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› Motorola Surfboard SB6141 DOCSIS 3.0 High-Speed Cable Modem User Manual

Motorola SB6141

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Model: SB6141

INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your Motorola SURFboard SB6141 DOCSIS 3.0 High-Speed Cable Modem. Please read this manual thoroughly before using the device to ensure optimal performance and safety.



Figure 1: Motorola SURFboard SB6141 Cable Modem. This image shows the black modem standing vertically, with its perforated sides for ventilation and the front panel displaying the Motorola logo and various status indicator LEDs.

PACKAGE CONTENTS

Verify that all items are present in your package:

- Motorola SURFboard SB6141 Cable Modem

- Ethernet Cable
- Power Adapter
- Quick Start Guide (if included)

SETUP AND INSTALLATION

Before You Begin

- Ensure you have an active cable internet service subscription.
- Have your Internet Service Provider (ISP) account information readily available.
- Disconnect any existing modem or router from the coaxial cable outlet.

Connection Steps

1. **Connect Coaxial Cable:** Connect one end of the coaxial cable to the cable wall outlet and the other end to the Cable port on the back of the SB6141 modem. Ensure the connection is finger-tight.
2. **Connect Ethernet Cable:** Connect one end of the Ethernet cable to the Ethernet port on the back of the SB6141 modem and the other end to the WAN/Internet port of your router, or directly to your computer's Ethernet port if not using a router.
3. **Connect Power Adapter:** Plug the power adapter into the Power port on the back of the SB6141 modem, then plug the other end into an electrical outlet.
4. **Power On:** The modem will automatically power on. Allow several minutes for the modem to initialize and connect to your ISP's network. The front panel LEDs will indicate connection status.

Activation with Your ISP

After connecting the modem, you will need to activate it with your Internet Service Provider (ISP). This typically involves:

- Calling your ISP's customer support.
- Providing the modem's MAC address (located on a sticker on the bottom or back of the modem).
- Following any additional instructions provided by your ISP.

OPERATING THE MODEM

Front Panel LED Indicators

The front panel LEDs provide visual status of the modem's operation:

LED Name	Status	Description
Power (Green Circle with Line)	Solid Green	Modem is powered on.
Receive (Down Arrow)	Solid Blue	Downstream channel is bonded (DOCSIS 3.0 operation).

LED Name	Status	Description
	Solid Green	Downstream channel is connected (DOCSIS 1.x/2.0 operation).
	Flashing Green	Scanning for a downstream channel.
Send (Up Arrow)	Solid Blue	Upstream channel is bonded (DOCSIS 3.0 operation).
	Solid Green	Upstream channel is connected (DOCSIS 1.x/2.0 operation).
	Flashing Green	Scanning for an upstream channel.
Online (Globe)	Solid Green	Modem is online and operational.
	Flashing Green	Scanning for configuration parameters.
Link (Two Arrows)	Solid Green	Ethernet link is established at 10/100 Mbps.
	Solid Amber	Ethernet link is established at 1000 Mbps (Gigabit Ethernet).
	Flashing Green/Amber	Data activity over the Ethernet link.

MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the modem. Do not use liquid cleaners or aerosol cleaners.
- **Ventilation:** Ensure the modem is placed in a well-ventilated area. Do not block the ventilation holes on the sides or top of the unit.
- **Firmware Updates:** Firmware updates are typically managed by your Internet Service Provider (ISP). Do not attempt to manually update the firmware unless instructed by your ISP.
- **Power Cycling:** If you experience connectivity issues, power cycling the modem can often resolve them. Disconnect the power adapter, wait 10-15 seconds, then reconnect it. Allow the modem to fully re-initialize.

TROUBLESHOOTING

Common Issues and Solutions

- **No Power LED:**
Solution: Ensure the power adapter is securely connected to the modem and a working electrical outlet. Try a different outlet.
- **Receive/Send LEDs Flashing or Off:**
Solution: Check the coaxial cable connection to the modem and the wall outlet. Ensure it is tight. Contact your ISP if the issue persists, as there may be a signal problem.
- **Online LED Flashing or Off:**

Solution: The modem is not registered with your ISP or cannot obtain an IP address. Verify activation with your ISP. Power cycle the modem.

• **Link LED Off:**

Solution: Check the Ethernet cable connection between the modem and your computer/router. Try a different Ethernet cable or port.

• **Slow Internet Speed:**

Solution: Power cycle the modem and your router (if applicable). Ensure your computer is free of malware. Contact your ISP to verify your subscribed speed and signal quality.

Accessing Modem Status Page

You can access the modem's internal status page for detailed information and diagnostics. Open a web browser and enter <http://192.168.100.1> in the address bar. This page provides signal levels, event logs, and other diagnostic data that may be useful for troubleshooting with your ISP.

SPECIFICATIONS

Feature	Detail
Model	Motorola SURFboard SB6141
DOCSIS Standard	DOCSIS 3.0 (Backward compatible with DOCSIS 1.x/2.0)
Downstream Channels	Up to 8 bonded channels
Upstream Channels	Up to 4 bonded channels
Max Downstream Speed	Up to 343 Mbps (ISP dependent)
Max Upstream Speed	Up to 131 Mbps (ISP dependent)
Ethernet Port	1 x 10/100/1000 Mbps Gigabit Ethernet
Dimensions (LxWxH)	5.24 x 5.24 x 1.65 inches
Weight	1 pound
Operating System Compatibility	Windows, Macintosh, UNIX
ISP Compatibility	Compatible with major cable providers like Comcast/Xfinity, Cox, Charter, Time Warner, Mediacom, Bright House. (Verification with ISP recommended)

WARRANTY INFORMATION

This product typically comes with a manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation included with your purchase or visit the official Motorola support website. A 14-day money-back warranty was noted by a seller.

SUPPORT

For technical assistance or further inquiries, please contact your Internet Service Provider (ISP) first, as they manage the network connection and modem activation. For product-specific information not covered by your ISP, you may visit the official Motorola support website or refer to the contact information provided in your product packaging.

Online Resources:

- Motorola Support Website: www.motorola.com/us/home-support (Example link, actual link may vary)
- Modem Status Page: <http://192.168.100.1>

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