

SB5100 Series Cable Modem User Guide

Click your selection (there is a complete Contents on page v):

Introduction

Introduces your SURFboard cable modem and the controls on the Top and Front Panel and Rear Panel.

Before You Begin

Lists the items needed to install your SURFboard cable modem and describes Precautions, Signing Up for Service, and Computer System Requirements.

Installation and Configuration Overview

Provides an overview and links for cabling and configuring your SURFboard cable modem, 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 SURFboard cable modem.



SURFboard[®] Cable Modem WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. THE DEVICE SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE DEVICE.

CAUTION: TO ENSURE REGULATORY AND SAFETY COMPLIANCE, USE ONLY THE PROVIDED POWER AND INTERFACE 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 OPEN THE UNIT. 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: Changes Or Modifications Not Expressly Approved By The Party Responsible For Compliance Could Void The User's Authority To Operate The Equipment.

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.



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.



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.

Installation of this product must be in accordance with national wiring codes.

To prevent overheating, do not block the ventilation holes on the sides of the cable modem.

Wipe the cable modem 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.

Caring for the Environment by Recycling



When you see this symbol on a Motorola product, do not dispose of the product with residential or commercial waste.

Recycling your Motorola Equipment

Please do not dispose of this product with your residential or commercial waste. Some countries or regions, such as the European Union, have set up systems to collect and recycle electrical and electronic waste items. Contact your local authorities for information about practices established for your region. If collection systems are not available, call Motorola Customer Service for assistance.

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.

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the 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.

This device must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

This Class B digital device complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This product is provided with a separate a separate *Regulatory, Safety, 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, SAFETY, SOFTWARE LICENSE, AND WARRANTY 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 REGULATORY, SAFETY, SOFTWARE LICENSE, AND WARRANTY INFORMATION CARD. MOTOROLA'S WARRANTIES DO NOT APPLY TO PRODUCT THAT HAS BEEN REFURBISHED OR REISSUED BY YOUR SERVICE PROVIDER.

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Introduction

Easier!

Unlike dial-up modems or ISDN, you're always on, always connected. For easiest set-up, use the Installation Assistant on the SURFboard Cable Modem CD-ROM.

Faster!

Your cable modem is up to 100 times faster than a dial-up modem. It lets you enjoy surfing the Web without the long wait. Because many network and other factors can affect performance, the actual speed will vary.

Better!

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

Introduction

Congratulations, you have a new Motorola[®] SURFboard[®] cable modem. It provides high-speed access to the Internet and other online services. This cable modem transmits and receives data much faster than traditional dial-up or ISDN modems. Unlike a dial-up modem, your cable modem is always online. *Just open your browser and surf!*

You can use your high-speed, upgradeable cable modem to connect one or more computers in your home or business to the Internet. You can connect:

- A single computer equipped with a Universal Serial Bus (USB) port directly to the USB port on the SURFboard cable modem
- A single computer equipped with an Ethernet adapter directly to the Ethernet port on the SURFboard cable modem
- Two computers; one to the USB port and one to the Ethernet port
- Up to 63 computers to a single SURFboard cable modem using an Ethernet hub as shown in "Cabling for Multiple Users" on page 40

License



Introduction Before You Begin Installation & Configuration Troubleshooting FAQ Glossary License

The model number on your cable modem may be different than in the illustrations and screen images in this guide.



Top and Front Panel

For added security, you can press the Standby button **(1)** to suspend your Internet connection. No data is transmitted or received from the Internet when the Standby light is on. All other front-panel lights turn off until you press the Standby button again.

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

Key	Light	Flashing	On
2	Power	Startup diagnostics in progress	The cable modem is powered on
3	Receive	Scanning for a receive (downstream) channel connection	The downstream channel is connected
4	Send	Scanning for a send (upstream) channel connection	The upstream channel is connected
5	Online	Scanning for a network connection	The startup process is complete
6	PC/Activity	Transmitting or receiving data	A device, such as a computer or hub, is connected to the USB or Ethernet connectors on the back panel.
7	Standby	This light does not flash	Internet service is blocked because the Standby button was pressed. If this light is on, all other lights are off.

During normal operation, the Power, Receive, Send, and Online lights are on and the PC/Activity light flashes when the cable modem is transferring data.

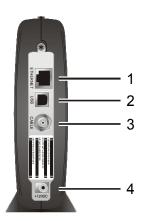


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Rear Panel

The rear panel provides cabling connectors and the power receptacle.

Key	ltem	Description
1	ETHERNET	The Ethernet port provides a connection to Ethernet equipped computers using a cable terminated with an RJ-45 connector.
2	USB	The USB port provides a connection to USB equipped computers.
3	CABLE	The CABLE port provides a connection to the coaxial cable (coax) outlet.
4	+12VDC	This connector provides power to the cable modem.





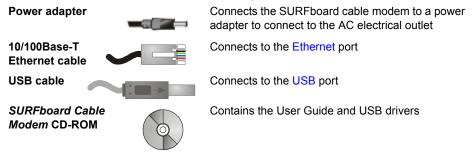
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Before You Begin

Before you begin the installation, check that you received the following items with your SURFboard cable modem:

Description

ltem



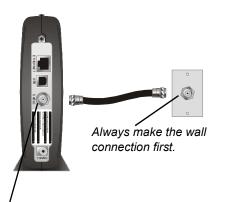
You will need 75-ohm coaxial cable with F-type connectors to connect your cable modem to the nearest cable outlet. If a TV is connected to the cable outlet, you may need a 5-900 MHz RF splitter and a total of three coaxial cables to connect both the TV and the cable modem. The coaxial cable and RF splitter are available at consumer electronic stores.



Introduction

Before You Begin

To avoid damaging your cable modem or PC with static electricity:



Precautions

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

To avoid damaging the cable modem 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 cable modem or PC, always touch the coaxial cable connector on the cable modem to release any static charges.

To prevent overheating the cable modem, do not block the ventilation holes on its sides.

Do not open the cable modem. Refer all service to your cable service provider.

Wipe the cable modem 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.

Before you connect or disconnect the USB or Ethernet cable, *always touch the coaxial cable connector on the cable modem*.



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Signing Up for Service

You must sign up with a cable service provider to access the Internet and other online services.

To activate your service, call your local cable service provider.

To receive data service, you need to provide the MAC address printed on the bar code label marked **CM HFC MAC ID** on the bottom of the cable modem. You can record it here:

00 : _____ : ____ : ____ : ____ : ____ :

You should ask your cable service provider the following questions:

- Do you have any special system requirements?
- When can I begin to use my cable modem?
- 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?



Introduction

Before You Begin

You can use any Web browser such as Microsoft[®] Internet Explorer or Netscape Navigator[®] with your SURFboard cable modem.

For Microsoft Windows computers, the Installation Assistant application automatically checks your system configuration. You can start the Installation Assistant from the Main Menu on the SURFboard Cable Modem CD-ROM.

Computer System Requirements

Your SURFboard cable modem is compatible with Microsoft Windows[®], Macintosh[®], and UNIX[®] computers.

Ethernet Card

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

Windows[®] 95, UNIX, Linux, 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 cable modem. 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 Second Edition, Windows[®] 2000, Windows Me[®], or Windows XP^{$^{\text{M}$} that has a USB interface. The USB connection requires special USB driver software that is supplied on the *SURFboard Cable Modem* CD-ROM.

You can upgrade your USB drivers from our Downloads page http://broadband.motorola.com/noflash/usb_drivers.asp.



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To connect a single PC running Microsoft Windows to a SURFboard cable modem, we recommend using the Installation Assistant application.

You can start the Installation Assistant from the Main Menu on the *SURFboard Cable Modem* CD-ROM. In most cases, the Installation Assistant automatically configures your cable modem.

Installation and Configuration Overview

To install and configure your cable modem for a single PC running Microsoft Windows, you can use the Installation Assistant.

Otherwise, to install and configure your cable modem:

- 1 Install the cables as described in *one* of:
 - "Cabling and Startup for a Single User" on page 9
 - "Cabling for Multiple Users" on page 40
- 2 If you are using the USB port *only*, go to "Setting Up a USB Driver" on page 11. *Ethernet users can skip this step.*
- 3 Configure TCP/IP and verify the IP address for your computer following one of:
 - "Configuring TCP/IP" on page 22
 - Your Macintosh or UNIX user manual



Introduction	Before You Be	egin Insta	llation	& Configuration	Troubleshooting	FAQ	Glossary	License
			₽C	abling and	Startup for	a Sin	gle Use	r
					power up the first time be e appropriate channels fo			ıble modem
			1	Be sure your compu	iter is on and the cable m	odem is ur	nplugged.	
		2 Connect one end of the coaxial cable to the cable outlet or splitter. Co other end of the coaxial cable to the CABLE connector on the cable m Hand-tighten the connectors to avoid damaging them.						
			3	Insert the SURFboa	ard Cable Modem CD-RO	M into you	r CD-ROM drive	ə.
	To cable outlet (step 2)	outlet	4	• .	l into the +12VDC connects turns the SURFboard connects the SURFboard connects the surf board connects the section of the sect			
accr 0.104 Accreta			5	Check that the light	s on the cable modem fro	nt cycle th	rough this sequ	ence:
		To electrical outlet (step 4)		 Power flashes of is successfully 	during the self-test and ch complete.	anges to s	olid green when	the self-test
SURFboard	d cable modem				s while scanning for the r d green when it is connec		wnstream) chan	inel and

- Always connect coaxial cable to the wall outlet first.
 - Online flashes while the cable modem downloads configuration data and changes to solid green when the download is complete.



Introduction Before You Begin In	stallation & Configuration	Troubleshooting	FAQ	Glossary	License			
	Cabling and Star	tup for a Single User	, continu	led				
Caution	6 Connect your com	puter to the cable modem	using USB	or Ethernet:				
Do not connect <i>both</i> the Ethernet and USB cables to the same computer.	<i>drive.</i> Connect the other end to the U	USB: Be sure the SURFboard Cable Modem CD-ROM is inserted in your CD-ROM drive. Connect the USB cable to the USB port on the cable modem. Connect the other end to the USB port on your computer. Then perform "Setting Up a USB						
Connect to either	Driver" on page 11.							
Ethernet or USB	Ethernet: Connect the provided Ethernet cable to the Ethernet connector on the cable modem. Connect the other end to the Ethernet port on your computer. <i>Ethernet users do not need to set up USB.</i>							
		dura fan "Oanfarusia a TOF						

7 Perform the procedures for "Configuring TCP/IP" on page 22.

Computer

-

** 48



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Contra De

R HOL

SURFboard cable modem

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before you plug in the USB cable.

Introduction	Before You Begin	Install	ation & Configuration	Troubleshooting	FAQ	Glossary	License	
			Setting Up a	u USB Driver				
	IRFboard Cable Modem erted in your CD-ROM driv	ve	The following subsection procedure for your Wind	s describe setting up a U ows version:	SB driver.	Perform the app	propriate	

- "Setting Up a USB Driver in Windows 98 Second Edition" on page 12
- "Setting Up a USB Driver in Windows 2000" on page 16
- "Setting Up a USB Driver in Windows Me" on page 20
- "Setting Up a USB Driver in Windows XP" on page 21

When you finish setting up the USB driver, you can continue with "Configuring TCP/IP" on page 22.

The SURFboard cable modem USB driver does not support Macintosh or UNIX computers. For those systems, you can connect through Ethernet *only*.



\smile		
Introduction	Before You Begin	Installation & Configuration Troubleshooting FAQ Glossary License
		Setting Up a USB Driver in Windows 98 Second Edition
Add New Hardware	Wizard	Be sure the SURFboard Cable Modem CD-ROM is inserted in your CD-ROM drive
	This wizard searches for new drivers for:	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 cable modem to the PC.
	USB Composite Device	
	A device driver is a software program that makes a hardware device work.	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.
	< Back Next > Canc	G Click Next.
Add New Hardware \		
	What do you want Windows to do? Search for the best driver for your device. [Recommended]. Display a fist of all the drivers in a specific location, so you can select the driver you want.	

< <u>B</u>ack

Next >



Introduction	Before You Begin	Installation	& Configuration	Troubleshooting	FAQ	Glossary	License
		Se	etting Up a USB	Driver in Windows 9	8 Secor	nd Edition, c	ontinued
Add New Hardware W	zard	4	Be sure "CD-ROM	drive" is the only box chec	ked.		
	Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.	5	Click Next.				
	Eloppy disk drives <u>CD-ROM drive</u> Microsoft Windows Update		The message "Plea is displayed.	ase wait while Windows se	arches for	a new driver fo	r this device"
	Specify a location:	6	If your computer su	accessfully locates the driv	er, skip to	step 8.	
*	D:\netGousb inf	1 1 -	, i	bes not locate the driver, the cation and type the location			, ,
Add New Hardware W	<back next=""> Cancel</back>	1		uccessfully, you may need CD-ROM. For the SB5100			
	Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.		Or				
	Eloppy disk drives						

For the SB5120, select the **SB5120.inf** file.

7 Click Next.

CD-ROM drive

<u>M</u>icrosoft Windows Update
 Specify a location:
 D:\

< <u>B</u>ack

Next>

▼ Browse...



Introduction	Before You Begin	Installation	& Configuration	Troubleshooting	FAQ	Glossary	License
		Se	etting Up a USB	Driver in Windows 9	8 Secon	d Edition, c	ontinued
Add New Hardware Wi	zard	8	Select The update	d driver and click Next.			
	Windows has found an updated driver for this device, and also some other drivers that should work with this device. What do you want to install? Image: the updated driver [Recommended] Motorola SURFb oard 5100 USB Cable Modem Image: the other drivers.		properly inserted in click Cancel to can	displayed, verify that the the CD-ROM drive. If you cel the installation and per indows 98 Second Edition re.	still canno form the p	ot find the correct procedure for "R	ct driver file, emoving the
C Dine of the other drive	2007 0000	9	After the window at	bottom left is displayed, c	lick 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 system files are needed to complete the installation. To install the files, insert your Windows 98 Second Edition CD-ROM in the CD-ROM drive and click **OK**.



Although your SURFboard cable modem model number may be different than in the images in this guide, the procedure is the same.

to continue.

Location of driver:

< <u>B</u>ack

Add New Hardware Wizard

< <u>B</u>ack

Windows driver file search for the device:

Motorola SURFboard 5100 USB Cable Modern

Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next

Next>

Next >

Cancel



Introduction	Before You Begin	Installation	& Configuration	Troubleshooting	FAQ	Glossary	License	
		Se	etting Up a USB	Driver in Windows 9	8 Secor	nd Edition, c	ontinued	
Add New Hardware Wize	Materials SUPEL card 5100 USP Cable Med	em	After all the necess confirming a succes	ary files are loaded, the w ssful installation.	ndow at u	pper left is disp	layed	
		10	Click Finish. The w	indow at bottom left is dis	olayed.			
	Windows has finished installing the software that ye hardware device requires.	^{ur new} 11	Click Yes to restart	your computer.				
				up the USB driver, you ca 98 SE, or Windows Me" or		with "Configuri	ng TCP/IP in	
	KBack Finish Cano	Wi tha	If you have difficulties setting up the USB driver, perform "Removing the USB Driver from Windows 98 Second Edition or Windows Me" on page 45 and repeat this procedure. If that does not correct your problem, see the <i>Regulatory, Safety, Software License, and Warranty Information</i> card provided with your SURFboard cable modem for information					

about obtaining warranty service.





Introduction B	Sefore You Begin	Installation &	& Configuration	Troubleshooting	FAQ	Glossary	License
		⇒ Se	etting Up a	USB Driver	in Wi	indows	2000
	Velcome to the Found New lardware Wizard his wizard helps you instal a device driver for a andware device.	befo	ore you plug in the US nection, the Found Ne Click Next .	Cable Modem CD-ROM is B cable. A few seconds w Hardware window is c a suitable driver for my d	after you c lisplayed.	complete the US	

Although your SURFboard cable modem model number may be different than in the images in this guide, the procedure is the same.

Found New Hardware Wizard

an operating system.

installation click Next. What do you want the wizard to do?

driver

2

To continue, click Next.

A device driver is a software program that enables a hardware device to work with

A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the

< Back

This wizard will complete the installation for this device:

Motorola SURPhoard 5100 USB Cable Modern

Search for a suitable driver for my device (recommended)
 Display a list of the known drivers for this device so that I can choose a specific

Next >

Next >

Cancel



Introduction Before You	Begin Insta	allation	& Configuration	Troubleshooting	FAQ	Glossary	License
		Se	etting Up a USB	Driver in Windows 2	2000, co	ntinued	
Found New Hardware Witzard Locato Driver File: Where do you want? Windows to search for driver files? Search for driver files for the following hardware device: Image: Search for driver files for the following hardware device: Image: Search for driver files for the following hardware device: Image: Search for driver files for the following hardware device: Image: Search for driver files for the following hardware device: Image: Search for driver files for driver dealback for the following hordware for driver files for your herd hardware for the following device. Image: Search for driver files for driver files for your herd files for following device. Image: Search for driver files for driver files for your herd files for your herd files for following device. Image: Search for driver files for goard a driver for the following device. Image: Search for driver files for your herd files for your herd files for your herd files for your herd files for your goard a driver for the following device. Image: Search for driver files for your herd files for your herd files for your herd files for your goard a driver for the following device. Image: Search for driver files for your goard a driver for this device. Image: Search for this device. Image: Search for this device.	y data or CD-RUM drive. <u>Next > Concel</u> ware device.	4 5 6	Be sure "CD-ROM of Click Next . Click Next . Click Next . If the Insert Disk win	drives" is the only box che ndow is displayed, be sur D-ROM drive and follow	ecked. e the <i>SUR</i>	Fboard Cable M	
<u>Eack</u>	Nest > Cancel						



Introduction	Before You Begin	Installation	& Configuration	Troubleshooting	FAQ	Glossary	License
		Se	etting Up a USB [river in Windows 2	000, coi	ntinued	
Insert Disk	he Compact Disc labeled 'USBCM' into α	7		indow, click OK . The File B5101, if necessary, sele		•	5
your CD-ROM	drive (D:) and then click OK.		files from " list. or				
			For the SB5120, be	sure that the SB5120 CD	-ROM is ir	n the CD-ROM	drive.
		9	For the SB5100 or S	B5101, Click Browse .			

or

×

ΟK

Cancel

Browse..

•

For the SB5120, if necessary, select your CD-ROM drive in the "**Copy files from**" list and skip to step 11.

- **10** For the SB5100 or SB5101, double-click the **NetMotCM.sys** file in the CD-ROM root directory. The Files Needed window is displayed.
- 11 Click **OK**. The Found New Hardware Wizard window is displayed.

Some files on USBCM are needed.

Insert USBCM into the drive selected below, and then

Files Needed

click OK.

Copy files from:

2



Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License
		Setting Up a USB	Driver in Windows 2	000, coi	ntinued	
Found New Hardware Wizard	4	12 Click Finish to com	plete the installation.			
	Completing the Found New Hardware Wizard	When you finish setting Windows 2000" on page	up the USB driver, you ca 26.	n continue	with "Configuri	ng TCP/IP in
	Windows has finished installing the software for this device.		es setting up the USB driv page 47 and repeat this p	· ·	ו "Removing the	e USB Driver
	To close this wizard, click Finish.					



Introduction E



Finish

Setting Up a USB Driver in Windows Me

Be sure the *SURFboard Cable Modem* 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 automatically searches for the correct USB drivers and installs them. If the installation is successful, the window at bottom left is displayed.
- 2 Click **Finish** to complete the installation. Otherwise, be sure the *SURFboard Cable Modem* CD-ROM is correctly inserted in your CD-ROM drive.

When you finish setting up the USB driver, you can continue with "Configuring TCP/IP in Windows 95, Windows 98 SE, or Windows Me" on page 23.

Although your SURFboard cable modem model number may be different than in the images in this guide, the procedure is the same.



troduction	Before You Begin	Installation	& Configuration	Troubleshooting	FAQ	Glossary	License
Found New Hardware Wiza	rd Welcome to the Found New	• • • •	etting Up a	USB Driver	in W	indows	ХР
	Hardware Wizard This wizard helps you install software for: SB5100 USB Cable Modem If your hardware came with an installation (bef	ore you plug in the US nnection, the Found N	Cable Modem CD-ROM SB cable. A few seconds ew Hardware Wizard win	after you o dow is dis	complete the US	
	or lloppy disk, insert it now. What do you want the wizard to do? O Install the software automatically [Recommended] Install from a list or specific location [Advanced]	2	Click Next. Windows	software automatically" is a automatically searches on is successful, the wind	for the corr		
	Click Next to continue.	3		blete the installation. Othe correctly inserted in your			board Cable
Found New Hardware Wizz	ard Completing the Found New Hardware Wizard		ien you finish setting u ndows XP" on page 30	ip the USB driver, you ca).	n continue	with "Configurir	ng TCP/IP in
	The wizard has finished installing the software for:			our SURFboard cable mo than in the images in this		•	

Click Finish to close the wizard.

Finish



introduction before rou begin instantation & connightation information of notifies notifing in Ale closed by Electrise	Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License
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Configuring TCP/IP

The SURFboard cable modem contains all required software. You do not need to configure the cable modem, but you must be sure that your computer is configured for TCP/IP (a protocol for communication between computers). Perform *one* of:

- "Configuring TCP/IP in Windows 95, Windows 98 SE, or Windows Me" on page 23
- "Configuring TCP/IP in Windows 2000" on page 26
- "Configuring TCP/IP in Windows XP" on page 30
- Follow the instructions in your Macintosh or UNIX user manual

After configuring TCP/IP, perform one of the following to verify the IP address:

- "Verifying the IP Address in Windows 95, Windows 98 SE, or Windows Me" on page 37
- "Verifying the IP Address in Windows 2000 or Windows XP" on page 38
- Follow the instructions in your Macintosh or UNIX user manual

Your cable service provider may provide additional instructions to set up your computer.



Network ? 🗙
Configuration Identification Access Control
The following network components are installed:
Client for Microsoft Networks Clien
Control of the Code Modelm Mapped A Notorola SURFboard USB Cable Modelm SB5100
Add Remove Properties
Primary Network Logon:
Client for Microsoft Networks
Eile and Print Sharing
Description
OK Cancel

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

- 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 Verify that TCP/IP is installed for the adapter that will be used to connect to the SURFboard cable modem. If TCP/IP is installed, then skip to step 10. If TCP/IP is not installed for the adapter, continue with step 6.

Although your SURFboard cable modem model number may be different than in the images in this guide, the procedure is the same.



Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License
		Configuring TCP/ Windows Me, con	P in Windows 95, W tinued	indows S	98 SE, or	
Select Network Com	ork component vou want to install:	G Select the adapter click Add.	to be used for the SURFbc	ard cable r	modem connec	tion and then
Client	<u>A</u> dd	7 Double-click the P	otocol option on Select N	etwork Cor	mponent Type v	vindow.
Protocol	Cancel		the Manufacturers section Select Network Protocol w		CP/IP in the No	etwork
	protocol to communicate.	9 Click OK.				
Select Network Protoc	ol	×				
Click the Netwo an installation d	ork Protocol that you want to install, then click OK. If you lisk for this device, click Have Disk.					
Manufacturers:	Network Protocols:					
anyan	FX/SPX-compatible Protocol					
IBM	Microsoft 32-bit DLC					
¥ Novell	NetBEUI	_				

Microsoft 32-bit DLC Microsoft DLC 🕉 NetBEUI TCP/IP WAN support for ATM

•

Have Disk...

Cancel

ΟK



Introduction	Before You Begin	Installation & 0	Configuration	Troubleshooting	FAQ	Glossary	License
			iguring TCP/IF lows Me, conti	P in Windows 95, W inued	indows S	98 SE, or	
TCP/IP Properties Bindings	Advanced NetBIOS			Network window. If there rnet card or USB port cor			
DNS Configuration	Gateway WINS Configuration IP Addr	⁵⁵⁵ 11 C	lick Properties . Th	ne TCP/IP window is disp	layed.		
If your network d your network adr	an be automatically assigned to this computer. loes not automatically assign IP addresses, ask ninistrator for an address, and then type it in	12 C	lick the IP Addres	s tab.			
the space below		13 C	lick Obtain an IP a	address automatically.			
💿 Obtain an l	P address automatically	14 C	lick OK to accept t	he TCP/IP settings.			
© <u>S</u> pecify an	IP address:	15 C	lick OK to close the	e Network window.			
[P Address		16 C	lick OK when prom	npted to restart your comp	outer and c	lick OK again.	
S <u>u</u> bnet Ma	ask:		• •	P/IP configuration, go to "V lows Me" on page 37.	erifying the	e IP Address in	Windows 95,
☑ <u>D</u> etect con	nection to network media						
	OK Cance						



Introduction





Configuring TCP/IP in Windows 2000

- 1 On the Windows Desktop, click Start.
- 2 Select **Settings** and then **Control Panel** from the pop-up menus.
- 3 Double-click the **Network and Dial-up Connections** icon on the Control Panel window.

In the steps that follow, a connection *number* such as 1, 2, or 3 is a reference displayed on PCs with multiple network interfaces. PCs having only one network interface may display only the label Local Area Connection.

4 On the Network and Dial-up Connections window, double-click Local Area Connection number. The value of number varies from system to system. The Local Area Connection number Status window is displayed.



Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License
		Configuring TCP/IF	o in Windows 2000,	continue	ed	

meral	
Connection	
Status:	Connected
Duration:	00:04:20
Speed:	750.0 Kbps
Activity	Sent - Received
Packets:	0 0
Properties	Dinable

Area Connection 2 Properties	2
meral	
Connect using:	
Motorola SurtBoard USB Cable Modern SB5100	l
	Configure
Components checked are used by this connection:	
Instal Uninstall Pi	roperties
Description	
Transmission Control Protocol/Internet Protocol. Th wide area network protocol that provides communic across diverse interconnected networks.	
Show icon in taskbar when connected	
Close	Caroel

- 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.



Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License	
		Configuring TCP/IP in Windows 2000, continued					
		Click Protocol on th	e Select Network Compo	nent Type	window and clic	ck Add The	

elect Network Component Type	?
Click the type of network component you want to install:	
Y Protocol	<u>A</u> dd
Service	Cancel
Protocol is a 'language' a computer uses. Computers	
must use the same protocol to communicate.	

Select Ne	twork Protocol			×
Ъ.	Click the Network F an installation disk f		nt to install, then click OK lick Have Disk.	C If you have
Network	Protocol:			
DLC Pr Internet NetBEU Networ	alk Protocol otocol I Protocol (TCP/IP) JI Protocol k Monitor Driver < IPX/SPX/NetBIDS	Compatible Transpo	rt Protocol	
			Ha	ve Disk
			ОК	Cancel

- 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.



Introduction Before You Begir	Installation & Configuration	Troubleshooting	FAQ	Glossary	License	
Configuring TCP/IP in Windows 2000, continued						
Conection 2 Properties [2] XI General Connect using		Connection <i>number</i> Prope (TCP/IP) is checked.	erties windo	ow, be sure the	box next to	
Metorolo SuriBoard USB Cable Moden SB0100 Configure Comparents checked are used by this connection: V Can power to Microsoft Networks V Configure Direct Suring to Microsoft Networks	11 Click Properties. The Internet Protocol (TCP/IP) Properties window is displayed as shown at bottom left.					
Totement Protocol (COVP) Instat. Uninstat Desception TransmissionCosts1 PersonNerver Protocol The default	12 Be sure Obtain IP automatically are	address automatically an selected.	nd Obtain	DNS server ad	ldress	
ecrore drivere referenced in a provide scenario additional economic additional economi	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 Windows XP" on page 38.

ternet Protocol (TCP/IP) Pr

Obtain an IP address automatically C Use the following IP address:

C Obtain DNS server address automatically C Use the following DNS server addresses:

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

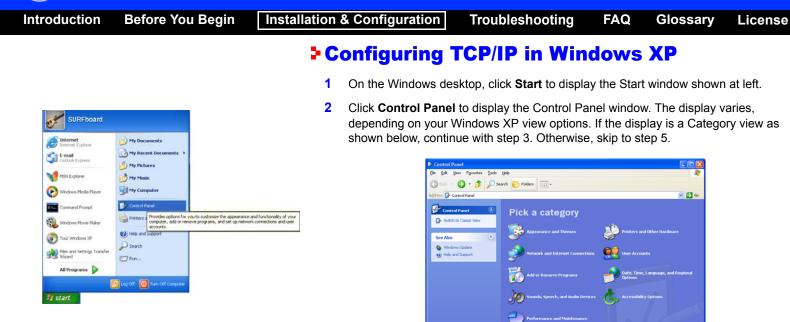
General

Close

? | ×

Adyanced. OK.

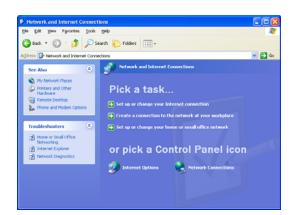




3 Click **Network and Internet Connections** to display the Network and Internet Connections window.



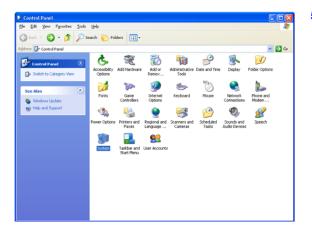
Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License	
Configuring TCP/IP in Windows XP, continued							



4 On the Network and Internet Connections Pick a task window, click **Network Connections** to display the LAN or High-speed Internet connections. Skip to step 6.



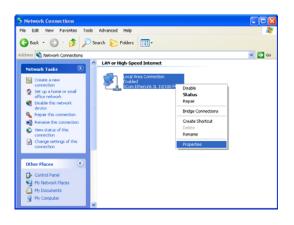
Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License	
Configuring TCP/IP in Windows XP, continued							



5 If a classic view similar to at left is displayed, click **Network Connections** to display the LAN or High-speed Internet connections.



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Configuring TCP/IP in Windows XP, continued							



- 6 Right-click on your network connection. If more than one connection is displayed, be sure to select the one for your network interface.
- 7 Select **Properties** from the pop-up menu to display the Local Area Connection Properties window.



Introduction Before You Begin Installation & Configuration Troubleshooting FAQ Glossary License Configuring TCP/IP in Windows XP, continued * Local Area Connection Properties Configuring TCP/IP in Windows XP, continued * Local Area Connection Properties * On the Local Area Connection Properties window, be sure Internet Protocol (TCP/IP) is checked. If it is not checked, check it. * Select Internet Protocol (TCP/IP) and click Properties to display the Internet Protocol (TCP/IP) Properties window. * Select Internet Protocol (TCP/IP) Properties window. * Protocol (TCP/IP) Properties window. * Select Internet Protocol (TCP/IP) and click Properties to display the Internet Protocol (TCP/IP) Properties window.
 Local Area Connection Properties Connect using: Connect using: Connect using: Connect using: Configure Configure This cgnnection uses the following items:
Image: Second

ΟK

Cancel



Introduction Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License
Internet Protocol (TCP/IP) Properties General Alternate Configuration You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.	Configuring TCP/II 10 On the Internet Processor or correct, as shown a 11 Click OK to close the 12 Click OK to close the	P in Windows XP, co tocol (TCP/IP) Properties it left. ne TCP/IP Properties wind ne Local Area Connection	ontinued window, veri dow. Properties w	ify that the set vindow.	tings are
Obtain an IP address automatically Use the following IP address: IP address: Sybnet mask: Sybnet mask: Default gateway: Obtain DNS server address automatically O light following DNS server addresses: Preferred DNS server: Alternate DNS server: Alternate DNS server: Advanced DK Cance	2000 or Windows XP" of	TCP/IP configuration, go t n page 38.	o "Verifying t	the IP Address	in Windows



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Verifying the IP Address

The following subsections describe verifying an IP Address. Perform the appropriate procedure for your Windows version:

- "Verifying the IP Address in Windows 95, Windows 98 SE, or Windows Me" on page 37
- "Verifying the IP Address in Windows 2000 or Windows XP" on page 38

For a Macintosh or UNIX system, refer to your user guide.



P Configuration Ethernet Adapter Information		<u> </u>
	PCI Bus Master Adapter	•
Adapter Address	00-80-C6-E7-59-E6	
IP Address	206.19.86.132	
Subnet Mask	255.255.255.224	
Default Gateway	206.19.86.129	
OK B	elease Renew	
Release All Re	ne <u>w</u> All <u>M</u> ore Info >>	

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

Adapter Address	00-80-C6-E7-59-E6
IP Autoconfiguration Address	169.254.191.251

In Windows 98 Second Edition, if IP Autoconfiguration Address is displayed, call your service provider.

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

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 cable service provider for help.



Introduction Before You Begin Inst	allation & Configuration	Troubleshooting	FAQ Glo	ossary
C:\WINTI\System32\cmd.exe Image: X Microsoft Windows 2000 (Uersion 5.00.2195) A (C) Copyright 1985-2000 Microsoft Corp. A	Verifying th or Windows		in Wind	ows
C:∖>ipconfig Windows 2000 IP Configuration	To check the IP address	<u>.</u>		
Ethernet adapter Local Area Connection 2:	TO CHECK THE IF AUDIESS	.		
Connection-specific DNS Suffix .: surfboard.com IP Address	1 On the Windows D	esktop, click Start .		
Ethernet adapter Local Area Connection: Media State : Cable Disconnected	2 Select Run. The R	un window is displayed.		
C:\>	3 Type cmd and click	OK. A window like the or	e at upper left is	display

🚾 cmd	- 0 >
Microsoft Windows 2000 [Version 5.00.2195] (C) Copyright 1985–2000 Microsoft Corp.	-
C:∖>ipconfig	-
Windows 2000 IP Configuration	
Ethernet adapter Local Area Connection 2:	
Connection-specific DNS Suffix .: Autoconfiguration IP Address: 169.254.45.20 Subnet Mask	
0:∖>	

s 2000

- /ed.
- 4 Type **ipconfig** and press ENTER to display your IP configuration. A display, like the window at upper left, indicates a normal configuration.

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

- Your cable connections ٠
- Whether you can see cable-TV channels on your television

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

License



Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License

🖾 cmd	<u>- 🗆 ×</u>
Microsoft Windows 2000 [Version 5.00.2195] (C) Copyright 1985-2000 Microsoft Corp.	-
C:>>ipconfig /renew	
Windows 2000 IP Configuration	
Ethernet adapter Local Area Connection 2:	
Connection-specific DNS Suffix .: surfboard.com IP Address	
C:\>_	–

Renewing Your IP Address

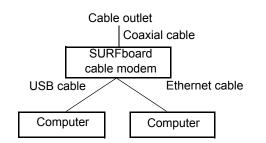
To renew your IP address:

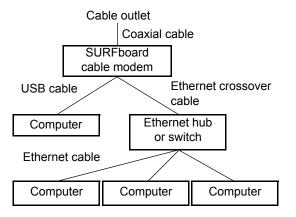
- 1 Type **ipconfig** /**renew** and press ENTER. If a valid IP address is displayed as shown at left, Internet access should be available.
- **2** Type **exit** and press ENTER to return to Windows.

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









Cabling for Multiple Users

The SURFboard cable modem supports several multiple user configurations. Along with an optional hub or router, it can serve as an Internet gateway for up to 63 computers.

Not all service providers support multiple user service. For information about multiple user service, contact your cable service provider.

Ethernet and USB

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

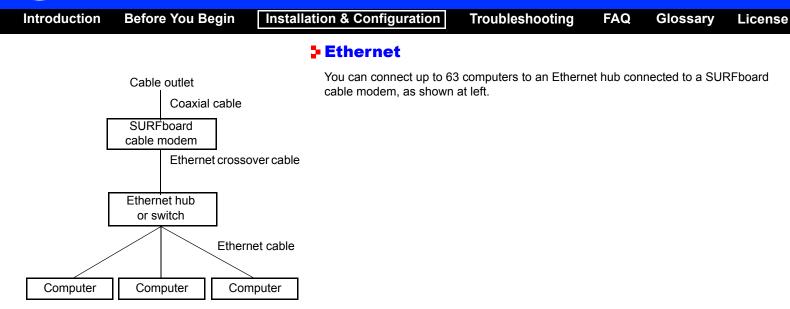
Caution



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 cable modem through the USB port.







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Troubleshooting

If the solutions listed here do not solve your problem, contact your cable service provider. Before calling your service provider, try one of:

- Unplugging and plugging in the cable modem power cord to restart the cable modem
- Pressing the reset button on the rear panel

Restarting or resetting the cable modem may take 5 to 30 minutes. Your service provider may ask for the status of the front-panel lights as described in "Front-Panel Lights and Error Conditions" on page 44.

Problem

Possible Solutions

 Green POWER light is off
 Check that the power cord is properly plugged into the electrical outlet and the cable modem.

 Check that the electrical outlet is working.
 If the Standby light is on, the Internet connection is off. Press the Standby button to reconnect to the Internet.



Introduction Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License
Problem F	Possible Solutions				
t I	Check the lights on the front panel. Note the ne error occurred as described in "Front-Par all lights are off except the Standby light, the econnect your Internet service.	el Lights and Error Condit	ions" on pa	ge 44.	
	you have cable TV, check that your TV is w V channels, your data service will not functi	o ,	lear. If you	cannot receive y	our regular
(Check the coaxial cable at the cable modem	and wall outlet. Hand-tight	en if neces	sary.	
V	Check the IP address. Follow the steps in "Volution of the IP address. Follow the steps in "Volution of the IP able service provider if you need an IP addr	Address in Windows 2000			
C	Check that the USB or Ethernet cable is prop	erly connected to the cabl	e modem a	and your comput	ter.
	Remove the USB driver. Follow the instructio	ns in <i>one</i> of:			
USB driver installation	"Removing the USB Driver from Window	vs 98 Second Edition or Wi	indows Me'	on page 45	
•	"Removing the USB Driver from Window	vs 2000" on page 47			
•	"Removing the USB Driver from Window	s XP" on page 50			
T	hen perform "Running the Motorola USB Dr	iver Removal Utility" on pa	ige 55.		



Front-Panel Lights and Error Conditions

Light	Turns Off During Startup If	Turns Off During Normal Operation If
Receive	The receive channel cannot be acquired	The receive channel is lost
Send	The send channel cannot be acquired	The send channel is lost
Online	IP registration is unsuccessful	The IP registration is lost
Power	The cable modem is not properly plugged into the power outlet	The cable modem is unplugged or is in standby mode. Press the Standby button

For more information about the lights, see "Top and Front Panel" on page 2.



Introduction

Removing	y the USB	Driver from	Windows	98
Second I	Edition or	Windows M	e	

- 1 On your Windows Desktop, right-click the Network Neighborhood icon for Windows 98 Second Edition or My Network Places for Windows Me and then select Properties. The Network window is displayed.
- 2 Click the Motorola SURFboard USB Cable Modem.

Although your SURFboard cable modem model number may be different than in the images in this guide, the procedure is the same.

etwork		?
Configuration Identification Access Control		
The following network components are install	ladi	
	ieu.	т
Client for Microsoft Networks		-
Gom Fast EtherLink XL 10/100Mb TX E Dial-Up Adapter	thernet Adapter	
Motorola SUREboard 5100 USB Cable M	odem	1
TCP/IP → 3Com Fast EtherLink XL 10/10		d I
		-
1.21	الش ال	
Add Remove	Properties	1
Auu helliove	Fjopenies	
Primary Network Logon:		
Client for Microsoft Networks		1
	-	-
File and Print Sharing		
Description A network adapter is a hardware device that	-t -lausia -llu	
connects your computer to a network.	at priysically	
0	K Cance	
	Canor	

MOTOROLA

Introductio	on Before You Begin	Installation	& Configuration	Troubleshooting	FAQ	Glossary	License
			emoving the USB indows Me, conti	Driver from Windo inued	ws 98 S	econd Editic	on or
Network Configu	ration Identification Access Control	1 3	Click Remove. The Cable Modem in the	Network window no longe list.	er displays	Motorola SURF	board USB
	ollowing <u>n</u> etwork components are installed: tient for Microsoft Networks	4	Click OK. The Syste	em Settings Change windo	ow is displa	ayed.	
#9 3 #9 0	Com Fast EtherLink XL 10/100Mb TX Ethernet NIC (3C9 Vial-Up Adapter	5	Disconnect the USE	s cable from your PC or ca	ble model	m.	
	letBEUI -> 3Com Fast EtherLink XL 10/100Mb TX Etherr CP/IP -> 3Com Fast EtherLink XL 10/100Mb TX Etherne	6	Click Yes to restart	your computer.			
Prime Clier E	Add Remove Properties ry Network Logon: It for Microsoft Networks Is and Print Sharing Scription OK Cancel	7	Perform "Running th	e Motorola USB Driver R	emoval Uti	ility" on page 55	
System Settin	gs Change must restart your computer before the new settings will take effec	x.					
	you want to restart your computer now?						
	<u>Yes</u> <u>N</u> o						





Removing the USB Driver from Windows 2000

- 1 On your Windows desktop, click Start.
- 2 Click Settings.
- 3 Click **Control Panel** to display the Control Panel window.
- 4 Double-click **System** to display the System Properties window.

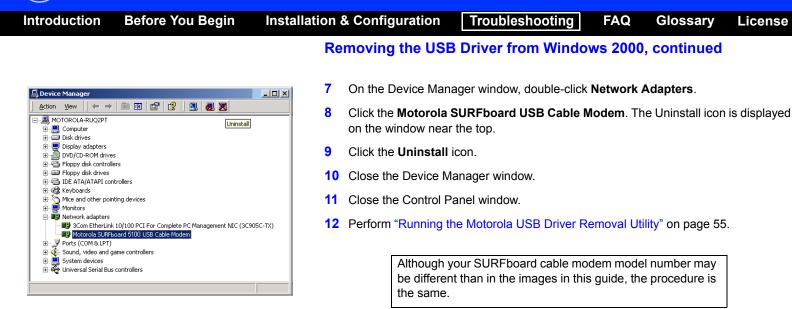


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		Removing the USB	Driver from Window	ws 2000	, continued	

System Prop	erties			<u>? ×</u>
General Ne	twork Identification Ha	rdware (Jser Profiles Adv	anced
Hardware				
	The Hardware wizard he unplug, eject, and config			ir,
			<u>H</u> ardware Wiza	rd
Device M	anager			
	The Device Manager list on your computer. Use th properties of any device.	he Device		
	Driver <u>Signing</u>		Device Manag	er
Hardware	Profiles			
R	Hardware profiles provid different hardware config		r you to set up and	d store
			Hardware <u>P</u> rofil	es
		OK	Cancel	Apply

- **5** On the System Properties window, click the **Hardware** tab.
- 6 Click the **Device Manager** button to display the Device Manager window:







Before You Begin

Introduction

SURF.board Supervised Premere Explore Supervised Control Explore Mry Recent Documents Mry Recent Documents Mry Pictures Mry Pictures Mry Mask: Windows Media Rayer Windows Media Rayer Summard Prompt	1 2 3	On the Windows desktop, click Start to disp Click Control Panel to display the Control F depending on your Windows XP view option If a Category view similar to below is display
Image: Second		depending on your Windows XP view option
E-mail Image: My Recent Discoments Molt Express Image: My Pictures Molt Express Image: My Musick Image: Windows Media Pilayer Image: My Computer Image: Command Prompt Image: Command Prompt	3	If a Category view similar to below is display
Windows Heds Payer Windows Heds Payer Gommand Frongt Command Frongt		Maintenance. Otherwise, skip to step 5.
		5°. Control Panel 10°. 6.4°. Serv. Faroches 10°. 6.0°. P 10°. 10°. P 10°. 10°. P 10°. 10°. P
Windows Hovie Heiler Windows Hovie Heiler Invitedis splone for you to cudarelise the appoarance and functionable of you accounts. Image: Tour Windows (P) Image: Add or environment of you accounts. Image: Add or environment of you accounts. Image: Tour Windows (P) Image: Add or environment of you accounts. Image: Add or environment of you accounts. Image: Tour Windows (P) Image: Add or environment of you accounts. Image: Add or environment of you accounts. Image: Tour Windows (P) Image: Search Image: Search Image: Tour Windows (P) Image: Search Image: Tour Windows (P) Image: Tour Windows (P) Image: Search Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Image: Tour Windows (P) Imag		Additives (Dr Control Remet Control Remet Dr Switch to Classic New See New See New See New
All Programs 🕨		Windows Update Windows Lipdate Windows Lipdate Petwork and Internet Connections

Installation & Configuration

ver from

splay the Start window shown at left.

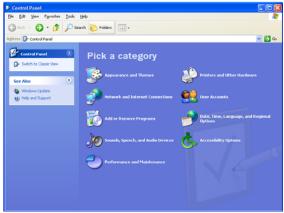
FAQ

Glossary

License

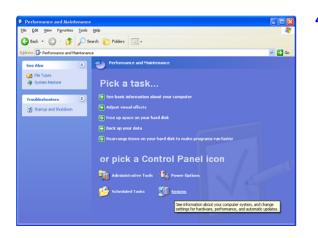
- Panel window. The display varies, ons.
- ayed, click Performance and

Troubleshooting





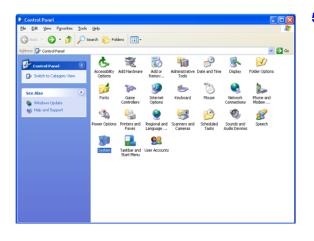
Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License
Removing the USB Driver from Windows XP, continued						



4 On the Performance and Maintenance window, click **System** to display the System Properties window. Skip to step 6.



Introduction Before You Begin Installation & Configuration Troubleshooting FAQ Glossary License Removing the USB Driver from Windows XP, continued



5 If a classic view similar to at left is displayed, click System to display the System Properties window.



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		Removing the USB Driver from Windows XP, continued				

System Propert	ties		? 🛛
System Res	tore Automa	tic Updates	Remote
General	Computer Name	Hardware	Advanced
Add Hardware	e Wizard		
Reference to the second	a Add Hardware Wizard he	elps you install hardwa	are.
		Add <u>H</u> ardware	Wizard
Device Mana	ger		
in y on y	Device Manager lists all your computer. Use the De perties of any device.		
	Driver <u>S</u> igning	Device Man	ager
← Hardware Pro	files		
	dware profiles provide a w erent hardware configuration		nd store
		Hardware Pr	ofiles
	ОК	Cancel	<u>Apply</u>

- 6 On the System Properties window, click the **Hardware** tab.
- 7 Double-click the **Device Manager** button to display the Device Manager window.



		Re	moving the USB	Driver from Windo	ws XP, c	ontinued	
Device Manager Ele Action View Help Device Manager GATEWAY-1 Display adopters Display adopters Display disk controllers Floppy disk controllers Floppy disk controllers Dis Artives Dis Artives Dis Artives District Adopters Monitors Sound, video and game controllers System devices System devices We Universal Serial Bus controllers	Li For Complete PC Management NIC (3) 18 Cable Modem	 ■ ■ 8 9 10 11 12 13 	Click the Motorola S on the window near Click the Uninstall in Close the Device Ma Close the Control Pa Perform "Running th Although ye	con. anager window.	fodem . Th emoval Uti	lity" on page 55	



Running the Motorola USB Driver Removal Utility

Before running the Motorola USB Driver Removal Utility, you must run the Windows Device Manager by performing *one* of:

- "Removing the USB Driver from Windows 98 Second Edition or Windows Me" on page 45
- "Removing the USB Driver from Windows 2000" on page 47
- "Removing the USB Driver from Windows XP" on page 50

To run the Motorola USB Driver Removal Utility:

- 1 Insert the *SURFboard Cable Modem* CD-ROM in the CD-ROM drive. After a short time, a window with language choices is displayed.
- 2 Press the **Esc** key on the keyboard to exit the start-up screens.
- **3** To start Windows Explorer, click **Start** and select **Run.** In the Run window, type **explorer** and click **OK**.



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		Running the Motor	ola USB Driver Rem	noval Ut	ility, continu	ied

- 🗆 🗵 D:\ File Edit View Favorites Tools Help 4 t 0 P P 民 \times 3 ⇒ Back Search Folders History Delete Up Address 🚑 D:\ Folders x Name / Size Type Acrobat40 🚮 Desktop File Folder 🚊 🖳 My Computer 📄 Bin File Folder 🗄 🚽 3½ Floppy (A:) 🗋 Common File Folder 🗅 English File Folder 🗄 🥷 USBCM (D:) 🗋 Korean File Folder 🔠 My Network Places 🚞 TradChinese ÷ File Folder 🔞 Recycle Bin File Folder 🗟 autorun.inf 1 KB Setup Information 🛃 Launch.exe 76 KB Application 🗒 Launch.ini 1 KB Configuration Settings 🗐 netmotcm.cat Security Catalog 8 KB 🐻 NetMotCM.inf Setup Information 8 KB NetMotCM.sys 16 KB System file wiremove.exe 268 KB Application • • 🛄 My Computer 14 object(s) (Disk free space: 0 bytes) 374 KB
- 4 Double-click **My Computer**.
- 5 Double-click the Motorola CD icon (D: in the image).
- 6 Double-click **remove** or **remove.exe** to run the Remove utility from the *SURFboard Cable Modem* CD-ROM.

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



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		Rur	nning the Moto	rola USB Driver Rem	ioval Util	ity, continu	ed
Motorola USB Driver Ref			the USB cable is di	ble Modem USB Driver Ro sconnected. er. A progress bar indicate			
This utility will remove the U removed by the Windows D remove the driver using the Please ensure that your	river Removal Utility SB driver files and registry entries that are not evice Manager's uninstall process. Be sure to Windows Device Manager before proceeding r USB device is disconnected before continuin w to start the removal process		Motorol	Driver Removal Progress	driver has t	been successfu	Illy removed:
	About Cancel Remove	Driver	- 1	Motorola USB Driver Removal The Motorola USB Driver has been removed succe Visit our website for the latest information and drive	essfully from your compu	ıter	

for your Motorola cable modem http://www.motorola.com/broadband

Details

About

Exit



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		Running the Motor	ola USB Driver Rem	noval Ut	ility, continu	led

58 Driver Removal Details	x
Motorola USB Driver Removal Details	
Path MotUsbDriverInst is running from is E:\ DS service pack Service Pack 1 Windows XP detected Motorola USB Driver Removal Utility Launched at: 15:47:50 Operating System is Microsoft Windows XP Removal Process Started at: 15:47:51 Removing Driver .sys file 4	•

You can click **Details** to display informational messages about the files that were found and deleted, similar to the ones shown at left. If necessary, scroll down to view the entire list. Click **OK** to close the details window.

8 Click Exit to exit the Motorola USB Driver Removal Utility.

Re-install the USB driver following one of:

- "Setting Up a USB Driver in Windows 98 Second Edition" on page 12
- "Setting Up a USB Driver in Windows Me" on page 20
- "Setting Up a USB Driver in Windows 2000" on page 16
- "Setting Up a USB Driver in Windows XP" on page 21.

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



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Contact Us

For information about customer service, technical support, or warranty claims, see the *Regulatory, Safety, Software License, and Warranty Information* card provided with your SURFboard cable modem.

In the United States and Canada, if you need assistance while working with the SURFboard cable modem and related equipment supplied by Motorola:

If you rent or lease your	Contact your cable service provider.
SURFboard cable modem	

If you own your SURFboard
cable modemCall 1-877-466-8646 for technical and warranty support.
Support is available 24 hours a day, seven days a week.

For answers to typical questions, see "Frequently Asked Questions" on page 60.

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



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 How fast is a cable modem?

A cable modem offers Internet access at speeds up to 100 times faster than a traditional phone modem. You can experience speeds of over 1,000 Kbps. Network conditions such as traffic volume and the speed of the sites you visit can affect download speeds.

Q Can I still watch cable TV while using my cable modem?

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

Q What are CableLabs Certified, DOCSIS and Euro-DOCSIS?

A CableLabs[®] Certified, DOCSIS, and Euro-DOCSIS are the industry standards for high-speed data distribution over cable television system networks. They are intended to ensure that all compliant cable modems interface with all compliant cable systems. Your Motorola SURFboard cable modem is DOCSIS or Euro-DOCSIS certified.



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

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

Q I have more than one computer. Do I need more than one SURFboard cable modem?

A No, not if your computers are connected on a network. The SURFboard cable modem supports current Internet connection sharing technologies to enable you to connect up to 63 PCs to the Internet using a single cable modem.

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?

A No, but you will need to subscribe to cable Internet service. Some systems require that you subscribe to basic service before you can get Internet access and/or offer a discount when you use your own cable modem. Check with your local cable company for specific information.

Q What type of technical support is available?

A For questions about your Internet service, connection, or cable modem, contact your cable service provider.

Q What do I do if my SURFboard cable modem stops working?

A "Troubleshooting" on page 42 provides tips to diagnose problems and simple solutions. If you continue to have problems, contact your cable service provider or Motorola as described in "Contact Us" on page 59.



Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License	
+ Glossary	,						
coaxial cable (coax)	A type of wire consisting electrical and radio frequ	of a center wire surrounded by insulation ency interference.	and a grounded shield of l	braided wire	e. The shield mir	nimizes	
DOCSIS	The CableLabs Data-Over-Cable Service Interface Specification defines interface standards for cable modems and supporting equipment.						
download	1.2	omputer to another. You can use the Inte its configuration from a server during sta		a server to	your home PC.	A DOCSIS	
downstream	In a cable data network,	downstream describes the direction of da	ta received by your compu	ter from the	Internet.		

- 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 a circuit board can be inserted to add new capabilities.

F-type connector A connector used to connect coaxial cable 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 cable service provider assigns your cable modem an IP address to provide a continuous Internet connection.



Introduction	Before You Begin	Installation & Configuration	Troubleshooting	FAQ	Glossary	License
MAC address	written to read-only memo	ol Address uniquely identifies each devic ory (ROM) at the factory and printed on t to your cable service provider.				
MHz	Mega Hertz. A measure c	f radio frequency - millions of cycles per	second. One MHz means	one million	cycles per seco	ind.
RJ-45	The most common type o	f connector for Ethernet networks.				
splitter	A splitter is a device that of frequency range.	divides the signal power from an input ca	ble equally between two or	more signa	als, each carryir	ig a selected
TCP/IP	Transmission Control Pro networks.	tocol/Internet Protocol is a set of protoco	ls that provides standards	and rules fo	or communicatio	n between
upstream	In a cable data network, u	pstream describes the direction of data	sent from your computer to	the Interne	et.	
USB		computer interface for add-on devices su odem to the USB port, Windows 98 Sec				

Software License

SURFboard Cable Modems

Motorola, Inc., Broadband Communications Sector ("Motorola")

101 Tournament Drive

Horsham, PA 19044

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