Corinex Powerline Ethernet Wall Mount

Corinex

Manual

Declaration of Conformity

CE

Model: Corinex Powerline Ethernet Wall Mount

Manufacturer:

Corinex Communications Corp.
World Trade Center
404-999 Canada Place
Vancouver B.C.
Canada V6C 3E2

Directives which Conformity is Declared:

EMC: 89/336/EWG
LVD: 73/23/EEC
93/68/EEC

Standards which Conformity is Declared:

EN 55022
EN 55024
EN 61000-3-2/A14
EN 61000-3-3
EN 60950

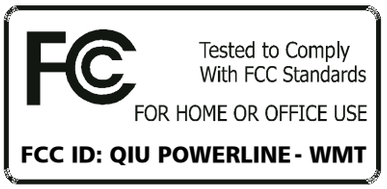
The undersigned hereby declares the above specified equipment conforms to the above directives and standards.

Signature: ..... Place/Date: **2003**

Printed name: **Peter Sobotka** Position/Title: **CEO**

Declaration of Conformity

For US Market Only `



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This device complies with Part 15 rules. Operation is subject to the following two conditions:
1) this device may no cause harmful interference, and
2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules.

User Warning !

Any changes or modification to said product not expressly approved by Corinex could void the user's authority to operate the equipment.

Signature: ..... Place/Date: **2003**

Printed name: **Peter Sobotka** Position/Title: **CEO**

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Some features, functions, and operations described in this manual may not be included and sold in certain countries due to government regulations or marketing policies.

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Published by:
Corinex Communications Corp.
World Trade Center
404-999 Canada Place
Vancouver, B.C.
Canada V6C 3E2
Tel.: +1 604 692 0520
Fax: +1 604 694 0061

Content

1 Introduction

1.1 Overview

The Corinex Powerline Ethernet Wall Mount is a network interface adapter, using the 110/120 or 220/240 V electrical wires in premises as a medium for communications. After successful installation, the indoor PowerNet network behaves like a traditional LAN for computers. The *Corinex Powerline Ethernet Wall Mount* supports up to 14 Mbps network speed.

The product keeps network maintenance cost low and eliminates usage barriers while there is no need for additional wiring.

The Product is highly integrated and requires no other external electronic components.

1.2 About this Manual

This Owner's Manual is intended to provide sufficient information to help you understand how to successfully install *Corinex Powerline Ethernet Wall Mounts* to meet your networking needs. With the information in this guide, you should be able to:

- Analyze your network efficiency
- Plan the configuration of *Corinex Powerline Ethernet Wall Mount* options
- Install and configure your *Corinex Powerline Ethernet Wall Mount* according to your plan
- Verify and optimize your *Corinex Powerline Ethernet Wall Mounts'* performance

2 Installation Guide

2.1 What this Package Contains

When you receive your *Corinex Powerline Ethernet Wall Mount,* check to be sure that your package contains:

- Corinex Powerline Ethernet Wall Mount with the right AC plug
- Ethernet cable
- This manual
- Application CD

2.2 System Requirements

- A computer with a pre-installed Ethernet Network Interface Slot or an Ethernet Network Interface Card
- CD-ROM drive
- Windows 98/ME/2000/NT/XP, MacOsX or Linux operating system

2.3 Installing the Powerline Ethernet Wall Mount

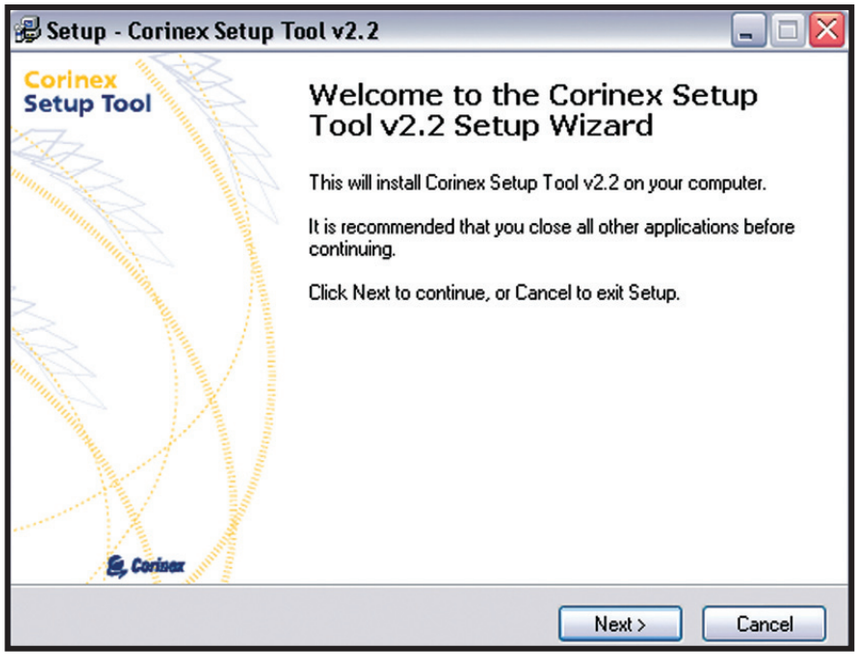
To connect the *Corinex Powerline Ethernet Wall Mount* to your computer, follow the steps listed below:

1. Plug the *Corinex Powerline Ethernet Wall Mount* into an AC outlet.
2. Plug the Ethernet cable into the *Corinex Powerline Ethernet Wall Mount* and the Ethernet slot or card on your PC.

The *Corinex Powerline Ethernet Wall Mount* is equipped with an automatic switch enabling an Ethernet slot or card on the PC to be connected to the Adapter via a standard cable or to connect a cable modem or DSL modem via a "cross cable" to the Adapter.

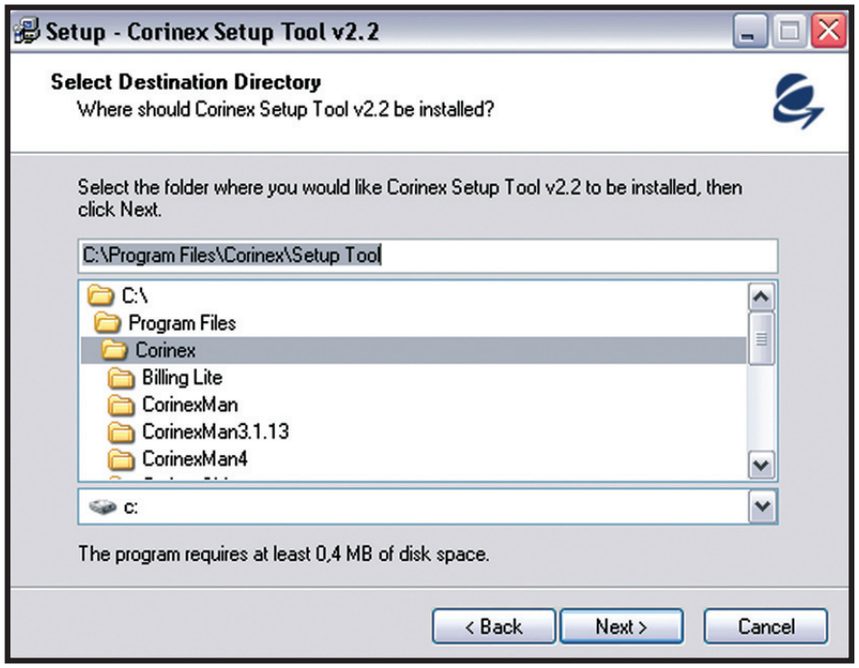
2.4 Installing the Setup Tool

1. Insert the installation CD. The CD should automatically start the installation process. If the installation program does not start automatically, start the application by selecting „My Computer", usually found on the desktop or Laptop start up screen. Navigate to the CD drive, and double click on the drive. The following screen should be displayed:

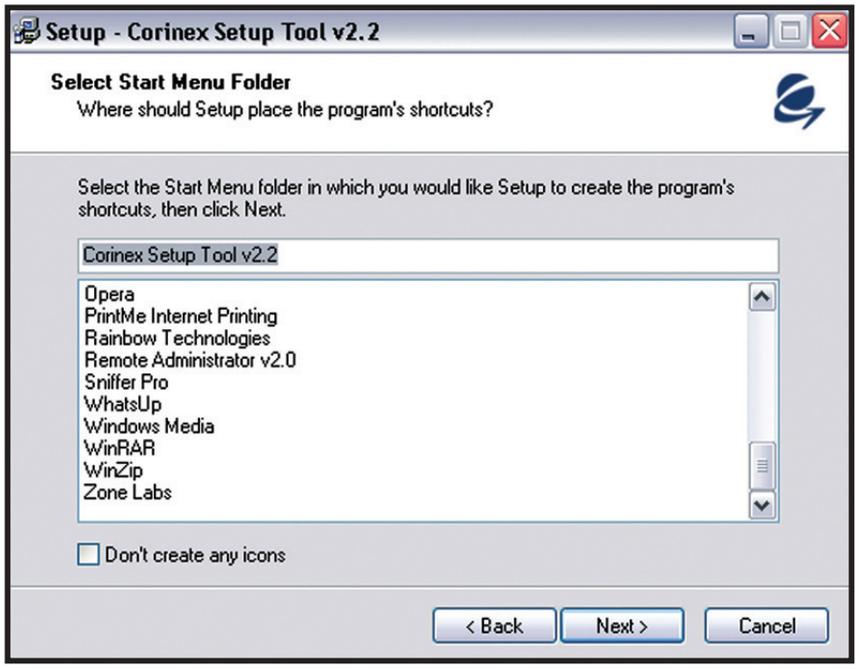


This is the welcome screen. Click "Next" to continue.

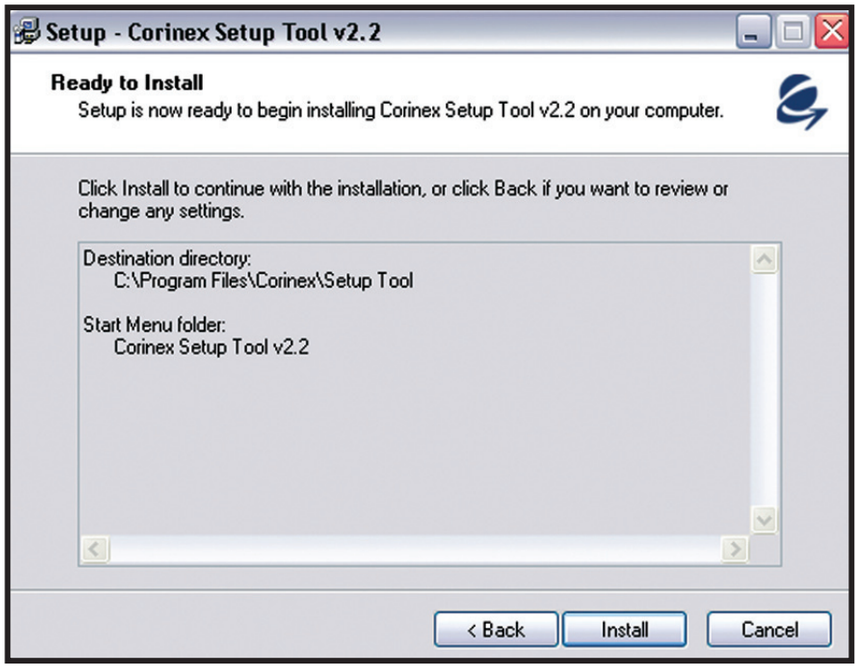
2. The next screen will ask where the Setup Tool should be installed. Click „Next“ to continue.



3. This screen will ask where Setup program should place the program’s shortcuts. Select the Start Menu Folder or simply click “Next“.



4. The following screen will appear to inform you that Setup is ready to begin installing the Setup Tool on your computer. Click “Install”.



2.5 Testing the Setup

To verify that the connection is working correctly, use the standard Ping utility. (in Windows, click on menu Start ->Run, then write command “ping IPADDRESS -t”, where IPADDRESS is the IP address of the computer to which the Powerline Ethernet Wall Mount is connected to, e.g. ping 192.168.4.1 -t . (This command will be stopped by pressing keys CTRL+C).

- Ping the IP address of the computer to which the Powerline Ethernet Wall Mount is connected to. If this fails, there is a problem with the Ethernet network card.
- Repeat the same process with the other powerline device on the network.
- If all nodes can ping themselves, try pinging another powerline device on the network. If this fails, there is a problem with connections on the powerline. Try to check the connection to the AC outlet, or use a different AC outlet.

- If the setup does not work, refer to the troubleshooting guide, but first, try unplugging the powerline device and reboot the computer as this sometimes fixes the problem.

2.6 Running the Setup Tool

The setup so far allows transmission of data encrypted with a universal key. To set your private and personal encryption keys for the network, run the Corinex Setup Tool provided on the CD (refer to section 3.1 for details). This prevents anyone from intercepting your transmitted data.

3 User Guide

3.1 Setup Tool User Guide

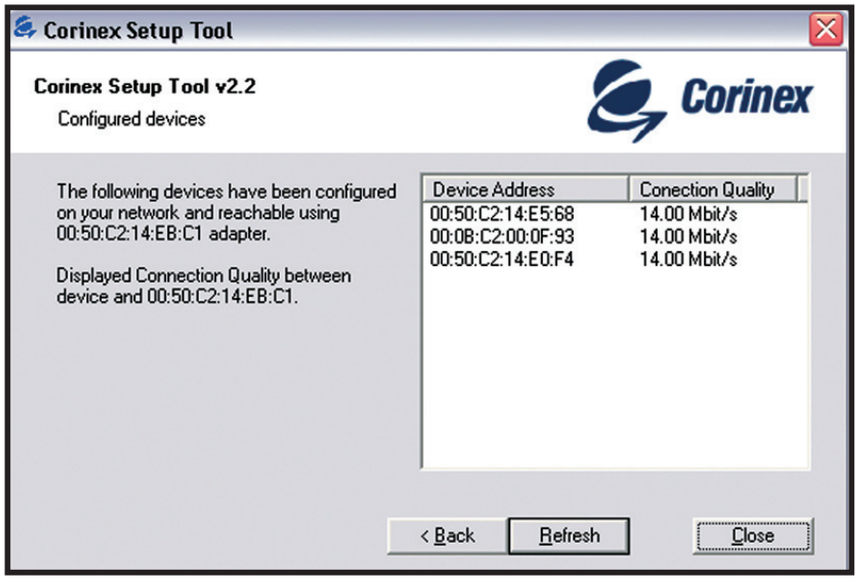
The Setup Tool allows the user to setup a private and secure powerline network. Follow the steps on the screen of this guide and your secure network will be setup correctly.

1. Make sure that your *Corinex Powerline Ethernet Wall Mount* is connected to the computer and start the Setup Tool from the Start menu by selecting the software folder and select 'Setup tool'. Detecting the device takes a few seconds.

2. Click 'Next'.

3. Now the following screen should be displayed. This is the screen where your network password is selected. Choose a password between 4 and 24 characters, the password is case sensitive so remember exactly how it was typed as it will be needed for the next device being set up. Type your password in the 'Network Password' box and click "Next". If you don't want to use encryption, uncheck the box "Encrypt frames".

4. Click "Next" again to program the *Corinex Powerline Ethernet Wall Mount* with the new encryption key. This will take a few seconds. The next screen will look similar to the following screen. The white box will list the MAC addresses of all other installed powerline devices on the network that are programmed with your chosen network password. If no other devices have been programmed, the list will be empty. If you use also other than Corinex HomePlug certified devices in the network, these devices may be set at the default status. This default setting makes sure that HomePlug devices find each other in a network and connect and communicate automatically with each other. In order to generate your private and secure network, all HomePlug certified devices in the network must be set to the same network encryption key, either at the default key "HomePlug" or your own selection.



The adapter with the MAC address 00:50:C2:14:EB:C1 acts as local device in the network and identifies the devices shown under "Devices Address" in the window as belonging to the network. The function and performance of the devices between the local device / adapter 00:50:C2:14:EB:C1 and the devices identified in the network is displayed in the window under "Connection Quality".

5. All devices in your network must be programmed with the same network encryption key. Run this utility on all computers with a powerline networking device attached. If you have a powerline device that is not normally connected to a computer, it must first be connected to a computer and set up with a network encryption key.

3.2 Powerline Ethernet Wall Mount

The *Corinex Powerline Ethernet Wall Mount* introduces a new and innovative solution for high speed communications, using the electric wires within premises. This unique technology offers users a wide range of networking options by using digital powerline technology enabling up to 14 Mbps of "traffic" between nodes within the network.

- Enables users to connect individual PC's or other devices with Ethernet communications links into a local area network through 110/120 V or 220/240V electric wires (powerline) network
- Enables PC file and application sharing
- Enables peripheral and printer sharing through the powerline network
- Enables shared broadband Internet access
- Enables sharing the bandwidth for multimedia payloads including voice, data, audio and video
- Enables gaming competition within the reach of the electric wires network
- Eliminates the requirement for special data cable wiring
- A real cost-effective and reliable solution for high speed communications in any home or small office

You can combine this type of adapters with the Corinex full line of powerline products and add to the powerline devices a Wireless to Powerline Access Point from Corinex, to cover all networking options. This User Guide has been prepared for *Corinex Powerline Ethernet Wall Mounts* for use in combination with PC's or Laptop computers.

Example

The connection of two computers over the powerline by using two *Corinex Powerline Ethernet Wall Mounts*:

1. Install *Corinex Powerline Ethernet Wall Mount* on each one of the two computers (see Installation Guide).
2. For connectivity enter the properties for this connection (see to user guide of operating system) and set up an IP address manually. For example: 192.168.4.1 mask: 255.255.255.0 and another PC set up 192.168.4.2 mask: 255.255.255.0.
3. You can check the connection by a simple ping procedure addressing the IP address of the second PC.

3.3 FAQ

1. Is the Corinex Powerline Ethernet Wall Mount still working if there is an electricity blackout? And will it resume the transmission automatically after the power comes back?
Corinex Powerline Ethernet Wall Mounts are operational, when the connected computers are rebooted and the power is back on.

2. Once the electricity is on after blackout, is the Powerline Ethernet Wall Mount put into operation "automatically"?
Yes, as soon as the computers are running again. If there is a problem, unplug the adapter and plug it back into the connection slot.

3. As the recommended transmission range of powerline devices is around 200 meters, what happens when the distance is over say 400 meters?
We recommend to try the line for functionality and performance, before starting operations.

4. Is there any cross talk or interference issue when using Corinex Powerline Ethernet Wall Mounts?
Within a PC or Laptop we don't see any interference with any other card and/or system. OFDM is a technology, which reduces any influence coming from another device, which is connected to the electric power network. The Corinex powerline devices have also been FCC and CE approved.

5. In case the PCs are at different floors of the same building, can they use the powerline device for data transmission? And how does it work?
Powerline device works on the same physical line. If the electric wires between the two outlets used for communications in this case are connected with each other and the maximum distance is about 200m, it works fine.

6. **Can we use a Corinex Powerline Ethernet Wall Mount for both 110V and 220V power networks or are there two versions of Corinex Powerline Ethernet Wall Mounts?**
   Yes, there are two versions, 110/120V and 220/240V to support the various market requirements. There are even more AC plug versions available and delivered in different packages to reflect the outlet requirements of the consumer.

3.4 Powerline Ethernet Wall Mount Specifications

The following table lists the product specifications for the *Corinex Powerline Ethernet Wall Mount.*

Standard compliance	HomePlug v 1.0.1 Certified
	Windows 98/Me/2000/XP Compatible or Mac OS X for the PowerNet Setup Tool
	IEEE 802.3
	UL and /or international standards approved
	FCC and / or CE approved
Protocol	TCP/IP
Port	RJ 45 (Ethernet 8 pin port)
Speed	Up to 14 Mbps
Cabling type	Ethernet cable
AC Plug type	US, UK and Euro

LED status Lights	Link and Activity on powerline, Link/Activity on Ethernet
Unit Dimensions US Plug	52mm L x 65mm W x 100mm H
Unit Dimensions UK Plug	52mm L x 85mm W x 100mm H
Unit Dimensions Euro Plug	52mm L x 80mm W x 100mm H
Weight	0.192kg
Interface	Standard Ethernet port RJ 45
Power input	110/120 or 220/240 V AC, 0.5A
Safety & EMI	USA: UL/FCC part 15 / Europe: CB/CE
Operating Temperature	32°F to 131°F (0° to 55°C)
Storage Temperature	-4°F to 158°F (-20° to 70°C)
Operating Humidity	10% to 85% non-condensing
Storage Humidity	5% to 90% non-condensing

4 Troubleshooting Guide

Computer networking can sometimes be "tricky" when many components must work together for the ultimate network system to function properly. With the right tools the problems are usually easy to fix. The following tools, available on your computer or the Corinex CD, will get you started.

- Setup Tool (from the Corinex Powerline Ethernet Wall Mount Installation CD)
- Ping (from the command prompt, see section 2.5)
- ipconfig (WinNT/2000/XP), winipcfg (Win9x/Me) (from the command prompt)

If it just doesn't work...

1. Check that the power LED on all devices are on, if not:

- Check if the *Corinex Powerline Ethernet Wall Mount is plugged in to the AC outlet*.
- Make sure the AC outlet is working by plugging something else into it. If this works, try another outlet. If this fails as well, try 2. – 4.

2. Check the Ethernet cables:

The *Corinex Powerline Ethernet Wall Mount* has a LED located on the Ethernet socket labeled 'L'. If it is not on:

- Check if the device at the other end of the Ethernet cable is switched on.
- Try a different Ethernet cable.

3. Check that the devices exist on the network:

Start the Setup Tool Program, click 'Next' and see if all devices on your network are found. If all devices are listed, skip this section. If a device is missing:

- Make sure all computers have only one active network slot.
- Make sure the *Corinex Powerline Ethernet Wall Mounts* are plugged straight into the wall and not through a power strip or extension cord.
- Unplug all *Corinex Powerline Ethernet Wall Mounts* and plug them back in again, one by one. Run the Setup Tool Program again.
- The devices may be programmed with different passwords. Setup all devices with a new password as described in the Setup Tool Manual.
- The chosen outlet pair may have poor electrical connection, try a different pair of outlets.

4. Check that the Corinex Ethernet Wall Mount devices are detected by TCP/IP:

Check that the *powerline* devices are detected by TCP/IP. From the command prompt, run ping and type the computer name or IP address of the computer you are working on [ping your computer name]. This should return 4 good packets. Now try to ping another computer on the network. If a timeout occurs:

- Go into the TCP/IP properties and check that the buttons for automatically obtaining IP addresses and gateway are checked. If not, make sure that both computers are on the same subnet.
- Run ipconfig/all from the command prompt on all computers to verify that all computers have valid IP addresses on the same subnet.
- The IP tables may be corrupted, reboot all computers and try again. If these tests work, you have basic connectivity and can use all network services. If this does not work, you may have a faulty device. Please contact your reseller or local distributor.

I cannot share my internet access…

To share broadband internet access, you need a router connected to your Cable/DSL modem. This will provide a firewall with a single IP address that all computers will use as a gateway. Connect a *Corinex Powerline Ethernet Wall Mount* to your cable/DSL router.

I have got all that, it still doesn't work...

- Make sure that your TCP/IP settings are set to automatically obtaining IP address and gateway address.
- Switch of all computers and unplug the powerline devices, now plug your Corinex Powerline Ethernet Wall Mount back into the router before switching on your computer. This will ensure that the computer's IP address will be obtained from the router.
- Now open the web browser, if the "Not Found" page appears, try to check your LAN settings in the Internet Options of your web browser.

It works but it is slow...

A slow connection is almost always due to poor electrical connection.

- Make sure the device is connected straight into the socket and not into a power splitter or extension cord.
- Try another outlet.

If you still have trouble, you may contact the Corinex "help desk" by sending an e-mail to: support@corinex.com
- describing your problem
- reporting the devices types and manufacturing numbers of your network adapters
- giving us a phone number under which you may be reached, inclusive a convenient time to call