[BestRouter.co.uk](#) Router Troubleshooting Guide

Welcome to BestRouter.co.uk's troubleshooting guide. This guide is written with the assumption that the reader has no technical knowledge of routers, and aims to provide a number of suggestions to help you get your router working correctly whatever the make or model.

If you are quite technical or know the specific area or problem with your router feel free to jump ahead to that section of this guide.

This guide is not intended to be a substitute for your router manual, if you have one of these follow the steps in there before trying what's in our guide. If you've lost your router manual, don't worry – most router manufacturers include their manuals free for download on their websites. Here is a convenient list of [router manufacturers websites](#).

The guide is split into a number of sections:
> Basics
> Connections from your computer to the router
> Talking to the router
> Configuring your router
> Other router settings
> Wireless troubleshooting
> Final checks

BASICS

Ensure all leads and the antennas on the router are securely and correctly attached. This should include the power supply, any directly attached network cables (for non-wirelessly connected computers) and **all** wireless antennae.

If your router is a modem router ([see our article on the differences](#)) then you should also have a lead coming from your phone socket or your cable TV connection box to the socket on your router marked either ADSL, modem, or WAN.

Assuming you are connected to a working power socket you should see at least one or two working lights on the router (normally the front). If there are no lights on your router and you have confirmed the power socket works and the cable is correctly connected to the router, then your router is probably broken. If it is a brand new router – don't despair, this happens sometimes, just contact the shop or manufacturer to get a replacement. If your router is out of warranty then, unless it is a very expensive model (for example a Draytek) it's probably not worth having it repaired. Have a look at our [routers](#) or [modem routers](#) pages to see reviews of the latest models or check out our [router wizard](#) to find the best router for you.

CONNECTIONS FROM YOUR COMPUTER TO THE ROUTER

Problems with wireless connections are covered in a later section.

To do basic setups or solve problems with wired connections you will need to have a direct cable connection to the router. This will use a standard network cable (sometimes known as a CAT5 or CAT6 cable), one of these should have come with your router, if you don't have one find one here LINK. An example network cable is shown in the image below. The colour of the cable does not matter.
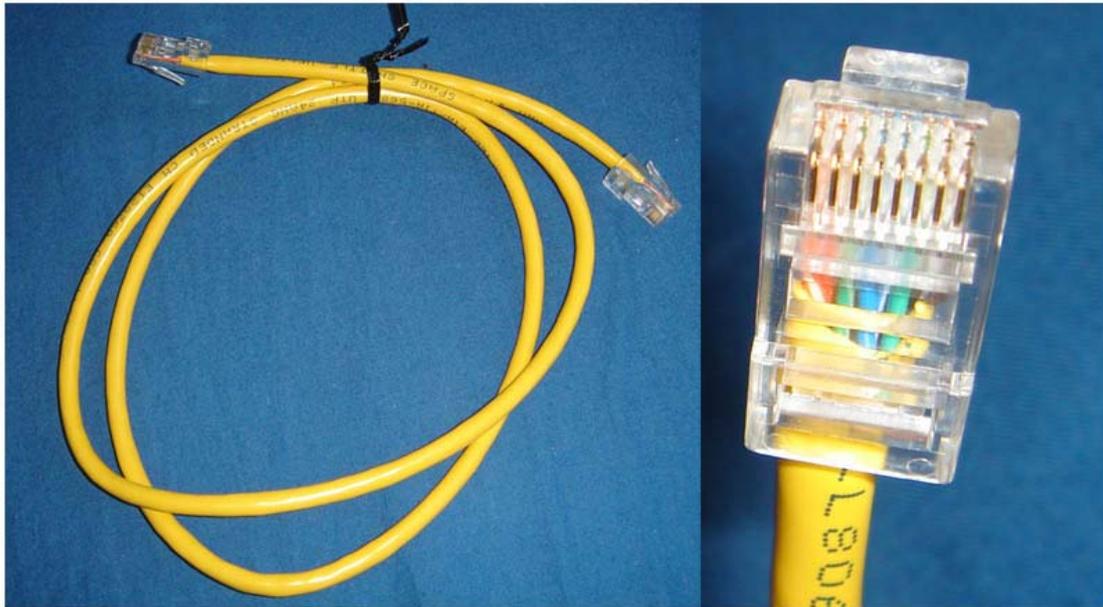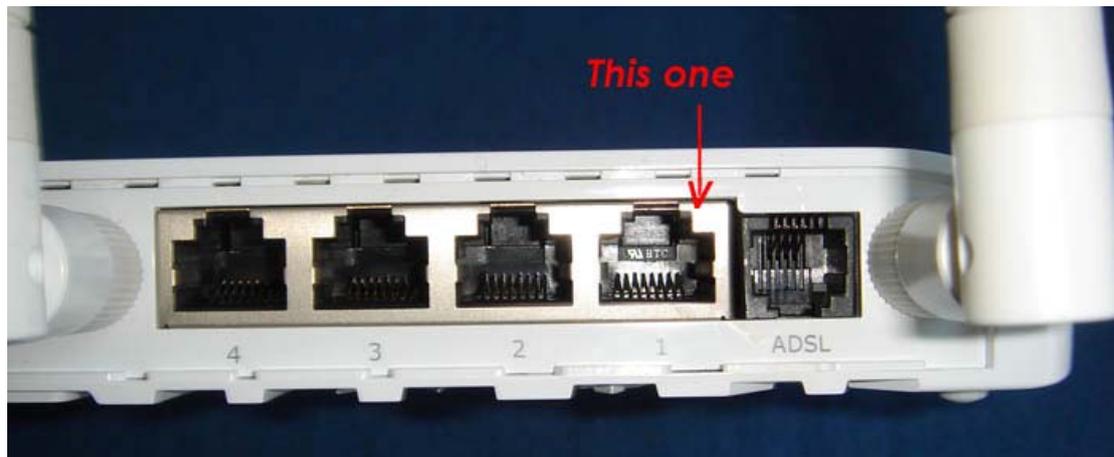

Plug one end of the cable into your computer's network socket (see image below).
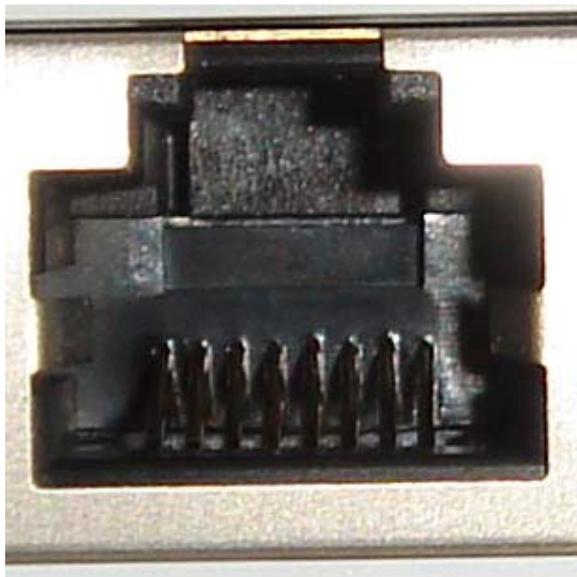
When it connects properly you will hear a click from the plastic clip. Plug the other end into the first LAN socket on your router, this will normally be labelled "LAN1" or

sometimes just "1". It is normally at the back of your router, and again you should hear the plastic clip click into place.

If both the router and your computer have power and are switched on, you should see little lights (normally orange or green) flashing next to the cable connectors on both the computer and the router. If you don't see flashing lights check that the cable is connected correctly. If you still have no lights try a different socket on the router and a different socket on your computer (if you have more than one available). If you still can't see any flashing lights try a different cable if you have one.

If you still cannot see any flashing lights it is possible that either your router is broken, or the network socket on your computer may be disabled or not working correctly. Contact your computer supplier or knowledgeable friend to check this for you.

If you see only one set of flashing lights, on either the computer or the router, that is perfectly fine and the connection will work.

TALKING TO THE ROUTER

You now need to get your computer to contact the router via this cable. The way to do this is by using your web browser programme, normally Internet Explorer, Firefox or Safari. Once your web browser is started it will probably show an error message – this is fine don't worry. You will need to type in the web address of the router. You will type this in the normal place in your browser, but it will be an unusual looking address. It will normally look something like http://123.456.789.123   The exact address will be listed in your router's manual. If you are not sure the default address for many routers is http://192.168.1.1

Once you have typed in the address and pressed enter or go you should see a screen similar to one of the following images. NOTE: You may get a pop-up window requesting a username and password. Enter the username and password provided in your router's manual and you should then see the expected screens. The default for many routers is a username of Admin and a blank password.
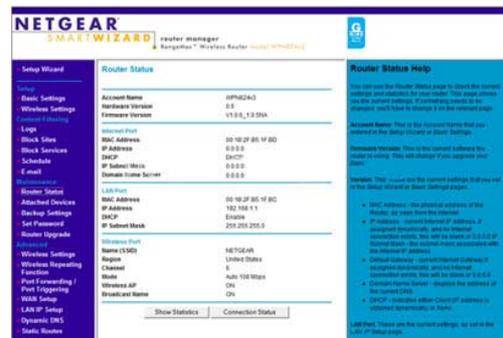
If you don't see anything that looks like this or you see an error screen your router is probably on a different address. Check your manual to see what the address should be, if you don't have the manual you can normally download this from your router manufacturer's website LINK using a working internet connection.

If you have no way to get this, as a last resort you can try finding it out from your computer. The below guidance is for a PC running windows:
1. in the "run" or "search" box on your windows Start menu type in CMD and press enter.
2. a new window should appear with a black background, which you can type into. You should type "ipconfig /all".
3. A lot of text will now appear. You are interested in the line that says "Default Gateway" and has 4 numbers next to it. There may be more than one line that says Default Gateway so make sure you get the one that has 4 numbers.
4. Close the window by typing exit and pressing enter.
5. Take the four numbers and try using them as the address for your router in your web browser. For instance if the numbers were 123.456.78.9 then the web address you should try is: http://123.456.78.9

Assuming you have a screen similar to those shown above, you are now in your routers configuration menu system.

NOTE: You may get a pop-up window requesting a username and password. Enter the username and password provided in your router's manual and you should then see the expected screens. The default for many routers is a username of Admin and a blank password.

CONFIGURING YOUR ROUTER

Now that your computer is talking to your router, we need to set your router up to connect to the internet.

If your router is not a modem router, then you should skip this section (go to the Other Router Settings section) as you won't be using it to connect directly to the internet.

If this is the first time you're setting up your router you will probably see a router setup wizard. This will ask you a number of questions in order to set your router up for you. Don't worry if the questions are confusing, the answers to all of these will be in your setup notes (or installation guide) from your internet service provider (ISP).

If you don't have these available from your ISP you will need to call them to get these answers or if you have alternate access to the internet check their website.

If you still can't find anything you could try our standard UK router settings.

Once you have completed the wizard your router will be setup for internet access and you should now be able to visit other internet sites. Google or the BBC are both good sites to check to make sure you have a working internet connection (as you are usually guaranteed they will be available).

If your router has previously been set-up you may be looking at a status screen. This will normally tell you the status of the routers connection to the internet i.e. whether this is up (working) or down (not working), and if it is up how long it has been working for. Normally this will be since you last switched the router on or reset it. If it isn't then you may want to contact BT or your cable provider to check your line is in good working order.

Also on the status page will be the up time of the router, i.e. how long the router has been working, and again this should be since you last switched it on or reset the router.

If your internet connection (sometimes called ADSL) on the router is down or disconnected, this means the router and therefore your computers will not have internet access. Sometimes on the router status page there will be a connect button similar to the one you can see in the example below.

Try clicking on this button to establish internet access. Once you've clicked on this button (or make any changes in your router configuration) you will have to wait while the router webpage you are viewing refreshes itself. This usually takes about 5 seconds but can sometimes take longer.

If your internet connection is down (disconnected) and there is no connect button on the status page you will need to find the page with internet access. This will normally be called something like WAN Settings / Internet Settings / Modem Settings or DSL settings. Once you're on this page make sure that the settings on the page are the same as given to you by your ISP and once they are click the "Connect" button sometimes this is a "Submit" button.

This should make your internet connection work. If you're not sure about any of the settings or your ISP has not provided them all leave them as the default settings. In most cases this will be fine. If it isn't try our standard UK router settings.

OTHER ROUTER SETTINGS

Other router settings you may be interested in are the local area network (LAN) settings. Below is a selection of standard settings for a regular home network:

DHCP: on
DNS Server: on
Local IP address: 192.168.1.1
Subnet mask: 255.255.255.0
Static DNS and WINS – leave blank

WIRELESS TROUBLESHOOTING

Before touching the wireless settings ensure your computer can access the router and the internet with a wired connection (see previous sections). If it is and you're having problems getting the wireless working there are a number of simple steps to take:

1. Disable all security settings. If these are set incorrectly they can prevent wireless working. You should set all wireless security (sometimes called WEP, WPA or WPA2) to off or disabled. You should also make sure that MAC address filtering is switched off or disabled.

    Once you have the router working correctly we at bestrouter.co.uk strongly suggest you re-enable your security settings one at a time checking after each one whether the router still works wirelessly.

2. Wireless channels
    There are 13 channels available to you. However because of the way the radio spectrum in the UK is divided up only three of these are really of interest. These are the channels 1, 6 and 11. The channel you select chooses the radio frequency that your router will use. Like a remote control car both the sender and the receiver need to be on the same frequency (channel). So you will need to make sure at all times that the channel selected on your router is matched by the channel set on your computer's wireless network device.

    You will normally be able to see in your computer's hardware information screens which wireless channel it is using.

    Sometimes wireless problems or intermittent faults are caused by too many people or devices nearby using the same channel as your network which causes interference. If you are having problems try changing the channel to a different number (1, 6 or 11). Don't forget to change it on all your computers at the same time.

    Once you've changed these settings and have submitted them / saved them on the router try unplugging the cable from your computer to the router to see if it now works wirelessly. Again, test if you have internet access.

    If it does work great, don't forget to start switching on your security settings one at a time. You should make sure that these settings are the same on your computer as they are on the router. Do not switch on or enable MAC address filtering unless you know what this is and are completely confident it is set up correctly.

3. Other wireless settings:
    SSID: This is the name of your wireless network (call it whatever you want) there are normally options that allow you to hide this name – for troubleshooting make sure SSID broadcast is switched on.

    Network mode: Set this to mixed mode if you are using wireless G (802.11g) older wireless networking computers on your network.

FINAL CHECKS

If you have made all these changes and you are still unable to get your router working correctly, you may want to reset it to factory default settings (there is sometimes a button for this or an option in the configuration screen) and then follow this guide again.

Should that still not work then check your router manufacturer's website to see if there is a firmware update available. You will need to follow the specific instructions on your manufacturer's website for installing this and it can be a complex process.

Well, that's it we here at BestRouter.co.uk really hope that this has helped you solve your problems. If you have any feedback on this guide we would love to hear it, as we are always looking for ways to improve it.

Don't forget to visit our site for articles, tools and news on routers.

The Best Router team