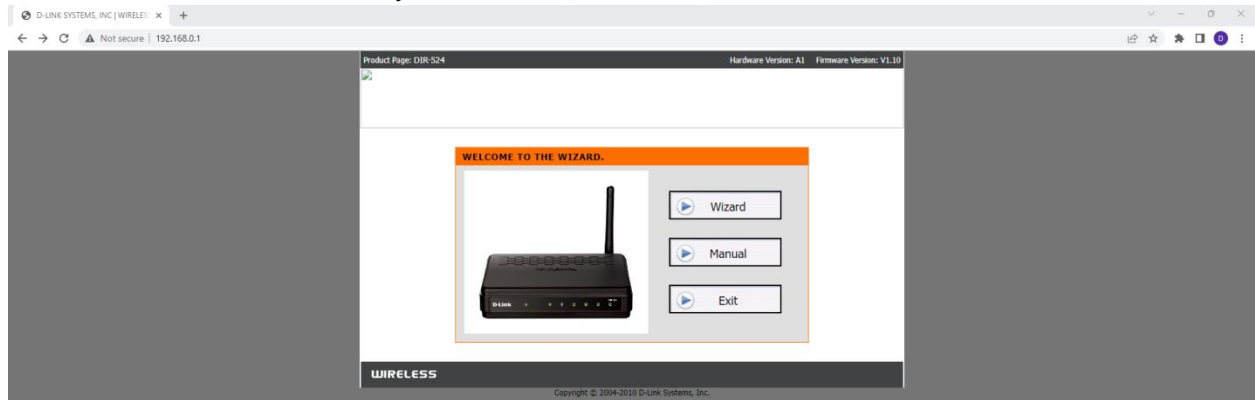


Experiment 6: Implement Wi-Fi security (WPA2, IP based, MAC Based)

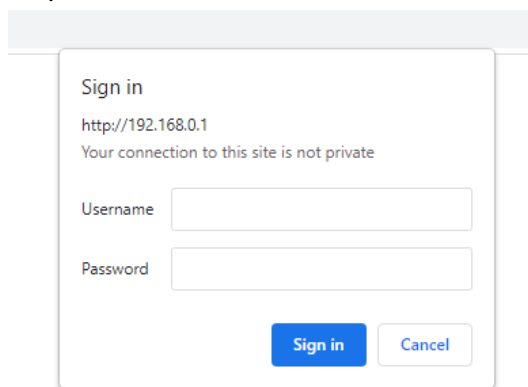
Step1: Switch On the D-Link Router.

Step2: Open a browser and search for dlinkrouter.local

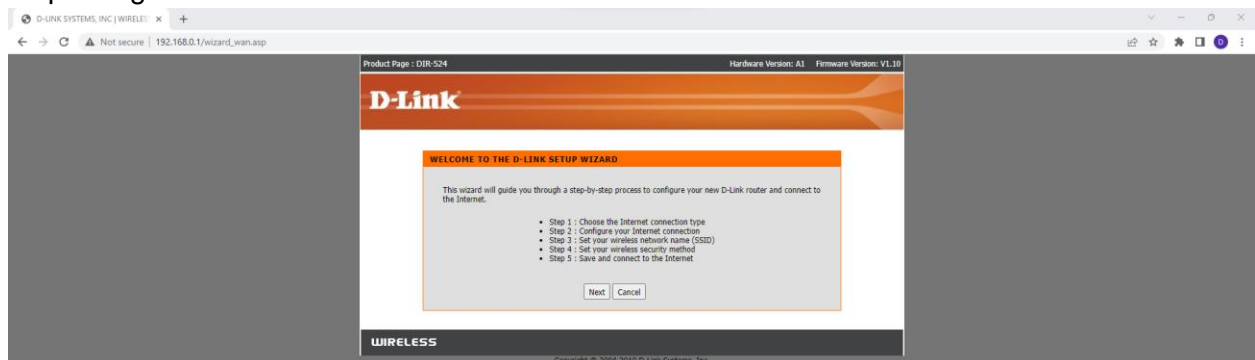
Run IP address of router in any of the browser



Step3: click Wizard



Step4: Login with the credentials which are available on the router



Step 5: click Next

Product Page : DIR-524 Hardware Version: A1 Firmware Version: V1.10

D-Link

1 Connection Type 2 Set Connection 3 Set SSID 4 Set Security 5 Save Settings

CHOOSE YOUR INTERNET CONNECTION TYPE

If your Internet Service Provider was not listed or you don't know who it is, please select the Internet connection type below:

☒ **Static IP Address Connection**
Choose this option if your Internet service provider (ISP) provided you with IP Address information that has to be manually configured.

☐ **DHCP Connection (Dynamic IP Address)**
Choose this option if your Internet connection automatically provides you with an IP Address. Most cable modems use this type of connection.

☐ **Username / Password Connection (PPPoE)**
Choose this option if your Internet connection requires a username and password to get online. Most DSL modems use this type of connection.

Next Cancel

WIRELESS

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Click Next and Enter IP address provided by service provider

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1 Connection Type 2 Set Connection 3 Set SSID 4 Set Security 5 Save Settings

STATIC IP ADDRESS CONNECTION

Please enter the following information to set up your Static IP connection. This information should be provided by your Internet Service Provider (ISP). If you do not have this information, please contact your ISP.

IP Address : 172 . 16 . 225 . 15

Subnet Mask : 255 . 255 . 255 . 0

ISP Gateway Address : 172 . 16 . 225 . 254

Primary DNS Address : 172 . 16 . 22 . 254

Secondary DNS Address : . . . (Optional)

Prev Next Cancel

WIRELESS

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Click Next and enter the name of the wireless network

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1 Connection Type 2 Set Connection 3 Set SSID 4 Set Security 5 Save Settings

WIRELESS NETWORK NAME (SSID)

Wireless Network Name (SSID)

SSID :

Prev Next Cancel

WIRELESS

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Click Next and set the security mode

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1 Connection Type 2 Set Connection 3 Set SSID 4 Set Security 5 Save Settings

WIRELESS SECURITY MODE

To prevent un from accessing your network, the router will automatically assign a security (WEP or WPA or WPA2) to your network.

Security Mode :

Prev Next Cancel

WIRELESS

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Step 6: click Next → save → continue

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SAVE

The Internet Connection Setup Wizard is completed and the router is connecting to Internet now, please click the Continue button to back to the setting web.

Continue

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Step 7: click continue

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DIR-524	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
<p>INTERNET</p> <p>WIRELESS SETTINGS</p> <p>NETWORK SETTINGS</p>	<p>INTERNET CONNECTION :</p> <p>Use this section to configure your Internet connection. There are several connection types to choose from: Static IP, DHCP, PPPoE. If you are unsure of your connection method, please contact your Internet Service Provider.</p> <p>Note: If you select the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.</p> <p>Save Settings Don't Save Settings</p> <p>INTERNET CONNECTION SETUP WIZARD :</p> <p>The Internet Connection Setup Wizard will walk you through setting up your Internet connection and setting up a wireless network.</p> <p>Internet Connection Setup Wizard</p> <p>Note: Before launching the wizard, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.</p> <p>MANUAL INTERNET CONNECTION OPTIONS :</p> <p>To manually configure your Internet connection settings, select your connection type from the box below.</p> <p>Internet Connection Type : Static IP</p> <p>STATIC IP ADDRESS INTERNET CONNECTION TYPE :</p> <p>Enter the static IP address information provided by your Internet Service Provider (ISP).</p> <p>IP Address : 172 . 16 . 225 . 15 (assigned by your ISP)</p> <p>Subnet Mask : 255 . 255 . 255 . 0</p> <p>ISP Gateway Address : 172 . 16 . 225 . 254</p> <p>MAC Address : 1C . 7E . E5 . 58 . 53 . F3 (optional)</p> <p>Clone MAC Address Restore MAC Address</p> <p>Primary DNS Address : 172 . 16 . 22 . 254</p> <p>Secondary DNS Address : . . . (optional)</p> <p>MTU Auto : Manual</p> <p>MTU : 1500 (576-1500)</p>	<p>Helpful Hints...</p> <p>When configuring the router to access the Internet for the first time, be sure to choose the correct Internet Connection Type from the drop down menu. If you are unsure of which option to choose, please contact your Internet Service Provider (ISP).</p>			

Step 8: In manual internet connection setup wizard

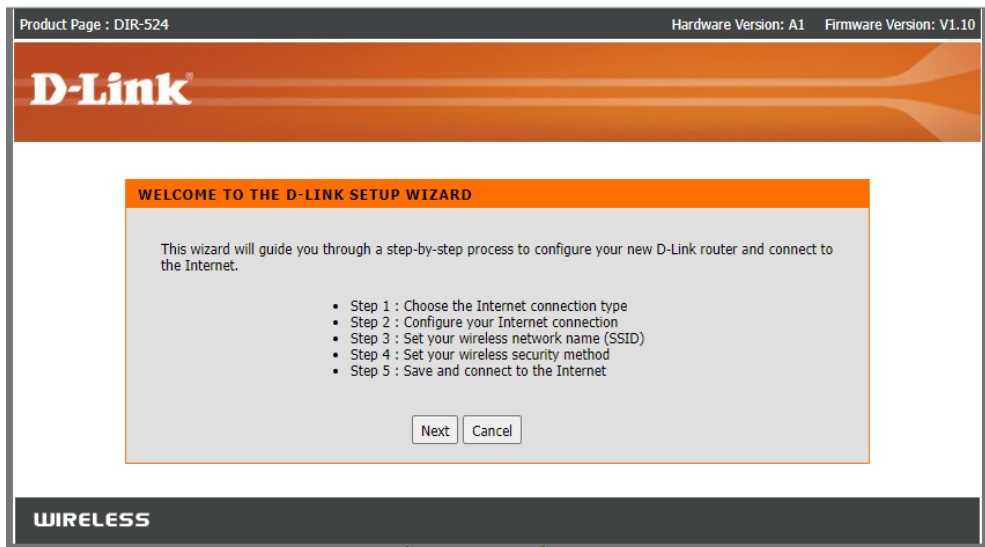
INTERNET CONNECTION SETUP WIZARD :

The Internet Connection Setup Wizard will walk you through setting up your Internet connection and setting up a wireless network.

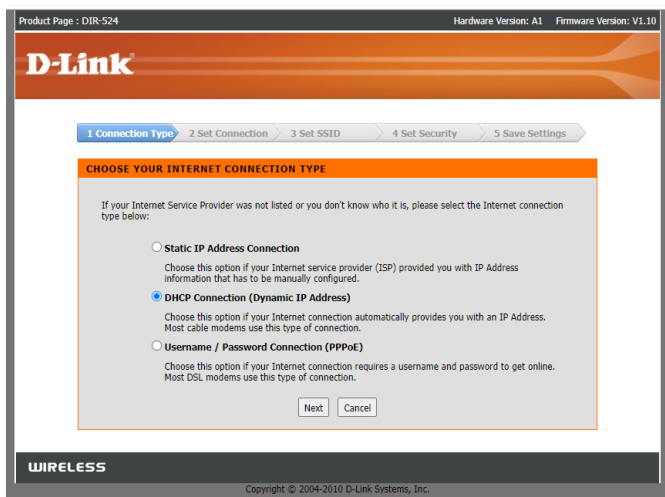
Internet Connection Setup Wizard

Note: Before launching the wizard, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.

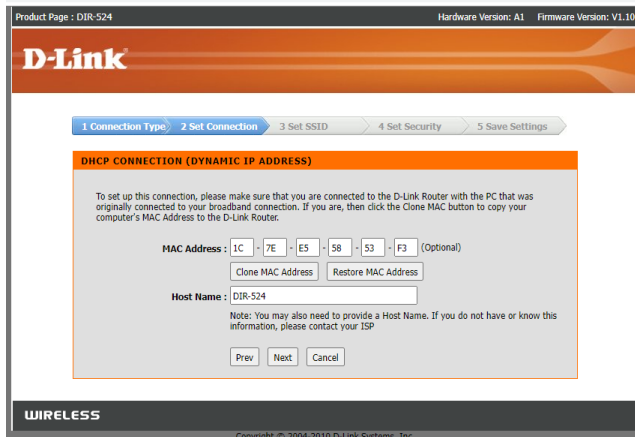
Step 9:



Click next



Click Next



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D-Link

1 Connection Type 2 Set Connection 3 Set SSID 4 Set Security 5 Save Settings

DHCP CONNECTION (DYNAMIC IP ADDRESS)

To set up this connection, please make sure that you are connected to the D-Link Router with the PC that was originally connected to your broadband connection. If you are, then click the Clone MAC button to copy your computer's MAC Address to the D-Link Router.

MAC Address: 1C - 7E - E5 - 58 - 53 - F3 (Optional)
Clone MAC Address Restore MAC Address

Host Name: DIR-524

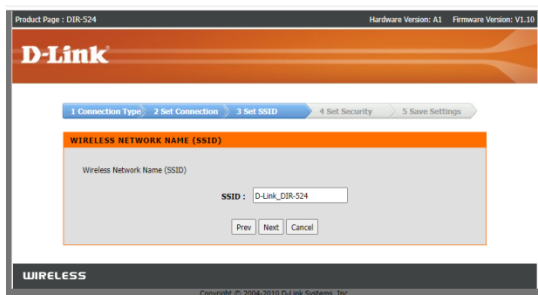
Note: You may also need to provide a Host Name. If you do not have or know this information, please contact your ISP

Prev Next Cancel

WIRELESS

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Click Next



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D-Link

1 Connection Type 2 Set Connection 3 Set SSID 4 Set Security 5 Save Settings

WIRELESS NETWORK NAME (SSID)

Wireless Network Name (SSID)

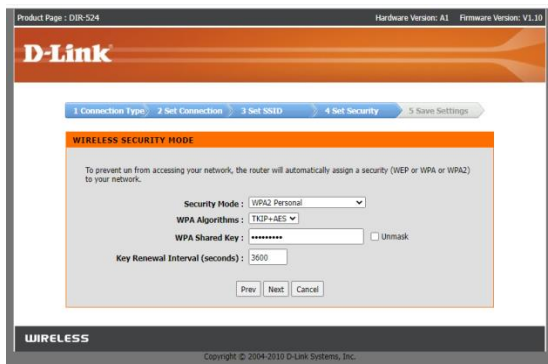
SSID: D-Link_DIR-524

Prev Next Cancel

WIRELESS

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Click Next



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D-Link

1 Connection Type 2 Set Connection 3 Set SSID 4 Set Security 5 Save Settings

WIRELESS SECURITY MODE

To prevent un from accessing your network, the router will automatically assign a security (WEP or WPA or WPA2) to your network.

Security Mode: WPA2 Personal

WPA Algorithms: TKIP+AES

WPA Shared Key: Unmask

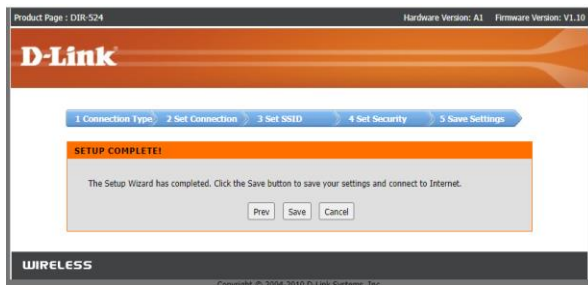
Key Renewal Interval (seconds): 3600

Prev Next Cancel

WIRELESS

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Click Next



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D-Link

1 Connection Type 2 Set Connection 3 Set SSID 4 Set Security 5 Save Settings

SETUP COMPLETE!

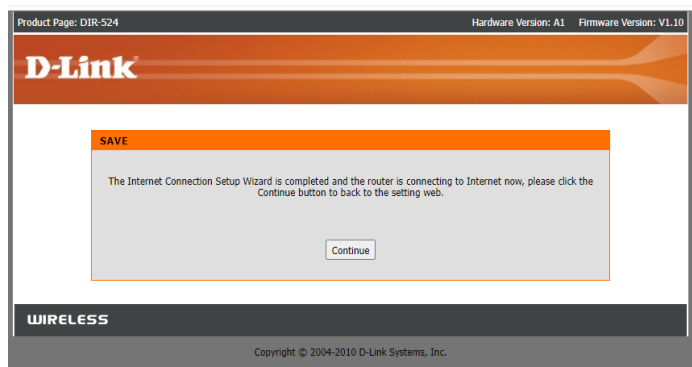
The Setup Wizard has completed. Click the Save button to save your settings and connect to Internet.

Prev Save Cancel

WIRELESS

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Click Continue



Product Page : DIR-524 Hardware Version: A1 Firmware Version: V1.10

D-Link

DIR-524 // **SETUP** **ADVANCED** **TOOLS** **STATUS** **SUPPORT**

INTERNET
WIRELESS SETTINGS
NETWORK SETTINGS

WIRELESS BASIC SETTINGS :

Use this section to configure the wireless settings for your D-Link Router. Please note that changes made in this section may also require you to change settings on your wireless clients. To secure your wireless network, you should enable wireless encryption. This device supports three types of wireless encryption: WEP, WPA(Personal), and WPA2(Personal).

Save Settings Don't Save Settings

WIRELESS BASIC SETTINGS :

Wireless Mode : Wireless Router
 Enable Wireless : Enabled
 Wireless Network Name(SSID) : D-Link_DIR-524
 Region : India
 Channel : 1
 802.11 n-mode : Auto
 Bandwidth : 20 MHz in Both Bands
 Extension Channel (40Mhz only) : None
 NPHY Rate : Auto
 SSID Broadcast : ☒ On ☐ Off
 AP Isolation : ☐ On ☒ Off
 Advertise WMM : Enabled
 Multicast Forwarding : ☐ On ☒ Off

WIRELESS SECURITY MODE :

Security Mode : WPA2 Personal

WPA2 PERSONAL :

WPA2 is a newer implementation of the stronger IEEE 802.11i security standard, and is the recommended form of wireless encryption. In this mode, the router will only connect to wireless clients that also support WPA2 security.

Cipher Type : TKIP+AES
 Pre-Shared Key : ☐ Unmask
 Verify Pre-Shared Key :
 Network Key Rotation Interval : 3600 (seconds)

Helpful Hints...

Wireless Mode
 This wireless router can be operated in Wireless Router mode or Access Point (AP) mode. In Wireless Router mode, the WAN port connects to the Internet, and the wireless and LAN connections will be in the same network. In Access Point mode, wireless, WAN, and LAN connections will all be in the same network.

Wireless Network Name(SSID)
 Changing your Wireless Network Name (SSID) is the first step in securing your wireless network. Change it to something you can remember, but does not contain any personal information.

SSID Broadcast
 SSID Broadcast allows wireless clients to see your wireless network when scanning for networks. Disabling SSID Broadcast can help make your network more secure by hiding it from scans for wireless networks. If you disable SSID Broadcast, you will need to manually enter the Wireless Network Name (SSID) for each wireless device you want to connect.

WDS Settings
 Wireless Distribution System (WDS) allows you to connect to other Access Points (APs) to wirelessly create a large network. WDS supports WEP, WPA, and WPA2 encryption. To use WDS, you must enable WDS, set all of your APs to use the same channel, and set all of your APs to use the same security mode.

WDS :

Wireless Distribution System (WDS) allows you to connect to other Access Points (APs) to wirelessly create a large network. To do this, you must enable WDS, set all of your APs to use the same channel, and then enter the MAC addresses of the other APs you want to connect to.

	Status
WDS MAC1 : 1C - 7E - E5 - 58 - 53 - F3	N/A
WDS MAC2 : <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/>	N/A
Bridge Restriction : <input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	
Bridge Link Detection Interval : <input type="text" value="1"/> (seconds)	

VIVA Questions

1. Define Wi Fi?

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2. What is WPA?

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3. What is MAC?

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4. What is an IP based WiFi Security?

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5. What is a Router?

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