



# **Ripwave™ CPE Installation and User Guide**

**For use with all Ripwave 2400  
and 2600 CPE models**

**For Installation With Windows® 95 or  
later Operating Systems**

Part Number 40-00097-00  
Revision A, Version 1.0  
June 20, 2002

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## Symbols

Throughout this manual, the following symbols are used. For proper operation and protection of the equipment, observe these safety measures when installing, operating, or servicing the equipment.

 <b>Caution Symbol</b>	This symbol indicates a potentially hazardous situation that may result in equipment damage or improper operation. Safety measures need to be taken when performing the step.
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 <b>Notes Symbol</b>	This symbol indicates points, comments, or special attention, or additional information about the topic.
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## Safety

To optimize safety when using the Navini equipment, please read before using.

When using the Navini electronic equipment, always follow the basic safety precautions to reduce the risk of electrical shock, fire, and injury to people and/or property.

Follow all warnings and instructions that come with the equipment.

1. Do not use the equipment while you are in a bathtub, shower, pool, or spa. Exposure of the equipment to water could cause severe electrical shock or serious damage to the equipment.
2. Do not immerse the equipment in any type of liquid. Use a damp cloth and if needed, water and a mild detergent to clean the plastic shell. Unplug the equipment from the power source before cleaning.
3. Follow all airport and FAA regulations when using the equipment on or near aircraft.
4. Only operate the equipment from the type of power source(s) indicated in this manual (110 VAC adapter or Navini supplied battery). Any other type of input power source may cause damage to the equipment.
5. Power the equipment using only the battery or the AC adapter cable provided, and in accordance with the instructions specified in the user manual.
6. Do not use a frayed or damaged power cord. Do not place the power cord where it can be stepped on or tripped over.
7. Do not touch wires where the insulation is frayed or worn unless the equipment has been disconnected from its power source.
8. Do not overload wall outlets, power strips, or extension cords. This can cause serious electrical shock or fire.
9. Do not place the equipment on an unstable surface. It can fall and cause injury or damage to the equipment.

## Safety (continued)

10. Do not disassemble the equipment. Removing covers exposes dangerous voltages or other risks and also voids the warranty. Incorrect reassembly can cause equipment damage or electrical shock. Only an authorized repair technician should service this product.
  
11. Do not expose the equipment to extreme hot or cold temperatures.
  
12. Do not use the equipment under the following conditions:
  - When the equipment has been exposed to water or moisture.
  - When the equipment has been damaged.
  - When the power cord is damaged or frayed.
  - When the equipment does not operate properly or shows a distinct change in performance.



# Regulatory Information



## FCC Compliance and Advisory Statements

**Caution:** This device is a Radio Frequency transmitter. It is required to comply with FCC RF exposure requirements for transmitting devices. A minimum separation distance of 8 inches (20 cm) or more must be maintained between the antenna and all persons during device operations to ensure compliance with the FCC's rules for Radio Frequency Exposure. If this minimum distance cannot be maintained, exposure to RF levels that exceed the FCC's limits may result.

***Tested To Comply  
With FCC Standards  
FOR HOME OR OFFICE USE***

This equipment has been tested and found to comply with the limits for a class B digital device, Pursuant to Part 15 of the FCC rules. The 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.

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 or used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or 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:

- 1) reorient or relocate the receiving antenna-
- 2) increase the separation between the equipment and the receiver;
- 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected;
- 4) consult the dealer or an experienced radio/TV technician for additional suggestions.

## Information to User

This device has been authorized as a radio frequency transmitter under the appropriate rules of the Federal Communications Commission. Any changes or modifications not expressly approved by Navini Networks could void the user's authority to operate the equipment.



## Battery Cautionary Procedures



**CAUTION:** To reduce risk of injury or fire, follow these instructions when handling the battery.

1. Risk of explosion is possible if the battery is replaced with one not supplied by Navini Networks.
2. Do not dispose of the battery in a fire. They may explode. Check with the local codes for battery disposal guidelines.
3. Do not open or mutilate the battery. The battery contains substances that are toxic, corrosive, or harmful to humans. If battery substances come in contact with the skin, seek medical help immediately.
4. Do not attempt to recharge the battery by any means except per the instructions in this manual.
5. Remove the battery from the equipment if the equipment is not going to be used for a long period of time. The battery could leak and cause damage to the equipment.
6. Exercise care when handling the battery to prevent shorting the battery with conducting materials such as bracelets, rings, and keys.
7. Dispose of used batteries according to environmental guidelines.







## Introduction

Congratulations on your purchase of the Navini Networks Ripwave Customer Premise Equipment (CPE). It provides complete wireless broadband Internet access to residential and small office/home office (SOHO) customers without any professional hardware installation or an external antenna. The Ripwave CPE also provides “nomadic” service availability as a computer is moved from room to room, location to location, or even city to city as long as there is coverage in the area.

## Ripwave CPE Models

The Ripwave CPE models vary by the operating band frequency range (2.4 GHz or 2.6 GHz) of the CPE and by the port connection to the computer – Ethernet (E) or Universal Serial Bus (USB).

Model	Frequency Range	Operating Band	Port Connection
2400E	2.4 GHz - 2.473 GHz	ISM	Ethernet
2400U	2.4 GHz - 2.473 GHz	ISM	USB
2600E	2.596 GHz – 2.686 GHz	MMDS/ITFS	Ethernet
2600U	2.596 GHz – 2.686 GHz	MMDS/ITFS	USB

The models vary in appearance as shown in the pictures below:



2400E and 2400U



2600E and 2600U



**Note:** The 2600 model is used in the illustrations throughout this manual.

You must have the Ripwave CPE model with the appropriate connection for your PC port – either a USB or an Ethernet connection. At first glance, the models appear the same, but the ports and cables for the connections are different.

- A USB connection will function only with Windows® 98, Windows® 98SE, Windows® 2000, Windows® ME, or Windows® XP. It will not work with Windows® 95 or Windows NT®.
- An Ethernet connection will function with any Win32 Operating System (Windows® 95 or later).



USB Connection



Ethernet Connection

## Minimum System Requirements

Operating System	Windows® 95 or later – Internet Explorer 3.0 or higher is required for installation on Windows 95 operating systems. Macintosh systems are not supported.
CPU	Pentium level or higher
RAM	32MB or the Operating System minimum (whichever is greater)
Hard Drive	10MB free disk space
Monitor Colors and Resolution	256 colors, 800 x 600 resolution

The Ripwave CPE Installation section includes instructions for both USB and Ethernet connections. Be sure to use the instructions that apply to your Ripwave model. The Ripwave Monitor Software Installation procedure is the same for either of the Ripwave models.

This manual will guide you through the simple process of installing the Navini Networks Ripwave CPE and software, which has been developed to optimize the ease and convenience for you, our valued customer.

## Equipment Inventory

Verify the contents of your package. The contents should consist of the following items:

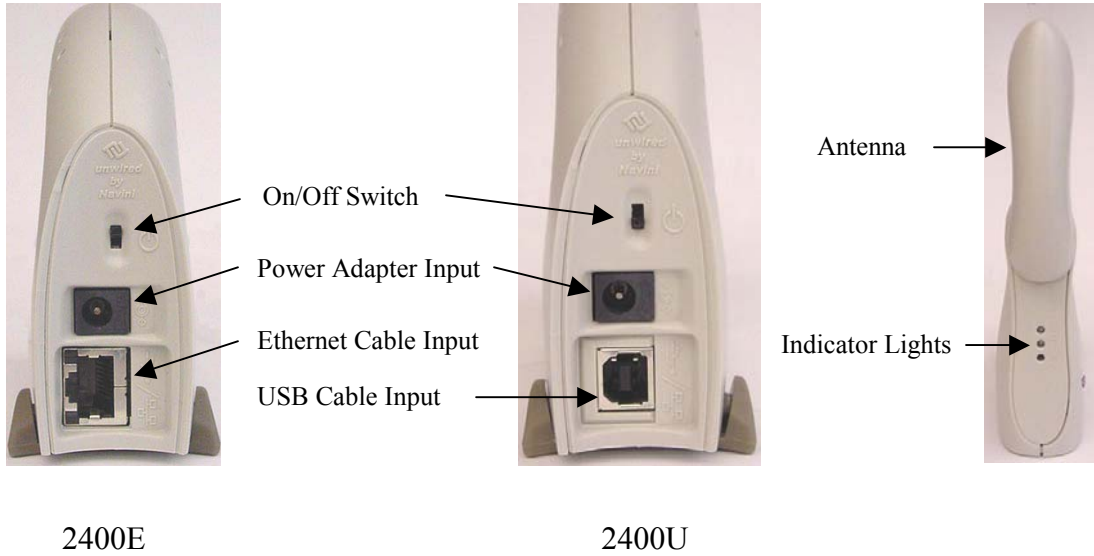
- Navini Networks Ripwave CPE
- Ripwave CPE AC power adapter
- PC-to-Ripwave CPE cable (USB or Ethernet)
- Ripwave User Guide
- Ripwave Quick Installation Guide
- Navini Networks Ripwave Installation CD

If you do not find all of these items in your package, notify the supplier from whom you obtained your package.

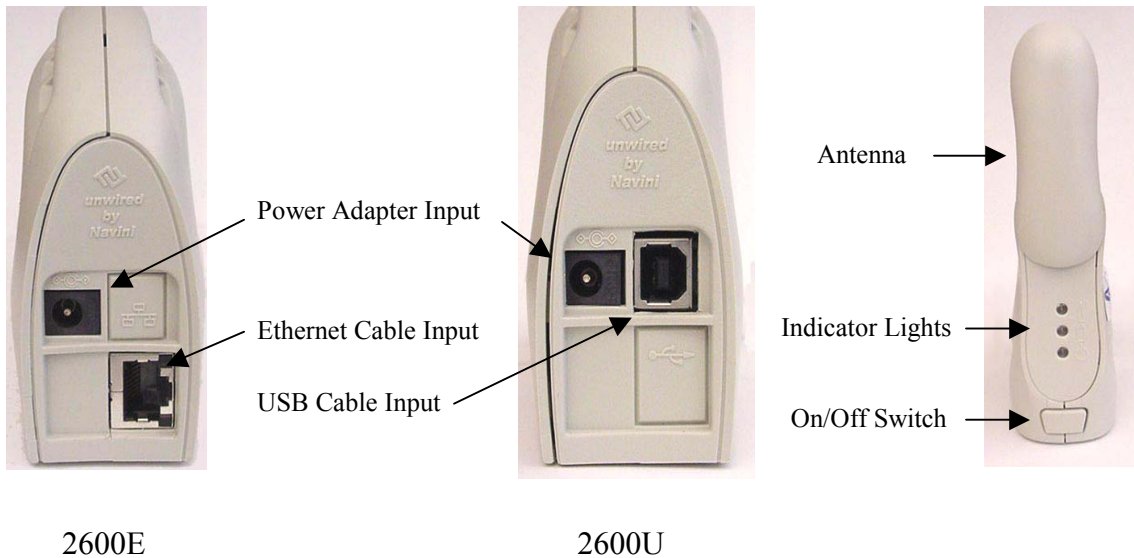


# Location of Controls and Features

## 2400 Ripwave CPE



## 2600 Ripwave CPE



# Ripwave CPE Installation

## USB Connections

The following instructions are for the installation of the Ripwave CPE using a USB connection. Please read all instructions before attempting installation. It is recommended that the computer and the Ripwave CPE be turned off before performing the installation.

1. Connect the USB cable to the USB port on the computer as shown.



2. Connect the other end of the USB cable to the Ripwave CPE as shown.



USB Port

3. Connect the AC power adapter cable to the Ripwave CPE. Plug the other end of the AC power adapter cable into a 110 VAC outlet.



**CAUTION:** Only use the AC power adapter supplied with the Ripwave CPE. Using any other adapter may cause damage to the Ripwave CPE.

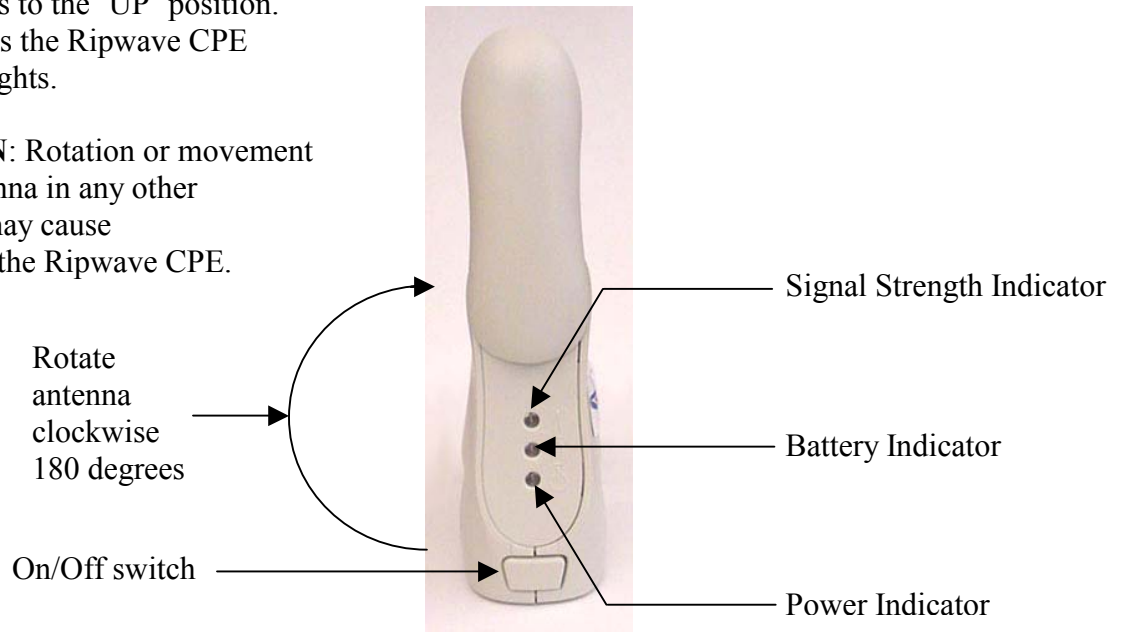
AC Power adapter cable jack



4. Rotate the antenna on the Ripwave CPE clockwise 180 degrees to the 'UP' position. This reveals the Ripwave CPE indicator lights.

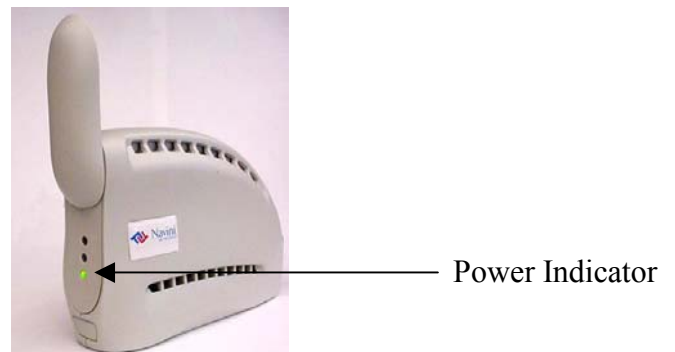


**CAUTION:** Rotation or movement of the antenna in any other direction may cause damage to the Ripwave CPE.



5. Push the On/Off switch on the Ripwave CPE to turn the CPE ON.

6. If the green Power Indicator light is on, proceed to step 7. If the green Power Indicator light is not on, there is a problem with the Ripwave CPE or the AC power adapter. Check all cables for proper connection. Otherwise, contact the supplier from whom you obtained the package.



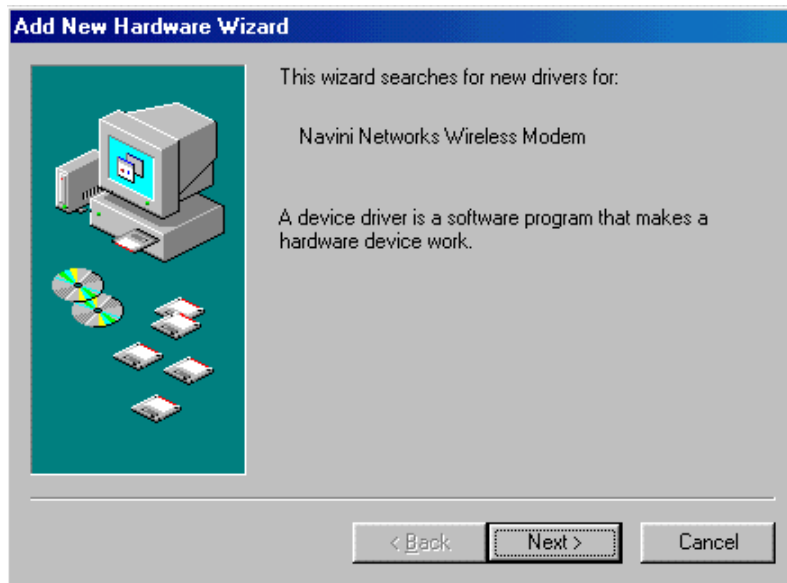
7. Set the power switch on the computer to the ON position. When the system is up, log in to the computer.



**Note:** For Windows<sup>®</sup> 2000, you must be logged into an account having administrative privileges to install the Ripwave CPE and its software.

8. Plug and Play will detect the Ripwave device now attached to the PC and will launch the Plug and Play application. If not, one of the following items may be the problem:
  - Windows NT and Windows 95 do not support a USB device.

- The Ripwave CPE is not turned on.
  - The Ripwave CPE is not properly connected to the computer.
9. The Add New Hardware Wizard dialog box appears. Click **Next** to continue.



10. Insert the Navini Networks Ripwave installation CD in the CD-ROM drive.

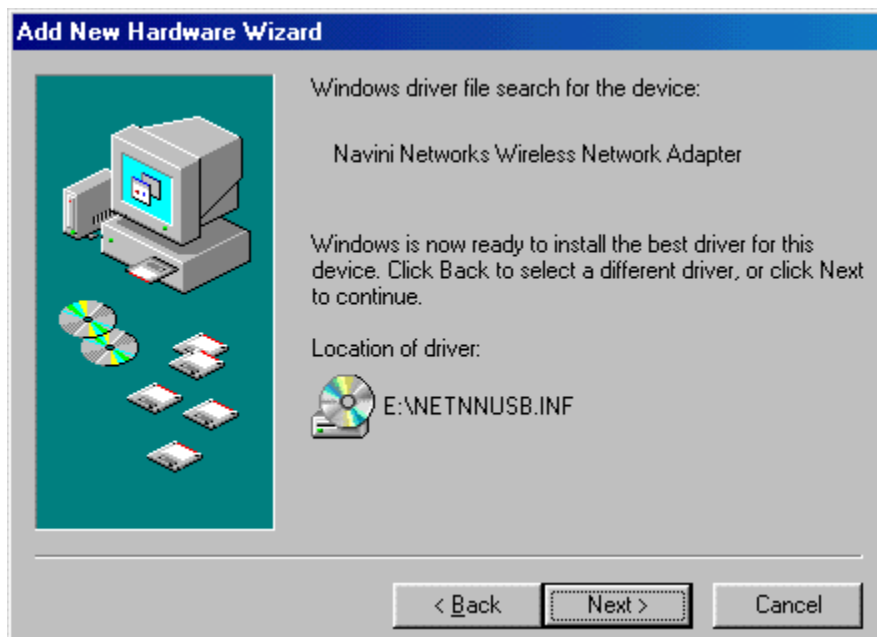
11. Select the 'Search for the best driver for your device' option. Click **Next** to continue.



12. Select the 'CD-ROM drive' checkbox. Click **Next** to continue.



13. Confirm that the drive location is correct (the CD-ROM drive letter may be different than shown below) and that the file to be installed is NETNNUSB.INF. Click **Next** to continue.



14. Click **Finish**.

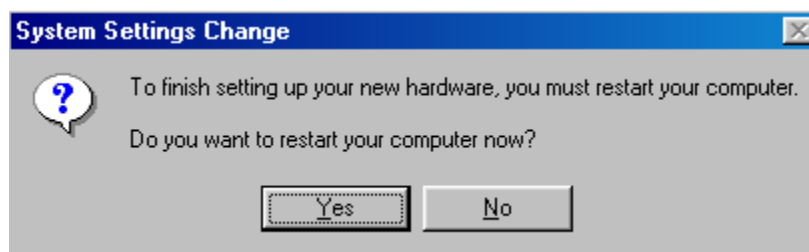


**Note:** For Windows<sup>®</sup> 98, a window may appear asking for drivers to be installed from the Windows<sup>®</sup> 98 setup disk. If so, insert the Windows<sup>®</sup> 98 setup disk in the CD-ROM drive and accept the defaults.

15. After clicking **Finish**, the System Settings Change window appears asking if you want to restart your computer now. Click **Yes**.



**Note:** You must restart your computer at this point before proceeding.

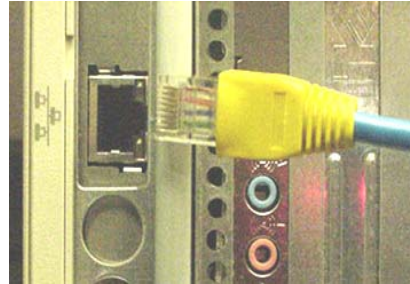


16. After the computer restart is complete, proceed to the [Ripwave Monitor Software Installation](#) procedure on page 11.

## Ethernet Connections

The following instructions are for the installation of the Ripwave CPE using an Ethernet connection. Please read all instructions before attempting installation. It is recommended that the computer and the Ripwave CPE be turned off before performing the installation.

1. Connect the Ethernet cable to the Ethernet port on the computer as shown.



2. Connect the other end of the Ethernet cable to the Ripwave CPE as shown.



Ethernet Port

3. Connect the AC power adapter cable to the Ripwave CPE. Plug the other end of the AC power adapter cable into a 110 VAC outlet.



**CAUTION:** Only use the AC power adapter supplied with the Ripwave CPE. Using any other adapter may cause damage to the Ripwave CPE.

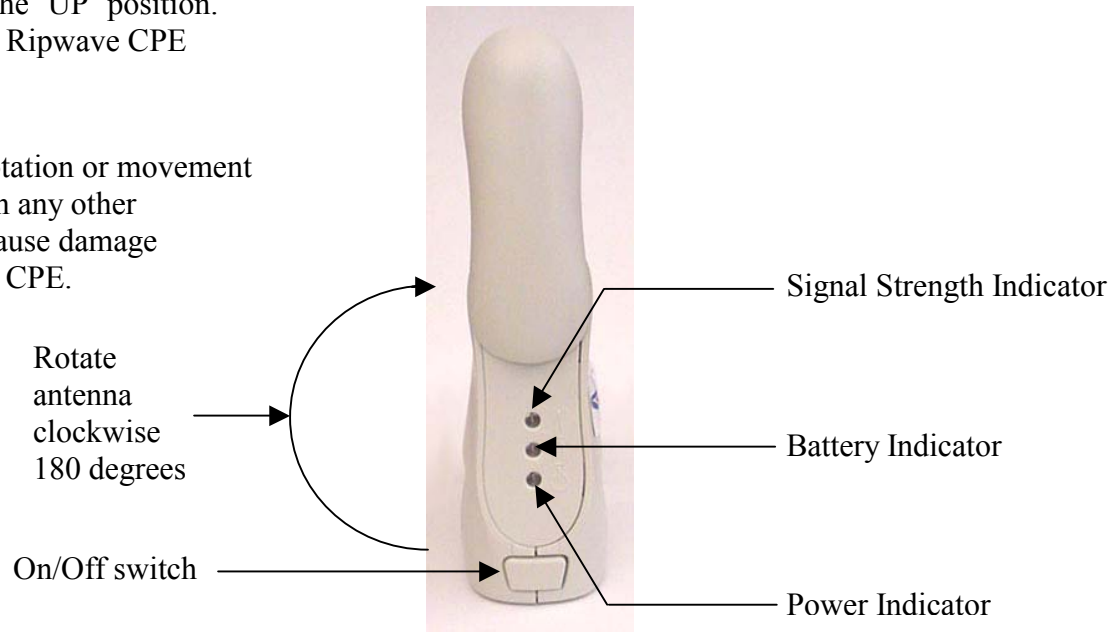
AC Power adapter cable jack



4. Rotate the antenna on the Ripwave CPE clockwise 180 degrees to the 'UP' position. This reveals the Ripwave CPE indicator lights.

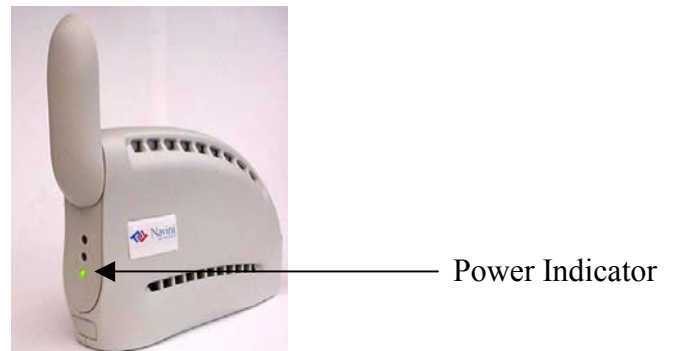


**CAUTION:** Rotation or movement of the antenna in any other direction may cause damage to the Ripwave CPE.



5. Push the On/Off switch on the Ripwave CPE to turn the CPE ON.

6. If the green power indicator light is on, proceed to step 7. If the green Power Indicator light is not on, there is a problem with the Ripwave CPE or the AC power adapter. Check all cables for proper connection. Otherwise, contact the supplier from whom you obtained the package.



7. Set the power switch on the computer to the ON position. When the system is up, log in to the computer.
8. Proceed to the [Ripwave Monitor Software Installation](#) procedure on page 11.



# Ripwave Monitor Software Installation

The Ripwave Monitor provides information on the strength and quality of the incoming signal and battery strength. It also checks the connectivity to the Internet Service Provider (ISP) network.



## Notes:

- For Windows NT<sup>®</sup> and Windows<sup>®</sup> 2000, you must be logged into an account having administrative privileges to install the Ripwave Monitor software.
- For Ripwave Monitor software installation on Windows<sup>®</sup> 95, Windows<sup>®</sup> 98, and Windows<sup>®</sup> 98SE Operating Systems, the operating system CD may be needed to complete the installation. If prompted, insert the operating system CD in the CD-ROM drive and accept the defaults.

## Installation Procedures

The following instructions are for installing the software that monitors the operation and performance of the Ripwave CPE.

1. Shut down all programs before installing the Ripwave Monitor software. This includes all anti-virus software.
2. Insert the Navini Networks Ripwave Installation CD in the CD-ROM drive.
3. Click **Start** > **Run** at the bottom left corner of your screen. In the Run window, enter e:\setup (where “e” represents the CD drive; use the letter representing your specific CD drive) in the Open field. Click **OK** to continue.

