



PocketPro USB

Ethernet and Wireless Print Servers



Installation and User's Guide

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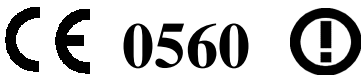
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READ ME FIRST

TROY Installation Instructions

(FOR USE WITH TROY POCKETPRO USB PRINT SERVERS)

NOTE: This User's Guide is available in other languages that can be printed from the TROY PocketPro USB Installation CD.

Introduction

The TROY PocketPro USB is a high-performance compact print server that connects to the USB port of your printer. This print server supports and automatically senses both 100baseTX Fast Ethernet and 10baseT Ethernet network connections, and the wireless version allows connections to 802.11b wireless networks as well. The installation can be performed by the least-experienced users, while providing networking professionals with advanced features for configuration. Refer to the *TROY PocketPro USB Administrator's Guide* (provided in PDF format on the *TROY PocketPro USB Installation CD*) for information on the advanced features and configuration options available for this product. TROY is confident that you will enjoy the many features of the PocketPro USB print server. For more information on this product or for downloading firmware upgrades, visit the TROY web site at <http://www.troypgroup.com/wireless>.

Package Contents

- TROY PocketPro USB print server
- Power supply adapter
- USB A-B cable
- User's Guide (this document)
- TROY PocketPro Installation CD (includes an electronic copy of the *TROY PocketPro USB Administrator's Guide*)
- TROY warranty card
- Desktop mounting kit
- Printer mounting kit

IMPORTANT

- ▶ **For advanced software configuration for your computer and PocketPro USB print server, please refer to the *TROY PocketPro USB Administrator's Guide* (provided electronically in PDF format on the *TROY PocketPro USB Installation CD*).**
- ▶ **You must use Adobe Acrobat Reader 5.0 or higher to view or print the PDF files contained on the CD.**
- ▶ **Be sure to fill out and mail back the electronic warranty card provided on the *TROY PocketPro USB Installation CD*.**

About This User's Guide

This User's Guide contains information on system requirements, basic troubleshooting, and instructions on the following:

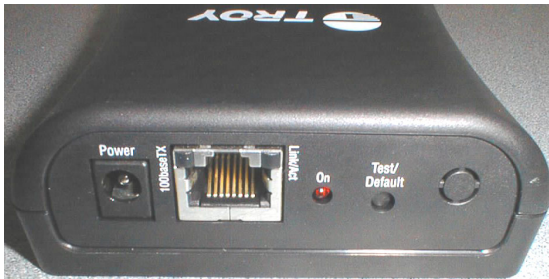
- Installing the print server hardware
- Configuring the PocketPro USB print server for use on your network
- Windows print queue configuration
- Macintosh print queue configuration

NOTE: The PocketPro USB print server can be used with other operating systems. Refer to the PocketPro USB Administrator's Guide (provided in PDF format on the TROY PocketPro USB Installation CD) for detailed information.

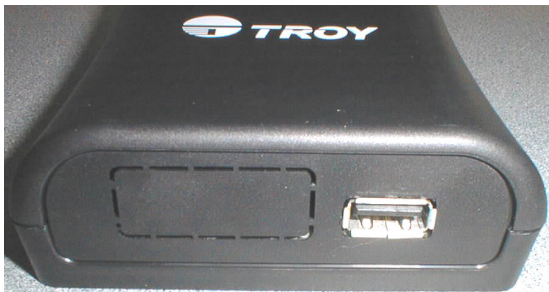
Print Server Components

The PocketPro USB print server includes the following components. Detailed descriptions of these components are provided below:

- **Power connector** – The power supply cable plugs into this connector.
- **Test button** – Pressing this button for less than three seconds will print a test page on the printer. Pressing and holding this button for more than five seconds will reset the print server to factory default settings.
- **LED status indicators** – used to indicate the operational states of the print server. Refer to page 8 in this user's guide for detailed LED status light descriptions.
- **Ethernet Port** – This port is used for connecting the PocketPro USB to an Ethernet card, hub, router, or other wired access point for network access.



- **USB port** – This port is used for connecting the PocketPro USB port to a USB printer. You must use a standard USB A (print server side) to B (printer side) cable.



LED Indicators

The back edge of the PocketPro USB print server provides three LED (Light Emitting Diode) indicators for easy monitoring. The following table defines the function of each LED.

Label	Color	State	Status
POWER	ORANGE	ON	The device is receiving power.
		OFF	The device is not receiving power.
100BASETX	GREEN	ON	The unit is transmitting at 100 megabits per second.
		OFF	The unit is transmitting at 10 megabits per second (or transmitting wirelessly if there is no Ethernet plugged into the wireless version).
LINK/ACTIVITY	YELLOW	ON	There is an Ethernet link (or wireless link if there is no Ethernet plugged into the wireless version).
		OFF	There is no Ethernet link.
		Blinking	There is network activity.
100BASETX+LINK/ACTIVITY	YELLOW GREEN	Blinking Alternately	A fatal error or exception has occurred.
100BASETX+LINK/ACTIVITY	YELLOW GREEN	Blinking Simultaneously	The firmware is being updated.

Windows™ System Requirements

To configure the settings of the PocketPro USB print server (wired and wireless versions) using the provided ExtendView Utility in Windows, your Windows-based system should include the following components:

- A PC with a 133 MHz or higher processor
- Microsoft Windows 98SE, ME, 2000, or XP operating system
- At least 64 MB of RAM (memory)
- At least 3 MB of free hard disk space to install the software
- A CD-ROM drive (to load the software)
- A PC equipped with a USB version 1.1 or 2.0 port connector
- An Internet connection through a cable or DSL modem, or an external dial-up or ISDN modem (for online product registration)

Macintosh System Requirements

Macintosh users can access the configuration settings for the PocketPro USB print server through a standard web browser using the DHCP dynamic IP address or the default static IP address of the print server (192.0.0.192).

Network Protocols Supported

- TCP/IP
- TELNET
- WINS
- DHCP
- AppleTalk
- IPX/SPX
- Net Beui

Wireless Print Server Requirements

To print to the PocketPro USB Wireless version, you need an 802.11b wireless network consisting of either of the following:

- An 802.11b wireless-enabled PC or Macintosh printing straight to the printer (Ad-Hoc or Peer-to-Peer Mode).
- An 802.11b wireless access point that allows wireless and wired Ethernet-enabled computers to print to the wireless print server.

To configure and print to the PocketPro USB Wireless print server, you will need the following information from your wireless network administrator:

- Wireless Mode used (Infrastructure or Ad-Hoc)
- The SSID (service set identifier) for your wireless network.
- The Radio Frequency Channel of the wireless network.
- If you are using TCP/IP (recommended for Windows Networks) and are not connected to a DHCP server (for obtaining an IP Address automatically), you will need a unique IP Address for the PocketPro USB Wireless print server (for example: 192.168.1.14). If the PocketPro USB Wireless print server is not on the same IP subnet as the computers you are printing from, you will also need a subnet mask and a router (default gateway) address.
- WEP (Wired Equivalent Privacy) settings

NOTE: If you require assistance for installing or configuring your PocketPro USB print server, ask your system administrator for assistance, or call TROY Technical Support at (800) 332-6427, between 8 AM to 8 PM, Monday through Friday, Eastern Standard Time. Customers located outside the United States, please call (304) 232-0899. European customers, please call +49 (0) 7032-9454-21.

Hardware Setup (wired and wireless versions)

NOTE: Be sure to review the hardware requirements in the previous section to ensure you have the necessary information before installing the print server.

1. Before attempting to install the TROY PocketPro USB print server, make sure you have installed and set up your printer as described in the documentation that came with the printer.
2. Write down the 12-digit MAC address printed on the label located on the bottom of the print server (for example: 004017023F96). You may need this number in order to configure the print server.
3. Mount the print server on either the printer or the desktop:
 - **Printer mount** – attach the print server to a suitable location on the side or rear of your printer by applying an adhesive Velcro strip (provided in the printer mounting kit) to your printer and at the top of the print server as it is to be attached to your printer.



- **Desktop mount** – attach the adhesive rubber feet (provided in the desktop mounting kit) to the bottom of the PocketPro USB print server as shown below.



4. Connect the PocketPro USB print server to your printer using a standard USB A (print server side) to B (printer side) cable.
5. Plug the PocketPro USB print server power supply adapter into a suitable AC receptacle, and then plug the power supply cable into the PocketPro USB print server. The print server will run through a sequence of power-up diagnostics for a few seconds.
 - If the print server is operating properly, the green LED will blink momentarily and then go out, the yellow LED will be illuminated (the wireless default mode of ad-hoc), and the orange LED will be lit, indicating the device is receiving power (refer to page 8 for detailed LED status descriptions).
 - If the green LED blinks continuously in a regular pattern, there is a problem. If this is the case, try powering the unit OFF and then ON again.
 - If the problem persists, refer to the *Troubleshooting* section in this User's Guide. When the green LED goes out, the other LEDs on the print server will blink in a random pattern.

Verifying the Connection to the Printer

NOTE: Before attempting to print, it is very important to verify the connection between the print server and printer. If this connection is not working, you will not be able to print!

1. Verify that both the print server and the printer are powered on and ready, and that a USB cable is properly connected between the print server and printer.
2. Print a test page by pressing the *Test* button once. If the connection is good, a test page will print on the printer. If nothing prints out, make sure that the USB cable is properly connected, your printer is on line, and that no error conditions exist with the printer (off line, paper jam, out of toner, etc.).

NOTE: The test page will only work with printers that can directly print PCL, PostScript, or text. It will not work with some "Windows" printers like the HP DeskJet 820 (which performs the image rasterization in the PC), nor will it work with HP-GL/2 or RTL plotters (unless the PostScript option is installed). For such devices, you must print a job from an appropriate application program in order to test the print server-to-printer connection.

If none of the above suggestions work, refer to the troubleshooting tips in this User's Guide. For additional troubleshooting tips, refer to the troubleshooting section in the *PocketPro USB Administrator's Guide* (provided in PDF format on the *TROY PocketPro USB Installation CD*), or contact TROY Technical Support at (800) 332-6427, or visit the TROY web site at <http://www.troygroup.com>, or send an e-mail to technicalsupport@troygroup.com for assistance. Customers outside the United States, call (304) 232-0899. European customers, call +49 (0) 7032-9454-21, or send an e-mail to support@troygroup.de for assistance.

Configuring the PocketPro USB

After the hardware setup has been successfully completed, the PocketPro USB print server can be configured via the Ethernet connection. If you are using a wireless print server, you can still configure it via the Ethernet connection, or optionally configure the print server via a wireless connection as described on Page 13.

Configuring the Print Server Using an Ethernet Connection

For Microsoft Windows operating systems, the recommended method of configuring one or more print servers on your network is to use the ExtendView Utility (provided on the *TROY PocketPro USB Installation* CD). For non-Windows operating systems (i.e., Macintosh or Unix systems, etc.), a standard web browser (e.g., Microsoft Internet Explorer or Netscape Navigator) can be used to access the configuration settings of the print server. No additional software is required.

NOTE: No configuration is necessary for Macintosh users unless you have the wireless version, in which case you will need to configure the wireless settings of the print server.

INSTALLING THE EXTENDVIEW UTILITY (WINDOWS OPERATING SYSTEMS):

1. Ensure your PC is connected and has access to your network.
2. Connect an available Ethernet cable from your network hub to the PocketPro USB print server. Ensure the print server is powered on.
3. Insert the CD supplied with your print server into the CD-ROM drive of your computer. The CD should automatically start and display a menu screen. Click on *Install Software*.
4. Select *TCP/IP Management Utilities*, and then click on *Next*.
5. Select *ExtendView*, and then click on *Install*.
6. Start the ExtendView utility by clicking on *Start, Programs, TROY GROUP Printing*, and then *ExtendView*.
7. When the Welcome screen appears, click on *Next*, choose any name for your *View Name*, select *Automatically create a view with default settings*, and then click on *Finish*.

8. Double-click on the print server that you want to print to in the list. The default print server name is TWC_XXXXXX (where XXXXXX is the last six digits of the MAC address from the label located on the back of the print server).
9. If you are using TCP/IP (recommended for Windows printing) and you do not have a DHCP server (see note below), you will need to manually assign a valid IP Address (if you are not sure what IP address is valid, ask your network administrator), and click on **OK**.
10. Configure the 802.11b wireless settings (only for the PocketPro USB Wireless version). To operate on an 802.11b network, you must set the wireless mode (ad-hoc or infrastructure), SSID channel, data rate, and WEP encryption of the PocketPro USB Wireless print server to the same configuration as the wireless network you want the print server to communicate on. All nodes of a wireless network need to have the same settings in order to communicate with each other.

NOTE: Refer to the wireless security addendum (provided in print with the PocketPro USB wireless print server and is also available from the TROY web site at <http://www.troygroup.com>) for extra wireless security configuration instructions.

NOTE: If you are using DHCP on your network, the print server may have acquired valid IP settings at this point and no further configuration is necessary. This might work well if your DHCP server allows the print server to keep this address permanently, but in most cases, you will want to use a static address outside the range reserved for DHCP (see your DHCP server documentation for details). When you configure your printer port, the print server will go to a static IP address. To assign a static IP address, right-click on the print server in the menu, and then select Configuration. On the TCP/IP tab, under IP Address Resolution, select Set Permanent, and assign a valid static IP address for your network. Click on **OK** to save the new settings.

USING THE WEBXADMIN UTILITY (NON-WINDOWS OPERATING SYSTEMS):

1. Ensure your PC is connected and has access to your network.
2. Connect an available Ethernet cable from your network hub to the PocketPro USB print server. Ensure the print server is powered on.
3. With your printer and print server switched on and ready, press the *test* button on the print server to print a test page. The test page will display the current IP address assigned to the print server by your network DHCP service. If your network does not use DHCP, then the print server will have the default IP address of 192.0.0.192. In any case, your computer must use an IP address other than the one used by the print server in order to establish a connection between the two devices.
4. Configure the 802.11b wireless settings (only for the PocketPro USB Wireless version). To operate on an 802.11b network, you must set the wireless mode (ad-hoc or infrastructure), SSID channel, data rate, and WEP encryption of the PocketPro USB Wireless print server to the same configuration as the wireless network you want the print server to communicate on. All nodes of a wireless network need to have the same settings in order to communicate with each other.
5. From the host computer, open a standard web browser (e.g., Microsoft Internet Explorer or Netscape Navigator), enter the IP address of the print server into the address bar of the web browser, and then press *Enter*. The WebXAdmin Utility will be displayed, allowing you to configure the settings of the print server. Refer to the *PocketPro USB Administrator's Guide* (provided in PDF format on the *TROY PocketPro USB Installation* CD) for detailed information on using the WebXAdmin Utility.

NOTE: Refer to the wireless security addendum (provided in print with the PocketPro USB wireless print server and is also available from the TROY web site at <http://www.troygroup.com>) for wireless security configuration instructions.

First-Time Configuration of the Wireless Print Server

To configure the PocketPro USB Wireless print server for the first time from a computer via an 802.11b wireless connection, you will need to temporarily change the settings on your computer to match the default settings of the print server as follows:

- Wireless Mode: *Ad-Hoc* (sometimes referred to as Peer-to-Peer)
- Channel: *11*
- SSID (or wireless network name): *printer*

NOTE: It is not necessary to change your computer's settings if you are configuring the print server's settings via an Ethernet connection.

You should now be able to configure your print server using either the ExtendView Utility or the Web Browser Configuration as described in the previous sections.

NOTE: Be sure to set your PC back to its original wireless settings after you finish configuring the PocketPro USB Wireless print server.

NOTE: For detailed information on using the WebXAdmin Utility, refer to the *TROY PocketPro USB Administrator's Guide* (provided in PDF format on the TROY PocketPro USB Installation CD).

NOTE: Refer to the wireless security addendum (provided in print with the PocketPro USB wireless print server and is also available from the TROY web site at <http://www.troygroup.com>) for wireless security configuration instructions.

Windows Print Queue Configuration

TROY recommends using the *ExtendNet Connect for TCP/IP* software for Windows printer port configuration (provided on the *TROY PocketPro USB Installation* CD). TROY print servers are also compatible with Windows standard TCP/IP port and LPR ports. If you are using the standard TCP/IP port, the default port number is 9100. Perform the following steps to install and use ExtendNet Connect for TCP/IP:

1. Install the ExtendConnect IP Port Monitor by inserting the CD supplied with your print server and clicking on *Install Software*.
2. Select *ExtendNet Connect Windows Printing*, click on *Next*, click on *ExtendNet Connect for TCP/IP*, and then click on *Install*. Follow the on-screen instructions to complete this installation.
3. Install the printer driver software according to the documentation for the printer.
4. Click the Windows *Start* button, select *Settings*, and then *Printers* (*Start*, then *Printers and Faxes* if you are using Windows XP).
5. Right-click on the printer you wish to associate with the network port, and then select *Properties*.
6. If you are using Windows NT/2000/XP, go to the *Ports* tab. If you are using Windows 95/98/ME, go to the *Details* tab, and then click on *Add Port*.
7. If you are using Windows NT/2000/XP, highlight *TROY Wireless ExtendNet Connect IP Monitor*, and then click on *New Port*.
8. If you are running Windows 95/98/ME, select *Other*, highlight *TROY Wireless ExtendNet Connect IP Monitor*, and then click on *OK*. The search will begin for available print servers.
9. Highlight the print server you would like to create the port for, and then click on *ADD*.
10. Make sure the port you created is chosen, and then click on *Apply*. You are now ready to print.

Macintosh Print Queue Configuration

The TROY print server supports the AppleTalk protocol running over Ethernet (also known as EtherTalk). This capability allows Macintosh computers to print jobs to a printer simultaneously with jobs from Windows, UNIX, NetWare, and other computers.

NOTE: TROY print servers are also compatible with the Macintosh TCP/IP Printer option in the Print Center as long as you have a valid IP Address configured (refer to the section “Configuring your PocketPro USB”). Enter the IP Address of the print server for the “Printer’s Address”, and make sure the “Use default queue on server” option is checked, and select your correct “Printer Model”.

TROY print server AppleTalk capabilities allow a printer to appear as a shareable printer node on an AppleTalk Phase 2 network. The TROY print server broadcasts information to Macintoshes on the network, and automatically appears in the Print Center or Chooser of each Macintosh. Application programs (such as Microsoft Word, Excel, PageMaker, etc.) can print without modification or special software on the Macintosh.

MACINTOSH CONFIGURATION (OS 8.X AND 9.X):

Identify the printer to which the print server is connected, and install the printer driver.

1. Verify that Ethernet is enabled from the Network Control Panel or AppleTalk Control Panel.
2. At a Macintosh workstation, from the Apple menu, open the Chooser.
3. If the Chooser window displays an AppleTalk zone list, select the necessary zone. Click on the icon for the printer driver you are going to use. If you have a Postscript printer, you can use the LaserWriter driver.
4. Select the print server name (the default is TWC_XXXXXX_P1_AT, where "XXXXXX" are the last six digits of the Ethernet address.).
5. Close the Chooser. You can now print to the printer using any standard Macintosh application program.

MACINTOSH CONFIGURATION (OS 10.x)

1. If you have not done so already, set the name of your computer by going to the Applications folder*, selecting *System Preferences*, and then *Sharing*. Type in the computer name in the Network Identity section (you can also set the IP address here if you want).
2. Turn on *Ethernet* and *AppleTalk* by clicking on the Applications folder and clicking on *Network*. Next to *Configure:* select *Built-in Ethernet* (you can leave the *Location:* setting as *Automatic*).
3. Click on the *AppleTalk* tab; ensure the box next to *Make AppleTalk Active* is checked. If necessary, select the appropriate AppleTalk Zone (you can leave the *Configure:* setting as *Automatic*).
4. Now go to the *Applications* folder, open the *Utilities* folder, and select *Print Center*. The Printer List will appear (it will be empty if you have no printers configured). Click on *Add Printer...*, and then select *AppleTalk* instead of *Directory Services*.
5. All of the available AppleTalk printers on the network should appear. Click on the one you wish to add, and then click *Add*. The printer will now appear in the Printer List.
6. To print from an application program, go to *File* and then *Print*, select the desired printer, and then click on *Print*.

***NOTE:** The Applications folder can generally be reached by double-clicking on the Macintosh HD icon on the desktop.

NOTE: TROY print servers are also compatible with the Macintosh TCP/IP Printer option in the Print Center as long as you have a valid IP Address configured (refer to the section “Configuring your PocketPro USB”). Enter the IP Address of the print server for the “Printer’s Address”, and make sure the “Use default queue on server” option is checked, and select your correct “Printer Model”.

Management Methods

TROY offers a variety of ways to configure and monitor the PocketPro USB print server (wired and wireless versions) using one or more of the following utilities that can be downloaded from the specified web site:

ExtendView Utility

- used for advanced configuration of the print server, and allows you to configure for Netware, TCP/IP, AppleTalk settings (and wireless settings for the wireless print server).
- uses a 32-bit graphical user interface.
- works with Windows PCs running TCP/IP or IPX/SPX protocols.
- included on the TROY print server installation CD.
- can be downloaded from the TROY web sites:
USA: <http://www.troygroup.com/wireless>
Europe: <http://www.troygroup.de>
- after installation, this utility can be run from the START menu.

ExtendView Web Utility

- allows you to configure the print server with a standard web browser like Netscape Navigator or Microsoft Internet Explorer.
- requires a Java Virtual Machine in Netscape or Internet Explorer.

XAdmin32 Utility

- used for advanced configuration of the print server, and allows you to configure for NetWare, TCP/IP, AppleTalk settings.
- uses a 32-bit graphical user interface.
- works with Windows PCs running TCP/IP or IPX/SPX protocols.
- included on the TROY print server installation CD.
- can be downloaded from the TROY web sites:
USA: <http://www.troygroup.com/wireless>
Europe: <http://www.troygroup.de>
- after installation, this utility can be run from the START menu.
- the default password is ACCESS.
- used for reloading of firmware.

WebXAdmin Utility

- allows you to configure the print server with a standard web browser like Netscape Navigator or Microsoft Internet Explorer.
- no additional software is needed on the system.
- can be used on any system that supports web browser capabilities.
- type the IP address into your web browser address bar to connect.
- the default password is ACCESS.

HP JetAdmin Utility

- an HP Windows-based utility (TROY print server works transparently with JetAdmin).

NOTE: The HP JetAdmin Utility is no longer available for download from the HP web site.

HP Web JetAdmin Utility

- a web browser-based HP utility (works with web browsers like Netscape Navigator or Microsoft Internet Explorer).
- can be downloaded from the HP web site <http://www.hp.com>.

Command Console

- a command-line-oriented console.
- contains features not available through ExtendView, XAdmin32, or WebXAdmin.
- the default password is ACCESS.
- can be accessed via TELNET, TROY XConfig NetWare Utility, or WebXAdmin.
- type HELP for a list of console commands (refer to the PocketPro USB Administrator's Guide for a complete list of commands, or visit the TROY web site at <http://www.troygroup.com>).

NOTE: When connected, press ENTER to get the “#” prompt, enter the password ACCESS, and press ENTER to get a “Local>” prompt (no response required for the “Enter Username>” prompt). When the “Local>” prompt appears, the console is ready to accept commands.

Troubleshooting

This section describes procedures for troubleshooting problems you may encounter with the TROY print server, and is divided into the following sections:

- Installation Problems
- Intermittent Problems
- Protocol-Specific Troubleshooting

If you have followed the steps in this section and you believe that you have a defective print server, then please refer to the *Customer Support and Warranty* chapter in the *PocketPro USB Administrators Guide* (provided in PDF format on the *TROY PocketPro USB Installation CD*) for information on returning defective products.

Printing Problems

If you cannot print to the TROY print server after you install it, check the following:

- Make sure that the printer is powered on and is on-line, and that all cables are securely plugged in.

If the printer initializes successfully but you cannot print, the problem could be one of the following:

- There is a problem with the interface between the print server and the printer.
- There is a problem with the network connection or cabling.
- There is a queue setup problem, a print server setup problem, or other protocol-related problem.

CHECKING THE INTERFACE BETWEEN THE PRINT SERVER AND THE PRINTER:

1. Ensure that the print server is securely plugged into the printer.
2. After the printer is powered ON, wait until the printer initializes, and then print a self-test page by pushing the *Test* button on the back of the print server for approximately one second.

NOTE: Pushing the Test button for more than five seconds will restore the factory default configuration settings.

- If the self-test does not print, then there is possibly a hardware problem. Double-check the connections. If you still cannot print, then make sure that your printer is capable of printing text, PCL or PostScript (the self-test will not work unless one of these is supported). The only way to test such printers is to use an application program with the correct printer drivers.
- The following are some examples of printers that do not support direct printing of text files:
 - Some Windows printers (usually low-end inkjet printers) perform all the image rasterization in the printer driver, so the printer only understands a raw image file.
 - Many plotters only support HP-GL/2, RTL, or proprietary languages.
 - If you are getting distorted printouts, try printing using the generic/text printer driver.

If the self-test page prints successfully but you cannot print a job or you get distorted printouts, make sure that the printer is set for the correct Page Description Language. Most new printers support AUTO mode, which means that they will automatically switch between PCL and PostScript. However, older printers like the LaserJet II, LaserJet III, and LaserJet IIISi require that the printer be set to the desired language through the printer control panel. Also, verify that you have set up the drivers correctly on the workstation. Some printers, like the Epson Stylus, require special drivers and will not print if standard PCL or PostScript drivers are used.

CHECKING THE NETWORK CONNECTION AND CABLING:

If the self-test page prints but you cannot print documents, first check the network connection and cabling.

- If the appropriate LEDs are not on, there is probably a bad 10baseT or 100baseTX cable, or the hub port is bad. If possible, try a different cable and hub port, or try connecting a different device to the cable.
- If you are using a hub, verify that the hub port is good by trying the print server on a different port.

- If you have a bridge or router located between the TROY print server and the host computer, make sure that the device is set up to allow the print server to send and receive data from the host. For example, a bridge can be set up to only allow certain types of Ethernet addresses to pass through (a process known as filtering); therefore, such a bridge must be configured to allow TROY print server addresses. Likewise, a router can be set up to pass only certain protocols, so be sure that the desired protocol can be passed through to the TROY print server. In the case of routers, also make sure that the protocol is routable (LAT, NetBEUI, and DLC/LLC are not routable).
- If the job exists in the queue but does not print, ensure that you are not trying to print a text job to a PostScript printer. If you have a printer that is capable of automatic language switching, ensure that the printer is not forced into PostScript mode.
- Make sure that you are not trying to perform an illegal operation, such as attempting to print a legal-size form when the printer only supports 8.5" x 11" paper.

Troubleshooting Network Configuration Problems

- If you are using TCP/IP, make sure that your computer and the print server are on the same IP segment or can reach each other with a PING command from the host. The IP Address you assign to the print server must be on the same logical network as your host computers (e.g., if your computer has an IP address of 192.189.207.3, the PocketPro USB print server should have an IP of 192.189.207.x, where x is an integer between 1 and 254), or you must properly configure your router address to work with the print server.
- If your print server is set to Auto or DHCP for obtaining an IP Address, it's possible the print server's IP Address can change. Either configure your DHCP Server to give the print server a permanent lease, or configure the print server to be on a STATIC address outside the scope of DHCP addresses.

- The problem may be the result of mismatched or duplicate IP addresses. Verify that the IP address is correctly loaded into the TROY print server (via the self-test page or through the remote console) and make sure that no other nodes on the network have this address (duplicate addresses are the biggest cause of TCP/IP printing problems). If the address is not correct, then check whether the loading procedure was properly executed.
- Also verify that the host computer and the print server are either on the same subnet (for example, if the print server has a subnet mask of 255.255.255.0, the host must have the same subnet mask) or that the router is properly configured to pass data between the two devices.
- If the wrong IP address is loaded, check your network for file servers that have DHCP, BOOTP, or rarp enabled, and make sure that these file servers are not set up to load IP addresses into the print server.

Troubleshooting Windows Problems

If you are having trouble printing with Windows, ensure you can ping the TROY print server using the DOS command `PING ipaddress`, where *ipaddress* is the IP address of the TROY print server. If you cannot ping the print server, you will not be able to print.

Troubleshooting Wireless Configuration Problems

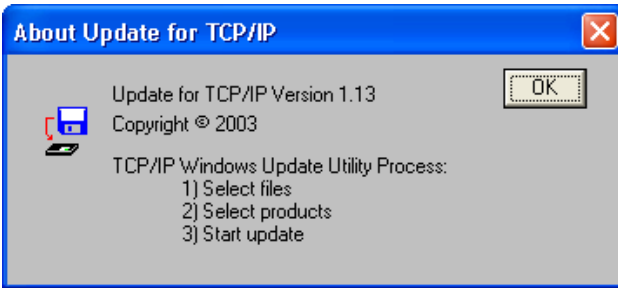
- Make sure your computer's wireless adapter and/or access point is configured properly and note the settings, paying special attention to the wireless mode, SSID or network name, WEP or security, and IP Address settings so you can configure your print server to the same wireless settings.
- Make sure you have a good wireless signal from your PC and from the print server, that the print server is within range (90 meters or 300 feet), and it is away from metal objects and other devices that generate radio signals (like Bluetooth, Cordless Phones, and Microwave ovens).

- Make sure your computer is set to infrastructure mode if you are connecting through an access point, or ad-hoc (802.11) if you are connecting to the print server without an access point. See the documentation for your wireless adapter for details.
- If you want to use WEP encryption or password protect your wireless network, and your wireless adapter or access point normally uses a password or passphrase instead of WEP, it should allow you to enter 0x followed by a ten digit (for 40-bit or 64-bit WEP) or twenty-six digit (for 128-bit WEP) key in hexadecimal format (0-9 or A-F).
- If you are experiencing slow performance or are having intermittent problems connecting, try changing the RF channel of your wireless network. The RF channel can be changed via the ExtendView Utility or the Web Browser Configuration Utility for the print server. See your wireless adapter and/or access point documentation for more. You will want to change it to at least three channels lower or higher than any other wireless networks within range.

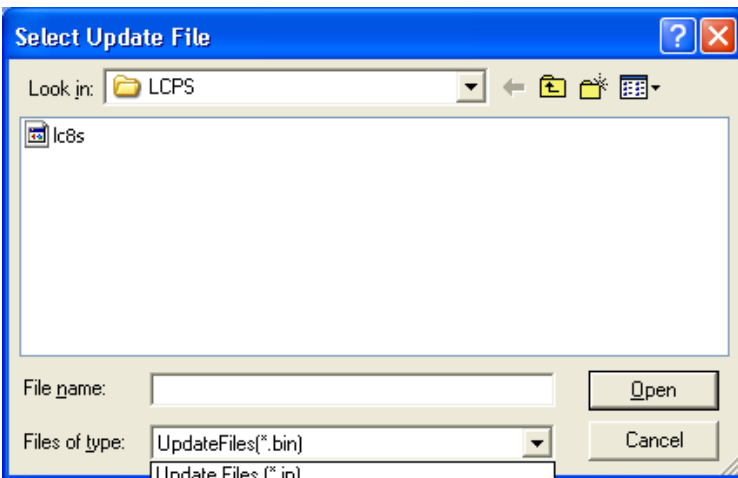
Loading New Firmware (Using the TCP/IP Update Utility)

NOTE: The print server firmware can also be upgraded using the XAdmin32 Utility by downloading the software and procedures from the TROY web site at <http://www.troygroup.com>.

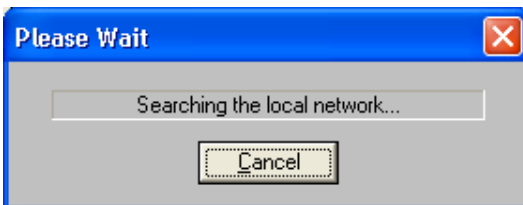
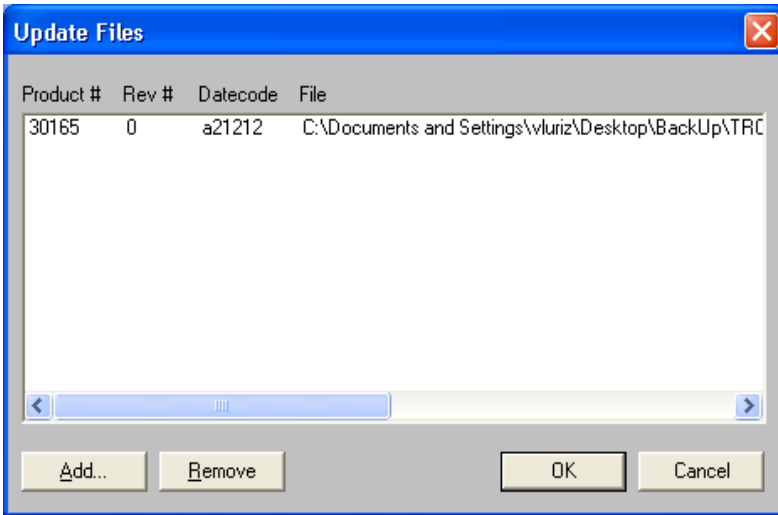
1. Run the TROY Wireless Update utility for TCP/IP. The **About Update for TCP/IP** window will be displayed. Click on **OK** to continue. The **Select Update File** window will be displayed.



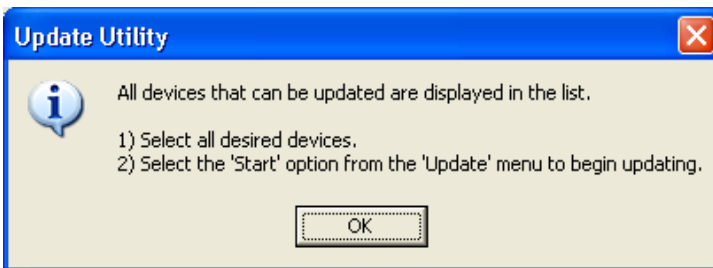
2. Select **UpdateFiles (*.bin)** file type, locate the PocketPro USB bin file, and then click on **Open**. A window will be displayed (see next page) showing the file(s) you have selected including the revision level and date code for each file.



3. Verify that the file(s) are correct, and then click on **OK**. The utility will start searching for qualified print servers present on the network.

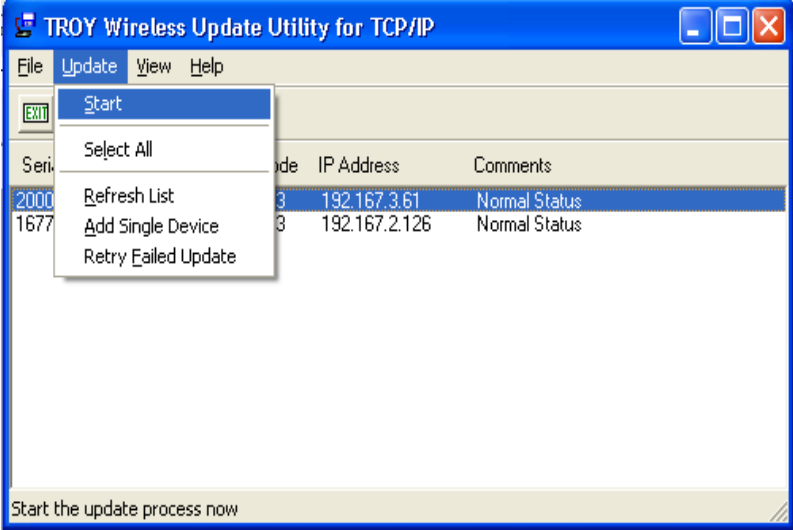
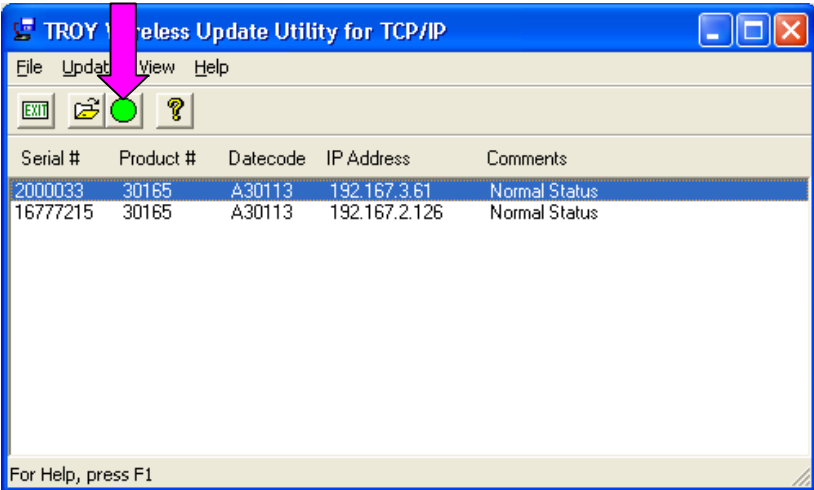


4. When the search process is complete, click on **OK** to continue. A list of found devices will be displayed.

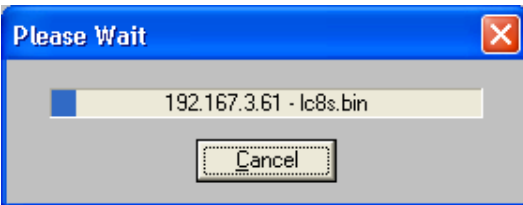
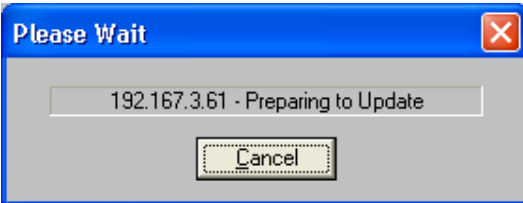


TROY Group, Inc.

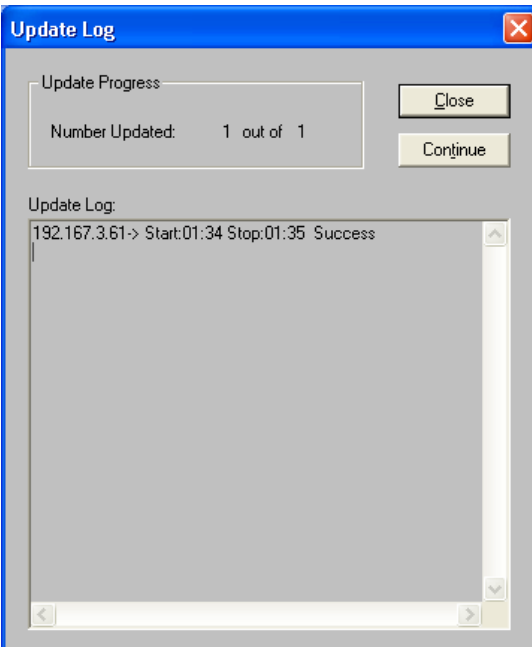
5. Select the desired PocketPro USB to be upgraded, click on the green icon, or click on **UPDATE** → **START**. The firmware update process will begin automatically as soon as the PocketPro USB is ready.



- When the PocketPro USB is ready, the firmware upgrade will begin. The IP address of the print server as well as the file you are loading will be displayed.



- The update log will be displayed when the update process is finished. Click on *Close* to continue.



Loading New Firmware (Macintosh OS-X)

NOTE: To upgrade your print server's firmware from operating systems other than Windows or Macintosh, refer to the PocketPro USB Administrator's Guide (provided in PDF format on the PocketPro USB Installation CD).

1. If you are using the Macintosh OS-X operating system, download the firmware file to your desktop.
2. Go to the terminal command prompt and type *cd desktop*.
3. Type *tftp* <enter the IP address of the print server>, and then press *Enter* (e.g., *tftp 192.168.0.4*).
4. Type *binary*, and then press *Enter*.
5. At the *tftp>* prompt, type *put* <firmware file name> <password of the print server> (example: *put ppusb.bin access*).

Obtaining Technical Assistance

TROY technical support is available to assist you with any questions concerning the setup, operation, or maintenance of your TROY PocketPro USB print server.

Worldwide Web Support

Located at <http://www.troypgroup.com/wireless>, the TROY web site provides answers to many common technical questions and also includes copies of product manuals and literature, as well as utilities and firmware load images.

Technical Support

North and South America

If you need to talk to one of our Technical Support Specialists, our support line is open Monday through Friday, 8 AM to 8 PM, Eastern Standard Time.

U.S. 48 contiguous States: (800) 332-6427

Canada, Alaska, Hawaii, and South America: +1-304-232-0899

E-Mail: technicalsupport@troypgroup.com

Europe

Technical support is available in either German or English from Monday through Thursday, 9 AM to 12 PM and 1 PM to 5 PM, and on Friday from 9 AM to 12 PM and 1 PM to 4 PM.

Phone: +49-7032-9454-21

E-Mail : support@troypgroup.de

Web: <http://www.troypgroup.de>

Returning Products

If you need to return a TROY product for any reason (failures, incorrect shipments, etc.), follow the steps below:

1. Contact the TROY Technical Support group at (304) 232-0899 to request a Return Goods Authorization (RGA) number (for North and South American customers), or call +49-7032-9454-21 (for European customers) and request a Return Material Authorization (RMA) number.
2. Be prepared with the serial number of the unit you are returning. You will be asked for the serial number to verify warranty coverage.

Please record these serial numbers in the space provided below for future reference.

Print Server Model #: _____

Print Server S/N: _____

Make sure that you write the RMA or RGA number on the outside of the shipping container you use to return the product. Please ship the defective product(s) to the appropriate address below:

North and South America:

TROY Group, Inc.
RGA# _____
3 Bryan Drive
Wheeling, WV 26003

Europe:

TROY GmbH
RMA# _____
Schwarzwaldstr. 99
D-71083 Herrenberg,
Germany

Contacts

Corporate Headquarters

TROY Group, Inc.
2331 South Pullman Street
Santa Ana, CA 92705 USA
(949) 250-3280

Technical Support

North and South America

U.S. 48 contiguous States: (800) 332-6427
Canada, Alaska, Hawaii, and South America: +1-304-232-0899
E-Mail: technicalsupport@troygroup.com

Europe

Phone: +49-7032-9454-21
E-Mail: support@troygroup.de
Web: <http://www.troygroup.de>

Safety and Regulatory Notices

FCC Compliance Statement for United States Users

This equipment has been tested and found to comply within 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 or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and 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 or more 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.

The radiated output power of PocketPro USB is far below the FCC radio frequency exposure limits. Nevertheless, the PocketPro USB shall be used in such a manner that the potential for human contact during normal operation is minimized.

Warning

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For European Users

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. TROY Group cannot be responsible for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22/European Standard EN55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communications devices.

For Canadian Users

This Class B apparatus complies with Canadian ICES-003. The term "IC" before the radio certification number only signifies that Industry of Canada technical specifications were met.

Cet appareil numérique de la class B est conforme à la norme NMB-003 du Canada.

Declaration of Conformity

According to 47CFR, Part 2 and 15 for Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers:

We: TROY GROUP, INC.
Located at: 2331 South Pullman Street
Santa Ana, CA USA

Declare under sole responsibility that the product identified herein, complies with 47CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed, is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR §2.909. 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.

Trade Name: TROY
Type of Product: Printer Adapter
Model: PocketPro USB

Regulatory Information

To satisfy RF exposure requirements, this device and its antenna(s) must operate with a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users must be provided with specific operating instructions for satisfying RF exposure compliance.

European Union (EU)

TROY hereby declares that the 802.11b wireless technology built into the PocketPro USB is in compliance with the essential requirements and other relevant provisions of European Directive 1999/5/EC. The internal function is a radio device using the 2.4 GHz frequency band (2.400GHz – 2.4835GHz). It is intended for wireless communication with other 802.11b-enabled devices. The internal 802.11b technology complies with all applicable regulations FOR INDOOR USE in the following countries: Austria, Belgium, Denmark, Finland, Greece, Germany, Iceland, Ireland, Luxembourg, Norway, Portugal, and Sweden.

The use of 802.11b wireless technology in other countries than those listed above may be restricted: before using 802.11b products, please confirm with the frequency management authority in the country where you plan to use it. **OUTDOOR USE REQUIRES A LICENSE IN MANY COUNTRIES AND IS FORBIDDEN IN ITALY.** In some situations or environments, the use of 802.11b wireless technology might be restricted by the proprietor of the building or responsible representatives of the organization, for example onboard airplanes, in hospitals or in any other environment where the risk of interference with other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies to the use in a specific organization or environment, you are encouraged to ask for authorization to use 802.11b wireless technology prior to switching it on. Consult your physician or the manufacturer of personal medical devices (pacemakers, hearing aids, etc.) regarding any restrictions on the use of 802.11b wireless technology.

United States of America and Canada

Tested to Comply With FCC Standards FOR HOME OR OFFICE USE.
See FCC 47CFR, Part 15.19(b)(2).

This device complies with part 15 of the FCC rules and with RSS-210 / RSS-139 of the Industry Canada.

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.

Note that any changes or modifications to this equipment not expressly approved by the manufacturer may void the FCC authorization to operate this equipment.

Canada (IC notice)

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment that is installed outdoors is subject to licensing. The term “IC” before the radio certification number only signifies that Industry of Canada technical specifications were met.

Pour empêcher un brouillage radioélectrique au service faisant l'objet d'une licence, cet appareil doit être utilisé à l'intérieur et loin des fenêtres afin de fournir un écran de blindage maximal. Au cas où une installation en plein air, le matériel doit faire l'objet d'une licence.