TROY

Wind Connect™

Bluetooth™ Print Adapter

User's Guide

Part Number 40150-100
Revision 0.2

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Contents

Introduction

The TROY WindConnect™ Bluetooth™ Print Adapter is a device that enables wireless communications capabilities on most models of printers. By using the WindConnect, you can conveniently print from laptop computers and other devices without using a cable, as shown in the diagram below.

This manual covers installation of the WindConnect for use with laptop computers that have a TROY, IBM® or Toshiba *Bluetooth* PCMCIA card. The WindConnect

Printer with TROY
WindConnect *Bluetooth* Print
Adapter

Bluetooth wireless
communications link

Laptop computer with IBM or
Toshiba *Bluetooth* PCMCIA
adapter
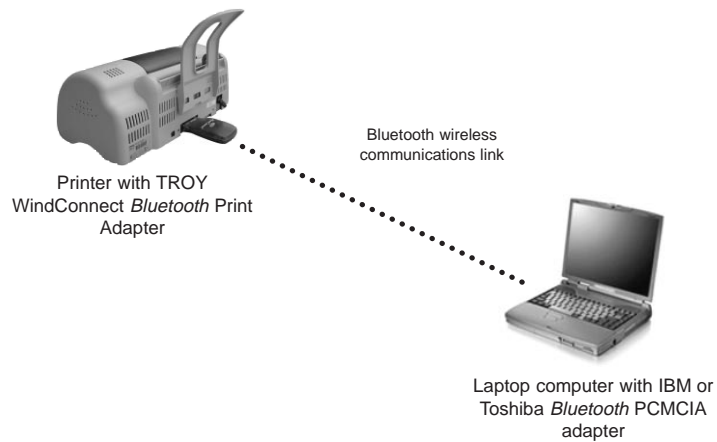
Bluetooth Print Adapter can also be used with other *Bluetooth* enabled devices, provided that they support the *Bluetooth* Serial Port Profile, the LAN Access Profile, or the Object Push Profile. Installation of these other types of devices is described in Chapter 3 of this manual

Note: The WindConnect *Bluetooth* Print Adapter is designed for printing text and low-resolution graphics. Because of the speed limitations of the *Bluetooth* wireless communications link, you should not use the WindConnect to print high resolution graphics or photographs. To get better printing performance with *Bluetooth*, you might want to consult your printer's user guide.

Windows™ System Requirements

To use the WindConnect *Bluetooth* Print Adapter for printing from a PC, your system should include:

◗ An IBM-compatible PC with Pentium 133MHz or higher processor

◗ Microsoft Windows 95, 98, 98SE, ME, 2000, or XP (the Toshiba card is supported on Windows 95SE and Windows Millennium only)

◗ At least 64MB RAM

◗ At least 10MB of free hard disk space to install the software

◗ A CD-ROM drive

◗ A TROY WindPort, IBM 09N9812 or Toshiba PA3053U-1PCC *Bluetooth* PCMCIA card with vendor-supplied software is required for operation with the TROY Port Monitor software. Other *Bluetooth* PCMCIA cards may also work; refer to Chapter 3 for additional information.

About Your User's Guide

This book contains system requirements, important safety information, and instructions on:

◗ Installing the WindConnect hardware

◗ Using the TROY Port Monitor and the *Bluetooth* Neighborhood software with the WindConnect

◗ Using the WindConnect with a Microsoft Windows system

1 Installing the WindConnect Print Adapter Hardware

The WindConnect *Bluetooth* Print Adapter plugs directly into the parallel port of the printer. If desired you can simultaneously use the printer's USB port for a hardwired connection to your PC.

Unpacking and Handling

The WindConnect shipping box contains the following items:

◗ WindConnect *Bluetooth* Print Adapter

◗ WindConnect *Bluetooth* Print Adapter User's Guide

◗ Power supply

◗ CD-ROM

The WindConnect *Bluetooth* Print Adapter is designed to withstand normal handling procedures, but reasonable precautions should be exercised during installation, particularly with regard to static discharge.

◗ Make sure that you are adequately grounded by touching a bare metal part of the printer while installing the WindConnect *Bluetooth* Print Adapter.

◗ Avoid moving around the work area in order to eliminate static charge buildup.

◗ If possible, do not work on a carpeted area.

Before Your Begin

Before you install the WindConnect *Bluetooth* Print Adapter, make sure that your printer and your laptop computer already function properly via a parallel or USB printer cable. Refer to your printer's documentation for instructions on using and maintaining your printer.

In addition, make that you have properly installed the TROY, Toshiba or IBM *Bluetooth* adapter and software as described in the documentation that came with that device.

WindConnect Connector, Switch, and LEDs

The WindConnect *Bluetooth* Print Adapter hardware is shown in the diagram below. It includes the following:

◗ Power connector. You plug the power supply into this connector.

◗ Test switch. Press down this switch for less than five seconds to print a test page on the printer. Press it down for more than five seconds to reset the WindConnect to its factory default parameters.

◗ LED status indicators. The green light stays lit when you have made a wireless connection to the WindConnect from the computer. The yellow light blinks whenever data is transmitted over the wireless link.

◗ Serial port. This port is used for connecting a console terminal for configuration and maintenance, or for connecting a serial printer. Refer to the Chapter 6 of this manual for instructions on how to use the serial port.

These items are described in detail in the next sections.

link (green) light — | serial port — | parallel port —
activity (yellow) light — | power connector — | test switch
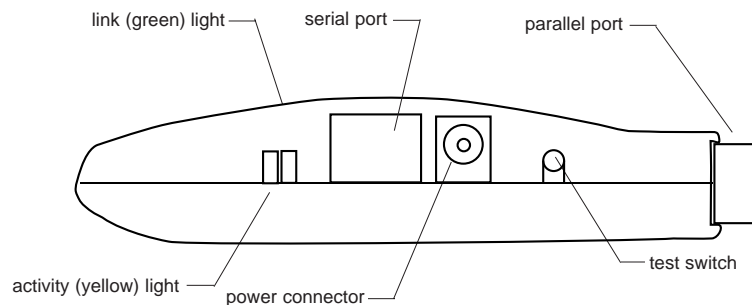
Connecting to the Printer

Before connecting the WindConnect *Bluetooth* Print Adapter, make sure that the printer is turned off.

The WindConnect has a 36-pin male Centronics parallel connector that is compatible with the 36-pin female connectors found on most printers. Therefore, the WindConnect can be plugged directly into the printer with no additional cable required.

You are now ready to apply power to the WindConnect. Plug the power supply into the wall, connect it to the WindConnect, and then turn on the printer.

Verifying Successful Installation

When you power it on, the WindConnect will go through the following startup sequence:

◗ It runs through a set of power-up diagnostics for a few seconds. If the WindConnect is operating properly, the green light will blink momentarily and then go out. If the green light blinks continuously in a regular pattern, there is a problem. Try unplugging the power supply and then plugging it in again. If the problem persists, contact TROY.

◗ When the laptop makes a *Bluetooth* connection to the WindConnect, the green light will stay lit. The yellow light will blink whenever there is print-

ing activity. Since you have not made a connection yet, both of these LEDs should be off.
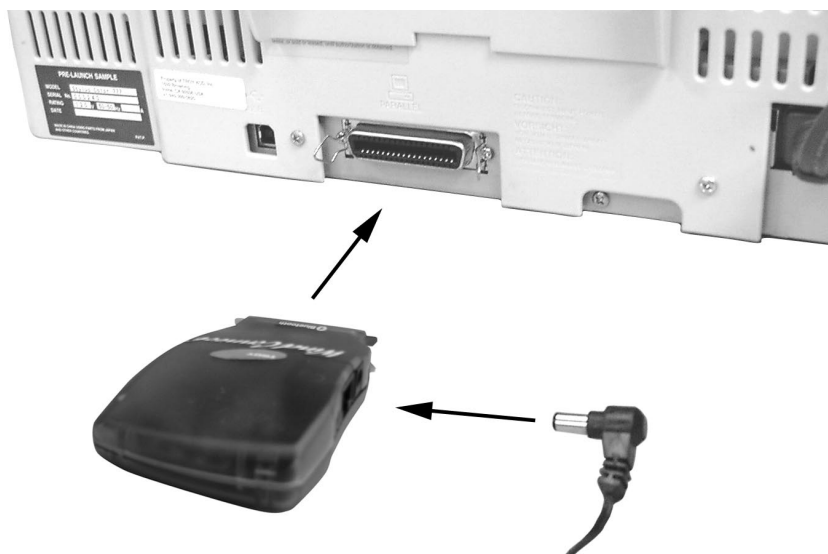
Verifying the Connection to the Printer

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

To verify this connection, make sure that both the WindConnect and the printer are powered on and ready. Then print a test page by holding in the test switch for less than five seconds.

If the test page does not print, first check to make sure that the WindConnect is securely connected to the printer. Also, make sure that the printer is operating properly and that it is not out of ink. Then power the WindConnect Print Adapter off and then on again, and try printing the self-test page again.

If you cannot print a test page, contact TROY as described in the *Where to Get Help* section of this guide.

2   Configuring the Software on Your PC

You can now configure a laptop PC to print wirelessly to your EPSON printer equipped with an WindConnect *Bluetooth* Print Adapter. To do this, you will use the WindConnect Port Monitor software, which is included on the installation CD-ROM. The WindConnect Port Monitor greatly simplifies the *Bluetooth* printing process by combining the discovery and printing process into a single operation.

The Port Monitor software basically creates a special virtual port on your Windows system called TBT1. This port acts very similar to a standard parallel or serial port, which means that it can be used with most printer drivers. You can therefore print to this port in exactly the same manner as you would if the printer were connected to your computer with a parallel cable. Of course, the big difference is that you will be printing over the *Bluetooth* wireless communications link rather than using a cable.

NOTE:
The following information applies to PCs that use the TROY, IBM or Toshiba *Bluetooth* PCMCIA card and software. The setup procedures may differ you have a different brand of *Bluetooth* adapter in your PC. Please refer to the Configuring Other Devices chapter of this manual for information regarding such other adapters.

Installing the *Bluetooth* Software Suite

Before you begin the software configuration, make you must first install the TROY, IBM or Toshiba *Bluetooth* Software Suite that came with the PCMCIA card (this software is essentially the same for all of these PCMCIA cards). To do this, follow the instructions that came with the card. When you have successfully completed this installation, you will see the *Bluetooth* Neighborhood icon on your Windows desktop.

Bluetooth
Neighborhood

NOTE:
The *Bluetooth* Software Suite V1.09 or later is required. Early IBM and Toshiba PCMCIA cards were shipped with older versions of this software. If you have

one of these older cards, first install the software and then upgrade the software using the *Bluetooth* Software Suite Upgrade included on the WindConnect installation CD-ROM.

You must then verify that the Serial Port Profile is enabled on the *Bluetooth* Software Suite. To this:

1. Click the Windows **Start** button and select **Control Panels**.

2. The **Control Panel** window appears. Double click on the **Bluetooth Configuration Tool.**
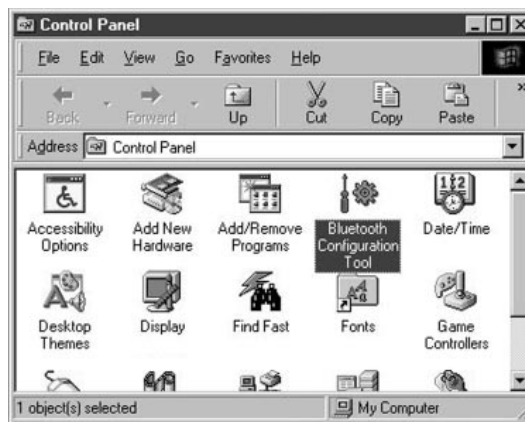
3. You see the **Bluetooth Configuration Tool** dialog box. You should see one or more Digianswer Virtual COM ports (if you do not, verify that you have cor-

rectly installed the *Bluetooth* PCMCIA card and software). Click on any one of these ports and verify that the Serial Port Profile is checked. If it is not checked, then click the box next to Serial Port Profile.
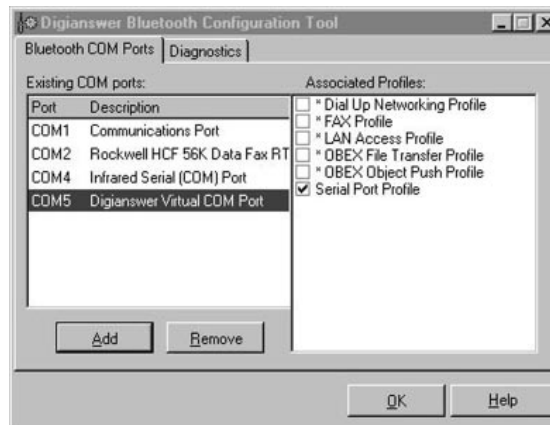
4. If you want to print to more than one *Bluetooth* device, you should repeat the above steps for one or more other Digianswer Virtual COM Ports. If no additional Virtual COM ports are displayed, you will need to click on the Add button to add additional ports (refer to the documentation that came with your PCMCIA card for additional information).

5. Click on OK to continue.

Installing the Port Monitor Software

To install the WindConnect Port Monitor software, insert the WindConnect *Bluetooth* Print Adapter installation CD-ROM into your computer. The installation program should automatically run. It should automatically start up the installation program. If it does not, you can click on the Start button, select Run, and then click the Browse button.   Click the down arrow button and select the CD-ROM (usually D: or E:). Then click on the program Setup.exe to begin the installation.

Answer the questions on the screen and the click Finish to complete the Port Monitor installation. When you have completed the installation, the virtual port TBT1 will be created. Note that you must agree to the Software License Agreement in order to install this software.

Adding a Windows Printer

You are now ready to add a printer to your Windows System. These instructions apply specifically to Windows 98, but the steps are very similar for Windows 2000, Windows ME, and Windows XP.

1. Click the Start button, select Settings, and then select Printers.

2. In the Printers window, double-click Add Printer.
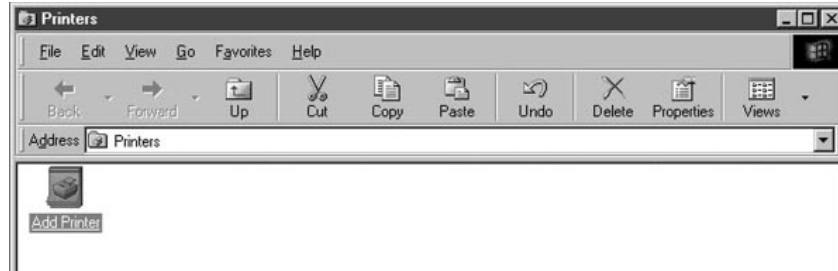
3. The Add Printer Wizard appears. Click the Next button.
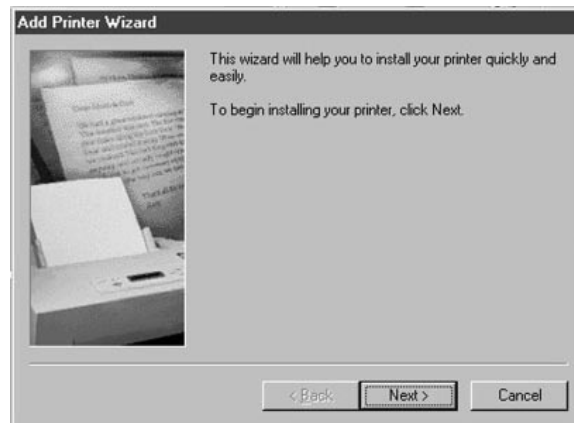
4. Select Local Printer, and click Next.

5. Choose the manufacturer and the appropriate printer driver. Note that driver must support printing using a serial port. For example, not all Epson drivers will work, but the Epson Stylus Pro ESC/P2 driver is a generic serial port-compatible driver that allows most Epson printers to be used with the WindConnect.

   Click Next after you have finished selecting the manufacturer and printer model.
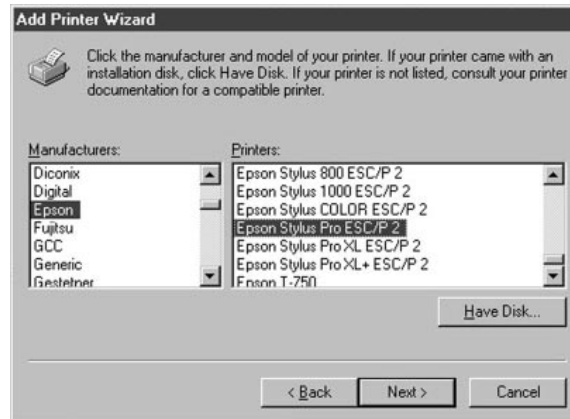
6. Choose the TBT1 virtual COM Port you created and click Next.
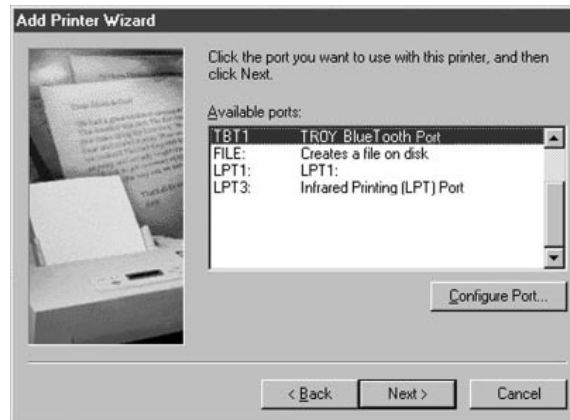
7. If desired, change the name of the printer to anything you like, such as "EPSON Stylus Color Printer Bluetooth". Also, choose whether or not you want it to be the default Windows printer, and click Next.

8. Choose No to print a Test Page and click Finish. Since you have not made a *Bluetooth* connection yet, you will not be able to print a test page at this time.
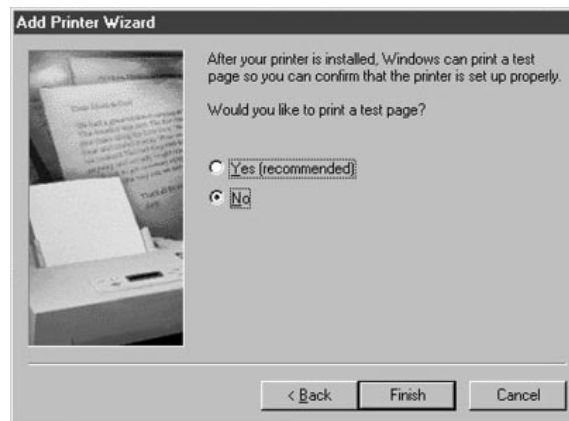
Printing the First Job

You should now be able to print in the usual manner from any standard Windows application program. Go to File and then Print... from the menu bar of the pro-

gram. The first time you print, you will get a Port Monitor print screen similar to the one below:

Epson Bluetooth Printer - TBT1

00:40:17:0A:AE:6B <dga> [XCD_0AAE6B]

Print   Clear Selection

1 minutes until disconnect ☐ Keep dialog on display

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This screen will show all of the available WindConnect *Bluetooth* print adapters. If this is your first print adapter installation, you will only see one print adapter. Note that all WindConnect *Bluetooth* print adapters have the name XCD_*xxxxxx*, where "*xxxxxx*" is the last six digits of the MAC address (which is found on the label on the bottom of the unit).

Click on the name of the *Bluetooth* Print Adapter you want to print to. During the next few seconds, the screen will display additional information about the *Bluetooth* Print Adapter as shown below. When you see the message "Press Print to Start Printing", click on the Print button and your job will be printed.

Epson Bluetooth Printer - TBT1

00:40:17:0A:AE:6B <dga> COM6<->P1 [XCD_0AAE6B]

Print   Clear Selection

1 minutes until disconnect ☐ Keep dialog on display

Press PRINT to start printing.
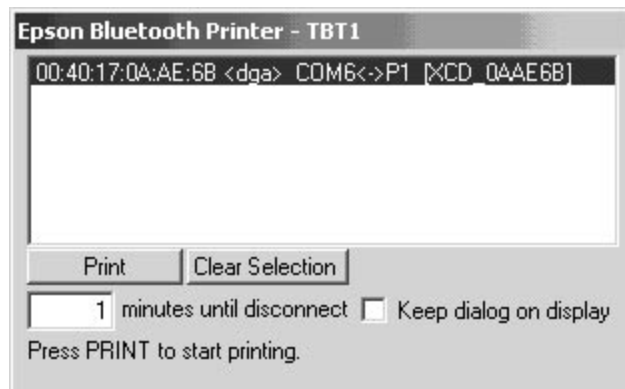
Printing Additional Jobs

After you print the first time, the port "remembers" that you have made a successful connection to your *Bluetooth* Print Adapter. If you print again within one minute, the job will be sent to the printer automatically and the Port Monitor screen will not appear.

If you print again after a one minute delay, then you will again be presented with the Port Monitor screen. After a few seconds, the screen will disappear and the job will automatically be sent to your *Bluetooth* Print Adapter and printer. If you have more than one *Bluetooth* Print Adapter and you want to use a different Print Adapter, click on the Clear Selection button. Then click on the desired Print Adapter name, and click Print when you see the Press Print to Start Printing message.

Disconnecting

Your *Bluetooth* connection will automatically be disconnected after one minute of inactivity. You can change this parameter by entering a different time in the minutes until disconnect box on the Port Monitor print screen.

NOTE:
If you are using the TROY, IBM, or Toshiba *Bluetooth* Software Suite V1.09, the WindConnect Port Monitor software conflicts with the *Bluetooth* Neighborhood program and potentially other third-party Bluetooth programs. This conflict requires you to temporarily disable the *WindConnect* Port Monitor whenever you need to use the *Bluetooth* Neighborhood or other *Bluetooth* program. To do this, click the Start button, select WindConnect *Bluetoot*h Software, and click WindConnect *Bluetooth* Utility. When you get the WindConnect *Bluetooth* Utility Dialog, click the **Stop <dga> API Use** button. This will cause the Port Monitor to suspend its operation so that you can use the *Bluetooth* Neighborhood. To resume the Port Monitor operation, click the **Resume <dga> API Use** button. Note that this problem is fixed in the *Bluetooth* Software Suite V1.10 and later.

3   Configuring Other Devices

The WindConnect *Bluetooth* Print Adapter is designed to allow printing from a variety of different *Bluetooth* devices. Such devices must support the *Bluetooth* Serial Port Profile, the Object Push Profile, or the LAN Access Profile in order to work with the WindConnect *Bluetooth* Print Adapter. This is one of the most commonly available profiles, but check your device's documentation to make sure that it is supported.

To use the WindConnect *Bluetooth* Print Adapter, you must first install the appropriate hardware and software on your laptop, handheld computer, or other device that requires printing capabilities. To do this, follow the instructions that come with the device. In most cases, the installation program will install a *Bluetooth* discovery program plus a virtual serial port (this port redirects I/O from an application program so that it goes over the *Bluetooth* link instead of a serial port).

To send a job to a printer connected to a WindConnect *Bluetooth* Print Adapter, set up the printing application so that it uses the virtual serial port. When you want to print, use the discovery program to select the printer. After you have selected the printer, you can print in the normal manner just as if the device were directly cabled to the printer.

Using the WindConnect *Bluetooth* Print Adapter with Computers that Do Not Use TROY, IBM, or Toshiba PCMCIA Cards

The WindConnect Port Monitor software described in the previous section only works with laptop computers that have a TROY, IBM, or Toshiba PCMCIA card installed. If you are using a laptop computer with a different PCMCIA card or with built-in *Bluetooth* capabilities, you need to set up the *Bluetooth* printing as follows:

1. Create a virtual COM port using the *Bluetooth* software (for example, the 3Com *Bluetoot*h Connection Manager) provided with the *Bluetooth* PCMCIA card, USB adapter, or built-in adapter.

2. Use the Window Add Printer utility to create a new printer. This procedure is similar to the procedure described in the *Adding a Windows Printer* section of

the previous chapter except that the local port is the COM port you created in step 1 instead of TBT1.

3. With some *Bluetooth* software you must first use the discovery program provided with the *Bluetooth* PCMCIA card, USB adapter, or built-in adapter to connect to the WindConnect *Bluetooth* Print Adapter (refer to the documentation provided with the *Bluetooth* device for additional information). In some cases you will need to do two steps, an inquiry to find the WindConnect *Bluetooth* Print Adapter and then a discovery to select the P1 service. You then need to associate the COM port you created in Step 1 with the WindConnect *Bluetooth* Print Adapter and/or the P1 service in order to establish a *Bluetooth* wireless connection. The green LED on the WindConnect *Bluetooth* Print Adapter will come on when the connection is established.

   Note that this step is not required for some *Bluetooth* programs, such as the 3Com Connection Manager, which perform the discovery process after you begin the printing process.

5. Select **File** and then **Print** from your WIndows applications. If you previously associated the COM port with the WindConnect *Bluetooth* Print Adapter, the job should print immediately. If you did not previously make this association (for example, with the 3Com Connection Manager), then you will be asked which device you want to use. If this is the case, select the name of the WindConnect *Bluetooth* Print Adapter (XCD_*xxxxxx* by default) and then click the appropriate button to establish a connection and print.

6. After you have finished printing, you may need to manually break the *Bluetooth* connection in order to let other people use the printer. Refer to the documentation provided with the *Bluetooth* PCMCIA card, USB adapter, or built-in adapter for information on how to do this.

Using the WindConnect with a Handheld Computer (PDA)

NOTE:
The following information applies to a Handspring Visor with a Widcomm or Acer BlueConnect *Bluetooth* module. The setup procedure for other PDAs may be different. If you have a different brand, please refer to the documentation of that card for information on how to set up a virtual COM port.

Discovering the WindConnect

1. Turn on the Handspring device.

2. You should see the Discover icon. If you don't, scroll down by clicking on the scroll bar arrows on the left side of the screen. Click the Discover icon.

3. Click the Inquire button. You get a message "starting inquiry" and then a list of addresses of available WindConnect *Bluetooth* Print Adapter devices and other devices. The WindConnect *Bluetooth* Print Adapter address will appear in the format 004017xxxxxx; this is printed on the WindConnect *Bluetooth* Print Adapter box (all WindConnect devices begin with 004017). Click the address of the device you want to use. If you don't see the WindConnect address, you may need to move to a different location, click on the Home icon (the picture of the house) and go back to step 2.

4. Click the Discover button. You will get a message "discovering". If the discovery process is successful, you get the message "found service", and the WindConnect *Bluetooth* Print Adapter address should now appear with a P1 next to it. If this fails, you may need to move to a different location, click the Home icon (the picture of the house) and go back to step 2.

5. Click the address of the WindConnect *Bluetooth* Print Adapter (it will be highlighted).

6. Now click the Home button (the picture of the house).

Printing

To print from the Handspring Visor to a printer connected to the WindConnect *Bluetooth* Print Adapter you will need a Palm-compatible printing program such as Bachmann Software's PrintBoy (*www.bachmannsoftware.com*), TealPoint Software's TealPrint (*www.tealpoint.com*), or Stevens Creek Software's PalmPrint (*www.stevenscreek.com*). Since most of these programs support printing from either the serial port or the infrared port, you must first use the software's setup program to select the serial port.

The following are the steps for setting up the PrintBoy software. Note that you only need to do the setup procedure one time

1. Click the PrintBoy icon (if necessary, scroll down).

2. Click the Setup button.

3. Click the Edit button and note the Technology setting. If it is on Serial, skip to the next step. If it is IrDA, click on the adjacent down arrow and change the setting to Serial. Note that the Comm. Speed setting does not matter.

4. Click OK.

5. If desired, change the Driver Name to match your printer (the standard
    Generic driver will work with most printers, but will not handle graphics).

6. Click Set As Default to save the settings and then click on the Home button
    to return to the main menu.

You are now ready to print. To print:

1. Click the PrintBoy icon.

2. Click the category you wish to print (Appointments, To Do's, Memos, etc.).

    Note:
    PrintBoy 2.2 and earlier has a bug in which the Handspring Visor will crash if
    you attempt to print an Address.

3. Select the item you wish to print, and then click on the Print button. If suc-
    cessful, you will hear a few beeps and the item will be printed.

Other Palm printing software packages like TealPrint and PalmPrint are set up in a simi-
lar manner (the important step is setting the software to print over the serial port).
Consult the documentation for those software packages for additional information.

The key to the WindConnect *Bluetooth* Print Adapter's interoperability with other
Bluetooth devices is its support for the *Bluetooth* RFCOMM protocol and Serial
Port Profile. These capabilities, which make the *Bluetooth* link appear to the device
as an RS-232 serial connection, are implemented in a number of *Bluetooth* devices,
including laptop computers with *Bluetooth* PCMCIA cards and PDAs with
Bluetooth modules. In many cases, no special software is required on the sending
device because existing printing applications and utilities that use the serial port can
often run unmodified over the *Bluetooth* link using the Serial Port Profile.

Using the WindConnect with Other Devices that Support the Serial Port Profile

To print from other types of *Bluetooth* devices, first make sure that the device sup-
ports the *Bluetooth* Serial Port Profile and that it can print using this profile. In most
cases, the device's software will either create a virtual communications port or redirect
all output that is normally intended for the serial port over the *Bluetooth* port.

After you have set up the device to print over *Bluetooth*, you must use the device's
discovery program to locate the WindConnect *Bluetooth* Print Adapter (either the
name or the address, depending on the program) and associate the WindConnect
Bluetooth Print Adapter's P1 service. You should now be able to print.

Using the WindConnect with Ericsson Mobile Phones

The Ericsson R520 mobile phone supports printing address book cards (vCards) and other information using the *Bluetooth* OBEX Object Push Profile. To use the WindConnect *Bluetooth* Print Adapter with this phone, you must set enable a PIN number. To do this:

1. Make sure that you have configured a virtual COM3 or COM4 port with the Serial Port Profile enabled as described in the *Installing the Bluetooth Software Suite s*ection of Chapter 2 of this manual (the port must be either COM3 or COM4 for compatibility with the HyperTerminal program and/or with Windows 2000). If COM3 or COM4 does not already exist, click on the Add button in the *Bluetooth* Configuration Tool to create one of these ports.

2. Discover the WindConnect *Bluetooth* Print Adapter using the *Bluetooth* Neighborhood program and then double click on the icon of the desired WindConnect Print Adapter icon to discover the available services.

3. Double click on the CON service (NOT the P1 service) to establish a connection to the Print Adapter console.

4. Start up the Windows HyperTerminal Accessory program (or any other terminal emulator) for operation at 115.2Kbps, no parity, no flow control, and 8-bit characters). Set HyperTerminal to Connect using Direct to COM3 (substitute the actual Virtual COM port number if you are not using COM3).

5. Press Enter and then enter the password ACCESS in response to the # prompt.

6. Press Enter in response to the Enter username> prompt.

7. Enter the following commands in response to the Local> prompt:

```
SET BT PIN 1111          [substitute the desired PIN number for "1111"]
SET SERVICE 1 EOT 12             [causes page to eject from printer]
INIT
EXIT
```

The print adapter restarts. You then need to configure the phone to use the WindConnect *Bluetooth* Print Adapter. This configuration only needs to be performed one time for each Print Adapter.

1. Turn the phone on by holding down the No key for several seconds.

2. Push the right arrow key five times until you see 5 Extras.

3. Push the Yes key.

4. Push the 4 key to select Bluetooth.

5. Click the 3 key to discover the available *Bluetooth* devices on the network. You should get the message "Searching"

6. The WindConnect *Bluetooth* Print Adapter should appear in the list of available devices. Use the down arrow key to choose it and ten press the Yes key to select it.

7. Press the 1 key to select "Add to Paired".

8. Enter the passkey that you selected in the previous section and press Yes.

You can now print from the phone as follows:

1. Press the right arrow button one time. You should see "1 Phone Book" (if not, keep pressing it until you do).

2. Press the Yes key.

3. Press the 4 key to select "Business cards".

4. Press the 1 key to select "Send my own" (or select a specific card).

5. Press the 2 key to select "Via Bluetooth". You will see the message "Searching", and then you will get a list of the *Bluetooth* devices in the area.

6. Use the down arrow and press Yes to select the Print Adapter.

7. Press the 1 key to send the business card.

8. Press the 2 key to send via *Bluetooth.*

9. Press the 1 key to send to the WindConnect *Bluetooth* Print Adapter. You will get the messages "Connecting" and "Sending", after which the document will print.

4 Using the Serial Port

The WindConnect has an RS-232 serial port that can be used to connect a console terminal, a serial printer, or a wide variety of other RS-232-compatible devices. The connector is an RJ45 modular jack similar to the type used on Ethernet networks (but not electrically compatible). The pinouts of this connector are as follows:

RJ45 pin	Signal	Signal	DTE pin	DCE pin
1	RTS out	CTS in	5	4
2	DTR out	DSR in	6	20
3	Transmit Data	Receive Data	3	2
4	Transmit return	Signal Ground	7	7
5	Receive Return	Signal Ground	7	7
6	Receive Data	Transmit Data	2	3
7	DSR in	DTR out	20	6
8	CTS in	RTS out	4	5

In most cases, you will need an adapter cable in order to use the serial port. TROY offers the SCABLE-DB25M 25-pin male adapter cable kit for easy connection to most serial printers. To assemble this kit, connect the wires to the DB25 connector pins as follows:

Pin 2: Black	Pin 3: Yellow	Pin 4: Blue
Pin 5: White	Pin 6: Brown	Pin 7: Green
Pin 20: Orange	(Red is not used)	

TROY also offers the SCABLE-DB9F 9-pin female adapter cable kit for connection to the serial port on most PCs and laptops. To assemble this kit, connect the wires to the DB9 connector pins as follows:

Pin 2: Yellow	Pin 3: Black	Pin 4: Orange
Pin 5: Green	Pin 6: Brown	Pin 7: Blue
Pin 8: White	(Red is not used)	

By default the serial port is set in console mode. In this mode, the port settings are permanently fixed at 115.2Kbps, 8-bit characters, no parity, and no flow control, and console operation. The console contains a variety of configuration and diagnostic commands. Most of these commands are beyond the scope of this manual, and they are documented on the TROY web site at *www.troyxcd.com/tech*.

To use the serial port, connect the appropriate serial cable from a PC serial port (COM1 or COM2) to the WindConnect. Use the Windows Hyperterminal accessory program (or equivalent terminal emulation program) to access the console using the port settings described in the previous paragraph. When you have connected, press Enter to get the Local> prompt. Then enter any or all of the following commands:

> SET PORT S1 SPEED *baudrate*
> SET PORT S1 PARITY *parity_type*
> SET PORT S1 FLOW *flowctrl*
> SET PORT S1 CHARACTER *charsize*

Where *baudrate* is any legal speed between 300 and 115200; *parity_type* is NONE, ODD, EVEN, MARK, or SPACE; *flowctrl* is NONE, XON, or CTS; and *charsize* is 7 or 8. When you have finished entering the port setting commands, enter the following commands to save your changes and exit:

> SET PORT S1 CONSOLE DISABLED
> INIT
> EXIT

After you have entered the above commands, the WindConnect restarts and the serial port is ready for use. To connect from a *Bluetooth* application on a PC or other device (for example, from the TROY Port Monitor or the *Bluetooth* Neighborhood) to the WindConnect serial port, select the service S1 in the discovery process. Once this connection has been made, you can use the serial port as if it were directly hardwired.

Note:
The application program on the sending device must support the selection of different services on a Bluetooth device. Both the TROY Port Monitor and *Bluetooth* Neighborhood support this selection capability.

Note:
The WindConnect console can be accessed from a PC via the *Bluetooth* wireless communications link by using a terminal emulation program and connecting to the CON service of the WindConnect instead of P1 or S1. This is capability particularly useful if the serial port is being used for other purposes such as connecting to a serial printer. To use this capability, enter the password **ACCESS** at the "**#**" prompt and press the **ENTER** key at the **"Enter username>"** prompt.

5   Troubleshooting

If You Can't Print

If you are unable to print from your laptop or other device to the WindConnect *Bluetooth* Print Adapter, then check the following:

1. Make sure that the green light is on when you are printing. If it is not on, then there is no *Bluetooth* wireless connection. Unplug the WindConnect and then repeat the discovery process as outlined in the *Discovering the WindConnect* Bluetooth *Print Adapter* section in Chapter 2 of this manual. Make sure that the WindConnect and/or your device are not on a metal table or near large metal objects. If necessary, move the device to a different location and try again.

2. If the green light is on and you cannot print, try pressing the test switch on the side of the WindConnect for about one second. A test page should print. If the test page does not print, then check to make sure that the WindConnect is securely fastened to the printer and that the printer is on-line and is not out of ink or paper. If the test page prints but you are still not able to print from your application program, then try powering the WindConnect off and then on again. Repeat the discovery process as out-lined in the *Discovering the WindConnect* Bluetooth *Print Adapter* section in Chapter 2 of this manual, and then try printing again when the green light is lit.

If none of the above suggestions work, then contact TROY as described in the next section.

6   Where to Get Help

TROY offers several customer support options to assist you in the event you experience difficulties with your WindConnect, including telephone support, repair services, extended warranty, and advance replacement.

Worldwide Web Support

The TROY worldwide web site provides a quick and easy way to answer many common technical questions. It includes a wide variety of technical support tips, as well as copies of product manuals, product literature, and firmware load images.

The web site is located at *http://www.troyxcd.com.*

Contacting TROY

Your first point of contact for technical support is the Distributor or Dealer from whom you bought your WindConnect. They are familiar with your needs, and will generally be able to provide you with the fastest and most comprehensive support.

If your Distributor or Dealer is unable to answer your questions or is for some reason not available, then contact TROY directly at:

> United States: +1 (949) 399-0820 (E-mail: *support@troyxcd.com*)
> Europe: +49-(0)-800-3002210 (E-mail: *support@troygroup.de*)

Before contacting Technical support, please check the *Troubleshooting* chapter of this manual or the TROY site to isolate any problems and be sure to write down any error messages. Also, make sure that you have the serial number of the product (located on the product label on the card).

Returning Products

If you need to return a TROY product for any reason (failures, incorrect shipments, etc.), first contact TROY at +1 (949) 399-0820 (Americas and Asia) or

+49-(0)-800-3002210 (Europe and Africa) and request a Return Authorization Number from the TROY Technical Support Group. Make sure that you put this number on the outside of the shipping container you use to return the product and (if out-of-warranty) on your purchase order. You will also be asked for the serial number of the defective print server. Ship the unit freight prepaid back to TROY at the address provided by the Technical Support Group (adequate insurance is recommended).

If the unit is not in warranty, you will be billed for the standard repair charges.   If you do not have a valid TROY account number, you may be asked for payment in advance (Mastercard, Visa, American Express, check, or money order).

TROY WindConnect products are warranted to be free of defects in materials and workmanship for a period of five years. This period begins upon the date of shipment if the Hardware is installed by the Purchaser, or upon installation if the Hardware is installed by TROY. During the warranty period, TROY will repair or replace the unit at no charge provided it is returned to TROY freight prepaid as described in the "Returning Products" section of this chapter. To ensure prompt service, please fill out the enclosed warranty card.

The warranty on repaired products or replacement products is 30 days or the last day of the warranty of the original defective product, whichever is longer.

This warranty does not apply if the Product has been damaged by accident, misuse, natural catastrophe, modification, improper service, or conditions resulting from causes external to the Product. The warranty shall be void if the TROY serial numbers have been removed.

DISCLAIMER OF WARRANTIES. THE ABOVE WARRANTIES ARE THE EXCLUSIVE WARRANTIES, AND NO OTHER WARRANTY, EXPRESSED OR IMPLIED, SHALL APPLY. TROY SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

PURCHASER'S SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF THIS WARRANTY, REGARDLESS OF THE FORM OF ACTION, WHETHER CONTRACT, TORT, OR OTHERWISE, SHALL BE TROY'S OBLIGATION TO REPAIR OR REPLACE AS SET FORTH ABOVE.

7

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.

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 nonrecommended 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.

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: 1692 Browning
                            Irvine, CA 92606 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: *Bluetooth* Print Adapter
Model   WindConnect

REGULATORY INFORMATION

European Union (EU) $C \in 0976$ ①

TROY hereby declares that the Bluetooth™ wireless technology built into the WindConnect Print Adapter, is in compliance with the essential requirements and other relevant provisions of European Directive 1999/5/EC. The internal Bluetooth™ function is a Bluetooth™ power class 1 intended radio device using the 2.4 GHz frequency band (2.400GHz – 2.4835GHz). It is intended for wireless communication with other Bluetooth™ enabled devices using the following Bluetooth™ Generic Access, Service Discovery Application, Serial Port and Object Push Networking profiles. The internal Bluetooth™ wireless technology complies with all applicable regulations in the following countries: Austria, Belgium, Denmark, Finland, Greece, Germany, Iceland, Ireland, Luxembourg, Norway, Portugal, Sweden, Switzerland, the Netherlands and the United Kingdom.

The use of Bluetooth™ wireless technology in other countries than those listed above may be restricted: before using Bluetooth™ products, please confirm with the frequency management authority in the country where you plan to use it. In some situations or environments, the use of Bluetooth™ 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 Bluetooth™ 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 Bluetooth™ 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.

A minimum separation of 20 cm (8 inches) must be maintained between the antenna and the person for this device to satisfy the RF exposure requirements of the FCC.

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.

Pour empêcher un brouillage radioèlectrique au service fasant l'object d'une licence, cet appareil doit être utilisé à l'interieur et loin des fenêtres afin de founir un écran de blindage maximal. Au cas aù un installation en plain air, le materiel doit faire l'objet d'une licence.