

ZebraNet[®] Wireless Card Socket

Installation and Users Guide



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Preface

The Preface discusses and illustrates standards that are used throughout this guide.

The topics include:

- *Contacts on page 2*
- *About this Document on page 3*
- *Document Conventions on page 4*
- *Related Documents on page 6*

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Support

You can contact Zebra support with any questions or problems with your ZebraNet Wireless Card Socket Option (ZebraNet WCSO):

Support E-mail: <http://support.zebra.com>

Phone Number 847.913.2259

About this Document

The *ZebraNet Wireless Card Socket Option Installation and User Guide* contains these chapters:

Ch No.	Title	Content Description
1	<i>Introduction</i>	This chapter provides an overview of the ZebraNet WCSO, including a description of the components, an illustration of all the components, hardware/software requirements, and a brief description of the installation types.
2	<i>Install and Configure</i>	This chapter provides information and instruction on installing ZebraNet WCSO and all the necessary components. It includes installation for field and factory.
A	<i>Frequently Asked Questions</i>	This appendix provides answers to some common questions asked about ZebraNet WCSO.
B	<i>Glossary</i>	This appendix provides terms that are specific to ZebraNet WCSO.

Document Conventions

The following conventions are used throughout this document to convey certain information:

About this Chapter Sections This section lists and describes each main section of the chapter, including the initial page number of that section. These sections primarily serve as hyperlink components for the Adobe Acrobat .pdf version of this guide.

Alternate Color (online only) Cross-references contain hot links to other sections in this guide. If you are viewing this guide online in .pdf format, you can click the cross-reference (royal blue text) to jump directly to its location.

Command Line Examples All command line examples appear in Courier font. For example, you would type the following to get to the Post-Install scripts in the bin directory:

```
ztools
```

Files and Directories All file names and directories appear in Courier New font. For example, the Zebra<version number>.tar file and the /root directory.

Warning, Caution, Important, Note and Example These topics are defined in the following example:.



Warning • Advises you that failure to take or avoid a specific action could result in physical harm to you or the hardware.



Caution • Advises you that failure to take or avoid a specified action could result in loss of data.



Important • Provides information that is essential to the completion of a task.



Note • Indicates neutral or positive information that emphasizes or supplements important points of the main text.



Example • Provides an example, often a scenario, to better clarify a section of text.

Illustration Callout Instruction Illustration callout instructions are used when an illustration contains either information about a dialog box or step(s) to accomplish in a dialog box.

This illustration callout instruction identifies a section of the dialog box and the other callout shows steps to follow:

IP address	Serial number	MAC address	Station name
10.10.10.128	8102	00:50:8b:66:2c:c2	ZebraNet Wireless Client

Default WCSO board

To make changes to the current settings, click Configure

Related Documents

In addition to the *ZebraNet Wireless Card Socket Installation and Users Guide*, the following documents might be helpful references while using ZebraNet WCSO:

- *ZebraNet Networking: PrintServer II™ Installation and User's Guide*
- *ZPL II Programming Guide Volume One: Command Reference for X.10*
- *ZPL II Programming Guide Volume Two: Command Reference for X.10*
- *The ZebraLink Solution Application White Paper*

CHAPTER 1

Introduction

This chapter provides a high-level overview of the ZebraNet Wireless Card Socket Option (ZebraNet WCSO). It is important for you to understand the overall setup of ZebraNet WCSO and the placement of all the required components.

This chapter consists of these topics:

- *Overview on page 8*
- *Requirements on page 11*
- *Installation Types on page 13*

Overview

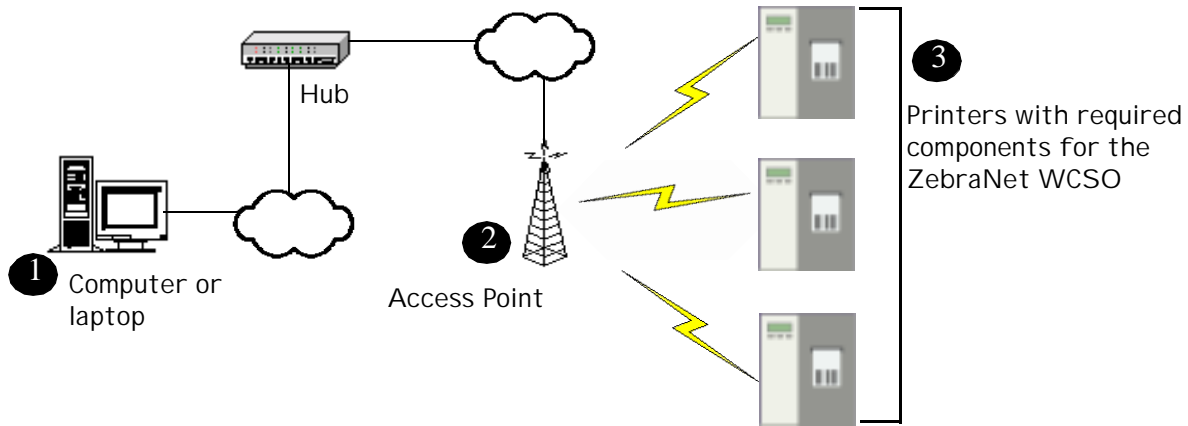
ZebraNet WCSO provides a wireless solution for Zebra™ XiII, XiIII, and R-140 printers. ZebraNet WCSO comes with an installation kit that contains all the components necessary to get ZebraNet WCSO installed.



Important • In conjunction with the installation kit, there are third party components that you need to purchase to get ZebraNet WCSO up and running. The third party components include an access point and RF card. For details, see [PCMCIA Cards on page 12](#) and [Access Point on page 12](#).

Illustration

This illustration shows the network architecture of a typical ZebraNet WCSO setup. A table follows that identifies the components associated with each respective device.



Component	Description
Software ①	<p>The <i>ZebraNet Wireless View</i> software resides on the setup CD-ROM. It lets you view a list of all the configured ZebraNet WCSO boards on the Access Point; it's the tool you use to configure the ZebraNet WCSO board. You can also use it to configure the RF card to the access point.</p>
Access Point (AP) ②	<p>This hardware (not supplied) forms a bridge between the wired LAN and wireless clients.</p> <p>Multiple APs can be used to extend the coverage of the wireless LAN. The re-association capabilities of the IEEE 802.11b standard enable clients to move throughout the wireless LAN area and roam between APs. Re-association can occur as long as the ZebraNet WCSO is on the same network configurations and ESSID (network name) as the AP to which it is trying to connect. See Access Point on page 12.</p>
Printers ③	<p>Zebra XiIII and R-140 are designed for the ZebraNet WCSO. XiII printers require firmware V18.8.0 and higher. XiIII and R-140 printers require firmware V33.10.0 and higher.</p> <p>The following components inside the Zebra printer are critical for the ZebraNet WCSO:</p> <ul style="list-style-type: none">• <i>ZebraNet WCSO Board</i>—The ZebraNet WCSO board is the component that is installed inside the printer. <i>ZebraNet Wireless View</i> is the graphical user interface (GUI) that configures the ZebraNet WCSO board.• <i>Radio Frequency Personal Computer Memory Card International Association (RF PCMCIA Card)</i>—The RF card (not supplied) is the component that provides wireless capability. Once the ZebraNet WCSO board is installed, the RF card is inserted into the socket on the back of the printer. For details on compatible RF cards, see PCMCIA Cards on page 12. <p>For print server information, see <i>ZebraNet™ PrintServer II Installation and Operation Guide</i> on the setup disk.</p>



Important • The range capacity of APs vary. For example, an AP might have the capacity to handle 10 printers with a range of 500 feet from the AP. Keep this in mind and be sure to select the AP that meets your needs.

Requirements

This section lists the minimum requirements for ZebraNet WCSO, which includes: software, hardware, and third party components.

Software

These are the supported platforms:

Windows 95

Windows 98

Windows 2000

Windows NT 4.0

Windows ME

Hardware

These are the minimum hardware requirements:

Printer	Print Server	Details
<i>XiIII</i> , R-140	ZebraNet™ PrintServer II	Field or factory installed with full ZebraLink.
<i>XiII</i>	ZebraNet™ PrintServer II	Field installation kit - no ZebraLink.
<i>XiII</i> , <i>XiIII</i> , and R-140	Micro PrintServer I	Field Installation - no ZebraLink.



Note • ZebraNet WCSO was tested with ZebraNet PrintServer II *only*.

Third Party Components

This section identifies the supported third party components for ZebraNet WCSO.

PCMCIA Cards

These are the supported RF PCMCIA:



Note • RF cards come with configuration software; however, the ZebraNet WCSO also comes with software, *ZebraNet Wireless View*, which allows you to configure the RF card.

Manufacturer	Model	Max Data Rate
Lucent	• Lucent ORiNOCO World PC Card - Silver **	• 802.11b
Symbol	• Spectrum24 [®] 802.11 Frequency Hop Part number: LA3021-501	• 802.11
	• Spectrum24 [®] High Rate Direct Sequence Part number: LA4111 and LA4121	• 802.11b
Cisco	• Aironet AIR-PCMC340	• 802.11b
	• Aironet AIR-PCMC350	• 802.11b

**Recent name change. Previous name, Wavelan Turbo 11 Silver.

Access Point

For a supported Access Points (AP), choose an AP that is supported by one of the listed [PCMCIA Cards](#).

Installation Types

The ZebraNet WCSO installation type depends on your printer.

These are the installation types:

Factory Factory installations are for new *XiIII* and R-140 printers that are ordered with the ZebraNet WCSO. This means that your new Zebra printer is built with the ZebraNet WCSO board.

Field Field installations are for *XiII*, *XiIII*, and R-140 printers that **do not** have the ZebraNet WCSO, but want to upgrade with this option.

CHAPTER 2

Install and Configure

This chapter provides information and instruction on how to install and configure ZebraNet WCSO.

This chapter consists of these main topics:

- *Before You Begin on page 16*
- *Installation Kits on page 18*
- *Installation Procedures on page 19*

Before You Begin

In addition to the components that come in the Installation Kit (for details see [page 18](#)), there are third party components that you need before proceeding.

- The [Decisions](#) section provides a list of the third party components that are your responsibility.
- The [Installed components](#) section provides a list of components that must be installed before you begin a factory or field installation of the ZebraNet WCSO.

Decisions

You need to decide on the supported devices (third party) that your environment can best accommodate. For a list of supported devices, see [Requirements on page 11](#).



Important • Printer options vary. If your Zebra printer came with the ZebraNet PrintServer II, ignore the print server item in the list that follows.

To get ZebraNet WCSO up and running these are the third party components that are your responsibility to purchase, install, and configure:

- RF card
- AP (Access Point)
- ZebraNet™ PrintServer II (the *only* print server WCSO was tested with).



Important • The access point you chose must be supported by the RF card you choose.

Installed components

This list identifies the software and hardware that must be installed before you can begin the Installation.

- Print Server—For information on ZebraNet PrintServer II, see the *ZebraNet PrintServer II Installation and Operation Guide* in .pdf format on the wireless setup disk.

If you did not choose a ZebraNet PrintServer II, see the documentation provided from the print server manufacturer.



- Access Point (AP)—This hardware and software for your wireless network must be completely installed. For details, see the documents provided by the AP manufacturer.
- ZebraNet Wireless View—This software is located on the setup disk from the Installation Kit. This is the GUI that allows you to configure the ZebraNet WCSO board.

This table shows the events that happen during the installation process:

1	The printer is networked (print server);
2	you are wireless, meaning the access point is set up;
3	the <i>ZebraNet Wireless View</i> software is installed and through the GUI you can see the ZebraNet WCSO boards on the network.

Installation Kits

A ZebraNet WCSO can be either factory or field installed.

- Factory—when you purchase a new *XiIII* or R-140 with the ZebraNet WCSO, you get a Factory Installation Kit.
- Field—when you have a *XiII*, *XiIII*, or R-140 that you want to add the ZebraNet WCSO, you get a Field Installation Kit.

This table identifies the installation kit components for each installation type:

Factory Installation Kit	Field Installation Kit
<ul style="list-style-type: none"> • 7 foot (2m) green cable (straight-through) 	<ul style="list-style-type: none"> • 7 foot (2m) green cable (straight-through)
<ul style="list-style-type: none"> • 7 foot (2m) red cable (crossover) 	<ul style="list-style-type: none"> • 7 foot (2m) red cable (crossover)
<ul style="list-style-type: none"> • 1 foot (0.3m) green cable (straight-through) 	<ul style="list-style-type: none"> • 1 foot (0.3m) green cable (straight-through)
<ul style="list-style-type: none"> • 1 plastic RF card cover with 2 screws 	<ul style="list-style-type: none"> • ZebraNet WCSO board
<ul style="list-style-type: none"> • Zebra Wireless Setup Disk 	<ul style="list-style-type: none"> • Power cable for the ZebraNet WCSO board to the printer
	<ul style="list-style-type: none"> • 1 plastic RF card cover with 2 screws
	<ul style="list-style-type: none"> • 2 mounting screws
	<ul style="list-style-type: none"> • Accessories CD
	<ul style="list-style-type: none"> • Zebra Wireless Setup Disk

Installation Procedures

The procedures that follow include these installations:

- *Software*
- *Field*
- *Factory*

Software

The ZebraNet Wireless View software is on the setup disk.



Important • Is AutoPlay enabled on your computer?

- **Yes.** Your computer automatically launches the installation.
- **No.** You need to navigate to the `setup.exe` file on the CD-ROM and manually launch the installation.

To install ZebraNet Wireless View, complete these steps:

1. Insert the CD-ROM into the drive.

Internet Explorer opens this graphical user interface (GUI):



2. Click ZebraNet Wireless View, and follow the prompts.
3. When the software is successfully installed, proceed to the installation type that applies to your environment: [Field on page 20](#) or [Factory on page 28](#).

Field

Your field installation requires you to install the ZebraNet WCSO board into your existing XiII, XiIII, or R-140 printer.

These are the tools you need to perform the installation

- Phillips screwdriver
- Allen wrench (3/32)

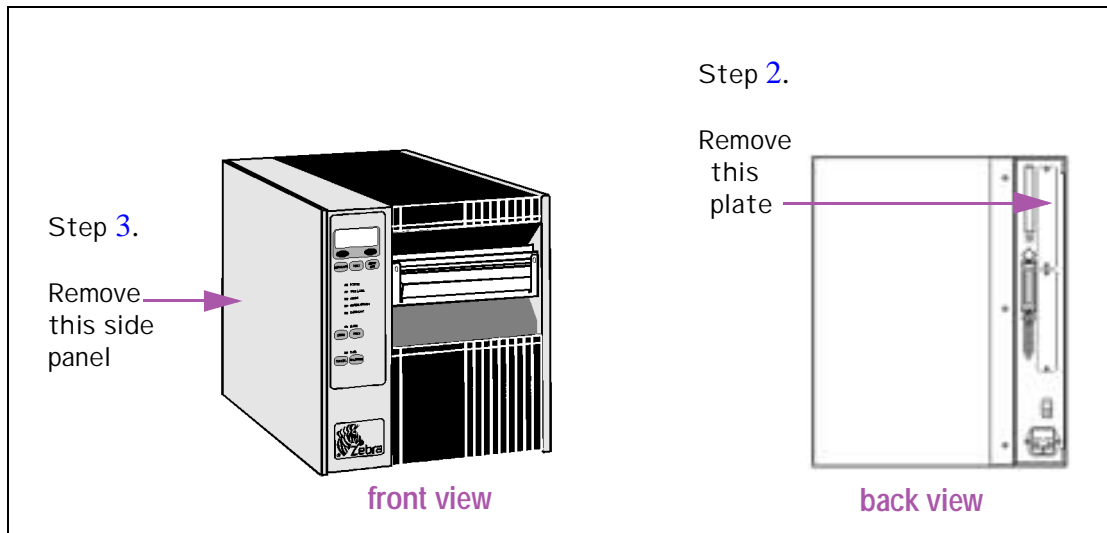
To install the ZebraNet WCSO board into your existing printer, complete these steps:



Warning • For your safety, please be sure the printer is powered down and unplugged before you begin.

1. The software must be installed before you proceed. If you have **not** installed the software, go to [Software on page 19](#) and complete the steps, then proceed with the steps in this section.

This illustration shows the front view of a printer and the side panel that must be removed; it also shows the back view of a printer with the plate that must be removed:

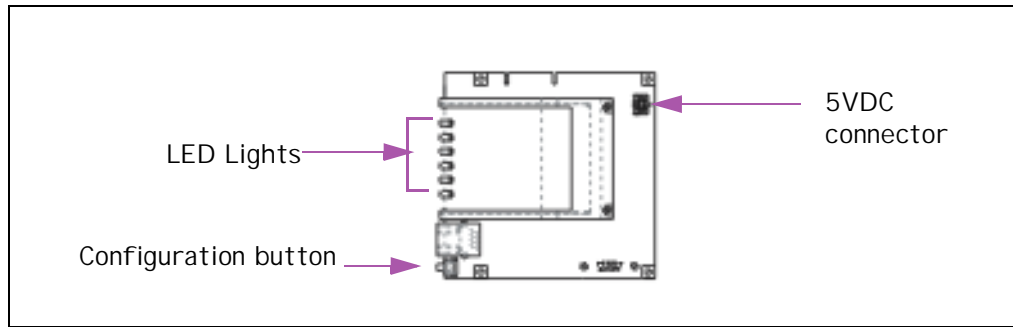


2. On the back of the printer in the upper right-hand corner, remove the screws and the plate as shown in the above illustration.
3. Remove the printer's side panel as shown in the above illustration.

When the WCSO board is properly oriented, the board's chips face toward the printer's right panel.

4. Insert the WCSO board through the slot where the plate was removed and fasten it using the provided screws.

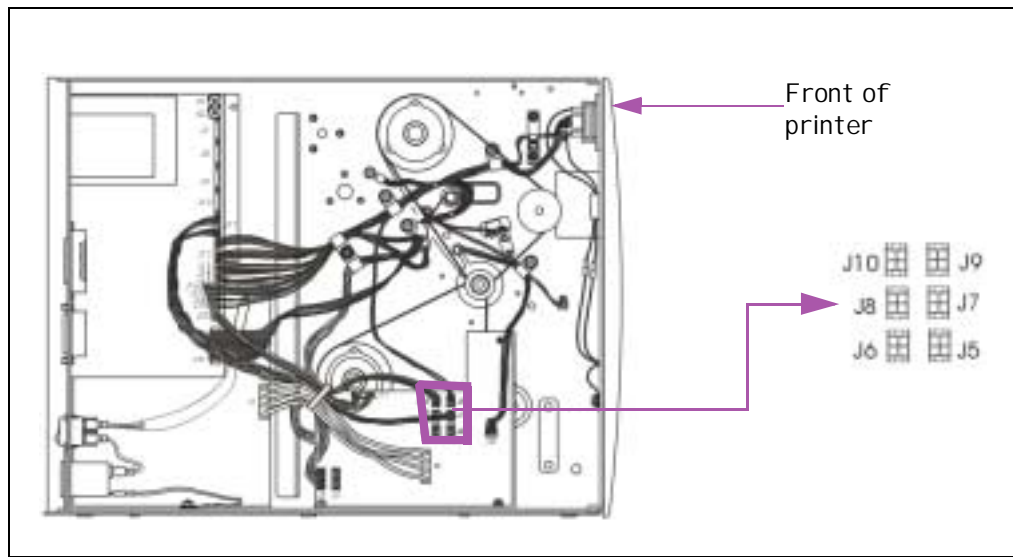
This illustration calls out parts of the WCSO board to become familiar with:



There are multiple stickers on the WCSO board that identify board's *unique* serial number.

5. Connect the power cable (multi-color) into the WCSO board's 5VDC connector, then connect the power cable to one of the open 5VDC connectors on the DC power supply.

This illustration shows the side view of a printer with the 5VDC connectors circled, and then a blow up of the 5VDC connectors.



6. Plug the printer in and turn it on. Make sure there is power to the WCSO board (you'll see some LEDs lit).

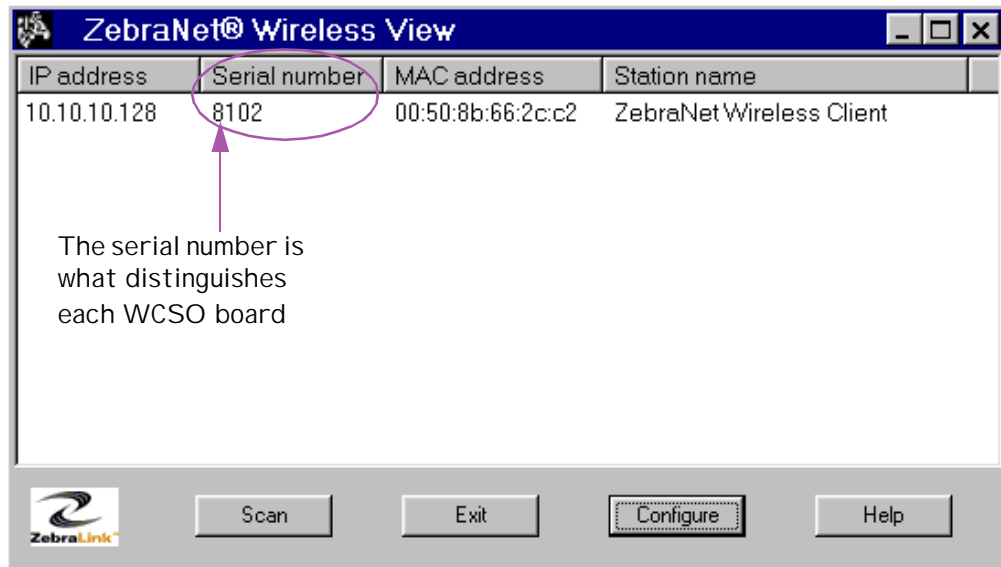
If the WCSO board does not have power (no LEDs are lit), make sure the power (multi-color) cable is securely inserted into one of the available 5VDC connectors. Go back to step 5.

7. Turn the printer off and put the printer's side panel back on.

To open ZebraNet Wireless View, complete these steps:

1. From the status bar, click Start>Programs>ZebraNet Wireless>ZebraNet Wireless View.

The ZebraNet Wireless View dialog opens:



To prepare the wireless card, complete these steps:

The RF card should **not** be inserted into the WCSO board at this point.



Caution • *Hot-swapping is not supported.* **Never** install or remove the RF card when the printer is on, this could cause permanent damage to the WCSO board.

1. With the printer powered down, insert the RF card into the WCSO board.
2. Power the printer on.



Important • Most RF cards have status indicators. At least one of the indicators should be lit when the RF card is inserted correctly and the printer is powered on.

3. Look on the back of the printer and confirm that the WCSO board and RF card have power (lights are lit on both).

7 foot (2m) Cable Overview

This section is where you will use **one** of the 7 foot (2m) cables from the installation kit. This cable is used strictly for set up and configuration purposes to prepare to make you printer wireless.



Caution • If you are configuring WCSO through a network connection (using the **red** crossover cable), **READ THIS**

The default ESSID for WCSO is 125. If the AP is using the same ESSID as the WCSO's ESSID, all wired traffic on that subnet could be passed through the WCSO to the AP and back onto the wired subnet. If this is the situation, a decrease is evident in the available bandwidth which means you will notice a significant decrease in network throughput to other wireless devices, of all other wireless devices associated with the given AP. However, once you break the network loop by disconnecting the crossover cable (**red**), all devices resume normal operation.

Here are some solutions if the ESSID's match:

- To isolate network traffic, use the 7 foot (2m) **green** straight-through cable and hook it up to the printer and to a laptop.
- Use the 7 foot **red** crossover cable and temporarily change the AP's ESSID.

To use the 7 foot (2m) that applies to your environment, complete these steps:

The 7 foot (2m) cable **does not** go in the print server.

1. Here you use whatever 7 foot (2m) cable applies to your environment. These are your choices:
 - If you are connecting your printer to a computer or laptop, complete the callout illustration step in *Figure 1* below.
 - If you are connecting your printer to a hub or network connection, complete the callout illustration step in *Figure 2* below.

Connect the **green** 7 foot (2m) cable to the computer or laptop and to the WCSO board in the back of the printer

Go to step 2

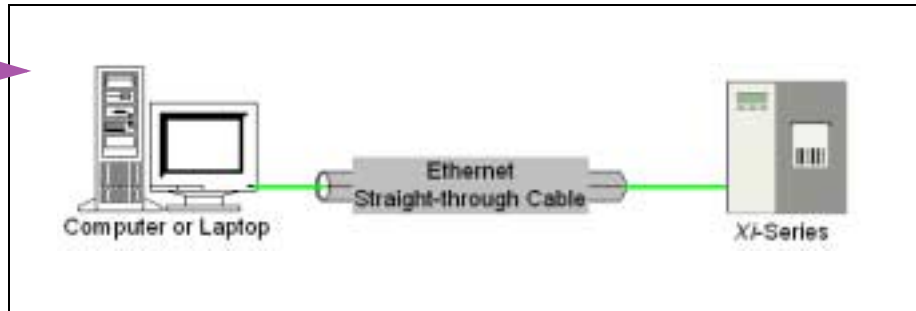


Figure 1 • Straight-through cable environment

Connect the **red** 7 foot (2m) cable to the hub or network connection and to the WCSO board

Go to step 2

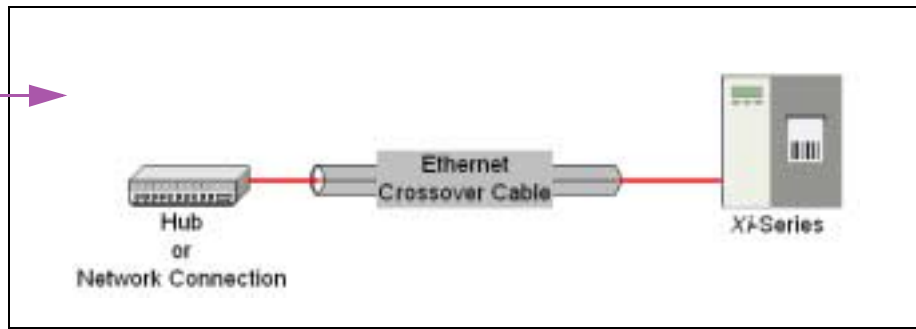
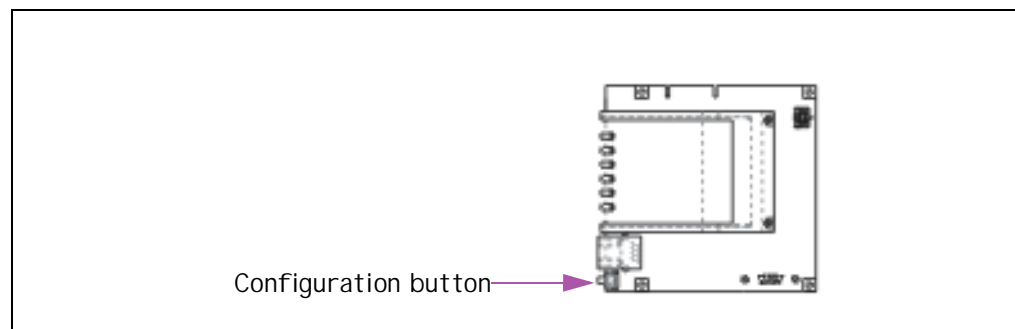


Figure 2 • Crossover cable environment



Important • In the next step, **do not** release the Configuration button until the second (yellow) and third LED (green) on the WCSO board begin to flash.

This illustration calls out where the configuration button is on the WCSO board:



2. On the ZebraNet WCSO board, push and hold in the Configuration button (little white button on the WCSO board) and power on the printer.

To configure the ZebraNet WCSO, complete these steps:

3. From the status bar, click **Start>Programs>ZebraNet Wireless>ZebraNet Wireless View**.
4. From the *ZebraNet Wireless View* dialog, click **Scan**. This can take up to six seconds.

The default WCSO IP address is: 10 . 10 . 10 . 128 and the default station name is *ZebraNet Wireless Client*.

5. Select the WCSO you want to configure, click **Configure**.

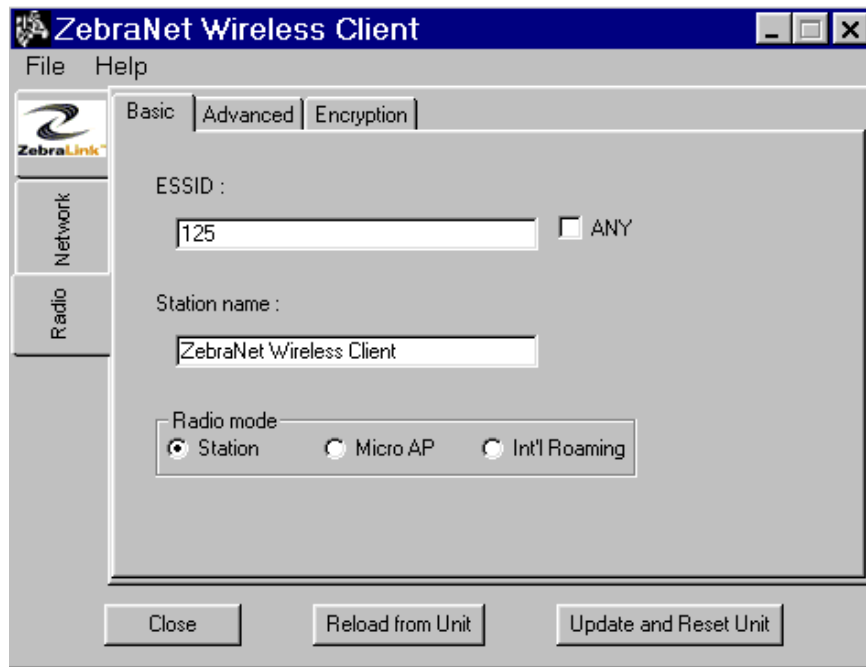


Important • If you choose to use the bulleted optional steps below, you **must** use a static address. **You cannot use DHCP addressing.**

If you elect **to** do these optional steps, you can telnet in or ping your device(s). If you elect **not** to do these bulleted optional steps, proceed to step 6.

- Click the *Network* tab and set the IP address to an available IP address on the current network.
 - From the *Network* tab, set the *Netmask* to the current *SubNetMask* of your network.
6. Select the *Radio* tab.

The *ZebraNet Wireless Client* dialog with the *Radio>Basic* tab opens:



The ESSID can be alpha or numeric.

7. From the *Radio>Basic* tab, set the ESSID to match the ESSID of your wireless network (access point).
8. In the Station Name text-box, type the name of the device you want to make wireless, click **Update and Reset Unit**.
 - If successful, a message log shows this message: **Update and Reset Unit**.
 - If not successful, a message log shows this message: **Upload timed out**. This message is followed by instructions on what to do next. Follow the prompts accordingly.
9. When you see the **Update and Reset Successful** message, click **Close**.

To go wireless, complete these steps:

1. Power down the printer.
2. Unplug the 7 foot (2m) cable from the WCSO board (in the printer) and your other device (hub or computer).
3. From the installation kit, get the 1 foot **green** cable (straight-through) and plug it into the ZebraNet WCSO board (in back of printer).
4. From the installation kit, get the RF card cover. Pull the 1 foot cable through the cover opening, then secure the cover with the provided screws.

5. Connect the other side of the 1 foot **green** cable into the print server.
6. Power on the printer.



Important • It could take up to 90 seconds for the **Data** light to flash.

Watch for the **Data** light on the front of the printer to flash, this means that ZebraNet WCSO and the print server are recognized.

To confirm the installation was successful, complete these steps:

1. From the status bar, click **Start>Programs>ZebraNet Wireless>ZebraNet Wireless View**.
2. Confirm that your wireless device is listed in the *ZebraNet Wireless View* dialog. The serial number is each WCSOs unique identifier.
3. From the *ZebraNet Wireless View* dialog, click **Scan**.

Your wireless device is listed in the *ZebraNet Wireless Client* dialog. If it is **not** in the *ZebraNet Wireless View* dialog:

- confirm the printer is powered up
- confirm you are using the correct cable for your setup

Factory

Your factory installation included the installation of the ZebraNet WCSO board and RF card socket. You are responsible for purchasing, installing, and configuring a supported AP (Access Point) and RF Card.

These are the tools you need to perform the installation

- Phillips screwdriver
- Allen wrench (3/32)

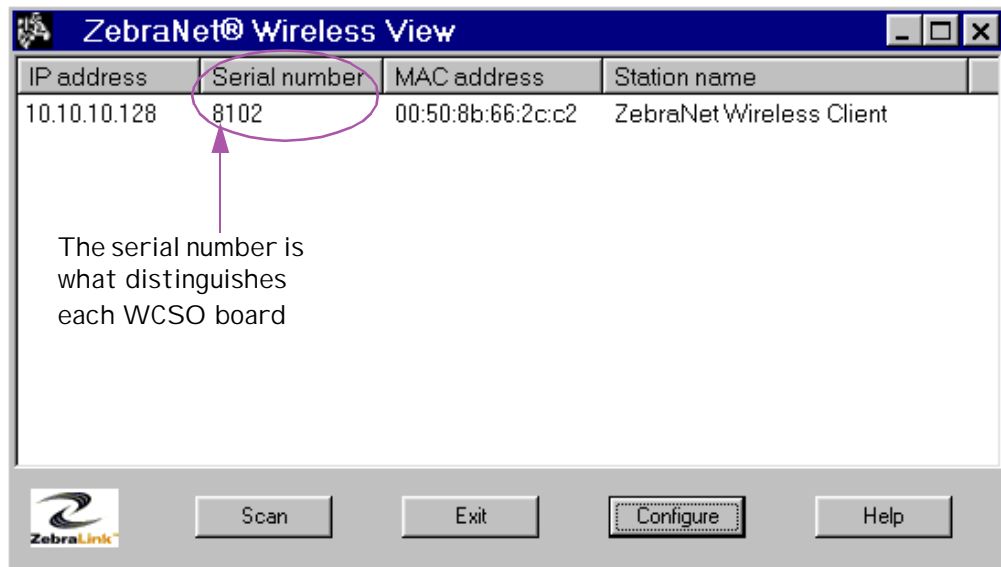


Important • When your AP is up and running, the RF card must be inserted into the WCSO board socket, then you can proceed with the steps that follow.

To open ZebraNet Wireless View, complete these steps:

1. From the status bar, click **Start>Programs>ZebraNet Wireless>ZebraNet Wireless View**.

The *ZebraNet Wireless View* dialog opens:



To prepare the wireless card, complete these steps:

The RF card should **not** be inserted into the WCSO board at this point.



Caution • *Hot-swapping is not supported. Never* install or remove the RF card when the printer is on, this could cause permanent damage to the WCSO board.

1. With the printer powered down, insert the RF card into the WCSO board.
2. Power the printer on.



Important • Most RF cards have status indicators. At least one of the indicators should be lit when the RF card is inserted correctly and the printer is powered on.

3. Look on the back of the printer and confirm that the WCSO board and RF card have power (lights are lit on both).

7 foot (2m) Cable Overview

This section is where you will use **one** of the 7 foot (2m) cables from the installation kit. This cable is used strictly for set up and configuration purposes to prepare to make you printer wireless..



Caution • If you are configuring WCSO through a network connection (using the **red** crossover cable), **READ THIS**

The default ESSID for WCSO is 125. If the AP is using the same ESSID as the WCSO's ESSID, all wired traffic on that subnet could be passed through the WCSO to the AP and back onto the wired subnet. If this is the situation, a decrease is evident in the available bandwidth which means you will notice a significant decrease in network throughput to other wireless devices, of all other wireless devices associated with the given AP. However, once you break the network loop by disconnecting the crossover cable (**red**), all devices resume normal operation.

Here are some solutions if the ESSID's match:

- To isolate network traffic, use the 7 foot (2m) **green** straight-through cable and hook it up to the printer and to a laptop.
- Use the 7 foot **red** crossover cable and temporarily change the AP's ESSID.

To use the 7 foot (2m) that applies to your environment, complete these steps:

The 7 foot (2m) cable **does not** go in the print server.

1. Here you use whatever 7 foot (2m) cable applies to your environment. These are your choices:
 - If you are connecting your printer to a computer or laptop, complete the callout illustration step in *Figure 3* below.
 - If you are connecting your printer to a hub or network connection, complete the callout illustration step in *Figure 4* below.

Connect the green 7 foot (2m) cable to the computer or laptop and to the WCSO board in the back of the printer

Go to step 2

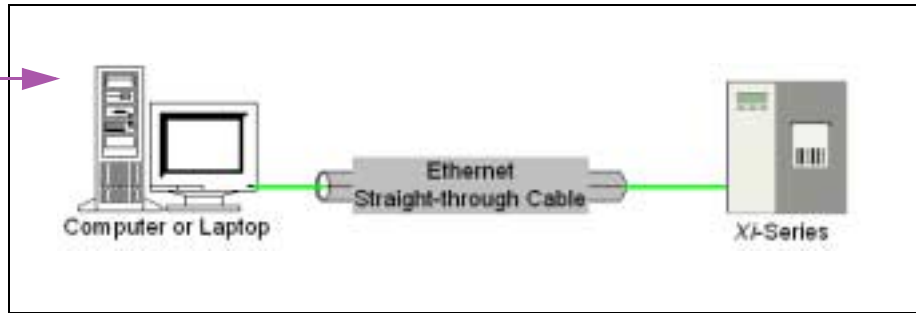


Figure 3• Straight-through cable environment

Connect the red 7 foot (2m) cable to the hub or network connection and to the WCSO board

Go to step 2

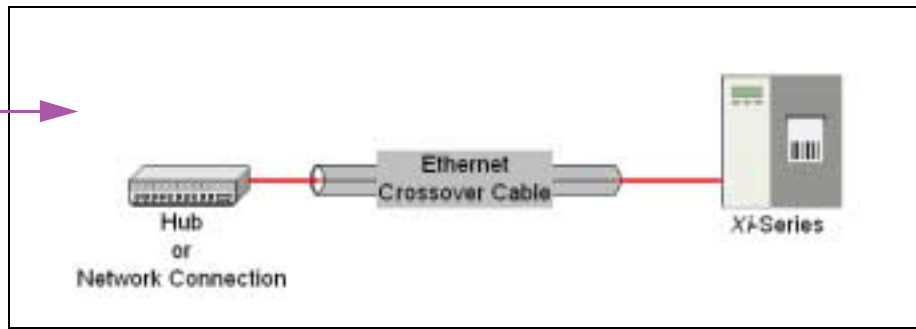
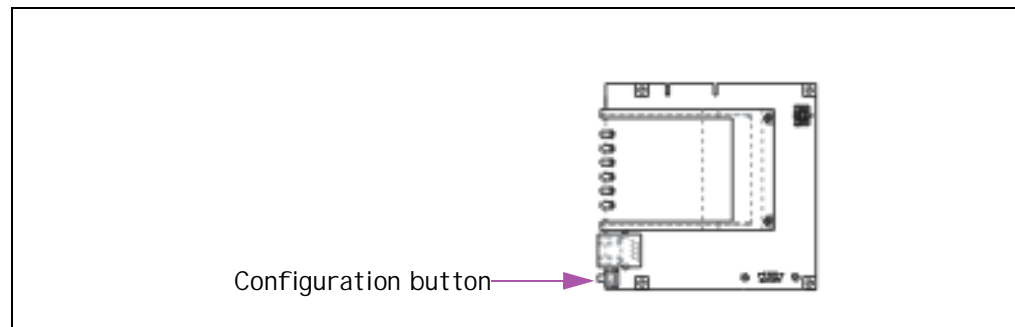


Figure 4• Crossover cable environment



Important • In the next step, **do not** release the Configuration button until the second (yellow) and third LED (green) on the WCSO board begin to flash.

This illustration calls out where the configuration button is on the WCSO board:



2. On the ZebraNet WCSO board, push and hold in the Configuration button (little white button on the WCSO board) and power on the printer.

To configure the ZebraNet WCSO, complete these steps:

3. From the status bar, click **Start>Programs>ZebraNet Wireless>ZebraNet Wireless View**.
4. From the *ZebraNet Wireless View* dialog, click **Scan**. This can take up to six seconds.

The default WCSO IP address is: 10 . 10 . 10 . 128 and the default station name is *ZebraNet Wireless Client*.

5. Select the WCSO you want to configure, click **Configure**.

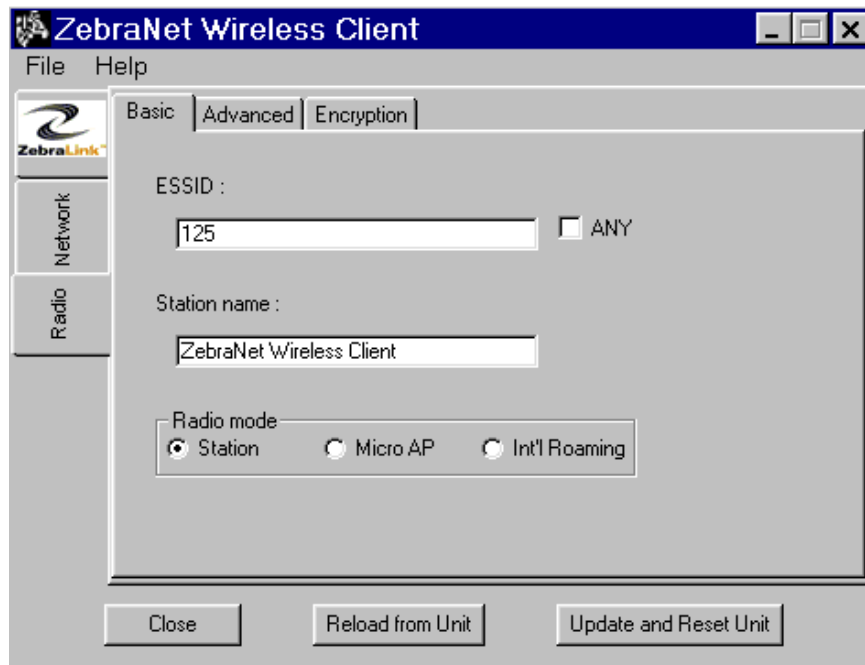


Important • If you choose to use the bulleted optional steps below, you **must** use a static address. **You cannot use DHCP addressing.**

If you elect **to** do these optional steps, you can telnet in or ping your device(s). If you elect **not** to do these bulleted optional steps, proceed to step 6.

- Click the *Network* tab and set the IP address to an available IP address on the current network.
 - From the *Network* tab, set the *Netmask* to the current *SubNetMask* of your network.
6. Select the *Radio* tab.

The *ZebraNet Wireless Client* dialog with the *Radio>Basic* tab opens:



The ESSID can be alpha or numeric.

7. From the *Radio>Basic* tab, set the ESSID to match the ESSID of your wireless network (access point).
8. In the Station Name text-box, type the name of the device you want to make wireless, click **Update and Reset Unit**.
 - If successful, a message log shows this message: **Update and Reset Unit**.
 - If not successful, a message log shows this message: **Upload timed out**. This message is followed by instructions on what to do next. Follow the prompts accordingly.
9. When you see the **Update and Reset Successful** message, click **Close**.

To go wireless, complete these steps:

1. Power down the printer.
2. Unplug the 7 foot (2m) cable from the WCSO board (in the printer) and your other device (hub or computer).
3. From the installation kit, get the 1 foot **green** cable (straight-through) and plug it into the ZebraNet WCSO board (in back of printer).
4. From the installation kit, get the RF card cover. Pull the 1 foot cable through the cover opening, then secure the cover with the provided screws.

5. Connect the other side of the 1 foot **green** cable into the print server.
6. Power on the printer.



Important • It could take up to 90 seconds for the **Data** light to flash.

Watch for the **Data** light on the front of the printer to flash, this means that ZebraNet WCSO and the print server are recognized.

To confirm the installation was successful, complete these steps:

1. From the status bar, click **Start>Programs>ZebraNet Wireless>ZebraNet Wireless View**.
2. Confirm that your wireless device is listed in the *ZebraNet Wireless View* dialog.
The serial number is each WCSOs unique identifier.
3. From the *ZebraNet Wireless View* dialog, click **Scan**.

Your wireless device is listed in the *ZebraNet Wireless Client* dialog. If it is **not** in the *ZebraNet Wireless View* dialog:

- confirm the printer is powered up
- confirm you are using the correct cable for your setup

APPENDIX A

Frequently Asked Questions

This appendix is a group of frequently asked questions (FAQs) that were collected at a ZebraNet Wireless Card Socket (ZebraNet WCSO) demonstration.

FAQs

This table provides frequently asked questions (FAQs) on factory and field installations:

Question	Answer
Does the Installation Kit come with RF cards?	No. It is your responsibility to purchase one of the supported RF cards.
Where do you get the IP address?	From your network administrator, or an IS person.
Where do you assign the WCSO's IP address?	From ZebraNet Wireless View, in the <i>Network>Basic</i> tab.
Can you configure this through the print server?	No. Only from a computer or laptop.
Could an external print server be set up?	Yes.
Is ZebraNet WCSO dependent on Zebra print servers only?	ZebraNet WCSO was tested using ZebraNet PrintServer II which is the only supported configuration.
Is the 1 foot green cable (straight-through) always in the printer?	Yes. This wire is used to connect the printer to the WCSO board.
Does the RF Card stay in even when ZebraNet WCSO is set up and the printer is wireless?	Yes. The RF card is the component that allows the printer and the wireless network to communicate.
How many printers for each Access Point?	It depends on the manufacturer of the Access Point.
Can all the printers that are routed through an Access Point print simultaneously?	Yes.

Question	Answer
Interference with the Access Point would be what?	Metal is known to cause interference. Check the AP and RF card manufacturer specifications for details on the given brand. Interference also depends on your environment.
Where does the ESSID # come from?	You create the ESSID #. Name it anything you want. It can be alphanumeric and a maximum of 32 characters. IMPORTANT—The ESSID # on the AP must match the ESSID # on the ZebraNet WCSO board.
If the printer is powered down before it's recognized by the AP, how do we recover?	Power the printer on.
Do XiIIs get field installations only?	Yes. ZebraNet WCSO is an upgrade option for existing XiIIs. It is a field installation.
Factory Installations are specific to XiIIIs and R-140s?	Yes. Factory installations are when a new XiIII is purchased with ZebraNet WCSO.

APPENDIX B

Glossary

This appendix provides a glossary of terms that are specific to ZebraNet WCSO.

Terms

client a workstation or PC in a client/server environment.

crossover cable a cable that is used to interconnect two computers by *crossing over* (reversing) their respective pin contacts.

Ethernet a widely used local area network system based upon the IEEE 802.3 standard.

firmware software routines that are stored in ROM (Read Only Memory). This is typically part of a device, such as a printer.

MAC address Media Access Control (MAC) address is your computer's unique hardware number. (On an Ethernet LAN, it's the same as your Ethernet address.) When you're connected to the Internet from your computer (or host as the Internet protocol thinks of it), a correspondence table relates your IP address to your computer's physical (MAC) address on the LAN.

NAP Network Access Point (NAP) is one of several Internet interconnection points that serve to tie all the Internet access providers together.

parallel port a port on a device that sends information in groups of bits over multiple wires, one wire for each bit in a group.

ping the act of using the ping utility or command. Ping is used diagnostically to ensure that the host device you are trying to reach is operating.

print server a device in a network that controls one or more printers by storing the print-image output from all users of the system and feeds it to the printer one job at a time.

straight-through cable a cable that is used to interconnect two devices by *aligning* all their respective pin contacts.

subnet mask a bit mask used to select the bits from an IP address that correspond to the subnet.

ZebraNet PrintServer II an Ethernet connectivity solution.

ZebraLink allows you to connect and control your bar code printers anywhere and anytime.

ZPL II Zebra Programming Language II is a powerful label-definition and printer-control language.

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