

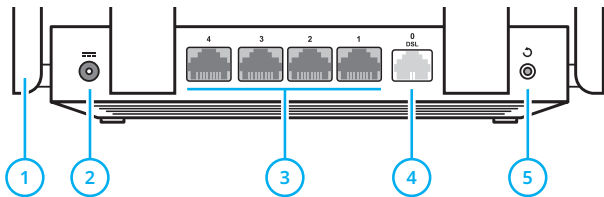
# KEENETIC DUO

User guide

Learn more about the features of your Keenetic at

**[help.keenetic.com](https://help.keenetic.com)**

# Getting started with Keenetic Duo



## 1 Wi-Fi antennas

Four PCB Wi-Fi antennas with 5 dBi gain. We recommend to keep the antennas in vertical position.

## 2 DC power connector

Connector for the DC power adapter from Keenetic package. The Keenetic is designed for continuous operation and does not need to be powered off daily.


## 3 Network ports «4», «3», «2», «1»

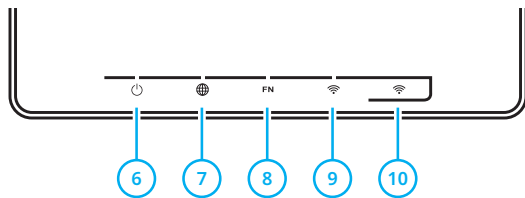
Three ports to connect computers and other network devices. The port indicator lights up if the connection is established, and flashes during data transfer.

## 4 Port «0 / DSL»

A port to connect to the DSL line with a supplied DSL splitter.

## 5 Button ↻ (Reset)

To reset the administrator password and all user settings for all modes, press this button and hold for 10 seconds until the  indicator starts flashing. The Keenetic will reboot with the default settings, in the main operation mode.





#### 6 Indicator (Status)

**On** — the Keenetic is ready for operation.

**Off** — the Keenetic is turned off.

**Flashing slowly** — the Keenetic is being rebooted or is updating its operating system.

**Flashing for 2 seconds, then steady on** — FN button or  button is pressed; the function assigned to the button was started.

**Flashing for 2 seconds, then off for 2 seconds** — FN button or  button is pressed; the function assigned to the button was stopped.

#### 7 Indicator (Internet)

**On** — the Internet connection has been established.

**Off** — there is no Internet connection.

#### 8 Indicator «FN»

The purpose of this indicator can be changed in the settings. By default it indicates if updates for the Keenetic firmware are available.

**Flashing** — An update is available.

**Off** — No updates available.

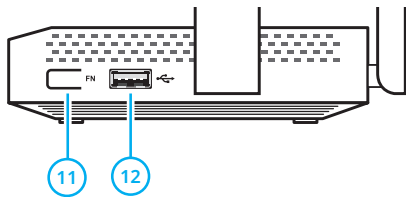
#### 9 Indicator (Wi-Fi network)

**On** — the Wi-Fi network is enabled.

**Off** — the Wi-Fi network is disabled.

**Flashing frequently** — indicates data transfer.

**Flashing slowly** — a WPS session is in progress.



### 10 Button (Wi-Fi network control)

By default this button allows you to easily connect new devices running Microsoft Windows or Android, or other WPS compliant devices to the wireless network.

**Pressing it once** — starts a quick connection via WPS.

**Pressing and holding for 3 seconds** — turns Wi-Fi on or off.

In the Keenetic settings you can assign other functions to this button..

### 11 Programmable FN button


By default the button is used to safely remove drives connected to the USB port. In the Keenetic settings you can assign other functions to this button.

### 12 USB port

This USB 2.0 port is compatible with 3G/4G modems, printers, and external hard drives.

The current list of compatible USB devices can be found on the website [help.keenetic.com](http://help.keenetic.com).

## Configuring with Keenetic web interface

The Keenetic must be powered via the supplied power adapter and ready for work, with the  indicator steady on.

Connect the computer to the Keenetic. To do this, select the Keenetic wireless network from the list of available Wi-Fi networks, and connect to it. The network name and security key are printed on the label on the bottom of Keenetic. Alternatively, you can connect with a network cable, using it to

connect port 2 of the Keenetic to the computer's Ethernet adapter.

To access the Keenetic web interface open a browser and go to [my.keenetic.net](http://my.keenetic.net). When you first enter the web interface, the quick setup wizard will start automatically. Click «Quick setup» and follow the wizard's instructions to complete the configuration.

## Configuring with My.Keenetic mobile app

Install My.Keenetic app on your smartphone. To do this go to [keenetic.com/getapp](http://keenetic.com/getapp) in your web browser or scan the QR code located on this page with your mobile device.

Then launch the application and follow its instructions. You are about to set up the Keenetic in just a few steps, and then you will be able to manage your home network even remotely via the Internet.



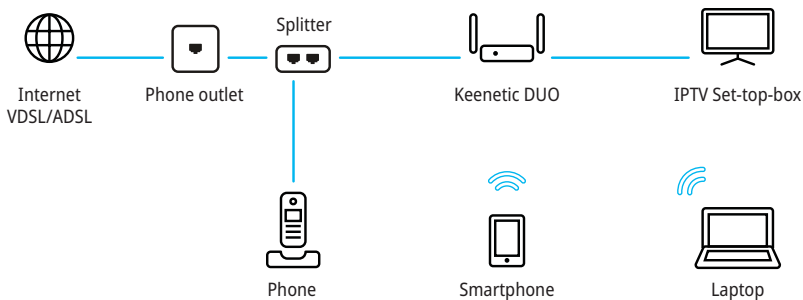
[keenetic.com/getapp](http://keenetic.com/getapp)



# Connecting to the Internet via VDSL or ADSL

Connect Keenetic to your phone outlet, using the supplied DSL splitter. Connect the «LINE» port with your phone wall outlet and the «MODEM» port — with the «0 / DSL» of Keenetic. You can connect your landline phone to the «PHONE» port of the splitter.

For additional landline phones, always use microfilters (not supplied). This will protect your DSL connection from landline phone noise and vice versa.



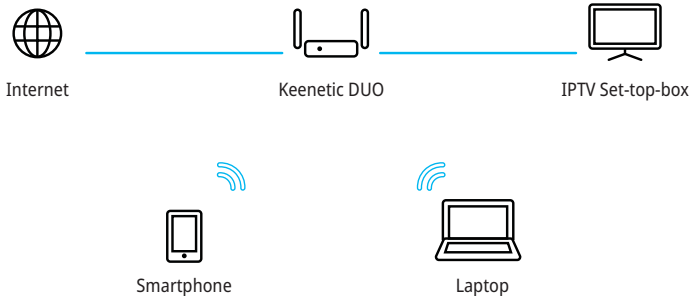
# Connecting to the Internet via Ethernet cable

Keenetic Duo supports an Internet connection via Ethernet line, but there is no assigned WAN port by default. Hence, assign WAN port via wizard setup in web interface or mobile app before plugging an Ethernet cable from your ISP.

If the contract with your broadband provider specifies a MAC address of another device, such as your computer, we recommend to tell your ISP the

MAC address of the Keenetic before connecting. It can be found on the label on the bottom side of Keenetic. Alternatively, you may change the MAC address of the Keenetic during connection setup.

If you have an IPTV set-top box or a TV that can receive IPTV directly, we recommend to connect it to the Keenetic using an Ethernet cable.



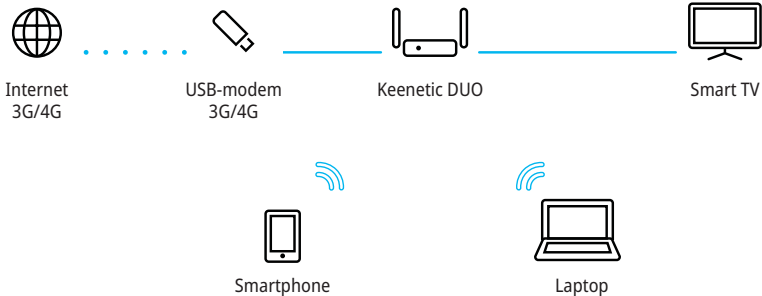
# Connecting to the Internet via a 3G/4G USB modem

To connect to 3G/4G Internet you'll need a USB modem. Place it near a window and make sure there are no obstacles between the modem and the window, to avoid weakening the network signal. If necessary, use a small USB extension cable up to 1 meter long.

Before installing the modem, disable PIN code request on its SIM card. You can do this using a mobile phone, by taking the SIM card out of the modem and temporarily installing it into the phone. Alternatively you can connect the modem to a computer and use the modem utility.

Connect the modem with installed SIM card to the USB port of the Keenetic. When the modem is ready for operation, the FN indicator of the Keenetic will light on; then you can proceed to configure the connection.



You can use a USB modem as your primary Internet connection or as a backup one in addition to other connections.



## If your Internet connection stopped working

Perhaps you just moved too far away from the Keenetic and disconnected from Wi-Fi, or the network cable between the Keenetic and the computer got disconnected.

First of all check if there is an Internet connection on other computers or mobile devices in the home network, and use a network connection troubleshooting program on the device that cannot connect to the Internet. Check the Keenetic settings for any configured Internet access restrictions for this device, for example scheduled connection restrictions.

If the Internet access is gone on all the devices, check if the Keenetic's  (Internet) and  (Wi-Fi) indicators and indicators of the network ports being used are on.

## Information and support

Updates for the Keenetic operating system that improve performance, compatibility, and security, are released on a regular basis. Use automatic updates to have the Keenetic download and install the new versions of the operating system automatically, or follow the updates via My.Keenetic mobile app and install them without delay.

Some issues may be eliminated by a simple restart:

- Turn off the power of the Keenetic and other home network devices.
- Verify that network cables are connected properly. Replace the cables that cannot be properly inserted and fixed in the ports.
- Power on the Keenetic, wait for it to power up, then turn on the other devices.

If the Internet connection is not restored, contact your provider's helpdesk and request that the technical condition of connections be checked, to ensure that there are no failures.

If you have any questions related to setting up and operating the Keenetic, visit our support page [help.keenetic.com](https://help.keenetic.com). There you will find instructions and answers in our regularly updated knowledge base, and when in doubt, you will get help from our experts.

## Recommendations for safe use

- The Keenetic is intended to be operated indoors, in the conditions compliant with the operation conditions as outlined in the Important Information section. Do not use it outdoors, in dusty or dirty rooms.
- Remove all protective film before operating the device.
- In the course of the operation, the device heats up, so do not install it in closed cabinets or cavities, or near sources of heat. Do not cover it, and ensure that nothing blocks the casing vents; promptly clean the casing vents of dust.
- Only use the power adapter supplied together with the Keenetic. Do not connect the power adapter if its casing or cable are damaged.
- Connect the power adapter only to electrical outlets in working condition, with the voltage falling within the range indicated on the adapter's label. Unplug the power adapter from power outlet during prolonged breaks in operation.
- Never open the Keenetic or its power adapter and never try to service them on your own. If you suspect a hardware malfunction, please contact Keenetic customer support.
- To clean the device, use a damp cloth soaked in mild detergent. Always turn it off before you begin cleaning.
- Avoid getting any liquid inside the Keenetic and its power adapter. If this happens, immediately unplug them from the power outlet and dry thoroughly before reconnecting.

## How to achieve maximum Wi-Fi speed

Keenetic Duo is an AC1200 Dual Band Smart Wi-Fi Router. It provides link rate of 867 Mbps in the 5 GHz band and 300 Mbps in the 2.4 GHz band.

The link rate depends on Wi-Fi features supported by a client device, including standard, number of spatial streams and channel bandwidth.

The maximum link rate of 867 Mbps is available for 802.11ac capable devices that have 2x2 type Wi-Fi radio and configured to use 80 MHz channel width.

Please note, that according to the requirements of the Wi-Fi Alliance, wireless devices can automatically choose 20 MHz channel width in the 2.4 GHz band, and since many smartphones and

tablets are equipped with a 1x1 type Wi-Fi adapter, they will connect at rates up to 72 Mbps and the actual speed of Internet access will not exceed 40 Mbps. The current link rate of connected devices is indicated in Keenetic's web interface and in My.Keenetic mobile app.

The actual speed of a Wi-Fi network depends on the number of devices, their distance from the Keenetic, and interference. In the 2.4 GHz band the strongest interference comes from microwave ovens, baby monitors, and other (neighboring) networks — in such circumstances, we recommend selecting 20 MHz channel width in the Keenetic's Wi-Fi settings. For critical connections, use the less congested 5 GHz band,

but keep in mind that the network range in it is physically smaller and is weakened by any obstacles.

For efficient Wi-Fi operation, follow these guidelines:

- Install the Keenetic in a room where you want to ensure the fastest wireless connection. Concrete walls greatly reduce the network speed.
- Position the Keenetic antennas vertically so the signal propagates in a horizontal plane.

## Working with USB drives

Keenetic Duo supports USB drives with Microsoft Windows file systems including NTFS, FAT32, and FAT; Linux file systems including EXT2, EXT3 and EXT4; and Apple HFS+ file system. The Keenetic will automatically detect and mount a compatible drive. If the drive is not recognized, connect it to a computer and check for file system errors.

By default, all the USB applications installed on the Keenetic are disabled, except the Windows network file server. To run the Transmission torrent client, UPnP AV/DLNA or FTP server, you must first connect a USB disk, and then set up these applications in the corresponding section of the web interface.

Access to the file server from computers and mobile devices running Android, Microsoft Windows, Apple OS X, or iOS is open by default to all users on the home network without authorization. You can change this policy and add Folder permissions control module to the Keenetic

- To make the Wi-Fi network available outdoors, for example around your cottage, place the Keenetic by the window overlooking the part of the grounds where you plan to use Wi-Fi most of the time.
- IEEE 802.11n allows the use of an open network or a network with WPA2 AES security (enabled by default). If you select WEP or WPA protection, maximum Wi-Fi speed will be reduced to 54 Mbps.
- Install updates for all your wireless devices and laptops.

operating system to restrict user access to folders.

To use a USB drive as a backup drive with Time Machine, install and enable Apple network application in the Keenetic, and setup the shared folder that will be used for backups on the USB drive.

To prevent data corruption on the USB drive, follow these guidelines:

- Do not use flash drives for Transmission torrent client and torrents downloading.
- Do not remove the USB drive during operation. Before removing, press the FN button and wait until the corresponding FN indicator goes out.
- If the drive does not have enough power from the USB port and it gets disconnected under heavy use, connect it to an external power supply via a USB hub.

# Warranty

Keenetic Limited guarantees that the product is free of hardware defects related to materials and assembly for 3 years from documented date of purchase by the first end user, the date of product service tag automatic registration in the Keenetic Support Center log at the device's first connection to the Internet, or the first call to the helpdesk, whichever happens earlier. However, regardless of the date of sale, the warranty period may not exceed 4 years from the date of manufacture.

Date of manufacture is determined by the serial number of the product. The format of the serial number is as follows: S YY WW xxxxxxxx, where YY is the year, and WW the week of the production in the given year.

In case of defects manifesting and a valid claim received from the consumer within this period, Keenetic Limited will, at its discretion, provide free repair, replace the product with a new one, or provide a replacement equivalent in functionality and reliability.

The warranty only applies to Keenetic products sold through the official distribution channels of Keenetic Limited. Warranty service is carried out through authorized Keenetic service centers located in the country where the product was sold. Keenetic Limited warrants neither uninterrupted or error-free operation nor compatibility of its software with third party hardware or software, unless otherwise specified in the documentation accompanying the product.

Keenetic Limited is not responsible for any damage directly or indirectly caused to people, pets, or any property, if it was caused by product

misuse, violation of the rules and conditions of use or storage of the product, intentional or negligent actions of the customer or third parties.

Keenetic Limited is not responsible for loss or corruption of data stored on storage devices connected to the Keenetics. We strongly recommend to make backup copies of important data.

KeenDNS services and online updates are provided "as is" without any warranty, express or implied.

The warranty is voided in the following cases:

- the product label is missing or serial number or service code on the label has been changed, is not readable, or the reading is ambiguous;
- the product was used inappropriately or not in accordance with the instruction manual;
- the product stopped working as a result of installing software not distributed through Keenetic customer support or website;
- the device was damaged due to the connection of defective third party equipment to it;
- the product was rendered non-functional due to penetration of foreign objects, substances, or liquids, as a result of a lightning strike, flooding, fire, improper ventilation, other external factors and force majeure situations;
- the product has been opened, altered, or repaired by unauthorized persons or service centers;
- the product was damaged during transportation, except when the transportation was carried out by an authorized Keenetic service center.

# Important information

## Package contents

- Keenetic Duo (Model KN-2110)
- Power adapter 12V, 1.5A for AC 100 – 240V, 50/60Hz
- Ethernet cable
- User Guide
- DSL splitter
- 2 telephone cables

## Environmental conditions

- Operating temperature range: 0 to +40°C
- Operating humidity: 20 to 95% non-condensing
- Storage temperature range: -30 to +70°C
- Storage humidity: 10 to 95% non-condensing

## Accompanying documentation

Please read the supplied documentation carefully and keep it for future reference. Keenetic Limited provides no other warranties for products and services other than those explicitly specified in the conditions accompanying such products and services. No part of this document, except for the Warranty chapter, can be construed as warranty. We are continuously improving the hardware and software, therefore changes and improvements not described in the accompanying documentation may be applied to the product.

## Legal restrictions

Additional restrictions on the operation of network equipment may be in force in your country. They may be related to the use of encryption protocols, frequencies, power of the transmitted signal, or require mandatory registration of the equipment with the regulating bodies. Before using


Keenetic, make sure that your chosen modes and applications do not violate the law and rules applicable in your country.

## Service tag

Service tag is the identification number of the Keenetic, which is stored in its memory and printed on its label. When you first connect to the Internet the service tag is automatically recorded in the Keenetic Support Center log. By using the Keenetic Duo, you agree with right of Keenetic Limited to automatically receive information about your device over the Internet for the needs of technical support and warranty servicing.

## Explanation of product label symbols:



In accordance to European directive 2012/19/EU, this product cannot be disposed of together with household waste. To comply with the WEEE symbol of  selective waste collection, please dispose of this product at your local competent recycling organization.



This product is only intended for indoor use.



DC voltage



Only use the power adapter supplied together with the Keenetic

## Manufacturer

Keenetic Limited. Office 1202, AT Tower, 180 Electric Rd, North Point, Hong Kong.

Country of origin: China.

## Importer in the EU

KEENETIC Sp. z o.o. 02-739 Warsaw, Poland, Walbrzyska 11/167

## Simplified EU declaration of conformity

Keenetic Limited hereby declares that this device is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at [help.keenetic.com](http://help.keenetic.com)

This device complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.


The frequency and the maximum transmitted power in EU are listed below:

2400-2483,5 MHz: 20 dBm

5150-5350 MHz: 23 dBm

5470-5725 MHz: 30 dBm

This device is restricted to indoor use only when operating in 5150 to 5350 MHz frequency range (channels 36 - 64).

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