PCI 1M PhoneLine Network Adapter

User Guide

REGULATORY STATEMENTS

Part15, Class B

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interface, and

2. This device must accept any interface received, including interface that may cause undesired operation. 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. 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 and 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 off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

☝ ***Changes or modifications not expressly approved by party responsible for compliance could void the user the user authority to operate the equipment.***

FCC Part 68 Registration

This device complies with FCC Part 68 rules, and the use of this device is subject to the following restrictions:

1. The FCC has established rules which permit this device to be directly connected to the telephone network. Standardized jacks are used for these connections. This equipment should not be used on party lines or coin phones.

2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company may temporarily disconnect service.

3. The telephone company may make changes in it's facilities, equipment, operation and procedures; if such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the situation with the FCC.

4. If the telephone company requests information on what equipment is connected to their lines, inform them of:

   a. The telephone number to which this unit is connected.
   b. The Ringer Equivalence Number (REN).
   c. The USOC jack required.
   d. The FCC Registration number.

Items (b) and (d) are indicated on the label. The Ringer Equivalence Number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the REN's of all the devices on any one line should not exceed 5.0. If too many devices are attached, they may not ring properly.

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INTRODUCTIONS

The **PCI 1M PhoneLine Network Adapter** enables the instant connectivity to multiple PCs over a home's existing telephone lines.

You can share network-enabled printers, transfer files between computers, play network games, and more- no switches, hubs, or even any additional cables is needed. The network runs on standard home-grade telephone wires just like the ones you use everyday. Plus, it doesn't interfere with your normal phone use.

Features

- Connects to a network using your existing telephone Line -- No additional hubs or network cables needed
- 1Mbps transfer rate over telephone lines
- HomePNA 1.0, 1.1 compliant

Specifications

Network Specification

- Media: Home-grade phone line up to 500 feet
- Nodes Supported: 25 nodes maximum
- Frequency Range: 5.5M to 9.5M Hz
- Topology: Daisy chain

Host Interface

- Host Interface: 32bit 33Mhz PCI 2.0, 2.1, 2.2 compliant.
- PC98, PC99, and NetPC Compliant

Driver Supported

- Windows NT 4.0
- Windows 95 all version

- Windows 98 all version
- Windows 2000 ready

HARDWARE INSTALLATION

Before you begin, make sure you turn off all power to your computer.

1. Remove the chassis cover of your computer.
2. Align the contact edge of the **PCI 1M PhoneLine Network Adapter** toward the connector of any free PCI Bus Master expansion slot. Push firmly and slowly until it is fully seated in the connector.
3. Screw the **PCI 1M PhoneLine Network Adapter** to the computer chassis with the provided screws.
4. Replace the computer's chassis cover.
5. Turn on your computer.

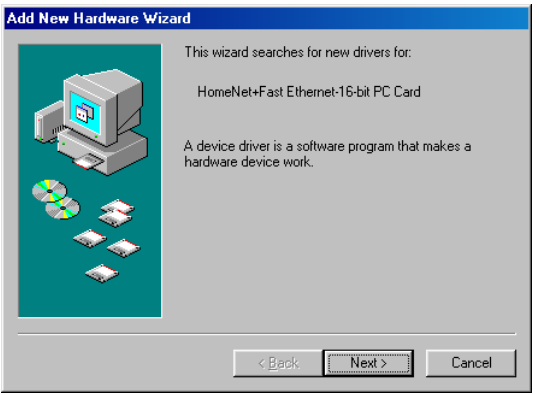
Connecting Telephone Cabling

1. Attach one end of the telephone wire to the PCI 1M PhoneLine Network Adapter's RJ-11 telephone port.
2. Connect the other end of the wire into a telephone jack in your wall.

SOFTWARE INSTALLATION

Installation for Windows 98

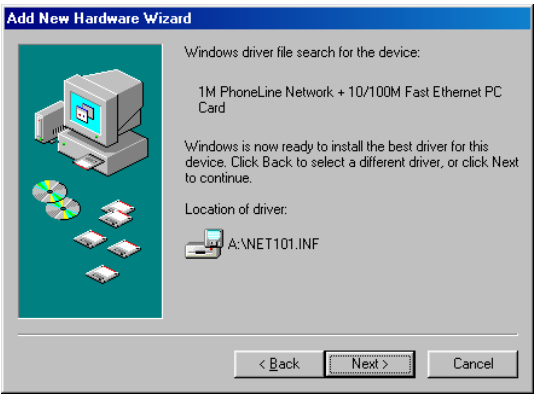
1. Once the PCI 1M PhoneLine Network Adapter is connected to your computer, Windows will automatically detect the new hardware device as shown below. Click **Next**.



2. Insert the device driver diskette into your floppy drive. When Windows prompts you **What do you want Windows to do?** Select **Search for the best driver for your device. (Recommended)**. Click **Next**.

3. Follow the on-screen instruction to proceed.

4. The installation program will proceed automatically.



5. Windows will finish copying all the necessary files to your system. When the following window appears, click **Finish**.

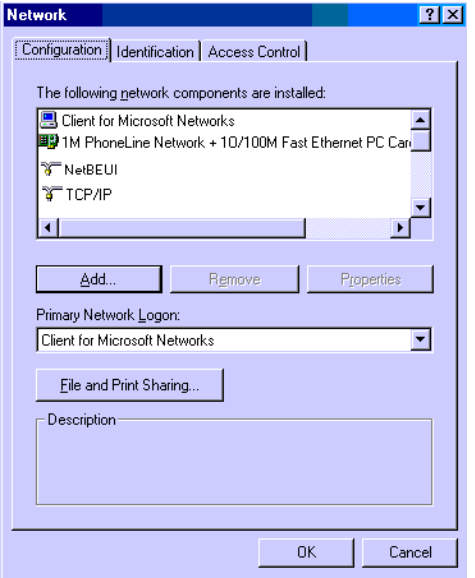
6. When asked if you want to restart your computer, click **No**

7. Once you are back at the Windows 98 desktop, click the **Start** button. Click **Settings**, then **Control Panel**.

8. Double-click the **Network** icon. The Network window will appear. Click the **Configuration** tab.

9. Make sure that the following network components are installed:

   Client for Microsoft Networks
   PCI 1M PhoneLine Network Adapter
   NetBEUI
   TCP/IP

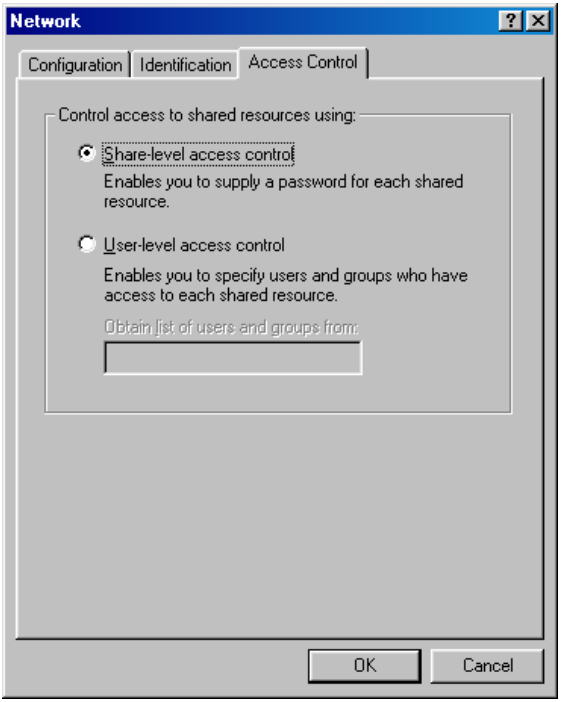


10. If you are missing required components, you'll need to install them manually. If you need to install the TCP/IP Protocol, contact your system administrator or refer to the Windows 98 documentation.

11. In the **Primary Network Logon** box, select **Client for Microsoft Networks**.

12. Click the **Identification** tab. Enter the required information appropriately.

13. Click the **Access Control** tab. Make sure that **Shared-level access control** is selected.



14. When finished, remember to restart your computer to activate the new device.

Windows 98 Setup

Once the computer has restarted and Windows 98 has booted up, the **Link** light will be on. And a **Logon** window will appear requiring you to enter a username and password. Make up a username and password, enter them, and click **OK**.

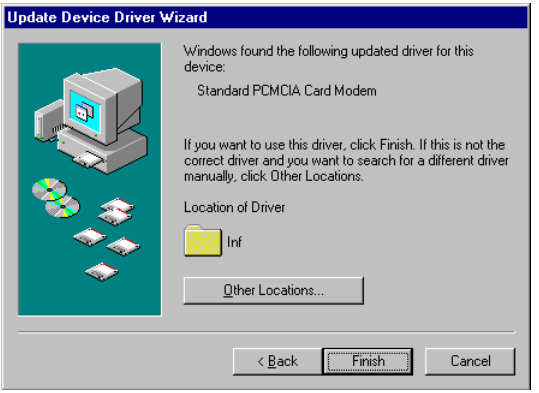
When you are at the Windows 98 desktop, double-click the **Network Neighborhood** icon. You should see the name of the network, and/or the names of the other PCs on the network.

Installation for Windows 95

The installation procedures for the network driver may vary slightly depending on the version of Windows 95 you are using and also your current system configuration.

1. Once the PCI 1M PhoneLine Network Adapter is connected to your computer, Windows will automatically detect the new hardware device as shown below. Insert the program diskette 1 into your floppy drive.

2. Click **Next**. When the following dialog box appears, click **Finish**. The Installation program will continue.



3. Follow the on-screen instruction to proceed. If Windows asks you to supply your original Windows 95 installation or setup files, insert the CD-ROM or disks as requested, and direct Windows 95 to the proper location.

4. When asked if you want to restart your computer, click **No**

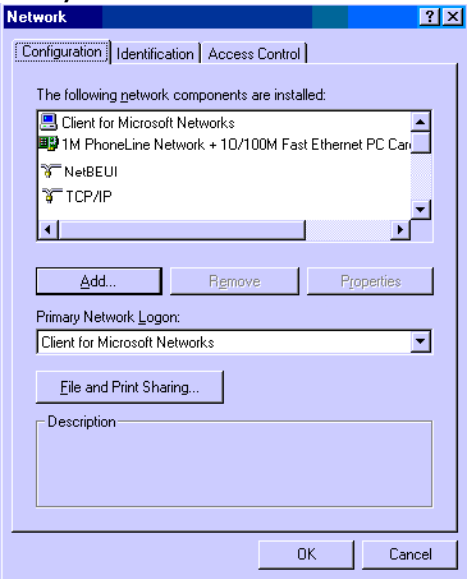
5. Once you are back at the Windows 95 desktop, click **Start ->Settings-> Control Panel**.

6. Double-click the **Network** icon. The Network window will appear. Click the **Configuration** tab.

7. Make sure that the following network components are installed:

   Client for Microsoft Networks
   PCI 1M PhoneLine Network Adapter
   IPX/SPX-compatible Protocol
   NetBEUI

TCP/IP

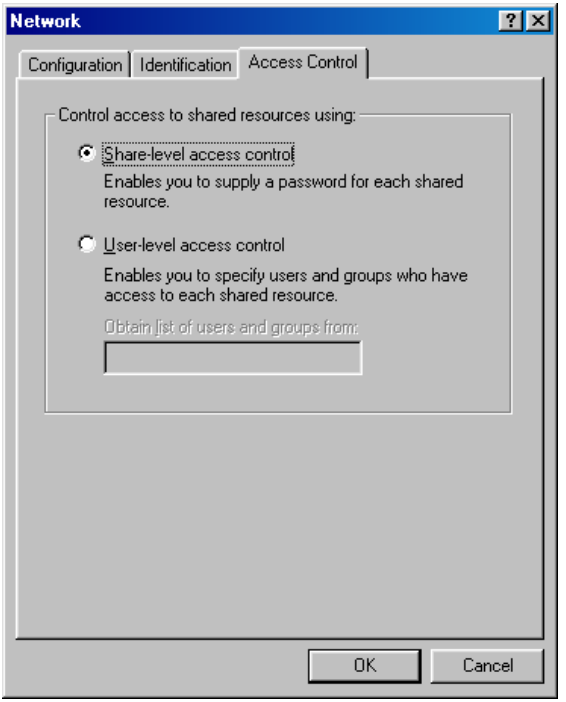


8. If you are missing required components, you'll need to install them manually. If you need to install the TCP/IP Protocol, contact your system administrator or refer to the Windows 98 documentation.

9. In the **Primary Network Logon** box, select **Client for Microsoft Networks**.

10. Click the **Identification** tab. Enter the required information appropriately.

11. Click the **Access Control** tab. Make sure that **Shared-level access control** is selected.



12. When finished, remember to **restart your computer** to activate the new device.

13. Once you are at the Windows 95 desktop again, double-click the **Network Neighborhood** icon. You should be able to see the names of the other PCs on the network. In order to see your computer in Network Neighborhood, you need to enable file and printer sharing. Please refer to the section titled "Using File and Printer Sharing".

Installation for Windows NT

Remember to have your original Windows NT CD-ROM handy before you begin the installation for Windows NT. For Windows NT may ask for it during the installation.

1. Before you turn on your computer, make sure the PCI 1M PhoneLine Network Adapter has been properly inserted into the free PCMCIA slot of your computer.
2. Start Windows NT.
3. Insert the program diskette into your free floppy drive.
4. Click **Star**t, **Setting**s, **Control Pane**l. Double-click on the **Network** icon.
5. If you have not already installed the networking components for NT, you will see a message window like the following.
6. To install NT networking while setting up the xxx, click **Yes.**
7. Choose *Wired to the Network* and click **Nex**t.
8. When asked to provide the name of the network adapter, choose **Select from list...**
9. When the list appears, click on the **Have Disk** button.
10. Insert the program diskette into drive A and type **a:**\ in the location window. Click **O**K.
11. When the xxx adapter names are visible, choose *xxx. Phoneline for PCMCIA slot* if your laptop's slot is set for PCIC or

compatible. Choose *CardBus* if you are using a CardBus slot. Click **OK**.

12. Click **Next**. When the Network Setup wizard reappears, choose your desired Network Protocols, then click on **Next**.

13. When asked to choose the network services to install, do so. Click **Next** when you are finished. Click **Next** to install the components you have selected. If asked to supply the path to the setup disk, type **a:** in the location box and press **Enter** or click **OK**.

14. Setup may need to copy some Windows NT files from your original Windows NT CD-ROM. If a window appears asking for your NT setup files, type in the location of your Windows NT CD-ROM. For example, if your CD-ROM is designated as **D**:, then type **D:\i386**.

15. Setup may also need drivers from the program diskette. Type **a:** or the location of the floppy disk if this window appears.

16. NT will ask you to supply the I/O Base, Interrupt, Memory and Connection Type values for the card. Choose **Autosense** for the Connection Type and **Auto** for all the others.

17. If you're not sure of the interrupt and other resource values that are available for use on your PC, or if you are experiencing conflict errors, click on **Start**, then **Run**. Type WINMSD and press **Enter**. Click on the

Resources tab. Look at the IRQs that are already in use and choose one that is unused. To check the I/O values, click on the **I/O Port** button.

18. When you're finished entering your I/O, Memory and Interrupt values, click **Continue**. NT will copy necessary workstation files to your computer.

19. If you have installed the TCP/IP protocol, the Setup will ask you if you will be obtaining IP addresses from a DHCP server. If you click **Yes**, go back to step number 10.

20. If you click **N**o, you will need to obtain the necessary TCP/IP information from your network server to complete the TCP/IP properties requirements.

Install the HomeLink Phoneline + 10/100 Network PC Card

(NT Networking is Already Installed)

1. When the Network window appears, click on the **Adapters** tab.

2. Click on the **Add** button, followed by **Have Dis**k. Put the program diskette into drive A.

3. When asked to supply the path to the disk, type **a:**\ and click **O**K.

4. NT will ask you to supply the I/O Base, Interrupt, Memory value, and Connection Type for the card. You can choose **Auto** for I/O, Interrupt, and Memory. Choose **Autosense** for the Connection Type.

5. If you're not sure of the interrupt and other resource values that are available for use on your PC, or if you are experiencing conflict errors, click on **Star**t, then **Ru**n. Type **WINMSD** and press **Ente**r. Click on the **Resources** tab. Look at the IRQs that are already in use and choose one that is unused. To check the I/O values, click on the **I/O Port** button.

6. When finished, click **Clos**e. NT will copy necessary files to your computer.

7. When the Network window reappears, click on the **Bindings** tab. Choose your bindings.

8. Click on the **Protocols** tab and select your settings. Do the same for the **Services** tab.

9. After your bindings, settings, and services are set, click on the **Close** button. Choose to restart your computer.

If a service pack was previously installed, you must reapply the service pack.

After NT restarts, be sure to log in. Look at the EtherFast card's cable coupler. If your cabling is properly attached and the network is detected, the green Link light will be on, and the Activity (ACT) light will be flickering or solid.

The installation is complete. You can now access the network at large through the Network Neighborhood icon on the Windows NT desktop.

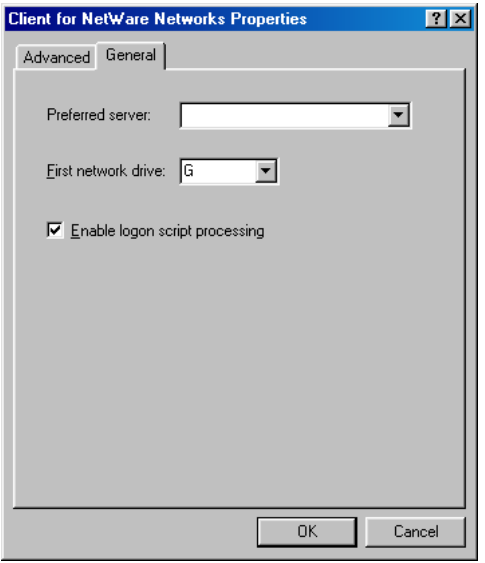
Installation for Windows 2000

Client Setup

If you are not using Windows with an NT or NetWare file server, skip the next two paragraphs. Perform the following procedures to prepare your computer to be used with any file servers that may be on the network.

Connecting to a NetWare File Server

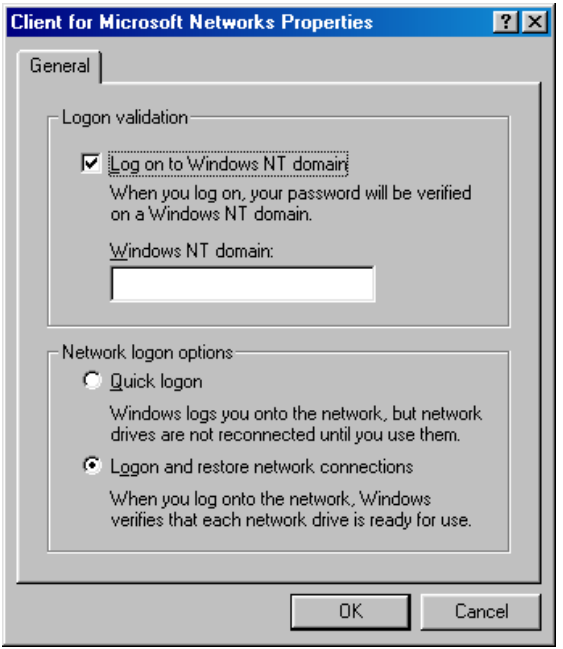
1. Click **My Computer**, **Control Panel**, and **Network**.
2. Change the **Network Logon** to **Client for NetWare Network.**
3. Double-click the **Client for NetWare Networks**. Put your server's name in the Preferred Server box. Click in the **Enable Logon Script Processing** box.



4. Click **OK** and restart your PC.

Connecting to a Windows NT Domain

1. Click **My Computer**, **Control Panel**, and **Network**. Change the **Primary Network Logon** to **Client for Microsoft Network**.
2. Double-click the **Client for Microsoft Networks**.
3. Select the **Log on to Windows NT domain** box. Put your NT domain name in the **Windows NT domain** box.
4. Click **OK** and restart your PC.

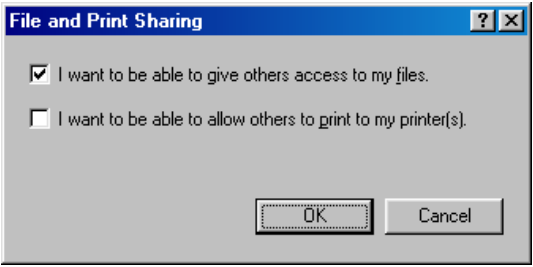


5. When finished, restart your computer.

Using File and Printer Sharing

1. Click **Start**, **Settings**, **Control Panel**. Double-click **Network**.

2. Click the **Configuration** tab, followed by the **File and Printer Sharing** button. **The File and Printer Sharing** window will appear.



• If you'd like others to be able to access the files on your PCs hard drive, select I want to be able to give others access to my files.

• If you'd like to share your printer with other users on the network, select I want to be able to allow others to print to my printer.

3. Click the **OK** button. File and Printer Sharing for Microsoft Networks should now appear in the list of installed components. Click **OK**. When asked to restart your PC, choose to do so.

Enabling File Sharing

1. Double-click **My Computer**. A window of available disk drives will appear.

2. Right-click once the drive or folder that you want to make available to other users.

3. Click **Sharing**, followed by the Sharing tab. Click **Share As**. In the Share Name box, enter a name for the drive or folder you are sharing.

Next, decide on the type of access that you want to give other users.

- Read-Only access lets other users view the files on your PC.
- Full access lets users create, change, or delete files on your PC.
- Depends on Password lets users have Read-Only and/or Full access, depending on the password that you decide to give them.

Use your mouse to select the type of file sharing access that you want other users to have. If you want to assign access password(s), type them into the Password box(es).

If you are sharing a cable modem or DSL broadband connection that you will be using to access the Internet, you should protect all of your shared drives and printers with private passwords.

When finished, click **Apply**, followed by **OK**.

Enabling Printers Sharing

Click **Start→Setting→ Printers**. A window of available printers will appear.

Right-click the printer that you want to share with other users. Click **Sharing**, followed by the Sharing tab. Click **Share As**. In the Share Name box, give a name to the printer you're about to share (Jack's HP4, for example). If you want to assign a password to the printer so only certain users can access it, type a password in the Password box. When you're done, click **Apply**, followed by **OK**. Your printer(s) are now shared.