the front side of your printer, insert the Wireless LAN antenna card in the notch and stick it on the module. Lead the cable in hook.



Step 3. Reinstall the base frame

This part describes how to reinstall the parts you took off.

1. Remove interface cover and reinstall the base cover. Put the interface cover back.

2. Secure it with 3 screws.

1.4 Bluetooth Module Card

The Bluetooth module card provides Bluetooth connectivity for your printer.

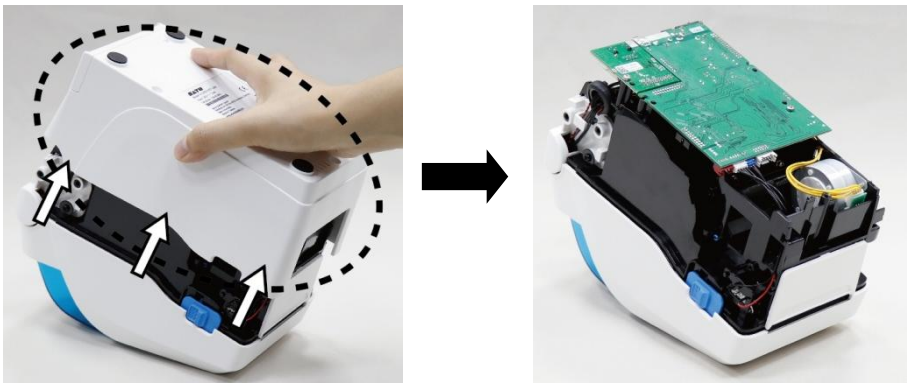
To install a Bluetooth module:

Step 1 Remove the base frame

This part describes how to dismantle your printer.

1. Turn over your printer.
2. Loosen and remove 3 screws from the base.

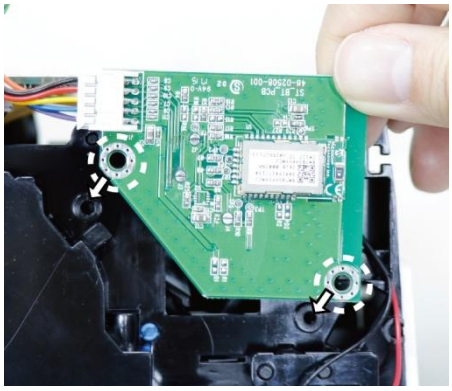
3. Remove the base frame.



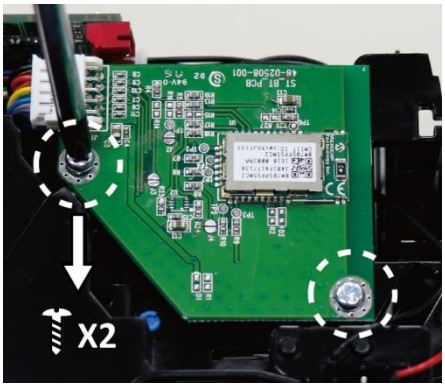
Step 2 Secure the Bluetooth card and connect it to the main board

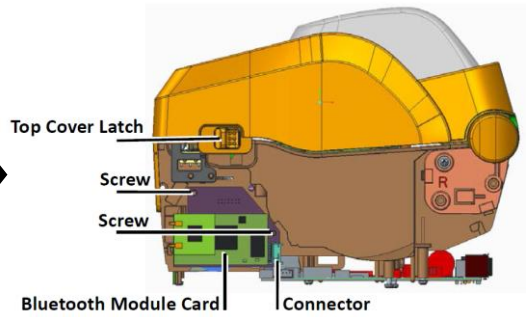
This part describes how to connect the Bluetooth module card to the main board.

1. On the right side of your printer, locate two screw holes below the top cover latch and align the two holes on the Bluetooth module card with them.

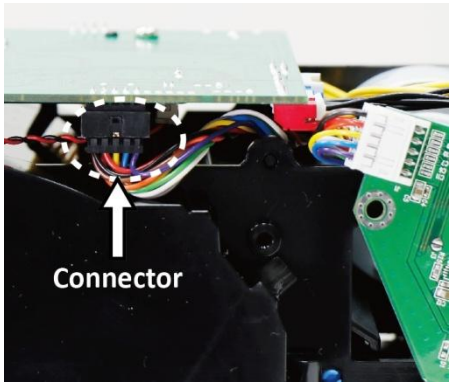


2. Secure the card with two screws.





3. Plug the Bluetooth cable (black connector) to **J15**, which is the black port located to the lower-right of the main board.

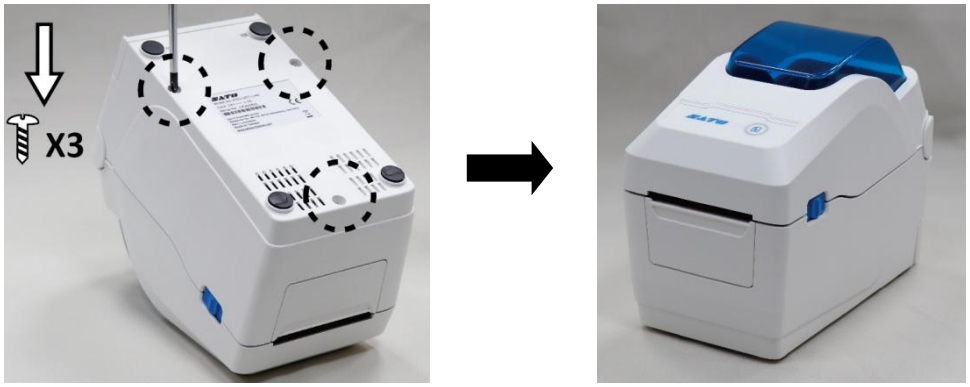


Step 3 Reinstall the base frame

This part describes how to reinstall the parts you took off.

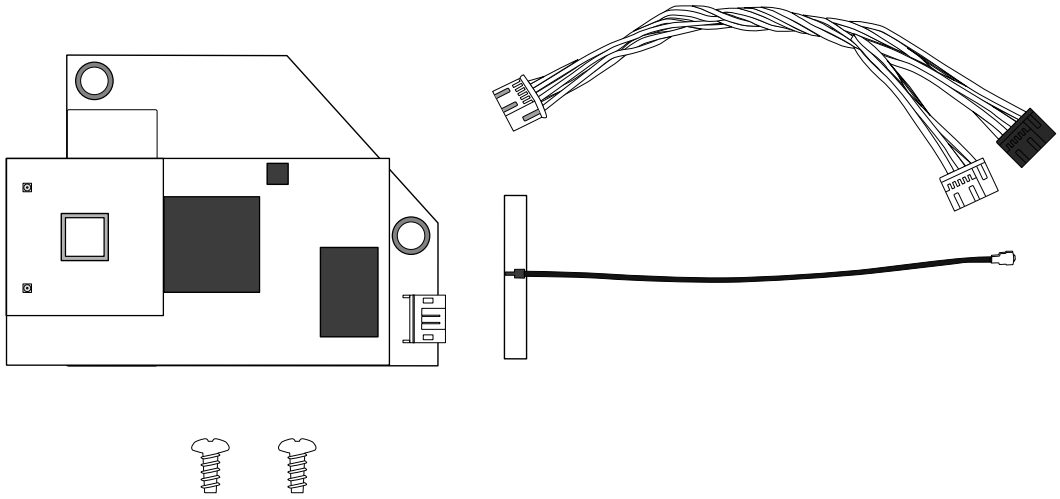
1. Remove interface cover and reinstall the base cover. Put the interface cover back.

2. Secure it with 3 screws.



※ *Bluetooth option is available depending on region.*

1.5 Peeler and Wireless LAN Module



The Wireless LAN module provides Wireless LAN connectivity for your printer.

To install a Wireless LAN module:

Step 1. Remove the base frame

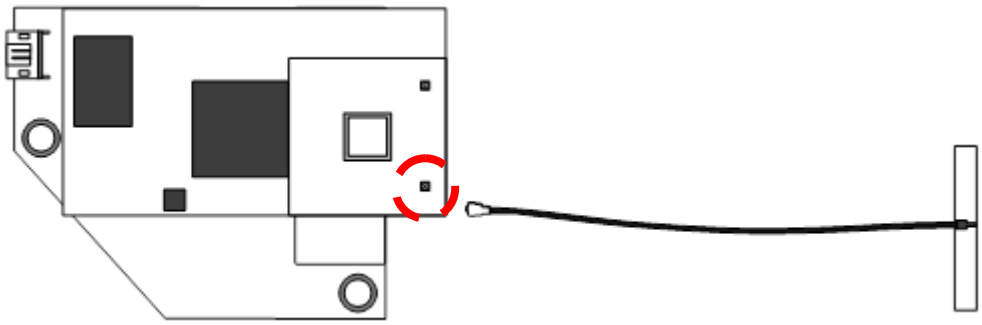
This part describes how to dismantle your printer.

1. Turn over your printer.
2. Loosen and remove 3 screws from the base.
3. Remove the base frame.

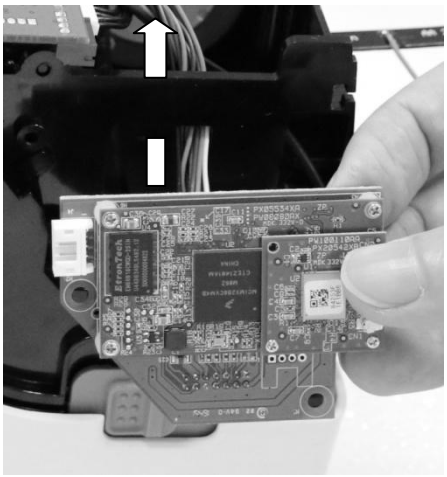
Step 2. Secure the Wireless LAN card and connect it to the main board

This part describes how to thread the Wireless LAN card cable and connect it to the main board.

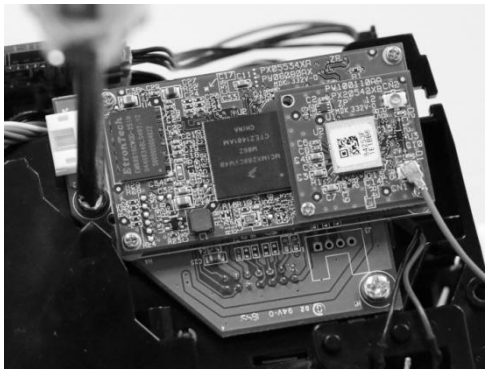
1. Check the cable is connected on wireless module board.
2. Check the antenna is connected to port **CN1**.



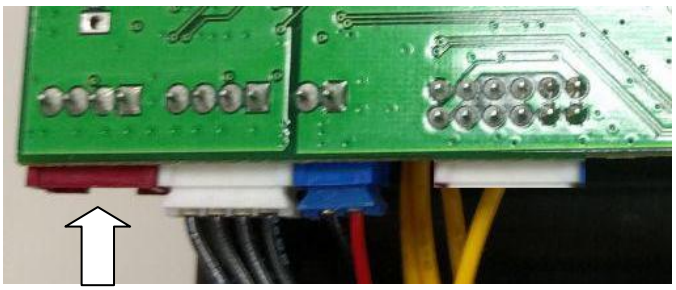
3. Locate the left side of printer. Find 2 screw holes above the top cover latch.
4. Thread the cable through the square hole.



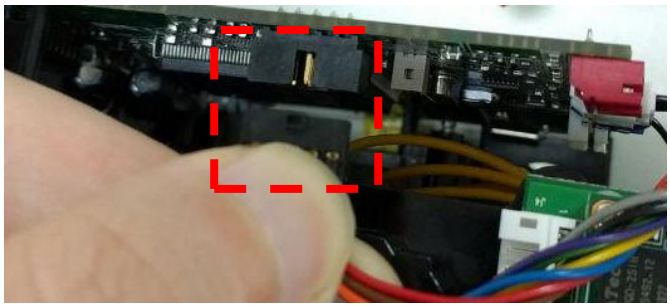
5. Align the two holes and secure the card with 2 screws.



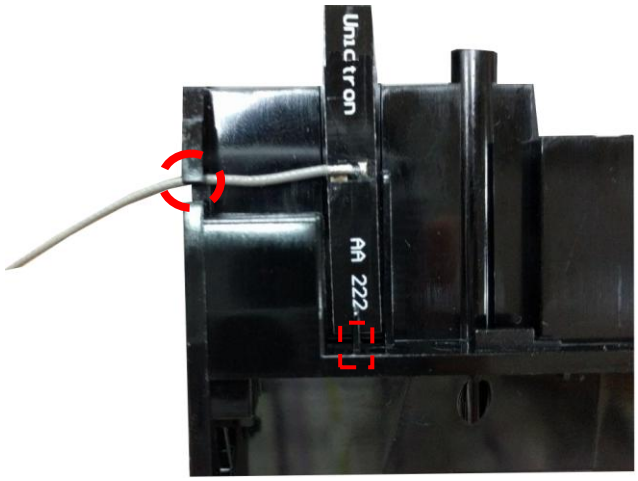
6. Plug the Wireless LAN cable 1 (red connector) to **J14** as below.



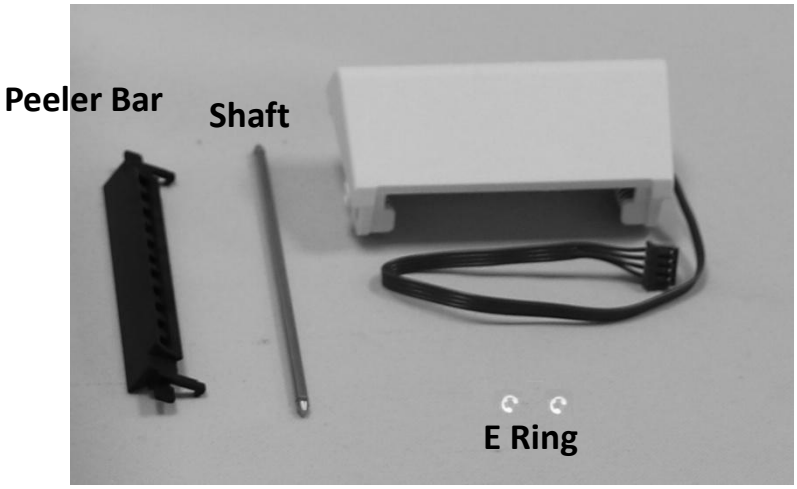
7. Loosen a screw to lift up main board.
8. Plug the Wireless LAN cable 2 (black connector) to **J15** as below. Hide extra cable under the main board.



9. Tear the back tape off from Wireless LAN antenna card.
10. On the front side of your printer, insert the Wireless LAN antenna card in the notch and stick it on the module. Lead the cable in hook.



To install a peeler:

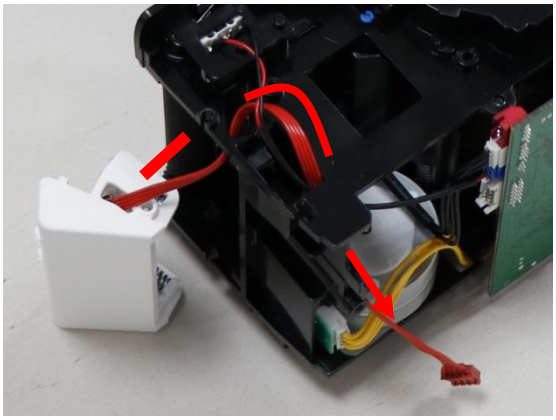


A peeler automatically removes the liner from the printed label. The peeler sensor detects if a peeled label is taken away.

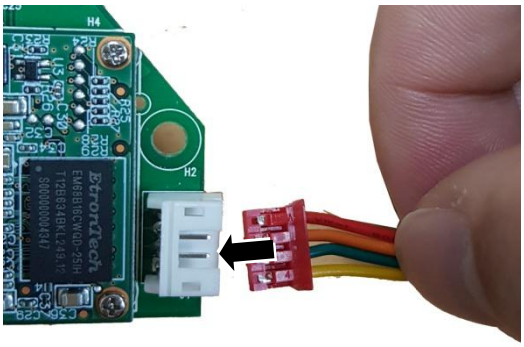
Step 1. Connect peeler to the wireless LAN card and then secure it

This part describes how to thread the peeler cable and plug to the main board.

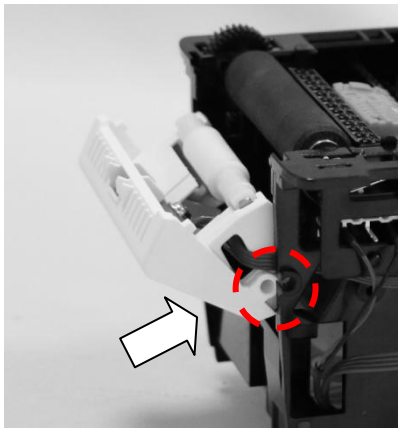
1. Thread the peeler cable through two square holes as below.



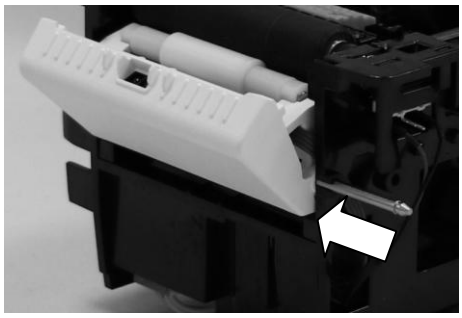
2. Plug the red housing connector of the peeler to the white wafer connector, **J4**, of the WLAN card as below.

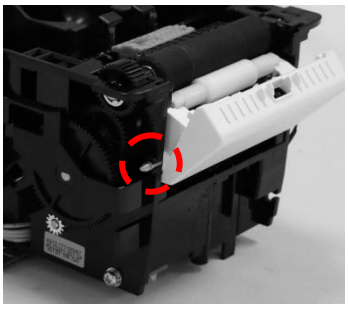


3. Put peeler in the printer and align two sides of hole.



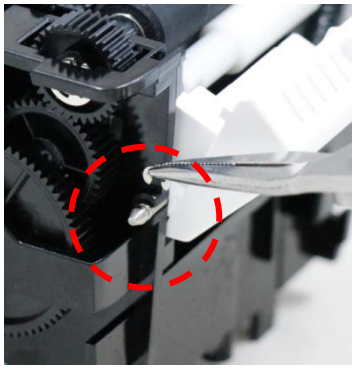
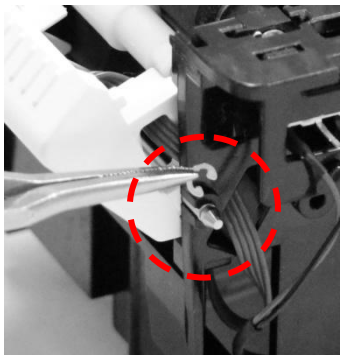
4. Insert shaft to two align holes from left to right.



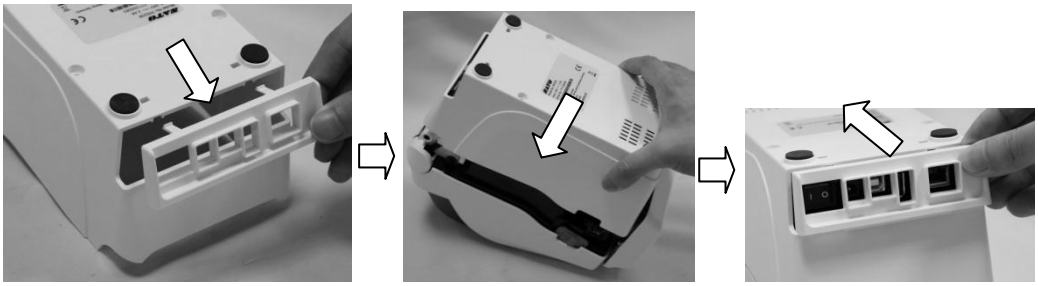


5. Adjust shaft position to make sure notch exceed printer module.

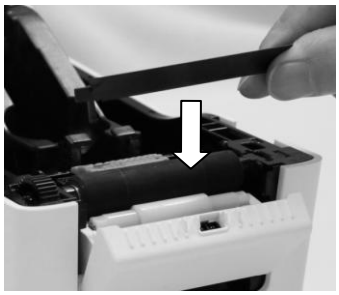
6. Use sharp nose pliers to fix shaft with E Ring on both side.

7. Remove interface cover and reinstall the base cover. Put the interface cover back.



8. Secure it with 3 screws.
9. Turn over your printer and open top cover.
10. Insert peeler bar to the gap between peeler module and roller.



Step 2. Test the peeler

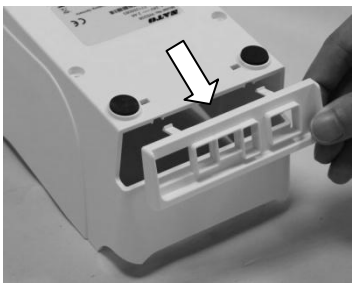
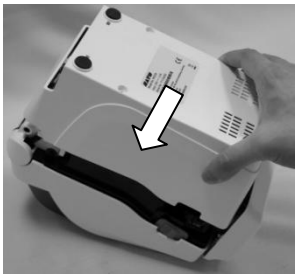
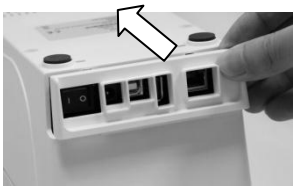
This part describes how to use the peeler to peel the liner.

1. Open the peeler.
2. Place the media roll between the holders. Make sure the print side is up and the media roll is clamped tightly by the holders.
3. Pull the media until it reaches out of your printer. Thread the media under the media guides.
4. Remove 1-3 labels from the liner at the start of the media.
5. Thread the liner under the plate (beside the platen roller) and the peeler, until the first label touches the platen roller.
6. Close the peeler and close the top cover.
7. Send a print job or press the **FEED** button to test if the peeler works.

Step 3. Reinstall the base frame

This part describes how to reinstall the parts you took off.

1. Remove interface cover and reinstall the base cover. Put the interface cover back.

2. Secure it with 3 screws.

2 Update Firmware

Firmware is the code stored permanently in hardware. It instructs your printer to do its tasks. Benefits of updating firmware include new features, enhanced functionality and improved performance.

Caution: Do not open the print module, disconnect your printer from the computer or cut your printer power during the firmware update.

2.1 Update Firmware via the USB Host

The USB host is a USB type A port for a USB flash drive, which can be used to quickly update the firmware.

1. Take an USB flash drive and format file system to FAT32. Create a folder named “Firmware” in your USB flash drive, and copy the firmware files to it. The file “XXX-master.abin” needs to be in the folder.
   Note The firmware file name must match to your printer.
2. Make sure the print module is closed, and **turn off** your printer.
3. Turn ON the printer power (or reboot the printer) after insert your USB flash drive to the printer. The printer starts to transmit the firmware when LED is green and blinking alternately.
4. When LEDs are all green, turn off the printer power, then remove USB flash drive.
5. Update firmware success.

Caution: Do not remove the USB flash drive during the transmission.

2.2 Update Firmware in Atmel Mode

Service Engineer only

Typically, firmware can be updated in Printer Tool without problems, but there are rare cases Printer Tool cannot handle. If any unexpected conditions keep you from update firmware in Printer Tool, you need to update it in Atmel mode.

Step 1. Enter Atmel Mode

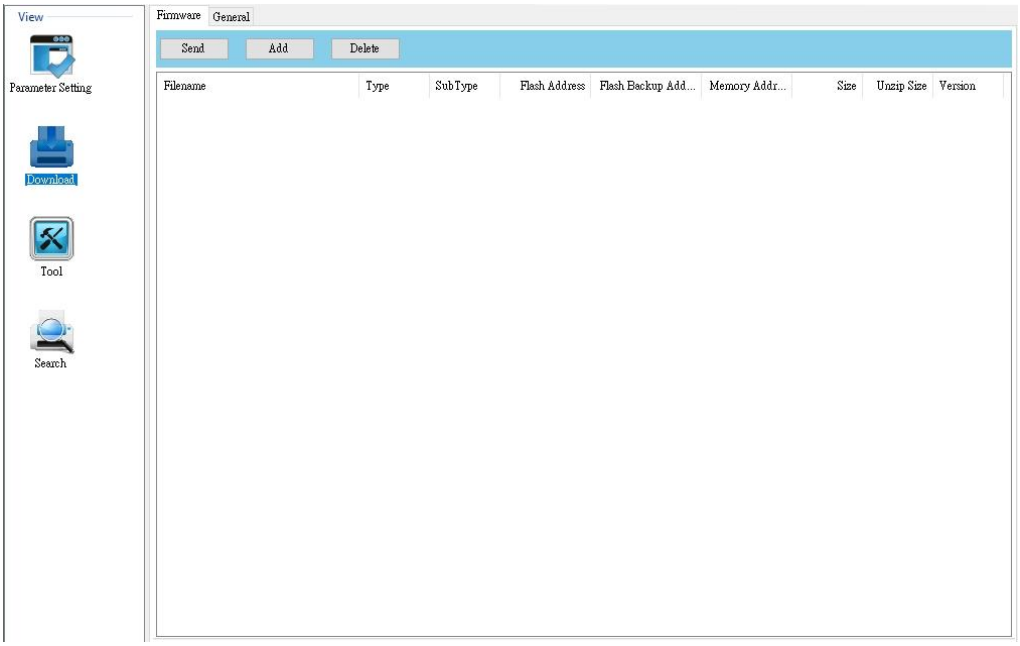
This part describes how to enter Atmel mode.

1. Turn off your printer.
2. Turn over your printer.
3. Loosen and remove 3 screws from the base.
4. Lift the base and unplug all the cables.
5. Locate the DIP switch on the main board. Set Switch 1 and 2 to the **OFF** position (down).

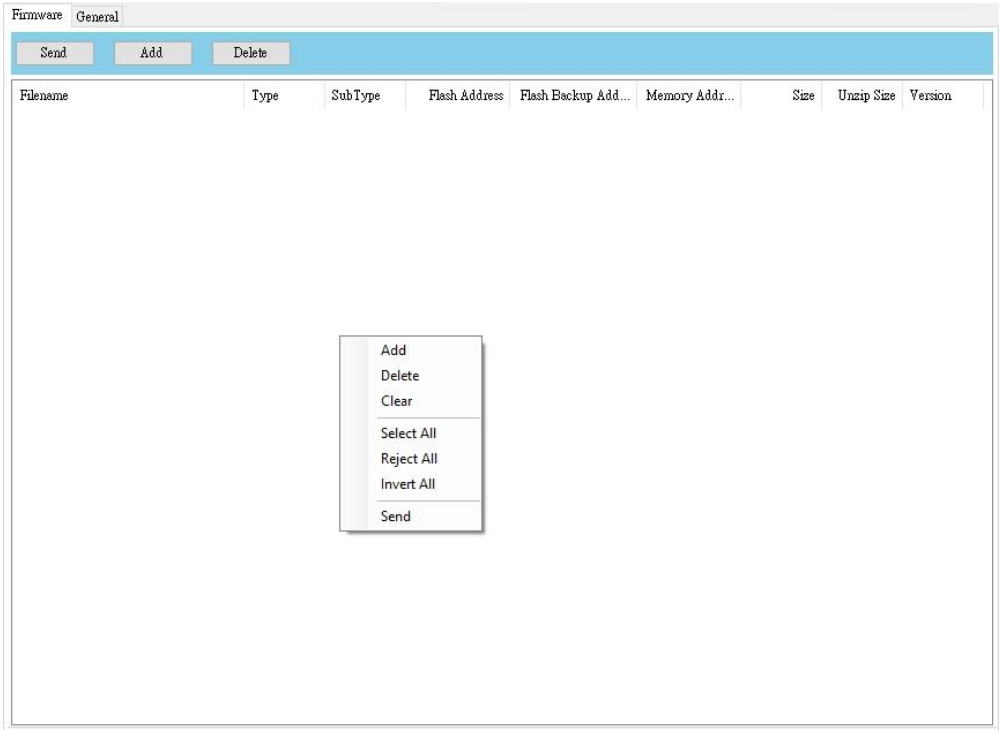
Step 2. Update your firmware

This part describes how to update your firmware in Atmel mode.

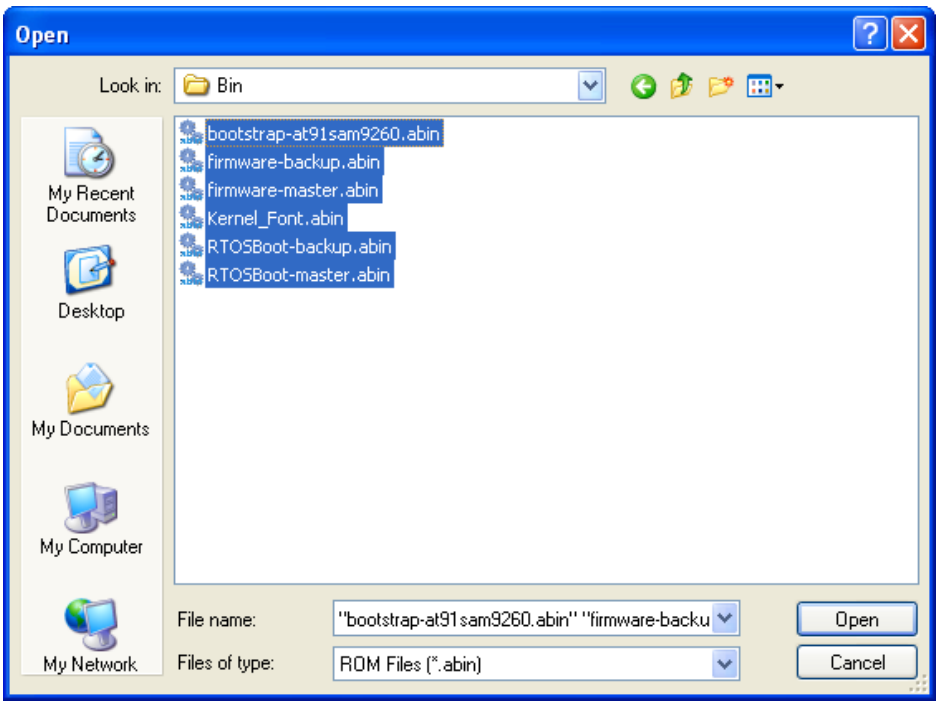
1. Turn on your printer. Both LEDs won't glow. This is normal.
2. Start Printer Tool. In the **Navigation** pane, click **Download**, and click the **Firmware** tab.



3. Right-click in the blank area and click **Add**.

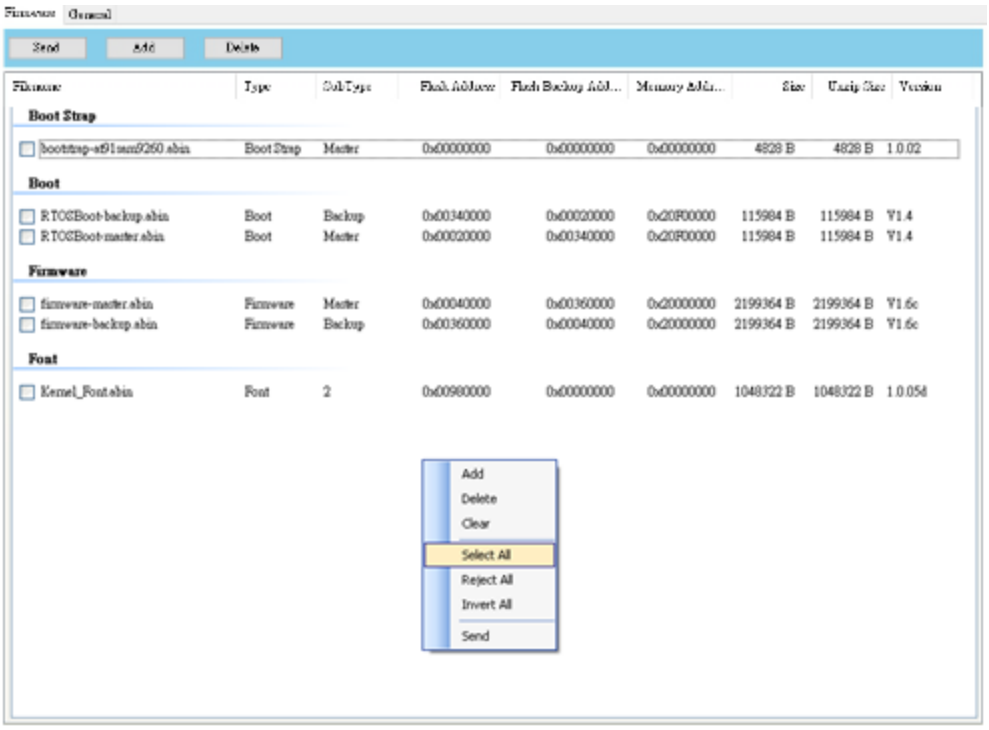


4. In the **Open** dialog box, browse to the folder that contains the firmware files. Select all of them and click **Open**.

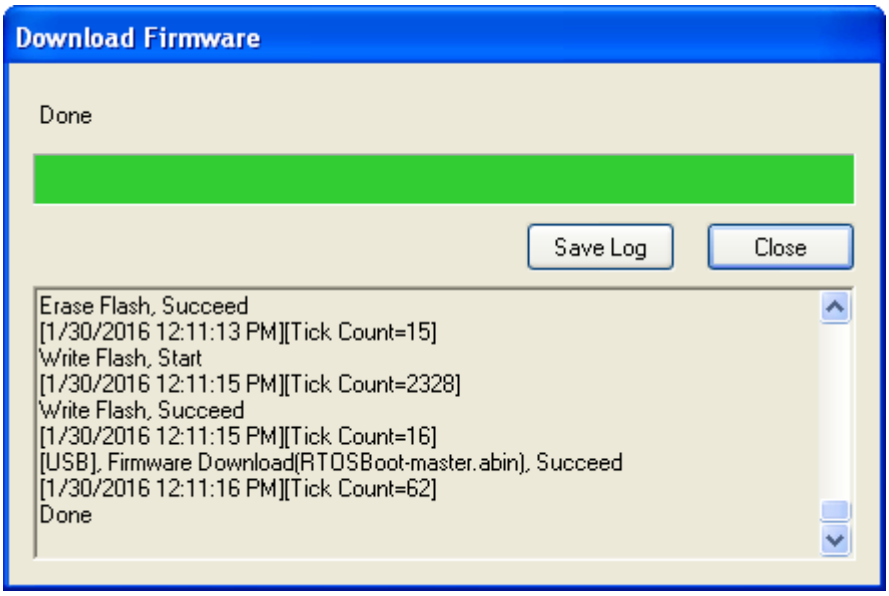


5. Right-click in the blank area in the list, and click **Select All** to select all of the check boxes.

   Note If you want to execute a firmware file without saving it into the flash memory, select the **Download to memory and execute** check box and click **Send**.



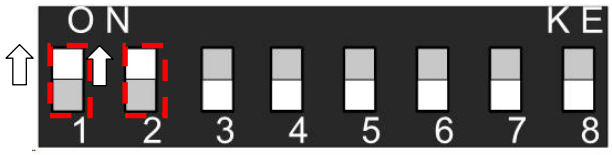
6. Click **Send** to send the firmware files to your printer. When the update is complete, the message “Done” appears. Click **Close** to close the dialog box, or click **Save Log** to save the firmware update log.



Step 3. Exit Atmel Mode

This part describes how to exit Atmel mode.

1. Turn off your printer.
2. Set **DIP Switch** 1 and 2 to the **ON** position (up). If it’s inconvenient to set **DIP Switch** while cables are connected, unplug all the cables to do this.

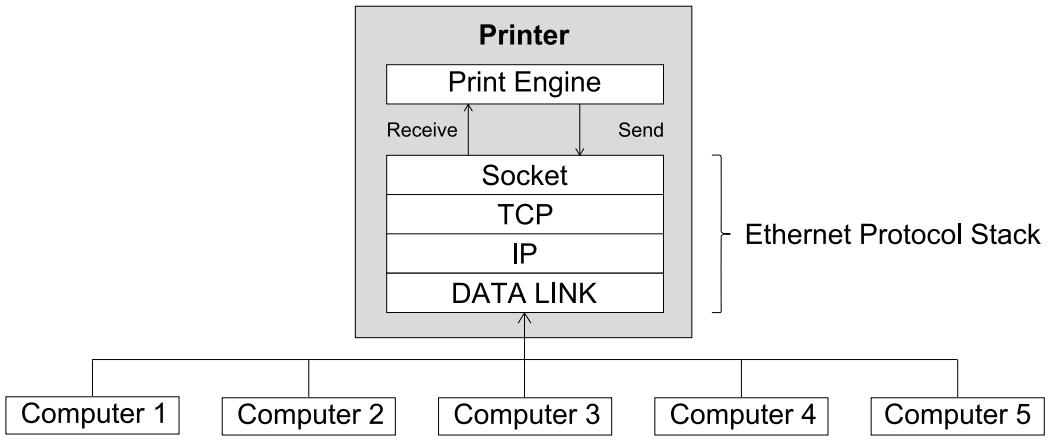


3. Reinstall the base and the secure it with 3 screws.
4. Turn over your printer.
5. Turn on your printer.

3 Network

This chapter provides the information about your printer networking.

3.1 Network architecture



As the figure shows, the network architecture includes several layers, and each layer corresponds to the layer in the Open Systems Interconnection (OSI) model.

The print engine is on the application layer. It is a set of programs that handle most jobs for your printer, such as receiving data, analyzing data, drawing images, printing images and returning status. It communicates with TCP via the socket.

The socket is on the session layer. It is an application program interface (API) that opens, receives, sends and closes TCP sessions between your printer and network nodes to exchange data.

Transmission Control Protocol (TCP) and Internet Protocol (IP) are on the transport and the network layer, respectively. These two layers work closely together. The transport layer secures end-to-end data transfer by establishing a reliable connection that includes features such as packet resend control, packet order control, flow control and error checking. TCP is the protocol commonly used in transport layer.

IP is the commonly used protocol in the network layer. It defines an address system and provides end-to-end communication for data transmission. The packet is delivered based on the IP address in the IP header, which is attached to the packet. However, the packet may be lost, corrupted or out-of-order when it travels across the network, because IP doesn’t ensure the delivery. TCP can prevent most of these things happen.

The data link is on the data link layer. Its task is to create and manage a reliable data transmission between two adjacent nodes in a network via MAC addresses. It divides the data from the network layer into bits, encodes these bits into frames prior to transmission, and decodes them at the destination. The data link also provides the error control and flow control. The error control uses a frame check sequence (FCS) to ensure that the delivered frames are intact, and the flow control ensures that the fast sender doesn’t overwhelm the slow receiver with data.

This architecture allows up to five computers to connect to a printer via the same port. When you turn on your printer, it opens the maximum number of ports, and is waiting for a session request. Once your printer receives a request, it establishes a session and set it as “connected." If all of the sessions are occupied, no more connection is allowed. In this case, your printer returns the RST signal to the computer that made a request via the TCP protocol. When your printer finishes its communication with the computer, it releases the session to get ready for a new connection.

Data processing is determined by the connection priority. When your printer connects to multiple computers, it only processes the data from the oldest session (the first connected computer). The connection priority changes when there is a disconnection. Other computer needs to wait until its session becomes the oldest.

3.2 Ethernet Status Indicators

LED	Indicator	Status	Description	Note
Green	Speed	ON	100 Mbps	When both LEDs are off, there is no Ethernet connection.
		OFF	10 Mbps	
Amber	Link Activity	ON	Link Up	
		OFF	Link Down	
		Blink	Activity	

4 Troubleshooting

This chapter provides the information about accessories issues, internal errors and their possible solutions.

4.1 Cutter and Peeler Issues

Issue	Solution
The cutter is experiencing issues.	■ If there is a paper jam, clear it. ■ The cutter has become loose. Fix the cutter in position and tighten it. ■ The cutter blade is not sharp anymore. Replace your cutter with a new one.
The peeler is experiencing issues.	■ If there is a paper jam, clear it. ■ The peeler has become loose. Fix the peeler in position and tighten it. ■ Make sure the liner is correctly threaded under the plate and the peeler.

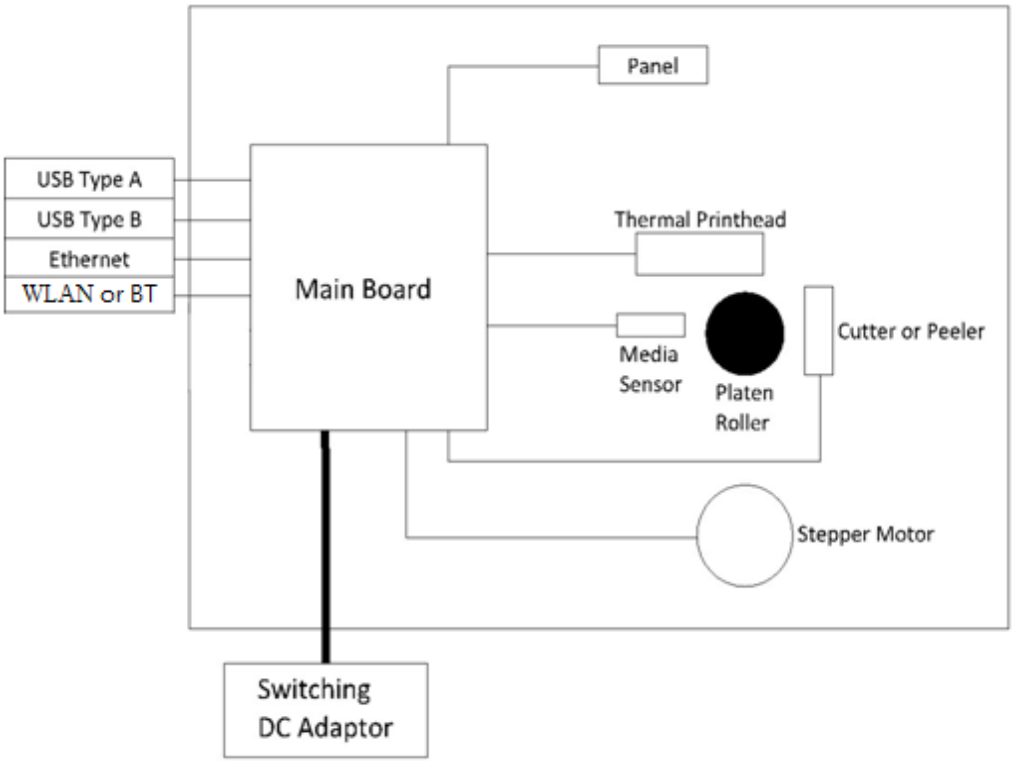
4.2 Internal Errors

Error	Solution
Flash ROM on the CPU board error or USB memory error.	■ Check your USB flash drive and see if it works properly. ■ Make sure your USB flash drive is tightly plugged. ■ The flash ROM or USB drive is damaged. Replace it.
An erase error has occurred when formatting the USB memory.	
Unable to save files due to insufficient USB memory.	■ Delete the files on your USB drive to free some space, or replace your USB drive with an empty one.
Command error.	■ Press the **FEED** button. ■ Turn off your printer, and turn it on again.
An EEPROM for backup cannot be read or written properly.	■ It is possible that the EEPROM is damaged. Replace it or the main board.
A command has been fetched from an odd address.	■ Check your commands and make sure they are correct.
Word data has been accessed from a place other than the boundary of the word data.	
Long word data has been accessed from a place other than the boundary of the long word data.	
An undefined command in a place other than the delay slot has been decoded.	
An undefined command in the delay slot has been decoded.	
A command which rewrites the data in the delay slot has been decoded.	

5 Technical Drawings

This chapter provides technical drawings of your printer.

5.1 Main Board Diagram



Main Board

A printed circuit board assembly (PCBA) consists of a microcontroller, flash memory, SDRAM and more.

Panel

A two-layer PCBA consists of one button and two LEDs.

Media Sensor

A two-layer PCBA consists of a reflective and a transmissive sensor, which is designed for media detection.

Thermal Printhead (TPH)

It consists of a line of tiny resistors that is electronically controlled to produce heat for printing. For direct thermal printing, a TPH directly heats up an area of the thermal paper to produce an image.

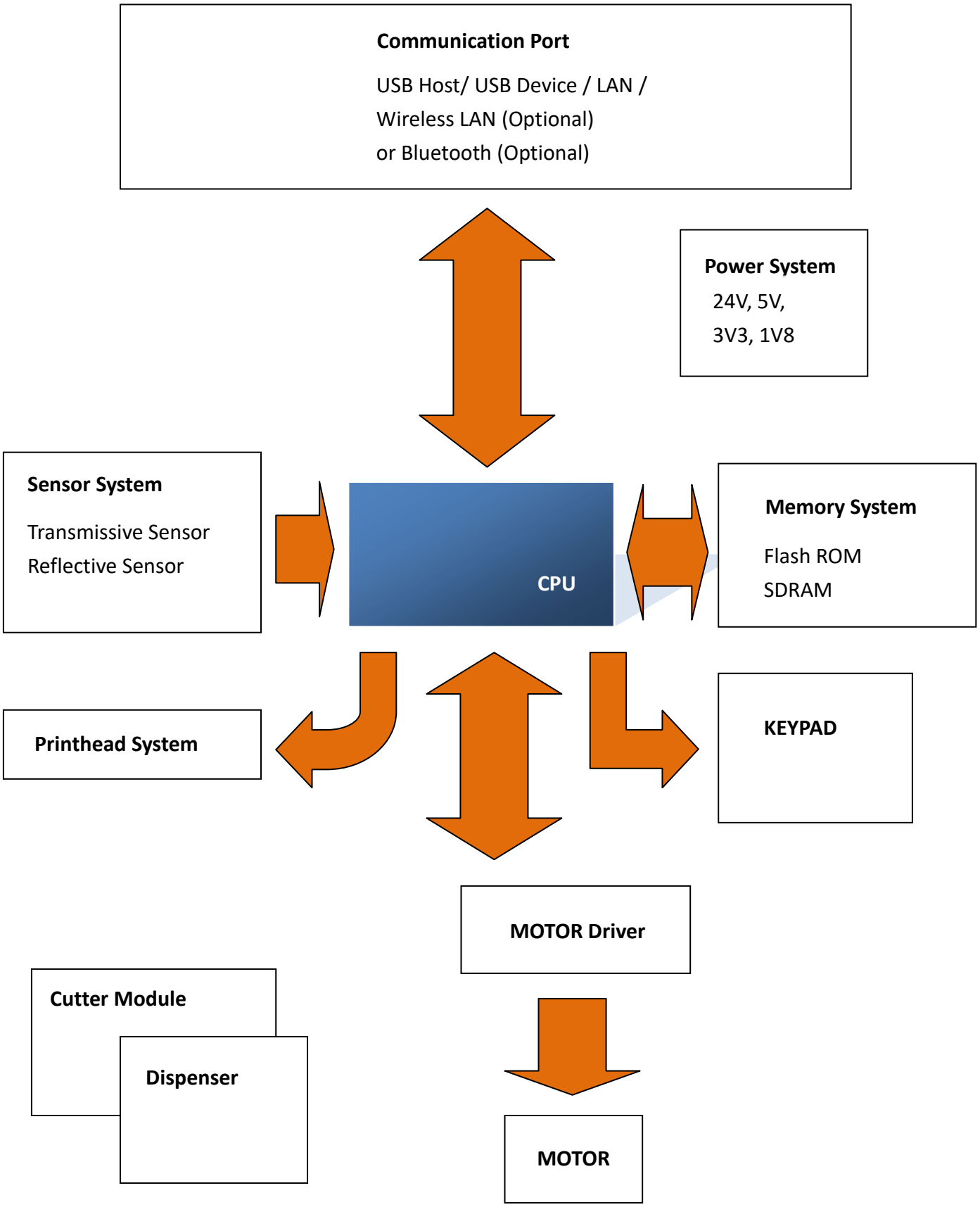
Stepper Motor

A stepper motor rotates certain degrees in each step-in response to an electronic pulse.

Cutter or Peeler (Option)

A cutter is a guillotine cutter which automatically cuts the printed label. There are two cutting types: full and partial. A peeler automatically removes the liner from a printed label. The sensor on the peeler detects if the peeled label is taken away.

5.2 System Diagram



Microcontroller (U11)

The microcontroller (MCU) is AT91SAM9260. The MCU is like a microcomputer which integrates CPU, memory, I/O ports, timers and other components. The CPU it uses is ARM926-based processor.

Flash memory (U14)

The flash memory stores firmware, graphics, label formats, soft fonts and BASIC files.

SDRAM (U17)

SDRAM is volatile memory, typically storing working buffers and parameters. After the power is turned off, all of the data is gone.

Power (U13, U15, U19)

A regulator converts 24V DC to 5V DC as the VCC source for most of components on main board. LDOs are 5V to 3.3V for I/O, 3.3V to 1.8V for CPU core.

Motor Driver (U2)

The motor driver is BD63877. It acts as an amplifier, which takes low-current signals and generates high-current signals. Since the motor typically requires voltages or currents that exceed what the circuitry can provide, the motor driver is capable of providing higher voltages or currents for the motor.

Ethernet PHY

It is used to send and receive Ethernet frames. It complies with the IEEE 802.3 specifications for 10BASE-T and 100BASE-TX.

5.3 Wiring Diagram

Diagram A: Peeler only

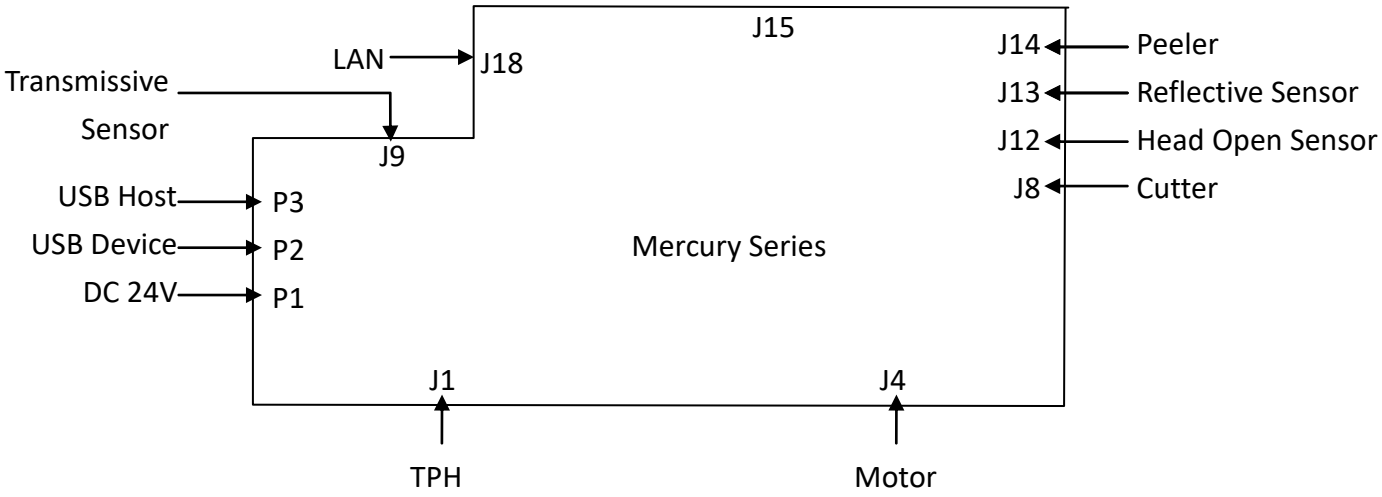


Diagram B: WLAN

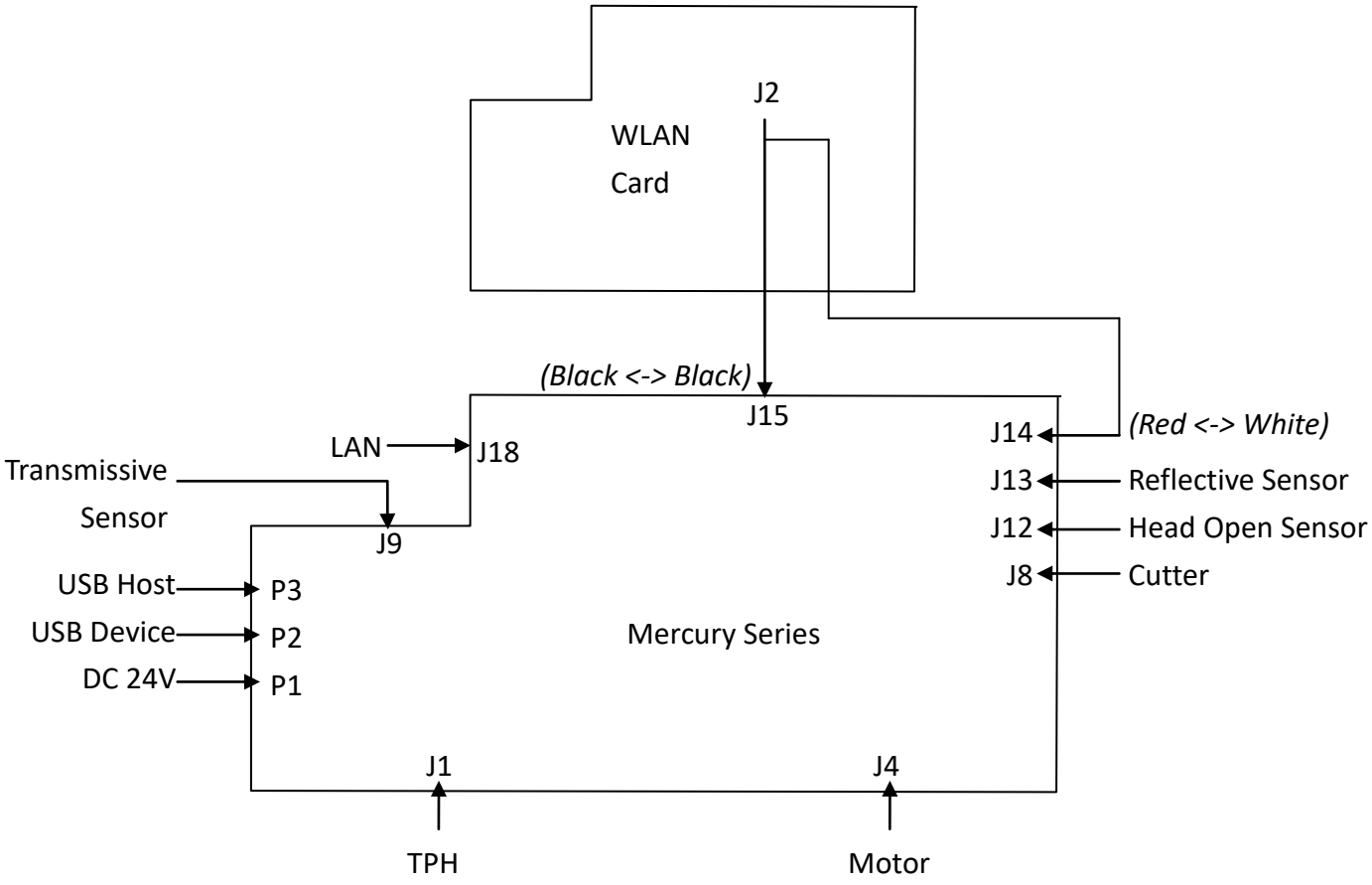


Diagram C: Bluetooth

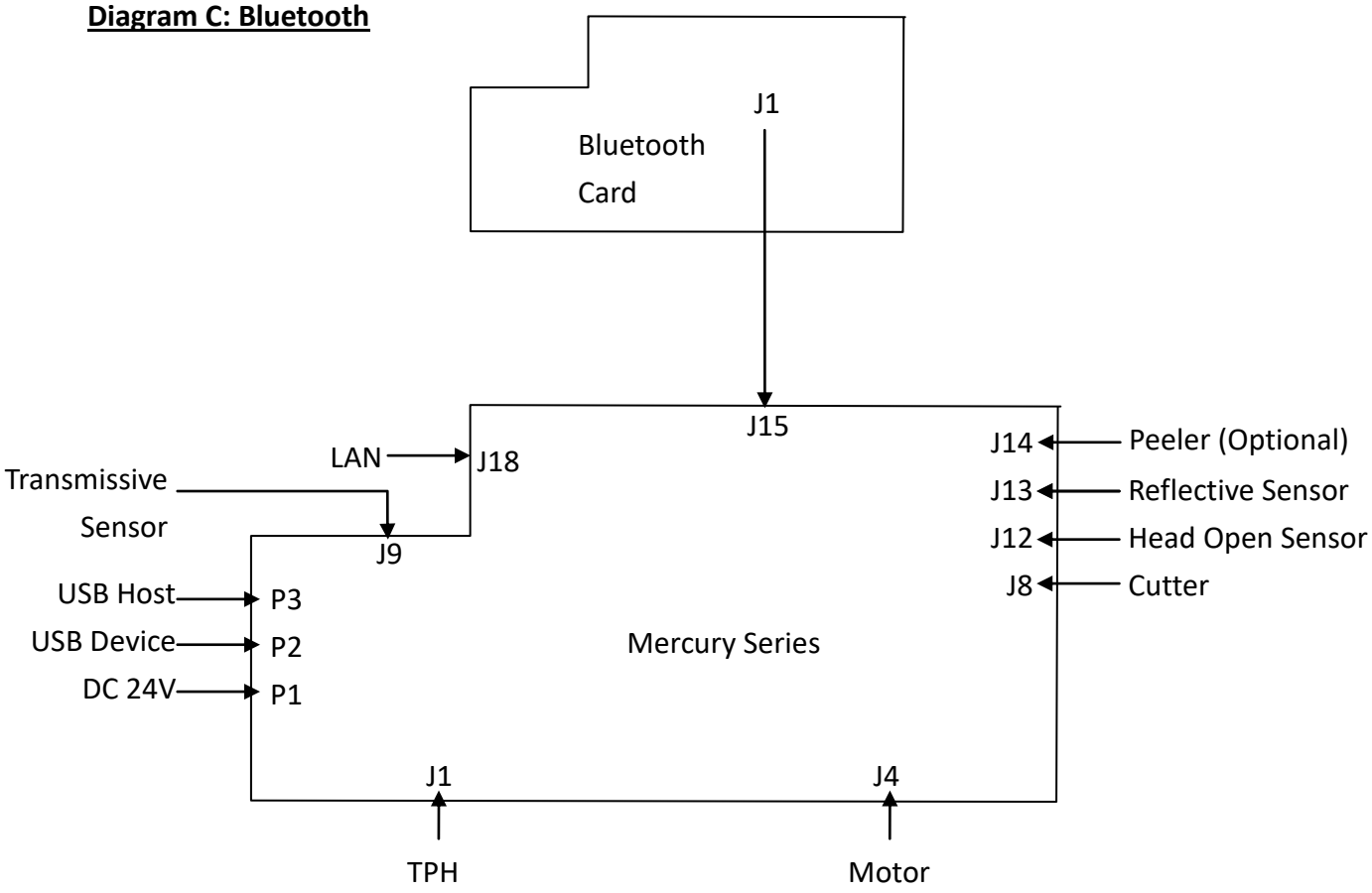
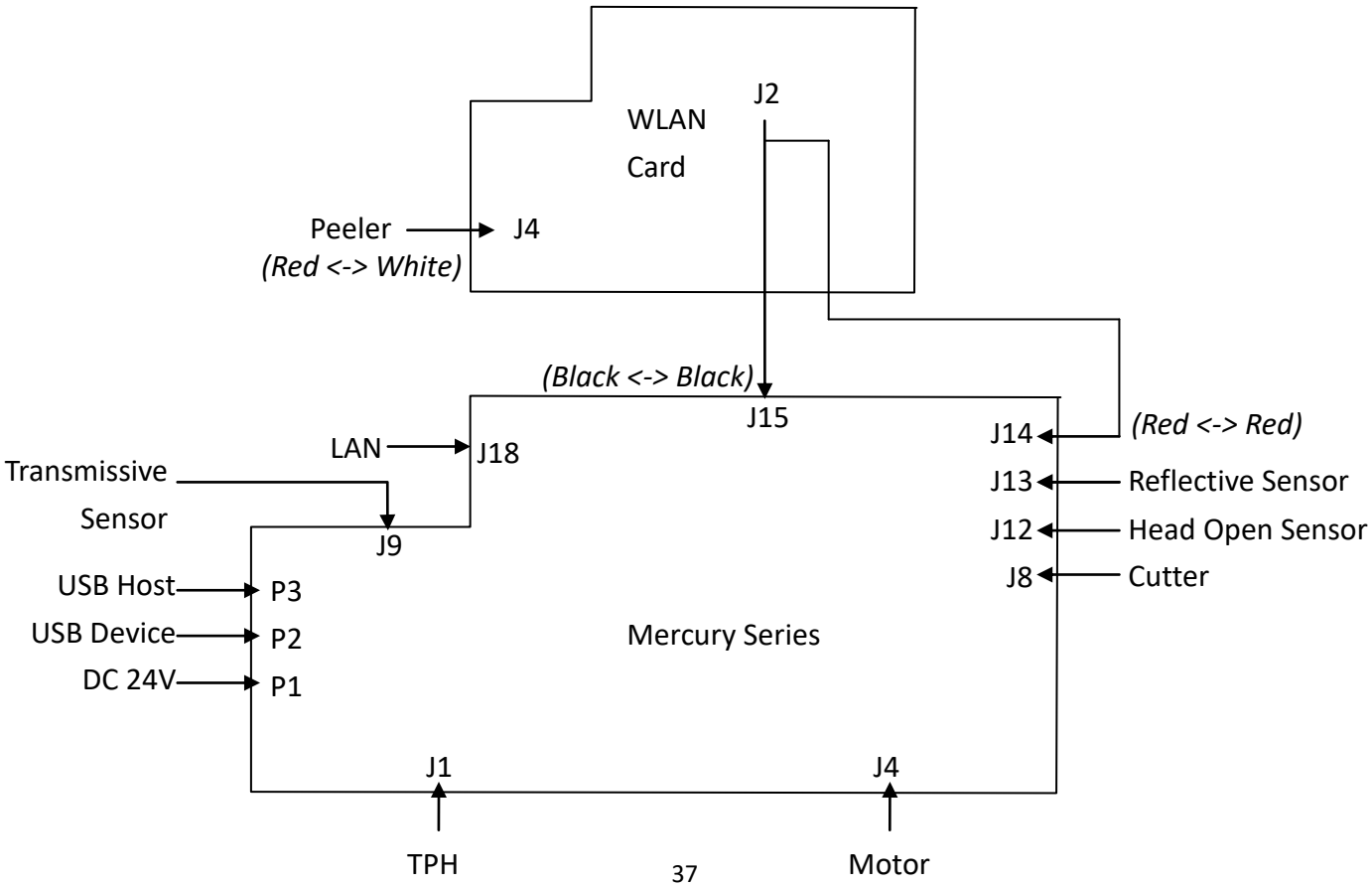
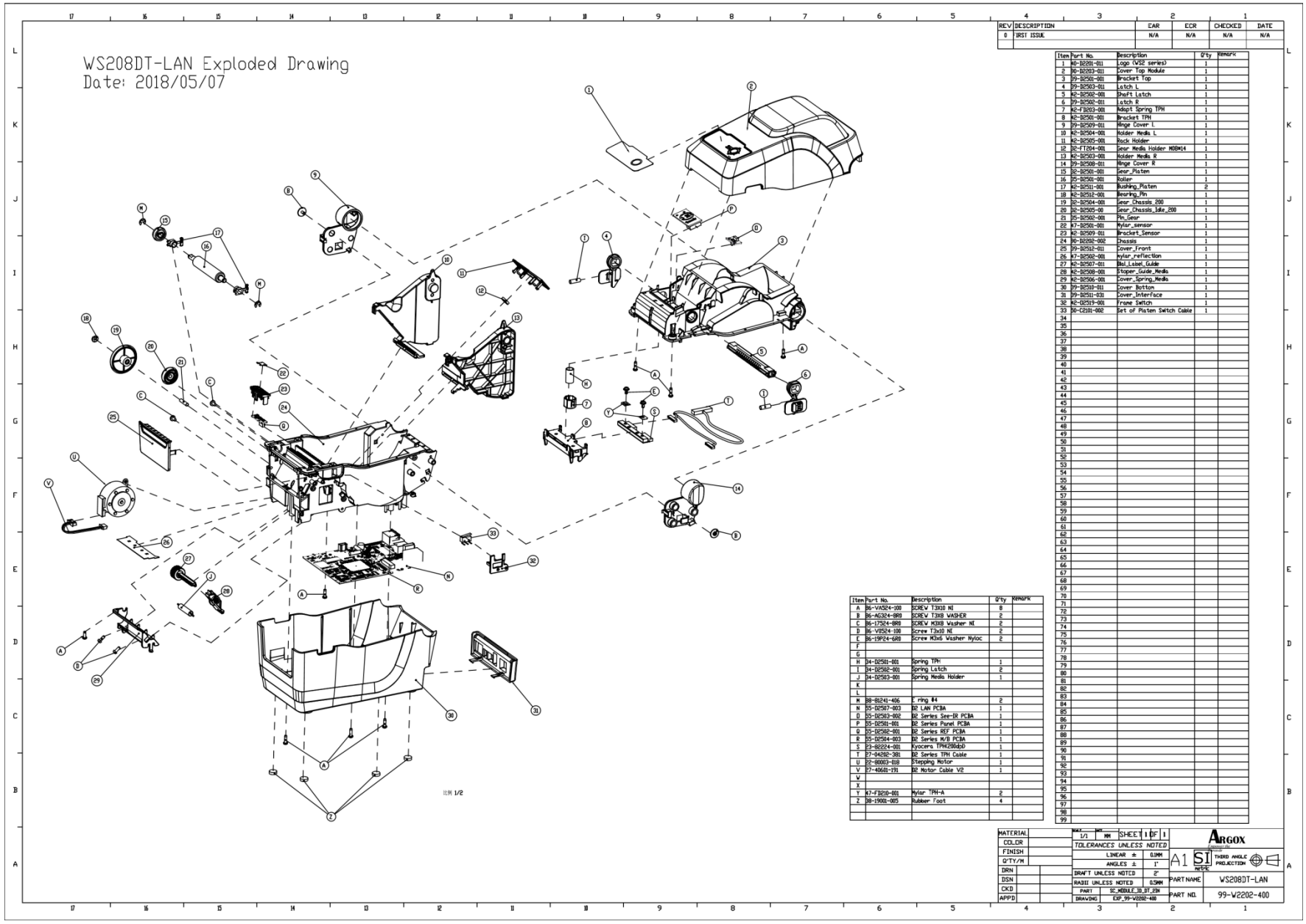


Diagram D: Peeler+ WLAN



5.4 Exploded Drawing



REV	DESCRIPTION	EAR	ECR	CHECKED	DATE
0	IRST ISSUE	N/A	N/A	N/A	N/A

Item	Part No.	Description	Q'ty	REMARK
1	K0-D2201-011	Logo (VS2 series)	1	
2	30-D2203-011	Cover Top Module	1	
3	J9-D2501-001	Bracket Top	1	
4	J9-D2503-011	Latch L	1	
5	K2-D2502-001	Shaft Latch	1	
6	J9-D2502-011	Latch R	1	
7	K2-F1203-001	Adapt Spring TPH	1	
8	K2-D2501-001	Bracket TPH	1	
9	J9-D2509-011	Hinge Cover L	1	
10	K2-D2504-001	Holder Media L	1	
11	K2-D2505-001	Rack Holder	1	
12	32-FT204-001	Gear Media Holder M08M14	1	
13	K2-D2503-001	Holder Media R	1	
14	J9-D2508-011	Hinge Cover R	1	
15	32-D2501-001	Gear_Platen	1	
16	35-D2501-001	Roller	1	
17	K2-D2511-001	Bushing_Platen	2	
18	K2-D2512-001	Bearing_Pin	1	
19	32-D2504-001	Gear_Chassis_200	1	
20	32-D2505-00	Gear_Chassis_lake_200	1	
21	35-D2502-001	Pin_Gear	1	
22	K7-D2501-001	Mylar_sensor	1	
23	K2-D2509-011	Bracket_Sensor	1	
24	90-D2202-002	Chassis	1	
25	J9-D2512-011	Cover_Front	1	
26	K7-D2502-001	mylar_reflection	1	
27	K2-D2507-011	Bel_Label_Guide	1	
28	K2-D2508-001	Stoper_Guide_Media	1	
29	K2-D2506-001	Cover_Spring_Media	1	
30	J9-D2510-011	Cover Bottom	1	
31	J9-D2511-031	Cover_Interface	1	
32	K2-D2519-001	Frame Switch	1	
33	50-C2101-002	Set of Platen Switch Cable	1	

Item	Part No.	Description	Q'ty	REMARK
A	B6-VA524-108	SCREW T3X10 NI	8	
B	B6-AG324-BR8	SCREW T3X8 WASHER	2	
C	B6-17524-BR8	SCREW M3X8 Washer NI	2	
D	B6-V0524-108	Screw T3x10 NI	2	
E	B6-19F24-6R8	Screw M3x6 Washer Nyloc	2	
F				
G				
H	34-D2501-001	Spring TPH	1	
I	34-D2502-001	Spring Latch	2	
J	34-D2503-001	Spring Media Holder	1	
K				
L				
M	B8-B1241-406	E ring #4	2	
N	55-D2507-003	B2 LAN PCBA	1	
O	55-D2583-002	B2 Series See-IR PCBA	1	
P	55-D2581-001	B2 Series Panel PCBA	1	
Q	55-D2582-001	B2 Series REF PCBA	1	
R	55-D2584-003	B2 Series M/B PCBA	1	
S	23-B2224-001	Kyocera TPHK200dpD	1	
T	27-04282-381	B2 Series TPH Cable	1	
U	22-B0803-018	Stepping Motor	1	
V	27-4368-179	B2 Motor Cable V2	1	
W				
X				
Y	K7-F1210-001	Mylar TPH-A	2	
Z	B8-1901-005	Rubber Foot	4	

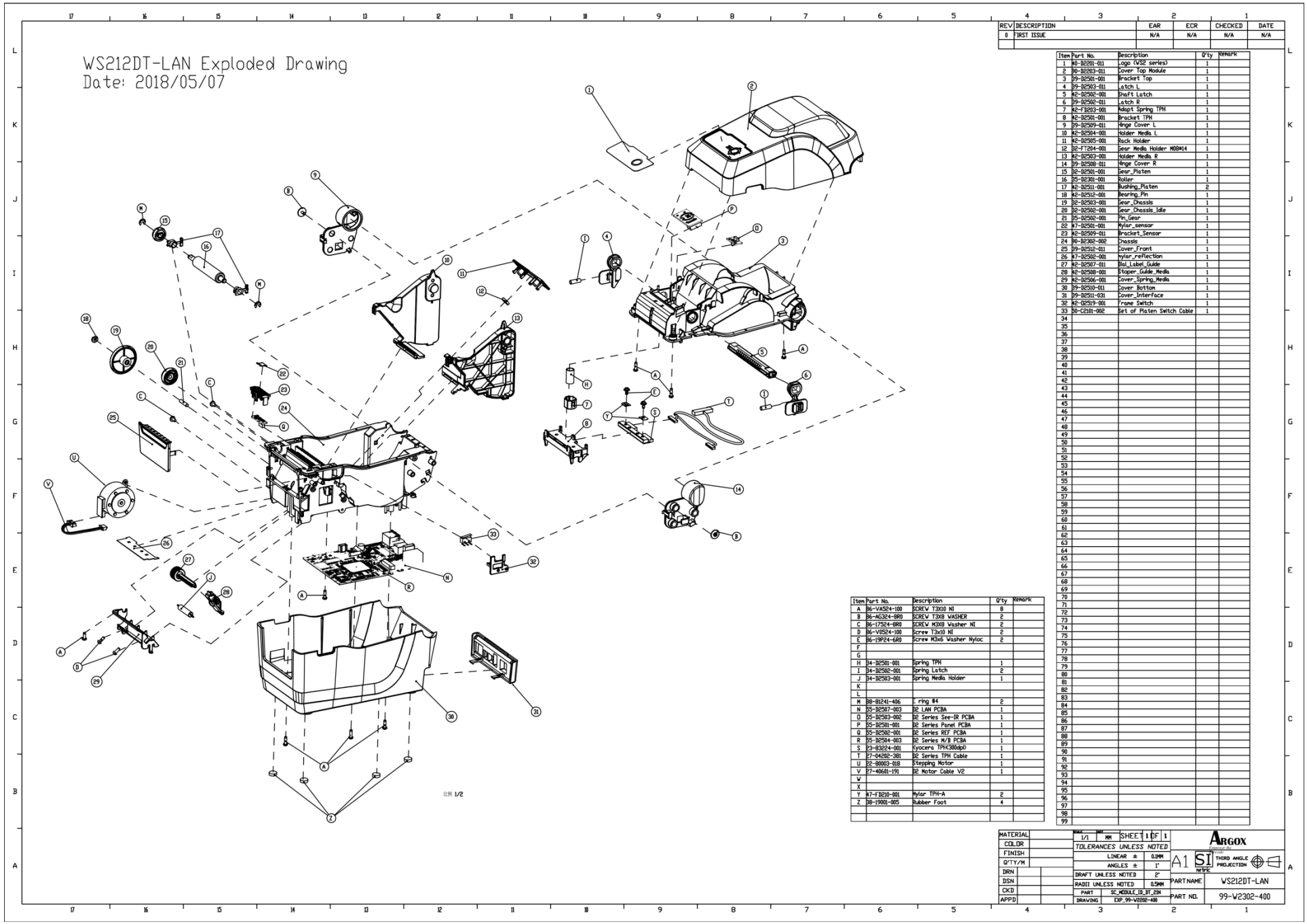
MATERIAL	
COLOR	
FINISH	
Q'TY/M	
DRN	
DSN	
CKD	
APPD	

1/1	MM	SHEET 1 OF 1
TOLERANCES UNLESS NOTED		
LINEAR ±	0.1MM	
ANGLES ±	1°	
DRAFT UNLESS NOTED	2°	
RADII UNLESS NOTED	0.5MM	
PART	SC_MODULE_3D_DT_ZH	
DRAWING	EXP_99-W2202-400	

ARGOX

A1 SI metric THIRD ANGLE PROJECTION

PART NAME	WS208DT-LAN
PART NO.	99-W2202-400



REV	DESCRIPTION	EAR	ECR	CHECKED	DATE
0	FIRST ISSUE	N/A	N/A	N/A	N/A

Item	Part No.	Description	Q'ty	Remark
1	A0-B2201-011	Logo (VS2 series)	1	
2	B0-B2203-011	Cover Top Module	1	
3	B9-B2501-001	Bracket Top	1	
4	B9-B2503-011	Latch L	1	
5	A2-B2502-001	Shaft Latch	1	
6	B9-B2502-011	Latch R	1	
7	A2-F1203-001	Adapt Spring TPH	1	
8	A2-B2501-001	Bracket TPH	1	
9	B9-B2509-011	Hinge Cover L	1	
10	A2-B2504-001	Holder Media L	1	
11	A2-B2505-001	Rack Holder	1	
12	B2-FT204-001	Gear Media Holder M08M14	1	
13	A2-B2503-001	Holder Media R	1	
14	B9-B2508-011	Hinge Cover R	1	
15	B2-B2501-001	Gear_Platen	1	
16	B5-B2301-001	Roller	1	
17	A2-B2511-001	Bushing_Platen	2	
18	A2-B2512-001	Bearing_Pin	1	
19	B2-B2503-001	Gear_Chassis	1	
20	B2-B2502-001	Gear_Chassis_Idle	1	
21	B5-B2502-001	Pin_Gear	1	
22	A7-B2501-001	Mylar_sensor	1	
23	A2-B2509-011	Bracket_Sensor	1	
24	B0-B2302-002	Chassis	1	
25	B9-B2512-011	Cover_Front	1	
26	A7-B2502-001	Mylar_reflection	1	
27	A2-B2507-011	Rel_Label_Guide	1	
28	A2-B2508-001	Stoper_Guide_Media	1	
29	A2-B2506-001	Cover_Spring_Media	1	
30	B9-B2510-011	Cover Bottom	1	
31	B9-B2511-031	Cover_Interface	1	
32	A2-B2519-001	Frame Switch	1	
33	B0-C2101-002	Set of Platen Switch Cable	1	

Item	Part No.	Description	Q'ty	Remark
A	B6-VA524-100	SCREW T3X10 NI	8	
B	B6-AC524-6R0	SCREW T3X8 WASHER	2	
C	B6-17524-6R0	SCREW M3X8 Washer NI	2	
D	B6-V0524-100	Screw T3x10 NI	2	
E	B6-19P24-6R0	Screw M3x6 Washer Nylok	2	
F				
G				
H	34-B2501-001	Spring TPH	1	
I	34-B2502-001	Spring Latch	2	
J	34-B2503-001	Spring Media Holder	1	
K				
L				
M	38-81241-406	E ring #4	2	
N	55-B2507-003	B2 LAN PCBA	1	
O	55-B2503-002	B2 Series See-IR PCBA	1	
P	55-B2501-001	B2 Series Panel PCBA	1	
Q	55-B2502-001	B2 Series REF PCBA	1	
R	55-B2504-003	B2 Series M/B PCBA	1	
S	23-83824-001	Kyocera TPH300dpi	1	
T	27-04282-381	B2 Series TPH Cable	1	
U	22-80003-018	Stepping Motor	1	
V	27-40681-191	B2 Motor Cable V2	1	
W				
X				
Y	A7-F1210-001	Mylar TPH-A	2	
Z	38-19001-005	Rubber Foot	4	

MATERIAL		UNIT	SHEET 1 OF 1	ARGOX	
COLOR		TOLERANCES UNLESS NOTED			
FINISH		LINEAR ±	0.1MM	A1	THIRD ANGLE PROJECTION
Q'TY/M		ANGLES ±	1°		
DRN		DRAFT UNLESS NOTED	2°	PART NAME	WS212DT-LAN
DSN		RADII UNLESS NOTED	0.5MM		
CKD		PART	SC_MODULE_IB_BT_EN	PART NO.	99-W2302-400
APPD		DRAWING	EXP_99-W2302-400		

Appendix A: DIP Switch

DIP Switch	Description	Description	Default
1	Switch between the firmware mode and Atmel mode.	ON: Firmware mode. It boots your printer from the flash memory. OFF: Atmel mode. It boots your printer from CPU ROM. **Important** In Atmel mode, DIP 2 (watchdog) must be set to OFF.	ON
2	Enable or disable the watchdog.	ON: Enable watchdog OFF: Disable watchdog	ON
3	Reserved.	N/A	OFF
4	Reserved.	N/A	OFF
5	Reserved.	N/A	OFF
6	Reserved.	N/A	OFF
7	Reserved.	N/A	OFF
8	Reserved.	N/A	OFF