



# Install Guide

Version 1.0

DVG-G1402S  
**Wireless G VoIP Router**

# System Requirements

- Computer with Windows® XP or 2000
- Internet Explorer 6.0 or Netscape® Navigator 7.0 and above
- An available Ethernet port on the network
- A subscription with a VoIP service provider.

It's best to use the same computer that is connected to your router for configuring the DVG-G1402S Router. The DVG-G1402S acts as a DHCP server and will assign all the necessary IP address information on your network. See the Quick Installation Guide or the Manual on the CD-ROM for setting each network adapter to automatically obtain an IP address.

## Package Contents



D-Link DVG-G1402S  
Wireless G VoIP Router



Manual and Software  
on CD



Ethernet Cable



12V 1.25A Power Supply



Phone Cable

**Warning:** Using a power supply with a different voltage will cause damage and void the warranty for this product.

If any of the above items are missing, please contact your reseller.

# Front Panel

## Status LED

The Status LED will turn on when the router is connected to a VoIP service provider. This light will turn off if not connected to a service provider.

## Power LED

Solid indicates a connection to a good power source.

## WLAN LED

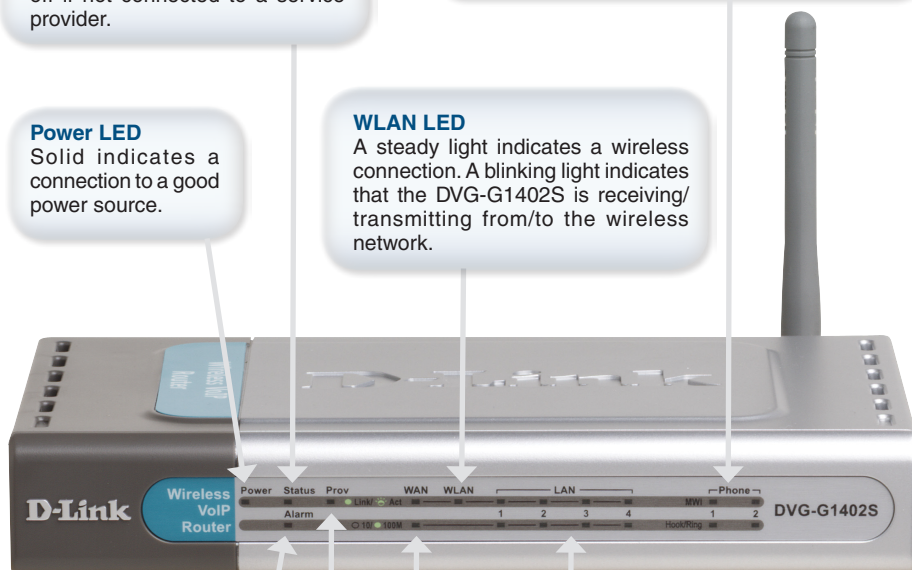
A steady light indicates a wireless connection. A blinking light indicates that the DVG-G1402S is receiving/transmitting from/to the wireless network.

## Phone LEDs

This LED displays the VoIP status and Hook/Ringing activity on the phone port that is used to connect your normal telephone(s).

**MWI:** Lights to indicate a voicemail is waiting.

**Hook/Ring:** If a phone connected to a phone port is off the hook or in use, this LED will light solid. When a phone is ringing, the indicator will blink.



## Alarm LED

The Alarm LED will light solid red if the self-test or bootup fails. The Alarm LED will flash red slowly when the device is booting.

## Prov LED

A blinking light indicates the router is attempting to connect with the VoIP service provider. Once the service connects, the LED will turn off.

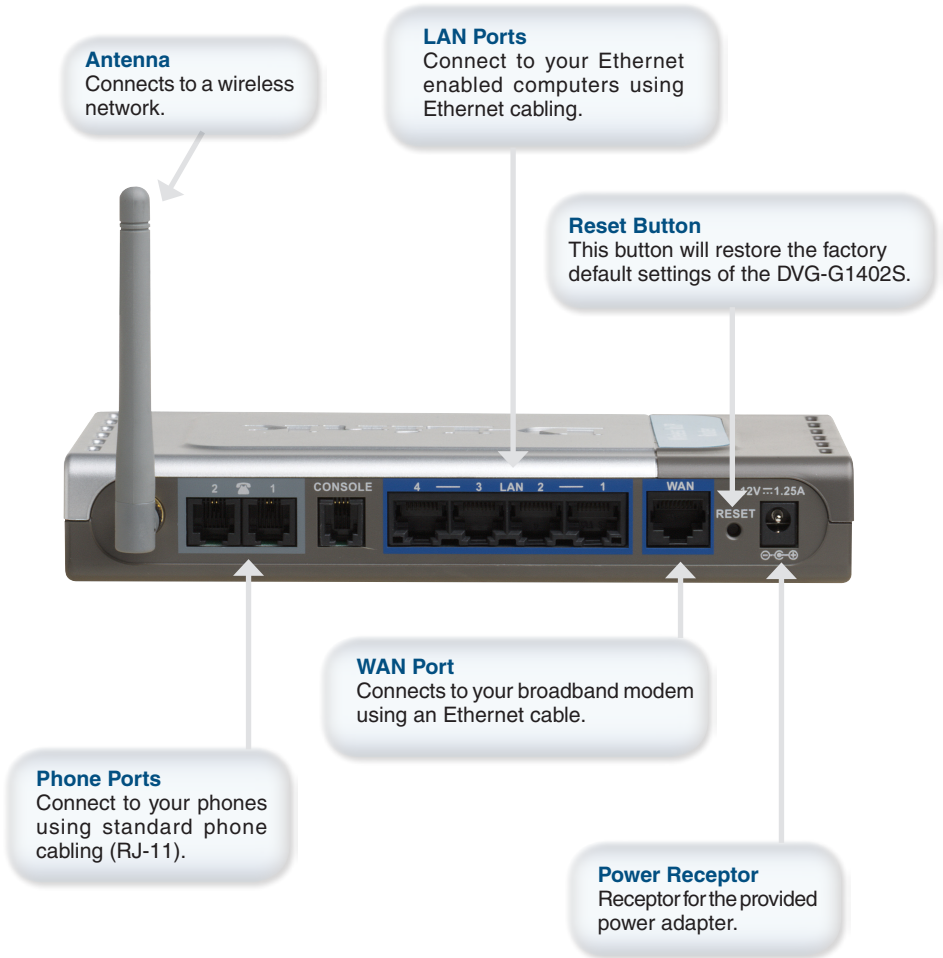
## LAN LEDs

When a connection is established the 10 or 100 LED (bottom) will light up solid on the appropriate port. The LEDs will blink to indicate activity. If the 10 or 100 LED does not light up when a cable is connected, verify the cable connections and make sure your devices are powered on.

## WAN LEDs

When a connection is established the 10 or 100 LED will light up solid. The LED will blink to indicate activity. If the 10 or 100 LED does not light up when a cable is connected, verify the cable connections and make sure your devices are powered on.

# Rear Panel



# Installing the Hardware

- A.** Insert one end of the Ethernet cable into the Ethernet (LAN) port on the back panel of the DVG-G1402S and the other end of the cable to an Ethernet Adapter or available Ethernet port on your computer.



- B.** Insert one end of the Ethernet cable into the WAN port on the back of the DVG-G1402S and the other into your cable/DSL modem or the LAN port of your router.



- C.** Insert a telephone cable into the Phone port, then connect the cable to your telephone line.



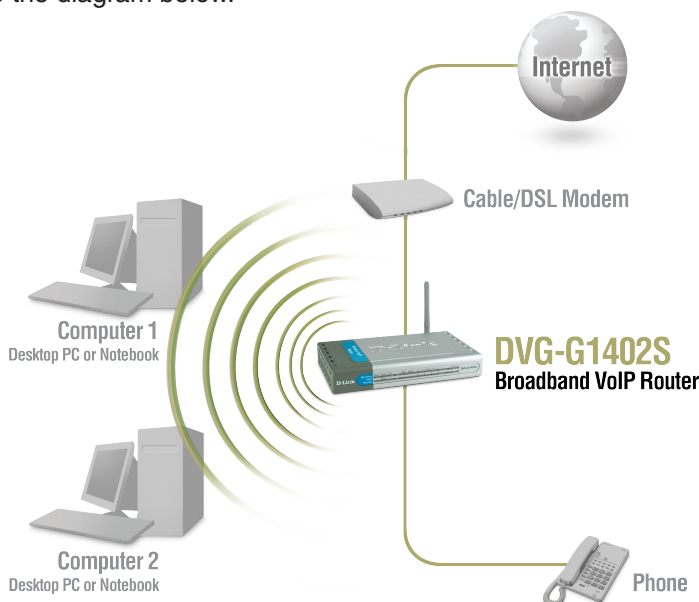
# Installing the Hardware (continued)

- D.** Connect the power adapter to the power input at the back panel of the DVG-G1402S and then plug the other end of the power adapter to a wall outlet or power strip. On the front of the device, the Power LED will turn ON to indicate proper operation.



- E.** Check the LED display on the front of the Router to confirm that the connections have been made.

Once you've completed your DVG-G1402S installation, your network may appear similar to the diagram below.



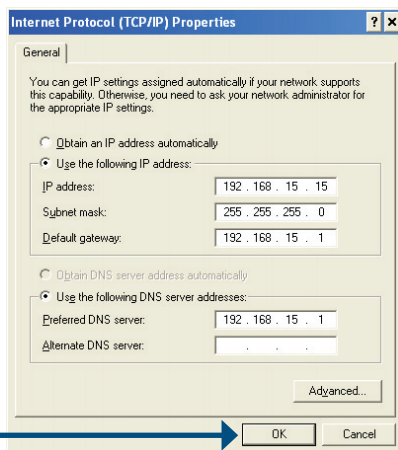
# Configuration

Prior to using your Web browser for web-based management, if DHCP is not enabled on your computer, be sure to assign a static IP address to your computer. For Macintosh OSX, refer to page 15.

**Windows 2000/XP:** Go to **Start > right-click My Network Places > select Properties > Right-click Local Area Connection > select Properties > double-click Internet Protocol (TCP/IP).**

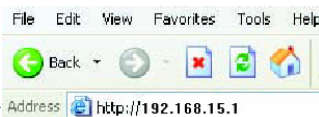
Set your PC's IP address to 192.168.15.15 and the subnet mask to 255.255.255.0. The default gateway and primary DNS server IP addresses should be set to the LAN IP address of the DVG-G1402S (192.168.15.1).

Click **OK**.



To access the web-based configuration utility, open a web browser such as Internet Explorer and enter the IP address of the DVG-G1402S.

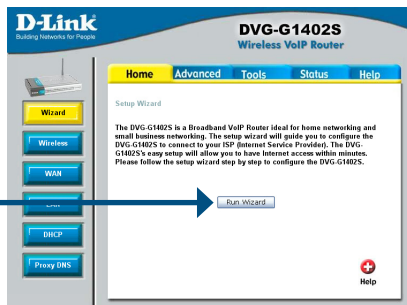
Open a web browser and type in the IP address of the DVG-G1402S.



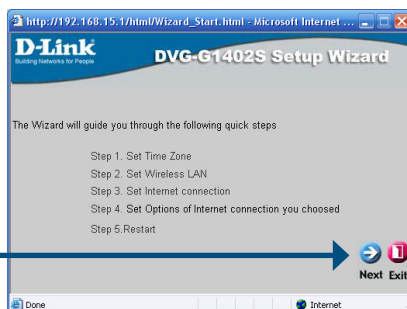
*Note: if you have changed the default IP address assigned to the DVG-G1402S, make sure to enter the correct IP address.*

# Configuration (continued)

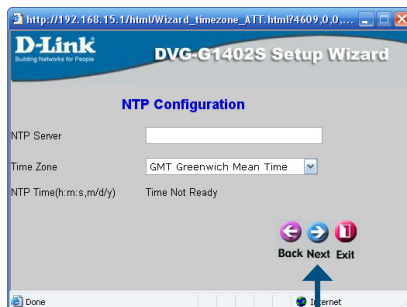
Click on **Run Wizard**.



Click **Next**.



Enter a NTP server or leave blank to use the default server. Select your time zone from the drop-down menu.



Click **Next**.



Select a channel. For best results, use 1, 6, or 11. Enter the SSID, or Service Set Identifier, which is the workgroup name of your Wireless Network. All devices must all have the same SSID to communicate on the wireless network. The SSID can be up to 32 characters and is case-sensitive.

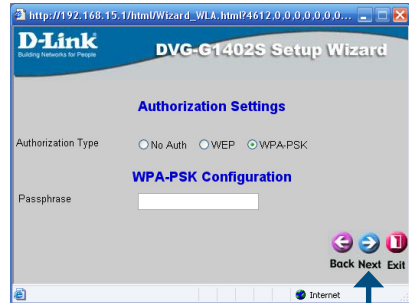


**Click Next.**

**Click Next.**

# Configuration (continued)

If you selected WPA-PSK, enter the **Passphrase**. The passphrase must be between 8 and 63 characters.



Click **Next**.

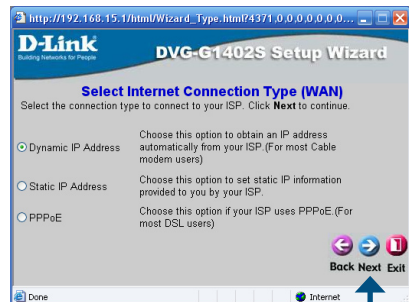
For more information on WEP and WPA security, please refer to the section on **Wireless Security** on page 12.

Select your Internet connection type:

**Dynamic** - Most Cable ISPs or if you are connecting the DVG-G1402S behind a router.

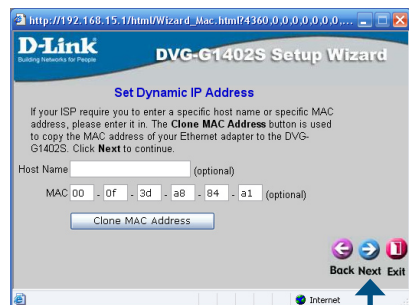
**Static** - Select if your ISP supplied you with your IP settings.

**PPPoE** - Most DSL ISPs



Click **Next**.

If you selected **Dynamic**, enter a host name (optional). If you are connecting directly to a cable modem, enter the MAC address of the network adapter that was last connected to the modem. If you are using the computer that was last connected directly to the modem, click **Clone MAC Address**.



Click **Next**.

## Configuration (continued)

If you selected Static, enter the IP address, subnet mask, default gateway, and DNS server(s) supplied by your ISP.

**D-Link**  
DVG-G1402S Setup Wizard  
Set Static IP Address

Enter the static IP information provided to you by your ISP. Click **Next** to continue.

WAN IP Address: 10 . 1 . 1 . 1  
WAN Subnet Mask: 255 . 0 . 0 . 0  
WAN Gateway Address: 0 . 0 . 0 . 0  
Primary DNS Address: 192 . 152 . 81 . 1  
Secondary DNS Address: 2 . 2 . 2 . 2 (optional)

Back Next Exit

Click **Next**.

If you selected PPPoE, enter your username and password supplied by your ISP.

**D-Link**  
DVG-G1402S Setup Wizard  
Set PPPoE

The service name is optional but may be required by your ISP. Click **Next** to continue.

User Name: \_\_\_\_\_  
Password: \_\_\_\_\_  
Retype Password: \_\_\_\_\_

Back Next Exit

Click **Next**.

Note: You will no longer use the PPPoE software that is installed on your computer. Make sure you disable or uninstall the software.

Setup is finished. Click **Restart** to reboot the DVG-G1402S. Once the adapter is finished rebooting, turn on your modem and allow up to 2 minutes to connect to your ISP.

**D-Link**  
DVG-G1402S Setup Wizard  
Setup Completed

The Setup Wizard has completed. Click on **Back** to modify changes or mistakes. Click **Restart** to save the current settings and reboot the DVG-G1402S.

Back Restart Exit

Click **Restart**.

Hardware configuration is complete! If your VoIP service is already activated, you can make phone calls now.

# Wireless Security

- **WEP (Wired Equivalent Privacy)** is a method of encrypting data for wireless communication intended to provide the same level of privacy as a wired network. To gain access to a WEP network, you must know the key. The key is a string of characters that you create. When using WEP, you must determine the level of encryption. The type of encryption determines the key length. 128-bit encryption requires a longer key than 64-bit encryption. Keys are defined by entering in a string in HEX (hexadecimal - using characters 0-9, A-F) or ASCII (American Standard Code for Information Interchange – alphanumeric characters) format. ASCII format is provided so you can enter a string that is easier to remember. The ASCII string is converted to HEX for use over the network. Four keys can be defined so that you can change keys easily.

## Example:

**64-bit hexadecimal keys are exactly 10 characters in length.**

(12345678FA is a valid string of 10 characters for 64-bit encryption)

**128-bit hexadecimal keys are exactly 26 characters in length.**

(456FBCDF12340012225271730 is a valid string of 26 characters for 128-bit encryption)

**64-bit ASCII keys are exactly 5 characters in length**

(DMODE is a valid string of 5 characters for 64-bit encryption)

**128-bit ASCII keys are exactly 13 characters in length**

(2002HALOSWIN1 is a valid string of 13 characters for 128-bit encryption)

- **WPA-PSK (Wi-Fi Protected Access - Pre-Shared Key)** is a Wi-Fi standard that was designed to improve upon the security features of WEP (Wired Equivalent Privacy).

WPA has improved data encryption through the Temporal Key Integrity Protocol (TKIP). TKIP scrambles the keys using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.

The key or passphrase is an alpha-numeric password between 8 and 63 characters long. The passphrase can include symbols (!?\*&\_) and spaces. Make sure you enter this key exactly the same on your wireless clients.

# Wireless Considerations

The D-Link DVG-G1402S lets you access your network, using a wireless connection, from virtually anywhere within its operating range. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

- 1** Keep the number of walls and ceilings between the DVG-G1402S and other network devices to a minimum - each wall or ceiling can reduce your router's range from 3-90 feet (1-30 meters). Position your devices so that the number of walls or ceilings is minimized.
- 2** Be aware of the direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
- 3** Building Materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.
- 4** Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.
- 5** If you are using 2.4GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

# VoIP Basics

## How does it work?

VoIP technology converts your voice (or analog) into data (or digital signal) allowing you to place and receive calls over your broadband connection. Simply plug a D-Link Broadband VoIP Router in to your Cable or DSL Modem, and plug a standard household telephone into it. You can then place and receive calls over this phone and also have additional control functions available to you through a Web browser.

## Making and Receiving Calls

Placing a call is exactly the same as with any other regular phone. Just pick up the handset and dial the regular telephone number. It's that simple. Receiving calls also works the same. The phone will ring just like a regular phone. With VoIP, just pick up the phone and start talking!

In more technical terms, your D-Link VoIP Router converts your analog signal to digital. The digital signal is sent through your modem and across the Internet.

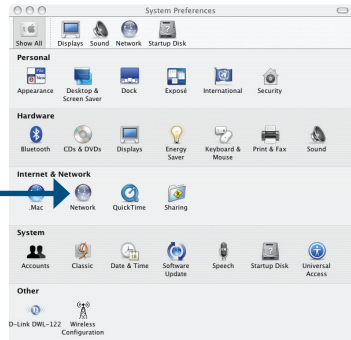
When someone calls you, they dial your regular telephone number. Behind the scenes, your number looks similar to an e-mail address. This number instructs the call to travel over the Internet to the D-Link VoIP Router, your phone rings, and all you have to do is pick up and answer it.

*You must subscribe to a VoIP phone service plan and have a high-speed Internet connection. You cannot use the phone unless you have an account and are provisioned by the provider. D-Link Systems, Inc. is not a Telephone Service Provider or VoIP Phone Service Provider.*

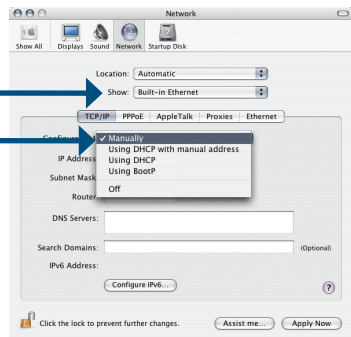
# IP Address Configuration - Macintosh OSX

Go to the **Apple Menu** > select **System Preferences** > click **Network**.

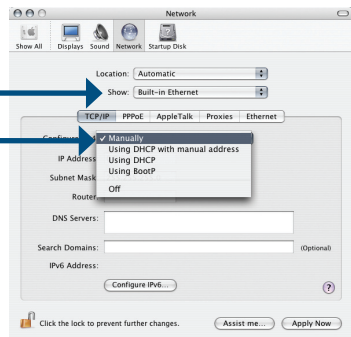
Click **Network**.



Select **Built-in Ethernet** from the Show drop-down menu.

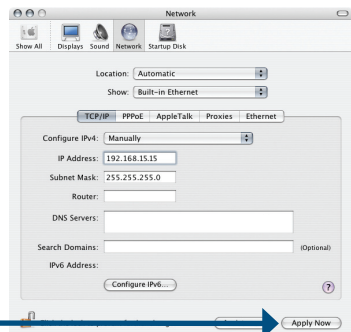


Select **Manually** from the Configuration drop-down menu.



Set the IP address to 192.168.15.15 and the subnet mask to 255.255.255.0. The default gateway and primary DNS server IP addresses should be set to the LAN IP address of the DVG-G1402S (192.168.15.1).

Click **Apply Now**.



# Technical Support

D-Link's website contains the latest user documentation and software updates for D-Link products.

D-Link provides free technical support for customers within the United States and Canada for the duration of the product's warranty period.

U.S. and Canadian customers can contact D-Link Technical Support through our website or by phone.

## United States

### Telephone

(877) 453-5465

Twenty four hours a day, seven days a week.

### World Wide Web

<http://support.dlink.com>

### E-mail

[support@dlink.com](mailto:support@dlink.com)

## Canada

### Telephone

(800) 361-5265

Monday through Friday, 7:30am to 3:00am EST.

Saturday and Sunday 9:00am to 12:00am EST

### World Wide Web

<http://support.dlink.ca>

### E-mail

[support@dlink.ca](mailto:support@dlink.ca)



Version 1.0  
Revised 09/07/2005

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