



DVG-N5402SP

Wireless Router with 1 FXS Port

BEFORE YOU BEGIN

Delivery Package

- Router DVG-N5402SP
- Power adapter DC 12V/1.25A
- Ethernet cable (CAT 5E)
- RJ-11 telephone 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

IP address of device	192.168.8.254
Username (login)	admin
Password	admin
Name of wireless network (SSID)	DVG-N5402
Network key (PSK password)	see WPS PIN on the barcode label on the bottom panel of the device



Router DVG-N5402SP 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

- A computer with any operating system that supports a web browser.
- A web browser to access the web-based interface of the router:
 - 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 802.11b, g, or n Wi-Fi adapter to create a wireless network.
- Analog phone.

CONNECTING TO PC

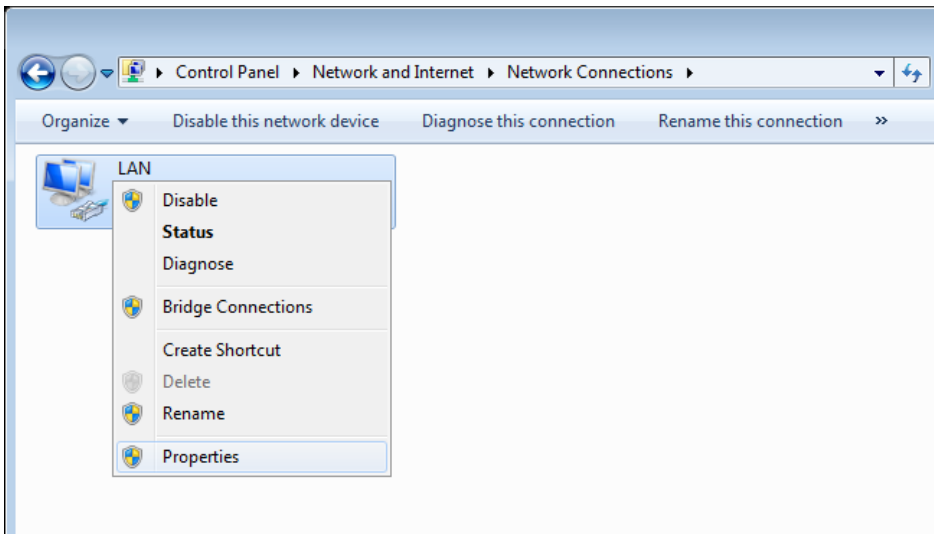
PC with Ethernet Adapter

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 phone cable between the **FXS1** port of the router and the phone.
3. 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.
4. Turn on the router by pressing the **ON/OFF** button on its back panel.

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

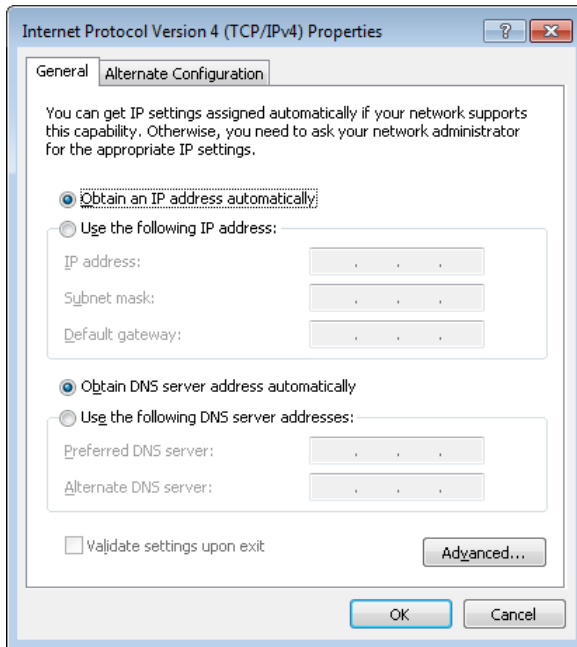
Obtaining IP Address Automatically (OS Windows 7)

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.

PC with Wi-Fi Adapter

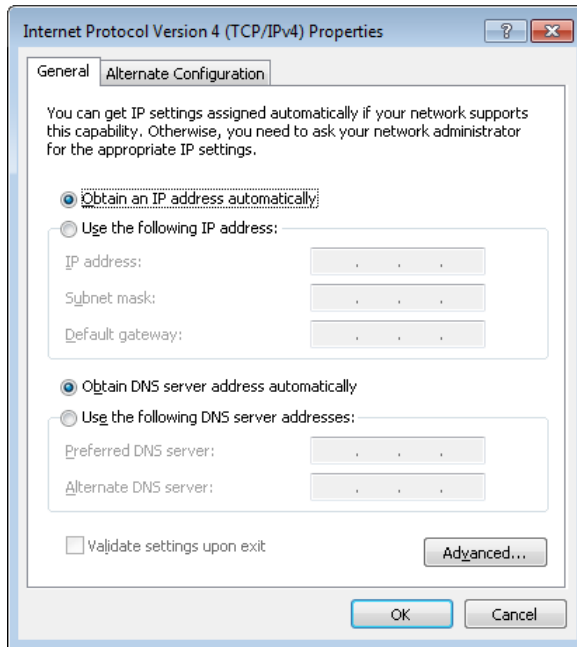
1. Connect the phone cable between the **FXS1** port of the router and the phone.
2. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.
3. Turn on the router by pressing the **ON/OFF** button on its back panel.
4. 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).

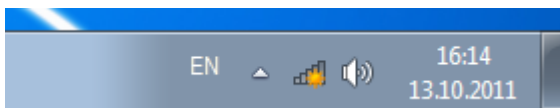
Obtaining IP Address Automatically and Connecting to Wireless Network (OS Windows 7)

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.

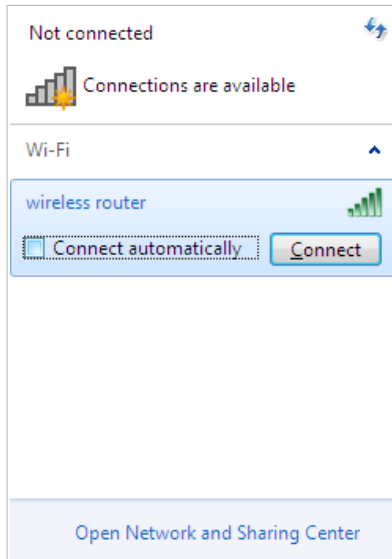
6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.



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 **DVG-N5402** 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.

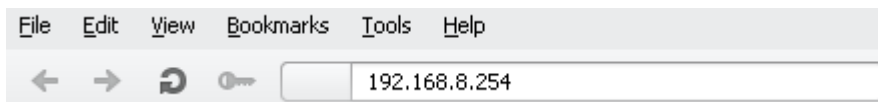


If you perform initial configuration of the router via Wi-Fi connection, note that immediately after changing the wireless default settings of the router you will need to reconfigure the wireless connection using the newly specified settings.

CONFIGURING ROUTER

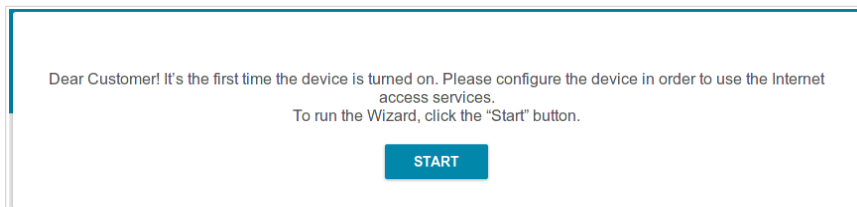
Connecting to Web-based Interface

Start a web browser. In the address bar of the web browser, enter the IP address of the router (by default, **192.168.8.254**). Press the **Enter** key.

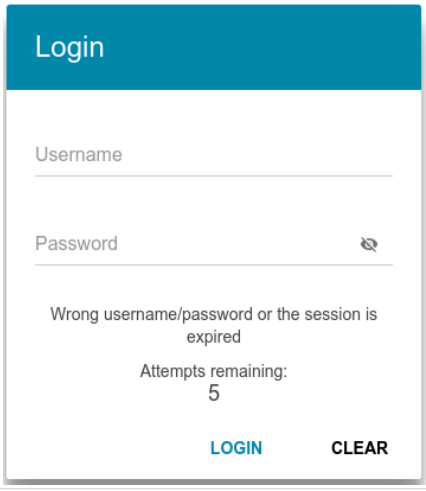


! If the error “*The page cannot be displayed*” (or “*Unable to display the page*”/“*Could not connect to remote server*”) occurs upon connecting to the web-based interface of the router, make sure that you have properly connected the router to your computer.

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 16).



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.



Login

Username

Password

Wrong username/password or the session is expired

Attempts remaining:
5

LOGIN **CLEAR**

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.

Summary

Device Information

Model:

DVG-N5402SP/C1

Hardware revision:

C1

Firmware version:

3.0.6

Build time:

Fri Aug 17 2018 5:05:26 PM MSK

Vendor:

D-Link Russia

Serial number:

2222222222255

Support:

support@dlink.ru

Phone:

8-800-700-5465

Summary:

Root filesystem image for DVG-N5402SP/C1

Uptime:

00:31:58

LAN

LAN IPv4:

192.168.8.254

LAN IPv6:

fd01::1/64

Wireless connections:

-

Wired connections:

1

LAN Ports

LAN1:

Off

LAN2:

Off

LAN3:

LAN4:

Off

VoIP Line 1

Line status:

Registration off

Phone:

Handset is put down

Yandex

Yandex.DNS

Enable

Safe

1 device

Child

0 devices

Protection off

0 devices

Wi-Fi 2.4 GHz

Status:

On

Broadcasting:

On

Additional networks:

0

Network name (SSID):

DVG-N5402-b903

Security:

WPA2-PSK

WAN IPv4

Connection type:

Dynamic IPv4

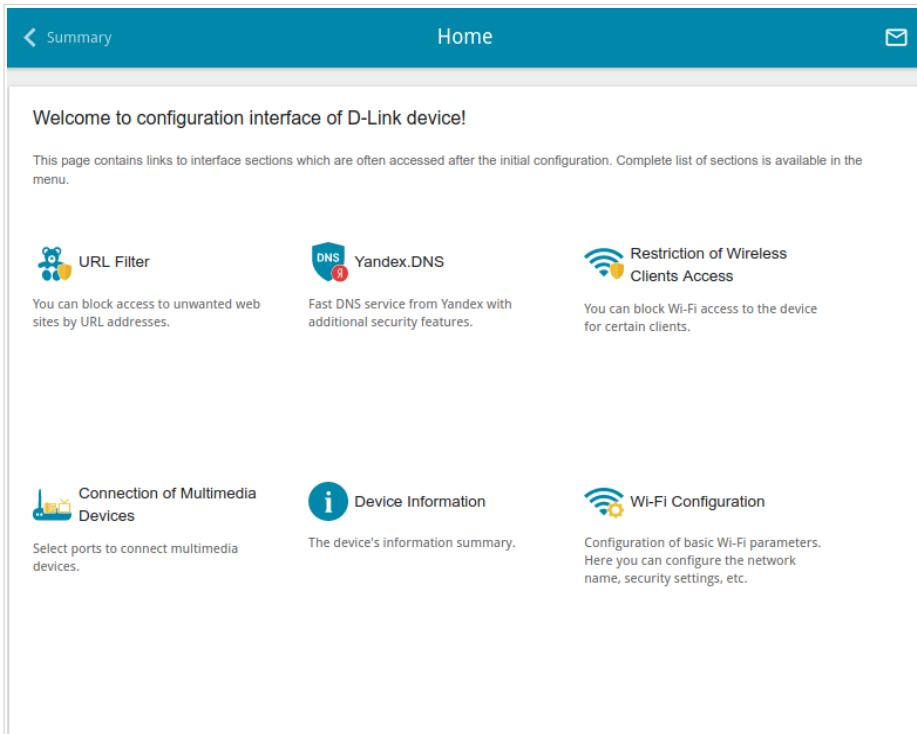
Status:

Connected

IP address:

192.168.161.236

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

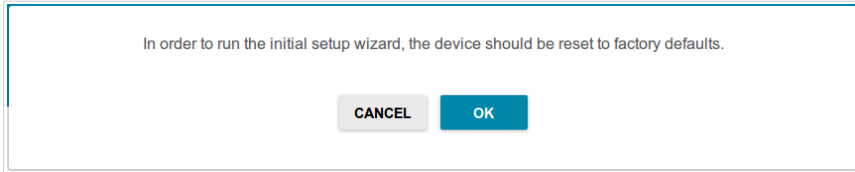


The web-based interface of the router is bilingual (English/Russian). You can select the needed language upon the initial configuration of the web-based interface of the router or in the **System / Configuration** section of the menu.

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.

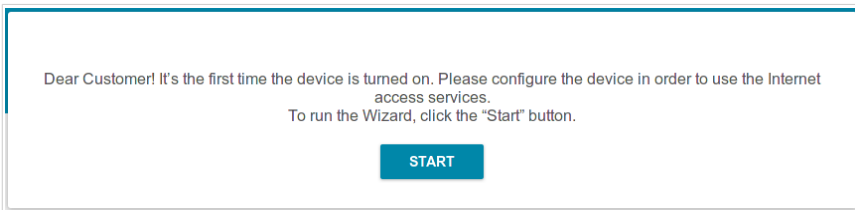
Initial Configuration Wizard

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

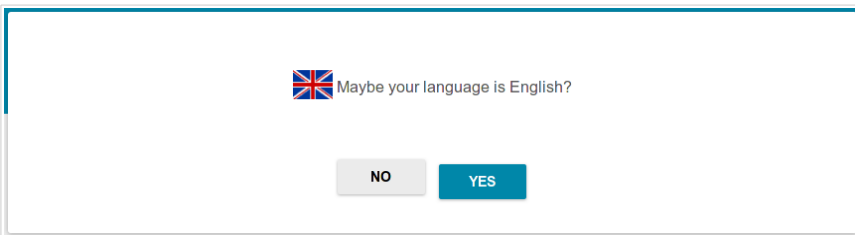


Click the **OK** button and wait until the factory default settings are restored. Then click the **START** button.

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.



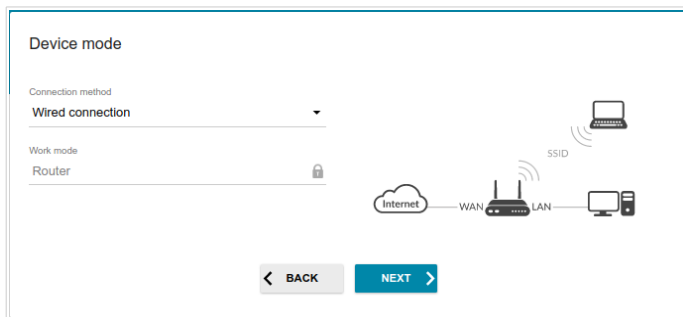
1. Click **YES** in order to leave the current language of the web-based interface or click **NO** to select the other language.



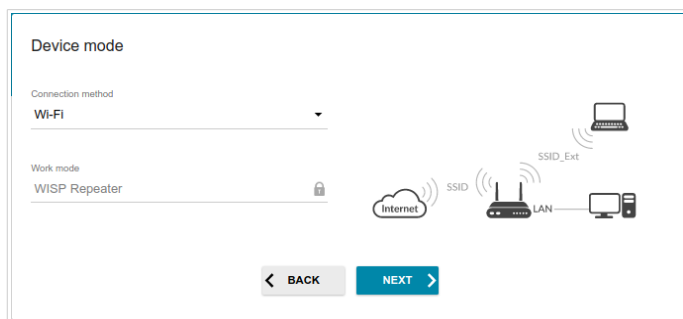
2. On the next page, click the **CONTINUE** button.

Selecting Operation Mode

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. In this mode you can configure a WAN connection, set your own settings for the wireless network, 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. In this mode you can connect your device to another access point, configure a WAN connection, set your own settings for the wireless network, 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.





When the operation mode is selected, click the **NEXT** button.

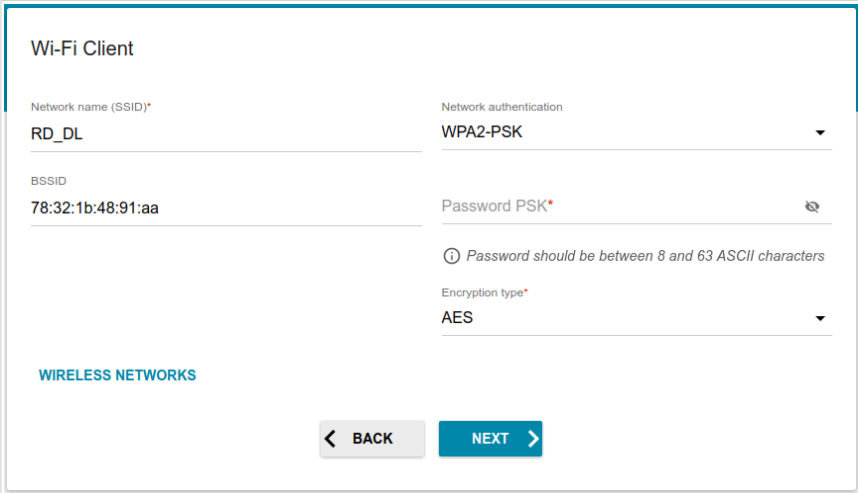
Wi-Fi Client

This configuration step is available for the **Wi-Fi** mode.

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.



Wi-Fi Client

Network name (SSID)*
RD_DL

BSSID
78:32:1b:48:91:aa

Network authentication
WPA2-PSK

Password PSK*

① Password should be between 8 and 63 ASCII characters

Encryption type*
AES

WIRELESS NETWORKS

< BACK

NEXT >

If you connect to a hidden network, 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

! 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, from the **Connection type** list, select the connection type used by your ISP and fill in the fields displayed on the page.

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

IP address*	<input type="text"/>
Netmask*	<input type="text"/>
Gateway IP address*	<input type="text"/>
DNS IP address*	<input type="text"/>

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

IP address*	<input type="text"/>
Prefix*	<input type="text"/>
Gateway IP address*	<input type="text"/>
DNS IP address*	<input type="text"/>

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.

☐ Without authorization

Username*

Password*

🔍

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**, **Netmask**, **Gateway IP address**, and **DNS IP address**.

☐ Without authorization

Username*

Password*

🔍

IP address*

Netmask*


Gateway IP address*

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**, **Netmask**, **Gateway IP address**, and **DNS IP address**.

☒ Without authorization

Username

Password 

VPN server address*

IP address*

Netmask*

Gateway IP address*

DNS IP address*

2. If your ISP uses MAC address binding, select the **Clone MAC address of your device** checkbox.
3. If the Internet access is provided via a VLAN channel, select the **Use VLAN** checkbox and fill in the **VLAN ID** field.

☐ Clone MAC address of your device
In some ISP's networks, it is required to register a certain MAC address in order to get access to the Internet.

☒ Use VLAN
Select the checkbox if the Internet access is provided via a VLAN channel.

VLAN ID*

4. Click the **NEXT** button.

Configuring Wireless Network

1. On the **Wireless Network 2.4 GHz** page, in the **Network name** field, specify your own name for the wireless network 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. You can restore the parameters of the wireless network specified before resetting to factory defaults. To do this, click the **RESTORE** button.

Wireless Network 2.4 GHz

☒ Enable

☒ Broadcast wireless network 2.4 GHz

ⓘ Disabling broadcast does not influence the ability to connect to another Wi-Fi network as a client.

Network name*

wi-fi

ⓘ The number of characters should not exceed 32

☐ Open network

Password*

ⓘ Password should be between 8 and 63 ASCII characters

RESTORE You can restore network name and security that was set before applying factory settings.

4. If you want to create an additional wireless network isolated from your LAN, select the **Enable guest network** checkbox.

☒ Enable guest network

ⓘ Guest Wi-Fi network allows connection to your device and getting access to the Internet.
Upon that computers connected to this wireless network will be isolated from the resources of your main local area network.
This helps to secure your LAN while you provide access to the Internet for temporary users.

Network name*

|

ⓘ The number of characters should not exceed 32

☒ Open network

Max associated clients*

0

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

Configuring LAN Ports for IPTV/VoIP

1. On the **IPTV** page, select the **Is an STB connected to the device** checkbox.

IPTV

☒ Is an STB connected to the device?

☐ If your ISP provides IPTV service, you can connect an STB directly to the router without additional equipment

☒ Use VLAN ID


VLAN ID*

Information about the VLAN ID can be found in the contract.

Diagram of router ports: 1, 2 (TV icon), LAN, 3, 4, Internet

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.

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



The screenshot shows the 'VoIP' configuration page. It contains three checkboxes: 'Is an IP phone connected to the device?' (checked), 'If your ISP provides VoIP service, you can connect an IP phone directly to the router without additional equipment' (unchecked), and 'Use VLAN ID' (checked). Below these is a 'VLAN ID*' field with a red asterisk. A help icon and text state: 'Information about the VLAN ID can be found in the contract.' At the bottom is a diagram of a network device with five ports: 1, 2, LAN, 3, 4, and Internet. Port 2 is highlighted with a TV icon, indicating it is selected for the IP phone connection.

- Select a free LAN port for connecting your IP phone.
- If the VoIP service is provided via a VLAN channel, select the **Use VLAN ID** checkbox and fill in the **VLAN ID** field.
- 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 **Admin 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



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 **RESET** 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.

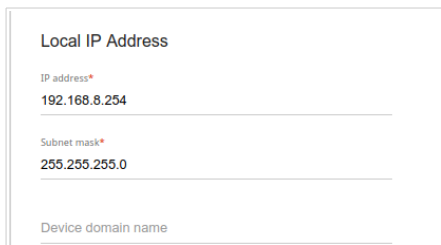
Also you can save a text file with parameters set by the Wizard to your PC. To do this, click the **SAVE CONFIGURATION FILE** button and follow the dialog box appeared.

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.

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

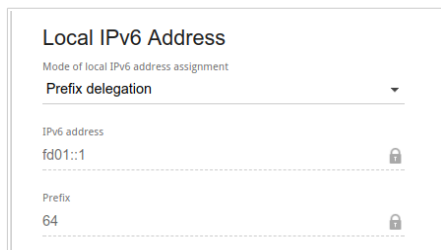
Configuring Local Area Network

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 **Subnet mask** fields in the **Local IP Address** section.



The screenshot shows the 'Local IP Address' configuration section. It contains three input fields: 'IP address*' with the value '192.168.8.254', 'Subnet mask*' with the value '255.255.255.0', and 'Device domain name' which is currently empty.

3. If needed, specify your own IPv6 address of the router's LAN interface. To do this, click the **IPv6** tab and select the **Static** value from the **Mode of local IPv6 address assignment** drop-down list in the **Local IPv6 Address** section. Then specify the needed value in the **IPv6 address** field.



The screenshot shows the 'Local IPv6 Address' configuration section. It contains three fields: a drop-down menu for 'Mode of local IPv6 address assignment' with 'Prefix delegation' selected, an 'IPv6 address' field with the value 'fd01::1', and a 'Prefix' field with the value '64'. Each of the last two fields has a lock icon to its right.

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

DHCP server

Start IP*

192.168.8.1

End IP*

192.168.8.253

Lease time (in minutes)*

1440

☒ DNS relay

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, enable 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

Start IPv6*

fd01::2

End IPv6*

fd01::ffff:ffff:ffff

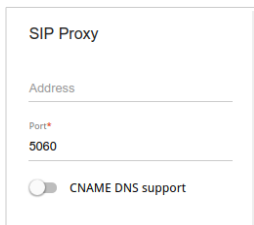
Lease time (in minutes)

5

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

Configuring VoIP via SIP

1. Go to the **VoIP / Basic Settings** page.
2. In the **SIP Proxy** section, fill in the **Address** field.



SIP Proxy

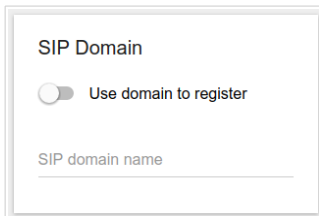
Address

Port*

5060

☐ CNAME DNS support

3. If your provider uses a SIP domain, in the **SIP Domain** section, fill in the **SIP domain name** field and, if needed, move the **Use domain to register** switch to the right (contact your ISP to clarify if the setting is required).

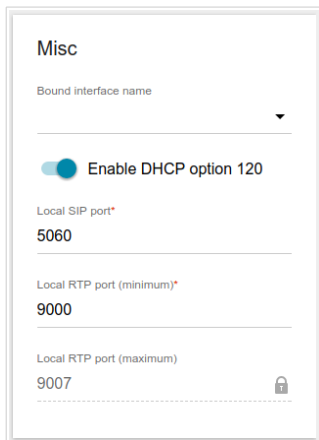


SIP Domain

☐ Use domain to register

SIP domain name

4. In the **Misc** section, from the **Bound interface name** drop-down list, select the interface which will be used by VoIP.



Misc

Bound interface name

☒ Enable DHCP option 120

Local SIP port*

5060

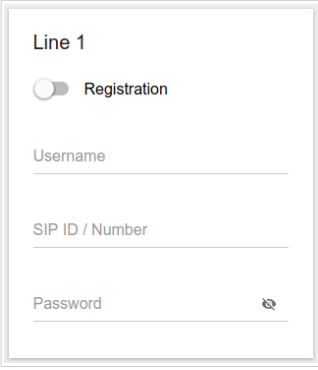
Local RTP port (minimum)*

9000

Local RTP port (maximum)

9007

5. If your provider does not require automatic obtainment of the SIP proxy server address, move the **Enable DHCP option 120** switch to the left.
6. In the **Line 1** section, move the **Registration** switch to the right, fill in the **SIP ID / Number** field, enter the username in the **Username** field (as a rule, the username and the phone number are the same), and fill in the **Password** field.





Line 1

☐ Registration

Username

SIP ID / Number

Password 

7. If needed, fill in other fields on the page in accordance with data provided by the ISP.
8. Click the **APPLY** button ().

SPECIFICATIONS*

Hardware	
Processor	<ul style="list-style-type: none">· BCM5358B0KFBG
RAM	<ul style="list-style-type: none">· 64MB, DDR2 SDRAM
Flash	<ul style="list-style-type: none">· 16MB, SPI
Interfaces	<ul style="list-style-type: none">· 10/100BASE-TX WAN port· 4 10/100BASE-TX LAN ports· FXS port
LEDs	<ul style="list-style-type: none">· POWER· WAN· 4 LAN LEDs· WLAN· WPS· FXS1
Buttons	<ul style="list-style-type: none">· ON/OFF button to power on/power off· RESET button to restore factory default settings· WPS button to set up wireless connection· WLAN button to enable/disable wireless network
Antenna	<ul style="list-style-type: none">· Two internal omnidirectional Airgain antennas (5dBi gain)
MIMO	<ul style="list-style-type: none">· 2 x 2
Power connector	<ul style="list-style-type: none">· Power input connector (DC)

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

Phone	
General SIP Features	<ul style="list-style-type: none"> • Invite with Challenge • Register by IP address or domain name of SIP server • Backup proxy support • Support of DHCP option 120 • RFC3986 SIP URI format support • Outbound proxy support • STUN client • NAT public IP address • NAT keep-alive • Session timer (re-invite) • Call types: voice/modem/fax • User programmable Dial Plan • Manual peer table (for P2P calls) • E.164 Numbering, ENUM support
Call Features	<ul style="list-style-type: none"> • Direct IP-to-IP call without SIP proxy • Call hold / retrieve • Call awaiting • Forwarding (unconditional, busy, no answer) • Do Not Disturb • Anonymous call blocking • Speed dialing • Phone book • Hotline • Vertical service codes • CLIR • Filtering by IP address (white/black list) • Call logging
Voice Features	<ul style="list-style-type: none"> • Codecs: G.711 a/μ-law, G.729A, G.726, G.722 • DTMF detection and generation • In-band DTMF, out-of-band DTMF (RFC2833, SIP-INFO) • Comfort Noise Generation (CNG) • Voice Activity Detection (VAD) • Adaptive (Dynamic) Jitter Buffer • Call progress tone generation (FXS) • DTMF/PULSE dial support • Caller ID detection and generation • T.30 FAX bypass to G.711, T.38 Real Time FAX Relay • Volume control (speaker/microphone)

Software	
WAN connection types	<ul style="list-style-type: none"> • PPPoE • IPv6 PPPoE • PPPoE Dual Stack • Static IPv4 / Dynamic IPv4 • Static IPv6 / Dynamic IPv6 • PPPoE + Static IP / Dynamic IP (PPPoE Dual Access) • PPTP/L2TP + Static IP • PPTP/L2TP + Dynamic IP
Network functions	<ul style="list-style-type: none"> • DHCP server/relay • Stateful/Stateless mode for IPv6 address assignment, IPv6 prefix delegation • DNS relay • Dynamic DNS • Static IP routing • Static IPv6 routing • IGMP Proxy • RIP • Support of UPnP IGD • Support of VLAN • WAN ping respond • Support of SIP ALG • Support of RTSP • Autonegotiation of speed, duplex mode, and flow control/Manual speed and duplex mode setup for each Ethernet port • Built-in UDPXY application
Firewall functions	<ul style="list-style-type: none"> • Network Address Translation (NAT) • Stateful Packet Inspection (SPI) • IP filter • IPv6 filter • MAC filter • URL filter • DMZ • Prevention of ARP and DDoS attacks • Virtual servers • Built-in Yandex.DNS web content filtering service
VPN	<ul style="list-style-type: none"> • IPsec/PPTP/L2TP/PPPoE pass-through • IPsec tunnels

Software	
Management	<ul style="list-style-type: none"> • Local and remote access to settings through TELNET/WEB (HTTP/HTTPS) • Bilingual web-based interface for configuration and management (Russian/English) • 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

Wireless Module Parameters	
Standards	<ul style="list-style-type: none"> • IEEE 802.11b/g/n
Frequency range	<ul style="list-style-type: none"> • 2400 ~ 2483.5MHz
Wireless connection security	<ul style="list-style-type: none"> • WEP • WPA/WPA2 (Personal/Enterprise) • MAC filter • WPS (PBC/PIN)
Advanced functions	<ul style="list-style-type: none"> • Support of client mode • WMM (Wi-Fi QoS) • Information on connected Wi-Fi clients • Advanced settings • Guest Wi-Fi / support of MBSSID • Autonegotiation of channel bandwidth in accordance with environment conditions (20/40 Coexistence)
Wireless connection rate	<ul style="list-style-type: none"> • IEEE 802.11b: 1, 2, 5.5, and 11Mbps • IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps • IEEE 802.11n: from 6.5 to 300Mbps (from MCS0 to MCS15)

Wireless Module Parameters

Transmitter output power

The maximum value of the transmitter output power depends upon the radio frequency regulations applied in your country

- 802.11b (typical at room temperature 25 °C)
15dBm (+/-1.5dB) at 11Mbps
- 802.11g (typical at room temperature 25 °C)
16dBm (+/-1.5dB) at 54Mbps
- 802.11n (typical at room temperature 25 °C)
HT20
16dBm (+/-1.5dB) at MCS7
HT40
13,5dBm (+/-1.5dB) at MCS7

Receiver sensitivity

- 802.11b (typical at PER = 8% (1000-byte PDUs) at room temperature 25 °C)
-76dBm at 11Mbps
- 802.11g (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C)
-68dBm at 54Mbps
- 802.11n (typical at PER = 10% (1000-byte PDUs))
HT20
-67dBm at MCS7
HT40
-64dBm at MCS7

Modulation schemes

- 802.11b: DQPSK, DBPSK, DSSS, CCK
- 802.11g: BPSK, QPSK, 16QAM, 64QAM with OFDM
- 802.11n: BPSK, QPSK, 16QAM, 64QAM with OFDM

Physical Parameters

Dimensions (L x W x H)	· 182 x 119 x 39 mm (7.2 x 4.7 x 1.5 in)
Weight	· 280 g (0.6 lb)

Operating Environment

Power	· Output: 12V DC, 1.25A
Temperature	· Operating: from 0 to 40 °C · Storage: from -20 to 70 °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/corporate/worldwideoffices/>