

## Wireless Troubleshooting Guide

The Phylink camera can work in the wired and wireless mode, if you have set the wireless up, unplug the Ethernet cable, the camera will work through the wireless network with the router.

### 1. Have you told the camera the wireless name and password?

Did you have a chance to connect the camera to your router with the included network cable, so that you can tell the camera what your wireless name and it's password is ?

Please note that for initial setup, you need to connect the camera directly to your router or switch with a network cable. You cannot connect wirelessly to the camera without first setting it up via a network cable. We recommend you setup your camera close to your router before installing it at its final location.

If you have several routers (some routers may be used as range extender ), you'd need to connect the camera to your main router. Your main router should have a WAN port (Internet Port ) and is connected with an ADSL or fiber modem for the Internet access. Also check if this router's Internet connection is available.

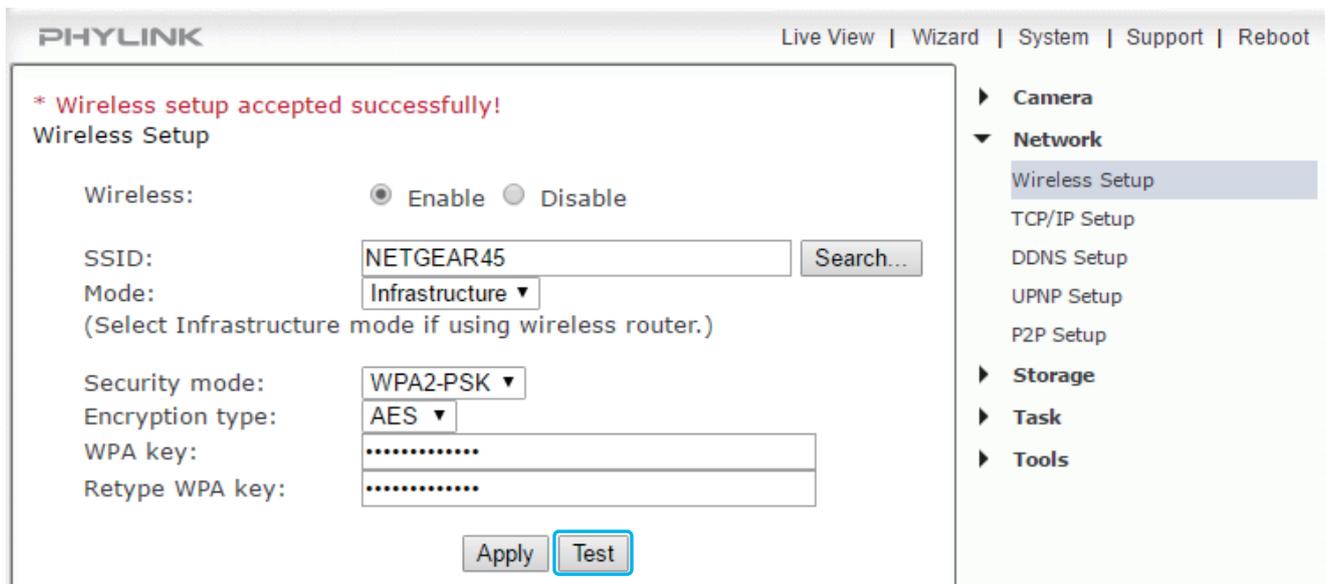
You can set up the wireless via App and browser quickly, please follow the Quick Guide step by step. But firstly, please remember to connect the camera to your router using the network cable. After a successful wireless setup, remove the network cable and the camera should work through the wireless network after a short delay.

### 2. What's the wireless password

Most likely your wireless network was set up with a password (also known as WPA key). If you don't remember it, you can check your router's wireless setup menu or ask the person who set up your wireless network.

Note: WPA Key is also known as the wireless key or password and they are case sensitive.

In order to avoid entering the wrong password, please remember to use the "Test" function on Wireless Setup page to check if the password for wireless was entered correctly.



PHYLINK Live View | Wizard | System | Support | Reboot

\* Wireless setup accepted successfully!

Wireless Setup

Wireless:  Enable  Disable

SSID:  Search...

Mode:  (Select Infrastructure mode if using wireless router.)

Security mode:

Encryption type:

WPA key:

Retype WPA key:

Apply Test

- ▶ Camera
- ▼ Network
  - Wireless Setup
  - TCP/IP Setup
  - DDNS Setup
  - UPNP Setup
  - P2P Setup
- ▶ Storage
- ▶ Task
- ▶ Tools

Please remember that both WPA and WPA2 keys are case sensitive and need to be between 8 and 63 characters. When you have entered the key, click on "Apply", you'll get a message about "Wireless setup accepted successfully", but that only means that the information was stored in the camera. You should use the "Test" feature to check if you typed it correctly.

If the test reports "Success!" you can remove the network cable and the camera should work wireless after a short delay. If the test reports "no wireless connection", please double check your WPA key you typed.

### 3. Wireless compatibility

The camera supports 2.4 Ghz 802.11b/g/n. It's not compatible with 802.11AC. But Phylink camera can work with a 2.4 Ghz/5 Ghz dual band router. Phylink camera is only compatible with 2.4GHz network. If your router is using the 5GHz band, please ensure it is operating in a mixed mode.

### 4. How far will the wireless reach?

The maximum Wi-Fi range depends on the kinds of walls and objects that are between your wireless router antenna and your camera. We test the camera use a router with 25 meters distance and go through a wall in the factory. The stable wireless distance is 45 feet with one plaster wall. Please note that the wireless signal travels easily through common building materials such as wood, glass, sheet rock, and vinyl siding, but does not go at all through metal.

### 5. Checking the Wi-Fi signal strength

If the wireless signal strength is weak, the connections will be unstable. If you plan to use Wi-Fi connection, the Wi-Fi must be setup before the camera is disconnected with the Ethernet cable from router. Minimum signal strength of 3 bars is required for video transmission, please ensure the required signal strength is available at the point of installation, prior to installing the camera.

One easy test for determining the maximum recommended distance is by using a laptop at the camera location. If your laptop shows at least 70% signal strength at that exact same location then the camera should be ok too. Any less than that may be unreliable, so you may want to move your router or the camera, or adjust the angle of your router's antennas. The best placement for a wireless router is in an area that is higher up and free of nearby clutter, for example on top of a wooden book shelf.

Please try the following steps if the Wi-Fi connectivity doesn't work:

- Check that your camera is in range of your WiFi network – temporarily move it closer and see if this makes a difference.
- Temporarily connect your camera by Ethernet, see whether the camera connects when using a network cable. If the camera is online again, you have to check your wireless settings.

Please note that we only sell and support cameras and don't sell replacement antennas or routers or access points. To purchase a camera, the pre-requisite is that your wireless network is fully configured and working and reliable. If you have any problems with your wireless network or reception at the location where you want to install a camera, you should test with a laptop first, and do any necessary improvements to your network before purchasing a camera from us. We hope this helps you determine if the camera is suitable for you.

### 6. Wireless installation considerations

The wireless network camera lets you access your network using a wireless connection from anywhere within the operating range of your wireless network.

However, the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

1. Minimize the number of walls and ceilings between your router and Network Camera - each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters).
2. Be aware of the direct line between network devices. Position your devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
3. Building Materials make a difference. A solid metal door or aluminum studs may weaken the wireless signal. Try to position your wireless routers and wireless network camera where the signal passes through drywall or open doorways.

4. Keep the wireless network camera at least 3-6 feet or 1-2 meters away from electrical devices or appliances that generate RF noise.
5. If you are using 2.4GHz cordless phones or other radio frequency sources (such as microwave ovens), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless network camera as possible. The base transmits a signal even if the phone is not in use.

## 7. Checking and mounting the antenna

If using a Wi-Fi Network connection, the provided external antenna must be mounted to the RP-SMA connector at the rear of camera main body.

Remove the protective cap on the RP-SMA connector and screw on the Wi-Fi antenna in its place (clockwise), make sure it is finger tight.

Please keep the antenna vertical for better signal strength. Minimum signal strength of 3 bars is required for video transmission. Please ensure the required signal strength is available at the point of installation, prior to installing the camera.

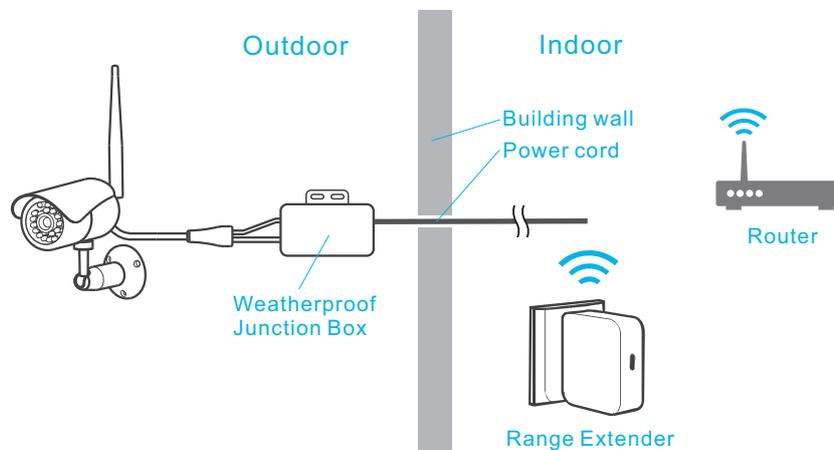
## 8. Using a high gain antenna

A Hi-gain antenna can improve the wireless distance. The Phylink outdoor camera has a RP-SMA connector, there is an external antenna included in the package. You can replace it with your own Hi-gain antenna. We purposely made the antenna on the outdoor camera replaceable and compatible with standard antenna extension cables and directional antennas.

For best performance, you would also have a directional antenna on the outside of your house, with an antenna extension cable connected to your router or wireless access point that also has replaceable antennas. There are even antennas that can reach up to 13 miles under ideal line of sight conditions, when 2 of them are precisely aimed at each other and mounted very high up on poles. It will be difficult to duplicate this kind of theoretical performance, but many customers who are ranchers and have used a similar solution with very large properties (thousands of acres).

## 9. Using a Wi-Fi range extender

Wi-Fi connection for our camera is most popular, but thick or insulated external walls can greatly reduce the signal. Always test if the camera can reach your network before installation. If the signal strength is less than 3 out of 5 bars, you may need a Wi-Fi range extender.

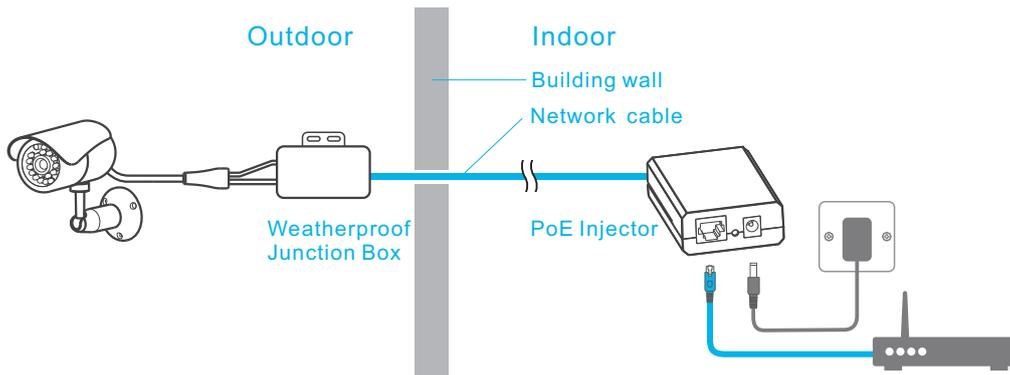


**Tip:** The Wi-Fi range extender usually has 5 modes: Access Point, Repeater, Bridge mode, Client and Router mode. In this scenario, you should set your range extender as Repeater mode.

## 10. Using PoE connection

You can also use the Power over Ethernet (PoE) connection. It is a more stable and long-term way. If the camera using PoE connection, you DO NOT need the extra Power Adapter. It is very suitable for the installation locations which is no power outlet and Wi-Fi signal.

With PoE, you can power the camera from up to 300 ft away using ordinary Cat5 network cable, but in that case you'd need to add a PoE injector for a single camera, or PoE network switch such as the Netgear GS108PE that can power 4 cameras.



## Find additional support and information

For more information or support, visit [www.phylink.com](http://www.phylink.com) or contact [support@phylink.com](mailto:support@phylink.com)



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