User Guide

SURFboard® SB6183

DOCSIS 3.0® Cable Modem
IMPORTANT SAFETY INFORMATION

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 system 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.
- 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.
- 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.
- 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 PC.
- 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 40º C (104º F).

SAVE THE ABOVE INSTRUCTIONS

Note to CATV System Installer — This reminder is provided to call the CATV system installer's attention to Articles 820.93 and 820.100 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, 1-215-323-1000, declares that the SURFboard SB6183 DOCSIS 3.0 Cable Modem complies with 47 CFR Parts 2 and 15 of the FCC rules as a Class B digital device.

INDUSTRY CANADA (IC) STATEMENT

CAN ICES-3 (B)/NMB-3 (B)

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.
# Contents

**Safety and Regulatory Information** ................................................................. i
**Getting Started** ................................................................................................. 1
  - In the Box .......................................................................................................... 1
  - Additional Items You May Need ............................................................... 2
  - System Requirements .............................................................................. 2
  - Contact Information ............................................................................... 2
**Product Overview** ......................................................................................... 3
  - Front Panel .................................................................................................. 3
  - Rear Panel .................................................................................................. 4
  - Modem Label ............................................................................................... 4
**Installing Your Cable Modem** ...................................................................... 5
  - Connect the Cable Modem to Your Computer ......................................... 5
  - Test the Cable Modem Connection ......................................................... 6
  - Set Up an Internet Connection ............................................................... 6
**Monitoring Your Cable Modem and Connected Network** .......................... 7
  - Start the Cable Modem Web Manager .................................................... 7
  - Cable Modem Web Manager Screen Options ...................................... 8
  - Get Help ........................................................................................................ 9
  - View the Cable Modem Status ............................................................... 9
  - View the Cable Modem Product Information ....................................... 10
  - View the Event Log .................................................................................. 10
  - View the Cable Modem Configuration .................................................. 11
  - Restore the Factory Default Modem Settings ...................................... 12
  - Reboot the SB6183 .................................................................................. 13
  - Exit the SB6183 Web Manager ............................................................... 13
**Troubleshooting Tips** ................................................................................... 14
  - Solutions ...................................................................................................... 14
  - Front Panel LED Icons and Error Conditions ...................................... 15
**Warranty Information** ..................................................................................... 16
Tables

Table 1: SB6183 Package Contents ............................................................................................................................................................ 1
Table 2: SB6183 Front Panel LED Icons .................................................................................................................................................... 3
Table 3: SB6183 Rear Panel Ports & Connectors ................................................................................................................................... 4
Table 4: SB6183 Web Manager Screen Options ................................................................................................................................... 8
Table 5: Troubleshooting Solutions ........................................................................................................................................................ 14
Table 6: Front Panel LED Icons and Error Conditions ....................................................................................................................... 15

Figures

Figure 1 – SB6183 Front View ...................................................................................................................................................................... 3
Figure 2 – SB6183 Rear View ........................................................................................................................................................................ 4
Figure 3 – SB6183 Connection Diagram ................................................................................................................................................ 5
Figure 4 – SB6183 Main Screen ................................................................................................................................................................. 7
Figure 5 – SB6183 Web Manager Menu Tabs ........................................................................................................................................ 8
Figure 6 – SB6183 Web Manager Menu Links ....................................................................................................................................... 8
Figure 7 – SB6183 Help Overview Screen ............................................................................................................................................... 9
Figure 8 – SB6183 Status Screen ............................................................................................................................................................ 9
Figure 9 – SB6183 Product Information Screen .................................................................................................................................. 10
Figure 10 – SB6183 Event Log Screen .................................................................................................................................................. 11
Figure 11 – SB6183 Configuration Screen ............................................................................................................................................ 11
Figure 12 – SB6183 Configuration Screen ............................................................................................................................................ 12
Figure 13 – Restore Factory Defaults Dialog Box ............................................................................................................................... 12
Figure 14 – SB6183 Configuration Screen ............................................................................................................................................ 13
Figure 15 – SB6183 Reboot Dialog Box .................................................................................................................................................. 13
The ARRIS-Motorola SURFboard® SB6183 DOCSIS® 3.0 Cable Modem provides high-speed access to the Internet and other online services on your home network. You can use your SB6183 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 SB6183 Cable Modem to get it up and running on your home network.

In 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>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB6183 Cable Modem</td>
<td>High-speed DOCSIS 3.0 cable modem</td>
</tr>
<tr>
<td>Power Supply</td>
<td>Provides power to the modem using an electrical outlet</td>
</tr>
<tr>
<td>Ethernet Cable</td>
<td>Standard Category 5, or higher, cable for connecting to the network</td>
</tr>
<tr>
<td>Software License &amp;</td>
<td>Contains the software license, warranty, and safety instructions for the</td>
</tr>
<tr>
<td>Regulatory Card</td>
<td>modem</td>
</tr>
</tbody>
</table>

Table 1: SB6183 Package Contents
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:
  - Windows® 8
  - Windows 7 Service Pack 1 (SP1)
  - Windows Vista™ SP2 or later
  - Windows XP SP3
  - Mac® 10.4 or higher
  - UNIX®
  - Linux®

Contact Information

For technical support or additional ARRIS-Motorola product information, please visit the ARRIS Support website at www.arrisi.com/consumer.
ARRIS Technical Support is also available at 1-877-466-8646. When you call, you will need the following information located on the modem label on the bottom of your SB6183:

- Cable modem model name (SB6183)
- Cable modem serial number (S/N)
- Cable modem MAC address (HFC MAC ID)
Front Panel

Table 2: SB6183 Front Panel LED Icons

<table>
<thead>
<tr>
<th>LED Icon</th>
<th>Flashing</th>
<th>On</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Not applicable — icon does not flash</td>
<td>Green: Power is properly connected</td>
</tr>
</tbody>
</table>
| RECEIVE  | Scanning for a downstream (receive) channel Internet connection | Green: Non-bonded downstream channel is connected  
|          |                                               | Blue*: High-speed Internet connection with bonded downstream channels |
| SEND     | Scanning for an upstream (send) channel Internet connection | Green: Non-bonded upstream channel is connected  
|          |                                               | Blue*: High-speed Internet connection with bonded upstream channels |
| ONLINE   | Scanning for an Internet connection           | Green: Connection to the Internet is completed |

*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 – SB6183 Rear View](image)

Table 3: SB6183 Rear Panel Ports & Connectors

<table>
<thead>
<tr>
<th>Port</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ethernet port for an RJ-45 network cable connection</td>
</tr>
<tr>
<td>2</td>
<td>Coaxial cable connector</td>
</tr>
<tr>
<td>3</td>
<td>Power connector</td>
</tr>
</tbody>
</table>

Modem Label

The modem label is located on the bottom of your SB6183. 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 cable modem model name (**SB6183**), MAC address (**HFC MAC ID**), and serial number (**S/N**) located on the modem label.
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.

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 SB6183 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 SB6183.
   
   **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 SB6183 is provisioned, open a Web browser (e.g., Internet Explorer, Google Chrome, Firefox, or Safari) on the computer connected to your SB6183.
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:
   
   o See Troubleshooting Solutions for more information.
   o Contact your service provider for assistance.
   o 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 SB6183, you may have to manually configure your computer network options to connect to the Internet. Please contact your service provider for assistance.
Monitoring Your Cable Modem and Connected Network

Use the SB6183 Web Manager to view and monitor the configuration settings and operational status of your SB6183. You may be able to change some network configuration settings.

**Note:** Some of the SB6183 Web Manager configuration settings may be blocked and cannot be modified. This may be due to 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 SB6183.
2. In the Address bar, type `http://192.168.100.1` for the SB6183 Web Manager IP address, and then press **Enter**. The SB6183 Status Connection screen displays.

![Figure 4 – SB6183 Main Screen](image)

**Note:** If you cannot access the HTML pages in the Cable Modem Web Manager, please call ARRIS Technical Support for assistance.
Cable Modem Web Manager Screen Options

The SB6183 menu tabs are displayed along the top of the SB6183 Web Manager screen. To display a specific screen, click on the appropriate tab.

![Figure 5 – SB6183 Web Manager Menu Tabs](image)

The SB6183 menu links are displayed along the bottom of the SB6183 Web Manager screen. The menu links are similar to the menu tabs and serve as an alternative method for displaying the SB6183 Web Manager screens.

![Figure 6 – SB6183 Web Manager Menu Links](image)

Table 4: SB6183 Web Manager Screen Options

<table>
<thead>
<tr>
<th>MENU OPTION</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Provides the current operational status of the cable modem.</td>
</tr>
<tr>
<td>Product Information</td>
<td>Provides the current hardware and software-related information for the cable modem.</td>
</tr>
<tr>
<td>Event Log</td>
<td>Displays a listing of the time and actual events as they occur and are detected by the cable modem. This information can possibly be useful to help diagnose and correct any problems that may occur with your cable modem.</td>
</tr>
<tr>
<td>Addresses</td>
<td>Provides the serial number and MAC addresses for the cable modem and computer connected on your home network.</td>
</tr>
<tr>
<td>Configuration</td>
<td>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.</td>
</tr>
<tr>
<td>Help</td>
<td>Provides a brief description for each screen option.</td>
</tr>
</tbody>
</table>
Get Help

The Help feature provides a brief description for the SB6183 Web Manager screens.

- Click the Help menu tab or link on the SB6183 Web Manager screen to open the SB6183 Help Overview screen.

### Help Pages

<table>
<thead>
<tr>
<th>Status</th>
<th>The Status page is the first page in the display. This page shows diagnostic information about the startup procedure, the downstream bonded channels, and the upstream bonded channels.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Information</td>
<td>The Product Information page displays information about the hardware version, software version, MAC address, serial number, system uptime, and network registration status.</td>
</tr>
<tr>
<td>Event Log</td>
<td>The Event Log page provides a list of all the events that have occurred on the cable modem. Each event shows the date that it occurred, the priority of the event, and an event description.</td>
</tr>
<tr>
<td>Addresses</td>
<td>The 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.</td>
</tr>
<tr>
<td>Configuration</td>
<td>The Configuration page lists information about the upstream and downstream connection to the service provider.</td>
</tr>
</tbody>
</table>

**Figure 7 – SB6183 Help Overview Screen**

### View the Cable Modem Status

The SB6183 Status screen displays the current startup status of the SB6183 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 SB6183 Web Manager screen.

#### Startup Procedure

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Status</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquire Downstream Channel</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td>Connectivity State</td>
<td>In Progress</td>
<td>Net Synchronized</td>
</tr>
<tr>
<td>Boot State</td>
<td>In Progress</td>
<td>Unknown</td>
</tr>
<tr>
<td>Configuration File</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>Disabled</td>
<td>Disabled</td>
</tr>
<tr>
<td>DOCSIS Network Access Enabled</td>
<td>Enabled</td>
<td></td>
</tr>
</tbody>
</table>

#### Downstream Bonded Channels

<table>
<thead>
<tr>
<th>Channel</th>
<th>Lock Status</th>
<th>Modulation</th>
<th>Channel ID</th>
<th>Frequency</th>
<th>Power</th>
<th>SNR</th>
<th>Corrected</th>
<th>Uncorrectables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Locked</td>
<td>Unknown</td>
<td>0</td>
<td>074000003</td>
<td>-46.0</td>
<td>59.2 dB</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Upstream Bonded Channels

Current System Time: 

**Figure 8 – SB6183 Status Screen**

2. Click the Refresh button (F5) in your Web browser to reload the information on the screen.
View the Cable Modem Product Information

The SB6183 Product Information screen displays the hardware and firmware versions, MAC address, serial number, and the current operational status of the SB6183.

To open the Product Information screen:
1. Click the Product Information menu tab or link on the SB6183 Web Manager screen.

![Figure 9 – SB6183 Product Information Screen](image)

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

View the Event Log

The SB6183 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 Event Log screen:
1. Click the Event Log menu tab or link on the SB6183 Web Manager screen. The Event Log screen displays (see Figure 10).
2. Click Refresh button (F5) in your Web browser to reload the information on the screen.
3. Click Clear Log if you want to delete the log entries.
View the Cable Modem Configuration

The SB6183 Modem Configuration screen displays the downstream and upstream connection to the network. When the SB6183 successfully connects to the network, it stores the connection frequency to automatically connect whenever you have to log back onto the SB6183.

To open the Configuration screen:

- Click the Configuration menu tab or link on the SB6183 Web Manager screen.
Restore the Factory Default Modem Settings

At any time you can reset the SB6183 to its original factory configuration. The process to restore the 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 SB6183 Web Manager Menu. The Configuration screen displays.

   ![Figure 12 – SB6183 Configuration Screen](image)

2. Click **Restore Factory Defaults**.

   ![Figure 13 – Restore Factory Defaults Dialog Box](image)

3. Click **OK**. The SB6183 Web Manager will automatically open when the Restore Factory Defaults process is complete.
Reboot the SB6183

To reboot the SB6183:

1. Click the Configuration menu tab or menu link on the SB6183 Web Manager Menu. The Configuration screen displays.

   ![Configuration Screen]

   **Figure 14 – SB6183 Configuration Screen**

2. Click Reboot.

   ![Reboot Dialog Box]

   **Figure 15 – SB6183 Reboot Dialog Box**

3. Click OK. This message displays: The device has been reset… RELOAD.

4. Click RELOAD to log back into the SB6183 Web Manager.

Exit the SB6183 Web Manager

To log out and close the SB6183 Web Manager:

- Close the browser window.
## Troubleshooting Tips

### Solutions

<table>
<thead>
<tr>
<th>Modem Problem</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POWER LED Icon is OFF</strong></td>
<td>• Check the power connection to the cable modem and the electrical wall outlet.</td>
</tr>
<tr>
<td></td>
<td>• Check that the electrical wall outlet is working.</td>
</tr>
<tr>
<td></td>
<td>Is the outlet controlled by a wall light switch? If so, check that the light switch is in the ON position.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> We recommend that, whenever possible, you do not plug your cable modem into an outlet controlled by a wall light switch.</td>
</tr>
<tr>
<td><strong>Cannot access the Internet</strong></td>
<td>• Check that the <strong>Power</strong> and <strong>Online</strong> LEDs on the cable modem front panel are lit up <strong>SOLID.</strong></td>
</tr>
<tr>
<td><strong>Cannot Send or Receive Data</strong></td>
<td>• Check each end of the coaxial cable connection on the modem and cable outlet.</td>
</tr>
<tr>
<td></td>
<td>Hand tighten, if necessary.</td>
</tr>
<tr>
<td></td>
<td>• Check the Ethernet cable to make sure it is properly connected to the modem and computer.</td>
</tr>
<tr>
<td></td>
<td>• On the front panel, check the status of the LED icons and refer to <a href="#">Front Panel LED Icons and Error Conditions</a> to identify the problem.</td>
</tr>
<tr>
<td></td>
<td>• If you have cable television, check your television to ensure your cable service is operating properly.</td>
</tr>
<tr>
<td></td>
<td>• If none of the above resolves the problem, call ARRIS Technical Support at <strong>1-877-466-8646</strong> or contact your service provider for assistance.</td>
</tr>
</tbody>
</table>
Front Panel LED Icons and Error Conditions

The SB6183 front panel LED icons provide status information for the following error conditions:

Table 6: Front Panel LED Icons and Error Conditions

<table>
<thead>
<tr>
<th>LED ICON</th>
<th>STATUS</th>
<th>IF, DURING STARTUP:</th>
<th>IF, DURING NORMAL OPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>OFF</td>
<td>Modem is not properly plugged into the electrical outlet</td>
<td>Modem is unplugged</td>
</tr>
<tr>
<td></td>
<td>FLASHING</td>
<td>Downstream receive channel cannot be acquired</td>
<td>Downstream channel is lost</td>
</tr>
<tr>
<td>RECEIVE</td>
<td>FLASHING</td>
<td>Upstream send channel cannot be acquired</td>
<td>Upstream channel is lost</td>
</tr>
<tr>
<td>SEND</td>
<td>FLASHING</td>
<td>IP registration is unsuccessful</td>
<td>IP registration is lost</td>
</tr>
<tr>
<td>ONLINE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Warranty Information

SURFboard SB6183 DOCSIS 3.0 Cable Modem
ARRIS Enterprises, Inc. (ARRIS)

Retail Purchasers: If you purchased this Product directly from ARRIS or from an authorized ARRIS retail reseller, ARRIS warrants to you, the original end user customer, that (A) the Product, excluding Software, will be free from defects in materials and workmanship under normal use, and (B) with respect to Software, (i) the media on which the Software is provided will be free from defects in material and workmanship under normal use, and (ii) the Software will perform substantially as described in its documentation. This Limited Warranty to you, the original end user customer, continues (A) for Software and the media upon which it is provided, for a period of ninety (90) days from the date of purchase from ARRIS or an authorized ARRIS reseller, and (B) for the Product (excluding Software), for a period of one (1) year from the date of purchase from ARRIS or from an authorized ARRIS reseller. To take advantage of this Limited Warranty or to obtain technical support, you must call the ARRIS toll-free phone number 1-877-466-8646. Technical support charges may apply. ARRIS's sole and exclusive obligation under this Limited Warranty for retail sales shall be to repair or replace any Product or Software that does not meet this Limited Warranty. All warranty claims must be made within the applicable Warranty Period.

Cable Operator or Service Provider Arrangements: If you did not purchase this Product directly from ARRIS or from a ARRIS authorized retail reseller, ARRIS does not warrant this Product to you, the end-user. A limited warranty for this Product (including Software) may have been provided to your cable operator or Internet Service Provider (“Service Provider”) from whom you obtained the Product. Please contact your Service Provider if you experience problems with this Product.

General Information: The warranties described in this Section shall not apply: (i) to any Product subjected to accident, misuse, neglect, alteration, Acts of God, improper handling, improper transport, improper storage, improper use or application, improper installation, improper testing or unauthorized repair; or (ii) to cosmetic problems or defects which result from normal wear and tear under ordinary use, and do not affect the performance or use of the Product. ARRIS’s warranties apply only to a Product that is manufactured by ARRIS and identified by ARRIS owned trademark, trade name or product identification logos affixed to the Product. ARRIS does not warrant to you, the end user, or to anyone else that the Software will perform error free or without bugs.

ARRIS IS NOT RESPONSIBLE FOR, AND PROVIDES “AS IS” ANY SOFTWARE SUPPLIED BY 3RD PARTIES. EXCEPT AS EXPRESSLY STATED IN THIS SECTION (“WARRANTY INFORMATION”), THERE ARE NO WARRANTIES OF ANY KIND RELATING TO THE PRODUCT, EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR THE WARRANTY AGAINST INFRINGEMENT PROVIDED IN THE UNIFORM COMMERCIAL CODE. Some states do not allow for the exclusion of implied warranties, so the above exclusion may not apply to you.
What additional provisions should I be aware of? Because it is impossible for ARRIS to know the purposes for which you acquired this Product or the uses to which you will put this Product, you assume full responsibility for the selection of the Product for its installation and use. While every reasonable effort has been made to insure that you will receive a Product that you can use and enjoy, ARRIS does not warrant that the functions of the Product will meet your requirements or that the operation of the Product will be uninterrupted or error-free. ARRIS IS NOT RESPONSIBLE FOR PROBLEMS OR DAMAGE CAUSED BY THE INTERACTION OF THE PRODUCT WITH ANY OTHER SOFTWARE OR HARDWARE. ALL WARRANTIES ARE VOID IF THE PRODUCT IS OPENED, ALTERED, AND/OR DAMAGED.

THESE ARE YOUR SOLE AND EXCLUSIVE REMEDIES for any and all claims that you may have arising out of or in connection with this Product, whether made or suffered by you or another person and whether based in contract or tort.

IN NO EVENT SHALL ARRIS BE LIABLE TO YOU OR ANY OTHER PARTY FOR ANY DIRECT, INDIRECT, GENERAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR OTHER DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF INFORMATION OR ANY OTHER PECUNIARY LOSS), OR FROM ANY BREACH OF WARRANTY, EVEN IF ARRIS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO CASE SHALL ARRIS’S LIABILITY EXCEED THE AMOUNT YOU PAID FOR THE PRODUCT.


Retail Purchasers Only: If you purchased this Product directly from ARRIS or from a ARRIS authorized retail reseller, please call the ARRIS toll-free number, 1-877-466-8646 for warranty service or technical support. Technical support charges may apply.

Cable Operator or Service Provider Arrangements: If you did not purchase this Product directly from ARRIS or from a ARRIS authorized retail reseller, please contact your Service Provider for technical support.