# User Manual - CRS354-48P-4S+2Q+RM

The CRS354 is a network switch with 48 Gigabit ports supporting PoE out for your devices, four 10G SFP+ ports, two 40G QSFP+ ports. The device is ready to use as a switch.

## 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, 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.

## Quick start

The device has all interfaces switched.

● Mount the unit in a rackmount cabinet or place it on a flat surface (see "Mounting").

● Connect the device to the AC source using a power cord.

● Set the IP address of your PC to 192.168.88.3

- Use a Web browser to connect to the default IP address of 192.168.88.1 from any port, with the username *admin* and no password (or, for some models, check user and wireless passwords on the sticker).

- If IP is not available download Winbox from our webpage and uses it to connect through MAC address.

- Update RouterOS software to the latest version, and make sure that the device has an internet connection.

- If the device does not have an internet connection update software by downloading the latest version from our webpage https://mikrotik.com/download

- Find the latest (mipsbe) software and choose your packages.

- Download packages to the PC and upload them to the Winbox, Files menu, and reboot the device.

- Set up your password to secure the device.

# Mounting

The device is designed to use indoors and it can be mounted in a rackmount enclosure using provided rack mounts, or it can be placed on the desktop. Use a Phillips screwdriver to attach rackmount ears on both sides of the device and for both sides of the back of the device if designated use is for rackmount enclosure:

1. Attach the bracket to the front right side.

2. Attach the rear right bracket.

3. Attach the bracket to the left front side.

4. Attach the rear left bracket.

5. Attach long brackets to the rackmount and install the device with the holes so that the device fits conveniently.

6. If needed, install cable management brackets.
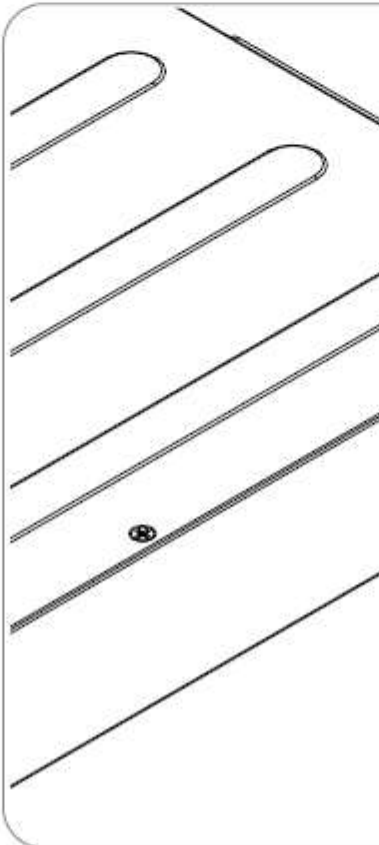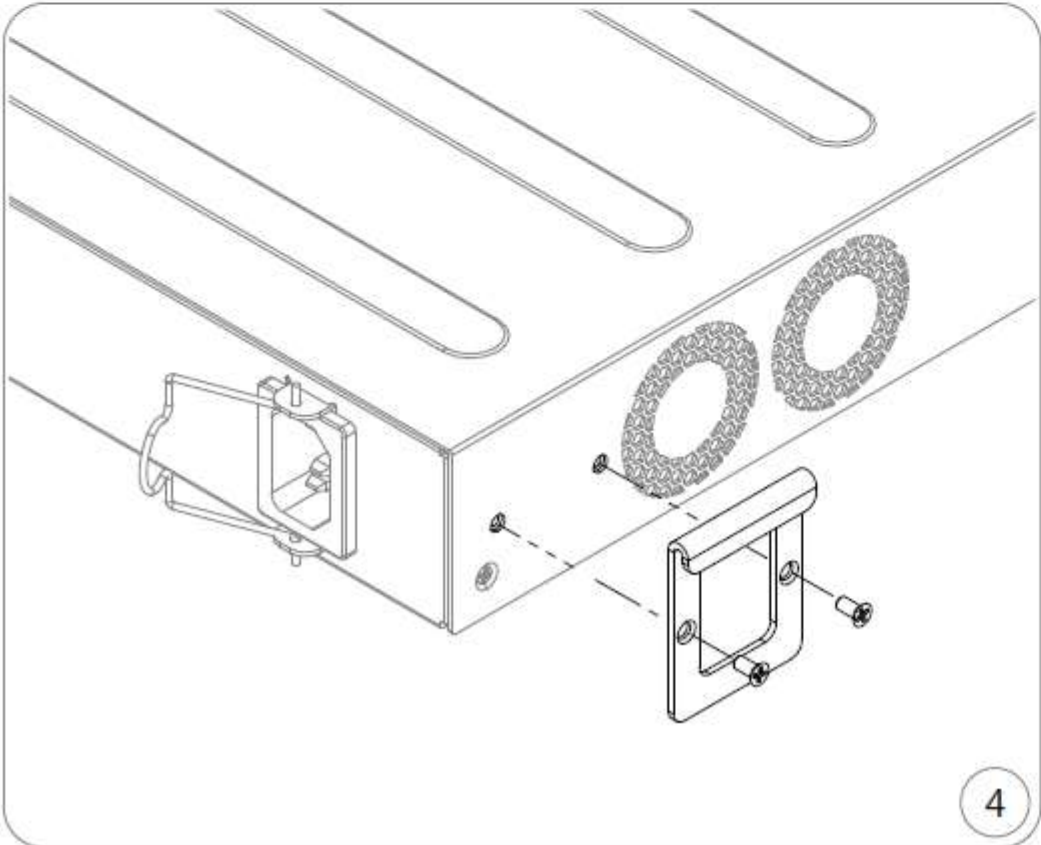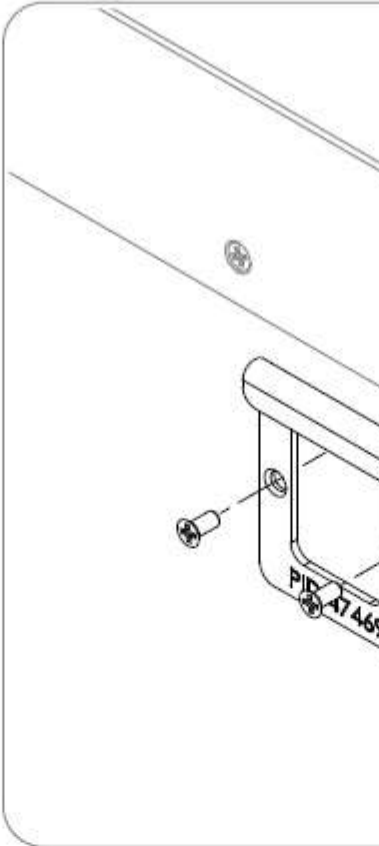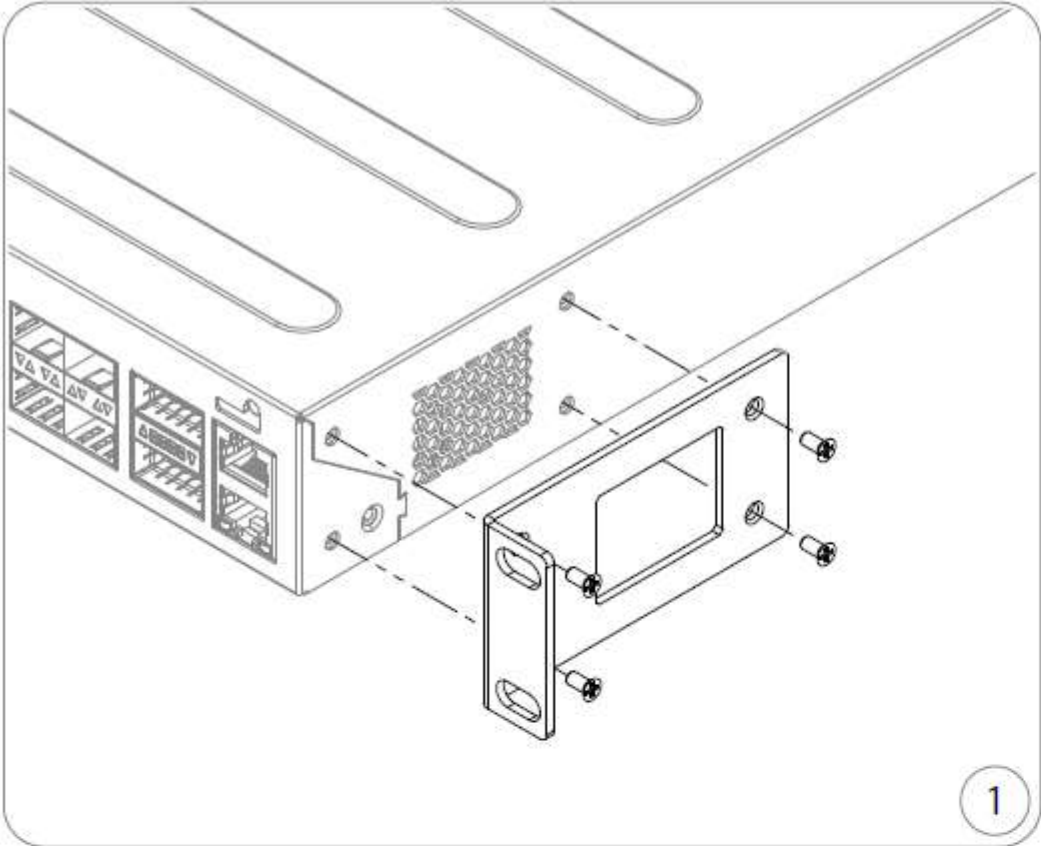
Please ensure the placement of the device in a dry and ventilated environment. Ingress rating IP20.
We recommend Cat6 cables for our devices.
The mounting and configuration of this device should be done by a qualified person.

# Extension slots and ports

- 48 Gigabit Ethernet ports supporting 802.3af/at PoE.

- Four 10G SFP+ ports.

- Two 40G QSFP+ ports.

- 1x RJ45 console port (set at 115200bits/s, 8 data bits, 1 stop bit no parity).

- 1x 10/100Mbit Ethernet port for management access.

- Four cooling fans with automatic speed control.
  Please visit wiki pages for MikroTik SFP module compatibility and configuration
  table: https://wiki.mikrotik.com/wiki/MikroTik_SFP_module_compatibility_table

# Powering

The device accepts power from the input of 100 – 240 V AC ∿.
Nominal voltage 53 V.
Nominal amperage 13.5 A.
The power consumption of this device under maximum load is up to 85 W. With attachments 800 W.

# Power output

The device supports PoE 802.3af/at out from Ethernet 1 - 48 port, you can power Mikrotik devices
which supports powering through Ethernet.
Output per port (53V out) 570 mA
Output per port (26V out) 1000 mA
Total output power 700 W
Total output 27 A at 26 V, or 13,2 A at 53 V.

# Configuration

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 the 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. When using Winbox on login the default configuration
settings will be shown.

CRS Router configuration manual https://wiki.mikrotik.com/wiki/Manual:CRS_Router
For recovery purposes, it is possible to boot the device for reinstallation, see a section Reset button.

# Reset button

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

- Release the button when the green LED starts flashing, to reset the 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 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.

Netinstall needs to be performed through the MGMT port on this device.

# Accessories

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



IEC cord     Cable managment brackets     Rackmount ears (CRS354)     K-68 screw kit     Rackmount rear support ears (1/2)     Rackmount support ears

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

# Operating system support

The device supports RouterOS v6. The specific factory-installed version number is indicated in the RouterOS menu /system resource. Other operating systems have not been tested.

# ⚠️Safety Notice

Electric shock hazard. This equipment is to be serviced by trained personnel only.

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 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. FC

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

# Industry 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 B digital apparatus complies with Canadian ICES-003.

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

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

# 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](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](https://mikrotik.com/products)

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