

# SURFboard™



## SURFboard® SBG10 DOCSIS 3.0 Wi-Fi Cable Modem

User Guide

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## Safety and regulatory information

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Read all safety and regulatory information before installing your Wi-Fi cable modem and setting up your Wi-Fi home network connection.

### 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 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 attention to cords where they are attached to plugs and convenience receptacles. 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 device 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 device when disconnecting or reconnecting the Ethernet cable from the device or user's PC.
- Installation of an AC surge protector in the AC outlet to which this device is connected is recommended. 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.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There is a remote risk of electric shock from lightning. For added protection, unplug the device from the wall outlet and disconnect the cables to avoid damage to this device from lightning and power surges.
- Do not use this product near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool, or in a wet basement.
- Do not use the telephone to report a gas leak near the leak.
- 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 during lightning activity or power surges.



**Caution:** To reduce the risk of fire, use only No. 26 AWG or larger (e.g., 24 AWG) UL Listed or CSA Certified Telecommunication Line Cord, or national equivalent.

- 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 THESE INSTRUCTIONS

## 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 could void the user's authority to operate the equipment.

### FCC declaration of conformity

ARRIS Enterprises, LLC, 3871 Lakefield Drive, Suwanee, GA 30024, declares that the SURFboard SBG10 DOCSIS 3.0 Wi-Fi Cable Modem complies with 47 CFR Parts 2 and 15 of the FCC rules as a Class B digital device.

### FCC radiation exposure statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. To comply with the FCC RF exposure compliance requirements, the separation distance between the antenna and any person's body (including hands, wrists, feet and ankles) must be at least 8 inches (20 centimeters).

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter except those already approved in this filing.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destinations. The firmware setting is not accessible by the end user.

## Wireless LAN information



**Note:** This applies to devices that provide Wi-Fi capability.

This device is a wireless network product that uses Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency-Division Multiple Access (OFDMA) radio technologies. The device is designed to be interoperable with any other wireless DSSS and OFDMA products that comply with:

- The IEEE 802.11 Standard on Wireless LANs (Revision AC, Revision B, Revision G, and Revision N), as defined and approved by the Institute of Electrical Electronics Engineers
- The Wireless Fidelity (Wi-Fi) certification as defined by the Wireless Ethernet Compatibility Alliance (WECA).



## Restrictions on the use of wireless devices

In some situations or environments, the use of wireless devices may be restricted by the proprietor of the building or responsible representatives of the organization. For example, using wireless equipment in any environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the applicable policy for the use of wireless equipment in a specific organization or environment, you are encouraged to ask for authorization to use the device prior to turning on the equipment.

The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this product, or the substitution or attachment of connecting cables and equipment other than specified by the manufacturer. Correction of the interference caused by such unauthorized modification, substitution, or attachment is the responsibility of the user.

The manufacturer and its authorized resellers or distributors are not liable for any damage or violation of government regulations that may arise from failing to comply with these guidelines.



**Note:** The use of the 5150-5250 MHz frequency band is restricted to Indoor Use Only.

**Security Warning:** This device allows you to create a Wi-Fi network. Wi-Fi network connections may be accessible by unauthorized users. For more information on how to protect your network, see [Protecting & monitoring your Wi-Fi network](#) (page 49) in this guide for more information or visit the ARRIS Support website at [www.arris.com/selfhelp](http://www.arris.com/selfhelp).

## Caring for the environment by recycling your ARRIS equipment



Please do not dispose of this product or any included electronic accessories, i.e., power supply or battery, with your residential or commercial waste. ARRIS devices may be disposed of through the ARRIS Product Recycling program, further described at [www.arris.com/corporateresponsibility](http://www.arris.com/corporateresponsibility). You may also contact your local community authorities for information regarding where you may dispose of your ARRIS devices.

## Getting started

Welcome to the next generation of ultra high-speed ARRIS SURFboard® DOCSIS®3.0 Wi-Fi cable modems. The SURFboard SBG10 is a combination DOCSIS 3.0 cable modem and two-port Ethernet router with Wi-Fi. It uses DOCSIS 3.0 technology to provide ultra high-speed Internet access on your home or small business network. Using the connection capabilities of your SBG10 Wi-Fi cable modem, you can connect your computer and other network-enabled devices via the two Ethernet ports or the 2.4 GHz and 5 GHz Wi-Fi connections. Your SBG10 connects to the existing coaxial cable connection in your home.

This guide provides instructions for installing and configuring your SBG10, setting up secure Wi-Fi network connections, and managing your SBG10 and network configurations.

## In the box

Before installing your SBG10, 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. SBG10 package contents**

Item		Description
<b>SBG10 Wi-Fi Cable Modem</b>		High-speed DOCSIS 3.0 cable modem, Wi-Fi access point, and two-port Ethernet router
<b>Power Adapter</b>		Power cord for an electrical wall outlet connection
<b>Software License &amp; Warranty Card</b>		Contains safety and regulatory information, software license, and warranty for the Wi-Fi cable modem.
<b>Support Information Card</b>		Provides contact information for obtaining technical support assistance with any issues you may have with your SURFboard device.

Item	Description
<b>SBG10 Quick Start Guide</b> 	Provides information for installing the Wi-Fi cable modem and setting up a secure Wi-Fi connection on your home network.

## Additional items needed (not included)

The following items are not included in the box and must be purchased separately, if required:

- **Coaxial (coax) cable** - if one is not already connected to a cable wall outlet
- **RF splitter** - for additional coaxial cable connections, such as a set-top box or Smart TV
- **Ethernet cable** - for any wired connected devices

## 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 8.1
  - 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 this model.*

- Mac® 10.4 or higher
- UNIX®
- Linux®

## Contact information

For technical support and additional ARRIS product information:

- Visit the ARRIS Support website: [www.arris.com/selfhelp](http://www.arris.com/selfhelp)
- Call ARRIS Technical Support: **1-877-466-8646**

## Product overview

### Front panel



Figure 1: SBG10 front view

Table 2. SBG10 front panel LED icons

LED icon	Blinking	On (solid)
 POWER	Not applicable – icon does not blink.	Power is properly connected.
 SEND RECEIVE	Scanning for upstream (send) and downstream (receive) channel connections.	Upstream (Send) and Downstream (Receive) channels are connected.
 ONLINE	Scanning for an Internet connection.	Wi-Fi cable modem is connected to the network.
 WIRELESS 2.4 GHz	Wi-Fi enabled with encrypted or unencrypted Wi-Fi data activity.	Any of the following applies: <ul style="list-style-type: none"> <li>2.4 GHz Wi-Fi connection is made between your SBG10 and another Wi-Fi enabled device on your home network; such as a laptop, tablet, or Wi-Fi telephone.</li> </ul>

LED icon	Blinking	On (solid)
 <b>WIRELESS</b> <b>2.4 GHz</b> (Continued)	Wi-Fi enabled with encrypted or unencrypted Wi-Fi data activity.	<ul style="list-style-type: none"> <li>■ The WPS Pairing process between your SBG10 and WPS-enabled device was successful.</li> <li>■ The WPS Pairing process failed or did not complete after two minutes.</li> </ul>
 <b>WIRELESS</b> <b>5 GHz</b>	Wi-Fi enabled with encrypted or unencrypted Wi-Fi data activity.	Any of the following applies: <ul style="list-style-type: none"> <li>■ 5 GHz Wi-Fi connection is made between your SBG10 and another Wi-Fi enabled device on your home network; for example, Wi-Fi telephone, tablet, laptop, or printer.</li> <li>■ The WPS Pairing process between your SBG10 and WPS-enabled device was successful.</li> <li>■ The WPS Pairing process either failed or did not complete after two minutes.</li> </ul>

## Rear panel



Figure 2: SBG10 rear view

Table 3. SBG10 rear panel ports &amp; connectors

Port name	Description
<b>Reset button</b>	<p>Recessed button located on the rear panel of your SBG10 that can be used to either reboot your Wi-Fi cable modem or reset your Wi-Fi cable modem configuration settings. See the following for more information:</p> <ul style="list-style-type: none"> <li>■ <a href="#">Reboot or restart your SBG10</a> (page 63)</li> <li>■ <a href="#">Reset the SBG10 configuration using the Reset button</a> (page 64)</li> <li>■ <a href="#">Reset the SBG10 configuration using the SBG10 web manager</a> (page 64)</li> </ul> <p> <b>WARNING!</b> Resetting the SBG10 configuration settings to the factory defaults also deletes your custom Wi-Fi cable modem configuration, including your login password, Wi-Fi network name (SSID), and other configuration settings. You should first back up your SBG10 configuration files before resetting your SBG10. See <a href="#">Back Up Your SBG10 Configuration</a> (page 63) for more information.</p>
 <b>ETHERNET</b> <b>10/100/1000</b>	<p>Two one-gigabit Ethernet ports for RJ-45 network cable connections:</p> <ul style="list-style-type: none"> <li>■ <b>Green:</b> LED is ON - Indicates a data transfer rate of one gigabit per second</li> <li>■ <b>Green:</b> LED is Blinking - Indicates data traffic is in progress</li> <li>■ <b>Amber:</b> LED is ON - Indicates a data transfer rate of less than one gigabit per second</li> <li>■ <b>Amber:</b> LED is Blinking - Indicates data traffic is in progress</li> </ul>
 <b>CABLE</b>	Coaxial cable connector
<b>Power Port</b>	<p>100 - 240 VAC Power connector</p> <p> <b>WARNING!</b> To avoid any damage to your SBG10, only use the power cord provided in the box.</p>

## Wi-Fi cable modem label



**Figure 3: Sample SBG10 Wi-Fi cable modem label**

The Wi-Fi cable modem label is located on the bottom of your SBG10. It contains the Wi-Fi cable modem information that you may need when contacting your service provider or [ARRIS Technical Support](#) (page 11).

To receive Internet service, contact your service provider for assistance. You may have to provide the following information listed on the SBG10 Wi-Fi cable modem label:

- Wi-Fi Cable Modem Model name (**SBG10**)
- Wi-Fi Cable Modem MAC address (**HFC MAC**)
- Wi-Fi Cable Modem Serial number (**SN**)

## Installing the Wi-Fi 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.

### Connect the SBG10 to your client device

Before installing your SBG10:

- Check with your service provider (or local cable company) to ensure broadband cable service is available in your area.

To set up a Wi-Fi network, you will need a high-speed Internet connection provided by an Internet service provider.



**Note:** When contacting your service provider, you may need your Wi-Fi cable modem information listed on the Wi-Fi cable modem label on the bottom of your SBG10 (see [Wi-Fi cable modem label](#) page 15).

- Choose a location in your home where your computer and Wi-Fi cable modem are preferably near existing cable and electrical wall outlets.

For the best Wi-Fi coverage, a central location in your home or building is recommended.



**Note:** The following installation procedure covers the wired Ethernet connection so that you can confirm that your SBG10 was properly installed and can connect to the Internet.

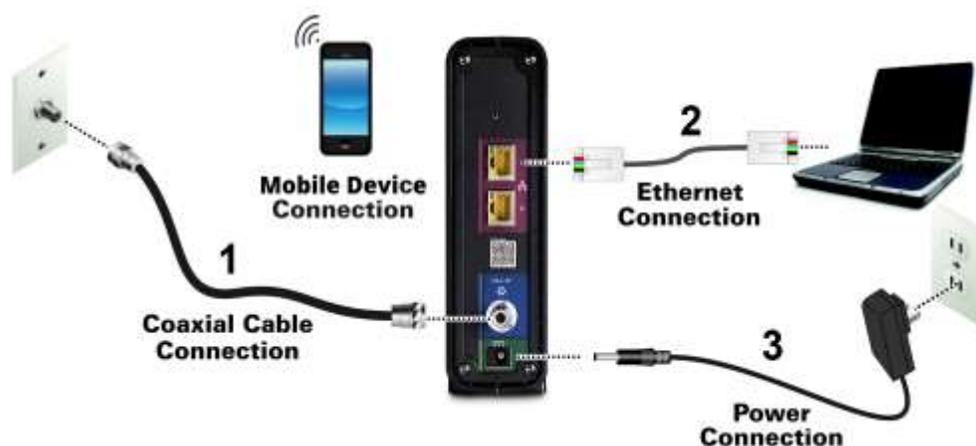


Figure 4: SBG10 connection diagram

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 SBG10.

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

3. Connect the Ethernet cable to an available **Ethernet** port on the rear of your SBG10.
4. Connect the other end of the Ethernet cable to the **Ethernet** port on your client device (laptop or computer).

**Optional:** Repeat steps 3 and 4 for an additional client device or other network-enabled device that you want to install as a wired connection on your home network.

5. Connect the power cord to the **Power** port on the rear of your SBG10.
6. 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 SBG10. The **Power LED** on the SBG10 front panel may take up to 15 seconds to light up after the power is connected.

## Establish an Internet connection

Although your client device may be configured to automatically access the Internet, you should still perform the following connectivity test to check that your SBG10 and client device were installed properly and are connected on your home network.

1. Power ON your client device connected to your SBG10, if it is turned off, and log on.
2. Contact your service provider to activate (provision) your SBG10.

You may have to provide the **HFC MAC** ID listed on the SBG10 label.

Your service provider may allow for automatic activation, which automatically launches the service provider's special website on your computer when you open a web browser.



**Note:** If you are a Comcast subscriber, click or type [xfinity.com/activate](http://xfinity.com/activate) to activate your SBG10. Call Comcast Customer Support at **1-800-Xfinity (1-800-934-6489)** if you encounter any issues with the activation.

3. After your SBG10 is activated (or provisioned), open a web browser (such as Internet Explorer, Google Chrome, Firefox, or Safari) on your computer.
4. Type a valid URL (such as [www.surfboard.com](http://www.surfboard.com)) in the address bar and then press **Enter**. The ARRIS website should open. If the website did not open, please contact your service provider for assistance.
5. Check that the **Power**, **Send/Receive**, and **Online** front panel LEDs on your SBG10 light up in sequential order. See [Front panel](#) (page [12](#)) for additional LED status information.
  - If all three LEDs did not light up solid and you also do not have an Internet connection, you may have to contact your service provider to reactivate your SBG10 or check for signal issues.
  - If you still cannot connect to the Internet, please call ARRIS Technical Support at **1-877-466-8646** for assistance.

## Using the Wi-Fi cable modem web manager

Use the SBG10 Web Manager to view and monitor the network configuration settings and operational status of your SBG10. You can also configure your network connections and Wi-Fi security settings, see [Protecting & Monitoring Your Wi-Fi Network](#) (page 49).



**Note:** If you did not purchase your SBG10 from a retail store, you may notice a few blocked configuration settings in the SBG10 Web Manager that cannot be modified. This may be due to some restrictions set up by your service provider to prevent unauthorized changes to certain configuration parameters.

### Start the SBG10 web manager

If this is your first time logging on to the SBG10 Web Manager, you must use the default user password. For network security, ARRIS recommends that you change the default user password. You can change it at any time, see [Change the user password](#) (page 49) for more information.

1. Open a web browser (such as Internet Explorer, Google Chrome, Firefox, or Safari) on the computer connected to the SBG10.
2. Type the default LAN IP address, **192.168.100.1**, in the Address bar and then press **Enter** to log in and open the SBG10 Web Manager.

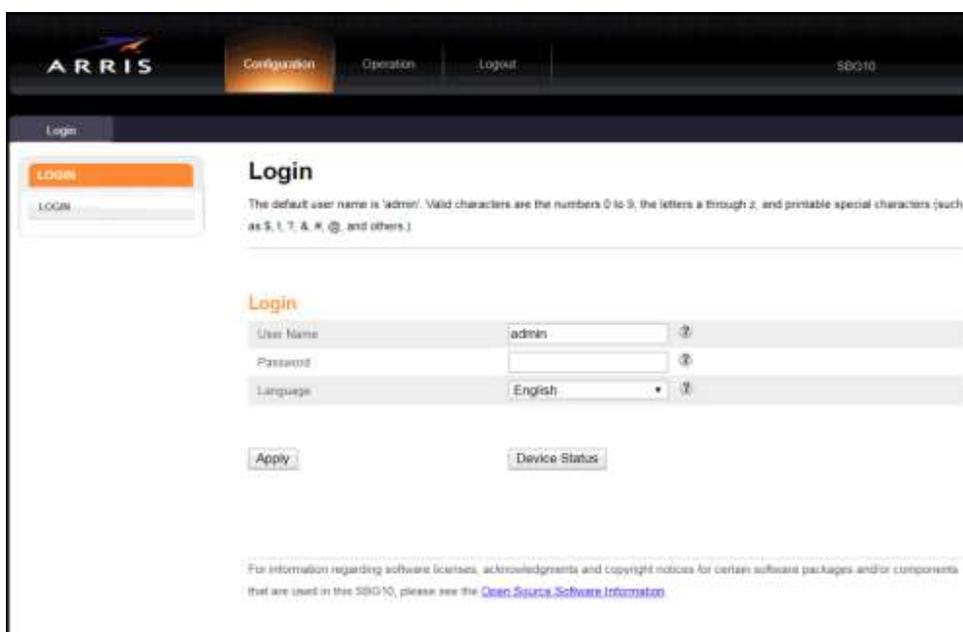


Figure 5: SBG10 login screen

3. Type **password** in the Password field.

This is the default user password (case-sensitive) to log in to the SBG10 Web Manager.



**Note:** You must enter the default user password if you are logging on to the SBG10 Web Manager for the first time.

Figure 6: SBG10 login screen

4. Select your preferred language from the Language drop-down list, if applicable:
  - English
  - Espanol (Spanish)
  - Francais (French)
  - Deutsch (Dutch)
  - Portugues do Brasil (Brazilian Portuguese)
5. Click **Apply** to open the SBG10 Web Manager.

The Alerts!! message box displays:

Figure 7: SBG10 web manager alerts message box



**Note:** ARRIS recommends that you change the default user password for network security to protect your Wi-Fi home network from unauthorized user access on the Internet. Choose one of the following options:

- Change the default user password now, continue with step 6.
- Change the default user password later, click **Close** to continue with the SBG10 Web Manager. See [Change the user password](#) (page 49) for more information.

- Click the **Click Here** link in the Alerts!! Message box to open the Login Settings-Change Password screen.

**Login Settings**

You can change the password for admin account. Use a password that will not be easy to guess. Passwords are case-sensitive. Valid characters are the numbers 0 to 9, the letters a through z and A through Z, and printable special characters (such as \$, !, ?, &, #, @, and others.)

**Change Password**

Old Password  ?

New Password  ?

Repeat New Password  ?

**Other Settings**

Login Timeout  ?

Apply

**Figure 8: SBG10 login settings-change password screen**

- Enter the default user password in the Old Password field.
- Enter your new user password in the 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 **Z** (uppercase and lowercase)
- Numbers: **0** to **9**
- Special characters: **! @ # \$ % & \***

- Enter your new user password again in the Repeat New Password field.
- Enter the inactivity time (**30** to **900** seconds) in the Login Timeout field.

This is the amount of time (in seconds) allowed for the web manager to be inactive before it times out and closes.

- Click **Apply** to update your user password.

The **Please Wait Applying Changes...** message displays.

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

## SBG10 web manager menu bar

The SBG10 menu buttons are displayed along the top of the SBG10 Web Manager screen (see Figure 9). To view a submenu screen, click the related menu button on the menu bar.



Figure 9: SBG10 web manager menu bar

Table 4. SBG10 web manager menu bar

Menu option	Function
<b>Configuration</b>	
<b>Basic Setup</b>	Displays the default configuration settings for the Wi-Fi cable modem and allows you to change your user password.
<b>WAN Setup</b>	Displays the network configuration settings for the network connections outside your home.
<b>LAN Setup</b>	Displays the network configuration settings for your home network.
<b>Wireless 2.4 GHz</b>	Sets up your 2.4 GHz Wi-Fi network.
<b>Wireless 5 GHz</b>	Sets up your 5 GHz Wi-Fi network.
<b>Firewall</b>	Configures the Wi-Fi cable modem firewall to protect your home network from possible attacks from hackers or viruses.
<b>USB</b>	Displays the current storage status of your USB device.
<b>Utilities</b>	Provides general information to help you set up your home network.
<b>Extender</b>	Configures your Wi-Fi SURFboard network extenders.
<b>Operation</b>	Provides the following SBG10 information: <ul style="list-style-type: none"> <li>■ Network operational status</li> <li>■ Hardware and firmware versions</li> <li>■ Event Log</li> <li>■ CM (cable modem) status</li> <li>■ Configuration</li> </ul>
<b>Logout</b>	Closes the SBG10 web manager.

## SBG10 web manager-available languages

The SBG10 Web Manager is available in the following languages:

- English
- Espanol (Spanish)

- **Francais (French)**
- **Deutsch (Dutch)**
- **Portugues do Brasil (Brazilian Portuguese)**

## Change the language for the SBG10 web manager

Do the following to change the language for the SBG10 Web Manager:

1. Open any web browser (Internet Explorer, Google Chrome, Firefox, or Safari) on the computer connected to the SBG10.
2. Type the default LAN IP address, **192.168.100.1**, in the Address bar and then press **Enter** to log onto the SBG10.

The SBG10 Login screen displays.

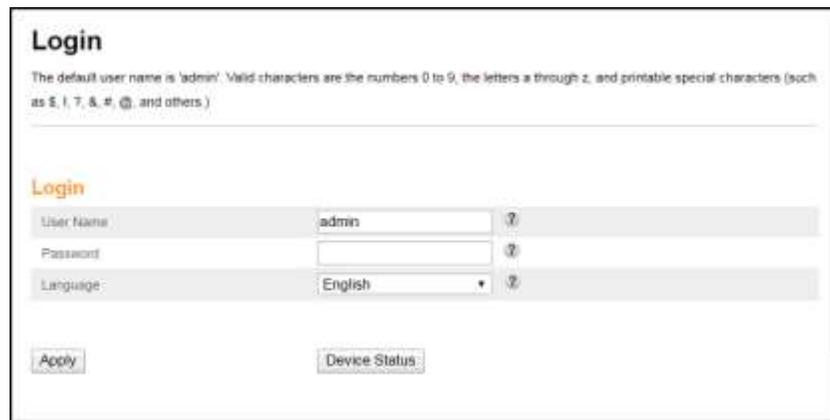


Figure 10: SBG10 login screen

3. Type **password** or your new user password in the Password field.
4. Click **Apply** to open the SBG10 Web Manager.
5. Click the **Basic Setup** menu button on the SBG10 Web Manager menu bar.



Figure 11: SBG10 language screen

6. Click the **Language** drop-down arrow in the Basic Setup section.
7. Select the language from the Language drop-down list.

8. Scroll down to the bottom of the screen and click **Apply**.  
The Product Registration screen will display.

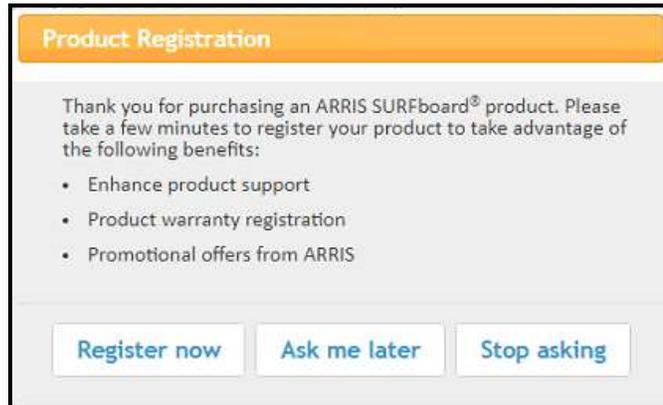


Figure 12: SBG10 product registration screen

9. Click one of the following options to continue:
  - **Register now** - opens the ARRIS Device Registration screen. Complete each entry and follow the prompts to register your SBG10.
  - **Ask me later** – the Product Registration box will display every time you log in to the SBG10 Web Manager until you either register your SBG10 or click **Stop asking**.
  - **Stop asking** - proceed with the SBG10 Web Manager.

## Get Help

Field-level help is available for all screen entries in the SBG10 Web Manager (see figure 13).

- Click on or move the cursor over the  icon located to the right of the applicable field.

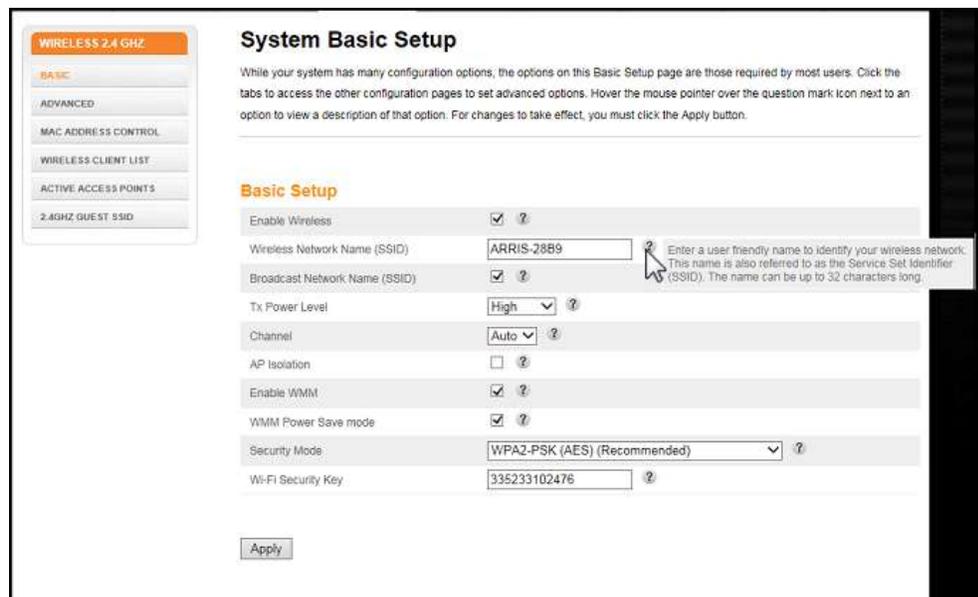


Figure 13: SBG10 field level help

## Exit the SBG10 web manager

To log out and close the SBG10 Web Manager:

- Click **Logout** button located above the SBG10 Web Manager menu bar.



Figure 14: SBG10 web manager logout button

## Setting up a Wi-Fi network connection



**Note:** Your home network connection must be up and running on the Internet before you can set up your Wi-Fi network connections. Before proceeding, check that your SBG10 and computer or other client device can connect to the Internet using a wired Ethernet cable connection, see [Connect the SBG10 to your client device](#) (page 16) for more information. Please note that if your Internet service is not yet set up, contact a broadband service provider of your choice for assistance.

There are three Wi-Fi network connection options available to configure your Wi-Fi network connection on your home network. Click one of the following:

- [Launch the SBG10 quick start wizard](#) (page 25)
- [Set up a Wi-Fi network connection using your mobile device](#) (page 32)
- [Set up a Wi-Fi network connection using your client device](#) (page 34)

After setting up your Wi-Fi home network connection, check that your Wi-Fi network connection was set up properly, see [Test your Wi-Fi network connection](#) (page 40).

## Launch the SBG10 quick start wizard

The SBG10 Quick Start Wizard is a six-step application to help you quickly configure the default Wi-Fi network settings on your SBG10. It configures the SBG10 Wi-Fi network name (SSID), Wi-Fi Security Key (network password), and Wi-Fi Security code.



**Note:** The SBG10 Quick Start Wizard uses the default network settings configured for your SBG10 to help you quickly set up your Wi-Fi home network. However, using the wizard, you can only change the Wi-Fi network name (SSID) and Wi-Fi Security key (network password). After completing the wizard and connecting your SBG10 to your Wi-Fi home network, you can make additional network configuration changes to further customize your Wi-Fi home network and connect your Wi-Fi devices. See [Configuring your Wi-Fi network](#) (page 41) for more information.

1. Open a web browser (e.g., Internet Explorer, Google Chrome, Firefox, or Safari) on the computer or client device connected to your SBG10.
2. Type the default LAN IP address, **192.168.100.1**, in the Address bar and then press **Enter** to log on to your SBG10 and open the SBG10 Web Manager.

The SBG10 Login screen displays.

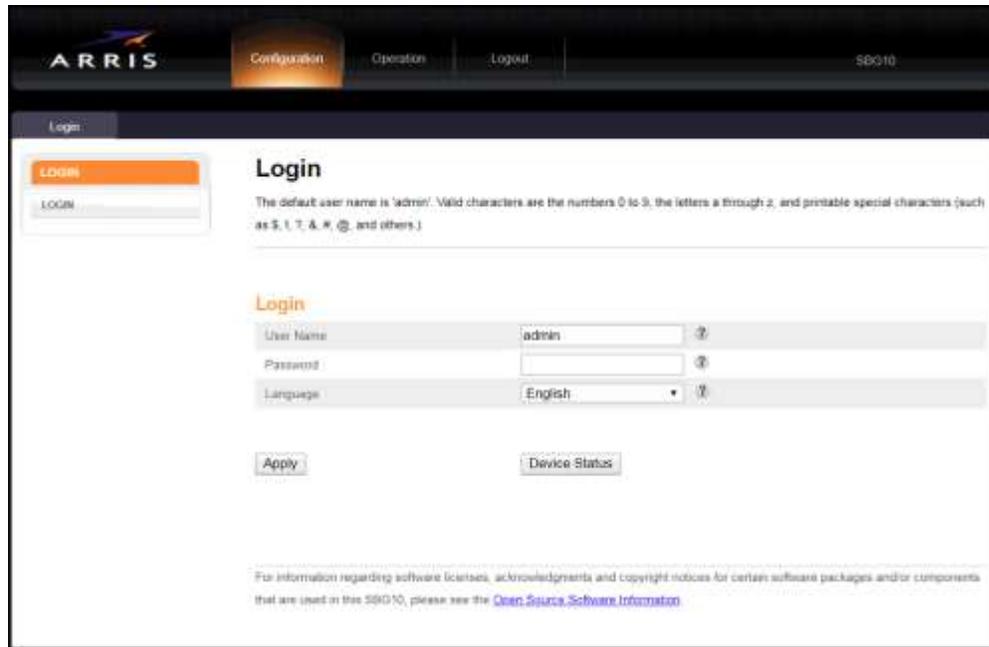


Figure 15: SBG10 login screen

3. Type **password** in the Password field.  
This is the default user password (case-sensitive) to log in to the SBG10 Web Manager.

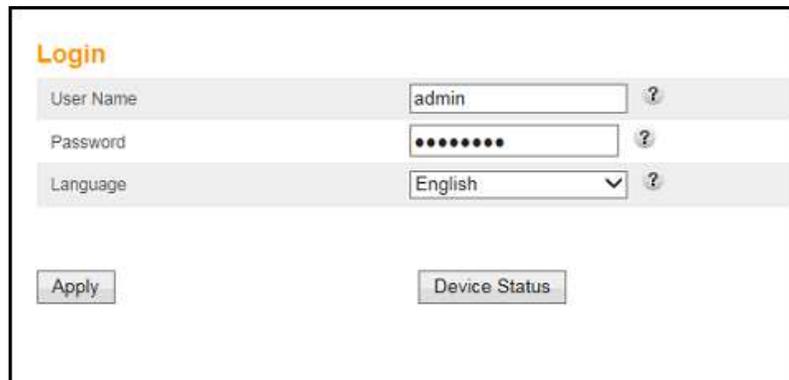


Figure 16: SBG10 login screen

4. Click **Apply** to open the SBG10 Web Manager.  
The Alerts!! message box displays:



Figure 17: SBG10 web manager alerts message box

5. Click **Close** in the Alerts!! message box to continue.  
The Product Registration message box displays.

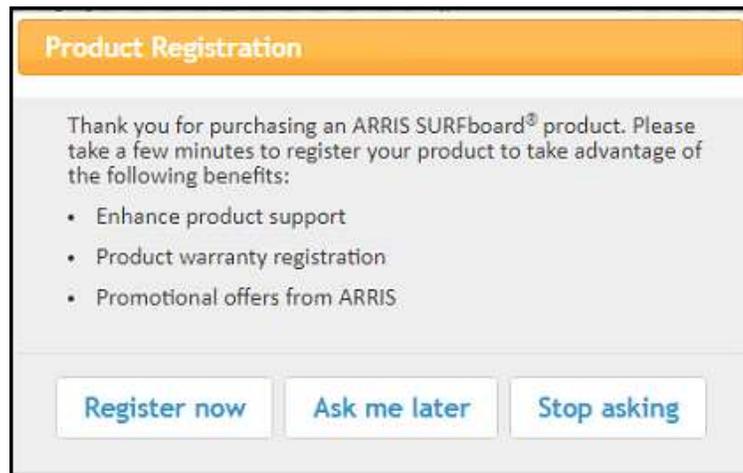


Figure 18: SBG10 product registration screen

6. Click **Register now**, **Ask me later**, or **Stop asking** to proceed.
7. Click the **Basic Setup** main menu tab on the SBG10 Web Manager menu bar to open the System Basic Setup screen.



Figure 19: SBG10 system basic setup screen

8. Click **QUICK START WIZARD** from the **Basic Setup** submenu options list to start the SBG10 Quick Start Wizard and  
The Welcome screen displays.

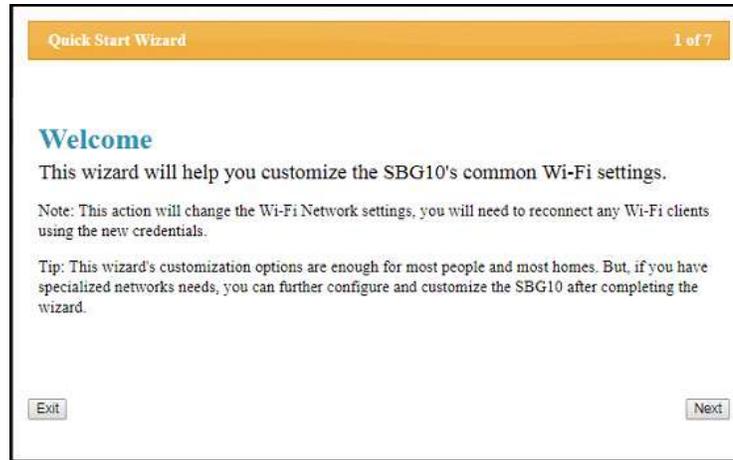


Figure 20: SBG10 quick start wizard welcome screen

9. Click **Next** to open the Wi-Fi Network Name & Passphrase screen.

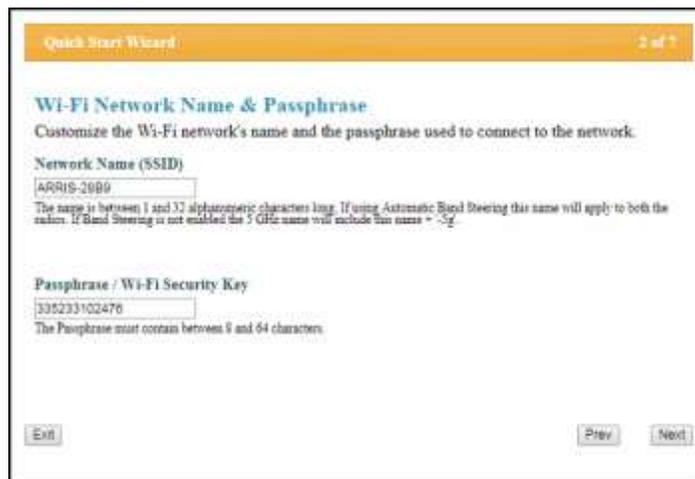


Figure 21: SBG10 quick start wizard - screen 2 of 7

10. Choose one of the following to set up your Wi-Fi Network Name in the Network Name (SSID) field for logging on to your Wi-Fi home network:

- Keep the default Wi-Fi network name listed in the Network Name (SSID) field and on the SBG10 Wi-Fi Cable Modem label.



**Note:** You must keep the listed default Wi-Fi network name if this is your first time setting up your Wi-Fi home network. You cannot change the network name until after you have completed the Quick Start Wizard. See [Change your Wi-Fi network name \(SSID\)](#) (page 47) for more information.

- Enter a new Wi-Fi network name for your Wi-Fi home network in the Network Name (SSID) field.

Your new network name can contain any combination of up to 32 alphanumeric characters.



**Note:** You can change the Wi-Fi network name (SSID) after you have installed the SBG10 and completed the Quick Start Wizard to set up your Wi-Fi home network connection. You can also change your SSID using the SBG10 Web Manager, see [Change your Wi-Fi network name \(SSID\)](#) (page 47) for more information.

11. Choose one of the following to set up your Wi-Fi home network password in the Passphrase / Wi-Fi Security Key field:

- Keep the default passphrase or Wi-Fi Security key (listed in the Passphrase / Wi-Fi Security Key field and on the SBG10 Wi-Fi Cable Modem label).

You have the option to change your network password later. See [Change your Wi-Fi network name \(SSID\)](#) (page 47) for more information.

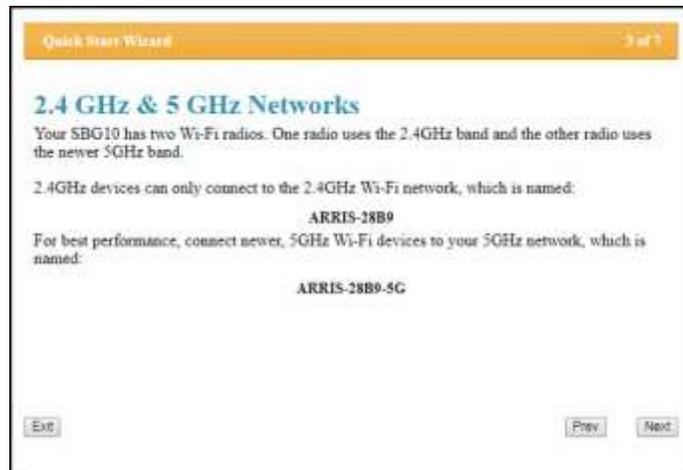
- Enter a new password for your Wi-Fi home network.

The passphrase or Wi-Fi Security key is the sign-on access code for logging on to your Wi-Fi network. The access code must contain from eight to 64 characters consisting of any combination of letters, numbers, and symbols. Your Wi-Fi network password should be as unique as possible to protect your Wi-Fi home network and deter hackers or unauthorized access to your Wi-Fi home network.



**Note:** ARRIS recommends that you change the default Wi-Fi Security Key to a more secure Wi-Fi network password to protect your Wi-Fi home network from unauthorized access. See [Prevent unauthorized access](#) (page 49) for more information.

12. Click **Next** to open the 2.4 GHz & 5 GHz Networks screen.



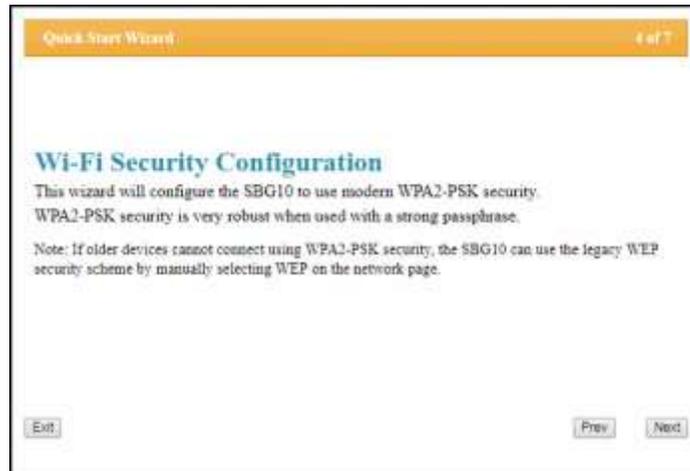
**Figure 22: SBG10 quick start wizard - screen 3 of 7**

This screen shows the two available Wi-Fi network frequency bands (**2.4 GHz** and **5 GHz**) for the SBG10. The wizard configures **2.4 GHz** as the default Wi-Fi frequency band. See [Set up your Wi-Fi network](#) (page 41) to change the Wi-Fi frequency band after completing the quick start wizard.



**Note:** The 2.4 GHz frequency range is recommended for backward compatibility purposes because older Wi-Fi devices cannot connect to 5 GHz frequencies.

13. Click **Next** to open the Wi-Fi Security Configuration screen



**Figure 23:** SBG10 quick start wizard - screen 4 of 7

The quick start wizard configures **WPA2-PSK** as the default Wi-Fi network security code. It is the highest Wi-Fi network security level. See [Set up your Wi-Fi network](#) (page 41) to change the Wi-Fi security code for your Wi-Fi home network after completing the quick start wizard.

14. Click **Next** to open the User Security Configuration screen.



**Figure 24:** SBG10 quick start wizard - screen 5 of 7

This step lets you change the default or current user password to log on to the SBG10 Web Manager.



**Note:** To change your user password, you must first select the **Change Password** checkbox to activate the password fields. If the checkbox is not selected, the field is disabled. The **Next** button is also disabled, if the user password was not entered correctly. Make sure to repeat the same user password in the respective fields.

15. Select the **Change Password** checkbox to enable you to change the current user password.

16. Enter your current user password in the **Enter Current Password** field.
17. Enter your new user password in the **Enter New Password** field.
18. Repeat your new user password in the **Re-Enter New Password** field.
19. Click **Next** to open the Review Settings screen and confirm your Wi-Fi network settings.



Figure 25: SBG10 quick start wizard - screen 6 of 7

20. Click **Apply** to accept your Wi-Fi network settings and open the Settings Applied screen.

- or -

Click **Previous** to go back to the previous screen and change your Wi-Fi network name and/or user password.

If you clicked **Apply**, wait for your Wi-Fi network settings to be saved. When the process is finished, the Settings Applied screen will open.

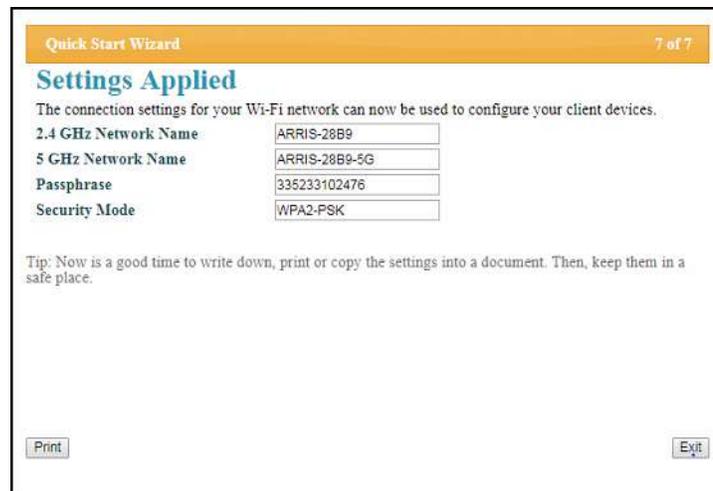


Figure 26: SBG10 quick start wizard - screen 7 of 7

21. Click **Exit** on the Settings Applied screen to close the quick start wizard.

-or-

Click **Print** to print a copy of your Wi-Fi network connection settings from a connected (wired or wireless) network printer. This can be helpful to keep a copy of your new Wi-Fi network settings for logging on to your Wi-Fi network.

## Set up a Wi-Fi network connection using your mobile device

The ARRIS SURFboard Manager mobile app is a quick and easy-to-use option to set up your Wi-Fi home network connection(s) using your iOS or Android mobile device.

1. Check that your Wi-Fi cable modem is powered ON and connected to your home network.
2. Scan the QR code below to download the ARRIS SURFboard Manager mobile app from the Apple App Store or Google Play Store on your iOS or Android mobile device.



Figure 27: ARRIS SURFboard Manager mobile app download QR code

The following ARRIS SURFboard Manager Mobile App screen displays.



Figure 28: ARRIS SURFboard manager mobile app download screen

3. Tap **INSTALL** to download the SURFboard Manager mobile app on your mobile device. The **ARRIS SURFboard® Manager will be installed on your device soon** message displays.
4. Tap **OK**.

The following ARRIS SURFboard Manager window displays.



Figure 29: ARRIS SURFboard Manager mobile app open screen



**Note:** After the download is finished, the ARRIS SURFboard Manager mobile app shortcut will be added to your mobile device Home or Apps screen.

5. Tap **OPEN** to launch the SURFboard Manager mobile app.  
The ARRIS SURFboard Manager Mobile App Opening Screens display.

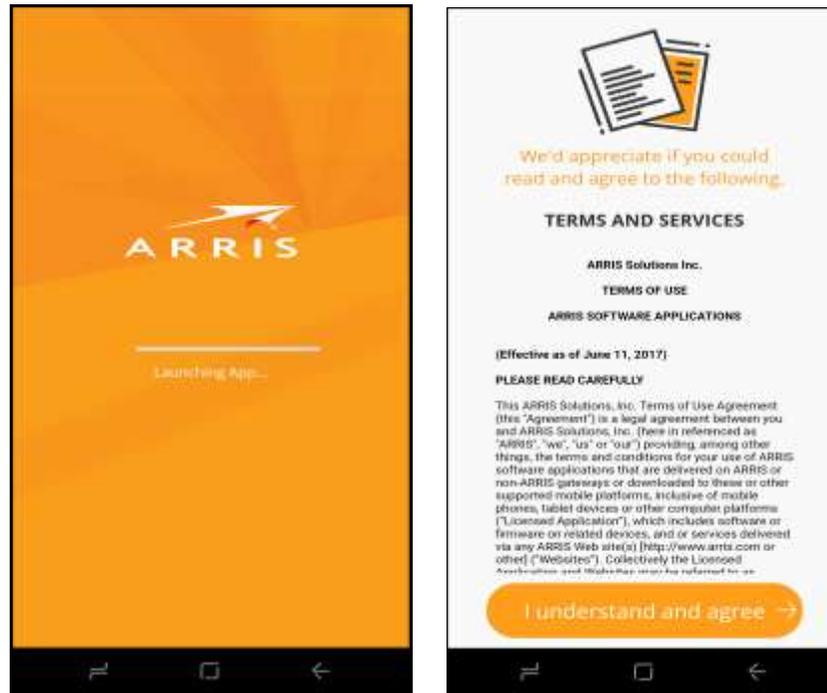


Figure 30: ARRIS SURFboard Manager mobile app opening screens

6. Continue to follow the mobile app prompts to configure your Wi-Fi home network connection(s).

For additional information or instructions for using the mobile app, see the **ARRIS SURFboard Manager Mobile App User Guide** available online at [ARRIS SURFboard Manager](#).

# Set up a Wi-Fi network connection using your client device

**Note:** You will need the **Wi-Fi Network Name (SSID)** and **Wi-Fi Security Key (Network Password)** to connect your client devices to your home network. The default network name and network password are listed on the SBG10 label.

Select one of the following network connection options for the client device you are using to set up a Wi-Fi network connection on your Wi-Fi home network. Repeat for each additional device:

- [Personal computer \(PC\)](#)
- [Android device](#)
- [Apple computer](#)
- [Apple mobile device](#)

## Personal computer (PC)

Select one of the following:

- [Quick connect using the windows taskbar](#)
- [Connect using the windows control panel](#)

The steps for setting up your Wi-Fi network connection may differ slightly depending on the version of Microsoft Windows running on your client device. The steps used in this section apply to Windows 7.

## Quick connect using the windows taskbar

1. From the Windows taskbar on your computer, click the **Wi-Fi Link** icon (see Figure 31) to open the list of available Wi-Fi networks (see Figure 32).



**Figure 31: Sample windows taskbar icons**

**Note:** If the **Wi-Fi Link** icon is not visible, left-click on the **Show hidden icons** button on the Windows taskbar to open the list of additional icons.



Figure 32: Sample available Wi-Fi networks window

2. Locate and left-click on the SBG10 Wi-Fi network name or SSID (for example, **ARRIS-####**) for your SBG10 from the list of available Wi-Fi networks.

The default SSID is located on the Wi-Fi cable modem label on the bottom of your SBG10.



**Note:** You must use the default SSID listed on the SBG10 label when installing your SBG10 and setting up your first Wi-Fi network connection. You can change the SSID after your network connections are up and running. See [Change your Wi-Fi network name \(SSID\) \(page 47\)](#) for more information.



Figure 33: Sample Wi-Fi network connection window

3. Select **Connect automatically** to set up your Wi-Fi devices to automatically connect to your Wi-Fi network without having to log on using a user password.
4. Click **Connect** to open the Connect to a Network window and set up your new network password.



Figure 34: Network connection window

5. Enter the **Network Security Key** (your Wi-Fi network password) in the Security key field.



**Note:** You can use the default **Wi-Fi Security Key** code listed on the SBG10 label or enter your own personal Wi-Fi network password. See [Prevent unauthorized access](#) (page 49) for more information on creating user passwords.

If you have already changed your Wi-Fi network password using the SBG10 Web Manager, enter that password in the **Security key** field.



Figure 35: Network connection-create network password window

6. Select **Hide characters** and then click **OK** to encrypt your network password.

## Connect using the windows control panel

1. From the Windows taskbar on your computer, click **Start** button and then click **Control Panel**.
2. Click **Network and Sharing Center** to open the Network and Sharing Center window.

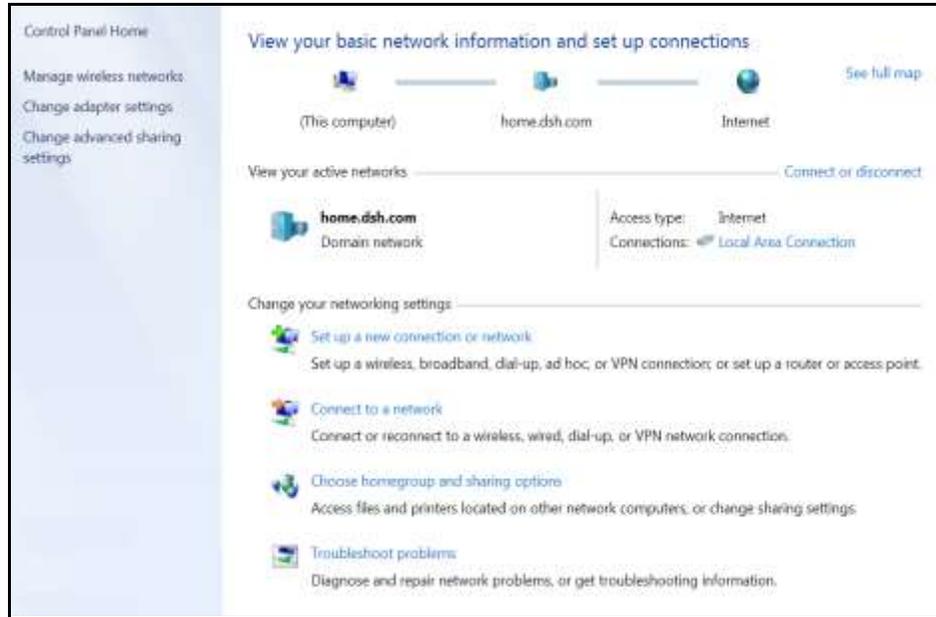


Figure 36: Control panel-network and sharing center window

3. Click **Manage wireless networks** under Control Panel Home side panel to open the Manage Wireless Networks window.
4. Click **Add** to open the Manually Connect to a Wireless Network window.

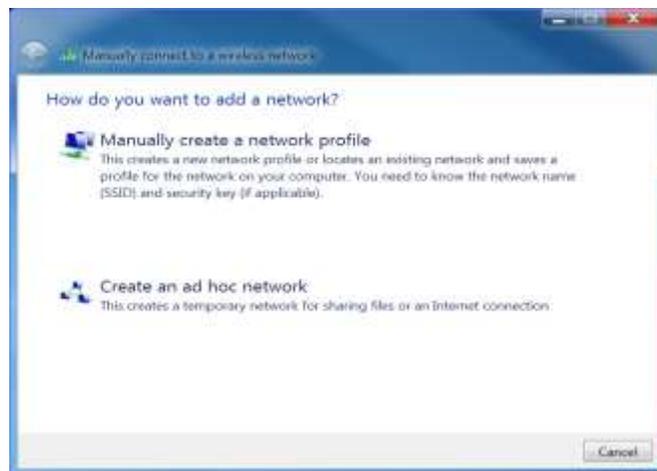


Figure 37: Manually connect to a wireless network window

5. Click **Manually create a network profile** to open another Manually Connect to a Wireless Network window.

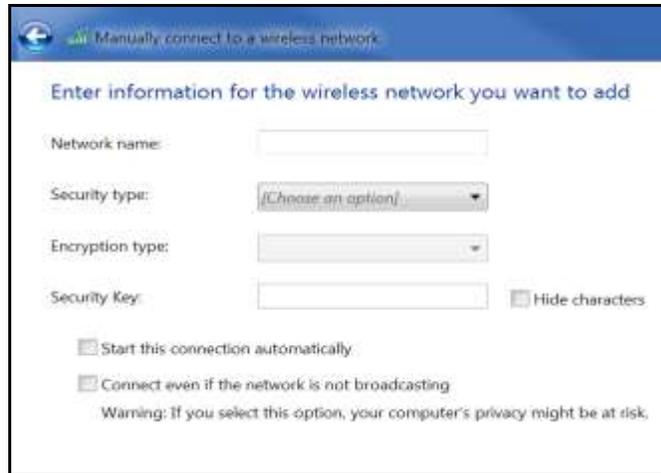


Figure 38: Manually connect to a wireless network window

6. Enter the SBG10 Wi-Fi network name or SSID (**ARRIS-####**) for your SBG10 in the **Network name** field.

The default SSID is listed on the Wi-Fi cable modem label on the bottom of your SBG10.



**Note:** You have the option to change your Wi-Fi network name or SSID after setting up your Wi-Fi network connection. However, you must use the default SSID listed on the Wi-Fi cable modem label after installing your SBG10. See [Change your Wi-Fi network name \(SSID\) \(page 47\)](#) for more information.

7. Select the Wi-Fi Security level for your Wi-Fi network from the **Security type** drop-down list.



**Note:** **WPA2-Personal** is the recommended Wi-Fi security level for your Wi-Fi home network. It is the default security level for your SBG10 and the highest security level available.

8. Select the password encryption type from the **Encryption type** drop-down list.

This is used for securing your Wi-Fi network.

- **TKIP** – Temporal Key Integrity Protocol
- **AES** – Advanced Encryption Standard (recommended). AES is the default encryption type for the SBG10.

9. Enter a security code (passphrase) for your Wi-Fi network password in the **Security Key** field.

You can use the default **WI-FI SECURITY KEY** listed on the SBG10 Wi-Fi Cable Modem label or create your own personal network password.



**Note:** Remember to use a unique combination of letters, numbers, and special characters to create a more secure password. See [Prevent unauthorized access \(page 49\)](#) for more information.

10. Select **Hide characters** checkbox to prevent your Security Key (network password) from displaying in the field.

11. Select **Start this connection automatically** so that your Wi-Fi devices will automatically connect to your Wi-Fi network when they are powered on.
12. Click **Next** to complete the Wi-Fi network setup.  
The **Successfully added <Network name>** message for your new Wi-Fi network should appear.
13. Click **Close** to exit.

## Android device

From any screen on your client device:

1. Select  to open the  Settings screen.
2. Select **Wi-Fi** to turn it ON.  
Your device will start searching and then display a list of available Wi-Fi networks.
3. Select your Wi-Fi network name (SSID) from the list.
4. If prompted, type your Wi-Fi Security Key (network password).  
Please note that your network password is case-sensitive.
5. Select **Connect**.  
If your Wi-Fi network connection is successful, “Connected” will display under your network name.

## Apple computer

From any screen on your client device:

1. Click  (Wi-Fi icon) to display a list of available Wi-Fi networks.
2. Select the Wi-Fi network name (SSID) for your home network from the list.
3. If prompted, enter your network password in the Password field.



**Note:** Checkmark **Remember this network** if you want your Mac computer/client device to automatically connect to your home network when you log on. Your computer must be within range of your Wi-Fi network to connect to it.

4. Click **OK**.

## Apple mobile device

From the Home screen on your client device:

1. Select **Settings** to open the Wi-Fi screen.
2. Select **Wi-Fi** to turn it ON.  
Your device will automatically start searching and then list the available Wi-Fi networks.
3. Select the Wi-Fi network name (SSID) for your home network from the list to connect.  
If your Wi-Fi connection is successful, ✓ will display next to the Wi-Fi network name.



**Note:** For more information on setting up your Wi-Fi network connections, refer to the user documentation for your specific client device.

## Test your Wi-Fi network connection

Perform the following connectivity test to check that Wi-Fi connections were established for the SBG10 and the other Wi-Fi devices on your Wi-Fi home network:

1. Check if your Wi-Fi devices successfully connected to your Wi-Fi network, then disconnect the Ethernet cable (if connected) from your computer and the SBG10.
2. Check that the **2.4 GHz** or **5 GHz Wireless** LED on the SBG10 front panel is lit SOLID green.
3. Open a web browser on your computer, such as Internet Explorer, Google Chrome, Firefox, or Safari.
4. Type a valid URL (such as [www.surfboard.com](http://www.surfboard.com)) in the address bar and then press **Enter**.  
If the website failed to open, please contact your service provider or call ARRIS Technical Support at **1-877-466-8646** for assistance.

# Configuring your Wi-Fi network

## Set up your Wi-Fi network

1. Open a web browser and log onto your SBG10 to open the SBG10 Web Manager. See [Start the SBG10 web manager](#) (page 18) for more information, if necessary.
2. Click the **Wireless 2.4 GHz** or **Wireless 5 GHz** main menu tab on the SBG10 Web Manager menu bar for the Wi-Fi frequency range you are setting up for your Wi-Fi network.
3. Click **BASIC** from the **Wireless** submenu option you are setting up.

**System Basic Setup**

While your system has many configuration options, the options on this Basic Setup page are those required by most users. Click the tabs to access the other configuration pages to set advanced options. Hover the mouse pointer over the question mark icon next to an option to view a description of that option. For changes to take effect, you must click the Apply button.

**Basic Setup**

Enable Wireless	<input checked="" type="checkbox"/> ?
Wireless Network Name (SSID)	ARRIS-28B9 ?
Broadcast Network Name (SSID)	<input checked="" type="checkbox"/> ?
Tx Power Level	High ?
Channel	Auto ?
AP Isolation	<input type="checkbox"/> ?
Enable WMM	<input checked="" type="checkbox"/> ?
WMM Power Save mode	<input checked="" type="checkbox"/> ?
Enable 5G MU-MIMO	<input type="checkbox"/> ?
Security Mode	WPA2-PSK (AES) (Recommended) ?
Wi-Fi Security Key	335233102476 ?

Apply

Figure 39: SBG10 2.4 GHz wireless screen

**System Basic Setup**

While your system has many configuration options, the options on this Basic Setup page are those required by most users. Click the tabs to access the other configuration pages to set advanced options. Hover the mouse pointer over the question mark icon next to an option to view a description of that option. For changes to take effect, you must click the Apply button.

---

**Basic Setup**

Enable Wireless	<input checked="" type="checkbox"/> ?
Wireless Network Name (SSID)	ARRIS-28B9-5G ?
Broadcast Network Name (SSID)	<input checked="" type="checkbox"/> ?
Tx Power Level	High ?
Channel	Auto ?
AP Isolation	<input type="checkbox"/> ?
Enable WMM	<input checked="" type="checkbox"/> ?
WMM Power Save mode	<input checked="" type="checkbox"/> ?
Enable 5G MU-MIMO	<input type="checkbox"/> ?
Security Mode	WPA2-PSK (AES) (Recommended) ?
Wi-Fi Security Key	335233102476 ?

**Figure 40: SBG10 5 GHz wireless network screen**

4. Select the **Enable Wireless** checkbox to turn ON Wi-Fi networking on your home network.

- or -

Deselect the **Enable Wireless** checkbox to turn OFF Wi-Fi networking on your home network.

5. Do one of the following to set the network name or SSID (Service Set Identifier) for your Wi-Fi network in the Wireless Network Name (SSID) field:

- Keep the default network name listed in the network name field (also listed on the Wi-Fi cable modem label).
- Enter a new network name for your Wi-Fi network.

The Wi-Fi network name cannot be the same name as any other SSID on your home network. You can use any combination of letters (lowercase and uppercase), numbers, and/or special characters (symbols) up to a maximum of 32 characters.

6. Select the **Broadcast Network Name (SSID)** checkbox to turn ON displaying your SSID as an available Wi-Fi network to outside users.

- or -

Deselect the **Broadcast Network Name (SSID)** checkbox to turn OFF displaying your SSID as an available Wi-Fi network to outside users.



**Note:** When **Broadcast Network Name (SSID)** is enabled, your SSID is visible and available to unauthorized Wi-Fi clients that are within range to connect to your home network.

7. Select **High, Medium, or Low** for the Tx (Transmit) Power Level of the Wi-Fi radio.
8. Select a channel number (**Auto, 1 thru 11**) from the **Channel** drop-down list to set the Communications channel for your SBG10.



**Note:** For 2.4 GHz Wi-Fi networks, it is recommended to use **Channel 1, 6, or 11**, if it is not listed as the Current Channel. In the Wi-Fi spectrum, there are multiple channels that overlap and thus degrade Wi-Fi network performance. **Channels 1, 6, and 11** are used for better network performance and stability because they do not overlap.

9. Select the **AP Isolation** checkbox to enable separate virtual networks for your Wi-Fi clients.

- or -

Deselect the **AP Isolation** checkbox to disable separate virtual networks for your Wi-Fi clients.



**Note:** When **AP Isolation** is enabled, each of your Wi-Fi clients will be in its own virtual network and will not be able to communicate with the other Wi-Fi clients. This may be useful if several guests are using your Wi-Fi network.

10. Select the **Enable WMM** checkbox to turn ON Wi-Fi Multi-media functionality.

Enabling WMM can help control latency and jitter when transmitting multi-media content over a Wi-Fi connection. This quality of service mechanism uses four access categories:

- Voice
- Video
- Best effort
- Background

WMM ensures that applications with low tolerance for latency and jitter are treated with higher priority than less sensitive data applications. WMM sets different wait times for the above four categories to provide priority network access for applications that are less tolerant of packet delays.

11. Select the **WMM Power Save mode** checkbox to set the more efficient power management method.

-or-

Deselect the **WMM Power Save mode** checkbox to turn OFF the WMM Power Save mode.

12. Select one of the following Wi-Fi network security options for your SBG10 from the **Security Mode** drop-down list:

- **Open** (not secure): Network security is not set for your Wi-Fi network. This network security option allows access to your Wi-Fi network without a Wi-Fi Security Key (network password).
- **WEP (64/128)** (poor security): Wired Equivalent Privacy.

- **WPA/WPA2-PSK (TKIP/AES)** (most compatible): Wi-Fi Protected Access version 2 with Pre-Shared Key (most compatible).
  - **WPA2-PSK (AES)** (recommended): Wi-Fi Protected Access version 2 with Pre-Shared Key.
13. Enter a string of either ASCII characters or hexadecimal numbers (**0** thru **9**, **A** thru **F**) in the Wi-Fi Security Key field to create your WPA Pre-Shared Key.  
The Pre-Shared key is used to generate a unique password for WPS-enabled devices to connect to your Wi-Fi network.
  14. Click **Apply**, when you are finished.

## Set up WPS on your Wi-Fi network

Wi-Fi Protected Setup (WPS) is a Wi-Fi network setup option that provides a quick and easy way to set up a secure Wi-Fi network connection for any WPS-enabled device; such as a computer, tablet, gaming device, or printer. WPS automatically configures your Wi-Fi network connections and sets up Wi-Fi network security.

1. Open the SBG10 Web Manager. See [Start the SBG10 web manager](#) (page 18) for more information.
2. Click the **Basic Setup** main menu tab on the SBG10 Web Manager menu bar to open the System Basic Setup screen.
3. Scroll down to the **2.4G/5G WPS Settings** section at the bottom of the screen.

The screenshot shows the '2.4G/5G WPS Settings' interface. It includes the following elements:

- WPS Enable:** A checked checkbox with a help icon.
- Device PIN Enable:** An unchecked checkbox with a help icon.
- Device PIN Code:** A text input field containing '27638576' and a help icon.
- WPS Mode:** A dropdown menu set to 'PBC' with a help icon.
- Enrollee PIN Code:** An empty text input field with a help icon.
- Start WPS Association:** A button with a lock icon and a help icon.
- Apply:** A button at the bottom left of the settings area.

**Figure 41: 2.4G/5G WPS settings screen**

4. Select the **WPS Enable** checkbox to allow for Wi-Fi Protected Setup (WPS) device connections on your Wi-Fi home network.
5. Select the **Device PIN Enable** checkbox if you want to connect your Wi-Fi devices using the listed Device PIN Code.
6. Select one of the following WPS Pairing methods from the WPS Mode drop-down list to connect or pair your WPS-enabled client device:
  - **PBC (Push Button Control)** – Press and hold the WPS button on your WPS-enabled client device and click the **Start WPS Association** button on the **2.4G/5G WPS Settings** screen to start the WPS pairing process.  
The Waiting for WPS connection... message displays.

Start the WPS pairing process with your WPS-enabled computer or other WPS-enabled client device that you want to connect to your Wi-Fi network.

- **PIN Code** – Enter the WPS PIN code (numeric password) listed in the Device PIN Code field.
7. Click **BASIC** from the **Wireless** submenu option you are setting up.

**System Basic Setup**

While your system has many configuration options, the options on this Basic Setup page are those required by most users. Click the tabs to access the other configuration pages to set advanced options. Hover the mouse pointer over the question mark icon next to an option to view a description of that option. For changes to take effect, you must click the Apply button.

---

**Basic Setup**

Enable Wireless  ?

Wireless Network Name (SSID)  ?

Broadcast Network Name (SSID)  ?

Tx Power Level  ?

Channel  ?

AP Isolation  ?

Enable WMM  ?

WMM Power Save mode  ?

Enable 5G MU-MIMO  ?

Security Mode  ?

Wi-Fi Security Key  ?

Figure 42: SBG10 5 GHz wireless network screen

8. Select the **Enable Wireless** checkbox to turn ON Wi-Fi networking on your home network.  
- or -

Deselect the **Enable Wireless** checkbox to turn OFF Wi-Fi networking on your home network.

9. Do one of the following to set the network name or SSID (Service Set Identifier) for your Wi-Fi network in the Wireless Network Name (SSID) field:

- Keep the default network name listed in the network name field (also listed on the Wi-Fi cable modem label).
- Enter a new network name for your Wi-Fi home network.

The Wi-Fi network name cannot be the same name as any other SSID on your home network. You can use any combination of letters (lowercase and uppercase), numbers, and/or special characters (symbols) up to a maximum of 32 characters.

10. Select the **Broadcast Network Name (SSID)** checkbox to turn ON displaying your SSID as an available Wi-Fi network to outside users.

- or -

Deselect the **Broadcast Network Name (SSID)** checkbox to turn OFF displaying your SSID as an available Wi-Fi network to outside users.



**Note:** When **Broadcast Network Name (SSID)** is enabled, your SSID is visible and available to unauthorized Wi-Fi clients that are within range to connect to your home network.

11. Select **High, Medium, or Low** for the Tx (Transmit) Power Level of the Wi-Fi radio.
12. Select a channel number (**Auto, 1 thru 11**) from the **Channel** drop-down list to set the Communications channel for your SBG10.



**Note:** For 2.4 GHz Wi-Fi networks, it is recommended to use **Channel 1, 6, or 11**, if it is not listed as the Current Channel. In the Wi-Fi spectrum, there are multiple channels that overlap and thus degrade Wi-Fi network performance. **Channels 1, 6, and 11** are used for better network performance and stability because they do not overlap.

13. Select the **AP Isolation** checkbox to enable separate virtual networks for your Wi-Fi clients.

- or -

Deselect the **AP Isolation** checkbox to disable separate virtual networks for your Wi-Fi clients.



**Note:** When **AP Isolation** is enabled, each of your Wi-Fi clients will be in its own virtual network and will not be able to communicate with the other Wi-Fi clients. This may be useful if several guests are using your Wi-Fi network.

14. Select the **Enable WMM** checkbox to turn ON Wi-Fi Multi-media functionality.

Enabling WMM can help control latency and jitter when transmitting multi-media content over a Wi-Fi connection. This quality of service mechanism uses four access categories:

- Voice
- Video
- Best effort
- Background

WMM ensures that applications with low tolerance for latency and jitter are treated with higher priority than less sensitive data applications. WMM sets different wait times for the above four categories to provide priority network access for applications that are less tolerant of packet delays.

15. Select the **WMM Power Save mode** checkbox to set the more efficient power management method.

-or-

Deselect the **WMM Power Save mode** checkbox to turn OFF the WMM Power Save mode.

16. Select one of the following Wi-Fi network security options for your SBG10 from the **Security Mode** drop-down list:
  - **Open** (not secure): Network security is not set for your Wi-Fi network. This network security option allows access to your Wi-Fi network without a Wi-Fi Security Key (network password).
  - **WEP (64/128)** (poor security): Wired Equivalent Privacy.
  - **WPA/WPA2-PSK (TKIP/AES)** (most compatible): Wi-Fi Protected Access version 2 with Pre-Shared Key (most compatible).
  - **WPA2-PSK (AES)** (recommended): Wi-Fi Protected Access version 2 with Pre-Shared Key.
17. Enter a string of either ASCII characters or hexadecimal numbers (**0** thru **9**, **A** thru **F**) in the Wi-Fi Security Key field to create your WPA Pre-Shared Key.

The Pre-Shared key is used to generate a unique password for WPS-enabled devices to connect to your Wi-Fi network.
18. Click **Apply**, when you are finished.

## Change your Wi-Fi network name (SSID)

The SSID (Service Set Identification) is the Wi-Fi network name assigned to your SBG10 Wi-Fi network. The default SSID (listed on the Wi-Fi cable modem label) is automatically populated in the network configuration screens. A list of available Wi-Fi networks (SSIDs) near your home (for example, neighbors or local businesses) will display when you or someone else in your home attempt to establish a Wi-Fi network connection. For security purposes and quick recognition of your Wi-Fi network, ARRIS recommends that you change the default SSID.



**Note:** When you change the SSID, any Wi-Fi devices that are already connected to your Wi-Fi network will be disconnected from the network. The Wi-Fi devices will have to be reconnected to the Wi-Fi network using the new SSID.

Do the following to change your Wi-Fi network name (SSID):

1. Open a web browser and log onto the SBG10 to open the SBG10 Web Manager. See [Start the SBG10 web manager](#) (page 18) for more information, if necessary.
2. Click the **Wireless 2.4 GHz** or **Wireless 5 GHz** main menu button on the SBG10 Web Manager menu bar for the Wi-Fi frequency range that you want to set up for your Wi-Fi home network.
3. Click the **BASIC** menu option to open the **Basic Setup** screen.

**Basic Setup**

Enable Wireless	<input checked="" type="checkbox"/> ?
Wireless Network Name (SSID)	ARRIS-28B9 ?
Broadcast Network Name (SSID)	<input checked="" type="checkbox"/> ?
Tx Power Level	High ?
Channel	Auto ?
AP Isolation	<input type="checkbox"/> ?
Enable WMM	<input checked="" type="checkbox"/> ?
WMM Power Save mode	<input checked="" type="checkbox"/> ?
Enable 5G MU-MIMO	<input type="checkbox"/> ?
Security Mode	WPA2-PSK (AES) (Recommended) ?
Wi-Fi Security Key	335233102476 ?

Apply

**Figure 43: SBG10 2.4 GHz Wireless - Change SSID Screen**

4. Check that the **Enable Wireless** checkbox is selected.  
Turns ON Wi-Fi networking on your home network.
5. Delete the current network name in the Wireless Network Name (SSID) field.
6. Enter a new network name for your Wi-Fi network.  
The network name can contain any combination of up to 32 alphanumeric characters.
7. Check that the Broadcast Network Name (SSID) checkbox is selected.
8. Click **Apply** at the bottom of the screen when you are finished.

The new Wi-Fi network name should appear in the list of available Wi-Fi networks when you reconnect your Wi-Fi devices.

## Protecting & monitoring your Wi-Fi network

---

After you have successfully connected the SBG10 and your Wi-Fi devices, you should configure the SBG10 to protect your Wi-Fi network from unwanted and unauthorized access by any Wi-Fi network devices that are within range of your Wi-Fi network. Although network security for the SBG10 is already configured, you can use the SBG10 Web Manager to set the level of security and access that you want to allow on your Wi-Fi network.

### Prevent unauthorized access



**Caution:** To prevent unauthorized access and configuration to your Wi-Fi home network, ARRIS recommends that you immediately change the default user password after connecting to the Internet and logging on to the SBG10 for the first time.

One of the most important recommendations for securing your Wi-Fi home network is to change the default user password on your SBG10 and other Wi-Fi devices as well. Default passwords are commonly used and shared on the Internet.

To ensure that your Wi-Fi home network is secure, ARRIS recommends that you follow these best practices for user passwords:

- Always create a secure password or pass phrase that is not easily guessed.
- Use phrases instead of names so that it may be easier for you to remember.
- Use a combination of upper and lowercase letters, numbers, and symbols.
- Continue to change your administrator password on a regular basis.



**Note:** *If your service provider supplied the SBG10, you may not have the necessary user privileges to change the login user name.*

### Change the user password

You can change your user login password at any time:

1. From any web manager screen, click the **Basic Setup** main menu button on the SBG10 Web Manager menu bar.
2. Click **LOGIN SETTINGS** from the Basic Setup submenu options list.  
The Login Settings screen displays.

Figure 44: SBG10 Login Settings Screen



**Note:** The **Login Timeout** setting under the **Other Settings** section applies to the amount of inactivity time (in seconds) allowed before the SBG10 Web Manager automatically logs out. The **Login Timeout** range is between **30** and **900** seconds.

3. Enter your current password in the Old Password field.
4. Enter your new password in the New Password field.



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

- Letters: **A** through **Z** (uppercase and lowercase)
- Numbers: **0** to **9**
- Special characters: **! @ # \$ % & \***

5. Enter your new password again in the Repeat New Password field.
6. Click **Apply** to update your password.  
The **Applying Changes...** message displays.
7. Find a secure place to write down and keep your new password for future reference, if needed.

The System Basic Setup screen displays.

**Basic Setup**

Language: English ?

Host Name: ARRISGW ?

Routing Enabled:  ?

[More LAN Settings...](#)

---

**Wireless 2.4 GHz**

Enable Wireless:  ?

Wireless Network Name (SSID): ARRIS-28B9 ?

Wi-Fi Security Key: 335233102476 ?

[More Wireless Settings...](#)

---

**Wireless 5 GHz**

Enable Wireless:  ?

Wireless Network Name (SSID): ARRIS-28B9-5G ?

Wi-Fi Security Key: 335233102476 ?

[More Wireless Settings...](#)

---

**2.4G/5G WPS Settings**

WPS Enable:  ?

Device PIN Enable:  ?

Device PIN Code: 27638576 ?

WPS Mode: PBC ?

Enrollee PIN Code:  ?

Start WPS Association: ?

Figure 45: SBG10 system basic setup screen

## Set up firewall protection

You can set up firewall filters to protect your computer and other network devices on your home network from hackers, viruses, and other attacks from the Internet.

To set the firewall protection level:

1. From any SBG10 Web Manager screen, click the **Firewall** main menu button on the SBG10 Web Manager menu bar.

2. Click **FIREWALL SETTINGS** from the Firewall submenu options list to display the Firewall Settings screen (see Figure 46 below).
3. Select the **Enable Firewall** checkbox to turn ON firewall protection on your home network.  
- or -

Deselect the **Enable Firewall** checkbox to turn OFF firewall protection on your home network.



**Note:** Turning OFF firewall protection on your home network could put your computer(s) and other Ethernet-enabled devices connected on your home network at risk for possible attacks from viruses and hackers on the Internet.

**Firewall Settings**

Your Router is equipped with a firewall that will protect your network from a wide array of common hacker attacks including Ping of Death (PoD) and Denial of Service (DoS) attacks. You can turn the firewall function off if needed. Turning off the firewall protection will not leave your network completely vulnerable to hacker attacks, but it is recommended that you turn the firewall on whenever possible.

**Firewall Enable/Disable**

Enable Firewall  ?

**DoS Attack Protection**

Enable DoS Attack Protection Firewall  ?

**Block Pings**

Enable Ping Blocking  ?

**IPSec Pass Through**

Enable IPSec Pass Through  ?

**PPTP Pass Through**

Enable PPTP Pass Through  ?

**L2TP Pass Through**

Enable L2TP Pass Through  ?

**Block Fragmented IP Packets**

Enable Block Fragmented IP Packets  ?

Apply

Figure 46: Firewall settings screen

4. Select or deselect any of the following to set up firewall protection on your home network:
  - Firewall Enable/Disable
  - DoS Attack Protection

- Block Pings
  - IPsec Pass Through
  - PPTP Pass Through
  - L2TP Pass Through
  - Block Fragmented IP Packets
5. Click **Apply**, when you are finished.

## Set up parental controls

You can set up the following Parental Controls to manage and limit the usage and activity for specific users and network devices on your home network:

- Allow or block access to specific Trusted MAC Addresses.
- Allow or block access based on specific keywords.
- Allow or block access to specific websites.
- Set time limitations for computer usage or Internet access.

You can also link each user on your home network to specific rules for login, time-access, and content filtering.

Do the following to set Parental Controls:

1. From any SBG10 Web Manager screen, click the Firewall main menu button on the SBG10 Web Manager menu bar.
2. Click **PARENTAL CONTROLS** from the Firewall submenu options list to display the Parental Controls screen.

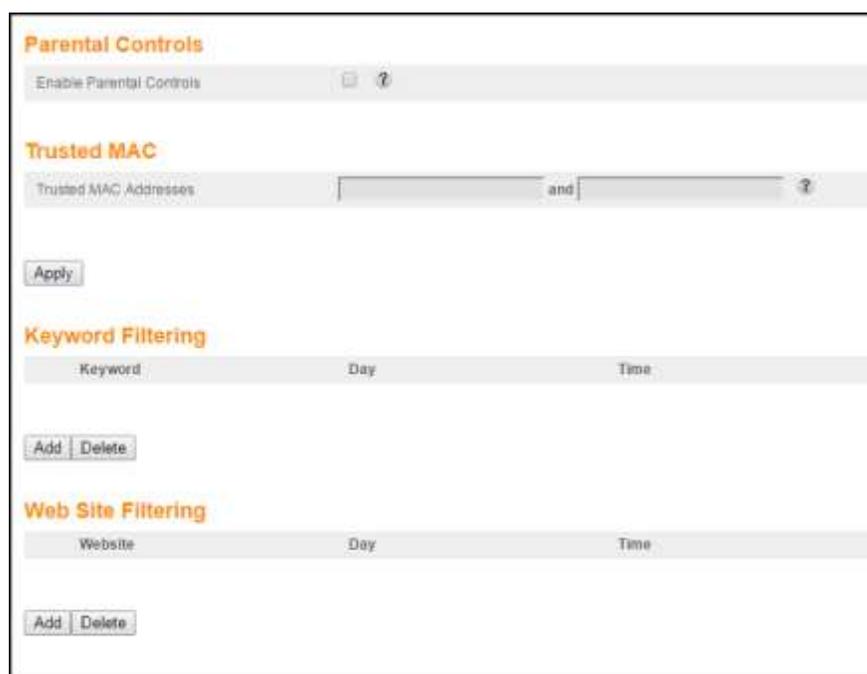


Figure 47: Parental control-change time zone screen

3. Select the **Enable Parental Controls** checkbox to turn ON Parental Controls on your home network.
4. Enter the 12-digit (hexadecimal) Trusted MAC addresses of any connected computers on your home network in the Trusted MAC Addresses fields and then click **Apply**. Repeat for each additional MAC address that you want to add.
5. Click **Add** under Keyword Filtering to add any websites or keywords that you want to block. The Add Keyword Filter dialog box opens.

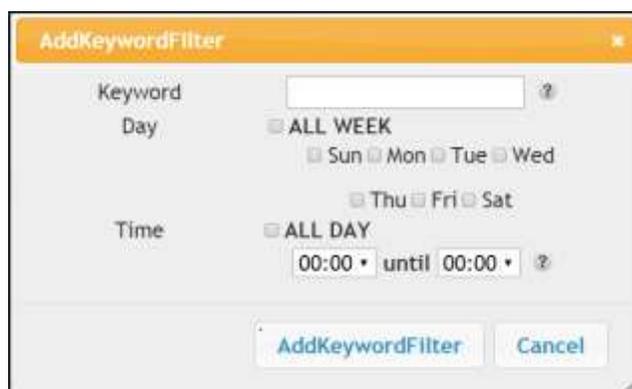


Figure 48: SBG10 Add Keyword Filter Screen

6. Enter the keyword for the filter you are creating in the Keyword field.
7. Select the day(s) and time that you are setting for the filter.
8. Click **AddKeywordFilter** to save the filter.
9. Click **Apply**, when you are finished.

## Set up IP filtering

You can use IP Filtering to set up Internet access restrictions on specific network devices on your home network using their IP addresses. You will have to create IP address filters that contain the starting and ending IP address range for each device that you want to block Internet access.

To configure IP filters:

1. From any web manager screen, click the **Firewall** menu button on the SBG10 Web Manager main menu bar.
2. Click **CLIENT IP FILTERS** from the Firewall submenu options list to display the Client IP Filters Configuration screen.



Figure 49: Set up client IP filters screen

3. Click **Add** button to open the Add Client IP Filter dialog.

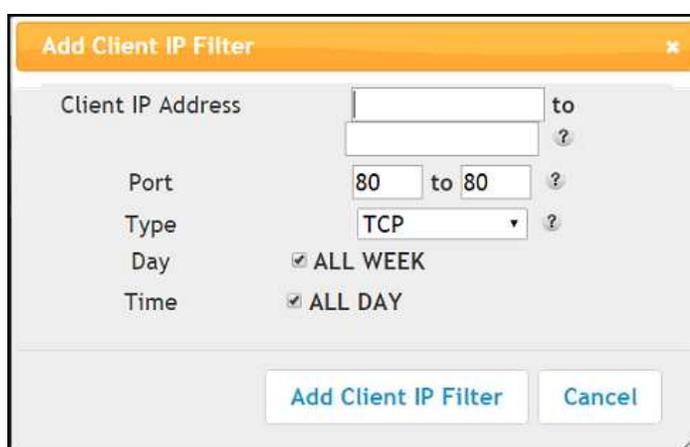


Figure 50: Add client IP filter screen

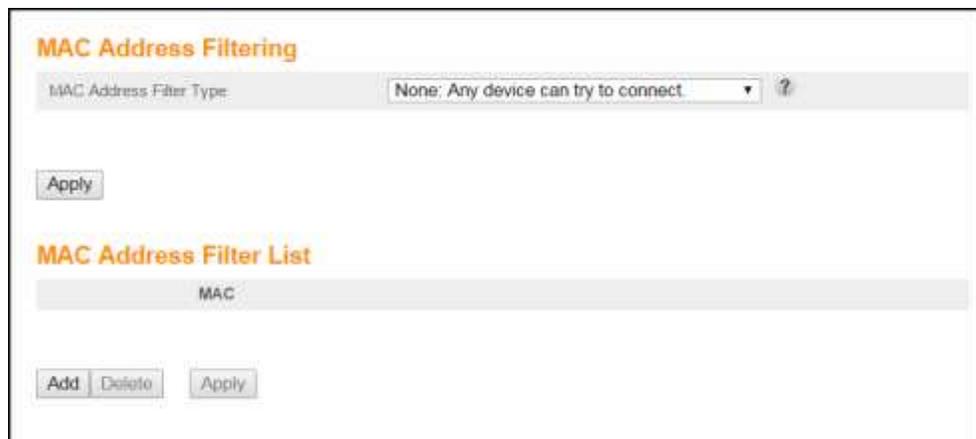
4. Enter the starting and ending Client IP addresses for the range you are setting up in the Client IP Address field.
5. Enter the range of port numbers for the Port Filter range in the Port fields.
6. Select **UDP**, **TCP**, or **UDP and TCP** for the Port Filter type in the Type drop-down list.
7. Select **ALL WEEK** in the Day field to set the same access restrictions for every day of the week.
  - or -
  - Deselect **ALL WEEK** to set access restrictions for specific days of the week.
8. Select **ALL DAY** in the Time field to set 24-hour access restrictions for the selected days of the week.
  - or -
  - Deselect **ALL DAY** to set up a specific range of time for the selected days of the week.
9. Click **Add Client IP Filter** to create the IP filter.
10. Repeat steps 3 thru 9 for each additional range of IP addresses that you want to block Internet access.

## Set up MAC address filtering

MAC filtering allows you to define up to twenty Media Access Control (MAC) address filters to prevent computers from sending outgoing TCP/UDP traffic to the WAN via their MAC addresses. This is useful because the MAC address of a specific NIC card never changes, unlike its IP address, which can be assigned via the DHCP server or hard-coded to various addresses over time.

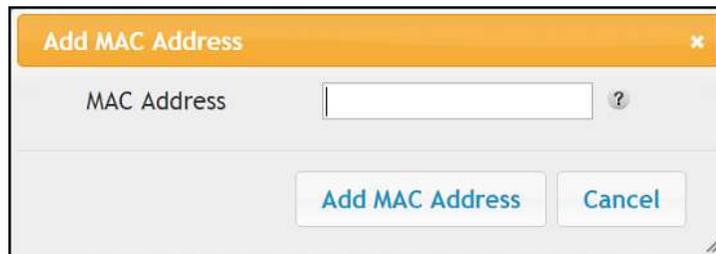
To configure MAC Address filters:

1. From any SBG10 Web Manager screen, click the **Wireless 2.4 GHz** or **Wireless 5 GHz** main menu button on the SBG10 Web Manager menu bar.
2. Click **MAC ADDRESS CONTROL** from the **Wireless** submenu options list to display the MAC Address Control screen.



**Figure 51: Set up MAC filters screen**

3. Select the MAC Address Filter Type from the drop-down list:
  - None: Allows all Wi-Fi devices to connect.
  - Whitelist: Allows only listed Wi-Fi devices to connect.
  - Blacklist: Allows only Wi-Fi devices that are not listed to connect.
4. Click **Add** to enter the MAC Address of the client device that you want to block access to your home network.



**Figure 52: Set up MAC filters screen**

5. Enter the least significant byte of the starting IP address in the MAC Address field.

6. Click **Add MAC Address**.
7. Repeat steps 3 thru 6 for each MAC address that you want to add.
8. Click **Apply**, when done.

## Set up port triggers

You can use Port Triggers to configure dynamic triggers to specific devices on your LAN. This allows special applications that require specific port numbers with bi-directional traffic to function properly. Applications such as video conferencing, voice, gaming, and some messaging program features may require these special settings.



**Note:** If you enable the firewall and set up custom port triggers, then you must configure the firewall to allow traffic through those custom ports. See [Set up firewall protection](#) (page 51) for more information.

To configure Port Triggers:

1. From any SBG10 Web Manager screen, click the **Firewall** main menu button on the SBG10 Web Manager menu bar.
2. Click **PORT TRIGGERS** from the **Firewall** submenu options list to display the Port Triggers Configuration screen.



Figure 53: Advanced port triggers screen

3. Click **Add** button to open the Add Port Trigger screen.

Figure 54: Add port triggers screen

4. Enter a name or description for the Port Trigger in the Description field.
5. Enter the starting and ending port numbers of the Port Trigger range in the Outbound Port fields.
6. Select **TCP**, **UDP**, or **BOTH** for the Port Trigger from the Format drop-down list.
7. Enter the starting and ending port numbers of the Port Trigger range in the Inbound Port fields.
8. Click **Add Port Trigger** to create your port triggers.
9. Repeat steps 3 thru 8 to create additional port triggers.

## Set up the DMZ Host



**WARNING!** The gaming DMZ host is not protected by the SBG10 firewall. It is exposed to the Internet and thus vulnerable to attacks or hacking from any computer on the Internet. Consider carefully before configuring a device to be in the DMZ.

You can configure one computer on your home network to be the DMZ Host. That computer will operate outside of the SBG10 firewall and allow remote access from the Internet to your computer, gaming device, or other IP-enabled device. The DMZ Host feature will only allow outside users to have direct access to the designated DMZ Host device and not your home network.

To create the DMZ Host:

1. From any SBG10 Web Manager screen, click the **Firewall** main menu button on the SBG10 Web Manager menu bar.
2. Click **DMZ** from the **Firewall** submenu options list to display the DMZ Settings screen.

**Figure 55: Advanced DMZ host screen**

3. Select the **Enable DMZ** checkbox to set up the DMZ Host on your home network.
4. Enter the IP address of the computer or gaming device that you are setting up as the DMZ host.
5. Click **Apply**, when you are finished.



**Note:** Remember to reset the IP address back to 0 (zero) to close all the ports when you are finished with the needed application. If you do not reset the IP address, that computer will be exposed to the public Internet.



**Note:** To disable the DMZ Host, deselect (uncheck) the **Enable DMZ** checkbox and then click **Apply**.

# Managing your Wi-Fi cable modem and connected networks

Use the SBG10 Web Manager to view and monitor the network configuration settings and operational status of your SBG10. You can also configure your network connections and wireless security settings. See [Protecting & monitoring your Wi-Fi network](#) (page 49) for more information.

## View the SBG10 status and network connection

You can use the Device Status button on the SBG10 Login screen to view the current SBG10 configuration and network connection status of your SBG10 without having to log in to the SBG10 Web Manager.

1. Open any web browser on the computer connected to your SBG10.
2. Type the default LAN IP address, **192.168.100.1**, in the address bar and then press **Enter**. The SBG10 Login screen displays.

**Figure 56: SBG10 login screen**

3. Click **Device Status** button to open the SBG10 Device Status screen.

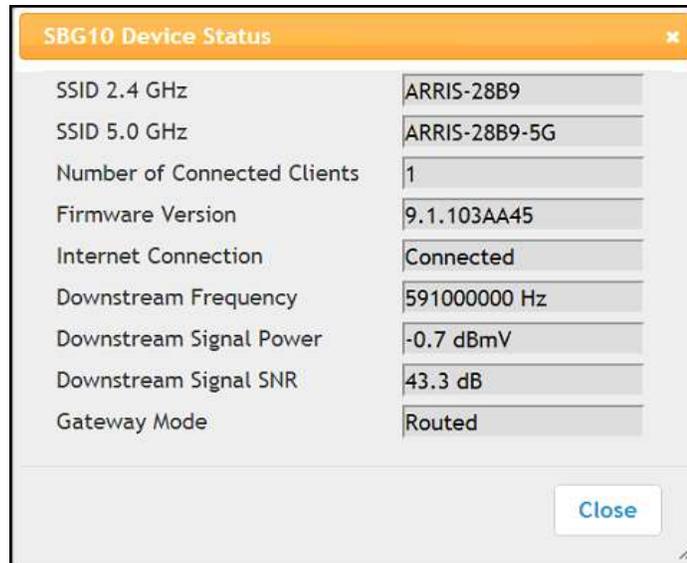


Figure 57: SBG10 device status screen

4. Click **Close** to exit.

## View the SBG10 product and status information

The System Information screen displays general product information, including the software (or firmware) version and the current network connection status of the SBG10.

To open the System Information page:

1. From any SBG10 Web Manager screen, click the **Utilities** main menu button on the SBG10 Web Manager menu bar.
2. Click **SYSTEM INFORMATION** from the **Utilities** submenu options list to display the System Information screen.
3. Click the **Refresh** button (**F5**) in your web browser to reload the information on the screen.

Hardware Software Version		
Serial Number	G6RRW2235100086	?
Bootcode Version	4.2.0.45	?
Hardware Version	1	?
Firmware Version	9.1.103AA5	?

WAN Status Summary		
WAN MAC Address	C0:C5:22:51:3F:1C	?
Connection Setup	dynamic / dynamic	?
IP Address	208.19.97.39 / 2001:1890	?
Subnet Mask	255.255.255.224	?
Domain Name	surfboard.com	?
Primary DNS	8.8.8.8 / 2001:1890:FFF:1	?
Secondary DNS	8.8.4.4 / 2001:1890:FFF::	?
Tertiary DNS	0.0.0.0 / ::	?
Gateway	208.19.97.33 / FE60::230	?

Figure 58: SBG10 status – system information screen (1 of 2)

Wireless 2.4GHz Status Summary		
Wireless SSID	SBG7580AC-3F1B	?
Wireless Channel	Auto	?
Wireless Mode	Mixed BGN	?
SSID Broadcast	Enabled	?
WMM	Enabled	?
MAC Address	C0:C5:22:51:3F:19	?
Number of W-Fi Clients	0	?
Radio Status	Enabled	?
WPS Status	Enabled	?

Wireless 5GHz Status Summary		
Wireless SSID	SBG7580AC-3F1B-5G	?
Channel	Auto	?
Wireless Mode	Mixed ANAC	?
SSID Broadcast	Enabled	?
WMM	Enabled	?
MAC Address	C0:C5:22:51:3F:1E	?
Number of W-Fi Clients	0	?
Radio Status	Enabled	?
WPS Status	Enabled	?

LAN Status Summary		
IP Address	192.168.0.1 / 2001:1890:	?
DHCP Server	Enabled	?
DNS Relay	Disabled	?
Subnet Mask	255.255.255.0	?
UPnP	Enabled	?
Number of LAN Clients	1	?

Figure 59: SBG10 status – system information screen (2 of 2)

## Back up your SBG10 configuration

You can save a backup copy of the current SBG10 configuration settings to your local computer. You can use the backup file to restore your custom SBG10 settings if you made changes that you no longer want.



**Caution:** ARRIS recommends that you perform the SBG10 configuration backup using the SBG10 default login user name and password.

To create a backup copy of your SBG10 configuration settings:

1. From any SBG10 Web Manager screen, click the **Utilities** main menu button on the SBG10 Web Manager menu bar.
2. Click **SAVE/BACKUP SETTINGS** from the **Utilities** submenu options list to display the Save/Backup screen.

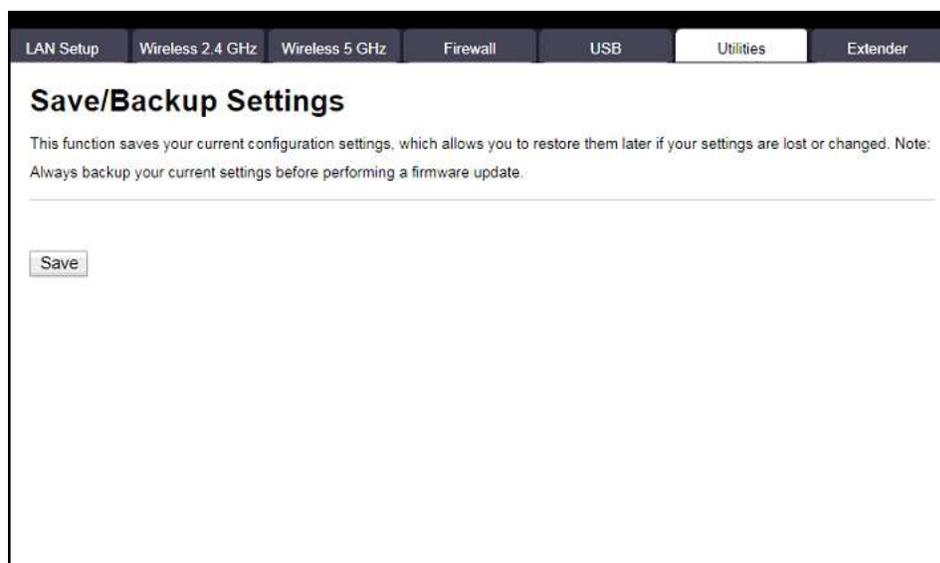


Figure 60: SBG10 save/backup settings screen

3. Click **Save**.
4. Click **OK** at the **This may take a few minutes. Continue?** prompt to save your SBG10 configuration settings.

## Reboot or restart your SBG10

To reboot (or restart) your SBG10:

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 SBG10.
2. 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.

## Reset the SBG10 configuration using the Reset button



Figure 61: SBG10 Reset button

To reset your SBG10 configuration back to the factory default settings:

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 SBG10.
2. Press and hold the **Reset** button for 10 seconds.
3. Remove the paper clip or small object from the **Reset** opening.

## Reset the SBG10 configuration using the SBG10 web manager



**WARNING!** This process also deletes any custom SBG10 configurations you may have already created. ARRIS recommends that you create a backup copy of your configuration before resetting your SBG10. See [Back up your SBG10 configuration](#) (page 63) for more information.

From the SBG10 Web Manager, do the following to open the Status Security screen:

1. From any SBG10 Web Manager screen, click the **Utilities** main menu button on the SBG10 Web Manager menu bar.
2. Click **FACTORY DEFAULTS** from the **Utilities** submenu options list to display the System Information screen.

## Restore the SBG10 configuration



**WARNING!** This action will delete your current SBG10 configuration settings and allow you to restore a previously saved SBG10 configuration.



**Note:** After the configuration settings are restored, the SBG10 will automatically reboot and you will have to log on using the default user name (**admin**) and password (**password**).

To open the System Information page:

1. From any SBG10 Web Manager screen, click the **Utilities** main menu button on the SBG10 Web Manager menu bar.
2. Click **RESTORE SETTINGS** from the **Utilities** submenu options list to display the System Information screen.
3. Click **Backup and Restore** from the Basic submenu options



Figure 62: SBG10 restore settings screen

4. Click **Choose File** to search for a saved configuration file (**GatewaySettings.bin**) in the Downloads folder on your computer.
5. Select the configuration file you want to restore.
6. Click **Restore Chosen File**. The SBG10 will automatically reboot.

## Reset the SBG10 configuration settings



**WARNING!** This process also deletes any custom SBG10 configurations you may have already created. ARRIS recommends that you create a backup copy of your configuration before resetting your SBG10. See [Back up your SBG10 configuration](#) (page 63) for more information.

From the SBG10 Web Manager, do the following to open the Status Security screen:

1. From any SBG10 Web Manager screen, click the **Utilities** main menu button on the SBG10 Web Manager menu bar.

2. Click **FACTORY DEFAULTS** from the **Utilities** submenu options list to display the System Information screen.

## Exit the SBG10 web manager

To log out and close the SBG10 Web Manager:

- Click **Logout** button located on the SBG10 Web Manager menu bar.



Figure 63: SBG10 web manager Logout button

## 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 SBG10 front panel LEDs, see [Front panel LED icons and error conditions](#) (page 68) for more information.

You may have to reset the SBG10 Wi-Fi cable modem configuration to its original factory settings if the SBG10 is not functioning properly. See [Reset the SBG10 configuration settings](#) (page 65) for more information.

## Solutions

**Table 5. Troubleshooting solutions**

Gateway problem	Possible solution
<b>Power LED icon is off</b>	<ul style="list-style-type: none"> <li>■ Check the power connection on the Wi-Fi cable modem and to the electrical outlet.</li> <li>■ Check that the electrical outlet is working. Is the outlet controlled by a light switch? If so, unplug the Wi-Fi cable modem power cord and connect it to another electrical outlet that is not controlled by a wall switch.</li> </ul>
<b>Cannot send or receive data</b>	<ul style="list-style-type: none"> <li>■ Check each end of the coaxial cable connection on the Wi-Fi cable modem and cable wall outlet. Use your hand to tighten each connector, if necessary.</li> <li>■ Check the Ethernet cable to make sure it is properly connected to the Wi-Fi cable modem and computer.</li> <li>■ On the front panel, check the status of the LED icons and refer to <a href="#">Front panel LED icons and error conditions</a> (page 68) to identify the problem.</li> <li>■ If you have cable television service, check your television to ensure your cable service is operating properly.</li> <li>■ If none of the above solutions resolves the problem, contact your service provider or call ARRIS Technical Support at <b>1-877-466-8646</b> for assistance.</li> </ul>

Gateway problem	Possible solution
<b>Cannot access the internet</b>	<ul style="list-style-type: none"> <li>■ Check that all cable and power connections on your Wi-Fi cable modem and computer are properly connected.</li> <li>■ Check that the <b>Power</b>, <b>Online</b>, and <b>Wireless</b> LED icons on the front panel are lit up solid.</li> <li>■ Contact your service provider for assistance.</li> </ul>
<b>Wi-Fi devices cannot send or receive data</b>	<ul style="list-style-type: none"> <li>■ If the problem continues after checking the coaxial cable and Ethernet connections and your IP address, check the wireless <b>Security Mode</b> setting on the Wireless screen.</li> <li>■ If you enabled WPA and configured a passphrase on the Wi-Fi cable modem, be sure each affected Wi-Fi client has the identical passphrase. If this does not solve the problem, check if the Wi-Fi client supports WPA.</li> <li>■ If you enabled WEP and configured a key on the Wi-Fi cable modem, be sure each affected Wi-Fi client has the identical WEP key. If this does not solve the problem, check if the client's wireless adapter supports the type of WEP key configured on the Wi-Fi cable modem.</li> </ul>

## Front panel LED icons and error conditions

The SBG10 front panel LED icons provide status information for the following error conditions:

**Table 6. Front panel LED icons and error conditions**

Led Icon	Status	If, During Startup:	If, During Normal Operation
 POWER	OFF	Wi-Fi cable modem is not properly plugged into the electrical wall outlet	Wi-Fi cable modem is unplugged
 SEND RECEIVE	BLINKING	Upstream (send) channel or Downstream (receive) channel cannot be acquired	Upstream channel is lost Downstream channel is lost
 ONLINE	BLINKING	IP registration is unsuccessful	IP registration is lost
 WIRELESS	OFF	LED is disabled	LED is disabled
 WIRELESS	OFF	LED is disabled	LED is disabled

## Warranty information

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SURFboard SBG10 Wi-Fi cable modem

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**Corporate Headquarters**

**ARRIS · Suwanee · Georgia · 30024 · USA**

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