

TRANZEO TR-CPE90



Tranzeo TR-CPE90 User Guide

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FCC Information

This device has been tested and found to comply with 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 when the device is operated in a residential environment. This device generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the user guide, it may cause harmful interference to radio communication. In case of harmful interference, the users will be required to correct the interference at their own expense.

The users should not modify or change this device without written approval from Tranzeo Wireless. Modification could void authority to use the device.

For safety reasons, people should not work in a situation where RF exposure limits could be exceeded. To prevent this situation, the users should consider the following rules:

- Install the antenna so that there is a minimum of 40 cm of distance between the antenna and people.
- Do not turn on power to the device while installing the antenna.
- Do not connect the antenna while the device is in operation.
- Do not collocate or operate the antenna used with the device in conjunction with any other antenna or transmitter.
- Only use antennas up to 17 dBi gain.



Safety Information

You must read and understand the following safety instructions before installing the device:

- This antenna's grounding system must be installed according to Articles 810-15, 810-20, 810-21 of the National Electric Code, ANSI/NFPA No. 70-1993. If you have any questions or doubts about your antenna grounding system, contact a local licensed electrician.
- Never attach the grounding wire while the device is powered.
- If the ground is to be attached to an existing electrical circuit, turn off the circuit before attaching the wire.
- Use the Tranzeo Power over Ethernet (POE) adapter only with approved Tranzeo models.
- Never install radio equipment, surge suppressors, or lightning protection during a storm.

Lightning Protection

The key to a lightning protection is to provide a harmless route for lightning to reach ground. The system should not be designed to attract lightning, nor can it repel lightning. National, State and local codes are designed to protect life, limb, and property, and must always be obeyed. When in doubt, consult local and national electrical codes or contact an electrician or professional trained in the design of grounding systems.

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Professional Installation

The PRODUCT requires professional installation. Professional installers ensure that the equipment is installed following local regulations and safety codes.

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Chapter 1: Overview

Product Description

This next-generation wireless LAN device—the Tranzeo TR-CPE90—, brings Ethernet-like performance to the wireless realm. Fully compliant with the IEEE802.11b/g standards, the Tranzeo TR-CPE90 also provides powerful features such as the Internet-based configuration utility as well as WEP and WPA security. Maximize network efficiency while minimizing your network investment and maintenance costs.

Product Kit

The TR-CPE90 product kit contains the following items:

- Tranzeo Wireless Network Adapter TR-CPE90 x 1
- Ethernet boot x 1
- Ethernet cable lock x 1
- Ethernet boot gasket x 1
- **RJ-45 patch cable x 1**
- Kept nuts (with washer attached) x 8
- Mounting bracket x 1
- U-Bolt w/ 2 nuts x 1
- Power over Ethernet adapter x 1
- DC power adapter x 1

If any of the items listed above is missing or damaged, contact your local dealer for support.

LED Panel Indicators

Label	Color	Indicators
Power	Green	On: Powered on Off: No power
LAN	Green	On: Ethernet link Flashing: Ethernet traffic Off: No Ethernet link
Radio	Green	On: Radio link Flashing: Radio activity Off: No radio link

Chapter 2: Hardware Installation

The TR-CPE90 is easy to install, as you'll see in this chapter. Before starting, you will need to get the tools listed below and decide about the site and orientation of the device. Once ready, follow the instructions about how to connect the Ethernet cable, mount the device, and ground the antenna in order to get a proper installation of the device.

Getting Ready

Tools Required

To install the TR-CPE90 you will need the following tools:

- 3/8" wrench x 1
- 3/4" wrench x 1
- RJ-45 crimper x 1
- CAT5 cable, enough to bring the signal from the radio to the Power over Ethernet (POE) adapter
- RJ-45 plugs x 2
- #6 green grounding wire

Site Selection

Determine the location of the device before installation. Proper placement of the device is critical to ensure optimum radio range and performance. You should perform a site survey to determine the optimal location. Ensure the CPE is within line-of-sight of the access point (AP). Obstructions may impede performance of this device.

Orientation of the device

Determine if the orientation of the device will be horizontal or vertical before installation. The TR-CPE90 can be mounted in either orientation. The Ethernet boot should always be placed so that the cable runs toward the ground for maximum environmental protection.

Power Supply

Only use the power adapter supplied with the TR-CPE90. Otherwise, the product may be damaged.

Connecting the Ethernet Cable

Step 1:

Attach the cable lock, without its cover, to the boot.



Step 2:

Using a 3/4" wrench, tighten the cable lock until it touches the boot, as shown in the photo. Put the cover back on the cable lock.

IMPORTANT! Use hand tools only. Do not over tighten!



Step 3:

Insert the CAT5 cable through the cable lock. Attach a RJ-45 jack at the end of the CAT5 cable.



Step 4:

If you bought the boot with dual port, repeat steps 1, 2, and 3 for the second port.

IMPORTANT! If you are not going to use the second port, tighten the cable lock to ensure an environment seal.



Step 5:

Put the boot gasket—with the adhesive part up—through the 4 screws of the radio. Flatten the boot gasket ensuring there are no gaps. Remove the backing.



Step 6:

Pull the CAT5 cable inserted in the boot and plug it into the port.

Step 7:

Put the boot over the screws and the boot gasket. Using 4 kept nuts, tighten until the boot makes full contact with the gasket. The gasket should be at least 50% compressed.



Step 8:

Make sure the cover of the cable lock is tightened properly.

IMPORTANT! Hand tighten only. Do not over tighten as you may damage the environment seal.



Mounting the Device

Step 9:

Put the U-Bolt around a pole and adjust the mounting bracket into it, as shown in the photo.



Step 10:

Adjust down or up tilt by swinging the U-Bolt. Then, tighten the nuts enough to prevent any movement.



Step 11:

To mount the radio, insert the screws of the radio through the holes of the mounting bracket. Put the kept nuts and tighten.

Grounding the Antenna

Step 12:

Using a #6 green grounding wire, connect the grounding lug on the radio to a proper ground. See Appendix A: Grounding and Lighting Protection Information.



IMPORTANT: This device must be grounded. Connect the green grounding wire to a known good earth ground, as outlined in the National Electrical Code.

Step 13:

Connect the power adapter to the POE adapter. Plug the other end to an outlet. Use the power adapter supplied with the device. Otherwise, it may be damaged.

Step 14:

Plug the RJ-45 cable from the device into the POE adapter. The station adapter will be powered on and the power indicator on the top panel will turn on.

Chapter 3: Configuration

The TR-CPE90 can be configured through an HTML configuration interface. This interface contains multiple windows which show information about the settings and performance of the device.

In this chapter we'll cover how to:

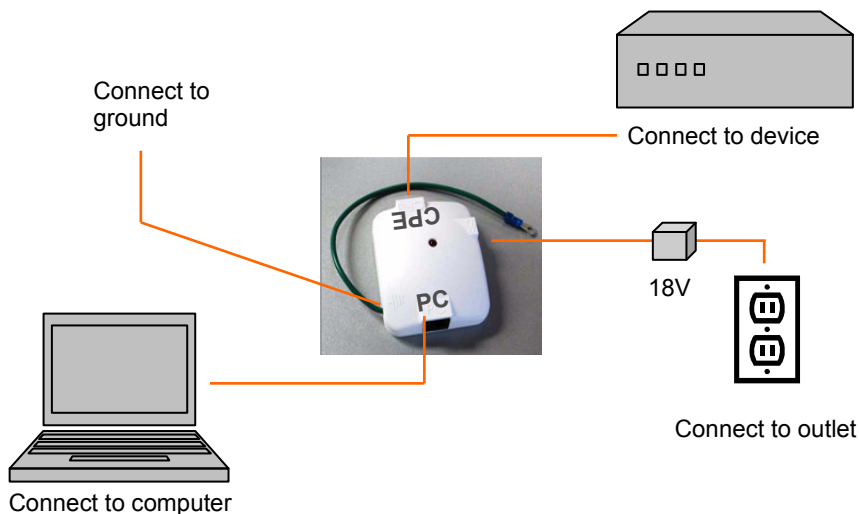
- Access the configuration interface from your computer
- Configure the TR-CPE90
- Interpret the information displayed in the interface

Depending on whether the device is defined as an access point or CPE (infrastructure), some menu options, windows, and fields in the interface may vary or may not appear at all. We'll indicate so when describing each window.

Getting Ready

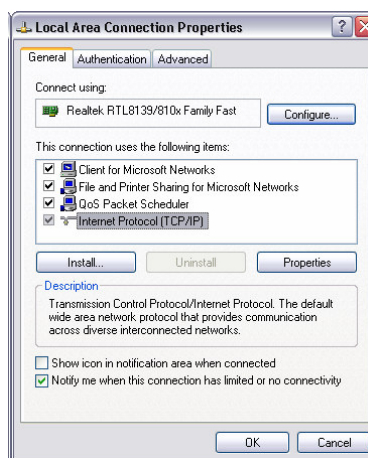
Connecting the Device to a Computer

To configure the TR-CPE90, the device must be connected to a computer. Using CAT5 cables and the power adapter, connect the device and the computer in the POE adapter, as shown below.

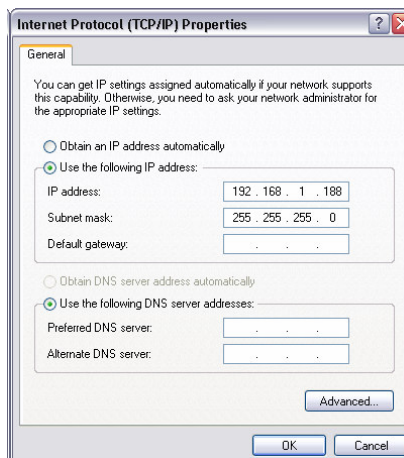


Setting the Network Connection

1. In your computer, open Control Panel > Network Connections > Local Area Connection.
2. In Local Area Connection Status > General, click **Properties**.
3. In Local Area Connection Properties > General, select **Internet Protocol (TCP/IP)** and click **Properties**.



4. In Internet Protocol (TCP/IP) Properties > General, select **Use the following IP address**.
5. Enter your **IP address** and **Subnet Mask**.
6. Click **OK** and **Close**.



Login to the Configuration Interface

1. Open your Internet browser (Explorer, Netscape, or Firefox).
2. In the address bar, type **http://192.168.0.2**.
3. In the login dialog, enter your **Password**. The default password is **default**. You can change your password in the Configuration > General > Administration Parameters window.
4. Click **OK**. You will then access the configuration interface.



Information

This is the first window of the interface. It shows the main menu and general information about the configuration of the device, like the Mac address, firmware version and boot version.

The menu can be expanded, as you can see in the pictures below. To open a particular window, just click on the menu item.

