

RCA

digital | **BROADBAND
CABLE MODEM**

010011110101110110111000
101010101011100110111011
10110110101100101111110
11010110110110011100111
011101001110111101101101
10101010101101101110010
0101101011101010011010
1011101011011100110100
0100101101001111010111
101010101011100110111011
10110110101100101111110
11010110110110011100111
011101001110111101101101
10101010101101101110010
0101101011101010011010
1011101011011100110100
010011110101110110111000
101010101011100110111011
10110110101100101111110
11010110110110011100111
011101001110111101101101

Safety Information

CAUTION

Disconnect power
before servicing.



CAUTION

To ensure reliable operation and to prevent overheating, provide adequate ventilation for this modem and keep it away from heat sources. Do not locate near heat registers or other heat-producing equipment. Provide for free air flow around the cable modem and its power supply.

CABLE INSTALLER:

This reminder is provided to call your attention to Article 820-40 of the National Electrical Code (Section 54 of the Canadian Electrical Code, Part 1) which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

DOCSIS compliant

This product was designed according to Data Over Cable Service Interface Specifications. It will operate on any DOCSIS-compliant Hybrid Fiber Coax (HFC) cable system and offers DOCSIS Baseline Privacy to promote secure internet transactions.

Power cord Requirement

This product must be operated with the supplied line cord or with a line cord meeting IEC227 H03 VV-F or IEC227 H03 VVH2-F having conductors with a cross-sectional area not less than .75mm².

Operating Information

Operating Temperature: 0° - 40° C (32° - 104° F)

Storage Temperature: -30° to 65° C

If you purchased this product at a retail outlet, please read the following:

Product Registration

Please fill out the product registration card that came with this product and return it immediately. Returning the card allows us to contact you if needed.

Keep your sales receipt to obtain warranty parts and service and for proof of purchase. Attach it here and record the serial and model numbers in case you need them. The numbers are located on the back of the product.

Model No. _____ Serial No _____

Purchase Date: _____ Dealer/Address/Phone: _____

Table of Contents

Introduction	2
Cable Modem Features	2
What's on the CD-ROM	2
Accessing the Diagnostics Display through the CD-ROM	2
Computer Requirements	3
Cable Modem Overview	4
What the Modem Does	4
What the Modem Needs to Do Its Job	5
Before You Begin	5
Contact Your Local Cable Company	5
Connecting the Cable Modem	7
Connecting the Cable Modem to a Single Computer	7
USB Connection - Using the Installation Wizard	9
USB Connection - Without Using the Installation Wizard	12
Using Windows 98 SE for USB Connection	13
Using Windows 2000 for USB Connection	16
Using Windows Me for USB Connection	19
Using Windows XP for USB Connection	20
Ethernet Connection to One Computer	22
Connecting More Than Two Computers to the Cable Modem	23
Activating the Cable Modem	24
Initialization Mode	24
Using the Cable Modem	26
Indicators – Operational Mode	25
Buttons	25
Reset Switch	26
Other Status Indicators	26
Frequently Asked Questions	27
General Troubleshooting	29
USB Troubleshooting	31
FCC Information	42
Quick Reference	43
Service Information	44
Glossary	45

Introduction

Cable Modem Features

- Capable of receiving data at rates of up to 3000kbps[†] (3 Megabits per second, over 50 times faster than 56K)
- Able to send and receive data over the cable line
- Able to connect 2 computers through Ethernet and USB *at the same time*
- Plug-and-play operation for easy setup and installation
- Compliance to DOCSIS specification
- ON/OFF button to connect and disconnect access to the internet
- Message waiting notification capability
- Diagnostics via LED or HTTP server
- Able to receive automatic software updates, if initiated by your cable company

[†] The following may affect the speed of your cable modem: your computer equipment and configuration (processor speed, amount of RAM, available disk space); the number of programs you are running at the same time; the capacity of your ISP; network traffic levels; the number of Ethernet or USB devices in use on your computer. Your cable company may or may not fully support the speed capabilities of this modem.

What's on the CD-ROM

Insert the cable modem CD-ROM into your CD-ROM drive to view troubleshooting tips, the internal diagnostics, and other valuable information.

Note: You will need to use the CD-ROM to install the USB driver if you are connecting via the USB port.

CD-ROM Contents:

- Links to RCA web sites
- Electronic file of the instruction book in additional languages
- USB drivers
- Usage and troubleshooting tips

Accessing the Diagnostics Display through the CD-ROM

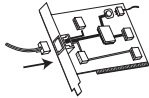
A button on the CD-ROM menu called "Look at Diagnostics" (found under the "About My Cable Modem" menu) launches your browser and displays status and diagnostic information stored within the modem in HTML format.

Introduction

Your PC must receive an IP address assignment from the Cable company's server, over the cable network. You may want to "bookmark" the IP address in your browser after the diagnostics page is displayed.

Computer Requirements

Personal computer with the following minimum system requirements (note that the minimum requirements may vary by cable company):

	IBM PC COMPATIBLE	MACINTOSH**
CPU	Pentium preferred	PowerPC or higher
System RAM	16MB (32MB preferred)	24MB (32MB preferred)
Operating System	Windows* 95/NT/98SE/2000/Me/XP, Linux	Mac OS** 7.6.1 or higher
Available Disk Space	125MB	50MB
Sound Card	Required	N/A ¹
Video	VGA or better (SVGA preferred)	VGA or better (SVGA built-in preferred)
CD-ROM Drive	Required	Required
Ethernet	10BaseT or 100BaseT	10BaseT or 100BaseT
	An Ethernet card makes it possible for your computer to pass data to and from the internet. You must have an Ethernet card and software drivers installed in your computer. You will also need a standard Ethernet cable to connect the Ethernet card to your cable modem.	
USB Port	USB (Windows 98SE/2000/ME/XP only)	N/A ¹
	The Universal Serial Bus is a high speed bus that enables your computer to communicate simultaneously with a variety of peripherals. However, if you have other peripherals that send and receive a lot of information, such as speakers, printers or scanners, we recommend using an Ethernet card to support this modem.	

¹Mac Users: Mac OS or any other OS other than Windows 98SE, Me, 2000, or XP are not currently supported for USB installation. Please use the Ethernet connection.

*Windows is a trademark of the Microsoft Corporation.

**Macintosh and the Mac OS are trademarks of Apple Computer, Inc.

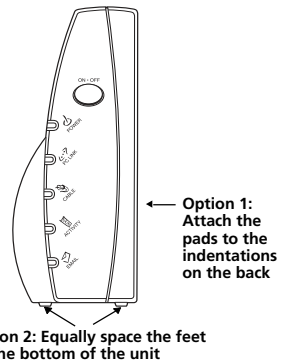
Introduction

Placing the Rubber Feet on the Cable Modem

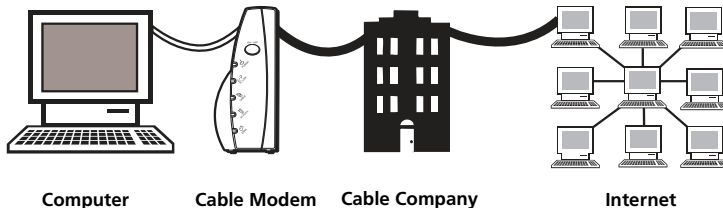
A set of rubber pads have been packaged with your modem. These pads (or "feet") can be attached to keep the modem from sliding around on your desktop. You have 2 options for placing the pads:

Option 1: Attach the pads to the four slight indentations on the back of the modem.

Option 2: Attach the pads to the "rudders" on the bottom of the cable modem. Be sure to equally space the pads for best results.



Cable Modem Overview



This illustration shows a cable company that offers DOCSIS-compliant internet services.

What the Modem Does

The digital cable modem serves as a two-way, high-speed bridge between your personal computer and a cable Internet Service Provider (ISP). It converts information that originates from the Internet or your computer into electronic messages that can be transported over the same wires your cable company uses to transport video signals.

Cable Modem Overview

What the Modem Needs to Do Its Job

- **The Right Cable Company:** Make sure your local cable company provides data services that use cable TV industry-standard DOCSIS-compliant technology.
- **The Internet Service Provider (ISP):** Your cable company provides you access to an Internet Service Provider (ISP). The ISP is your gateway to the Internet. It provides you with a pipeline to access Internet content on the World Wide Web (WWW).

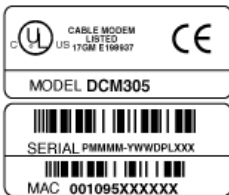
Check with your cable company to make sure you have everything you need to begin; they'll know if you need to install special software or re-configure your computer to make your cable internet service work for you.

Before You Begin

Contact Your Local Cable Company

You will need to contact your cable company to establish an internet account before you can use your modem. You should have the following information (which you will find on the sticker on the modem) ready:

- The serial number
- The model number of the modem
- The Media Access Control (MAC) address



Record your information here:

Serial Number: _____

Model Number: _____

MAC Address: _____

Before You Begin

Please verify the following with the cable company:

- The cable service to your home supports DOCSIS-compliant two-way modem access.
- Your internet account has been set up.
- You have a cable outlet near your PC and it is ready for cable modem service.

Note: It is important to supply power to the modem at all times. Keeping your modem plugged in will keep it connected to the Internet. This means that it will always be ready when you are. To disconnect your computer from the Internet, press the ON/OFF button.

Important Information

Your cable company should always be consulted before installing a new cable outlet. Do not attempt any rewiring without contacting your cable company first.

Note: Graphics used within this publication are for representation only.

Connecting the Cable Modem

Connecting the Cable Modem to a Single Computer

This section of the manual explains how to connect your cable modem to the USB or Ethernet port on your computer and install the necessary software. Please refer to figure 1 to help you connect your cable modem for the best possible connection.

Attaching the Cable TV wire to the Cable Modem

1. Locate the Cable TV wire. You may find it one of three ways:
 - A. Connected directly to a TV, a Cable TV converter box, or VCR. The line will be connected to the jack which should be labeled either IN, CABLE IN, CATV, CATV IN, etc.
 - B. Connected to a wall-mounted cable outlet.
 - C. Coming out from under a baseboard heater or other location. See Figure 1 for the wiring example.

Notes: For optimum performance, be sure to connect your cable modem to the first point the cable enters your home.

The splitter must be rated for at least 1GHz.

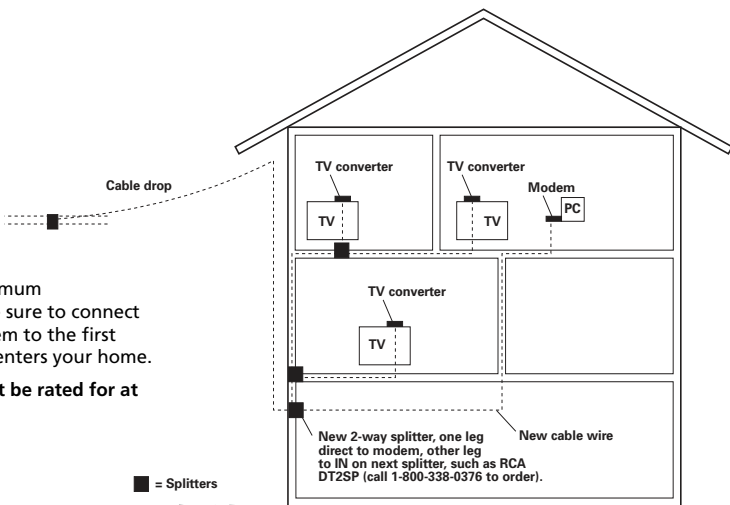


Fig. 1: Basic Home Wiring

Connecting the Cable Modem

Important Connection Information

The cable modem supports both Ethernet and USB connections simultaneously.

Note: Only use the power supply provided with this unit. Using other power supplies may damage the unit.

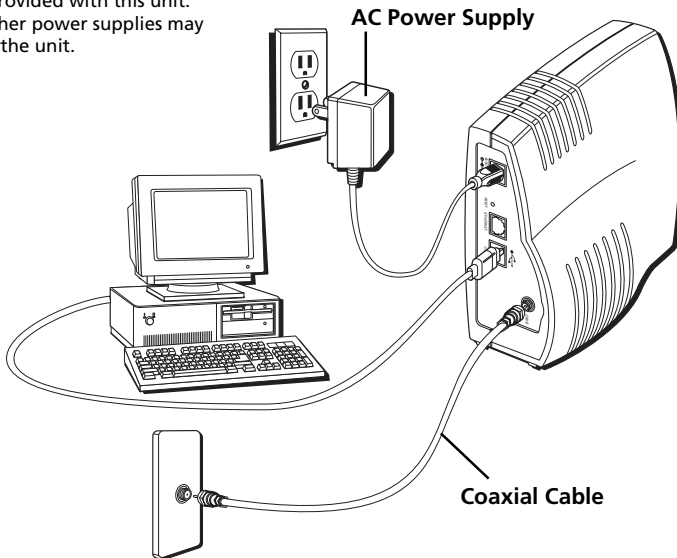


Fig. 2: USB Connection

Note: Graphics used within this publication are for representation only.

Connecting the Cable Modem

Below are important points to remember before you connect the cable modem:

- You should have a **Windows® 98 SE (Second Edition), Windows Me (Millennium Edition), Windows 2000, or Windows XP operating system** to use the Universal Serial Bus (USB) connection.
- For **Ethernet connections, go to page 22.**

USB Connection - Using the Installation Wizard

If you received an Installation/Quick Start kit with the purchase of your modem, you should use the software provided in that kit. If not, the cable modem CD included with your modem contains the drivers, Installation Wizard, and other information you need to install your cable modem. The Installation Wizard serves as your step-by-step guide to connecting and configuring your cable modem.

1. Before you begin, close all open applications and dialog boxes as they may interfere with your cable modem installation.
2. Insert the RCA cable modem CD into the CD-ROM drive of your computer. A menu of options appears (Fig.3).

3. Click "Install RCA Cable Modem."

If the options menu does not automatically appear:

- A. Go to the "Start" menu on the Windows menu bar, then click "Run."
 - B. Type the letter of your CD-ROM drive followed by :\`rca.exe` (for example: d:\rca.exe).
 - C. Click "OK" to begin installation.
4. The Installation Wizard checks your computer to make sure you have the minimum configuration specifications required to install the cable modem (Fig. 4).

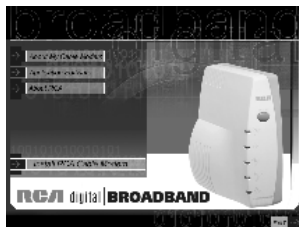


Fig. 3



Fig. 4

(continued on next page)

Connecting the Cable Modem

5. If your computer meets the minimum configuration requirements, the Welcome screen appears (Fig. 5). If the Welcome screen doesn't appear, go to page 3 to make sure your computer meets the minimum requirements.
6. The Installation Wizard prompts you to attach a coaxial cable to the connector labeled CABLE on your RCA cable modem, and to the wall connection for your cable service (Fig. 6).
 - If you're using a splitter, click on "Installing a splitter." The splitter diagram appears. (Fig. 7)
When you're finished, hit the "Back" button.
7. Click "Next" to go to the next screen.
8. The Installation Wizard prompts you to attach the power supply (Fig. 8). **Use only the power supply that accompanied this unit. Using other power supplies may damage the unit.**
 - A. Insert the plug from the AC power supply into the power AC jack on your cable modem labeled 9VDC 800mA.
 - B. Plug the other end of the power supply into the AC outlet.
 - C. Click "Next" when you have finished connecting the power supply.



Fig. 5



Fig. 6

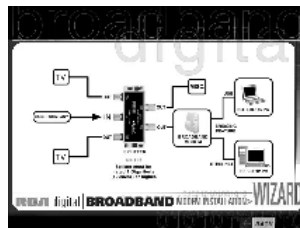


Fig. 7



Fig. 8

Connecting the Cable Modem

The next step begins an automated installation of the USB cable modem drivers. This installation may require Windows system files that are not currently located on your hard drive. If the Installation Wizard needs those files, you will be asked to insert your Windows Operating System CD-ROM. Click "OK" to continue.

9. Connect one end of the USB cable included with your RCA cable modem to the USB port on your computer (Fig. 9). Connect the other end of the USB cable to the USB port on the cable modem (Fig. 9).
10. If the modem is detected, the "Windows Found New Hardware" window appears and the "Installation Complete" screen appears.

Next, you need to install the USB driver for your operating system:

- If you have Windows 98 SE, go to step 6 on page 13.
- If you have Windows 2000, go to step 6 on page 16.
- If you have Windows Me, go to step 6 on page 19.
- If you have Windows XP, go to step 6 on page 20.

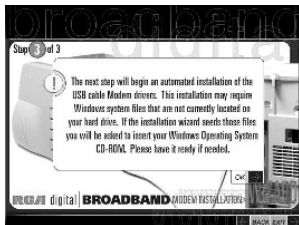


Fig. 9



Fig. 10



Fig. 11

(continued on next page)

Connecting the Cable Modem

USB Connection - Without Using the Installation Wizard

If you do not want to use the CD-ROM, follow instructions 1 through 5 to connect the cable modem to the USB port on your computer. **Instructions must be followed in the order they appear.**

1. Connect one end of the coaxial cable to the cable connection in the wall. Attach the other end of the coaxial cable to the connector on the cable modem labeled CABLE (Fig. 2) on page 8.
2. Insert the plug from the AC power supply into the power AC jack labeled 9VDC 800mA and the two-prong plug into the AC outlet.
3. Insert the supplied RCA cable modem CD-ROM. Wait momentarily for the cable modem CD window display.
4. Close **all** open applications and dialog boxes, including the cable modem CD window.
Note: Open applications may interfere with your cable modem installation.
5. Connect one end of the USB cable to the USB port located on the back of your computer. Connect the other end of the USB cable to the USB port on the cable modem's back panel.

Note: Use only the power supply that accompanied this unit. Using other power supplies may damage the unit.

Next, you need to install the USB driver for your operating system:

- If you have Windows 98 SE, go to step 6 on page 13.
- If you have Windows 2000, go to step 6 on page 16.
- If you have Windows Me, go to step 6 on page 19.
- If you have Windows XP, go to step 6 on page 20.

Connecting the Cable Modem

Using Windows 98 SE for USB Connection

Follow steps 6 through 14 if you have a Windows 98 SE operating system:

- When the “Add New Hardware Wizard” appears, click “Next” to initiate the search for drivers for your USB device. (Fig. 12)

Note: If the “Add New Hardware Wizard” did not automatically appear, Windows 98 SE does not recognize the cable modem’s presence because your BIOS (Basic Input/Output System) settings may not permit USB and/or Plug-and-Play devices. Please contact your computer’s customer service department.

- Choose “Search for the best driver (recommended)” option, and click “Next.” (Fig. 13).
- Choose **only** the “CD-ROM drive” option and click “Next” (Fig. 14).
- Choose “The updated driver (recommended)” option, and click “Next” (Fig. 15).

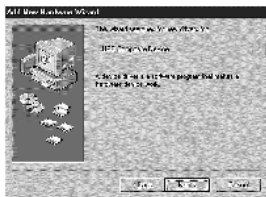


Fig. 12



Fig. 13



Fig. 14



Fig. 15

(continued on next page)

Connecting the Cable Modem

10. The search should find the driver for the “RCA or Thomson USB Cable Modem” (Fig. 16). To confirm that this is the case, click “Next” to continue and proceed to step 12. Otherwise, see step 11.

Important: Do **NOT** continue if the search finds “USB Composite Device” driver. Proceed to step 11.

11. Follow these instructions only if the driver found was NOT the “RCA or Thomson USB Cable Modem.”
- Click “Back” to return to the previous window.
 - Ensure that you have selected the “CD-ROM” option.
 - In **addition** to the CD-ROM selection, choose “Specify a location” (Fig. 17).
 - In the location box, type in your CD-ROM drive. For example, if your CD-ROM is located on the E: drive, type “E:\.”
 - Click “Next” to continue.
The search should find the driver for the “RCA or Thomson USB Cable Modem.”
 - Confirm that this is the driver selected, and click “Next” to continue.



Fig. 16



Fig. 17

Connecting the Cable Modem

- Windows should now prompt you to install the “RCA or Thomson USB Cable Modem” driver. Click “Next” to install the driver.

At this point, your PC needs to copy Windows 98 SE specific files. If these files are not located on your hard drive, you may need to insert your Windows 98 SE installation media (i.e., Windows disks or Windows CD-ROM), but first remove the cable modem CD-ROM.

- After the Windows specific files are copied, you may be asked for another USB driver file named “NETRCACM.SYS”, located on the cable modem CD-ROM. Remove the Windows 98 SE CD-ROM (if necessary), and reinsert the cable modem CD-ROM that accompanied your cable modem.
- Windows now informs you that the installation is complete. Click on “Finish” to finalize the process (Fig. 18). When the “System Settings Change” window appears, click “Yes” to restart your computer.
- The cable modem installation is now complete. To validate a proper installation, perform the following instructions:
 - Click on the “Start” icon in the lower left-hand corner of your screen.
 - Select “Settings,” followed by “Control Panel.” The “Control Panel” window appears.
 - Double-click on the “System” icon, and select the “Device Manager” tab.
 - Scroll down the list until you come to “Network Adapters.” Double-click on “Network Adapters.” If the “RCA or Thomson USB Cable Modem” does not exist, the cable modem was **NOT** installed correctly, go to Solution 2 on page 35.



Fig. 18

Connecting the Cable Modem

Using Windows 2000 for USB Connection

Follow steps 6 through 14 if you have a Windows 2000 operating system:

- When the “Found New Hardware Wizard” appears, click “Next” to initiate the search for drivers for your USB device (Fig. 19).

Note: If Windows 2000 does not recognize the cable modem’s presence, your BIOS settings may not permit USB and/or Plug-and-Play devices. Please contact your computer’s customer service department.

- Choose the “Search for a suitable driver for my device (recommended)” option, and click “Next” (Fig. 20).
- Choose **ONLY** the “CD-ROM” option and click “Next” (Fig. 21).



Fig. 19



Fig. 20



Fig. 21

Connecting the Cable Modem

9. The search should find the driver for the “RCA or Thomson DCM 3xx Cable Modem” (Fig. 22). To confirm that this is the case, click “Next” to continue and proceed to step 11. Otherwise, see step 10.

Important: Do **NOT** continue if the search finds “USB Composite Device” driver. Proceed to step 10.

10. Follow these instructions **ONLY** if the driver found was NOT the “RCA or Thomson DCM 3xx Cable Modem.”
- Click “Back” to return to the previous window.
 - Ensure that you have selected the “CD-ROM” option.
 - In **addition** to the CD-ROM option, choose “Specify a location.” Click on “Next” to continue (Fig. 23).
 - In the location box, type in your CD-ROM drive. For example, if your CD-ROM is located on the E: drive, type “E:\.” Click on “Ok” to continue.
 - Click “Next” to continue.

The search should find either “RCA or Thomson USB Cable Modem” or “RCA or Thomson DCM 3xx Cable Modem.”



Fig. 22

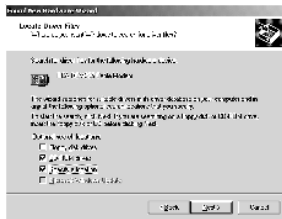


Fig. 23

(continued on next page)

Connecting the Cable Modem

11. Windows should now prompt you to install either the “RCA or Thomson USB Cable Modem” or “RCA or Thomson DCM 3xx Cable Modem.” Click “Next” to install the driver.

At this point your PC needs to copy Windows 2000 specific files. If these files are not located on your hard drive, you may need to insert your Windows 2000 installation media (i.e., Windows 2000 CD-ROM), but first remove the cable modem CD-ROM.

12. After the Windows specific files are copied, you may be asked for another USB driver file named “NETRCACM.SYS,” located on the cable modem CD-ROM. Remove the Windows 2000 CD-ROM (if necessary), and reinsert the cable modem CD-ROM that accompanied your cable modem.
13. Click on “Finish” to complete the process (Fig. 24).
14. The cable modem installation is now complete. To validate a proper installation, perform the following instructions:
 - A. Click on the “Start” icon in the lower left-hand corner of your screen.
 - B. Select “Settings,” followed by “Control Panel.” The “Control Panel” window appears.
 - C. Double-click on the “System” icon, select the “Hardware” tab, and choose “Device Manager.”
 - D. Scroll down the list until you come to “Network Adapters.” Double-click on “Network Adapters.” The “RCA or Thomson USB Cable Modem” should exist. If the “RCA or Thomson USB Cable Modem” does not exist, the cable modem was **NOT** installed correctly. Go to Solution 2 on page 35.



Fig. 24

Connecting the Cable Modem

Using Windows Me for USB Connection

Follow steps 6 through 9 if you have a Windows Me operating system:

- Windows Me will briefly display the “Found New Hardware Wizard,” and automatically proceed to the “Add New Hardware Wizard” (Fig. 25).

Choose the “Automatic search for a better driver (Recommended)” option, and click “Next.”

Note: If Windows Me does not recognize the cable modem’s presence, i.e., the “Add New Hardware Wizard” did not automatically appear, your BIOS settings may not permit USB and/or Plug-and-Play devices. Please contact your computer’s customer service department.

- The automatic search should find and install the driver for the “RCA or Thomson USB Cable Modem” (Fig. 26). Click on “Finish” to complete the process.
- When the “System Settings Change” window appears, click “Yes” to restart your computer (Fig. 27).
- The Thomson cable modem installation is now complete. To validate a proper installation, perform the following instructions:
 - Click on the “Start” icon in the lower left-hand corner of your screen.
 - Select “Settings,” followed by “Control Panel.” The “Control Panel” window will appear.
 - Double-click on the “System” icon, and select the “Device Manager.”
 - Scroll down the list until you come to “Network Adapters.” Double-click on “Network Adapters.”
 - The “RCA or Thomson USB Cable Modem” should exist. If “RCA or Thomson USB Cable Modem” does not exist, the cable modem was **NOT** installed correctly. Go to Solution 2 on page 35.



Fig. 25



Fig. 26



Fig. 27

Connecting the Cable Modem

Using Windows XP for USB Connection

Follow steps 6 through 9 if you have a Windows XP operating system:

6. Windows XP will briefly display the “Welcome to the Found New Hardware Wizard,” (Fig. 28) and ask you to insert the installation CD-ROM that came with the unit.

Choose the “Install the software automatically (Recommended)” option, and click “Next.”

Note: If Windows XP does not recognize the cable modem’s presence, i.e., the “Welcome to the New Hardware Wizard” did not automatically appear, your BIOS settings may not permit USB and/or Plug-and-Play devices. Please contact your computer’s customer service department.

7. Your computer will install the drivers for the “RCA or Thomson USB Cable Modem” (Fig. 29). Click on “Next” to complete the process.



Fig. 28



Fig. 29

Connecting the Cable Modem

8. When the “Completing the Found New Hardware Wizard” window appears, click “Finish” to complete the process (Fig. 30).
9. The cable modem installation is now complete. To validate a proper installation, perform the following instructions:
 - Click on the “Start” icon in the lower left-hand corner of your screen.
 - Select “Settings,” followed by “Control Panel.” The “Control Panel” window will appear.
 - Double-click on the “System” icon, and select the “Device Manager.”
 - Scroll down the list until you come to “Network Adapters.” Double-click on “Network Adapters.”
 - The “RCA or Thomson USB Cable Modem” should exist. If “RCA or Thomson USB Cable Modem” does not exist, the cable modem was **NOT** installed correctly. Go to Solution 2 on page 35.



Fig. 30

Connecting the Cable Modem

Ethernet Connection to One Computer

Make the connections to the modem in the following sequence (Fig. 31):

1. Connect one end of the coaxial cable to the cable connection in the wall, and the other end to the connector on the modem labeled CABLE.
2. Insert the plug from the AC power supply into the power AC jack labeled 9V DC 800mA on the cable modem and the two-prong plug into an AC outlet.

Note: Use only the power supply that accompanied this unit. Using other adapters may damage the unit.

3. Connect one end of the Ethernet cable (straight-wired, see below) to the Ethernet port on the back of your computer, and the other end to the ETHERNET port on the cable modem's back panel.

Make sure that the Ethernet cable is straight-wired (not "null" or crossover-wired). However, you will need a crossover-type cable if you are connecting the modem to a hub, or a hub within a port switch that provides the same function.

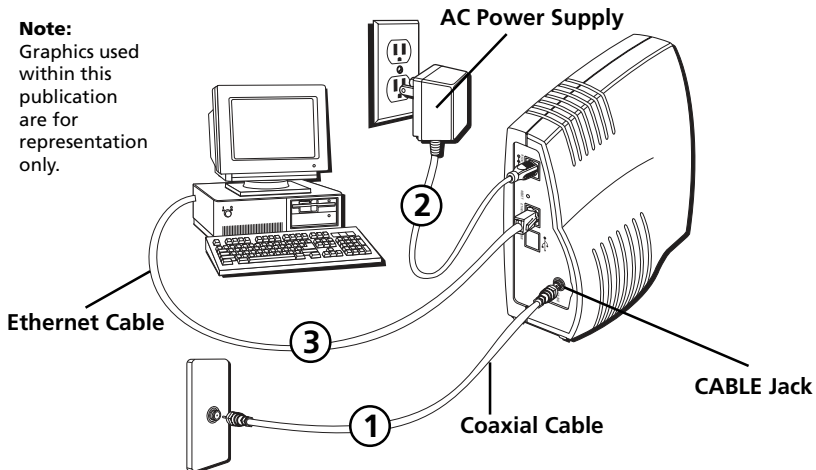


Fig. 31: Ethernet Connection

Connecting the Cable Modem

Connecting More Than Two Computers to the Cable Modem

If you need to connect more than two computers or if you need to connect two computers, but USB is not available, you'll need the following additional equipment:

- Crossover-wired, or "null," category 5 Ethernet cable for the cable modem to be connected to the hub
- 10Base-T or 100Base-T Hub or Switch
- Straight through, or standard, category 5 Ethernet cable (one for each computer to be connected)

If you have a hub with an uplink port*, a straight through cable can be used in combination with that port in lieu of the crossover cable.

*An uplink port has a small switch on it to change the polarity of the connection. It can accept either a crossover or a straight cable, depending on the setting.

Note: Graphics used within this publication are for representation only.

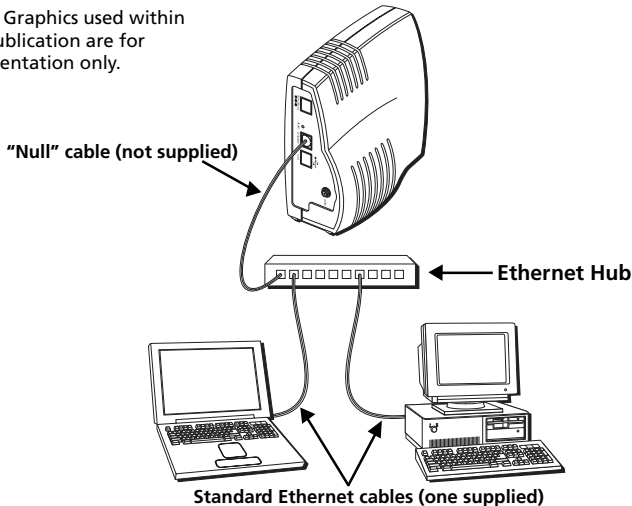


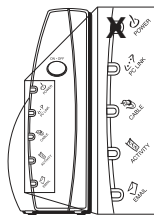
Fig. 32: Ethernet Hub Connection

Activating the Cable Modem

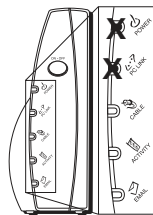
Initialization Mode

After you install the cable modem and turn it on for the first time (and each time the modem is reconnected to the power), it goes through five steps before it can be used. Each of these steps is represented by a different pattern of flashing lights on the front of the modem.

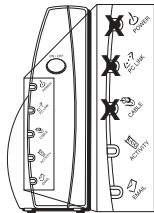
Note: All indicators flash once prior to the initialization sequence.



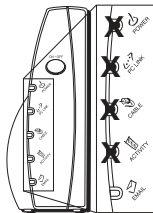
1. Tuning – The cable modem is functional and searching for a downstream cable modem service channel on your cable system.



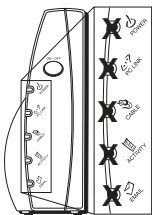
2. Ranging – The modem is now tuned to a downstream cable modem channel and can now receive data. Now it searches for an upstream channel so that it can send data.



3. Connecting – The cable modem is now communicating start-up data both down-stream and upstream. The cable company is establishing IP connectivity with your modem.



4. Configuring – The cable modem received its IP address and is downloading its configuration file from the Internet Service Provider (ISP).



5. Registering – The cable modem configuration is complete. It is registering its “as-configured” settings with your Cable Operator. Once complete, the POWER (INTERNET)*, PC LINK, and CABLE (CABLE ACTIVITY)* indicators stop flashing and remain on.

* Actual button names may vary per model.

Legend Off On Flashing

Additional Information

Buttons

ON/OFF (INTERNET ON/OFF)* – Disconnects your computer from the Internet for added security. Also allows for continued status monitoring from the cable network at all times.

Important: Do not press this button when transmitting data over the internet. The information will be lost and your Internet connection disabled.

Indicators – Operational Mode

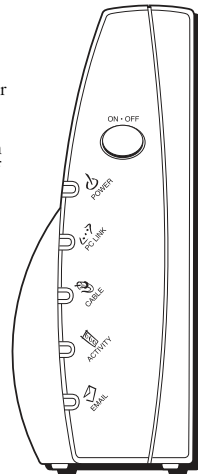
POWER (INTERNET)* – Indicates whether the cable modem is in active or standby mode. The light is off when the modem is in standby mode, and on when the power is activated and in the operational mode.

PC LINK – Indicates whether the connection between the computer and the modem is active (ready to transmit/receive) or actually transmitting/receiving. The light is off when no carrier is present (or the modem is in standby mode), on when the carrier is present but there's no transmit/receive activity, and flashing when there is transmit/receive activity.

CABLE (CABLE LINK)* – Indicates the status of your cable connection. The light is off when no cable connection is detected or the modem is in standby mode and fully lit when the modem is registered with the network and data can be sent.

ACTIVITY (CABLE ACTIVITY)* – Indicates the existence of data traffic in the cable lines. The light is off when no data traffic is present and flashing when data activity exists.

EMAIL (MESSAGE)* – This light flashes when you have mail (if available through service provider).



Note: If all of the lights are flashing sequentially, it means the cable modem is automatically updating its system software. Please wait for the lights to stop flashing. You cannot use your modem during this time. Do not remove the power supply or reset the cable modem during this process.

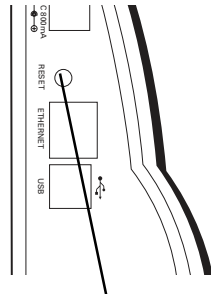
* Actual button names may vary per model.

Using the Cable Modem

Reset Switch

The reset switch can be found behind a “toothpick hole” on the back panel. It performs two functions:

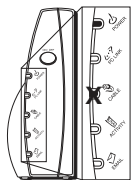
- **Basic Reset** – Press and release the switch to make it perform the same function as disconnecting the power from the modem. It will start up again in Initialization Mode, see page 24.
- **Factory Default Reset** – Unplug the modem from the AC power. Press and hold the reset switch while plugging the modem into AC power. Continue holding the switch. Release the switch when all lights come on (about 6 seconds). This will return the modem to a factory “out of box” condition. **This should only be done if the cable modem has been taken out of service in one location and is being reconnected to a different service, or if instructed to do so by your cable company.**



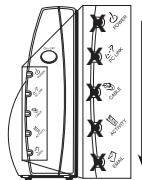
Reset switch

Other Status Indicators

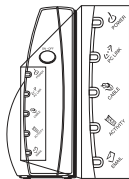
Three other status light patterns you may see are:



De-Activated – Cable Service Operator has deactivated the cable modem. The CABLE (CABLE ACTIVITY)* light flashes slowly.



Software downloading or update in progress. Lights flash sequentially from top to bottom.



All lights are off. The cable modem is in Standby Mode or is not receiving AC power.

* Actual button names may vary per model.

Legend

□ Off

■ On

✕ Flashing

Frequently Asked Questions

Frequently Asked Questions

Q. *What if I don't subscribe to cable TV?*

A. If cable TV is available in your area, data service may be made available with or without cable TV service. Contact your local cable company for complete information on cable services, including high-speed internet access.

Q. *How do I get the system installed?*

A. Professional installation from your cable provider is strongly recommended. They will ensure proper cable connection to the modem and your computer. However, your retailer may have offered a self installation kit, including the necessary software to communicate with your cable ISP.

Q. *Once my cable modem is connected, how do I get access to the Internet?*

A. Your local cable company provides your internet service*, offering a wide range of services including email, chat, and news and information services, and a connection to the World Wide Web.

Q. *Can I watch TV and surf the Internet at the same time?*

A. Absolutely! And your phone line won't be tied up while you're online.

Q. *Can I run more than one computer on the modem?*

A. Yes – a single cable modem can support up to 32 computers using Ethernet connectivity.**

Q. *What do you mean by "Broadband?"*

A. Simply put, it means you'll be getting information through a "bigger pipe," with more bandwidth, than a standard phone line can offer. A wider, "broader" band means more information, more quickly.

Q. *What is DOCSIS and what does it mean?*

A. "Data Over Cable Service Interface Specifications" is the industry standard that most cable companies are adopting as they upgrade their systems. Should you ever decide to move, the cable modem will work with all upgraded cable systems that are DOCSIS-compliant.

* Monthly subscription fee applies.

** Additional equipment required. Contact your cable company and ISP for any restrictions or additional fees.

FCC Information

FCC Declaration of Conformity and Industry Canada Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name: RCA Model: DCM305
Equipment Classification: Computing Device Accessory

Responsible Party: Thomson multimedia, Inc.
10330 N. Meridian Street
Indianapolis, IN 46290
Telephone 317-415-4151

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

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

FCC regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it.

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Quick Reference

Minimum System Requirements

	IBM PC COMPATIBLE	MACINTOSH
CPU	Pentium preferred	PowerPC or higher
System RAM	16MB (32MB preferred)	24MB (32MB preferred)
Operating System	Windows 95/NT/98SE/2000/Me/XP, Linux	Mac OS 7.6.1 or higher
Available Disk Space	125MB	50MB
Sound Card	Required	N/A†
Video	VGA or better (SVGA preferred)	VGA or better (SVGA built-in preferred)
CD-ROM Drive	Required	Required
Ethernet	10BaseT or 100BaseT	10BaseT or 100BaseT
USB Port	USB (Windows 98SE/2000/Me/XP only)	N/A†

The Universal Serial Bus is a high speed bus that enables your computer to communicate simultaneously with a variety of peripherals. If you have other peripherals that send and receive a lot of information, such as speakers, printers or scanners, we recommend using an Ethernet card to support this modem.

†Mac Users: Neither Mac OS nor any other OS other than Windows 98SE, Me, 2000, or XP are supported currently for USB installation. Please use the Ethernet connection.

Connecting the Cable Modem

1. Connect one end of the coaxial cable to the cable connection in the wall, and the other end to the connector on the modem labeled CABLE.
2. a. Insert the plug from the AC power supply into the power AC jack labeled 9VDC 800mA on the cable modem.
b. Insert the power cord into the AC adapter, and then plug into an AC outlet.
3. **For USB Connection:** Connect one end of the USB cable to the USB port on the back of your computer, and the other end to the USB port on the cable modem's back panel. (See page 9 for instructions on loading the USB driver.)

OR

For Ethernet Connection: Connect one end of the Ethernet cable (straight-wired) to the Ethernet port on the back of your computer, and the other end to the ETHERNET jack on the modem's back panel.

Quick Reference

Buttons

ON/OFF – Turns the modem on or puts it in standby mode. Placing the cable modem in standby mode (the “off” position) allows for continued status monitoring from the cable network. *Do not press this button when transmitting data over the internet. The information will be lost and your connection disabled.*

Light/LED Indicators

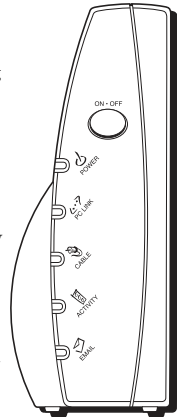
POWER (INTERNET)* – Indicates whether the cable modem is in active or standby mode. The light is off when the modem is in standby mode, and on when the power is activated and in the operational mode.

PC LINK – Indicates whether the connection between the computer and the modem is active (ready to transmit/receive) or actually transmitting/receiving. The light is off when no carrier is present (or the modem is in standby mode), on when the carrier is present but there’s no transmit/receive activity, and flashing when there is transmit/receive activity.

CABLE (CABLE LINK)* – Indicates the status of your cable connection. The light is off when no cable connection is detected or the modem is in standby mode and fully lit when the modem is registered with the network and data can be sent.

ACTIVITY (CABLE ACTIVITY)* – Indicates the existence of data traffic in the cable lines. The light is off when no data traffic is present and flashing when data activity exists.

EMAIL (MESSAGE)* – This light flashes when you have mail (if available through service provider).



Service Information

If you purchased or leased your cable modem directly from your cable company, then warranty service for the cable modem may be provided through your cable provider or its authorized representative.

For information on 1) Ordering Service, 2) Obtaining Customer Support, or 3) Additional Service Information, please contact your cable company. If you purchased your cable modem from a retailer, see the enclosed warranty card.

* Actual button names may vary per model.

Glossary

10BaseT – Unshielded, twisted pair cable with an RJ-45 connector, used with Ethernet LAN (Local Area Network). “10” indicates speed (10 Mbps), “Base” refers to baseband technology, and “T” means twisted pair cable.

DHCP (Dynamic Host Control Protocol) – A protocol which allows a server to dynamically assign IP addresses to workstations on the fly.

DOCSIS (Data Over Cable Service Interface Specifications) – A project with the objective of developing a set of necessary specifications and operations support interface specifications for cable modems and associated equipment.

Ethernet card – A plug-in circuit board installed in an expansion slot of a personal computer. The Ethernet card (sometimes called a Network Interface Card or NIC) takes parallel data from the computer, converts it to serial data, puts it into a packet format, and sends it over the 10BaseT or 100BaseT LAN cable.

F Connector – A type of coaxial connector, labeled CABLE IN on the rear of the cable modem, that connects the modem to the cable system.

HTTP (HyperText Transfer Protocol) – Invisible to the user, HTTP is used by servers and clients to communicate and display information on a client browser.

Hub – A device used to connect multiple computers to the cable modem.

IP Address – A unique, 32-bit address assigned to every device in a network. An IP (Internet Protocol) address has two parts: a network address and a host address. This modem receives a new IP address from your cable operator via DHCP each time it goes through Initialization Mode.

MAC Address – The permanent “identity” for a device programmed into the Media Access Control layer in the network architecture during the modem’s manufacture.

Network Driver – A file that is loaded on the computer to allow the computer to recognize the Ethernet card or USB port.

TCP/IP (Transmission Control Protocol/Internet Protocol) – A networking protocol that provides communication across interconnected networks, between computers with diverse hardware architectures and various operating systems.

Universal Serial Bus (USB) – USB is a “plug-and-play” interface between a computer and add-on devices, such as a cable modem.

Visit the RCA web site at www.rca.com

Please do not send any products to the Indianapolis address listed in this manual or on the carton. This will only add delays in service for your product.

Thomson multimedia Inc.

10330 North Meridian Street

Indianapolis, IN 46290

© 2001 Thomson multimedia Inc.

Trademark(s) Registered

Marca(s) Registrada(s)

Printed in USA

TOCOM 15863730

