

1-Port USB Print Server Hardware User's Guide

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Made In Taiwan



RECYCLABLE

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ABOUT THIS GUIDE

This manual describes the 1-Port USB Print Server, including full descriptions of its features, detailed installation procedures, and product specification.

This 1-Port USB Print Server package also includes important software components and additional user's manuals. The software components, the procedures for installation and setup of the software are covered in the *PS Admin User's Guide*.

INTRODUCTION

Congratulations on purchasing your 1-Port USB Print Server, the easiest and fastest way to deploy printers on your network.

This compact pocket-sized print server can connect your Ethernet network directly to your printer, wherever it is. It manages the flow of print files from your workstation or file server to its connected printers, delivering print jobs to high-performance printers much faster than a file server or a PC acting as a print server can.

Package Contents

Carefully remove all items from the package. In addition to this *Hardware User's Guide*, be certain that you have:

- ◆ One 1-Port USB Print Server
- ◆ One AC Power adapter suitable for your country's electric power service
- ◆ One *1-Port USB Print Server Installation CD-ROM*
- ◆ One *Quick Installation Guide*

If any item is missing, or if you find any damage or mismatch, promptly contact your dealer for assistance.

General Features

- ◆ Compact pocket size
- ◆ Compliant with USB 1.1
- ◆ Equipped one 10Base-T/100BASE-TX LAN port
- ◆ Multi protocol support is ideal for shared printing in mixed-LAN environments
- ◆ Bi-directional communication allows collection of information for attached printer's status
- ◆ Windows-based administrative program makes it possible to set up in a few minutes
- ◆ Latest MIB-II (RFC 1213) for SNMP standard management
- ◆ Offer LPR program for Windows 95/98/Me TCP/IP printing
- ◆ IP assignment support for DHCP, BOOTP and RARP
- ◆ Support Web configuration
- ◆ Provide Flash memory for easy firmware upgrade

Service Features

This 1-Port USB Print Server can improve network-printing services of your network in three ways:

- ◆ It picks up the workload of managing print file traffic to its connected printers. This provides workload relief to your file servers, and allows the file servers' full capacity to be used for file access or other direct services to network users. On peer-to-peer networks, workstations can print directly to this print server without increasing the load of another workstation or server.
- ◆ This print server's USB interface can transmit to a high-speed laser printer with USB port much faster than a PC's parallel port. A high-speed laser printer can be driven at its full capacity.
- ◆ Because this 1-Port USB Print Server is very portable (pocket-sized) and inexpensive compared to a PC-based print server, and because it connects

to your file servers through the network, the printer can be stationed at the location of maximum convenience to users.

This 1-Port USB Print Server offers extraordinary flexibility, operating with all major network operating systems and protocols:

◆ **TCP/IP**

UNIX lpr/lpd (HP-UX, SunOS, Solaris, SCO, UnixWare, IBM AIX)

Windows NT/2000/XP, Windows 95/98/Me

NetWare 5.x NDPS LPR remote printing

◆ **NetBEUI**

Windows NT/2000/XP, Windows 95/98/Me, Windows for Workgroups, Microsoft LAN Manager, IBM LAN Server

◆ **AppleTalk**

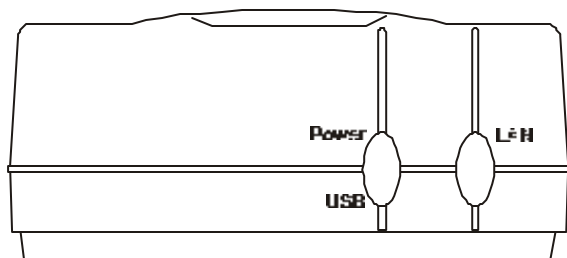
MacOS EtherTalk

Your 1-Port USB Print Server's package includes *PS Admin*, a Windows-based setup and administration program, making configuration and management of your print servers quickly and easily in a Windows environment. This print server also has a Telnet interface for management communications. If Windows is not available on the station you choose for print server administration, then all configuration and management commands may be issued to this print server, and all console messages and management report information will be returned, via Telnet.

External Features

This section describes the external features of your 1-Port USB Print Server.

Front View

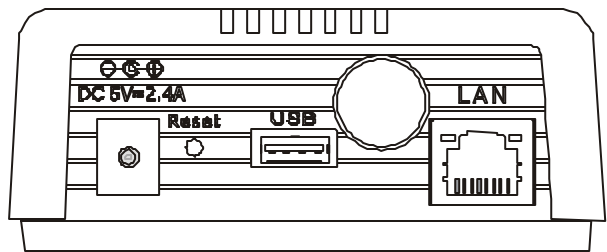


Front Panel

There are three green LED indicators on the front panel:

LEDs	Description
Power	Steady light confirms that the Print Server is powered on.
LAN	Steady light confirms that the print server has a good connection to your network. When it blinks (briefly dark), the print server is receiving/ transmitting data from/to the network.
USB	Steady blinking (briefly dark) is initiated when the printer is printing, otherwise, it remains dark.

Rear View



Rear Panel

Component	Description
DC Power Input	The DC power input connector is located on the Print Server's rear panel and is labeled DC 5V. Please note that the power supply included in the package is correct for this 1-Port USB Print Server; substitution of other equipment may void warranty.
Reset Button	1.) Press and release this button to reset the print server. 2.) Press and hold this button for three seconds (the USB LED on the front panel lights up) and then release it, the print server will resume the factory default settings.
USB Port	The USB port allows you connecting the print server to a printer with USB connector.
LAN Connector	This LAN connector (RJ-45) provides the printer server with connection to the network through the Ethernet cabling.

This printer port is configurable by commands in the *PS Admin* program, or by commands issued to the print server via Telnet. See the *PS Admin User's Guide* for configuration procedures. The print server also supports web configuration, which allows users to configure settings through the web browser. The print server's default IP address settings are:

- ◆ Default IP address – 192.168.0.1
- ◆ Subnet Mask – 255.255.255.0

Please note that the PC' s IP address must correspond with the print server' s IP address in the same segment for the two devices to communicate.

INSTALLATION

This chapter explains how to install your print server and connect it to the network. It also describes the automatic power-on-self-test (POST).

Installing the Print Server

Follow these steps for a trouble-free start of print server operations with your 1-Port USB Print Server. Please take particular notice of the warning in step 4: *the network connection should be made before supplying power to the print server.*

1. Confirm proper operation of the printer to be connected to the print server.
2. When you have confirmed proper operation of the printer, turn off the power.
3. Confirm that your network is operating normally.
4. Connect the print server to the network (through the RJ-45 connector of the print server).

WARNING: *Configuration problems may result if the print server is powered up without first establishing its network connection. Please follow this procedure to avoid complications at the configuration stage.*

5. While the printer is powered off, connect the print server through the cable to the printer's USB port.
6. Turn on the printer's power.

7. Connect the DC end of the AC Power adapter to the DC power input socket of the print server and the AC end to the wall outlet. This will supply power to the print server, and the POST routines will proceed automatically.

Note: This print server is built with a default IP setting. To prevent from any conflict in your network, it is recommended to use the PS Admin program to change the IP setting when there is some other device's IP address is the same as the print server's default IP.

Power-up and Self-Test

Whenever the print server is powered up, two kinds of testing procedures follow automatically. The first procedure is just a programmed series of LED flashes, to confirm proper operation of the three LED indicators. The second procedure comprises programmed tests of each of the print server's major components.

LED Test Series

Immediately upon power-up, all three of the LED indicators will show steady green/amber for a few seconds. Then the USB indicator will flash three times while the Power LED remains steady. Irregularity of any of the LEDs during this LED test series indicates that there is a problem with the LEDs themselves. Contact your dealer for correction of any LED problems before proceeding.

Component Test Series

The actual component tests immediately follow the LEDs test. If any error condition is found during the component test series, then the test will halt with the USB LED continuously signaling the particular error according to the following table.

USB LED Pattern	Error Type
Flash slowly	Firmware reload required
Steady on	DRAM error
1 long - 2 short	Timer INT error
1 long - 3 short	Flash protected
1 long - 5 short	Flash erase/program error
1 long - 6 short	LAN controller error
1 long - 7 short	LAN memory error
1 long - 11 short	LAN I/O base error
1 long - 18 short	USB controller error

In the event of a 'Firmware Reload Required' error at startup, proceed according to instructions given in the *PS Admin User's Guide* ("PS Admin Administration" section, under the heading "Upgrading the Print Server's Internal Firmware").

In the event that any of the other listed error conditions is encountered on startup, contact your dealer for correction of the fault.



PRODUCT SPECIFICATIONS

Printer Connection

Printer Interface: One USB port, compliant with USB 1.1 standard

Network Connection

Network Interface: One 10Base-T/100BASE-TX shielded port (RJ-45 connector)

Network Standards: IEEE 802.3 10Base-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet

Network Data Transfer Rate: 10/100 Mbps (megabits per second)

Network Protocol Support

Ethernet Frame Types: 802.2, 802.3, Ethernet II, SNAP (auto-switching)

Transport Protocols: TCP/IP, NetBEUI, AppleTalk/EtherTalk

TCP/IP Protocols Supported: BOOTP, SNMP, Telnet, TFTP, FTP, LPD, RARP, DHCP

Operating System Support

Windows 95/98/Me, Windows NT/2000/XP; NetWare 5.x (NDPS LPR remote printing); HP-UX UNIX, Sun OS, Solaris, SCO UNIX, AIX, Unixware and Linux; Mac OS, Appletalk

Management

Standard: SNMP

MIBs: MIB-II (RFC 1213)

LEDs

PW, LAN, USB

Environmental and Physical

Power Supply: External power supply providing 5VDC input

Operating Temperature: 0°C to 50°C

Storage Temperature: -25°C to 55°C

Humidity: 5% to 95% , non-condensing at 30°C

EMI Compliance

FCC Class B, CE Class B