

Cube Lite60

The Cube Lite60 is an outdoor wireless router with a built-in directional antenna which works in the 60 GHz spectrum.

This device needs to be upgraded to RouterOS v6.46 or the latest version to ensure compliance with local authority regulations.



It is the customer's responsibility to follow local country regulations, including operation within legal frequency channels, output power, cabling requirements, and Dynamic Frequency Selection (DFS) requirements. All Mikrotik radio devices must be professionally installed.

Note. Information contained here is subject to change. Please visit the product page on www.mikrotik.com for the most up to date version of this document.

Quickstart

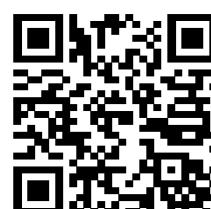
- Open the Ethernet door to connect an Ethernet cable to the Ethernet port, connect the other end of the Ethernet cable to the included PoE injector.
- Plug the PoE injector into your network switch or computer.
- Plug the included power supply into the PoE injector to start up the device.
- Set LAN computer IP configuration to automatic (DHCP).
- Default IP address of the unit is 192.168.88.1, open this address in your web browser to start the configuration.
- User name: *admin* and there is no password by default you will be logged in automatically to the Quick Set screen.
- We recommend clicking the “Check for updates” button on the right side and updating your RouterOS software to the latest version to ensure the best performance and stability.
- To personalize your wireless network, SSID can be changed in the fields “Network Name”.
- Choose your country on the left side of the screen in the field “Country”, to apply country regulation settings.
- Set up your wireless network password in the field “WiFi Password” the password must be at least eight symbols.
- Set up your router password in the bottom field “Password” to the right and repeat it in the field “Confirm Password”, it will be used to login next time.
- Click on the “Apply Configuration” to save changes.

If device RX blocking condition has happened device will restore it's signal after few seconds.

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.



Configuration

Once logged in, 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. For wireless models, 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 from the network (see [Reset button](#)).

If the device lose connection, wait for few seconds and then the device will recover connection automatically.

Safety Warnings



Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

Read the installation instructions before connecting the system to the power source.

This equipment is to be installed by trained and qualified personnel, as per these installation instructions.

The installer is responsible for obtaining any required local or national safety inspections of the structural integrity of the installation by the local authority/inspection department.

All installation methods for mounting an access point on any wall surface is subject to the acceptance of local jurisdiction.

The Installation of the equipment must comply with local and national electrical codes.

This unit is intended to be mounted outdoors on a pole. Please read the mounting instructions carefully before beginning installation. **Failure to use the correct hardware and configuration or to follow the correct procedures could result in a hazardous situation to people and damage to the system.**

We cannot guarantee that no accidents or damage will occur due to the improper use of the device. Please use this product with care and operate at your own risk.

Assembly and mounting

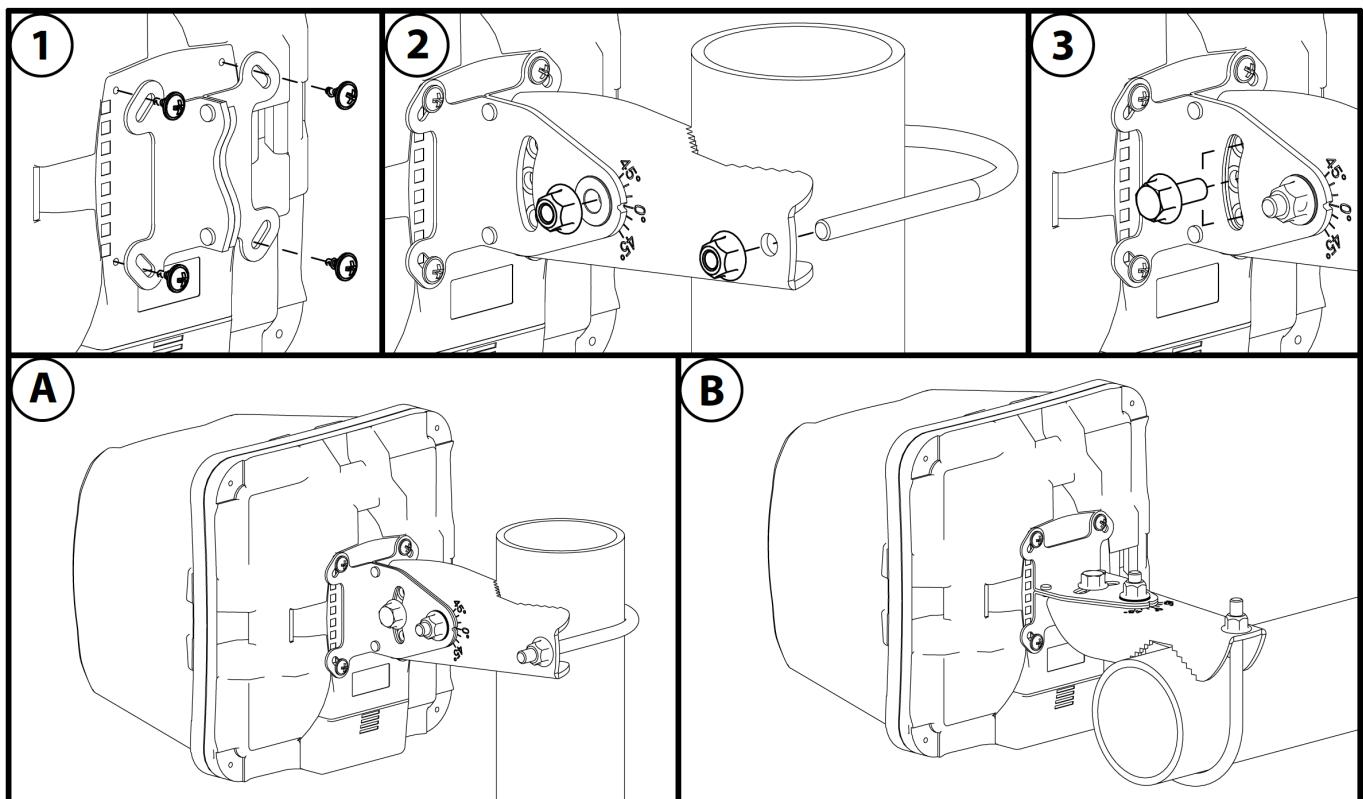
The device can be mounted on the vertical or horizontal pole as shown in picture A and B. Please note that a device needs to be mounted with bottom latch facing down. Maximum pole diameter is 51 mm.



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

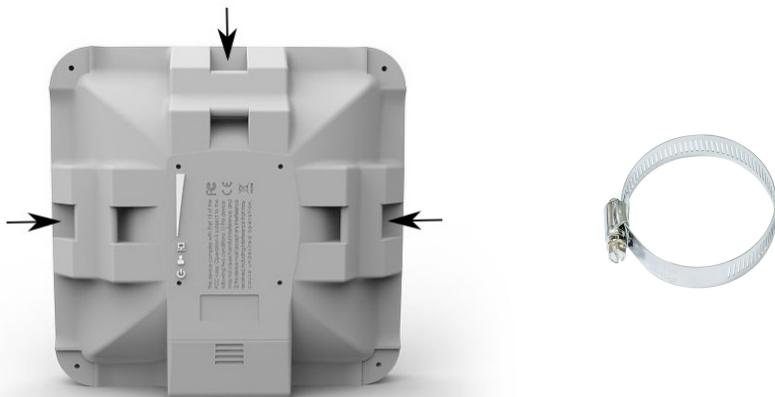
Choose your desired position, the device will require precise adjustment for best performance.

1. Attach provided mount to the back of the device with provided screws using ph0 screwdriver.
2. Mount on pole with U bolt bracket using 8 mm ratchet.
3. Place a bolt in one of the three positions, they will allow for fine adjustment, when placed in the middle you can adjust in 23-degree range if an adjustment needs to go further replace the screw in a different position.



The IP rating scale for this device is IP54. When mounting outdoors, please ensure that any cable openings are directed downwards. We recommend using POE injector and proper grounding with Cat6 shielded cable. When using and installing this device please pay attention to Maximum Permissible Exposure (MPE) safety distance with a minimum of 20 cm between the radiator and your body.

Alternatively, the device can be mounted on one of the three mounting slots on the backside of the device.



- You can use a metal ring for example.
- Use a Phillips screwdriver to loosen the metal ring.
- Slide one end of it through the most convenient of the three mounting slots.
- Position the device on the pole where it will be mounted.
- Slide the loose end of the mounting ring back to its closing latch and use the screwdriver to tighten it.



It's recommended to secure Ethernet cable to the pole using zip ties. With the distance from the device approximately 30 cm.

As an additional option, you can use "quickMOUNT-X" – mounting bracket for easy adjustment can be obtained separately. Product web page: https://mikrotik.com/product/qm_x



Specially designed for SQ series enables vertical and horizontal adjustment on the pole.

Grounding

The device includes a grounding connection (marked GND) which you should connect to the grounding installation of the tower or building where the device will be used. This is to substantially reduce the risk of ESD and lightning damage.

Powering

The Cube Lite60 accepts DC == power from Passive PoE injectors (one power supply and PoE injector are included) accepts 12-28 V DC == consuming at maximum load 4 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.

Extension Slots and Ports

- 10/100 Ethernet port.
- Integrated w60g interface with built-in antenna.

Reset button

RouterBOOT reset button has the following functions. Press the button and apply the power, then:

- Release the button when a green LED starts flashing, to reset RouterOS configuration to defaults.
- Release the button when the LED turns solid green to clear all configuration and defaults.
- Release the button after LED is no longer lit (~20 seconds) to cause the device to look for Netinstall servers (required for reinstalling RouterOS over the network).

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/US Switching Power Supply 24V DC ==, 0.38 A, 9 W, Level VI, cable:1.5 m.
- POE Injector with shielded ethernet cable/connector (RBPOE).
- SXT_SQ_Mountv1.
- K-70 Fastening set.

Specifications

For more information about SQ series products, specifications, pictures, downloads, and test results please visit our web pages: https://mikrotik.com/product/cube_lite60

Operating system support

The device supports RouterOS software version 6.46. The specific factory-installed version number is indicated in the RouterOS menu `/system resource`. Other operating systems have not been tested.

Notes

This device meets the Maximum TX power limit per ETSI regulations. The frequency and the maximum transmitted power in EU are listed below: 57-66GHz: 34.92 dBm. An Operational mode in the 60 GHz band: 58.32 GHz, 60.48 GHz, 62.64 GHz, 64.80 GHz. This device is certified for outdoor use in Point to Multipoint applications. In the following countries this device cannot be used in Fixed Point-to-Point applications:

	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	UK

Federal Communication Commission Interference Statement

FCC ID: TV7CUBE60



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 operated 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.

This device is not to be operated on aircraft except for the conditions listed on FCC CFR §15.255 (b)

Industry Canada

IC: 7442A-CUBE60

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.

This device is not to be operated on aircraft except for the conditions listed on ISED RSS-210 Annex J.1.

Cet appareil ne doit pas être utilisé sur un avion, sauf dans les conditions énumérées ISED RSS-210 Annex J.1.

