

## **Diagnostic Utility**

### **Quick Start Guide**

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# Diagnostic Utility Quick Start Guide

## 1. Getting started with Diagnostic Utility

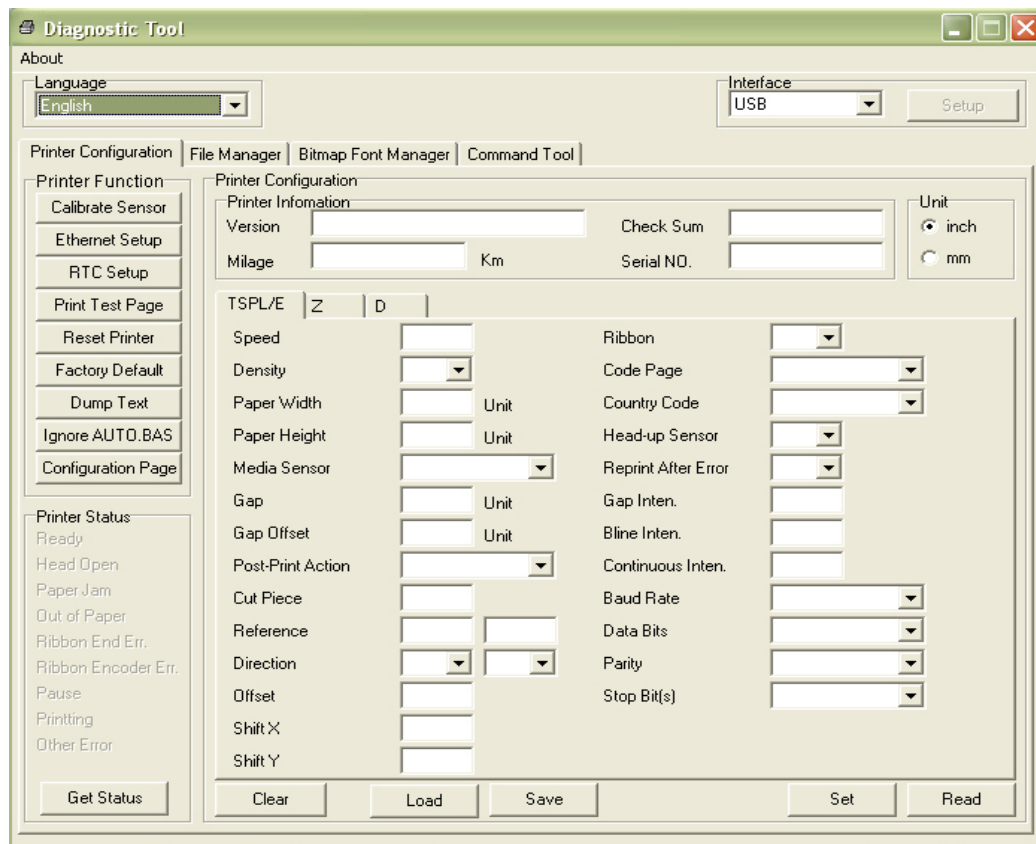
The Diagnostic Utility is an integrated tool that includes the features to explore the printer settings/status, change the printer settings, download graphics, fonts, firmware, create printer bitmap font and the tool to send PAL Plus programs to the printer. With this convenient tool, users can explore the printer status and settings at a glance and makes it easier to troubleshoot problems.

**Note:** *This utility works with printer firmware V6.711 and later versions.*

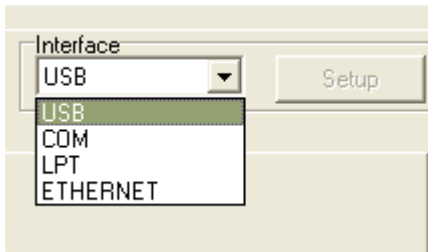
### 1.1 Start the Diagnostic Utility

Double click on the Diagnostic utility icon  `DiagTool.exe` to start the software.

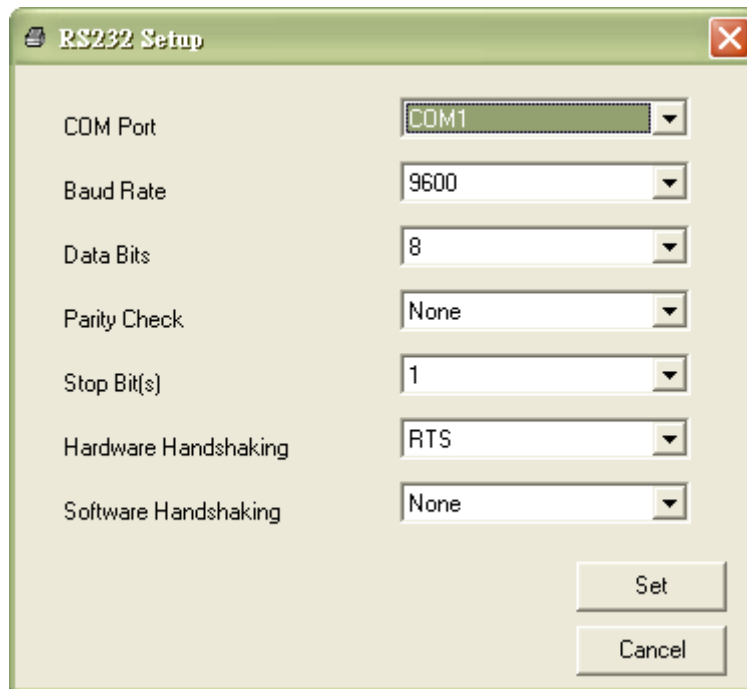
There are four tabs (Printer Configuration, File Manager, Bitmap Font Manager, Command Tool) included in the Diagnostic utility.



## 1.2 Select the PC interface connected to the printer

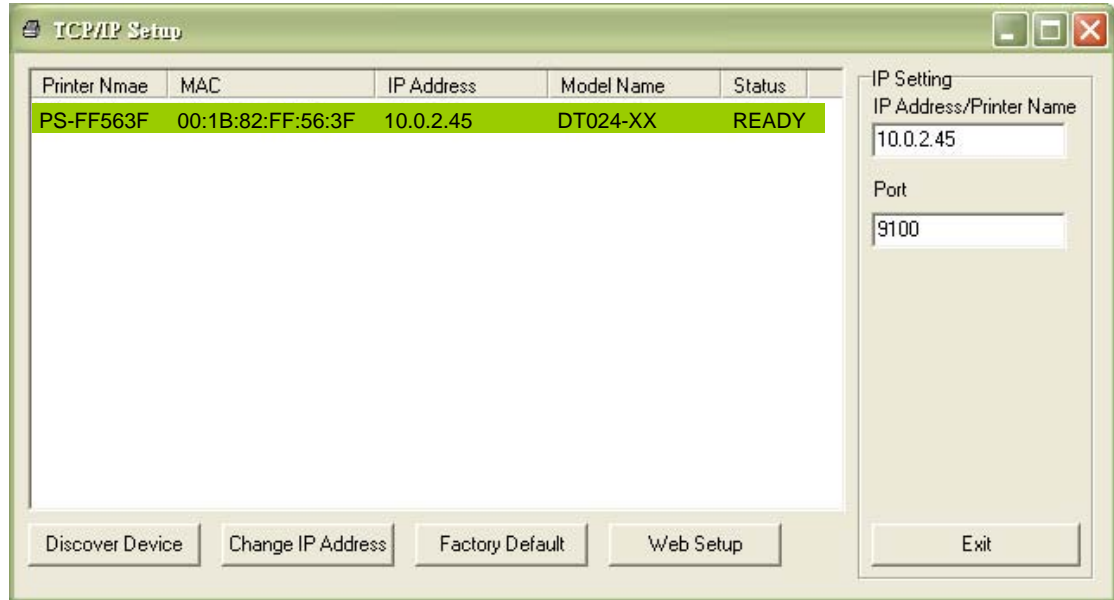


- The default setting is the USB interface.
- If you use an RS-232 port is selected, select the COM interface. The printer's default serial settings are 9600 baud, no parity, 8 data bits, 1 stop bit and RTS flow control.



**Note:** The printer's 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 applicable printer.



**1.3 To connect to the utility, click the “Ignore AUTO.BAS” button. This allows the printer and Diagnostic tool to communicate.**

## 2. Configure the printer settings

TSPL/E | Z | D |

|                   |                           |                     |                      |
|-------------------|---------------------------|---------------------|----------------------|
| Speed             | <input type="text"/>      | Ribbon              | <input type="text"/> |
| Density           | <input type="text"/>      | Code Page           | <input type="text"/> |
| Paper Width       | <input type="text"/> Unit | Country Code        | <input type="text"/> |
| Paper Height      | <input type="text"/> Unit | Head-up Sensor      | <input type="text"/> |
| Media Sensor      | <input type="text"/>      | Reprint After Error | <input type="text"/> |
| Gap               | <input type="text"/> Unit | Gap Inten.          | <input type="text"/> |
| Gap Offset        | <input type="text"/> Unit | Blind Inten.        | <input type="text"/> |
| Post-Print Action | <input type="text"/>      | Continuous Inten.   | <input type="text"/> |
| Cut Piece         | <input type="text"/>      | Baud Rate           | <input type="text"/> |
| Reference         | <input type="text"/>      | Data Bits           | <input type="text"/> |
| Direction         | <input type="text"/>      | Parity              | <input type="text"/> |
| Offset            | <input type="text"/>      | Stop Bit(s)         | <input type="text"/> |
| Shift X           | <input type="text"/>      |                     |                      |
| Shift Y           | <input type="text"/>      |                     |                      |

Clear Load Save Set Read

## 2.1 Explore the printer settings

Click the “Read” button to get the printer settings.

## 2.2 Change the printer settings

Select the printer emulation tab (i.e. TSPL/E, D or Z). Select TSPL for PAL. The settings can be changed by entering a new value in the text box or by selecting a different value from the options. Click the “Set” button to save the new settings.

## 2.3 Save the printer settings to a file

The printer settings can be saved to a file by clicking 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

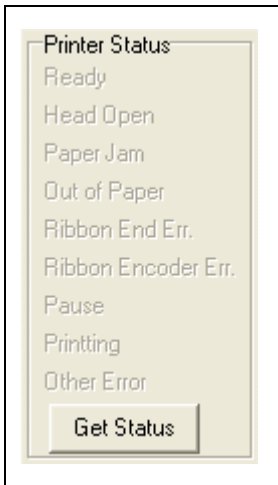
Click the “Clear” button to clear the settings in each field in the Printer Setup group.

## 3. Individual printer functions

The detail functions in the Printer Function Group are listed as below.

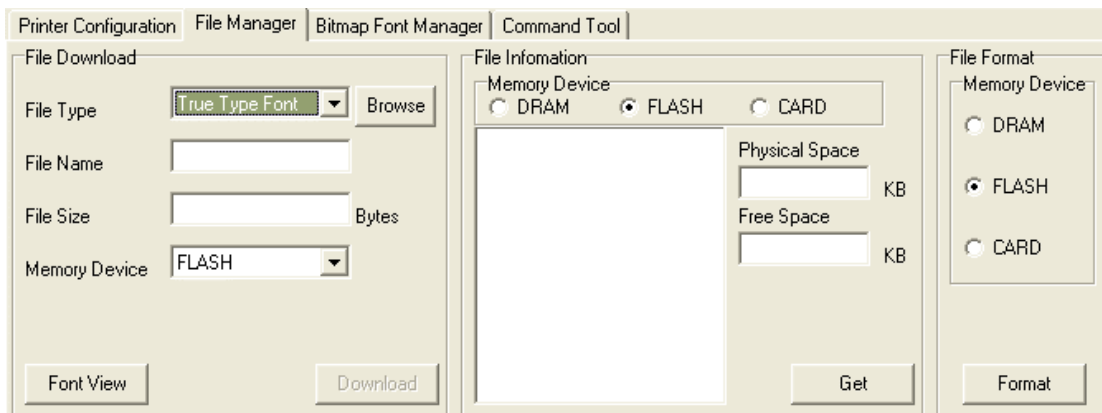
|   | Functions          | Description  |
|---|--------------------|--|
|  The image shows a vertical menu titled "Printer Function" with the following items: Calibrate Sensor, Ethernet Setup, RTC Setup, Print Test Page, Reset Printer, Factory Default, Dump Text, Ignore AUTO.BAS, and Configuration Page. Each item is represented by a button with a light beige background and a thin border.<br>Printer Function<br>Calibrate Sensor<br>Ethernet Setup<br>RTC Setup<br>Print Test Page<br>Reset Printer<br>Factory Default<br>Dump Text<br>Ignore AUTO.BAS<br>Configuration Page | Calibrate Sensor   | Calibrates the sensor specified in the Printer Setup group media sensor field  |
|   | Ethernet Setup     | Setup the IP address, subnet mask, gateway for the internal Ethernet interface |
|   | RTC Time           | Synchronize printer Real Time Clock with PC                                    |
|   | Print Test Page    | Prints a test page   |
|   | Reset Printer      | Reboots printer  |
|   | Factory Default    | Initialize the printer and restore the settings to factory default.            |
|   | Dump Text          | To activate the printer dump mode.   |
|   | Ignore AUTO.BAS    | Ignores the downloaded PAL Plus program  |
|   | Configuration Page | Prints the printer configuration   |
|   |                    |  |

## 4. Polling printer status

|   |  |
|---|--|
|  <p>The dialog box titled "Printer Status" contains a list of status options: Ready, Head Open, Paper Jam, Out of Paper, Ribbon End Err., Ribbon Encoder Err., Pause, Printing, and Other Error. A "Get Status" button is located at the bottom of the list.</p> | <p>When connecting printer with a USB or RS-232 interface, the “Get Status” button will be visible to poll the printer status.</p> <p>If the printer is blinking red, the printer status will be indicated with red.</p> |
|---|--|

## 5. File manager

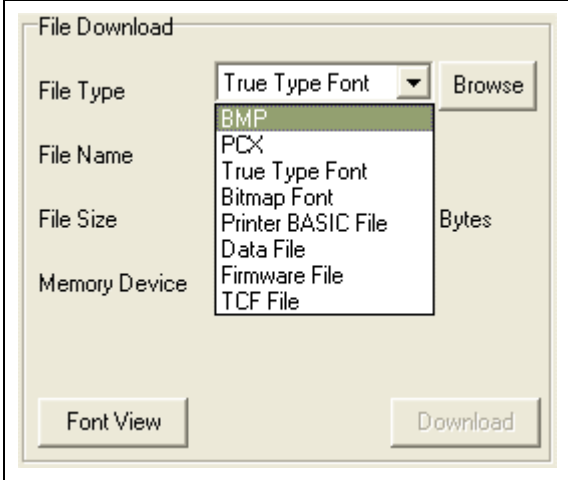
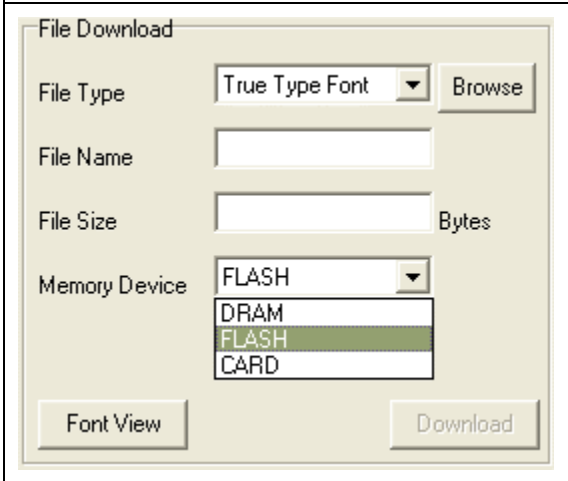
File Manager feature tab is used to help users to generate the file header, download new firmware, explore what files are downloaded in the printer memory and delete all files in the memory.



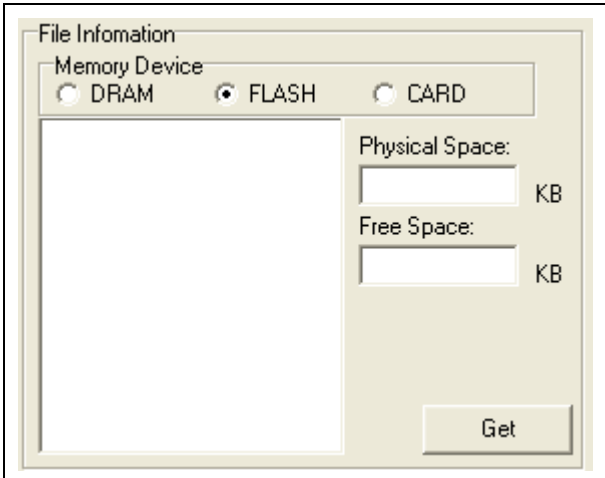
The File Manager interface is divided into three main sections: File Download, File Information, and File Format.

- File Download:** Includes a "File Type" dropdown menu (set to "True Type Font"), a "Browse" button, "File Name" and "File Size" input fields, a "Memory Device" dropdown menu (set to "FLASH"), and "Font View" and "Download" buttons.
- File Information:** Includes a "Memory Device" section with radio buttons for DRAM, FLASH (selected), and CARD. It also displays "Physical Space" and "Free Space" in KB, and a "Get" button.
- File Format:** Includes a "Memory Device" section with radio buttons for DRAM, FLASH (selected), and CARD, and a "Format" button.

## 5.1 File download group

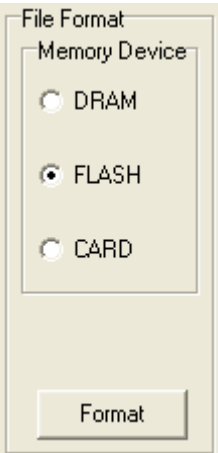
|  |   |
|--|---|
|   | <p>Select the file type then click “Browse” button to select the file for download.</p> <p><i>NOTE: BMP graphic files need to be in Black &amp; White monochrome format. Grayscale files are not supported.</i></p> |
|  | <p>Specify the memory device to download the file.</p> <p>Click “Download” button to start the download of the file.</p>  |

## 5.2 File information group

|   |  |
|---|--|
|  | <p>This feature lists what files are downloaded in the specified memory device.</p> <p>Select the memory device then click the “Get” button to list the files saved in the specified memory.</p> |
|---|--|

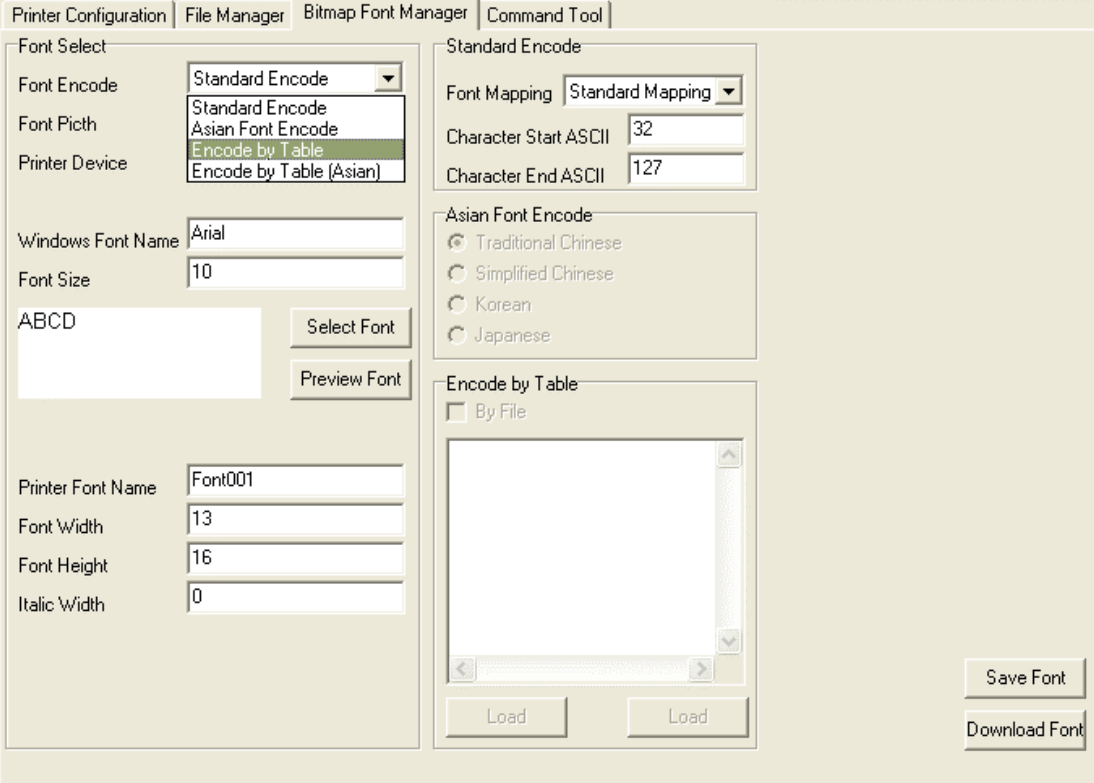


### 5.3 File format group

|   |  |
|---|--|
|  | <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> <p>To delete a PAL Plus program, select Flash, then click the “Format” button.</p> <p><i>NOTE: Prior to downloading a new or updated PAL, existing PAL applications need to first be deleted using the FORMAT button.</i></p> |
|---|--|

## 6. Bitmap font manager

Bitmap Font Manager tab is used to convert the selected TTF font into a printer format bitmap font. Both fixed pitch and variable pitch bitmap fonts are supported.



Font Select

Font Encode Standard Encode

Font Picth Standard Encode  
Asian Font Encode  
Encode by Table  
Encode by Table (Asian)

Printer Device

Windows Font Name Arial

Font Size 10

ABCD

Select Font

Preview 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 be saved to a file by clicking “Save Font” button.

## 7. Command Tool

The Command Tool tab is used to download PAL Plus programs and data files.

To load a PAL Plus program click the “Send File” button, locate the file and send.

To test the PAL Plus program with the matching data file, go to the Printer Configuration tab. Click on the “Reset Printer” button to cycle the power of the printer and activate the newly loaded PAL Plus program.

Go back to the “Command Tool” tab, click the “Send File” button, locate the data file that the PAL program was written for and send.

