ARRIS

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SURFboard SBR-AC1200P Wi-Fi Router

User Guide

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SURFboard SBR-AC1200P Wi-Fi Router User Guide
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Safety Requirements

The ARRIS SBR-AC1200P Wi-Fi Router complies with the applicable requirements for performance, construction, labeling, and information when used as outlined below:

- Do not use product near water (i.e. wet basement, bathtub, sink or near a swimming pool, etc.), to avoid risk of electrocution.
- The product shall be cleaned using only a damp, lint-free, cloth. No solvents or cleaning agents shall be used.
- Do not use spray cleaners or aerosols on the Wi-Fi Router.
- Avoid using and/or connecting the equipment during an electrical storm, to avoid risk of electrocution.
- Do not locate the equipment within 6 feet (1.9 m) of a flame or ignition source (i.e. heat registers, space heaters, fireplaces, etc.).
- Use the power cord included with the equipment.
- Equipment should be installed near the power outlet and should be easily accessible.
- In areas of high surge events or poor grounding situations and areas prone to lightning strikes, additional surge protection may be required (i.e. PF11VNT3 from American Power Conversion) on the AC and Ethernet lines.
- When the Wi-Fi Router is connected to a local computer through Ethernet cables, the computer must be properly grounded to the building/residence AC ground network. All plug-in cards within the computer must be properly installed and grounded to the computer frame per the manufacturer's specifications.
- Ensure proper ventilation. Position the Wi-Fi Router so that air flows freely around it and the ventilation holes on the unit are not blocked.
- Do not mount the Wi-Fi Router on surfaces that are sensitive to heat and/or which may be damaged by the heat generated by the modem or its accessories.

Temperature Requirements

The Wi-Fi Router is capable of operating in an ambient temperature range of 0° - 40°C, without any functional performance degradation.

FCC Part 15

This equipment has been tested and found to comply with the requirements for a Class B digital device under Part 15 of the Federal Communications Commission (FCC) rules. These requirements are intended to provide reasonable protection against harmful interference in a residential installation. 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

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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 equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and 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.

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

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.

For the U.S. model, the country code is preset and cannot be changed. Per FCC regulations, the country code setting for all Wi-Fi products marketed in the U.S. must be fixed to U.S. operational channels only.

Operation of this device is restricted to indoor use only.

RF Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 11.8 inches (30 cm) between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Statement

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux CNR exemptes de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:
(1) Ce dispositif ne peut causer d'interférences; et(2) Ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

Caution:

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

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Avertissement:

(i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

Industry Canada ICES-003 Compliance Label:CAN ICES-3(B)/NMB-3(B)

Industry Canada ICES-006 Compliance Label: CAN ICES-6/NMB-6

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 30 cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 30 cm de distance entre la source de rayonnement et votre corps.

Industry Canada ICES-003 Compliance Label:CAN ICES-3(B)/NMB-3(B)

Industry Canada ICES-006 Compliance Label: CAN ICES-6/NMB-6

IC Warning:

This radio transmitter (IC: 6670A-SBRAC1200P) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Antenna		**Peak gain (dBi)**		
Type	**Connector**	**2400~2483.5MHz**	**5150~5250MHz**	**5725~5850MHz**
Dipole	I-pex	1.83		
Dipole	I-pex	2.02		
PIFA	I-pex		2.87	3.60
PIFA	I-pex		3.23	3.82

IC Avertissement:

Le présent émetteur radio (IC: 6670A-SBRAC1200P) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

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Antenne		Gain de crête (dBi)		
Type	**Connecteur**	**2400~2483.5MHz**	**5150~5250MHz**	**5725~5850MHz**
Dipôle	I-pex	1.83		
Dipôle	I-pex	2.02		
PIFA	I-pex		2.87	3.60
PIFA	I-pex		3.23	3.82

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Product Overview

Introduction

Get ready to experience the Internet's express lane! Whether you're checking out streaming media, downloading new software, or checking your email, the SURFboard SBR-AC1200P Wi-Fi Router brings it all to you faster and more reliably.

The SURFboard SBR-AC1200P Wi-Fi® Router provides four Ethernet connections for use as the hub of your home/office Local Area Network (LAN). The SBR-AC1200P also provides 802.11a/b/g/n/ac wireless connectivity for enhanced mobility and versatility.

The SURFboard RipCurrent™ feature (using G.hn Power Line Communication) also allows you to place wired and wireless extenders around your home using your AC power grid and existing AC outlets to allow for network connectivity in or around your home environment.

About The Wi-Fi Router

The SBR-AC1200P is more than just a Wi-Fi Router. This advanced Access Point is the start of a new home network experience that offers the following benefits:

- Two concurrent 802.11ac radios: one for the 5 GHz band and one for the 2.4 GHz band. These radios provide automatic client-directed connections for optimal Wi-Fi connectivity and speed based on a client's capability. Each radio includes a 3x3 MIMO antenna array for the best reach, range, and throughput.
- Four gigabit Ethernet ports for ultra fast wired connectivity
- One USB 2.0 port for data and media storage or transfer and print sharing

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- Embedded Gigabit Home Networking (G.hn) via power lines, ready to connect to any number of extenders to reliably take your network to the farthest reaches of your environment.

The SBR-AC1200P includes the following features:

- Remote management capability, allowing you to make changes to the Wi-Fi Router's configuration from anywhere on the Internet
- Supports Ethernet and 802.11a/b/g/n/ac wireless connections; both wired and wireless connections can be used simultaneously
- Network Management using your smartphone or tablet
- Auto connection to Gigabit network extenders, including the wireless settings
- Option for automated product firmware upgrades
- Network supports up to 15 connected power line extenders
- Easy to navigate User Interface, including a network set-up Wizard
- Default settings configured for standard environments, with advanced settings for sophisticated users
- USB port includes a file structure that provides high-speed throughput and data integrity protection
- Support for NAS and DLNA

What is RipCurrent?

SURFboard RipCurrent is a technology that allows you to set up a high-speed home network over existing AC wiring and outlets. There's no need to run additional cables; your devices can communicate at data rates up to 1 Gb/s using the network of power lines that already exists in your home.

The SBR-AC1200P uses the power cable connected to the Wi-Fi Router to connect to your home AC power grid. RipCurrent is based on G.hn, which is an ITU Specification managed by the HomeGrid™ Forum (http://www.homegridforum.org/). This technology allows the SBR-AC1200P to distribute all data to each of the AC power outlets in the home. With a corresponding G.hn Extender, the Wi-Fi or wired network can be extended to any room, including basements, garages, or far reaching bedrooms. Connect entertainment devices, security cameras, gaming consoles, managed appliance, anything that uses IP (Internet Protocol).

The G.hn technology is more robust than previous home power line communication implementations to give you better 'real world' throughput and stability. G.hn also proves much more efficient in an environment with multiple power line networks (such as apartment buildings or office buildings) with the capability of recognizing up to 250 other networks to avoid interference. G.hn communications are encrypted using the advanced standard AES 128-bit encryption for secure transmissions.

In order to ensure the best performance of your G.hn network, we recommend that you only use 3-prong grounded outlets. A 2-prong outlet will operate sufficiently, but with a lower throughput speed.

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What's in the Box?

Make sure you have the following items before proceeding.

- SBR-AC1200P Wi-Fi Router
- Power Cable
- Wireless Installation Guide
- Ethernet Cable
- End User License Agreement

Important: Before returning this product to the store, please call ARRIS Technical Support for assistance in resolving any technical issues.

Support for SURFboard products is managed by ARRIS. For assistance, please call 1-877-466-8646 or visit the ARRIS Consumer Support website at *http://www.arris.com/consumers*.

Items You Need

Make sure you have the following items on hand before continuing:

- **Wi-Fi Router package:** see *What's in the Box?* (page 12) for a list of items in the package.
- **Ethernet Cable for WAN input:** In addition to the Ethernet cable provided, you may need additional Ethernet cables if you want to connect to wired clients. Please use a standard CAT 5e or CAT 6-rated Ethernet cable with RJ45 type connectors on both ends. You can buy Ethernet cables from any electronics retailer and many discount stores.

System Requirements

The SURFboard Wi-Fi Router operates with most computers. The following describes requirements for each operating system; see the documentation for your system for details on enabling and configuring networking.

To use the Wi-Fi Router, you need high-speed Internet service from your service provider.

Recommended Hardware

The following hardware configuration is recommended. Computers not meeting this configuration can still work with the SBR-AC1200P, but may not be able to make maximum use of SBR-AC1200P throughput.

- CPU: P4, 3 GHz or faster
- RAM: 1 GB or greater
- Ethernet: Gig-E (1000Base-T)
- Wi-Fi: 802.11a, b, g, n, or ac compliant Wi-Fi equipment

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Windows

Windows Vista, Windows 7, Windows 8, or Windows 10. A supported Ethernet or wireless LAN connection must be available.

Mac OS

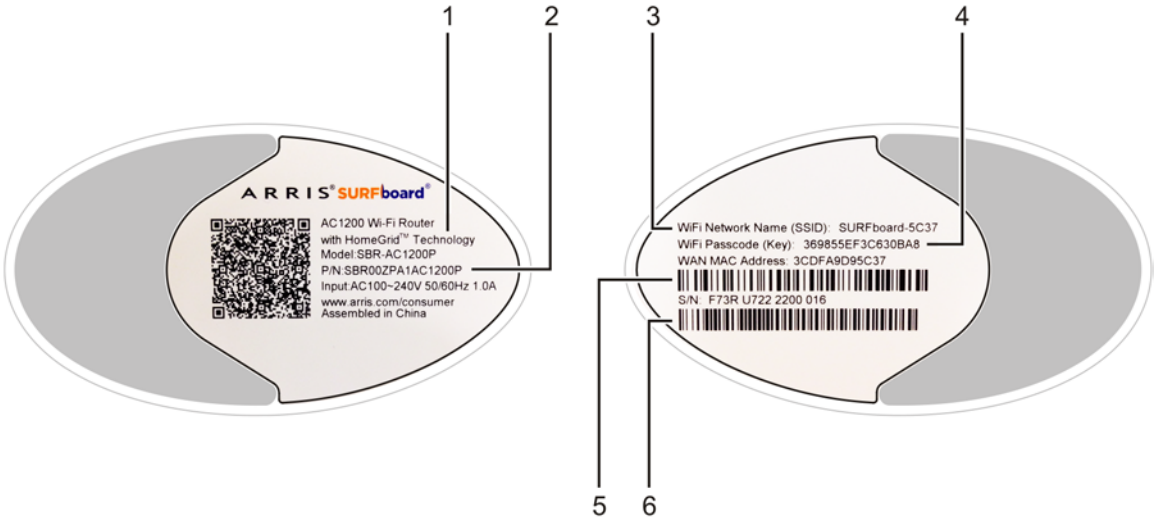
System 7.5 to Mac OS 9.2 (Open Transport recommended) or Mac OS X. A supported Ethernet or wireless LAN connection must be available.

Linux/Unix

Hardware drivers, TCP/IP, and DHCP must be enabled in the kernel. A supported Ethernet or wireless LAN connection must be available.

About this Manual

This manual covers the SURFboard SBR-AC1200P Wi-Fi Router. The model number is on the label affixed to the bottom of the Wi-Fi Router.



1. Model name
2. Part number
3. WiFi network name (SSID)
4. WiFi passcode (key)
5. WAN MAC address
6. Serial number

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Contact Information

Please visit the ARRIS Support website *http://www.arris.com/consumers* for self-help technical support and product documentation. We can also provide technical assistance via chat and email on the support website. ARRIS Support is available by phone at 877-466-8646. Please be prepared to provide your product's model number and serial number, which can be found on the Wi-Fi Router's label.

For information on additional SURFboard products, or to purchase SURFboard products (including other RipCurrent-enabled devices), visit *http://www.surfboard.com*.

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Installing the Wi-Fi Router

Before you start, make sure that:

- You have all the Items You Need:
- The modem and power outlets are available nearby.

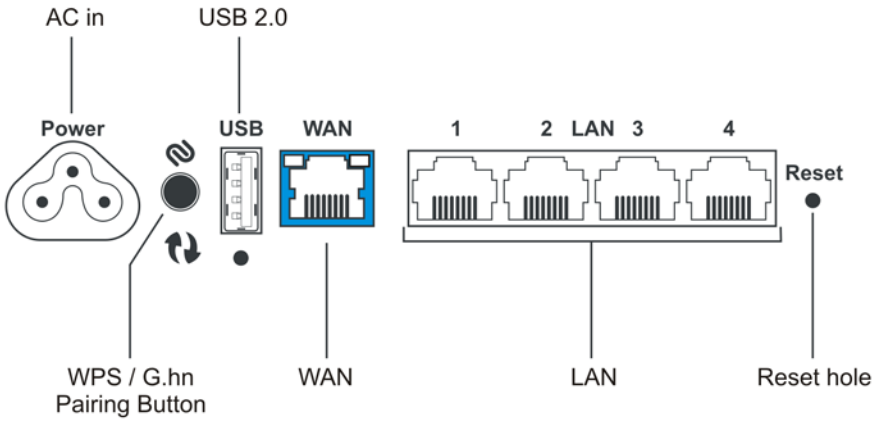
Front Panel

The front of the Wi-Fi Router has a single LED that indicates the status of the Wi-Fi Router.

Color/Behavior	Description
Solid green	Normal operation.
Solid amber	Standby mode.
Flashing amber	WPS pairing mode
Flashing red	Start-up/error mode

Rear Panel

The rear of the Wi-Fi Router has the following connectors and controls:



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Name	Description
AC in	Connector for the power cord.
WPS/G.hn pairing button:	Begins associating the Wi-Fi Router with either a wireless device or a G.hn device. ■ Press and hold the button for less than 5 seconds to initiate G.hn pairing. ■ Press and hold the button for more than 5 seconds to initiate WPS pairing.
USB 2.0	USB 2.0 host connector.
WAN	Connector for the modem.
LAN (1 - 4)	Connectors for use with a computer Ethernet port.
Reset hole	Resets the Wi-Fi Router as if you power cycled the unit. Use a pointed non-metallic object to press this button. **Note:** If you hold the Reset button for more than ten seconds, the Wi-Fi Router will be reset to the factory default settings and will reboot.

Indicator Lights for the SBR-AC1200P

The Wi-Fi Router has several LED indicator lights on the rear panel to assist in troubleshooting:

LED	Color/Behavior	Description
G.hn signal strength	Steady green	Good link
	Steady amber	Poor link
	Steady red	No link
G.hn secure link	Steady green	Secure link
	Steady red	No secure link
Wi-Fi links (2.4 GHz and 5.0 GHz)	Steady green	Wireless interface enabled
	Flashing green	Wireless activity
	Off	Wireless interface disabled

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Selecting an Installation Location

There are a number of factors to consider when choosing a location to install the Wi-Fi Router:

- Is an AC outlet available nearby? For best results, the outlet should not be switched and should be close enough to the Wi-Fi Router that extension cords are not required.
- Is the modem nearby? Can you easily run cables between the Wi-Fi Router's location and the modem?
- If you are connecting devices to the Ethernet ports, can you easily run cables between the Wi-Fi Router's location and those devices?
- If you want to install the Wi-Fi Router on a desktop, is there enough space on either side to keep the vents clear? Blocking the vents may cause overheating.
- How close are the wireless devices? In general, the Wi-Fi Router should be located close to the center of the user sphere. The Wi-Fi Router wireless connection range is typically 100–200 feet (30m–65m) for 2.4 GHz signals and less for 5 GHz signals. A number of factors can affect connection range, as described below.

Desktop Mounting Instructions

Position the Wi-Fi Router so that:

- Air flows freely around it
- The back faces the nearest wall
- It will not fall to the floor if bumped or moved
- The sides of the unit are not blocked.

If the modem is not located in an ideal location for the Wi-Fi Router, you can add a RipCurrent Network Extender to the modem device, then connect the SBR-AC1200P to the Internet using the power line in another location.

Note: Clean the Wi-Fi Router using only a clean, slightly moistened, cloth. Do not use aerosols in the vicinity of the Wi-Fi Router.

Factors Affecting Wireless Range

A number of factors can affect the usable range for wireless connections.

Increases range	■ Locating the unit centrally ■ Creating as much "line-of-sight" as possible with client devices
Decreases range	■ Metal or concrete walls between the Wi-Fi Router and other devices ■ Large metal appliances, aquariums, or metal cabinets between the Wi-Fi Router and other devices ■ Interference and RF noise (2.4 GHz wireless phones, microwave ovens, wireless speaker/receiver systems, or other wireless networks) ■ Placing the device in a cabinet or other enclosed space

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Notes:

Decreasing the range of the wireless network may be beneficial, as long as the decreased range is sufficient for your needs. By limiting the network's range, you reduce interference with other networks and make it harder for unwanted users to find and connect to the network.

Setting the transmit power level to High increases the range. Setting it to Medium or Low decreases the range proportionately. Medium or Low may be more appropriate for high-density residential locations.

For locations within the home that do not receive a steady/stable Wi-Fi signal, simply add a RipCurrent Wi-Fi extender for full coverage in that location.

Ethernet, Wireless, or Gigabit Home Networking?

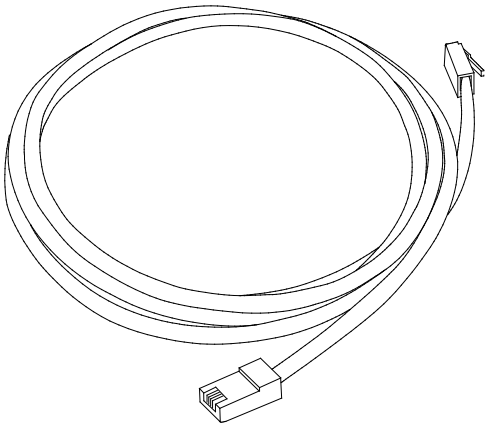
There are three ways to connect the computer (or other equipment) to the Wi-Fi Router. The following will help you decide which is best for you:

Ethernet

Ethernet is a standard method of connecting two or more computers into a Local Area Network (LAN). You can use the Ethernet connection if the computer has built-in Ethernet hardware. The SBR-AC1200P provides support for up to four such connected devices.

Note: To connect more than four computers to the SBR-AC1200P through the Ethernet ports, you need an Ethernet switch (available at computer retailers).

The Wi-Fi Router package comes with one 4-foot (1.2m) Ethernet cable (the connectors look like wide telephone connectors); you can purchase more cables if necessary at a computer retailer. If you are connecting the Wi-Fi Router directly to a computer, or to an Ethernet switch with a cross-over switch, ask for Category 5e (CAT5e) straight-through cable. CAT5e or Cat6 cable is required for gigabit Ethernet (Gig-E), not regular CAT5 cable.



Wireless

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Wireless access lets you connect additional (wireless-capable) devices to the Wi-Fi Router. The 802.11 wireless LAN standard allows one or more computers to access the SBR-AC1200P using a wireless (radio) signal. These connections are in addition to the connections supported via Ethernet.

Note: You can use the wireless connection if the computer has a built-in or aftermarket plug-in wireless adapter. To learn more about which wireless hardware works best with the computer, see your computer dealer.

Gigabit Home Networking

Gigabit Home Networking lets you connect additional devices over power lines using the G.hn Power Line Communications Standards. G.hn also allows you to use your AC power lines to transmit and receive network communications from your SBR-AC1200P to clients connected to a G.hn Network Extender.

Combined

If you have two or more computers, you can use Ethernet for up to four devices and wireless or Gigabit Home Networking for the others. To connect five or more computers to the Ethernet ports, you will need an Ethernet switch (available at computer retailers).

Connecting the Wi-Fi Router

1. Unplug the power to turn off the Internet services modem.
2. Connect one end of the Ethernet cable (included) to the modem, and the other end to the WAN port on the Wi-Fi Router.
3. Reconnect the plug on the modem to turn the modem back on. Wait approximately 2 minutes to allow the modem to fully power up.
4. Connect the power adapter (included) to the power connector on the back of the Wi-Fi Router, and then connect the power adapter to an available AC outlet. Wait until the 2.4 GHz and 5 GHz LEDs on the rear panel of the Wi-Fi Router turn solid green.
5. To manage the setup of the Wi-Fi Router, you can use a second Ethernet cable (not provided) to connect a computer to an available LAN port on the SBR-AC1200P, or you can connect wirelessly by using the preset wireless security settings printed on the Wi-Fi Router's label located on the bottom of the Wi-Fi Router.
6. Open a browser on the computer to access the management interface of the Wi-Fi Router, and navigate to 192.168.0.1. If the webpage does not display correctly, try another browser.

Configuring the Wireless Connection

The SBR-AC1200P ships with a secure SSID that is unique for every device. Wi-Fi network information is located on the label on the bottom of the Wi-Fi Router. You should configure the Wi-Fi Router's wireless settings.

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Note: At a minimum, you should set a login password and set up wireless security. Refer to *Setting Up a Wireless Network Connection* (page 25) for complete instructions on configuring the wireless connection.

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Setting up an Internet Connection

IMPORTANT! Your computer may already be configured to automatically access the Internet. If so, do not change the network options on your computer. Please contact ARRIS Technical Support for assistance or verification.

If you cannot access the Internet after installing the Wi-Fi Router, you may have to manually set up your computer to connect to the Internet. To do this, you will have to enable the network options on your computer to automatically obtain an IP address and DNS server address. After configuring the network options, you should verify the IP address.

If you still cannot access the Internet after configuring the IP address, contact ARRIS Technical Support for assistance.

Please note, operating system-specific commands for configuring computer network options are not provided in this document. The same general steps provided below apply to the following Microsoft Windows operating systems:

- Windows 8
- Windows 7
- Windows Vista
- Windows XP

Note: For Mac, UNIX, and Linux computers, please follow the instructions provided in the applicable user documentation.

If you are unfamiliar with the network configuration commands for your operating system or need assistance, we highly recommend that you refer to the user documentation for the operating system running on your computer for more information.

Configure Your IP Address

Note: The following instructions apply to Windows 7. Some windows and commands used in this procedure may differ slightly from your computer depending on your operating system.

1. Open the Control Panel or **Network Connections** using the Start button from the taskbar on your computer desktop.

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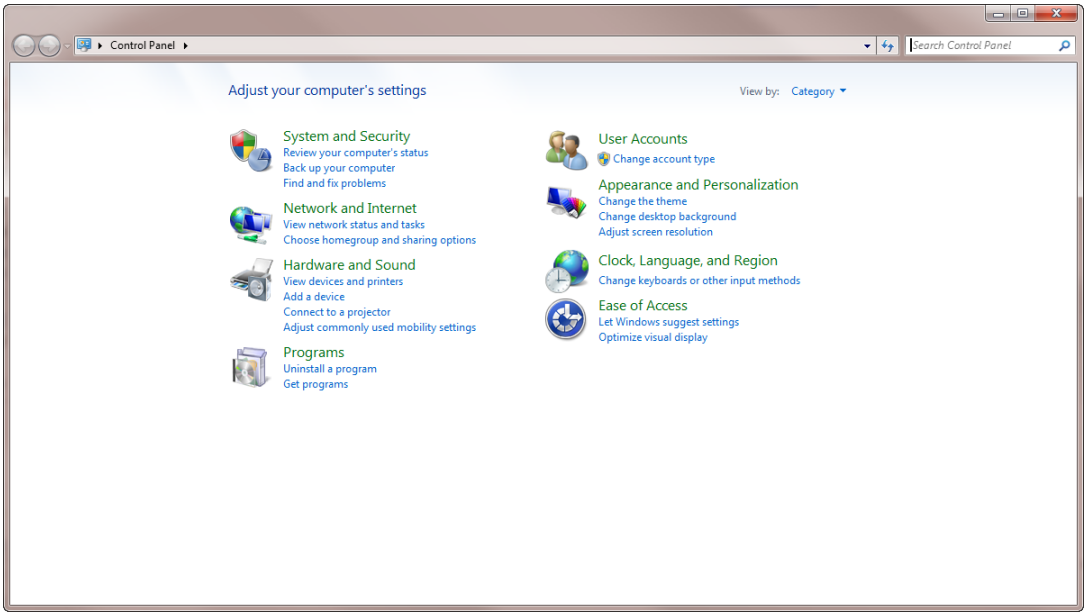
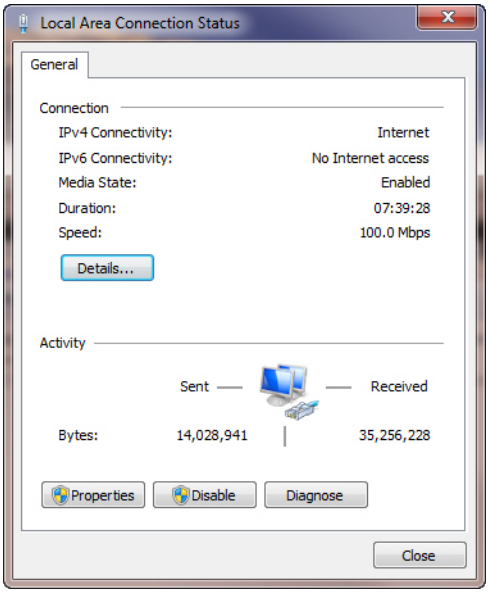
2. Click **View network status and tasks** to open the Network and Sharing window.



3. Click **Change adapter settings** from the Control Panel Home pane to open the Network Connections window.
4. Click **Local Area Connection** to open the Local Area Connection Status window.



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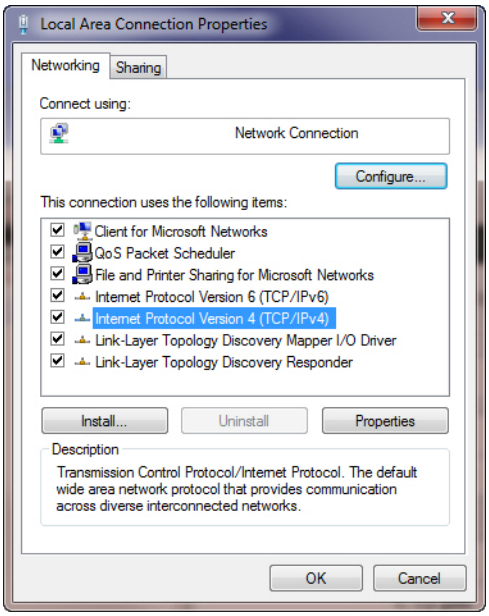
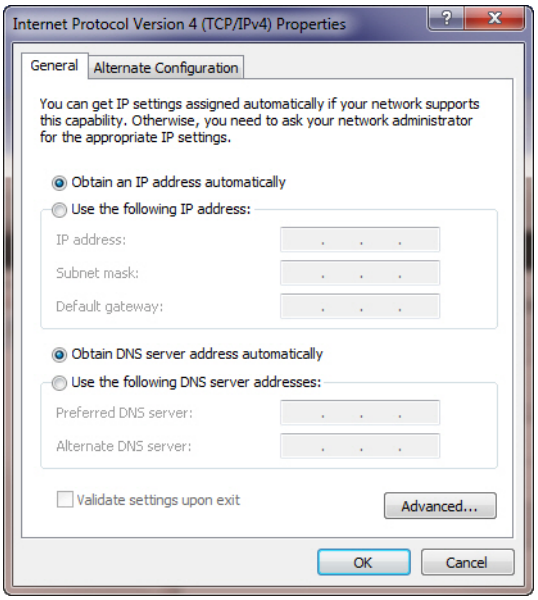
5. Click **Properties** to open the Local Area Connection Properties window.



6. Select **Internet Protocol Version 4 (TCP/IPv4)** and then click **Properties** to open the **TCP/IPv4** Properties window.



7. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**.
8. Click **OK** to save the TCP/IP settings and close the Internet Protocol Properties window.
9. Step through to close the remaining windows and exit.

Verify & Renew Your IP Address

1. Open a command prompt window using the **Start** button and **Run** command from the Taskbar on your desktop.
2. Type **cmdand** click **OK** to open a command prompt window.
3. Type **ipconfig** and press **Enter** to display the IP configuration.

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4. To renew the IP address, type **ipconfig/renew** and press **Enter**. A new IP address for your computer or other Ethernet-enabled device will display.
5. Type **exit** and then press **Enter** to return to Windows.

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Setting Up a Wireless Network Connection

It is highly recommended that you first verify that your computer can connect to the Internet using an Ethernet connection before configuring your wireless network. You must currently have access to an Internet service in your home before you can set up a wireless network connection. Also, make sure your computer and the SBR-AC1200P are connected through an Ethernet connection.

Choose **one** of the following options to set up your wireless network connection:

- Launch the SBR-AC1200P Quick Start Wizard
- Set Up a Wireless Network Using Your Computer

After setting up your wireless network connection, you should check to make sure you can connect to your wireless network. See *Test Your Wireless Network Connection* (page 29) for more information.

Launch the SBR-AC1200P Quick Start Wizard

The SBR-AC1200P Quick Start Wizard is a six-step application to help you quickly configure your basic wireless network settings. Depending on your home network setup, you can further customize your wireless home network configuration after completing the wizard.

1. Open a web browser (Internet Explorer, Google Chrome, Firefox, or Safari) on the computer connected to the SBR-AC1200P.
2. Type the default LAN IP address **http://192.168.0.1** in the Address bar and then press Enter. The Login screen appears.
3. Type the default username and password. Both entries are case-sensitive.

   Username: **admin**

   Password: **password**

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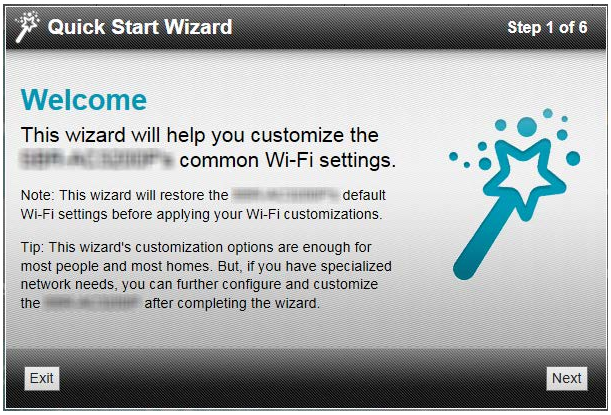
4. Click **Login** to open the SBR-AC1200P Web Manager. The Launch Quick Start Wizard screen appears.

Note: If you have changed the default user name or password and cannot remember the new user name or password, you can reset the Wi-Fi Router to factor default settings. To do this, insert a pointed, non-metallic object into the indented **Reset** button on the back of the SBR-AC1200P, then press and hold the button for more than five seconds. The Wi-Fi Router will be reset to its original factory settings, and any customized settings that you have set **will be lost**.

5. Click Launch Quick Start Wizard to start the wizard. The Welcome screen appears.



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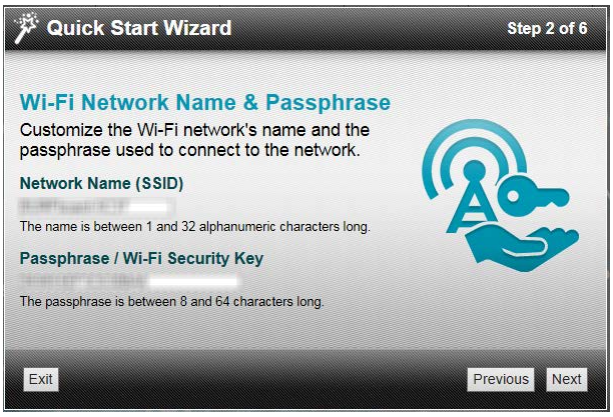
6. Click Next. The Quick Start Wizard prompts you to enter a network name and passphrase.



7. Enter a Network Name (SSID) for your wireless network.

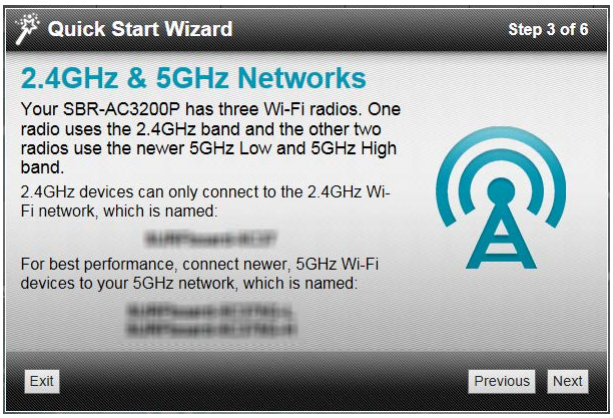
   The network name must contain from one to 32 alphanumeric characters.

8. Enter a Passphrase or Wi-Fi Security Key.

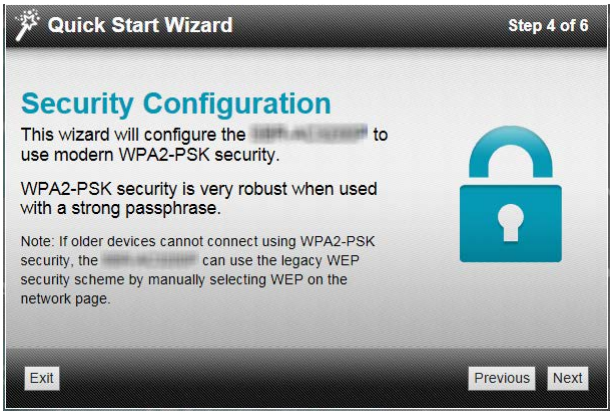
   This is the sign-on access code for your wireless network. The code must contain from 8 to 64 characters consisting of any combination of letters, numbers, and symbols.

   Remember that your passphrase should be as unique as possible to protect your wireless network and deter hackers or unauthorized access to your network.

9. Click Next. Network configurations are created for each band in your wireless network.



10. Click Next. The Wi-Fi security type is created. The WPA2-PSK security code is the strongest security default.



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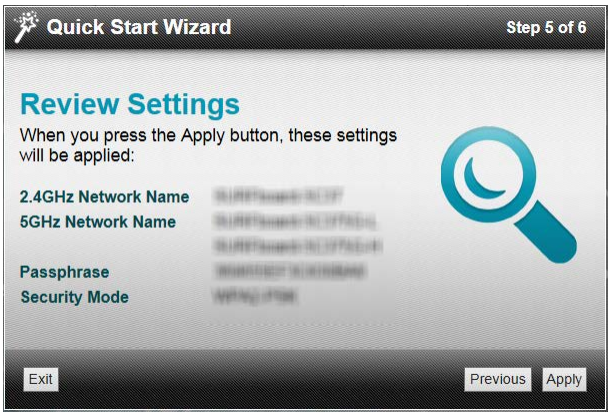
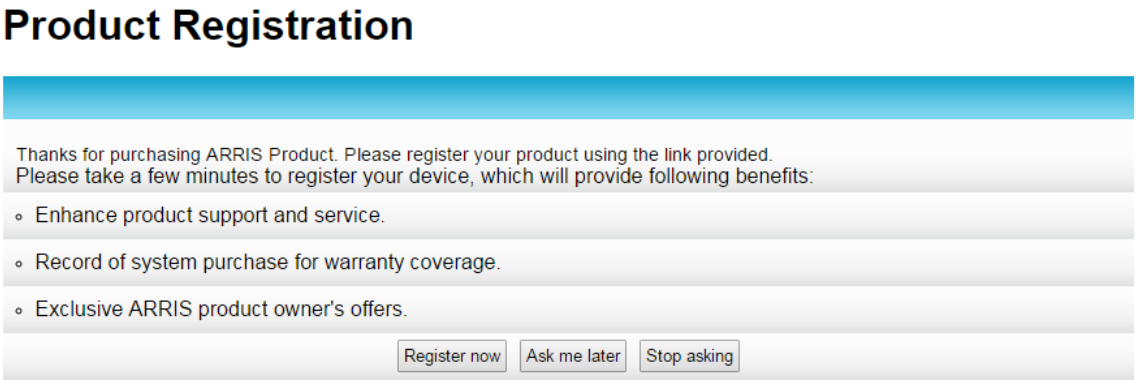
11. Click **Next** to start the Wi-Fi Security mode. WPA2-PSK (the default security code) is automatically set, and the network settings are displayed.



12. Click **Apply** to accept or Previous to change the configuration.

Register Your SBR-AC1200P

After you complete the Quick Start Wizard, the Web Manager prompts you to register your SBR-AC1200P.



1. Click **Register now** to register your SBR-AC1200P now.

Note: If you do not want to register your SBR-AC1200P right now, you can click **Ask me later**. The Web Manager will prompt you to register the next time you log into the Web Manager.

If you do not want the Web Manager to prompt you to register again, click **Stop asking**.

If you decide to register later, or if you need to update your registration, you can click **Status** from the configuration screen and select **Product Information** from the drop-down menu.

2. Follow the instructions on screen to register your SBR-AC1200P.

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Manually Set Up a Wireless Network on Your Computer

You can also set up a wireless network manually, if you do not want to use the Quick Start Wizard.

Note: The steps for setting up a wireless network may differ slightly, depending on the Windows operating system running on your computer. The following steps apply to Windows 7 systems.

1. From the Windows taskbar, click **Start** button and then click **Control Panel**.
2. Click **View network status and tasks.**
3. Click **Set up a new connection or network**.
4. Click **Connect to the Internet**.

Note: The You are already connected to the Internet message may appear. Ignore this message and proceed with the next step.

5. Click **Set up a new connection anyway** and then click **Wireless**.
6. Scroll down and select the wireless network name (see the WiFi Network Name listed on the Wi-Fi Router's label, located on the bottom of the Wi-Fi Router).

Note: We recommend that you use the default SSID name assigned to your Wi-Fi Router (located on the label). You have the option to change the network name to one that may be easier for you to remember.

7. Enter **Network security key code** in the Security key field (see WPA-PSK code listed on the Wi-Fi Router's label) and then click **OK** to complete the wireless network connection.

   A Connected status message showing the wireless network connection should display.
8. Close the Wireless Network Connection window.

Test Your Wireless Network Connection

Perform the following connectivity test to confirm that your wireless connection is working on the SBR-AC1200P and your computer:

1. Disconnect the Ethernet cable, if connected, from the SBR-AC1200P and your computer.
2. Check that the **Wireless** LED on the SBR-AC1200P 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 *http://www.surfboard.com*) in the address bar, and 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.

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Adding G.hn Extenders To Your Network

Whenever you plug multiple G.hn devices into the power grid in your home, the devices will detect each other automatically and begin to communicate over your power grid. However, these devices will be communicating over an unsecured network.

In order to create a secure network, you must pair the devices with each other. *Pairing* the devices creates a secure connection between two or more G.hn devices on a power grid. Pairing also allows you to help secure your local area network (LAN) by randomizing your domain name and password. Once your devices are paired, they will only be able to connect to other paired devices. We recommend that you pair your devices to secure your network.

Pairing Your SBR-AC1200P with a Network Extender

Follow these steps to pair your SBR-AC1200P with a network extender to create a secured link.

1. Plug in both the SBR-AC1200P and the network extender into electrical outlets that are near to each other.
2. Press the G.hn Pairing button on the back of the SBR-AC1200P and hold it for two seconds. The G.hn secure link LED flashes green.
3. Press the pairing button on the network extender and hold it for two seconds. The pairing LED flashes green when the pairing process begins. Once the pairing process is complete, both LEDs stop flashing and become solid green. It may take up to 60 seconds for the pairing process to complete.
4. Unplug the network extender from the electrical outlet and move it to its permanent outlet location in the house. It will reconnect in secure mode.
5. Use an Ethernet cable to connect the network extender to its client device.

The G.hn signal strength LED on the SBR-AC1200P indicates the strength of the G.hn signal. Adjust the location if the LED is red or amber.

LED Color	G.hn Signal Strength
Green	Excellent signal
Amber	Weak signal
Red	No signal

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Creating a Custom Domain Name and Password to Pair Your SBR-AC1200P

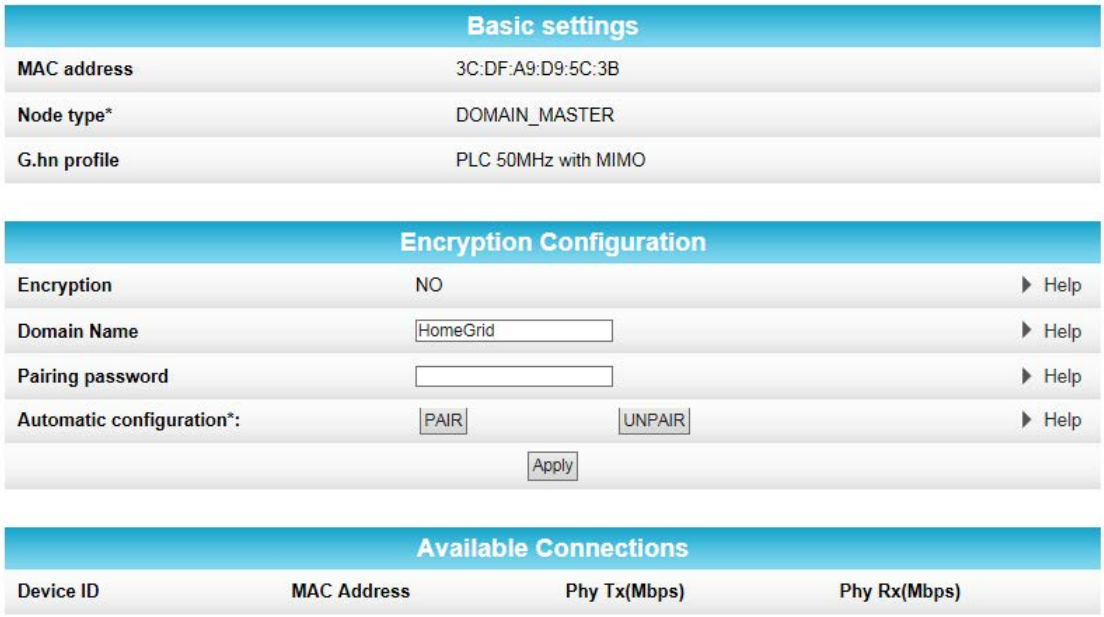
In most cases, when you pair your SBR-AC1200P with a network extender, the domain name and password are randomly generated and assigned to your network. If you prefer, you can follow these instructions to create your own domain name and password for your network.

Note: You must use the default user name and password (listed below) to log in to the SBR-AC1200P Web Manager for the first time. For network security purposes, we highly recommend that you change the default user name and password after logging onto the SBR-AC1200P for the first time. See Change the Default User Name and Password for more information.

1. Open any web browser on the computer connected to the SBR-AC1200P.
2. In the Address bar, type **http://192.168.0.1** for the IP address, and then press **Enter**. The Login screen appears.
3. Type the default user name and password. Both entries are case-sensitive.

   Username: **admin**

   Password: **password**
4. Click **Login** to open the SBR-AC1200P Web Manager. The SBR-AC1200P Main Screen appears.
5. Click **Advanced** on the SBR-AC1200P Main Menu, and click **RipCurrent (G.hn)** from the Advanced submenu options.



6. In the **Domain Name** field, enter the domain name that you want to assign to your network.
7. In the **Pairing password** field, enter the pairing password that you want to assign to your network.
8. Click **Apply**.

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9. Plug the network extender into an electrical outlet near the SBR-AC1200P.
10. Enter the same domain name and password into the extender to create a secured custom connection. The pairing process begins. Once the pairing process is complete, both LEDs stop flashing and become solid green. It may take up to 60 seconds for the pairing process to complete.
11. Use an Ethernet cable to connect the network extender to its client device.

Unpairing Your SBR-AC1200P

Follow these steps if you need to unpair the SBR-AC1200P from the network extender.

Note: You must use the default user name and password (listed below) to log in to the SBR-AC1200P Web Manager for the first time. For network security purposes, we highly recommend that you change the default user name and password after logging onto the SBR-AC1200P for the first time. See Change the Default User Name and Password for more information.

1. Open any web browser on the computer connected to the SBR-AC1200P.
2. In the Address bar, type **http://192.168.0.1** for the IP address, and then press **Enter**. The Login screen appears.
3. Type the default user name and password. Both entries are case-sensitive.

   Username: **admin**

   Password: **password**
4. Click **Login** to open the SBR-AC1200P Web Manager. The SBR-AC1200P Main Screen appears.
5. Click **Advanced** on the SBR-AC1200P Main Menu, and click **RipCurrent (G.hn)** from the Advanced submenu options.
6. Click **UNPAIR**. All of the paired devices will be disconnected from the SBR-AC1200P, and any client devices that are connected to network extenders will lose connection to the Internet. The domain name and password will also be deleted as well.

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Managing Your Wi-Fi Router and Connected Networks

Use the SBR-AC1200P Web Manager to view and monitor the configuration settings and operational status of your Wi-Fi Router. You can also configure your network connections and wireless security settings. See *Protecting & Monitoring Your Wireless Network* (page 45) for more information.

Start the Wi-Fi Router Web Manager

Note: You must use the default user name and password (listed below) to log in to the SBR-AC1200P Web Manager for the first time. For network security purposes, we highly recommend that you change the default user name and password after logging onto the SBR-AC1200P for the first time. See Change the Default User Name and Password for more information.

1. Open any web browser on the computer connected to the SBR-AC1200P.
2. In the Address bar, type **http://192.168.0.1** for the IP address, and then press **Enter**. The Login screen appears.
3. Type the default user name and password. Both entries are case-sensitive.

   Username: **admin**

   Password: **password**
4. Click **Login** to open the SBR-AC1200P Web Manager. The SBR-AC1200P Main Screen appears.

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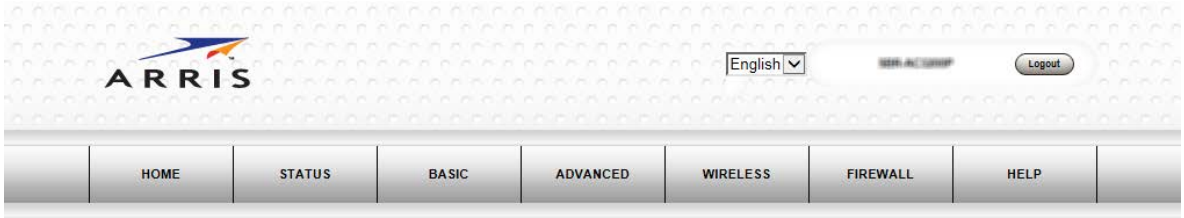
Note: If you have changed the default user name or password and cannot remember the new user name or password, you can reset the Wi-Fi Router to factor default settings. To do this, insert a pointed, non-metallic object into the indented **Reset** button on the back of the SBR-AC1200P, then press and hold the button for more than five seconds. The Wi-Fi Router will be reset to its original factory settings, and any customized settings that you have set **will be lost**.

Wi-Fi Router Web Manager Menu Options

Main Menu Buttons

The SBR-AC1200P main menu buttons are displayed along the top of the SBR-AC1200P Web Manager screen. To display the drop-down submenu options, click the menu button.



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Main Menu Links

The SBR-AC1200P main menu and related submenu option links are also displayed along the bottom of the SBR-AC1200P Web Manager screen. To open a submenu option, click the link.

Menu Option	Function
Home	Displays the Quick Start Wizard main screen
Status	Provides information about the Wi-Fi Router hardware and software, MAC address, Wi-Fi Router IP address, serial number, and related information. Additional screens provide diagnostic tools and also allow you to change your Wi-Fi Router user name and password.
Basic	Configures the Wi-Fi Router IP-related configuration data, including Network Configuration, WAN Connection Type, DHCP, and DDNS
Advanced	Controls Internet protocols which configure and monitor how the Wi-Fi Router routes IP traffic on the SBR-AC1200P
Wireless	Configures and monitors the Wi-Fi Router wireless networking features
Firewall	Configures and monitors the Wi-Fi Router firewall
Help	Provides general information to help you set up your home network
Logout	Closes the SBR-AC1200P Web Manager

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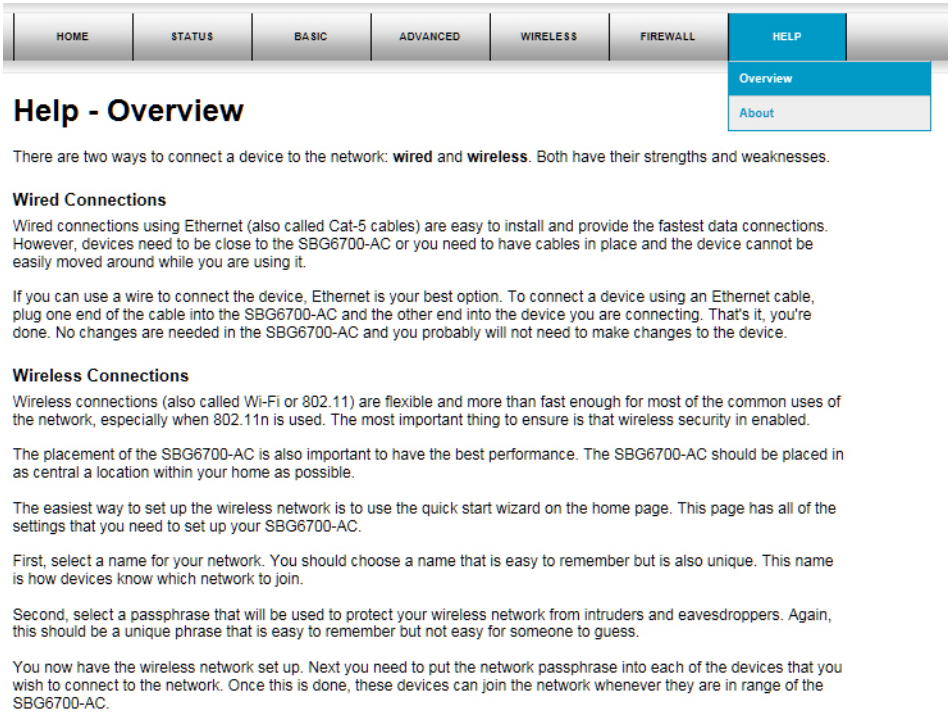
Get Help

You can choose any of the following three options to obtain help information for any SBR-AC1200P Web Manager function. General help information is available for any SBR-AC1200P menu option when you click the **Help** button on that page.

- *Help Overview* (page 36)
- Help Links
- *Field Level Help* (page 37)

Help Overview

General help information is available when you click **Help, Overview** on the SBR-AC1200P Main Menu.



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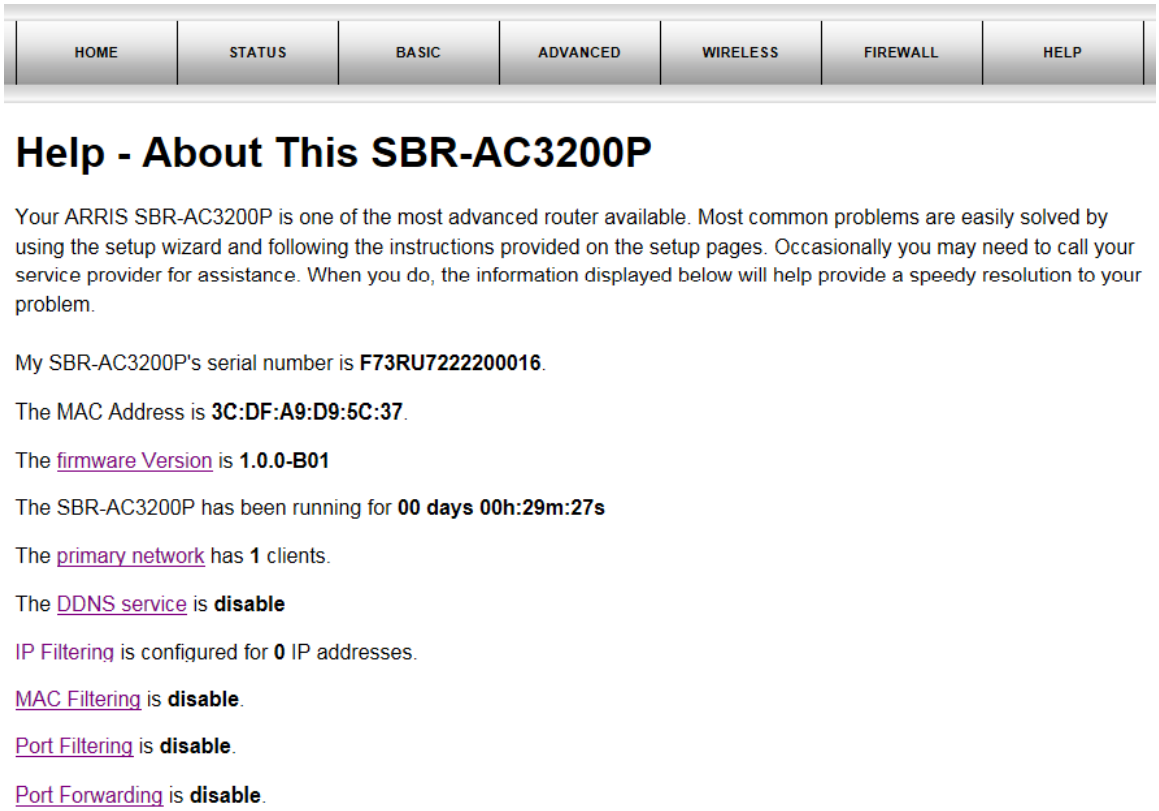
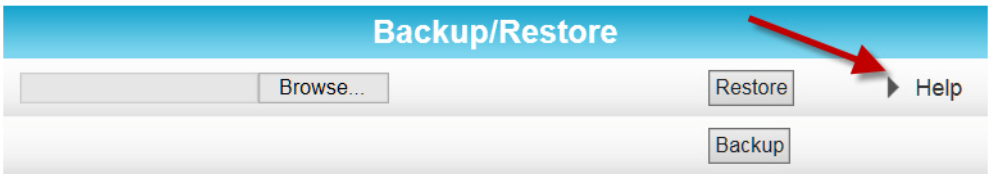
Help Links

Provides a concise list of your configuration settings with applicable links for easy access when you click **Help, About** on the SBR-AC1200P Main Menu. The link opens the related configuration screen.



Field Level Help

More specific help information is available throughout the web manager for field level help when you click Help located to the right of the applicable field (see sample screenshot below).



View the Wi-Fi Router Product Information

The Status Product Information screen displays general product information, including the software (or firmware) version and the current network connection status of the Wi-Fi Router.

To open the Status Product Information page:

1. Click **Status** on the SBR-AC1200P Main Menu.

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2. Click **Product Information** from the Status submenu options.
3. Click the **Refresh** button (F5) in your web browser to reload the information on the screen.

Information	
Hardware Version	REV.1
Software Version	1.0.0-B01
Router MAC Address	3C:DF:A9:D9:5C:37
Serial Number	F73RU7222200016

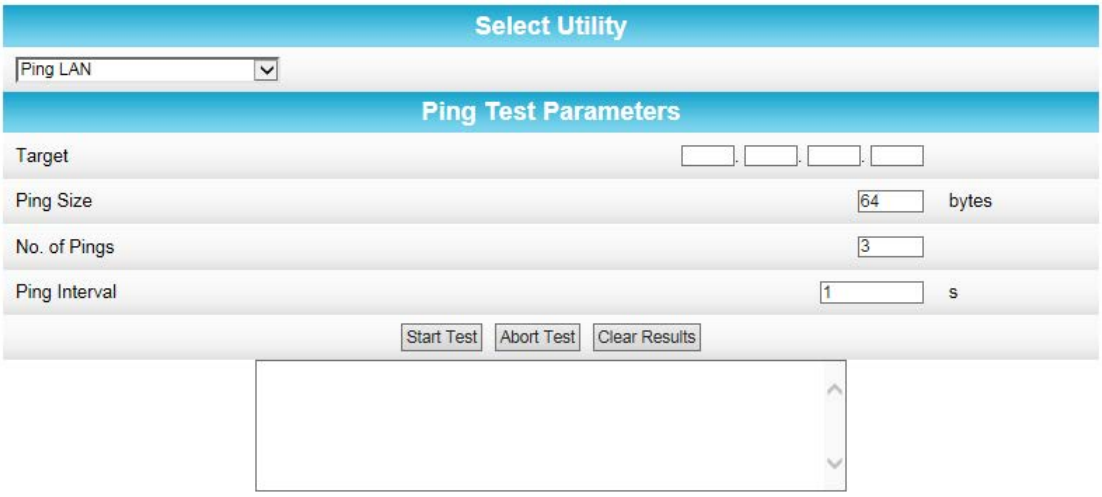
Status	
Up Time	00 days 00h:12m:53s
Router IP Address	---

Test Your Connection

The Status Diagnostics screen lets you perform a series of tests to make sure that your Wi-Fi Router is connected and displays information about the ping test parameters.

To run a ping test:

1. Click **Status** on the SBR-AC1200P Main Menu.
2. Click **Diagnostics** from the Status submenu options.



3. In the Select Utility section, select the kind of test that you want to run.
4. In the Ping Test Parameters section, set the parameters that you would like to use for your test.
5. Click **Start Test** to begin the test. The results will appear in the box at the bottom of the screen.

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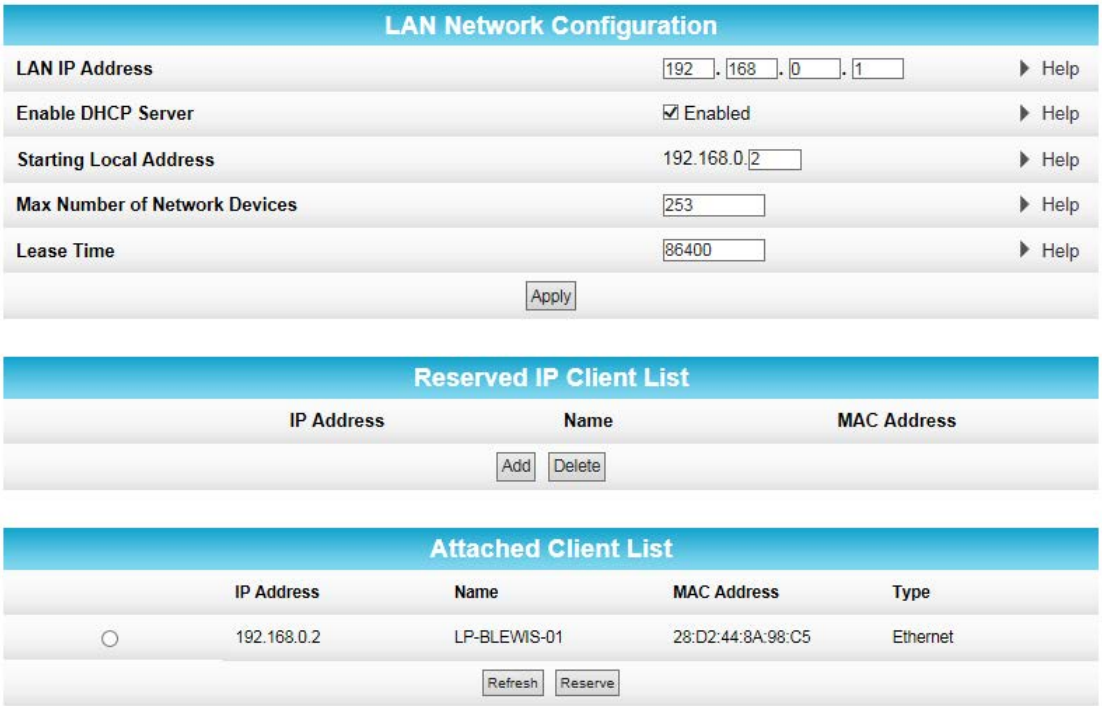
Set Up DHCP

The Basic DHCP screen lets you manually assign IP addresses to devices on your LAN.

To configure your LAN:

1. Click **Basic** on the SBR-AC1200P Main Menu.
2. Click **DHCP** from the Basic submenu options.



3. In the LAN Network Configuration section, choose the settings that you would like to apply to your LAN, and click **Apply**.
4. In the Reserved IP Client List section, click **Add** to set up a list of IP addresses that you want to reserve.
5. In the Attached Client List section, select the IP address of any clients that you want to reserve, and click **Reserve**.
6. Click **Start Test** to begin the test. The results will appear in the box at the bottom of the screen.

Set Up Dynamic DNS

The Basic DDNS screen uses dynamic DNS to let you give your Wi-Fi Router a "friendly" name, for example, in case you are setting up a web server in the home. Most users will not need to set up dynamic DNS.

If you do need to set up dynamic DNS:

1. Click **Basic** on the SBR-AC1200P Main Menu.

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2. Click **DDNS** from the Basic submenu options.

DDNS		
DDNS Service	Disabled	Help
Username		Help
Password		Help
Host Name		Help
IP Address	0.0.0.0	Help
Status	*DDNS server is not enabled.*	Help
	Apply	

3. In the **DDNS Service** field, select the DDNS service that you are using.
4. In the **Username** field, type the username associated with the DDNS account.
5. In the **Password** field, type the password associated with the DDNS account.
6. In the **Host Name** field, type the "friendly" name that you want to assign to your Wi-Fi Router.
7. Click **Apply** to save your changes.

View Your IPv6 Configuration

The Basic IPv6 screen shows the IP address, MAC address, and reachability status of your Wi-Fi Router.

To view your IPV6 configuration:

1. Click **Basic** on the SBR-AC1200P Main Menu.
2. Click **IPv6** from the Basic submenu options.

Stateless Auto Configuration		
IP Address	**MAC Address**	**Reachability State**
Not Find Global IPv6	3C:DF:A9:D9:5C:36	Failure

View Your USB Configuration and Status Information

The Basic USB Connect screen shows the USB configuration and status information for your Wi-Fi Router.

To view your USB configuration and status information:

1. Click **Basic** on the SBR-AC1200P Main Menu.

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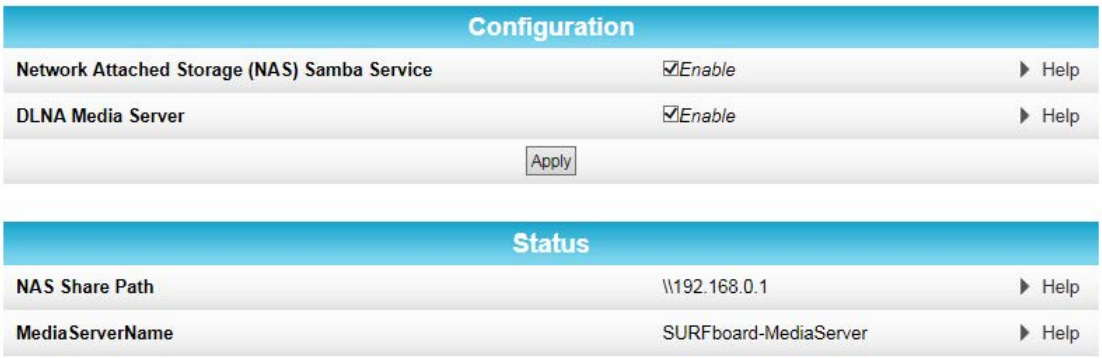
2. Click **USB Connect** from the Basic submenu options.



Disable LEDs on the Back Panel

The Basic LED Control screen lets you disable the LEDs on the back panel of of your Wi-Fi Router, if you want.

To disable the LEDs on the back panel:

1. Click **Basic** on the SBR-AC1200P Main Menu.
2. Click **LED Control** from the Basic submenu options.

3. In the LEDs field, select **Disabled**.
4. Click **Apply**.

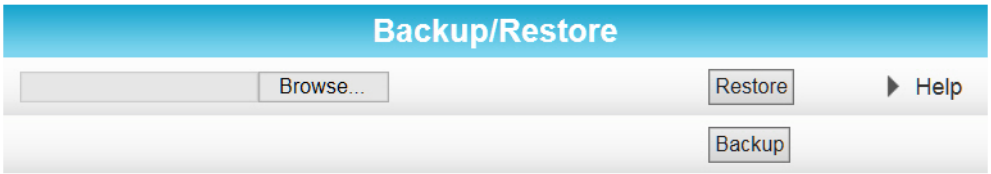
Back Up Your Wi-Fi Router Configuration

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

Caution: We highly recommend that you perform the configuration backup using the SBR-AC1200P default login username and password.

To create a back up copy of your configuration settings:

1. Click **Basic** on the SBR-AC1200P Main Menu.
2. Click **Backup and Restore** from the Basic submenu options.



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3. Click **Backup** to create a backup file of your SBR-AC1200P configuration settings. Follow the on-screen prompts to save the configuration file.

Restore Your Configuration Settings

WARNING! This action will delete your current SBR-AC1200P configuration settings and allow you to restore a previously saved gateway configuration.

Note: After the configuration settings are restored, the SBR-AC1200P will automatically reboot and you will have to log on using the default username (**admin**) and password (**password**).

1. Click **Basic** on the SBR-AC1200P Main Menu.
2. Click **Backup and Restore** from the Basic submenu options.
3. Click **Browse** to search for a previously saved configuration file from the Downloads folder on your computer.
4. Click **Restore.** The SBR-AC1200P will automatically reboot.

Reset Your Configuration Settings

WARNING! This process also deletes any custom Wi-Fi Router configurations you may have already created. We recommend that you create a backup copy of your configuration before resetting the Wi-Fi Router. See Back Up Your Wi-Fi Router Configuration for more information.

From the SBR-AC1200P Web Manager, do the following to open the Status Security screen:

1. Click **Status** on the SBR-AC1200P Main Menu.

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2. Click **Security** from the Status submenu options.

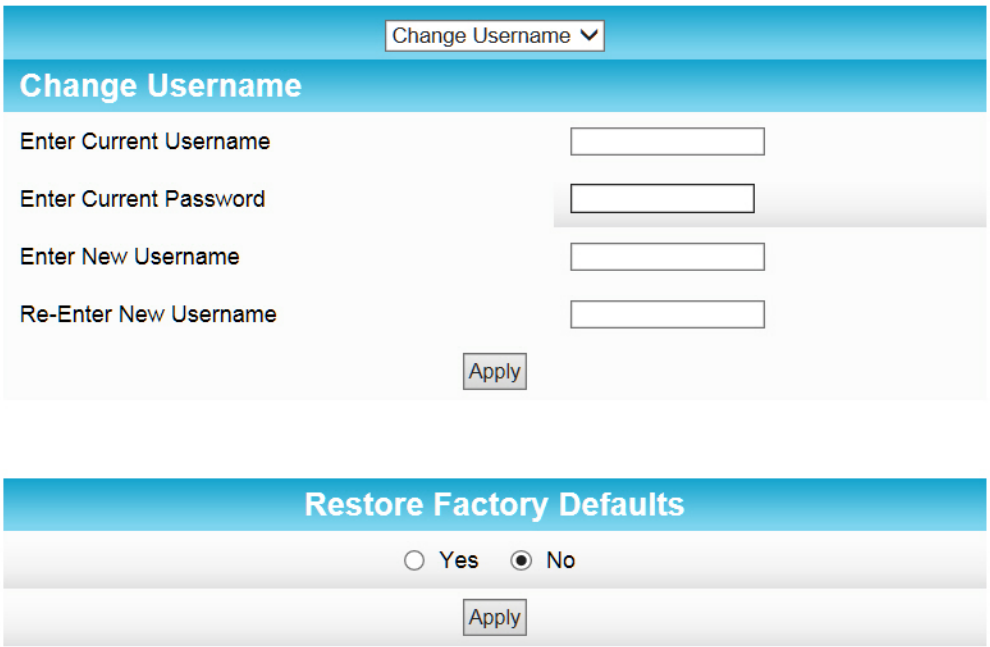

Figure 1: Restore Factory Defaults Screen

3. Select **Yes** under Restore Factory Defaults.
4. Click **Apply** to reset the default username and password and restore the original configuration.

   The message, This action will restore factory default settings. Please reboot the modem for new settings to take effect, appears.
5. Click **OK**.
6. Click **Status** on the SBR-AC1200P Main Menu.
7. Click **Configuration** from the Status submenu options to display the Status Configuration screen.
8. Click **Reboot**.
9. Log back in using the default username and password.
   - Username: **admin**
   - Password: **password**

Update Your Wi-Fi Router Firmware

You can update the firmware on your SBR-AC1200P Wi-Fi Router when ARRIS releases new firmware versions. The new firmware releases may contain updates for operational improvements or resolutions to problems. These updates will not delete or overwrite your personal user settings such as your password.

You can download the latest firmware release from http://www.SURFboard.com/Support/SBR-AC1200P. To load the new firmware release onto your SBR-AC1200P Wi-Fi Router:

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1. Click **Status** from the configuration screen and select **Router Upgrade** from the drop-down menu.

2. Click **Browse** to locate the new firmware file.
3. Select the new firmware file and click **Open**.
4. Click **Upload** to load the new firmware onto your SBR-AC1200P Wi-Fi Router.

Exit the SBR-AC1200P Web Manager

To log out and close the SBR-AC1200P Web Manager:

- Click **Logout** located in the upper right corner of the screen above the SBR-AC1200P Main Menu.

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Protecting & Monitoring Your Wireless Network

After you have successfully connected the SBR-AC1200P and your wireless devices, you should configure the to protect your wireless network from unwanted and unauthorized access by any wireless devices that are within range of your wireless network. Although security for the SBR-AC1200P is already configured, you can use the SBR-AC1200P Web Manager to set the level of security and access that you want on your home network.

Prevent Unauthorized Access

Caution: To prevent unauthorized access and configuration to your wireless network, we highly recommend that you immediately change the default user name and password after connecting to the Internet and logging on to the SBR-AC1200P for the first time.

One of the most important recommendations for securing your wireless home network is to change the default administrator password on your SBR-AC1200P and other wireless devices as well. Default passwords are commonly used and shared on the Internet.

To ensure that your wireless home network is secure, it is recommended 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.

Change the Default User Name and Password

To change the default user name:

1. Log in to the SBR-AC1200P from any web browser on the computer connected to the SBR-AC1200P.
2. Type the SBR-AC1200P Web Manager IP address, **http://192.168.0.1**, in the Address bar and then press **Enter**. The Login screen appears.
3. Type the default username and password as they appear below:
   - Username: **admin**
   - Password: **password**
4. Click **Login** to open the SBR-AC1200P Web Manager. The Status Connection screen appears.
5. Click the Status menu button and then click Security to display the Status Security screen.

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6. Confirm that Change Username is displayed in the drop-down selection box.
7. Complete each field entry, but note the following:
   - All fields (for example, Current Username & Current Password) are case-sensitive.

     Note: The first time that you log in, the **Current Username** is **admin** and the **Current Password** is **password**.

   - Make sure **No** is selected under Restore Factory Defaults.

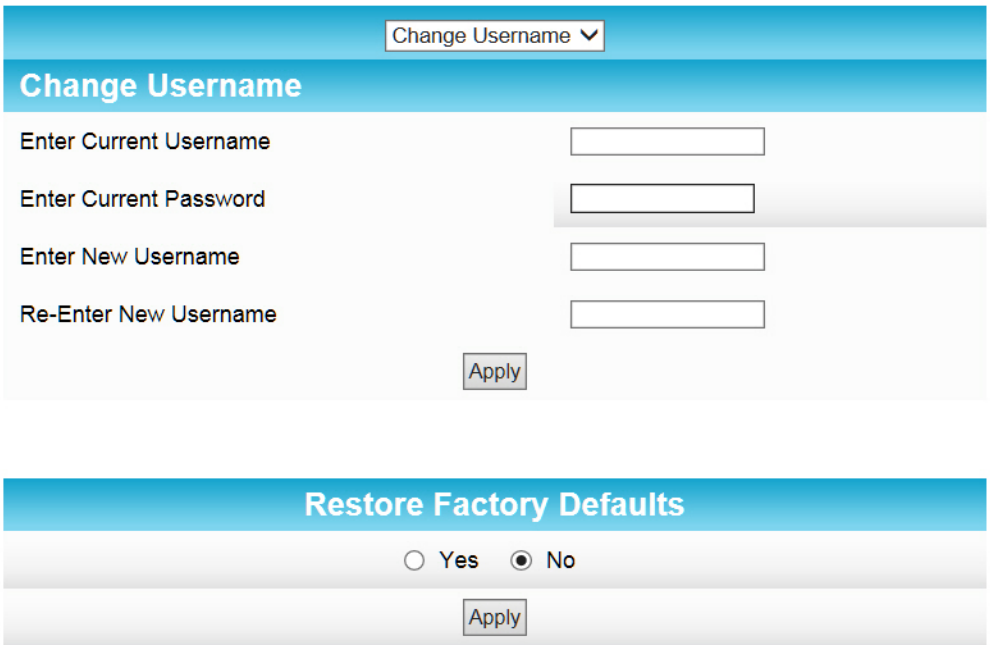

Figure 2: Change User Name Screen

8. Click **Apply** to update your user name.

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9. Click Change Username drop-down arrow to display Change Password.

Figure 3: Change User Password Screen

10. Complete each field entry, but note the following:
    - All fields are case-sensitive.
    - The Username is your new user name, if you changed it.
    - Make sure **No** is selected for Restore Factory Defaults.
    - Find a secure place to write down and keep your new user name and password.
11. Click **Apply** to update your password.

Set Up Firewall Protection

You can set up firewall filters and firewall alert notifications on your wireless home network. You can also block Java Applets, Cookies, ActiveX controls, popup windows, Proxies, and website access. See Protection Level for more information.

To set the firewall protection level:

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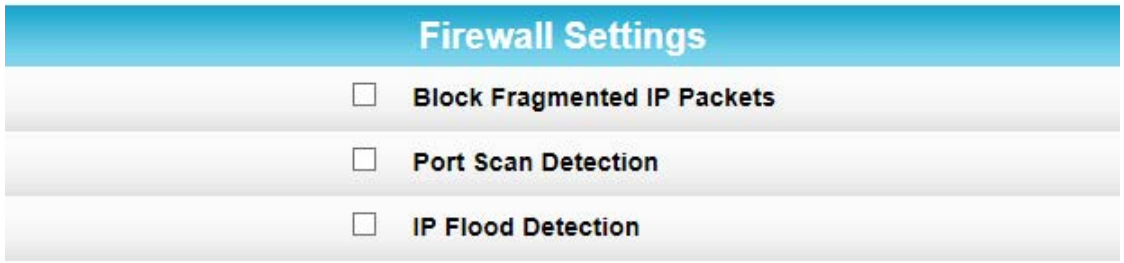
1. From any screen, click the Firewall-Protection Level menu link or click the Firewall menu button on the SBR-AC1200P Main Menu and then select **Protection Level**.



2. Click the Firewall Protection Setting drop-down button to select the firewall protection level.

   Possible values:

   - Off
   - Low
   - Medium
   - High

Note: Selecting Off will disable firewall protection on your home network. Your computer(s) and other Ethernet-enabled devices on your network will be at risk for possible attacks from viruses and hackers.

3. Use the IPv6 Firewall Protection drop-down button to turn firewall protection on or off for IPv6 connections.
4. Select each Web filter that you want to set for the firewall and then click **Apply**.

Set Up Remote Configuration Management

The Advanced Options screen lets you set up Remote Configuration Management so that you can access and configure the SBR-AC1200P from anywhere on the Internet. Once you set up Remote Configuration Management, you can access the SBR-AC1200P by browsing to the WAN IP address at port 80.

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To set up remote configuration management:

1. Click **Advanced** on the SBR-AC1200P Main Menu.
2. Click **Options** from the Advanced submenu options.

WAN Blocking of ICMP(Ping)	☐Enabled
IPsec Pass-through	☑Enabled
PPTP Pass-through	☑Enabled
Remote Config Management	☐Enabled
Multicast Enable	☑Enabled
UPnP Enable	☑Enabled

3. Click the check box to enable **Remote Config Management**, and click **Apply**.

Note: Most users will not need to set up a pass-through MAC address. However, if you need to do so, type the address in the Pass-through MAC Addresses field, and click **Add MAC Address**.

Filter Devices Based on IP Address

You can set up your Wi-Fi Router to prevent certain devices from accessing the Internet, based on IP address.

To block certain devices from reaching the Internet:

1. Click **Advanced** on the SBR-AC1200P Main Menu.
2. Click **IP Filtering** from the Advanced submenu options.

IP Filtering		
Start Address	End Address	Enabled
192.168.0. 0	192.168.0. 0	☐
192.168.0. 0	192.168.0. 0	☐
192.168.0. 0	192.168.0. 0	☐
192.168.0. 0	192.168.0. 0	☐
192.168.0. 0	192.168.0. 0	☐
192.168.0. 0	192.168.0. 0	☐
192.168.0. 0	192.168.0. 0	☐
192.168.0. 0	192.168.0. 0	☐
192.168.0. 0	192.168.0. 0	☐
192.168.0. 0	192.168.0. 0	☐
	Apply	

3. Use the **Start Address** and **End Address** fields to identify ranges of IP addresses that you want to prevent from reaching the Internet.
4. Click **Enabled** to block each range of IP addresses.

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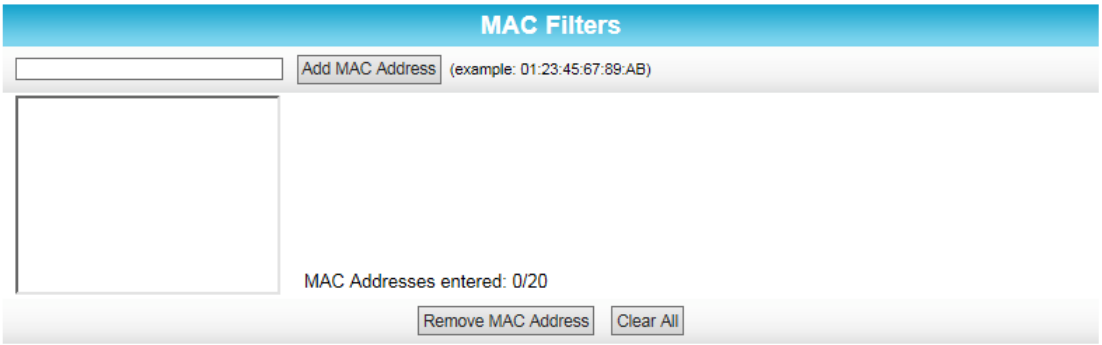
5. Click **Apply**.

Filter Devices Based on IP

You can set up your Wi-Fi Router to prevent certain devices from accessing the Internet, based on MAC address.

To block certain devices from reaching the Internet:

1. Click **Advanced** on the SBR-AC1200P Main Menu.
2. Click **MAC Filtering** from the Advanced submenu options.



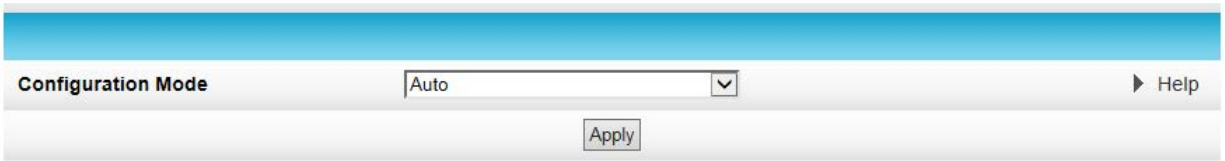
3. In the MAC Filters section, type the MAC address of the device that you want to block from reaching the Internet, and click **Add Mac Address**. The address is added to the white box in the middle of the screen.

Filter Devices Based on IP

You can set up your Wi-Fi Router to configure wireless extenders automatically, or you can choose to configure any wireless extenders manually. Your Wi-Fi Router is set up to configure wireless extenders automatically by default.

To choose a method for configuring wireless extenders:

1. Click **Advanced** on the SBR-AC1200P Main Menu.
2. Click **Wireless Extender** from the Advanced submenu options.



3. In the **Configure Mode** field, select one of the following:
   - Choose **Auto** if you want your Wi-Fi Router to configure wireless extenders automatically.
   - Choose **Semi-Auto** if you want to use the Wi-Fi Router Web Manager to configure wireless extenders yourself.

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- Choose **Disable** if you do not want to be able to configure wireless extenders from the Wi-Fi Router. If you choose Disable, you will need to access each wireless extender individually in order to change its configuration settings.

4. Click **Apply**.

Restrict Wireless Access

You can restrict access to your wireless network based on MAC address.

To restrict access to your wireless network:

1. Click **Wireless** on the SBR-AC1200P Main Menu.
2. Click **Access Control** from the **Wireless** submenu options.

3. Select the tab for the band whose access you want to restrict.
4. In the **Selected Network** field, choose the network for which you want to restrict access.
5. In the MAC Restrict Mode field, select one of the following:
   - Select **Allow** if you want to allow access to the devices that you specify (and deny all others)
   - Select **Deny** if you want to deny access to the devices that you specify (and allow all others)
6. Use the **MAC Address List** fields to identify a list of devices.
7. Click **Apply**.

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Prioritize Network Traffic Based on Media Type

Wi-Fi Multimedia (WMM) allows you to prioritize network traffic based on its media type. You can configure the quality of service (QoS) parameters for WMM.

To configure your quality of service parameters:

1. Click **Wireless** on the SBR-AC1200P Main Menu.
2. Click **Quality of Service** from the **Wireless** submenu options.

3. Choose your configuration settings, and click **Apply**.

Configure Wireless Media Settings

1. Click **Wireless** on the SBR-AC1200P Main Menu.
2. Click **Media** from the **Wireless** submenu options.

3. Select the tab for the band whose settings you want to configure.
4. Choose your configuration settings, and click **Apply**.

Set Up Parental Controls

You can set up the following Parental Controls on your home network:

- Allow or block access to specific Internet sites.
- Allow or block access to specific MAC addresses.
- Set time limitations for computer usage or Internet access.

Note: Any Parental Control filters that do not include assigned ports will apply to all ports. This also applies to MAC addresses as well.

You can also link each user on yoru network to specified rules for login, time-access, and content filtering. See Parental Control for more information.

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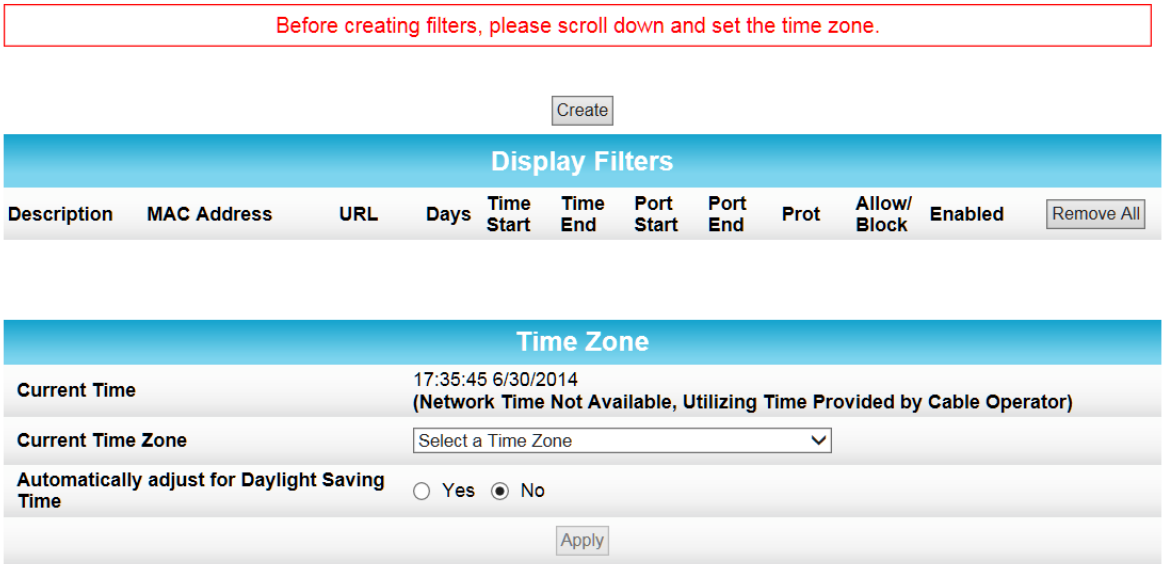
To set Parental Controls:

1. Click **Firewall** on the SBR-AC1200P Main Menu.
2. Click **Parental Control** from the Firewall submenu options.



3. Click **Current Time Zone** to select your time zone.
4. Select **Yes** or **No** to automatically adjust the time for Daylight Saving Time.
5. At the top of the screen, click **Create** to continue setting up Parental Controls.

6. Enter a name for the user profile that you want to create in the **Description** field.
7. Enter the 12-digit (hexadecimal) MAC address of the device for which you are creating Parental Controls in the **MAC Address** field.
8. Enter the web address of the Internet site that you want to block or access in the **URL** field.
9. Enter the **Starting Port** number and the **Ending Port** number.
10. Select the days of the week that you want to allow the selected user to access the Internet.

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11. Select the time range that you want to allow the selected user to access the Internet.
12. Select to **Allow** or **Block** Internet access for the time and days that you set.
13. In the **Enabled** field, select **On** or **Off** to enable or disable this Parental Control restriction.
14. Click **Apply**.

Set Up Port Triggers

You can use Port Triggers to configure dynamic triggers to specific devices on the 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 47) for more information.

To configure Port Triggers:

1. Click **Advanced** on the SBR-AC1200P Main Menu bar.
2. Click **Port Triggers** from the Advanced submenu options.

3. Click **Create Port Triggers** to open the Add Port Triggering Entry window.

4. Enter the starting port number for the port to be triggered in the **Trigger Start Port** field.
5. Enter the ending port number for the port to be triggered in the **Trigger End Port** field.
6. Enter the starting port number of the Port Trigger range in the **Target Start Port** field.
7. Enter the ending port number of the Port Trigger range in the **Target End Port** field.
8. Select TCP, UDP, or BOTH from the **Internet Protocol** field.
9. Select **On** to enable IP port triggers or **Off** to disable them.
10. Click **Apply** to create your port triggers.
11. Repeat steps 3 thru 10 for each additional port trigger that you want to create.

Set Up Port Forwarding

You can use Port Forwarding to set up a computer or other network device on your home network (LAN) to be accessible to computers or other remote network devices on the

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Internet. This allows you to open specific ports behind the firewall on your LAN to set up dedicated connections between your computer and other remote computers for online gaming or other online services. Some allowable services are predefined under the Commonly Forwarded Ports.

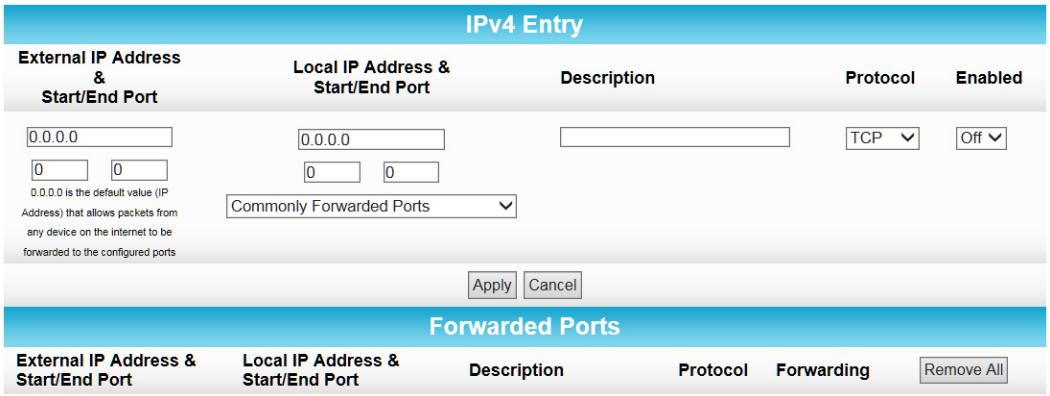
Note: It is recommended that you manually configure the TCP/IP settings listed below on the computer you are setting up for remote access. Otherwise, remote access to your computer will not be available on the Internet.

- IP address
- Subnet mask
- Default gateway
- DNS address (at least one)

To set up Port Forwarding:

1. Click **Advanced** on the SBR-AC1200P Main Menu bar.
2. Click **Port Forwarding** from the Advanced submenu options.

Note: To map a port, you would enter the range of port numbers that you want forwarded locally and the IP address for sending traffic to those ports. If you only want a single port specification, enter the same port number in the start and end locations for that IP address.



3. Do either of the following to set up the External IP Address:
   - Keep the IP Address set at 0.0.0.0 in the **External IP Address** field and then enter the port number in the **Start Port** field. Repeat the same port number in the **End Port** field.This allows incoming data traffic on the specified ports from any remote IP address.
   - Enter a specific remote IP address of your choice in the **External IP Address** field and then enter the specific port numbers in the **Start Port** and **End Port** fieldsThis allows incoming data traffic on the specified ports from only one remote IP address.

Note: To forward a range of ports, enter the first number of the port range in the Start Port field and the last number of the port range in the End Port field.

4. Do the following to set up your Local IP Address:

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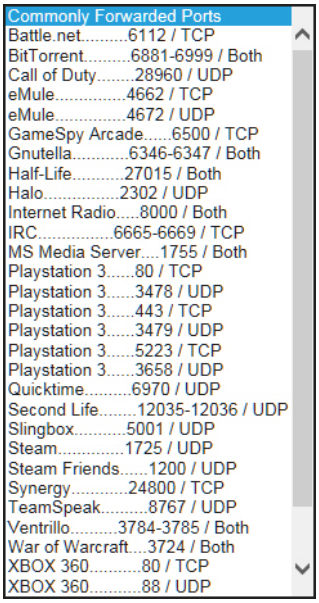
a. Enter the IP address of your local computer that you are setting up for port forwarding.

b. Enter the port number of your choice in the **Start Port** field. Repeat the same port number in the **End Port** field.

Note: To forward a range of ports, enter the first number of the port range in the Local Start Port field and the last number of the port range in the Local End Port field.

- Enter a description to name the forwarded port you are creating.
- Select TCP, UDP, or BOTH from the **Internet Protocol** drop-down list.
- Select **On** to enable port forwarding or **Off** to disable it.

5. Click **Apply**.



Set Up the DMZ Host

WARNING! The gaming DMZ host is not protected by the SBR-AC1200P <SBEProductType> 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 SBR-AC1200P 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. Click **Advanced** on the SBR-AC1200P Main Menu bar.

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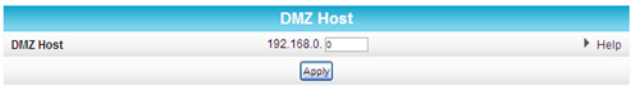
2. Click **DMZ Host** from the Advanced submenu options.



3. Enter the last one to three digits (from 2 to 254) of the IP address of the computer or gaming device that you are setting up as the **DMZ host**.
4. Click **Apply**.

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.

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