ARRIS

Global Knowledge Services

SURFboard SBX-AC1200P Network Extender

User Guide

Release 33 ISSUE 1.4 December 2015

December 2015

PN 365-095-28246

SURFboard SBX-AC1200P Network Extender User Guide
Release 33 ISSUE 1.4

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Other patents pending.

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Important Safety Instructions

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

- Read all of the instructions listed here and/or in the user manual before you operate this device. Give particular attention to all safety precautions. Retain the instructions for future reference.
- This device must be installed and used in strict accordance with manufacturer's instructions, as described in the user documentation that is included with the device.
- Comply with all warning and caution statements in the instructions. Observe all warning and caution symbols that are affixed to this device.
- To prevent fire or shock hazard, do not expose this device to rain or moisture. The device must not be exposed to dripping or splashing. Do not place objects filled with liquids, such as vases, on the device.
- This device was qualified under test conditions that included the use of the supplied cables between system components. To ensure regulatory and safety compliance, use only the interface cables and install them properly.
- 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.
- 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.
- Postpone installation until there is no risk of thunderstorm or lightning activity in the area.
- Do not use this product near water: for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.
- Do not cover the device or block the airflow to the device with any other objects. Keep the device away from excessive heat and humidity and keep the device free from vibration and dust.
- Wipe the device with a clean, dry cloth. Never use cleaning fluid or similar chemicals. Do not spray cleaners directly on the device or use forced air to remove dust.
- For added protection, unplug the device from the wall outlet and disconnect the cables to avoid damage to this device due to lightning and power surges.
- Upon completion of any service or repairs to this device, ask the service technician to perform safety checks to determine that the device is in safe operating condition.
- Do not open the device. Do not perform any servicing other than that contained in the installation and troubleshooting instructions. Refer all servicing to qualified service personnel.
- This device should not be used in an environment that exceeds 40º C (104º F).

SAVE THE ABOVE INSTRUCTIONS

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Temperature Requirements

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

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 device.
- Increase the separation between the device and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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

IMPORTANT NOTE:
Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 30cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Country Code selection feature to be disabled for products marketed to the US/CANADA Operation of this device is restricted to indoor use only.

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FCC DECLARATION OF CONFORMITY

ARRIS Enterprises, Inc. 3871 Lakefield Drive, Suwanee, GA 30024, 1-215-323-1000, declares that the SURFboard SBX-AC1200P Network Extender complies with 47 CFR Parts 2 and 15 of the FCC rules as a Class B digital device.

INDUSTRY CANADA (IC) STATEMENT

This device complies with Industry Canada's license-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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1) l'appareil ne doit pas produire de brouillage; et 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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

IC Warning:

This radio transmitter (IC: 6670A-SBXAC1200P) 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	3.1	3.34	2.7
Dipole	I-pex	2.85	2.37	3.44

IC Avertissement:

Le présent émetteur radio (IC: 6670A-SBXAC1200P) 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.

Antenne		**Gain de crête (dBi)**		
Type	**Connecteur**	**2400~2483.5MHz**	**5150~5250MHz**	**5725~5850MHz**
Dipôle	I-pex	3.1	3.34	2.7
Dipôle	I-pex	2.85	2.37	3.44

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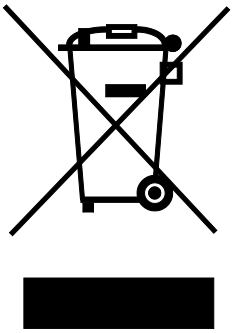
CARING FOR THE ENVIRONMENT BY RECYCLING



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

Recycling your ARRIS Equipment

Please do not dispose of this product with your residential or commercial waste. Some countries or regions, such as the European Union, have set up systems to collect and recycle electrical and electronic waste items. Contact your local authorities for information about practices established for your region.

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Product Overview

Introduction

The SURFboard SBX-AC1200P Network Extender lets you transmit and receive data over power lines in your home. The SURFboard SBX-AC1200P Network Extender connects directly to any outlet in your home to extend and enhance your network connectivity.

About The Network Extender

The SBX-AC1200P Network Extender has the following features:

- RipCurrent™ Gigabit home networking (G.hn) transmits and receives data over your home power lines.
- Supports multiple extenders on the same network.
- Easy plug-and-play installation.
- Compatible with most routers, gateways, and cable modems.

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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 SBX-AC1200P uses the power cable connected to the Network Extender 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 SBX-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.

What's in the Box?

Make sure you have the following items before proceeding:

- SURFboard SBX-AC1200P Network Extender
- Quick Start Guide
- Ethernet cable
- Warranty card

System Requirements

- Two or more Ethernet-enabled computers, printers, smart TVs, or other devices that you want to connect.
- 120VAC home wiring.
- Two or more G.hn-capable devices, such as two SURFboard SBX-AC1200P Network Extenders, or any SURFboard Router with G.hn capability with a SBX-AC1200P Network Extender.

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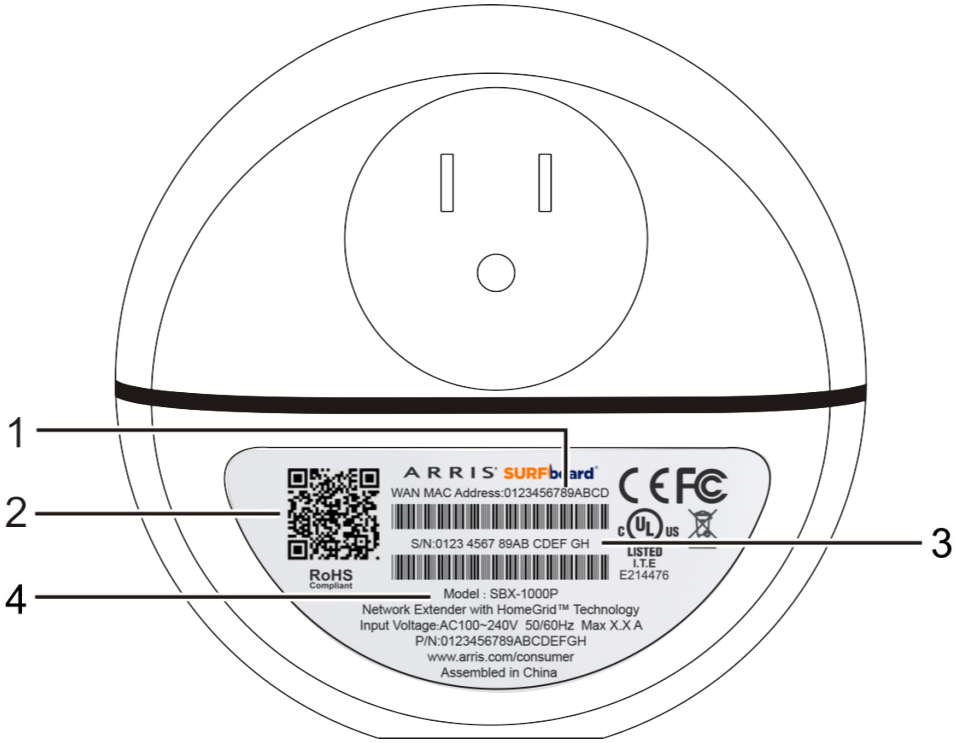
About this Manual

This manual covers the SURFboard SBX-AC1200P Network Extender. The model number is on the label affixed to the back of the Network Extender.



1. MAC address
2. QR Code
3. Serial number
4. Model number

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 Network Extender'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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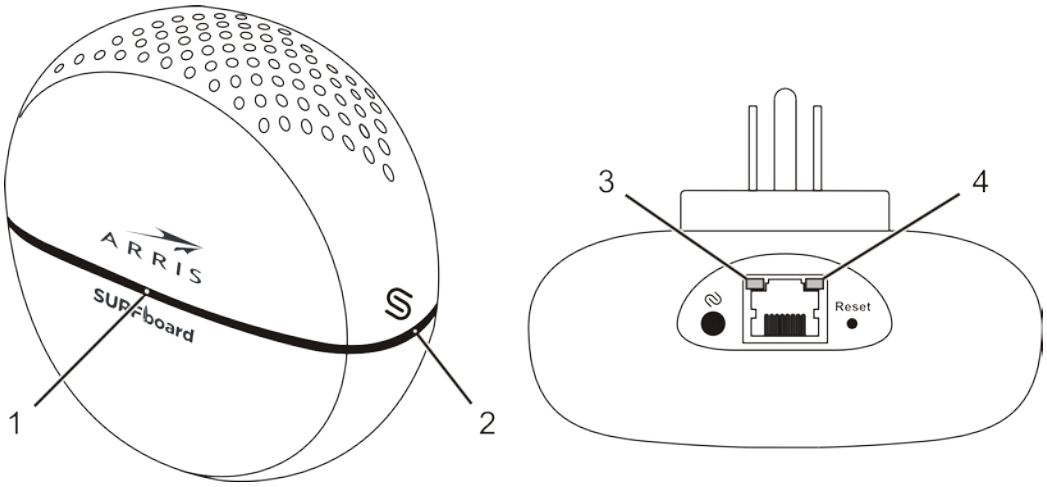
Installing the Network Extender

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.

If you are installing a Gigabit home networking router (SURFboard or a third-party router) with your SBX-AC1200P, please refer to the Installation and Configuration documentation for your device for setup instructions.

LED Indicators

The Network Extender has the following indicators:



1. **G.hn Link Quality LED:** indicates the signal quality of the G.hn link.
2. **G.hn Pairing LED:** indicates the logical network connection status (not connected, connecting/pairing, connected/paired) and status of data transmission.
3. **10/100 Mbps LED:** indicates the status of the 10/100 Mbps link.
4. **1 Gb LED:** indicates the status of the 1 Gb link.

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Indicator Lights for the SBX-AC1200P

The Network Extender has several LED indicator lights to assist in troubleshooting.

LED	Color/Behavior	Description
G.hn Link Quality	Solid green	Excellent link.
	Solid amber	Fair link.
	Solid red	Poor link.
	Flashing green (every five seconds)	Sleep mode.
	Flashing green (erratic)	Receiving/transmitting data, excellent link.
	Flashing amber	Receiving/transmitting data, fair link.
	Flashing red	Receiving/transmitting data, poor link.
	Off	No link.
G.hn Pairing	Solid green	Secure pairing complete. Connected to G.hn network with encryption enabled.
	Flashing green	Secure pairing in progress. Trying to connect to G.hn network.
	Solid red	Non-secure pairing complete. Connected to G.hn network without encryption.
	Flashing red	Non-secure pairing in progress. Trying to connect to G.hn network.
	Off	No link, or sleep mode.
Ethernet 10/100 Mbps link/activity	Solid amber	10/100 Mbps link activated, but no activity.
	Flashing amber	10/100 Mbps activity.
Ethernet 1 GB link/activity	Solid green	1 Gb link activated, but no activity.
	Flashing green	1 Gb activity.

Note: If SBX-AC1200P does not need to communicate with other devices on the G.hn network for a few minutes, then it may enter Sleep Mode. When this occurs, the G.hn Pairing LED switches off, and the G.hn Link Quality LED begins to flash steadily (every five seconds). The SBX-AC1200P will wake from Sleep Mode as soon as there is network traffic again.

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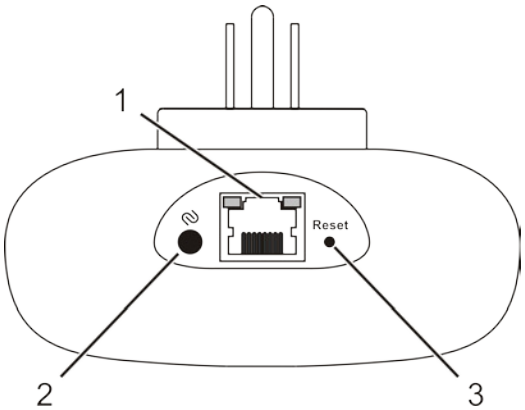
Connectors and Controls

The Network Extender has the following connectors and controls:



1. **Ethernet:** used to connect the Network Extender with a client device such as a computer, printer, gaming console, router, and so on.
2. **G.hn Secure Pairing button:** Initiates secure pairing.

   Note: If you hold the Pairing button for more than five seconds, the Network Extender resets its pairing defaults (that is, it loses its connection to any paired devices).

3. **Reset button:** resets the Network Extender as if you power cycled the unit. Use a pointed non-metallic object to press this button and hold this button for more than three seconds.

   Note: If you hold the Reset button for more than ten seconds, the Network Extender will be reset to the factory default settings and will reboot.

Pairing and Installing the Network Extender

In order to use Gigabit home networking (G.hn) home networking, you must have at least two G.hn devices connected to your power grid. The devices will begin to communicate with each other as soon as they detect each other over the power grid. You can add additional devices later to expand your network.

You can use the RipCurrent network by just plugging in two or more G.hn-enabled devices into the electrical outlets in your home. However, this network will not be secure. We recommend pairing the devices to add security to the RipCurrent network.

Once you have paired the devices, you can move them to their permanent locations throughout the house. The devices will not lose their network settings unless they are reset.

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

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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.

Important: If your Network Extender is not securely paired to another device, then the G.hn Pairing LED will appear red to indicate that the device is not securely paired.

Follow these steps to pair and install your first G.hn devices:

1. Plug in both devices in a location where you can see and easily access both devices. Power up both devices and wait until all of the LEDs become solid.
2. Press the **Pairing** button on either device. Hold the button for about two seconds but less than five seconds. The Pairing LED flashes red.
3. Press the **Pairing** button on the second device. Hold the button for about two seconds but less than five seconds. The Pairing LED flashes red.
   - When the devices begin communicating with each other, the Pairing LEDs will begin to flash green.
   - When the Pairing LEDs stop flashing and become solid green (in secure mode) or solid red (if paired without encryption), the pairing process is complete. It may take up to 60 seconds for the pairing process to complete.
4. Once the pairing process is complete, you can unplug the devices from the wall and move them to their permanent locations throughout the house. Use the enclosed Ethernet cable to connect the client device, such as a computer, TV, or game console.

Repeat these steps to add additional devices to an existing G.hn network.

Note: If your pairing is not successful, you can return the Network Extender to the non-secure state by pressing and holding the pairing button for 10 seconds. Then, test your connection in non-secure mode before trying to pair again.

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Managing Your Network Extender

Use the SBX-AC1200P to view and monitor the configuration settings and operational status of your SBX-AC1200P. You can also configure your network connections and security settings. See *Protecting and Monitoring Your Network* (page 24) for more information.

Note: To be sure that you access the Web Manager on the correct device, please unplug all other SBX-AC1200P devices on the network. Attach each unit directly and configure each one individually. See *Setting Up Unique IP Addresses* (page 26) for more information.

Setting Up a Static IP Address

In order to use the Ethernet port on your SBX-AC1200P to view the Network Extender Web Manager, you must set up a static IP address on the computer that you will use to access the Network Extender Web Manager. Use the following procedures to set up a static address of 192.168.100.253 to the computer that you will use to access the configuration screens.

Important: When you have finished configuring your Network Extenders, you must also follow these procedures to return your computer to its original IP and subnet settings.

Setting Up a Static IP Address in Windows 7 or Windows 8

1. Click the **Start** menu and type **network and sharing** into the Search box.
2. Select **Network and Sharing Center** when it appears.
3. Click **Change adapter settings** from the left-side menu.
4. Right-click on your local area connection icon and select **Properties**.

Note: You may have more than one Internet connection listed here. If so, you will need to determine which adapter is your connection to the Internet.

5. Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.
6. Click **Use the following IP address** and enter the following values:
   - For **IP address**, enter **192.168.100.253**.
   - For **Subnet mask**, enter **255.255.255.0**.
7. Click **OK**, and then click **OK** to close the Local Area Connection Properties window.

Important: When you have finished configuring your Network Extenders, you must also follow these procedures to return your computer to its original IP and subnet settings.

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Setting Up a Static IP Address in Windows Vista

1. Click the **Start** menu, then right click on **Network** and select **Properties**.
2. Click **Manage network connections** from the left-side menu.
3. Right-click on your local area connection icon and select **Properties**.

Note: You may have more than one Internet connection listed here. If so, you will need to determine which adapter is your connection to the Internet.

4. Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.
5. Click **Use the following IP address** and enter the following values:
   - For **IP address**, enter **192.168.100.253**.
   - For **Subnet mask**, enter **255.255.255.0**.
6. Click **OK**, and then click **OK** to close the Local Area Connection Properties window.

Important: When you have finished configuring your Network Extenders, you must also follow these procedures to return your computer to its original IP and subnet settings.

Setting Up a Static IP Address in Mac OS X

1. From the Apple menu, click **System Preferences**, and then click **Network**.
2. Click **Advanced**.
3. Click **TCP/IP**.
4. In the **Configure IPv4** field, select **Manually**.
5. In the **IPv4 Address** field, enter **192.168.100.253**.
6. In the **Subnet Mask** field, enter **255.255.255.0**.
7. Click **OK**, and then click **Apply**.

Important: When you have finished configuring your Network Extenders, you must also follow these procedures to return your computer to its original IP and subnet settings.

Start the Network Extender Web Manager

Important: Before you can start the Network Extender Web Manager, you must set up a static IP address on the computer that you want to use to access the Network Extender Web Manager. See *Setting Up a Static IP Address* (page 16) for more information.

Important: If you access the Web Manager through the default IP address (192.168.100.254), you should unplug all of your SBX-AC1200P devices except for the one you are trying to manage. This will help to ensure that you are communicating with the correct device.

1. Use the enclosed Ethernet cable to connect to the Ethernet port on the bottom of the Network Extender. Insert the other end of the Ethernet cable into your computer's Ethernet port.

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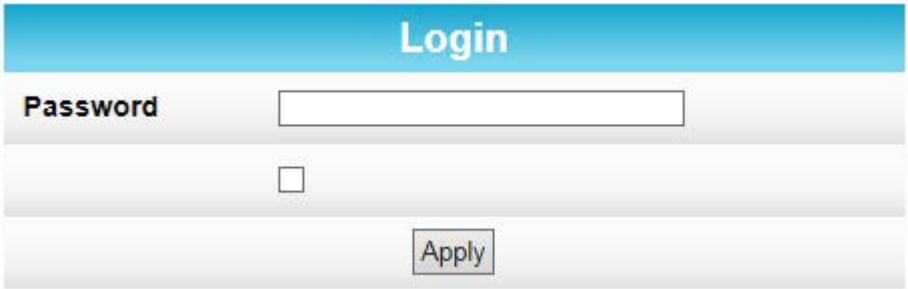
2. Open a browser window on your computer and navigate to **http://192.168.100.254**. The login screen appears.



3. Type your password in the Password field and click **Apply**.

Note: Your default password is **password**, and it is case-sensitive. We strongly recommend that you change the login password to prevent unauthorized access. See *Changing the Login Password* (page 26) for more information.

View the Network Extender Product Information

The Status - Device screen provides product information, including the serial number, MAC address, and firmware version.

To open the Status Device screen, click **Status** from the configuration screen.

STATUS - Device

Hardware Information	
Device Name	SBX1000P
Device Description	HomeGrid
Device Manufacturer	Arris
Serial Number	F5TRUK211300002
MAC Address	3c:df:a9:d9:53:48
HW Version	2_0

Software Information	
FW Version	SBX1000P-1.0.0-B04
System Uptime	93 sec

View the Network Extender Network Settings

You can use the Basic - IP screen to view and change the IP address assigned to this device.

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To open the Basic - IP screen, click **Basic** from the configuration screen and select **IP** from the drop-down menu.

BASIC - IP

IPv4 Configuration	
IPv4 Address	192.168.100.254
Subnet Mask	255.255.255.0
	Apply

Set Up Multicast Configuration

You can use the Advanced - Multicast screen to view and change the multicast settings for your SBX-AC1200P Network Extender.

To open the Advanced - Multicast screen, click **Advanced** from the configuration screen and select **Multicast** from the drop-down menu.

ADVANCED - Multicast

Multicast Configuration*	
IGMP Snooping	YES
MLD Snooping	NO
MLD and IGMP cannot be enabled at the same time	
IGMP Multicast Allow Ranges	NO

IGMP Multicast Allow Ranges*	
Minimum IP Address	Maximum IP Address
224 . 0 .0.0	239 . 254 .255.255
0 . 0 .0.0	0 . 0 .255.255
0 . 0 .0.0	0 . 0 .255.255
0 . 0 .0.0	0 . 0 .255.255

View the Advanced Configuration Settings

Use the Advanced - Configuration screen to view and change configuration information such as the language of the configuration screens and the login password for your network.

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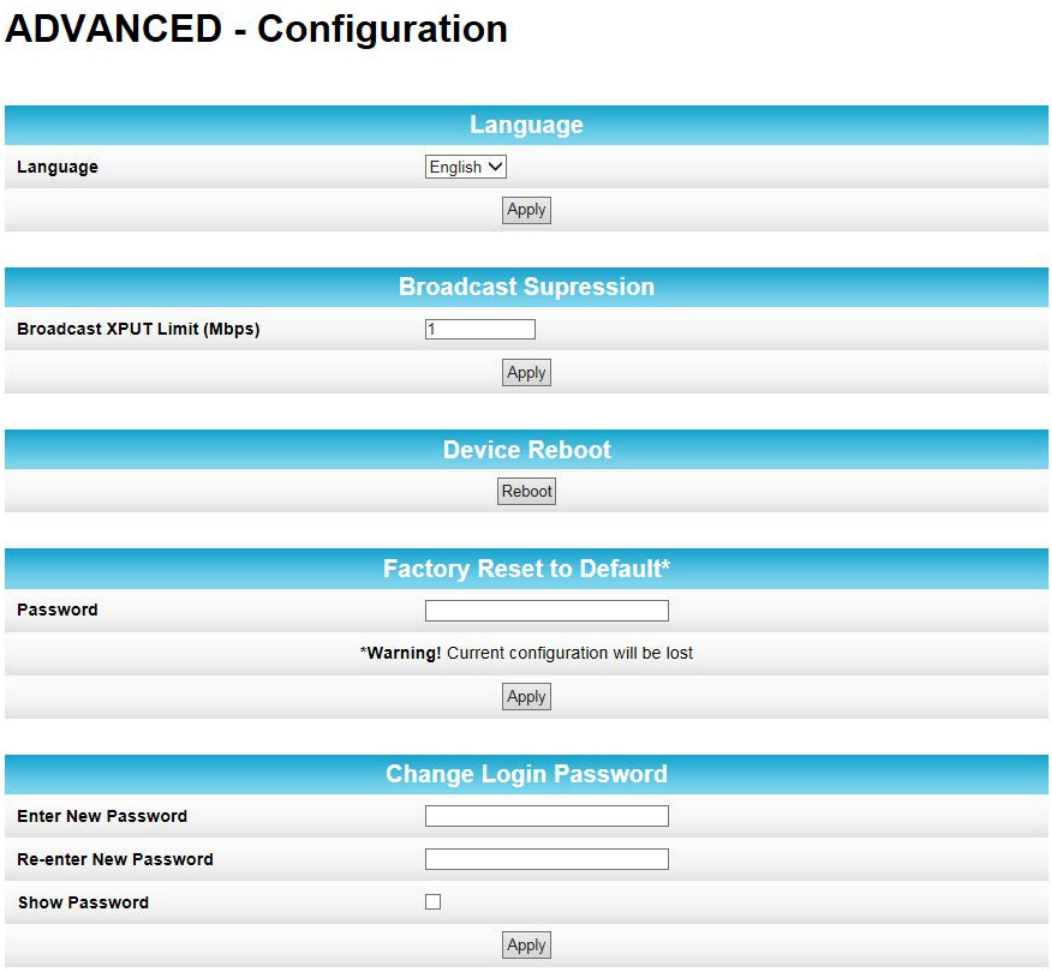
To open the Advanced - Configuration screen, click **Advanced** from the configuration screen and select **Configuration**.



Update Your Network Extender Firmware

You can update the firmware on your SBX-AC1200P Network Extender 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.arris.com/consumers*. To load the new firmware release onto your SBX-AC1200P Network Extender:

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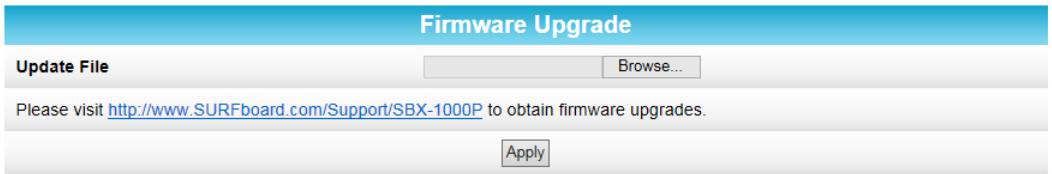
1. Click **Basic** from the configuration screen and select **FW Upgrade** from the drop-down menu.

BASIC - Firmware Upgrade



2. Click **Browse** to locate the new firmware file.
3. Select the new firmware file and click **Open**.
4. Click **Apply** to load the new firmware onto your SBX-AC1200P Network Extender.

Restart Your Network Extender

At some point during operation, you may have to restart or reboot your SBX-AC1200P. This will not affect your configuration settings.

There are two methods for restarting your Network Extender:

- *Restart the Network Extender Using the Reset Button* (page 21)
- *Restart the Network Extender Using the Network Extender Web Manager* (page 21)

Restart the Network Extender Using the Reset Button

1. Insert a pointed, non-metallic object into the indented **Reset** button on the bottom of the SBX-AC1200P. See *Connectors and Controls* (page 14) for more information.
2. Press the button and release in less than five seconds.

WARNING: Be sure that you release the button in less than five seconds. If you hold the button for more than 10 seconds, the SBX-AC1200P resets and restores all of its factory default settings.

Restart the Network Extender Using the Network Extender Web Manager

To restart your Network Extender:

1. Click **Advanced** from the configuration screen and select **Configuration**.
2. Click **Reboot** from the Device Reboot section of the screen.

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3. Follow the prompts on the screen to restart your Network Extender and log back in.

Reset Your Network Extender to Factory Settings

If necessary, you can reset or restore the SBX-AC1200P configuration settings, including your password, back to the default factory settings. There are two methods for resetting the configuration on the SBX-AC1200P:

- *Reset the Network Extender Using the Reset Button* (page 22)
- *Reset the Network Extender Using the Network Extender Web Manager* (page 22)

WARNING! This action will delete your current configuration settings (including your login password) and restore the configuration back to the factory defaults.

Note: After the configuration settings are restored, the Network Extender will reboot, and you will have to log on using the default login password (**password**).

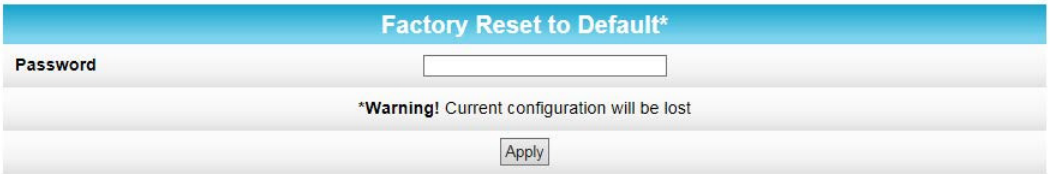
Reset the Network Extender Using the Reset Button

WARNING: This procedure will delete your current configuration settings (including your login password) and restore the configuration back to the factory default settings.

1. Insert a pointed, non-metallic object into the indented **Reset** button on the bottom of the SBX-AC1200P. See *Connectors and Controls* (page 14) for more information.
2. Press and hold for at least 10 seconds, and then release.

Reset the Network Extender Using the Network Extender Web Manager

1. Click **Advanced** from the configuration screen and select **Configuration**.
2. In the Factory Reset to Default section, type your login password and click **Apply**.



3. Follow the prompts on the screen to reset your Network Extender. Do not power off the Network Extender while it is resetting. The Network Extender will automatically reboot when the reset is complete.
4. Log back in using the default password (**password**).

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Exit the SBX-AC1200P Web Manager

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

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

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Protecting and Monitoring Your Network

Setting Up Custom Security

The SURFboard SBX-AC1200P Network Extender uses a default level of security when you set up your G.hn network. This level of security is sufficient in most situations. However, you may want to set up custom security if:

- you are concerned that physical access to the Pairing button might compromise your security (for example, if you are a small business or an adapter is being used in public area where there is a lack of security).
- you need to set up more than one separate network in a household or common area to avoid pairing mistakes.
- you are using your SURFboard Network Extender with an extender from another manufacturer.

Note: In situations where more than one G.hn network is set up in the same area, the networks will coordinate and share bandwidth, but security remains isolated.

If you need to set up custom security, you must first set up a static IP address on the computer that you will use to configure the Network Extender. Then, you will need to define custom security values for each extender in your network.

Defining Custom Security Values

On the RipCurrent page, the Domain Name and Pairing Password work together to establish the keys for network security. By default, the Domain Name is RipCurrent until the device is paired, and the Pairing Password is blank. After the device is paired, the Domain Name and Network Password will contain random characters.

If you add custom values to the Domain Name and Pairing Password fields, then the device will only pair with other devices if the values in those fields match exactly.

Note: Once you have entered custom security values for the Domain Name and Pairing Password fields, you do not need to press the Pairing button to initiate the pairing process. The devices will discover each other and begin to pair automatically.

Important: Before you complete these steps, you must set up a static IP address on your computer. For more information, see *Managing Your Network Extender* (page 16).

Follow these steps to define custom security values:

1. Plug in both devices in a location where you can see and easily access both devices. Power up both devices and wait until all of the LEDs become solid.

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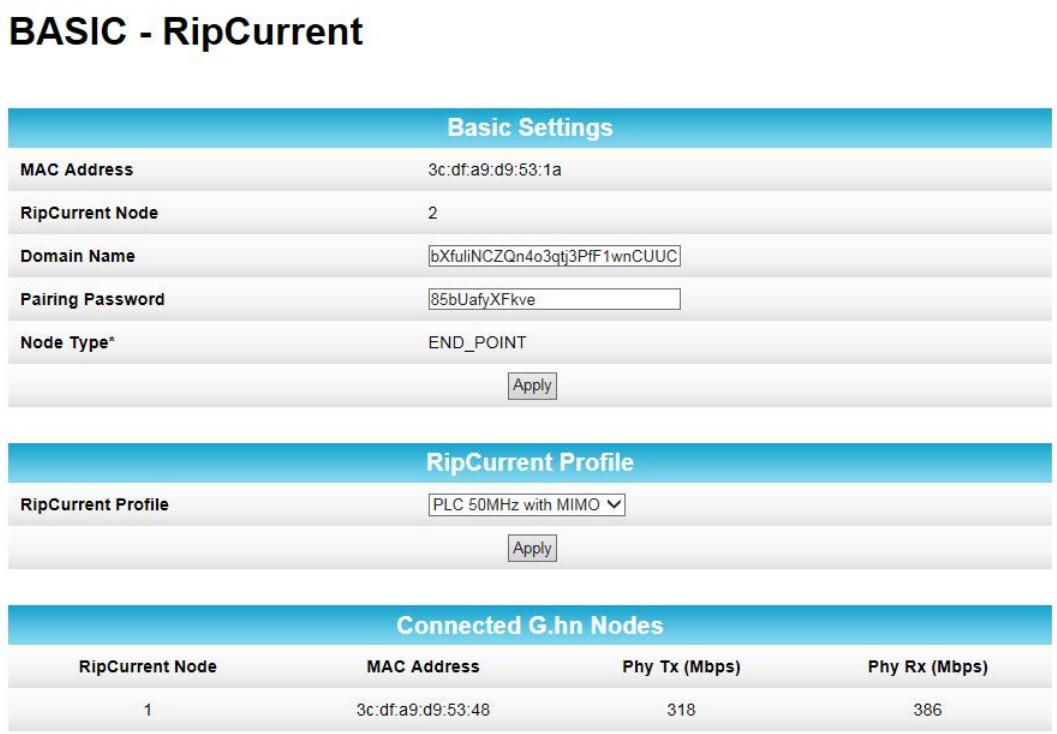
2. Use the enclosed Ethernet cable to connect to the Ethernet port on the bottom of the first device. Insert the other end of the Ethernet cable into your computer's Ethernet port.
3. Open a browser window on your computer and navigate to **http://192.168.100.254**.
4. Type your password in the **Password** field and click **Apply**.
5. Click the **RipCurrent** tab.



6. On the Basic - RipCurrent screen, enter the **Domain Name** and **Pairing Password** that you want to assign to this device. Then click **Apply**.

Important: Make note of the Domain Name and Pairing Password values that you use. You will need to enter these values again for every device that you add to this network.

7. Repeat steps 2 through 6 with the second device and any additional devices that you may have. Be sure to enter the same Domain Name and Network Password values that you entered for the first device.

Note: Once you have entered custom security values for the Domain Name and Pairing Password fields, you do not need to press the Pairing button to initiate the pairing process. The devices will discover each other and begin to pair automatically.

- When the devices discover each other, the Pairing LEDs will begin to flash green.
- When the Pairing LEDs stop flashing and become solid green, the pairing process is complete.

8. Once the pairing process is complete, you can unplug the devices from the wall and move them to their permanent locations throughout the house. Use the enclosed Ethernet cable to connect the client device, such as a computer, TV, or game console.

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Setting Up Unique IP Addresses

In order to reach the configuration screens for a particular Network Extender, you must use an Ethernet cable to connect your computer to that Network Extender and then use a browser to navigate to http://192.168.100.254. This is the standard factory configuration for each Network Extender.

Note: To be sure that you access the Web Manager on the correct device, please unplug all other SBX-AC1200P devices on the network. Attach each unit directly and configure each one individually.

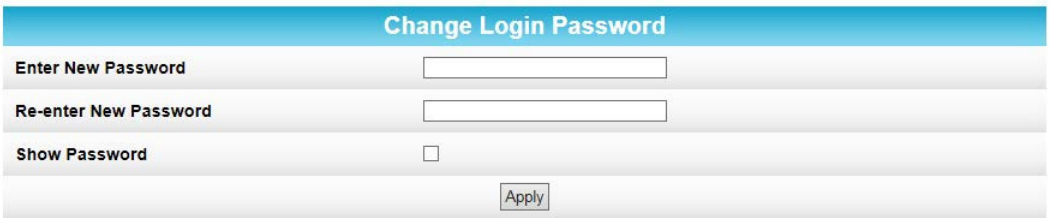
Advanced users may want to consider setting up a unique IP address for each extender on the network. By doing so, you can connect your computer to any Network Extender in the network and then configure any Network Extender by navigating to the unique IP address for that device. The procedure to set up unique IP addresses for each Network Extender is outside the scope of this guide.

Changing the Login Password

The default password is "password" (lower case). You should change the login password to something other than the default password.

Perform the following steps to change the password.

1. Access and log into the configuration interface.
2. Click the **Advanced** tab, then click **Configuration**.
3. In the Change Login Password section, enter the new password in both the **Enter New Password** field and the **Re-enter New Password** field.



Note: Passwords are case-sensitive. Valid characters are the numbers 0 to 9, the letters a through z (both upper and lower case), and printable special characters (such as $, !, ?, &, #, @, and others.)

4. Click **Apply**.
5. Record the new password here: _____

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