



BT Total Broadband

User guide and troubleshooting



For online help, go to
www.bt.com/help

Contents

Your BT engineer will come and set up your BT Total Broadband service and get one computer connected. After this, you'll find lots more help in this guide, if you need it.

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Getting up to speed

For the first 24 hours or so, your broadband might slow down or even stop now and again. That's normal. It takes that long for your broadband to reach its top speed. You can help it along by leaving your Hub on all the time, and using your broadband as much as you can for the first 24 hours. If you've got questions about the speed of your broadband after that, go to www.bt.com/help/broadbandspeed

Use these pages to find out where to get lots of help online or if you need some help fixing a connection problem. There's also connection troubleshooting on page 12.

Online help

There's no need to call and maybe wait in a queue if you're online and need some help or advice. Simply go to www.bt.com/help

Other ways to get help

Run BT Broadband Desktop Help – see below.

Advice, tutorials, common questions and videos: go to www.bt.com/start

Tips from other users in our forums: go to www.bt.com/community

Connecting other computers and devices: go to page 4.

Connection troubleshooting: go to page 12.


Desktop help – new and better than ever

BT Broadband Desktop Help (PCs only) is included with your BT Total Broadband service. It's a tool that identifies problems with your broadband, email or wireless connection and the engineer will install it on your computer as part of your BT fibre installation. It then continually checks your broadband connection. If there's a problem, BT Broadband Desktop Help automatically pops up to help fix it.


To open desktop help, just double-click  on your desktop or download it straight to your computer from www.bt.com/help/broadbanddesktophelp

BT Broadband Desktop Help will:

- alert you if you have a problem
- support you 24 hours a day
- help you get back online
- run a PC health check
- set up or troubleshoot your BT email account
- fix problems in the background
- help you set up your home network
- update automatically

 **Note:** BT Broadband Desktop Help only works with PCs using Windows 7, Vista or XP. Sorry, it doesn't work with Macs. If you use a Mac, please try other help options in this guide.

Once connected, your new broadband connection means faster help, if you need it. Just go to www.bt.com/help

 If you still have problems connecting, see page 12.

Help with computer problems

While the other help listed here focuses on your broadband and Hub, our BT Home IT Support team can offer you straightforward, jargon-free help with a wide range of computer-related issues. You can get help over the phone¹ or in person².

To find out more, go to www.bt.com/homeitsupport

Your bill explained

After your order, you might get an interim bill that's bigger than you expected. If you're an existing customer, you might see charges for some of your old service as well as the new.

To find out more about your bill, go to www.bt.com/mybt

¹ 12-month subscription £9 a month. We might not be able to fix some technical problems. Policy on fair use applies.

Exclusions, terms and conditions apply.

² Engineer visits: charges start from £90.

Prices shown include VAT at 20%. VAT rate and prices may change. See www.bt.com for the latest prices.

Connect other computers and devices

How to connect other computers or devices using the CD

Set-up will have connected your main computer to BT Total Broadband, but if you'd like to connect any other computers or devices, simply run your CD on the computer or device and follow the set-up wizard. It's the easiest way to connect other devices.

? My CD won't run. What should I do?

PC users: click on **My Computer** in the Windows Start menu, right-click your CD icon, then click **BT Home Hub Setup**.

Mac OS users: double-click the BT Total Broadband desktop icon, then double-click **setup.app**.

? How can I find out if my computer or device works with wireless?

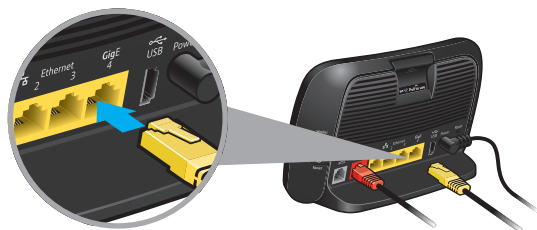
See page 5.

How to connect other computers or devices that don't use a CD

If you've a wired device

Simply plug its Ethernet cable into one of the spare Ethernet (yellow) ports on the back of your Hub.

To get the best speed possible on connections that support 80Mb speeds or over, we recommend you use the GigE socket (port 4).



If you've a wireless device such as a laptop, netbook, smart phone or games console

Use its wireless feature to connect to your Hub. You'll need your Hub's wireless network name and wireless key. You can find these on your Hub's handy pull-out (see page 9). If the engineer replaced your old Hub with a new one, he or she may have transferred your old Hub's wireless settings to your new Hub – there's a space on page 19 for you to keep a note of these details. Once you've found these, follow the instructions that came with your device – for the Hub, read on.

If you're trying to connect a computer or a device, turn on its wireless – there's usually some sort of switch. Then try hovering your mouse or cursor over the icons in your computer's system tray or status bar, and look for a wireless icon. If you're using Windows Vista or XP, you can also try clicking **Start** then **Connect to...**

If your computer's got a wireless connection, find your Hub's wireless network name in any list displayed (it will start with 'BTHub3...'), highlight it and click **Connect**. If you need to, type in your Hub's wireless key.



You may need these techy details:

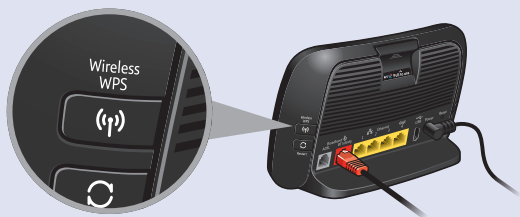
Authentication type: WPA2-PSK or WPA-PSK

Encryption type: AES (WPA2) or TKIP (WPA)

Mode: infrastructure (not ad hoc)

An even easier way to connect devices

Your clever new Hub has a **WPS** (wi-fi protected set-up) button. What's that mean? It means all you have to do to connect a WPS-enabled device or a PC (running Windows 7 or Windows Vista with Service Pack 2) is find your Hub's network name using the device or PC you're trying to connect to broadband – and when you've found and highlighted it and clicked **Automatically connect**, press the **WPS** button on your Hub within two minutes. Some devices may need you to press a button.




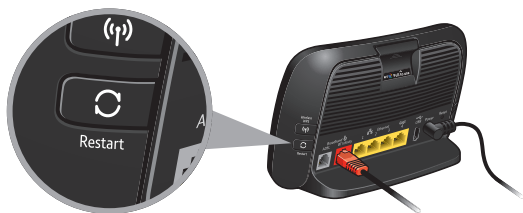
To find out more about WPS, go to www.wi-fi.org/wifi-protected-setup

What to do if you have a problem connecting your computer to your Hub

If the computer's never been connected to the Hub before, see page 4.

Check the Hub lights table and troubleshooting on page 12. If the Broadband light is blue, broadband to your Hub is okay. If your computer can't connect, these tips may help.

- 1 If you haven't already, press the **Restart**  button on your Hub and then try restarting your computer. This often gets connections up and running again.



- 2 If you're trying to get to a certain web page, try getting a different web page. The problem may be with the web site you're trying to get.

- 6 Connect other computers and devices

- 3 If you're using a firewall, check it isn't blocking your web browser's connection to the internet. Try temporarily turning off your firewall and then restarting your browser. If you can now get on the internet, there's a problem with your firewall settings. To fix this problem, see your firewall's help information.

If your computer's connected using an Ethernet cable (yellow ends)

Check that this cable is plugged in correctly by unplugging and plugging back in each end.

Or try plugging the Ethernet cable into one of the other yellow Ethernet sockets on the back of your Hub.


If you're using wireless, many things can affect a wireless connection


You could have a problem with interference on your wireless signal, your computer settings or where your computer and Hub are in your home. These tips may help.

- Check that your computer's wireless adapter is turned on. Some laptops have a small switch – please see your computer manual for help
- If you're using a wireless adapter, check it's correctly installed and connected
- Check your wireless connection software – it should show if your computer's connected to your Hub. Try hovering your mouse or cursor over the icons in your computer's system tray (usually on the lower right-hand corner of the screen) – one of these may show if your wireless is connected. Click or right-click on this to launch wireless manager

If you still can't get a wireless connection...


- Try moving your computer closer to your Hub
- Move your computer and Hub away from large electrical appliances
- Temporarily turn off other wireless devices in your home, such as wireless TV/video senders, security cameras and baby monitors

 **Note:** if your computer has an Ethernet port, try plugging in the Ethernet cable. This may help you to get online. For more help with fixing connection problems, go to www.bt.com/start

 If you still have problems connecting, see page 12.

Change wireless channel

Your Hub is always monitoring the wireless channel it's using and if it detects too much interference, it will automatically change to another channel. If you want to refresh a channel, follow the steps below. Or you can manually change to a channel of your choice – but this will stop the automatic channel selection feature.

Open BT Broadband Desktop Help by double-clicking  on your desktop. Click PC Healthcheck, then the wireless tab and follow the instructions to change wireless channel.

If you can't use desktop help, you can manually change wireless channels using the steps below. You'll need a computer connected to the Hub so you can access your Hub Manager.

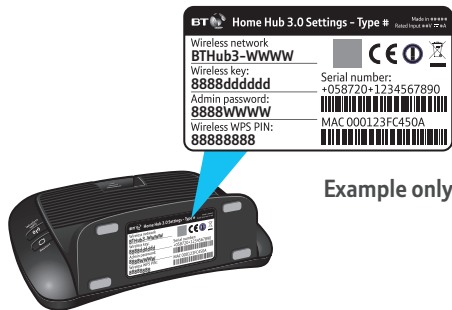
- 1 Access Hub Manager by typing **bthomehub.home** into your web browser.
- 2 Click **Settings**.
- 3 If asked, enter your Hub Admin password. You'll find this on the bottom of your Hub.
- 4 In the **Basic Settings** menu, click **Change the wireless channel to avoid interference**.
- 5 Click the **Refresh** button.
- 6 Wait a minute for your device to pick up the new channel.

About your Hub

Hub Manager

Your BT Home Hub 3 is like a computer. It has its own software running, which controls how it works and what it does. You can change your Hub's settings using your Hub Manager – simply open your web browser and type **bthomehub.home** in the address bar.

Access to your Hub Manager is secured using a password. When accessing the Hub Manager for the first time, you'll be asked to enter the Admin password – see your Hub's handy pull-out. You will then be asked to enter a new password, of your choice. There's some space on page 19, if you'd like to write it down. You can also enter a password hint that can help you remember your password when you need it.



Example only

If you can't remember your Admin password, you can use the Password Override feature. When you're in Hub Manager, press the **Password Override** button. Then press and hold the **WPS** button for about 20 seconds and you'll then need to enter the wireless key (see your Hub's pull-out) as the username, and the serial number (see under Hub) as the password. You'll then need to enter a new password as if you were accessing the Hub Manager for the first time.

Hub sockets summary



Broadband: ADSL socket (grey)	only for connection to ADSL broadband (not connected)
Broadband: BT Infinity socket (red)	connects your Hub to Openreach modem
Ethernet sockets (yellow) 1–4	connection (no. 4 is a GigE port, which is used for high-speed devices like network attached storage (NAS) drives and high spec computers)
USB socket	for connecting USB 2.0 memory devices
Power socket	connects your Hub to mains power using the Hub's power cable

Hub features

Your Hub offers a wide range of features, many of which aren't needed for day-to-day use. Power Save mode and Access controls are popular everyday features that you may find useful.

BT Power Save

Your Hub 3 comes with Power Save, which means it goes into sleep mode if there's been no activity for over five minutes. All lights will be dimmed and your Hub will wake up as soon as you need it. You can also set a manual Power Save to turn off wireless between preset times of the day. You do this through your Hub Manager (the Power light will then be orange).

To find out more about your Hub features, go to www.bt.com/help/homehub

Hub wireless details

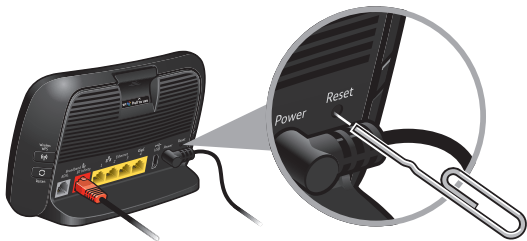
If the engineer replaced your old Hub with a new one, he or she may have transferred your old Hub's wireless settings to your new Hub – there's a space on page 19 for you to keep a note of these details.

Resetting your Hub

⚠ WARNING: resetting your Hub means you'll lose any changes that have been made to your Hub software, including any changes made by the engineer.
Tip: you can back up your settings before you reset your Hub. To find out more, go to www.bt.com/help

To reset your Hub to its factory default settings, removing all personal settings:

- 1 use a pin or paperclip to press and release the **Reset** button on the back of your Hub. All Hub lights will go out
- 2 wait for the Hub's Broadband light to glow blue – this may take several minutes
- 3 reset any changes that you or your engineer made before in Hub Manager



This may include:


- reactivating BT FON – go to www.btfon.com
- resetting any wireless settings that you changed
- resetting your Hub Admin password and any Hub Manager changes

What to do with an old Hub

If you've got a new Hub as a replacement for a faulty one, please return the faulty one with its power cable using the returns envelope sent with the replacement.

If you don't have a returns envelope or you've other old electrical equipment you'd like to dispose of, please follow your local authority's recycling advice.

Before disposing of any such equipment, we recommend you reset it to its default settings – this should remove all your personal settings. To find out how to reset your Hub to its default settings, see above.

 For more help, please go to www.bt.com/help

Connection troubleshooting

The first thing to do if your connection isn't working is check your modem and find out what to do using the table below. You could have either an **Openreach modem** or an **Openreach optical network connector**.



Openreach modem light status

Openreach optical network connector light status

What's happening









What to do

Off POWER	Off POWER	There's a problem with your power supply or power is off	Check your power cable's plugged in correctly and mains power is on. Then restart your modem
Flashing green POWER	Not applicable	Modem is restarting	Wait until light is green – can take a couple of minutes
Off DSL	Not applicable	Broadband isn't working	Check the DSL cable is plugged into the DSL socket on the back of the modem and the engineer-installed wall socket. If you're using an extension socket, check this is also plugged in. Restart your modem
Flashing green DSL	PON or Optical flashing green	Modem is restarting	Wait until the light is steady green – this can take a few minutes
Off LAN1	Off PORT1	Modem can't detect Home Hub	Check your broadband cable is plugged in between the LAN 1 socket on your modem and the red Infinity socket on your Hub. Check your Hub's Power light is blue – if it isn't, see page 14. Then try restarting your modem. Then restart your Hub: press and release the Restart button on the side
DSL steady green LAN 1 green LAN1	PON green, LOS is off or Optical is green	Modem is connected to broadband and your Hub, and is working	Check Hub lights table on page 14 for connection troubleshooting
Not applicable	PON off, LOS or Optical is red	Broadband isn't working	Check the fibre cable isn't damaged and is firmly plugged in



Still not working? If you've tried the table above or you find you're having to restart your Hub a lot, call us on 0800 111 4567.





If you still have trouble connecting, check your **Hub lights** and find out what to do using the table below.

Hub light status	What's happening	What to do
 Power light is off	There's a problem with your power supply or power is off	Check your power cable's plugged in correctly and mains power is on. Note: check your Hub's Power button is on
 Power light briefly solid orange and then flashing orange	Hub is restarting	Wait until light turns blue – this can take a few of minutes
 Power light is red	Hub has a problem restarting	Wait a few minutes. If light turns blue, all's okay. If light stays red, call us – see page 16
 Power light is orange	BT Power Save is active	You can wake up your Hub by pressing and releasing its Restart button. For more about BT Power Save, see page 10 or go to www.bt.com/help
 Power light is blue	Hub's power supply is okay	Nothing – power's okay
 Broadband light is off	There isn't a broadband connection	Check your Power light is blue and that your Infinity cable's connected correctly. Then check your modem lights – see page 12. If your Hub's Broadband light still hasn't turned blue, press and release your Hub's Restart button. And check modem lights again. If you've got a computer connected to your Hub, open your web browser for some help. Or go to page 2
 Broadband light flashing orange, then purple and orange	Hub's connecting to broadband	Wait until light turns blue – this can take a few minutes
 Broadband light is orange	Hub can't connect to broadband	Check service status on 0800 169 0199. Then press and release your Hub's Restart button. If you've got a computer connected to your Hub, open your web browser for some help

Continued...

Hub light status	What's happening	What to do
 Broadband light is red	Broadband's active, but can't connect	Wait a few minutes. Then reset your broadband username in your Hub Manager at bthomehub.home . Note: if you're connecting to another broadband service your username will be different from the one we gave you. If you've got a computer connected to your Hub, open your web browser for some help. Or go to page 2
 Broadband light is blue	Hub's broadband is okay	If you still can't connect, see page 6
 Wireless light is off	Wireless isn't active	If your Power light is orange, this means your Hub is sleeping in Power Save mode to save energy. You can wake up your Hub by pressing and releasing its Restart button. If your Power light is blue, go to your Hub manager at bthomehub.home to switch on wireless. For more help, go to www.bt.com/help
 Wireless light is orange	Wireless security is off	It's a good idea to have your security on for your safety. Go to your Hub manager at bthomehub.home to switch on security. For more help, go to www.bt.com/help
 Wireless light is flashing orange	Hub is connecting to a device using wireless via WPS	Wait two minutes for your Wireless light to turn blue – it'll turn orange if security's off (see above to find out how to turn security on). To find out more about WPS, go to page 6. For more help, go to www.bt.com/help
 All lights are dimmed	Hub is sleeping in Power Save mode to save energy	Lights return to full power as soon as the Hub sees any activity. For more about BT Power Save, see page 10 or go to www.bt.com/help
 All lights are flashing blue	Password Override in progress	Wait two minutes for all lights to turn steady blue. For more help, go to www.bt.com/help

 Still not working? If you've tried the table above or you find you're having to restart your Hub a lot, call us on 0800 111 4567.

 To restart your Hub, press and release the **Restart** button on the back of your Hub. Wait for the Power light to turn blue.

Useful information

Useful web site addresses

MyBT: www.bt.com/mybt

Help and support: www.bt.com/help

Your Hub Manager: bthomehub.home

Password – see page 9.

Jot down your details here

BT Total Broadband username:

BT Total Broadband password:

Your username and password are also your BT Yahoo! Mail address (email address) and password.

Default Hub settings

Broadband username (PPP): bthomehub@btbroadband.com

Broadband password: none required

Encapsulation: PPPoE

Multiplexing: VC based or VC Mux

Wireless network name/SSID:

Wireless key:

The factory settings are printed on your Hub's pull-out. Make a note of any changes here.

Wireless interface: wi-fi 802.11.b, g or n

Authentication: WPA-PSK or WPA2-PSK (also known as WPA-Personal)

Encryption type: AES or TKIP

Mode: infrastructure (not ad hoc)

Hub Admin password:

Your password's printed under your Hub and on its pull-out. Make a note of any changes here.

⚠ IMPORTANT: if you or your engineer changed your wireless settings, we suggest you keep a note of them above.

The small print

Warranty

Your BT Home Hub 3 will arrive fault-free and will work like it should for the minimum period of your contract. If during that time it stops working, and you've followed the advice on page 2, you should contact us. If we ask you to return it, we'll decide to replace or repair it – except if the fault's caused by general use, accidental or deliberate damage, not using it properly or not following the instructions in this User guide. If you return it, we may test it. If it's working, we'll send it back to you – but you might need to pay our testing and postage costs. This doesn't affect your legal rights.

Safety and regulatory instructions for your Openreach modem and BT Home Hub 3

Please read this section carefully before set-up.

- Your Hub and Openreach modem will get warm once connected to the power supply. Although this is normal, you should make sure that your Hub and Openreach modem have adequate ventilation to prevent overheating. Never block the vents on your Hub or Openreach modem.
- Don't expose your Hub or Openreach modem to rain, water, moisture or direct sunshine.
- Don't spill liquid on your Hub or Openreach modem.
- Keep your Hub and Openreach modem away from sources of heat such as heaters or radiators.
- Don't try to disassemble or open up your Hub or Openreach modem yourself. Not only will it make your warranty void, it may expose you to dangerous voltage or other hazards.
- Before cleaning your Hub or Openreach modem, disconnect its power supply. Use a damp cloth for cleaning.
- For better performance, don't place your Hub or Openreach modem on a television or computer monitor.
- If there's an electrical storm, you must unplug all of your equipment from the electricity supply and phone sockets.
- The BT Home Hub 3 intentionally generates low-level radio frequency signals and so there's a very small risk that it may interfere with sensitive medical devices, for example a heart pacemaker, when nearby. If you've any concerns, we recommend that you consult the medical device manufacturer before using your BT Home Hub 3.
- The plug on the power cable serves as a disconnect device. Make sure that the power socket you plug the power cable into is easily accessible and located as close to the equipment as possible.

Important: please make sure you always use the power cable supplied with your new Hub – don't use any other power cable.

Save energy

Please avoid wasting energy while using your computer, games console or other equipment. You can set up your computers to go into standby or low-energy mode automatically. Your Hub has BT Power Save – see www.bt.com/help/homehub Please disconnect your Hub from its power supply when not in use for an extended period (e.g. a holiday), but remember that when you do so all connected computers (and any other devices that use your Hub to connect to your broadband line) will lose internet access. Remember to restore power to your Hub before turning on your computer(s).

How to recycle your equipment

Your Hub is classed as Electrical or Electronic Equipment, so you shouldn't throw it out with normal household or commercial waste.



Instead, we recommend you ask your local council how to recycle it along with your kit. It's all part of the Waste Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC) to recycle products using the best possible techniques, helping to minimise the environmental impact, treat hazardous substances safely and avoid too much landfill.

Before disposing of any such equipment, we recommend you reset it to its default settings – this should remove all your personal settings. To find out how to reset your Hub to its default settings, see page 11.

Declaration of Conformance

Declaration of Conformance with European Community Directive 1999/EC.

This product is intended for use within the UK for connection to the public telephone network. This equipment complies with the essential requirements for Radio Equipment and Telecommunications Terminal Equipment Directive 1999/5/EC. The Declaration of Conformance can be found at www.bt.com

GNU General Public License

The BT Home Hub 3 contains code that is covered by the GNU General Public License (GPL). In accordance with the GPL, BT has made the relevant code available for download at www.btyahoo.com/broadband/adhoc_pages/gplcode.html

Terms and conditions

BT Total Broadband is covered by terms and conditions. To review these, go to www.bt.com/terms

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