



DIR-815

AC1200 MU-MIMO Wi-Fi Router with 3G/LTE Support and USB Port

BEFORE YOU BEGIN

Delivery Package

- Router DIR-815
- Power adapter DC 12V/1A
- 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 <u>www.dlink.ru</u>).

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

Default Settings

Domain name of devi	ce dlinkrouter.local.
IP address of devi	ce 192.168.0.1
Username (logi	n) admin
Passwo	rd admin
Name of wireless network 2.4G	Hz DIR-815
(SSID) 5G	Hz DIR-815-5G
Network key (PSK passwor	see WPS PIN on the barcode label on the bottom panel of the device

Router DIR-815 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 802.11a, b, g, n or ac Wi-Fi adapter to create a wireless network.
- A USB modem (when it is necessary to connect to the Internet via mobile operators' networks)¹.

Your USB modem should be equipped with an active SIM card of your operator.

Some operators require subscribers to activate their USB modems prior to using them. Please, refer to connection guidelines provided by your operator when concluding the agreement or placed on its website.

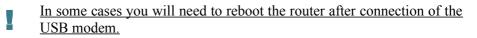
For some models of USB modems, it is required to disable the PIN code check on the SIM card prior to connecting the USB modem to the router.

¹ Contact your operator to get information on the service coverage and fees.

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. *To connect via USB modem*: connect your USB modem to the USB port² located on the back panel of the router.



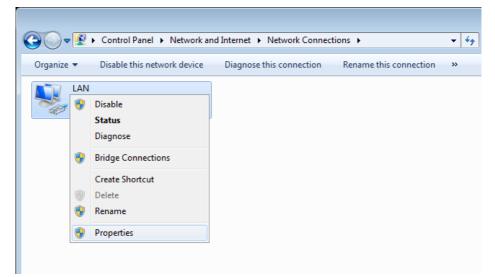
- 3. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.
- 4. Turn on the router by pressing the **POWER** button on its back panel.

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

² It is recommended to use a USB extension cable to connect a USB modem to the router.

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.



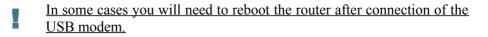
 In the Local Area Connection Properties window, on the Networking tab, select the Internet Protocol Version 4 (TCP/IPv4) line. Click the Properties button. 6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected.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

Internet Protocol Version 4 (TCP/IPv4)) Properties
General Alternate Configuration	
You can get IP settings assigned autor this capability. Otherwise, you need to for the appropriate IP settings.	
Obtain an IP address automatical	Шу
OUSE the following IP address:	
IP address:	· · · · · · ·
Subnet mask:	
Default gateway:	
Obtain DNS server address autor	matically
OUSE the following DNS server add	dresses:
Preferred DNS server:	· · · · · · ·
<u>A</u> lternate DNS server:	
Validate settings upon exit	Ad <u>v</u> anced
	OK Cancel

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

PC with Wi-Fi Adapter

1. *To connect via USB modem*: connect your USB modem to the USB port³ located on the back panel of the router.



- 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 **POWER** 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).

³ It is recommended to use a USB extension cable to connect a USB modem to the router.

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.
- 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.

Internet P	rotocol Version 4 (TCP/IPv4)	Propertie	5		? 🗙
General	Alternate Configuration				
this cap	get IP settings assigned auton ability. Otherwise, you need to appropriate IP settings.				
<u>o</u>	otain an IP address automatical	χ			
U§	e the following IP address:				
<u>I</u> P ad	ldress:				
Subr	et mask:				
Defa	ult gateway:				
o ot	tain DNS server address autom	natically			
Us	e the following DNS server add	resses:			
Prefe	erred DNS server:				
Alter	nate DNS server:				
V	aljidate settings upon exit			Ad <u>v</u> ar	nced
			ОК		Cancel

- 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.



In the opened window, in the list of available wireless networks, select the wireless network **DIR-815** (for operating in the 2.4GHz band) or **DIR-815-5G** (for operating in the 5GHz band) and click the **Connect** button.

Not connected	÷
Connections are available	
Wi-Fi	^
wireless router Connect automatically Conn	ull lect
Open Network and Sharing Cer	nter

- 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

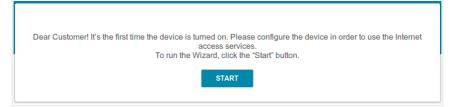
Connecting to Web-based Interface

Start a web browser. In the address bar of the web browser, enter the 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 16).



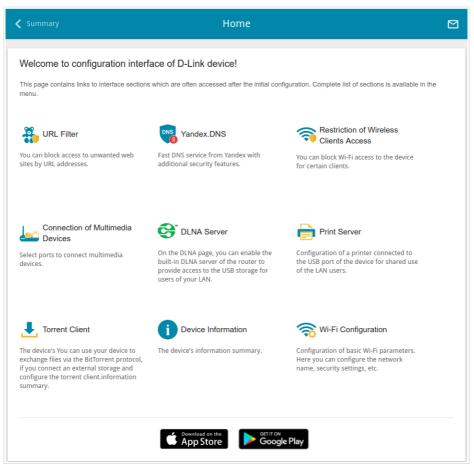
If you configured the device previously, after access to the web-based interface the login page opens. Enter the username (**admin**) in the **Username** field and the password you specified in the **Password** field, then click the **LOGIN** button.

Authorizat	tion	
Username		
Password		6
Wrong usern	ame/password or the expired	session is
-		session is

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.

Configuration	Sum	mary	
Device Information		WAN IPv4	
Model:	DIR-815	Connection type:	Dynamic I
Hardware revision:	R1	Status:	Cable disconnected
irmware version:	3.0.1		
Build time:	Wed Oct 9 2019 2:56:27 PM MSK		
Il version:	1.5.0.0ab41b4-embedded	LAN	
endor:	D-Link Russia	LAN IPv4:	192.168
erial number:	1234567890123	LAN IPv6:	fd01::*
upport:	support@dlink.ru	MAC address:	00:12:33:55:55
ummary:	Root filesystem image for DIR-815	Wireless connections:	
ptime:	01:45:17	Wired connections:	
evice mode:	Router		
nable LEDs:			
		LAN Ports	
Vi-Fi 2.4 GHz		LAN1:	Off
		LAN2:	Off
tatus:	On 🕒	LAN3:	100M-Full 😅
roadcasting:	On 🌘	LAN4:	Off
dditional networks:	0		
etwork name (SSID):	DIR-815-5566		
ecurity:	WPA2-PSK	USB Devices	
		No connected devices	
Vi-Fi 5 GHz			
tatus:	On 🕒	Yandex Yand	lex.DNS
roadcasting:	On •	Idiluex	Enable
dditional networks:	0		
etwork name (SSID):	DIR-815-5G-5566	Safe	1 device
and (eere).	WPA2-PSK	Child	0 devices
ecurity:	WI AZEI OK		

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

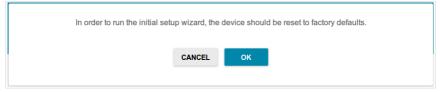


The web-based interface of the router is bilingual (English/Russian). You can select the needed language upon the initial configuration of the web-based interface of the router or in the **System / Configuration** section of the menu.

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.



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-815 (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 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. 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.

Connection method		
Wired connection	•	
Nork mode		ssid
Router	-	3350
	K BACK	NEXT >

In order to connect your device to the network of a 3G or LTE operator, on the **Device mode** page, from the **Connection method** list, select the **3G/LTE modem** value. In this mode you can configure a 3G/LTE 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.

Device mode	
Connection method	_
3G/LTE modem	
🗸 ВАСК	NEXT >

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.

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 webbased 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.

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

Creating 3G/LTE WAN Connection

This configuration step is available for the **3G/LTE modem** mode.

1. If the PIN code check is enabled for the SIM card inserted into your USB modem, enter the PIN code in the **PIN** field and click the **APPLY** button.

USB mod	dem detecting		
Vendor: Model:	MOBILE E3372		
Mode:	LTE		
Attempts le	er the PIN code of the § ft: 4		
PIN*		<i><i><i>w</i></i></i>	
		APPLY	
		K BACK NEXT >	

2. Please wait while the router automatically creates a WAN connection for your mobile operator.

USB mod	dem detecting			
	MOBILE E3372 LTE ction has been created au			
	U	🗶 ВАСК	NEXT >	

3. Click the **NEXT** button.

If the router failed to create a WAN connection automatically, click the **CONFIGURE MANUALLY** button. On the **Internet connection type** page, configure all needed settings and click the **NEXT** button.

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-815 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-815, do not select the **Automatic obtainment of IPv4 address** checkbox and fill in the **IP address**, **Subnet mask**, **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.

_	
Automatic obtainment of IPv4 address	
▲ Automatic obtainment of IPv4 address sufficiently p avoid IPv4 address conflicts, static IPv4 addresses of LA assigned by an upper-level router (or a local DHCP served)	rotects against use of the same addresses in one LAN. In order to N devises should not coincide with addresses from the address range rr).
IP address*	
192.168.0.1	
Subnet mask*	
255.255.255.0	
Gateway IP address	
Hostname*	
dlinkap6b2e.local	
③ Specify a domain name ending with .local. In order to name with a dot and slash at the end in the address bar	access the web-based interface using the domain name, enter this of the web browser (for example, dlinkap12ab.local./)

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 (**N**) to display the entered password.

requency band		Network authentication	
.4 GHz	•	WPA2-PSK	-
letwork name (SSID)*			
RD_DLINK		Password PSK*	ě
SSID		Password should be between 8 an	d 63 ASCII characters
'8:32:1b:48:91:aa		Encryption type*	
		AES	-
WIRELESS NETWORKS			
WIRELESS NETWORKS			

- 3. 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.
- 4. Click the **NEXT** button.

Configuring Wired 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.

P 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 (\bigotimes) to display the entered password. If authorization is not required, select the **Without authorization** checkbox.

Without authorization	
Jsername*	
Password*	Ø

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**.

Without authorization		
Username*		
Password*	Ø	
IP address*		
Subnet mask*		
Gateway IP address*		
DNS IP address*		

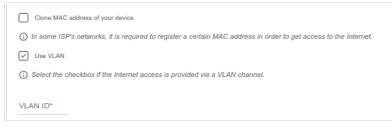
PPTP + **Dynamic IP** or **L2TP** + **Dynamic IP**: Enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** field). Click the **Show** icon (\bigotimes) to display the entered password. If authorization is not required, select 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*	Q	
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*	Ø
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.
- 3. If the Internet access is provided via a VLAN channel, select the **Use VLAN** checkbox and fill in the **VLAN ID** field.



4. Click the **NEXT** button.

Configuring Wireless Network

This configuration step is available for the **3G/LTE modem**, **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.

Wireless Network 2.4 GHz
✓ Enable
Broadcast wireless network 2.4 GHz
③ Disabling broadcast does not influence the ability to connect to another Wi-Fi network as a client.
Network name*
my wi-fi
The number of characters should not exceed 32
Open network
Password*
Password should be between 8 and 63 ASCII characters
Use the same parameters as on the root access point.
RESTORE You can restore network name and security that was set before applying factory settings.

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 **3G/LTE modem**, **Router**, and **WISP Repeater** modes only).

Enable guest network
③ 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*
my wi-fi_Guest
(i) The number of characters should not exceed 32
Open network
Max associated clients*
0
Enable shaping

- 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. If you want to limit the bandwidth of the guest wireless network, select the **Enable shaping** checkbox and fill in the **Shaping** field.
- 9. Click the **NEXT** button.
- 10. 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 **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.⁴

Changing web-based interface password	
For security reasons, please change the password used to	access the device's settings.
Admin password*	
() Password should be between 1 and 31 ASCII characters	
Password confirmation*	
< ВАСК	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 **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.

^{4 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.

IP address*	
192.168.0.1	
Mask*	
255.255.255.0	
Hostname	
dlinkrouter.loca	I

 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.

Mode of local IPv6 address assignment	
Prefix delegation	•
IPv6 address	
fd01::1	£
Prefix	
64	

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).

Mode of dynamic IP address assignment	
DHCP server	•
Start IP*	
192.168.0.100	
End IP*	
192.168.0.200	
Lease time (in minutes)*	
1440	

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 addresses assignment drop-down list).

Stateful	
Start IPv6*	
fd01::2	
End IPv6*	
fd01::ffff:ffff:ffff	

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

Configuring Network Printer

- 1. Make sure that a driver for your printer which will be used as a network printer is installed on your PC.⁵
- 2. To connect the printer to the router, power off both devices. Connect the printer to the USB port of the router, power on the printer, then power on the router.
- 3. Then access the web-based interface, go to the **Print Server** page and click the **ENABLE** button.

Configuration	Print Sen	ver		(
Print Server You can configure the router as a print se way, the router will allow your LAN users connected to the USB port of the router. ENABLE		Â	In order to operate the print server, you should also configure the client PC. For more information on how to configure the print server please refer to the FAQ section at www.dlink.ru.	

- 4. Click the Start button and go to the Control Panel window.
- 5. Select the **Hardware and Sound** 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** devices and printers line.)



⁵ Some home printers can work incorrectly as network printers. Contact the technical support of your printer's manufacturer to clarify if your printer supports this function.

6. In the opened window, click the **Add a printer** button.

~		×
Control Panel + Hardware and Sound + Devices and Printers + + Search Devi	ices and Printers	Q
Add a device Add a printer	-	0
Devices (1) Start the Add Printer Wizard, which helps you install a printer		_
ASUS-UX303LN		
Printers and Faxes		
Fax Microsoft XPS		
Document Writer		

7. Select the **Add a local printer** value and click the **Next** button.

Wh	at type of printer do you want to install?
•	Add a local printer Use this option only if you don't have a USB printer. (Windows automatically installs USB printers when you plug them in.)
•	Add a network, wireless or Bluetooth printer Make sure that your computer is connected to the network, or that your Bluetooth or wireless printer is turned on.

8. Select the **Create a new port** choice of the radio button and then select the **Standard TCP/IP Port** value from the **Type of port** drop-down list. Click the **Next** button.

Choose a printer por	t
A printer port is a type of co printer.	onnection that allows your computer to exchange information with a
Ouse an existing port:	LPT1: (Printer Port)
Oreate a new port:	
Type of port:	Local Port -
	Local Port
	NoMachine Port Monitor
	Standard TCP/IP Port

9. Enter the IP address of the router in the Hostname or IP address field (by default, 192.168.0.1). Deselect the Query the printer and automatically select the driver to use checkbox and, if needed, change the name of the port in the Port name field. Click the Next button.

Type a printer hostna	ime or IP address
Device type:	TCP/IP Device 💌
Hostname or IP address:	192.168.0.1
Port name:	192.168.0.1
Query the printer and au	tomatically select the driver to use

10. Wait for about 20-30 seconds. In the opened Additional port information required window, select the Custom choice of the radio button, click the Settings button, and make sure that the RAW choice of the radio button is selected in the Protocol section and the 9100 value is specified in the Raw Settings section. Click the OK button.

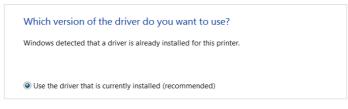
	Configure Standard TCP/IP Port Mo	nitor 📃 🛋
ne device is not found on the network. Be sure that:	Port Settings	
The device is turned on.		
The network is connected.	Port Name:	192.168.0.1
The device is properly configured. The address on the previous page is correct.		
The address on the previous page is correct.	Printer Name or IP Address:	192.168.0.1
you think the address is not correct, click Back to return to the previous page. Then	Protocol	
prrect the address and perform another search on the network. If you are sure the address		
correct, select the device type below.	Raw	C LPR
Device Type		
Standard Generic Network Card	Raw Settings	
C Stalidard	Port Number: 9100	
Custom Settings		

11. Then in the **Additional port information required** window, select the **Standard** choice of the radio button and click the **Next** button.

12. Select your printer and click the **Next** button.

Choose your	r printer from	the list. Click Windows Update to see more models.	
To install the	e driver from a	an installation CD, click Have Disk.	
Manufacturer	•	Printers	
	Ξ	Death as DCD 1100	_
Brother		Brother DCP-116C	
Brother Canon		Brother DCP-116C	
Canon		Brother DCP-117C	
Canon Epson	*	Brother DCP-117C	

13. Select the **Use the driver that is currently installed** choice of the radio button and click the **Next** button.



14. Enter a name of the printer (you can specify any name) in the **Printer name** field and click the **Next** button.

Type a printe	r name
Printer name:	My Printer

15. In the **Printer Sharing** window, select the **Do not share this printer** choice of the radio button and click the **Next** button.



16. If you need to print a test page, click the **Print a test page** button. To finish the printer installation, click the **Finish** button.

SPECIFICATIONS^{*}

Hardware	
Processor	· RTL8197FN (1GHz)
RAM	• 64MB, DDR2, built in processor
Flash	• 16MB, SPI
Interfaces	 10/100BASE-TX WAN port 4 10/100BASE-TX LAN ports USB 2.0 port
LEDs	 Power Internet 4 LAN LEDs 2.4G WLAN 5G WLAN WPS USB
Buttons	 POWER button to power on/power off WIFI button to enable/disable wireless network WPS button to set up wireless connection RESET button to restore factory default settings
Antenna	· Four external non-detachable antennas (5dBi gain)
МІМО	· 2 x 2, MU-MIMO
Power connector	· Power input connector (DC)

^{*} The device features are subject to change without notice. For the latest versions of the firmware and relevant documentation, visit <u>www.dlink.ru</u>.

Software	
WAN connection types	 LTE 3G 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
Network functions	 Support of IEEE 802.1X for Internet connection 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 IP routing Static IPv6 routing IGMP Proxy MLD Proxy RIP Support of UPnP IGD Support of VLAN WAN ping respond Support of SIP ALG Support of RTSP WAN reservation Autonegotiation of speed, duplex mode, and flow control/Manual speed and duplex mode setup for each Ethernet port Setup of maximum TX rate for each port of the router Built-in UDPXY application XUPNPD plug-in

Software	
Firewall functions	 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	 IPsec/PPTP/L2TP/PPPoE pass-through IPsec tunnels
USB interface functions	 USB modem Auto connection to available type of supported network (4G/3G/2G) Auto configuration of connection upon plugging in USB modem Enabling/disabling PIN code check, changing PIN code⁶ USB storage File browser Print server Access to storage via accounts Built-in Samba/FTP/DLNA server Built-in Transmission torrent client; uploading/downloading files from/to USB storage

⁶ For some models of USB modems.

Software	
Management and monitoring	 Local and remote access to settings through TELNET/WEB (HTTP/HTTPS) Bilingual web-based interface for configuration and management (Russian/English) 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/connected USB storage Automatic synchronization of system time with NTP server and manual time/date setup Ping utility Traceroute utility TR-069 client Automatic reboot on schedule

Wireless Module Parameters	
Standards	 IEEE 802.11a/n/ac IEEE 802.11b/g/n
Frequency range	
	· 2400 ~ 2483.5MHz
The frequency range depends	· 5150 ~ 5350MHz
upon the radio frequency regulations applied in your country	· 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 Rate limitation for wireless network/separate MAC addresses Periodic scan of channels, automatic switch to least loaded channel Support of 802.11ac (5GHz) and 802.11n (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): from 6.5 to 300Mbps (MCS0-MCS15) IEEE 802.11n (5GHz): from 6.5 to 300Mbps (from MCS0 to MCS15) IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from MCS0 to MSC9) 	

Wireless Module Parameters		
Transmitter output power	• 802.11a (typical at room temperature 25 °C)	
	14dBm at 6, 9, 12, 18, 24Mbps	
	13dBm at 36Mbps	
The maximum value of the	12.5dBm at 48Mbps	
transmitter output power	12dBm at 54Mbps	
depends upon the radio		
frequency regulations applied in	 802.11b (typical at room temperature 25 °C) 	
your country	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	
	14dBm at MCS0~4	
	13dBm at MCS5	
	12.5dBm at MCS6 12dBm at MCS7	
	5GHz, HT40	
	14dBm at MCS0~2	
	13dBm at MCS3~4	
	12.5dBm at MCS5~6	
	12dBm at MCS7	
	• 802.11ac (typical at room temperature 25 °C)	
	VHT20	
	14dBm at MCS0~4	
	13dBm at MCS5	
	12dBm at MCS6	
	11dBm at MCS7/8	
	VHT40	
	14dBm at MCS0~2	
	13dBm at MCS3~4	
	12dBm at MCS5~6	
	11dBm at MCS7/8/9	
	VHT80	
	14dBm at MCS0~4	
	13dBm at MCS5~6	
	12dBm at MCS7	
	11dBm at MCS8/9	

Pacaivar sansitivity	
Receiver sensitivity	• 802.11a (typical at PER = 10% (1000-byte PDUs) a
	room temperature 25 °C)
	-82dBm at 6Mbps
	-81dBm at 9Mbps -79dBm at 12Mbps
	-77dBm at 18Mbps
	-74dBm at 24Mbps
	-70dBm at 36Mbps
	-66dBm at 48Mbps
	-65dBm at 54Mbps
	• 802.11b (typical at PER = 8% (1000-byte PDUs) at roor
	temperature 25 °C)
	-80dBm at 1Mbps
	-80dBm at 2Mbps
	-76dBm at 5.5Mbps
	-76dBm at 11Mbps
	· 802.11g (typical at PER < 10% (1000-byte PDUs) a
	room temperature 25 °C)
	-82dBm at 6Mbps
	-81dBm at 9Mbps
	-79dBm at 12Mbps
	-77dBm at 18Mbps
	-74dBm at 24Mbps
	-70dBm at 36Mbps
	-66dBm at 48Mbps -65dBm at 54Mbps
	· 802.11n (typical at PER = 10% (1000-byte PDUs) a
	room temperature 25 °C)
	2.4GHz, HT20
	-82dBm at MCS0
	-79dBm at MCS1
	-77dBm at MCS2
	-74dBm at MCS3
	-70dBm at MCS4
	-66dBm at MCS5
	-65dBm at MCS6 -64dBm at MCS7
	2.4GHz, HT40
	-79dBm at MCS0
	-76dBm at MCS1
	-74dBm at MCS2
	-71dBm at MCS3
	-67dBm at MCS4
	-63dBm at MCS5
	-62dBm at MCS6
	-61dBm at MCS7

Wireless Module Parameters		
	· 5GHz, HT20	
	-82dBm at MCS0	
	-79dBm at MCS1	
	-77dBm at MCS2	
	-74dBm at MCS3	
	-70dBm at MCS4	
	-66dBm at MCS5	
	-65dBm at MCS6	
	-64dBm at MCS7	
	5GHz, HT40	
	-79dBm at MCS0	
	-76dBm at MCS1	
	-74dBm at MCS2	
	-71dBm at MCS3 -67dBm at MCS4	
	-67dBm at MCS4 -63dBm at MCS5	
	-62dBm at MCS6	
	-61dBm at MCS0	
	· 802.11ac (typical at PER = 10% (1000-byte PDUs) at	
	room temperature 25 °C)	
	HT20	
	-82dBm at MCS0	
	-79dBm at MCS1	
	-77dBm at MCS2	
	-74dBm at MCS3	
	-70dBm at MCS4	
	-66dBm at MCS5	
	-65dBm at MCS6	
	-64dBm at MCS7	
	-56dBm at MCS8	
	HT40 Z04Dm at MCC0	
	-79dBm at MCS0 -76dBm at MCS1	
	-74dBm at MCS1	
	-71dBm at MCS3	
	-67dBm at MCS4	
	-63dBm at MCS5	
	-62dBm at MCS6	
	-61dBm at MCS7	
	-56dBm at MCS8	
	-54dBm at MCS9	
	HT80	
	-76dBm at MCS0	
	-73dBm at MCS1	
	-71dBm at MCS2	
	-68dBm at MCS3	
	-64dBm at MCS4	
	-60dBm at MCS5	
	-59dBm at MCS6	
	-58dBm at MCS7	

Wireless Module Parameters		
	-53dBm at MCS8 -51dBm 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)	· 205 x 136 x 33 mm (8.07 x 5.35 x 1.3 in)
Weight	· 289 g (0.63 lb)

Operating Environment		
Power	· Output: 12V DC, 1A	
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) 	

Supported USB modems ⁷		
Supported USB modems	. Alcatel X500 . D-Link DWM-152C1 . D-Link DWM-156A6 . D-Link DWM-156A7 . D-Link DWM-156A7 . D-Link DWM-156A7 . D-Link DWM-156A8 . D-Link DWM-156C1 . D-Link DWM-157B1 . D-Link DWR-710 . Huawei E150 . Huawei E156G . Huawei E166G . Huawei E169G . Huawei E173 (Megafon) . Huawei E220 . Huawei E3131 (MTS 420S)	
	 Huawei E352 (Megafon) Prolink PHS600 Prolink PHS901 ZTE MF112 ZTE MF192 ZTE MF626 ZTE MF627 ZTE MF652 ZTE MF667 	
	 ZTE MF668 ZTE MF752 	

⁷ The manufacturer does not guarantee proper operation of the router with every modification of the firmware of USB modems.

Supported USB modems	
LTE	 Alcatel IK40V D-Link DWM-222 Huawei E3131 Huawei E3272 Huawei E3351 Huawei E3372 Huawei E367 Huawei E392 Megafon M100-1 Megafon M100-2 Megafon M100-3 Megafon M150-1 Megafon M150-1 Megafon M150-2 MTS 824F MTS 827F Quanta 1K6E (Beeline 1K6E) Yota LU-150 Yota WLTUBA-107 ZTE MF823 ZTE MF827
Smartphones in USB tethering mode	Some models of Android smartphones

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