

Diagnostic Utility

Quick Start Guide

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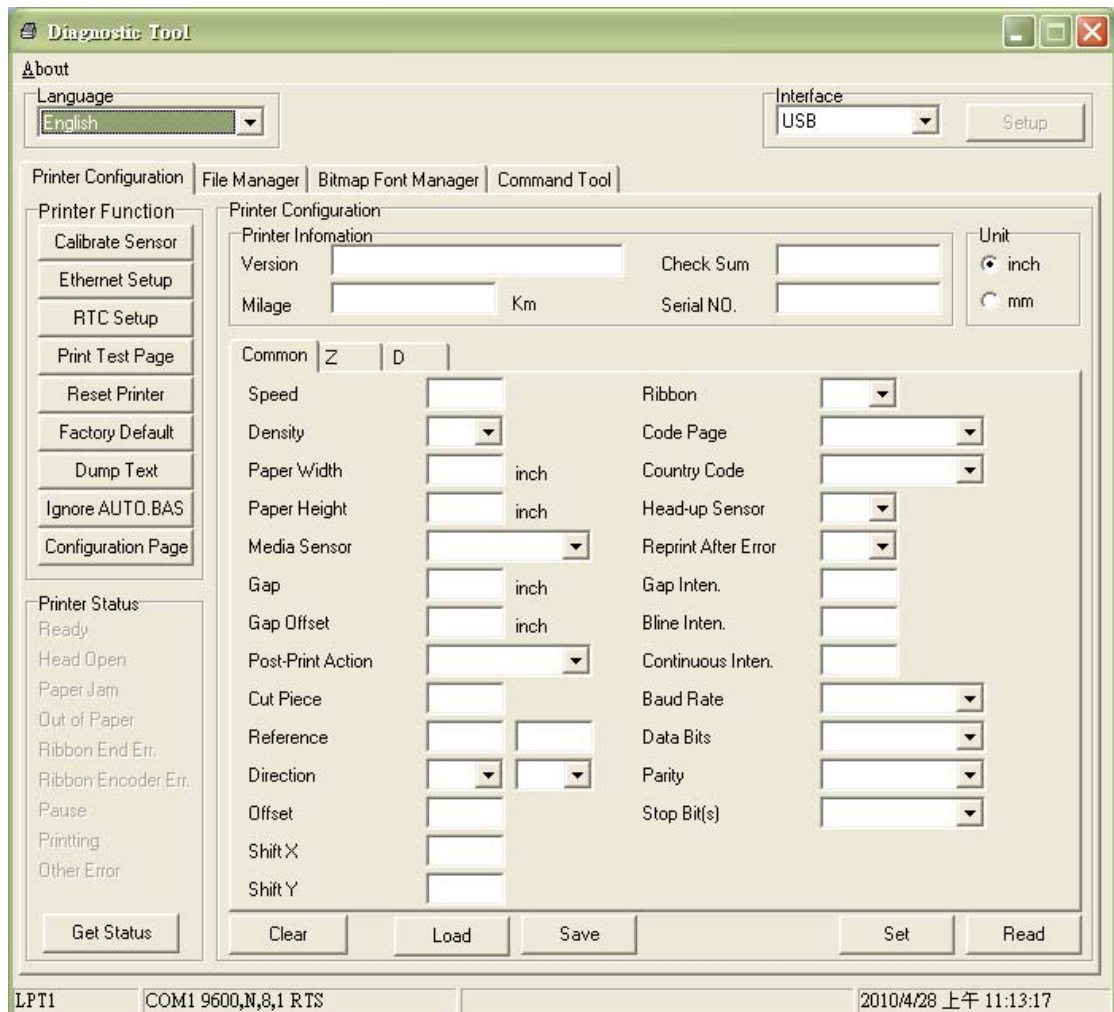
1. Getting started with Diagnostic Utility

Diagnostic Utility is an integrated tool that includes the features to explore the printer settings/status, change the printer settings, download graphics, fonts, firmware, create printer bitmap font and the tool to send additional commands to printer. By this convenient tool, users can explore the printer status and settings at instance and it will be easier to troubleshoot the printer.

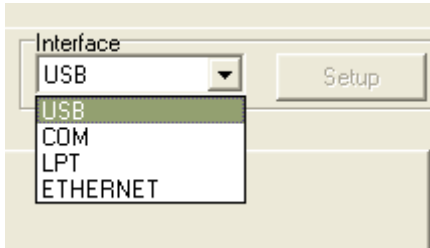
Note: This utility works with printer firmware V6.00 and later versions. If the printer firmware version is higher than V6.78, then please use DiagTool V1.28.

1.1 Start the Diagnostic Utility

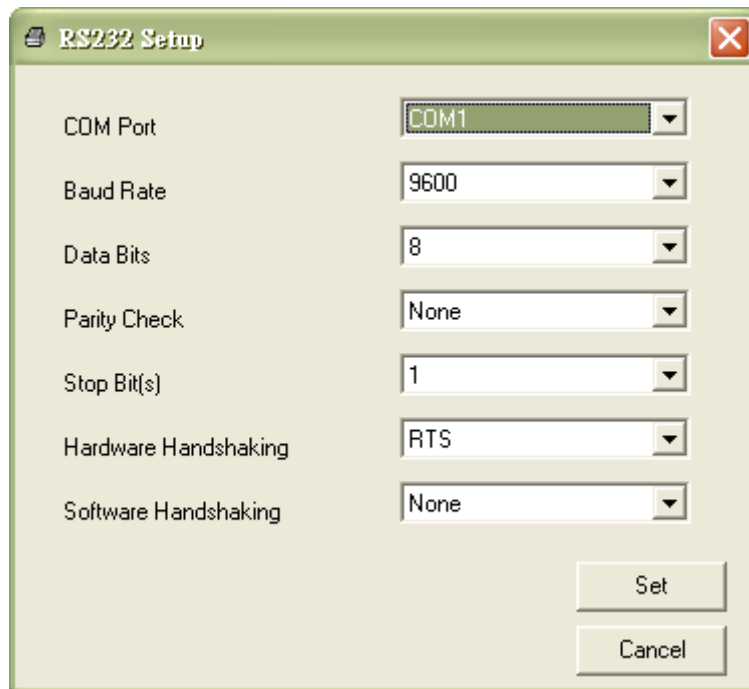
Double click on the Diagnostic utility icon  `DiagTool.exe` to start the software. There are four features (Printer Configuration, File Manager, Bitmap Font Manager, Command Tool) included in the Diagnostic utility.



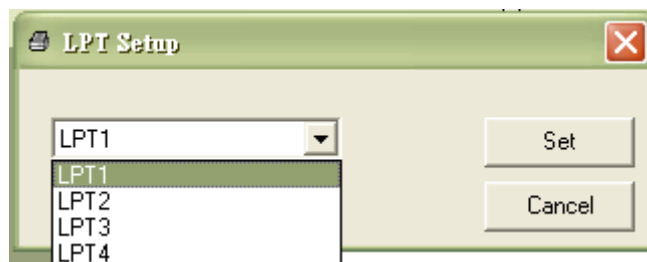
1.2 Select the PC interface connected with bar code printer



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

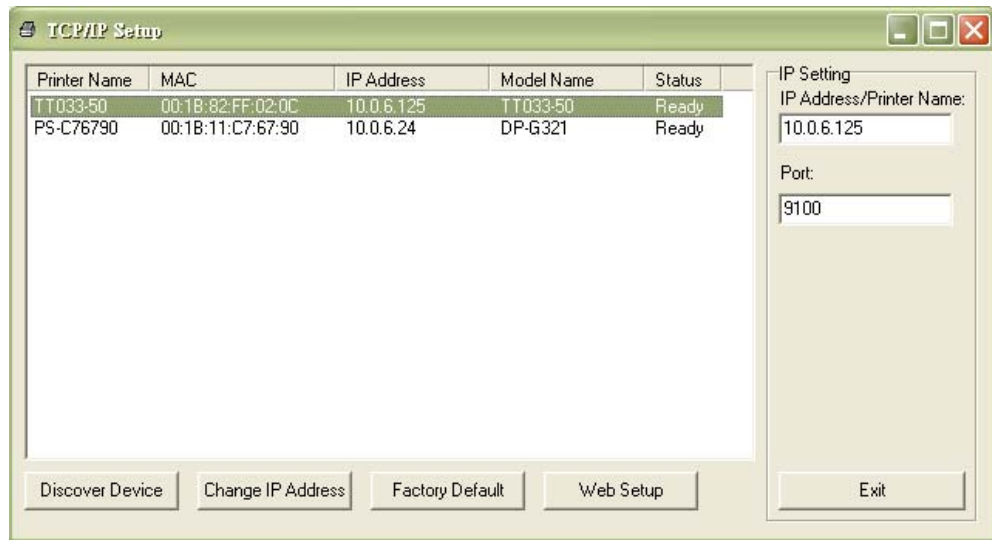


- If parallel port is selected, need to further select the parallel port (LPT1, LPT2...) that connected with bar code printer.



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, need to select the bar code printer.



2. Configure the printer settings

There are three setting tabs (Common settings, ZPL settings, DPL settings) included in the printer configuration feature to explore/configure the printer settings. The common setting tab includes the settings that commonly used for TSPL/EPL2/ZPL/DPL printer languages.

* TSPL2 printer language

The screenshot displays a printer configuration window with three tabs: 'Common', 'Z', and 'D'. The 'Common' tab is selected. The interface is organized into two columns of settings. The left column includes: Speed (text input), Density (dropdown), Paper Width (text input with 'inch' label), Paper Height (text input with 'inch' label), Media Sensor (dropdown), Gap (text input with 'inch' label), Gap Offset (text input with 'inch' label), Post-Print Action (dropdown), Cut Piece (text input), Reference (two text inputs), Direction (two dropdowns), Offset (text input), Shift X (text input), and Shift Y (text input). The right column includes: Ribbon (dropdown), Code Page (dropdown), Country Code (dropdown), Head-up Sensor (dropdown), Reprint After Error (dropdown), Gap Inten. (text input), Bline Inten. (text input), Continuous Inten. (text input), Baud Rate (dropdown), Data Bits (dropdown), Parity (dropdown), and Stop Bit(s) (dropdown). At the bottom of the window, there are five buttons: 'Clear', 'Load', 'Save', 'Set', and 'Read'.

ZPL® printer language settings

Common	Z	D
Darkness	<input type="text"/>	0 to 30
Print Speed	<input type="text"/>	
Tear Off	<input type="text"/>	-120 to 120
Print Mode	<input type="text"/>	
Print Width	<input type="text"/>	inch
Control Prefix	<input type="text"/>	
Format Prefix	<input type="text"/>	
Delimiter Char	<input type="text"/>	
Media Power Up	<input type="text"/>	
Head Close	<input type="text"/>	
Label Top	<input type="text"/>	-120 to 120
Left Position	<input type="text"/>	-9999 to 9999

Clear Load Save Set Read

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

* DPL® printer language settings

Common	Z	D
Heat	<input type="text"/>	0 to 30
Print Speed	<input type="text"/>	
Label Width	<input type="text"/>	inch
Present Sensor	<input type="text"/>	
Cutter Equipped	<input type="text"/>	
Control Codes	<input type="text"/>	
Column Offset	<input type="text"/>	inch
Row Offset	<input type="text"/>	inch

Clear Load Save Set Read

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

2.1 Explore the printer settings

After setup the interface, turn on printer power then click “Read” button to get the printer settings.

2.2 Change the printer settings

After read back the printer settings, the settings can be changed by enter new value in the text box or select different value from the options then click “Set” button to take effect the settings.

2.3 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.

2.4 Load the saved printer setting file

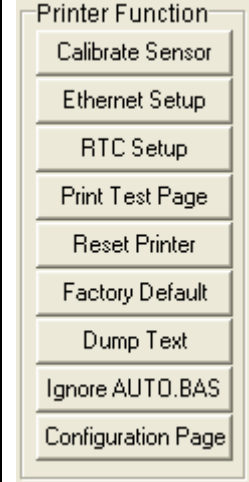
The saved printer setting file (.DCF) can be retrieved by clicking on the “Load” then click “Set” button to change the printer settings.

2.5 Clear the printer settings in the Diagnostic Utility

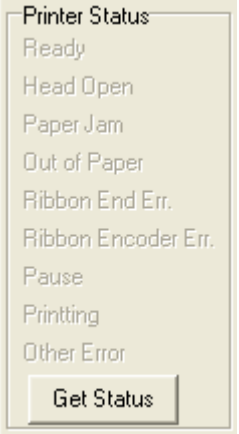
Click the “Clear” button to clear the settings in each filed in the Printer Setup group.

3. Individual printer functions

In the past, the printer self-test, sensor calibration, initialization, ignore AUTO.BAS ... etc. must be operated by printer power-on utilities. Now these functions are available in the Diagnostic utility without press any button by printer FEED button. The detail functions in the Printer Function Group are listed as below.

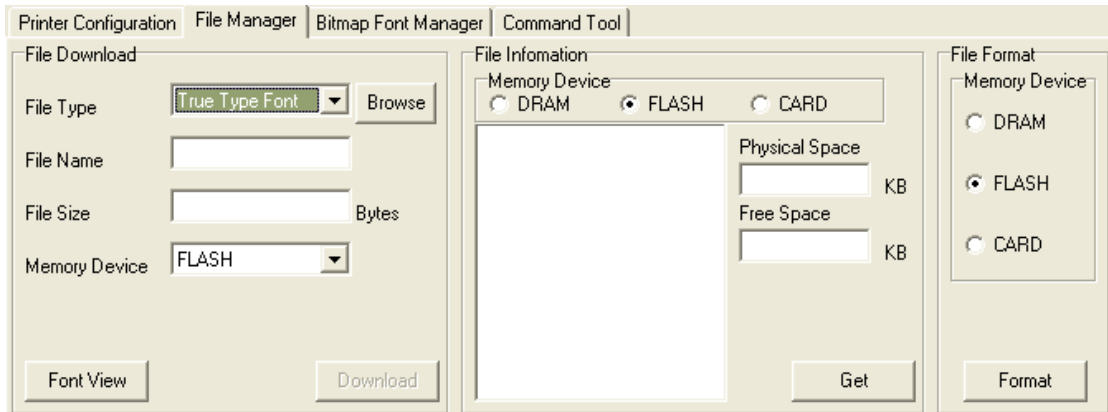
	Functions	Description	
 <p>The image shows a vertical menu titled "Printer Function" with the following items: Calibrate Sensor, Ethernet Setup, RTC Setup, Print Test Page, Reset Printer, Factory Default, Dump Text, Ignore AUTO.BAS, and Configuration Page.</p>	Calibrate Sensor	Calibrate the sensor specified in the Printer Setup group media sensor field	
	Ethernet Setup	Setup the IP address, subnet mask, gateway for the on board Ethernet	
	RTC Setup	RTC Time	Synchronize printer Real Time Clock with PC
	Print Test Page	Print Test Page	Print a test page
	Reset Printer	Reset Printer	Reboot printer
	Factory Default	Factory Default	Initialize the printer and restore the settings to factory default.
	Dump Text	Dump Text	To activate the printer dump mode.
	Ignore AUTO.BAS	Ignore AUTO.BAS	Ignore the downloaded AUTO.BAS program
	Configuration Page	Configuration Page	Print printer configuration

4. Polling printer status

 A screenshot of a printer status menu. The menu is titled "Printer Status" and lists several status options: Ready, Head Open, Paper Jam, Out of Paper, Ribbon End Err., Ribbon Encoder Err., Pause, Printing, and Other Error. At the bottom of the menu is a button labeled "Get Status". <p>Printer Status</p> <ul style="list-style-type: none">ReadyHead OpenPaper JamOut of PaperRibbon End Err.Ribbon Encoder Err.PausePrintingOther Error <p>Get Status</p>	<p>When connecting printer with USB or RS-232 interface, the “Get Status” button will be visible to polling printer status.</p> <p>Whenever printer is blinking with red, click “Get Status” then the printer status will be indicated with red.</p>
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5. File manager

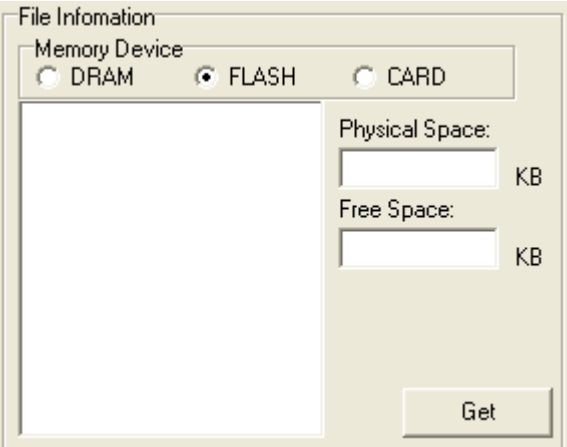
File manager feature is to help users to generate the file header, download the file into printer, explore what files are downloaded in printer memory and delete all files in the memory.



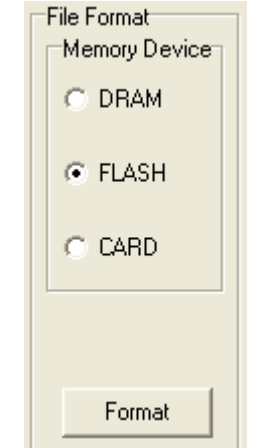
5.1 File download group

<p>The screenshot shows the 'File Download' section of the software. The 'File Type' dropdown menu is open, displaying a list of file formats: BMP, PCX, True Type Font, Bitmap Font, Printer BASIC File, Data File, Firmware File, and TCF File. The 'True Type Font' option is currently selected in the dropdown. The 'Browse' button is visible to the right of the dropdown. The 'File Name' and 'File Size' fields are empty. The 'Memory Device' dropdown is set to 'FLASH'. The 'Font View' and 'Download' buttons are at the bottom.</p>	<p>Select the file type then click “Browse” button to select the file for download.</p>
<p>The screenshot shows the 'File Download' section of the software. The 'Memory Device' dropdown menu is open, displaying a list of memory device options: DRAM, FLASH (highlighted), and CARD. The 'File Type' dropdown is set to 'True Type Font'. The 'Browse' button is visible to the right of the dropdown. The 'File Name' and 'File Size' fields are empty. The 'Font View' and 'Download' buttons are at the bottom.</p>	<p>Specify the memory device to download the file.</p> <p>Click “Download” button to start to download the file.</p>

5.2 File information group

	<p>This feature is to list what files are downloaded in the specified memory device.</p> <p>Select the memory device then click “Get” button to list the files saved in the specified memory.</p>
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5.3 File format group

	<p>This feature is used to delete all the files for the specified memory device.</p> <p>Select the memory device then click “Format” button to delete all the files in the specified memory.</p>
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6. 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.

Printer Configuration | File Manager | **Bitmap Font Manager** | Command Tool

Font Select

Font Encode: Standard Encode

Font Pict: Standard Encode, Asian Font Encode, Encode by Table, Encode by Table (Asian)

Printer Device: Standard Encode, Asian Font Encode, Encode by Table, Encode by Table (Asian)

Windows Font Name: Arial

Font Size: 10

ABCD

Select Font

Preview Font

Printer Font Name: Font001

Font Width: 13

Font Height: 16

Italic Width: 0

Standard Encode

Font Mapping: Standard Mapping

Character Start ASCII: 32

Character End ASCII: 127

Asian Font Encode

Traditional Chinese

Simplified Chinese

Korean

Japanese

Encode by Table

By File

Save Font

Download Font

<p>Font Select</p> <p>Font Encode: Standard Encode</p> <p>Font Pict: Standard Encode, Asian Font Encode, Encode by Table, Encode by Table (Asian)</p> <p>Printer Device: Standard Encode, Asian Font Encode, Encode by Table, Encode by Table (Asian)</p> <p>Windows Font Name: Arial</p> <p>Font Size: 10</p> <p>ABCD</p> <p>Select Font</p> <p>Preview Font</p>	<p>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.</p> <p>The converted bitmap font can also save to a file by clicking “Save Font” button.</p>
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7. Command Tool

The additional features that are not yet supported in the Diagnostic Utility can be achieved by sending out printer commands to printer from the Command Tool.

Select the interface. Specify the text box and enter the commands in the text box. Please be reminded to hit the PC keyboard Enter key at the end of each command line. Click the “Send” button to send out the commands in the specified text box to printer. You can also send a command file by clicking “Send File” button.

Click “Save” button to save the commands in the specified text box. You can also open the file to the text box by clicking “Load” button then click “Send” button to send the data to printer.

