



Please follow these instructions carefully. Pacific Online assumes no responsibility for any personal injury or property damage which may result from your installation of DSL Equipment as discussed in this Guide. Pacific Online, Inc., specifically disclaims any liability for such injury or damage. By proceeding with this installation, you assume all risk of personal injury or property damage. Please consult the documentation provided by your PC vendor to identify and impacts to your warranty.

Minimum Requirements for DSL Installation

	Windows	Macintosh
CPU	486 (Pentium rec.) 100MHZ	PowerPC 601 or newer
RAM	128MB	64MB
Hard Drive Space	50MB	50MB
Operating System	Win 98 or newer	Mac OS 9 or newer

Verify the Contents of your Self Install Kit (see photo to the right)

- A. (1) DSL Modem
- B. (1) Power Supply
- C. (1) Phone line/cable
- D. (1) Ethernet cable
- E. (2) DSL Filters (more can be ordered by emailing info@pon.net \$5.95 + tax per each Regular or Wall Mount Filter)

NOTE: An Ethernet card is required to use DSL from Pacific Online and is not included in the self install kit. An Ethernet card has a port typically found on the back of your computer that is slightly larger than a regular phone line jack. Pacific Online, Inc., supplies DSL connectivity to one (1) computer via the ADSL modem. Connectivity for multiple computers requires additional networking hardware, which is not supplied by Pacific Online, Inc. Pacific Online, Inc., does not provide troubleshooting or setup instructions for private networks. For recommendations on who does private network setup or consultation please contact Pacific Online.

Step 1 – Install DSL Filters on your Phone Jacks

Every telephone, answering machine, fax machine or any other device on your telephone line will need to have a filter installed. The DSL Modem, however, must NOT be filtered.

- A. Locate the phone jack where you want to install your DSL. Typically this is a jack close to where your computer is.
- B. You must plug in filters to all jacks that have equipment such as telephone answering machines, Caller ID units, analog computer modems, fax machines, etc. Use one of the supplied filters for each piece of equipment plugged into the phone line.

Step 2 – Connect the DSL Modem & Cables

A. First, physically pick up your DSL modem and look at the back of it where the ports are located. See Diagram below.

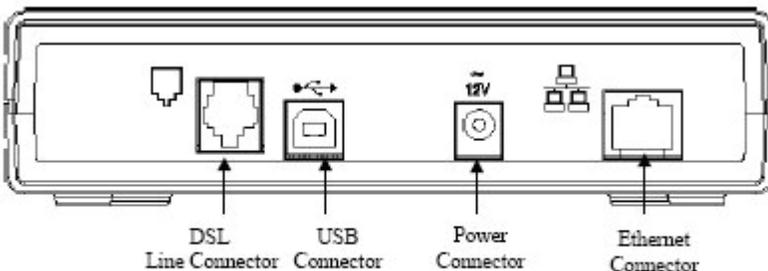


Figure 1. Dual Connect Modem Rear Panel

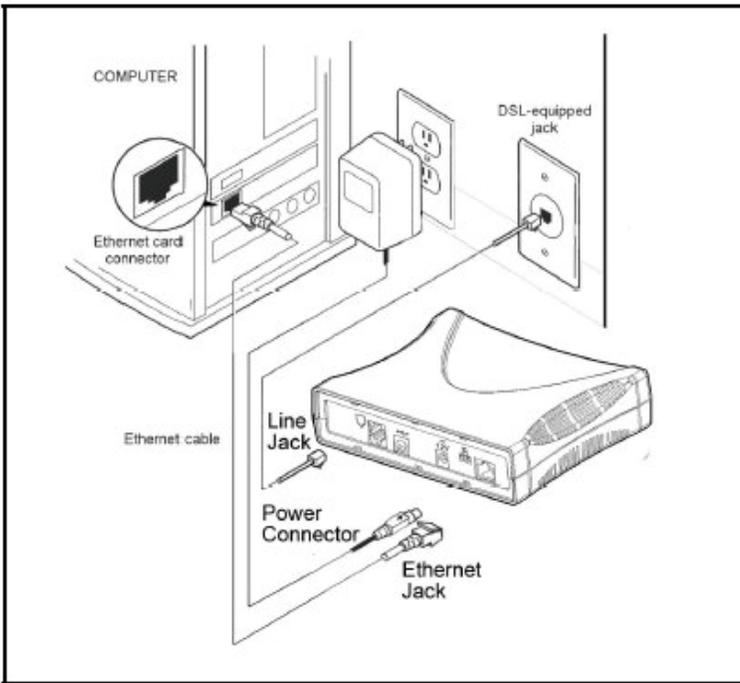
Look at the back of the modem from left to right. DSL Line Connector (phone line plugs in here), USB Port, Power Connector & Ethernet Connector (Ethernet Cable plugs in here). Familiarize yourself with these items.

The USB port is **not needed** to be able to use DSL with Pacific Online. If you would like to connect the modem via this USB port to your computer, you will need to install drivers on Windows Operating Systems. Drivers can be downloaded from Westell:

www.westell.com/pages/support/dropdown.jsp Choose

B. Items to plug into Modem. You need to plug in the provided phone line (or use a longer one if you need to), in the back of the modem in the port that says LINE JACK. Next you need to plug the cord that comes from the power supply into the back of the modem in the *only* port that it will fit into. Now plug one end of the Ethernet Cable (doesn't matter which end) into the back of the modem in the port that says "ETHERNET JACK".

C. Items to plug in elsewhere. Plug the power supply into an electrical outlet or wall electrical jack. Next plug the other end of the Phone Line into a phone jack (typically a phone jack is located in a house wall) situated somewhere near your computer. Now plug the other end of your Ethernet Cable into the hole (Ethernet port) in the back of your computer.



Turn the DSL modem on using the button located in the back of the DSL modem. It is the button that has a "O" and "I" on it (**on** is when the I is pressed down and **off** is when the O is pressed down). The DSL modem will then begin a self-test routine in which the lights will flash off and on. You have four lights on your DSL modem: Power, Ready, Ethernet, and USB. The power light will turn on when you turn on the modem and have it plugged into an electrical outlet. The Ready light will be on if your install date has happened and the link light is on when you have a connection between your computer and the DSL modem via the Ethernet Cable which you already plugged in previously. The Ethernet light when working correctly, will be a steady green..

Note

See Tables below for explanation of Modem Lights

Diagram to the left shows all the cables and where they should be plugged in on the back of the actual DSL modem.

Modem Lights, What do they Mean?

POWER

State	Description
Steady Green	Power is On
No Light	No power

ETHERNET

State	Description
Steady Green	Working
Flashing Green (this is normal)	Transmit or Receive Activity
No Light	Not working

READY

State	Description
Slow & then moderate Flashing Green	Power is On. Synchronizing with Central office process. Is normal.
Steady Green	Power is On – now synchronized with Central Office
Steady Green, sometimes Red	Line Error condition detected.
Steady or Blinking Red	Synch failure (try powering down)
No Light	No Power

USB (Not required to use with DSL)

State	Description
Solid Green	USB Link Established and working.
Flashing Green	Transmit or Receive Activity. This is normal.
No Light	No USB Activity

Step 3 – Configure your System

Pacific Online provides automatic assignment of IP addresses for both Dynamic & Static service types. In most instances you will be able to configure your computer simply by setting it to obtain an IP address automatically. This will work for both Dynamic & Static types.

The instructions which follow are for automatic IP address assignment. Please choose from whichever Operating System you are running on your computer.

Windows 98/ME Settings

- A. Click on the **Start** button
- B. Click on **Settings** and then on **Control Panel**
- C. Double-click on the **Network** Icon
- D. Once in the Network Control Panel, click on the TCP/IP protocol that has the arrow “->” pointing to your Ethernet card adapter, and then click on the **Properties** button.
- E. Make sure that the **Obtain an IP Address Automatically** button is selected
- F. Click OK on all open windows. You may need to restart your computer for the changes to take effect.

Macintosh OS X Settings

- A. Click on the **Apple Menu**
- B. Click on **System Preference**, and then on **Network**
- C. From the **Location** drop-down box, choose **Automatic**
- D. From the **Show** drop-down box, choose **Built-in Ethernet**
- E. From the **Configure** Drop-down box, choose **Using DHCP**
- F. Close the window. When prompted, save your changes.

Windows NT Settings

- A. Click on the **Start** button
- B. Click on **Settings** and then on **Control Panel**
- C. Double-click on the **Network** Icon
- D. Click on the **Protocols** tab **
- E. Click on **TCP/IP Protocol**, and then click the **Properties** button
- F. In the window that opens, select **Obtain an IP Address Automatically**
- G. Click **OK** on all open windows. You may need to restart your computer for the changes to take effect.

*** Many Windows NT systems are an integral part of an existing network, and not all systems have TCP/IP installed. If you do not have TCP/IP installed on your system, or if your system has an existing network setup, we urge you to contact your IT person before proceeding.*

Windows 2000/XP Settings

- A. (Windows 2000) Click on the **Start** button, go to **Settings**, and click on **Network and Dial-up Connections**.
(Windows XP) Click on **Start**, go to **Control Panels**, and click on **Network Connections**
- B. Right-Click on the **Local Area Connection** icon and choose **Properties** from the pop-up menu.
- C. In the window that opens, click on **Internet Protocol (TCP/IP)** to highlight it and then click on the **Properties** button
- D. In the window that opens, choose **Obtain an IP Address Automatically**
- E. Click **OK** on all open windows. You may need to restart your computer for the changes to take effect.

Macintosh OS 9 Settings

- A. Click on the **Apple Menu**
- B. Click on **Control Panels**, and then on **TCP/IP**
- C. From the **Connect** drop-down box, choose **Ethernet**
- D. From the **Configure** drop-down box, choose **Using DHCP Server**
- E. Close the window. When prompted, save your changes.

Mail Server Settings

If you use a conventional email program such as Outlook, Outlook Express, Netscape Mail, or Mozilla you will need to change or setup your email so that it works with DSL. Choose the appropriate screen shots on our Support Page for setting up or changing your email account so that it works with DSL. Please visit: www.pon.net/support for these screenshots.

You will want to use the following settings:

Incoming mail: pop3.pon.net

Outgoing mail: smtp2.pon.net

You must check "My Server Requires Authentication"



If you do not use a conventional email program consider using our webmail which allows you to read and send email from any computer with access to the Internet. <http://email.pon.net> or our 128bit Encrypted Login which digitally secures the connection using a SSL certificate, point your browser to: <https://email.pon.net>

Protect your Computer

Our server-side Anti-Virus software scans your incoming email, and is updated daily. Infected emails that are caught will show up in the Quarantine folder. We highly recommend that you maintain (1) Anti-Virus software on your computer, as well as a (2) software Firewall and (3) Anti-Spyware software. For recommendations please visit: www.pon.net/support/tools

Trouble Shooting & Tips

This is a very important section and should be carefully read and implemented if you are having problems with your DSL. There are *many* reasons why DSL may not work. If you are having problems getting online you can use this as a checklist of ideas to test and consider before contacting tech support.

- First, verify that your "install" date has actually occurred. Your modem typically arrives several days before your DSL service is turned on. Often times DSL service will be turned on late in the day on your install date.
- Second, re-verify that everything is plugged in correctly – re-read the setup instructions.
- Be sure that your phone cable is **not** running through a surge protector. Surge protected DSL is a "non working" DSL.
- For testing, we recommend removing anything extra that is not needed to actually get the DSL to work (ie, surge protectors, wired and wireless routers, splitters, extra computers etc). So for testing you should have everything removed *but* the DSL modem, the phone cable, the Ethernet cable, your computer and the phone jack.
- Phone Jack – be sure the jack that you plug the phone line in for your DSL, is a jack that services the phone number you ordered DSL for. Typically this is no a problem, except in homes or businesses that have multiple phone lines and jacks.
- Restarting. Restart your modem. Rebooting the modem is one of the most common fixes for DSL problems. Note that some models of DSL modems are restarted by using a paperclip to depress a button which is located in a hole typically in the back of the modem. Restarting your computer sometimes fixes the strangest of DSL connectivity problems.
- Bad Phone and or Ethernet Cable. Although quite rare, you can save headache by testing with another phone or Ethernet cable.
- Plugging the modem into a filter, or the filtered side of a splitter filter is a common mistake in installation.
- Halogen Lights. These lights anywhere close to a DSL line will cause a problem. Halogen lights are usually operated by a dimmer switch, and have even been found to cause a problem from a room away. If you turn the halogen light off the DSL will come back in a minute or two. These are best kept far away from the DSL line. Note: if you live in an apartment beware that your neighbors might have a halogen light on the other side of your wall, if you share an adjoining wall.
- Unshielded Equipment. In the same grain as Halogen lights causing problems, unshielded speakers or radios or other equipment with unshielded speakers located anywhere near your DSL line will cause problems with your DSL. UPS Battery Backups should not be located close to the DSL line.
- Lack of DSL Filters. Not having enough DSL filters will cause a reduction in DSL speed and may cause the DSL not to work at all. In some cases filtering unused jacks will also help clear up an issue. This is rare, but is something to be considered. Filters occasionally break as well. If a capacitor blows, or a wire shorts, it will cause problems for the DSL line.



Removing all other devices from the phone jack, and putting them back on one by one will allow us to find out which item is causing the problem. Pacific Online does have extra filters for sale. Contact us if you would like to purchase additional filters.

- **Firewalls.** Software based Firewalls or Anti Virus programs can block DSL connectivity. For testing purposes you can temporarily disable your firewall and see if that makes a difference.
- **Dial-tone.** You must have a dial tone on the jack that you are using for your DSL. If there is no dial tone, there will be no working DSL. A simple test is to plug in a physical phone via phone cord to the jack and see if you get a dial tone.
- **RF (Radio Frequency) and EMI (Electro Magnetic Interference)** can cause issues with DSL. Is there is a pattern to the outage? Ie, does your DSL stop working at a certain time everyday? If so then there is probably something close by your DSL Line that is turning on at precisely the time of the outage. Identifying what that is becomes the next step. One option for trying to find RF is to take an AM radio, turn the dial to the high end (1600), and walk around the room with the DSL in it while the problem is occurring. If you hear feed back on the radio - that is RF, and likely in the range that can and will affect DSL.
- **Wireless Phones.** Typically the newer 5.8Ghz phones do not cause problems. However having one of the older 2.4Ghz wireless phones within 6 feet of the DSL Line/Jack can cause connectivity issues.
- **Flickering Street Light** – although extremely rare, we mention this as it has occurred in the past. Typically you will experience an outage around dusk when the street lights start to come on. If this turns out to be the case after exhausting other troubleshooting, you will need to contact your local city government.
- **Internal Wiring** – this can be a hard one to troubleshoot and is worth exploring if all of the other troubleshooting options have been exhausted. There is an easy way to test this if you have a laptop and live in a house. There is a phone box outside of your house where all the phone lines and wiring for inside your house start at. Take your laptop, DSL modem, a phone line and your Ethernet Cable, hook it all up to the phone box, just like you would hook it up to a phone jack inside your house. If you are not able to get connectivity and have the same problems, then it would appear the problem is with the phone company and the outside wiring and your phone company would need to be contacted. If all of the sudden you get connectivity then it would appear that the problem is with your inside wiring, or something between your outside phone box and the inside phone jack.

Note that what may appear to be internal wiring problems – can be improper setup, or one or more of any of the above problems mentioned in this guide.

Important Reminders

Your DSL service requires a working SBC phone. Any of the following might cause a disruption in your DSL service or cost you extra fees.

Failure to pay your SBC telephone bill. If your phone line is disconnected for non-payment, note that your DSL will also be disconnected and this can trigger an early termination fee. After your phone service is back on, you would have to re-order DSL – *and* enter another 1-year contract. DSL Downtime in this situation runs between 2-3 weeks. Make sure your phone bill is paid for to avoid penalties & extended downtime.

Switching your telephone line from SBC to another provider. If this is done, SBC must “release” your phone line which will trigger your DSL to be disconnected. Note that this will cause the same problems as “failure to pay your SBC phone bill”, mentioned above. An example of this is when a business disconnects their SBC lines to move to another provider for better pricing or to move the lines for VoIP service (Voice over IP). In these cases, you should move *only* the phone lines that are *not* attached to your DSL service. If you need to know which of your phone lines carries the DSL service feel free to call or email us and we will look this up for you.

Moving your telephone line to a different physical address. Note that if you move to a new location where SBC provides your voice and Pacific Online offers DSL, but DSL cannot be delivered, SBC will waive any early termination fee regardless of your DSL term commitment. You must however, have the new phone service under the *same* name as where you moved it from. Consider notifying Pacific Online at least 2 weeks prior to your move date. You can provide us with your new phone number and we can check to see if DSL will be provided in your new location as well as coordinate the move of your DSL

Thank you for signing up for DSL Service. We appreciate your business.