



SURFboard[®] SB8200 DOCSIS[®] 3.1 Cable Modem

User Guide, Revision x.5 P/N 365-095-30000

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Safety and regulatory information

Important safety instructions

- The model number, serial number, and electrical rating are on a label on the base of the device.
- Do not locate the device near water.
- Do not locate the device in direct sunlight or near a heat source.
- Do not use liquids, aerosols, or forced air to clean the device. It may be cleaned using a dry, lint-free cloth.
- Do not block the ventilation holes on this device. Do not stand it on soft furnishings or carpets.
- Do no use the device in an environment that exceeds 104° F (40° C).
- Use only the power supply and cord provided with the device. Do not use the power supply with any other devices.
- Ground coaxial cable shield at building/residence either close to point of entrance or at point of attachment. Ground as close as practical to building/residence to minimize grounding connector length and reduce potential voltage differences between coaxial cable and other grounding system.

FCC compliance

ARRIS, 3871 Lakefield Dr, Suwanee, GA 30024.

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 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 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 set-top. Connect the equipment into an outlet on a circuit different from that to which the set-top is connected. Consult the dealer or an experienced radio/TV technician for help.



CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caring for the environment by recycling



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



Please recycle product packaging and this document.

Recycling your equipment

Some countries or regions have set up systems to collect and recycle electrical and electronic waste items. Recycling information can be obtained from the WEEE recycling section at *http://www.CommScope.com*.

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Getting started

The ARRIS SURFboard[®] SB8200 DOCSIS 3.1 Cable Modem provides significantly higher downstream (send) and upstream (receive) Internet connection speeds over the broadband connection on your home or small business network. You use your SB8200 to directly connect a computer or router to your LAN through an Ethernet connection.

This guide provides instructions for installing and setting up your SB8200 to get it connected on your home or small business network, and also for viewing the operational status and network configuration settings of your SB8200.

In the box

Before installing your SB8200, check that the following items are included in the box. If any items are missing, visit the ARRIS Support website at *https://arris.com/selfhelp* for assistance.

Item		Description
SB8200 Cable Modem	A R R IS	High-speed DOCSIS 3.1 cable modem
Power Supply		Power cord for an electrical wall outlet connection
Software License & Regulatory Card		Contains safety and regulatory information, software license, and warranty for the cable modem
Support Information Card	AND	Provides contact information for obtaining technical support assistance with any issues you may have with your SURFboard device

SB8200 package contents

Item	Description
SB8200 Quick Start Guide	Provides basic instructions for installing the cable modem and setting up your network connection

Additional items needed (not included)

Instantion Lange

The following item is not included in the box and must be purchased separately, if needed.

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

System requirements

- High-speed Internet access account
- Web browser access Internet Explorer, Google Chrome, Firefox, or Safari
- Compatible operating systems:
 - Windows[®] 10
 - Windows 8
 - Windows 7 Service Pack 1 (SP1)



Note: Although older versions of Microsoft Windows operating systems are no longer specifically supported, they should still function with your SB8200.

- Macintosh[®] 10.4 or higher
- UNIX[®]
- Linux[®]

Contact information

For technical support and additional ARRIS product information, you may visit ARRIS Support website: *https://arris.com/selfhelp*.

Chapter 2

Product overview

Front panel



SB8200 front view

SB8200 front panel LED icons

LED Icon	Flashing	On
DOWER	Not applicable — icon does not flash.	Green: Power is properly connected.
RECEIVE	Scanning for a downstream (receive) channel Internet connection.	Green: Downstream channel is connected in DOCSIS 3.0 mode. Blue *: High-speed Internet connection with
		downstream channels in DOCSIS 3.1 mode.
ż	Scanning for an upstream (send) channel Internet connection.	Green: Upstream channel is connected in DOCSIS 3.0 mode.
SEND		Blue*: High-speed Internet connection with upstream channels in DOCSIS 3.1 mode.
	Scanning for an Internet connection.	Green: Cable modem is connected to the Internet.

	LED Icon	Flashing	On	
--	----------	----------	----	--

*Blue: Indicates DOCSIS 3.1 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



SB8200 rear view

SB8200 rear panel ports and connectors

Port Name	Description
P	Two Ethernet ports for RJ-45 network cable connections
<u>88</u>	Green: LED indicates a GigE data connection is made
ETHERNET	Amber: LED indicates a 10/100 Mbps data connection is made
Reset button	Reset button located on the back of your SB8200 can be used to either reboot the cable modem or reset the cable modem configuration settings.
	To reboot (or restart) the cable modem:
	 Insert the end of a paper clip or other small object with a narrow tip into the Reset opening on the back of your SB8200.
	Press and hold the indented Reset button for three to four seconds only.
	3. Remove the paper clip or small object from the Reset opening.
	To reset the cable modem configuration back to the factory default settings:
	 Insert the end of a paper clip or other small object with a narrow tip into the Reset opening on the back of your SB8200.
	Press and hold the indented Reset button for 10 seconds or until the front panel LEDs flash.

Port Name	Description
	 Remove the paper clip or small object from the Reset opening. See <i>Reset the Cable Modem Configuration Settings</i> (page 24) for more information on restoring the factory default settings on your SB8200.
	Coaxial cable connector
	+12VDC Power connector
POWER	Warning: To avoid any damage to your SB8200, only use the power supply provided in the box.

Cable modem label

ARRIS	SURFboard [®] Model:SB8200 FCI:XXX
P/N:	S/N: XXXXXXXXXXXXXXXXX
CAN ICES-3 (B)/NMB-3(B)	
	HFC MAC ID: AB CD EF 01 23 45
US Pat. www.arris.com/legal, Other patents pending. © ARRIS 2016. All rights reserved. Made in China.	
Input Voltage: +12VDC: 2A	D3.1 Need Help: www.arris.com/consumer

The cable modem label is located on the bottom of your SB8200. It contains specific cable modem ID that you may need when contacting your service provider or *ARRIS Technical Support* for assistance.

To receive Internet service, you will have to contact your service provider for assistance. You may have to provide the following information listed on the cable modem label:

- Model name (SB8200)
- Serial number (S/N)
- MAC address (HFC MAC ID)

Sample SB8200 cable modem label

Installing the cable modem



CAUTION: 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.

You can set up your modem in one of the following ways.

- Using the Surfboard Central app (SBC app): It is recommended that you install and set up your cable modem using the SBC app. For details on how to set up, refer to the SURFboard Central User Guide for Cable Modems available on the http:// www.arris.com/selfhelp.
- Using client device (laptop/desktop): If you are using your client device (laptop/Desktop) with a wired Ethernet connection, then see *Connect the SB8200 to your computer* (page 13).

Connect the SB8200 to your computer

Before installing your SB8200:

- 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.



SB8200 connection diagram

1. Check that a coaxial cable is already connected to a cable wall outlet or RF splitter (not included).

2. Connect the other end of the coaxial cable to the Cable connector on the rear of your SB8200.

Use your hand to tighten the connectors to avoid damaging them.

- 3. Connect one end of an Ethernet cable to the Ethernet port on the rear of your SB8200 and the other end to the Ethernet port on your computer.
- 4. Connect the power cord to the Power port on the rear of your SB8200.
- 5. Plug the other end of the power cord into an electrical wall outlet that is not controlled by a wall switch.



Note: This automatically powers ON your SB8200. There may be up to a 15 second delay for the LED on the SB8200 front panel to light up after the power is connected.

Establish an Internet connection

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

- 1. Power ON the computer connected to your SB8200, if it is turned off, and then log in.
- 2. Contact your service provider to activate (provision) your SB8200.
- 3. You may have to provide the HFC MAC ID listed on the cable modem label.



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 SB8200 is provisioned (or activated), open a web browser (such as Internet Explorer, Google Chrome, Firefox, or Safari) on the computer.
- 5. Type a valid URL (such as *www.surfboard.com*) in the Address bar and then press Enter.
- 6. The ARRIS SURFboard website should open. If it fails to open, please contact your service provider for assistance.
- 7. Check that the Power, Receive, Send, and Online front panel LEDs on your SB8200 light up in sequential order. See *Front panel* (page 10) for additional LED status information.
 - If all four LEDs did not light up Solid and you are not connected to the Internet, you may have to contact your service provider to reactivate your SB8200 or check for possible signal issues.
 - If you still cannot connect to the Internet, your SB8200 may be defective. visit the ARRIS Support website at https://arris.com/selfhelp for assistance.

Using the Web Manager

The SB8200 Web Manager is available to view and monitor the SB8200 operational status and network configuration settings.

Start your SB8200 Web Manager

- 1. Open any Web browser on the computer connected to your SB8200.
- 2. Type the default LAN IP address, 192.168.100.1 in the Address bar and then press **Enter** to log onto the SB8200 and open the SB8200 Web Manager Login screen.
- 3. Type admin for the default login username (case-sensitive) in the Username field.
- 4. Type password (default login password; case-sensitive) in the Password field.
 - **Note:** If you are unable to login with the default login password **password**, then type the last eight digits of the serial number (S/N) available on your SB8200 cable modem label in the **Password** field.
- 5. Click LOGIN to open the SB8200 Web Manager.

The SB8200 Status screen displays.

				Star	tup Pi	rocedu	ire			
Procedure	e		<u>Status</u>		C	omment				
Acquire Do	ownstream	Channel	753000	000 Hz	Lo	ocked				
Connectivi	ty State		ОК		Operational					
Boot State	9		OK		Operational					
Configurat	ion File		ОК		"g	eneric_30)_bpi_plus_a	all_interfaces	_TLV55_On_A	RRIS_Merge.cm"
Security			Enabled		В	PI+				
DOCSIS N	Vetwork Ac	cess Enable	d							
			D	ownstrea	m Bo	nded (Channel	s		
Channel Index	Lock Status	Width	Channel ID	Center Frequency	SNR/ Thres Value	MER	Modulat ID	ion/Profile	Corrected Codewords	Uncorrectable Codewords
1	Locked	4800 Ksym/sec	7	753000000 Hz	46.8 0	lBmV	QAM256		0	0
2	Locked	4800 Ksym/sec	2	711000000 Hz	47.3 c	BmV	QAM256		0	0
3	Locked	4800 Ksym/sec	3	717000000 Hz	47.1 c	lBmV	QAM256		0	0
4	Locked	4800 Ksym/sec	4	723000000 Hz	47.5 c	lBmV	QAM256		0	0
5	Locked	4800 Ksym/sec	5	741000000 Hz	46.9 0	lBmV	QAM256		0	0
6	Locked	4800 Ksym/sec	6	747000000 Hz	46.8 0	lBmV	QAM256		0	0
7	Locked	4800 Ksym/sec	1	705000000 Hz	47.8 c	BmV	QAM256		0	0
8	Locked	4800 Ksym/sec	8	759000000 Hz	47.0 c	lBmV	QAM256		0	0
				Upstrean	n Bon	ded Cl	hannels			
Channel Index	Lo St	ock atus	Width	Ch ID	annel	Cente Fregu	r ency	Transmi Level	t Moo ID	lulation/Profile
1	Lo	cked	ATDMA	49		30700	000 Hz	43.9 dBn	nV 2	
2	Lo	cked	TDMAAND	ATDMA 52		35500	000 Hz	44.2 dBr	nV 4	
3	Lo	cked	ATDMA	51		23300	000 Hz	44.0 dBr	nV 2	
4	Lo	cked	TDMAAND	ATDMA 50		18500	000 Hz	43.7 dBn	nV 4	
	Current System Time: Wed Aug 10 13:34:04 2016									

SB8200 status screen



Note: If you cannot access the HTML pages in the SB8200 Web Manager, please contact *ARRIS Technical Support* (page 9) for assistance.

Note: When logging in to the SB8200 Web Manager, you will be prompted to change the default login password (password). You will have the option to either keep the default password or change it (recommended). Please note that if you do not change the default login password, the same message will display every time you log in to the SB8200 Web Manager.

Web Manager screen options

Menu buttons and links

You can use the Web Manager buttons or links to view the status and network configuration screens for your SB8200.

The SB8200 menu buttons are displayed along the top of the SB8200 Web Manager screen. To display a specific Web Manager screen, click the menu button.

AR	RIS						
STATUS	PRODUCT	EVENT LOG	ADDRESSES	CONFIGURATION	ADVANCED	CHANGE USER PASSWORD	HELP

SB8200 Web Manager menu buttons

The SB8200 menu links are displayed along the bottom of the SB8200 Web Manager screen. To display a specific Web Manager screen, click the menu link.

SB8200 Web Manager screen options

Screen Option	Function
Status	Provides the current operational status of the cable modem.
Product information	Provides the current hardware and software-related information for the cable modem.
Event log	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.
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.
Advanced	Provides option to enable Ethernet Link Aggregation Configuration.
Change User password	Provides option to change the default password.
Help	Provides a brief description for each screen option and general troubleshooting tips.

Get help

The Help Pages screen provides a brief description for each web manager screen.

 Click the Help menu button or link on the SB8200 Web Manager screen to open the SB8200 Help Pages screen.

	Help Pages
Status	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.
Product Information	The Product Information page displays information about the hardware version, software version, MAC address, serial number, system "up" time, and network registration status.
Event Log	The Event Log page provides a list of all the events that have occurred on the cable modem. Each event shows the time that it occurred, the priority of the event, and an event description.
Addresses	The Addresses Page provides information about the network connection between the Cable Modern and your computer. Also, it provides details about the connection between the Cable Modern and the service provider's computer systems.
Configuration	The Configuration page lists information about the upstream and downstream connection to the service provider.
For information rega for certain software p see the <u>Open Sourc</u>	rding software licenses, acknowledgments and copyright notices packages and/or components that are used in this SB8200, please <u>ie Software Information</u> .

SB8200 help pages screen

Exit the Web Manager

To exit the Web Manager:

• Click **Logout** in the upper right corner of the web browser window.

Monitoring your cable modem and protecting your connected network



Note: You may notice that some of the SB8200 Web Manager configuration settings may be blocked and cannot be modified. This may be due to some restrictions set up by your service provider for security reasons and also to prevent unauthorized modifications to certain cable modem configuration parameters. Contact your service provider to obtain special authorization to change the cable modem frequencies or other configuration settings.

Change the default user password

To change the default user password:

1. From your SB8200 Web Manager screen, click the **CHANGE USER PASSWORD**. The Change User Password screen displays.

STATUS	PRODUCT	EVENT LOG	ADDRESSES	CONFIGURATION	ADVANCED	CHANGE USER PASSWORD	HEL
Chang	ollear	Dacewo	ord				
Snang	e user i	asswo	bru				
				and along		and the second	
and the second	and the second second				and the second second		
he settings b	elow allow you t	o change the p	assword of the	SB8200 administ	rator account	t or to restore the	SB820
he settings b actory default	elow allow you t t configuration.	o change the p	assword of the	SB8200 administ	rator account	t or to restore the	SB820
he settings b actory default	elow allow you t t configuration.	o change the p	assword of the	SB8200 administ	rator account	t or to restore the	SB8200
he settings b actory default	elow allow you t t configuration.	o change the p	Change	SB8200 administ	rator account	t or to restore the	SB820
he settings b ictory default	elow allow you t t configuration.	o change the p	assword of the Change	Password	rator account	t or to restore the	SB820
he settings b actory default Enter Usernar	elow allow you t t configuration. ne	o change the p	assword of the Change	Password admin	rator account	t or to restore the	SB820(
he settings b ictory default Enter Usernar Enter Current	elow allow you t t configuration. ne Password	o change the p	assword of the	Password admin		t or to restore the	SB820(
he settings b ictory default Enter Usernar Enter Current	elow allow you t t configuration. ne Password	o change the p	assword of the	Password		t or to restore the	SB820
ne settings b ctory default Enter Usernar Enter Current Enter New Pa	elow allow you t t configuration. ne Password ssword	o change the p	assword of the	Password		t or to restore the	SB820
ne settings b ctory default inter Usernar inter Current inter New Pa te-Enter New	nelow allow you t t configuration. ne Password ssword Password	o change the p	assword of the	Password admin		t or to restore the	SB820

Change User Password settings screen

- 2. Enter the default username admin in the Enter Username field.
- 3. Enter the current (default) password password in the Enter Current Password field.
- 4. Enter your new password in the Enter New Password field.
- 5. Re-enter your new password in the **Re-Enter New Password** field.



Note:

Remember that passwords are case-sensitive and that you can use any combination of the following letters, numbers and special characters:

- Letters: A through (uppercase and lowercase) Z
- Numbers: 0 to 9
- Special characters: ! @ # \$ % & *
- 6. Click Apply to update your password.

The Applying Changes... message displays.



Note: The **Login Timeout** setting under the Other Settings section applies to the amount of inactivity time (in seconds) allowed before the Cable Modem Web Manager automatically logs out. The Login Timeout range is between **30** and **900** seconds.

7. Find a secure place to write down and keep your new password for future reference, if needed.

View the cable modem product information

The SB8200 Product Information screen displays the hardware and firmware versions, MAC address, serial number, and operation status for your SB8200.

To open the Product Information screen:

- 1. Open the SB8200 Web Manager (see Start the SB8200 Web Manager (page 15)).
- 2. Click the Product Information menu button or link on the SB8200 Web Manager screen.
- 3. Press F5 to refresh or update the information on the screen.

	Information
Standard Specification Compliant	Docsis 3.0
Hardware Version	3
Software Version	D31CM-PEREGRINE-1.0.0.0-GA-01-NOSH
Cable Modem MAC Address	20:3D:66:AE:33:B5
Serial Number	G3JRW1445300019
	Status
Up Time	0 days 02h:15m:44s.00

SB8200 Product Information Screen

View the cable modem network connection status

The SB8200 Status screen displays the current connection status of your SB8200 and the downstream and upstream bonded channel connections for receive and send data transmissions. *Help* (page 17) is available to resolve any connection issues that resulted in a "failed" state during the cable modem startup.

To open the Status screen:

- 1. Open the SB8200 Web Manager (see Start the SB8200 Web Manager (page 15)).
- 2. Click the Status menu button or link on the SB8200 Web Manager screen.
- 3. The Status screen displays (see Figures 10 and 11).
- 4. Press **F5** to refresh or update the information on the screen.

Startup Procedure					
Procedure	<u>Status</u>	Comment			
Acquire Downstream Channel	753000000 Hz	Locked			
Connectivity State	ОК	Operational			
Boot State	ОК	Operational			
Configuration File	ОК	"generic_30_bpi_plus_all_interfaces_TLV55_On_ARRIS_Merge.cm"			
Security	Enabled	BPI+			
DOCSIS Network Access Enabled					

SB8200 Status Screen (1 of 2)

Chapter 5: Monitoring your cable modem and protecting your connected network

Downstream Bonded Channels										
Channel Index	Lock Status	Width	Channel ID	Center Frequency	SNR/ME Thresho Value	R old	Modulatio ID	n/Profile	Corrected Codeword	Uncorrectable Is Codewords
1	Locked	4800 Ksym/sec	7	753000000 Hz	46.8 dBr	mV	QAM256		0	0
2	Locked	4800 Ksym/sec	2	711000000 Hz	47.3 dBr	mV	QAM256		0	0
3	Locked	4800 Ksym/sec	3	717000000 Hz	47.1 dBr	mV	QAM256		0	0
4	Locked	4800 Ksym/sec	4	723000000 Hz	47.5 dBr	mV	QAM256		0	0
5	Locked	4800 Ksym/sec	5	741000000 Hz	46.9 dBr	mV	QAM256		0	0
6	Locked	4800 Ksym/sec	6	747000000 Hz	46.8 dBr	mV	QAM256		0	0
7	Locked	4800 Ksym/sec	1	705000000 Hz	47.8 dBr	mV	QAM256		0	0
8	Locked	4800 Ksym/sec	8	759000000 Hz	47.0 dBr	mV	QAM256		0	0
				Upstream	Bonde	ed Ch	annels			
Channel Index	Lo St	ock atus	Width	Cha ID	annel	Center Freque	ency	Transmi Level	t Mo ID	odulation/Profile
1	Lo	ocked	ATDMA	49		307000	00 Hz	43.9 dBn	1V 2	
2	Lo	ocked	TDMAAND	ATDMA 52		355000	00 Hz	44.2 dBn	nV 4	
3	Lo	ocked	ATDMA	51		233000	00 Hz	44.0 dBn	1V 2	
4	Lo	ocked	TDMAAND	ATDMA 50		185000	00 Hz	43.7 dBn	nV 4	
	Current System Time: Wed Aug 10 13:34:04 2016									

SB8200 Status Screen (2 of 2)

View the cable modem event log

The SB8200 generates a running log of the time and events or activities that it detects during the cable modem 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. Open the SB8200 Web Manager (see Start the SB8200 Web Manager (page 15)).
- 2. Click the **Event Log** menu button or link on the SB8200 Web Manager screen.
- 3. Press **F5** to refresh or update the information on the screen.

Time	Priority	Description
2016-8-10, 15.21.20	Warning	"Dynamic Range Window violation"
2016-8-10, 12.47.34	Warning	"DHCP WARNING - Non-critical field invalid in response ;CM- MAC=20:3d:66:ae:33:b5;CMTS-MAC=00:30:b8:c6:3a:26;CM-QOS=1.1;CM- VER=3.1;"
2016-8-10, 12.47.33	Critical	"DHCP FAILED - Request sent, No response;CM- MAC=20:3d:66:ae:33:b5;CMTS-MAC=00:30:b8:c6:3a:26;CM-QOS=1.1;CM- VER=3.1;"
2016-8-10, 12.47.26	Warning	"Dynamic Range Window violation"
1970-1-1,0.0.47	Notice	"Honoring MDD; IP provisioning mode = Dual-Stack"

View the Cable Modem Configuration Settings

The SB8200 Cable Modem Configuration screen displays the downstream and upstream connection to the network. When your SB8200 successfully connects to the network, it stores the connection frequency to automatically connect whenever you have to log in to your SB8200.

To open the Configuration screen:

SB8200 event log screen

- 4. Open the SB8200 Web Manager (see Start the SB8200 Web Manager (page 15)).
- 5. Click the Configuration menu tab or link on the SB8200 Web Manager screen.

Note: The configuration settings on the SB8200 Configuration screen are read-only and cannot be modified. You will have to contact your service provider to obtain special authorization to change the cable modem frequencies and other configuration settings on your SB8200.

Configuration

The cable modem inside the CM8200A will automatically connect to the network. If you know the frequency and upstream channel that your cable system uses to communicate you may enter it below to help the modem find it more quickly. When the cable modem successfully connects to the network it will remember the frequency. Reboot the cable modem to initiate the new settings.

	Configuration
Downstream Frequency (Hz)	663000000
Upstream Channel ID	25
Downstream Frequency Plan	NorthAmerica
Energy Efficient Ethernet	Ŧ

SB8200 configuration screen

Enable Link Aggregation Configuration

Ethernet Link Aggregation applies to various methods of combining (aggregating) multiple network connections in parallel in order to increase throughput beyond what a single connection could sustain, and to provide redundancy in case one of the links should fail.

To enable the Link Aggregation Configuration on your SB8200:

1. On your SB8200 Web Manager screen, click ADVANCED menu option.



- 2. To enable Link Aggregation Configuration, click **Enable LAG** checkbox.
- 3. Click Apply/Save.

Reset the cable modem configuration settings

You can restore the factory default configuration settings on your SB8200. This process will delete the current SB8200 configuration settings and take approximately five to 30 minutes to complete. Your network connection will remain disabled until after the SB8200 configuration settings are restored.



Warning: This process will delete the current SB8200 configuration and replace it with the factory default settings.

To restore the factory default settings on your SB8200:

- 1. Insert the end of a paper clip or other small object with a narrow tip into the Reset opening on the back of your SB8200.
- 2. Press and hold the **Reset** button for 10 seconds or until the front panel LEDs flash.
- 3. Remove the paper clip or small object from the opening Reset.

Reboot the cable modem

To restart your SB8200:

- 1. Insert the end of a paper clip or other small object with a narrow tip into the **Reset** opening on the back of your SB8200.
- 2. Press and hold the indented **Reset** button for three to four seconds only, and then release.



Warning: If you press the Reset button for more than seven seconds, the cable modem configuration settings will be reset to the factory default settings.

Exit the Web Manager

To exit the Web Manager:

• Click **Logout** in the upper right corner of the web browser window.

Troubleshooting tips

If the solutions listed in the Troubleshooting Solutions table below do not solve your problem, please contact your service provider for assistance. Your service provider may ask for the status of the SB8200 front panel LEDs (see *Front panel LED icons and error conditions* (page 26)Front Panel LED Icons and Error Conditions) for more information).

You may have to reset the SB8200 configuration to the default factory settings if your SB8200 is not functioning properly. See *Reset the Cable Modem Configuration Settings* (page 24) for more information.

Troubleshooting Solutions

Modem Problem	Possible Solution
Power LED Icon is OFF	Check the power connection from the cable modem to the electrical wall outlet.
	Check that the electrical wall outlet is working.
	Is the outlet controlled by a wall light switch?
	If so, disconnect the cable modem power cord and connect it to another electrical wall outlet that is not controlled by a wall light switch.
Cannot Send or Receive Data	Check each end of the coaxial cable connection on the cable modem and cable wall outlet.
	Use your hand to tighten each connector, if necessary.
	Check the Ethernet cable to make sure it is properly connected to the cable modem and computer.
	On the front panel, check the status of the LED icons and refer to <i>Front Panel LED Icons and Error Conditions</i> (page 26) to identify the problem.
	If you have cable television service, check your television to ensure your cable service is operating properly.
	If none of the above solutions resolves the problem, visit the ARRIS Support website at <i>https://arris.com/selfhelp</i> for assistance.
Cannot Access the Internet	Check that all cable and power connections on your cable modem and computer are properly connected.
	Check that the Power and Online LED icons on the front panel are lit up solid.
	Contact your service provider for assistance.

Modem Drokland	Dessible Colution
iviodem Problem	Possible Solution
Cannot access WEB GUI page when your cable modem is online (with Internet connectivity).	 Here are some solutions that we recommend you to perform: If your router is connected to your SB8200v3 and you prefer to access the WEB GUI through the router, you should then add a static IP address to your router. For information about how to add a static IP address, refer to your router documentation. OR
	 Connect your Personal Computer directly to your SB8200v3 and perform the following steps to access the WEB GUI:
	 a. Connect an Ethernet cable to obtain IP address from the DHCP server.
	 b. Use a command-line prompt to obtain details of the network interface(s):
	 For Windows—enter the command "ipconfig /all" in the Command Prompt to obtain the network configuration.
	 For other operating systems, refer to your respective OS- specific (Mac, Linux) documentation for obtaining details of network interfaces in a console window.
	 Record the adaptor name, the IPv4 Address, the Subnet Mask, the Default Gateway, and the DNS Servers.
	 d. To modify the network properties and add a static IP address, refer to your respective OS-specific documentation.
	OR
	 Disconnect both the RF cable and the Ethernet cable connected to your client device and the LAN port of your modem.
	2. Wait 10 seconds and then reconnect only the Ethernet cable.
	Access the WEB GUI on 192. 168.0.1 after 45 seconds have elapsed since you have reconnected the Ethernet cable.

Front panel LED icons and error conditions

The SB8200 front panel LED icons provide status information for the following error conditions:

Front panel LED icons and error conditions

LED Icon	Status	If, During Startup:	If, During Normal Operation
	OFF	SB8200 is not properly plugged into the electrical outlet	SB8200 is unplugged

LED Icon	Status	If, During Startup:	If, During Normal Operation
RECEIVE	FLASHING	Downstream receive channel cannot be acquired	Downstream channel is lost
	FLASHING	Upstream send channel cannot be acquired	Upstream channel is lost
	FLASHING	IP registration is unsuccessful	IP registration is lost

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