ARRIS

Wireless Extender Quick Start Guide

Use this Quick Start Guide to install your Wireless Extender and improve your home wireless network.

When you are done the steps in this guide, the wireless extender is working with simple "pushbutton" security and default settings.

This Quick Start Guide tells you how to:

- Connect power to the Wireless Extender
- Repeat your Wi-Fi network
- Extend a new Wi-Fi network
- Add Wi-Fi devices to the network
- Open the Wireless Extender web management tools
- Read the indicator lights
- Reset the Wireless Extender

IMPORTANT SAFETY INFORMATION

Your Wireless Extender has been manufactured to meet international safety standards, but you must take care to operate it safely. It is important that you read these safety instructions.

WARNING: Remember that contact with AC mains can be lethal or can cause severe electric shock. To avoid the risk of electric shock:

- Never attempt to open the Wireless Extender, as there are high-voltage live parts inside. There are no user-serviceable parts inside it.
- Make sure all electrical connections are properly made.
- Before you disconnect any other equipment from your Wireless Extender, switch off your Wireless Extender by pushing the ON/OFF button, then disconnect your Wireless Extender by disconnecting it from the mains socket on the wall.
- Never push anything into holes, slots or other openings in the case.
- The only way to disconnect your Wireless Extender from the mains is to remove the 12V power supply unit from the mains socket. Therefore, you must install the Wireless Extender near to the mains socket, which should be easily accessible.
- If you are in doubt about the power supply, its plug, or its connection, consult a competent electrician.

The model number, serial number and electrical rating of your Wireless Extender are on a label on its rear.

Parts of the Wireless Extender

- Power and Mode light
- Wi-Fi Quality light
- Gateway Link Quality light
- Wi-Fi Protected Setup Button (WPS)

- Power On/Off switch
- 12V DC Power socket
- Reset button
- Mode (Repeater/Access Point) switch
- Ethernet LAN ports

CAUTION

Environment:

- The Wireless Extender needs air flow to keep cool. Do not block or cover the ventilation holes of the Wireless Extender. Leave a gap of at least 10cm above and around the Wireless Extender to allow for adequate ventilation.
- Do not operate your Wireless Extender in an unventilated cabinet or on top of another unit that emits heat, such as a TV or media player.
- Do not store the Wireless Extender in hot, damp, dusty, or unusually cold locations.
- The Wireless Extender is intended for indoor use and installation only.

Handling:

- Do not put anything on or over your Wireless Extender which might drip or spill on it.
- Never place an open flame, such as from a lit candle, near the Wireless Extender's ventilation holes.

Storage:

- Store your Wireless Extender in a cool, dry place. Before installation and use, let the wireless extender reach room temperature.

Recycling:

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 in your region. If collection is not available, contact ARRIS customer support for information.

How to Read Your Wireless Extender Lights

The Wireless Extender lights may show different conditions depending on if the Extender is set to Repeater or Access Point operation.

Access Point Mode	Color/Condition	Light	Color/Condition	Repeater Mode
Wireless Extender operating in access point mode	green	(Power and Mode)	blue	Wireless Extender operating in repeater mode
10/100/1000 Mbps Ethernet link with IP address received	green	(Gateway Link Quality)	green	Gateway uplink quality excellent
10/100 Mbps Ethernet link with IP address received	yellow		yellow	Gateway uplink quality good
No LAN link detected	red		red	Gateway uplink quality poor
Wi-Fi quality excellent	green	(Wi-Fi Quality)	green	Wi-Fi quality excellent
Wi-Fi quality good	yellow		yellow	Wi-Fi quality good
Wi-Fi quality poor	red		red	Wi-Fi quality poor
Client WPS in progress	flashing yellow		flashing yellow	Client WPS in progress

This is not a full table of all system light meanings. Other light settings may be related to setup or WPS operations, or useful for Customer Support troubleshooting.

How Will You Use the Wireless Extender?

You can set up the Wireless Extender to provide Wi-Fi signals to your home. This can improve the reach of your existing Wi-Fi network, or extend a network from your internet gateway or modem. These two most common situations are illustrated and described below.

- **Repeater:** Connect the Wireless Extender to your router/modem wirelessly and spread your wireless network to areas with weak signals.

Router/Modem   Internet

- **Access Point:** Connect your Wireless Extender to your router/modem using an Ethernet wire. This provides a signal with better quality and speed when compared to the repeater mode.

Router/Modem   Internet   Ethernet cable
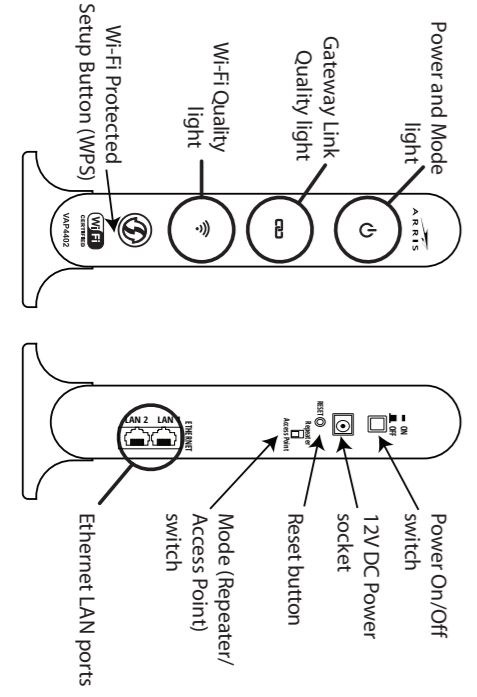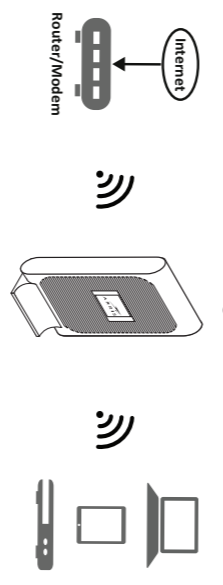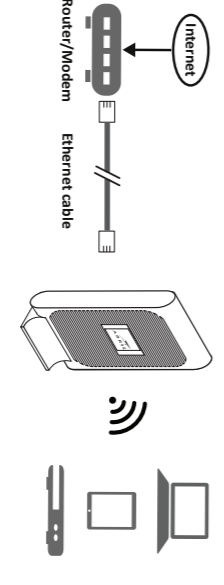
Let's Get Started - Set Your Operating Mode

Set up the Wireless Extender with these instructions.

- If you want to connect to your gateway or modem with a wired connection and use the Extender for Wi-Fi service, set up the Extender **as an ACCESS POINT**.

- If you want to connect to your gateway or modem wirelessly, and spread your wireless network to areas with weak signals, set up the Extender **as a REPEATER**.

Set the mode switch on the back of the Extender to the operating mode you want. Open up the rest of this Quick Start Guide and follow the instructions inside to set up your Extender.

Repeater / Access Point

Open Source Software and Licenses

For instructions on how to obtain a copy of any source code being made publicly available by ARRIS related to software used in this ARRIS product you may send your request in writing to:

ARRIS,
Software Pedigree Operations,
2450 Walsh Avenue,
Santa Clara, CA 95051, USA

The ARRIS website opensource.arris.com also contains information regarding use of open source. ARRIS related to software used in this ARRIS product you may send your request in writing to:
ARRIS has created opensource.arris.com to serve as a portal for interaction with the software community-at-large.

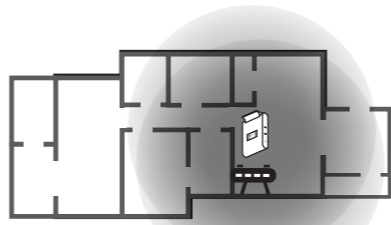## Set up as a REPEATER

Repeater / Access Point

1. Connect the cord from the power supply to the **POWER +12 V DC** socket on the back of the Wireless Extender. Connect the power supply to a power outlet near your Internet gateway or network hub.

2. Push the **On | Off** switch to turn the Extender on. Wait for the front power light to flash, then stay on blue.

3. Push the **WPS** button on the Extender.

4. Look at the Gateway Link Quality light on the front of the Extender. The light flashes yellow. The flashing yellow light means it is waiting for other Wi-Fi devices.

5. Push the **WPS** button on your Internet gateway or Wi-Fi router.

Did the Gateway Link Quality light flash red? The Extender did not join your Wi-Fi network. Try the WPS buttons again, or check the settings of your home Wi-Fi network. Your Wi-Fi network must be set up for WPS, and be using WPA or WPA2 security.
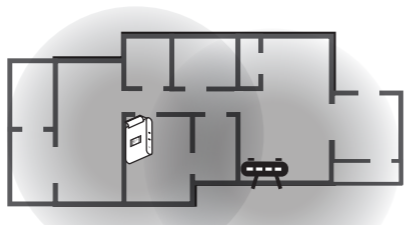
Look at the Gateway Link Quality light on the extender. The light flashes green when the Extender connects to your Wi-Fi network, then stays on a color that indicates the quality of the Wi-Fi signal to the gateway.

You will now move the Extender to the area where you want to repeat your Wi-Fi network.

When you choose a place to put the Extender, try to move it a little less than half-way to where your gateway's Wi-Fi signal is poor.

6. Turn off the Extender with the **On | Off** switch. Unplug the power supply from the outlet.

7. Move the Extender to a new location where you want to provide better Wi-Fi service.

8. Plug in the Extender power supply, turn it on, and wait for the Power light to be on solid blue.

9. Look at the Gateway Link Quality light. It shows the strength of the signal from your home Wi-Fi network router or hub.
   - Green = strong signal
   - Yellow = weak signal
   - Red = very weak or no signal

10. Move the Extender to a place where the Link Quality light stays on green. If you can not get the light to stay on green, move the Extender closer to your home Wi-Fi network router.

After the Extender is in a good location, you can add new Wi-Fi devices to it as described in **Add Wi-Fi Devices to the Network.**

Set up as an ACCESS POINT

Repeater / Access Point

1. Connect the wire from the power supply to the **POWER +12 V DC** socket on the back of the Wireless Extender. Connect the power supply to a power outlet near your Internet gateway or network hub.

2. Plug the included Ethernet wire into one yellow port on the back of the Extender.
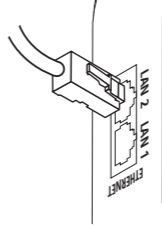
3. Plug the other end of the Ethernet wire into a LAN port on your Internet gateway or home network hub.

4. Push the **On | Off** switch to turn the extender on. Wait for the front power light to flash, then stay on green.
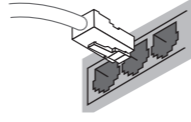
5. Look at the Gateway Link Quality light on the front of the Extender. The light flashes green when connecting to your Internet gateway or router. The light then stays on green or yellow when the Extender is connected. The color of the Gateway Link Quality light represents the speed of the connection (10/100 or 1000 Mbps).

Did the Gateway Link light keep flashing yellow? The Extender did not join your gateway or modem's network. Try resetting the Internet gateway or modem with the Extender connected and turned on.

After the Extender is ready, you can add new Wi-Fi devices to it as described in **Add Wi-Fi Devices to the Network.**

Manage and Secure Your Extender

Open Management Tools
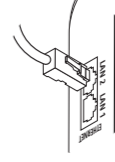
The Extender has a set of web management tools for monitoring and controlling the Extender.

1. Connect a computer to one of the Extender's LAN ports with an Ethernet wire.

2. Open a web browser on the computer.

3. Type **192.168.1.253** in the browser address bar.

4. Type your user name and password in the login fields. The Extender is set with an account name of **admin** and a password of **admin** when manufactured.

You can use the management tools to set up your network, control the Wi-Fi channels, and change your management tools password.

5. When you are done, close the web browser and disconnect the Ethernet wire.

Change Management Tools Password

Do not make it easy for someone else to control your network! You should change the password you use to open the web tools. If the password is not changed, it is much easier for someone else to change or control your Wi-Fi network.

1. Complete the **Open Management Tools** steps and log in.

2. Find **System** in the left column of the management tools page. Click or tap the word **Password** below **System** and the password tools appear.

3. Type the password you are using now (admin if you have not changed it) in the **Current Password** line.

4. Type a new password for the web management tools in the **New Password** and **Confirm Password** lines. The two passwords you type must exactly match.

5. Click or tap the **Save** button. The new password is saved. You will have to use it next time you use the web management tools.

Reset or Erase the Wireless Extender

The RESET button on the back of the Wireless Extender has two functions:
- turning the Extender off and on again, while keeping all your settings.
- erasing all your settings so that you can begin setting the Extender up again.

The RESET switch is protected by the plastic case, and can be pushed down with the tip or a pen or pencil.

The Extender power must be on to reset or erase settings.

Restarting with the RESET Button

Push and hold down the RESET button for two seconds to restart.

Erasing Settings with the RESET Button

THIS ERASES ANY SETTINGS YOU HAVE MADE, INCLUDING JOINING THE EXTENDER TO YOUR HOME NETWORK.

Push and hold down the RESET button for at least six seconds. The Extender deletes all settings and restarts with the settings it had when manufactured.

Add Wi-Fi Devices to the Network

Do these steps for all Wi-Fi devices that you want connected to the Wireless Extender's Wi-Fi network.

1. Push and hold the WPS button on the front of the Extender for two seconds, then release it.

2. The Wi-Fi Link Quality light on the Extender flashes yellow while it listens for other Wi-Fi devices.

3. Push the WPS button on your Wi-Fi device, or use a WPS (Wi-Fi Protected Setup) scanning function on your Wi-Fi device.

4. Look at the Wi-Fi Link Quality light on the Extender. The light flashes green when the extender connects to your Wi-Fi device, then stays on a color that indicates the quality of the Wi-Fi signal.

Did the Link Quality light flash red? The Extender didn't connect with your Wi-Fi device. Try again, or check the settings of your home Wi-Fi network. You may need to use the web tools and a password to connect devices to the Wi-Fi network.