



MikroTik hAP ac³ Routers and Wireless User Guide

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User Manual
hAP ac³



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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.

Ultimate disposal of this product should be handled according to all national laws and regulations.

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

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

This product is intended to be installed indoors. Keep this product away from water, fire, humidity or hot environments.

Use only the power supply and accessories approved by the manufacturer, and which can be found in the original packaging of this product.

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

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!

In the case of device failure, please disconnect it from power. The fastest way to do so is by unplugging the power plug from the power outlet.

Do not power on without antennas connected!

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.

Quickstart

Please follow these quick steps to set up your device:

- Connect provided antennas to the device;
- Make sure your ISP will allow hardware change and will issue an IP Address;
- Connect the device to the power source;
- Open network connections on your PC, mobile phone, or other device and search for MikroTik wireless network and connect to it;
- The configuration has to be done through the wireless network using a web browser or mobile app.
Alternatively, you can use a WinBox configuration tool <https://mt.lv/winbox>;
- Once connected to the wireless network, open <https://192.168.88.1> in your web browser to start configuration, user name: admin and there is no password by default (or, for some models, check user and wireless

passwords on the sticker);

- When using a mobile application choose Quick setup and it will guide you through all necessary configuration in six easy steps;
- Click the “Check for updates” button on the right side and update your RouterOS software to the latest version, must have an active Internet connection;
- 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.

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.



https://mikrotik.com/mobile_app

1. Scan QR code and choose your preferred OS.
2. Install and open the application.
3. By default, the 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 the application will guide you through all basic configuration settings in a couple of easy steps.
6. An advanced menu is available to fully configure all necessary settings.

Powering

The device accepts powering from the adapter and PoE:

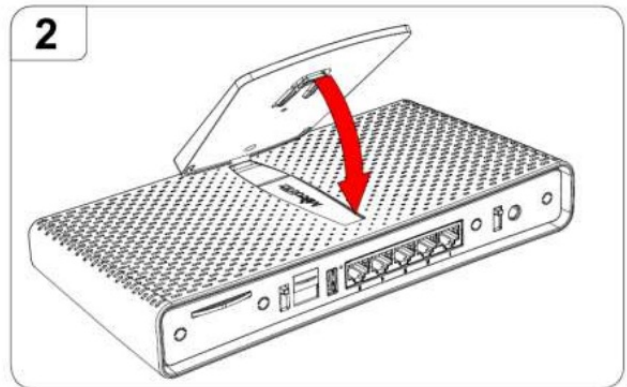
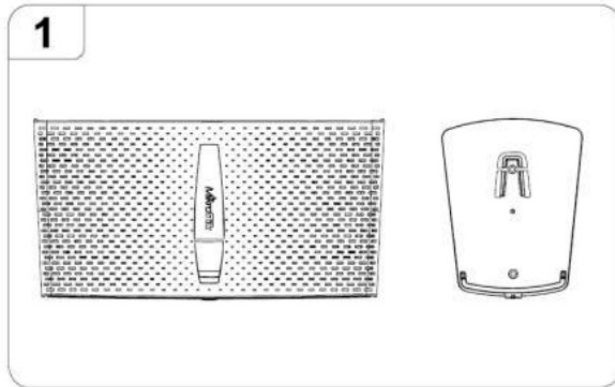
- Direct-input power jack (5.5 mm outside and 2 mm inside, female, pin positive plug) 12-28 V DC .
- PoE in 18-28 V DC on ethernet 1.

The power consumption under maximum load can reach 12 W, with attachments 30 W.

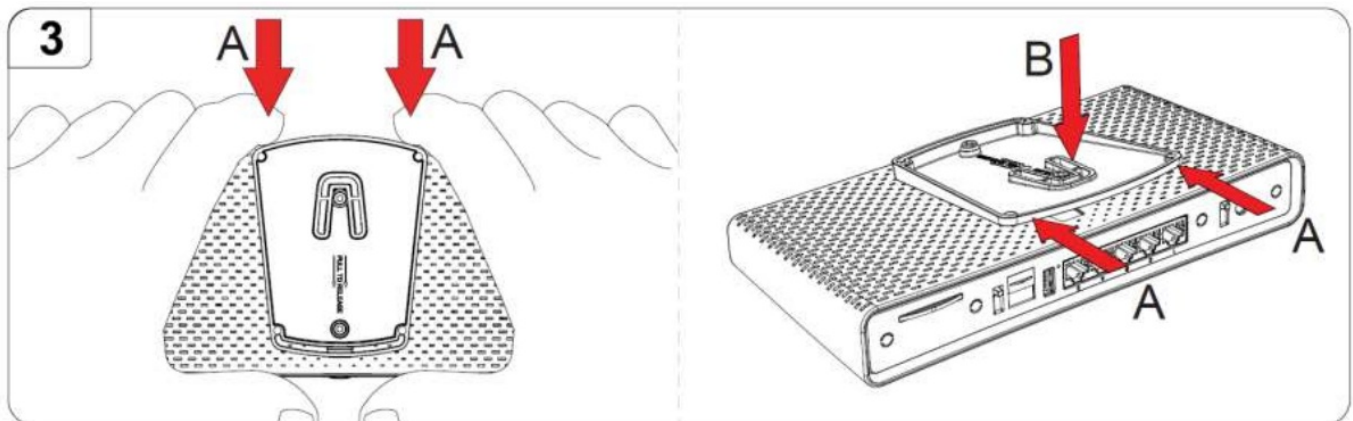
Base plate mounting instruction

1. The base plate comes with the package, in order to assemble please follow these instructions.

2. Place the small tip of the base plate into the case on the bottom of the device and fold it down.



3. While holding with both hands, use fingers to slightly press it and push down till it locks, follow the sequence on the illustration.



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.

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: <https://mt.lv/help>. In case an IP connection is not available, the Winbox tool (<https://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.

First-time configuration <https://mt.lv/configuration>;

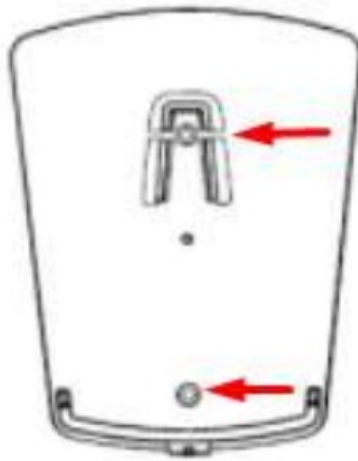
The device upgrade <https://mt.lv/upgrade>;

Mounting

The device is designed to be used indoors and placed on a flat surface with all needed cables connecting to the back of the unit.

The mounting base can be attached to the wall with the provided screws:

- Attach the base to the wall, using provided screws;



- Attach the unit to the mounting base by following previous instructions in the base plate section.

For optimal performance, ensure good airflow and place the device on the stand in an open space.

Warning! This equipment should be installed and operated with a minimum distance of 20 cm between the device and your body. The operation of this equipment in the residential environment could cause radio interference.

Extension Slots and Ports

- Five Gigabit Ethernet ports, supporting automatic cross/straight cable correction (Auto MDI/X), so you can use either straight or cross-over cables for connecting to other network devices.
- Integrated Wireless 5GHz, 802.11a/n/ac and 2.4 GHz b/g/n.
- USB port.

Buttons and Jumpers

The reset button has the following default functions, or can be modified to run scripts:

- Hold this button during boot time until the 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.

The Mode Button enables the execution of custom scripts, that can be added by the user.

The front blue LED button, enables WPS mode.

Accessories

The package includes the following accessories that come with the device:



24V 1.5A power
adapter



Base leg and pads



K-47 fastening set



HGO indoor antenna
kit

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.

Notice

- The Frequency band 5.470-5.725 GHz isn't allowed for commercial use.
- In case WLAN devices work with different ranges than the above regulations, then a customized firmware version from the manufacturer/supplier is required to be applied to the end-user equipment and also prevent the end-user from reconfiguration.
- For Outdoor Usage: End-user requires approval/license from the NTRA.
- Datasheet for any device is available on the official manufacturer website.
- Products with the letters "EG" at the end of their serial number have their wireless frequency range limited to 2.400 – 2.4835 GHz, the TX power is limited to 20dBm (EIRP).
- Products with the letters "EG" at the end of their serial number have their wireless frequency range limited to 5.150 – 5.250 GHz, the TX power is limited to 23dBm (EIRP).
- Products with the letters "EG" at the end of their serial number have their wireless frequency range limited to 5.250 – 5.350 GHz, the TX power is limited to 20dBm (EIRP).

Please make sure the device has a lock package (firmware version from the manufacturer) which is required to be applied to the end-user equipment to prevent the end-user from reconfiguration. The product will be marked with country code "-EG". This device needs to be upgraded to the latest version to ensure compliance with local authority regulations! It is the end users 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.

Federal Communication Commission Interference Statement

Model	FCC ID
RBD53iG-5HacD2HnDUS	TV7D53I5ACD2ND

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 or more 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.

Note: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance.

IMPORTANT: Exposure to Radio Frequency Radiation.

This equipment complies with the FCC 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.

Innovation, Science and Economic Development Canada

Model	IC
RBD53iG-5HacD2HnDUS	7442AD53IAC

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science, and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

This Class B digital apparatus complies with Canadian ICES-003.

CAN ICES-003 (B) / NMB-003 (B)

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.

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.

UKCA Marking



The National Commission for the State Regulation of Communications and Informatization by Ukraine

CE Declaration of Conformity

Manufacturer: Mikrotiks SIA, Brivibas gatve 214i Riga, Latvia, LV1039.

Hereby, Mikrotiks SIA declares that the radio equipment type RBD53iG-5HacD2HnD is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet

address: <https://mikrotik.com/products>

Frequency bands terms of use

Frequency range (for applicable models)	Channels used	Maximum Output Power (EIRP)	Restriction
2400-2483.5 MHz	1-13	20 dBm	Without any restriction to use in all EU Member States
5150-5250 MHz	26 – 48	23 dBm	Restricted to indoor use only*
5250-5350 MHz	52 – 64	20 dBm	Restricted to indoor use only*
5470-5725 MHz	100 – 140	27 dBm	Without any restriction to use in all EU Member States

* 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!

This MikroTik device meets Maximum WLAN transmit power limits per ETSI regulations. For more detailed information see Declaration of Conformity above



The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

Note. The 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.

Documents / Resources

 User Manual hAP ac Safety Warnings hAP ac Routers and Wireless, hAP ac, Routers and Wireless, Wireless Quickstart	MikroTik hAP ac³ Routers and Wireless [pdf] User Guide hAP ac Routers and Wireless, hAP ac, Routers and Wireless, Wireless
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References

-  [MikroTik Routers and Wireless](#)
-  [MikroTik Routers and Wireless - Buy](#)
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