MOTOROLA

Communications Gateway User Guide

Click your selection:

Introduction

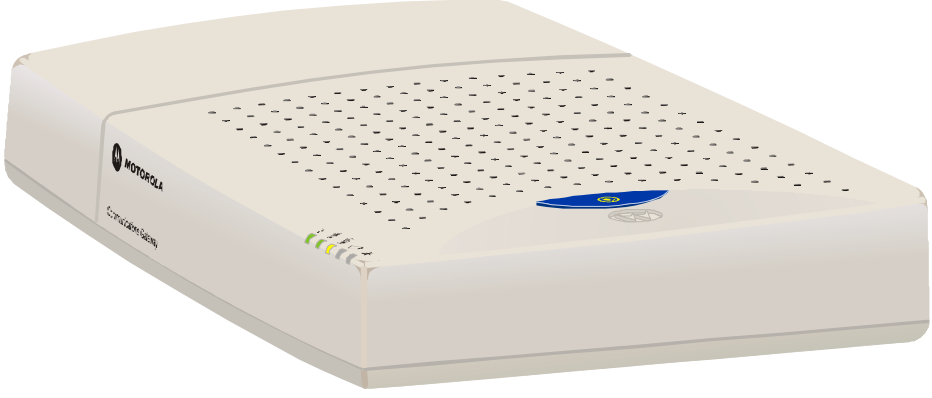
Introduces your Motorola Communications Gateway and the Top and Front Panel, Connector Panel, and Battery Compartment.

Before You Begin

Lists the items needed to install your Motorola Communications Gateway and describes Precautions, Signing Up for Service, and Computer System Requirements.

Installation and Configuration Overview

Provides an overview and links to cable and configure your Motorola Communications Gateway, including Setting Up a USB Driver.



Troubleshooting

Provides suggestions to fix common problems.

Contact Us

Provides contact information.

Frequently Asked Questions

Provides answers to common questions about the Motorola Communications Gateway.

Next page

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

CAUTION: TO ENSURE REGULATORY AND SAFETY COMPLIANCE, USE ONLY THE PROVIDED POWER CABLES. TO PREVENT ELECTRICAL SHOCK, DO NOT USE THIS PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

CAUTION: DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE INSTALLATION AND TROUBLESHOOTING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION: DO NOT SHORT CIRCUIT THE BATTERY TERMINALS. DO NOT CHARGE THE BATTERY UNDER AIRTIGHT CONDITIONS. DO NOT DISASSEMBLE, DROP, OR MECHANICALLY SHOCK THE BATTERY. DO NOT EXPOSE THE BATTERY TO FLAME OR SPARK. KEEP THE BATTERY OUT OF THE REACH OF CHILDREN.

It is recommended that the customer install an AC surge arrestor in the AC outlet to which this device is connected. This is to avoid damaging the equipment by local lightning strikes and other electrical surges.

Different types of cord sets may be used for connections to the main supply circuit. Use only a main line cord that complies with all applicable product safety requirements of the country of use.

This product was qualified under test conditions that included the use of the supplied cable between system components. To be in compliance with regulations, the user must use this cable and install it properly.

This product is provided with a separate Regulatory and Safety Information and Software License and Warranty Information card. If one is not provided with this product, please ask your service provider or point-of-purchase representative, as the case may be.

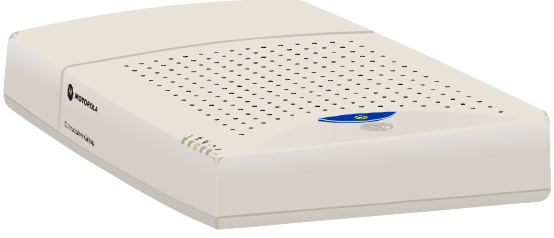
- THIS PRODUCT IS IN COMPLIANCE WITH ONE OR MORE OF THE STANDARDS LISTED ON THE REGULATORY AND SAFETY INFORMATION CARD. NOT ALL STANDARDS APPLY TO ALL MODELS.
- NO WARRANTIES OF ANY KIND ARE PROVIDED BY MOTOROLA WITH RESPECT TO THIS PRODUCT, EXCEPT AS STATED ON THE SOFTWARE LICENSE AND WARRANTY INFORMATION CARD. MOTOROLA'S WARRANTIES DO NOT APPLY TO PRODUCT THAT HAS BEEN REFURBISHED OR REISSUED BY YOUR SERVICE PROVIDER.

Contents

Introduction

IP telephony converges with cable data service in one convenient package!

You can place your Communications Gateway on your desktop or mount the unit as described in "Wall Mounting" on page 50.



Congratulations, you have a new Motorola® Communications Gateway! It provides the following converged services over a single coaxial cable (coax) network:

- Up to two telephone lines for voice and/or fax communication
- High-speed access to the Internet and other online services

Telephone Communications

You can connect up to two phone lines using your Motorola Communications Gateway. The Communications Gateway supports voice over Internet Protocol (VoIP) to provide:

- Connections to two standard telephone lines
- Standard features such as caller ID, call waiting, and call forwarding
- Software upgrades over the network to provide new or improved services
- Battery back-up during power interruptions through a built-in uninterruptible power supply (UPS)

Just pick up your phone and talk!

Introduction, continued

Easier!

Unlike dial-up modems or ISDN, you're always on, always connected.

Faster!

Your Communications Gateway is up to 100 times faster than a dial-up modem. It can provide data transfer rates of up to 10 Mbps upstream and 50 Mbps downstream. Because many network and other factors can affect performance, the actual speed will vary.

Better!

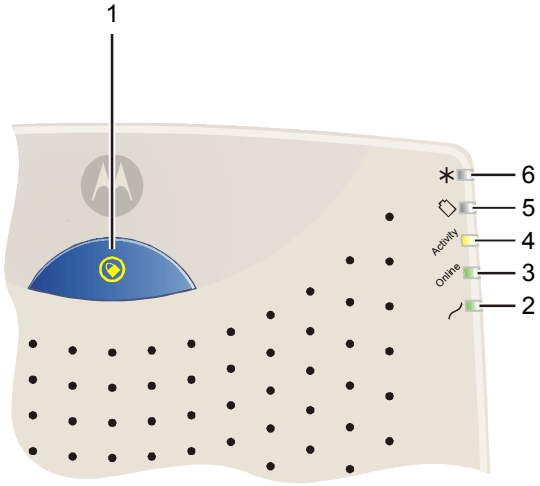
Your Communications Gateway is made by the company with over 50 years of cable TV expertise.

High-Speed Internet Access

You can use your high-speed, upgradeable Communications Gateway to connect one or more computers in your home or business to the Internet. Your Communications Gateway transmits and receives computer data much faster than traditional dial-up or ISDN modems. Unlike a dial-up modem, your Communications Gateway is always online. *Just open your browser and surf*!

You can connect:

- A single computer equipped with a Universal Serial Bus (USB) port directly to the USB port on the Motorola Communications Gateway
- A single computer equipped with an Ethernet adapter directly to the Ethernet port on the Motorola Communications Gateway
- Two computers; one to the USB port and one to the Ethernet port
- Up to 32 computers through a single Motorola Communications Gateway using an Ethernet hub



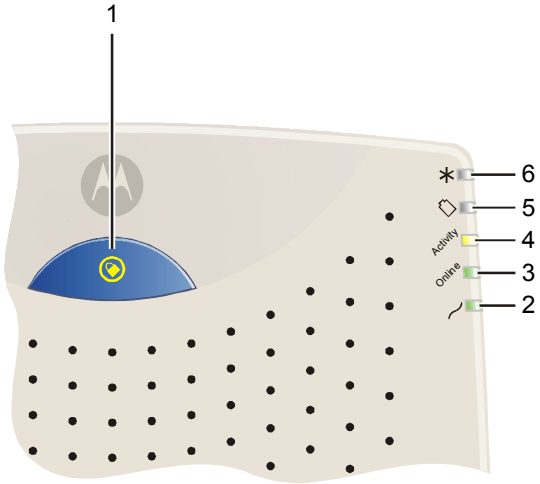
Top and Front Panel

For added security, you can press the Internet Security Lock button **(1)** to suspend your Internet connection. The Internet Security Lock symbol on the button lights yellow. Your computer cannot transmit or receive data. The Online light turns off until you press the Internet Security Lock button again. Regardless of the Internet Security Lock status, the Communications Gateway remains registered and telephone service continues.

The lights provide information about power, communications, and errors:

Light	Description
2	Power: ■ Solid green when the AC power is on. Flashes green when the self test is in progress. ■ Off when the AC power is off and the battery is in use. This can be because the plug was disconnected, a power failure occurred, or some other problem.
3 Online	Online: ■ Flashes green while the Communications Gateway downloads its configuration data. ■ Solid green when the configuration data is successfully downloaded.
4 Activity	Activity — Flashes yellow when transmitting or receiving data.

Top and Front Panel, continued



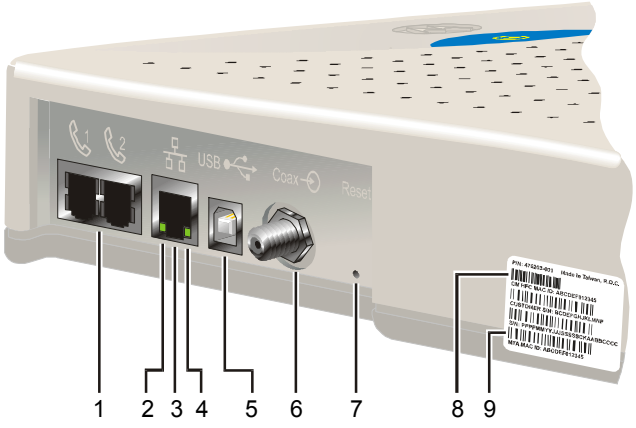
Light	Description
5	Battery: ■ Off when the AC power is on and the battery is not in use (the Communications Gateway is functioning normally) ■ Solid yellow when the battery is in use (there is no AC power) ■ Flashes yellow when the battery is low ■ Solid red when the battery is missing or the battery terminals are connected backwards ■ Flashes red when the battery has failed To replace the battery, follow the instructions in “Replacing the Battery” on page 45.
6	Reserved for future use

During normal operation:

- The power and Online lights are on
- The Activity light flashes when the Communications Gateway transfers data
- The battery light is off

Connector Panel

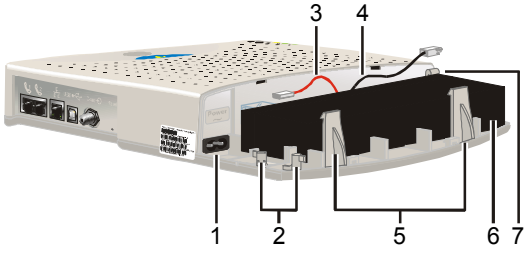
The connector panel provides cabling connectors and Ethernet status lights.



Item	Description
1	The standard RJ-11 telephone ports provide connections for telephone lines 1 and 2
2	When this light is on (green), the Ethernet connection is available. It blinks when data is being transferred.
3	The Ethernet port provides a connection to Ethernet equipped computers using a cable terminated with an RJ-45 connector.
4	This light is on (green) for a 100Base-T link and off for a 10Base-T link.
5	The USB port provides a connection to USB equipped computers.
6	The Coax port provides a connection to the coaxial cable (coax) outlet.
7	If you experience a problem, you can push this recessed button to reset the Communications Gateway (see “Troubleshooting” on page 54). Resetting may take 5 to 30 minutes because the Communications Gateway must find and lock on the appropriate communications channels.
8 and 9	These labels provide the cable data and telephony MAC addresses.

Battery Compartment

For instructions to remove the battery compartment cover, see “Cabling and Startup for a Single User” on page 13.



The battery compartment contains:

Item	Description
1	Power connector
2	Strain-relief posts for power cord
3	Positive battery wire (red)
5	Negative battery wire (black)
5	Battery snaps
6	Back-up battery
7	Battery hook

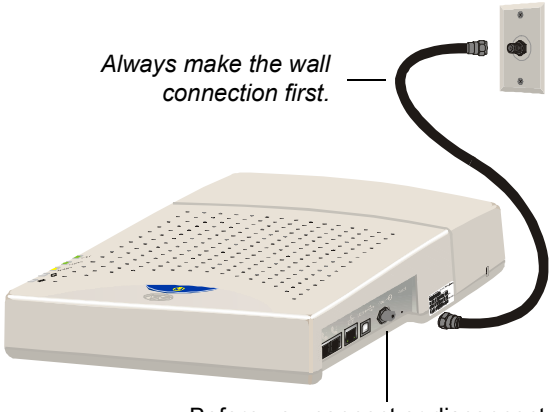
Before You Begin

Before you begin the installation, check that you received the following items with your Motorola Communications Gateway:

Item		Description
Power cord		Connects to the AC electrical outlet
10/100Base-T Ethernet cable		Connects to the Ethernet port
USB cable		Connects to the USB port
Phone wire		Connects a telephone line
***Motorola Communications Gateway* CD-ROM**		Contains the User Guide, USB driver, and other items supporting your Communications Gateway

You will need 75-ohm coaxial cable (coax) with F-type connectors to connect your Communications Gateway to the nearest cable outlet. If a TV is connected to the cable outlet, you may need a 5 to 900 MHz RF splitter to use both the TV and the Communications Gateway. Both the coaxial cable and the RF splitter are readily available at consumer electronic stores.

To avoid damaging your Communications Gateway or computer with static electricity:



Precautions

Postpone Communications Gateway installation until there is no risk of thunderstorm or lightning activity in the area.

To avoid damaging the Communications Gateway with static electricity:

- Always first connect the coaxial cable to the grounded cable TV wall outlet.
- Before you connect or disconnect the USB or Ethernet cable from your Communications Gateway or PC, always touch the coaxial cable connector on the Communications Gateway to release any static charges.

To prevent overheating the Communications Gateway, do not block the ventilation holes.

Do not open the Communications Gateway. Refer all service to your service provider.

Wipe the Communications Gateway with a clean, dry cloth. Never use cleaning fluid or similar chemicals. Do not spray cleaners directly on the unit or use forced air to remove dust.

Precautions, continued

If you mount your Communications Gateway on the wall following the instructions in "Wall Mounting" on page 50, be sure that you:

- Mount the Communications Gateway with the battery terminals facing up or sideways. *To prevent possible leakage, do not mount the Communications Gateway with the battery terminals facing down.*
- Use the Wall Mounting Template on page 53 to position the mounts
- *Before drilling holes, check the structure for potential damage to water, gas, or electric lines.*
- Use M5 x 38 mm (#10-16 x $1^1/_2$ inch) wall mounts that can support at least 2.5 kg (5.5 lbs) and anchors if necessary

You must comply with the following battery-related precautions:

- *Do not short circuit the battery terminals by simultaneously touching both terminals with a metal object.*
- *Do not charge the battery under airtight conditions.*
- *Do not disassemble, drop, or mechanically shock the battery.*
- *Do not expose the battery to flame or spark.*
- *Keep the battery out of the reach of children.*

Signing Up for Service

To receive Internet access or telephone service, you must sign up with a cable service provider. To activate your service, call your local service provider.

Cable Data Service

There is a sticker with bar code labels next to the Connector Panel. To receive Internet access, you need to provide the MAC address marked **CM HFC MAC ID** to your service provider.

You should ask your service provider the following questions:

- Do you have any special system requirements?
- When can I begin to use my Communications Gateway?
- Are there any files I need to download after I am connected?
- Do I need a user name or password to access the Internet or use e-mail?

Telephone Service

There is a sticker with bar code labels next to the Connector Panel. To receive telephone service, you need to provide the MAC address marked **MTA MAC ID** to your service provider.

Computer System Requirements

You can use any web browser such as Microsoft® Internet Explorer or Netscape® Navigator® with your Motorola Communications Gateway.

Your Motorola Communications Gateway is compatible with Microsoft Windows®, Macintosh®, and UNIX® computers.

Ethernet Card

You can use the Ethernet connection with any Windows, Macintosh, or UNIX computer equipped with a standard 10Base-T or 10/100Base-T Ethernet card.

Windows 95, UNIX, or Macintosh computers must use the Ethernet connection.

If you use an Ethernet card, it must be installed in your computer before you install the Communications Gateway. If it is not installed, follow the installation instructions provided with your Ethernet card.

USB Connection

You can use the USB connection with any PC running Windows 98 SE, Windows 2000, Windows Me™, or Windows XP™ that has a USB interface. The USB connection requires a special USB driver supplied on the *Motorola Communications Gateway* CD-ROM.

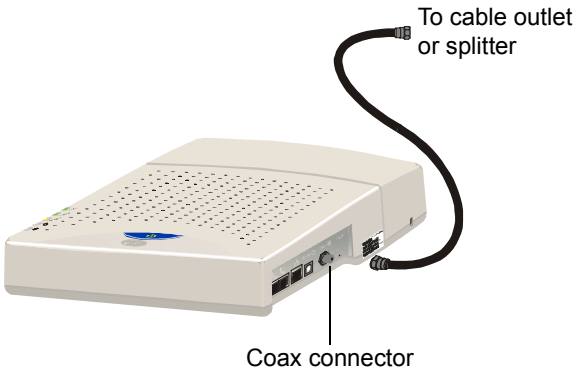
You can upgrade the USB drivers from the Internet. For information, check our website http://www.motorola.com/broadband.

Installation and Configuration Overview

To install and configure your Motorola Communications Gateway, you need to:

1. Install the cables as described in *one* of:
   - "Cabling and Startup for a Single User" on page 13
   - "Cabling for Multiple Users" on page 43
2. If you are using the USB Connection, set up the USB driver. Follow the instructions in "Setting Up a USB Driver" on page 21. *Ethernet users can skip this step.*
3. Configure TCP/IP following the instructions in "Configuring TCP/IP" on page 32 or the instructions in your Macintosh or UNIX user manual.
4. Verify the IP address following *one* of:
   - "Verifying the IP Address in Windows 95, 98, or Me" on page 40
   - "Verifying the IP Address in Windows 2000 or XP" on page 41
   - The instructions in your Macintosh or UNIX user manual

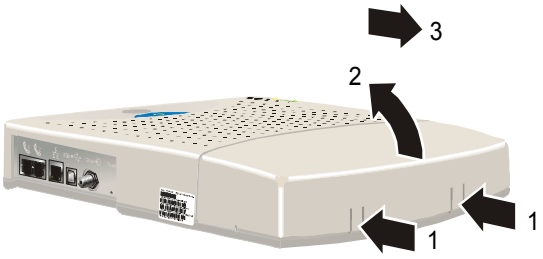
Cabling and Startup for a Single User



Allow 5 to 30 minutes to power up the first time because the Motorola Communications Gateway must find and lock on the appropriate channels for communications.

1. Be sure your computer is on and the Communications Gateway is unplugged.
2. Connect one end of the coaxial cable to the cable outlet or splitter.
3. Connect the other end of the coaxial cable to the Coax connector on the Communications Gateway.
4. *Hand-tighten the connectors to avoid damaging them.*
5. Insert the *Motorola Communications Gateway* CD-ROM into your CD-ROM drive.

Cabling and Startup for a Single User, continued



6 On the battery compartment cover, push in on the tabs, as shown by arrows 1 in the illustration at top left.

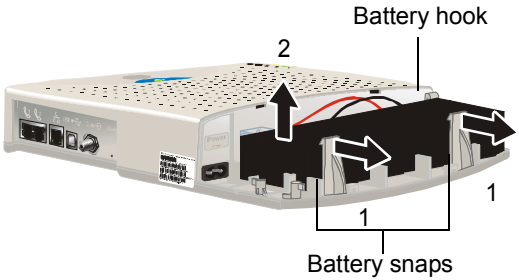
7 Carefully remove the battery compartment cover by lifting up about 2 to 3 cm (1 inch) and then pulling straight out. *To avoid damaging the cover, be sure you rotate it only slightly (arrow 2) before pulling it out (arrow 3).*

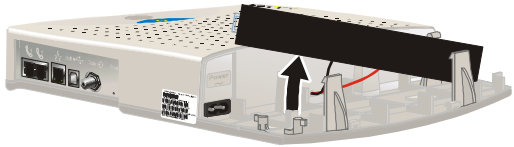
For a description of the battery compartment, see "Battery Compartment" on page 6.

8 As shown at lower left, depress both battery snaps (arrows 1) while gently raising the positive end of the battery (arrow 2).

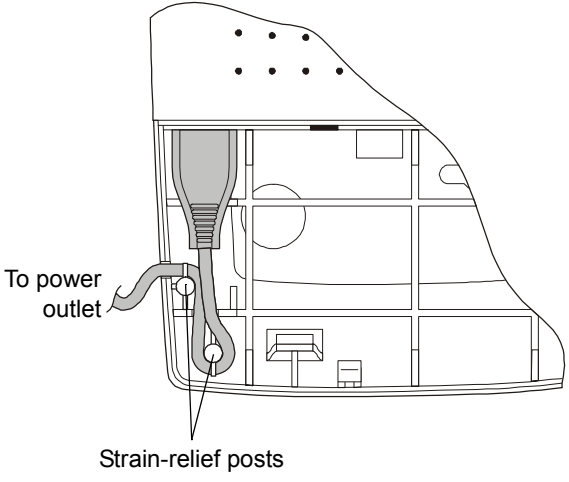
9 When the battery rotates past the snaps, slide the battery out as shown below.

Be sure you do not damage the battery wires or terminals.





Cabling and Startup for a Single User, continued

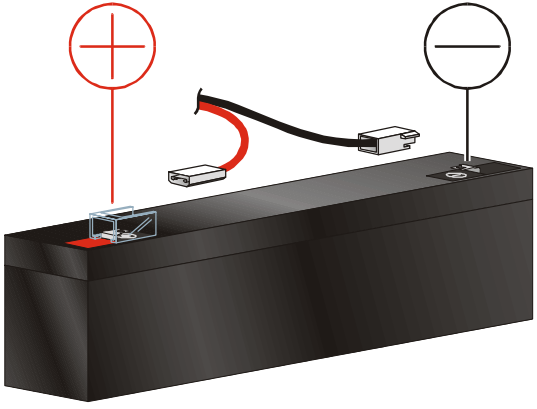


10 Plug the power cord into the Power connector on the Communications Gateway.

11 Wrap the power cord around the strain-relief posts, as shown at left.

Do not plug the power cord into the AC wall outlet at this time.

Cabling and Startup for a Single User, continued



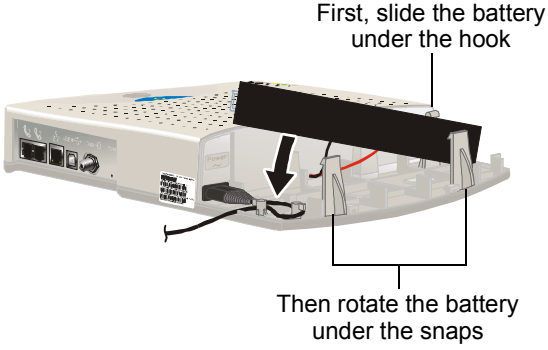
For safety and to prevent damage to the equipment, the Communications Gateway is shipped with the battery wires disconnected. Do not short circuit the battery terminals by simultaneously touching both terminals with a metal object.

12 Connect the black negative battery wire to the black negative (-) terminal on the battery.

13 Connect the red positive battery wire to the red positive (+) terminal on the battery.

After you connect the battery, the Communications Gateway begins drawing power but does not start.

Cabling and Startup for a Single User, continued



14 On a slight angle, gently slide the top-right corner of the battery under the battery hook as shown at left.

While you rotate the battery into position, to avoid pinching the wires between the battery and the base, *be sure the battery wires are not under the battery*. Pinching the wires between the battery and the base:

- May damage the wires
- Will cause the battery to seat incorrectly

15 Rotate the battery into position under the battery snaps as shown by the arrow at left. When the battery is fully seated, the snaps engage the battery base.

16 Carefully replace the battery compartment cover. *Do not force the cover closed.* If the battery compartment cover does not close easily, check that:

- The power cord is positioned correctly in its opening
- The battery is correctly seated (you performed steps 14 to 15 correctly)

Cabling and Startup for a Single User, continued

17 Immediately plug the power cord into the electrical outlet.

This turns your Motorola Communications Gateway on. You do not need to unplug it when not in use.

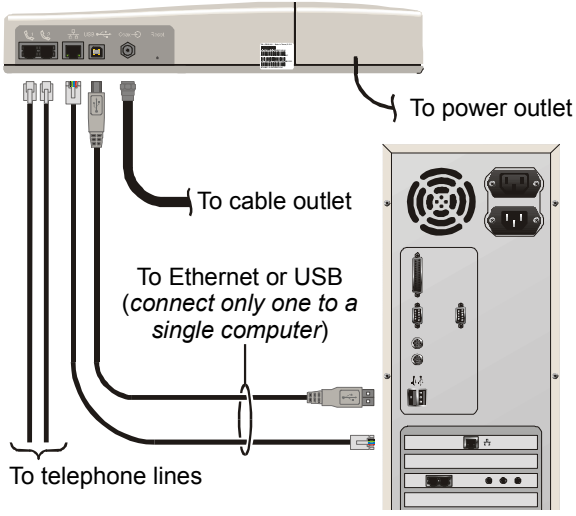
18 Check that the lights on the Communications Gateway cycle through this sequence:

- Power flashes during the self-test and changes to solid green when the self-test is successfully complete.
- Online flashes while the Communications Gateway downloads its configuration data and changes to solid green when the download is complete.

Cabling and Startup for a Single User, continued

Caution

Do not connect *both* the Ethernet and USB cables to the same computer.



19 To connect the telephone line(s), plug a telephone wire into one or both phone jacks.

Caution

If you connect to a wired telephone wall jack, be sure it is not connected to a traditional telephone (PSTN) service.

20 To connect to the Internet, connect your computer to the Communications Gateway using USB or Ethernet:

USB: *Be sure the Motorola Communications Gateway CD-ROM is inserted in your CD-ROM drive.* Connect the USB cable to the USB port on the Communications Gateway. Connect the other end to the USB port on your computer. Then perform "Setting Up a USB Driver" on page 21.

Ethernet: Connect the Ethernet cable to the Ethernet connector on the Communications Gateway. Connect the other end to the Ethernet port on your computer. *Ethernet users do not need to set up a USB driver.*

Cabling and Startup for a Single User, continued

21 Configure TCP/IP following *one* of:

- “Configuring TCP/IP in Windows 95, 98, or Me” on page 33
- “Configuring TCP/IP in Windows 2000 or XP” on page 36
- The instructions in your Macintosh or UNIX user manual

Setting Up a USB Driver

The following sections describe setting up a USB driver. To use the USB Connection, perform *one* of:

- "Setting Up a USB Driver in Windows 98 SE" on page 22
- "Setting Up a USB Driver in Windows 2000" on page 26
- "Setting Up a USB Driver in Windows Me" on page 30
- "Setting Up a USB Driver in Windows XP" on page 31

The Motorola Communications Gateway USB driver does not support Macintosh or UNIX computers. You can connect a Macintosh or UNIX system using an Ethernet Card *only*.

Setting Up a USB Driver in Windows 98 SE

Be sure the Motorola Communications Gateway CD-ROM is inserted in your CD-ROM drive before you plug in the USB cable. This CD contains the USB drivers and must be inserted and read by the PC before you connect the Communications Gateway to the PC.

A few seconds after you complete the USB connection, the Add New Hardware Wizard window is displayed.

1. Click **Next**.
2. Be sure “Search for the best driver for your device” is selected as in the window at bottom left.
3. Click **Next**.

Setting Up a USB Driver in Windows 98 SE, continued

4 Be sure “CD-ROM drive” is the only box checked, as in the window at top left.

5 Click **Next**.

If your computer successfully locates the driver, you can skip to step 8.

6 If your computer does not locate the driver, the previous window is displayed again. Select **Specify a location** and type the location of your CD-ROM drive as shown at bottom left.

To load the driver successfully, you may need to click **Browse** to manually select the NetMotCM.sys file on the CD-ROM.

7 Click **Next**.

Setting Up a USB Driver in Windows 98 SE, continued

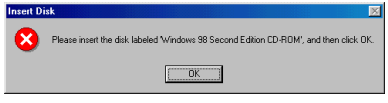
8 Select **The updated driver...** and click **Next.**

If this window is not displayed, verify that the *Motorola Communications Gateway* CD-ROM is properly inserted in the CD-ROM drive. If you still cannot find the correct driver file, click **Cancel** to cancel the installation and perform the procedure for "Removing the USB Driver from Windows 98 or Me" on page 57. Then repeat this procedure.

9 When the window at bottom left is displayed, click **Next**.

If a window with the message *Copying Files...* displays and asks for your CD-ROM drive, type your CD-ROM drive *letter* (for example, "D:") and click **OK**.

If an Insert Disk window similar to the one below is displayed, Windows 98 system files are needed to complete the installation. To install the files, insert your Windows 98 CD-ROM is in the CD-ROM drive and click **OK**.



Although your Motorola Communications Gateway model number may be different than in the images in this guide, the procedure is the same.

Setting Up a USB Driver in Windows 98 SE, continued

After all the necessary files are loaded, the window at upper left is displayed confirming a successful installation.

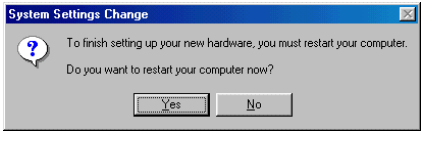
10 Click **Finish.** The window at bottom left is displayed.

11 Click **Yes** to restart your computer.

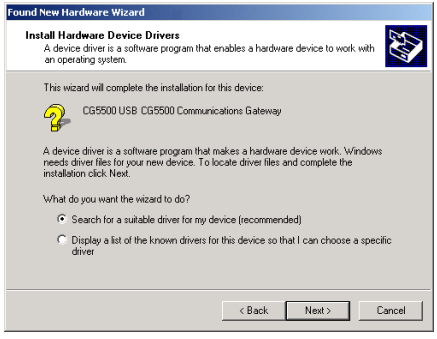
When you have successfully finished setting up the USB driver, you can continue with "Configuring TCP/IP in Windows 95, 98, or Me" on page 33.

If you have difficulties setting up the USB driver, perform the procedure for "Removing the USB Driver from Windows 98 or Me" on page 57 and then repeat this procedure. If that does not correct your problem:

- Contact your service provider
- See the *Software License and Warranty Information* card provided with your Motorola Communications Gateway for information about obtaining warranty service.



Setting Up a USB Driver in Windows 2000

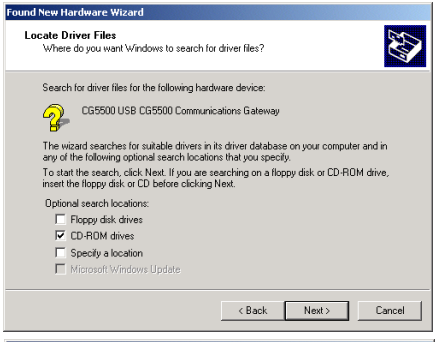


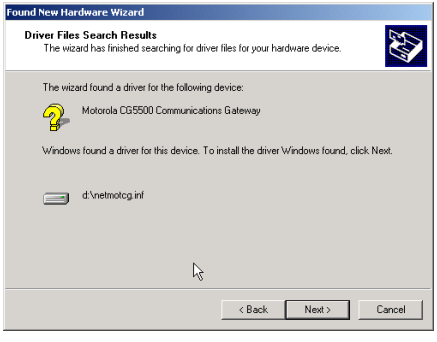
Be sure the *Motorola Communications Gateway* CD-ROM is inserted into the CD-ROM drive before you plug in the USB cable. A few seconds after you complete the USB connection, the Found New Hardware Wizard welcome window is displayed.

1. Click **Next**.
2. Be sure “Search for a suitable driver for my device” is selected.
3. Click **Next**.

> Although your Motorola Communications Gateway model number may be different than in the images in this guide, the procedure is the same.

Setting Up a USB Driver in Windows 2000, continued





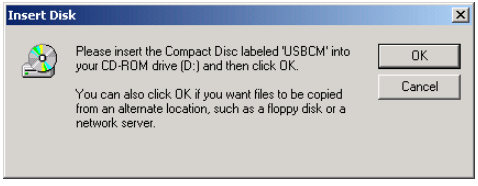
4 Be sure “CD-ROM drives” is the only box checked, as in the window at top left.

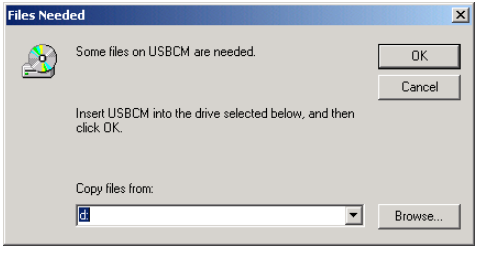
5 Click **Next**. The lower window is displayed.

6 Click **Next**.

If the Insert Disk window is displayed, be sure the *Motorola Communications Gateway* CD-ROM is in the CD-ROM drive and follow steps 7 to 12. Otherwise, you can skip to step 13.

Setting Up a USB Driver in Windows 2000, continued





7 On the Insert Disk window, click **OK**. The Files Needed window is displayed.

8 If necessary, select your CD-ROM drive in the Copy files from list.

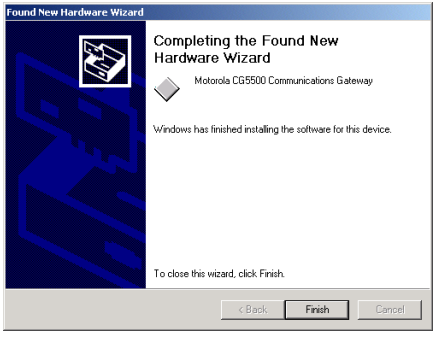
9 Click **Browse**.

10 Locate the NetMotCM.sys file in the CD-ROM root directory.

11 Double-click the **NetMotCM.sys** file. The Files Needed window is displayed.

12 Click **OK**. The Found New Hardware Wizard window is displayed.

Setting Up a USB Driver in Windows 2000, continued

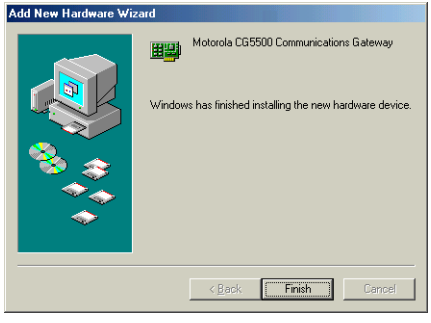


13 Click **Finish** to complete the installation.

When you have successfully finished setting up the USB driver, you can continue with "Configuring TCP/IP in Windows 2000 or XP" on page 36.

If you have any difficulties setting up the USB driver, follow the instructions for "Removing the USB Driver from Windows 2000 or XP" on page 61.

Setting Up a USB Driver in Windows Me



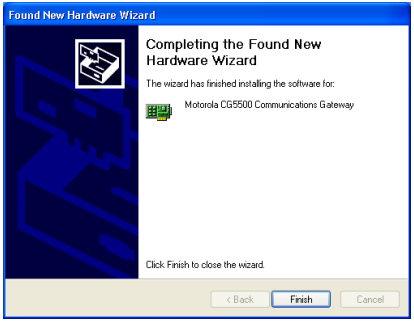
Be sure the *Motorola Communications Gateway* CD-ROM is inserted into the CD-ROM drive before you plug in the USB cable. A few seconds after you complete the USB connection, the Add New Hardware Wizard window is displayed.

1. Click **Next**. Windows Me automatically searches for the correct USB drivers and installs them. If installation is successful, the window at bottom left is displayed.
2. If the window at bottom left is displayed, click **Finish**. Otherwise, be sure the *Motorola Communications Gateway* CD-ROM is correctly inserted in your CD-ROM drive.

When you have successfully finished setting up the USB driver, you can continue with "Configuring TCP/IP in Windows 95, 98, or Me" on page 33.

Although your Motorola Communications Gateway model number may be different than in the images in this guide, the procedure is the same.

Setting Up a USB Driver in Windows XP



Be sure the *Motorola Communications Gateway* CD-ROM is inserted into the CD-ROM drive before you plug in the USB cable. A few seconds after you complete the USB connection, the Found New Hardware Wizard window is displayed.

1 Be sure “Install the software automatically” is selected.

2 Click **Next**.

> Although your Motorola Communications Gateway model number may be different than in the images in this guide, the procedure is the same.

3 Click **Finish** to complete the installation.

When you have successfully finished setting up the USB driver, you can continue with “Configuring TCP/IP in Windows 2000 or XP” on page 36.

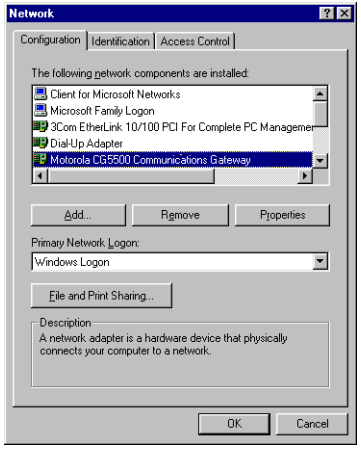
Configuring TCP/IP

The Motorola Communications Gateway contains all required software. You do not need to configure the Communications Gateway, but you must configure your computer for TCP/IP (a protocol for communication between computers) and check for an IP address. Your service provider may provide additional instructions to set up your computer.

To configure TCP/IP, perform one of:

- "Configuring TCP/IP in Windows 95, 98, or Me" on page 33
- "Configuring TCP/IP in Windows 2000 or XP" on page 36

Configuring TCP/IP in Windows 95, 98, or Me

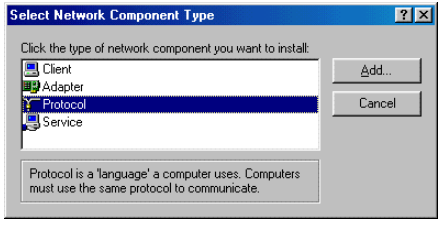


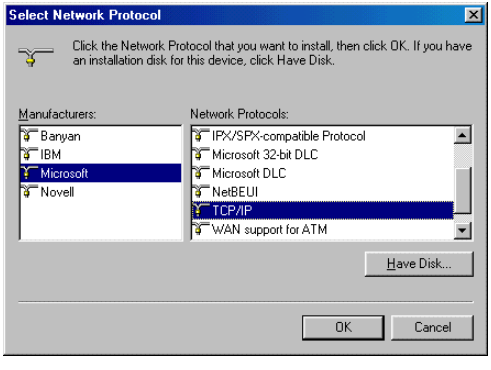
The following instructions are for Windows 95, 98 and Me. For Windows 2000 or XP, see "Configuring TCP/IP in Windows 2000 or XP" on page 36. For a Macintosh or UNIX system, refer to your user guide.

1. On the Windows Desktop, click **Start**.
2. Select **Settings** and then **Control Panel** from the pop-up menus.
3. Double-click the **Network** icon on the Control Panel window.
4. Select the **Configuration** tab on the Network window.
5. If TCP/IP is displayed in the list of network components, it is installed and you can skip to step 10. If TCP/IP is not displayed on the list, continue with step 6.

> Although your Motorola Communications Gateway model number may be different than in the images in this guide, the procedure is the same.

Configuring TCP/IP in Windows 95, 98, or Me, continued





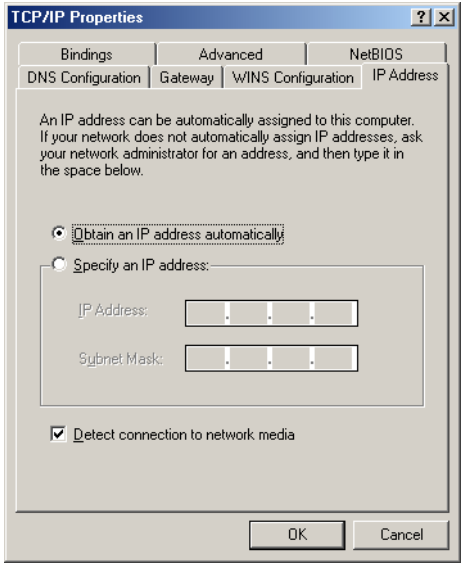
6 Click **Add.**

7 Double-click the **Protocol** option on Select Network Component Type window.

8 Click **Microsoft** in the Manufacturers section and click **TCP/IP** in the Network Protocol section of Select Network Protocol window.

9 Click **OK**.

Configuring TCP/IP in Windows 95, 98, or Me, continued



10 Click **TCP/IP** on the Network window. If there is more than one TCP/IP entry, choose the one for the Ethernet card or USB port connected to the Communications Gateway.

11 Click **Properties**. The TCP/IP window is displayed.

12 Click the **IP Address** tab.

13 Click **Obtain an IP address automatically**.

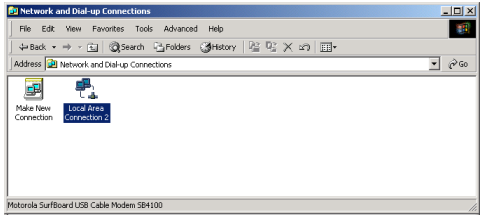
14 Click **OK** to accept the TCP/IP settings.

15 Click **OK** to close the Network window.

16 Click **OK** when prompted to restart your computer and click **OK** again.

When you complete TCP/IP configuration, go to "Verifying the IP Address in Windows 95, 98, or Me" on page 40.

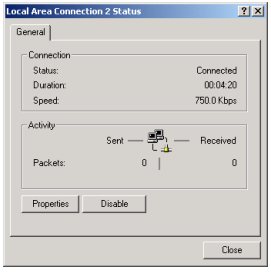
Configuring TCP/IP in Windows 2000 or XP

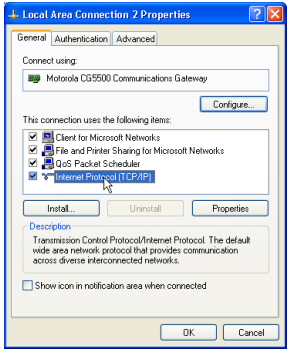


The following instructions are for Windows 2000 or XP. For Windows 95, 98, or Me, see "Configuring TCP/IP in Windows 95, 98, or Me" on page 33. For a Macintosh or UNIX system, refer to your user guide.

1. On the Windows Desktop, click **Start**.
2. Select **Settings** and then **Control Panel** from the pop-up menus.
3. On the Control Panel window, double-click the **Network and Dial-up Connections** icon.
4. On the Network and Dial-up Connections window, click **Local Area Connection** *number*. The value of *number* varies from system to system. The Local Area Connection *number* Status window is displayed.

Configuring TCP/IP in Windows 2000 or XP, continued



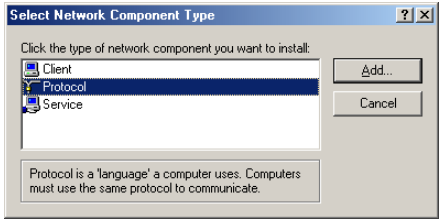


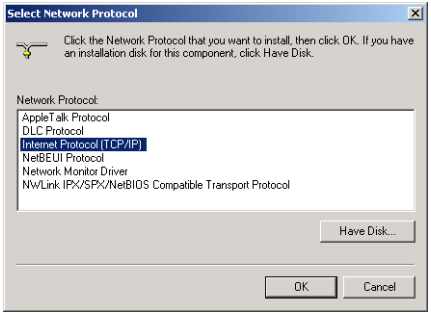
5 Click **Properties**. Information similar to the lower window is displayed.

6 If Internet Protocol (TCP/IP) is in the list of components, TCP/IP is installed. You can skip to step 10.

If Internet Protocol (TCP/IP) is not in the list, click **Install**. The Select Network Component Type window is displayed. Continue with step 7.

Configuring TCP/IP in Windows 2000 or XP, continued



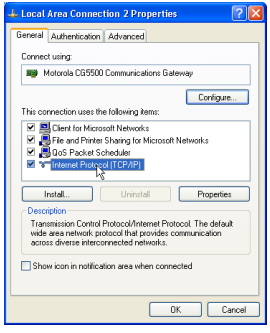


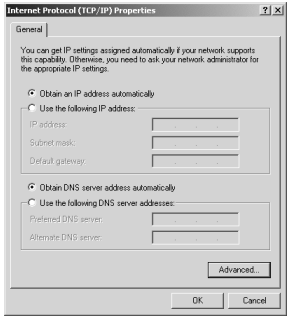
7 Click **Protocol** on the Select Network Component Type window and click **Add**. The Select Network Protocol window is displayed.

8 Click **Internet Protocol (TCP/IP)** in the Network Protocol section on the Select Network Protocol window.

9 Click **OK**. The Local Area Connection *number* Properties window is re-displayed.

Configuring TCP/IP in Windows 2000 or XP, continued





10 On the Local Area Connection *number* Properties window, be sure the box next to **Internet Protocol (TCP/IP)** is checked.

11 Click **Properties**. The Internet Protocol (TCP/IP) Properties window is displayed as shown at bottom left.

12 Be sure **Obtain IP address automatically** and **Obtain DNS server address automatically** are selected.

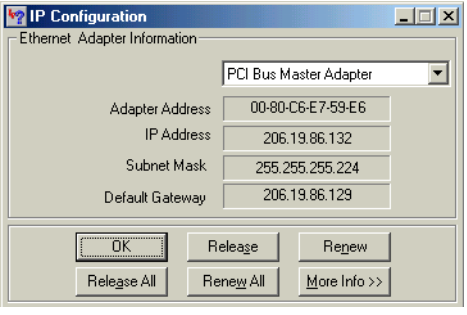
13 Click **OK** to accept the TCP/IP settings.

14 Click **OK** to close the Local Area Connection *number* Properties window.

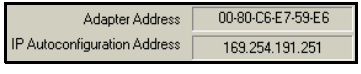
15 Click **OK** when prompted to restart your computer and click **OK** again.

When you complete the TCP/IP configuration, go to "Verifying the IP Address in Windows 2000 or XP" on page 41.

Verifying the IP Address in Windows 95, 98, or Me



The values for Adapter Address, IP Address, Subnet Mask, and Default Gateway on your PC will be different than in the image above.



In Windows 98, if autoconfiguration is displayed before IP Address, call your service provider.

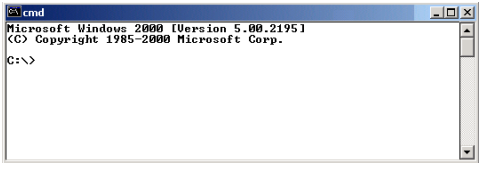
The following instructions are for Windows 95, 98, or Me. For information about Windows 2000 or XP, see "Verifying the IP Address in Windows 2000 or XP" on page 41. For a Macintosh or UNIX system, refer to your user guide.

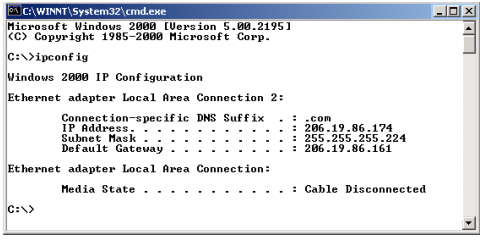
To check the IP address:

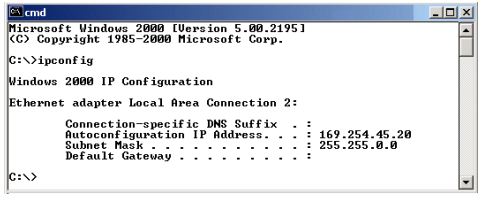
1. On the Windows Desktop, click **Start**.
2. Select **Run**. The Run window is displayed.
3. Type **winipcfg.exe** and click **OK.** A window similar to the example at top left is displayed.
4. Select your adapter name — the Ethernet card or USB device.
5. Click **Renew**.
6. Click **OK** after the system displays an IP address.

If after performing this procedure your computer cannot access the Internet, call your service provider for help.

Verifying the IP Address in Windows 2000 or XP







The following instructions are for Windows 2000 or Windows XP. For information about Windows 95, 98, or Me, see "Verifying the IP Address in Windows 95, 98, or Me" on page 40. For a Macintosh or UNIX system, refer to your user guide.

To check the IP address:

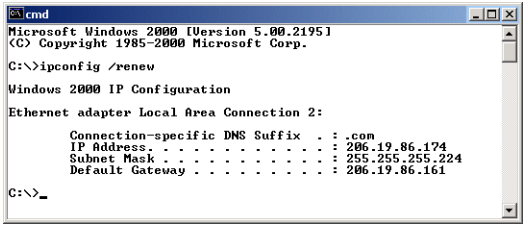
1. On the Windows Desktop, click **Start**.
2. Select **Run**. The Run window is displayed.
3. Type **cmd** and click **OK.** A window like the one at upper left is displayed.
4. Type **ipconfig** and press ENTER to display your IP configuration. A display similar to the window at middle left indicates a normal configuration.

   If an Autoconfiguration IP Address is displayed, as shown in the window at bottom left, there is an incorrect connection between your PC and the Communications Gateway or there are cable network problems. Check:

   - Your cable connections
   - Whether you can see cable-TV channels on your television

After verifying your cable connections and proper cable-TV operation, you can attempt to renew your IP address.

Verifying the IP Address in Windows 2000 or XP, continued



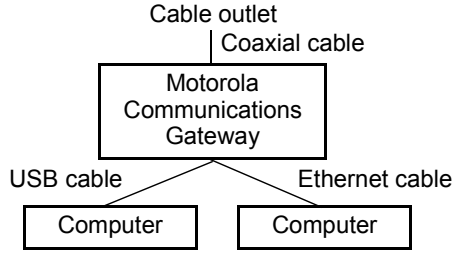
To renew your IP address:

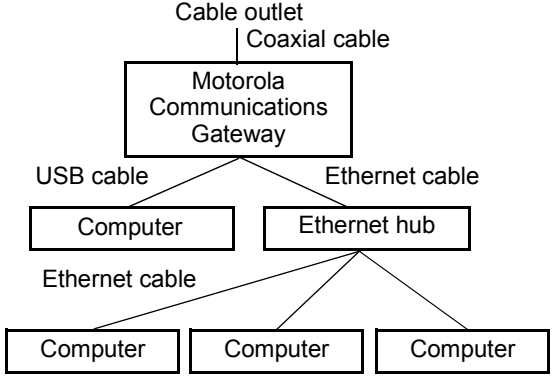
1 Type **ipconfig /renew** and press ENTER. If a valid IP address is displayed as shown at left, Internet access should be available.

2 Type **exit** and press ENTER to return to Windows.

If after performing this procedure your computer cannot access the Internet, call your service provider for help.

Cabling for Multiple Users





The Motorola Communications Gateway supports several multiple user configurations. Along with an optional hub or router, it can serve as an Internet gateway for up to 32 computers.

For information about multiple user service, contact your service provider.

For an overview of the installation process, see "Installation and Configuration Overview" on page 12.

Ethernet and USB

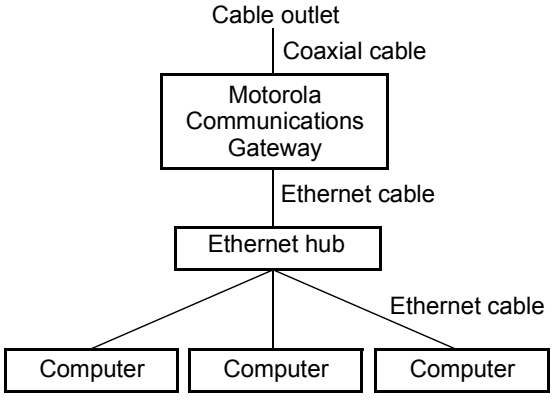
You can connect the USB port on one computer and the Ethernet port on another computer directly to the Communications Gateway, as shown at top left.

Caution

Do not connect *both* the Ethernet and USB cables to the same computer.

You can connect a single computer to the USB port and from one to 31 remaining users to an Ethernet hub, as shown at bottom left. You cannot connect more than one computer to the Communications Gateway through the USB port.

Cabling for Multiple Users, continued



Ethernet

You can connect up to 32 computers to an Ethernet hub connected to a Motorola Communications Gateway, as shown at left.

For an overview of the installation process, see “Installation and Configuration Overview” on page 12.

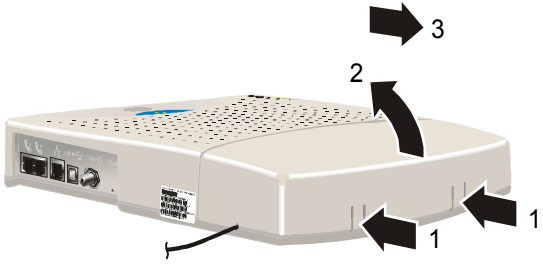
Replacing the Battery

When the battery light on the Top and Front Panel does *any* of the following, replace the battery:

- Flashes yellow — the battery is low
- Flashes red — the battery has failed
- Lights solid red — the battery is missing

Caution

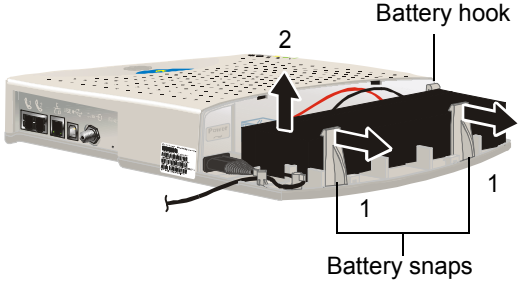
Replacing the battery with an incorrect type can cause an explosion. Use a CSB GP 1222 F2 12V 2.2 Ah battery *only*. For information about obtaining a spare battery, contact your service provider.

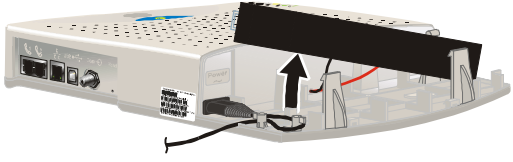


To replace the battery:

1. *Unplug the power cord from the AC wall outlet to turn off AC power.*
2. On the Battery Compartment cover, push in on the tabs, as shown by arrows 1 at left.
3. Carefully remove the battery compartment cover by lifting up about 2 to 3 cm (1 inch) and then pulling straight out. *To avoid damaging the cover, be sure you rotate it only slightly (arrow 2) before pulling it out (arrow 3).*

Replacing the Battery, continued





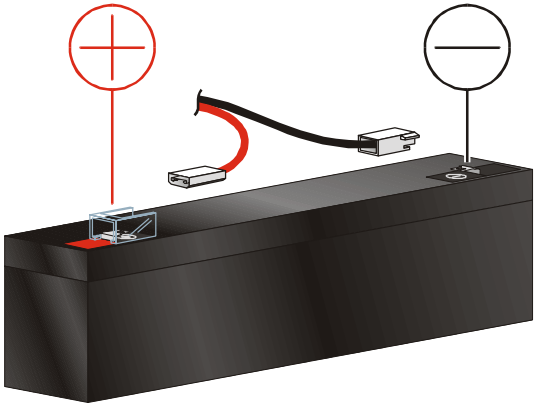
For a description of the battery compartment, see "Battery Compartment" on page 6.

4 As shown at top left, depress both battery snaps (arrows 1) while gently raising the positive end of the battery (arrow 2).

5 When the battery rotates past the snaps, slide the battery out as shown at lower left.

Be sure you do not damage the battery wires or terminals.

Replacing the Battery, continued



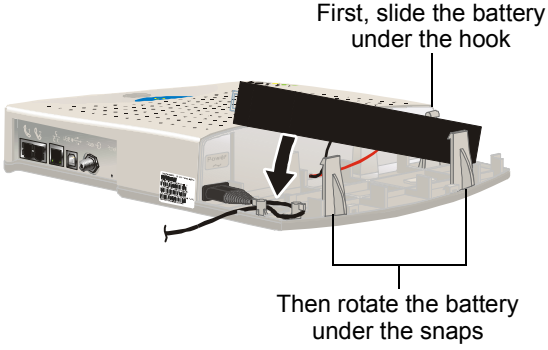
6 Carefully remove the wires from the old battery terminals.

7 Recycle the battery according to the instructions on the battery or contact your service provider for information.

8 On the new battery, connect the black negative battery wire to the black negative (-) terminal.

9 Connect the red positive battery wire to the red positive (+) terminal on the new battery.

Replacing the Battery, continued



10 On a slight angle, gently slide the top-right corner of the battery under the battery hook as shown at left.

While you rotate the battery into position, to avoid pinching the wires between the battery and the base, *be sure the battery wires are not under the battery*. Pinching the wires between the battery and the base:

- May damage the wires
- Will cause the battery to seat incorrectly

11 Rotate the battery into position under the battery snaps as shown by the arrow at left. When the battery is fully seated, the snaps engage the battery base.

12 Carefully replace the battery compartment cover. *Do not force the cover closed.* If the battery compartment cover does not close easily, check that:

- The power cord is positioned correctly in its opening
- The battery is correctly seated (you performed steps 14 to 15 correctly)

Replacing the Battery, continued

13 Plug the power cord into the electrical outlet.

To confirm normal operation of the Communications Gateway, check that the battery light on the Top and Front Panel is off.

To test that the battery is connected and working normally, *briefly* unplug the power cord. If the battery is connected and providing backup power, the battery light turns solid yellow. *Be sure to plug the power cord back in when you are done.*

Wall Mounting

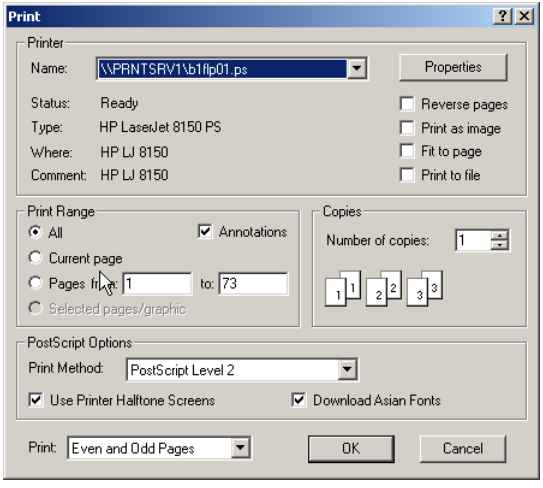
If you mount the Communications Gateway on the wall, you must:

- Locate the unit as specified by the local or national codes governing residential or business cable TV and communications services.
- Follow all local standards for installing a Network Interface Unit/Network Interface Device (NIU/NID).
- Mount the Communications Gateway with the battery terminals facing up or sideways. *To prevent possible leakage, do not mount the Communications Gateway with the battery terminals facing down.*

If possible, mount the Communications Gateway to concrete, masonry, a wooden stud, or other very solid wall material. Use anchors if necessary; for example if you must mount the unit on drywall.

To replace a CG4500E with a CG5500E, you can mount the new unit on the existing mounts. You may need to adjust the depth of the mounting screws so they protrude from the wall as shown on page 52.

Wall Mounting, continued



To mount your Communications Gateway on the wall:

1 Print the Wall Mounting Template on page 53:

Click the Print icon or choose Print from the File menu to display the Print dialog box. (The example at left is from Adobe® Acrobat® Reader® running on Windows 2000; there may be slight differences in your version.)

Be sure you print the template at 100% scale. Be sure Fit to page is not checked in the Print dialog box.

Click the OK button to print the template.

2 *Measure the printed template with a ruler to ensure that it is the correct size.*

3 Use a center punch to mark the center of the holes.

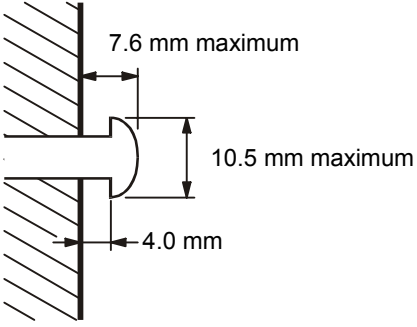
4 On the wall, locate the marks for the mounting holes.

Warning

Before drilling holes, check the structure for potential damage to water, gas, or electric lines.

5 Drill the holes to a depth of at least 3.8 cm ($1^1/_2$ inches).

Wall Mounting, continued



6 If necessary, seat an anchor in each hole.

Use M5 x 38 mm (#10-16 x $1^1/_2$ inch) screws with a flat underside and maximum screw head diameter of 10.5 mm to mount the Communications Gateway.

7 Using a screwdriver, turn each screw until part of it protrudes from the wall, as shown at left:

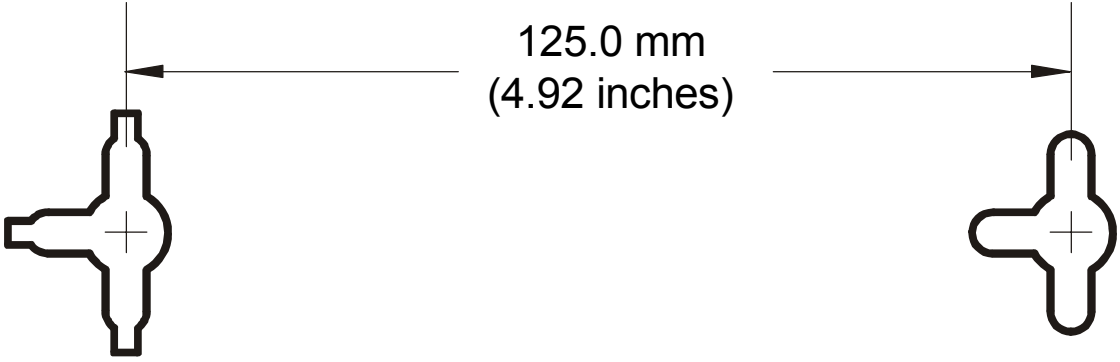
- There must be 4.0 mm between the wall and the underside of the screw head.
- The maximum distance from the wall to the top of the screw head is 7.6 mm.

8 Place the Communications Gateway so the keyholes are above the mounting screws.

9 Slide the Communications Gateway down so it stops against the top of the keyhole opening.

Wall Mounting Template

You can print this page to use as a wall mounting template. *Be sure you print it at 100% scale*. (In Acrobat reader, be sure that Fit To Page is not checked in the Print dialog box.) *Measure the printed template with a ruler to ensure that it is the correct size.*



Troubleshooting

If the solutions listed here do not solve your problem, contact your service provider. Before calling your service provider, try pressing the reset button on the rear panel. Resetting the Communications Gateway may take 5 to 30 minutes. Your service provider may ask for the status of the lights as described in “Lights and Error Conditions” on page 56.

Problem	Possible Solutions
Green POWER light is off	Check that the power cord is properly plugged into the electrical outlet and the Communications Gateway. Check that the electrical outlet is working. Press the **Reset** button.
Battery light is solid yellow	There is no AC power and the battery is providing backup power.
Battery light flashes yellow	The battery is low and will fail soon.
Battery light flashes red	The battery has failed
Battery light is solid red	The battery is missing or its terminals are connected backwards To replace the battery, follow the instructions in “Replacing the Battery” on page 45.

Problem	Possible Solutions
Cannot send or receive data	Check the lights. Note the first light from top to bottom that is off. This light indicates where the error occurred as described in "Lights and Error Conditions" on page 56. If the Internet Security Lock light is on, your computer cannot transmit or receive data. Press the Internet Security Lock button to reconnect your Internet service. If you have cable TV, check that your TV is working and the picture is clear. If you cannot receive your regular TV channels, your data or phone service will not function. Check the coaxial cable at the Communications Gateway and wall outlet. Hand-tighten if necessary. Check the IP address. Follow the steps in "Verifying the IP Address in Windows 95, 98, or Me" on page 40 or "Verifying the IP Address in Windows 2000 or XP" on page 41. Call your service provider if you need an IP address. Check that the USB or Ethernet cable is properly connected to the Communications Gateway and your computer.
Problems related to unsuccessful USB driver installation	Remove the USB driver. Follow the instructions in *one* of: ■ "Removing the USB Driver from Windows 98 or Me" on page 57 ■ "Removing the USB Driver from Windows 2000 or XP" on page 61

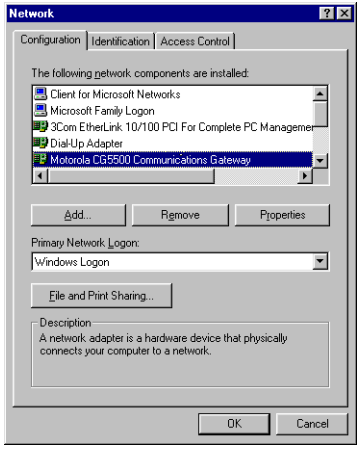
Lights and Error Conditions

Light	During Startup	During Normal Operation
Battery	Lights solid yellow when the battery is connected and charged and the AC power is disconnected Flashes yellow if the battery is low Flashes red if the battery is missing	Lights solid yellow when the battery is connected and charged and there is no AC power Flashes yellow if the battery is low Flashes red if the battery is missing Lights solid red if the battery fails — *replace the battery immediately*
Online	Does not light if the receive or send channel cannot be acquired or IP registration is unsuccessful	Turns off if the receive channel, send channel, or IP registration is lost.
Power	Remains off if the Communications Gateway is not properly plugged into the power outlet	Turns off if the Communications Gateway is unplugged or is in Internet Security Lock mode. Press the Internet Security Lock button.

For more information about the lights, see “Top and Front Panel” on page 3.

Troubleshooting, continued

Removing the USB Driver from Windows 98 or Me

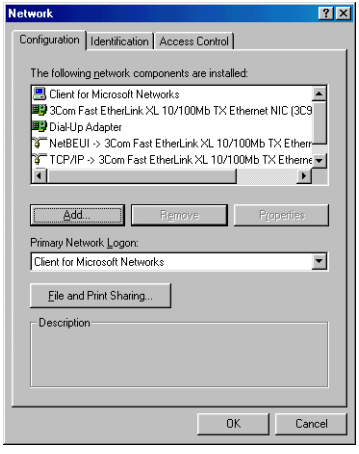


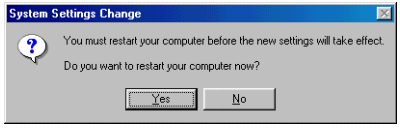
1 On your Windows Desktop, right-click the **Network Neighborhood** icon and select **Properties**. The Network window is displayed.

2 In the list of installed network components, select the **Motorola Communications Gateway**. For example, the image at left shows a CG5500.

> Although your Motorola Communications Gateway model number may be different than in the images in this guide, the procedure is the same.

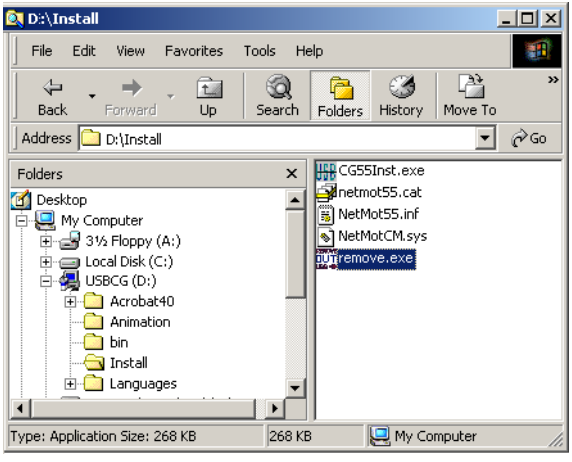
Troubleshooting, continued





3. Click **Remove.** The Network window no longer displays a Motorola Communications Gateway in the list.
4. Click **OK**. The System Settings Change window is displayed.
5. Click **Yes** to restart your computer. After your computer restarts, continue with step 6.

Troubleshooting, continued



6 Insert the *Motorola Communications Gateway* CD-ROM in the CD-ROM drive. After a short time, a window with language choices is displayed.

7 Press the **Esc** key on the keyboard to exit the start-up screens.

8 To start Windows Explorer, click **Start** and select **Run.**

9 In the Run window, type **explorer** and click **OK.** The Exploring window is displayed.

10 *Be sure the USB cable is removed from your PC or* Communications Gateway.

11 Double-click **My Computer**.

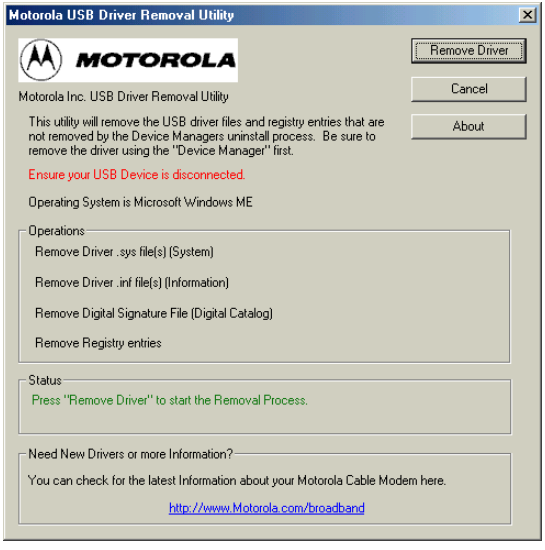
12 Click your *CD-ROM drive* (D: in the image).

13 Double-click **Install** to open the Install folder.

14 Double-click **remove** or **remove.exe** to run the Remove utility. The Motorola USB Driver Removal Utility window is displayed.

Your Windows Explorer may appear slightly different than in the image on this page. There are slight variations between Windows versions and you can configure Windows Explorer as you like.

Troubleshooting, continued



15 Click **Remove Driver** to remove the USB driver.

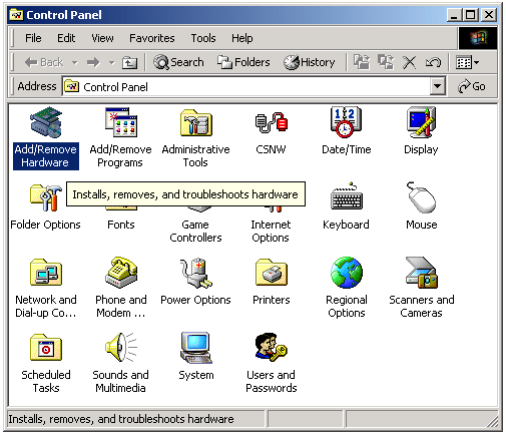
After you remove the USB driver, re-install the USB driver following *one* of:

- "Setting Up a USB Driver in Windows 98 SE" on page 22
- "Setting Up a USB Driver in Windows Me" on page 30

If you continue to have problems, contact your service provider.

Troubleshooting, continued

Removing the USB Driver from Windows 2000 or XP



1 For Windows XP, skip to step 13.

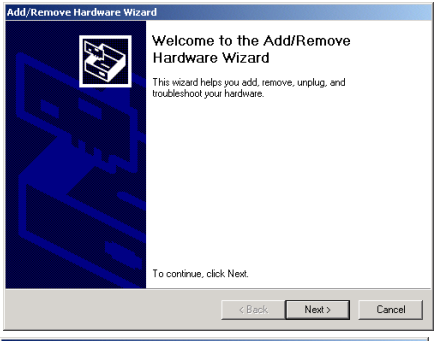
   For Windows 2000, on your desktop, click **Start**.

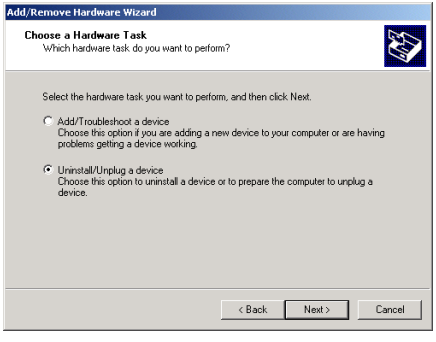
2 Click **Settings**.

3 Click the **Control Panel** icon. The Control Panel window is displayed.

4 Double-click the **Add/Remove Hardware** icon to start the Add/Remove Hardware Wizard.

Troubleshooting, continued

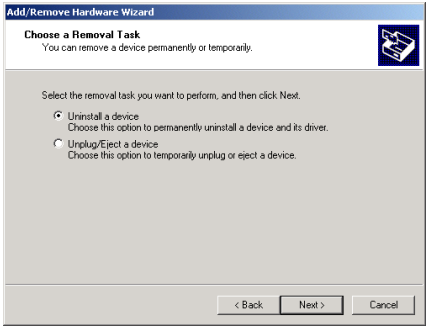


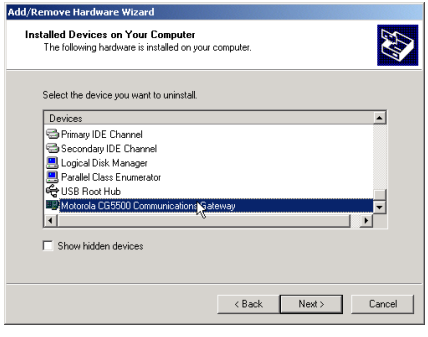


5 Click **Next**. The Choose a Hardware Task window is displayed.

6 Select **Uninstall/Unplug a device** and click **Next**.

Troubleshooting, continued





7 Select **Uninstall a device** and click **Next.** The Installed Devices on Your Computer window is displayed.

If you unplugged the USB cable from the Communications Gateway and the Unsafe Removal of a Device window was displayed, the Communications Gateway probably is not listed as shown in the lower window.

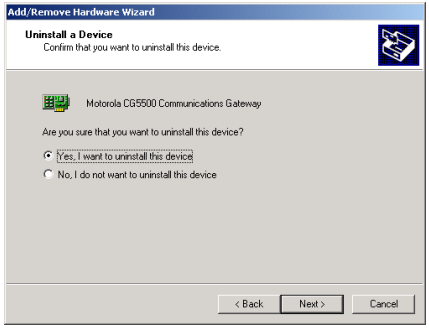
8 Be sure “Show hidden devices” is selected (checked).

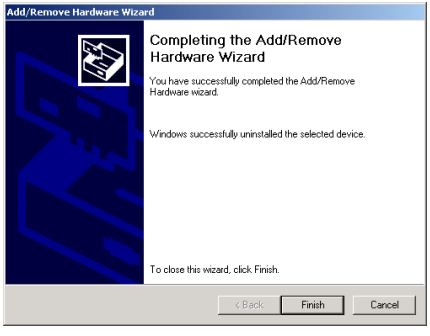
9 If your Motorola Communications Gateway device is not listed, click **Cancel**. The device listing is already removed. You can skip to step 12.

If your Motorola Communications Gateway device is listed, select it and click **Next**.

> Although your Motorola Communications Gateway model number may be different than in the images in this guide, the procedure is the same.

Troubleshooting, continued



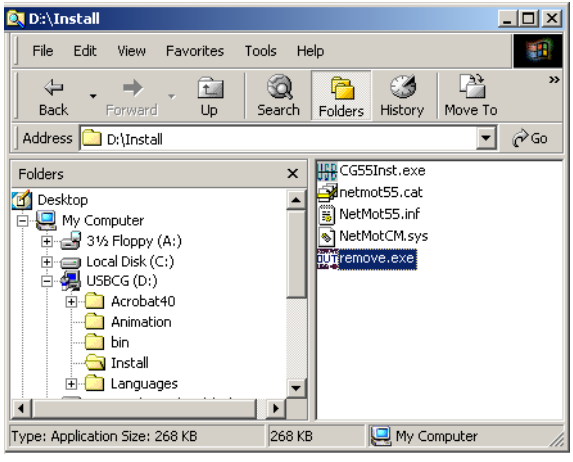


10 On the window at top left, select **Yes, I want to uninstall this device** and click **Next.**

11 On the lower window, click **Finish**.

12 Close the Control Panel window.

Troubleshooting, continued



13 Insert the *Motorola Communications Gateway* CD-ROM in the CD-ROM drive. After a short time, a window with language choices is displayed.

14 Press the **Esc** key on the keyboard to exit the start-up screens.

15 To start Windows Explorer, click **Start** and select **Run.**

16 In the Run window, type **explorer** and click **OK**. The Exploring window is displayed.

17 *Be sure the USB cable is removed from your PC or* Communications Gateway.

18 Double-click **My Computer**.

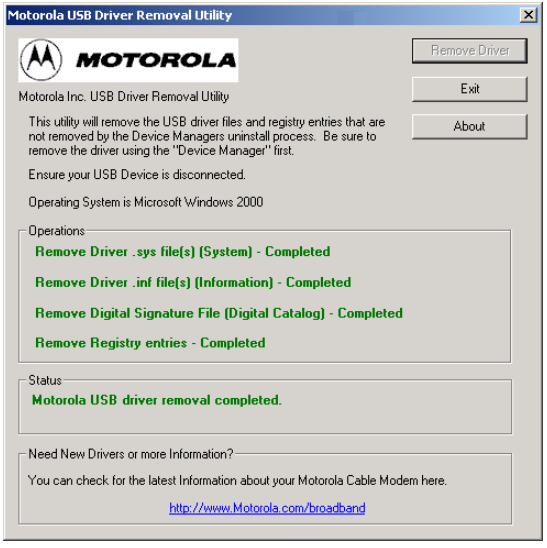
19 Double-click your *CD-ROM drive* (D: in the image).

20 Double-click **Install** to open the Install folder.

21 Double-click **remove** or **remove.exe** to run the Remove utility. The Motorola USB Driver Removal Utility window is displayed.

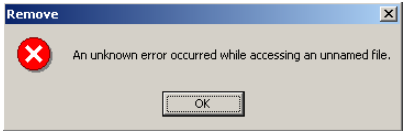
Your Windows Explorer may appear slightly different than in the image on this page. There are slight variations between Windows versions and you can configure Windows Explorer as you like.

Troubleshooting, continued



22 Click **Remove Driver.**

Informational messages similar to the ones shown at left are displayed on the Motorola USB Driver Removal Utility window. If a window similar to the following is displayed, click **OK**. *You can ignore the error message.*



After you remove the USB driver, re-install the USB driver following *one* of:

- "Setting Up a USB Driver in Windows 2000" on page 26
- "Setting Up a USB Driver in Windows XP" on page 31

If you continue to have problems, contact your service provider.

Contact Us

For information about customer service, technical support, or warranty claims, see the *Software License and Warranty Information* card provided with your Motorola Communications Gateway.

For answers to typical questions, see “Frequently Asked Questions” on page 68.

For information about Motorola consumer cable products, education, and support, visit http://www.motorola.com/broadband.

Frequently Asked Questions

Here are answers to questions our customers frequently ask.

Q What is high-speed cable Internet access?

A Cable Internet access uses cable television wires instead of telephone lines to connect to the Internet. It is extremely fast and affordable and does not tie up telephone lines for incoming or outgoing calls and faxes.

Q What is voice over Internet Protocol (VoIP)?

A VoIP uses cable television wires instead of traditional telephone lines to provide voice and fax service.

Q How fast are Communications Gateways?

A Cable modems and Communications Gateways offer Internet access at speeds up to 100 times faster than a traditional phone modem. You can experience speeds of over 1,000 Kbps. Due to network condition such as traffic volume and the speed of the sites you visit, actual speed may vary. Many network and other factors can affect download speeds.

Q Can I still watch cable TV while using my Communications Gateway?

A Yes, your cable TV line can carry the TV signal while you send and receive information on the Internet or speak on the telephone.

Q **What are CableLabs Certified, DOCSIS and EuroDOCSIS?**

A CableLabs® Certified™, DOCSIS™, and EuroDOCSIS™ are the industry standards for high-speed data distribution over cable television system networks. They are intended to ensure that all compliant cable modems and Communications Gateways interface with all compliant cable systems. Your Motorola Communications Gateway is DOCSIS or EuroDOCSIS compliant.

Q **What is PacketCable?**

A PacketCable™ is an evolving set of interface specifications for delivering advanced, real-time multimedia services over coaxial cable (coax); for example VoIP, multimedia conferencing, and interactive gaming.

Q **If I have a Communications Gateway, can I still use my old 28.8 Kbps or 56 Kbps modem?**

A Yes! Although once you experience the speed of cable Internet access, you will never again want to wait for traditional dial-up services.

Q **I have more than one computer. Do I need more than one Motorola Communications Gateway?**

A No, not if your computers are connected on a network. The Motorola Communications Gateway supports current Internet connection sharing technologies to enable you to connect up to 32 PCs to the Internet using a single Communications Gateway.

Q **Do I need to change my Internet Service Provider (ISP)?**

A Currently, most Internet Service Providers do not provide cable Internet access. Contact your cable company for your specific information.

Q **Do I need to subscribe to cable TV to get cable Internet access or phone service?**

A No, but you need to subscribe to cable Internet or phone service. Some systems require you to subscribe to basic service to get Internet or phone access. Check with your cable company for specific information.

Q **What type of technical support is available?**

A For questions about your Internet service, connection, or Communications Gateway, call your cable service provider.

Q **What do I do if my Motorola Communications Gateway stops working?**

A "Troubleshooting" on page 54 provides tips to diagnose problems and simple solutions. If you continue to have problems, call your cable service provider.

Glossary

coaxial cable (coax) A type of wire consisting of a center wire surrounded by insulation and a grounded shield of braided wire. The shield minimizes electrical and radio frequency interference.

configuration data The data the Communications Gateway downloads from servers specified by your service provider. This includes requesting an IP address from a Dynamic Host Configuration Protocol (DHCP) server, downloading a DOCSIS configuration file from a Trivial File Transfer Protocol (TFTP) server, and obtaining the network time-of-day.

converged services Cable television, high-speed Internet access, telephone service, and other information services provided over a single coaxial cable network.

DOCSIS The CableLabs Data-Over-Cable Service Interface Specification (DOCSIS) and EuroDOCSIS define interface standards for cable modems, Communication Gateways, and supporting equipment.

driver Software that controls an add-on device such as a printer, scanner, cable modem, or Communications Gateway connected to a computer.

download To copy a file from one computer to another. You can use the Internet to download files from a server to your home PC. A DOCSIS Communications Gateway downloads its configuration from a server during start-up.

downstream In a cable data network, downstream describes the direction of data transferred from the Internet to your computer.

Ethernet	The most widely used type of local area network (LAN). The most commonly installed Ethernet networks are called 10Base-T. 10Base-T provides transmission speeds up to 10 megabits per second (Mbps), usually over twisted-pair wire. Fast Ethernet (100Base-T) provides transmission speeds up to 100 Mbps.
expansion slot	An opening in a computer where you can insert a circuit board such as an Ethernet adapter to add new capabilities.
F-type connector	A connector used to connect coaxial cable (coax) to equipment.
IP address	An Internet Protocol address is an identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol route messages based on the destination IP address. Your service provider assigns your Communications Gateway an IP address to provide a continuous Internet connection.
MAC address	The Media Access Control Address uniquely identifies each device that can be connected to an Ethernet network. It is permanently written to read-only memory (ROM) at the factory. Your Motorola Communications Gateway has two MAC addresses printed near the Connector Panel. You need to provide them to your service provider to start Cable Data Service or Telephone Service.
MHz	Mega Hertz. A measure of radio frequency - millions of cycles per second. One MHz means one million cycles per second.
RJ-11	The most common type of connector for household or office phones.
RJ-45	The most common type of connector for Ethernet networks.

splitter A splitter is a device that divides the signal power from an input cable equally between two or more signals, each carrying a selected frequency range. The Motorola Communications Gateway requires a 5-900 MHz RF splitter to connect to a cable outlet that is also used for a TV.

PacketCable PacketCable is a set of interface specifications for delivering advanced, real-time multimedia services over coaxial cable (coax); for example VoIP, multimedia conferencing, and interactive gaming. PacketCable is built on the DOCSIS infrastructure already developed to support cable modems.

PSTN The public switched telephone network is the traditional circuit-switched, voice-oriented telephone network originally invented by Alexander Graham Bell. It is sometimes referred to as plain old telephone service (POTS).

TCP/IP Transmission Control Protocol/Internet Protocol is a set of protocols that provides standards and rules for communication between networks.

UPS The uninterruptible power supply enables your Communications Gateway to continue working for a short time when the primary AC power source is lost. It contains a battery that provides power until the AC power is restored.

upstream In a cable data network, upstream describes the direction of data transferred from your computer to the Internet.

USB Universal Serial Bus is a computer interface for add-on devices such as printers, scanners, cable modems and Communications Gateways. When you connect your Motorola Communications Gateway to the USB port, Windows 98 SE and later versions automatically recognize the Communications Gateway.

VoIP

Voice over Internet Protocol is a method to exchange voice, fax, and other information over the Internet. Voice and fax have traditionally been carried over traditional telephone lines using a dedicated circuit for each line. VoIP enables calls to travel as discrete data packets on shared lines. VoIP is an important part of the convergence of computers, telephones, and television into a single integrated information network.

Software License

Motorola Communications Gateways

Motorola, Inc., Broadband Communications Sector (“Motorola”)
Cable Data/Telephony Division
101 Tournament Drive
Horsham, PA 19044

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