### RB2011iL-IN



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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. 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 devices must be professionally installed.

#### First use

- 1. Choose your powering solution, please see the Powering section for possibilities.
- 2. Connect your Internet cable to port 1 (labeled "Internet"), and local network computers to other ports.
- 3. Connect your direct input power jack if not using POE, to start up the device.
- 4. If using POE please see section POE Adapter on how to connect.
- 5. The device will boot up and after the short beep, the network will be available for connecting.
- 6. Set your computer IP configuration to automatic (DHCP).
- 7. Once connected to the network, open http://192.168.88.1 in your web browser to start configuration, since there is no password by default, you will be logged in automatically (or, for some models, check user and wireless passwords on the sticker).
- We recommend clicking the "Check for updates" button and updating your RouterOS software to the latest version to ensure the best performance and stability.
- 9. Set up your password on the screen that loads.

## Powering

The device accepts powering from either the power jack or from the LAN1 Ethernet port:

- Direct-input power jack (5.5 mm outside and 2 mm inside diameter, female, pin positive plug) accepts 8-30 V DC (overvoltage protection starts at 30 V).
- Eth1 port accepts 8-30 V DC input (at the board; higher voltage needed to compensate for power loss on long cables) from non-standard (passive) Power over Ethernet injectors. The board does not work with IEEE802.3af compliant 48 V power injectors.

Maximum power consumption 6 W, with attachments 18 W.

#### Connecting to a POE Adapter

- 1. Connect the Ethernet cable from the device to the POE port of the POE adapter.
- 2. Connect an Ethernet cable from your LAN to the LAN port of the POE adapter, please mind arrows for data and power flow.
- 3. Connect the power cord to the adapter, and then plug the power cord into a power outlet.

# Power output

The PoE on Ether10 outputs approximately 2 V below input voltage and supports up to 0.58 A (So provided 24 V PSU will provide 22 V at 0.58 A output to the Ether5 PoE port).

## 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: https://mt.lv/help. In case 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.

### Mounting

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

Alternatively, the unit can be mounted on the wall, the kit can be obtained separately, please visit our product page for detailed info: https://mikrotik.com/product/RBWMK

Grounding screw is located on the backside of the device case, please connect it accordingly to efficient ground.



When mounting on the wall, please ensure that cable feed is pointing downwards.

The IPX rating scale of this device is IPX0. We recommend using Cat6 shielded cables.

#### **Extension Slots and Ports**

- Five 10/100/1000 (Gigabit) Ethernet ports (Auto MDI/X)
- Five 10/100 (Fast) Ethernet ports (Auto MDI/X)
- Ether10 supports 500 mA output power, ~2 V below the input voltage. Power out support auto-detect to protect non-PoE devices.

# **Buttons and Jumpers**

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

- Release the button when green LED starts flashing, to reset RouterOS configuration to defaults.
- Release the button when the LED turns solid green to clear all configuration and bridge all interfaces.
- Release the button after LED is no longer lit (~20 seconds) to cause a 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.

## **Specifications**

For more information about this product, specification and pictures please visit our web page: https://mikrotik.com/product/RB2011iL-IN

# **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.

# Included parts





To avoid pollution of the environment, please separate the device from household waste and dispose of it in a safe manner, such as in designated waste disposal sites. Familiarize yourself with the procedures for the proper transportation of the equipment to the designated disposal sites in your area.

#### Federal Communication Commission Interference Statement



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

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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.

# Innovation, Science and Economic Development Canada

This device complies with Industry Canada's license-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.

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

Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada.

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

# **UKCA** marking



## **Eurasian Conformity Mark**

Информация о дате изготовления устройства указана в конце серийного номера на его наклейке через дробь. Первая цифра означает номер года (последняя цифра года), две последующие означают номер недели.

Изготовитель: Mikrotikls SIA, Aizkraukles iela 23, Riga, LV-1006, Латвия, support@mikrotik.com. Сделано в Китае, Латвии или Литве. См. на упаковке.

Для получения подробных сведений о гарантийном обслуживании обратитесь к продавцу. Информация об импортерах продукции MikroTik в Российскую Федерацию: https://mikrotik.com/buy/europe/russia

Продукты MikroTik, которые поставляются в Евразийский таможенный союз, оцениваются с учетом соответствующих требований и помечены знаком EAC, как показано ниже:

#### Norma Oficial Mexicana

EFICIENCIA ENERGETICA CUMPLE CON LA NOM-029-ENER-2017.

La operacion de este equipo esta sujeta a las siguientes dos condiciones:

- Es posible que este equipo o dispositivo no cause interferencia perjudicial y.
- Este equipo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operacion no deseada.

Fabricante: Mikrotikls SIA, Brivibas gatve 214i, Riga, LV-1039, Latvia.

País De Origen: Letonia; Lituania; China (Republica Popular); Estados Unidos De America; Mexico.

Por favor contacte a su distribuidor local para preguntas regionales específicas. La lista de importadores se puede encontrar en nuestra página de inicio – https://mikrotik.com/buy/latinamerica/mexico.

# **CE Declaration of Conformity**

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

The full text of the EU Declaration of Conformity is available at the following internet address: https://mikrotik.com/products



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.