Dual Band Wi-Fi Repeater

2.4GHz & 5GHz Concurrent

Quick Installation Guide
IMPORTANT NOTE
You can reset your Wireless-N Router to default setting by pressing the ‘RESET’ button on the side of the Router. You can use this solution if you forget your password.

Before Use
Thank you for purchasing this Wi-Fi Repeater. We encourage you to read this manual carefully before using it.

Please read the following instructions carefully for your safety and to prevent property damage.

- Do not use the Wi-Fi Repeater in the extreme hot, cold, dusty or humid environments.
- Prevent friction with hard objects, or it may damage the surface of the product.
- Avoid the product from falling down from a high place as it may damage the hardware.
- The Wi-Fi Repeater is not water proofed so please do not get any liquid into the unit.
- Do not wipe the surface of the Wi-Fi Repeater with alcohol, benzene or thinners.
- Do not dismantle, assemble or alter the product arbitrarily.
- Please keep the Wi-Fi Repeater away from strong magnetic or electrical area.
Introduction

The Dual Band Wi-Fi Repeater broaden the range of your wireless network. The Dual-Band Mode enables the simultaneous sending and receiving of 2.4GHz and 5GHz wireless signals. Thus the dual-band Wi-Fi Repeater can be used in 2.4GHz and 5GHz wireless networks. The dual-band Wi-Fi Repeater supports the following three modes: Repeater / AP / Client.

Main Features

- Complies with IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE802.11n standards
- Complete 802.11n MIMO solution for 2.4GHz and 5GHz band
- 2.4GHz & 5GHz Concurrent Dual Band technology
- Supports Repeater, AP & Client mode
- Improves wireless coverage in all WLAN networks
- Wireless N speed up to 300Mbps and Backward compatible with 802.11b/g products
- Compact and portable, powerful wireless signal as well
- Travel size design, ideal for home or travel use
- Supports WP2, WPA and WEP (128/64) encryptions
Getting Started

Setting up a Wireless Infrastructure Network
For a typical wireless setup at home choose a modus and follow the steps on the following pages.

**Wireless Repeater Mode**

The range of your wireless network is extended and made available for 2.4GHz and 5GHz wireless networks.

You will need Wireless AP/Router Internet access.

**IMPORTANT NOTE**
You can reset your WiFi Router to default setting by press and hold the ‘RESET’ button inside the tiny hole for 8 ~10 seconds.

You can use this solution if you forget your password.
**Wireless AP Mode**

You will need broadband Router Internet access.

Connect the Wi-Fi Repeater to your Router/Switch using the RJ-45 cable.

**Client Mode**

You can connect a device with a LAN interface (for example, computer, notebook or TV set), that do not have a wireless adapter, to the Wi-Fi Repeater via a LAN cable (network cable). The Wi-Fi Repeater can now connect your device wirelessly to an existing wireless router.
Default Parameters
Default IP: 192.168.10.1
URL: http://ap.setup
Login Name: admin
Password: admin

Wireless SSID:
   Wi-Fi Repeater(2.4G)
   Wi-Fi Repeater(5G)
Wireless Key: no

1: 2.4G signal LED
2: 5G signal LED
3: Power/WPS LED
4: Wireless LED
5: LAN LED
6: WPS button
7: Reset button (right side)
8: Mode selector
9: Power switch
10: LAN port
Configure the Wi-Fi Repeater

Correct placement of the Wi-Fi Repeater
The Wi-Fi repeater needs to be placed within the range of the existing Routers/APs Wi-Fi signal in order to extend its range.
Automatic configuration of the Wi-Fi Repeater with WPS Button.

This is the easiest way to setup the Wi-Fi Repeater in Repeater Mode. First, check whether your wireless router supports WPS. For further details, please read the operating instructions for your wireless router.

1. The mode selector must be set to the "Repeater" position for Repeater Mode.

2. Plug the Wi-Fi Repeater into a wall socket.

3. Then switch on the Wi-Fi Repeater by turning the Power
switch to the "ON" position.

4. Press the WPS button on the Wi-Fi Repeater for at least 6 seconds.
   The Power/WPS LED now flashes for approx. 2 minutes.

5. Within these 2 minutes, please Press the WPS button of the AP/Router directly for 2 - 3 seconds. (For further details, please read the operating instructions for your wireless router.)

The Wi-Fi Repeater then automatically connects to your wireless router and copies wireless key of the settings. Once the connection has been successfully established, the 2.4G or 5G signal LED lights up. The Wi-Fi Repeater can then be used. The Wi-Fi Repeater can be accessed via the SSID and the wireless key of your wireless router.

Manual Configuration of the Wi-Fi Repeater

You can configure the Wi-Fi Repeater by connecting it with your computer/laptop with enclosed RJ45 cable or wirelessly.
A. Configure the Wi-Fi Repeater wirelessly (Repeater mode)

With Repeater mode the range of your wireless network is extended and made available for 2.4GHz and 5GHz wireless networks.

**Note:** Please see chapter **Configure the Wireless AP Mode** for how to set up repeater in AP mode.

A1. The mode selector must be set to the "Repeater" position for Repeater Mode.

![Mode selector](image)

A2. Plug the Wi-Fi Repeater into a wall socket.

A3. Click on the network icon ( ![Network Icon](image) or ![Network Icon](image) ) on the right bottom of your desktop. You will find the signal from the **Wi-Fi Repeater (2.4G)** or **Wi-Fi Repeater (5G)**. Click on ‘Connect’ then wait for a few seconds.
Note: On some version of windows, it will ask if you want to set up your network the first time to connect to it, please click on **Connect to the network without setting it up**

A4. Open web browser and type **http://192.168.10.1** or **http://ap.setup** in the browser address box. This number is the default IP address for this device.

**Note:** Please check if the Wi-Fi Repeater is set to factory default settings if you can’t access **http://192.168.10.1**. If you are not sure what the reason is, you can reset the Wi-Fi Repeater, just press the **reset** button for 8 seconds, and start from **A3** again.
A5. The login screen below will appear. Enter the User Name and Password then click “Submit” to login. The default User name is “admin” and Password is “admin”.

A6. After logging in, you will see the web page below: Click on the Repeater button in the Wizard field.
A7. From the list, select a wireless network you want to connect the Wi-Fi Repeater to, by choosing the corresponding network in the "Select" field.

A8. After having selected a wireless network, you must then type in the password for the wireless network you want to connect the Wi-Fi Repeater to, in the Security Key field. You are also able to rename the SSID (wireless name) of the 2.4GHz and 5GHz wireless network from the Wi-Fi Repeater.

After completing the entry, click on the “Apply” button.
After the reboot has been completed, the Wi-Fi Repeater is accessible under the SSID that you have just set, and via the Wireless key of your wireless router.  

**Note:** If you experience any problems during the setup, then please try and do the setup through a wired connection.

**B. Configure the Wi-Fi Repeater with RJ45 Cable.**

1. Plug the Wi-Fi Repeater to a wall socket. Connect your computer / laptop with the Wi-Fi Repeater with enclosed RJ45 Cable.
2. Follow process **A4 to A8** to configure your Wi-Fi Repeater.
Configure the Wireless AP Mode

Use the AP Mode to obtain a "wireless access point". The wireless end devices will connect to the Wi-Fi Repeater in this mode. You can also use this mode, for example, to make a formerly non-wireless-enabled router wireless-enabled.

In this mode you create a new network; this is no enhancement of your existing network.

1. The mode selector must be set to the "Access Point" position for AP Mode.

2. Plug the Wi-Fi Repeater into a wall socket.
3. Follow process A3 to A5.
4. After logging in, you will see the web page below: Click on the AP button in the Wizard field.
5. The following message will be displayed on your web browser:
<table>
<thead>
<tr>
<th><strong>SSID</strong></th>
<th>Wireless name of the Wi-Fi Repeater</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Security type</strong></td>
<td>Setup the wireless security and encryption to prevent unauthorized access and monitoring. Supports 64/128-bit WEP, WPA, WPA2, WPA/WPA2 encryption methods.</td>
</tr>
<tr>
<td><strong>Security key</strong></td>
<td>Type in a <em>Password</em> for the wireless network from the Wi-Fi Repeater</td>
</tr>
</tbody>
</table>

Click on ‘Apply’ button, The Wi-Fi Repeater will restart.

Now connect a RJ45 cable (network cable) to the Wi-Fi Repeater, and the other end to an available LAN port on your Router. The Wi-Fi Repeater is now accessible under the SSID and the Wireless key.

**Configure the Wireless Client Mode**

You can connect a device with a LAN interface (for example, computer, notebook or TV set), that do not have a wireless adapter, to the Wi-Fi Repeater via a LAN cable (network cable). The Wi-Fi Repeater can now connect your device wirelessly to an existing wireless router.
1. The mode selector must be set to the "Client" position for Client Mode.

2. Plug the Wi-Fi Repeater into a wall socket.

3. Connect your computer / laptop with the Wi-Fi Repeater with enclosed RJ45 Cable (client mode cannot be configured using wireless connection).

4. Follow process **A4 to A5**.

5. After logging in, you will see the web page below: Click on the **Client** button in the Wizard field.
6. From the list, select a wireless network with which you want to connect the Wi-Fi Repeater to, by choosing the corresponding network in the "Select" field.
7. After having selected a wireless network, you must then specify the wireless key of your wireless router for **Security key**.

![Security key input field]

After completing the entry, click on the “**Apply**” button.

Once the reboot is completed, you can connect the Wi-Fi Repeater to your end device (for example, computer, notebook or TV set) via a network cable. Use the network cable included with the device for this purpose. Insert one end of the network cable into the LAN socket of the Wi-Fi Repeater and the other end into the LAN socket of your end device. Insert the Wi-Fi Repeater only into a socket that is always easily accessible.
<table>
<thead>
<tr>
<th>LED</th>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4G signal</td>
<td>Lights up</td>
<td>Excellent reception, signal strength 50% to 100%</td>
</tr>
<tr>
<td>5G signal</td>
<td>Flashes slowly</td>
<td>Good reception, signal strength 25% to 50%</td>
</tr>
<tr>
<td></td>
<td>Flashes rapidly</td>
<td>Weak reception, signal strength below 25%</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>NO reception</td>
</tr>
<tr>
<td>Power/WPS</td>
<td>Lights up</td>
<td>The Wi-Fi Repeater is switched on.</td>
</tr>
<tr>
<td></td>
<td>Flashes</td>
<td>WPS connection is established or WPS signal of another device is expected</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>The Wi-Fi Repeater is switched off.</td>
</tr>
<tr>
<td>WLAN</td>
<td>Flashes slowly</td>
<td>Connection established to wireless network</td>
</tr>
<tr>
<td></td>
<td>Flashes rapidly</td>
<td>Data is being transferred</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Connection not established to wireless network</td>
</tr>
<tr>
<td>LAN</td>
<td>Lights up</td>
<td>LAN connection is established</td>
</tr>
<tr>
<td></td>
<td>Flashes</td>
<td>Data is being transferred</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>LAN connection is not established</td>
</tr>
</tbody>
</table>
Management via Web Browser

Wireless Base Configuration

Please follow the following instructions: Click “Wi-Fi ➔ Basic Settings” located at the web management interface, the following message will be displayed on your web browser:

You could configure the basic setting of Wireless settings for communication, such as Network Name (SSID) and Channel. The Access Point can be set simply with only the minimum setting items.
Wireless Enable | Wireless On/Off
---|---
SSID | Wireless Name of the Wi-Fi Repeater
Channel | Auto *(Recommend)*
Security type | Setup the Wireless security and encryption to prevent from unauthorized access and monitoring. Supports 64/128-bit WEP, WPA, WPA2, WPA/WPA2 encryption methods.
Security key | The "**Password**" of the wireless network from the Wi-Fi Repeater

Click the ‘**Apply**’ button, and the Wi-Fi Repeater will restart.

**Change Management password**

The default password of the Wireless Repeater is “**admin**”, and is displayed on the login prompt when accessed from web browser. There is a security risk if you do not change the default password, since everyone can see it. This is very important when you have wireless function enabled.

To change password, please follow the following instructions:
Please click ‘Management → Password’ menu on the web management interface, the following will be displayed on your web browser:

Type in user name “Admin” and then type in a new password. If you want to keep original password unchanged, click ‘Cancel’.

Click the ‘Apply’ button, and the Wi-Fi Repeater will log off.

**Firmware Upgrade**

The system software used by this router is called ‘firmware’, just like any applications on your computer. When you replace the old application with a new one, your computer will be equipped with a new function. You can also use this firmware upgrade function to add new functions to your
router, even fix the bugs of this router.

Please click ‘**Management ➔ Upgrade Firmware**’ located at the web management interface, and the following will be displayed on your web browser:

Click ‘**Browse...**’ or ‘**Choose File**’ button first; you will be prompted to provide the filename of firmware upgrade file. It is possible to check if there is a new firmware on the Support website, and use it to upgrade your router.

After a firmware upgrade file is selected, click the ‘**Upload**’ button, and the router will start the firmware upgrade procedure automatically. The procedure may take several minutes, please be patient.

**NOTE:** Never interrupt the upgrade procedure by closing the web browser or physically disconnect your computer from router. If the firmware you uploaded is interrupted, the firmware upgrade will fail, and you may have damaged
the Wi-Fi Repeater

Warranty voids if you interrupted the upgrade procedure.

Factory Default and Settings Backup, Restore

You can backup all settings of this router to a file, so you can make several copies of router configuration for security reason.

To backup or restore router settings, please follow the following instructions:
Please click ‘Save/Reload settings’ located at the web management interface, and the following will be displayed on your web browser:

Save/Reload settings

Help

Save settings: You may save your current configuration in case you need to reset the router back to its factory default settings.

Click the ‘Save’ button to save your current configuration.

Load settings: Click the ‘Browse...’ button to browse for a configuration file that is currently saved on your PC.

Click the ‘Upload’ button to overwrite the current configuration with the one in the stored configuration file.

Reset settings: Restore factory settings.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save Settings</td>
<td>Press ‘<strong>Save…</strong>’ button, you can save it as another filename for different versions, and keep it in a safe place.</td>
</tr>
<tr>
<td>Load Settings</td>
<td>Press ‘<strong>Browse…</strong>’ to pick a previously-saved configuration file from your computer, and then click ‘<strong>Upload…</strong>’. After the configuration is uploaded, the router’s configuration will be replaced by the file you just uploaded.</td>
</tr>
<tr>
<td>Reset Settings</td>
<td>Click this ‘<strong>Load default</strong>’ button to remove all settings</td>
</tr>
</tbody>
</table>
How to change Wi-Fi Repeater settings after setup

In this chapter you will see how you will be able to change the settings of the Wi-Fi Repeater after you have done the setup, so this is only needed if you want to change some settings of the Wi-Fi Repeater. If you do not want to change any settings of the Wi-Fi Repeater, then please ignore this chapter.

If the Wi-Fi Repeater is configured for Repeater mode or AP mode, your computer must have a static IP address to access the Web management page, if you want the change some settings of the Wi-Fi Repeater after the setup. It is recommended to do this through wired connection to the Wi-Fi Repeater. It is also possible to use the Reset button on the side of the Wi-Fi Repeater to reset setting to default, and do the setup again. Do the following to change the IP address on your computer to static:

1. Open the Control Panel
2. Double-click on "Network and Sharing Centre", and the following screen will appear:
3. Click on the left on "Change adapter settings". The following screen will appear:

Depending on the hardware of your computer, several adapters could be shown here. Right-click on the adapter that is now connected to the Wi-Fi Repeater. A context-menu will appear where you choose the bottom option "Properties." The following screen will pop up:
4. Click once to select Internet Protocol version 4 (TCP/IPv4):
5. Click on the button "Properties". The following screen will pop up:
As stated before, the computer will usually be set to automatically obtain an IP address and DNS server addresses, as shown in the screenshot above. If your computer has a static address, note minutely the settings on this screen. If the setting procedure of the repeater is finished, you should in any case be able to recover the original settings.

Change the settings in this screen as follows to be able to access the setup page of the Wi-Fi Repeater:
IP Address: 192.168.10.5
Subnetmask: 255.255.255.0
Default gateway: 192.168.10.1
Primary DNS server: 192.168.10.1

6. Please make sure the figures and the radio buttons are taken over exactly as in the picture.
7. Press the 'OK' button. The following screen will appear: (Network 6 will most likely have a different number on your PC)

8. You choose "Home Network".
9. The following screen will appear to confirm:

[Image of network configuration screen]

Close this window. The PC can now connect to the Wi-Fi Repeater via the HTTP protocol. To do this, open an Internet browser (Internet Explorer, Firefox, Safari ...), and type the following address in the address bar: 192.168.10.1. You will now be able to access the Web management site, and make your changes.

Note: It is important that you change your IP address back to auto in step 6, when you have finished changing setting,
otherwise you will not be connected to the internet and the rest of your network.

How to connect your computer/laptop with the Wi-Fi Repeater

Adding a Wireless computers to the Wi-Fi Repeater

1. Log on to the computer.

2. Open “Connect to a Network” by right-clicking the network icon ( or ) in the notification area.

3. Choose the wireless network from the list that appears, and then click Connect.

4. Type in the network security key or passphrase if you are asked to do so, and then click OK. You will see a confirmation message when you are connected to the network.

5. To confirm that you added the computer, do the following:
Open Network by clicking the **Start** button, and then clicking **Control Panel**. In the search box, type **network**, and then, under Network and Sharing Center, click **View network computers and devices**. You should see icons for the computer you added and for the other computers and devices that are part of the network.

**Note:** If you don't see icons in the Network folder, then network discovery and file sharing might be turned off.

**Adding a Wireless computers to the Wi-Fi Repeater with WPS Button**

This is the easiest way to establish a connection to the AP. First, check whether your end device supports WPS. For further details, please read the operating instructions for your end device.

1. Log on to the computer.
2. Press the WPS button on the Wi-Fi Repeater for 6 seconds. The Power/WPS LED now flashes for approx. 2 minutes.
3. Within these 2 minutes, please press the connection button (WPS) on your end device. *(For further details, please read the operating instructions for your end device.)*
Your end device then automatically connects to your Wi-Fi Repeater and applies all of the settings. You should see icons for the computer you added and for the other computers and devices that are part of the network.

Adding a wired (Ethernet) computer to the Wi-Fi Repeater

1. Plug the Wi-Fi Repeater into a wall socket. Connect your computer / laptop with the Wi-Fi Repeater with the enclosed RJ45 cable.
2. To confirm that you added the computer, do the following:
   Open Network by clicking the Start button, and then clicking Control Panel. In the search box, type network, and then, under Network and Sharing Center, click View network computers and devices. You should see icons for the computer you added and for the other computers and devices that are part of the network.

For more information:
http://windows.microsoft.com/en-US/windows7/Add-a-device-or-computer-to-a-network

Open Source Code
This product includes software codes developed by third parties. These software codes are subject to either the GNU General Public License (GPL), Version 2, June 1991 or the GNU Lesser General Public License (LGPL), Version 2.1, February 1999. You can copy, distribute, and/or modify in accordance with the terms and conditions of GPL or LGPL.

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