



**Plug&Share™**  
**Wireless Notebook Adapter**  
**22 Mbps Turbo 802.11b**

**6700B4X**

**User Manual**



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AT&T offers a full line of data networking  
and broadband accessories.

Please visit us at  
**[www.plugandshare.att.com](http://www.plugandshare.att.com)**

**1-877-800-5400**

## Overview

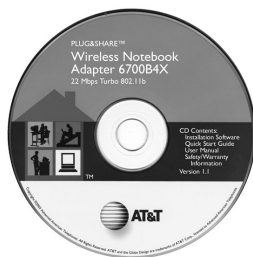
The AT&T Plug&Share™ Wireless Notebook Adapter will allow you to connect a notebook computer with an available Type II PCMCIA slot to a compatible wireless network.

## Package Contents

Please check to make sure your package contains the following items:



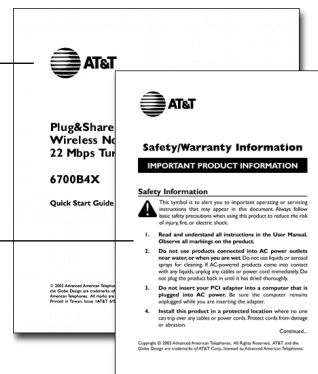
**Plug&Share™  
Wireless Notebook Adapter  
22Mbps Turbo 802.11b**



**CD-ROM**  
Contains installation software and printable versions of this User Manual, Quick Start Guide and Safety & Warranty Information.

**Quick  
Start Guide**

**Safety &  
Warranty  
Information**



## System Requirements:

You must have a notebook computer with the following applications & hardware:

- Windows® 98 SE, Me, 2000 or XP
- Type II PCMCIA card slot
- Intel® Pentium II (or higher)
- 64 MB of RAM
- CD-ROM drive
- 5 MB of available hard-disk space (60 MB to load Adobe® Acrobat® Reader®)
- AT&T Plug&Share™ Wireless Router (or other 802.11b or g compliant router or access point)

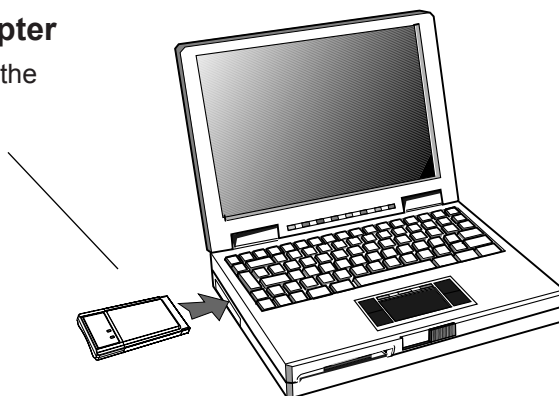
## STEP 1: Install the Driver and Configuration Utility

- 1 **Do NOT install adapter first.** Insert the enclosed CD-ROM into your CD-ROM drive.
- 2 Your CD auto-run function may start automatically. If it does not, click on the **Start** button. Click **Run** and enter **D:\autorun**. (If your CD-ROM drive is not your D drive, use the appropriate drive letter.)
- 3 When the adapter menu screen appears, click on **Install Software** from the menu on the left side of the screen.
- 4 The InstallShield Wizard will appear.
- 5 Different versions of Windows® will present different screens. Press **Next** at each screen until the Wizard driver installation has completed.
- 6 Some versions will present a screen that asks about restarting your computer. Choose **Yes, I will restart my computer now**.
- 7 Click **Finish**, if necessary.

**Proceed to Step 2 below only after the software has been correctly installed.**

## STEP 2: Insert the Notebook Adapter

With the card label up, insert the card into the notebook computer PCMCIA slot.



## STEP 3: Recognize the Hardware

Depending on the Windows® operating system version running on your computer, one of several screens may appear to inform you that the computer recognizes new hardware. Choose to install the software automatically and click **Next**.

Depending on your Windows® version, you may see a Hardware Alert message or a Digital Signature Not Found message. Click **Continue Anyway** or **Yes** to complete the installation.

Depending on your Windows® version, you may have to restart your computer to complete the installation. If a Windows® message prompts you to restart your computer, do so.

Finally, some versions may display the message Systems Settings Change. Click **Yes**.

Check the indicator lights to verify that the adapter is working:

- **PWR:** The Power light stays on to show that the adapter is correctly inserted and receiving power.
- **TX/RX:** After the notebook adapter is inserted, the TX/RX Link Activity light will blink when there is traffic flow on the network.

## STEP 4: Configure the notebook adapter for your wireless network

To configure the notebook adapter for communication with your wireless network, use the Configuration Wizard. To start the Configuration Wizard, double-click on the **Utility** icon (four vertical bars) next to your computer's time display.



Double-click here to display Wizard screen 1 (see below)

### Wizard screen 1

#### SSID

Enter the SSID (Service Set Identifier) used by your wireless router or access point. The default SSID is at&t. You should change this name to any alphanumeric (numbers and/or letters) identifier up to 32 characters long. The SSID is case sensitive (i.e., "cat" and "Cat" are not the same). All wireless adapters on your network must use the same SSID as your wireless router and/or access point.

#### WEP Encryption

WEP is a form of encryption. If you click **On** to enable encryption in your wireless adapter, you must turn on WEP in your router, and make sure all devices use the same settings.

Click **Apply** to save your settings and display Wizard screen 2 (see next page).



**CAUTION:** SSID and all WEP settings must be identical in all wireless network devices. WEP Ascii/Hex Key must match the WEP settings used in your router (may be called Security Phrase, Hex Key or other term).

## Wizard screen 2

This screen shows the status of your network connection.

Your adapter should have found the network associated with the SSID you entered, and automatically set the channel to agree with your wireless router and/or access point. If you see Pass in the top two fields on this screen, you are ready to close this window and begin using your wireless network. Test this by visiting the Internet (see below).

You can view or change the adapter setting from the other screens. Just click on the tabs in the blue menu bar at the top of this screen.

## Test Internet Access

To test Internet access, launch your web browser and enter:

**www.plugandshare.att.com**

When you press **Enter**, the AT&T Plug&Share™ screen should appear. If it does not, see the Troubleshooting section on page 30.

## Problems?

If this screen does not appear when you test Internet access, or if you see the word Fail in either of the top two fields of the Wizard screen shown above, please turn to the Troubleshooting section on page 30.

## Link Info

This screen displays current settings. (To change any of these settings, click **Configuration** at the top of the screen.)

**Status:** The MAC address of the router, or access point, associated with the wireless adapter.

**SSID:** The Service Set Identifier of the network. This is the setting given to the access point, or router.

**TX Rate:** The current transmission speed setting.

**Channel:** The current channel setting of the wireless network.

**Rescan:** Refresh the text fields.

**Radio Off:** This option turns off communication between your wireless adapter and your wireless router or access point. You will not be able to carry out network operations (such as file sharing or printing), but you will still be able to make changes to your adapter settings.

**Link Quality/Signal Strength/Data Rate:** The lower part of the screen displays the current quality of the network link, strength of the signal, and the current transmit and receive rates.

**Link Info.**

Status: Associated BSSID=00-09-5B-3D-97-2C

SSID: at&t

Tx Rate: 22 Mbps

Channel: 6

**Link Quality/Signal Strength**

Link Quality: 100%

Signal Strength: 62%

**Data Rate**

Transmit: 0 Kbps  10000  
1000  
100  
10  
0

Receive: 0 Kbps

## Configuration

The Configuration screen displays the current settings of the wireless adapter.

**SSID:** Enter the SSID used by your wireless router or access point. All wireless adapters on your network must use the same SSID as your wireless router and/or access point. The SSID is case sensitive (i.e., “cat” and “Cat” are not the same).

**BSS Type:** The BSS type may be set to Infrastructure (connected to the WLAN using an Access Point) or Ad-Hoc (connected in a peer-to-peer environment).

**Channel:** The router uses radio signals to communicate with other devices on the network. You can change the frequency by selecting a different channel. Remember that all computers on your network must use the same channel. Devices using AT&T Plug&Share™ wireless adapters will automatically detect the channel used by the router and change to it.

You may have to change the channel if you are experiencing problems such as intermittent connection and disconnection. You can perform a site survey on your wireless adapter to find out which channels are being used by other wireless networks nearby. If other networks use the same channel (or an adjacent one), change yours to one as far away as possible from the others in use. (For example, if other networks use channels 6, 9 and 11, try changing yours to channel 1.)

**TX Rate:** If you use an AT&T Plug&Share™ router, set the TX (transmission) rate to Auto. If you are not using an AT&T Plug&Share™ router, set the TX rate to the fastest speed your router or access point can support. The default setting (Auto) will continually test to find and use the highest transmission speed possible, but this setting may cause data errors. If you experience this problem, try a lower rate.

**Preamble:** The length of the CRC block (Cyclic Redundancy Check) for detecting errors in the communication between the router/access point and the wireless adapters. Use the default setting (Long Preamble) unless you have a specific need for a faster, but less accurate, data transmission rate.

**Power Mode:** Select Continuous Access Mode (default) for fewer communication errors, although this setting consumes more power than the others. Maximum Power Save consumes the least power, and Power Save consumes a diminished amount of power.

**Auto Searching:** This option allows your wireless adapter to automatically search for available wireless routers or access points nearby. When enabled, your computer will connect to whichever router or access point that has the strongest signal.

If you change any setting above, click the **Apply** button.

The screenshot shows the AT&T Notebook Adapter Configuration window. The title bar includes the AT&T logo and a navigation menu with 'Wizard', 'Link Info.', '> Configuration', 'Security', 'SiteSurvey', and 'About'. Below the navigation bar is a header area with a photo of a person using a laptop, the text 'Notebook Adapter', and 'AT&T PLUG&SHARE™ DATA NETWORKING PRODUCTS'. The main configuration area has a dark header 'Configuration' and lists the following settings:

- SSID: at&t
- BSS Type: Infrastructure
- Channel: 6
- Tx Rate: Auto
- Preamble: Long Preamble
- Power Mode: Continuous Access Mode
- Auto Searching: On

At the bottom of the configuration area are two buttons: 'APPLY' and 'CANCEL'.



## Security

The Security screen allows you to set the privacy settings of your wireless notebook adapter. These must match the settings of your wireless router or access point.

**WEP Encryption:** For a higher level of privacy you can choose to scramble the data being transferred over your network by setting Wired Equivalent Privacy (WEP) Encryption to **On**. Click on the box to enable WEP Encryption. You must use exactly the same WEP phrase or key used by your wireless router or access point.

**Authentication Mode:** Default is Auto, which adjusts automatically to the authentication presented (Open or Shared,) by another wireless device. Choose Open Authentication to pass the key across the whole network, (any PC whose SSID matches your router's SSID can join it), or Shared Authentication to limit communication to devices with identical WEP settings.

**Phrase/Key:** Enter a security phrase. If you choose the Hex Key Format (see below), you must use hexadecimal digits (0-9, a-f). If you choose the ASCII Key Format you can use letters, numbers, spaces, and punctuation marks. For the ASCII Key Format you must enter five characters for 64-bit, 13 characters for 128-bit or 29 characters for 256 bit encryption. Whichever format you use, the security phrase you enter must match the one set for your wireless router or access point. You can create up to four different security phrases, for different wireless networks. Remember that security phrases are case sensitive (i.e., "cat" and "Cat" are not the same).

**Key Format:** Choose ASCII or hexadecimal format. If you choose ASCII, you can use names that you know and can easily remember for your key.

**Length:** Use the drop-down menu to choose a key length. The higher the number, the slower and more secure your system is.

If you change any setting above, click the **Apply** button.

**Security**

☒ WEP Encryption

Authentication Mode: Open Authentication

Default Key	Phrase/Key	Length
1		64 bits
2		64 bits
3		64 bits
4		64 bits

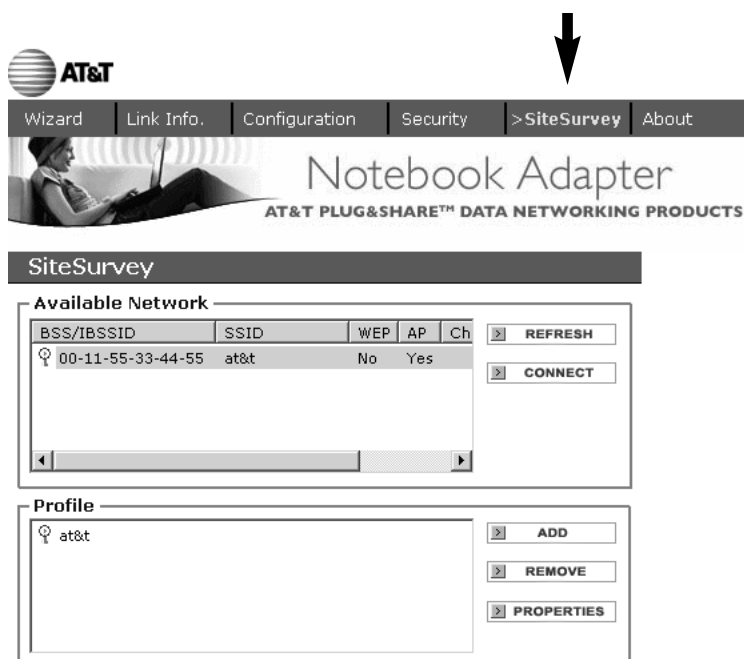
Key Format: ASCII

APPLY CANCEL

## Site Survey

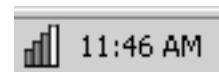
The Site Survey screen shows a list of wireless networks nearby that are available for connection. Select a network and click **Connect** to establish a connection. Click **Refresh** to update the list and show additional networks that may have become available since you last checked.

The Profile section shows a list of profiles you may have set up for various wireless networks; for example, at home, at work, or in public places such as an airport or internet café. Click **Add** to create a new profile, **Remove** to delete a profile, or **Properties** to configure a profile to connect with an available network.



## To change network settings

Change the wireless notebook adapter settings at any time by double-clicking the **Utility** icon, (4 vertical bars next to your computer's time display). Use the tabs in the blue bar at the top of the screen to display the Wizard, Link Info, Configuration, Security, or Site Survey screens.



## Configuring Windows® for File and Printer Sharing

Some configuration of Windows® is necessary to make full use of your wireless network. This will take a few minutes, but it is a one-time process that you will not need to repeat.

Please turn to the pages listed for instructions on how to configure your operating system.

**Windows® XP** .....Pages 11-17

**Windows® 2000** .....Pages 18-23

**Windows® Me/98 SE** .....Pages 24-29



### Caution

Before making any changes to your networking settings, please review this section carefully. Failure to follow these instructions precisely may result in the inability to log into your network or computer.

If your computer is part of a work environment please contact your IT professional before proceeding.

## Configure Windows® XP for Network Sharing



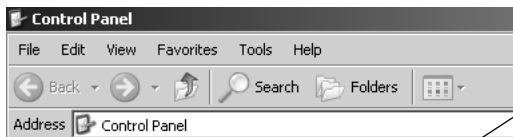
### Caution

Before making any changes to your networking settings, please review this section carefully. Failure to follow these instructions precisely may result in the inability to log into your network or computer. If your computer is part of a work environment, please contact your IT professional before proceeding.



### Step 1

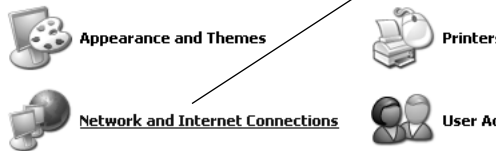
Click **Start > Control Panel**.



### Step 2

Click **Network and Internet Connections**.

### Pick a category



### Step 3

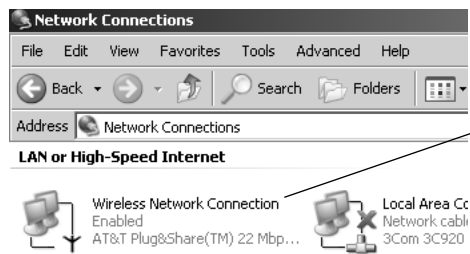
Click **Network Connections**.

### Pick a task...

- Set up or change your Internet connection
- Create a connection to the network at your workplace
- Set up or change your home or small office network

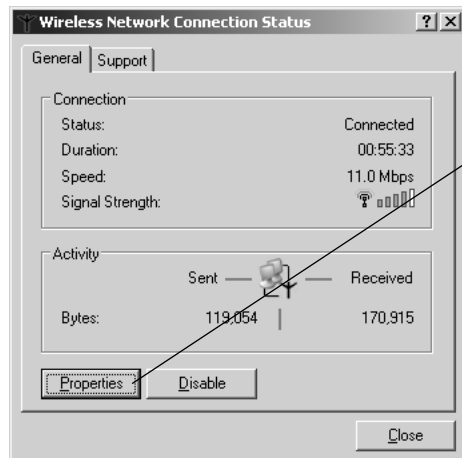
### or pick a Control Panel icon





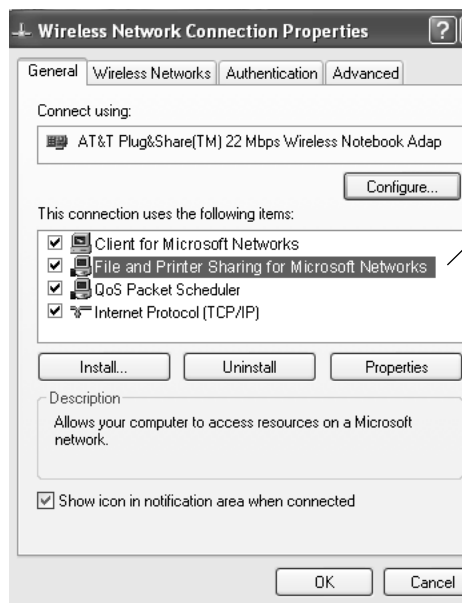
#### Step 4

Click **Wireless Network Connection**.



#### Step 5

Click the **Properties** button.

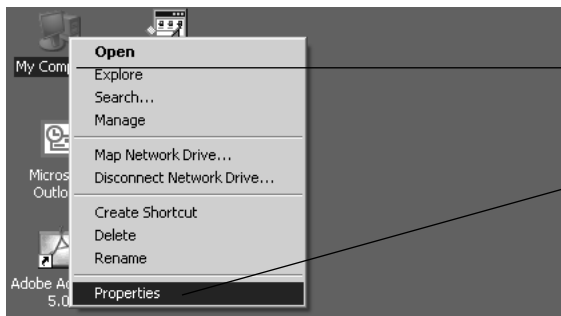


#### Step 6

Make sure **File and Printer Sharing for Microsoft Networks** appears in this list, and check it if it is unchecked.

If you do not see it in the list, click the **Install** button and follow directions to install **File and Printer Sharing for Microsoft Networks**.

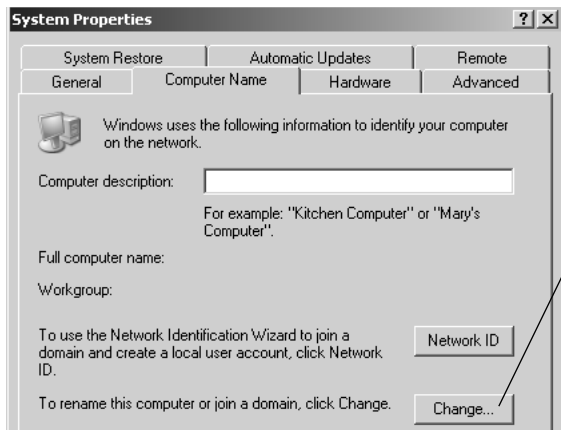
Click **OK** when **File and Printer Sharing** is installed and checked.



### Step 7

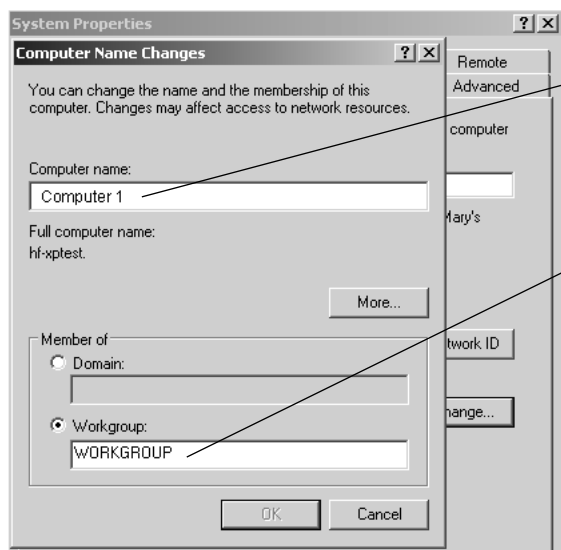
Highlight the **My Computer** icon on your desktop, then click the right mouse button.

Scroll down to click on **Properties**.



### Step 8

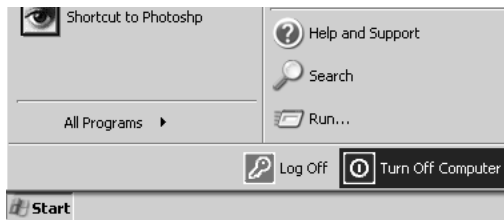
Click the **Change** button.



### Step 9

Enter a unique name to identify your computer. Each computer must have a different name.

Enter a workgroup name. All computers must use the same workgroup. It may be easiest to use the default name, "Workgroup."

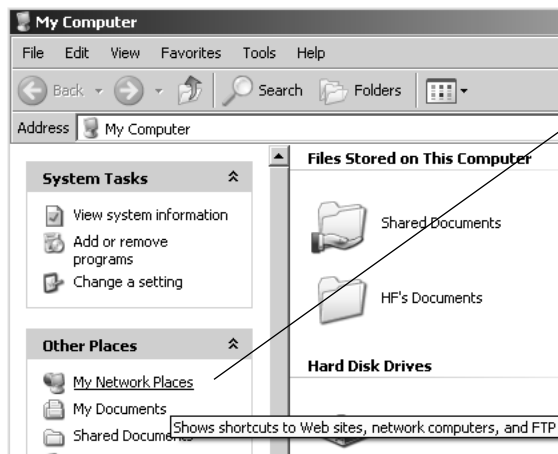
**Step 10**

When configuration is complete, you must restart Windows®.

When Windows® restarts you will be prompted to enter a **user name** and **password**. Be sure to record these in a safe place. You will be required to enter them for access to the network each time you restart Windows®.

**Step 11**

To verify that configuration is complete, double-click the **My Computer** icon on your desktop, then double-click **My Network Places**.

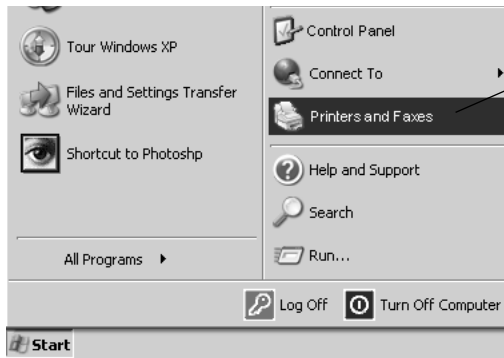


In the next window displayed you should see the names of all network computers.

If any computers do not appear, you will have to follow the steps in this section on each computer to configure them for network sharing. Make sure each computer is assigned a different name, and all share the same Workgroup name you entered at Step 9.

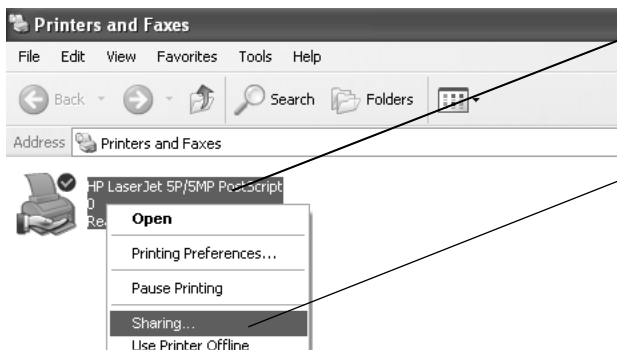


## Configure Windows® XP for Printer Sharing



### Step 1

Click **Start > Printers and Faxes**.

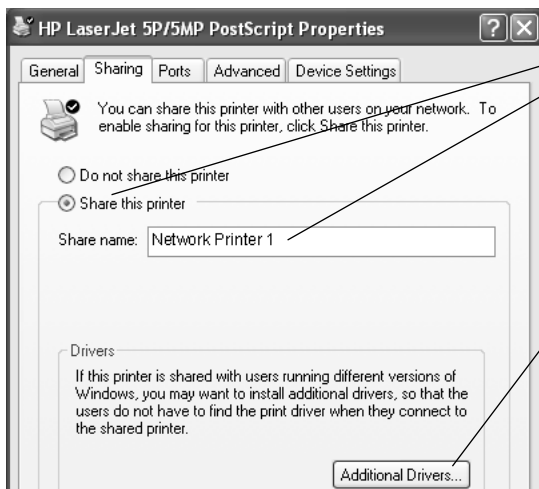


### Step 2

Place the cursor on the printer you want to share, then click the right mouse button.

Scroll down to select **Sharing**.

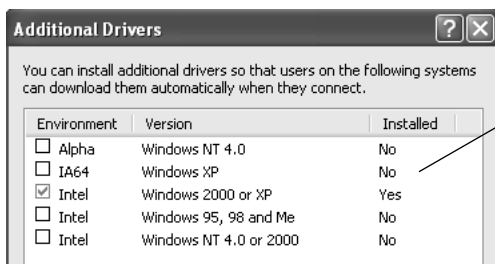
**NOTE:** If your printer is not listed in this window, double-click **Add a Printer**, then follow the instructions to set up your printer for use.



### Step 3

Click the **Share this printer** button, then enter a unique name for this printer.

To continue, click the **Additional Drivers** button.



### Step 4

Check boxes for all operating systems that will use this printer.

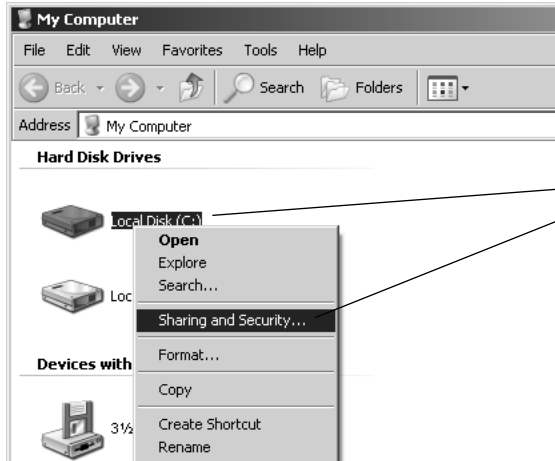
Click **OK** when finished.

## Configure Windows® XP for File Sharing



### Step 1

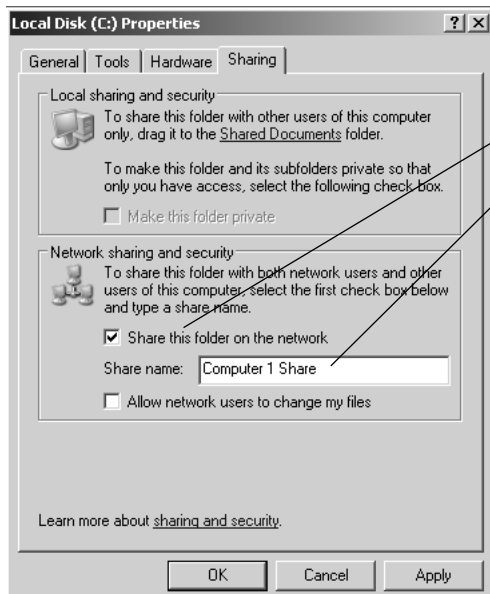
Double-click the **My Computer** icon on your desktop.



### Step 2

Place the cursor on the disk drive you want to share (usually Drive C:), then click the right mouse button and scroll down to select **Sharing and Security**.

**NOTE:** This will allow others access to all files on this computer. To restrict access to certain folders, double-click on the disk, highlight a folder you want to share, then follow steps 2-3.



### Step 3

Check the **Share this folder on the Network** box, then enter a unique name for the drive or folder you want to share.

**NOTE:** To protect your files with higher levels of security, please refer to instructions provided with your Windows® operating system.

Click **OK** when finished.

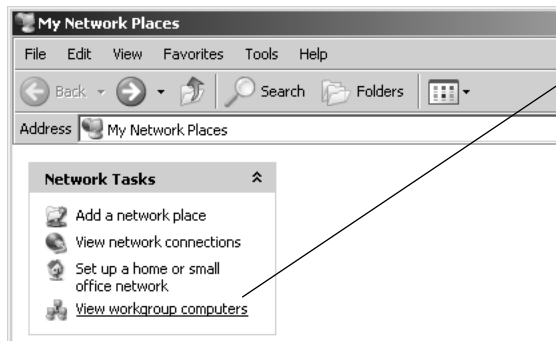


## To Share Network Files in Windows® XP



### Step 1

Double-click the **My Network Places** icon on your desktop.



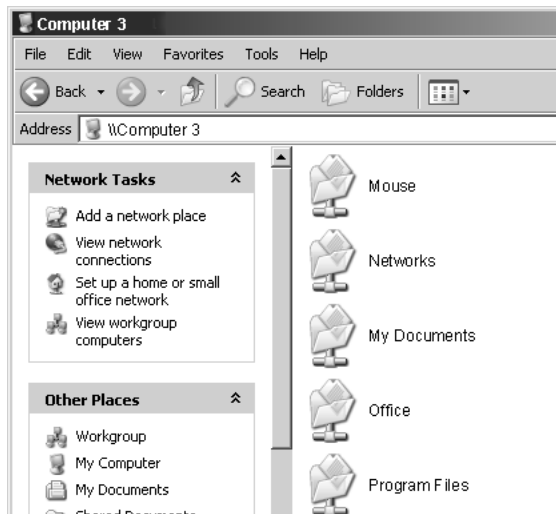
### Step 2

Double-click **View Workgroup Computers** to see a list of all computers connected to your network.



### Step 3

Double-click any icon to see a list of all shared folders on that computer.



### Step 4

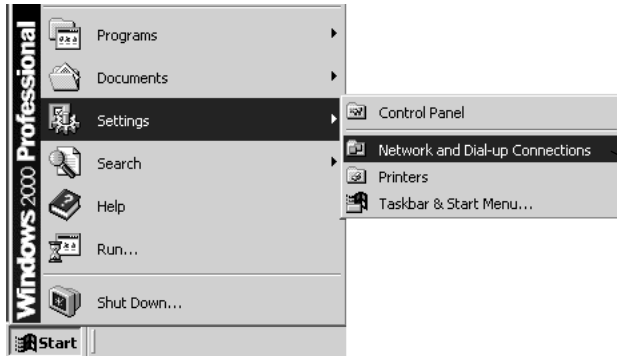
Double-click any folder for access to any file in that folder.

## Configure Windows® 2000 for Network Sharing



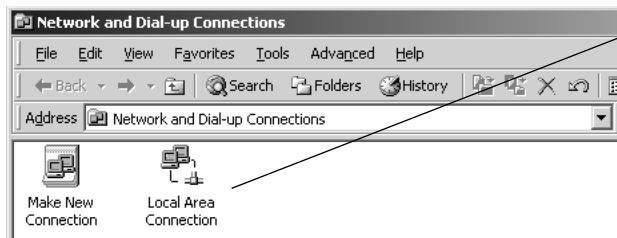
### Caution

Before making any changes to your networking settings, please review this section carefully. Failure to follow these instructions precisely may result in the inability to log into your network or computer. If your computer is part of a work environment, please contact your IT professional before proceeding.



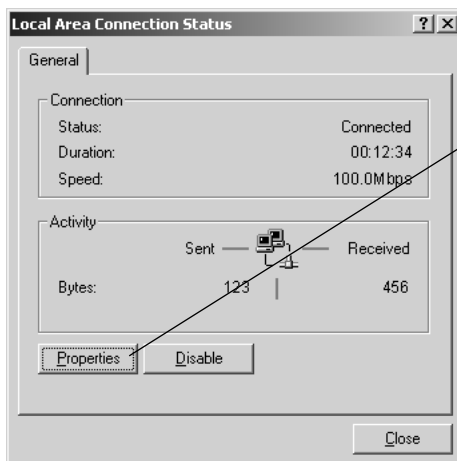
### Step 1

Click **Start** > **Settings** > **Network and Dial-up Connections**.



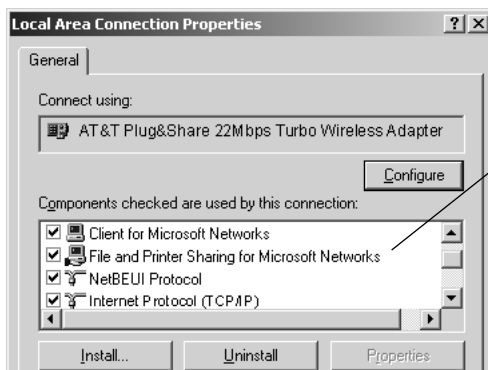
### Step 2

Double-click **Local Area Connections**.



### Step 3

Click the **Properties** button.

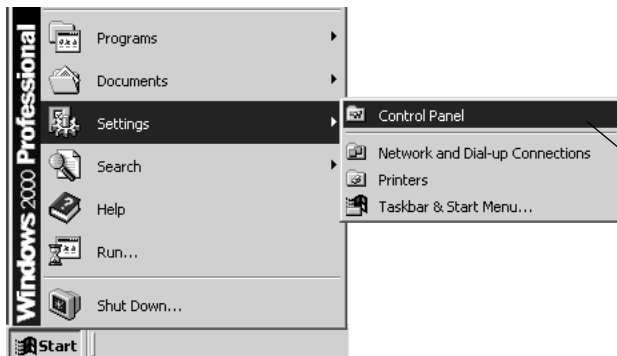


### Step 4

Make sure **File and Printer Sharing for Microsoft Networks** appears in this list, and check it if it is unchecked.

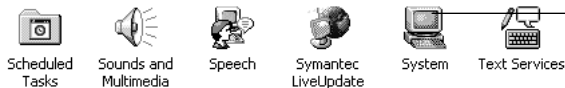
If you do not see it in the list, click the **Install** button and follow directions to install **File and Printer Sharing for Microsoft Networks**.

Click **OK** when **File and Printer Sharing** is installed and checked.



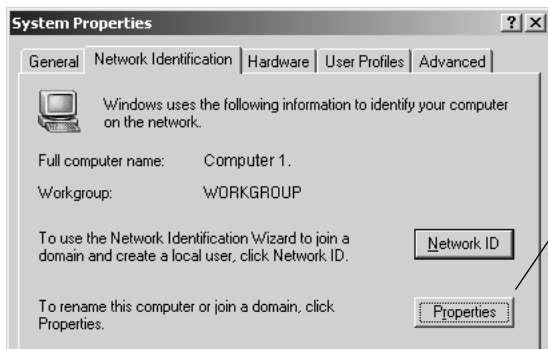
#### Step 5

Click **Start** >  
**Settings** >  
**Control Panel**.



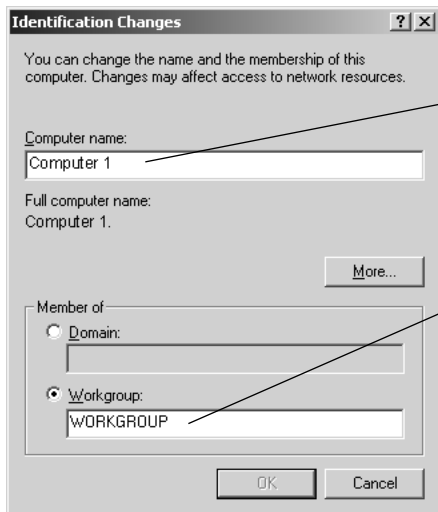
#### Step 6

Double-click **System**.



#### Step 7

Click the **Properties** button.



#### Step 8

Enter a unique name to identify your computer.  
Each computer must have a different name.

Enter a workgroup name. All computers must  
use the same workgroup. It may be easiest to  
use the default name, "Workgroup."

**Step 9**

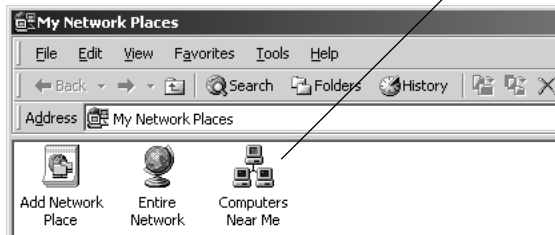
When configuration is complete, you must re-start Windows®.

When Windows® restarts you will be prompted to enter a **user name** and **password**. Be sure to record these in a safe place. You will be required to enter them for access to the network each time you restart Windows®.

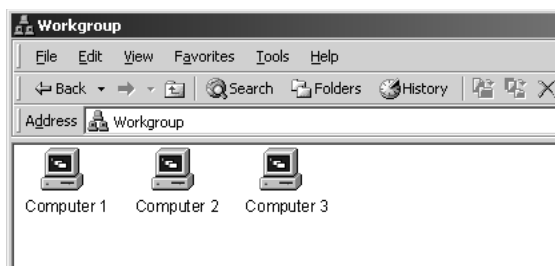
**Step 10**

To verify that configuration is complete, double-click the **My Network Places** icon on your desktop, then double-click **Computers Near Me**.

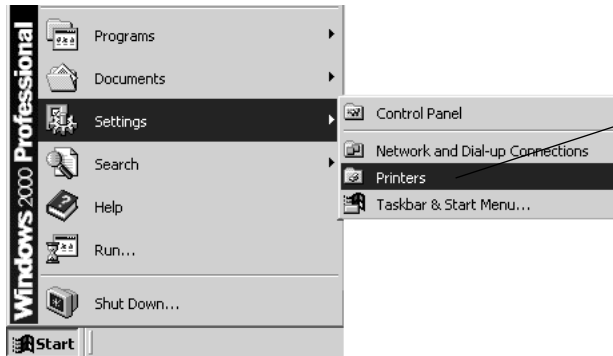
In the next window displayed you should see the names of all network computers.



If any computers do not appear, you will have to follow the steps in this section on each computer to configure them for network sharing. Make sure each computer is assigned a different name, and all share the same Workgroup name you entered at Step 8.

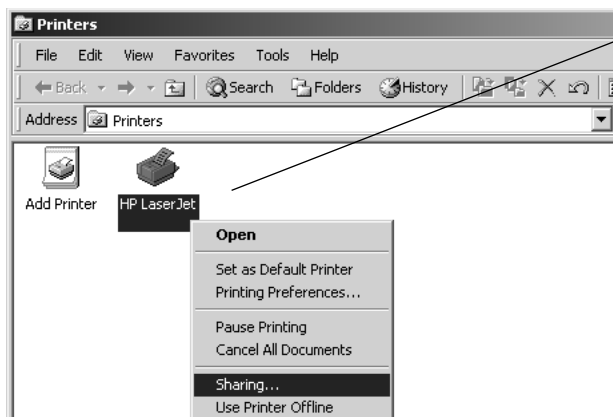


## Configure Windows® 2000 for Printer Sharing



### Step 1

Click **Start** > **Settings** > **Printers**.

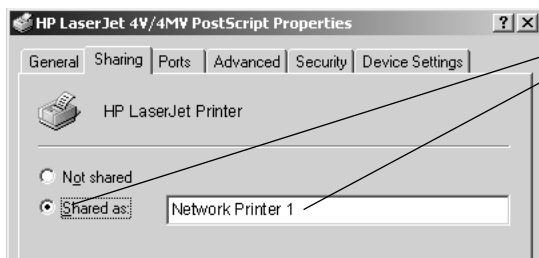


### Step 2

Place the cursor on the printer you want to share, then click the right mouse button.

Scroll down to select **Sharing**.

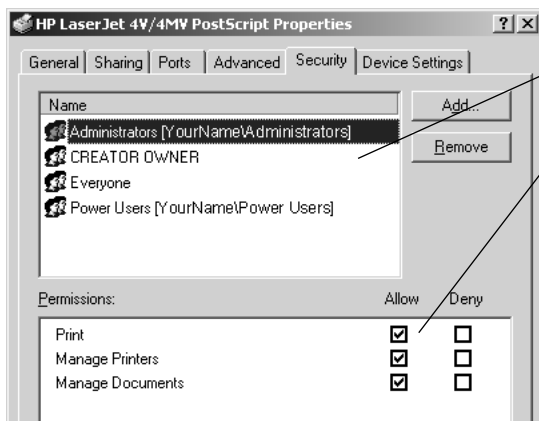
**NOTE:** If your printer is not listed in this window, double-click **Add Printer**, then follow the instructions to set up your printer for use.



### Step 3

Click the **Shared As** button, then enter a unique name for this printer.

To continue, click on the **Security** tab at the top of this window.



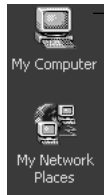
### Step 4

At this screen you can set permissions for each user of the printer. Unless you have special needs for security, it may be easiest to check **Allow** for all permissions and all user names listed.

**NOTE:** To set more restrictive printer permissions, please refer to instructions provided with your Windows® operating system.

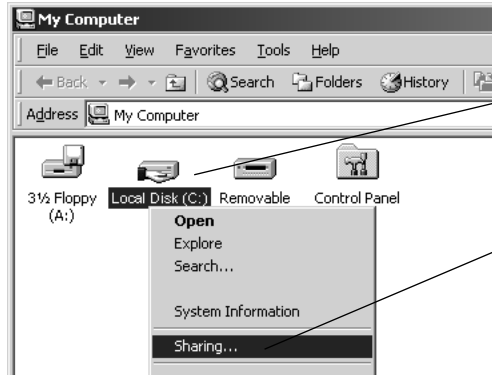
Click **OK** when finished.

## Configure Windows® 2000 for File Sharing



### Step 1

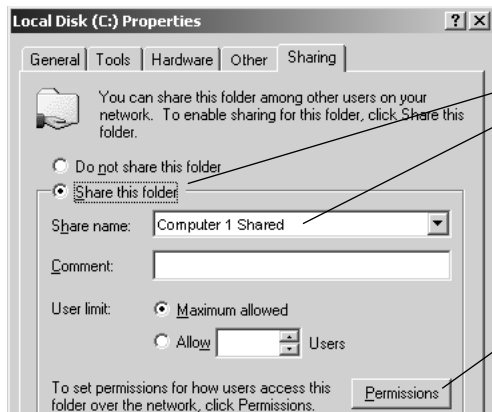
Double-click the **My Computer** icon on your desktop.



### Step 2

Place the cursor on the disk drive you want to share (usually Local Drive C:), then click the right mouse button and scroll down to select **Sharing**.

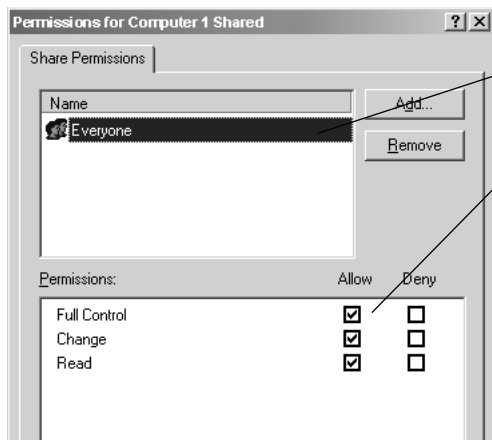
**NOTE:** This will allow others access to all files on this computer. To restrict access to certain folders, double-click on the disk, highlight a folder you want to share, then follow steps 2-4.



### Step 3

Click the **Share this folder** button, then enter a unique name for the drive or folder you want to share.

To continue, click the **Permissions** button.



### Step 4

At this screen you can set permissions for each user of shared documents. Unless you have special needs for security, it may be easiest to check **Allow** for all permissions.

**NOTE:** To set more restrictive permissions, please refer to instructions provided with your Windows® operating system.

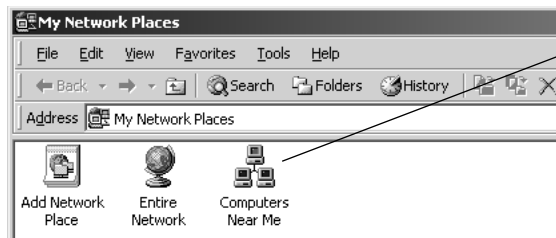
Click **OK** when finished.

## To Share Network Files in Windows® 2000



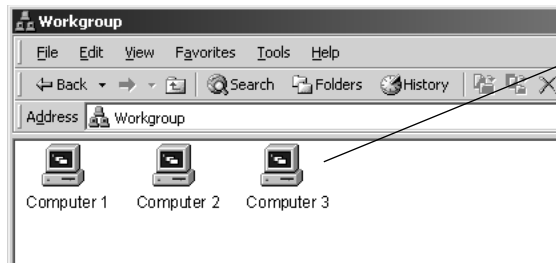
### Step 1

Double-click the **My Network Places** icon on your desktop.



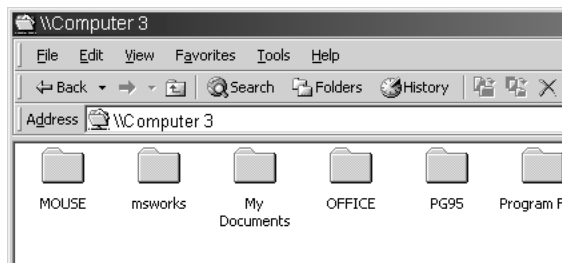
### Step 2

Double-click **Computers Near Me** to see a list of all computers connected to your workgroup.



### Step 3

Double-click any icon to see a list of all shared folders on that computer.



### Step 4

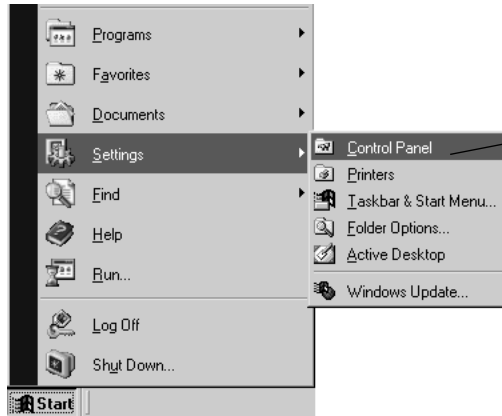
Double-click any folder for access to any file in that folder.

## Configure Windows® 98/Me for Network Sharing



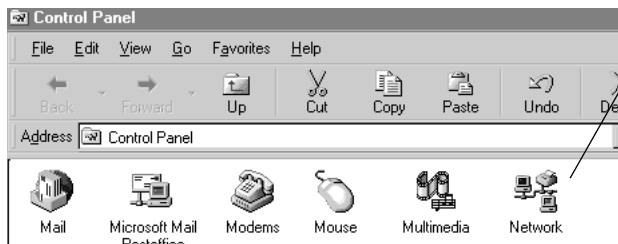
### Caution

Before making any changes to your networking settings, please review this section carefully. Failure to follow these instructions precisely may result in the inability to log into your network or computer. If your computer is part of a work environment, please contact your IT professional before proceeding.



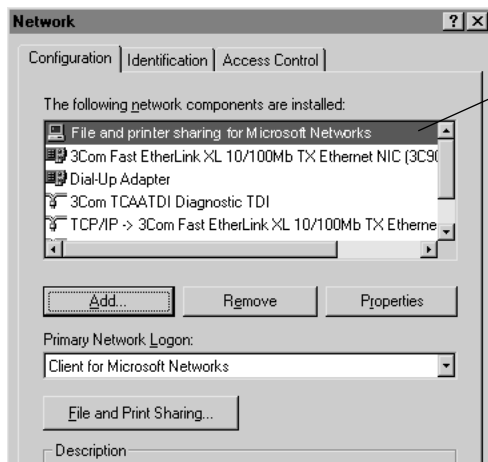
### Step 1

Click **Start > Settings > Control Panel**.



### Step 2

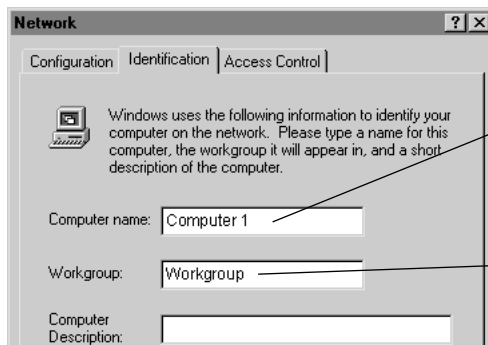
Double-click **Network**.



### Step 3

Scroll down to make sure **File and Printer Sharing for Microsoft Networks** appears in this list.

If you do not see it in the list, click the **Add** button and follow directions to install **File and Printer Sharing for Microsoft Networks**.

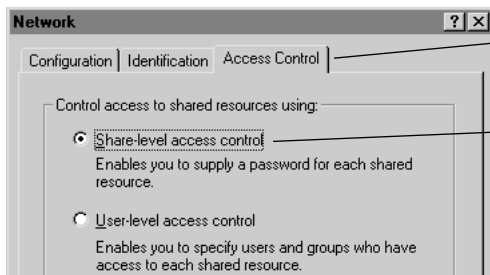


### Step 4

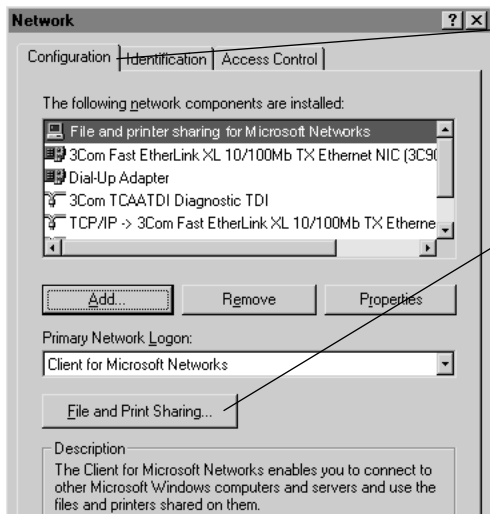
Click the **Identification** tab at the top of this screen, then enter a unique name to identify your computer. Each computer must have a different name.

Enter a workgroup name. All computers must use the same workgroup. It may be easiest to use the default name, "Workgroup."

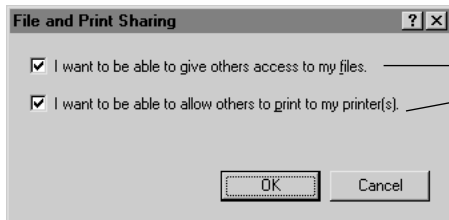


**Step 5**

Click the **Access Control** tab at the top of this screen, then click on the **Share- Level access control** button.

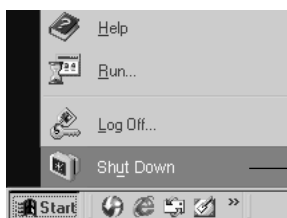
**Step 6**

Click the **Configuration** tab at the top of this screen, then click the **File and Print Sharing** button.

**Step 7**

Check the first option (I want to be able to give others access to my files). Check the second option if you want to share a printer connected to this computer.

Click **OK** when finished.

**Step 8**

When configuration is complete, you must re-start Windows®.



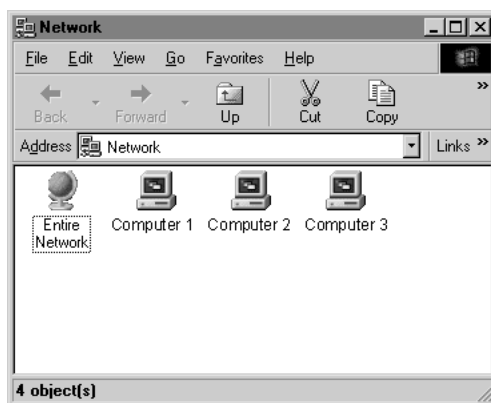
When Windows® restarts you will be prompted to enter a **user name** and **password**. Be sure to record these in a safe place. You will be required to enter them for access to the network each time you restart Windows®.

**Step 9**

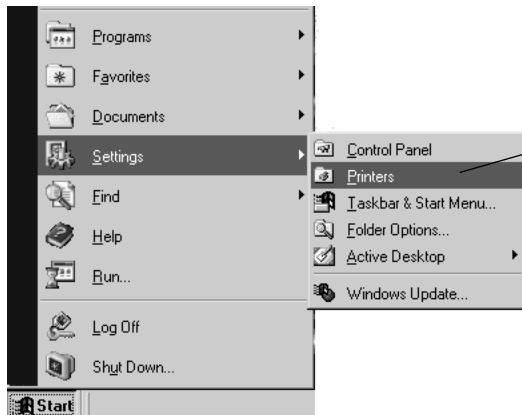
To verify that configuration is complete, double-click the **Network Neighborhood** icon on your desktop.

In the next window displayed you should see the names of all network computers.

If any computers do not appear, you will have to follow the steps in this section on each computer to configure them for network sharing. Make sure each computer is assigned a different name, and all share the same Workgroup name you entered at Step 4.

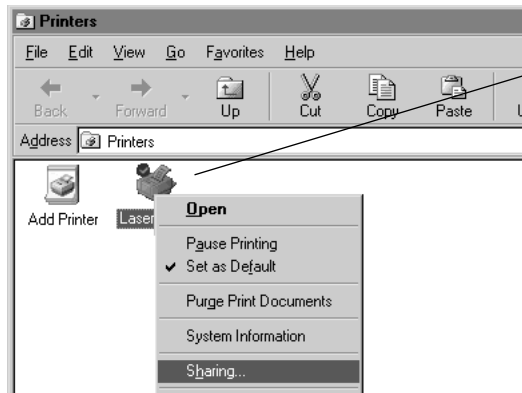


## Configure Windows® 98/Me for Printer Sharing



### Step 1

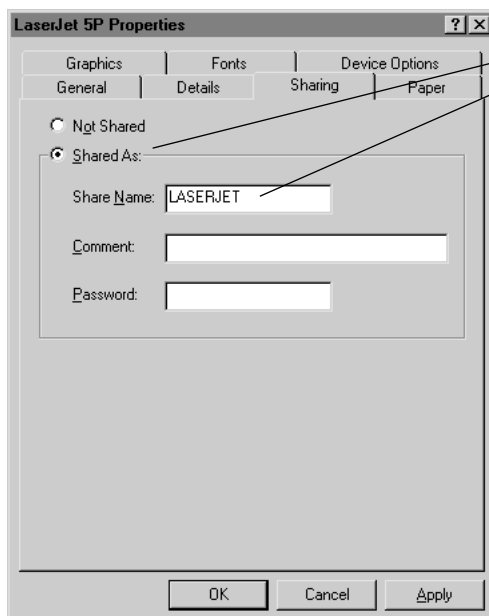
Click **Start > Settings > Printers**.



### Step 2

Place the cursor on the printer you want to share, then click the right mouse button and scroll down to select **Sharing**.

**NOTE:** If your printer is not listed in this window, double-click **Add Printer**, then follow the instructions to set up your printer for use.



### Step 3

Click the **Shared As** button, then enter a unique name for this printer.

To help you identify this printer, you can enter a description in the Comment box.

To restrict access to this printer, you can enter a password (please refer to instructions provided with your Windows® operating system).

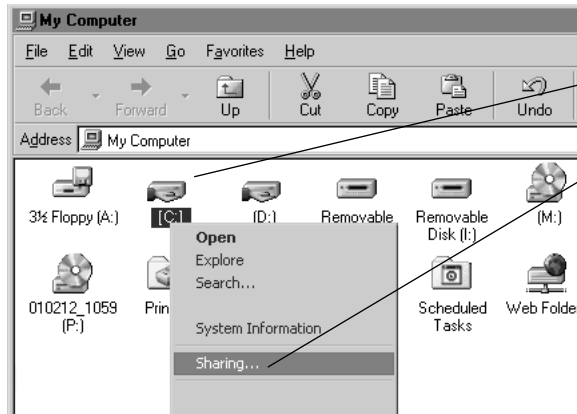
Click **OK** when finished.

## Configure Windows® 98/Me for File Sharing



### Step 1

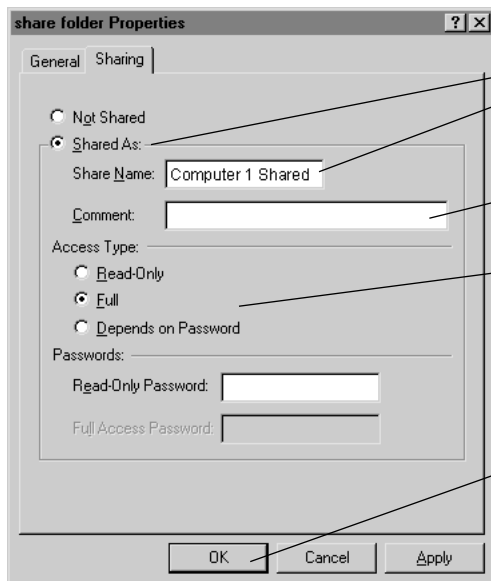
Double-click the **My Computer** icon on your desktop.



### Step 2

Place the cursor on the disk drive you want to share (usually Drive C:), then click the right mouse button and scroll down to select **Sharing**.

**NOTE:** This will allow others access to all files on this computer. To restrict access to certain folders, double-click on the disk, highlight a folder you want to share, then follow steps 2-3.



### Step 3

Click the **Shared As** button, then enter a unique name for the drive or folder you want to share.

To help you identify this shared resource, you can enter a description in the **Comment** box.

**Access Type** options allow you to restrict access to each shared resource (please refer to instructions provided with your Windows® operating system).

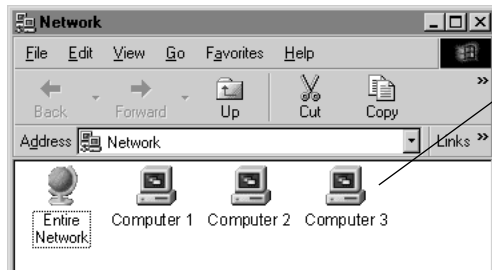
Click **OK** when finished.

## To Share Network Files in Windows® 98/Me



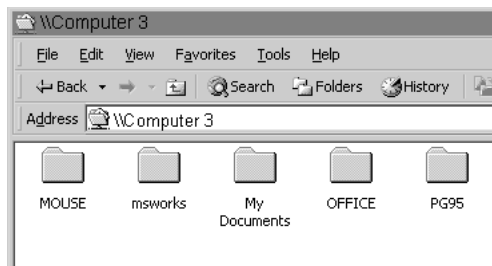
### Step 1

Double-click the **Network Neighborhood** icon on your desktop.



### Step 2

Double-click any icon to see a list of all shared folders on that computer.



### Step 3

Double-click any folder for access to any file in that folder.

## Troubleshooting

If your wireless network adapter does not work properly, try the following suggestions before seeking repair assistance.

Problem	Solution
<b>Network performance is sometimes fast, sometimes slow</b>	<ul style="list-style-type: none"> <li>• Another network nearby may be using the same channel, and causing interference. Change the <u>Channel</u> to a different setting on all devices connected to your network (see page 8).</li> </ul>
<b>Continuously slow network performance, or excessive data errors</b>	<ul style="list-style-type: none"> <li>• Set the <u>TX Rate</u> to a lower transmission speed (see page 8).</li> <li>• Set <u>Power Mode</u> to <b>Power Save</b> or <b>Continuous Access</b> (see page 8.)</li> <li>• Set <u>Preamble</u> to a lower value if necessary (see page 8).</li> </ul>
<b>No access to other devices on the network</b>	<ul style="list-style-type: none"> <li>• Make sure the router power light is on. If not, check the AC power adapter connections at the router and at the wall outlet.</li> <li>• Make sure all devices connected to the network are assigned the same <u>SSID</u> and the same <u>Channel</u> (see page 8).</li> <li>• If you have enabled WEP encryption, make sure all devices use the same encryption settings. Each device must use the same <u>Phrase/Key</u> and <u>Length</u> (see page 9).</li> <li>• If you have difficulty with file sharing or printing, you must configure your Windows® operating system properly for all devices connected to the network (see page 10).</li> </ul>
<b>Cannot connect to the Internet</b>	<ul style="list-style-type: none"> <li>• Verify that your cable or DSL modem is properly connected and is receiving electrical power.</li> <li>• Turn off your modem, leave it off for 15 seconds, then turn it back on and check for Internet access.</li> <li>• Confirm that your ISP account information is entered correctly on the router you are using for Internet connections.</li> <li>• Do you have Internet access at the computer connected to your router or access point? If not, you will not be able to connect until the router fault is corrected. Consult the user manual for the router or access point.</li> <li>• If your router or access point is connected to the Internet, try rebooting the computer in which the adapter is installed.</li> <li>• Check the communication between the adapter and the router. If you are using an AT&amp;T Plug&amp;Share™ router, open your Internet browser on the computer that has the adapter installed. Enter <u>ATT.Router</u> or <u>http://192.168.0.1</u> in the address line. If you see the router page, there may be a problem with your network settings. See next page for instructions.</li> </ul>

## Problem

### Cannot connect to the Internet

(Setting your computer to automatically detect IP settings may correct this problem.)

## Solution

If remedies suggested on the previous page do not work, you can set your computer to automatically detect IP settings, which may allow you to connect to the Internet.

**If your computer is new**, it may not have an IP address, which is required for Internet access. If you do not need a static IP address for some special purpose, you can set your computer to automatically detect the IP settings (see steps 1-6, below).

**If your network uses static IP addresses**, you should **not** follow the procedure below. You will have to enter the IP address assigned to you by your service provider.

**If you use this computer on another network** (perhaps at your workplace), you should consult a technician familiar with the network before attempting this change.

---

**Record all settings before changing them in case you need to restore them later.**

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### To set your computer to automatically detect IP settings:

- 1 Start Internet Explorer®. Whether you can connect to the Internet or not, the browser screen will appear.
- 2 Select **Tools**.
- 3 Select **Internet Options** from the dropdown menu.
- 4 Select **Connections**.
- 5 Select **LAN Settings**.
- 6 Select **Automatically detect settings**.

### Reinstallation procedure

Follow the steps at right if the adapter needs to be reinstalled for any reason.

### Blue screen. Nothing works.

This may occur if you choose the wrong Windows® operating system during installation. Follow the steps at right to correct the problem.

- 1 Turn off your computer.
- 2 Remove the wireless notebook adapter.
- 3 Insert the CD-ROM that came with the adapter. After a moment you should see the Auto-Run screen appear.
- 4 Click the **Uninstall** button and follow the steps to uninstall all software and drivers.
- 5 When the the procedure is completed, remove the CD-ROM.
- 6 Re-insert the CD-ROM, turn to page 4 of this manual and follow the steps to reinstall all software and drivers.

If you still have difficulty operating this product, or if you need more information or help, please visit our website at

**[www.plugandshare.att.com](http://www.plugandshare.att.com)**

or call our Customer Service Center at

**1-877-800-5400.**

## Glossary

### Access Point

Access points are the contact points (wireless routers and transmitters) in a wireless LAN that are connected to an Ethernet hub or server. Users can roam within the range of access points and their wireless device connections are passed from one access point to the next.

### Administrator

The network administrator is the person who manages the LAN. The administrator's tasks include ensuring network security, keeping software, hardware, and firmware up-to-date, and keeping track of network activity. Your router Administrator is the person in control of access to your router. The system starts out with all users as administrators.

### Authentication

Authentication refers to the verification of a transmitted message's integrity.

### Beacon Interval

Refers to the interval between packets sent by routers for the purposes of synchronizing wireless LANs.

### Broadband

Usually refers to Internet connections that provide faster data transfer than standard dial-up connections (cable modem, DSL, T-1, etc.)

### DDNS

Dynamic DNS (Domain Name System).

### DHCP

DHCP (Dynamic Host Configuration Protocol) software automatically assigns IP addresses to client stations logging onto a TCP/IP network, which eliminates the need to manually assign permanent IP addresses.

### DHCP Client

The DHCP client list shows all of the computers attached to your local network. The list shows the host name of the computer.

### DMZ

DMZ (Demilitarized Zone) is a part of an network that is located between a secure LAN and an insecure WAN. DMZs provide a way for some clients to have unrestricted access to the Internet.

### DNS

DNS stands for Domain Name System. DNS converts domain names to the IP addresses that all machines on the Internet have. It translates from name to address and from address to name.

### Domain Name

The domain name is the "readable" version of an Internet site address. A typical domain name has the form "www.somedomainname.com" or "www.somedomainname.org", etc.

### DTIM

DTIM (Delivery Traffic Indication Message) provides client stations with information on the next opportunity to monitor for broadcast or multicast messages.

### Filter

Filters only allow specified data to be transmitted or received. For example, the router can filter specific IP addresses so that users cannot connect to those addresses.



**Firewall**

Firewalls are methods used to keep networks secure from intruders and unauthorized access. Firewalls use filters to prevent unwanted data from being transmitted to and/or from a local network. Firewalls are typically used to prevent outsiders from accessing your private data resources and for controlling what outside (WAN) resources your users can access.

**Firmware**

Firmware refers to memory chips that retain their content without electrical power (for example, BIOS ROM). The router firmware stores all of the router administration settings.

**Fragmentation**

Refers to the breaking up of data packets during transmission.

**FTP**

FTP (File Transfer Protocol) is used to transfer files over a TCP/IP network, and is typically used for transferring large files or uploading the HTML pages for a web site to the web server.

**Gateway**

Gateways are computers that convert protocols enabling different networks, applications, and operating systems to exchange information.

**Host Name**

The name given to a computer or client station that acts as a source for information on the network.

**HTTP**

HTTP (HyperText Transfer Protocol) is the communications protocol used to connect to servers on the World Wide Web. HTTP establishes a connection with a web server and transmits HTML pages to client browser (for example Windows® IE). HTTP addresses all begin with the prefix "http://" (for example, <http://www.somedomainname.com>).

**ICMP**

ICMP (Internet Control Message Protocol) is a TCP/IP protocol used to send error and control messages over the LAN (for example, it is used by the router to notify a message sender that the destination node is not available).

**IP**

IP (Internet Protocol) is the protocol in the TCP/IP communications protocol suite that contains a network address and allows messages to be routed to a different network or subnet. However, IP does not ensure delivery of a complete message-TCP provides the function of ensuring delivery.

**IP Address**

The IP (Internet Protocol) address refers to the address of a computer attached to a TCP/IP network. Every client and server station must have a unique IP address. Clients are assigned either a permanent address or have one dynamically assigned to them via DHCP. IP addresses are written as four sets of numbers separated by periods (for example, 211.23.181.189).

**ISP**

An ISP (Internet Service Provider) is an organization providing Internet access service via modems, ISDN (Integrated Services Digital Network), private lines or other means.

**LAN**

LANs (Local Area Networks) are networks that serve users within specific geographical areas, such as your home or in a company building. LANs consist of a group of computers and related devices that share a common communication link (wired and/or wireless). A LAN allows you to share data and resources among the devices on the LAN.

**MAC Address**

A MAC address is a unique serial number for hardware adapters, giving the adapter a unique identification.

**Metric**

A number that indicates how long a packet takes to get to its destination.

**MTU**

MTU (Maximum Transmission/Transfer Unit) is the largest packet size that can be sent over a network. Messages larger than the MTU are divided into smaller packets.

**NAT**

NAT (Network Address Translation — also known as IP masquerading) enables a LAN to present itself to the Internet with one address. NAT converts the address of each LAN node into one IP address for the Internet (and vice versa). NAT also provides a certain amount of security by acting as a firewall by keeping individual IP addresses hidden from the WAN.

**Network Administrator**

The network administrator is the person who manages the LAN. The administrator's tasks include ensuring network security, keeping software, hardware, and firmware up-to-date, and keeping track of network activity.

**NTP**

NTP (Network Time Protocol) is used to synchronize the realtime clock in a computer. Internet primary and secondary servers synchronize to Coordinated Universal Time (UTC).

**Packet**

A packet is a portion of data that is transmitted in network communications. Packets are also sometimes called frames and datagrams. Packets contain not only data, but also the destination IP address.

**Ping**

Ping (Packet Internet Groper) is a utility used to find out if a particular IP address is present online.

**Port**

Ports are the physical and/or logical communications pathways in and out of computers and network devices (routers and switches). Most PCs have serial and parallel ports, which are external sockets for connecting devices such as printers, modems, and mice. All network adapters also use ports to connect to the LAN. Finally, applications that communicate over the Internet also have ports; these are the end-points of the application and are given a specific "port number."

**PPPoE**

PPPoE (Point-to-Point Protocol Over Ethernet) is a protocol used to communicate between two computers using a serial interface, such as dial-up Internet connections, over an Ethernet link.

**Preamble**

Preamble refers to the length of a CRC (Cyclic Redundancy Check) block used to detect errors in communications between roaming wireless enabled devices and routers.

**Protocol**

A protocol is a rule that governs the communication of data.

**RIP**

RIP (Routing Information Protocol) is a routing protocol that is integrated in the TCP/IP protocol. RIP finds a route that is based on the smallest number of hops between the source of a packet and its destination.

**RTS**

RTS (Request To Send) is a signal sent from the transmitting station to the receiving station requesting permission to transmit data.

**Server**

Servers are typically powerful and fast computers that store programs and data. The programs and data are shared by client computers (workstations) on the network.

**SMTP**

SMTP (Simple Mail Transfer Protocol) is the standard Internet e-mail protocol. SMTP is a TCP/IP protocol defining message format and includes a message transfer agent that stores and forwards mail.

**SNMP**

SNMP (Simple Network Management Protocol) is a widely used network monitoring and control protocol. SNMP hardware or software components transmit network device activity data to the workstation used to oversee the network.

**SSID**

SSID (Service Set Identifier) is the name designated for a LAN. It serves as a simple security measure used in Wireless LANs (WLANs). The SSID is attached to packets sent over WLANs. This identifier acts as a password when a wireless device attempts communication on the WLAN. Because an SSID distinguishes WLANs from each other, routers and wireless devices trying to connect to a WLAN must use the same SSID.

**Subnet Mask**

Subnet Masks (SUBNETwork masks) are used by IP protocol to direct messages into a specified network segment (i.e., subnet). A subnet mask is stored in the client machine, server or router and is compared with an incoming IP address to determine whether to accept or reject the packet.

**SysLog Server**

A SysLog server monitors incoming System log messages and decodes the messages for logging purposes.

**TCP**

(Transmission Control Protocol) is the transport protocol in TCP/IP that ensures messages over the network are transmitted accurately and completely.

**TCP/IP**

TCP/IP (Transmission Control Protocol/Internet Protocol) is the main Internet communications protocol suite. TCP ensures that data is completely sent and received at the other end. The IP component of TCP/IP provides data routability, meaning that data packets contain the destination station and network addresses, enabling TCP/IP messages to be sent to multiple networks within the LAN or in the WAN.

**Telnet**

Telnet is a terminal emulation protocol commonly used on the Internet and TCP- or IP-based networks. Telnet is used for connecting to remote devices and running programs. Telnet is a high level application protocol that uses the TCP/IP communications protocol.

**UDP**

(User Datagram Protocol) is a protocol within TCP/IP that is used to transport information when accurate delivery isn't necessary (for example, realtime video and audio where packets can be dumped since there is no time for retransmitting the data).

**Virtual Servers**

Virtual servers are client servers (such as web servers) that share resources with other virtual servers (i.e., it is not a dedicated server).

**VoIP**

(Voice Over Internet Protocol) is a method used to deliver voice information over the Internet. VoIP services allow telephone calls using your PC or LAN.

**WEP**

WEP (Wired Equivalent Privacy) is the most common security protocol for wireless LANs, providing the "equivalent" security available in hardwired networks.

**Wireless LAN (WLAN)**

Wireless LANs are local area networks that use wireless communications for transmitting data. Transmissions are usually in the 2.4 GHz band. WLAN devices do not need to be lined up for communications like infrared devices. WLAN devices use routers which are connected to the wired LAN and provide connectivity to the LAN. The radio frequency of WLAN devices is strong enough to be transmitted through non-metal walls and objects, and can cover an area up to a thousand feet. Laptops and notebooks use wireless LAN PCMCIA cards while PCs use plug-in cards to access the WLAN.

**WAN**

WAN (Wide Area Network) is a communications network that covers a wide geographic area such as a country (contrasted with a LAN, which covers a small area such as a company building).

## Technical Specifications

### Standards

- IEEE 802.11
- IEEE 802.11b

### Operating Systems

- Windows® XP, 2000, Me, 98 SE

### Bus Type

- 32-bit Cardbus

### Wireless Data Rates

- With Automatic Fallback
- 4X Turbo Speed Technology
- 22 Mbps
- 11 Mbps
- 5.5 Mbps
- 2 Mbps
- 1 Mbps

### Encryption

- 64/128/256-bit RC4

### Media Access Control

- CSMA/CA with ACK

### Frequency Range

- 2.4GHz to 2.472GHz

### Operating Range

- Indoors: Up to 300 feet (100m)
- Outdoors: Up to 980 feet (300m)

### Modulation Technology

- DSSS: Direct Sequence Spread Spectrum

### Modulation Techniques

- Barker (1Mbps/0db)
- Barker (2Mbps/3db)
- CCK (5.5Mbps/5.5db)
- PBCC (5.5 Mbps/1.5db)
- CCK (11Mbps/8.5db)
- PBCC (11Mbps/4.5db)
- PBCC (22Mbps/8.5db)

### Power Management

- Automatic to reduce battery usage

### Power Consumption

- Receive mode = 185mA
- Doze mode = 9mA
- Transmit mode = 285mA

### Transmitter Output Power

- 15dBm  $\pm$  2dB

### Internal Antenna Type

- Diversity

### Over-Driving Levels

- Tolerates up to +17dBm at the Antenna

### LEDs

- Power
- TX/RX

### Operating Climate Range

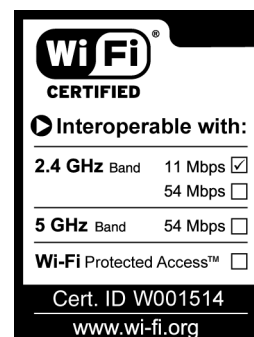
- Temperature: 32° to 131°F (0° to 55°C)
- Humidity: 32% to 90% relative humidity

### Storage Climate Range

- Temperature: -40° to 150°F (-40° to 66°C)
- Humidity: 15% to 90% relative humidity

### Safety & Emissions

- FCC





Questions?

Call **1-877-800-5400**

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**[www.plugandshare.att.com](http://www.plugandshare.att.com)**