

QUICK START GUIDE DIAGNOSTIC UTILITY





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1. GETTING STARTED WITH DIAGNOSTIC UTILITY

The Diagnostic Utility is an integrated tool to explore the printer settings/status, change the printer settings, download graphics, fonts and firmware, create a printer bitmap font and send additional commands to the printer. With this tool, you can review the printer status and settings.

1.1 Start the Diagnostic Utility

- 1. Double click on the Diagnostic tool icon to start the software. 🛛 📇 DiagTool.exe
- 2. There are four features (Printer Configuration, File Manager, Bitmap Font Manager, Command Tool) included in the Diagnostic utility.





1.2 Select the PC interface connected with bar code printer

Default setting is USB interface. No further setting is required.

Interface	
USB 👻	Setup
USB	
COM	1
LPT	
ETHERNET	

If RS-232 port is selected, further setup is required to select the serial port, baud rate, parity check, data bits, stop bit and flow control.

COM Port	COM1	-
Baud Rate	9600	•
Data Bits	8	•
Parity	None	•
Stop Bit(s)	1	•
Hardware Handshaking	RTS	•
Software Handshaking	None	-

If parallel port is selected, need to further select the parallel port (LPT1, LPT2...) that connected with bar code printer.

Note: Printer parallel interface does not support bi-directional communication. Printer settings and status will not be available by parallel port connection.

If Ethernet is selected, you need to select the bar code printer.

TCP/IP Setup)				
Printer Name PS-807368	MAC 00:18:82:80:73:68	IP Address 192.168.0.3	Model Name PS-807368	Status Ready	IP Setting IP Address/Printer Name 192.168.0.3 Port 9100
Discover De	vice Change IP A	Address Fa	actory Default	Web Setup	Exit



2. PRINTER INFORMATION

Once your printer is connected via USB, RS-232 or Ethernet cable, the DiagTool will read the printer firmware version, serial number, check sum, cutting counter and printing mileage.

Printer Information			
Version:	 Cutting Counter:		_
Serial No:	Mileage:		Km
Check Sum:			
		 Non-resettable	
		Resett	able

Note:

There are two different mileage counters for cutting counter and printing mileage. One is non-resettable setting, another is resettable setting. The resettable counter setting value can return to zero when replacing new cutter or new print head.



3. CONFIGURE THE PRINTER SETTINGS

There are five setting tabs (Common settings, ZPL settings, DPL settings, RS-232 settings and Wireless settings) included in the printer configuration feature. The common setting tab includes the settings that generally used for TSPL/EPL2/ZPL/DPL printer languages.

TSPL2 printer language

Common Z D	RS-232 Wireless			
Speed		Ribbon		•
Density	-	Ribbon Sensor		•
Paper Width	inch	Ribbon Encoder Err.		•
Paper Height	inch	Code Page		¥
Media Sensor	_	Country Code		•
Gap	inch	Head-up Sensor		•
Gap Offset	inch	Reprint After Error		•
Post-Print Action	_	Maximum Length		inch
Cut Piece		Gap Inten.		
Reference		Bline Inten.		
Direction	• •	Continuous Inten.		
Offset		Threshold Detection		•
Shift×				
Shift Y				
Clear	Load Sa	ve	Set	Get



ZPL® printer language settings

Common Z D	RS-232 Wireless		
Darkness	0 to 30		
Print Speed			
Tear Off	-120 to 12)	
Print Mode	•		
Print Width	inch		
Control Prefix			
Format Prefix			
Delimiter Char			
Media Power Up	•		
Head Close	•		
Label Top	-120 to 12)	
Left Position	-9999 to 95	999	
Clear	Load Save	Set	Get

Note: The items in the Z tab works with ZPL® printer language only.

Common	D	RS-232 V	Vireless		
Heat			0 to 30		
Print Speed					
Label Width			inch		
Present Sensor		•			
Cutter Equipped		•			
Control Codes			•		
Column Offset			inch		
Row Offset			inch		
Clear		Load	Save	Set	Get

DPL® printer language settings

Note: The items included in the D tab works with DPL® printer language only.



Printer RS-232 interface settings

Common Z	D RS-232 Wireless		
Baud Rate	-		
Data Bits	•		
Parity			
Stop Bit(s)	•		
	I		
Clear	Load Save	Set	Get

Wireless module settings

 Built-in wireless module 	C External wireles	ss module	
Built-in wireless module			
Bluetooth Local Name	WLAN SSID		
Bluetooth PIN Code	WLAN Encryption		
	WLAN Key		
	WLAN DHCP	Y	
	WLAN IP Address	0.0.0.0	
	WLAN Subnet Mask	0.0.0.0	
	WLAN Gateway	0.0.0.0	



3.1 Explore the printer settings

After setup the interface, turn on printer power then click "Get" button to get the printer settings.

Clear	Load	Save	Set	Get
-------	------	------	-----	-----

3.2 Change the printer settings

After get back the printer settings, the settings can be changed by enter new value in the editor or select different values from options. Click "Set" button to take effect the settings.

|--|

3.3 Save the printer settings to a file

Once read the printer settings from printer, the settings can be saved by click the "Save" button. The default filename extension is .DCF.

Clear	Load	Save	Set	Get

3.4 Load the saved printer setting file

The saved printer setting file (.DCF) can be retrieved by clicking on the "Load" then click "Set" button to change the printer settings.

Clear	Load	Save	Set	Get

3.5 Clear the printer settings in the Diagnostic Utility

Click the "Clear" button to clear the settings in each filed in the Printer Setup group.

Clear	Load	Save	Set	Get



4. INDIVIDUAL PRINTER FUNCTIONS

The detail functions are listed as below.

Printer Function	Function	Description
Calibrate Sensor	Calibrate Sensor	Calibrate the sensor specified in the Printer Setup group media sensor field.
Ethernet Setup	Ethernet Setup	Setup the IP address, subnet mask, gateway for the on board Ethernet.
RTC Setup	RTC Setup	Synchronize printer Real Time Clock with PC.
Factory Default	Factory Default	Initialize the printer and restore the settings to factory default.
Reset Printer	Reset Printer	Reboot printer.
Print Test Page	Print Test Page	Print a test page.
Configuration Page	Configuration Page	Print printer configuration.
Dump Text	Dump Text	To activate the printer dump mode.
Ignore AUTO.BAS	Ignore AUTO.BAS	Ignore the downloaded AUTO.BAS program.
Exit Line Mode	Exit Line Mode	Exit line mode.
Password Setup	Password Setup	Set the password to protect the settings.



5. POLLING PRINTER STATUS

When connecting printer with USB, RS-232 or Ethernet interface, the "Get Status" button will be visible to polling printer status. Whenever printer LED is blinking red, click "Get Status" to indicate printer status.

rinte	er Status	
Г		
	Get Status	

Error message	Solutions
Head Open	1. Close the print head.
	2. Check if the right/left side of print mechanism are latched securely.
Paper Jam	1. Check if any label is stuck in the print mechanism.
	2. Check the settings of label size and gap/black mark size are identical with printing media.
	3. Check the sensor type.
	4. Do sensor calibration again.
Out of Paper	1. Check the gap/black mark sensor position is located on the gap/black mark sensing path.
	2. Check if the label is empty.
	3. Do sensor calibration again.
Ribbon	1. Check if printer is run out of ribbon.
End Error	2. Check if the ribbon is broken between ribbon supply/take up spindle.
	3. Check if the paper core is installed on the ribbon take up spindle
	(for the models that need paper core for ribbon take up spindle)
	4. Check if ribbon spindle is installed at the wrong direction in the printer.
Ribbon	1. Close the print head. Check right/left sides of print mechanism are latched securely.
Encoder Error	2. Check if the ribbon is empty.
	3. Check if the ribbon is broken between ribbon supply/take up spindle.
	4. Check if the paper core is installed on the ribbon take up spindle (for the models that
	need paper core for ribbon take up spindle.
Pause	1. Press the FEED button again to resume printer for printing
	(for printer models with only one button)
	2. Press the PAUSE button to resume printer for printing
Drinting	
Printing	
Other Error	1. Print head overheat: Error indicator becomes solid red and printer stops printing. Once print head cools down, printer will resume the printing job
	2. Cutter jam:
	Remove the jammed media in the cutter.
	 The media thickness or paper weight is over spec.



6. FILE MANAGER

Detail functions are listed as below.

Janguage	Unit			Interface	
English	• (• inch	C mm	n	USB	▼ Setup
rinter Configuration F	ile Manager Bitmap	Font Manage	er Command Tool		
ile Download			File Information		File Format
іlе Туре	[-	O DRAM @ FLASH	C CARD	
	Browse	1	Ph	vsical Space	
				КВ	
ile Name	1			e space KR	C CARD
ile Size		Bytes		Kb	
lemory Device	FLASH _	-			
Font View	Down	oad		Get	Format



6.1 File download group

Select the file type then click "Browse" button to select the file for download.

Select the memory device to download the file. Click "Download" button to start to download the file.

File Download			
File Type	•		
	BMP		
	PCX True Type Font Bitmap Font		
File Name	Printer BASIC File Data File		
File Size	Firmware File TCF File		
Memory Device	FLASH 💌		
Font View	Download		

File Download		
File Type	True Type Font	-
	Browse	
File Name		
File Size		Bytes
Memory Device	FLASH -	
Font View	FLASH CARD	d

6.2 File information group

This feature is to list what files are downloaded in the selected memory device.

Select the memory device then click "Get" button to list the files saved in the selected memory.



6.3 File format group

This feature is used to delete all the files for the selected memory device.

Select the memory device then click "Format" button to delete all the files in the selected memory.

File Format Memory Device	
C DRAM	
FLASH	
C CARD	
Format	



7. BITMAP FONT MANAGER

Bitmap font manager is used to convert the selected TTF font into printer format bitmap font. Both fixed pitch and variable pitch bitmap font are supported.

Diagnostic Tool 1.6	3			
Language English	Unit © inch O mm		Interface USB	Setup
Printer Configuration Fil Font Select Font Encode Font Pitch Printer Device	le Manager Bitmap Font Manager	Command Tool Standard Encode Font Mapping Character Start ASCII Character End ASCII	Standard Mapping 🖵 32 127	
Windows Font Name Font Size ABCD	Arial 10 Select Font Preview Font	Asian Font Encode Traditional Chinese Simplified Chinese Korean Japanese Encode by Table		
Printer Font Name Font Width Font Height Italic Width	FONT001 13 16 0	By File	*	
		Load	Save	Save Font Download Font
PT1 COM1 S	9600,N,8,1 RTS		09.11.201	8 15:58:22

Font Select		
Font Encode	Standard Encode 📃 💌	
Font Pitch	Variable Pitch 💌	
Printer Device	FLASH 💌	
	FOUTOON	
Printer Font Name	FUNTOUT	
Font Width	13	
Font Height	16	
	Save Font	

Download Font

Select "Standard Encode", "Variable pitch" font. Specify the destination memory to save the bitmap font, font name and specify the font height then click "Download Font" button to download the converted bitmap font into printer memory. The converted bitmap font can also save to a file by clicking "Save Font" button.



8. COMMAND TOOL

The additional features can be achieved by sending out printer commands to printer. Select an editor (1 to 12) and enter the commands in the editor input field. Be sure to hit the Enter key at the end of each command line. Click "Send" button to send commands to printer. You can also send a command file by clicking "Send File" button.

Click "Save" button to save the commands in the selected editor. You can also open the file to the editor by clicking "Load" button then click "Send" button to send the data to printer.

Diagnostic Tool 1.63		
Language Unit English Unit inch	C mm	USB Setup
Printer Configuration File Manager Bitmap Fon -Editor	Manager Command Lool	
• 1		
C 2		
C 3		
C 4		
C 5		
C 6		
07		
C 8		
C 9		
O 10		
C 11		
O 12		
Send File Send]	Load Save
T1 COM1 9600, N,8,1 RTS		09.11.2018 15:58:00



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