

Self Help Kit

How to get reliable and fast Internet access (Apple users)

❑ **Unplug all other equipment on the same line**

Before you dial-up to the Internet, unplug any other equipment that uses the same line as your modem. Doing this will improve the speed and reliability of your modem. Other equipment can include telephones, answering machines, fax machines, alarm systems, call number display units and extension ringers.

❑ **Turn off Call Waiting**

If you have a Call Waiting service it may be interfering with your modem. Call Waiting ‘beeps’ can cause your modem to disconnect. Try turning Call Waiting off before you dial-up to the Internet.

❑ **Check your dial tone**

If your modem doesn’t make a dial tone sound when you dial-up to the Internet, unplug the modem and plug in a telephone instead. Lift the handset. If you can now hear a dial tone, then it may be that your modem is faulty.

❑ **Other dial tones**

If your modem cannot recognise a dial tone supplied by your Telephone Network it will display a ‘No Dial Tone’ message. If this happens, you will need to set your modem to ‘Ignore the Dial Tone’ and dial out regardless.

❑ **Remove sources of interference**

Mobile phones, CB radios and other sources of Radio Frequency Interference can cause your connection to the Internet to dropout. Turn them off or keep them away from your computer, modem and phone line.

❑ **Check for line noise**

Noisy telephone lines can affect your connection to the Internet. Plug a telephone into the line you would normally use to dial-up to the Internet. Make a phone call and listen for any unusual sounds.

If you have an electric fence and your line is noisy, try turning it off to see if the noise improves.

If you have a persistently noisy line report it to your Telephone Company (Telco).

❑ **Unplug your telephone extension cord**

If you use an extension cord to plug your modem into a telephone socket, try plugging the modem directly into the socket instead. This should improve your modem’s speed and reliability.

Install the latest modem scripts

To make sure your modem has the correct series of commands it needs to operate (these commands are called the ‘initialisation/command string’) you need to install a correct and latest version ‘modem script’.

❑ **Turn off ‘Disconnect if idle’ option**

If you are connected to the Internet but do not click anywhere on your browser, the ‘Disconnect if Idle’ function will eventually terminate your Internet session. You can either turn this option off or adjust the period of time before the ‘Disconnect if Idle’ function is activated.

❑ **Check your guaranteed connect time**

Your Internet Service Provider (ISP) gives you a ‘guaranteed connect time’. This is the time that you will be able to spend on the Internet without being disconnected. Some ISPs will disconnect you after two hours, if all their lines are busy. They do this to free up lines needed by other customers who want to connect to the Internet.

These topics plus more useful tips and information are covered in detail on the following pages.

More detailed information

General

There are four main factors that can affect the speed and reliability of your modem when it connects to the Internet:

1. Modem type and setup
2. The maximum data speed of your phone line
3. Your ISP
4. The Internet site you are downloading from

Checklist of potential problems and possible solutions

Disconnections caused by other devices sharing the same telephone line

If you have other equipment, like an answering machine or fax machine, plugged into the same telephone line as your modem, you may experience poor download speeds or frequent disconnections when you access the Internet. To avoid this, make sure that when you use your modem to dial-up to the Internet it is the only equipment plugged into the telephone line. If you are unable to unplug or remove other equipment, contact your Telco or Licensed Cabler for advice.

Check for dial tone

Plug a telephone into the socket that you would normally plug your modem into. Lift the handset of the telephone and listen for a dial tone. If you hear a dial tone, press '1'. If the dial tone stops when you press '1', the line is functioning normally. If the dial tone is continuous you may have a faulty line.

If you can't hear a dial tone when you pick up the handset, it could be that the socket you are using is faulty. Test the other sockets in your house by plugging in your telephone, lifting the handset and listening for a dial tone. If you can hear a dial tone at other sockets in your house, it may be that the socket you were using is faulty. You will need to contact a Licensed Cabler to repair the socket.

If the socket has a dial tone but your computer is displaying a 'No Dial Tone' error message, you will need to alter your modem's settings so it can 'Blind dial'. See our section on **Blind dialling**.

Check for line noise

Plug a telephone into the socket that you would normally plug your modem into and lift the handset. When you hear a dial tone, press the digit '1' and listen for five seconds. If you can hear static on the line, repeat the process at other sockets in your house.

If the problem only occurs at one socket, contact your Licensed Cabler to repair the socket.

If the problem occurs at all the sockets in your house, contact your Telco to repair the line.

Note: If you have an electric fence you can prevent it from interfering with your telephone service and affecting your modem's performance by:

1. Not running your electric fence parallel with the phone cable
2. Cutting vegetation away from the live fence wires
3. Making sure the live wire on the fence posts is well insulated
4. Checking the quality of the earth connection

Turn Call Waiting off

ALWAYS switch Call Waiting off before you connect to the Internet.

To turn Call Waiting off permanently, lift your telephone handset and dial #43#.

To turn Call Waiting off temporarily (this applies to Telstra lines only), insert *44 directly in front of your ISP's phone number in your computer's 'Internet Settings'.

Note: You should only use *44 if your Telco is Telstra and you have the Call Waiting facility switched on. If you try to use this feature when Call Waiting is switched off, you will not be able to connect to your ISP.

Don't use Radio Frequency Devices near your modem

Radio Frequency Devices like CB Radios and mobile phones can interfere with your modem transmission. To avoid interference switch these devices off when you use the Internet. If you need to leave your mobile on, move it to another room.

Contact your Internet Service Provider (ISP)

Contact your ISP to check the details of your **uninterrupted connection guarantee**. If your service is provided on a 'longest in, first out basis', you may be disconnected after a set period of time. If you have 'unlimited use' you may find that your ISP automatically stops you from reconnecting after a lengthy Internet session. The ISP will usually stop you from re-connecting for a short 'no reconnect' period of between 5 to 15 minutes.

If you try to reconnect during this time your ISP will answer the call, check your User ID and Password and automatically disconnect you.

Remember: Every time you successfully dial-up to your ISP you are charged for a call connection. Even if you are disconnected immediately on dial-up, you will still be charged for the call.

You may redial and attempt to reconnect to the ISP as often as you wish but the service provider may continue to disconnect you until your 'no reconnect' time has lapsed.

Contact your ISP to find out about their 'uninterrupted connection guarantee' and 'no reconnect' policy.

Call Charging

Charges for unsuccessful attempts to log onto the Internet

Your Telco will charge you for any call that you make to your ISP, even if you are unable to connect to the Internet. Contact your ISP for more information.

Automatic redial

By switching off the 'Automatic Redialling' function you can prevent your modem from automatically re-dialling your ISP when it is busy. You can turn off the 'Redialling' feature in your computer's 'Remote Access Control Panel'.

Why am I not connecting at 56k?

Different telephone lines operate on different speeds. Find out the most efficient connection speed for your telephone line by visiting our www.iapselfhelp.com website.

If you have a 56K modem and you are having trouble connecting to the Internet, it may be that your ISP does not have digital lines. Contact your ISP to confirm that their lines are digital.

Modem scripts

Updating your modem's 'script' can improve its performance. See www.iapselfhelp.com for the latest modem scripts and instructions on how to install them.

Software configuration problems

If you are having difficulties connecting to the Internet, it may be that your 'Remote Access' settings are configured incorrectly or have become corrupted. Try re-entering your username and password. Usernames and passwords are case sensitive so make sure you re-type them in exactly the same way that you created them.

Browser cache settings

The 'Browser Cache' stores web pages that you have viewed in your computer for reuse during your Internet session. If it takes a long time for a page to display in your browser when you are connected to the Internet, it may be that your cache is too large. To make your cache smaller simply open your web browser, click 'Edit', then choose 'Preferences' and ensure that the 'Web Browser, Advanced' option is selected. In the section labelled 'Cache', click on the 'Size' and manually change the setting to '9Mb'. Once you have done this, click on the 'Empty Now' button. This will clear the cache. When this is finished save your settings by clicking 'OK'.

Blind dialling

Sometimes a modem can fail to recognise a valid dial tone. If this happens to you, click on the Apple symbol and select 'Control Panel' then 'Modem'. Tick the box 'Ignore Dial Tone' and close the 'Modem Control Panel'. Save when prompted.

Unable to connect to the Internet

If you are unable to connect to the Internet, contact Apple Computer Australia on 133622 to check if your computer has been correctly configured.

Follow the instructions below to connect to our IAP Standard ISP website. This website will provide you with a modem script customised for your telephone service.

Change modem type

- Click on the Apple symbol. Navigate to 'Control Panels'. Click on 'Modem'.
- Write down the 'Modem type' displayed for future reference.
- Scroll through the list of modem types until you see 'Null modem 115200', select it and click.
- Click the button on the top left corner and save when prompted.

Connect to the Internet using Remote Access

- Click on the Apple symbol. Navigate to 'Control Panels'. Click on 'Remote Access'.
- Click on the 'Options' button. Click the 'Protocol' tab and tick the box 'Connect to Command-line Host'. Make sure that the 'Use Terminal Windows' option is selected. Click the 'OK' button.
- To open a 'PPP Session' click the 'Connect' button. After a short time a 'PPP Terminal' window will open. This will enable you to talk directly to the modem.
- Type **at+ms=11,,4800(space)s210=8** and press 'Enter'. You should receive an 'OK' as confirmation.
- Now connect to the IAP Standard ISP. Type **atdt0198308378** and press the 'Enter' button. The modem should now start dialling; it will eventually become silent.
- You will now be prompted for a username so type **standard** and press 'Enter'. When prompted for a password type **isp**. When you see 'PPP Session Settings', click the 'Continue' button. The 'Remote Access' window will now show your connection status.
- Open your Internet browser. Click in the address bar and type the following address **202.12.133.20** press 'Enter'. You should now be able to see the IAP Standard ISP Welcome page.
- Follow the instructions on this page.
- If you still experience difficulties connecting to either the IAP Standard ISP website or the Internet, contact our service specialists on 1800 IAP HLP (1800 427 457).

Installing a downloaded Apple modem script

- You will be installing a 'script' that you have just downloaded from the IAP Standard ISP site. Two new icons will be downloaded to your desktop. One has a '.sit' extension and the other one is called a 'Modem Installer'.
- Double-click the recommended 'Modem Installer' icon that you have just downloaded. The 'Modem Installer' will install the appropriate modem type to your computer and prompt you to change to the new modem script.
- Click 'OK' in the pop-up box requesting you to 'Please Change Modem Control Panel Settings'.

- In the 'Modem Box' click the up/down arrows and select the new modem script you just installed (this is the 'script' that you were just prompted to change).
- To save this selection, close the 'Modem Control Panel'. Save when prompted.
- Once you have installed the new modem script please disconnect and reconnect to the Internet to re-test the performance of your connection.

Note: This change will not take affect until the next time you connect using your modem. You can safely delete the two icons that were installed from the website.

Customer Responsibility

Equipment compliance

Any equipment to be connected to a telecommunications network, including telephones, answering machines, fax machines and **modems** must meet the Australian standards for that equipment and must be labelled to show this.

Before you connect any telecommunications equipment, you should look for a compliance label bearing the A-Tick mark (or in the case of some older equipment, an AUSTEL permit, or a Telecom Authorisation Number). Only telecommunications products that carries an Australian compliance label can legally be connected to a telecommunications network in Australia. The A-Tick mark can be on the compliance label or appear elsewhere on the equipment or the documentation or packaging which comes with that equipment. The A-Tick mark looks like: (Fig 1.)



Fig 1.

Equipment labelled with an AUSTEL permit (eg. A91/33/335, A96/1342) or a Telecom Authorisation Number (eg. C89/33/1) can be connected to a telecommunications network in Australia, as long as it has not been modified or altered since purchase. Connecting non-compliant equipment to a telecommunications network in Australia is an offence and can result in fines under the *Telecommunications Act 1997*, or civil action for damages by the carrier if the equipment causes damage to their network.

While a compliance label indicates compliance with basic safety and interoperability standards, you should ensure that equipment meets your particular requirements and those of the service you are connecting to.

Telco Responsibility

Householders and businesses are responsible for work carried out past the 'network boundary'. The network boundary is generally the first socket in your house or the distribution frame at a business premises.

If you have concerns about where your network boundary is, you should ask your telephone company. Any telecommunications cabling on the customer side of the network boundary is classified as 'customer cabling'. Householders and businesses have to pay a licensed cabler to install or alter customer cabling

Note: Only a person holding an ACA registration or license can do any cabling work on customer cabling. Penalties are applicable for any unlicensed work on customer cabling.

The authors of this Self Help Kit do not accept any liability or responsibility for any changes made to customer hardware or software. If you are unsure of any procedures please contact your computer/ modem supplier, or refer to your modem and operating system manuals.

GLOSSARY OF TERMS

ACA	Australian Communications Authority
Analog	A method of describing how electronic signals can be transmitted or stored. Analog signals vary in both frequency and in level (loudness). Human speech is in analog form.
Bits per second (bps)	A measure of the speed that modems transmit data per second. Derived from Binary Digit, a bit is a single unit of data. When transmitted through the telephone lines groups of bits are called packets.
Byte	A group of 8 bits, a byte is the normal unit of storage on a computer.
Connect speed	This is the speed at which your modem is talking to the modem at your Internet Service Provider. Connect speed is displayed as 'kilo bits per sec' or 'kbps'. An example of a connect speed would be '19.2kbps'. This speed is sometimes referred to as transmission speed, line speed or modem speed.
CPU	Central Processing Unit
Handshaking	The initial 'conversation' between equipment, in this case between modems. During hand-shaking a common language, a set of rules and method of inter-working are established.
Initialisation String	A series of commands passed to a modem which define a number of settings for how the modem operates.
ISP	Internet Service Provider
MDF	Main Distribution Frame
Modem	Modems were developed as a means of converting digital computer data into an audio signal that can be sent along a telephone line. What the modem does is encode the 0's and 1's that make up all computer information into a MO dulated audio signal. The modem at the other end of the line DEMO dulates the signal back into its original binary form (1 or 0).
Packet	When data is transmitted through the telephone lines the

Bits are arranged into groups called Packets. Like normal mail each packet includes an address.

UART

Universal Asynchronous Receiver Transmitter

Telco

TELEphone **C**ompany

Effective Data Speed

This is the speed at which data can be passed from the website you are viewing to your computer. Effective Data Speed is displayed as 'kilo bytes per sec' or 'kbps'. An example of Effective Data Speed would be '2KB/sec'.

