LHG XL 52 ac

Quickstart

Please follow these quick steps to set up your device:

- Assemble unit (see "Assembling").
- Open the Ethernet door.
- Connect the device to the PoE (see "Powering").
- Mount unit (see "Mounting").
- Open network connections on your PC, mobile phone or other device and search for MikroTik wireless network and connect to it.
- The configuration can be done through the wireless network using a web browser or mobile app - (see "MikroTik mobile app"). Alternatively, you can use WinBox configuration tool http://mt.lv/winbox.
- Once connected to the wireless network, open http://192.168.88.1 in your web browser to start configuration, user name: a*dmin* and there is no password by default.
- When using mobile application choose Quick setup and it will guide you through all necessary configuration in six easy steps.
- We recommend clicking the "Check for updates" button and updating your RouterOS software to the latest version to ensure the best performance and stability.
- Choose your country, to apply country regulation settings and set up your password in the screen that loads.

Powering

The device accepts the power:

- PoE 802.3af/at ⎓ 12-57 Vdc

The power consumption 8 W.

Connecting to a PoE Adapter:

1. Connect the Ethernet cable from the device to the PoE+DATA port of the PoE adapter.
2. Connect an Ethernet cable from your local network (LAN) to the PoE adapter.
3. Connect the power cord to the adapter, and then plug the power cord into a power outlet.

Radio module Information

Max Output Power (EIRP): 16.3 dBm(2412÷2462MHz), 14.7 dBm(5150÷5250 MHz), 11.8 dBm(5725÷5850 MHz)
Operating frequencies: 2412 ÷ 2462 MHz, 5150 ÷ 5250 MHz, 5725 ÷ 5850 MHz
Antenna specifiaction: Antenna gain 18 dBi for 2.4 GHz and 27 dBi for 5 GHz

MikroTik mobile app

Use the MikroTik smartphone app to configure your router in the field, or to apply the most basic initial settings for your MikroTik home access point.

1. Scan QR code and choose your preferred OS.
2. Install and open application.
3. By default, IP address and user name will be already entered.
4. Click Connect to establish a connection to your device through a wireless network.
5. Choose Quick setup and application will guide you through all basic configuration settings in a couple of easy steps.
6. Advanced menu is available to fully configure all necessary settings.
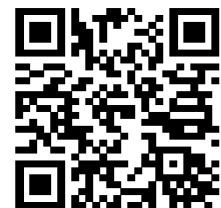
Assembling

The device needs to be assembled from four parts, LHG dish, two legs and, the main body.

1. Attach two legs to the main body, legs are different and marked with L and R.
2. Attach the assembly to the dish.
3. Secure with provided screws using PH2 screwdriver.
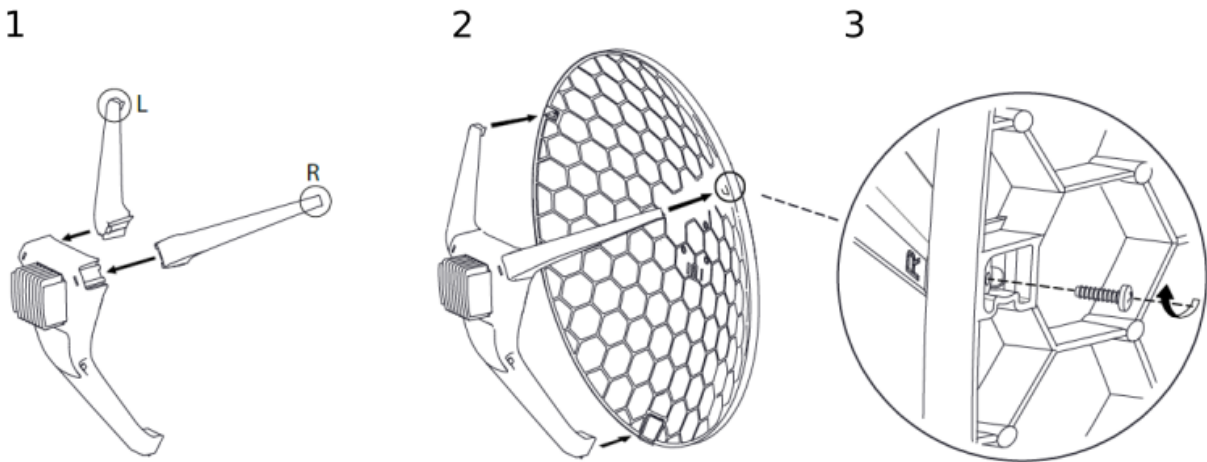
Mounting

The LHG XL ac is designed to be used outdoors and mounted on pole or mast. Package includes adjustable mounting assembly.

> When mounting, please ensure that cable feed is pointing downwards.
>
> The IP rating scale of this device is IP54. We recommend using Cat6 shielded cables.
>
> Warning! This equipment should be installed and operated with a minimum distance of 20 cm between the device and your body. Operation of this equipment in the residential environment could cause radio interference.

Mounting and configuration of this device should be done by a qualified person.

The Mounting assembly is provided with the package.
1. Attach the mounting assembly to the back of the dish using four screws.
2. Attach the unit to the pole using U clamp placing washers and nuts in order as shown on the illustration.
3. Align unit accordingly to the signal and secure nuts.
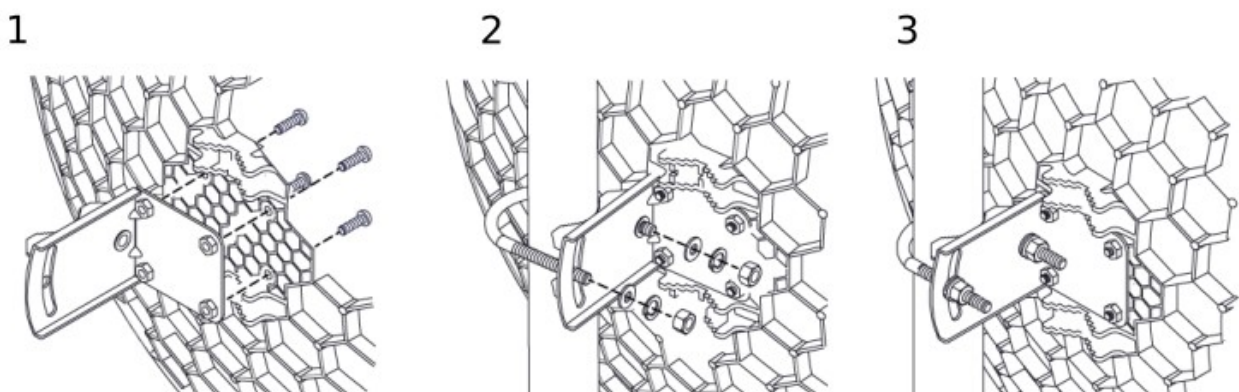
* The device should be always placed by UP arrow facing upwards.

OK

NOT OK
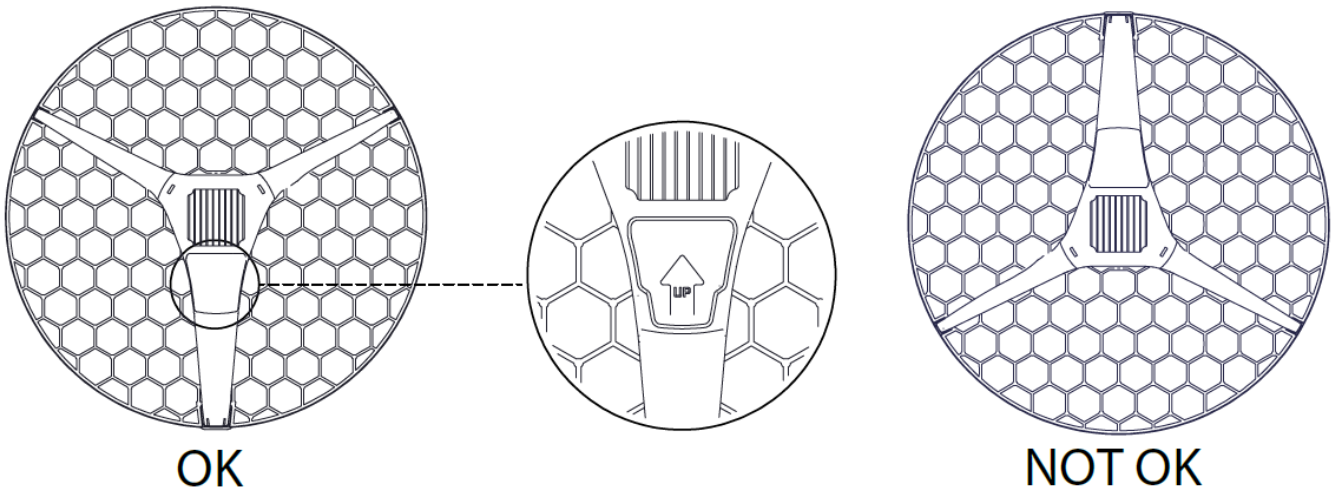
Grounding

The installation infrastructure (towers and masts), as well as the router itself, must be properly grounded.

The device includes a grounding wire attachment connector behind Ethernet door. Attach your grounding wire to the grounding connector, then attach the other end of the grounding wire to the grounded mast.

Please secure all loose Ethernet cables and antenna cables to the pole or mast approximately at 30cm from the device, so that the cable weight is not pulling the ports and connectors.

Front status LED behavior

RouterOS allows configuring each LEDs activity the way that user wishes. It is possible to configure the LEDs to display wireless strength, blink the LEDs on interface traffic activity and many other options. For further information please visit https://wiki.mikrotik.com/wiki/Manual:System/LEDS

Default factory configuration for this device:
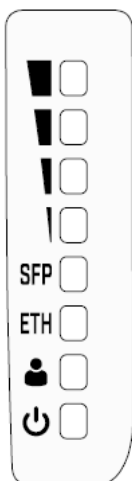
➔ Green LED the fourth level of signal strength.

➔ Green LED the third level of signal strength.

➔ Green LED the second level of signal strength.

➔ Green LED the first level of signal strength.

➔ Solid Green – Active SFP port.

➔ Solid Green – Active Ethernet port.

➔ Solid Green – User-defined LED.

➔ Solid Blue – The device is powered on.

Operating system support

The device supports RouterOS software version 6. The specific factory installed version number is indicated in the RouterOS menu `/system resource`. Other operating systems have not been tested.

Configuration

The device is configured as a wireless client, you will need to select AP to connect and set up a password.

We recommend clicking the "Check for updates" button in the QuickSet menu, as updating your RouterOS software to the latest version ensures the best performance and stability. Please make sure you have selected the country where the device will be used, to conform with local regulations.

RouterOS includes many configuration options in addition to what is described in this document. We suggest starting here to get yourself accustomed to the possibilities: http://mt.lv/help. In case IP connection is not available, the Winbox tool (http://mt.lv/winbox) can be used to connect to the MAC address of the device from the LAN side (all access is blocked from the Internet port by default).

For recovery purposes, it is possible to boot the device for reinstallation, see section Buttons and Jumpers.

Expansion slots and ports

- Gigabit Ethernet port, supporting automatic cross/straight cable correction (Auto MDI/X). Either straight or crossover cable can be used for connecting to other network devices.
- SFP port.
- Integrated Wireless module operating at 2.4 GHz, 802.11b/g/n protocol.
- Integrated Wireless module operating at 5 GHz, 802.11a/n/ac protocol.

Reset button

The reset button has three functions:

- Hold this button during boot time until LED light starts flashing, release the button to reset RouterOS configuration (total 5 seconds).
- Keep holding for 5 more seconds, LED turns solid, release now to turn on CAP mode. The device will now look for a CAPsMAN server (total 10 seconds).
- Or Keep holding the button for 5 more seconds until LED turns off, then release it to make the RouterBOARD look for Netinstall servers (total 15 seconds).

Regardless of the above option used, the system will load the backup RouterBOOT loader if the button is pressed before power is applied to the device. Useful for RouterBOOT debugging and recovery.

Accessories

Package includes the following accessories that come with the device:

- EU Switching Power Supply 24 V ⎓ 1.2 A 28.8 W 86.8 % VI 220 cm RA DC plug mod Hor shorter plug.
- Gigabit POE injector.
- LHG case
- LHG legs L, R.
- LHG XL 550mm Dish
- Montage assembly
- LHG 2 fastening set.
- LHG 60 fastening set.

Please visit wiki pages for MikroTik SFP module compatibility table:
https://wiki.mikrotik.com/wiki/MikroTik_SFP_module_compatibility_table

Specifications

For more information about this product, specifications, pictures, downloads and test results please visit our web page: https://mikrotik.com/product/lhg_xl_52_ac

Federal Communication Commission Interference Statement

FCC ID: TV7LHG5HPACD2HPD

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This device and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.

IMPORTANT: Exposure to Radio Frequency Radiation.

This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and any part of your body.
Usage of device: Indoor / Outdoor

Industry Canada

IC: 7442A-LHG5ACD2HPD

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IMPORTANT: Exposure to Radio Frequency Radiation.

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

Cet équipement est conforme aux limites d'exposition au rayonnement IC définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et toute partie de votre corps.

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the
potential for harmful interference to co-channel mobile satellite systems.
les dispositifs fonctionnant dans la bande de 5 150 à 5 250 MHz sont réservés uniquement
pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux
systèmes de satellites mobiles utilisant les mêmes canaux

Usage of device: Indoor / Outdoor (Except, if stated otherwise above)

CAN ICES-3 (B)/NMB-3(B)FCC