

Multi System Printer Server

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# Multi System Printer Server

**User's Manual**

Version 1.0

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## Preface

This manual is meant for users of the Multi System Printer Server. Some knowledge of networks and of the English language is required to install this product. Nothing special is required of the user.

The manual uses the following format in order to illustrate commands:

" <b>Control panel</b> "	This is a software term. It is (usually) displayed on the screen.
"Device   test"	The option "test" must be selected from the menu "Device".

Important information is given in the format illustrated below:

**Warning:**            *This is dangerous.*

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## Table of Contents

<b>1. Introduction</b> .....	<b>1</b>
<b>2. Safety</b> .....	<b>2</b>
<b>3. Description</b> .....	<b>3</b>
3.1 Connections .....	3
3.1.1 Printers.....	3
3.1.2 Network and power supply adapter.....	4
3.2 Indicators .....	4
<b>4. Installation</b> .....	<b>5</b>
4.1 Connection.....	5
4.2 Testing .....	6
<b>5. Troubleshooting</b> .....	<b>8</b>
<b>Appendix A: Technical data</b> .....	<b>10</b>
<b>Appendix B: Data connections</b> .....	<b>12</b>

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## 1. Introduction

The Multi System Printer Server makes it possible to connect printers to every location in a network. The printers can be used by all network users.

The Multi System Printer Server is suited for Windows, Novell Netware and TCP/IP based networks such as UNIX.

The printer server is meant to be used with UTP and Coax networks in an office environment. It does not require a special climate.

**Warning:**            *Use the Multi System Printer Server only in Ethernet networks with the type of cabling indicated. Connecting the device to other systems does not work and is dangerous.*

ENGLISH

## 2. Safety

Read the following instructions carefully:

1. Pull the plugs from the outlet before cleaning this device. Do not use cleaning fluids or spray cans on it. Instead, wipe off the device with a damp cloth.
2. Do not use this device near water; e.g., close to a bathtub, near a sink, in a damp basement, by a swimming pool, etc.
3. Make sure that nothing rests on the power cord. Do not put this device in a place where the cord can wear or be damaged as a result of traffic.
4. Never insert objects of any type into the openings of the device's casing as such objects can come into contact with electrical points or electrical components, which may result in fire or electric shock.
5. Do not try and repair this device yourself. If you open or remove the casing, you can come into contact with components that contain considerable voltage or with components through which considerable voltage runs. You may also encounter other dangers. This device must be maintained by qualified personnel only.
6. Pull the plug from the outlet and have the device repaired by qualified personnel when:
  - a) the cord or plug is damaged or worn
  - b) liquid has entered the device
  - c) the device has come into contact with rain or water
  - d) the device does not operate in a normal fashion
  - e) the device has fallen or its casing has been damaged
  - f) the device performs considerably worse than usual.

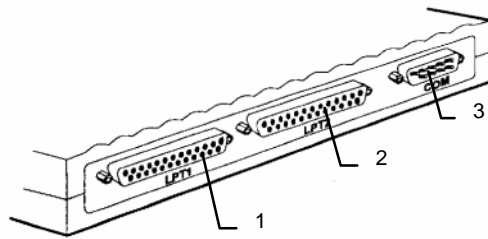


## 3. Description

### 3.1 Connections

#### 3.1.1 Printers

There are three connections for printers on the printer server. These ports can be set by using the program supplied with the server.

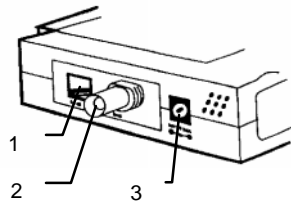


**Figure 1. Connections to the printer server**

1. LPT1: Parallel printer port 1
2. LPT2: Parallel printer port 2
3. COM: Serial printer port

### 3.1.2 Network and power supply adapter

The connections for the network are located on the side of the device (see Figure 2). You can choose between Coax cabling or UTP cabling for the Ethernet network. The printer server will recognise the cable type automatically.



**Figure 2. Connections for network and power supply adapter**

1. Connection for UTP network
2. Connection for Coax network
3. Connection for power supply adapter

### 3.2 Indicators

The following indicators are present to show whether the printer server is functioning correctly:

Power / TX	Light on	Printer server is activated
	Flashing	Sending data sent
Link / RX	Light on	Network connection is sound
	Flashing	Receiving data
LPT1 / LPT2 / COM	Light on	Sending data to the relevant port

## 4. Installation

### 4.1 Connection

The following components should be in the package:

- Printer server
- Software (disks)
- Power supply
- Assembly kit for wall mounting
- This multi-language user's manual
- English manual for fixing network settings

Contact your dealer if any items are missing or have been damaged. Save the packaging in case the printer server must be transported later.

Turning on the printer server without a sound connection to the network can create problems later on when you are fixing settings. Therefore, you must execute the following steps in the sequence in which they appear:

1. Test the printers used on a separate computer.
2. Turn off the printers.
3. Check the network cables.
4. Connect the network to the printer server.
5. Connect the printer(s). Use serial printers only if they are absolutely necessary, because of the complexity of installing them.
6. Turn on the printer(s).
7. Connect the adapter to the printer server and then to an appropriate outlet. The indicators on the front will begin to flash. If the printer server is operating soundly, only the Power/TX and the Link/RX indicators will be lit after a few seconds.
8. Leave the printer server and the printers turned on and continue with the next chapter.

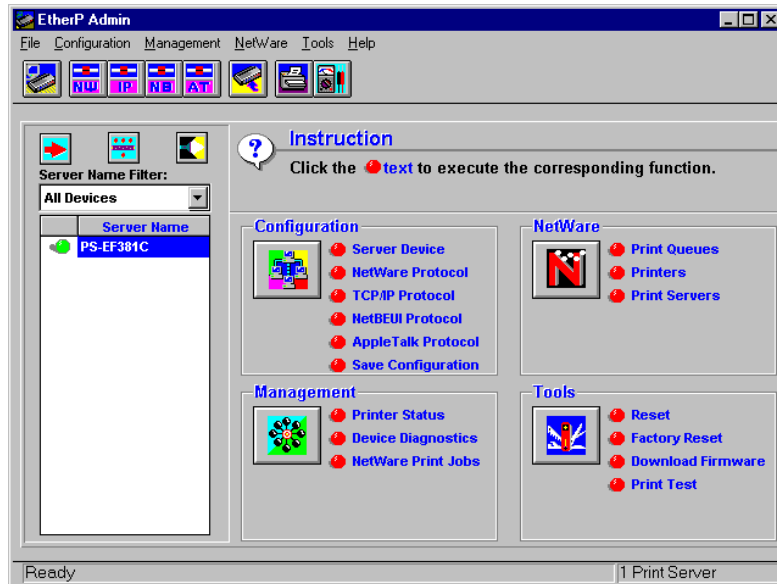
## 4.2 Testing

For this test, you will need a PC with a minimum of a 486 processor, a network connection (NETBEUI and IPX/SPX protocol) and Windows 95. For those who do not use a Windows network, Windows 95 is necessary only once in order to fix settings. It is not required for normal use.

Test the printer server as follows:

1. Insert disk 1 into drive A:
2. Start "Setup.exe" from this disk in order to install the program. Preferably use "C:\epadmin" as the installation folder. At the end of the process, two icons will be created: "EtherP Admin" and "Uninstall".
3. Activate the program using the EtherP Admin icon. The program's main selection screen will appear (see Figure 3).
4. The program will now search for approximately 10 seconds for the printer servers that are connected. Your printer server should be displayed in the list on the left-hand side of the main selection screen. If the program cannot find any print servers (i.e., if the list is empty), then check the cabling and the network settings of the PC. Restart the program or choose "File | Discover" in order to search again.
5. Click on the new printer server in the list. You can skip this step if only one printer server is connected.
6. Choose "Print test" from the menu "Tools". You will then have to choose a printer port in the screen that follows.
7. Choose a printer port. A summary of the current settings is printed by the connected printer. Save this summary. Repeat steps 6 and 7 for all connected printers.

## Multi System Printer Server



ENGLISH

**Figure 3. Main selection screen of the printer server's administration program.**

You are now ready to set the printer server so that it can be used with your network. You will need the "Technical Guide" manual to do this.

## 5. Troubleshooting

Please also refer to the manual "Technical Guide" for more information.

Call the Help desk or contact your dealer if you are still experiencing difficulties after having read this chapter and the tips in the "Technical Guide". You will need the following information to ensure a speedy answer to your question:

1. The printout from the printer test (see Chapter 4.2).
2. The settings of the Windows 95 computer with which you want to install your printer server.
3. Information about your network, such as the OS name, frame type, cable type, etc.
4. The brand and type of printers connected.

<b>Problem</b>	<b>Possible cause</b>	<b>Solution</b>
Indicators do not light up.	Adapter not connected.	Connect adapter to outlet.
Program cannot find the printer server.	Network cables not connected.	Connect the cable. (If coax, do not forget the terminator!)
	Printer server and computer with Admin program not in the same network segment.	Connect the printer server in the correct segment.
	Network protocol incompatible.	Install NETBEUI and IPX protocol in Windows 95 for the network card connected to the printer server.

Multi System Printer Server

<b>Problem</b>	<b>Possible cause</b>	<b>Solution</b>
	Wrong printer cable used.	Disconnect all printer cables, turn the printer server off and then on again, and re-try (without any printers connected).
Diagnostic error.	Printer server frozen.	Turn the printer server off and then on again. If this does not help, then contact your dealer.
Printer test does not work.	Wrong or defective printer cable.	Test printer with cable attached to a stand-alone computer and replace the cable if necessary.
	Incorrect port chosen.	Choose correct port.
	Serial printer has incorrect settings.	Connect a parallel printer. Execute test on this printer. Use the printout to compare the data of the serial port with the settings of the serial printer.
Printer server does not work and the LPT indicators continue to flash.	Printer server is defective.	Turn the printer server off and then on again. If this does not help, then contact your dealer.

ENGLISH

## Appendix A: Technical data

Printer	IEEE 1284 bi-directional parallel interface with HP 'Printer Job Language' support
Network type	<ul style="list-style-type: none"><li>• IEEE 802.3</li><li>• 10BASE-2 Ethernet</li><li>• 10BASE-T Ethernet</li></ul>
Network speed	10 Mbits/s
Network connections	<ul style="list-style-type: none"><li>• BNC (for Coax cable)</li><li>• RJ-45 (for UTP cable)</li></ul>
Data type	<ul style="list-style-type: none"><li>• 802.2</li><li>• 802.3</li><li>• Ethernet II</li><li>• SNAP (auto detect)</li></ul>
Protocols	<ul style="list-style-type: none"><li>• IPX/SPX</li><li>• TCP/IP</li><li>• NetBEUI</li><li>• AppleTalk/EtherTalk</li></ul>
Management	SNMP
MIBs	MIB-II (RFC 1213).
Power supply	220 - 240 V, 50 Hz, 10 Watt max.
Operating environment	0 to 55 °C



Multi System Printer Server

Storage temperature	-20 to 55 °C
Humidity	5% to 90% no condensation
Approvals	<ul style="list-style-type: none"><li>• EN-55022</li><li>• EN-50082-1</li><li>• EN-60950 (adapter)</li><li>• CSA950</li><li>• UL 1950</li><li>• TUV/GS</li></ul>

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## Appendix B: Data connections

### Parallel ports

The data for parallel ports are given below. Signals beginning with "n" are active low. Printer problems can be solved with these data.

25 Pin	Signal	Source
1	nSrobe	Host
2	Data 1	Bi-directional
3	Data 2	Bi-directional
4	Data 3	Bi-directional
5	Data 4	Bi-directional
6	Data 5	Bi-directional
7	Data 6	Bi-directional
8	Data 7	Bi-directional
9	Data 8	Bi-directional
10	nAck	Printer
11	Busy	Printer
12	Perror	Printer
13	Select	Printer
14	nAutoFd	Host
15	nFault	Printer
16	nInit	Host
17	nSelectIn	Host
18-25	Ground	Ground

## Serial port

The data for the serial port are given below. The printer server connection is wired as a DTE port. Therefore, the printer must be wired as DCE for a sound connection. These data are necessary in order to make a serial printer cable.

Connection	Signal	Function
1	DCD	Data Carrier Detected (DCE->DTE)
2	RXD	Received Data (DCE->DTE)
3	TXD	Transmitted Data (DTE->DCE)
4	DTR	Data Terminal Ready (DTE->DCE)
5	Gnd	Signal Ground
6	DSR	Data Set Ready (DCE->DTE)
7	RTS	Request to Send (DTE->DCE)
8	CTS	Clear to Send (DCE->DTE)
9	RI	Ring Indicator (DCE->DTE)

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