PANDUIT TDP43MI, TDP43MI/E

Scope:

This specification defines the requirements for a Table Top Printer used in the applications below. This printer will be a single color printer capable of operating at the specified voltages and conditions. It will be compatible with all Panduit software and label materials and designs. This printer will be an intelligent version of our current TDP43ME printer with RFID read/write capability and a built in LCD display. Both media and ribbons will be able to be identified by the printer using RFID tags installed on the media cores or integrated packaging. New label and ribbon parts will be developed, including RFID identifiers, for compatibility with this new printer. The printer will not be compatible with standard Panduit labels or third party label products. The system will also include a software utility that will be installed on the controlling computer and will present the user with useful information such as media part number, type, ideal settings, and quantity remaining. There will be two part numbers available for sale:

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Product Description:

This new printer is to be the same as our current Panduit TDP43ME Thermal Transfer Desktop Printer except it will include RFID read/write capability and an LCD display. All existing Panduit thermal transfer label materials and designs along with TDP43ME accessories are to be compatible with the new printer (listed in Appendix A). A new line of RFID tagged media (labels and ribbons) will be designed for compatibility with this new printer. The label designs and materials will be the same as existing Panduit parts; the only difference is they will include an RFID tag to identify them to the printer. The printer will not be compatible with standard Panduit label products or third party label products. The RFID tags will include an identifier to authenticate them to the printer, label part number, settings and compatibility information and material quantity. The material quantity stored on the tag (labels and ribbons) will be updated by the write function of the printer with each print job. The labels for this printer will fed from the back of the printer from a box that will hold the RFID tag that will communicate with the printer. The printer will be designed and intended to read the RFID tag on a box behind the printer and will not be compatible with rolls that are removed from the box and installed in the printer. The thermal transfer ribbon will have and RFID tag installed on the external surface of the core. The printer will be able to read each of the tags (label box and ribbon) individually.

Information from the tags will be read by the printer and available to a software utility that will be developed by Panduit as part of this system. The software utility (Appendix C) will be installed on the controlling computer and will present the user with information to aid

with job setup and monitoring. Information included on the RFID tag will be printer status, quantity of materials remaining, part number and optimum settings for printer speed and density. The user will be able to use this information to help with Easy-Mark format selection and setting selection in the printer driver. Additionally, there will be an LCD display on the printer that will provide similar information to the user to help with printer setup and job monitoring. This LCD display will update automatically when labels or ribbons are removed or installed. The RFID tag will also contain settings information that will eliminate the need to feed out multiple labels in a calibration process and will minimize the overall label waste. Since the ribbon/label rolls will be monitoring remaining material on the RFID tag, once it has been fully consumed, the printer will no longer accept this product. A marginal overage (e.g. 10%) will be allowed to account for any product overage shipped by Panduit, labels fed and rewound manually by customer.

RFID tag requirements are listed below in section 24. The RFID tag will be converted into a label that will be able to print on and will have an adhesive side to stick to the label box or ribbon core. The RFID tag will be used to store all of the required information about the label/ribbon in order to communicate with the software utility. This will also allow additional memory space for possible items that need to be added in the future. The RFID tag read length from the antenna will be up to 4".

RFID Tag Information:
- Supported Standard – ISO15693
- Operating Frequency – 13.56-MHz
- RFID Transponder – TI Tag It Series
- RFID Inlay Size: 3.00" x 1.75" Large Rectangle
- Operating temperature range: -20°C to +70°C
- Storage temperature range: - 30°C to +75°C
- Read/Write capability
- Will be Thermal Transfer Printable
- Permanent Adhesive
- Media RFID Tag

    o Will be placed on the media box and must be readable up to 4" by the antenna at rear of printer
    o This tag will need to have storage capacity of 1024 bit
    o See Appendix B for items to be included on media RFID tag

Ribbon RFID Tag
    o Will be placed on the ribbon core and must be readable by the antenna placed in ribbon supply area
    o This tag will need to have storage capacity of 1024 bit
    o See Appendix B for items to be included on ribbon RFID tag

1-3. Product CD

This CD provides easy-to-use Control Center software and the User's Manual. The Control Center is available on the CD or from official website. This Server can be configured and managed from its internal web pages or from the Control Center. These web pages or PC tools offer you a management tool suitable for all supported network environments.

2. The Control Center
2-1. Get the Control Center from CD

1.   Insert the included CD into the personal computer.
2.   Go to "Control Center" folder and double click the "Setup Control Center.exe" icon to install the program to your personal computer.
3.   After the installation is completed, please click the "Control Center" icon to start the program.

2-2. Using the Control Center

You can use the following tools to help you use the server:

- Refresh Server List: renew to auto search the existing servers on the network.
- Go to Homepage: go to the web pages of the highlighted print server.
- Configure Server: configure the highlighted printer server.

Note 1:   You can also right-click the mouse button on the highlighted print server to get the "Configure Server" and "Go to Homepage" functions.

Note2:   You can also double-click on the highlighted server to get the "Configure Server" function.

Displaying Server Status

You can start the Control Center and click on a server to see its status which includes Printer Information, Server Information, TCP/IP status, and Supported Protocols.

Setting up Server Configuration

Click the "Configure Server" button to setup the highlighted print server. Then type the administrator ID and password to login.

- TCP/IP: You have to set the Server's TCP/IP configuration to connect TCP/IP network. Please see the chapter of Network Configuration for more details.

2-3. System menu
- System: Select the "Exit" item to close the Control Center.
- Tools: Select "Configuration" item to configure the Control Center. The configuration includes server information setting and language setting.
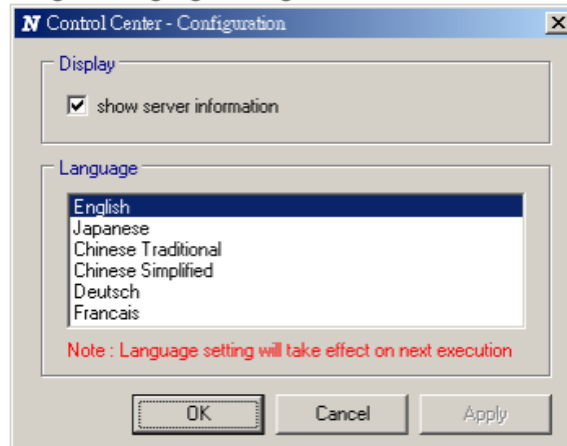
- Help: To display the version information of Control Center.

Quitting the Control Center
There are two ways to close the Control Center. The first way is clicking the "X" box (close box) at the top right corner of the window. The second way is choosing "Exit" item in the "System" menu in the Control Center.

3. Network Configuration
3-1. Setting up Local Windows Printer Driver
You are advised to install your Windows printer driver in advance. For most printers, you can install the printer drivers with the following procedure:
1. Click Start, click Control Panel, click Printers and Other Hardware, and then click Printers and Faxes.
2. Double click Add Printer to start the Add Printer Wizard, and then click Next.
3. Click Local printer, clear the Automatically detect and install my Plug-n-Play printer check box to avoid having to wait for the completion of another printer search, and then click Next. If you leave this option selected, Windows will attempt to find the printer itself and figure out what kind it is. If Windows does not find the printer, the wizard will continue as described in this task.
4. Select a Windows driver for your printer. Click Next.
5. Choose whether you want to share the printer with other network users. Do you want to print a test page? Select the appropriate radio button and click Next and Finish.

3-2. Connecting the Hardware
1. Turn off the printer.
2. Connect the Ethernet module to the network with a twisted-pair category 5 cable, 10baseT or 100baseTX.
3. Turn on the printer and make sure it is ready for use.

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* Note: If you need to connect the printer via LPR protocol, please go to Windows printer setting page and go to "Ports" setting. Select TCP/IP port from ports list and click "Configure Port".
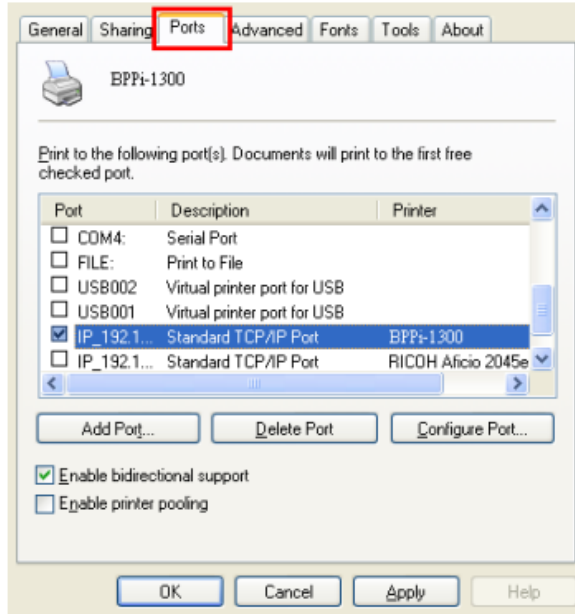
On "Port Settings", change the "Protocol" to "LPR". And the "Queue Name" setting must be "USB1_LQ" to connect your printer properly.
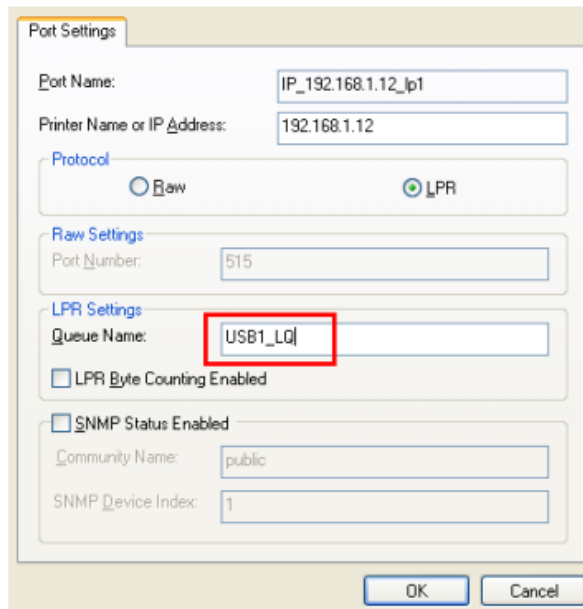
3-3. Assigning an IP Address to the Server

3-3-1. Preliminary

- If you have a DHCP server on your network, your Server will receive an IP address automatically. The IP address will then appear on the Control Center or on the page of configuration report. If your DHCP server does not give an IP address to the Server, the Server will use the Factory IP address; or the printer is set for USB port and must be changed to Ethernet Port (see Quick Guide for instructions).
- If you are not working in a DHCP network, you need to manually set the Server's IP address.

Ethernet Address

You do not need to know the Ethernet address of your Server for assigning an IP address to it. The Control Center can automatically search Servers and list their Ethernet addresses.

IP Address

Unless you are assigning an IP address using DHCP, you must obtain an unused IP address from your network administrator.

Methods for Setting the IP Address

You can set the IP address of your Server using one of the following methods, depending on your network operating environment:

- Automatic IP Address Assignment
- Manual IP Address Assignment

Server Names and Server Name Rules

The default server name of the Server is "LAN PrintServer". If you put two or more Servers in your local area network, to avoid using the same server names you have to change the server names by using the Control Center or the Server's web pages. If your server name is longer than 15 characters, the Server uses only the first 15 characters.

### 3-3-2. Setting the IP Address Using the Control Center

1. Start the Control Center and Auto-searching Server window will appear.
2. If the tool finds print servers in your local area network, then you have to select one server from the Server List.
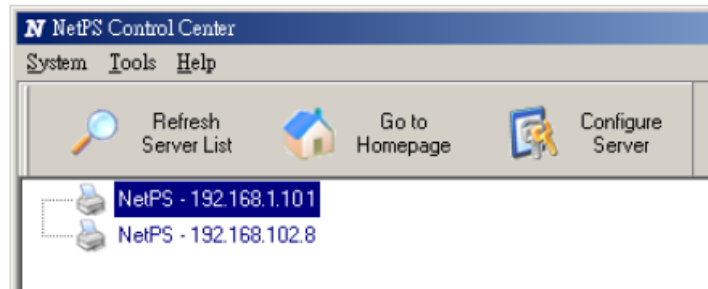
3. Double click the highlight list and enter the Server's administrator (default: admin) and password (default: admin).
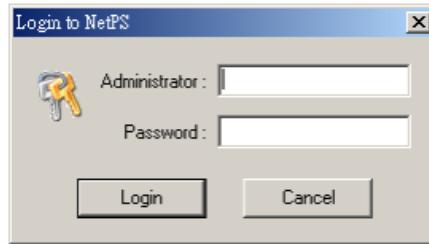
4. After you have logged in successfully, select TCP/IP from the Server's menu. The Set IP Address dialog appears.
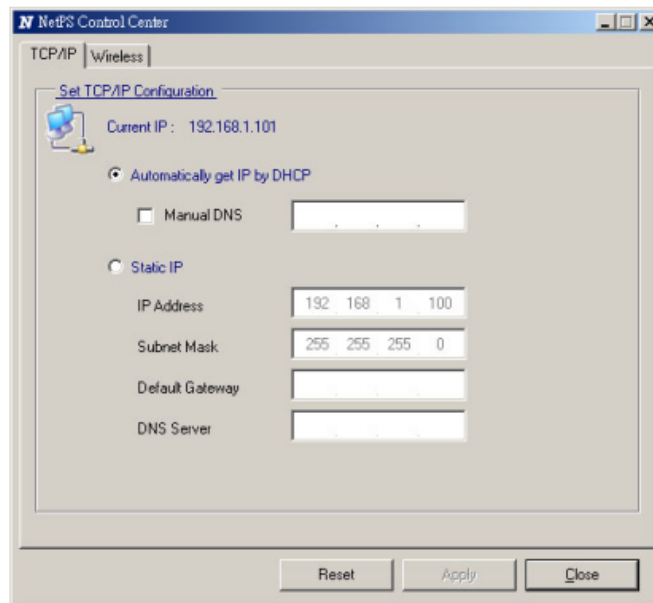
5. Click the button corresponding to your choice of IP setting method (static or dynamic using DHCP). When assigning a static IP address you also have to define Subnet Mask and Default Gateway. If you choose "Automatically get IP by DHCP", you can use desired DNS by clicking the Manual DNS button and manually assigning a DNS.
6. Click Apply to save your settings. And the Server will reboot.
7. You have now finished the procedure of setting the IP address.

3-3-3. Setting the IP Address Using the Server's Web Pages

1. If you don't know the current IP of your Server, you have to do the Step1~Step4 of Set the IP Address Using the Control Center.
2. You can see the IP address of your Server in the Server List. Open IE Browser and enter the Server's IP address or click the "Go to Homepage" button in the Control Center.
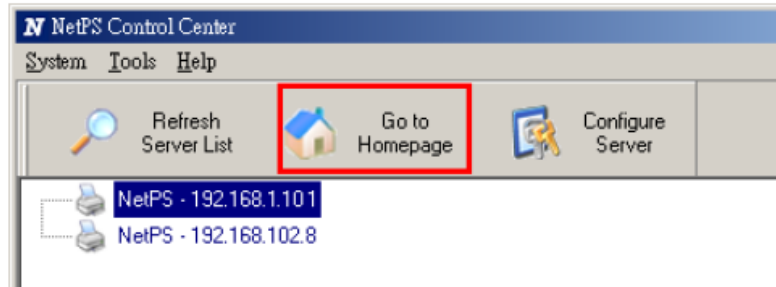
3. Go to the web page and click "Login" link.
4. Login your administrator (default: admin) and password (default: admin).
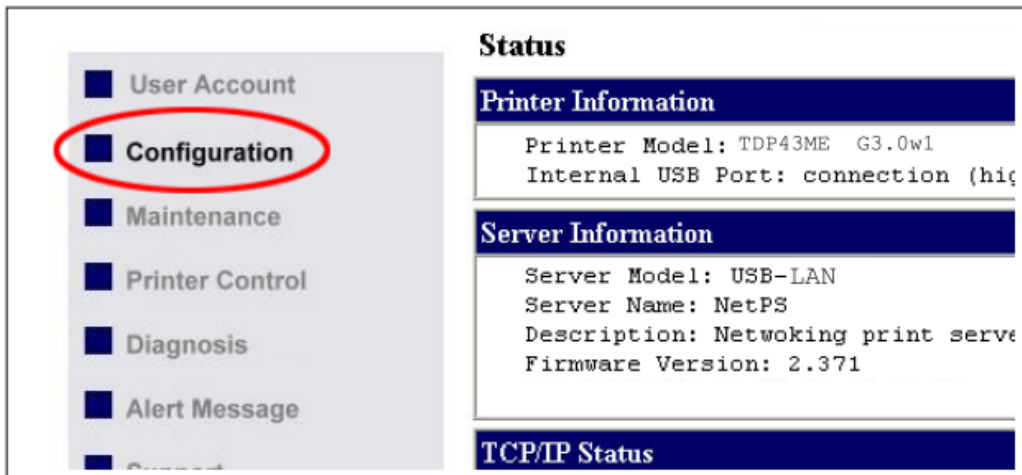
5. After you have logged in successfully, the first configure page will be General Configuration of printer server.

6. Click the "Configuration" icon.

7. Click TCP/IP icon.

8. Click the button corresponding to your choice of IP setting methods (static or dynamic using DHCP). When assigning a static IP address you also have to define Subnet Mask and Default Gateway.

9. Click Submit to save your settings. And the Server will reboot. You have now finished the procedure of setting the IP address.

4. The Server's Web Pages

4-1. Introduction

The Server runs the daemon of http server, *httpd* on TCP port: 9100. Users may use the web pages to see the Server's system status and configure the Server.

4-2. Using the Server's Web Pages

4-2-1. Displaying Server Status

You can see the status of Printer, Server/TCP/IP.

```
Logout  |  Status  |  Config                    English | Deutsch | 日本語 | 繁體中文 | 简体中文 | Français


                        Status                                        [ Reload ]

                        Printer Information
                          Printer Model: TDP43ME  G3.0w1
                          Internal USB Port: connection (high speed)

                        Server Information
                          Server Model: USB-LAN
                          Server Name: NetPS
                          Description: Netwoking print server TCP/IP
                          Firmware Version: 2.371
                          MAC Address: 00-11-E5-01-13-02

                        TCP/IP Status
                          IP Address   : 192.168.102.210 (static IP)
                          Subnet Mask : 1.0.0.0
                          Gateway      : 1.0.0.0
                          DNS Server   : 1.0.0.0
                          DHCP Server : 0.0.0.0
                          Lease Time   : 0 second
```

4-2-2. Setting up Server Configuration

To set up the Server configuration, the system will request user to enter administrator (default: admin) and password (default: admin) to login.

● **User Accounts:** You can change administrator name and password or add a user account for print server. If you forgot administrator name and password, you must perform Restore Factory Default action. Please refer to the chapter "Restore Factory Defaults".

◆ Set Administrator
New Administrator: enter your desired administrator name.
New Password: enter your desired password.
Retype Password: confirm your previous password typing.

◆ User Accounts list
User name: add a new user account for accessing the storage attached to the Server.
Password: set a password for added user.
Add: click Add button, after entering the user name and corresponding password. The account will take effect once shown in the blank below.
Delete: delete the existing user account.

● **Configuration**

◆ TCP/IP: You have to set the Server's TCP/IP configuration to connect TCP/IP network. Please see the chapter of Network Configuration for more details.

◆ Printer Configuration: Set or change the configurations of printer. Please refer to printer's operation manual check the function of each setting item.

Printer Configuration

	Refresh Save
Printing Mode	Thermal Transfer ▾
Option Setup	Cutter Mode ▾
Paper Setup	Gap Paper ▾
Baud Rate	115200 bps ▾
Parity Setup	None Parity ▾
Data Length	8 bits ▾
Stop Bit	1 bits ▾
Sensing Mode	Automatic ▾
LCD Language	English ▾
Codepage Setup	Code Page 852 ▾
Keyboard Setup	US ▾
Buzzer	ON ▾
Smart Backfeed	OFF ▾
Topofform	ON ▾
Darkness (0~19)	8
Speed (2~7)	7
ADJ Stop Position (0~60)	16
PH Position (-100~100)	100

Left menu:
- User Account
- Configuration
  - TCP/IP
  - WLAN
  - Printer Configuration
  - Alert Messages Filter
  - SNMP
  - SMTP
- Maintenance
- Printer Control
- Diagnosis
- Alert Message
- Support

◆ Alert Message Filter: Enable or disable the options to send error messages via Auto-Mail or SNMP.

Left menu:
- User Account
- Configuration
  - TCP/IP
  - WLAN
  - Printer Configuration
  - Alert Messages Filter
  - SNMP
  - SMTP
- Maintenance
- Printer Control
- Diagnosis
- Alert Message

Alert Messages Filter

Auto-Mail	SNMP	
☑ Enable	☑ Enable	Error01 Paper Out
☑ Enable	☑ Enable	Error02 Paper Jam
☑ Enable	☑ Enable	Error03 Ribbon Out
☑ Enable	☑ Enable	Error04 Door Open
☑ Enable	☑ Enable	Error05 Stripper Error
☑ Enable	☑ Enable	Error06 Memory Full
☑ Enable	☑ Enable	Error07 Filename No Found
☑ Enable	☑ Enable	Error08 Filename Repeat
☑ Enable	☑ Enable	Error09 Syntax Error
☑ Enable	☑ Enable	Error10 Data Length Error
☑ Enable	☑ Enable	Error11 CF Not Found

Submit

◆ SNMP: This Server runs an SNMP daemon supporting SNMP v1 and v2c protocols (Simple Network Management Protocol). Users can use SNMP client software such as HP OpenView to manage the Server. The Server supports all relevant parts of MIB-II and a private MIB. You can set these MIB variables from the Server's web pages or by using the Control Center. You can set community and some parameters for SNMP server. The SNMP Configuration includes:

- Authentic Community: set Community name of SNMP server.
- Trap Community: set Trap Community name for SNMP server to send trap packets.
- Trap Address (IP): enter an IP address to send the Trap packet.
- SysContact: enter some letters for variable of SysContact that represents the name of system contact.
- SysName: enter some letters for variable of SysName that represents the name of system.
- SysLocation: enter some letters for variable of SysLocation that represents the location of system.
- EnableAuthenTrap: enter 1 or 2 for the variable of EnableAuthenTrap that represents to enable (1) or disable (2) to send Trap packets receiving the wrong Community name.

Set SNMP Configuration

Name	Value	Comment
Authentic Community	public	15 letters [max.](Password)
Trap Community	public	15 letters [max.]
Trap Address(IP)	0.0.0.0	IP address
SysContact		60 letters [max.]
SysName		60 letters [max.]
SysLocation		120 letters [max.]
EnableAuthenTrap	2	1: Enable, 2: Disable

Submit   Reset

■ User Account
■ Configuration
  TCP/IP
  WLAN
  Printer Configuration
  Alert Messages Filter
  SNMP
  SMTP
■ Maintenance
■ Printer Control

◆ SMTP:
SMTP Protocol: enable or disable the SMTP Protocol.
SMTP Server Name: set the IP address or server name of SMTP Server.
SMTP Port Number: set the port number, the range is from 1 to 65535. Typical is 25.
Subject: set the subject of notification mail.
From Address: set the From Address of notification mail.
To Address: set the From Address of notification mail.
Cc: set the Cc receiver of notification mail.
Duration Cycle: set the cycle time to send the notification mail.
Event Counter: set the accumulation number of error messages to send the notification mail.
  *   Note: If Duration Cycle and Event Counter are both set together, the sending notification mail event will be triggered depending on which conditions is fulfilled first.

Set SMTP Configuration

Name	Value	Comment
SMTP Protocol	☑ Enable	Check to enable SMTP
SMTP Server Name	192.168.1.22	IP address or server name
SMTP Port Number	25	1~65535
Subject	Error Message	78 letters [max.]
From Address	ErrorMessag@xxxxx.com	Format as xxxx@xxx.xxx.xx
To Address	xxxxx@xxxxx.com	Format as xxxx@xxx.xxx.xx
Cc		Format as xxxx@xxx.xxx.xx
Duration Cycle	1	1~255 hour
Event Counter	2	1~255

Submit   Reset

● **Maintenance**

Maintenance

Printer

Firmware Upgrade

Server

Factory Default

Firmware Upgrade

Restart Server

If you want to restore factory default values of the Server and upgrade new firmware of Ethernet/ LAN or printer, you can use the Maintenance tool:

◆ Printer Firmware Upgrade: click Open to find the firmware file to be upgraded. Click Upload to upload the firmware into the printer.

◆ Server Factory Default: click this button, the Server will restore factory default values.

◆ Server Firmware Upgrade: click Open to find the firmware file to be upgraded. Click Upload to upload the firmware into the Server.

◆ Restart Server: click this button, the Server will restart.

Restart this server?

This server will be disconnected from the network for a while until it has restarted successfully!

Yes   **No**

- **Printer Control**

Input printer's command language in "Input Command" window and press Enter key, the server will then transfer a line of commends to printer. If sent command returns response message, the message will be displayed in "Output Message" window.
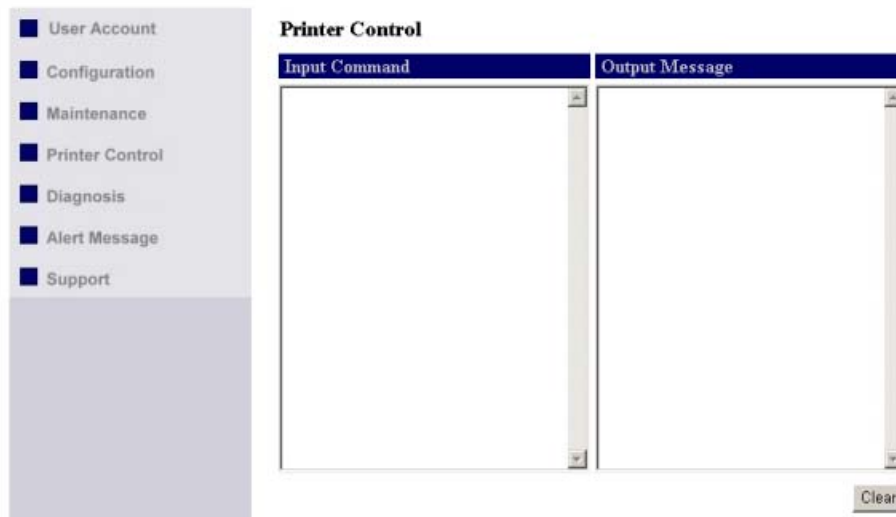
- **Diagnosis**

The Diagnosis function can check the hardware status of printer.
- Click "TPH Resistance" button to check the bad dot information of Thermal Print Head. The checking result will be displayed in "Output Result" window.
- Click "Auto-Sensing" button will control the printer to do Auto-Sensing.
- Click "Printer Config" button to get the configuration of the printer in "Output Result" window.

Diagnosis

Test Item	Output Result
TPH Resistance	
Auto-Sensing	
Printer Config	

Clear
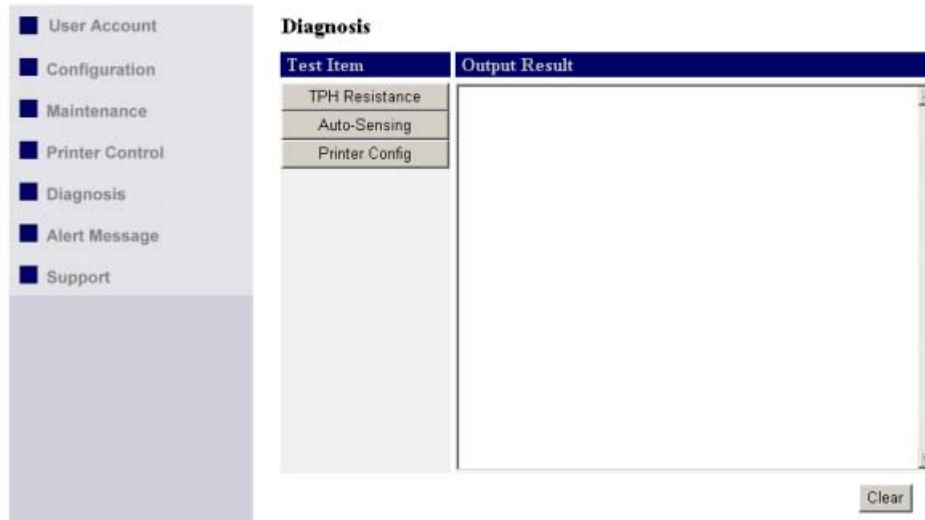
● **Alert Message**

Collect and display the error message that come from the printer. You can click "Dump" button to get printer's error message and display it on Alert Message window. Click "e-mail" to send the message to designated mail address or click "Clear" to remove the message.

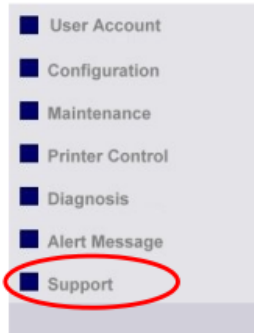∗ Note: The all alter messages will be removed out from the memory when click "Dump" button.

Alert Message

Dump   e-mail   Clear
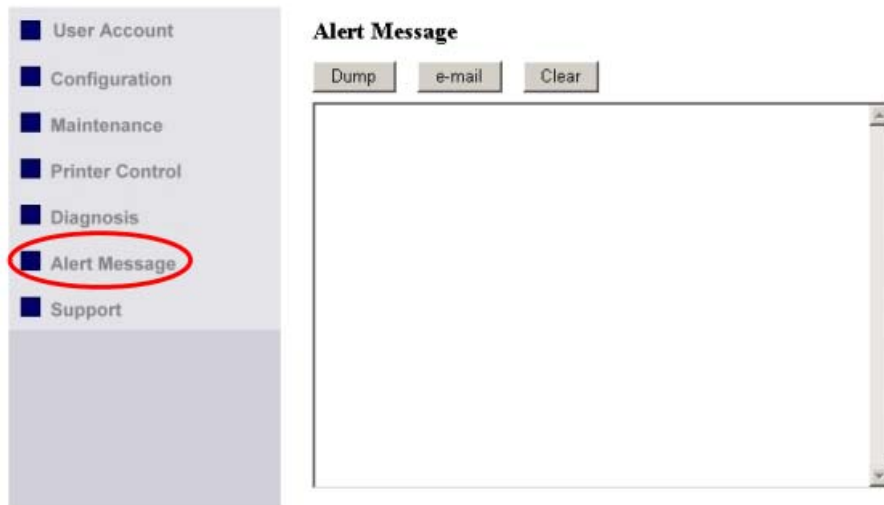
● **Support**

Display the contact information of technical support.

CLASS A STATEMENT

USA

FCC COMPLIANCE STATEMENT

FOR AMERICAN USERS

This equipment has been tested and found to comply with the limits for a CLASS A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at own expense.

CANADA

This Class A digital apparatus complies with Canadian ICES-003.

CE

  This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

BSMI

  警告使用者:這是甲類的資訊產品,在居住的環境中使用時,可能會造成射頻干擾,在這情況下,使用者會被要求採取某些適當的對策.

PANDUIT TDP43MI, TDP43MI/E

VCCI

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準
に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波
妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ず
るよう要求されることがあります。

KC

이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자
또는 사용자는 이점을 주의하시기 바라며, 만약 잘못 판매 또는
구입하였을 때에는 가정용으로 교환하시기 바랍니다.

CCC

此为 C lass A 产品,在生活环境中,该产品可能造成无线电干扰,在这种情况下,可能需要用户对其
干扰采取切实可行的措施.

FCC ID: 2ABED-TDP43MI

FCC Statement:

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

● Reorient or relocate the receiving antenna.

● Increase the separation between the equipment and receiver.

● Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

● Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party

responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.