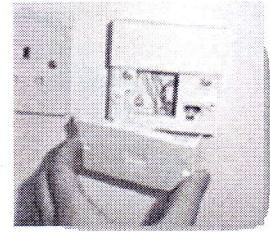


Step 4: Check for faulty home internal phone wiring

Poorly-installed home phone wiring or poor quality phone extension leads (often with a flat rather than round cable profile) are the most common causes of slow broadband speeds. This is because they are more prone to electrical interference, which causes BT Broadband to reduce data speeds to compensate. You can test for this as follows:

1. If you have a phone master socket like the one in the photo here (that is, square with a horizontal groove halfway down it, and removable upper and lower cover), we recommend you remove the **lower cover** as shown, taking care not to dislodge any wiring. **Do not remove the upper cover.** This will reveal a test socket on the right-hand side. This connects directly to the exchange, bypassing your home phone wiring and extensions.
2. Plug your router or modem directly into this test socket via a microfilter.
3. Recheck your connection speed as per Step 2 above, ensuring you refresh your browser page first. If your connection speed has increased significantly, this indicates a likely fault or interference source within your home wiring. If it remains unchanged, this indicates either no fault, or the fault or interference is more likely to be in BT's wiring or in your local exchange.
4. If you do not have a master socket of the type shown above, or cannot plug your router or modem directly into it, we recommend you minimise the length of any phone wiring between your master phone socket and your router or modem, avoid the use of flat or aluminium phone extension leads (go for round copper cable instead, which may sometimes be marked 'DSLMax-compatible'), and route cables to avoid areas of electrical interference such as near power cables, digital phones, microwave ovens, Christmas tree lights, high-wattage equipment, halogen lighting and so on.



Step 5: Connection speed v throughput speed

The tests above measure connection speed – the maximum data speed your phone line can support. Fluctuations in it usually indicate possible wiring or interference issues, either in BT's network or your home phone wiring. However, the speed at which you see web pages or download files is determined by more than just the speed of your phone line – this is also governed by the speed of your computer, congestion in BT's network and in the Internet, and speed of website servers.

This end-to-end speed is measured by 'throughput' speed - the actual rather than maximum speed your data is travelling at in given moment. Throughput is the speed reported by most online speed-test websites. It is normal for your throughput speed to reduce significantly between 5pm and 10pm daily, as this is the time when BT network and Internet congestion is at its heaviest (rather like the rush-hour on a motorway). You can test this by carrying out a speedtest (for example, at <http://speedtester.bt.com>) at, say, 7pm (in other words, during the peak) and again at 11pm (after the peak) to compare the difference. Note that a slow throughput speed is not generally an indicator of a line fault.

Important note about speed tests

Every time you switch off or reconnect your router or modem, your broadband service refreshes your connection speed. Note, however, that where this has increased, your throughput speed will not increase for a further 3 days. This is to minimise the risk of data loss which would occur if the exchange tried to send data down your phone line at a faster rate than it is capable of handling.

To avoid this happening, your exchange waits for three days of consistently higher connection speeds before it will increase the speed at which it passes data down your line. Also note that if your connection speed dips for any reason during the three-day period (eg. due to electrical interference or a fault), the exchange will restart the three-day period.

For these reasons we recommend you leave your router switched on all the time, and avoid measuring your throughput speed until three days after you last switched on or rebooted your router or modem.