



# Speednet customer support guide:

## Troubleshooting internal WiFi issues support guide

# Glossary

**What causes internal WiFi issues and how to resolve them?**

**Investigating WiFi issues/ internal checks**

**WiFi Channels**

**2.4GHz Vs 5GHz**

**WiFi Vs Broadband**

**Improving your WiFi signal**

# What causes internal WiFi issues and how to resolve them?

There are many reasons customers may experience slow or disconnecting WiFi.

If the issue is the WiFi and not the external internet service being received at the property, then this is classed as an internal issue. Please note that the majority of internal WiFi issues are outwith your Internet Service Providers control. Although they may assist you in resolving the issue, they are ultimately not responsible for your internal WiFi network.

## Factors that can cause internal WiFi issues are:

The location of your wifi router, microwave ovens, wireless devices that operate on a 2.4GHz or 5GHz bandwidth can cause interference with other devices. Examples of these are security systems, wireless speakers, WiFi printers, baby monitors, Bluetooth earpieces or other WiFi devices on the same WiFi channel either in your home or from neighbouring devices.



# Troubleshooting your internal WiFi set up

The router must not be located in an area where there are objects blocking the signal from the antennas. **Do not keep the router in a cupboard.**

The WiFi button must be switched on at the router *(There is a WiFi button at the back of the router and it is easy to accidentally switch this off when moving the router)*

Reboot your device and router. Power off both the WiFi router and POE adapter for 1 minute then power this back on

The POE adapter and router **must both** be powered on and connected up correctly

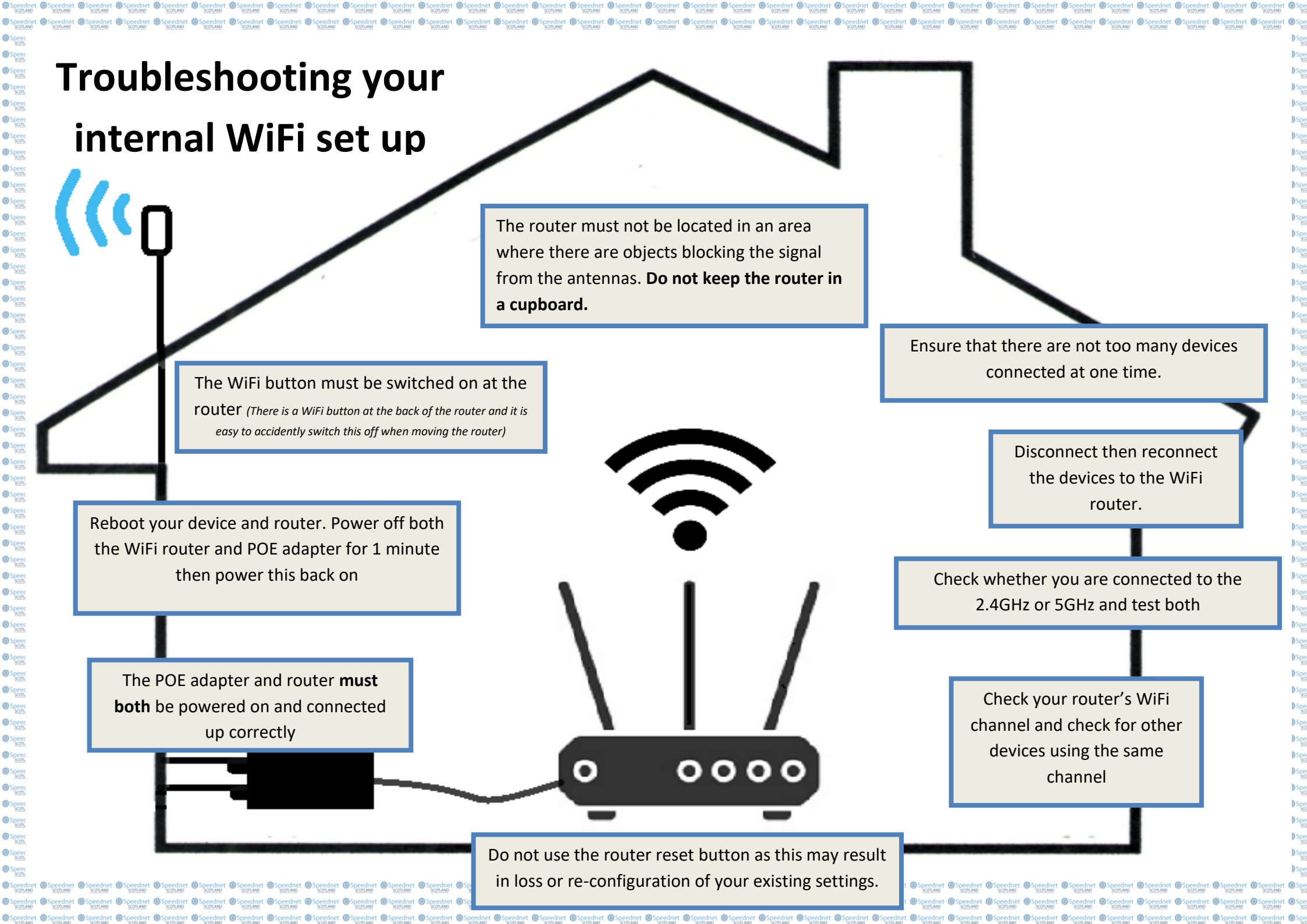
Do not use the router reset button as this may result in loss or re-configuration of your existing settings.

Ensure that there are not too many devices connected at one time.

Disconnect then reconnect the devices to the WiFi router.

Check whether you are connected to the 2.4GHz or 5GHz and test both

Check your router's WiFi channel and check for other devices using the same channel



# WiFi channels

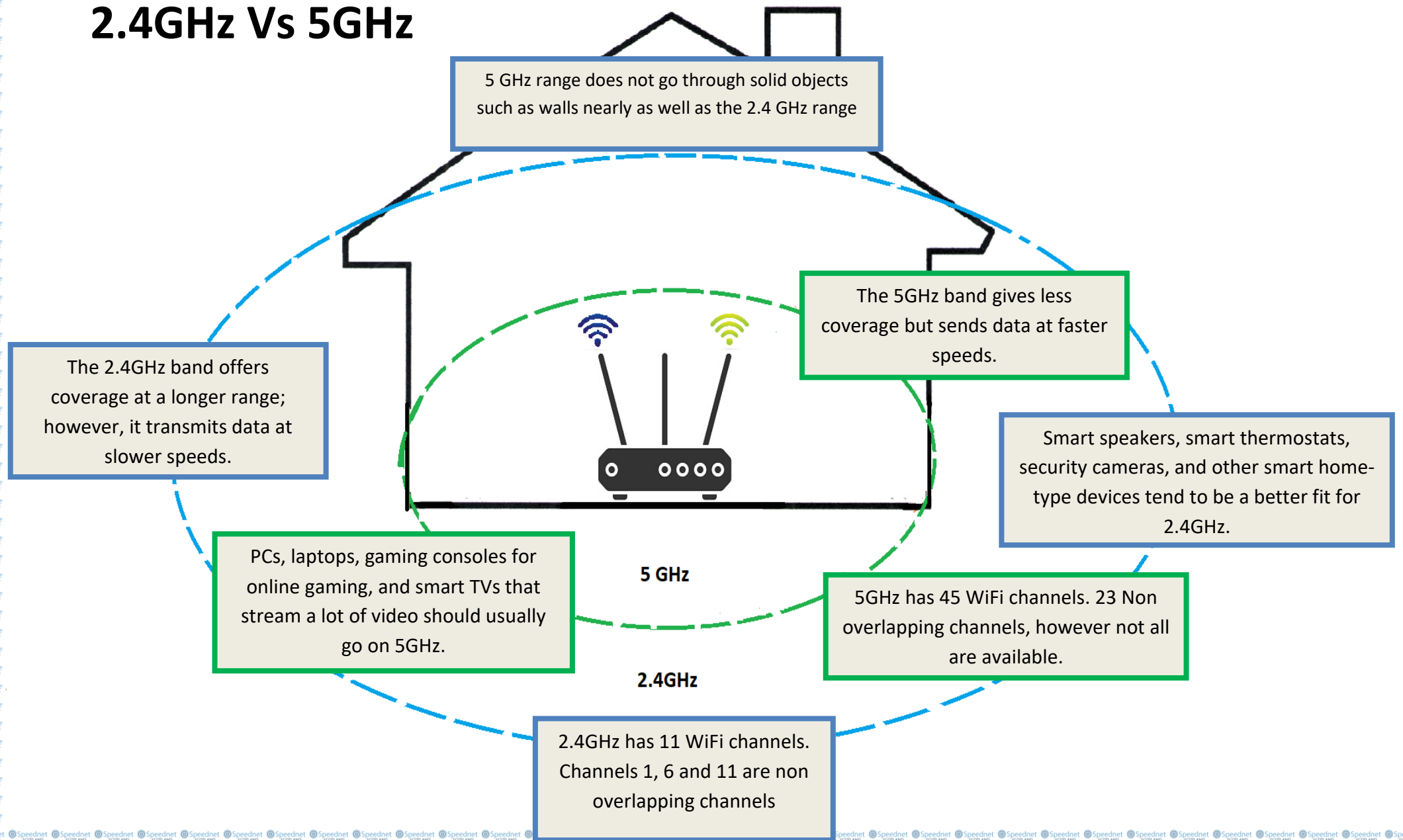
WiFi channels are smaller bands within WiFi frequency bands that are used by your wireless network to send and receive data. Depending on which frequency band your router is using, you have a certain number of WiFi channels to choose from. If a nearby device is using the same WiFi channel as your WiFi router this can cause interference.



During a Speednet installation our engineers will complete a scan and set the WiFi channel to the best channel at that time. However many people will add devices to their home WiFi network without checking the available channels. Therefore it is important you check this if you are experiencing WiFi issues. You can switch between WiFi channels to find the best one at that time. If you are unsure how to log into your WiFi router we are happy to provide remote support.

Top tip: Where there are a number of WiFi devices being used in one area this may lead to WiFi channels being overcrowded. If possible avoid using WiFi and connect devices such as televisions directly into the Ethernet ports in the back of your router using an Ethernet cable.

# 2.4GHz Vs 5GHz



# WiFi Vs Broadband

Many people make the common mistake of thinking their internet service and WiFi are all the same thing – but they are not.



Broadband is the actual internet connection received at your property. For customers to get online they must connect to the internet via an Ethernet cable (The cable connected to the POE adapter) by connecting to this directly or connecting the Ethernet cable to a router.

WiFi is a wireless connection in your property that allows you to connect to the internet connection. If the WiFi is not performing it does not necessarily mean that the issue is the external internet connection.

There are however a number of additional checks that you can complete to get to the root cause of the issue.....

# WiFi Vs Broadband

To establish if there is an external issue (An issue with the broadband being received at your property) or if the issue is damaged or faulty equipment please follow the below steps.

**Step 1:** Unplug your network cable from the router connected to the Speednet POE devices and connect directly to a PC or laptop.



**Step 2:** When connected directly to the PC or laptop . Is the service stable?



Yes. If this is stable then this issue is internal WiFi



**Step 3:** No. If the issue persists then check for faulty/damaged equipment



**Step 4:** If you disconnect the cable in the POE port of the POE adapter and check the colour of the prongs. If they are black instead of gold there may be water damage.  
Check for damaged or broken cables. If any of the cables connecting the POE adapter to the external device are damaged this will impact the service. Report any issues found to Speednet.



# Improving your WiFi signal

You may also experience issues with internal WiFi as the signal from your router simply does not reach all areas of your house. This can be particularly noticeable if you have a larger property or have thick internal walls. There are however solutions to this problem. **Please remember that when adding any additional WiFi devices to your home network you must check the device WiFi channel. Where possible you should use hardwired connections rather than connecting through WiFi.**

## Move the WiFi router

**Pro** - Moving the location of the WiFi router to be central in the home may improve WiFi

**Con** – You may need to rearrange the room

## Use a Mesh system

**Pro** – Mesh systems are very simple to use.

**Con** – They can be more expensive and performance of the service may be impacted by usage.

## Use a power line adapter

**Pro** – This is a cost effective solution and often results in faster WiFi

**Con** – They are plugged into an electrical socket. One must be plugged in near the router and connected via Ethernet cable.

## Use a repeater or range extender

**Pro** – They can help spread the WiFi around your home and are not over expensive.

**Con** – They tend to impact the bandwidth resulting in customer's service being impacted.