MOTOROLA | **ARRIS**

User Guide

SURFboard® SB6141

DOCSIS® 3.0 Cable Modem

Safety and Regulatory Information

IMPORTANT SAFETY INSTRUCTIONS

Read This Before You Begin — When using your equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- Read all of the instructions listed here and/or in the user manual before you operate this device. Give particular attention to all safety precautions. Retain the instructions for future reference.

- This device must be installed and used in strict accordance with manufacturer's instructions, as described in the user documentation that is included with the device.

- Comply with all warning and caution statements in the instructions. Observe all warning and caution symbols that are affixed to this device.

- To prevent fire or shock hazard, do not expose this device to rain or moisture. The device must not be exposed to dripping or splashing. Do not place objects filled with liquids, such as vases, on the device.

- This device was qualified under test conditions that included the use of the supplied cables between systems components. To ensure regulatory and safety compliance, use only the provided power and interface cables and install them properly.

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

- Installation of this device must be in accordance with national wiring codes and conform to local regulations.

- Operate this device only from the type of power source indicated on the device's marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.

- Do not overload outlets or extension cords, as this can result in a risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard.

- Place this device in a location that is close enough to an electrical outlet to accommodate the length of the power cord.

- Place the device to allow for easy access when disconnecting the power cord of the device from the AC wall outlet.

- Route power supply cords so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords where they are attached to plugs and convenience receptacles, and examine the point where they exit from the device.

- Do not connect the plug into an extension cord, receptacle, or other outlet unless the plug can be fully inserted with no part of the blades exposed.

- Place this device on a stable surface.

- Avoid damaging the cable modem with static by touching the coaxial cable when it is attached to the earth-grounded coaxial cable-TV wall outlet.

- Always first touch the coaxial cable connector on the cable modem when disconnecting or reconnecting the Ethernet cable from the cable modem or user's computer.

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

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

- Do not use this product near water: for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

- Do not cover the device or block the airflow to the device with any other objects. Keep the device away from excessive heat and humidity and keep the device free from vibration and dust.

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

- For added protection, unplug the device from the wall outlet and disconnect the cables to avoid damage to this device due to lightning and power surges.

- Upon completion of any service or repairs to this device, ask the service technician to perform safety checks to determine that the device is in safe operating condition.
- Do not open the device. Do not perform any servicing other than that contained in the installation and troubleshooting instructions. Refer all servicing to qualified service personnel.
- This device should not be used in an environment that exceeds 104°F (40° C).

SAVE THE ABOVE INSTRUCTIONS

Note to CATV System Installer — This reminder is provided to call the CATV system installer's attention to Section 820.93 of the National Electric Code, which provides guidelines for proper grounding and, in particular, specifies that the Coaxial cable shield shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

FCC STATEMENTS

FCC Interference Statement

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 environment. 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 device 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 device 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 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.

FCC CAUTION: Any changes or modifications not expressly approved by ARRIS for compliance could void the user's authority to operate the equipment.

FCC DECLARATION OF CONFORMITY

ARRIS Enterprises, Inc., 3871 Lakefield Drive, Suwanee, GA 30024, declares that the DOCSIS 3.0 Cable Modem-SB6141 complies with 47 CFR Parts 2 and 15 of the FCC rules as a Class B digital device.

INDUSTRY CANADA (IC) STATEMENT

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CARING FOR THE ENVIRONMENT BY RECYCLING

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

Recycling your ARRIS 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.

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Getting Started

The SURFboard® SB6141 DOCSIS® 3.0 Cable Modem provides high-speed access to the Internet and other online services on your home network. You can use your SB6141 to directly connect a computer to your home or small business LAN through an Ethernet connection.

This guide provides a product overview and instructions for installing and configuring your SB6141 Cable Modem to get it up and running on your home network.

Inside the Box

Before installing your new cable modem, check that the following items are included in the box. If any items are missing, please call ARRIS Technical Support at **1-877-466-8646** for assistance.

Table 1 – SB6141 Package Contents

Item		Description
SB6141 Cable Modem		High-speed DOCSIS 3.0 cable modem
Power Supply		Provides power to the modem using an electrical outlet
Ethernet Cable		Standard Category 5, or higher, cable for connecting to the network
Software License & Regulatory Card		Contains software license, warranty, and safety information for the modem
SB6141 Quick Start Guide		Provides basic instructions for installing the cable modem and setting up your network connections

Additional Items You May Need

- Coaxial (coax) cable, if one is not already connected to a cable wall outlet

System Requirements

- High-speed Internet access account
- Web browser access – Microsoft Internet Explorer, Google Chrome, Firefox, or Safari
- Compatible operating systems:
  - o Windows® 8
  - o Windows 7 Service Pack 1 (SP1)
  - o Windows Vista™ SP2 or later
  - o Windows XP SP3

  Note: *Microsoft no longer supports Windows XP. The SB6141 should still function without any problems.*
  - o Mac® 10.4 or higher
  - o UNIX®
  - o Linux®

Contact Information

For technical support and additional ARRIS-Motorola product information:

- Visit the ARRIS Support website: www.arrisi.com/consumer
- Call ARRIS Technical Support: **1-877-466-8646**

  When you call, you may need the following information listed on the modem label located on the bottom of your SB6141:
  - o Modem model name (**SB6141**)
  - o Modem MAC address (**HFC MAC ID**)
  - o Modem serial number (**S/N**)

![Motorola ARRIS logo]

2 Product Overview

Front Panel

Figure 1 – SB6141 Front View

Table 2 – SB6141 Front Panel LED Icons

LED Icon	Flashing	On (Solid)
POWER	Not applicable — icon does not flash	**Green**: Power is properly connected
RECEIVE	Scanning for a downstream (receive) channel connection	**Green**: Non-bonded downstream channel is connected **Blue***: High-speed Internet connection with bonded downstream channels
SEND	Scanning for an upstream (send) channel connection	**Green**: Non-bonded upstream channel is connected **Blue***: High-speed Internet connection with bonded upstream channels
ONLINE	Scanning for an Internet connection	**Green**: Startup process completed
LINK	Transmitting or receiving data on Ethernet port	**Amber**: A device, computer, or hub is connected to the Ethernet (10Base-T) or Fast Ethernet (100Base-T) port **Blue***: High-speed Gigabit Ethernet (1000Base-T) connection from the SB6141 to your computer

*Blue - Indicates DOCSIS 3.0 operation (high-speed Internet access) which may not be available in all locations. Check with your service provider for availability in your area.

Rear Panel
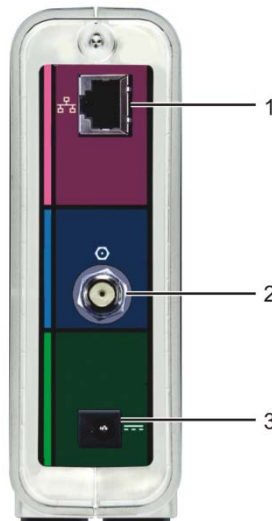
Figure 2 – SB6141 Rear View

Table 3 – SB6141 Rear Panel Ports & Connectors

	Port Name	Description
1	ETHERNET	Ethernet port for an RJ-45 cable connection A green LED indicates a data connection is made
2	CABLE	Coaxial cable connector
3	POWER	+12VDC Power connector **Note**: *Only use the power supply provided with the cable modem.*

Modem Label

The modem label is located on the bottom of your SB6141. It contains specific cable modem ID information that you may need when contacting ARRIS Technical Support or your service provider.

To receive Internet service, you will have to contact your service provider for assistance. Make sure you have the modem model name (**SB6141**), MAC address (**HFC MAC ID**), and serial number (**S/N**) located on the modem label.

3 Connecting the Modem

> ⚠️ **This product is for indoor use only. Do not route the Ethernet cable(s) outside of the building. Exposure of the cables to lightning could create a safety hazard and damage the product.**

Connect the Cable Modem to Your Computer

Before installing the cable modem:

- Check with your service provider to ensure broadband cable service is available in your area.
- Choose a location in your home where your computer and cable modem are preferably near existing cable and electrical wall outlets.
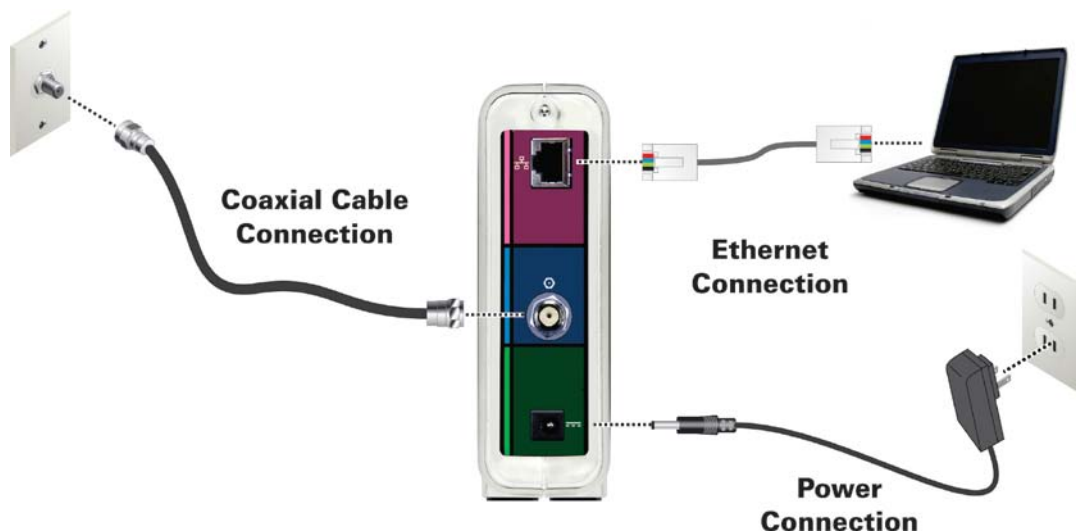
Figure 3 – SB6141 Connection Diagram

1. Check that a coaxial cable is connected to a cable wall outlet or RF splitter (optional).
2. Connect the other end of the coaxial cable to the Cable connector on the cable modem.
   Use your hand to tighten the connectors to avoid damaging them.
3. Connect the Ethernet cable to the Ethernet port on the cable modem.
4. Connect the other end of the Ethernet cable to the Ethernet port on your computer.

5. Connect the power cord to the Power port on the cable modem.

6. Plug the other end of the power cord into an electrical wall outlet.

   This automatically powers ON the cable modem.

Test the Cable Modem Connection

Although your computer may already be configured to automatically access the Internet, you should still perform the following cable modem connectivity test to verify that your devices were connected properly:

1. Power ON your computer and then log in.

2. Check that the **Power**, **Receive, Send**, and **Online** front panel LEDs on your SB6141 light up in sequential order. See Front Panel for additional LED status information.

   If an LED did not light up, see Troubleshooting Solutions for more information or call ARRIS Technical Support at **1-877-466-8646** for assistance.

3. Contact your service provider to activate (provision) your SB6141.

   Note: Your service provider may allow for automatic activation which will automatically launch their special website when you open a Web browser.

4. After your SB6141 is provisioned, open a Web browser (e.g., Internet Explorer, Google Chrome, Firefox, or Safari) on the computer connected to your SB6141.

5. Type a valid URL (for example, www. arrisi.com) in the address bar and then click or press **Enter**.

   The ARRIS website should open. If it did not open, do any of the following:

   ο   See Troubleshooting Solutions for more information.

   ο   Contact your service provider for assistance.

   ο   Manually set up the network options on your computer to access the Internet. See below for more information.

Set Up an Internet Connection

IMPORTANT!   *Your computer may already be configured to automatically access the Internet. If so, **do not** change the network options on your computer before contacting your service provider for assistance.*

If you cannot access the Internet after installing your SB6141, you may have to manually configure your computer network options to connect to the Internet. Please contact your service provider for assistance.

## Wall Mounting the Modem

If you choose to mount the SB6141 on a wall, please read the following before starting:

•   Locate the unit as specified by the local or national codes governing residential or business cable TV and communications services.

- Follow all local standards for installing a network interface unit/network interface device (NIU/NID).

- Unplug the power cord on the SB6141 from the electrical wall outlet and verify that all the cables are repositioned away from the back of the SB6141 before mounting it on the wall.

- Decide if you are mounting the SB6141 horizontally or vertically on the wall.

- Gather the following items:

   o   Wall-mounting template or ruler/measuring tape

   o   Applicable screwdriver: Phillips or flathead

   o   Two M3.5 (#6) screws with a flat underside and maximum screw head diameter of 9.0 mm to mount the SB6141.

   Note: *Contact a qualified installer to determine the appropriate screw length needed for mounting a cable modem.*

See the dimensioned view below for the spacing needed between the screw heads and wall:

2.6 mm (0.10") maximum screw head thickness

9.0 mm (0.35") maximum screw head diameter

2.5 mm (0.10") minimum screw head to wall spacing
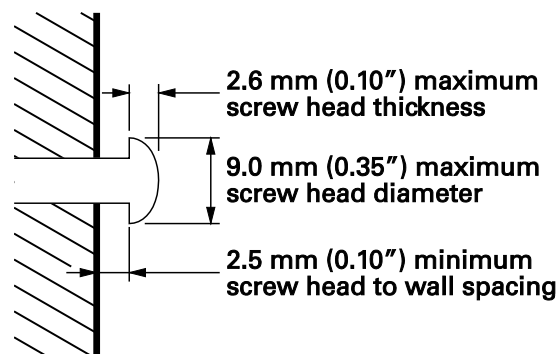
Figure 4 – Wall Mount-Screw Head Dimensions

Note: *If possible, mount the SB6141 to concrete, masonry, wooden stud, or some other solid wall material. Use anchor bolts if necessary (for example, if you mount the unit on drywall).*

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

Perform the following steps to wall mount the SB6141:

1.   Use the wall mounting template as a guide for drilling holes in the wall (see Figure 5).

WARNING! The wall mounting template is intended as a sample representation of the SB6141 side view. The mounting hole dimensions shown on the template are not accurate. BEFORE drilling any holes in the wall, check to ensure that your measurements match the holes on the side of the SB6141.

2. Select an appropriate depth and diameter to drill the holes to a depth of at least 1½ inches (3.8 cm).

    Note: There must be .10 inch (2.5 mm) between the wall and underside of the screw head (see Figure 4). The installer must determine the depth of the hole, the necessary hardware and must be careful to select the appropriate depth and diameter.

3. Insert the #6 screws in the holes and then attach the SB6141.

4. Attach the SB6141 to the two screws on the wall. Check that it is securely mounted on the wall.

5. Reconnect the coaxial, Ethernet, and power cables.

6. Re-plug the power cord into the +12VDC Power connector on the SB6141 and the electrical wall outlet.

7. Arrange the cables to prevent any safety hazards.

8. Check that the SB6141 is still securely mounted on the wall.
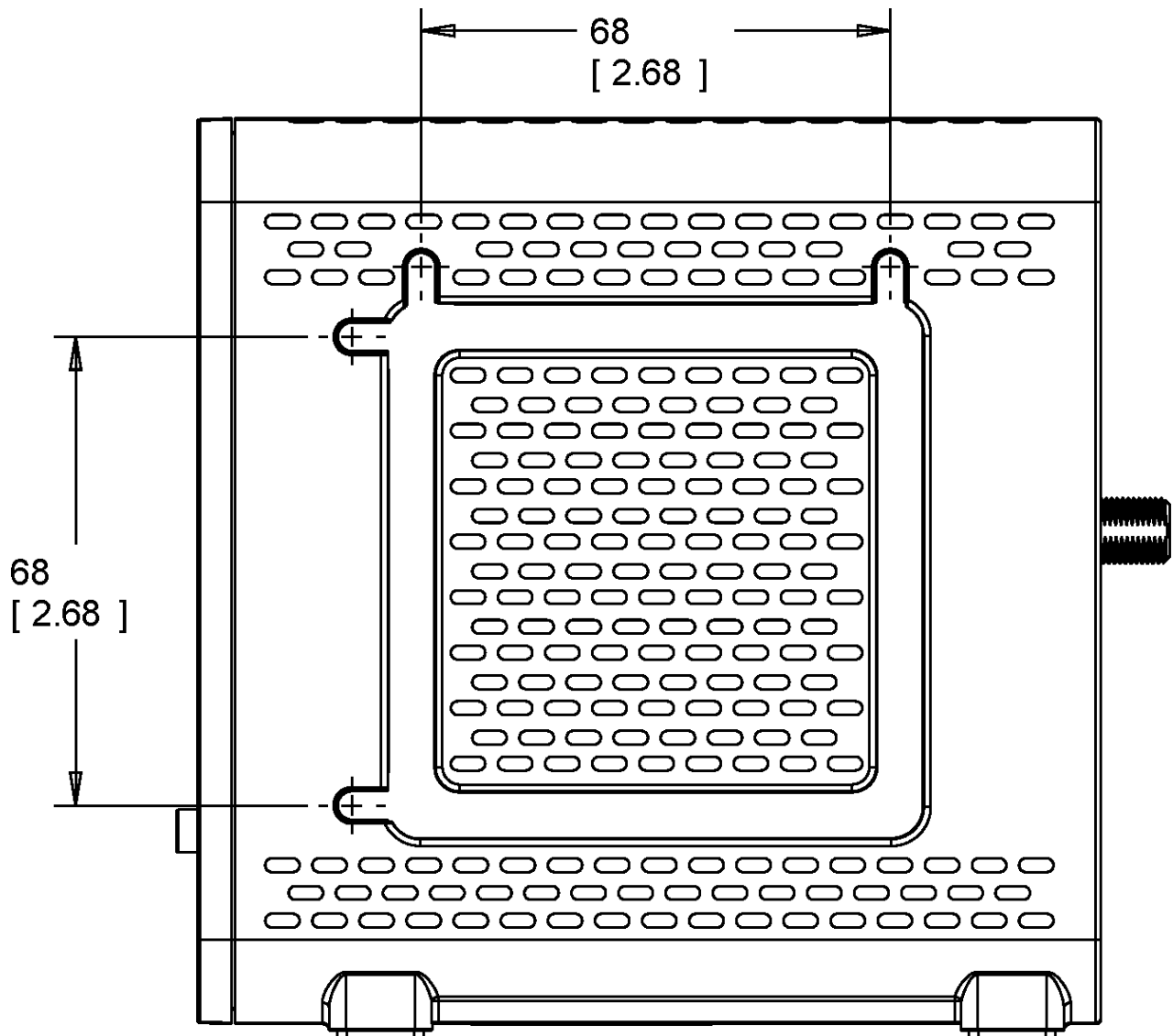
Wall Mounting Template
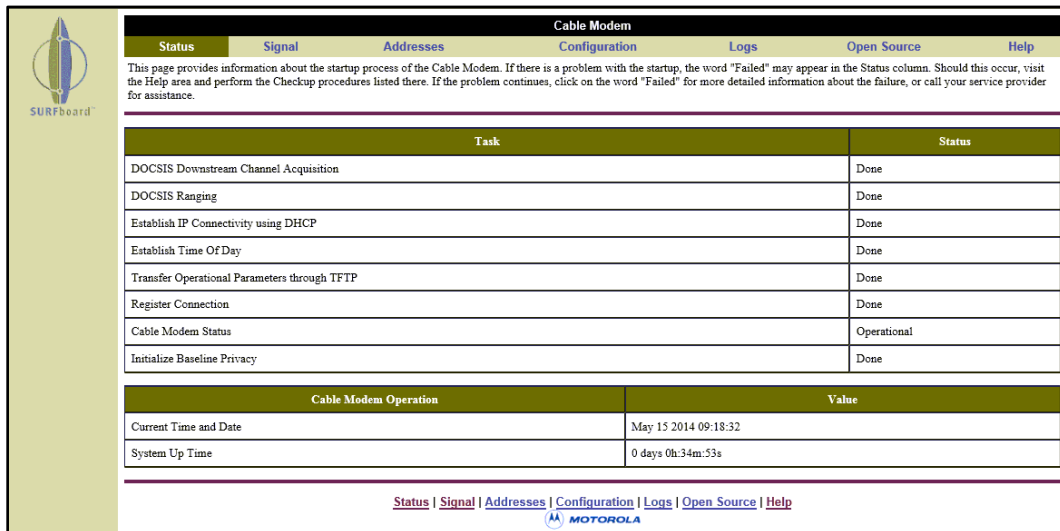

Figure 5 – SB6141 Wall Mounting Template

4

Monitoring Your Cable Modem and Connected Network

Use the SB6141 Web Manager to view and monitor the configuration settings and operational status of your SB6141. You may be able to change some network configuration settings.

Note: You may notice that some of the SB6141 Web Manager configuration settings may be blocked and cannot be modified. This may be due to some restrictions set up by your service provider to prevent unauthorized modifications to certain cable modem configuration parameters.

Start the Cable Modem Web Manager

1. Open any Web browser on the computer connected to your SB6141.
2. In the Address bar, type **http://192.168.100.1** for the SB6141 Web Manager IP address, and then press **Enter**. The SB6141 Status Connection screen displays.

Cable Modem		
Status Signal Addresses Configuration Logs Open Source Help		

This page provides information about the startup process of the Cable Modem. If there is a problem with the startup, the word "Failed" may appear in the Status column. Should this occur, visit the Help area and perform the Checkup procedures listed there. If the problem continues, click on the word "Failed" for more detailed information about the failure, or call your service provider for assistance.

Task	Status
DOCSIS Downstream Channel Acquisition	Done
DOCSIS Ranging	Done
Establish IP Connectivity using DHCP	Done
Establish Time Of Day	Done
Transfer Operational Parameters through TFTP	Done
Register Connection	Done
Cable Modem Status	Operational
Initialize Baseline Privacy	Done

Cable Modem Operation	Value
Current Time and Date	May 15 2014 09:18:32
System Up Time	0 days 0h:34m:53s

Status | Signal | Addresses | Configuration | Logs | Open Source | Help

Figure 6 – SB6141 Main Screen

Note: If you cannot access the HTML pages in the Modem Web Manager, please call or contact ARRIS Technical Support for assistance.

Cable Modem Web Manager Screen Options

The SB6141 menu tabs are displayed along the top of the SB6141 Web Manager screen. To display a specific screen, click on the appropriate tab.

			Cable Modem			
Status	Signal	Addresses	Configuration	Logs	Open Source	Help
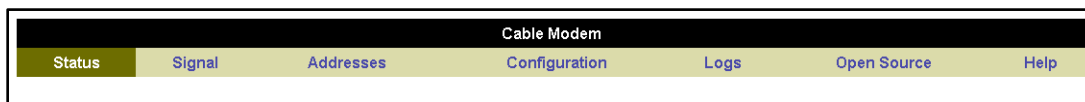
Figure 7 – SB6141 Web Manager Menu Tabs

The SB6141 menu links are displayed along the bottom of the SB6141 Web Manager screen. The menu links are similar to the menu tabs and serve as an alternative method for displaying the SB6141 Web Manager screens.

Status | Signal | Addresses | Configuration | Logs | Open Source | Help

MOTOROLA

Figure 8 – SB6141 Web Manager Menu Links

Table 4 – SB6141 Web Manager Screen Options

Screen Option	Function
Status	Provides the current operational status of the cable modem.
Signal	Provides current status information for the upstream and downstream signals of the cable modem.
Addresses	Provides the serial number and MAC addresses for the cable modem and computers connected on your home network.
Configuration	Provides the network connection frequency and channel ID information for the cable modem.
	Also, allows you to reset the cable modem configuration to the factory default configuration and restart the cable modem.
Logs	Displays a listing of the time and actual events as they occur and are detected by the cable modem.
	This information may be useful to help diagnose and correct any problems that may occur with the cable modem.
Open Source	Provides information on the Open Source Software components, software licenses, and source code used in the cable modem.
Help	Provides a brief description for each screen option and general troubleshooting tips.

Get Help

The Help feature provides a brief description for the SB6141 Web Manager screens.

● Click the **Help** menu tab or link on the SB6141 Web Manager screen to open the SB6141 Help Overview screen.

Name	Purpose
Modem Status	The Modem Status Page provides information about the startup process of the Cable Modem. When you first access the Cable Modem, this page is displayed. The last line of the Modem Status Page gives the status of the Cable Modem. Under normal conditions this should read "Operational". If the last line does not read "Operational", a Standard Checkup should be performed.
Modem Signal	The Modem Signal Page provides information about the connection between the Cable Modem and the cable company.
Modem Addresses	The Modem Addresses Page provides information about the network connection between the Cable Modem and your computer. Also, it provides details about the connection between the Cable Modem and the service provider's computer systems.
Modem Configuration	The Modem Configuration Page provides information about the current configuration of the Cable Modem.
Modem Logs	The Modem Logs Page provides diagnostic messages generated by the Cable Modem. It is intended for use by a qualified technician.
Open Source	This page provides information on open source software components, their licenses and source code used in Cable Modem.
Modem Help	The Modem Help Page provides information about how to troubleshoot the Cable Modem.

Cable Modem Standard Checkup
● Check to make sure that the coaxial cable connecting your Cable Modem to the cable wall outlet is connected, and that the screws have been tightened. ● Check to make sure that the power cord on the Cable Modem is plugged into a wall outlet, and that the **Power** light on the front of the Cable Modem is on. ● Check to make sure that the 10/100BaseT Ethernet cable between the Cable Modem and your computer is connected, and the connectors are locked in place. ● Check to make sure that **Send**, **Receive**, and **Online** lights on the front of the Cable Modem are on or blinking. If the lights are off and do not blink, reboot the modem by disconnecting and reconnecting the power plug in the back of the modem. ● Please consult the **Cable Modem User Guide** for additional information.

Figure 9 – SB6141 Help Overview Screen

View the Cable Modem Status

The SB6141 Status screen displays the current startup status of the SB6141 and the downstream and upstream bonded channel connections for receive and send data transmissions.

To open the Status screen:

1. Click the **Status** menu tab or link on the SB6141 Web Manager screen (see Figure 10).
2. Click the **Refresh** button (**F5**) in your Web browser to reload the information on the screen.

Figure 10 – SB6141 Status Screen

View the Cable Modem Product Information

The SB6141 Addresses screen displays the cable modem serial number and network connection information between your cable modem and computer.

To open the Addresses screen:

1. Click the **Addresses** menu tab or link on the SB6141 Web Manager screen.

Figure 11 – SB6141 Addresses Screen

2. Click **Refresh** (**F5**) in your Web browser to reload the information on the screen.

View the Event Log

The SB6141 generates a running log of the time and events or activities that it detects during operation.

Note: This information may be useful to help diagnose and correct any problems that may occur with your cable modem. You may want to provide this information if you have to contact ARRIS Technical Support or your service provider for assistance.

To open the Logs screen:

1. Click the **Logs** menu tab or link on the SB6141 Web Manager screen. The Logs screen displays.
2. Click **Refresh** (**F5**) in your Web browser to reload the information on the screen.

Time	Priority	Code	Message
May 15 2014 08:44:15	5-Warning	Z00.0	MIMO Event MIMO: Stored MIMO=-1 post cfg file MIMO=-1;CM-MAC=90:3e:ab:87:e4:28;CMTS-MAC=00:30:b8:c6:3a:26;CM-QOS=1.1;CM-VER=3.0;
Jan 01 1970 00:00:15	6-Notice	N/A	Cable Modem Reboot due to power reset ;CM-MAC=90:3e:ab:87:e4:28;CMTS-MAC=00:00:00:00:00:00;CM-QOS=1.1;CM-VER=3.0;
May 15 2014 08:21:34	3-Critical	T05.0	SYNC Timing Synchronization failure - Loss of Sync;CM-MAC=90:3e:ab:87:e4:28;CMTS-MAC=00:30:b8:c6:3a:26;CM-QOS=1.1;CM-VER=3.0;
May 15 2014 08:21:16	5-Warning	Z00.0	MIMO Event MIMO: Stored MIMO=-1 post cfg file MIMO=-1;CM-MAC=90:3e:ab:87:e4:28;CMTS-MAC=00:30:b8:c6:3a:26;CM-QOS=1.1;CM-VER=3.0;
Jan 01 1970 00:00:30	3-Critical	R02.0	No Ranging Response received - T3 time-out;CM-MAC=90:3e:ab:87:e4:28;CMTS-MAC=00:30:b8:c6:3a:26;CM-QOS=1.1;CM-VER=3.0;
Jan 01 1970 00:00:15	6-Notice	N/A	Cable Modem Reboot from GUI/Configuration page ;CM-MAC=90:3e:ab:87:e4:28;CMTS-MAC=00:00:00:00:00:00;CM-QOS=1.1;CM-VER=3.0;

Figure 12 – SB6141 Logs Screen

View the Cable Modem Configuration

The SB6141 Modem Configuration screen displays the downstream and upstream connection to the network. When the SB6141 successfully connects to the network, it stores the connection frequency to automatically connect whenever you have to log back onto the SB6141.

To open the Configuration screen:

- Click the **Configuration** menu tab or link on the SB6141 Web Manager screen.

Configuration	
Frequency Plan:	North American Standard/HRC/IRC
Custom Frequency Ordering:	Default
Upstream Channel ID:	51
Favorite Frequency (Hz)	705000000
DOCSIS MIMO	Honor MDD IP Mode
Modem's IP Mode	Dual Provisioning Mode

DHCP Server Enabled
The SURFboard cable modem can be used as a gateway to the Internet by a maximum of 32 users on a Local Area Network (LAN). When the Cable Modem is disconnected from the Internet, users on the LAN can be dynamically assigned IP Addresses by the Cable Modem DHCP Server. These addresses are assigned from an address pool which begins with 192.168.100.11 and ends with 192.168.100.42. Statically assigned IP addresses for other devices on the LAN should be chosen from outside of this range

[Reset All Defaults]
Note:
Resetting the cable modem to its factory default configuration will remove all stored parameters learned by the cable modem during prior initializations. The process to get back online from a factory default condition could take from 5 to 30 minutes. Please reference the cable modem User Guide for details on the power up sequence.

[Restart Cable Modem]

Figure 13 – SB6141 Configuration Screen

Note: *The values on the SB6141 Configuration screen cannot be changed. You will have to obtain special authorization from your service provider to change the cable modem frequencies.*

Reset the Factory Default Modem Settings

At any time you can reset the SB6141 to its original factory configuration. The process to restore the cable modem settings may take from 5 to 30 minutes to complete. During this process your network connection will be disabled.

WARNING! *This action will delete your current cable modem configuration and any custom settings you may have created.*
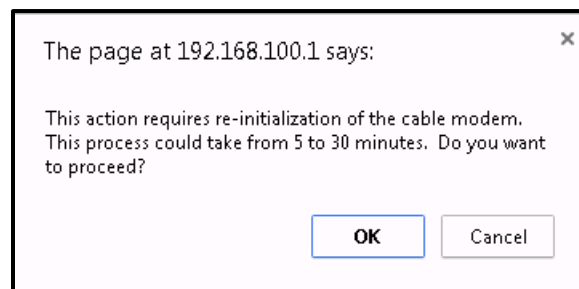
To open the Configuration screen:

1. Click the **Configuration** menu tab or link on the SB6141 Web Manager Menu. The Configuration screen displays (see Figure 14).

Configuration	
Frequency Plan:	North American Standard/HRC/IRC
Custom Frequency Ordering:	Default
Upstream Channel ID:	51
Favorite Frequency (Hz)	705000000
DOCSIS MIMO	Honor MDD IP Mode
Modem's IP Mode	Dual Provisioning Mode

DHCP Server Enabled
The SURFboard cable modem can be used as a gateway to the Internet by a maximum of 32 users on a Local Area Network (LAN). When the Cable Modem is disconnected from the Internet, users on the LAN can be dynamically assigned IP Addresses by the Cable Modem DHCP Server. These addresses are assigned from an address pool which begins with 192.168.100.11 and ends with 192.168.100.42. Statically assigned IP addresses for other devices on the LAN should be chosen from outside of this range

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Restart Cable Modem

Figure 14 – SB6141 Configuration Screen-Reset All Defaults

2. Click **Reset All Defaults**.

Figure 15 – Restore Factory Defaults Dialog Box

3. Click **OK**. The SB6141 Web Manager will automatically open when the Reset All Defaults process is complete.

Reboot Your Cable Modem

To reboot the SB6141:

1. Click the **Configuration** menu tab or menu link on the SB6141 Web Manager Menu. The Configuration screen displays.

Configuration	
Frequency Plan:	North American Standard/HRC/IRC
Custom Frequency Ordering:	Default
Upstream Channel ID:	51
Favorite Frequency (Hz)	705000000
DOCSIS MIMO	Honor MDD IP Mode
Modem's IP Mode	Dual Provisioning Mode

DHCP Server Enabled
The SURFboard cable modem can be used as a gateway to the Internet by a maximum of 32 users on a Local Area Network (LAN). When the Cable Modem is disconnected from the Internet, users on the LAN can be dynamically assigned IP Addresses by the Cable Modem DHCP Server. These addresses are assigned from an address pool which begins with 192.168.100.11 and ends with 192.168.100.42. Statically assigned IP addresses for other devices on the LAN should be chosen from outside of this range.

Reset All Defaults
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Resetting the cable modem to its factory default configuration will remove all stored parameters learned by the cable modem during prior initializations. The process to get back online from a factory default condition could take from 5 to 30 minutes. Please reference the cable modem User Guide for details on the power up sequence.

Restart Cable Modem

Figure 16 – SB6141 Configuration Screen-Restart Cable Modem

2. Click **Restart Cable Modem**.

The page at 192.168.100.1 says:

Are you sure you want to reset the modem?

OK   Cancel
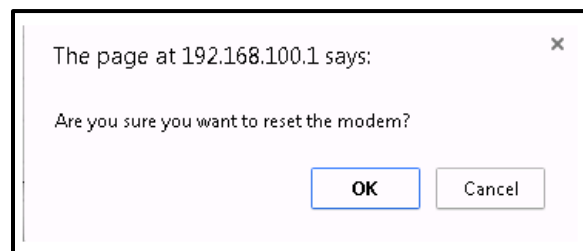
Figure 17 – SB6141 Reboot Dialog Box

3. Click **OK**. This message displays: **The device has been reset… RELOAD**.
4. Click **RELOAD** to log back into the SB6141 Web Manager.

Exit the SB6141 Web Manager

To log out and close the SB6141 Web Manager:

- Close the browser window.

5 # Troubleshooting Tips

If the solutions listed here do not solve your problem, contact your service provider.

You may have to reset the SB6141 modem configuration to its original factory settings if the cable modem is not functioning properly.

Your service provider may ask for the status of the icon lights as described in Front Panel Icons and Error Conditions.

Solutions

Table 5 – Troubleshooting Solutions

Modem Problem	Possible Solution
Power Icon is OFF	• Check the cable connections to the cable modem and electrical wall outlet. • Check that the electrical wall outlet is working. › Is the outlet controlled by a light switch?
Cannot Send or Receive Data	• On the front panel, note the status of the icons and refer to Front Panel Icons and Error Conditions to identify the error. • If you have cable television, check your television to ensure your cable service is operating properly. • Check the coaxial cable connection at the SB6141 and cable wall outlet. Hand tighten, if necessary. • Check the IP address on your computer; you may have to renew your IP address. Call your service provider for assistance. • Check that the Ethernet cable is properly connected to the SB6141 and your computer. • If a device is connected via the Ethernet port, check that the ONLINE icon is lit solid (On) to verify connectivity. • Call your service provider for further assistance.

Front Panel Icons and Error Conditions

The SB6141 front panel icons provide status information for the following error conditions:

Table 6 – Front Panel Icons and Error Conditions

Icon	Status	If, During Startup:	If, During Normal Operation
POWER	OFF	SB6141 is not properly plugged into the electrical outlet	SB6141 is unplugged
RECEIVE	FLASHING	Downstream receive channel cannot be acquired	Downstream channel is lost
SEND	FLASHING	Upstream send channel cannot be acquired	Upstream channel is lost
ONLINE	FLASHING	IP registration is unsuccessful	IP registration is lost
LINK	OFF	No connected device is detected	Device is disconnected

A   Warranty Information

SURFboard Cable Modem-SB6141
ARRIS Enterprises, Inc. ("ARRIS")

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