D-Link®

DIR-820
AC1200 Wave 2 MU-MIMO Wi-Fi Router

BEFORE YOU BEGIN

Delivery Package

- Router DIR-820
- Power adapter DC 12V/0.5A
- Ethernet cable
- "*Quick Installation Guide*" (brochure).

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

The "*User Manual*" and "*Quick Installation Guide*" documents are available on D-Link website (see www.dlink.ru).

> **!** **Using a power supply with a different voltage rating than the one included will cause damage and void the warranty for this product.**

Default Settings

Domain name of device		`dlinkrouter.local.`
IP address of device		`192.168.0.1`
Username (login)		`admin`
Password		`admin`
Name of wireless network (SSID)	**2.4GHz**	`DIR-820`
	5GHz	`DIR-820-5G`
Network key (PSK password)		see WPS PIN on the barcode label on the bottom panel of the device

! Router DIR-820 with default settings cannot connect to the Internet. To get started, please set your own password for access to the web-based interface and change the WLAN name (SSID); then, if needed, configure other settings recommended by your ISP.

System Requirements and Equipment

- An Android or iPhone mobile device (smartphone or tablet) or a computer with any operating system that supports a web browser.
- A PC web browser to access the web-based interface:
    - ○ Apple Safari 8 and later
    - ○ Google Chrome 48 and later
    - ○ Microsoft Internet Explorer 10 and later
    - ○ Microsoft Edge 20.10240 and later
    - ○ Mozilla Firefox 44 and later
    - ○ Opera 35 and later.
- A NIC (Ethernet or Wi-Fi adapter) to connect to the router.
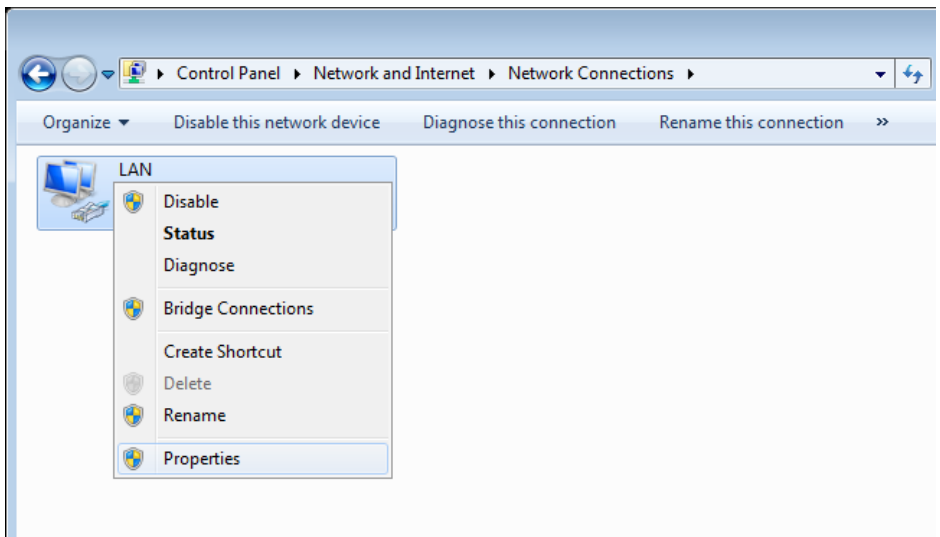- An 802.11a, b, g, n, or ac Wi-Fi adapter to create a wireless network.

CONNECTING TO PC

PC with Ethernet Adapter

1. Connect an Ethernet cable between any of LAN ports located on the back panel of the router and the Ethernet port of your PC.

2. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.

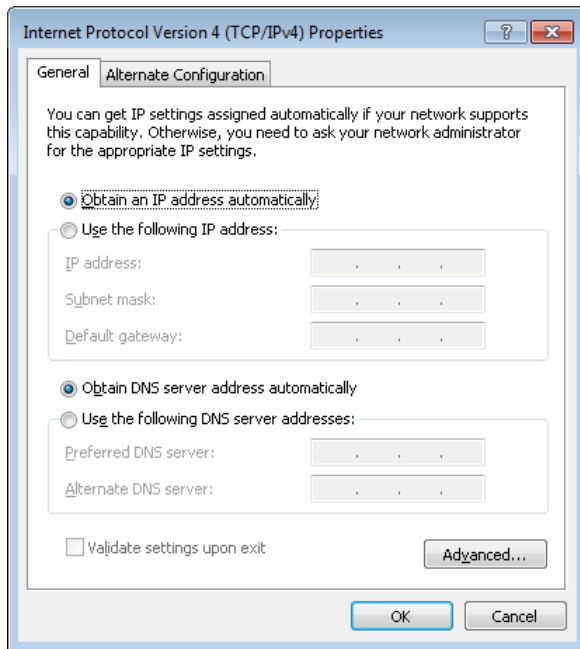Then make sure that your PC is configured to obtain an IP address automatically (as DHCP client).

Obtaining IP Address Automatically (OS Windows 7)

1. Click the **Start** button and proceed to the **Control Panel** window.

2. Select the **Network and Sharing Center** section. (If the Control Panel has the category view (the **Category** value is selected from the **View by** drop-down list in the top right corner of the window), choose the **View network status and tasks** line under the **Network and Internet** section.)

3. In the menu located on the left part of the window, select the **Change adapter settings** line.

4. In the opened window, right-click the relevant **Local Area Connection** icon and select the **Properties** line in the menu displayed.

5. In the **Local Area Connection Properties** window, on the **Networking** tab, select the **Internet Protocol Version 4 (TCP/IPv4)** line. Click the **Properties** button.
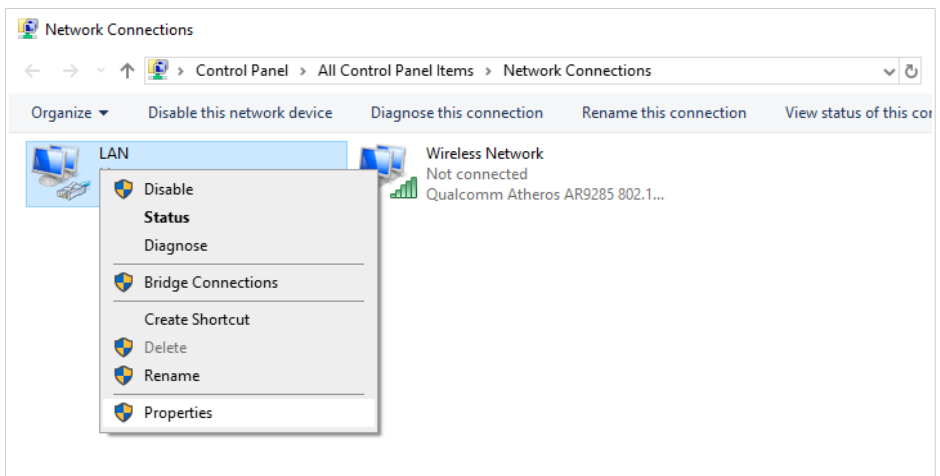
6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.

7. Click the **OK** button in the connection properties window.

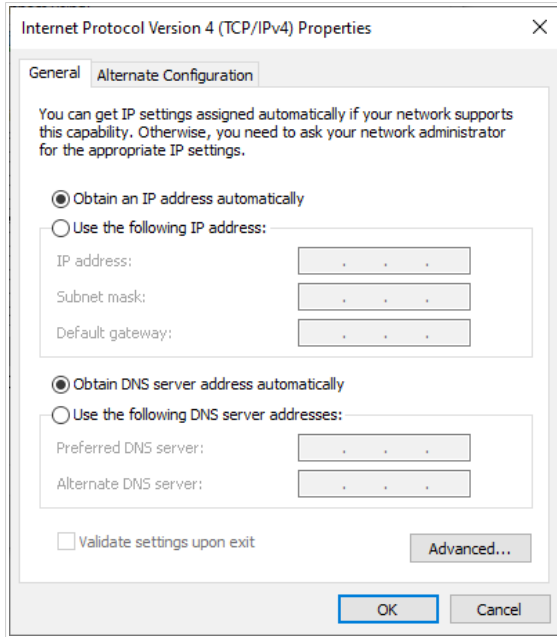# *Obtaining IP Address Automatically (OS Windows 10)*

1. Click the **Start** button and proceed to the **Settings** window.

2. Select the **Network & Internet** section.

3. In the **Change your network settings** section, select the **Change adapter options** line.

4. In the opened window, right-click the relevant **Local Area Connection** icon and select the **Properties** line in the menu displayed.

5. In the **Local Area Connection Properties** window, on the **Networking** tab, select the **Internet Protocol Version 4 (TCP/IPv4)** line. Click the **Properties** button.

6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.

7. Click the **Close** button in the connection properties window.
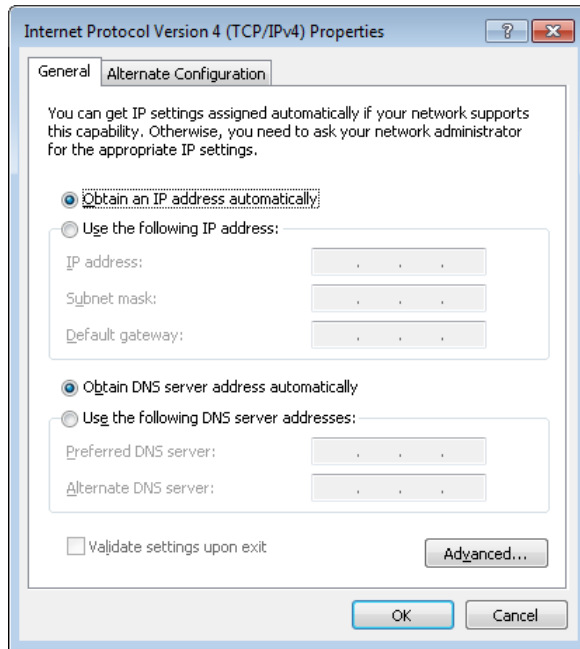
PC with Wi-Fi Adapter

1. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.

2. Make sure that the Wi-Fi adapter of your PC is on. As a rule, modern notebooks with built-in wireless NICs are equipped with a button or switch that turns on/off the wireless adapter (refer to your PC documents). If your PC is equipped with a pluggable wireless NIC, install the software provided with your Wi-Fi adapter.

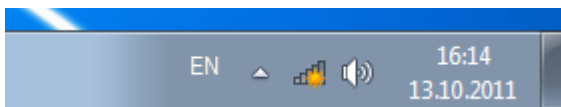Then make sure that your Wi-Fi adapter is configured to obtain an IP address automatically (as DHCP client).

Obtaining IP Address Automatically and Connecting to Wireless Network (OS Windows 7)

1. Click the **Start** button and proceed to the **Control Panel** window.

2. Select the **Network and Sharing Center** section. (If the Control Panel has the category view (the **Category** value is selected from the **View by** drop-down list in the top right corner of the window), choose the **View network status and tasks** line under the **Network and Internet** section.)

3. In the menu located on the left part of the window, select the **Change adapter settings** line.

4. In the opened window, right-click the relevant **Wireless Network Connection** icon. Make sure that your Wi-Fi adapter is on, then select the **Properties** line in the menu displayed.

5. In the **Wireless Network Connection Properties** window, on the **Networking** tab, select the **Internet Protocol Version 4 (TCP/IPv4)** line. Click the **Properties** button.
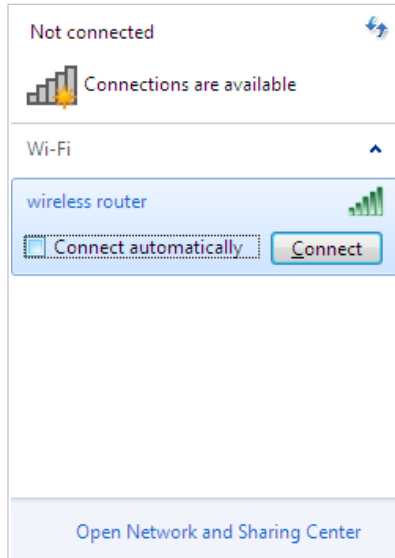
6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.

7. Click the **OK** button in the connection properties window.

8. To open the list of available wireless networks, select the icon of the wireless network connection and click the **Connect To** button or left-click the network icon in the notification area located on the right side of the taskbar.

9. In the opened window, in the list of available wireless networks, select the wireless network **DIR-820** (for operating in the 2.4GHz band) or **DIR-820-5G** (for operating in the 5GHz band) and click the **Connect** button.
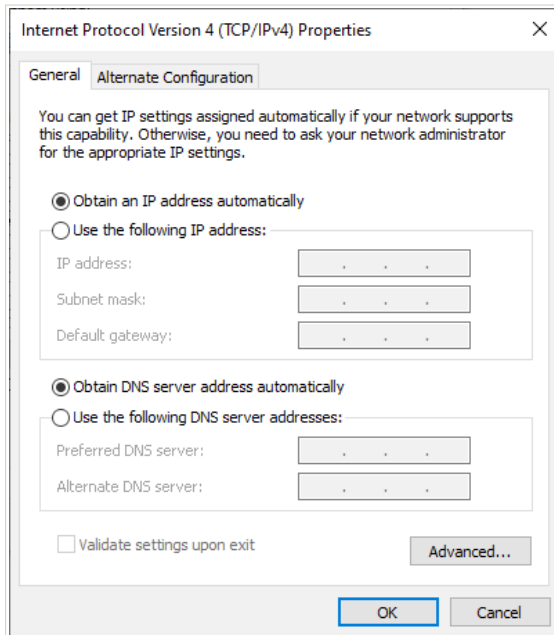

10. In the opened window, enter the network key (see WPS PIN on the barcode label on the bottom panel of the device) in the **Security key** field and click the **OK** button.

11. Wait for about 20-30 seconds. After the connection is established, the network icon will be displayed as the signal level scale.

> If you perform initial configuration of the router via Wi-Fi connection, note that immediately after changing the wireless default settings of the router you will need to reconfigure the wireless connection using the newly specified settings.
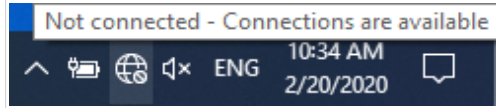
Obtaining IP Address Automatically and Connecting to Wireless Network (OS Windows 10)

1. Click the **Start** button and proceed to the **Settings** window.

2. Select the **Network & Internet** section.

3. In the **Change your network settings** section, select the **Change adapter options** line.

4. In the opened window, right-click the relevant **Wireless Network Connection** icon. Make sure that your Wi-Fi adapter is on, then select the **Properties** line in the menu displayed.

5. In the **Wireless Network Connection Properties** window, on the **Networking** tab, select the **Internet Protocol Version 4 (TCP/IPv4)** line. Click the **Properties** button.

6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.
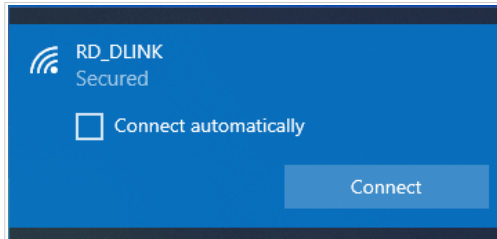

7. Click the **Close** button in the connection properties window.

8. To open the list of available wireless networks, select the icon of the wireless network connection and click the **Connect To** button or left-click the network icon in the notification area located on the right side of the taskbar.

9. In the opened window, in the list of available wireless networks, select the wireless network **DIR-820** (for operating in the 2.4GHz band) or **DIR-820-5G** (for operating in the 5GHz band) and click the **Connect** button.

10. In the opened window, enter the network key (see WPS PIN on the barcode label on the bottom panel of the device) in the **Security key** field and click the **Next** button.

11. Allow or forbid your PC to be discoverable by other devices on this network (**Yes / No**).
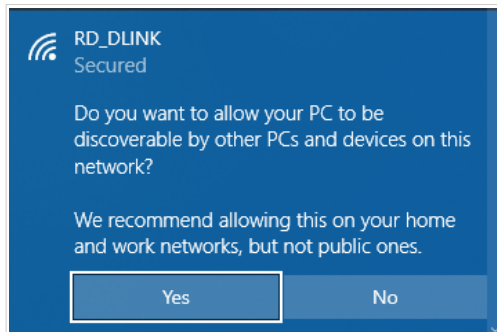
12. Wait for about 20-30 seconds. After the connection is established, the network icon will be displayed as a dot with curved lines indicating the signal level.

> **!** If you perform initial configuration of the router via Wi-Fi connection, note that immediately after changing the wireless default settings of the router you will need to reconfigure the wireless connection using the newly specified settings.

CONFIGURING ROUTER

Connecting to Web-based Interface

Start a web browser. In the address bar of the web browser, enter the domain name of the router (by default, `dlinkrouter.local`) with a dot at the end and press the **Enter** key. Also you can enter the IP address of the device (by default, `192.168.0.1`).
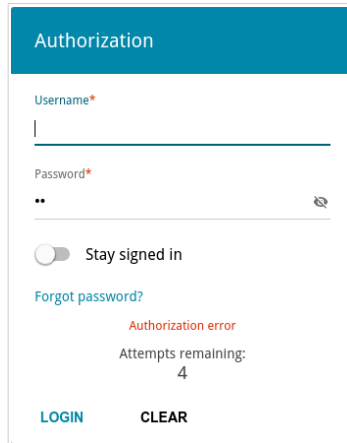

> **!** If the error "*The page cannot be displayed*" (or "*Unable to display the page*"/"*Could not connect to remote server*") occurs upon connecting to the web-based interface of the router, make sure that you have properly connected the router to your computer.

If the device has not been configured previously or the default settings have been restored, after access to the web-based interface the Initial Configuration Wizard opens (see the ***Initial Configuration Wizard*** section, page 21).
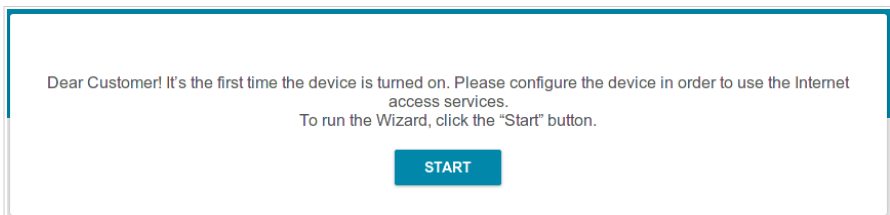
If you configured the device previously, after access to the web-based interface the login page opens. Enter the username (`admin`) in the **Username** field and the password you specified in the **Password** field, then click the **LOGIN** button.

In order not to log out, move the **Stay signed in** switch to the right. After closing the web browser or rebooting the device, you need to enter the username and the password again.

If you enter a wrong password several times, the web-based interface will be blocked for a while. Please wait for one minute and reenter the password you specified.

The **Summary** page displays general information on the router and its software.

Device Information		Wi-Fi 5 GHz	
Model:	DIR-820	Status:	On ●
Hardware version:	A1	Broadcasting:	On ●
Firmware version:	4.0.0	Additional networks:	0
Build time:	Tue Aug 3 2021 7:23:12 PM MSK	Network name (SSID):	DIR-820-5G-0250
UI version:	1.26.0.38979ff-embedded	Security:	WPA2-PSK 🔒
Vendor:	D-Link Russia		
Serial number:	1234567890123	**WAN IPv4**	
Support:	support@dlink.ru		
Summary:	Root filesystem image for DIR_820A_MT7628	Connection type:	Dynamic IPv4
Uptime:	3 min.	Status:	Connected ●
Device mode:	Router	IP address:	192.168.161.220

Wi-Fi 2.4 GHz		LAN	
Status:	On ●	LAN IPv4:	192.168.0.1
Broadcasting:	On ●	MAC address:	8c:88:2b:02:02:51
Additional networks:	0	Wireless connections:	-
Network name (SSID):	DIR-820-0250	Wired connections:	-
Security:	WPA2-PSK 🔒		

LAN Ports	
LAN3:	Off ○
LAN2:	100M-Full ●
LAN1:	Off ○

The **Home** page displays links to the most frequently used pages with device's settings.
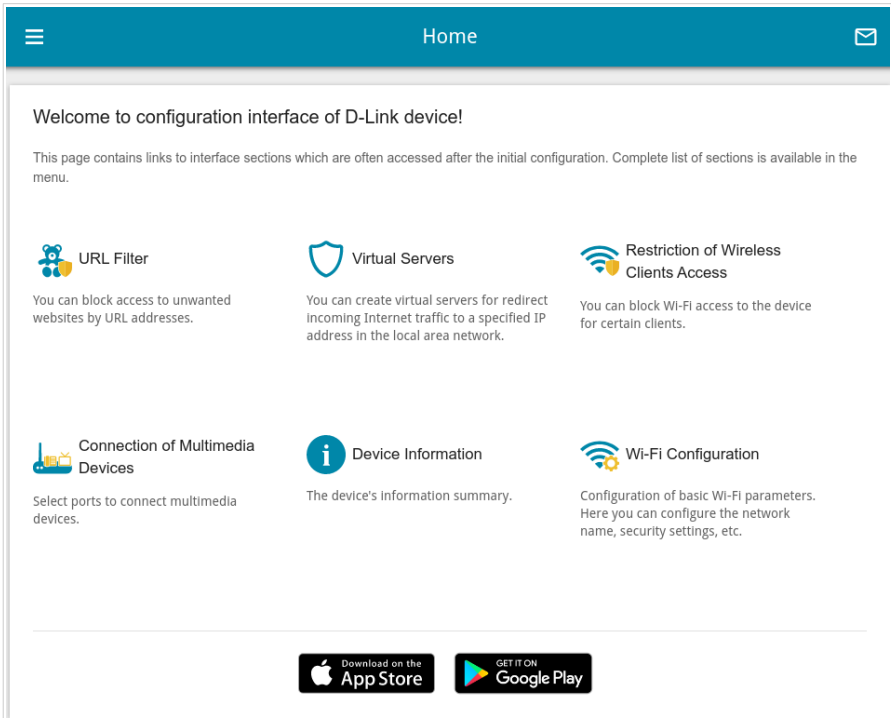

The web-based interface of the router is multilingual. You can select the needed language upon the initial configuration of the web-based interface of the router or in the **System / Configuration** section of the menu.
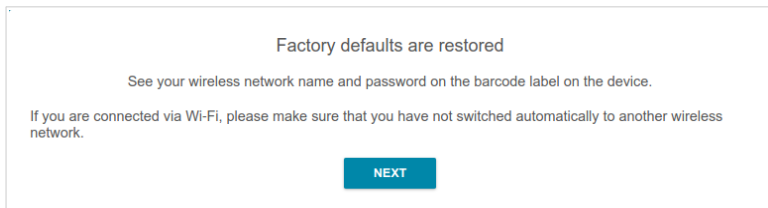
Other settings of the router are available in the menu in the left part of the page. Go to the relevant section and select the needed page or run the wizard in the **Initial Configuration** section.

Initial Configuration Wizard

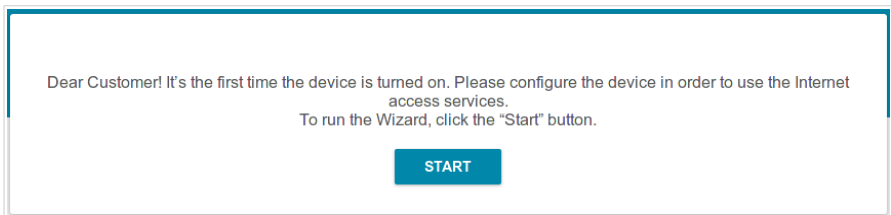In order to start the Initial Configuration Wizard manually, go to the **Initial Configuration** section.

In order to run the Initial Configuration Wizard, the device should be reset to factory defaults.

CANCEL   OK
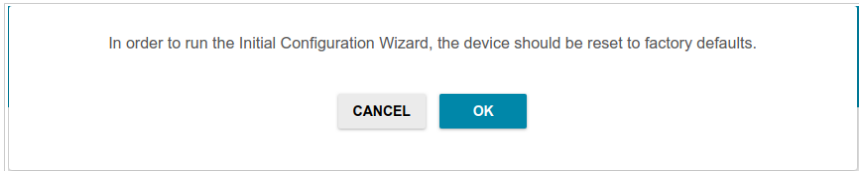
Click the **OK** button and wait until the factory default settings are restored.

Factory defaults are restored

See your wireless network name and password on the barcode label on the device.

If you are connected via Wi-Fi, please make sure that you have not switched automatically to another wireless network.
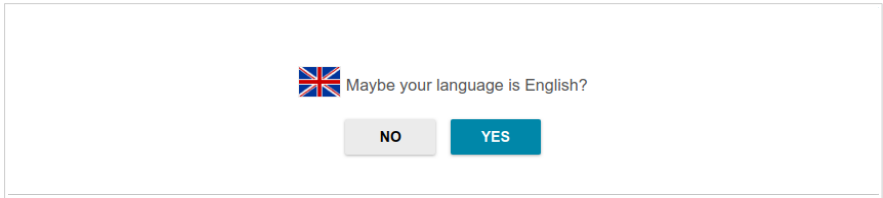
NEXT

If you perform initial configuration of the router via Wi-Fi connection, please make sure that you are connected to the wireless network of DIR-820 (see the WLAN name (SSID) in the *Default Settings* section, page 3) and click the **NEXT** button. Then click the **START** button.

If the device has not been configured previously or the default settings have been restored, the Initial Configuration Wizard starts automatically upon access to the web-based interface or upon opening a web site on the Internet.

Dear Customer! It's the first time the device is turned on. Please configure the device in order to use the Internet access services.
To run the Wizard, click the "Start" button.

START

1. Click **YES** in order to leave the current language of the web-based interface or click **NO** to select another language.


2. On the next page, click the **CONTINUE** button.

Selecting Operation Mode

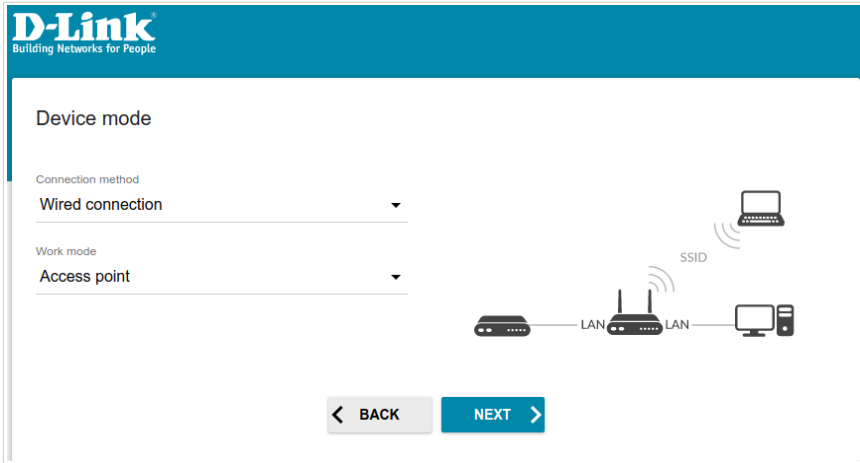Select the needed operation mode and click the **NEXT** button.

Router

In order to connect your device to a wired ISP, on the **Device mode** page, from the **Connection method** list, select the **Wired connection** value. Then from the **Work mode** list select the **Router** value. In this mode you can configure a WAN connection, set your own settings for the wireless network in the 2.4GHz and 5GHz bands, configure LAN ports to connect an STB or VoIP phone, and set your own password for access to the web-based interface of the device.
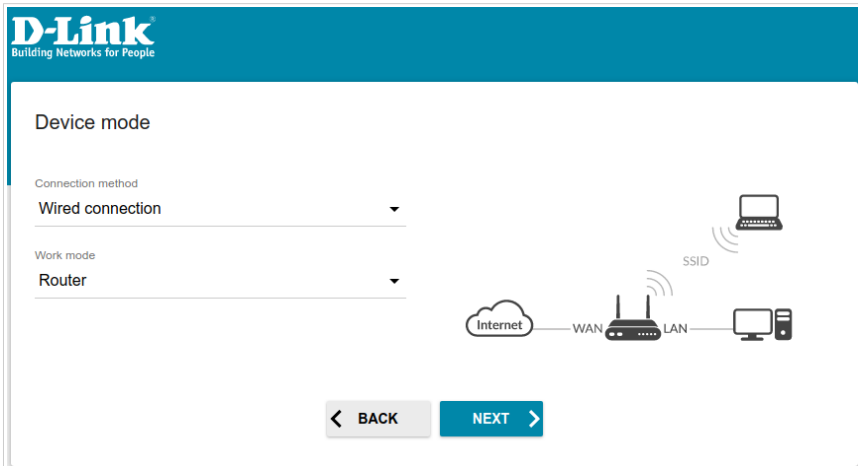
In order to connect your device to a wireless ISP (WISP), on the **Device mode** page, from the **Connection method** list, select the **Wi-Fi** value. Then from the **Work mode** list select the **WISP Repeater** value. In this mode you can connect your device to another access point, configure a WAN connection, set your own settings for the wireless network in the 2.4GHz and 5GHz bands, and set your own password for access to the web-based interface of the device.

Access Point or Repeater

In order to connect your device to a wired router for adding a wireless network to the existing local network, on the **Device mode** page, from the **Connection method** list, select the **Wired connection** value. Then from the **Work mode** list select the **Access point** value. In this mode you can change the LAN IP address, set your own settings for the wireless network in the 2.4GHz and 5GHz bands, and set your own password for access to the web-based interface of the device.

In order to connect your device to a wireless router for extending the range of the existing wireless network, on the **Device mode** page, from the **Connection method** list, select the **Wi-Fi** value. Then from the **Work mode** list select the **Repeater** value. In this mode you can change the LAN IP address, connect your device to another access point, set your own settings for the wireless network in the 2.4GHz and 5GHz bands, and set your own password for access to the web-based interface of the device.

In order to let wired PCs connected to your device access the network of a wireless router, on the **Device mode** page, from the **Connection method** list, select the **Wi-Fi** value. Then from the **Work mode** list select the **Client** value. In this mode you can change the LAN IP address, connect your device to another access point, and set your own password for access to the web-based interface of the device.

Changing LAN IPv4 Address

This configuration step is available for the **Access point**, **Repeater**, and **Client** modes.

1. Select the **Automatic obtainment of IPv4 address** to let DIR-820 automatically obtain the LAN IPv4 address.

2. In the **Hostname** field, you should specify a domain name of the router using which you can access the web-based interface after finishing the Wizard. Enter a new domain name of the router ending with `.local` or leave the value suggested by the router.

   !   In order to access the web-based interface using the domain name, in the address bar of the web browser, enter the name of the router with a dot at the end.

If you want to manually assign the LAN IPv4 address for DIR-820, do not select the **Automatic obtainment of IPv4 address** checkbox and fill in the **IP address**, **Subnet mask**, **DNS IP address, Hostname** fields and, if needed, the **Gateway IP address** field. Make sure that the assigned address does not coincide with the LAN IPv4 address of the router to which your device connects.

3.   Click the **NEXT** button.

Wi-Fi Client

This configuration step is available for the **WISP Repeater**, **Repeater** and **Client** modes.

1. On the **Wi-Fi Client** page, click the **WIRELESS NETWORKS** button and select the network to which you want to connect in the opened window. When you select a network, the **Network name (SSID)** and **BSSID** fields are filled in automatically.

    If you cannot find the needed network in the list, click the **UPDATE LIST** icon (   ).

2. If a password is needed to connect to the selected network, fill in the relevant field. Click the **Show** icon (👁) to display the entered password.

If you connect to a hidden network, select the band where the hidden network operates from the **Frequency band** list and enter the network name in the **Network name (SSID)** field. Then select a needed value from the **Network authentication** list and then, if needed, enter the password in the relevant field.

3. Click the **NEXT** button.

Configuring WAN Connection

This configuration step is available for the **Router** and **WISP Repeater** modes.

> **!** You should configure your WAN connection in accordance with data provided by your Internet service provider (ISP). Make sure that you have obtained all necessary information prior to configuring your connection. Otherwise contact your ISP.

1. On the **Internet connection type** page, click the **SCAN** button (available for the **Router** mode only) to automatically specify the connection type used by your ISP or manually select the needed value from the **Connection type** list.

Static IPv4: Fill in the following fields: **IP address**, **Subnet mask**, **Gateway IP address**, and **DNS IP address**.

IP address*

Subnet mask*

Gateway IP address*

DNS IP address*

Static IPv6: Fill in the following fields: **IP address**, **Prefix**, **Gateway IP address**, and **DNS IP address**.

IP address*

Prefix*

Gateway IP address*

DNS IP address*

PPPoE, IPv6 PPPoE, PPPoE Dual Stack, PPPoE + Dynamic IP (PPPoE Dual Access): Enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** field). Click the **Show** icon (👁) to display the entered password. If authorization is not required, select the **Without authorization** checkbox.

PPPoE + Static IP (PPPoE Dual Access): Enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** field). Click the **Show** icon (👁) to display the entered password. If authorization is not required, select the **Without authorization** checkbox. Also fill in the following fields: **IP address**, **Subnet mask**, **Gateway IP address**, and **DNS IP address**.

PPTP + Dynamic IP or L2TP + Dynamic IP: Enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** field). Click the **Show** icon ( ) to display the entered password. If authorization is not required, select the **Without authorization** checkbox. In the **VPN server address** field, enter the IP or URL address of the PPTP or L2TP authentication server.

☐ Without authorization
Username*
Password*   👁
VPN server address*

PPTP + Static IP or L2TP + Static IP: Enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** field). Click the **Show** icon ( ) to display the entered password. If authorization is not required, select the **Without authorization** checkbox. In the **VPN server address** field, enter the IP or URL address of the PPTP or L2TP authentication server. Also fill in the following fields: **IP address**, **Subnet mask**, **Gateway IP address**, and **DNS IP address**.

☐ Without authorization
Username*
Password*   👁
VPN server address*
IP address*
Subnet mask*
Gateway IP address*
DNS IP address*

2. If your ISP uses MAC address binding, select the **Clone MAC address of your device** checkbox (available for the **Router** mode only).

3. If the Internet access is provided via a VLAN channel, select the **Use VLAN** checkbox and fill in the **VLAN ID** field (available for the **Router** mode only).

4. Click the **NEXT** button.

Configuring Wireless Network

This configuration step is available for the **Router**, **Access point**, **WISP Repeater**, and **Repeater** modes.

1. On the **Wireless Network 2.4 GHz** page, in the **Network name** field, specify your own name for the wireless network in the 2.4GHz band or leave the value suggested by the router.

2. In the **Password** field, specify your own password for access to the wireless network or leave the value suggested by the router (WPS PIN of the device, see the barcode label).

3. If the router is used as a Wi-Fi client, you can specify the same parameters of the wireless network as specified for the network to which you are connecting. To do this, click the **USE** button (available for the **WISP Repeater** and **Repeater** modes only).

4. You can restore the parameters of the wireless network specified before resetting to factory defaults. To do this, click the **RESTORE** button.

5. If you want to create an additional wireless network isolated from your LAN in the 2.4GHz band, select the **Enable guest network** checkbox (available for the **Router** and **WISP Repeater** modes only).

6. In the **Network name** field, specify your own name for the guest wireless network or leave the value suggested by the router.

7. If you want to create a password for access to the guest wireless network, deselect the **Open network** checkbox and fill in the **Password** field.

8. Click the **NEXT** button.

9. On the **Wireless Network 5 GHz** page, specify needed settings for the wireless network in the 5GHz band and click the **NEXT** button.

Configuring LAN Ports for IPTV/VoIP

This configuration step is available for the **Router** mode.
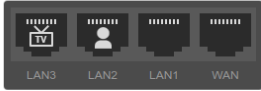
1. On the **IPTV** page, select the **Is an STB connected to the device** checkbox.

2. Select a free LAN port for connecting your set-top box.

3. If the IPTV service is provided via a VLAN channel, select the **Use VLAN ID** checkbox and fill in the **VLAN ID** field.

4. Click the **NEXT** button.

5. On the **VoIP** page, select the **Is an IP phone connected to the device** checkbox.

6. Select a free LAN port for connecting your IP phone.

7. If the VoIP service is provided via a VLAN channel, select the **Use VLAN ID** checkbox and fill in the **VLAN ID** field.

8. Click the **NEXT** button.

Changing Web-based Interface Password

On this page you should change the default administrator password. To do this, enter a new password in the **User's interface password** and **Password confirmation** fields. You may set any password except `admin`. Use digits, Latin letters (uppercase and/or lowercase), and other characters available in the US keyboard layout.[1]

Changing web-based interface password

For security reasons, please change the password used to access the device's settings.

User's interface password*   👁

ⓘ Password should be between 1 and 31 ASCII characters

Password confirmation*   👁

❮ BACK   NEXT ❯

! Remember or write down the new password for the administrator account. In case of losing the new password, you can access the settings of the router only after restoring the factory default settings via the hardware **WPS/RST** button. This procedure wipes out all settings that you have configured for your router.

Click the **NEXT** button.

On the next page, check all the settings you have just specified.

Also you can save a text file with parameters set by the Wizard to your PC. To do this, click the **SAVE CONFIGURATION FILE** button and follow the dialog box appeared.

To finish the Wizard, click the **APPLY** button. The router will apply settings, reboot, if needed, and check the Internet connection if the Wizard has configured a WAN connection.

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1   0-9, A-Z, a-z, space, !"#$%&'()*+,-./:;<=>?@[\]^_`{|}~.

Configuring Local Area Network

1. Go to the **Connections Setup / LAN** page.

2. If needed, change the IPv4 address of the router's LAN interface and the mask of the local subnet. To do this, click the **IPv4** tab and specify needed values in the **IP address** and **Mask** fields in the **Local IP Address** section.

3. If needed, add a static IPv6 address of the router's LAN interface. To do this, click the **IPv6** tab. In the **Local IPv6 Address** section, click the **ADD** button (+). In the opened window, specify needed values in the **IPv6 address** and **Prefix** fields and click the **APPLY** button.

4. **IPv4 address assignment**. By default, the built-in DHCP server of the router assigns IPv4 addresses to the devices of the LAN. If you want to manually assign IPv4 addresses, disable the DHCP server (click the **IPv4** tab and select the **Disable** value from the **Mode of dynamic IP address assignment** drop-down list in the **Dynamic IP Addresses** section).

Dynamic IP Addresses

Mode of dynamic IP address assignment

Server

Start IP*
192.168.0.100

End IP*
192.168.0.199

Lease time (in minutes)*
1440

DNS relay

ⓘ *Assigns the LAN IP address of the device as the DNS server for connected clients.*

5. **IPv6 address assignment**. By default, the devices of the LAN automatically assign IPv6 addresses to themselves (the **Stateless** value is selected from the **Mode of dynamic IPv6 address assignment** drop-down list in the **Dynamic IPv6 Addresses** section on the **IPv6** tab). If the devices of the LAN do not support IPv6 address autoconfiguration, use the built-in DHCPv6 server of the router (select the **Stateful** value from the **Mode of dynamic IPv6 address assignment** drop-down list). If you want to manually assign IPv6 addresses to devices of the LAN, select the **Disable** value from the **Mode of dynamic IPv6 address assignment** drop-down list.

Dynamic IPv6 Addresses

Mode of dynamic IPv6 address assignment
Stateful

| | (1-FFFF)* | (1-FFFF)* |
| Address range | 2 | — | 64 |

Lease time (in minutes)*
5

⚪ The default route for LAN clients

🔵 DNS relay

ⓘ *Assigns the LAN IP address of the device as the DNS server for connected clients.*

6. After specifying the needed parameters on the **Connections Setup / LAN** page, click the **APPLY** button.

SPECIFICATIONS*

Hardware		
Processor	·	MT7628DAN (575MHz)
RAM	·	64MB, built in processor
Flash	·	16MB, SPI
Interfaces	· ·	10/100BASE-TX WAN port 3 10/100BASE-TX LAN ports
LEDs	· · · · · ·	Power WAN 3 LAN LEDs WLAN 2.4G WLAN 5G WPS
Buttons	·	WPS/RST button to restore factory default settings and set up wireless connection
Antenna	·	Four external non-detachable antennas (5dBi gain)
MIMO	·	2 x 2, MU-MIMO
Power connector	·	Power input connector (DC)

Software		
WAN connection types	· · · · · · · · ·	PPPoE IPv6 PPPoE PPPoE Dual Stack Static IPv4 / Dynamic IPv4 Static IPv6 / Dynamic IPv6 PPPoE + Static IP (PPPoE Dual Access) PPPoE + Dynamic IP (PPPoE Dual Access) PPTP/L2TP + Static IP PPTP/L2TP + Dynamic IP

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* The device features are subject to change without notice. For the latest versions of the firmware and relevant documentation, visit www.dlink.ru.

Software	
Network functions	· DHCP server/relay · Advanced configuration of built-in DHCP server · Stateful/Stateless mode for IPv6 address assignment, IPv6 prefix delegation · Automatic obtainment of LAN IP address (for access point/repeater/client modes) · DNS relay · Dynamic DNS · Static IPv4/IPv6 routing · IGMP Proxy · Support of UPnP IGD · Support of VLAN · WAN ping respond · Support of SIP ALG · Support of RTSP · WAN failover · LAN/WAN conversion · Multi-WAN support · Autonegotiation of speed, duplex mode, and flow control / Manual speed and duplex mode setup for each Ethernet port · Built-in UDPXY application
Firewall functions	· Network Address Translation (NAT) · Stateful Packet Inspection (SPI) · IPv4/IPv6 filter · MAC filter · URL filter · DMZ · Virtual servers
VPN	· IPsec/PPTP/L2TP/PPPoE pass-through

Software	
Management and monitoring	· Local and remote access to settings through SSH/TELNET/WEB (HTTP/HTTPS) · Multilingual web-based interface for configuration and management · Support of D-Link Assistant application for Android and iPhone smartphones · Notification on connection problems and auto redirect to settings · Firmware update via web-based interface · Automatic notification on new firmware version · Saving/restoring configuration to/from file · Support of logging to remote host · Automatic synchronization of system time with NTP server and manual time/date setup · Ping utility · Traceroute utility · TR-069 client · SNMP agent · Schedules for rules and settings of firewall, automatic reboot, and enabling/disabling wireless network and Wi-Fi filter · Automatic upload of configuration file from ISP's server (Auto Provision)

Wireless Module Parameters	
Standards	· IEEE 802.11ac Wave 2 · IEEE 802.11a/b/g/n · IEEE 802.11k/v
Frequency range *The frequency range depends upon the radio frequency regulations applied in your country*	· 2400 ~ 2483.5MHz · 5150 ~ 5350MHz · 5650 ~ 5850MHz
Wireless connection security	· WEP · WPA/WPA2 (Personal/Enterprise) · MAC filter · WPS (PBC/PIN)

Wireless Module Parameters	
Advanced functions	· Support of client mode · WMM (Wi-Fi QoS) · Information on connected Wi-Fi clients · Advanced settings · Smart adjustment of Wi-Fi clients · Guest Wi-Fi / support of MBSSID · Periodic scan of channels, automatic switch to least loaded channel · Support of 2.4GHz TX Beamforming · Autonegotiation of channel bandwidth in accordance with environment conditions (20/40 Coexistence) · Support of STBC
Wireless connection rate	· IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54Mbps · IEEE 802.11b: 1, 2, 5.5, and 11Mbps · IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps · IEEE 802.11n (2.4GHz/5GHz): from 6.5 to 300Mbps (from MCS0 to MCS15) · IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from MCS0 to MCS9)
Transmitter output power *The maximum value of the transmitter output power depends upon the radio frequency regulations applied in your country*	· 802.11a (typical at room temperature 25 °C) 15dBm at 6, 9, 12, 18, 24, 36, 48, 54Mbps · 802.11b (typical at room temperature 25 °C) 15dBm at 1, 2, 5.5, 11Mbps · 802.11g (typical at room temperature 25 °C) 15dBm at 6, 9, 12, 18, 24, 36, 48, 54Mbps · 802.11n (typical at room temperature 25 °C) 2.4GHz, HT20 15dBm at MCS0~7 2.4GHz, HT40 15dBm at MCS0~7 5GHz, HT20 15dBm at MCS0~7 5GHz, HT40 15dBm at MCS0~7 · 802.11ac (typical at room temperature 25 °C) VHT20 15dBm at MCS0~8 VHT40 15dBm at MCS0~9 VHT80 15dBm at MCS0~9

Wireless Module Parameters	
Receiver sensitivity	· 802.11a (typical at PER < 10% (1000-byte PDUs) at room temperature 25 °C) -90dBm at 6Mbps -88dBm at 9Mbps -86dBm at 12Mbps -85dBm at 18Mbps -82dBm at 24Mbps -78dBm at 36Mbps -74dBm at 48Mbps -73dBm at 54Mbps · 802.11b (typical at PER = 8% (1000-byte PDUs) at room temperature 25 °C) -93dBm at 1Mbps -90dBm at 2Mbps -88dBm at 5.5Mbps -86dBm at 11Mbps · 802.11g (typical at PER < 10% (1000-byte PDUs) at room temperature 25 °C) -90dBm at 6Mbps -84dBm at 9Mbps -82dBm at 12Mbps -80dBm at 18Mbps -77dBm at 24Mbps -75dBm at 36Mbps -74dBm at 48Mbps -73dBm at 54Mbps · 802.11n (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C) 2.4GHz, HT20 -90dBm at MCS0 -82dBm at MCS1 -80dBm at MCS2 -77dBm at MCS3 -74dBm at MCS4 -73dBm at MCS5 -72dBm at MCS6 -71dBm at MCS7 2.4GHz, HT40 -88dBm at MCS0 -79dBm at MCS1 -77dBm at MCS2 -74dBm at MCS3 -71dBm at MCS4 -70dBm at MCS5 -69dBm at MCS6 -68dBm at MCS7

Wireless Module Parameters

	5GHz, HT20 -90dBm at MCS0 -86dBm at MCS1 -84dBm at MCS2 -81dBm at MCS3 -77dBm at MCS4 -73dBm at MCS5 -72dBm at MCS6 -71dBm at MCS7 5GHz, HT40 -87dBm at MCS0 -84dBm at MCS1 -82dBm at MCS2 -79dBm at MCS3 -75dBm at MCS4 -71dBm at MCS5 -70dBm at MCS6 -69dBm at MCS7 · 802.11ac (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C) VHT20 -90dBm at MCS0 -86dBm at MCS1 -84dBm at MCS2 -81dBm at MCS3 -77dBm at MCS4 -73dBm at MCS5 -72dBm at MCS6 -71dBm at MCS7 -66dBm at MCS8 VHT40 -87dBm at MCS0 -84dBm at MCS1 -82dBm at MCS2 -79dBm at MCS3 -75dBm at MCS4 -71dBm at MCS5 -70dBm at MCS6 -69dBm at MCS7 -64dBm at MCS8 -62dBm at MCS9

Wireless Module Parameters	
	VHT80 -83dBm at MCS0 -81dBm at MCS1 -78dBm at MCS2 -75dBm at MCS3 -71dBm at MCS4 -67dBm at MCS5 -66dBm at MCS6 -65dBm at MCS7 -60dBm at MCS8 -58dBm at MCS9
Modulation schemes	· 802.11a: BPSK, QPSK, 16QAM, 64QAM with OFDM · 802.11b: DQPSK, DBPSK, DSSS, CCK · 802.11g: BPSK, QPSK, 16QAM, 64QAM with OFDM · 802.11n: BPSK, QPSK, 16QAM, 64QAM with OFDM · 802.11ac: BPSK, QPSK, 16QAM, 64QAM, up to 256QAM with OFDM

Physical Parameters	
Dimensions (L x W x H)	· 190 x 120 x 30 mm (7.48 x 4.72 x 1.18 in)

Operating Environment	
Power	· Output: 12V DC, 0.5A
Temperature	· Operating: from 0 to 40 °C · Storage: from -20 to 65 °C
Humidity	· Operating: from 10% to 90% (non-condensing) · Storage: from 5% to 95% (non-condensing)

SAFETY RULES AND CONDITIONS

Please carefully read this section before installation and connection of the device. Make sure that the power adapter and cables are not damaged. The device should be used only as intended in accordance with the documents.

The device is intended for use in dry, clean, dust-free, and well ventilated areas with normal humidity away from strong heat sources. Do not use the device outdoors or in the areas with high humidity. Do not place foreign objects on the device. Do not obstruct the ventilation openings of the device. The environmental temperature near the device and the temperature inside the device's cover should be within the range from 0 °C to +40 °C.

Only use the power adapter supplied with the device. Do not plug in the adapter, if its case or cable are damaged. Plug the adapter only into working electrical outlets with parameters indicated on the adapter.

Do not open the cover of the device! Unplug the device before dusting and cleaning. Use a damp cloth to clean the device. Do not use liquid/aerosol cleaners or magnetic/static cleaning devices. Prevent moisture getting into the device or the power adapter.

The service life of the device is 2 years.

TECHNICAL SUPPORT

You can find software updates and user documentation on our website.

D-Link provides its customers with free support within the product's warranty period.

Customers can contact the technical support group by phone or by e-mail/Internet.

FOR TELEPHONE NUMBERS AND ADDRESSES OF D-LINK OFFICES WORLDWIDE VISIT

http://www.dlink.com