

Patriot-DB

Flexible Access-Point and Wi-Fi Extender



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Powering Up

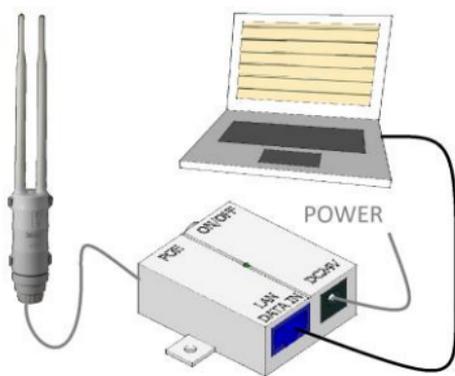
The Patriot-DB is powered via its WAN/LAN (PoE) Port using a PoE injector on mains electricity, but other options are available if you need to operate from other power sources.

Before starting this guide, please ensure that you have connected the Ethernet cables in the below correct order.

Firstly, connect one end of an Ethernet cable to the PoE port of the PoE injector, and the other end to the WAN/LAN (PoE) port on the PATRIOT-DB.

Once this is done, you need to plug in the power connector to the DC24V port of the PoE injector, then plug the power adapter into the mains socket and turn it on.

Finally press the ON/OFF button on the PoE injector to power up the Patriot-DB.



Configure Using a Wired Laptop / PC

This is the easiest way to get started as all you need to do is establish a wired connection between the Patriot-DB and either a laptop or computer using Ethernet cables.

This is done by connecting one end of an Ethernet cable directly to the LAN DATA IN port of the PoE injector, and the other end to the LAN port of the computer or laptop.

Once done, you can proceed.



Configure Using a Wi-Fi Device

If you don't have a PC or laptop with a LAN port to do the configuration then you can do it using a Smartphone or any other Wi-Fi enabled device that has a Web Browser.

This is done by wirelessly connecting to either Wireless-N or Wireless-AC, which are the default open wireless networks that the Patriot-DB broadcasts.

Once done, you can proceed.

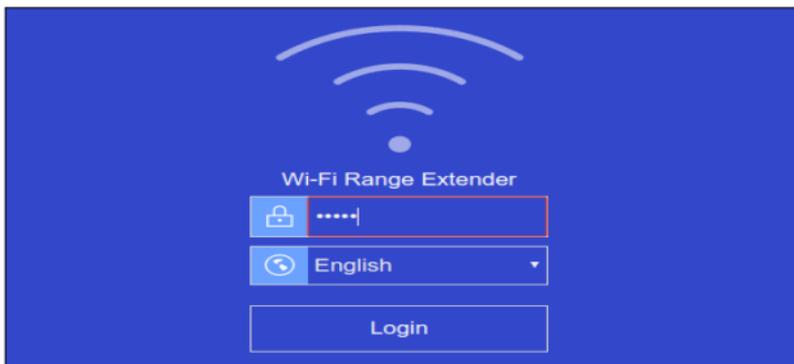


Use as a Stand-alone Access Point

In this mode the Patriot-DB will be used to serve an outdoor area with a WiFi service sourced through a wired connection to a Home Hub, Router or similar Internet access device.

Step 1: Once everything has been connected up, open up a **Web Browser** such as **Mozilla Firefox** or **Google Chrome** and type the IP address **192.168.10.1** into the address bar.

You will then be greeted by a login screen asking for a password, by default this is '**admin**', enter this into the field and click the '**Login**' button to proceed.



Step 2: Once this is done, you will be redirected to the **'Status Page'**, the next step is to click on the **'Wizard'** icon at the bottom of the page to proceed.

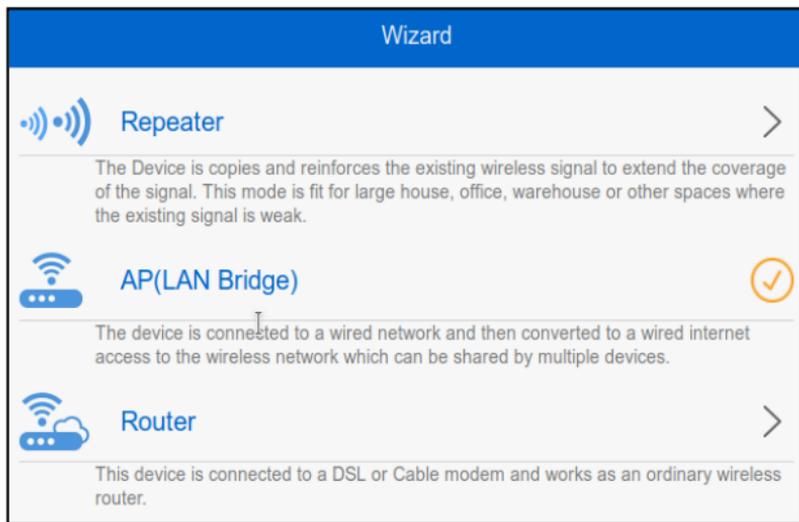
The screenshot displays the 'Wireless-AC' management interface. At the top, it shows 'WI-FI MANAGEMENT' and 'Wireless-AC'. Below this, there are two main sections: 'This Device' (represented by a router icon) and 'Router' (represented by a multi-antenna router icon). The 'This Device' section is currently selected and shows 'AP(LAN Bridge)' mode. Below these sections, there are three status indicators: 'Speed' (0KB/S up and 0KB/S down), 'Clients' (0), and 'Internet' (globe icon). A 'Device Information' table is also present, listing various network parameters.

| Device Information | | | |
|--------------------|-------------------|-----------|-----------------------|
| WAN Type | AP(LAN Bridge) | 2.4G SSID | Wireless-N |
| Device IP | 192.168.10.1 | Channel | 11 |
| Gateway | 0.0.0.0 | 5G SSID | Wireless-AC |
| DNS1 | 8.8.8.8 | Channel | 40 |
| DNS2 | 114.114.114.114 | UpTime | 0 Day 0 h 0 m |
| WAN MAC | 80:3F:5D:A2:99:48 | Firmware | RPT70HA1.V4300.190220 |

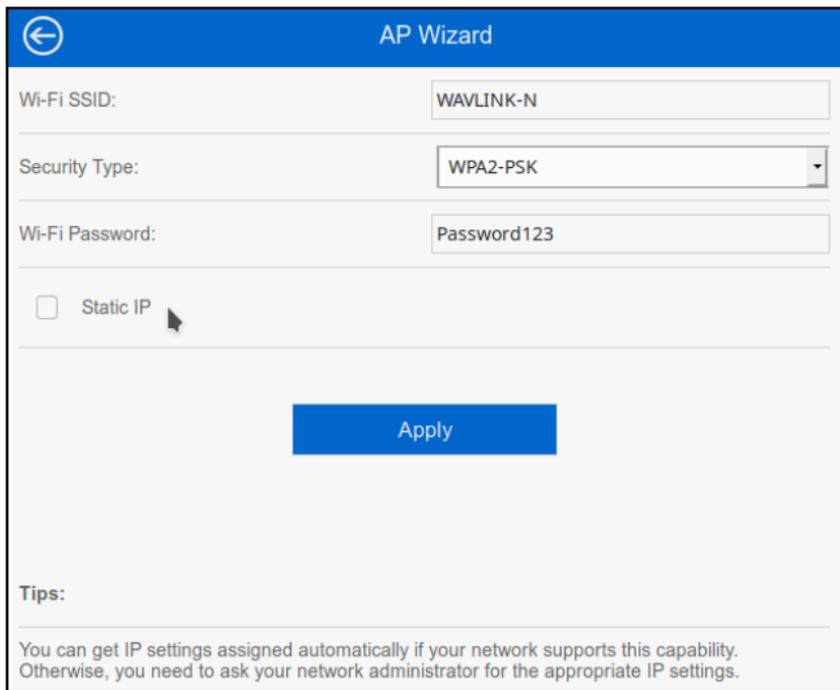
At the bottom of the interface, there are four navigation icons: 'Status' (house icon), 'Wizard' (magic wand icon), 'Wi-Fi' (Wi-Fi signal icon), and 'Setup' (gear icon).

Step 3: There will be three operating modes; 'Repeater', 'AP(LAN Bridge)' and 'Router'.

For the purpose of this instruction you will be choosing 'AP(LAN Bridge)' by clicking on the circled 'Orange Tick' to proceed.



Step 4: On this screen, there is a couple of details you need to provide.



AP Wizard

Wi-Fi SSID: WAVLINK-N

Security Type: WPA2-PSK

Wi-Fi Password: Password123

Static IP

Apply

Tips:

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

Wi-Fi SSID – this is the name of the wireless network that will be broadcast, this can be anything you wish.

Security Type – this is the encryption for the password that is entered when you connect to the wireless network. We recommend using WPA2-PSK.

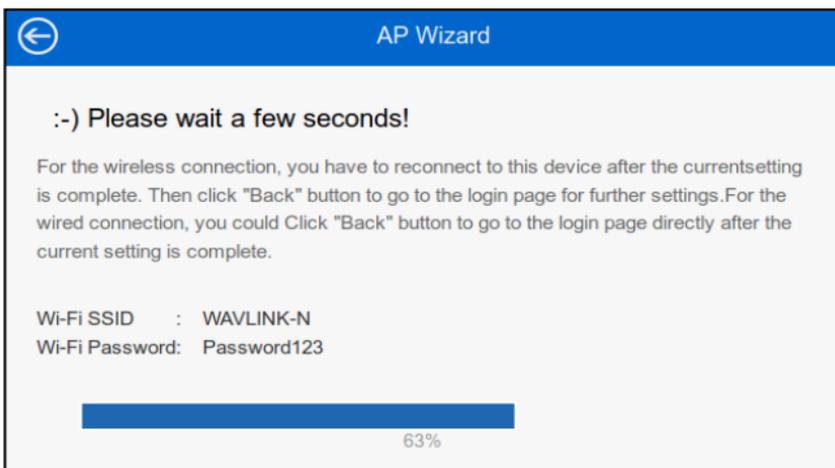
Patriot-DB

Use as a Stand-alone Access Point

Wi-Fi Password – this is the password you enter when you connect to the wireless network. This can anything you wish although a recommendation is to use a mixture of numbers and letters.

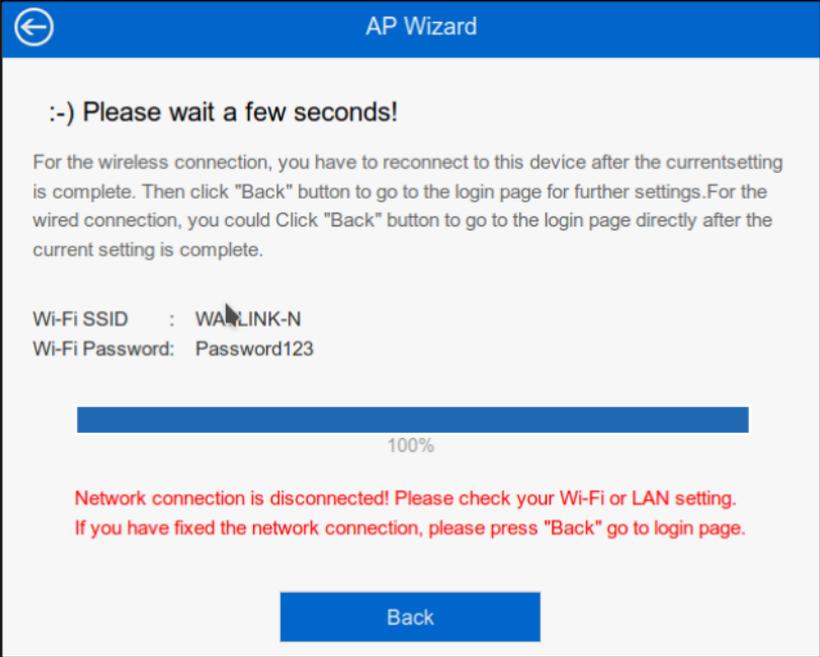
Static IP – by default this can be left unticked, unless you need to specify IP settings.

Now that you have provided the required fields, you can click the 'Apply' button.



The wizard will start applying the settings specified previously.

Step 5: Now that the configuration is complete, all you need to do now is plug the Patriot-DB into a source of Internet connection, such as a network switch or router.



← AP Wizard

:-) Please wait a few seconds!

For the wireless connection, you have to reconnect to this device after the current setting is complete. Then click "Back" button to go to the login page for further settings. For the wired connection, you could Click "Back" button to go to the login page directly after the current setting is complete.

Wi-Fi SSID : WALINK-N
Wi-Fi Password: Password123

100%

Network connection is disconnected! Please check your Wi-Fi or LAN setting.
If you have fixed the network connection, please press "Back" go to login page.

Back

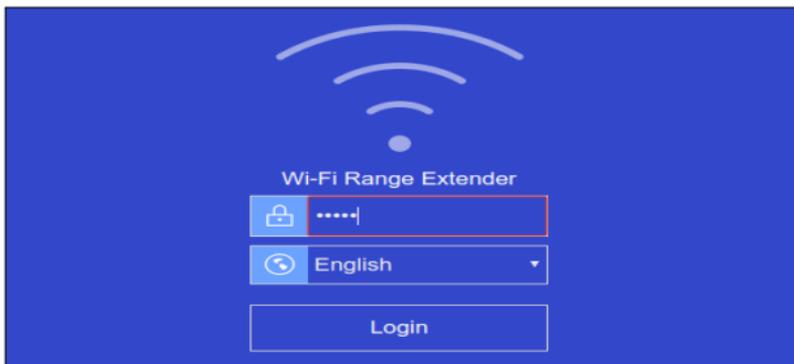
You have now configured the Patriot-DB as a standalone access point, so all you need to do now is to connect to your existing network.

Use as a WiFi repeater

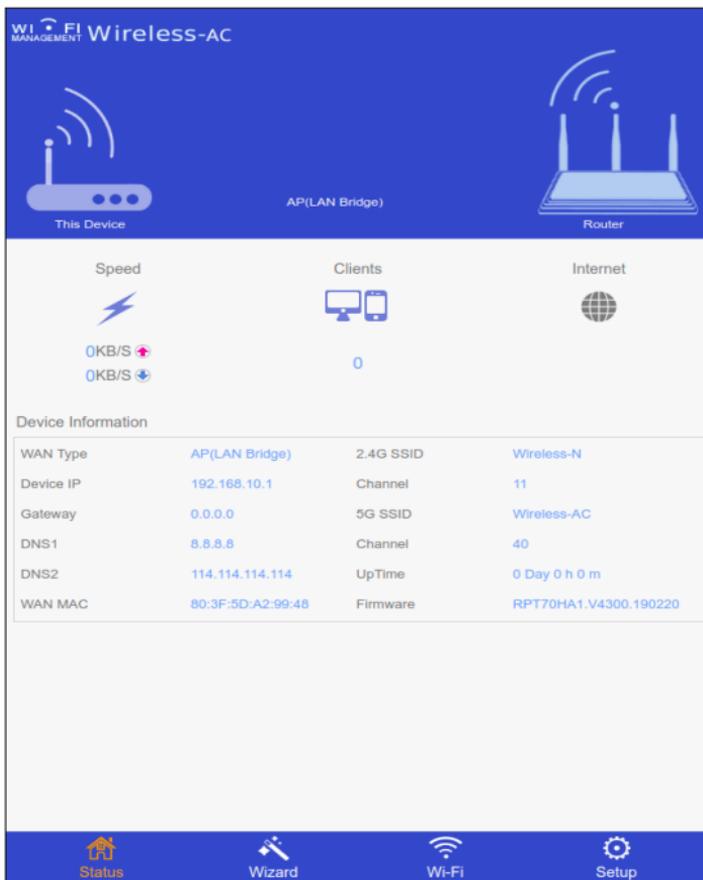
In this mode the Patriot-DB will re-transmit ALL the WiFi signals it can 'see'. We DO NOT recommend this mode for use with public WiFi services as each repeater can halve the capacity of the public WiFi service!

Step 1: Once everything has been connected up, open up a **Web Browser** such as **Mozilla Firefox** or **Google Chrome** and type the IP address **192.168.10.1** into the address bar.

You will then be greeted by a login screen asking for a password, by default this is **'admin'**, enter this into the field and click the **'Login'** button to proceed.



Step 2: Once this is done, you will be redirected to the '**Status Page**', the next step is to click on the '**Wizard**' icon at the bottom of the page to proceed.



Wi-Fi MANAGEMENT Wireless-AC

This Device AP(LAN Bridge) Router

Speed
0KB/S ↑
0KB/S ↓

Clients
0

Internet

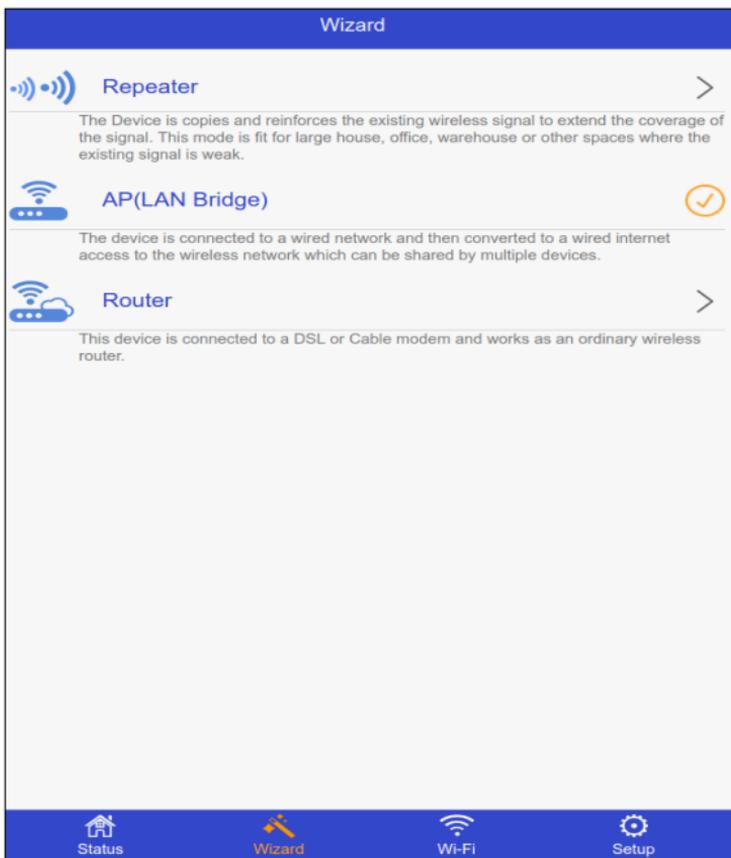
Device Information

| | | | |
|-----------|-------------------|-----------|-----------------------|
| WAN Type | AP(LAN Bridge) | 2.4G SSID | Wireless-N |
| Device IP | 192.168.10.1 | Channel | 11 |
| Gateway | 0.0.0.0 | 5G SSID | Wireless-AC |
| DNS1 | 8.8.8.8 | Channel | 40 |
| DNS2 | 114.114.114.114 | UpTime | 0 Day 0 h 0 m |
| WAN MAC | 80:3F:5D:A2:99:48 | Firmware | RPT70HA1_V4300.190220 |

Status Wizard Wi-Fi Setup

Step 3: By default, the Patriot-DB will be set up in the **'AP(LAN Bridge)** operating mode, so we need to change this to **'Repeater'**.

This can be changed by clicking on the > symbol.



Step 4: Once this is changed to **‘Repeater’** mode then the wizard will begin to scan for nearby wireless networks to repeat.

You will notice that under **‘Repeater Mode’** there is a choice of two **‘Repeater Modes’**:

Gateway – this creates a wireless network that is isolated from the original wireless network you are trying to connect to. This mode is useful if you are looking to create a wireless network for people to connect to, but do not want them to see your internal network.

Bridge – this is the opposite to **Gateway** as it effectively extends the original wireless network (bridges a link) so you can see the original internal network. This mode is ideal for connecting to Wi-Fi hotspots on places such as campsites.

Please note that if you have several of the PATRIOT-DBs connecting to a single wireless network in Gateway mode, you will create what is known as a network loop, which will cause the network to crash.

For that reason, we recommend choosing **‘Bridge’** mode.

Once you have chosen the operating mode (either Bridge or Gateway), simply click on the name of the wireless network you wish to connect to, and type in the password in the **‘Wi-Fi Password’** field.

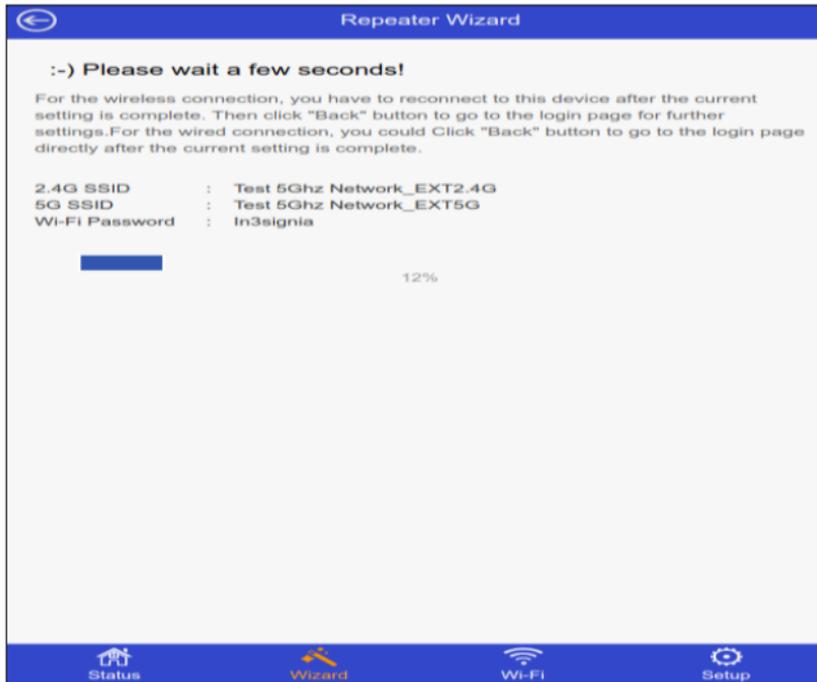
You can also change the name of the **'Extended 2.4G'** and **'Extended 5G'** network names if you wish.

The screenshot displays the 'Repeater Wizard' interface. At the top, there is a blue header with a back arrow and the title 'Repeater Wizard'. Below the header, there are four input fields: 'Repeater Mode' set to 'Gateway(recommended)', 'Connect to' set to 'Despatch 2', 'Wi-Fi Password' which is redacted with black bars, and 'Wi-Fi SSID' set to 'Despatch 2 Extended'. A prominent blue 'Connect' button is centered below these fields. Underneath the button, there are two radio button options: 'Select a Wi-Fi' (which is selected) and 'Manually'. At the bottom of the screen, a list of detected Wi-Fi networks is shown, each with a Wi-Fi icon and a radio button. The network 'Despatch 2' is highlighted in grey and has its radio button selected.

Once done click the **'Connect'** button to apply the settings.

Step 5: The Patriot-DB will then start the process of applying the settings you have specified.

Once the process reaches 100%, click the **'Back'** button to proceed.



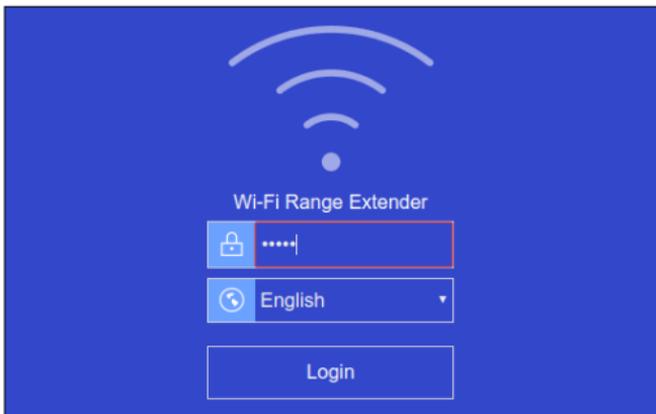
At this stage the Patriot-DB is set up for use as a WiFi repeater. If want to add another Access Point, for instance to provide a service indoors, read on.

Use with Another Access Point

In this mode the Patriot-DB will get its service from an existing WiFi source, such as a caravan site, and make the service available to another access point, for instance within your caravan.

Step 1: Open up a Web Browser such as Mozilla Firefox or Google Chrome and type the IP address **192.168.10.1** into the address bar.

You will then be greeted by a login screen asking for a password, by default this is '**admin**', enter this into the field and click the '**Login**' button to proceed.



Step 2: You will now be redirected to the **'Status'** page, so click on the **'WiFi'** icon at the bottom of the screen.

The screenshot displays the 'WiFi Management' interface for a Wireless-AC device. The top header is blue with the text 'WiFi MANAGEMENT Wireless-AC'. Below the header, there are two main sections: 'This Device' on the left and 'Router' on the right. The 'This Device' section shows 'AP(LAN Bridge)' and 'Speed' (0KB/S up and 0KB/S down). The 'Router' section shows 'Clients' (0) and 'Internet' (globe icon). Below these sections is a 'Device Information' table. At the bottom, there is a navigation bar with four icons: Status, Wizard, Wi-Fi, and Setup.

| Device Information | | | |
|--------------------|-------------------|-----------|-----------------------|
| WAN Type | AP(LAN Bridge) | 2.4G SSID | Wireless-N |
| Device IP | 192.168.10.1 | Channel | 11 |
| Gateway | 0.0.0.0 | 5G SSID | Wireless-AC |
| DNS1 | 8.8.8.8 | Channel | 40 |
| DNS2 | 114.114.114.114 | UpTime | 0 Day 0 h 0 m |
| WAN MAC | 80:3F:5D:A2:99:48 | Firmware | RPT70HA1.V4300.190220 |

Step 3: Click on the 'WiFi Setup' option.



Step 4: To disable the wireless networks, change the 'Wi-Fi ON/OFF' setting to 'OFF' for both '2.4G Wi-Fi' and '5G Wi-Fi'.

The screenshot displays the 'Wi-Fi Setup' configuration page. It is divided into two main sections: '2.4G Wi-Fi Settings' and '5G Wi-Fi Settings'. Each section contains several controls: a toggle for 'Wi-Fi ON/OFF', a 'Hide SSID' toggle, a text field for 'Extended' frequency (set to 2.4 for 2.4G and 5 for 5G), a dropdown for 'Security Type' (both set to WPA2-PSK), and a password field with a visibility icon. At the bottom of the settings area is a blue 'Apply' button. The bottom navigation bar includes icons for Status, Wizard, Wi-Fi, and Setup.

| Section | Wi-Fi ON/OFF | Hide SSID | Extended | Security Type | Wi-Fi Password |
|---------------------|--------------|-----------|----------|---------------|----------------|
| 2.4G Wi-Fi Settings | ON | OFF | 2.4 | WPA2-PSK | [Redacted] |
| 5G Wi-Fi Settings | ON | OFF | 5 | WPA2-PSK | [Redacted] |

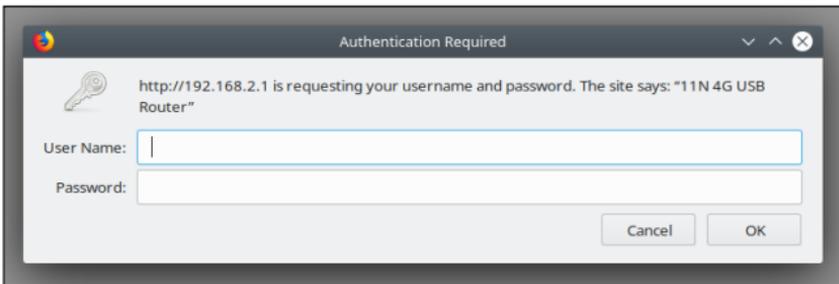
Once done, then click the 'Apply' button to finish.

*Now it is possible for you to connect any **Access Points** to the **Patriot-DB** using the **LAN** port on the **PoE injector**.*

Use with the RPT-3000 Router

Since many people may already own a Solwise RPT-3000 or 3000A router, you will be pleased to know that these work with the Patriot-DB. You just need change the operating mode to 'Bridge(AP)' as explained below.

Step 1: Open up a **Web Browser** such as **Mozilla Firefox** or **Google Chrome** and type the IP address **192.168.2.1** into the address bar.



You will then be greeted by a login screen asking for a password, by default this is '**admin**' enter this into the field and click the '**Login**' button to proceed.

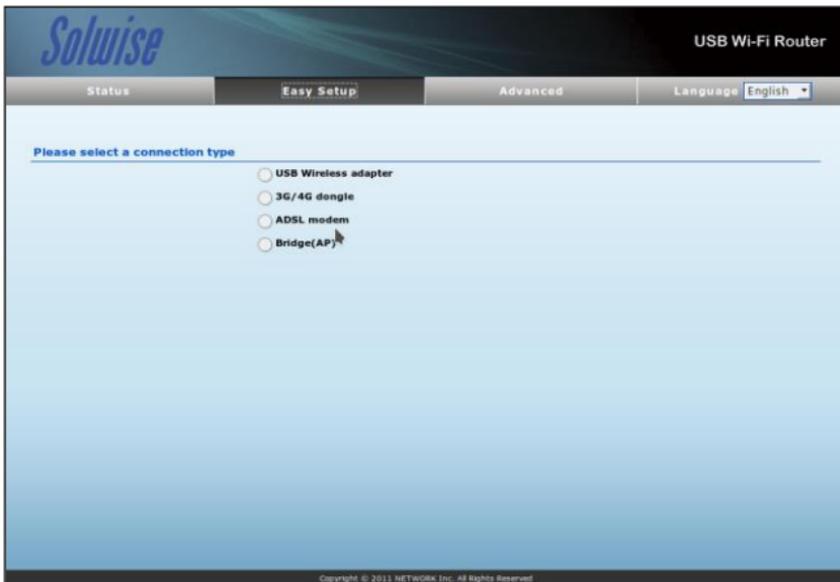
Step 2: You will then be redirected to the 'Status' page so next click on the 'Easy Setup' tab at the top of the page.

The screenshot shows the Solwise USB Wi-Fi Router web interface. At the top, there is a navigation bar with tabs for 'Status', 'Easy Setup', 'Advanced', and 'Language' (set to English). The 'Easy Setup' tab is active. The main content area is divided into three sections: Internet Configuration, LAN Configuration, and System Info.

| Internet Configuration | | Connected Status | |
|------------------------------|----------------------|----------------------------|----------------------------|
| Connected Type | DHCP | Connected Status | Disconnected/Connecting... |
| WAN IP Address | | Subnet Mask | |
| Default Gateway | | Primary Domain Name Server | |
| Secondary Domain Name Server | | MAC Address | 00:00:00:00:00:19 |
| LAN Configuration | | LAN Netmask | |
| LAN IP Address | 192.168.2.1 | LAN Netmask | 255.255.255.0 |
| MAC Address | 00:00:00:00:00:18 | | |
| System Info | | System Time | |
| Firmware Version | so-2.33(Sep 21 2017) | System Time | Sat, 01 Jan 2011 00:01:54 |
| Operation Mode | Router Mode | | |

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Step 3: Next you need to select the connection type option 'Bridge(AP)'.



Step 4: On this page, you need to setup the following:

The name of your wireless network (**SSID Choice**).

Choose some security for your wireless network (**Security Mode**), we recommend using **WPA2-PSK**.

Choose the encryption for the wireless network (**WPA Algorithm**), we recommend 'Auto (TKIP/AES)'.

Choose a password for connecting to the wireless network (**Pass Phrase**).

All other fields can be left as default, so once done click the 'Done' button.

The screenshot shows the configuration interface for a Solwise USB Wi-Fi Router. The page is titled "USB Wi-Fi Router" and has a navigation bar with "Status", "Easy Setup", "Advanced", and "Language" (set to English). The main section is "Wireless Security and Encryption Settings".

Wireless Security and Encryption Settings
The Wireless Security and Encryption Settings page allows you to make detailed security configurations to prevent unauthorized access and monitoring.

Select "Test Network"

SSID Choice: Test Network Security Mode: WPA2-PSK

WPA

WPA Algorithms: TKIP AES AUTO (TKIP/AES)

Pass Phrase: ***** 8-63 ASCII or 64 Hexadecimal

Key Renewal Interval: 3600 seconds

Access Policy

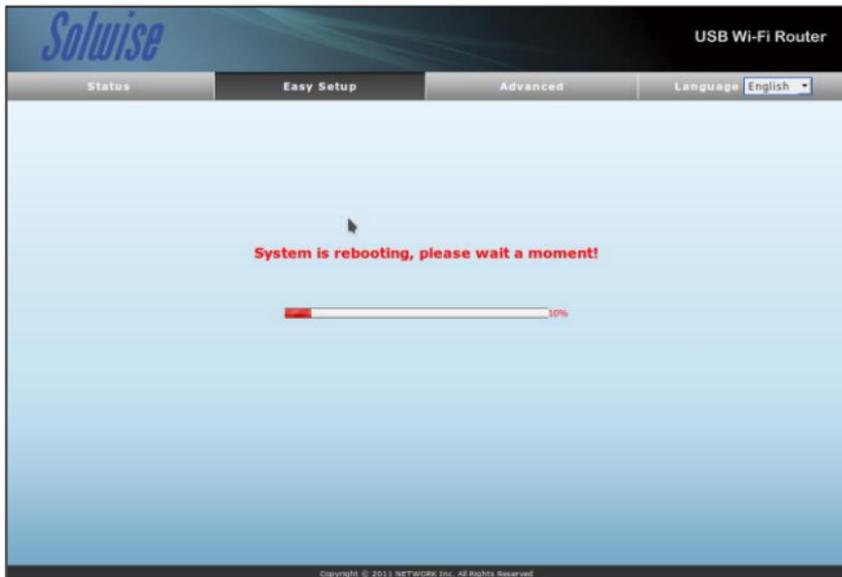
Policy: Disable

Add a station MAC: [Empty field]

Done

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Step 5: The **Solwise RPT-3000 Router** will now reboot and once done you will be redirected to the '**Status**' page again.

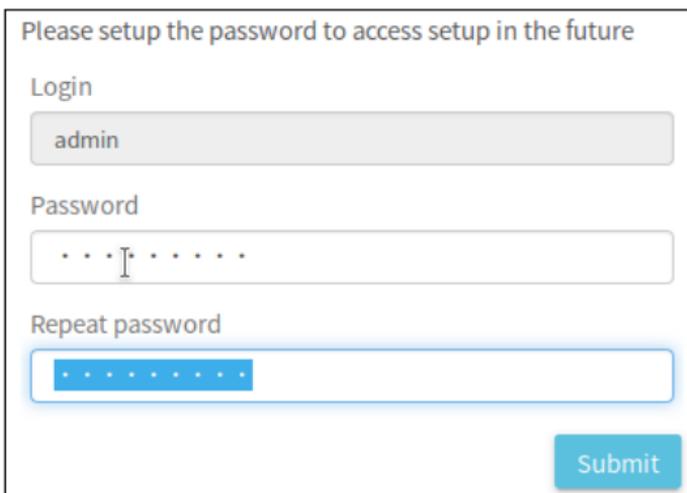


You will now be able to connect the **Solwise RPT-3000 Router** to the **Patriot-DB**, via the **LAN** port on the **PoE injector**.

Use with the RPT-3000A Router

Since many people may already own the Solwise RPT-3000A Router, you will be pleased to know that it is compatible with the Patriot-DB. You will just need to change the operating mode to 'Ethernet Router' to achieve this.

Step 1: Open up a **Web Browser** such as **Mozilla Firefox** or **Google Chrome** and type the IP address **192.168.45.1** into the address bar.



Please setup the password to access setup in the future

Login

admin

Password

.....

Repeat password

.....

Submit

You will then be prompted to setup a password for future access.

Step 2: Once the **'System Status'** page appears, you need to select the **'Ethernet router'** operating mode by clicking the green **'Next'** button.

The screenshot shows the Solwise Easy Setup interface. On the left is a navigation menu with options: Easy Setup, Status, Local Network, Tools, System, and Logout. The main content area is titled "Easy Setup : System operation mode configuration". It features three selectable options, each with a diagram and a "Next >>" button:

- Ethernet router**: Subscribes to DSL, PPPoE, fixed IP, dynamic IP, PPTP, L2TP Internet access from an ISP. The diagram shows a modem connected to a router, which is then connected to a laptop and a smartphone via Wi-Fi.
- Wireless hotspot extender**: Obtains Internet access from a wireless internet service provider (WISP) wirelessly. The diagram shows a Wi-Fi hotspot tower connected to a router, which is then connected to a laptop and a smartphone via Wi-Fi.
- USB 3G/4G Router**: Connects a 3G/4G USB modem to a router. The diagram shows a 3G/4G USB modem connected to a router, which is then connected to a laptop and a smartphone via Wi-Fi, with a 4G tower in the background.

Step 3: On this page, you only have to setup the following:

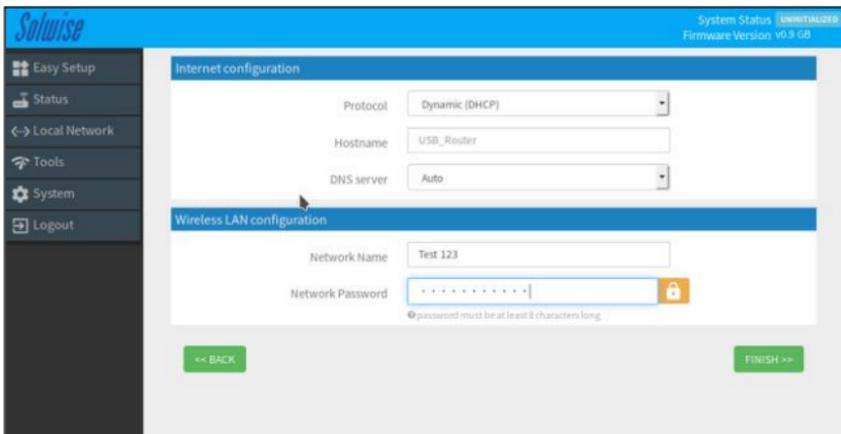
Protocol – this should be set to **‘Dynamic (DHCP)’**.

DNS Server – this should be set to **‘Auto’**.

Network Name – this is the name of the wireless network that will be broadcast from the **RPT-Solwise 3000A Router**.

Network Password – this is the password you will need to type in once you connect to the above wireless network.

Once this is done then click on the green **‘Finish’** button.



The screenshot shows the Solwise router's configuration interface. On the left is a navigation menu with options: Easy Setup, Status, Local Network, Tools, System, and Logout. The main content area is titled 'Internet configuration' and contains three fields: Protocol (set to 'Dynamic (DHCP)'), Hostname (set to 'USB_Router'), and DNS server (set to 'Auto'). Below this is the 'Wireless LAN configuration' section with 'Network Name' set to 'Test 123' and 'Network Password' set to a masked password. A note indicates the password must be at least 8 characters long. At the bottom are two green buttons: 'BACK' and 'FINISH'.

It will take a couple of minutes to apply the settings, and once done, you will be redirected to the **‘System Status’** page again.

Step 4: From this page choose the **'Local Network'** option on the left-hand side and choose the sub-menu **'Wired Network'**.

The screenshot shows the Solwise router's web interface. The left sidebar contains navigation options: Easy Setup, Status, Internet Settings, Local Network (selected), Tools, System, and Logout. The main content area is divided into several sections:

- Internet Status:** Shows Type: Ethernet Router, Connection status: Not connected, and Session: 100. The status is marked as 'DISCONNECTED' in red.
- USB_Router Status:** Shows Mode: Access Point, SSID: Test 123, Channel: 3 (2.422 GHz), Bitrate: 0 Mbit/s, BSSID: 00:C0:CA:A4:9E:90, and Encryption: WPA2 PSK (CCMP).
- Linked Devices Status:** A table listing connected devices.

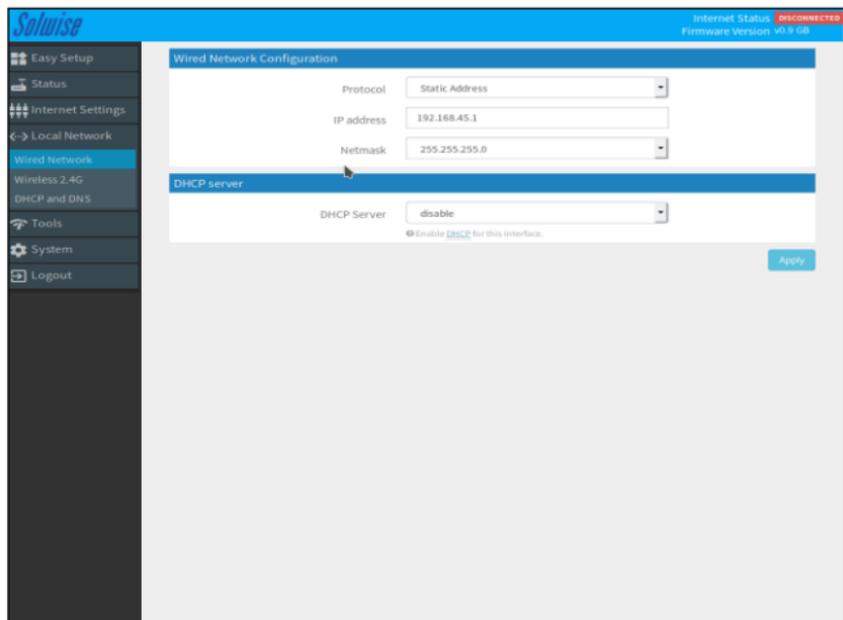
| Hostname | IP Address | MAC Address | Signal / Noise / Leases | Interface |
|-------------|----------------|-------------------|-------------------------|-----------|
| RYAN-LAPTOP | 192.168.45.189 | F0:1F:AF:6E:8B:6E | 11h 59m 10s | <-> |
- System:** Shows Hostname: USB_Router, Model: USBWIFIRPT-3000A, Firmware Version: USBWIFIRPT-3000A-v0.9 GB, Local Time: Tue Oct 17 17:59:09 2017, Uptime: 0h 12m 8s, and Memory Available: 7466 KB (92.95% used).

You may notice that throughout the setup the 'Internet Status' will be listed as 'Disconnect', this is incorrect and is a bug with the firmware of the Solwise RPT-3000A Router.

You will be connected to an Internet connection at the end of this setup guide.

Step 5: On this page, all you need to do is disable the 'DHCP Server' by choosing the 'disable' option on the dropdown menu.

Once done click the 'Apply' button and the **Solwise RPT-3000A Router** is setup to be used as an **Access Point** with the **Patriot-DB**.



You can now connect the **Solwise RPT-3000A Router** to the **Patriot-DB's LAN** port on the **PoE Injector**.