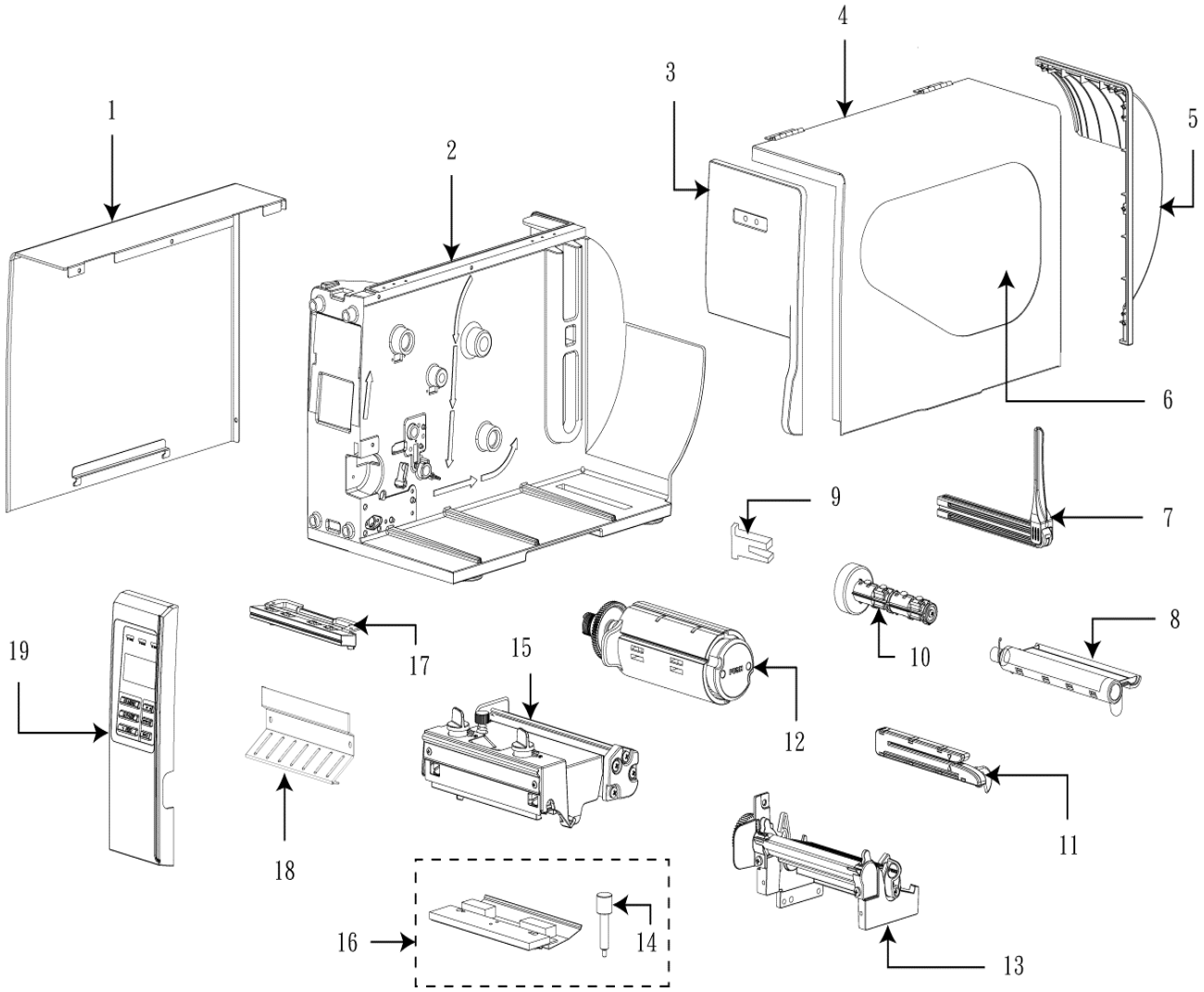
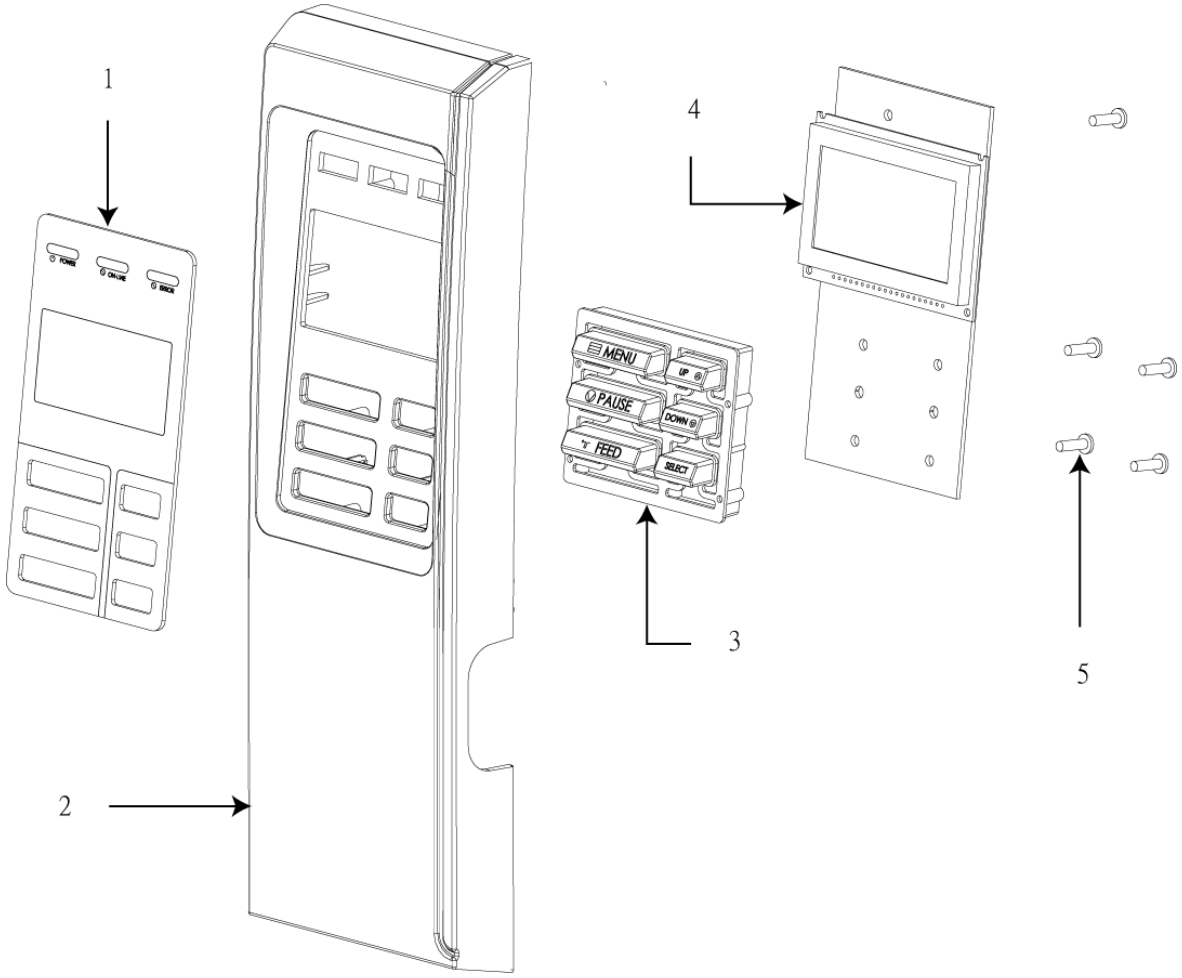
4. PART LIST

4.1 Main Printer Assemblies



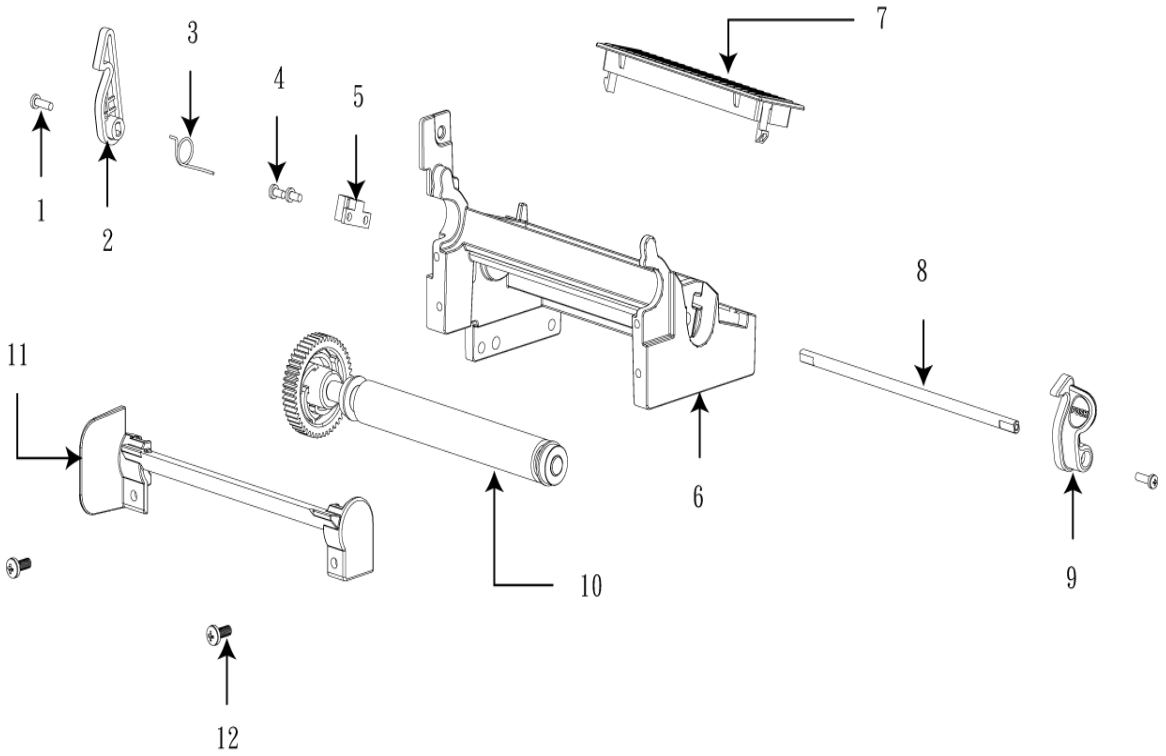
No.	Part No.	Description	Remark	Spare Requirement
1	120732	Electronics cover	1 pc	
2	N/A	Mainframe	1 pc	
3	120733	Cover, front	1 pc	
4	120734	Top right side cover	1 pc	
5	120735	Cover, rear	1 pc	
6	30-0240016-00LF	Media view window	1 pc	
7	120736	Media supply spindle assembly	1 pc	
8	98-0240021-00LF	Media damper assembly	1 set	
9	120737	Ribbon sensor assembly	1 pc	1%
10	120738	Ribbon supply spindle assembly	1 set	
11	120739	Media sensor assembly	1 pc	1%
12	120740	Ribbon rewind spindle assembly (Including gear)	1 set	1%
13	120741	Print engine lower mechanism assembly (Including platen roller assembly)	1 set	1%
14	120742	Screw, M3x6 (For TPH)	1 pc	
15	120743	Print engine upper mechanism assembly (Including print head burn line adjustable bracket assembly)	1 set	
16	120727	Printhead module (M7 PLUS/203dpi)	1 set	3%
	120728	Printhead module (M7 PLUS /300dpi)		
	120729	Printhead module (M7 PLUS/600dpi)		
	120725	Printhead module (M7/203dpi)		
	120726	Printhead module (M7/300dpi)		
N/S	72-0240003-00LF	Printhead harness (M7 PLUS)	1 pc	
	72-0240012-00LF	Printhead harness (M7)		
	72-0240021-00LF	Printhead harness (M7 PLUS 600dpi)		
17	120744	Front lower plastic cover	1 pc	
18	120745	Lower front panel	1 pc	
19	120746	LCD panel assembly	1 set	

4.2 LCD Panel Assembly



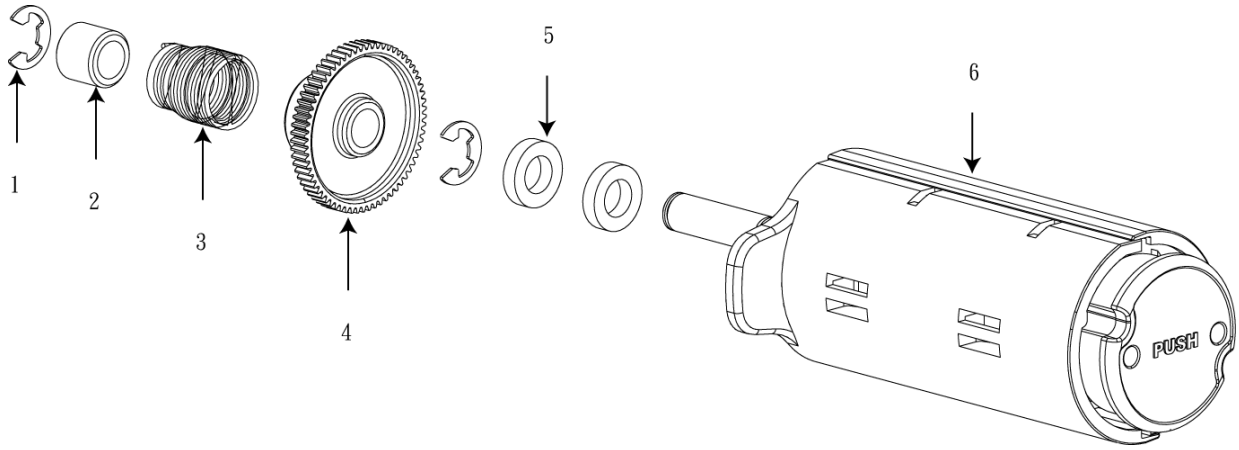
No.	Part No.	Description	Remark	Spare Requirement
1	120747	Panel plate	1 pc	
2	120748	Panel cover	1 pc	
3	120749	Keypad	1 pc	
4	120750	LCD panel board assembly	1 pc	1%
5	120751	Screw, TP3*8	5 pcs	

4.3 Print Engine Lower Mechanism Assembly



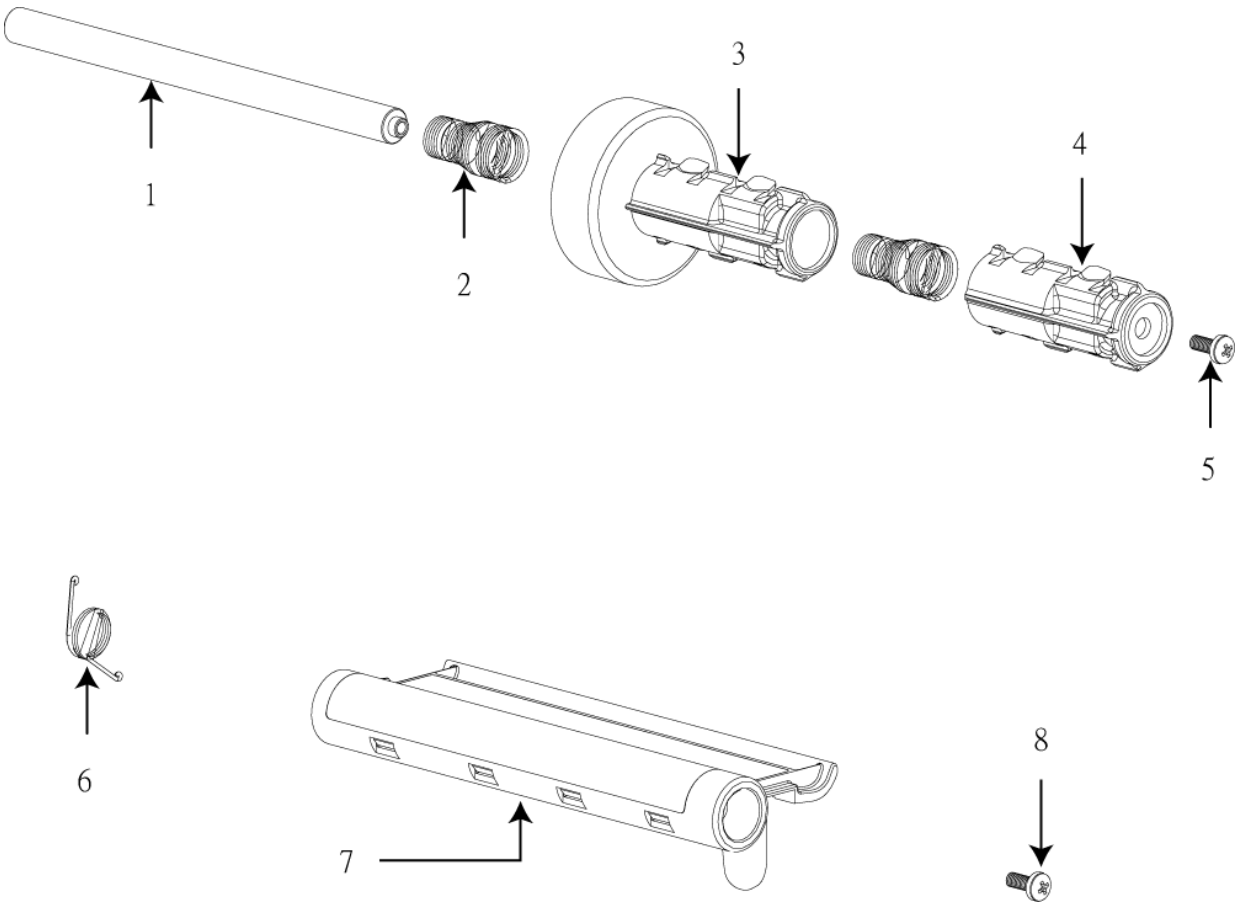
No.	Part No.	Description	Remark	Spare Requirement
1	37-1502510-34LF	Screw, M2.5*10	2 pcs	
2	30-0240032-00LF	Print head release lever (Left)	1 pc	
3	32-0240032-00LF	Spring torsion	1 pc	
4	37-1503006-G4LF	Screw, M3*6	2 pcs	
5	98-0240034-00LF	Print head open sensor	1 pc	
6	32-0240029-00LF	Print engine lower frame	1 pc	
7	30-0240033-00LF	Media path cover	1 pc	
8	32-0240031-10LF	Shaft	1 pc	
9	30-0240031-00LF	Print head release lever (Right)	1 pc	
10	120752	Platen roller assembly	1 set	3%
11	32-0240030-00LF	Platen holder	1 pc	
12	37-1504012-54LF	Screw, M4*12	2 pc	

4.4 Ribbon Rewind Spindle Assembly



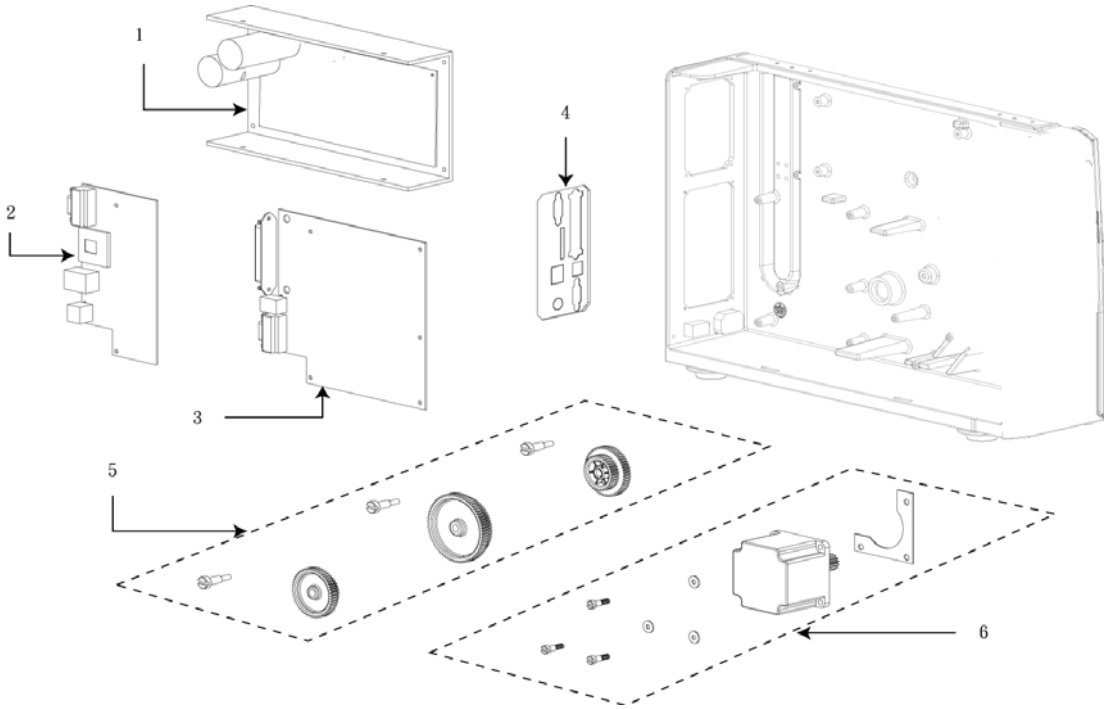
No.	Part No.	Description	Remark	Spare Requirement
1	37-3410200-02LF	E-ring, ID10*OD20*T0.6mm	2 pcs	
2	32-0240036-00LF	Bearing	1 pc	
3	32-0240014-00LF	Spring	1 pc	
4	120753	Gear	1 pc	1%
5	32-0240037-00LF	Bearing	2 pcs	
6	98-0240057-00LF	Ribbon rewind spindle	1 set	

4.5 Ribbon Supply Spindle Assembly & Damper Assembly



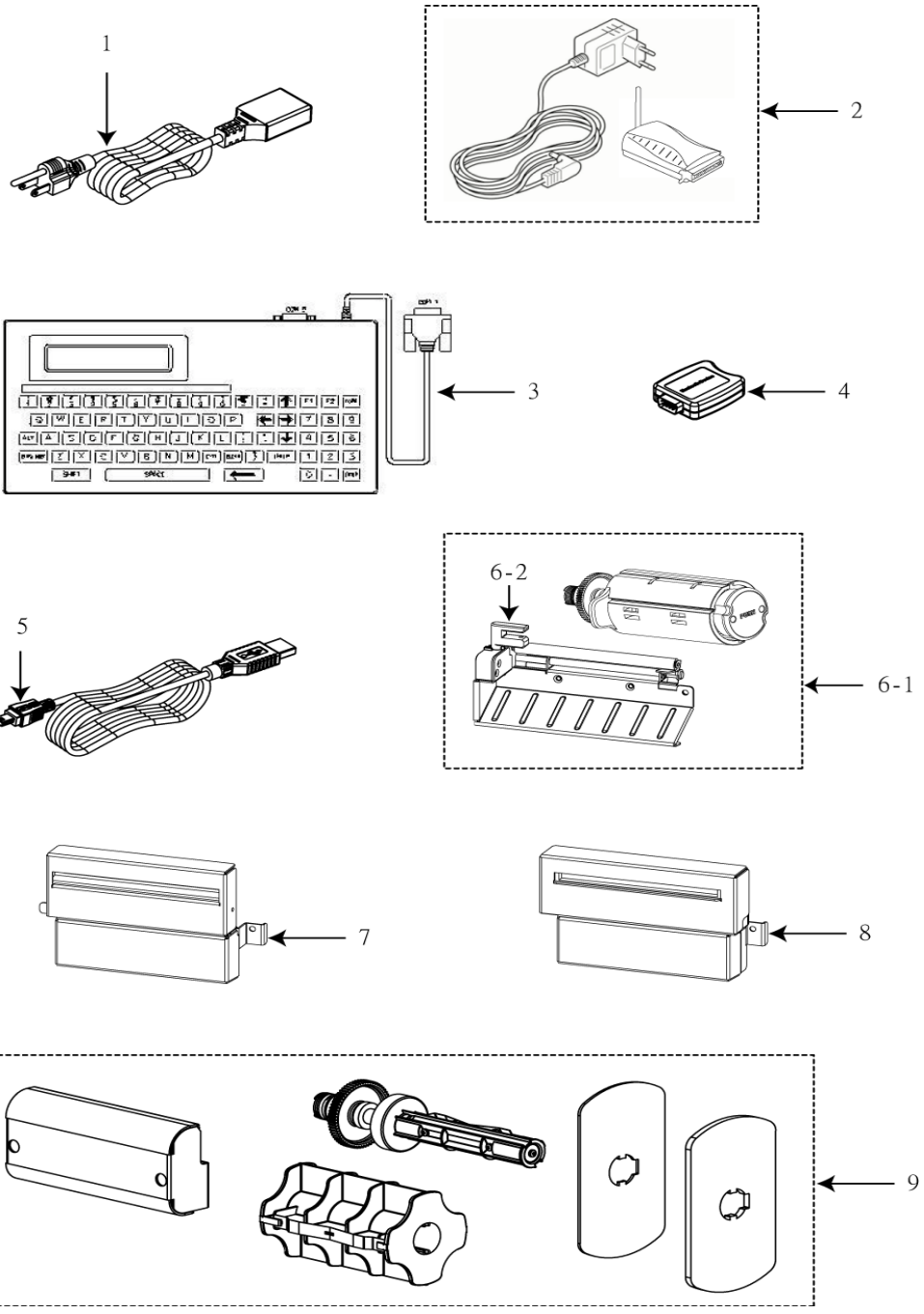
No.	Part No.	Description	Remark	Spare Requirement
1	32-0240012-00LF	Ribbon supply spindle shaft	1 pc	
2	32-0240011-00LF	Spring, ribbon supply spindle	2 pcs	
3	98-0240059-00LF	Ribbon supply spindle front cover (Including magnet module)	1 pc	
4	30-0240024-00LF	Ribbon supply spindle rear cover	1 pc	
5	37-1504008-54LF	Screw, M4*8	1 pc	
6	32-0240009-00LF	Spring, damper	1 pc	
7	98-0240058-00LF	Media damper	1 pc	
8	37-1504008-54LF	Screw, M4*8	1 pc	

4.6 Electronics Maintenance Kit & Drive System



No.	Part No.	Description	Remark	Spare Requirement
1	120754	Power supply unit (M7 PLUS)	1 set	3%
	120755	Power supply unit (M7)		
2	120806	Multi-interface board (Dealer option for M7)	1 set	
	98-0240044-00LF	GPIO with multi-interface board (Dealer option for M7)	Factory option	
3	120756	Main board (M7 PLUS)	1 set	3%
	120757	Main board (M7)		
4	32-0240006-10LF	Interface plate	1 pc	
5	120758	Gear set	1 set	1%
6	120759	Stepping motor kit	1 set	1%

4.7 Option and Accessories



No.	Part No.	Description	Remark	Spare Requirement
1	120761	Power cord / US	Standard	
	72-0050007-00LF	Power cord / EU	Option	
	72-0050007-10LF	Power cord / EU 90 degree	Option	
	72-0050010-10LF	Power cord / UK	Option	
	72-0050011-10LF	Power cord / AU	Option	
	72-0180003-00LF	Power cord / JP	Option	
2	120762	External wireless print server / US	Option	
	98-1000012-00LF	External wireless print server / EU		
3	120763	KU-007 Plus, programmable keyboard unit	Option	
	120764	KP-200, stand-alone keyboard unit	Option	
4	120711	Bluetooth module	Option	
5	120767	USB cable	Standard	
	120765	Parallel port cable	Option	
	120766	RS-232 cable	Option	
6-1	120707	Peel-off kit (Including internal rewind + Peel-off module)	Option	
6-2	120768	Peel-off sensor assembly	Option	
7	120710	Regular cutter module (Guillotine cutter)	Option	
8	120760	Heavy duty cutter module (Rotary cutter)	Option	
9	120708	Internal Rewinding Kit (Including Internal Rewind + Label Redirect Front Panel)	Option	

5. TROUBLESHOOTING

5.1 Common Problems

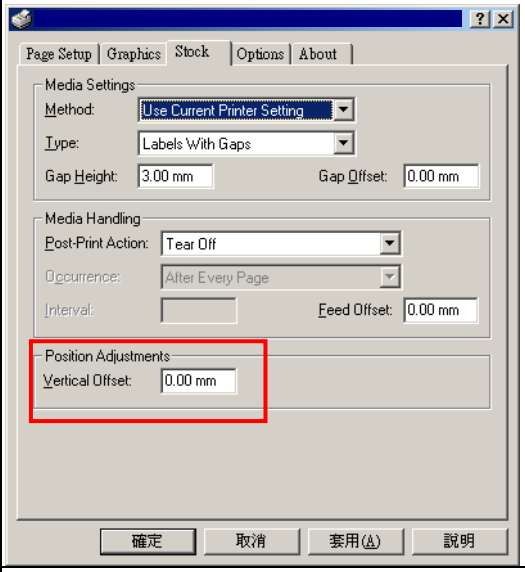
The following guide lists the most common problems that might be encountered when operating this bar code printer. If the printer still does not function after all suggested solutions have been invoked, please contact the Customer Service Department of your purchased reseller or distributor for assistance.

Problem	Possible Cause	Recovery Procedure
Power indicator does not illuminate	* The power cord is not properly connected.	* Plug the power cord in printer and outlet. * Switch the printer on.
`Carriage Open`	* The printer carriage is open.	* Close the print carriage.
`No Ribbon`	* Ran out of ribbon. * The ribbon is installed incorrectly. * The ribbon sensor is not been well calibrated.	* Supply a new ribbon roll. * Refer to the user's manual to reinstall the ribbon.
`No Paper`	* Ran out of label. * The label is installed incorrectly. * Gap/black mark sensor is not calibrated.	* Supply a new label roll. * Refer to the user's manual to reinstall the label roll. * Calibrate the gap/black mark sensor.
`Paper Jam`	* Gap/black mark sensor is not set properly. * Make sure label size is set properly. * Labels may be stuck inside the printer mechanism.	* Calibrate the gap/black mark sensor. * Set label size correctly.
`Take Label`	* Peel function is enabled.	* If the peeler module is installed, remove the label. * If there is no peeler module in front of the printer, turn off the printer and install it. * Check if the connector is plugging correctly.

UP: Fwd. DOWN: Rev. MENU: Exit	* Cutter jam. * There is no cutter installed on the printer. * Cutter PCB is damaged.	* If the cutter module is installed, press the UP or DOWN key to rotate the cutter knife back to the start position. * Remove the label. * Make sure the thickness of label is less than .008” (for regular cutter) or .013” (for heavy duty cutter). * Replace a cutter PCB.
Not Printing	* Cable is not well connected to serial or USB interface or parallel port. * The serial port cable pin configuration is not pin to pin connected.	* Re-connect cable to interface. * If using serial cable, - Reconnect the cable. - Check the baud rate setting. The default baud rate setting of printer is 9600,n,8,1. * If using the Ethernet cable, - Check if the Ethernet RJ-45 connector green LED is lit on.. - Check if the Ethernet RJ-45 connector amber LED is blinking. - Check if the printer receives the IP address when using DHCP mode. - Check if the IP address is correct when using the static IP address. - Wait a few seconds, let the printer receive the communication with the server then check the IP address setting again. * Chang a new cable. * Ribbon and media are not compatible. * Verify the ribbon-inked side. * Reload the ribbon again. * Clean the printhead. * The print density setting is incorrect. * The printhead harness is partially connected. Turn off the printer and reconnect the cable connector. * Check if the stepping motor cable is terminated properly and inserted into the correct connector. * Check your program if there is a command PRINT at the end of the file, and CRLF at the end of each command line.
Memory full (FLASH / DRAM)	* The space of FLASH/DRAM is full.	* Delete unused files in the FLASH/DRAM. * The max. numbers of file of DRAM is 50 files. * The max. user addressable memory space of DRAM is 256 KB * The max. numbers of file of FLASH is 256 files. * The max. user addressable memory space of FLASH is 2560 KB for M7 and 6656KB for M7 PLUS.

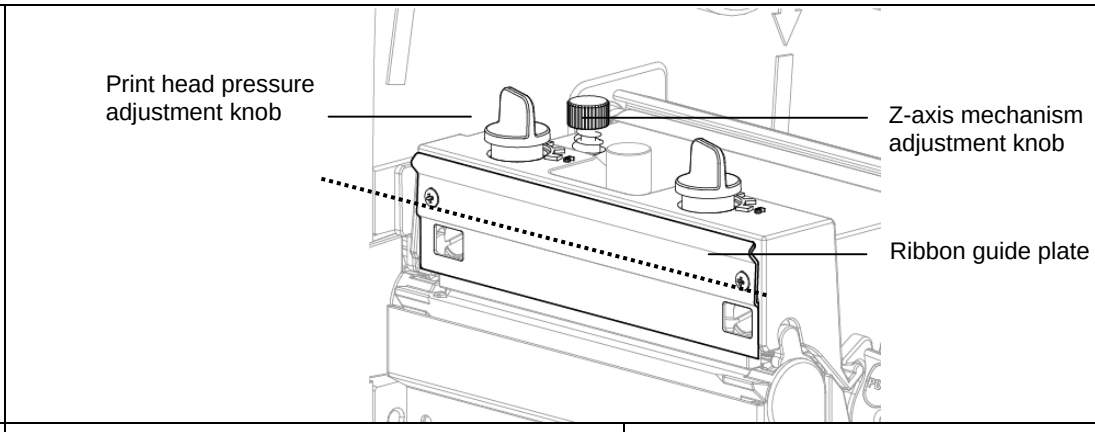
SD card is unable to use	* SD card is damaged. * SD card doesn't insert correctly. * Non-approved SD card manufacturer.	* Use the supported capacity SD card. * Insert the SD card again. * The supported SD card spec. - 128MB - 256MB - 512MB - 1GB - 4GB SDHC CLASS 6 * Approved SD card manufacturers; SanDisk, Transcend
PS/2 port does not work	* Did not turn off power prior to plug in the PS/2 keyboard * PS/2 keyboard is damaged. * PS/2 keyboard cable termination. * There is no BAS file in the printer.	* Turn off printer power prior to plugging in the PS/2 keyboard . * Plug the PS/2 keyboard again. * Return damaged keyboard for repair. * Verify the BAS file has downloaded into printer.
Poor Print Quality	* Ribbon and media is loaded incorrectly * Dust or adhesive accumulation on the print head. * Print density is not set properly. * Printhead element is damaged * Ribbon and media are incompatible. * The printhead pressure is not set properly	* Reload the supply. * Clean the printhead. * Clean the platen roller. * Adjust the print density and print speed. * Run the printer self-test to verify print pattern and printhead performance. * Change proper ribbon or proper label media. * Adjust the printhead pressure adjustment knob. - If the left side printout is too light, adjust the left side pressure adjustment knob to the higher index (higher pressure). If the pressure adjustment knob has been adjusted to index "5" and the poor print quality is still at the left side of the printout, adjust the pressure adjustment knob to index "1" and use the Z-axis adjustment knob to fine-tune the pressure. - If the right side printout is too light, adjust the right side pressure adjustment knob to the higher index (higher pressure) to improve the print quality. * If the label thickness is more than 0.009 inch, and the print quality is inadequate, adjust the heater line adjustment screw counter clockwise to get the best print quality. * The release lever does not latch the printhead properly.

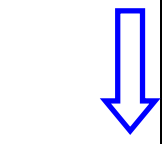
LCD panel is dark and keys are not working.	* The cable between main PCB and LCD panel is loose.	* Check if the cable between main PCB and LCD is secured or not.
LCD panel is dark but the LED's are light.	* The printer initialization is unsuccessful.	* Turn OFF and ON the printer again. * Initialize the printer.
LCD panel is dark and LED's are lit on, but the label is feeding forward.	* The LCD panel harness connector is loose.	* The LCD panel harness connector is plugged upside down.
Ribbon encoder sensor doesn't work.	* The ribbon encoder sensor connector is loose.	* Fasten the connector.
Ribbon end sensor doesn't work.	* The connector is loose. * The ribbon sensor hole is covered with dust.	* Check the connector. * Clear the dust in the sensor hole by the blower.
Peel sensor is not working.	* Peel sensor is not located on the correct position. * The connector is loose.	* Make sure that the media goes through the Peel sensor. * Plug the connect cable correctly.
Cutter is not working.	* The connector is loose.	* Plug in the connect cable correctly.
Label feeding is not stable (skew) when printing.	* The media guide does not touch the edge of the media.	* If the label is moving to the right side, adjust the label guide to left. * If the label is moving to the left side, adjust the label guide to right.
Skips labels when printing.	* Label size is not specified properly. * Sensor sensitivity is not set properly. * The media sensor is covered with dust.	* Check if label size is setup correctly. * Calibrate the sensor by Auto Gap or Manual Gap options. * Clear the GAP/Black mark sensor by blower.

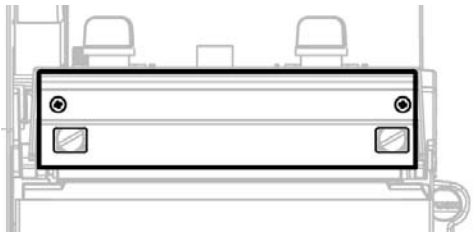
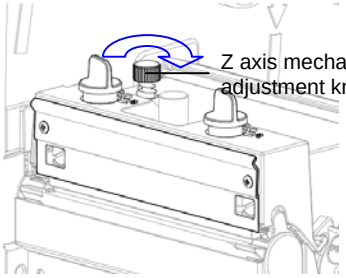
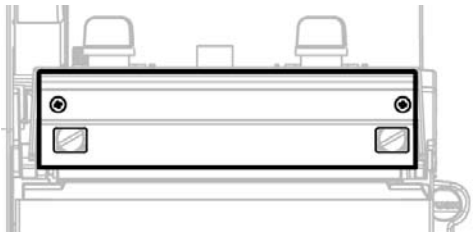
Small label printing position is incorrect.	* Media sensor sensitivity is not set properly. * Label size is incorrect. * The parameter Shift Y in the LCD menu is incorrect. * The vertical offset setting in the driver is incorrect.	* Calibrate the sensor sensitivity again. * Set the correct label size and gap size. * Press [MENU] → [SELECT] x3→[DOWN] x6 → [SELECT] to fine-tune the parameter of Shift Y. * If using the software BarTender, adjust the vertical offset in the driver. 
The left side printout position is incorrect.	* Wrong label size setup. * The parameter Shift X in LCD menu is incorrect.	* Set the correct label size. * Press [MENU] → [SELECT] x 3 → [DOWN] x 5 → [SELECT] to fine tune the parameter of Shift X.
Missing printing on the left or right side of label.	* Wrong label size setup.	* Set the correct label size.
RTC time is incorrect when reboot the printer.	* The battery has run down.	* Check if there is a battery on the main board.
Multi interface board doesn't work.	* The installation is incorrect.	* Check if the board is plugged in the right connector.
Power and Error LED's are blinking fast.	* Power switch OFF and ON too fast.	* Turn off the printer and wait all LED's are dark, and turn on the printer again.
Wrinkle Problem	* Printhead pressure is incorrect. * Ribbon installation is incorrect. * Media installation is incorrect. * Print density is incorrect. * Media feeding is incorrect.	* Refer to chapter 5.2. * Adjust the suitable density to have acceptable print quality. * Make sure the label guide touch the edge of the media guide.
Gray line on the blank label	* The printhead is dirty. * The platen roller is dirty.	* Clean the printhead. * Clean the platen roller.
Irregular printing	* The printer is in Hex Dump mode. * The RS-232 setting is incorrect.	* Turn off and on the printer to skip the dump mode. * Re-set the Rs-232 setting.

5.2 Mechanism Fine Adjustment to Avoid Ribbon Wrinkles

This printer has been fully tested before delivery. There should not be ribbon wrinkle presented on the printed media for general-purpose applications. Ribbon wrinkle is related to the media thickness, print head pressure, balance, ribbon film characteristics, print darkness setting…etc. In case of ribbon wrinkle, follow the instructions below to adjust the printer.

<table>
<tr><td>Adjustable Printer Parts</td><td colspan="2"> 
</td></tr>
<tr><td>Symptom</td><td>1. Wrinkle (missing print) occurs from lower left to upper right direction</td><td>2. Wrinkle (missing print) occurs from lower right to upper left direction</td></tr>
<tr><td>Wrinkle Example</td><td> 


</td><td> 
</td></tr>
</table>

	Adjust the print head pressure adjustment knob **Left knob** **Right knob**  The print head pressure adjustment knob has 5 levels of settings. Clockwise direction adjustment is to increase the print head pressure. Counter Clockwise adjustment can decrease the print head pressure. If the wrinkle on the label starts from the lower left side to upper right side, perform the following adjustment. 1. Decrease the right side print head pressure adjustment knob setting 1 level per each adjustment. Print the label again to check if the wrinkle (missing print) is gone. 2. If the right side print head adjustment knob setting has been set to index 1 (the lowest pressure index), increase the left side print head pressure. 3. If the left side print head adjustment knob setting has been set to 5 (the highest pressure index) and the wrinkle can't be avoided, rotate both knobs back to setting 1. Rotate the Z-axis mechanism adjustment knob clockwise for a few degrees and print again. Repeat previous steps to fine-tune the print head pressure.  	**Adjust the print head pressure adjustment knob** **Left knob** **Right knob**  The print head pressure adjustment knob has 5 levels of settings. Clockwise direction adjustment is to increase the print head pressure. Counter Clockwise adjustment can decrease the print head pressure. If the wrinkle on the label starts from the lower right side to upper left side, perform the following adjustment. 1. Decrease the left side print head pressure adjustment knob setting 1 level per each adjustment then print the label again to check if the wrinkle (missing print) is gone. 2. If the left side print head adjustment knob level has been set to index 1 (the lowest index), increase print head pressure on the right side.

Note for step 3:

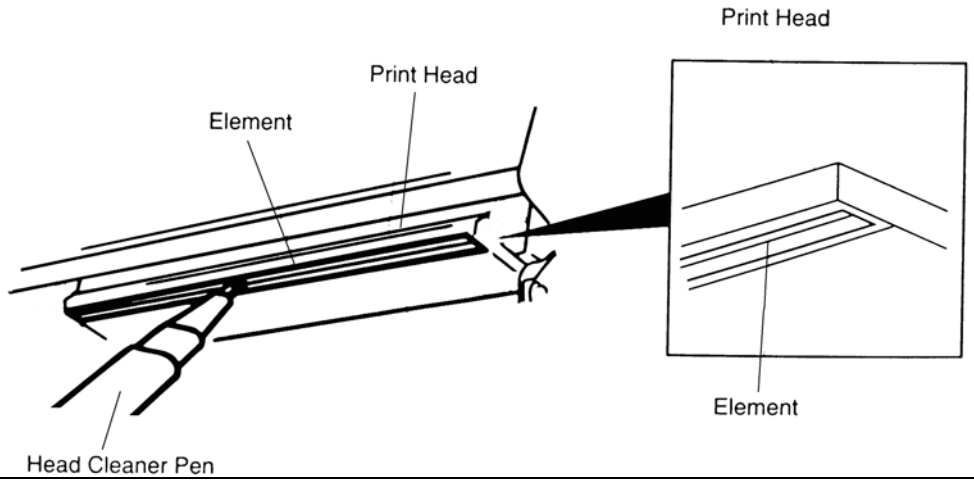
*Factory default setting, the Z-axis knob is rotated counter clockwise to the end of thread.
*Turn the Z-axis mechanism adjustment knob clockwise until you feel the knob touch the mechanism for the first adjustment.
* If the wrinkle is still there, adjust the Z-axis mechanism knob clockwise about 1/4 circle each time for adjustment.
* If adjusting the Z-axis mechanism adjustment knob changes the winkled direction, turn the knob counter clockwise to avoid the wrinkle.

6. MAINTENANCE

This section pertains to the cleaning tools and methods used to maintain your printer.

1. Use one of following materials to clean the printer.
   - Cotton swab (Head cleaner pen)
   - Lint-free cloth
   - Vacuum / Blower brush
   - 100% ethanol

2. The cleaning process is described as following:

<table>
<tr><th>Printer Part</th><th>Method</th><th>Interval</th></tr>
<tr><td rowspan="2">Print Head</td><td>1. Always turn off the printer before cleaning the print head.
2. Allow the print head to cool for a minimum of one minute.
3. Use a cotton swab (Head cleaner pen) and 100% ethanol to clean the print head surface.</td><td>Clean the print head when changing a new label roll</td></tr>
<tr><td colspan="2"> 
</td></tr>
</table>

Platen Roller	1. Turn the power off. 2. Rotate the platen roller and wipe it thoroughly with 100% ethanol and a cotton swab, or lint-free cloth.	Clean the platen roller when changing a new label roll
Tear Bar/Peel Bar	Use the lint-free cloth with 100% ethanol to wipe it.	As needed
Sensor	Compressed air or vacuum	Monthly
Exterior	Wipe it with water-dampened cloth	As needed
Interior	Brush or vacuum	As needed

Note:

- Do not touch the print head by hand. If needed, use ethanol to clean it.
- Only use 100% Ethanol. DO NOT use medical alcohol, which may damage the printer head.
- Clean the print head and supply sensors each time the ribbon is replaced to maintain performance and extend printer life.

UPDATE HISTORY

Date	Content	Editor
1 JUN 09	Production Release	JFN

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