



Dual PC Modem

User Manual

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Introduction

Thank you for purchasing the *Actiontec* Dual PC Modem. This easy to use Modem is the simplest way to connect up to two computers to a single phone line and share your internet connection. The Dual PC Modem is perfect for the home office or small business. If you want to take your computing to the next level, the *Actiontec* Dual PC Modem is one of the keys to your success.

Package Contents

- *Actiontec* Dual PC Modem
- Power adapter
- Ethernet cables (2)
- Phone cord
- Installation CD
- Quick start guide
- Start Here guide
- User name addendum
- Warranty and registration card

Minimum System Requirements

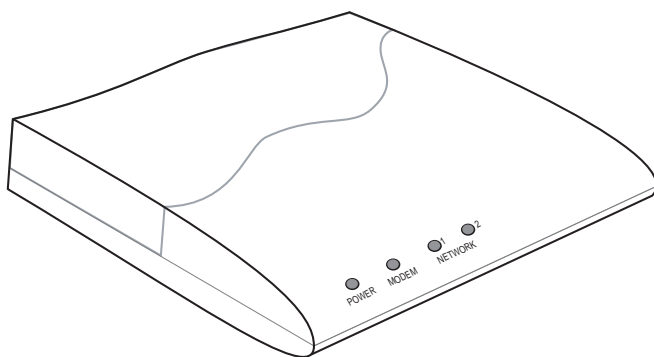
- Internet service
- Computer with an 10 Mbps or 10/100 Mbps Ethernet connection
- Microsoft Windows 98, 98 Second Edition (SE), Millennium Edition (Me), NT 4.0, 2000, XP, Mac OS 9.0+, or OS X+
- Internet Explorer 4.0 or higher or Netscape Navigator 4.0 or higher
- TCP/IP network protocol installed on each computer

Modem Features

This section contains a quick description of the Modem's lights (LEDs), and ports and switches on its rear panel.

Front Panel

The Modem features 4 lights on its front panel: Power, Modem, Network 1, and Network 2.



Power Light

The Power Light displays the Modem's current status. If the Power Light glows steadily green, the Modem is receiving power and is fully operational. If the Power Light is not illuminated when the power adapter is plugged in, the Modem has suffered a critical error and technical support should be contacted.

Modem Light

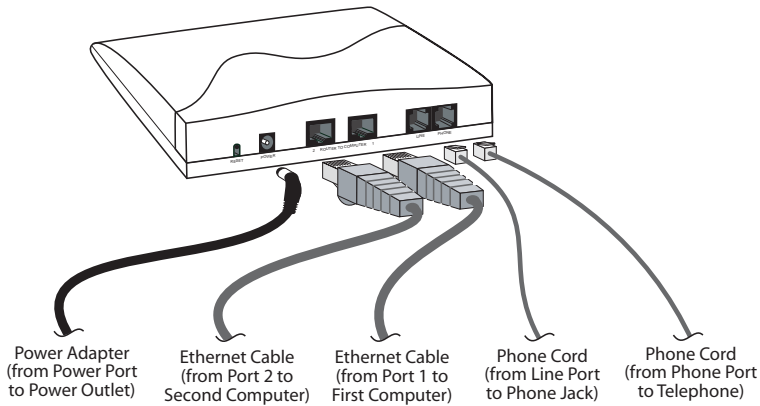
When the Modem Light glows steadily, the Modem is connected to the ISP. If it is flashing, the Modem is connecting to the ISP.

Network Lights 1 and 2

The Network Lights glow green when a network link is established with a computer. A flashing Network light signifies network traffic traveling across the Ethernet connection.

Rear Panel

There are 5 ports (Power, 2, 1, Line, and Phone) and a Reset Switch on the rear panel.



Reset Switch

Depressing the reset switch for one or two seconds will reset the Modem. To restore to factory default settings, depress and hold for at least 10 seconds.

Power Port

This port is used to connect the smaller end of the Power cord.

Port 2

This Ethernet port is used to connect an Ethernet cable between the Modem and an additional computer.

Port 1

This Ethernet port is used to connect an Ethernet cable between the Modem and the first computer connected.

Line Port

This port is used to connect a phone cord between the Modem and a phone jack.

Phone Port

This port is used to connect a phone cord between the Modem and a telephone.

Technical Support

Actiontec Electronics prides itself on making high-quality, durable, high-performance products. If you need assistance, the Actiontec Technical Support Department is available all day every day to provide professional support.



Actiontec Electronics, Inc.

760 N. Mary Avenue
Sunnyvale, CA 94085

Technical Support

Phone: 1.888.436.0657
E-mail: [click here for instructions](#)
Internet: www.actiontec.com/support

Setting Up the Modem

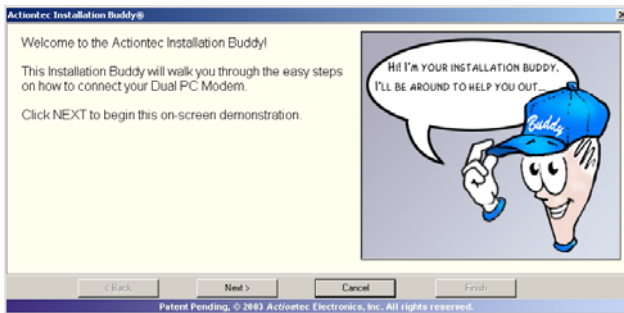
2

The instructions that follow parallel the steps contained in the *Actiontec Installation Buddy™*, which provides a visual guide to setting up the Modem. *Actiontec* recommends the user run the Installation Buddy first, before attempting any other procedures.

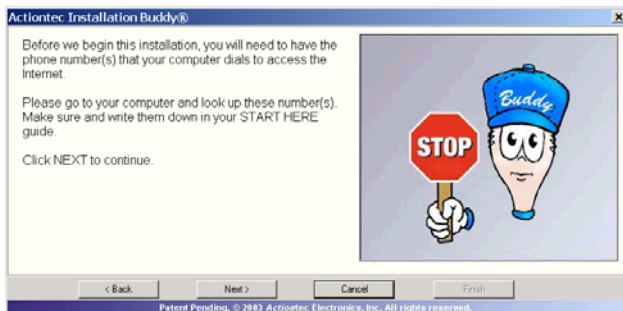
Connecting the First Computer

Connecting the first computer to the Modem for setup involves three basic steps: connecting the Modem to the computer with an Ethernet cable, plugging in the Power cord of the Modem, and connecting the Modem to a phone wall jack.

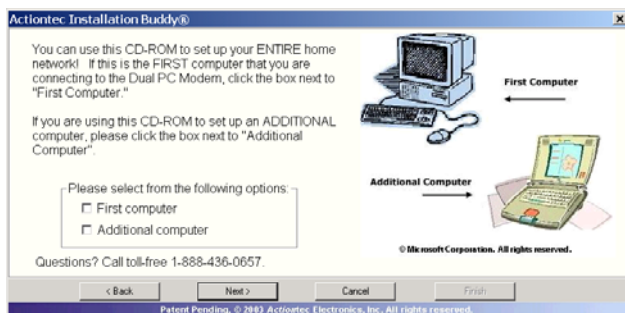
1. Insert the Installation Buddy CD in the CD-ROM drive of the computer. The Installation Buddy will start automatically. Wait until the following screen appears, read the onscreen instructions, then click **Next**.



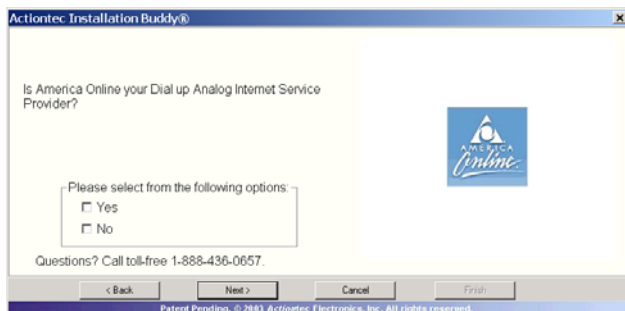
2. Read the onscreen instructions in the next window, then click **Next**.



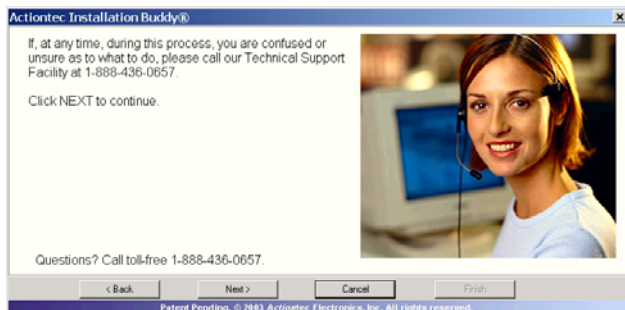
3. In the next window, click in the box next to "First computer", then click **Next**.



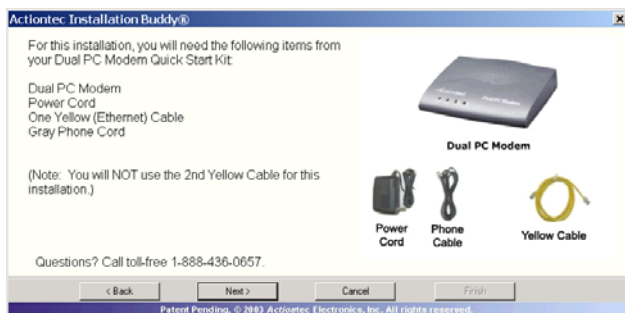
4. Select **No** in the next window, then click **Next**. This Modem does not operate with AOL.



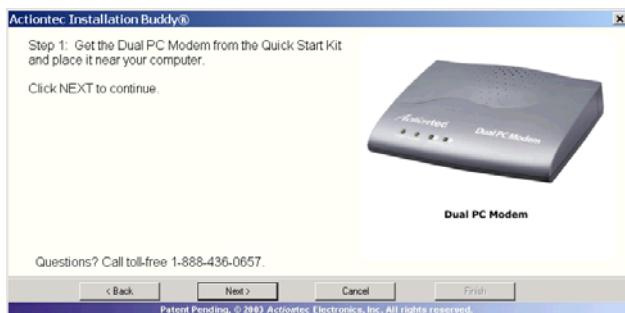
5. Read the onscreen instructions, then click **Next**.



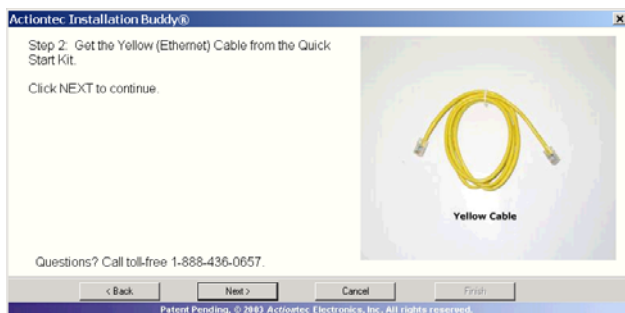
6. Read the onscreen instructions, then click **Next**.



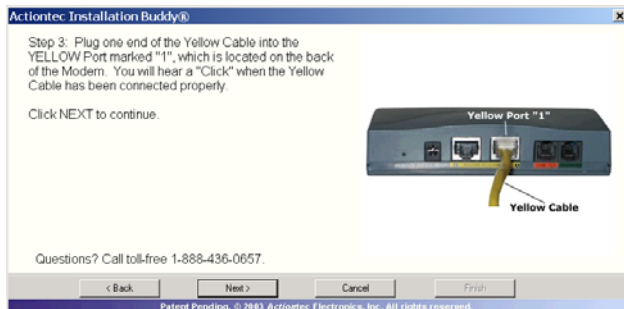
7. Get the **Modem** from the Quick Start Kit, then click **Next**.



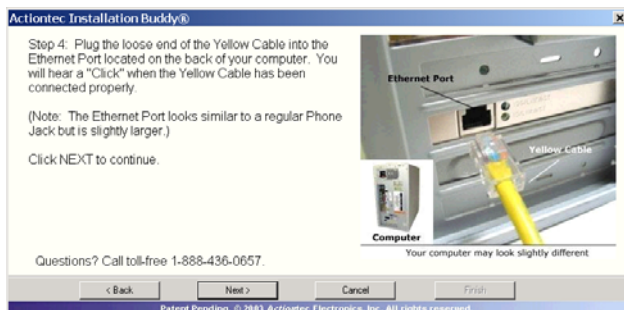
8. Get the **Yellow Ethernet cable** from the Quick Start Kit, then click **Next**.



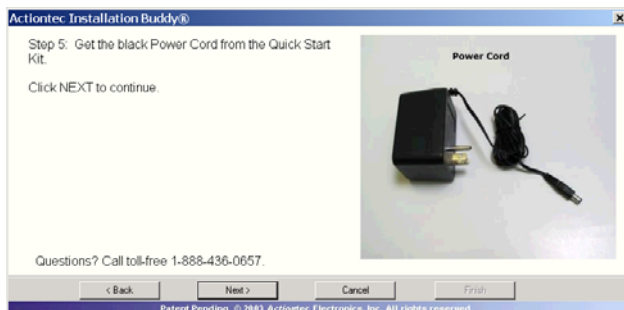
9. Insert one end of the **Yellow cable** in the **Yellow port** (marked "1") on the back of the Modem, then click **Next**.



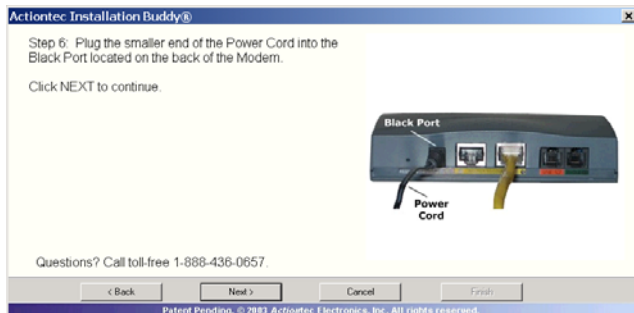
10. Insert the other end of the **Yellow cable** into an **Ethernet port** on the back of the computer, then click **Next**. An Ethernet port looks similar to a phone port, but is slightly larger.



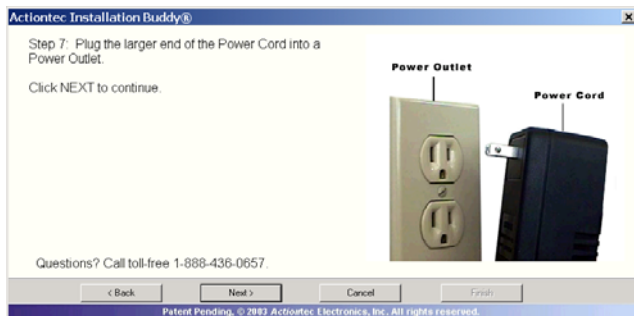
11. Get the **black Power cord** from the Quick Start Kit, then click **Next**.



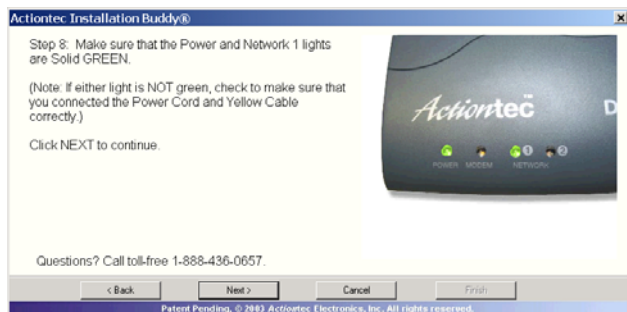
12. Insert the smaller end of the **Power cord** in the **Black port** on the back of the Modem, then click **Next**.



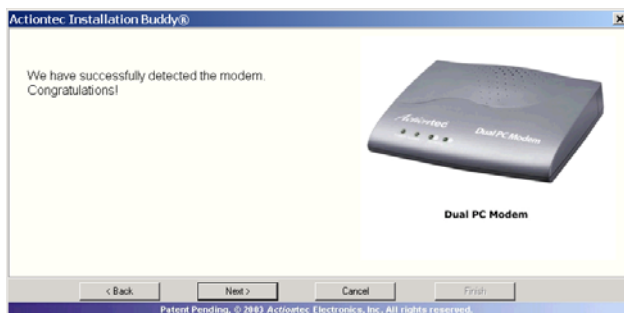
13. Plug the larger end of the **Power cord** into a **power outlet**, then click **Next**.



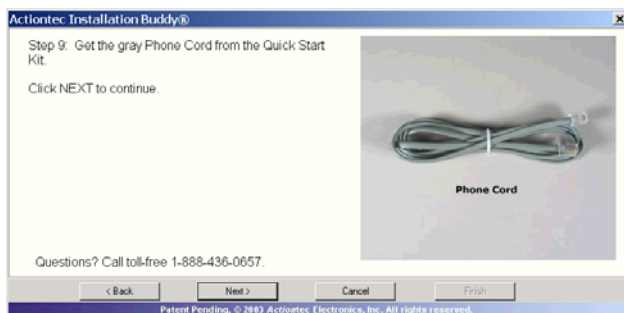
14. Make sure the **Power** and **Network 1** lights glow steadily green, then click **Next**. If either of the lights are not on, check the Power cord and Yellow cable connections.



- 15.** When the Installation Buddy detects the modem, click **Next**.



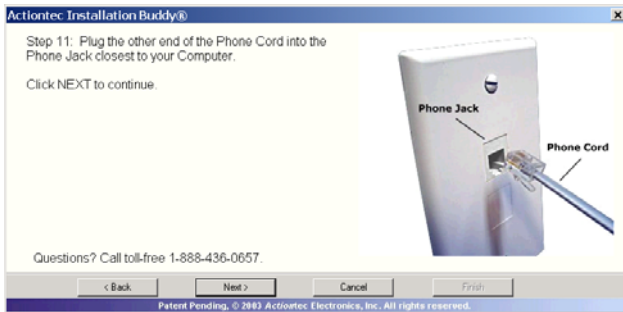
- 16.** Get the **gray Phone cord** from the Quick Start Kit, then click **Next**.



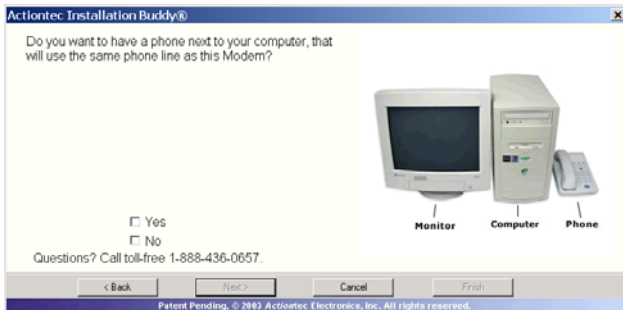
- 17.** Insert one end of the **gray Phone cord** into the **Orange port** (marked "Line") on the back of the Modem, then click **Next**.



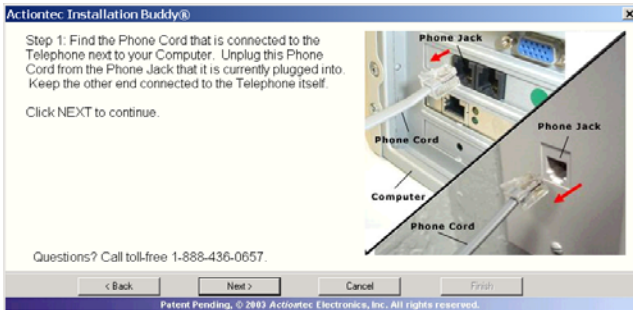
18. Plug the other end of the **gray Phone cord** into the **phone jack** closest to the computer, then click **Next**.



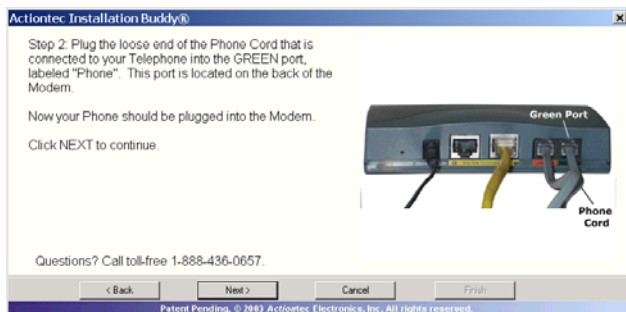
19. If installing a phone next to the computer, click in the box next to "Yes", then click **Next**. If not installing a phone next to the computer, click in the box next to "No," click **Next**, and go to step 22.



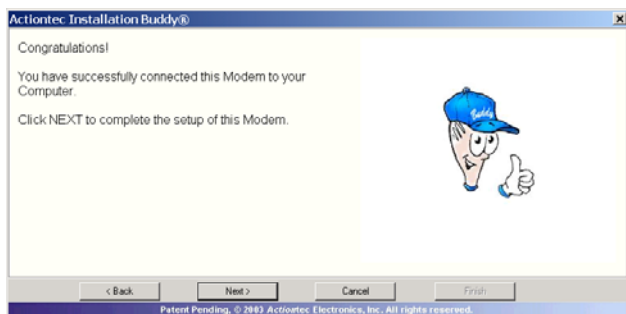
20. Find the **Phone cord** of the telephone to be installed next to the computer and unplug it from the phone jack in the wall or back of the computer. Click **Next**.



- 21.** Insert the other end of the **Phone cord** into the **Green port** (marked “Phone”) on the back of the Modem, then click **Next**.



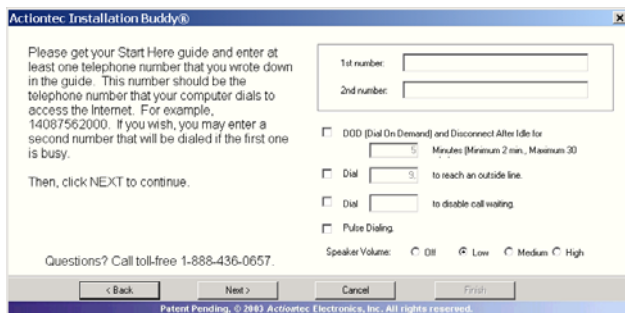
- 22.** The Modem is connected to the computer. Click **Next**, then go to “Configuring the Modem,” on the next page.



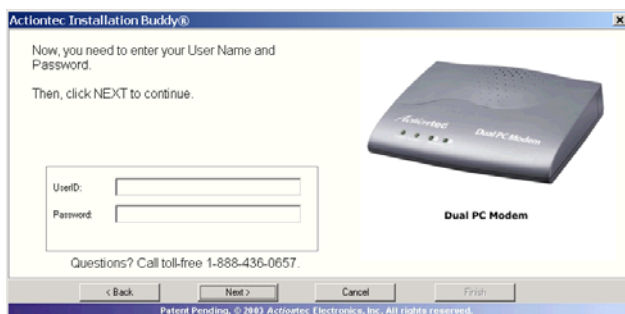
Configuring the Modem

After physically connecting the Modem to the computer, it must be configured to connect to the ISP (Internet Service Provider).

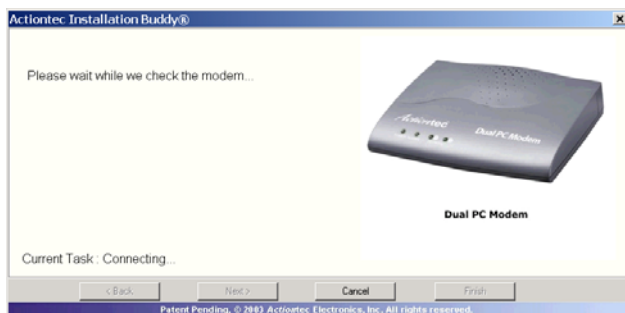
1. In the next window, enter the main telephone number used to connect to the ISP in the “1st number” text box, then click **Next**. The other options in this window can be entered in the “Dial Configuration” screen. See chapter 3, “Basic Setup,” for more information.



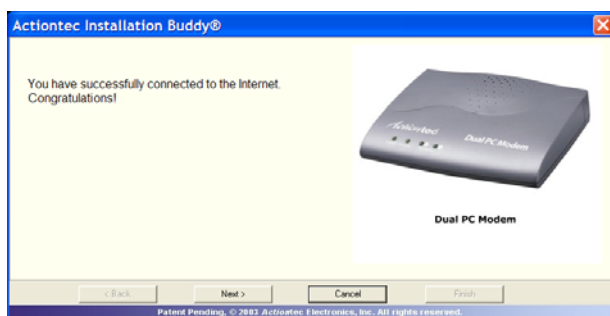
2. Enter the user ID (or user name) and password in the appropriate text boxes, then click **Next**. See the “User Name Addendum” to enter the proper user ID format.



3. When the Modem has successfully connected, click **Next**.



4. A "Congratulations" window appears. Click **Next**.



5. Click **Finish**.

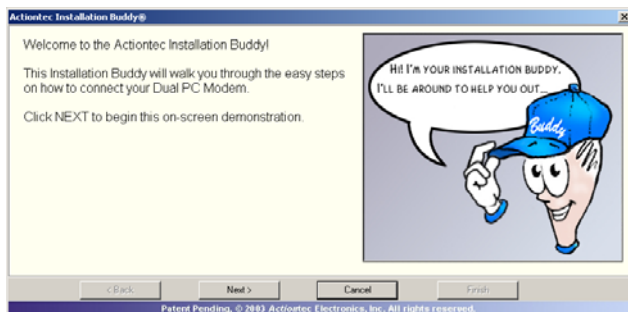


The Modem is connected to the first computer. To connect to the ISP, click the Connect icon (two arrows, one pointing up and one pointing down) in the system tray (next to the clock). When the "Status" page appears, click **Connect** (see "Status" on page 23 for more information). The Modem is connected to the ISP.

To change other Modem settings, see chapter 3, “Basic Setup,” chapter 4, “Custom Setup,” and chapter 5, “Utilities.” To connect a second computer to the Modem, go to “Connecting a Second Computer,” below.

Connecting a Second Computer

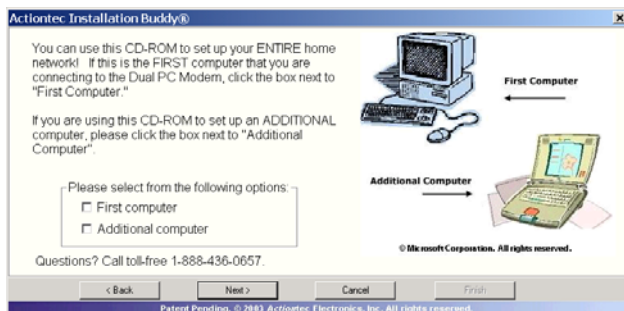
1. Insert the Installation Buddy CD in the CD-ROM drive of the second computer to be connected to the Modem. The Installation Buddy will start automatically. Wait until the following screen appears, read the onscreen instructions, then click **Next**.



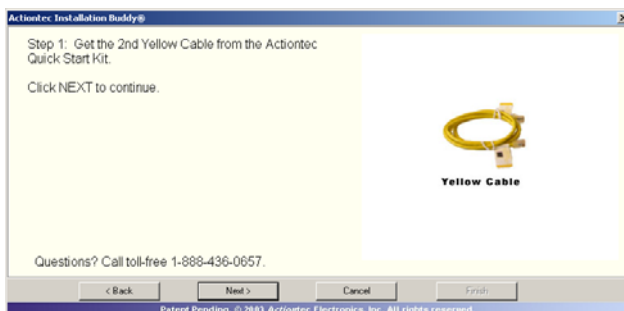
2. Read the onscreen instructions in the next window, then click **Next**.



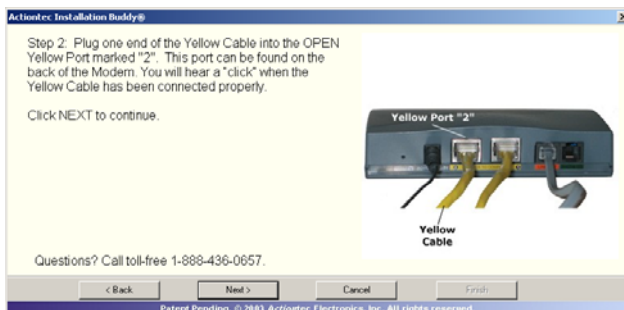
3. In the next window, click in the box next to “Additional computer,” then click **Next**.



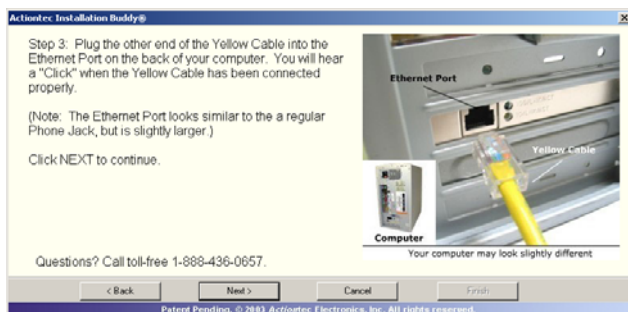
4. Get the second **Yellow Ethernet cable** from the Quick Start Kit, then click **Next**.



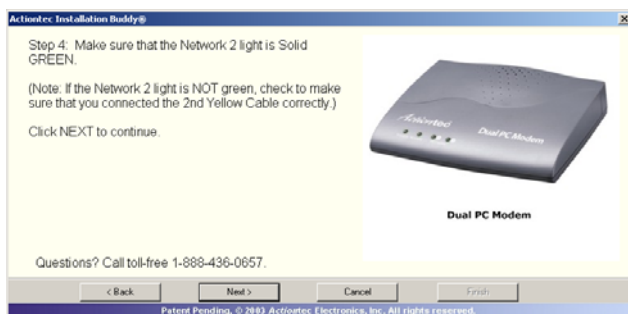
5. Insert one end of the **Yellow cable** in the **Yellow port** (marked “2”) on the back of the Modem, then click **Next**.



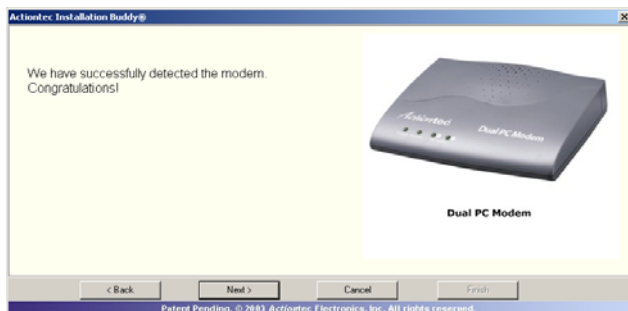
6. Insert the other end of the **Yellow cable** into an **Ethernet port** on the back of the computer, then click **Next**. An Ethernet port looks similar to a phone port, but is slightly larger.



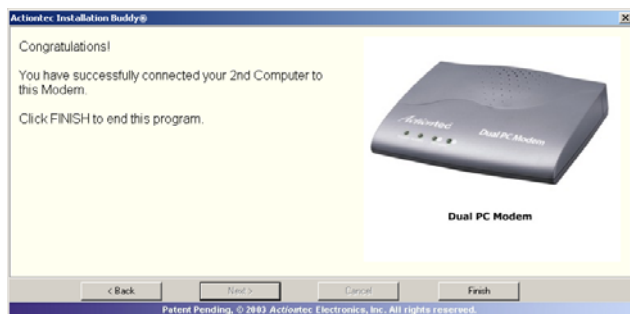
7. Make sure the **Network 2 Light** on the front of the Modem glows steadily green, then click **Next**. If the Light does not illuminate, check the Yellow cable connections.



8. A "Congratulations" window appears. Click **Next**.



9. Click Finish.



The Modem is connected to the second computer. To change other Modem settings, see chapter 3, “Basic Setup,” chapter 4, “Custom Setup,” and chapter 5, “Utilities.”

Basic Setup

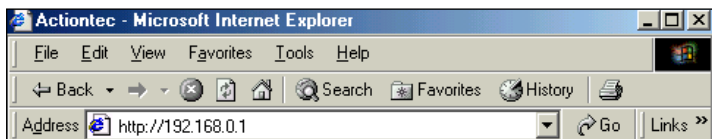
3

This chapter is a guide through the basic setup of the *Actiontec* Dual PC Modem's functions, including how to connect to the ISP.

Basic Setup

To perform a basic setup of the Modem:

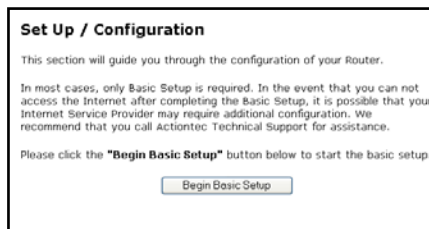
1. Open a Web browser. In the address bar, enter
http://192.168.0.1
then press **Enter** on the keyboard.



2. The "Main Menu" screen appears. Select **Setup/Configuration**.



3. Follow the instructions in the "Set Up/Configuration" screen, then click **Begin Basic Setup**.



4. In the next window, “Dial Configuration,” enter the user name and password used to connect to the ISP in the appropriate text boxes. Then, enter the main telephone number used to dial up to the ISP in the “#1 Number To Dial” text box (and, if applicable, a secondary number in the “#2 Number To Dial” text box).

Dial Configuration

Username

Password

Try to connect

5

time(s) with this number.

#1 Number To Dial

#2 Number To Dial

☐

DOD & Disconnect After Idle for

5

Minutes

(Minimum 2).

☐

Dial

to reach an outside line.

☐

Dial

to disable call waiting.

☐

Pulse Dialing.

Speaker Volume:

☐ Off

☒ Low

☐ Medium

☐ High

Back

Next

The additional options in this screen do not have to be configured at this time to connect the Modem to the ISP.

DOD & Disconnect After Idle...

Activate this option (by clicking in the check box) to automatically sever the Internet connection after a certain amount of idle time. Enter the number of idle time minutes (minimum 2 minutes) before disconnection occurs in the text box before “Minutes.”

Dial X To Reach an Outside Line

Activate this option (by clicking in the check box) if the Modem is connected to a telephone system that requires a number to be dialed before connecting to an outside line. Enter the outside line number in the text box after “Dial.”

Dial X To Disable Call Waiting

Activate this option (by clicking in the check box) to disable call waiting, then enter the numbers that disable call waiting in the text box after “Dial.” If call waiting is left enabled, when someone calls on the same line on which the Modem is connected, the Modem will disconnect. After disabling call waiting, incoming caller will hear a busy signal.

5. When finished with the “Dial Configuration” screen, click **Next**. The “Save Configuration” screen appears. Click **Save and Restart** to save the Modem’s settings.

Save Configuration

Please click the **Save** button below to save your settings of your Router.

6. The “Congratulations” screen appears. The Modem is successfully configured.

Congratulations!

Your Router is now being configured.

Custom Setup

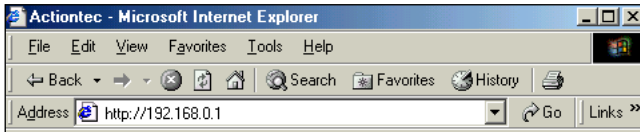
4

This section contains information concerning the custom setup of the Modem

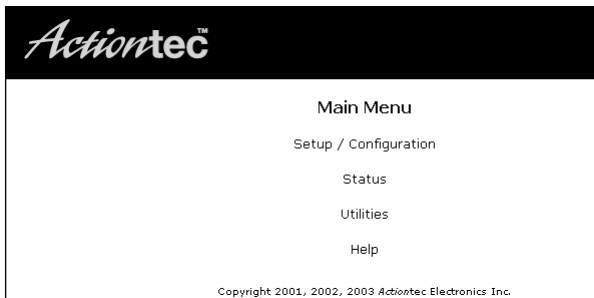
Custom Setup

To access the Custom Setup configuration screens, follow these instructions:

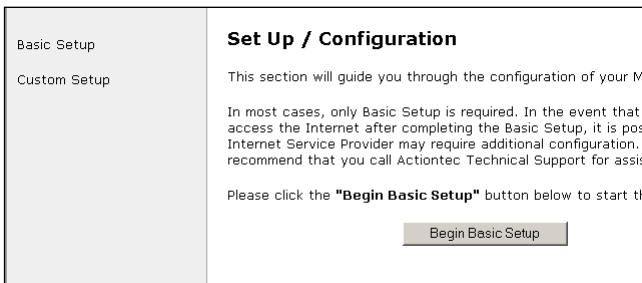
1. Open the Web browser. In the address bar enter:
http://192.168.0.1
then press *Enter* on the keyboard.



2. The "Main Menu" screen appears. Select **Setup/Configuration**.



3. In the "Set Up/Configuration" screen, read the instructions, then select **Custom Setup** from the menu on the left side.



DHCP Server Configuration

Clicking **Custom Setup** in the “Setup/Configuration” screen generates the “DHCP Server Configuration” screen. Change the LAN IP address and DHCP server range here.

DHCP Server Configuration

We strongly recommend that you keep the following default settings.

LAN IP Address:

192.168.0.1

DHCP Server: ☒ **On** ☐ **Off**

Beginning IP Address:

192.168.0.4

Ending IP Address:

192.168.0.254

SubnetMask:

255.255.255.0

Resume to Default

Back

Next

LAN IP Address

The value in the LAN IP Address text box is the IP address of the Modem as seen on the local network. The LAN IP address can be modified, but *Actiontec* recommends keeping the default factory setting (**192.168.0.1**).



Note: If the Modem’s LAN IP Address is modified, verify the DHCP Server range is within the same subnet. For more information, see “DHCP Server,” below.

DHCP Server

The Dual PC Modem has a built-in DHCP (Dynamic Host Configuration Protocol) server that automatically assigns a different IP address to each computer on the network, eliminating IP address conflicts. The factory default setting is **On**. To disable the DHCP Server, select Off.

Actiontec strongly recommends leaving the DHCP Server option **On**. If the DHCP Server option is turned off, make sure the IP addresses of the networked computers are on the same subnet as the IP address of the Modem.

Setting the IP Address Range

The beginning and ending IP addresses define the IP address range of the Modem. If the default values are left intact, the Modem supplies a unique IP address between 192.168.0.4 and 192.168.0.254 to each computer on the network. Note that the first three groups of numbers of the addresses are identical; this means they are on the same subnet. The IP address of the Modem must be on the same subnet as the IP address range it generates. For instance, if the Modem's IP address is changed to 10.33.222.1, set the beginning IP address to 10.33.222.4, and the ending IP address to 10.33.222.254.

Beginning IP Address

Displays the IP address at which the DHCP server starts assigning IP addresses. *Actiontec* recommends keeping the factory default setting (**192.168.0.4**).

Ending IP Address

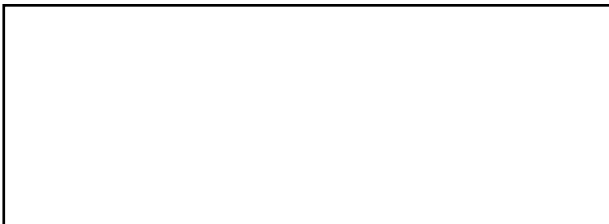
Displays the IP Address at which the DHCP Server stops assigning IP addresses. *Actiontec* recommends keeping the factory default settings (**192.168.0.254**).

Subnet Mask

Displays the Subnet Mask. *Actiontec* recommends keeping the factory default settings (**255.255.255.0**).

Save Configuration

Clicking **Next** in the DHCP Server Configuration screen generates the "Save Configuration" screen. Click **Save and Restart** to save changes.



Status

After configuring the Modem, settings can be viewed by selecting **Status** in the Main Menu. The “Current Status” screen appears, displaying many of the Modem’s settings. No settings (other than connecting or disconnecting from the Internet) can be changed from the Current Status screen.

After clicking the “Connect” icon in the system tray of the desktop, the Current Status screen appears. Click **Connect** to connect to the ISP.

Current Status

Firmware Version: 2.0.0.0.17a-R7000M

WAN

| | | | |
|-------------------------|---------------|---------|------------|
| Connection: | Disconnected | Connect | Disconnect |
| Last Disconnect Reason: | None | | |
| Mode: | PPP | | |
| Connect Speed: | | | |
| IP Address: | | | |
| Subnet Mask: | 255.255.255.0 | | |
| Current Call Number: | | | |
| Current Online Time: | | | |
| DNS #1: | 192.168.0.1 | | |
| DNS #2: | 198.6.1.3 | | |

LAN

| | |
|--------------|-------------|
| IP Address: | 192.168.0.1 |
| DHCP Server: | on |

Diagnose
Finish

Diagnose

Clicking the Diagnose button generates the Connection Status screen. This screen displays various Internet connection statistics. The Diagnose button can only be clicked if there is no connection to the Internet.

Utilities

5

To access the Dual PC Modem’s utilities, select **Utilities** from the “Main Menu” screen. The “Utilities” screen appears.

| Utilities | |
|---------------------------------|--|
| Restore Default Settings | Will remove all current settings and restore your Modem to the manufacture default settings. |
| Active Users | Will show you the IP address which PC obtained from the Modem. |
| Upgrade Firmware | Will allow you to download the latest firmware. |

From here, the Modem’s factory default settings can be restored, the active user list viewed, and the firmware upgraded.

Restore Default Settings

To restore the Modem to its factory default settings, select **Restore Default Settings** from the “Utilities” screen. When the “Restore Default Settings” screen appears, click Restore Default Settings. Any changes made to the Modem’s settings will be lost and the factory default settings will be restored. During this process, the Modem’s Power Light flashes and the Modem is disabled.

Restore Default Settings

To restore your Modem to default settings click on the **"Restore Default Settings"** button below.

Restore Default Settings

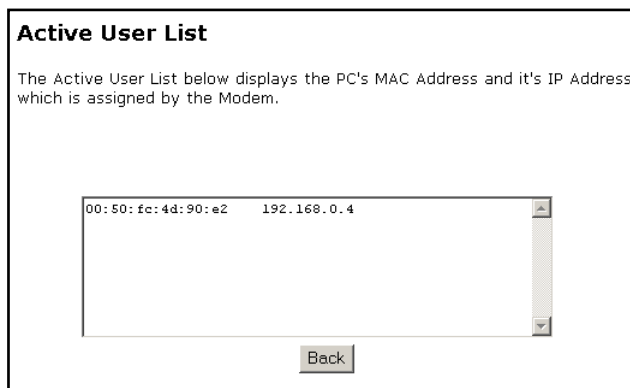


Warning: Do not unplug the power adapter from the Modem during the Restore Default Settings process. Doing so may result in permanent damage to the Modem.

When the Power and Ethernet lights glow steadily green, the Modem is fully operational.

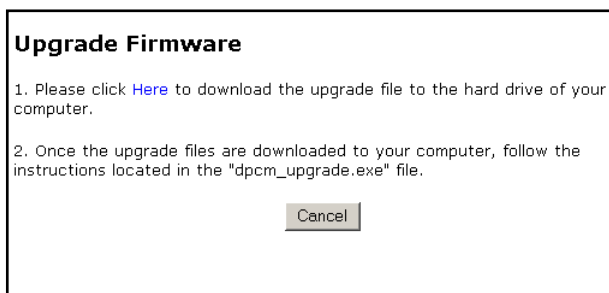
Active User List

Selecting Active Users from the “Utilities” screen generates the “Active User List” screen. Here, the MAC (Media Access Control) address of the network card and IP address of the computer connected to the Modem are displayed.



Upgrade Firmware

Selecting Upgrade Firmware in the “Utilities” screen generates the “Upgrade Firmware” screen. Actiontec periodically posts firmware upgrades to enhance the Modem’s capabilities.



To upgrade the Modem’s firmware, click “Here” in the Upgrade Firmware screen to download the upgrade. Once the upgrade files are downloaded to the computer, follow the instructions in the “dpcm_upgrade.exe” file.



Warning: Do not unplug the power adapter from the Modem during the Upgrade Firmware process. Doing so may result in permanent damage to the Modem.

Troubleshooting and Frequently Asked Questions

6

This chapter includes a list of troubleshooting options and frequently asked questions concerning the Dual PC Modem.

Troubleshooting

Slow Speed/Dropped Connections

If experiencing problems with slow speeds or dropped connections while using the Modem, the static speed setting on the Ethernet card in the computer may be the cause. To check or change this setting, select the operating system and follow the instructions:

Windows 98, 98SE, and Me

1. From the desktop, right-click on the **Network Neighborhood** icon (**My Network Places** in Me).
2. Click on **Properties**.
3. The “Network Properties” window appears. Select the type of Ethernet card installed in the computer from the list, then click **Properties**.
4. Click **Advanced** and, in the “Property” list, select an entry for speed or media type.
5. Click on the down arrow on the right and from the menu that appears, click auto, autoselect, or auto sense, then click **OK**.
6. Click **OK** in the Network Properties window.
7. Restart the computer.

The speed setting on the Ethernet card has been changed. If this doesn't correct the problem, make sure to check this setting on all computers connected to the Modem.

Windows 2000 and XP

1. From the desktop, click the “My Network Places” icon (if using XP and the icon is not on the desktop, see “Placing the ‘My Network Places’ Icon on the Desktop,” below).
2. Right-click in the “My Network Places” window and select **Properties**.
3. In the “Network Connections” window, right-click on the connection for your Ethernet card (it may read “Local Area Connection”).
4. Click **Properties**.
5. Click **Configure** (under the Ethernet card).
6. Click **Advanced** and, in the “Property” list, select the entry for speed or media type.
7. Click on the down arrow on the right, then click on auto, autoselect, or auto sense from the menu that appears.
8. Click **OK**.

The speed setting on the Ethernet card has been changed. If this doesn’t correct the problem, make sure to check this setting on all computers connected to the Modem.

Placing the “My Network Place” Icon on the Desktop

1. Right-click on any area of the desktop where there are no icons.
2. Click **Properties**.
3. In the “Display Properties” window, select **Desktop**.
4. Click **Customize Desktop**.
5. In the “Desktop Icons” section of the “Desktop Items” window, click in the “My Network Places” check box.
6. Click **OK**, and click **OK** again.

The “My Network Places” icon appears on the desktop.

Frequently Asked Questions

I've run through the setup of the Modem and put in all my user information correctly, but the Modem won't connect. What do I do?

Different ISPs use different formats for their user names. There is an addendum on the back of the "Start Here" guide with hints about entering a user name. This information can also be found on our support site: www.actiontec.com/support.

I have run out of Ethernet ports on my Modem. How do I add more computers?

To add more computers, install an Ethernet hub, switch, or wireless access point. Connect a standard Ethernet cable from the UPLINK port of the hub, switch, or wireless access point to the Yellow port (marked "2:") on the Modem.

What connection speeds does the Modem support?

The two LAN connections on the Modem are auto-switching, and support speeds of 10/100Mbps. The WAN connection supports V.92, V.90, and K56flex analog dial-up standards.

Is the Modem flash-upgradeable? How do I do it?

Yes, the firmware is flash-upgradeable. You can find a link to the firmware site in the Utilities screen of the Web configurator (see chapter 5 "Utilities").

Does the Modem function as a cable or DSL modem?

No. The Modem only acts as an analog router to share a dial-up connection. It is NOT a Broadband device.

I use my laptop at work and at home. Is there something special I need to do to make it work in both places?

Yes. You must reconfigure the network settings (Workgroup, Domain, Password, User name, IP addressing or any other specific settings used by your company). Third party software, such as NetSwitcher, can be used to automatically switch between different configurations.

What is the valid IP range I can use for my home network?

The default valid IP range for the Actiontec Dual PC Modem is 192.168.0.4 to 192.168.0.254. These values can be changed in the “DHCP Server Configuration” screen of the Web configurator Custom Setup section. See chapter 4, “Custom Setup,” for more information.

How do I find out what IP address my computer is using?

Windows 98, 98SE, and Me - Select **Start, Run**, then enter **winipcfg**. Click **Enter**. When the “winipcfg” screen appears, make sure the computer’s network device is selected.

Windows 2000, and XP - Select **Start, Run**, then enter **cmd**. Click **Enter**. When the “command screen” appears, enter **ipconfig** and click **Enter**.

I used DHCP to configure my network. Do I need to restart my computer to refresh my IP address?

No. Select the operating system used on the computer, below, and follow the instructions to refresh the IP address:

Windows 98, 98SE, and Me - Select **Start, Run**, enter **winipcfg**, then click **Enter**. Ensure the Ethernet adapter is selected in the device box. Click **Release_all**, then click **Renew_all**.

Windows 2000 - Select **Start, Run**, enter **cmd**, then click **Enter**. At the DOS prompt, enter **ipconfig /release**, then enter **ipconfig /renew**.

Windows XP - Unplug the Ethernet cable and plug it back in.

Can I run an application located on another computer over the network?

Yes, if the application is designed to run over a network.

Can I play games between computers on my network, or on the Internet?

Yes, if the games was designed for multi-player or LAN play. For specific information on whether a game is capable of Internet or LAN play refer to the game documentation. Some games require ports to be forwarded to host or join games over the Internet; those games may not work with the Modem.

Everything appears to be setup properly with the Modem, but I can't connect to the Internet. What should I do?

If the Modem is not dialing out, it may need to be power cycled. To do this, unplug the power cord from the Modem. Leave it unplugged for about 30 seconds, then plug it back in. The Modem should now be able to dial out.

How many computers can be connected through the Actiontec Dual PC Modem?

The Modem is capable of 252 connections, but we recommended to have no more than 5 connections. As the number of connections increases, the available speed for each computer decreases. Keep in mind that a dial-up connection has a very limited amount of bandwidth.

Is my Modem a firewall?

Yes. The Modem provides its security through the use of a NAT firewall, which acts as a physical barrier between your network and the Internet.

What is NAT and how does it protect my network?

NAT (Network Address Translation) is a level of security which masks the private IP addresses of the computers on your network with a single public IP address. With NAT, the private IP address of any computer on your network is never transmitted over the Internet.

Which Virtual Private Networking (VPN) protocols are supported?

The Modem does not support VPN.

Can I use Internet firewall or security programs with my network?

Because the Modem uses NAT firewall security, it is not necessary to use any other program (BlackIce Defender, Norton Internet Security, or ZoneAlarm, for example) for security. The use of third party firewall or Internet security software is not recommended, as certain programs will create problems on a private network.

I use an ISP that offers V.92 service. Will Modem On Hold (MOH) work with the Modem?

No. The Modem does not support MOH.

Setting Up Static IP Address

A

To communicate with the Modem from a computer on the network (to use the Web Configuration Utility, for example), the user may have to switch the IP address settings from DHCP-enabled to static IP, so that the computer and the Modem are on the same subnet.

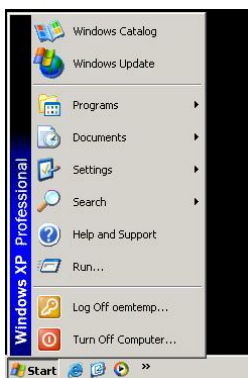
To set up static IP on a computer, select the operating system and follow the instructions.



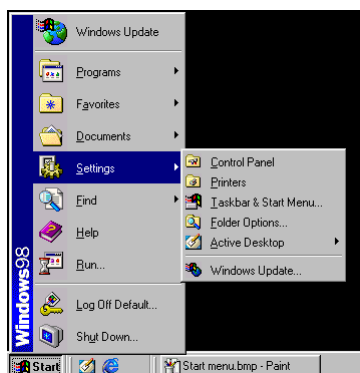
Note: The following procedures are based on the Modem's factory default IP address. If the Modem's IP address has been changed, enter the new IP address when instructed to enter an IP address.

Windows 98 and 98 SE

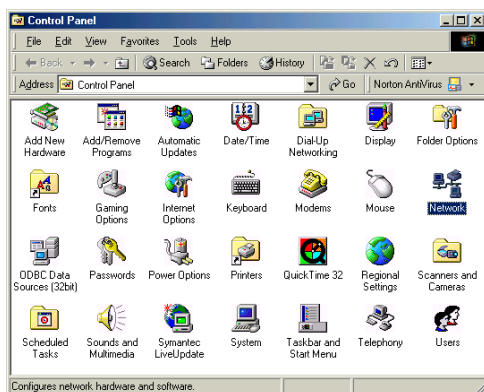
1. From the desktop, click on the **Start** button in the lower left corner.
2. From the menu that appears, select **Settings**.



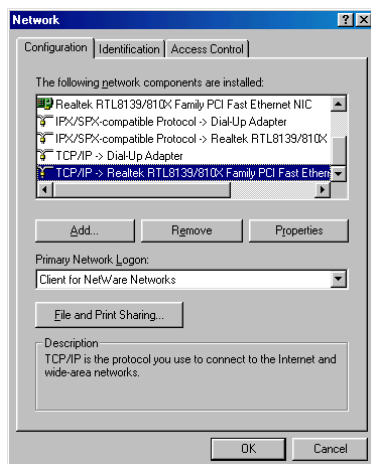
3. Another menu appears. Select **Control Panel**.



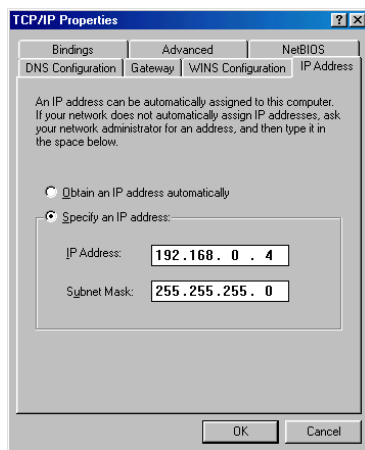
4. When the “Control Panel” window appears, double-click **Network**.



- The “Network” window appears. In the “The following network components are installed” list box, locate and double-click the **TCP/IP** configuration matching the network card installed in the computer.



- The “TCP/IP Properties” window appears. Select **IP Address**.



- In the IP Address tab, make sure the circle next to “Specify an IP Address” is selected. When active, a black dot appears in the circle. If the circle already contains a black dot, leave it alone.
- Enter the following numbers in the “IP Address” text box:
192.168.0.4
Do not include the periods; they are automatically entered.

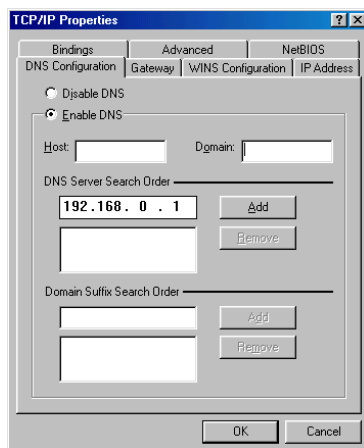
9. Enter the following numbers in the “Subnet mask” text box:

255.255.255.0

Do not include the periods; they are automatically entered.

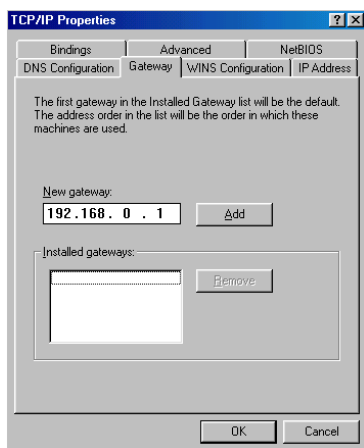
10. Select **DNS Configuration**.

11. Activate **Enable DNS** by clicking in the appropriate circle, then enter **192.168.0.1** in the “DNS Server Search Order” text box. Click **Add**.

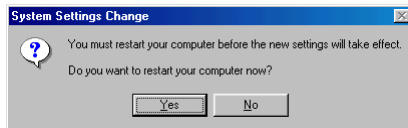


12. Select **Gateway**.

13. In the “New gateway” text box, enter **192.168.0.1**, then click **Add**.



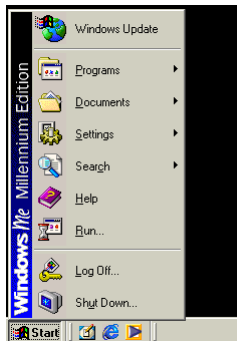
14. Click **OK**. The TCP/IP Properties window disappears.
15. In the Network window, click **OK**. The Network window disappears.
16. The “System Settings Change” window appears, asking whether the computer should be restarted. Click **Yes**.



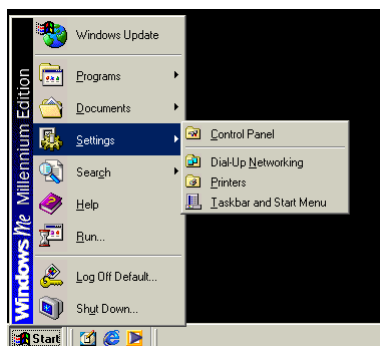
The computer restarts. It is now set up with a static IP address, allowing the user to access the Modem's Advanced Setup utility.

Windows Me

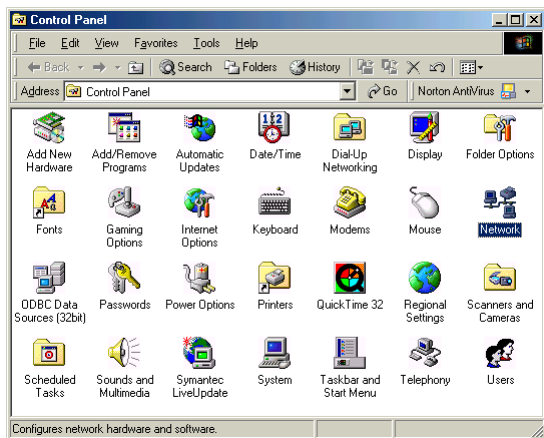
1. From the desktop, click on the **Start** button in the lower left corner.
2. From the menu that appears, select **Settings**.



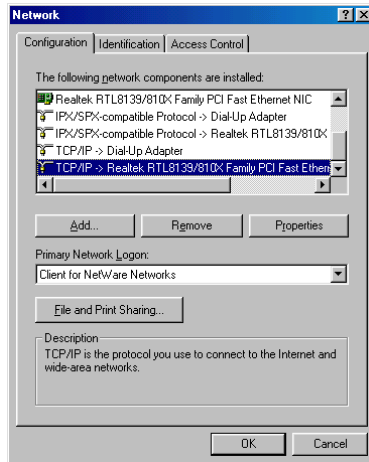
3. Another menu appears. Select **Control Panel**.



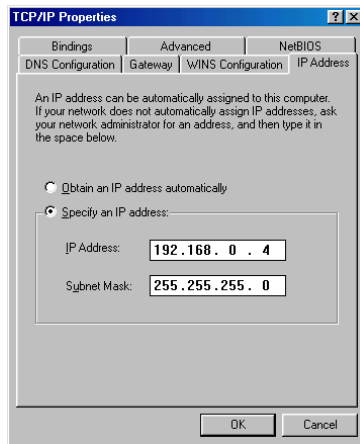
4. When the “Control Panel” window appears, double-click **Network**.



5. The “Network” window appears. In the “The following network components are installed” list box, locate and double-click the **TCP/IP** configuration matching the network card installed in the computer



6. The “TCP/IP Properties” window appears. Click **IP Address**.



7. In the IP Address tab, make sure the the circle next to “Specify an IP Address” is selected. When active, a black dot appears in the circle. If the circle already contains a black dot, leave it alone.
8. Enter the following numbers in the “IP Address” text box:
192.168.0.4
Do not include the periods; they are automatically entered.

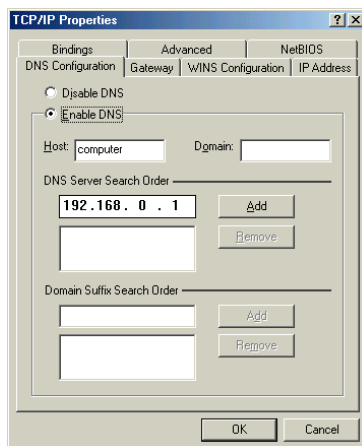
9. Enter the following numbers in the “Subnet mask” text box:

255.255.255.0

Do not include the periods; they are automatically entered.

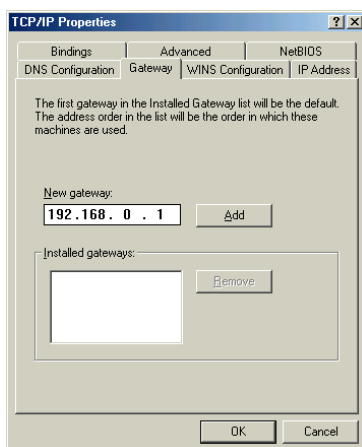
10. Select **DNS Configuration**.

11. Activate **Enable DNS** by clicking in the appropriate circle, then enter **192.168.0.1** in the “DNS Server Search Order” text box. Click **Add**.

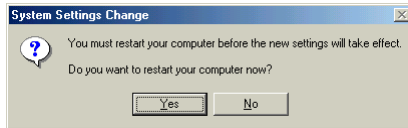


12. Select **Gateway**.

13. In the “New gateway” text box, enter **192.168.0.1**, then click **Add**.



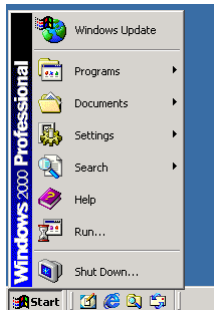
14. Click **OK**. The TCP/IP Properties window disappears.
15. If there is a check in the box next to “Detect connection to network media,” click on it to uncheck the box.
16. In the Network window, click **OK**. The Network window disappears.
17. The “System Settings Change” window appears, asking whether the computer should be restarted. Click **Yes**.



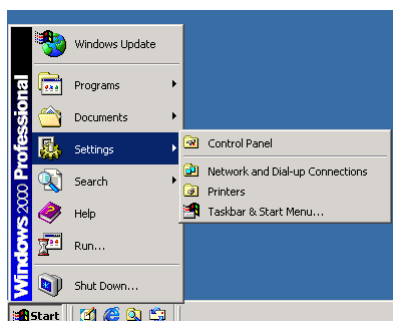
The computer restarts. It is now set up with a static IP address, allowing the user to access the Modem’s Advanced Setup utility.

Windows 2000

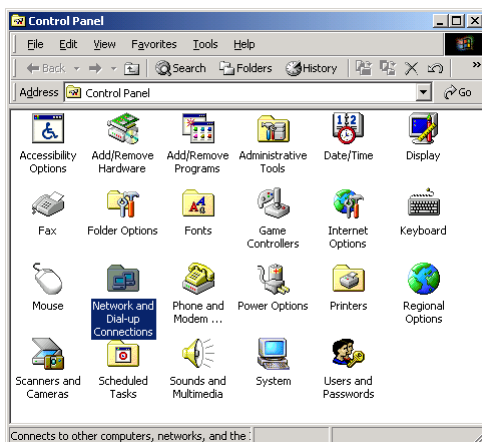
1. From the desktop, click on the **Start** button in the lower left corner.
2. From the menu that appears, select **Settings**.



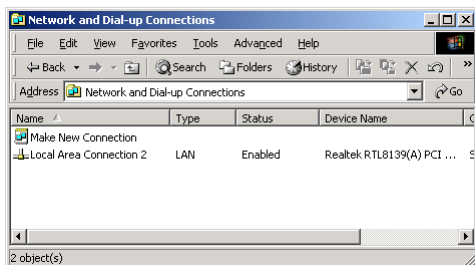
3. Another menu appears. Select **Control Panel**.



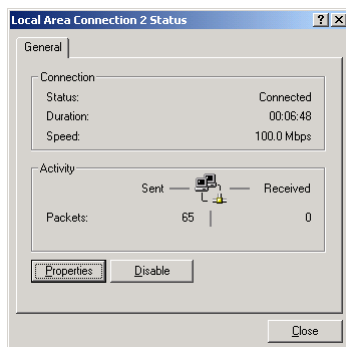
4. When the “Control Panel” window appears, double-click **Network and Dial-up Connections**.



5. In the “Network and Dial-up Connections” window, double-click **Local Area Connection**. A number may be displayed after the Local Area Connection. If there is more than one Local Area Connection listed, locate the one that corresponds to the network card installed in the computer by finding the name of the network card in the **Device Name** column.

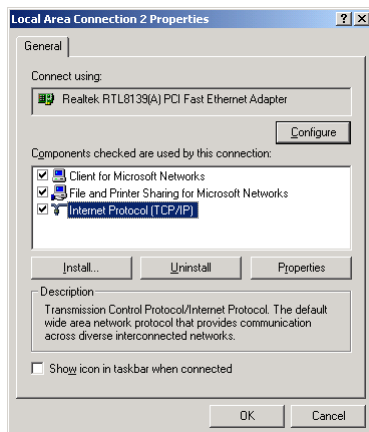


6. The “Local Area Connection Status” window appears. Select **General**, then click **Properties**.

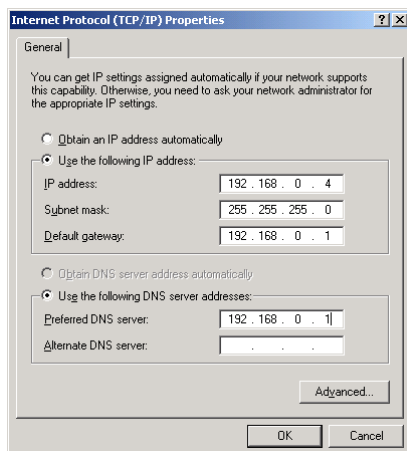


7. The “Local Area Connection Properties” window appears. Click **General**.

8. In the “Components checked are used by this connection” list box, double-click **Internet Protocol (TCP/IP)**.



9. The “Internet Protocol (TCP/IP) Properties” window appears.



10. In the **General** tab, make sure the the circle next to “Obtain an IP Address automatically” is selected. When active, a black dot appears in the circle. If the circle already contains a black dot, leave it alone.
11. Enter the following numbers in the “IP Address” text box:
192.168.0.4
Do not include the periods; they are automatically entered.

- 12.** Enter the following numbers in the “Subnet mask” text box:

255.255.255.0

Do not include the periods; they are automatically entered.

- 13.** Enter the following numbers in the “Default gateway” text box:

192.168.0.1

Do not include the periods; they are automatically entered.

- 14.** Activate the “Use the following DNS server addresses” circle by clicking in it.

- 15.** Enter the following numbers in the “Preferred DNS server” text box:

192.168.0.1

Do not include the periods; they are automatically entered.

- 16.** Click **OK**. The “Internet Protocol (TCP/IP) Properties” window disappears.

- 17.** In the “Local Area Connection Properties” window, click **OK**. The Local Area Connection Properties window disappears.

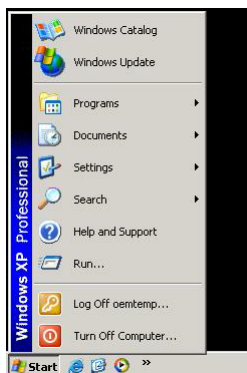
- 18.** Click **Close** in the Local Area Connection Status window. The window disappears.

- 19.** Close the Network and Dial-up Connections window by clicking on the “x” button at the upper right corner of the window.

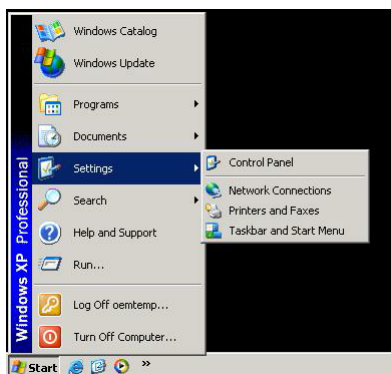
The computer is now set up with a static IP address, allowing the user to access the Modem’s Advanced Setup utility.

Windows XP

1. From the desktop, click on the **Start** button in the lower left corner.
2. From the menu that appears, select **Settings**.



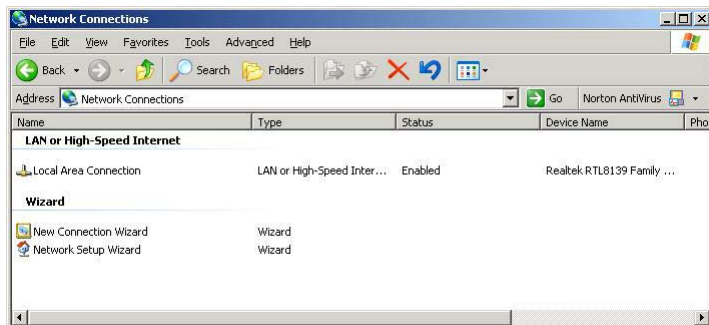
3. Another menu appears. Select **Control Panel**.



4. When the “Control Panel” window appears, double-click **Network Connections**.



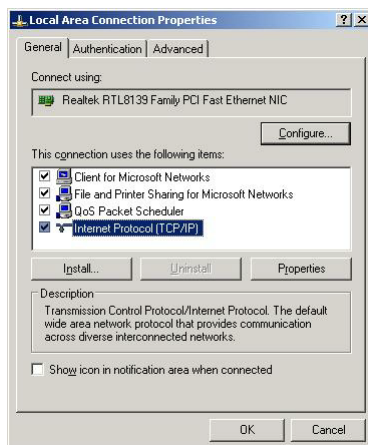
5. In the “Network Connections” window, double-click **Local Area Connection**. A number may be displayed after the Local Area Connection. If there is more than one Local Area Connection listed, locate the one that corresponds to the network card installed in your computer by finding the name of the network card in the **Device Name** column.



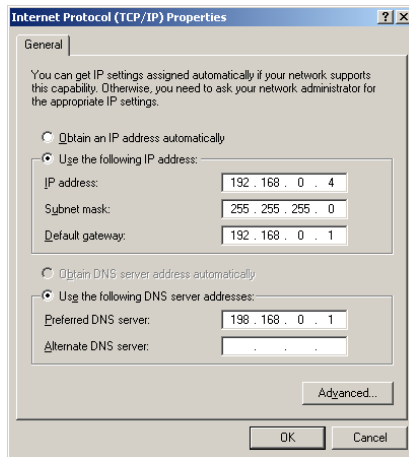
6. The “Local Area Connection Status” window appears. Select **General**, then click **Properties**.



7. The “Local Area Connection Properties” window appears. Select **General**.
8. In the “Components checked are used by this connection” list box, double-click **Internet Protocol (TCP/IP)**.



9. The “Internet Protocol (TCP/IP) Properties” window appears.



10. In the **General** tab, make sure the the circle next to “Use the following IP Address” is selected. When active, a black dot appears in the circle. If the circle already contains a black dot, leave it alone.
11. Enter the following numbers in the “IP Address” text box:
198.162.0.4
Do not include the periods; they are automatically entered.
12. Enter the following numbers in the “Subnet mask” text box:
255.255.255.0
Do not include the periods; they are automatically entered.
13. Enter the following numbers in the “Default gateway” text box:
192.168.0.1
Do not include the periods; they are automatically entered.
14. Activate the “Use the following DNS server addresses” circle by clicking in it.
15. Enter the following numbers in the “Preferred DNS server” text box:
192.168.0.1
Do not include the periods; they are automatically entered.
16. Click OK. The Internet Protocol (TCP/IP) Properties window disappears.

- 17.** In the Local Area Connection Properties window, click **OK**. The Local Area Connection Properties window disappears.
- 18.** Click **Close** in the Local Area Connection Status window. The window disappears.
- 19.** Close the Network and Dial-up Connections window by clicking on the “x” button at the upper right corner of the window.

The computer is now set up with a static IP address, allowing the user to access the Modem's Advanced Setup utility.

Specifications

B

General

Model Number

R7000M (Dual PC Modem)

Dimensions

Length: 5.375 in.

Width: 4.35 in

Height: 1.25 in

Standards

IEEE 802.3 (10BaseT)

IEEE 802.3u (100BaseTX)

LAN

10/100 RJ-45 switched ports (2)

Speed

LAN Ethernet - 10/100 Mbps

Cabling Type

Phone, Ethernet

Modem

56 Kbps V.92 quick connect

V.90

V.92

K56 flex

LED Indicators

Power, Modem, Network 1, Network 2

Environmental

Power Input

External, +9V +/- 5% @ 1 A

Certifications

FCC Class B (part 15, 68)

UL

Operating Temperature

0° C to 40° C (32°F to 104°F)

Storage Temperature

-20°C to 70°C (-4°F to 158°F)

Operating Humidity

10% to 85% non-condensing

Storage Humidity

5% to 90% non-condensing

Non-Windows System Setup



The Modem supports both the Classic Macintosh operating systems (9.2.2 and below), as well as OS X.

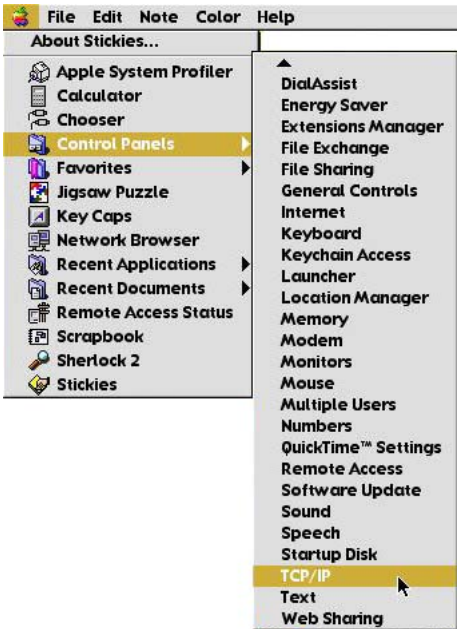


Note: When installing any software, consult the user manual and help files supplied with the software for detailed information. *Actiontec* provides the following information as a guideline only.

Classic

To configure the Router, Open Transport 2.5.2 or above must be loaded on the computer.

1. Click Apple, Control Panels, then TCP/IP.

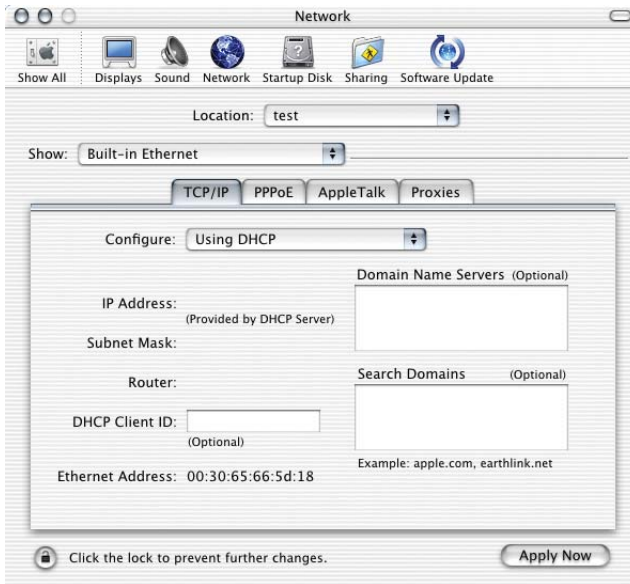


2. When the “TCP/IP” window appears, select **Edit** from menu bar, then select **User Mode**.
3. When the “User Mode” window appears, select **Advanced**, then click **OK**.
4. In the “TCP/IP” window, select **Ethernet** from the “Connect via” drop-down list.
5. Select **Using DHCP Server** from the “Configure” drop-down list.
6. Ensure the “Use 802.3” option is **not** checked.
7. Disregard any addresses in the IP Address text boxes. They will be reacquired when the first connection is made.
8. Click **Options** and when the “TCP/IP Options” window appears, select **Active**. Ensure the “Load only when needed” option is **not** checked, then click **OK**.
9. Close the “TCP/IP” window and when prompted to save changes, click **Save**.
10. Restart the computer. The TCP/IP settings are configured.

Next, go to “Connecting to the ISP” on page 115.

OS X

1. Open the “System Preferences” application via the Dock or Apple Menu. The “Network” window appears.



2. Select **Built-In Ethernet** from the “Show” drop-down list.
3. Select **TCP/IP** and, from the “Configure” drop-down list, select **Using DHCP**.
4. Click **Apply Now** and close the “System Preferences” application. The TCP/IP settings are configured.

Next, go to chapter 2, “Basic Setup.”

File and Printer Sharing

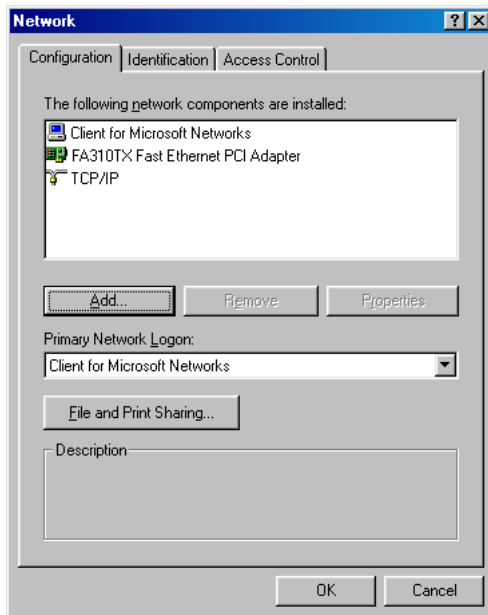
D

The Modem supports file and printer sharing, allowing any computer on the network to share files and access a shared printer. To configure file and printer sharing, select the operating system and follow the instructions.

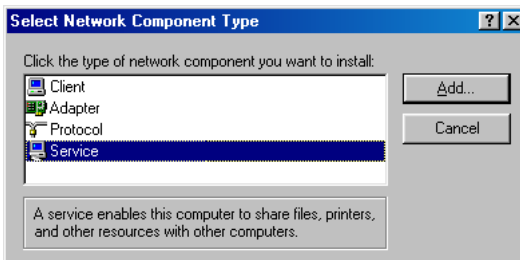
Windows 98 and Me

File Sharing

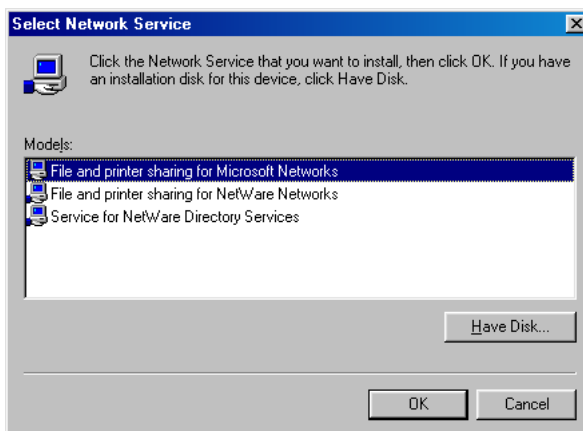
1. Click **Start**, **Settings**, then **Control Panel**.
2. In the “Control Panel” window, click **Network**.
3. The “Network” window appears. If “File and Printer Sharing” is not listed in “The following network components are installed” list box, click **Add....**



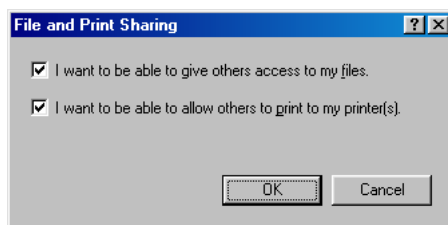
4. In the “Select Network Component Type” window, select **Service** in the “Click the type of network component you want to install” list box, then click **Add....**



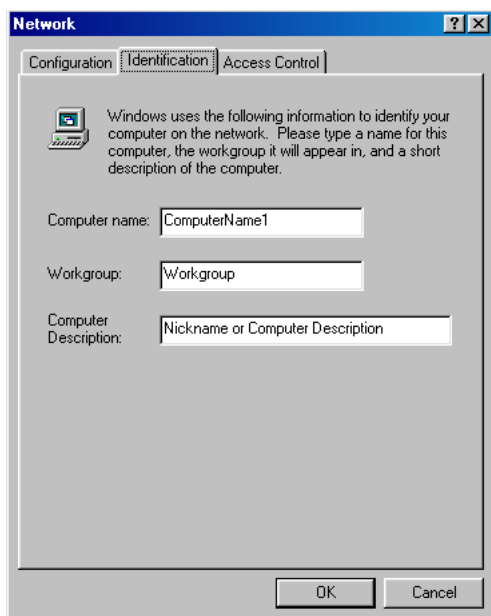
5. The “Select Network Service” window appears. Select **File and printer sharing for Microsoft Networks** from the “Models” list box, then click **OK**.



6. In the “File and Print Sharing” window, ensure both of the listed options are checked. If not, click the boxes, then click **OK**.



7. The “Network” window reappears. Select **Identification**.



The “Identification” tab contains three text boxes:

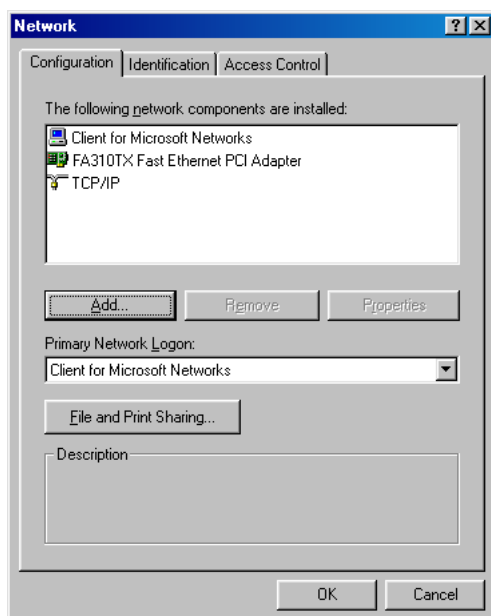
Computer Name - Enter the name of the computer (i.e., MyComputer, John, CPU654) in this text box. All computers on the network must have a unique name.

☞ **Note:** Actiontec recommends the “Computer Name” contain no spaces. For example, entering “jackscomputer” is correct; entering “big beige box” is incorrect.

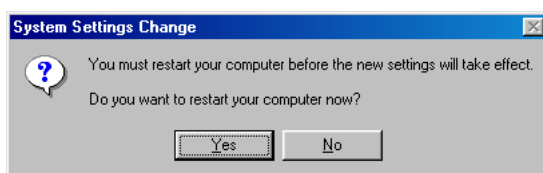
Workgroup - Enter the name of the network in this text box. The “Workgroup” name is used to include other computers on the network. All computers on the network must have the same Workgroup name.

Computer Description - Enter any description in this text box. Usually, computer’s location or the name of the main user is entered here.

8. Select **Configuration**. In the “Primary Network Logon” list box, ensure **Client for Microsoft Networks** is selected. If not, select it from the drop-down list, then click **OK**.




9. The “System Settings Change” window appears. Click **Yes** to restart the computer.



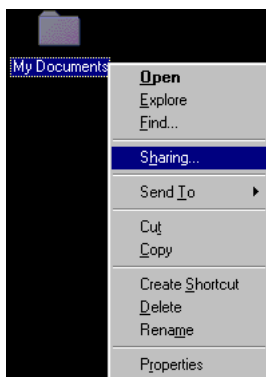
 **Note:** If the “System Settings Change” window does not appear, restart the computer manually after completing step 7.

10. After the computer restarts and a password and user name entered, a file or drive for sharing must be activated.

 **Note:** To avoid being prompted for a username and password every time, enter a user name, but leave the password blank, and click **OK**.

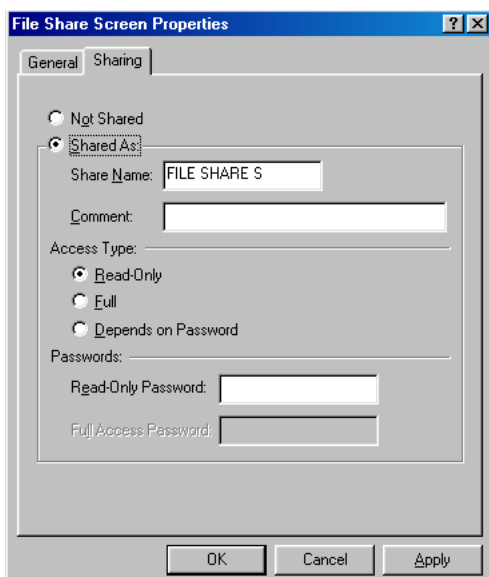
Locate the file or drive to share (navigate via “My Computer” or use Windows Explorer).

11. Right-click the file or drive to share. In the pop-up menu that appears, select **Sharing**.

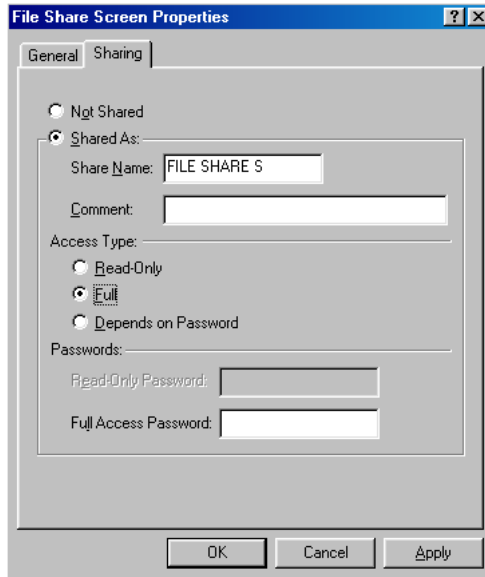


12. Select **Shared As** from the “File Share Screen Properties” windows and enter a name in the “Share Name” text box. This name will show up on the other computers on the network as a shared device.
13. Select an “Access Type,” as explained below.

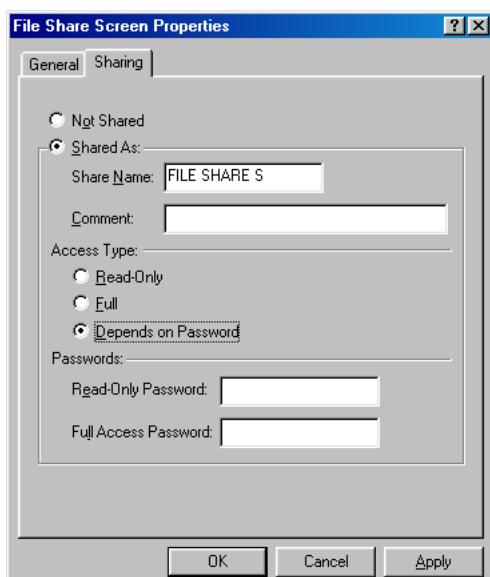
Read Only - Allows other users on the network to view the file or drive selected, but not modify it. Sharing privileges can be restricted by entering a password in the “Read-Only Password” text box.



Full - Allows other users on the network to read, modify, move, and delete any information in the selected file or drive. Sharing privileges can be restricted by entering a password in the “Full Access Password” text box.



Depends on Password - Allows both read-only and full access on the shared file or drive. The level of access depends on the passwords entered in the "Read-Only Password" and "Full Access Password" text boxes.



Users with access to the read-only password have read-only privileges to the shared file or drive; users with access to the full-access password have full access to the shared file or drive.

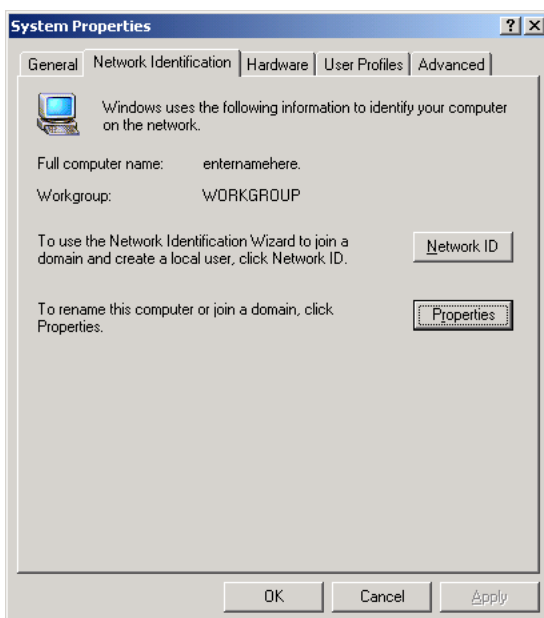
When finished, click **Apply**, then **OK**.

Printer Sharing

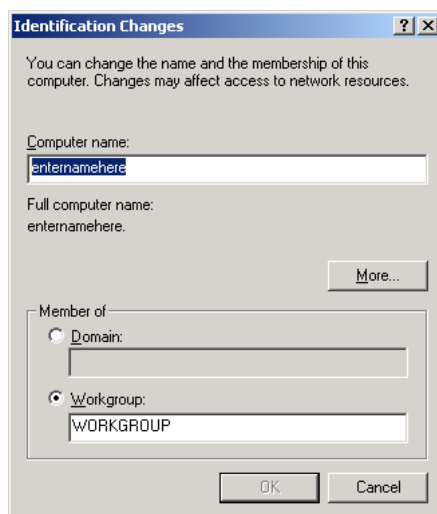
1. To share a printer on the network, click **Start**, **Settings**, then **Printers**.
2. In the "Printers" window, right-click the printer to share and select **Sharing** from the pop-up menu.
3. Select "Shared As" in the window that appears. A default "Share Name" is automatically generated for the printer. Sharing privileges can also be modified from this window. When finished, click **OK**.

Windows 2000

1. After configuring the computer (including installing and configuring the network adapter), Windows 2000 automatically enables file and print sharing. The only item to be checked is the computer and workgroup names. All computers on the network must have a unique computer name and the same workgroup name. To check or change the computer and workgroup names, right-click **My Computer**, then select **Properties** from the pop-up menu.
2. In the “System Properties” window, select **Network Identification**. If the “Full computer name” is unique and the “Workgroup” name is the same as all other computers on the network, click **OK**. If not, click **Properties**.



3. The “Identification Changes” window appears. In the “Computer Name” text box, enter a name different than the names of the other computers on the network.
4. In the “Workgroup” text box, enter the network name. This name must be the same on every computer on the network. Click **OK**.



5. The “Network Properties” window appears. Click **OK**, and restart the computer.

Macintosh

To set up file and printer sharing on a Macintosh computer:

File Sharing

1. Select **Apple, Control Panels**, then **File Sharing**.
2. When the “File Sharing” window appears, select “Start/Stop.” In the “Network Identity” section, enter an **Owner Name** and **Owner Password**.



Caution: To deter potential hackers from guessing the password, *Actiontec* recommends the password contain a minimum of eight characters and a mix of numbers and upper- and lower-case letters.

3. In the “File Sharing” section, click **Start**. If the button in this section reads “Stop,” file sharing is already enabled.
4. To activate program linking, click “Start” in the “Program Linking” section.
5. To allow other users to access the computer without giving out the owner name and owner password, select **Users and Groups**, then **New User**.

Glossary



Access Point

A device that allows wireless clients to connect to one another. An access point can also act as a bridge between wireless clients and a “wired” network, such as an Ethernet network. Wireless clients can be moved anywhere within the coverage area of the access point and remain connected to the network. If connected to an Ethernet network, the access point monitors Ethernet traffic and forwards appropriate Ethernet messages to the wireless network, while also monitoring wireless traffic and forwarding wireless client messages to the Ethernet network.

ATM (Asynchronous Transfer Mode)

A networking technology based on transferring data in fixed-size packets

Client

A desktop or mobile computer connected to a network.

DHCP (Dynamic Host Configuration Protocol)

A protocol designed to automatically assign an IP address to every computer on your network.

DNS (Domain Name System) Server Address

Allows Internet host computers to have a domain name and one or more IP addresses. A DNS server keeps a database of host computers and their respective domain names and IP addresses so that when a user enters a domain name into a Web browser, the user is sent to the proper IP address. The DNS server address used by computers on the home network corresponds to the location of the DNS server the ISP has assigned.

DSL (Digital Subscriber Line) Modem

A modem that uses existing phone lines to transmit data at high speeds.

Encryption

A method to allow wireless data transmissions a level of security.

ESSID (Extended Service Set Identifier)

A unique identifier for a wireless network. Also known as “SSID.”

Ethernet Network

A standard wired networking configuration using cables and hubs.

Firewall

A method preventing users outside the network from accessing and/or damaging files or computers on the network.

Gateway

A central device that manages the data traffic of your network, as well as data traffic to and from the Internet.

IP (Internet Protocol) Address

A series of four numbers separated by periods identifying a unique Internet computer host.

ISP Gateway Address

An IP address for the Internet router. This address is only required when using a cable or DSL modem.

ISP (Internet Service Provider)

A business that allows individuals or businesses to connect to the Internet.

LAN (Local Area Network)

A group of computers and devices connected together in a relatively small area (such as a house or an office). A home network is considered a LAN.

MAC (Media Access Control) Address

The hardware address of a device connected to a network.

NAT (Network Address Translation)

A method allowing all of the computers on a home network to use one IP address, enabling access to the Internet from any computer on the home network without having to purchase more IP addresses from the ISP.

PC Card

An adapter that inserts in the PCMCIA slot of a computer, enabling the communication with the Router.

**PPPoE (Point-To-Point Protocol over Ethernet)/
PPPoA (Point-To-Point Protocol over ATM)**

Methods of secure data transmission.

Router

A central device that manages the data traffic of your network.

Subnet Mask

A set of four numbers configured like an IP address used to create IP address numbers used only within a particular network.

SSID

See “ESSID.”

TCP/IP (Transmission Control Protocol/Internet Protocol)

The standard protocol for data transmission over the Internet.

WAN (Wide Area Network)

A network that connects computers located in separate areas, (i.e., different buildings, cities, countries). The Internet is a WAN.

WECA (Wireless Ethernet Compatibility Alliance)

An industry group that certifies cross-vender interoperability and compatibility of IEEE 802.11b wireless networking products and promotes the standard for enterprise, small business, and home environments.

WLAN (Wireless Local Area Network)

A group of computers and other devices connected wirelessly in a small area.

Notices

Regulatory Compliance Notices

Class B Equipment

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 the equipment off and on, the user is encouraged to try to correct the interference by implementing one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and receiver;
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected;
- Consult the dealer or an experienced radio or television technician for help.

Modifications


The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by *Actiontec Electronics, Inc.*, may void the user's authority to operate the equipment.

Declaration of conformity for products marked with the FCC logo – United States only.

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

1. This device may not cause harmful interference;

2. This device must accept any interference received, including interference that may cause unwanted operation.

 **Note:** To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

For questions regarding your product or the FCC declaration, contact:

Actiontec Electronics, Inc.
760 North Mary Ave.
Sunnyvale, CA 94086
United States
Tel: (408) 752-7700
Fax: (408) 541-9005

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