

User's Guide

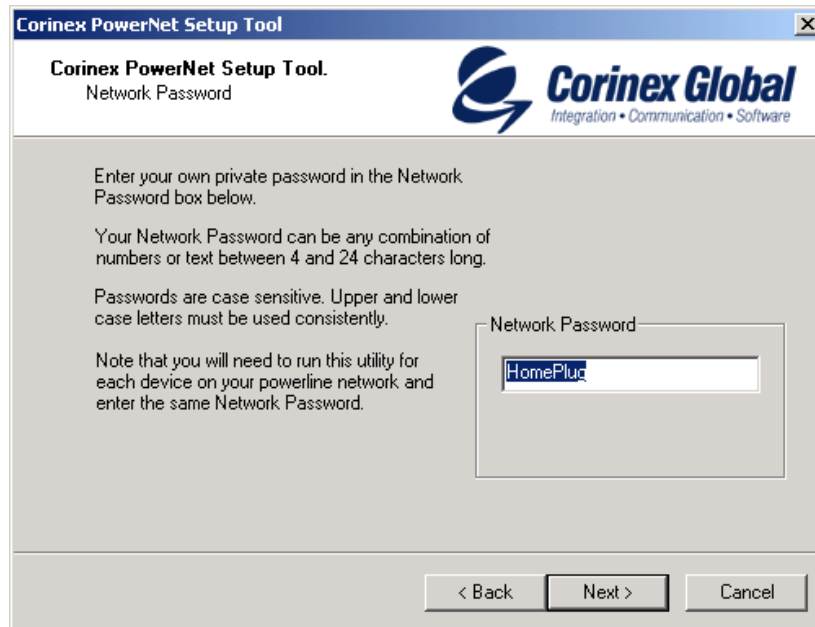
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3.1 PowerNet Setup Tool User Guide

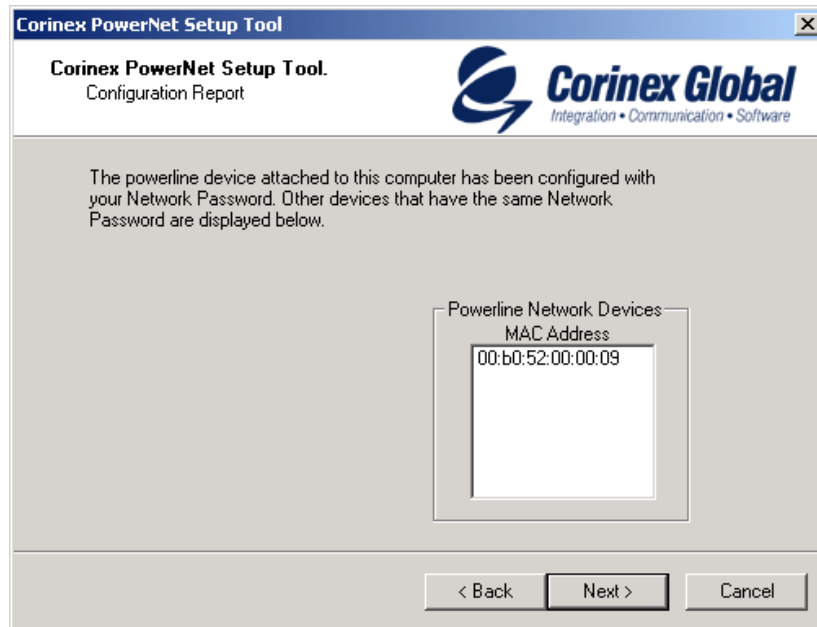
The PowerNet Setup Tool allows the user to setup a private secure powerline network. Follow the steps on the screen or this guide and your secure network will be setup correctly.

- Start the PowerNet Setup Tool from the Start menu by selecting the Powernet folder and select 'PowerNet Setup tool'.
- Click 'Next' to start the wizard.
- Make sure that your *Corinex Powernet USB Adapter* is connected to the computer and click 'Next'. Detecting device takes a few seconds.
- 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'.





- Click 'Next' again to program the *Corinex Powernet USB Adapter* with the new encryption password. 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.



- All devices in your network must be programmed with the same network encryption password. 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 password.

3.2 Corinex PowerNet USB Adapter

The *Corinex PowerNet USB Adapter* introduces a new and innovative solution for data communications. This unique technology offers users a wide range of networking options by using digital power line technology enabling 14 Mbps data rate.

- Enables users to connect individual PC's into a local area network through a 220V/110V electric power line network
- PC file and application sharing
- Enables peripheral and printer sharing through a 220V/110V electric power line network
- Shared broadband Internet access
- Bandwidth for multimedia payloads including voice, data, audio and video
- Networked gaming
- Eliminates the requirement for special data cable wiring
- Cost-effective and reliable solution for data communication in your office and home

Example

Interconnection of two computers over powerline by *Corinex PowerNet USB Adapter*:

1. Install *Corinex PowerNet USB Adapter* on each of two computers (see Installation Guide).
2. For connection enter the properties for this connection and set up 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 simple ping to other side.

3.3 FAQ

1. **Is the Corinex PowerNet USB Adapter still working if there is an electricity blackout? And will it resume the transmission automatically after the power come back ?**
Corinex PowerNet USB Adapter is supplied from PC power supply. When UPS is connected to PC, it will work without any interruption.
2. **Once the electricity is on after blackout, is the PowerNet put into operation "automatically"?**
Yes, we can compare the situation to Ethernet card. When OS Windows starts correctly you don't see any problem.
3. **As the transmission range of PowerNet is around 150-200 meters, how does it work when the distance is over say 400 meters?**
We recommend to measure the line before starting operations.
4. **Is there any cross talk or interference issue when using Corinex PowerNet ?**
Within PC we don't see any interference with any other card and/or system. The OFDM technology reduces influence coming from another device which is connected to power line network. To confirm the above there is a requirement such a device should pass EMC approval.
5. **In case the PCs at the different floors of the same building are connected, can they use the Powernet device for the data transmission ? And how does it work ?**
Powernet works on the same electric phase - the same physical line. This is the basic condition. If there is the same electric line between the offices and maximum distance is up to 200m, it works fine.
6. **What do you mean if you say "Scalable - migration path to 200Mbps and beyond"**
Next generation of Corinex products, capable of 20Mbps, will still be compatible with current 14Mbps devices.
7. **Can you see any impact on the transmission of the signal if the electricity power (no matter 110V or 220V) is unstable.**
No.

8. **Can we use Corinex PowerNet USB adapter for both 110/220V Power Network or are there two versions of Corinex PowerNet?**

We support both 110V and 220V on the same device (PCI, USB, Ethernet). 110V and 220V differ only in the shape of the electric plugs so that they fit into local sockets.

9. **Which version of USB do you use?**

USB v. 1.0/1.1 , full speed 12 Mbps.

3.4 USB Adapter Specifications

The following table lists the product specifications for the *Corinex PowerNetUSB Adapter*.

Standard compliance	Homeplug v 1.01 Certified
	Windows 9x/Me/2000/XP Compatible for PowerNet Setup Tool
	IEEE 802.3
	UL Approved
	FCC Approved
Protocol	TCP/IP
Port	USB (v.1.0/1.1)
Speed	Up to 14 Mbps
Cabling type	- Standard AC cable - USB cable
LED status Lights	Power, Collision, Link, Activity
Unit Dimensions	2.36"L x 4.49"W x 1.18"H 60mm L x 114mm W x 30mm H

USB cable	1.67`/0.5m
Power cable	6`/1.8m
Weight	0.69 lbs/0.313 kg
Interface	Standard USB port
Power input	90V-240V AC
Safety & EMI	UL, FCC part 15, CE
Operative 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

Troubleshooting Guide 4

Computer networking can sometimes be a headache when many components must work together for the system to work. With the right tools the problems are usually easy to fix. These tools will get you started.

- PowerNet Setup Tool (from the Corinex PowerNet Installation CD)
- ping (from the command prompt)
- ipconfig (from the command prompt)

If it just doesn't work...

1. Check that the power LED on all devices are on, if not:
 - Check the AC cables.
 - Make sure the AC outlet is working by plugging something else into it. If this fails, the device is faulty. Return your product for a replacement.
2. Check that the USB cable is correctly inserted.
3. Check that the device is detected by Windows.
 - Check the lower right hand corner of the Windows screen for an icon with a computer with a red cross over it. If it is there, the device is not working correctly
 - Check local area connections properties, click configure and select the 'Advanced' tab and make sure Media Select is set to HomeLAN. For detailed description see your installation guide.
4. Check that the devices exist on the network.

Start the PowerNet 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 has one only active network card
 - Make sure the *Corinex Powernet Adapters* are plugged straight into the wall and not through a power strip or extension cord.
 - Unplug all *Corinex Powernet Adapters* and plug them back in again one by one. Run the PowerNet Setup Tool Program again.
 - The devices may be programmed with different passwords. Setup all devices with a new password as described in the PowerNet Setup Tool Manual.
 - The chosen outlet pair may have poor electrical connection, try a different pair of outlets.
5. Check that the *Corinex Powernet USB Adapters* 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 yourcomputername] This should return four 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 address 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.

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 single IP address that all computers will use as a gateway. Connect a *Corinex PowerNet Ethernet Adapter* 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 off all computers and unplug the powerline devices, now plug your Ethernet Adapter back into the router before switching your computer. This will ensure that the computer's IP address will be obtained from the router.
- Now try opening Internet Explorer, if the 'Not Found' page appears, try clicking the link to 'obtain proxy settings automatically'

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 a power splitter or extension cord.
- Try another outlet.