

Cloud Router Switch 8 Ethernet port series

Setup guide and warranty information

The CRS is a highly configurable switch, powered by RouterOS. These models currently available in the 8 Gigabit port series:

- CloudRouterSwitch 109-8G-1S-2HnD-IN
- CloudRouterSwitch 112-8G-4S-IN
- CloudRouterSwitch 210-8G-2S+IN
- CloudRouterSwitch 212-1G-10S-1S+IN

Powering

The device accepts powering in the following ways:

- Direct-input power jack: 8-56V (24V 0.8A PSU included)
- Passive PoE input: 8-56V (injector included in some models)

Extension slots and ports

- *All: Eight (8) 10/100/1000 (Gigabit) Ethernet ports (Auto MDI/X)*
- *For CRS109: One SFP cage, compatible with 1.25G SFP modules, Built in 802.11b/g/n 2GHz wireless access point*
- *For CRS112: Four SFP cages, compatible with 1.25G SFP modules*
- *For CRS210: Two SFP+ cages, SFP+1 compatible with 1.25G and 10G, SFP+2 compatible 10G SFP modules only*
- *For CRS212: Ten SFP cages, one SFP+ cage, one Gigabit Ethernet port*

First use

The device comes preinstalled with RouterOS and is ready to use. Device is compatible with RouterOS v6.12 and newer, if your device comes preinstalled with an earlier version, please upgrade before using it.

The device is equipped with an RJ45 serial port, set by default to 115200bit/s, 8 data bits, 1 stop bit, no parity. Standard RJ45 to COM cable can be used, pinout can be found here:

http://wiki.mikrotik.com/wiki/Manual:System/Serial_Console#RJ45_type_serial_port

Default configuration

- **CRS109-8G-1S-2HnD-IN:** ports 2-8 are switched, wireless interface and switch are bridged, and bridge contains a DHCP server. Eth1 and SFP1 have DHCP client configured
- **All other models** all the ports are switched

Both models can be accessed though the IP **192.168.88.1**, username is **admin** and there is **no password**. Please connect with your web browser to this IP address to configure it. See this page for connection and configuration guides:

<http://wiki.mikrotik.com/wiki/Category:Manual>

Resetting the device

In case you wish to return the device to its original configuration, you can use the RESET button. Hold this button during boot time until LED lights start flashing, then release the button to **reset RouterOS configuration**. You can use this procedure if you have forgotten the password to access the device, or simply wish to return the unit to its default configuration state.

Buttons and Jumpers

- **RouterBOOT reset button** has several functions:
 - ✓ Hold the button before powering on the device, and at power up, the button will force load the backup boot loader. Continue holding the button for the other two functions of this button:

- ✓ Release the button when green LED starts flashing, to reset RouterOS configuration. To not load backup boot loader, you can start holding the button after power is already applied
- ✓ Release the button after LED is no longer flashing (~20 seconds) to cause device to look for Netinstall servers (required for reinstalling RouterOS over network)

Operating System Support

Currently tested operating system is MikroTik RouterOS (starting from version 6.14).

Copyright and Warranty information

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Hardware. MikroTik warrants all RouterBOARD series equipment for the term of twelve (12) months from the shipping date to be free of defects in materials and workmanship under normal use and service, except in case of damage caused by mechanical, electrical or other accidental or intended damages caused by improper use or due to wind, rain, fire or other acts of nature.

To return failed units to MikroTik, you must perform the following RMA (Return Merchandise Authorization) procedure. Follow the instructions below to save time, efforts, avoid costs, and improve the speed of the RMA process.

1. If you have purchased your product from a MikroTik Reseller, please contact the Reseller company regarding all warranty and repair issues, the following instructions apply ONLY if you purchased your equipment directly from MikroTik in Latvia.
2. MikroTik does not offer repairs for products that are not covered by warranty. Exceptions can be made for: CCR1016-12G, CCR1016-12G-BU, CCR1036-12G-4S, RB1100, RB1100AH, RB1100AHx2, RB1200, RB600, RB600A and RB800 as a paid service (fees apply).
3. Out-of-warranty devices and devices not covered by warranty sent to MikroTik will be returned to the sender at sender's cost. If the customer has not organized return of such rejected devices within 12 months from the day of arrival, MikroTik has the right to discard them.

RMA Instructions are located on our webpage here: <http://rma.mikrotik.com>

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CE Declaration of Conformity

Full Declaration of Conformity (DoC) may be obtained by visiting this web page: <http://routerboard.com/doc/>

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[BG] Bulgarian	С настоящето, MIKROTIKLS SIA декларира, че ROUTERBOARD е в съответствие със съществени изисквания и другите приложими разпоредби на Директива 1999/5/EC.
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[ES] Spanish	Por la presente, MIKROTIKLS SIA declara que este ROUTERBOARD cumple con los requisitos esenciales y otras exigencias relevantes de la Directiva 1999/5/EC.
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[NO] Norwegian	MIKROTIKLS SIA Erklærer herved at ROUTERBOARD er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

EN. Instruction manual: Connect the power adapter to turn on the device. Open 192.168.88.1 in your web browser, to configure it. More information on <http://wiki.mikrotik.com>

BG. Инструкции: Свържете адаптера на захранване, за да включите устройството. Отворете 192.168.88.1 в уеб браузър, за да настроите продукта. Повече информация в <http://wiki.mikrotik.com>

CZ. Návod k použití: Připojte napájecí adaptér k zapnutí přístroje. Otevřete 192.168.88.1 ve webovém prohlížeči pro konfiguraci produktu. Více informací najdete v <http://wiki.mikrotik.com>

DK. Instruktionsbog: Tilslut strømadapteren for at tænde for enheden. Åbn 192.168.88.1 i en webbrowser til at konfigurere produktet. Mere information i <http://wiki.mikrotik.com>

FR. Mode d'emploi: Connectez l'adaptateur d'alimentation pour allumer l'appareil. Ouvrez 192.168.88.1 dans un navigateur Web pour configurer le produit. Plus d'informations dans <http://wiki.mikrotik.com>

DE. Bedienungsanleitung: Verbinden Sie das Netzteil, um das Gerät einzuschalten. Öffnen Sie 192.168.88.1 in einem Web-Browser, um das Produkt zu konfigurieren. Weitere Informationen im <http://wiki.mikrotik.com>

EE. Kasutusjuhend: Ühendage toiteadapter seadme sisselülitamiseks. Avatud 192.168.88.1 in veebilehitseja seadistada toodet. Rohkem teavet <http://wiki.mikrotik.com>

ES. Manual de instrucciones: Conecte el adaptador de alimentación para encender la unidad. Abra 192.168.88.1 en un navegador web para configurar el producto. Más información en <http://wiki.mikrotik.com>

IT. Manuale di istruzioni: Collegare l'adattatore di alimentazione per accendere l'unità. Aprire 192.168.88.1 in un browser Web per configurare il prodotto. Maggiori informazioni in <http://wiki.mikrotik.com>

LV. Lietošanas instrukcija: Pievienojiet Strāvas adapteri, lai ieslēgtu ierīci. Atvērt 192.168.88.1 ar interneta pārlūku, lai konfigurētu produktu. Plašāka informācija <http://wiki.mikrotik.com>

LT. Naudojimosi instrukcija: Prijunkite maitinimo adapterį įjunkite įrenginį. Į interneto naršyklę 192.168.88.1 Atidarykite galite konfigūruoti gaminį. Daugiau informacijos rasite <http://wiki.mikrotik.com>

HU. Használati utasítás: Csatlakoztassa a hálózati adaptert a készülék bekapcsolásához. Megnyitása 192.168.88.1 egy webböngészőben beállítani a terméket. Több információ <http://wiki.mikrotik.com>

NL. Handleiding: Sluit voedingsadapter aan op het apparaat in te schakelen. Open 192.168.88.1 in een webbrowser om het product te configureren. Meer informatie in <http://wiki.mikrotik.com>

PL. Instrukcja obsługi: Podłącz adapter zasilania, aby włączyć urządzenie. Otwórz 192.168.88.1 w przeglądarce internetowej, aby skonfigurować urządzenie. Więcej informacji w <http://wiki.mikrotik.com>

PT. Manual de instruções: Conecte o adaptador de alimentação para ligar o aparelho. Abra 192.168.88.1 em um navegador da web para configurar o produto. Mais informações em <http://wiki.mikrotik.com>

RO. Instrucțiunile de utilizare: Conectați adaptorul de alimentare pentru a porni aparatul. Deschide 192.168.88.1 într-un browser web pentru a configura produsul. Mai multe informații în <http://wiki.mikrotik.com>

SK. Návod na použitie: Pripojte napájací adaptér k zapnutiu prístroja. Otvorte 192.168.88.1 vo webovom prehliadači pre konfiguráciu produktu. Viac informácií nájdete v <http://wiki.mikrotik.com>

SI. Navodila: Priključite napajalnik za vklop naprave. Odprite 192.168.88.1 v spletnem brskalniku nastaviti izdelek. Več informacij v <http://wiki.mikrotik.com>

FI. Käyttöohje: Kytke virtalähde päälle laitteen. Avaa 192.168.88.1 in selaimen määrättää tuotteen. Lisää tietoa <http://wiki.mikrotik.com>

SE. Instruktionsmanual: Anslut nätadaptern för att slå på enheten. Öppna 192.168.88.1 i en webbläsare för att konfigurera produkten. Mer information på <http://wiki.mikrotik.com>

NO. Bruksanvisningen: Koble strømadapteren for å slå på enheten. Åpne 192.168.88.1 i en nettleser for å konfigurere produktet. Mer informasjon på <http://wiki.mikrotik.com>

GR. εγχειρίδιο οδηγιών: Συνδέστε τον προσαρμογέα τροφοδοσίας για να ενεργοποιήσετε τη μονάδα. Ανοίξτε 192.168.88.1 σε ένα