

Wi-Fi Protected Setup (WPS)

Wi-Fi Protected Setup (WPS) is a simplified method for securing your wireless network during the *Initial Setup* as well as the *Add New Device* processes. The Wi-Fi Alliance (WFA) has certified it across different products as well as manufactures. The process is as simple as pressing a button for the Push-Button Method or correctly entering the eight-digit code for the PIN Code Method. The ease of use is beneficial, while the highest wireless security setting of WPA2 is automatically used.

Enable: Enable the Wi-Fi Protected Setup (WPS) feature.

Note: if this option is unchecked, the WPS button on the side of the router will be disabled.

WiFi Protected Setup: Displays the current WPS status.

Lock WPS-PIN Setup: Locking the WPS-PIN Method prevents the settings from being changed by any external registrar using its PIN. Devices can still be added to the wireless network using the Wi-Fi Protected Setup Push Button Configuration (WPS-PBC). It is still possible to change wireless networks settings with *Manual Wireless Network Setup* or *Wireless Network Setup Wizard*.

PIN: Displays the current PIN. A PIN is a unique number that can be used to add the router to an existing network or to create a new network.

Reset PIN to Default: Click to restore the default PIN of the router.

Generate New PIN: Create a random number that is a valid PIN. This becomes the router's PIN. You can then copy this PIN to the user interface of the wireless client.

The screenshot shows the D-Link web interface for a DIR-816L router. The main navigation menu includes SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar lists various configuration options, with 'WI-FI PROTECTED SETUP' selected. The main content area is divided into three sections:

- WI-FI PROTECTED SETUP:** Contains introductory text about WPS and two buttons: 'Save Settings' and 'Don't Save Settings'.
- PIN SETTINGS:** Shows the current PIN as '76644597' and includes 'Reset PIN to Default' and 'Generate New PIN' buttons.
- ADD WIRELESS STATION:** Features a 'Connect your Wireless Device' button and 'Save Settings'/'Don't Save Settings' buttons at the bottom.

A 'Helpful Hints...' sidebar on the right provides additional information:

- Enable if other wireless devices you wish to include in the local network support Wi-Fi Protected Setup.
- Only "Admin" account can change security settings.
- Lock WPS-PIN Setup: Locking the WPS-PIN Method prevents the settings from being changed by any new external registrar using its PIN. Devices can still be added to the wireless network using Wi-Fi Protected Setup Push Button Configuration (WPS-PIN).
- Click **Connect your Wireless Device** to use Wi-Fi Protected Setup to add wireless devices to the wireless network.
- More...

Add Wireless Station: The WPS Wizard helps you add wireless devices to the wireless network.

Station:

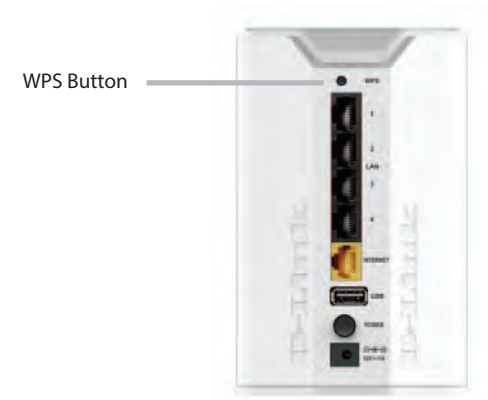
The wizard will prompt you to select a configuration method. It will guide you through manual configuration, or allow you to choose between the Push Button (PBC) and PIN methods . If the device supports Wi-Fi Protected Setup and has a WPS button, you can add it to the network by pressing the WPS button on the device and then the on the router within 60 seconds.

Connect Your Wireless Device: Click to start the wizard and skip to [“Add Wireless Device with WPS Wizard” on page 40.](#)

WPS Button

You can also simply press the WPS button on the side of the router, and then press the WPS button on your wireless client to automatically connect without logging into the router.

Refer to [“Connect a Wireless Client to your Router” on page 126](#) for more information.



Advanced Network Settings

Enable UPnP IGD: To use the Universal Plug and Play (UPnP™) feature check the box. UPnP provides compatibility with networking equipment, software and peripherals.

Enable WAN Ping Response: Checking this box will allow the DIR-817LW to respond to pings. Unchecking the box may provide some extra security from hackers.

WAN Port Speed: You may set the port speed of the Internet port to **10Mbps**, **100Mbps**, or **Auto 10/100Mbps** (recommended).

Enable Multicast Streams: Check the box to allow multicast traffic to pass through the router from the Internet (IPv4).

Enable IPv6 Multicast Streams: Check the box to allow multicast traffic to pass through the router from the Internet (IPv6).

The screenshot displays the 'Advanced Network Settings' page for a D-Link DIR-817LW router. The page is organized into several sections:

- ADVANCED NETWORK SETTINGS:** A warning message states: "These options are for users that wish to change the LAN settings. We do not recommend changing these settings from factory default. Changing these settings may affect the behavior of your network." Below this are 'Save Settings' and 'Don't Save Settings' buttons.
- UPNP:** A description states: "Universal Plug and Play(UPnP) supports peer-to-peer Plug and Play functionality for network devices." The 'Enable UPnP IGD' checkbox is checked.
- WAN PING:** A description states: "If you enable this feature, the WAN port of your router will respond to ping requests from the Internet that are sent to the WAN IP Address." The 'Enable WAN Ping Response' checkbox is unchecked.
- WAN PORT SPEED:** The 'WAN Port Speed' dropdown menu is set to 'Auto 10/100Mbps'.
- MULTICAST STREAMS:** The 'Enable Multicast Streams' checkbox is unchecked.
- IPv6 MULTICAST STREAMS:** The 'Enable IPv6 Multicast Streams' checkbox is unchecked.

At the bottom of the page, there are 'Save Settings' and 'Don't Save Settings' buttons, and a 'WIRELESS' section header.

On the right side, there is a 'Helpful Hints...' section with the following text:

- UPnP helps other UPnP LAN hosts interoperate with the router. Leave the UPnP option enabled as long as the LAN has other UPnP applications.
- For added security, it is recommended that you disable the **WAN Ping Response** option. Ping is often used by malicious Internet users to locate active networks or PCs.
- The WAN speed is usually detected automatically. If you are having problems connecting to the WAN, try selecting the speed manually.
- If you are having trouble receiving video on demand type of service from the Internet, make sure the Multicast Stream option is enabled.
- [More...](#)

Guest Zone

The Guest Zone feature will allow you to create temporary zones that can be used by guests to access the Internet. These zones will be separate from your main wireless network. You may configure different zones for the 2.4GHz and 5GHz wireless bands.

Enable Routing Check the box to allow network connectivity between **Between Zones:** the different zones created.

Enable Guest Zone: Check the box to enable the **Guest Zone** feature.

Schedule: The times when the Guest Zone will be active. The schedule may be set to **Always**, which will allow the service to always be enabled. You can create your own schedule in the **Tools > Schedules** section or click **New Schedule**.

Wireless Network Name: Enter a **Wireless Network Name** (SSID) that is different from your main wireless network.

Security Mode: Select the type of security you would like to enable for the Guest Zone, or click **None**.

The screenshot shows the D-Link DIR-816L Advanced Setup page for the Guest Zone configuration. The page is divided into several sections:

- Header:** D-Link logo and navigation tabs: SETUP, ADVANCED (selected), TOOLS, STATUS, SUPPORT.
- Left Sidebar:** A list of configuration options including VIRTUAL SERVER, PORT FORWARDING, APPLICATION RULES, QOS ENGINE, NETWORK FILTER, INBOUND FILTER, ACCESS CONTROL, WEBSITE FILTER, FIREWALL SETTINGS, ROUTING, ADVANCED WIRELESS, WI-FI PROTECTED SETUP, ADVANCED NETWORK, GUEST ZONE (highlighted), IPV6 FIREWALL, and IPV6 ROUTING.
- Main Content Area:**
 - GUEST ZONE:** A section with a title bar and a description: "Use this section to configure the guest zone settings of your router. The guest zone provide a separate network zone for guest to access Internet." It includes "Save Settings" and "Don't Save Settings" buttons.
 - GUEST ZONE:** A section with a title bar and a checkbox for "Enable Routing Between Zones".
 - SESSION 2.4GHZ:** A section with a title bar and settings for the 2.4GHz band:
 - Enable Guest Zone: Always (dropdown) New Schedule (button)
 - Wireless Band: 2.4GHz Band
 - Wireless Network Name: link-guest (text input) (Also called the SSID)
 - Security Mode: None (dropdown)
 - SESSION 5GHZ:** A section with a title bar and settings for the 5GHz band:
 - Enable Guest Zone: Always (dropdown) New Schedule (button)
 - Wireless Band: 5GHz Band
 - Wireless Network Name: link-guest-5ghz (text input) (Also called the SSID)
 - Security Mode: None (dropdown)
 - At the bottom of the main content area are "Save Settings" and "Don't Save Settings" buttons.
- Right Sidebar:** A "Helpful Hints..." section with a plus sign icon and text: "Use this section to configure the guest zone settings of your router. The guest zone provide a separate network zone for guests to access Internet." It also includes a "More..." link.

IPv6 Firewall

The DIR-817LW's IPv6 Firewall feature allows you to configure which kind of IPv6 traffic is allowed to pass through the device. The IPv6 Firewall functions in a similar way to the IP Filters feature.

Enable IPv6 Simple Security: Check the box to enable the IPv6 firewall simple security.

Configure IPv6 Filtering below: Select an action from the drop-down menu.

Name: Enter a **Name** to identify the IPv6 firewall rule.

Schedule: Use the drop-down menu to select the time schedule for enabling the IPv6 Firewall Rule. The schedule may be set to **Always**, which will allow this service to always be enabled. You can create your own schedule in the **Tools > Schedules** section.

Source: Use the **Interface** drop-down menu to specify the interface that connects to the source IPv6 addresses of the firewall rule.

IP Address Range: Enter the source IPv6 address range in the adjacent **IP Address Range** field.

Protocol: Select the protocol of the firewall port (**All, TCP, UDP, or ICMP**).

Dest: Use the **Interface** drop-down menu to specify the interface that connects to the destination IP addresses of the firewall rule.

IP Address Range: Enter the destination IPv6 address range in the adjacent **IP Address Range** field.

Port Range: Enter the first port of the range that will be used for the firewall rule in the first box and enter the last port in the field in the second box.

IPv6 Routing

This page allows you to specify custom routes that determine how data is moved around your network.

Route List: Check the box next to the route you wish to enable.

Name: Enter a specific **Name** to identify this route.

Destination IPv6/ Prefix Length: This is the IP address of the router used to reach the specified destination or enter the IPv6 address prefix length of the packets that will take this route.

Metric: Enter the **Metric** value for this rule here.

Interface: Use the drop-down menu to specify if the IP packet must use the WAN or LAN interface to transit out of the Router.

Gateway: Enter the next hop that will be taken if this route is used.

ROUTING

This Routing page allows you to specify custom routes that determine how data is moved around your network.

Save Settings Don't Save Settings

10 -- ROUTE LIST

Name	Metric	Interface	Destination IPv6 / Prefix Length	Gateway
<input type="checkbox"/>		NULL	64	
<input type="checkbox"/>		NULL	64	
<input type="checkbox"/>		NULL	64	

Helpful Hints...

- Each route has a check box next to it, check this box if you want the route to be enabled.
- The name field allows you to specify a name for identification of this route, e.g. 'Network 2'.
- The destination IPv6 address is the address of the host or network you wish to reach.
- The prefix length field identifies the portion of the destination IP in use.
- The gateway IP address is the IP address of the router, if any, used to reach the specified destination.

[More...](#)

Tools Admin

This page will allow you to change the Administrator password and also enable Remote Management.

Admin Password: Enter a new **Password** for the Administrator login name. Enter again to verify the password.

Enable Graphical Authentication: Enables a challenge-response test to require users to type letters or numbers from a distorted image displayed on the screen to prevent online hackers and unauthorized users from gaining access to your router's network settings.

Enable HTTPS Server: Check to enable HTTPS to connect to the router securely. This means to connect to the router, you must enter **https://192.168.0.1** (for example) instead of **http://192.168.0.1**.

Enable Remote Management: Remote management allows the DIR-817LW to be configured from the Internet by a web browser. A username/password is still required to access the Web Management interface.

Remote Admin Port: The port number used to access the DIR-817LW is used in the URL. Example: **http://x.x.x.x:8080** whereas x.x.x.x is the Internet IP address of the DIR-817LW and 8080 is the port used for the Web Management interface.

If you enabled the **HTTPS Server**, you must enter **https://** as part of the URL to access the router remotely.

Remote Admin Inbound Filter: Select **Allow All** or **Deny All** from the drop-down menu.

Details: This field will display the current remote admin filter.

The screenshot shows the D-Link DIR-817LW Web Management interface. The top navigation bar includes 'DIR-817LW', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'TOOLS' tab is selected, and the 'ADMIN' sub-tab is active. The main content area is titled 'ADMINISTRATOR SETTINGS' and contains the following sections:

- ADMINISTRATOR SETTINGS:** A text box explaining that the 'admin' account can access the management interface and can change its password. It notes that by default there is no password, but it is highly recommended to create one for security. There are 'Save Settings' and 'Don't Save Settings' buttons.
- ADMIN PASSWORD:** A section with the instruction 'Please enter the same password into both boxes, for confirmation.' It contains two password input fields labeled 'Password' and 'Verify Password'.
- ADMINISTRATION:** A section with several configuration options:
 - Enable Graphical Authentication:**
 - Enable HTTPS Server:**
 - Enable Remote Management:**
 - Remote Admin Port:** A text box containing '8080' and a 'Use HTTPS' checkbox.
 - Remote Admin Inbound Filter:** A dropdown menu currently set to 'Allow All'.
 - Details:** A text box displaying 'Allow All'.

On the right side of the page, there is a 'Helpful Hints...' section with several tips, including a recommendation to change the password for security, a note about specifying the IP address when enabling Remote Management, and a tip about selecting a filter to control access.

Time

The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the Time Server. You have the option of using NTP, which is short for Network Time Protocol. An NTP server will sync the time and date with your router. Daylight Saving can also be configured to automatically adjust the time when needed.

Time: Displays the current date and time of the router.

Time Zone: Select your **Time Zone** from the drop-down menu.

Enable Daylight Saving: Check the box to enable manual entry of daylight saving time.

Daylight Saving Offset: When daylight saving manual entry is enabled, the offset value is one hour by default.

Daylight Saving Dates: Enter a start date, an end date, including day of the week, and time for daylight saving time.

Automatically Synchronize with D-Link's Internet Time Server: This option is strongly recommended. Check the box to have the router connect to an NTP server on the Internet (not a local server).

NTP Server Used: Select an NTP server from the drop-down menu and click **Update Now**.

Set the Time and Date Manually: To manually input the time, enter the values in these fields for the **Year, Month, Day, Hour, Minute, and Second**. You can also click **Sync. Your Computer's Time Settings** to synch the date and time with the computer you are currently on.

Click **Save Settings**.

The screenshot shows the D-Link web interface for the DIR-816L router. The main navigation bar includes 'DIR-816L', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration categories: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'TIME AND DATE' and contains the following sections:

- TIME AND DATE:** A header section with a description: "The Time and Date Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone you are in and set the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to adjust the time when needed." Below the description are 'Save Settings' and 'Don't Save Settings' buttons.
- TIME AND DATE CONFIGURATION:** This section displays the current time as '2013/10/24 14:45:25' and the time zone as '(GMT-08:00) Pacific Time (US & Canada, Tijuana)'. It includes a checkbox for 'Enable Daylight Saving' (unchecked), a 'Daylight Saving Offset' dropdown set to '+01:00', and 'Daylight Saving Dates' with separate fields for DST Start and DST End, each with dropdowns for Month, Week, Day of Week, and Time.
- AUTOMATIC TIME AND DATE CONFIGURATION:** This section has a checked checkbox for 'Automatically synchronize with D-Link's Internet time server'. Below it, the 'NTP Server Used' is set to 'ntp1.dlink.com' with an 'Update Now' button. A message states: "The time has been successfully synchronized. (NTP Server Used: ntp1.dlink.com, Time: 2013/10/24 09:12:42) Next time synchronization: 2013/10/31 09:12:42".
- SET THE TIME AND DATE MANUALLY:** This section provides input fields for Year (2013), Month (Oct), Day (24), Hour (14), Minute (45), and Second (25). It also features a 'Sync your computer's time settings' button and 'Save Settings'/'Don't Save Settings' buttons at the bottom.

On the right side of the interface, there is a 'Helpful Hints...' section with a tip: "Either enter the time manually by clicking the **Sync. Your Computers Time Settings** button, or use the **Automatic Time Configuration** option to have your router synchronize with a time server on the Internet." and a 'More...' link.

SysLog

The DIR-817LW keeps a running log of events and activities occurring on the Router. You may send these logs to a SysLog server on your network.

Enable Logging to SysLog Server: Check this box to enable sending the router logs to a SysLog Server. You will see a new field for the **SysLog Server IP Address.**

The screenshot shows the D-Link web interface for the DIR-817LW router. The 'SYSLOG' section is active, displaying the following configuration:

- SYSLOG SETTINGS**
 - Enable Logging To SysLog Server:
 - Buttons: Save Settings, Don't Save Settings

The right-hand side of the page contains a 'Helpful Hints...' section with the following text:

- A System Logger (syslog) is a server that collects in one place the logs from different sources. If the LAN includes a syslog server, you can use this option to send the router's logs to that server.
- More...

SysLog Server IP Address: Enter the address of the SysLog server that will be used for sending the logs to. You may also select your computer from the drop-down menu (only if receiving an IP address from the router via DHCP).

The screenshot shows the D-Link web interface for the DIR-817LW router. The 'SYSLOG' section is active, displaying the following configuration:

- SYSLOG SETTINGS**
 - Enable Logging To SysLog Server:
 - Syslog Server IP Address: [] << Computer Name
 - Buttons: Save Settings, Don't Save Settings

The right-hand side of the page contains a 'Helpful Hints...' section with the following text:

- A System Logger (syslog) is a server that collects in one place the logs from different sources. If the LAN includes a syslog server, you can use this option to send the router's logs to that server.
- More...

Email Settings

The Email feature can be used to send the system log files, router alert messages, and firmware update notification to your email address.

Enable Email Notification: When this option is enabled, router activity logs are emailed to a designated email address.

From Email Address: Enter the **Email Address** you would like to display as the sender when you receive a log file or firmware upgrade notification via email.

To Email Address: Enter the **Email Address** where you want the email to be sent.

SMTP Server Address: Enter the **SMTP Server Address** for sending email.

SMTP Server Port: Enter the SMTP port used on the server.

Enable Authentication: Check this box if your SMTP server requires authentication.

Account Name: Enter your **Account Name** for sending email.

Password: Enter the **Password** associated with the account. Re-type the password associated with the account.

On Log Full: When this box is checked, logs will be sent via email to your account when the log is full.

On Schedule: When this box is checked, logs will be sent via email according to schedule.

Schedule: This option is enabled when **On Schedule** is selected. You can select a schedule from the list of defined schedules. To create a schedule, go to **Tools > Schedules**.

Details: Detail will display the selected schedule.

The screenshot shows the D-Link DIR-817LW web interface. The top navigation bar includes 'DIR-817LW', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration categories: ADMIN, TIME, SYSLOG, EMAIL SETTINGS (selected), SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'EMAIL SETTINGS' and contains the following sections:

- EMAIL SETTINGS:** A message states, 'The Email feature can be used to send the system log files and router alert messages to your email address.' Below this are 'Save Settings' and 'Don't Save Settings' buttons.
- EMAIL NOTIFICATION:** A checkbox labeled 'Enable Email Notification' is present.
- EMAIL SETTINGS:** A form with the following fields:
 - From Email Address : [text input]
 - To Email Address : [text input]
 - Email Subject : [text input]
 - SMTP Server Address : [text input]
 - SMTP Server Port : [text input, value: 25]
 - Enable Authentication :
 - Account Name : [text input]
 - Password : [text input]
 - Verify Password : [text input]
 - Send Mail Now [button]
- EMAIL LOG WHEN FULL OR ON SCHEDULE:** A form with the following fields:
 - On Log Full :
 - On Schedule :
 - Schedule : [dropdown menu, value: None]
 - Detail : [text input]

At the bottom of the main content area are 'Save Settings' and 'Don't Save Settings' buttons. The right sidebar contains 'Helpful Hints...' with a note: 'You may want to make the email settings similar to those of your email client program.' and a 'More...' link. The bottom of the page features the 'WIRELESS' logo.

System

This section allows you to manage the router's configuration settings, reboot the router, and restore the router to the factory default settings. Restoring the unit to the factory default settings will erase all settings, including any rules that you've created.

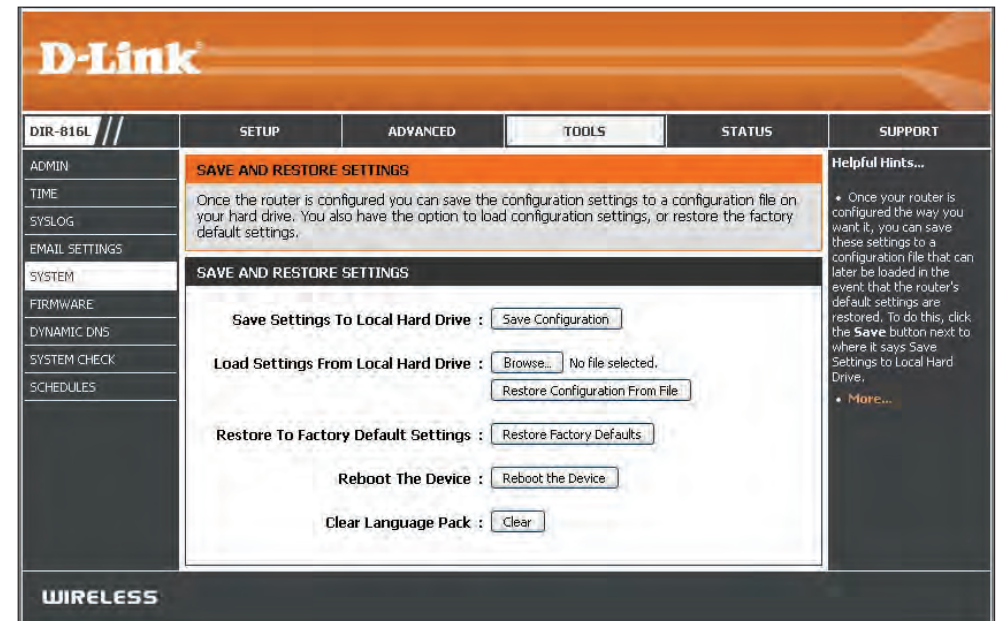
Save Settings to Local Hard Drive: Use this option to save the current router configuration settings to a file on the hard disk of the computer you are using. First, click the **Save Configuration** button. A file dialog will appear, allowing you to select a location and file name for the settings.

Load Settings from Local Hard Drive: Use this option to load previously saved router configuration settings. First, click on **Browse** to find a previously saved file of configuration settings. Then, click the **Restore Configuration from File** button to transfer those settings to the router.

Restore to Factory Default Settings: This option will restore all configuration settings back to the settings that were in effect at the time the router was shipped from the factory. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save the current router configuration settings, use the **Save Configuration** button above.

Reboot the Device: Click to reboot the router.

Clear Language Pack: Click **Clear** to remove any installed Language Packs.



Firmware

From here you can check to see if there is an upgrade available, and then you can download the latest firmware for your router. Make sure you download the firmware you want to use onto the local hard drive of your computer.

Firmware Upgrade

Browse: After you have downloaded the new firmware, click **Browse** to locate the firmware update on your hard drive.

Upload: Once you have located the file on your computer, click the **Upload** button to start the firmware upgrade.

Language Pack Upgrade

You can change the language of the web UI by uploading available language packs.

Browse: After you have downloaded the new language pack, click **Browse** to locate the language pack file on your hard drive.

Upload: Once you have located the file on your computer, click the **Upload** button to start the language pack upgrade.

The screenshot displays the D-Link web interface for a DIR-816L router. The top navigation bar includes 'DIR-816L', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'FIRMWARE' menu item is selected in the left sidebar. The main content area is titled 'FIRMWARE UPDATE' and contains the following sections:

- FIRMWARE UPDATE:** A message stating, 'There may be new firmware for your router to improve functionality and performance. Click here to check for an upgrade on our support site.' Below this, instructions are provided for upgrading the firmware and the language pack, both requiring the user to locate the file on their local hard drive and click the 'Upload' button.
- FIRMWARE INFORMATION:** Displays 'Current Firmware Version : 2.00' and 'Current Firmware Time : 10/18/2013 17:26:00'. It includes a 'Check Online Now for Latest Firmware Version' button labeled 'Check Now'.
- FIRMWARE UPGRADE:** A section with a red note: 'Note: Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration.' It includes an 'Upload' button with a 'Browse...' link and the text 'No file selected.'.
- LANGUAGE PACK UPGRADE:** Similar to the firmware upgrade section, it includes an 'Upload' button with a 'Browse...' link and the text 'No file selected.'.

On the right side of the interface, there is a 'Helpful Hints...' section with a bullet point: 'Firmware Update are released periodically to improve the functionality of your router and also to add features. If you run into a problem with a specific feature of the router, check our support site by clicking on the Check Now and see if an updated version of firmware is available for your router.' A 'More...' link is also present.

Dynamic DNS

The Dynamic DNS (DDNS) feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter in your domain name to connect to your server no matter what your IP address is.

Enable Dynamic Domain Name System is a method of **Dynamic DNS**: keeping a domain name linked to a changing IP Address. Check the box to **Enable** DDNS.

Server Select your DDNS provider from the drop-down **Address**: menu or enter the DDNS **Server Address**.

Host Name: Enter the **Host Name** that you registered with your DDNS service provider.

Username or Key: Enter the **Username or Key** for your DDNS account.

Password or Key: Enter the **Password or Key** for your DDNS account.

Timeout: Enter a **Timeout** time (in hours).

Status: Displays the current connection status.

The screenshot displays the Dynamic DNS configuration interface for a D-Link DIR-816L router. The interface is organized into several sections:

- Navigation:** A top menu bar includes 'DIR-816L //', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. A left sidebar lists various system settings like ADMIN, TIME, SYSLOG, etc.
- DYNAMIC DNS:** This section contains a descriptive paragraph about DDNS, a link to sign up for D-Link's free service, and two buttons: 'Save Settings' and 'Don't Save Settings'.
- DYNAMIC DNS SETTINGS:** This section includes:
 - 'Enable Dynamic DNS': A checkbox that is currently unchecked.
 - 'Server Address': A dropdown menu showing 'dlinkddns.com(Free)'.
 - 'Host Name': A text input field.
 - 'Username or Key': A text input field.
 - 'Password or Key': A text input field.
 - 'Verify Password or Key': A text input field.
 - 'Timeout': A spinner set to '567' hours.
 - 'Status': Displayed as 'Disconnected'.
- DYNAMIC DNS FOR IPV6 HOSTS:** This section includes:
 - 'Enable': A checkbox that is currently unchecked.
 - 'IPv6 Address': A text input field with a dropdown menu set to 'Computer Name'.
 - 'Host Name': A text input field with a note '(e.g.: ipv6.mydomain.net)'.
 - 'Save' and 'Clear' buttons.
- IPV6 DYNAMIC DNS LIST:** A table with columns for 'Enable', 'Host Name', and 'IPv6 Address'. Below the table are 'Save Settings' and 'Don't Save Settings' buttons.
- Helpful Hints...:** A sidebar on the right provides additional information and a 'More...' link.
- Footer:** The word 'WIRELESS' is displayed at the bottom of the page.

DDNS for IPv6 Hosts

Enable: Check the box to **Enable** DDNS for IPv6 Hosts.

IPv6 Address: Enter the **IPv6 Address** of your computer/server in your local network. You can select a computer/server from the drop-down list and click the << button.

Host Name: Enter the IPv6 **Host Name** that you registered with your DDNS service provider. Click **Save**.

IPv6 Dynamic DNS List: Once you save your entry, the IPv6 DDNS host information will be displayed here.

Enable: Check to **Enable** the entry.

Host Name: Displays the name of your IPv6 DDNS host.

IPv6 Address: Displays the *IPv6 Address* of your computer/server associated with the IPv6 DDNS host.

Edit/Delete: Click the **Edit** icon to make changes to the entry or click the trash icon to delete the entry.

DYNAMIC DNS FOR IPV6 HOSTS

Enable :

IPv6 Address : << Computer Name ▾

Host Name : (e.g. myhost.mydomain.net)

IPV6 DYNAMIC DNS LIST

Enable	Host Name	IPv6 Address		

System Check

Host Name or IP Address: The Ping Test is used to send Ping packets to test if a computer is on the Internet. Enter the **IP Address** that you wish to Ping and click **Ping**.

Host Name or IPv6 Address: Enter the **IPv6 Address** that you wish to Ping and click **Ping**.

Ping Result: The results of your ping attempts will be displayed here.

The screenshot shows the D-Link DIR-816L web interface. The top navigation bar includes 'DIR-816L //', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'TOOLS' menu is expanded to show 'PING TEST' and 'IPV6 PING TEST'. The 'PING TEST' section contains a text box for 'Host Name or IP Address' and a 'Ping' button. The 'IPV6 PING TEST' section contains a text box for 'Host Name or IPv6 Address' and a 'Ping' button. Below these is a 'PING RESULT' section with the instruction 'Enter a host name or IP address above and click 'Ping''. On the right side, there is a 'Helpful Hints...' section with a bullet point explaining that 'Ping' checks if a computer is online and responding, and a 'More...' link. The 'WIRELESS' logo is visible at the bottom of the interface.

Schedules

Schedules can be created for use with enforcing rules. For example, if you want to restrict web access to Mon-Fri from 3 pm to 8 pm, you could create a schedule selecting Mon, Tue, Wed, Thu, and Fri and enter a Start Time of 3 pm and End Time of 8 pm.

Name: Enter a **Name** for your new schedule.

Day(s): Click on **All Week** to include every day of the week, or click **Select Day(s)** and check the boxes to select the days to enforce the rules.

Time: Check **All Day - 24 hrs** or select a **Time Format** from the drop-down list and enter a **Start Time** and **End Time** for your schedule. Click **Add** to add a schedule to the list.

Schedule Rules The list of schedules will be listed here. Click the **List: Edit** icon to make changes or click the trash icon to delete the schedule.

The screenshot shows the D-Link DIR-816L web interface. The top navigation bar includes 'DIR-816L //', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration categories: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'SCHEDULES' and contains the following elements:

- SCHEDULES**: A section header with a description: "The Schedule configuration option is used to manage schedule rules for "WAN", "Wireless", "Virtual Server", "Port Forwarding", "Applications" and "Network Filter".
- 10 -- ADD SCHEDULE RULE**: A form for creating a new schedule rule. It includes:
 - Name**: A text input field.
 - Day(s)**: Radio buttons for 'All Week' and 'Select Day(s)'. Under 'Select Day(s)', there are checkboxes for Sun, Mon, Tue, Wed, Thu, Fri, and Sat.
 - All Day - 24 hrs**: A checkbox.
 - Time Format**: A dropdown menu currently set to '12-hour'.
 - Start Time**: A time selection field showing '12:00 AM' with '(hour:minute)' as a hint.
 - End Time**: A time selection field showing '11:59 PM' with '(hour:minute)' as a hint.
 - Add** and **Cancel** buttons.
- SCHEDULE RULES LIST**: A table with the following columns: Name, Day(s), and Time Frame.
- Helpful Hints...**: A sidebar on the right containing instructions:
 - Schedules are used with a number of other features to define when those features are in effect.
 - Give each schedule a name that is meaningful to you. For example, a schedule for Monday through Friday from 3:00pm to 9:00pm, might be called "After School".
 - Click **Add** to add a completed schedule to the list below.
 - Click **Edit** icon to change an existing schedule.
 - Click **Delete** icon to permanently delete a schedule.
 - More...**

Status Device Info

This page displays the current information for the DIR-817LW. It will display the LAN, WAN (Internet), and Wireless information. If your Internet connection is set up for a Dynamic IP address then a **Release** button and a **Renew** button will be displayed. Use **Release** to disconnect from your ISP and use **Renew** to connect to your ISP. If your Internet connection is set up for PPPoE, a **Connect** button and a **Disconnect** button will be displayed. Use **Disconnect** to drop the PPPoE connection and use **Connect** to establish the PPPoE connection.

General: Displays the router's *Time*, *Firmware Version*, and registration status.

WAN: Displays the *Connection Type*, *MAC Address*, and the public IP settings.

LAN: Displays the *MAC Address* and the private (local) IP settings for the router.

Wireless LAN: Displays the 2.4GHz wireless *MAC Address* and your wireless settings such as *Channel* and *Network Name (SSID)*.

Wireless LAN2: Displays the 5GHz wireless *MAC Address* and your wireless settings such as *Channel* and *Network Name (SSID)*.

LAN Computers: Displays computers and devices that are connected to the router via Ethernet and that are receiving an IP address assigned by the router (DHCP).

IGMP Multicast Memberships: Displays IPv4 and IPv6 multicast group addresses.



Logs

The router automatically logs (records) events of possible interest in its internal memory. If there isn't enough internal memory for all events, logs of older events are deleted but logs of the latest events are retained. You can define what types of events you want to view and the level of the events to view. This router also has external Syslog Server support so you can send the log files to a computer on your network that is running a Syslog utility.

Save Log File: Click **Save** to *Save Log File to Local Hard Drive*.

Log Type & Level: Select the type of event you would like to be logged from **Log Type** and **Log Level**.

First Page: Click to go to the **First Page** of the Log Files.

Last Page: Click to go to the **Last Page**.

Previous: Click to go back one page.

Next: Click to go to the **Next** page.

Clear: Click to **Clear** all of the log contents.

Link to Email This option will send copy of the router log to your email
Log Settings: address configured in the **Tools > Email Settings** page.

The screenshot shows the D-Link web interface for a DIR-816L router. The main content area is titled "VIEW LOG" and contains the following sections:

- VIEW LOG:** A message stating "The View Log displays the activities occurring on the router." with buttons for "Save Settings" and "Don't Save Settings".
- SAVE LOG FILE:** A section with the text "Save Log File To Local Hard Drive:" and a "Save" button.
- LOG TYPE & LEVEL:** Radio button options for Log Type (System, Firewall & Security, Router Status) and Log Level (Critical, Warning, Information). "System" and "Information" are selected.
- LOG FILES:** A table of log entries with navigation buttons (First Page, Last Page, Previous, Next, Clear, Link To Email Log Settings). The table shows 1/12 entries, all of which are "Web logout from 192.168.0.100" on "Thu Oct 24 2013".

On the right side, there is a "Helpful Hints..." section with the following text:

- Click on the Save button to save log file to local hard drive which can later send to the network administrator for troubleshooting. You can also select what type of event you would like to be logged from Log Type & Level.
- Check the log frequently to detect unauthorized network usage.
- You can also have the log mailed to you periodically. Refer to **Tools -> Email**.
- [More...](#)

Statistics

The screen below displays the *Traffic Statistics*. You can view the number of packets that pass through the DIR-817LW on the WAN ports, LAN ports, and the Wi-Fi® segments. The traffic counter will reset if the device is rebooted.

The screenshot shows the D-Link DIR-817LW web interface. The main content area is titled "TRAFFIC STATISTICS" and contains the following data:

TRAFFIC STATISTICS			
Traffic Statistics displays Receive and Transmit packets passing through the device.			
Refresh Statistics		Reset Statistics	
LAN STATISTICS			
Sent :	35584	Received :	24157
TX Packets Dropped :	0	RX Packets Dropped :	0
Collisions :	0	Errors :	0
WAN STATISTICS			
Sent :	14554	Received :	65714
TX Packets Dropped :	0	RX Packets Dropped :	0
Collisions :	0	Errors :	0
WIRELESS STATISTICS - 2.4GHZ BAND			
Sent :	71205	Received :	915943
TX Packets Dropped :	0	RX Packets Dropped :	0
Collisions :	0	Errors :	88371
WIRELESS STATISTICS - 5GHZ BAND			
Sent :	17739	Received :	444626
TX Packets Dropped :	0	RX Packets Dropped :	0
Collisions :	0	Errors :	7754

The sidebar on the right contains "Helpful Hints..." with the following text:

- This is a summary displaying the number of packets that have passed between the Internet and the LAN since the router was last initialized.
- [More...](#)

Internet Sessions

The Internet Sessions page displays the details of active Internet sessions passing through your router. An Internet session is a conversation between a program or application on a LAN-side computer and a program or application on a WAN-side computer.

The screenshot displays the D-Link DIR-816L Internet Sessions page. The page features a navigation menu on the left with options: DEVICE INFO, LOGS, STATISTICS, INTERNET SESSIONS (selected), WIRELESS, ROUTING, IPV6, and IPV6 ROUTING. The top navigation bar includes: DIR-816L //, SETUP, ADVANCED, TOOLS, STATUS (selected), and SUPPORT. The main content area is titled "INTERNET SESSIONS" and contains the following text: "This page displays Source and Destination sessions passing through the device." Below this text is a "Refresh" button. A table displays the following data:

IP	TCP Count	UDP Count
192.168.0.100	1	0

On the right side of the page, there is a "Helpful Hints..." section with the following text: "• This is a list of all active conversations between WAN computers and LAN computers." and a "• More..." link. The bottom of the page features a "WIRELESS" section.

Wireless

The *Connected Wireless Client List* displays a list of wireless clients currently connected to the router. This table also displays the *MAC address*, *IP Address* and connection *Rate* of the connected wireless clients.

D-Link						
DIR-816L	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT	
DEVICE INFO	CONNECTED WIRELESS CLIENT LIST				Helpful Hints... • This is a list of all wireless clients that are currently connected to your wireless router. • More...	
LOGS	View the wireless clients that are connected to the router. (A client might linger in the list for a few minutes after an unexpected disconnect.)					
STATISTICS	NUMBER OF WIRELESS CLIENTS - 2.4GHZ BAND : 0					
INTERNET SESSIONS	MAC Address	IP Address	Mode	Rate (Mbps)		Signal (%)
WIRELESS	NUMBER OF WIRELESS CLIENTS - 5GHZ BAND : 0					
ROUTING	MAC Address	IP Address	Mode	Rate (Mbps)		Signal (%)
IPv6	WIRELESS					
IPv6 ROUTING						

Routing

This page will display your current *Routing Table*.

The screenshot shows the D-Link DIR-816L web interface. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar contains a menu with options: DEVICE INFO, LOGS, STATISTICS, INTERNET SESSIONS, WIRELESS, ROUTING (highlighted), IPv6, and IPv6 ROUTING. The main content area is titled "ROUTING" and contains a "Routing Table" section with the text: "This page displays the routing details configured for your router." Below this is a table titled "ROUTING TABLE" with the following data:

Destination	Gateway	Genmask	Metric	Iface	Creator
192.168.7.0	0.0.0.0	255.255.255.0	0	LAN	SYSTEM
192.168.0.0	0.0.0.0	255.255.255.0	0	LAN	SYSTEM
10.10.10.0	0.0.0.0	255.255.255.0	0	INTERNET	SYSTEM
239.0.0.0	0.0.0.0	255.0.0.0	0	LAN	SYSTEM
0.0.0.0	10.10.10.1	255.255.255.255	100	INTERNET	SYSTEM

On the right side of the interface, there is a "Helpful Hints..." section with the following text: "This is a list of all routing rules on router." and a link for "More...". The bottom of the interface features a "WIRELESS" tab.

IPv6

The IPv6 page displays a summary of the Router's IPv6 settings and lists the IPv6 address and host name of any IPv6 clients.

D-Link

DIR-816L // SETUP ADVANCED TOOLS STATUS SUPPORT

DEVICE INFO
LOGS
STATISTICS
INTERNET SESSIONS
WIRELESS
ROUTING
IPv6
IPV6 ROUTING

IPv6 NETWORK INFORMATION
All of your IPv6 Internet and network connection details are displayed on this page.

IPv6 CONNECTION INFORMATION
IPv6 Connection Type : Link-Local
IPv6 Default Gateway : None
LAN IPv6 Link-Local Address : fe80::c2a0:bbff:feb:35d0 /64

LAN IPV6 COMPUTERS

IPv6 Address	Name(if any)

Helpful Hints...
• All of your WAN and LAN connection details are displayed here.
• [More...](#)

WIRELESS

IPv6 Routing

This page displays the IPv6 routing details configured for your router.

The screenshot shows the D-Link web interface for a DIR-816L router. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar contains a menu with options: DEVICE INFO, LOGS, STATISTICS, INTERNET SESSIONS, WIRELESS, ROUTING, IPv6, and IPv6 ROUTING (which is currently selected). The main content area is titled "IPv6 ROUTING" and contains the text: "This page displays IPv6 routing details configured for your router." Below this is a section titled "IPv6 ROUTING TABLE" with a table header containing "Destination IP", "Gateway", "Metric", and "Interface". The table body is currently empty. On the right side, there is a "Helpful Hints..." section with a bullet point: "• This is a list of all IPv6 routing rules on router." and a link for "• More...". The bottom of the interface features a "WIRELESS" button.

Support

The screenshot displays the D-Link web interface for the DIR-816L router. The top navigation bar includes 'DIR-816L', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'SUPPORT' menu is expanded, showing a 'SUPPORT MENU' with links to Setup, Advanced, Tools, and Status. Below this are four help sections: 'SETUP HELP' (Internet, Wireless Settings, Network Settings, Storage, Media Server, IPv6, MYDLINK SETTINGS), 'ADVANCED HELP' (Virtual Server, Port Forwarding, Application Rules, QoS Engine, Network Filter, Access Control, Website Filter, Inbound Filter, Firewall Settings, Routing, Advanced Wireless, Wi-Fi Protected Setup, Advanced Network, Guest Zone, IPv6 Firewall, IPv6 Routing), 'TOOLS HELP' (Device Administration, Time, Syslog, Email Settings, System, Firmware, Dynamic DNS, System Check, Schedules), and 'STATUS HELP' (Device Info, Logs, Statistics, Internet Sessions, Wireless, Routing, IPv6, IPv6 Routing). A 'WIRELESS' tab is visible at the bottom left of the interface.

Connect a Wireless Client to your Router

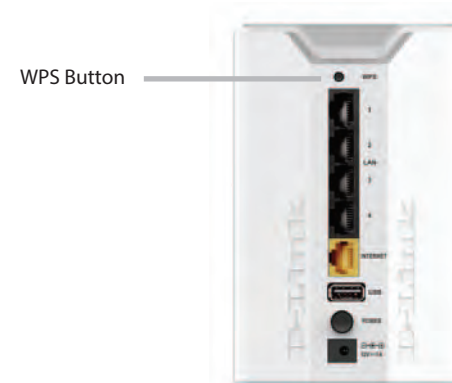
WPS Button

The easiest and most secure way to connect your wireless devices to the router is WPS (Wi-Fi Protected Setup). Most wireless devices such as wireless adapters, media players, Blu-ray DVD players, wireless printers and cameras will have a WPS button (or a software utility with WPS) that you can press to connect to the DIR-817LW router. Please refer to your user manual for the wireless device you want to connect to make sure you understand how to enable WPS. Once you know, follow the steps below:

Step 1 - Press the WPS button on the side of the DIR-817LW for about one second. The Power LED on the front will start to blink.

Step 2 - Within two minutes, press the WPS button on your wireless client (or launch the software utility and start the WPS process).

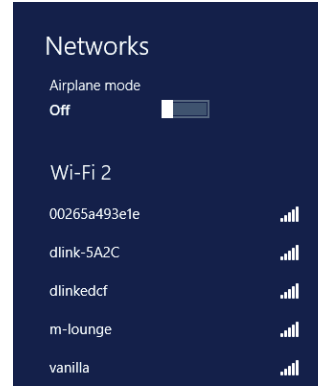
Step 3 - Allow up to one minute to configure. Once the Power LED stops blinking, you will be connected and your wireless connection will be secure with WPA2.



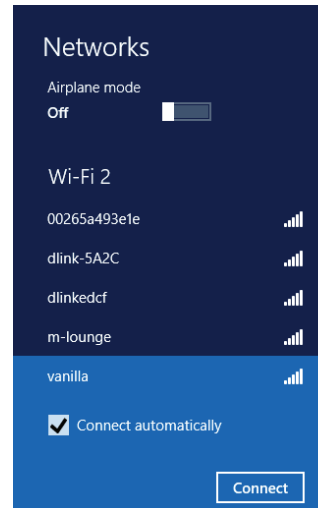
Windows® 8

1. Click on the wireless computer icon in your system tray (lower-right corner next to the time).

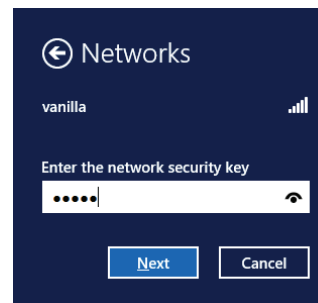
2. A list of available wireless networks will appear.



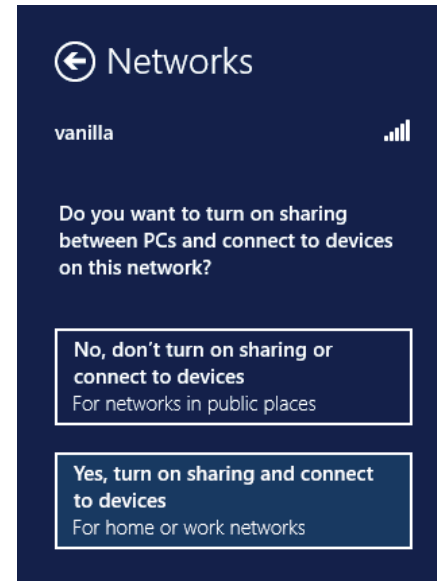
3. Click the wireless network (SSID) you want to connect to and then click **Connect**.



4. If the network is secure/encrypted, enter the Wi-Fi password (security key) and click **Next**.



5. Click either to enable or disable file sharing.
6. You will now be connected to your wireless network.



If you get a good signal but cannot access the Internet, confirm the encryption by reviewing the profile or check the TCP/IP settings for your wireless adapter. Refer to the *Networking Basics* section in this manual for more information.

Windows® 7

WPA/WPA2

It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

1. Click on the wireless icon in your system tray (lower-right corner).



Wireless Icon

2. The utility will display any available wireless networks in your area.

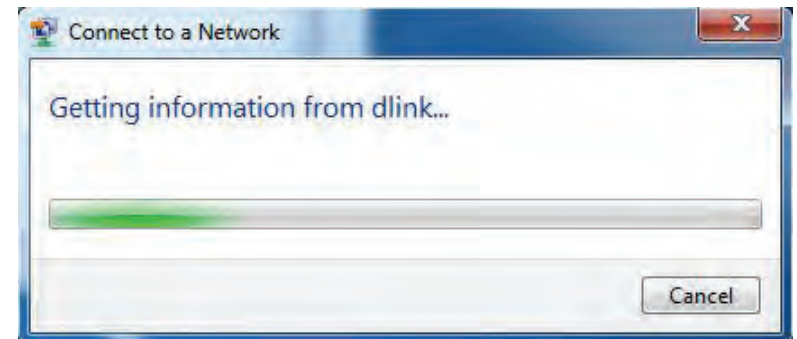


3. Highlight the wireless network (SSID) you would like to connect to and click the **Connect** button.

If you get a good signal but cannot access the Internet, check your TCP/IP settings for your wireless adapter. Refer to the Networking Basics section in this manual for more information.

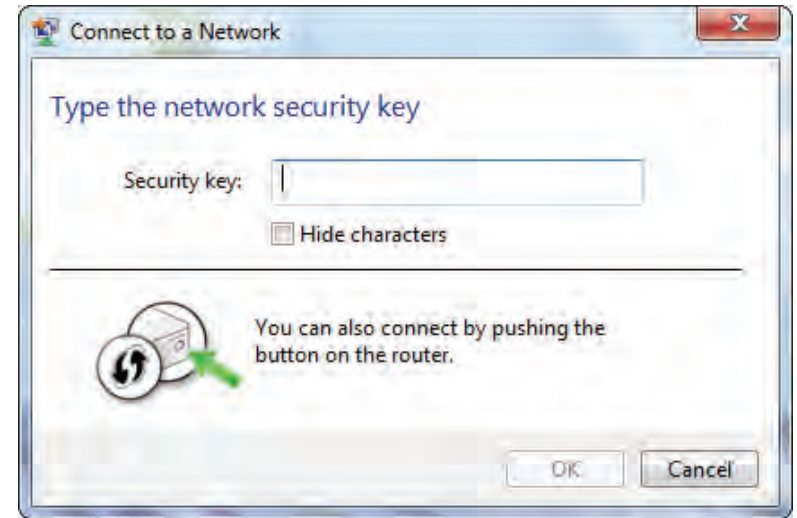


4. The following window appears while your computer tries to connect to the router.



5. Enter the same security key or passphrase that is on your router and click **Connect**. You can also connect by pushing the WPS button on the router.

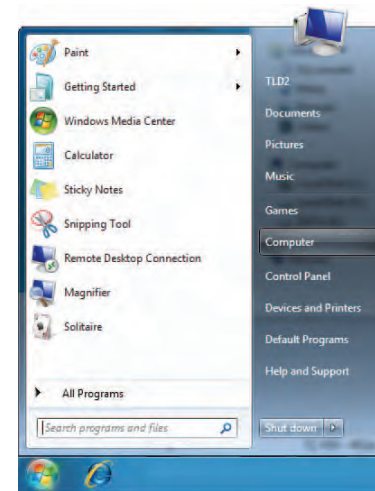
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.



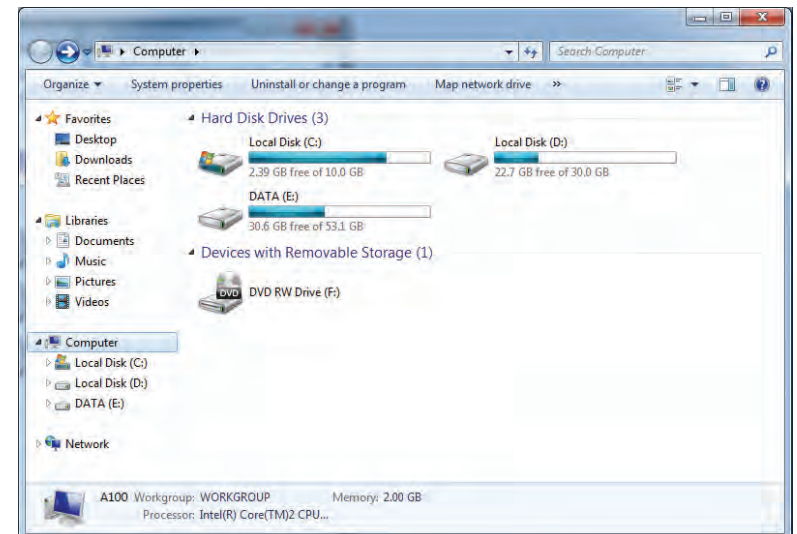
WPS

The WPS feature of the DIR-817LW can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

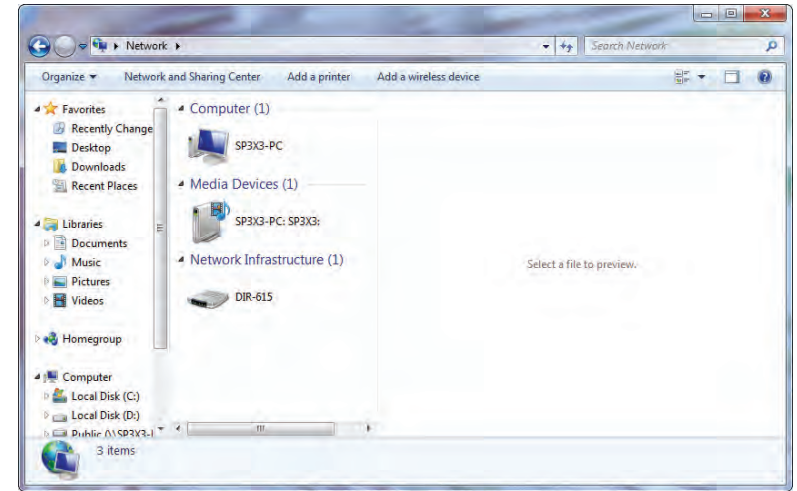
1. Click the **Start** button and select **Computer** from the Start menu.



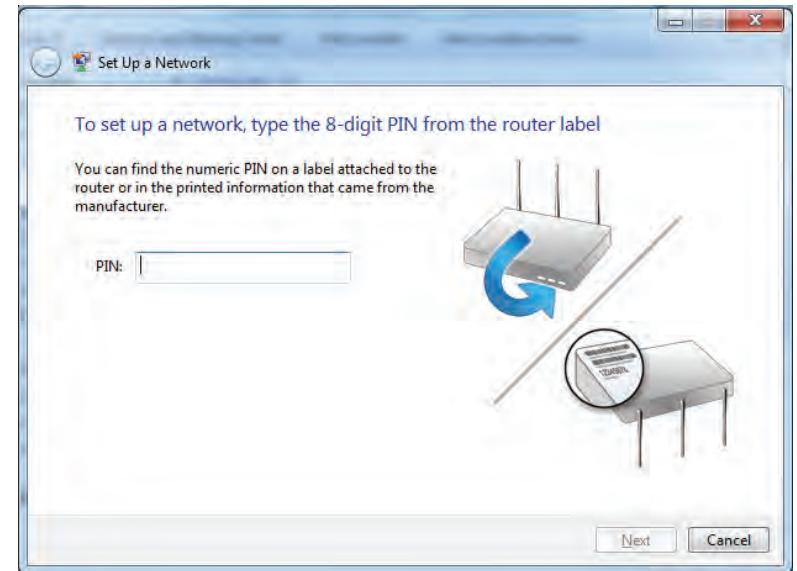
2. Click **Network** on the left side.



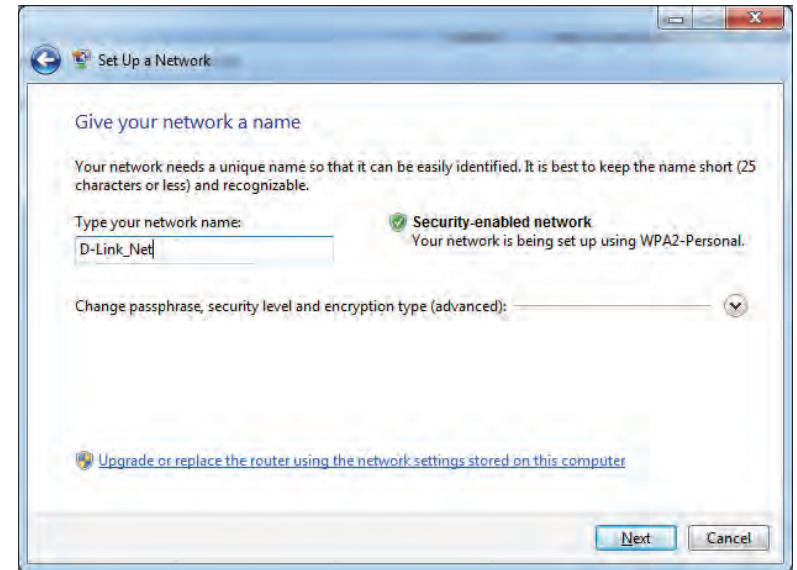
3. Double-click the DIR-817LW.



4. Input the WPS PIN number (displayed in the WPS window on the Router's LCD screen or in the **Setup** > **Wireless Setup** menu in the Router's Web UI) and click **Next**.

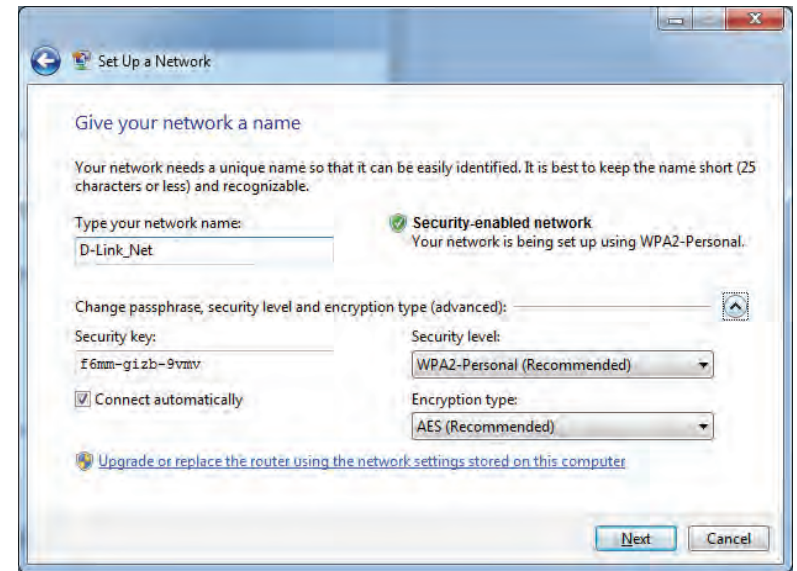


5. Type a name to identify the network.



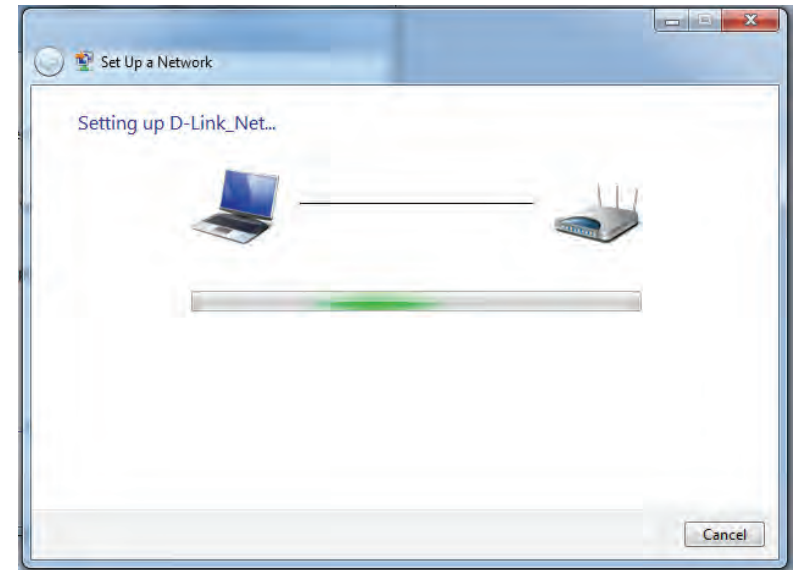
6. To configure advanced settings, click the  icon.

Click **Next** to continue.



7. The following window appears while the Router is being configured.

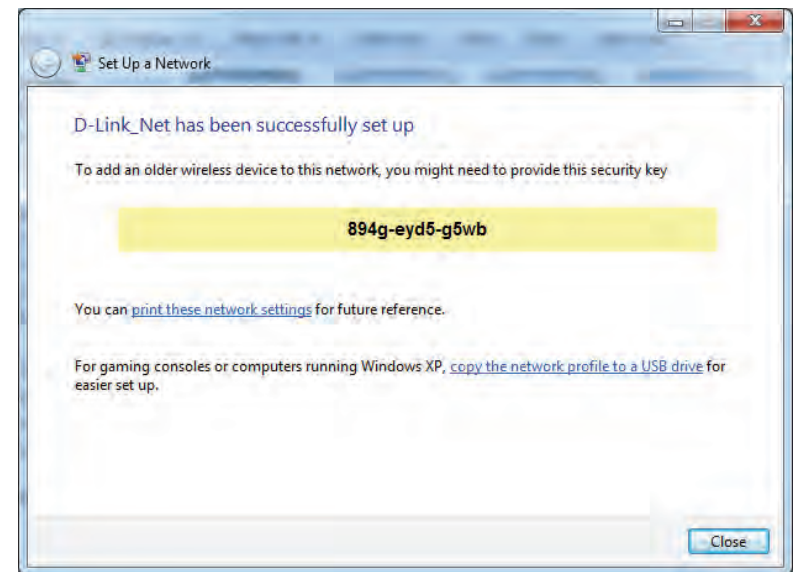
Wait for the configuration to complete.



8. The following window informs you that WPS on the router has been setup successfully.

Make a note of the security key as you may need to provide this security key if adding an older wireless device to the network in the future.

9. Click **Close** to complete WPS setup.



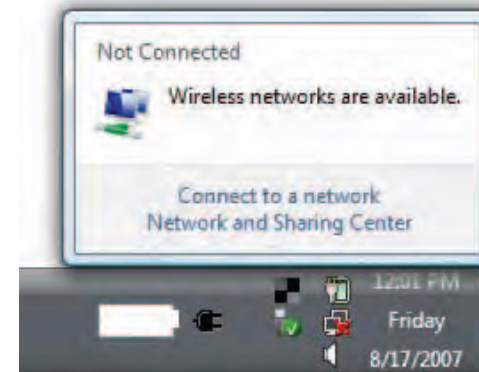
Windows Vista®

Windows Vista® users may use the built-in wireless utility. If you are using another company's utility, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows Vista® utility as seen below.

If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

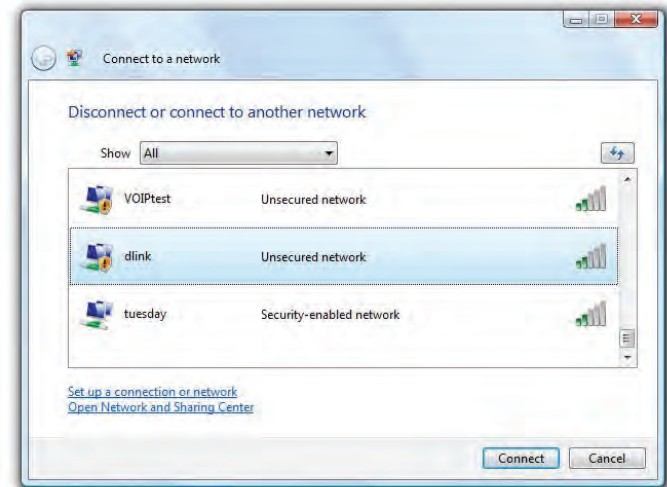
or

Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **Connect to a network**.



The utility will display any available wireless networks in your area. Click on a network (displayed using the SSID) and click the **Connect** button.

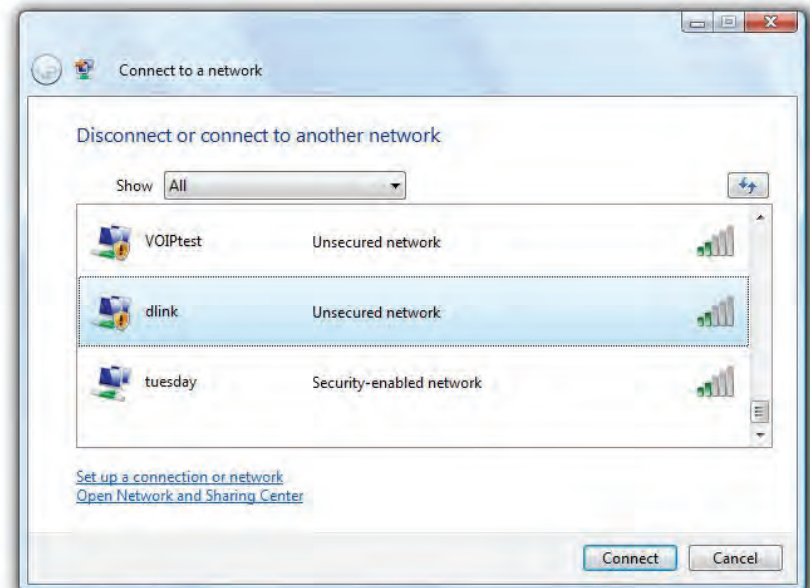
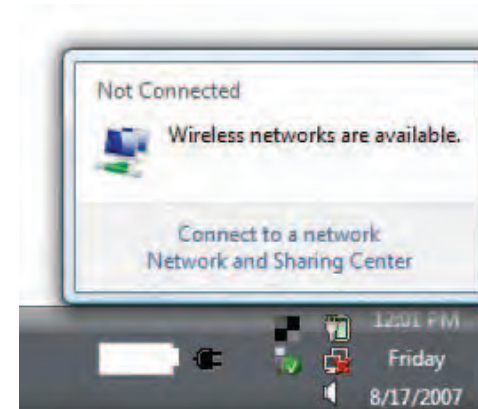
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



WPA/WPA2

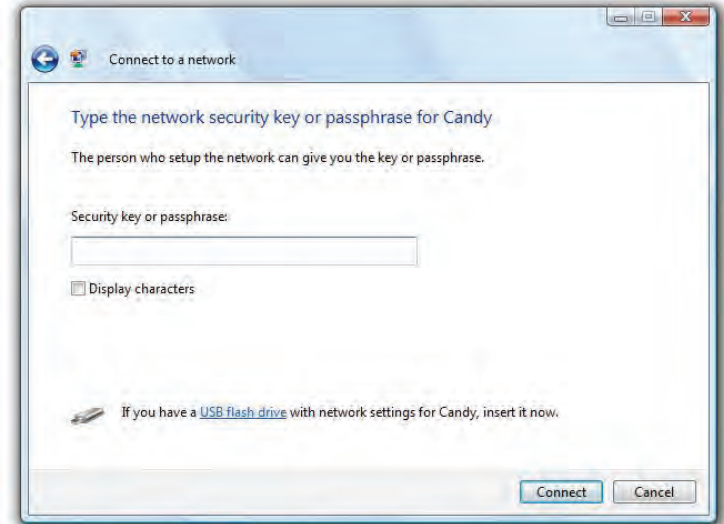
It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

1. Open the Windows Vista® Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower right corner of screen). Select **Connect to a network**.
2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



3. Enter the same security key or passphrase that is on your router and click **Connect**.

It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.

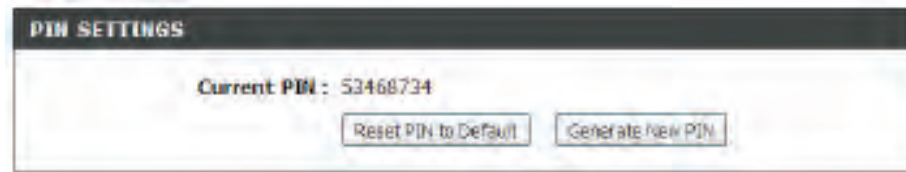


WPS/WCN 2.0

The router supports Wi-Fi protection, referred to as WCN 2.0 in Windows Vista®. The following instructions for setting this up depends on whether you are using Windows Vista® to configure the router or third party software.

When you first set up the router, Wi-Fi protection is disabled and unconfigured. To enjoy the benefits of Wi-Fi protection, the router must be both enabled and configured. There are three basic methods to accomplish this: use Windows Vista's built-in support for WCN 2.0, use software provided by a third party, or manually configure.

If you are running Windows Vista®, log into the router and click the **Enable** checkbox in the **Basic > Wireless** section. Use the Current PIN that is displayed on the **Advanced > Wi-Fi Protected Setup** section or choose to click the **Generate New PIN** button or **Reset PIN to Default** button.



If you are using third party software to set up Wi-Fi Protection, carefully follow the directions. When you are finished, proceed to the next section to set up the newly-configured router.

Windows® XP

Windows® XP users may use the built-in wireless utility (Zero Configuration Utility). If you are using another company's utility, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows® XP utility as seen below.

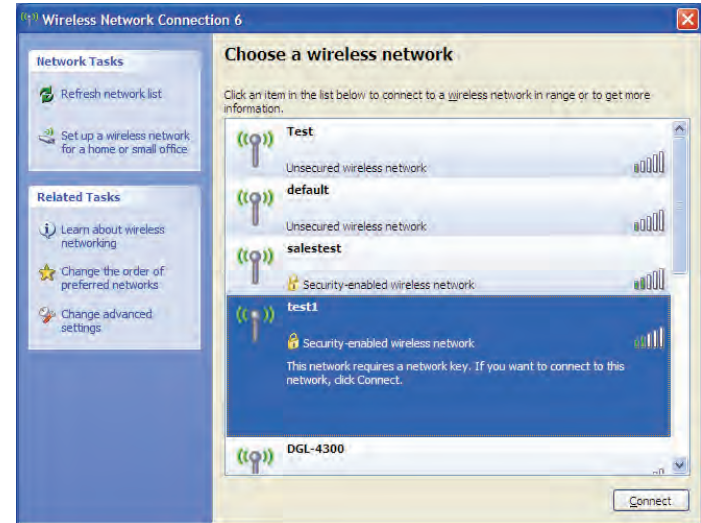
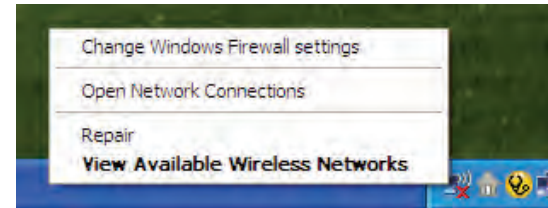
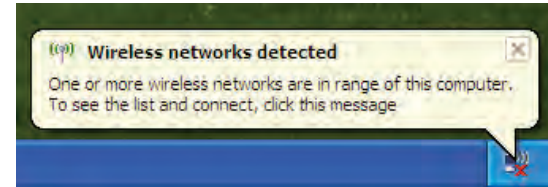
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

or

Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **View Available Wireless Networks**.

The utility will display any available wireless networks in your area. Click on a network (displayed using the SSID) and click the **Connect** button.

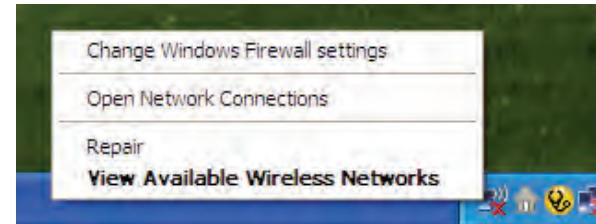
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



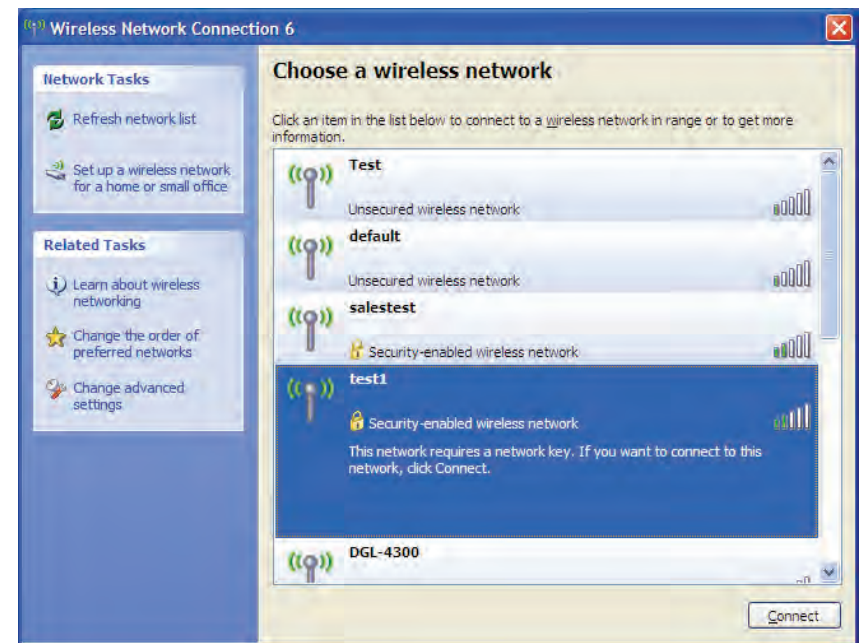
WPA/WPA2

It is recommended to enable WPA on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WPA key being used.

1. Open the Windows® XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Select **View Available Wireless Networks**.

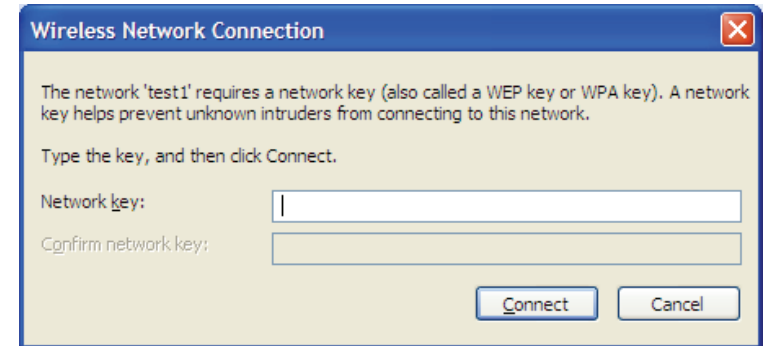


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



3. The **Wireless Network Connection** box will appear. Enter the WPA-PSK passphrase and click **Connect**.

It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the WPA-PSK settings are correct. The WPA-PSK passphrase must be exactly the same as on the wireless router.



Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DIR-817LW. Read the following descriptions if you are having problems. The examples below are illustrated in Windows® XP. If you have a different operating system, the screens on your computer will look similar to the following examples.

1. Why can't I access the web-based configuration utility?

When entering the IP address of the D-Link router (192.168.0.1 for example), you are not connecting to a website nor do you have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
 - Internet Explorer® 7 and higher
 - Firefox
 - Chrome
 - Safari 4 and higher
- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.
- Disable any Internet security software running on the computer. Software firewalls such as Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, and Windows® XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

- Configure your Internet settings:
 - Go to **Start > Settings > Control Panel**. Double-click the **Internet Options** icon. From the **Security** tab, click the button to restore the settings to their defaults.
 - Click the **Connection** tab and set the dial-up option to Never Dial a Connection. Click the LAN Settings button. Make sure nothing is checked. Click **OK**.
 - Go to the **Advanced** tab and click the button to restore these settings to their defaults. Click **OK** three times.
 - Close your web browser (if open) and open it.
- Access the web management. Open your web browser and enter the IP address of your D-Link router in the address bar. This should open the login page for your web management.
- If you still cannot access the configuration, unplug the power to the router for 10 seconds and plug back in. Wait about 30 seconds and try accessing the configuration. If you have multiple computers, try connecting using a different computer.

2. What can I do if I forgot my password?

If you forgot your password, you must reset your router. Unfortunately this process will change all your settings back to the factory defaults.

To reset the router, locate the reset button (hole) on the bottom of the unit. With the router powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the router will go through its reboot process. Wait about 30 seconds to access the router. To re-configure the router, refer to [“Configuration” on page 13](#).



3. Why can't I connect to certain sites or send and receive e-mails when connecting through my router?

If you are having a problem sending or receiving e-mail, or connecting to secure sites such as eBay, banking sites, and Hotmail, we suggest lowering the MTU in increments of ten (Ex. 1492, 1482, 1472, etc).

To find the proper MTU Size, you'll have to do a special ping of the destination you're trying to go to. A destination could be another computer, or a URL.

- Click on **Start** and then click **Run**.
- Windows® 95, 98, and Me users type in **command** (Windows® NT, 2000, XP, Vista®, and 7 users type in **cmd**) and press **Enter** (or click **OK**).
- Once the window opens, you'll need to do a special ping. Use the following syntax:

ping [url] [-f] [-l] [MTU value]

Example: **ping yahoo.com -f -l 1472**

```
C:\>ping yahoo.com -f -l 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping yahoo.com -f -l 1472
Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:
Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=125ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=203ms TTL=52
Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 93ms, Maximum = 203ms, Average = 132ms
C:\>
```

You should start at 1472 and work your way down by 10 each time. Once you get a reply, go up by 2 until you get a fragmented packet. Take that value and add 28 to the value to account for the various TCP/IP headers. For example, let's say that 1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with (1452+28=1480).

Once you find your MTU, you can now configure your router with the proper MTU size.

To change the MTU rate on your router follow the steps below:

- Open your browser, enter the IP address of your router (192.168.0.1) and click **OK**.
- Enter your username (admin) and password (blank by default). Click **OK** to enter the web configuration page for the device.
- Click on **Setup** and then click **Manual Configure**.
- To change the MTU enter the number in the MTU field and click **Save Settings** to save your settings.
- Test your e-mail. If changing the MTU does not resolve the problem, continue changing the MTU in increments of ten.

Wireless Basics

D-Link wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks. Strictly adhering to the IEEE standard, the D-Link wireless family of products will allow you to securely access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking delivers.

A wireless local area network (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards.

Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless Router is a device used to provide this link.

What is Wireless?

Wireless or Wi-Fi technology is another way of connecting your computer to the network without using wires. Wi-Fi uses radio frequency to connect wirelessly, so you have the freedom to connect computers anywhere in your home or office network.

Why D-Link Wireless?

D-Link is the worldwide leader and award winning designer, developer, and manufacturer of networking products. D-Link delivers the performance you need at a price you can afford. D-Link has all the products you need to build your network.

How does wireless work?

Wireless works similar to how cordless phones work, through radio signals to transmit data from one point A to point B. But wireless technology has restrictions as to how you can access the network. You must be within the wireless network range area to be able to connect your computer. There are two different types of wireless networks Wireless Local Area Network (WLAN), and Wireless Personal Area Network (WPAN).

Wireless Local Area Network (WLAN)

In a wireless local area network, a device called an Access Point (AP) connects computers to the network. The access point has a small antenna attached to it, which allows it to transmit data back and forth over radio signals. With an indoor access point, the signal can travel up to 300 feet. With an outdoor access point the signal can reach out up to 30 miles to serve places like manufacturing plants, industrial locations, college and high school campuses, airports, golf courses, and many other outdoor venues.

Wireless Personal Area Network (WPAN)

Bluetooth is the industry standard wireless technology used for WPAN. Bluetooth devices in WPAN operate in a range up to 30 feet away.

Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

Who uses wireless?

Wireless technology has become so popular in recent years that almost everyone is using it, whether it's for home, office, business, D-Link has a wireless solution for it.

Home

- Gives everyone at home broadband access
- Surf the web, check email, instant message, etc.
- Gets rid of the cables around the house
- Simple and easy to use

Small Office and Home Office

- Stay on top of everything at home as you would at office
- Remotely access your office network from home
- Share Internet connection and printer with multiple computers
- No need to dedicate office space

Where is wireless used?

Wireless technology is expanding everywhere not just at home or office. People like the freedom of mobility and it's becoming so popular that more and more public facilities now provide wireless access to attract people. The wireless connection in public places is usually called "hotspots".

Using a D-Link Cardbus Adapter with your laptop, you can access the hotspot to connect to Internet from remote locations like: Airports, Hotels, Coffee Shops, Libraries, Restaurants, and Convention Centers.

Wireless network is easy to setup, but if you're installing it for the first time it could be quite a task not knowing where to start. That's why we've put together a few setup steps and tips to help you through the process of setting up a wireless network.

Tips

Here are a few things to keep in mind, when you install a wireless network.

Centralize your router or Access Point

Make sure you place the router/access point in a centralized location within your network for the best performance. Try to place the router/access point as high as possible in the room, so the signal gets dispersed throughout your home. If you have a two-story home, you may need a repeater to boost the signal to extend the range.

Eliminate Interference

Place home appliances such as cordless telephones, microwaves, and televisions as far away as possible from the router/access point. This would significantly reduce any interference that the appliances might cause since they operate on same frequency.

Security

Don't let your next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA or WEP security feature on the router. Refer to product manual for detail information on how to set it up.

Wireless Modes

There are basically two modes of networking:

- **Infrastructure** – All wireless clients will connect to an access point or wireless router.
- **Ad-Hoc** – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more DIR-817LW wireless network Cardbus adapters.

An Infrastructure network contains an Access Point or wireless router. All the wireless devices, or clients, will connect to the wireless router or access point.

An Ad-Hoc network contains only clients, such as laptops with wireless cardbus adapters. All the adapters must be in Ad-Hoc mode to communicate.

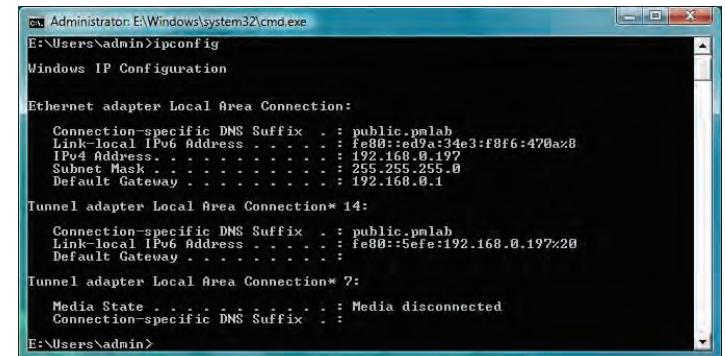
Networking Basics

Check your IP address

After you install your new D-Link wireless adapter and have established a wireless connection, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e., router) automatically. To verify your IP address, please follow the steps below.

Windows® 8 Users

- Press the **Windows key** and **R** together. Type **cmd** in the box and click **OK**.
- At the prompt, type **ipconfig** and press **Enter**.
- This will display the IP address, subnet mask, and default gateway of your adapter.



```
Administrator: E:\Windows\system32\cmd.exe
E:\Users\Admin>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : public.pmlab
    Link-local IPv6 Address . . . . . : fe80::ed9a:34e3:f8f6:470a%8
    IPv4 Address. . . . . : 192.168.0.197
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.1

Tunnel adapter Local Area Connection* 14:

    Connection-specific DNS Suffix  . : public.pmlab
    Link-local IPv6 Address . . . . . : fe80::5efe:192.168.0.197%20
    Default Gateway . . . . . :

Tunnel adapter Local Area Connection* 7:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

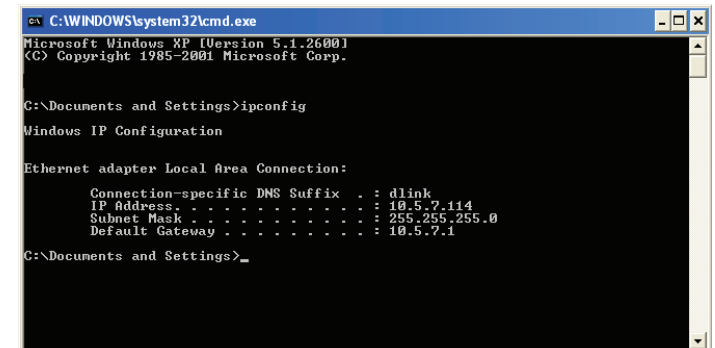
E:\Users\Admin>
```

Windows® 7/Vista® Users

- Click **Start**, type **cmd** in the search box and then click **OK**.
- At the prompt, type **ipconfig** and press **Enter**.
- This will display the IP address, subnet mask, and default gateway of your adapter.

Windows® XP Users

- Click on **Start > Run**. In the run box type **cmd** and click **OK**.
- At the prompt, type **ipconfig** and press **Enter**.
- This will display the IP address, subnet mask, and the default gateway of your adapter.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : dlink
    IP Address. . . . . : 10.5.7.114
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.5.7.1

C:\Documents and Settings>_
```

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.

Statically Assign an IP Address

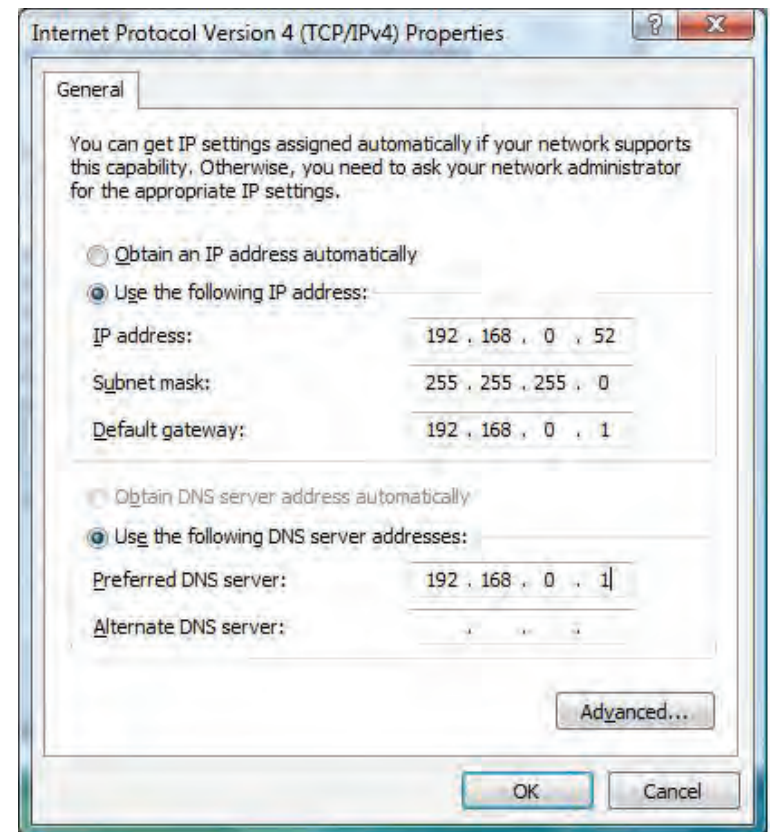
If you are not using a DHCP capable gateway/router, or you need to assign a static IP address, please follow the steps below:

Windows® 8 Users

- Press the **Windows** key and then type **IP**. Click **Settings** on the right side and then click **View Network Connections**.
- Right-click on the adapter which represents your D-Link wireless network adapter.
- Highlight **Internet Protocol Version 4 (TCP /IPv4)** and click **Properties**.
- Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or LAN IP address on your router or network.

Example: If the router's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network.

- Set **Default Gateway** the same as the LAN IP address of your router or gateway.
- Set **Primary DNS** the same as the LAN IP address of your router or gateway.
- The **Secondary DNS** is optional (you may enter a DNS server from your ISP).
- Click **OK** to save your settings.



Windows® 7/ Vista® Users

- Click on **Start > Control Panel** (make sure you are in Classic View). Double-click on the **Network and Sharing Center** icon. If you are using Windows Vista, click on **Manage network connections** along the left panel in the window. For Windows® 7, click on **Change adapter settings**.

- Right-click on the **Local Area Connection** which represents your D-Link wireless network adapter which will be connected to your network.

- Highlight **Internet Protocol Version 4 (TCP /IPv4)** and click **Properties**.

- Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or LAN IP address on your router or network.

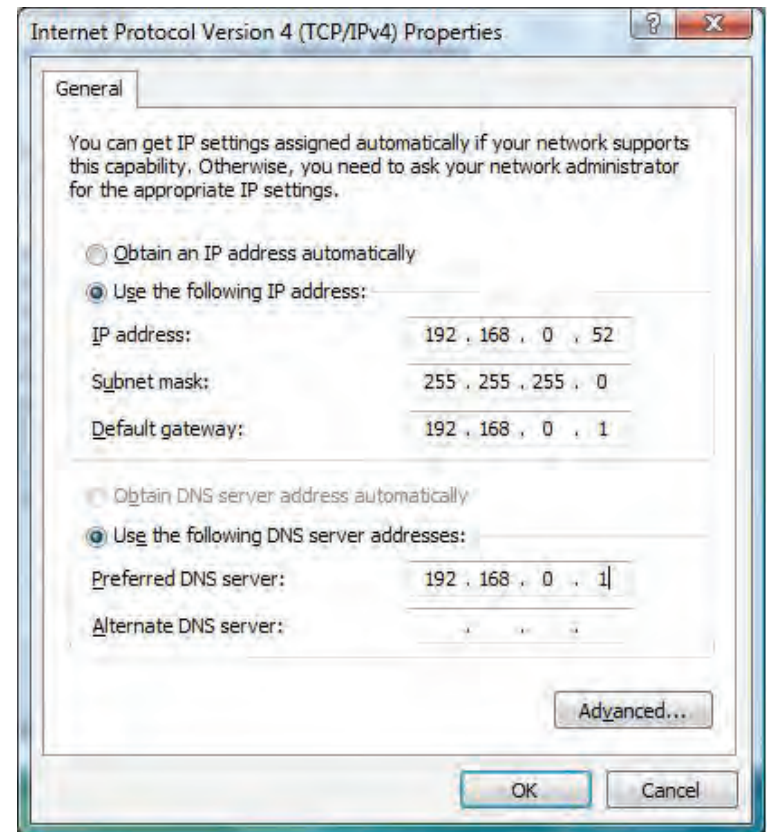
Example: If the router's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network.

- Set **Default Gateway** the same as the LAN IP address of your router or gateway.

- Set **Primary DNS** the same as the LAN IP address of your router or gateway.

- The **Secondary DNS** is optional (you may enter a DNS server from your ISP).

- Click **OK** to save your settings.

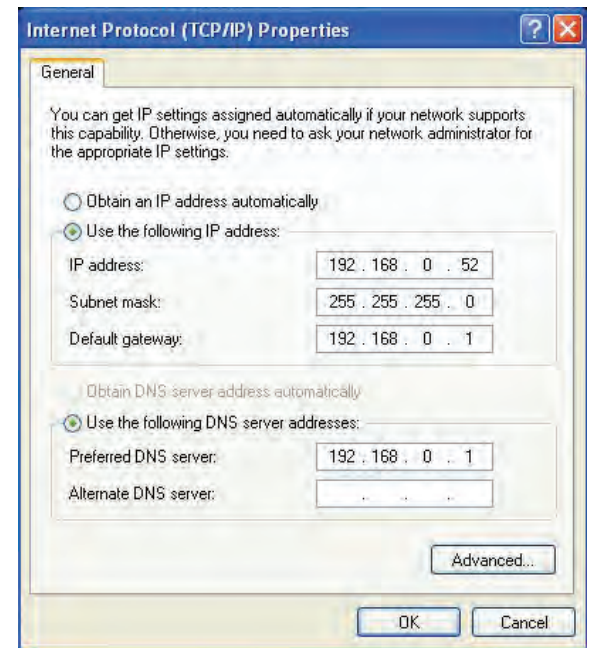


Windows® XP Users

- Click on **Start > Control Panel**. Make sure you are in Classic View. Double-click on the Network Connections icon.
- Right-click on the **Local Area Connection** which represents your D-Link wireless network adapter (or other adapter) which will be connected to your router.
- Highlight **Internet Protocol (TCP/IP)** and click **Properties**.
- Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or LAN IP address on your router.

Example: If the router's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network.

- Set **Default Gateway** the same as the LAN IP address of your router or gateway.
- Set **Primary DNS** as the LAN IP address of your router or gateway.
- The **Secondary DNS** is optional (you may enter a DNS server from your ISP).
- Click **OK** to save your settings.



Technical Specifications

Standards

- IEEE 802.11ac (draft)
- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.11a

Physical Interface

- Four 10/100 Fast Ethernet LAN Ports
- 10/100 Fast Ethernet WAN Port
- 1 WPS Push Button
- Reset Button

Security

- Wi-Fi Protected Access (WPA/WPA2)
- WPS™

LEDs

- Power/WPS
- Internet

Power

- DC 12V/1.0A

Operating Temperature

- 32° to 104° F (0° to 40° C)

Operating Humidity

- 10% to 90% non-condensing

Certifications

- CE
- FCC
- IC
- C-Tick
- CSA international

Dimensions

- 5.97" x 4.41" x 1.2" (151.6mm x 112mm x 30.5mm)

Weight

- 0.45 lb (204 g)

Warranty

- 1-Year Limited Warranty

¹ Maximum wireless signal rate derived from IEEE Standard 802.11ac (draft), 802.11a, 802.11g, and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.

² Frequency Range varies depending on country's regulation

Contacting Technical Support

U.S. and Canadian customers can contact D-Link technical support through our web site or by phone.

Before you contact technical support, please have the following ready:

- Model number of the product (e.g. DIR-817LW)
- Hardware Revision (located on the label on the bottom of the router (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the router).

You can find software updates and user documentation on the D-Link website as well as frequently asked questions and answers to technical issues.

For customers within the United States:

Phone Support:

(877) 453-5465

Internet Support:

<http://support.dlink.com>

For customers within Canada:

Phone Support:

(800) 361-5265

Internet Support:

<http://support.dlink.ca>

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Please direct all inquiries to:
Email: GPLCODE@DLink.com
Snail Mail:
Attn: GPLSOURCE REQUEST
D-Link Systems, Inc.
17595 Mt. Herrmann Street
Fountain Valley, CA 92708

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1. Source Code.

The “source code” for a work means the preferred form of the work for making modifications to it. “Object code” means any non-source form of a work.

A “Standard Interface” means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The “System Libraries” of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A “Major Component”, in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The “Corresponding Source” for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work’s System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

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5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

- a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
- b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".
- c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.
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A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an “aggregate” if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation’s users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

- a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
- b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
- e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A “User Product” is either (1) a “consumer product”, which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, “normally used” refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

“Installation Information” for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

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“Additional permissions” are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

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17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

Warranty

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. (“D-Link”) provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

Limited Warranty:

D-Link warrants that the hardware portion of the D-Link product described below (“Hardware”) will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below (“Warranty Period”), except as otherwise stated herein.

- Hardware (excluding power supplies and fans): One (1) year
- Power supplies and fans: One (1) year
- Spare parts and spare kits: Ninety (90) days

The customer’s sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link’s option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty:

D-Link warrants that the software portion of the product (“Software”) will substantially conform to D-Link’s then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days (“Software Warranty Period”), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer’s sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link’s option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link’s functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

Non-Applicability of Warranty:

The Limited Warranty provided hereunder for Hardware and Software portions of D-Link’s products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold “As-Is” without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim (USA):

The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow DLink to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization (“RMA”) number by completing the RMA form and entering the assigned Case ID Number at <https://rma.dlink.com/>.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package

to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.

- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery (“COD”) is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link’s reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

Submitting A Claim (Canada):

The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- Customers need to provide their receipt (proof of purchase) even if the product is registered. Without a receipt, no warranty service will be done. The registration is not considered a proof of purchase.
- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-800-361-5265, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization (“RMA”) number by completing the RMA form and entering the assigned Case ID Number at <https://rma.dlink.ca/>.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery (“COD”) is allowed. Products sent COD will

be rejected by D-Link. Products shall be fully insured by the customer and shipped to D-Link Networks, Inc., 2525 Meadowvale Boulevard Mississauga, Ontario, L5N 5S2 Canada. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via Purolator Canada or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in Canada, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

- RMA phone number: 1-800-361-5265 Hours of Operation: Monday-Friday, 9:00AM – 9:00PM EST

What Is Not Covered:

The Limited Warranty provided herein by D-Link does not cover:

Products that, in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; and Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product.

While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited Warranty.

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EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.

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Governing Law:

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CE Mark Warning:

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are

designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

**IMPORTANT NOTICE:
FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only. This device and its antennas(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

ICC Notice:

Operation is subject to the following two conditions:

- 1) This device may not cause interference and
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

IMPORTANT NOTE:

IC Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This device and its antennas(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with IC multi-transmitter product procedures.

- (i) The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems;
- (ii) The maximum antenna gain (3.3dBi) permitted (for devices in the band 5725-5825 MHz) to comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate, as stated in section A9.2(3).

Règlement d'Industry Canada

Les conditions de fonctionnement sont sujettes à deux conditions:

- (1) Ce périphérique ne doit pas causer d'interférence et.
- (2) Ce périphérique doit accepter toute interférence, y compris les interférences pouvant perturber le bon fonctionnement de ce périphérique.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.

Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionnement en association avec une autre antenne ou transmetteur.

les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Registration

Register your product online at registration.dlink.com



Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.

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