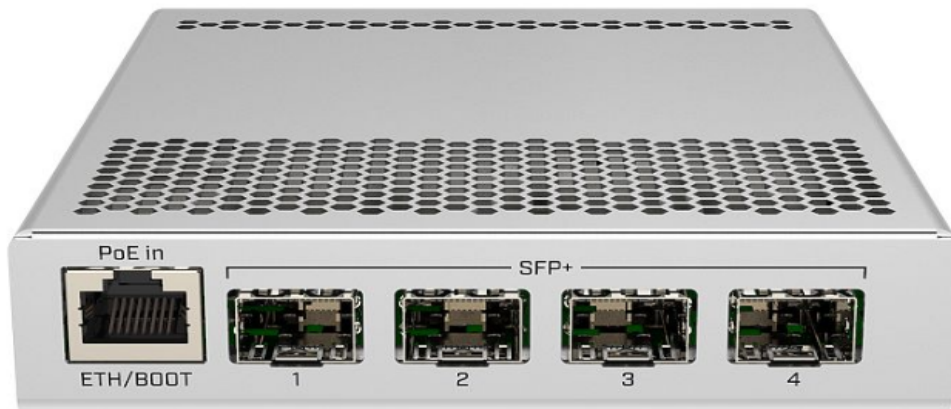


# CRS305-1G-4S+IN

## CRS305-1G-4S+IN



This device is a 10 Gigabit SFP+ switch, powered by RouterOS. It features two redundant DC inputs. The device has four SFP+ cages (modules are not included) for high-performance 10GbE connectivity (1.25 Gbit modules are also supported) and a 1GbE copper port for management. The device is ready to use as a switch.

## Quickstart

The default configuration is Switch:

\*all interfaces switched;

LAN configuration.

The Default configuration, Switch mode all interfaces are switched; LAN Configuration.

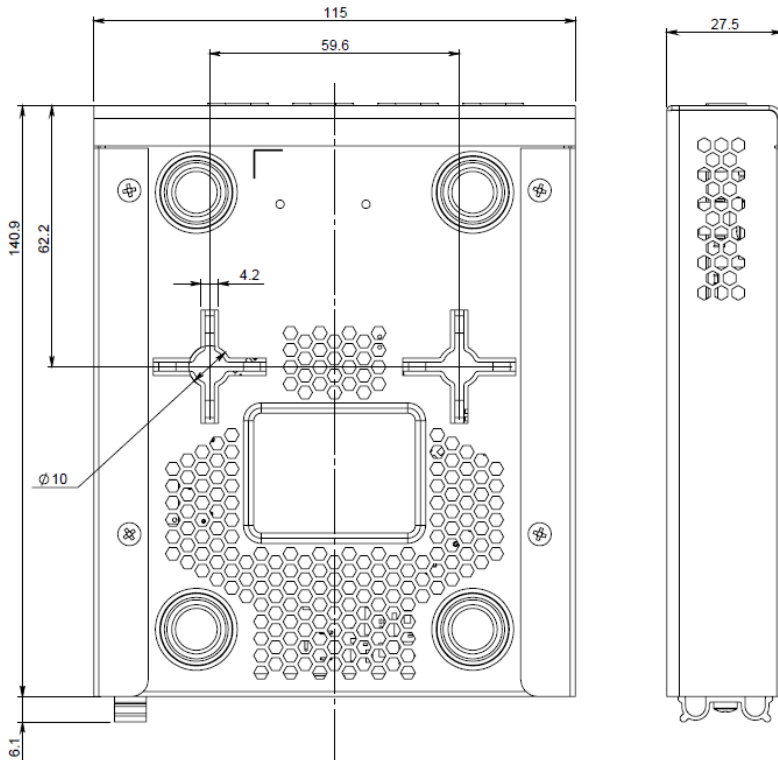
All ports bridged with IP 192.168.88.1/24 set on the bridge.

- Place on the flat surface (see "Mounting").
- Connect your PC to any Ethernet port.
- Connect the power adapter to the DC jack.
- Set IP for you PC to 192.168.88.2
- The Initial connection has to be done via the Ethernet cable, using the MikroTik Winbox utility or Web browser.
- Use Winbox or Web browser to connect to the default IP address of 192.168.88.1 from any port, with the username admin and no password.
- We recommend clicking the "Check for updates" button and updating your RouterOS software to the latest version to ensure the best performance and stability. The device needs to have an active internet connection.
- To manually update the device go to our webpage and download the latest software version packages.
- Open Winbox and upload them to the Files menu.
- Reboot the device.
- Set up your password to secure the device.

[https://wiki.mikrotik.com/wiki/SwOS/CRS3xx#Connecting\\_to\\_the\\_Switch](https://wiki.mikrotik.com/wiki/SwOS/CRS3xx#Connecting_to_the_Switch)

## Mounting

This device is designed for use indoors by placing it on the flat surface or mounting on the wall when mounting on the wall, please ensure that cable feed is pointing downwards. We recommend using Cat5/6 shielded cable for our devices. The distance measured in mm.



## Powering

The device accepts powering from the two DC power jacks (redundancy fail-over) or from the first Ethernet port:

- Direct input power jacks DC1, DC2 (5.5 mm outside and 2 mm inside, female, pin positive) accept DC 12-57 V DC.
- The first Ethernet port accepts passive or 802.3af/at Power over Ethernet in the range of DC 12-57 V.

The power consumption of this device under maximum load with fiber SFP modules is 10 W when using all RJ10 copper modules, up to 18 W.

When using 802.3af/at to power this device, we recommend not using grounding for best compatibility.

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.

## Booting process

The device supports booting RouterOS (for complete routing and switching configuration) or SwOS (for only using as a switch). By default, the device will boot RouterOS, but you can reboot into SwOS in the following ways:

- From SwOS: In the System menu, click the "Boot RouterOS" button on the bottom of the page.
- From RouterOS: in the System, RouterBOARD menu, click "Settings" and there select "Boot OS".

## 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://wiki.mikrotik.com/wiki/Manual:CRS3xx\\_series\\_switches](https://wiki.mikrotik.com/wiki/Manual:CRS3xx_series_switches).  
The Initial connection has to be done via the Ethernet cable, using the MikroTik Winbox utility. Winbox should be used to connect to the default IP address of 192.168.88.1 from any port, with the username admin and no password.  
For recovery purposes, it is possible to reinstall the device from the network, see the [CRS305-1G-4S+IN#Reset button](#).  
In case the IP connection is not available, the Winbox tool (<https://mt.lv/winbox>) can also be used to connect to the MAC address of the device. Applies only when the device has booted RouterOS.

## Extension Slots and Ports

- Four SFP+ cages, which accept both 1.25 Gb SFP and 10 Gb SFP+ modules.
- One Gigabit Ethernet port, suggested to be used for management (Supports Auto MDI/X so you can use either straight or cross-over cables for connecting to other network devices). The Ethernet port (ETH/BOOT) can also be used for network booting and recovery with Netinstall.

## Reset button

To use the reset button, hold it and then turn on the device, while still holding the button.

- Release the button when green LED starts flashing, to reset RouterOS configuration. To not load backup bootloader, you can start holding the button after power is already applied.
- Release the button after LED is no longer flashing (~20 seconds) to cause the device to look for Netinstall servers (required for reinstalling RouterOS over the network). You can also release the button at the time when the device has appeared in the Netinstall utility device list.

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:



Please visit wiki pages for MikroTik SFP module compatibility table: [https://wiki.mikrotik.com/wiki/MikroTik\\_SFP\\_module\\_compatibility\\_table](https://wiki.mikrotik.com/wiki/MikroTik_SFP_module_compatibility_table)

## Operating system support

The device supports dual boot SwOS software version 2.9 and RouterOS v6. The specific factory-installed version number is indicated in the RouterOS menu /system resource. Other operating systems have not been tested.

<https://wiki.mikrotik.com/wiki/SwOS/CRS3xx>


## Safety Notice

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

# 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.

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 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.

## CE Declaration of Conformity

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

BG	С настоящото Mikrotiks SIA декларира, че този тип радиосъоръжение RouterBOARD е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес:  <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
CS	Tímto Mikrotiks SIA prohlašuje, že typ rádiového zařízení RouterBOARD je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese:  <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
DA	Hermed erklærer Mikrotiks SIA, at radioudstyrstypen RouterBOARD er i overensstemmelse med direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse:  <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
DE	Hiermit erklärt Mikrotiks SIA, dass der Funkanlagentyp RouterBOARD der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar:  <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>

EL	<p>Με την παρούσα ο/η Mikrotilks SIA , δηλώνει ότι ο ραδιοεξοπλισμός RouterBOARD πληροί την οδηγία 2014/53/EE. Το πλήρες κείμενο της δήλωσης συμμόρφωσης EE διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
EN	<p>Hereby, Mikrotilks SIA declares that the radio equipment type RouterBOARD is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
ES	<p>Por la presente, Mikrotilks SIA declara que el tipo de equipo radioeléctrico RouterBOARD es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
ET	<p>Käesolevaga deklareerib Mikrotilks SIA , et käesolev raadioseadme tüüp RouterBOARD vastab direktiivi 2014/53/EL nõuetele. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
FI	<p>Mikrotilks SIA vakuuttaa, että radiolaitetyyppi RouterBOARD on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
FR	<p>Le soussigné, Mikrotilks SIA , déclare que l'équipement radioélectrique du type RouterBOARD est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
HR	<p>Mikrotilks SIA ovime izjavljuje da je radijska oprema tipa RouterBOARD u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
HU	<p>Mikrotilks SIA igazolja, hogy a RouterBOARD típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
IT	<p>Il fabbricante, Mikrotilks SIA , dichiara che il tipo di apparecchiatura radio RouterBOARD è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
IS	<p>Hér með lýsir Mikrotilks SIA því yfir að RouterBOARD er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 2014/53/EU. Fullur texti ESB samræmisýfirlýsingar er að finna á eftirfarandi veffangi:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
LT	<p>Aš, Mikrotilks SIA , patvirtinu, kad radijo įrenginių tipas RouterBOARD atitinka Direktyvą 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
LV	<p>Ar šo Mikrotilks SIA deklarē, ka radioiekārta RouterBOARD atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
MT	<p>B'dan, Mikrotilks SIA , niddikjara li dan it-tip ta' tagħmir tar-radju RouterBOARD huwa konformi mad-Direttiva 2014/53/UE. It-test kollu tad-dikjarazzjoni ta' konformità tal-UE huwa disponibbli f'dan l-indirizz tal-Internet li ġej:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
NL	<p>Hierbij verklaar ik, Mikrotilks SIA , dat het type radioapparatuur RouterBOARD conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>

NO	<p>Mikrotikls SIA erklærer herved at utstyret RouterBOARD er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/EU. Den fulle teksten til EU-samsvarserklæringen er tilgjengelig på følgende internettadresse:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
PL	<p>Mikrotikls SIA niniejszym oświadcza, że typ urządzenia radiowego RouterBOARD jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
PT	<p>O(a) abaixo assinado(a) Mikrotikls SIA declara que o presente tipo de equipamento de rádio RouterBOARD está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
RO	<p>Prin prezenta, Mikrotikls SIA declară că tipul de echipamente radio RouterBOARD este în conformitate cu Directiva 2014/53/UE. Textul integral al declaraiei UE de conformitate este disponibil la următoarea adresă internet:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
SK	<p>Mikrotikls SIA týmto vyhlasuje, že rádiové zariadenie typu RouterBOARD je v súlade so smernicou 2014/53/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
SL	<p>Mikrotikls SIA potrjuje, da je tip radijske opreme RouterBOARD skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>
SV	<p>Härmed försäkrar Mikrotikls SIA att denna typ av radioutrustning RouterBOARD överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress:</p> <p><a href="https://mikrotik.com/products">https://mikrotik.com/products</a></p>

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



**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 [\\_{+}https://mt.lv/help-bg+](https://mt.lv/help-bg+)

**CS. Návod k použití:** Připojte napájecí adaptér k zapnutí přístroje. Otevřete 192.168.88.1 ve webovém prohlížeči pro konfiguraci produktu. Více informací najdete v [\\_{+}https://mt.lv/help-cs+](https://mt.lv/help-cs+)

**DA. Instruktionsbog:** Tilslut strømadapteren for at tænde for enheden. Åbn 192.168.88.1 i en webbrowser til at konfigurere produktet. Mere information i [\\_{+}https://mt.lv/help-da+](https://mt.lv/help-da+)

**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 [\\_{+}https://mt.lv/help-de+](https://mt.lv/help-de+)

**EL. εγχειρίδιο οδηγιών:** Συνδέστε τον προσαρμογέα τροφοδοσίας για να ενεργοποιήσετε τη μονάδα. Ανοίξτε 192.168.88.1 σε ένα πρόγραμμα περιήγησης στο Web για να διαμορφώσετε το προϊόν. Περισσότερες πληροφορίες στο [\\_{+}https://mt.lv/help-el+](https://mt.lv/help-el+)

**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 [\\_{+}https://mt.lv/help+](https://mt.lv/help+)

**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 [\\_{+}https://mt.lv/help-es+](https://mt.lv/help-es+)

**ET. Kasutusjuhend:** Ühendage toiteadapter seadme sisselülitamiseks. Avatud 192.168.88.1 in veebilehitseja seadistada toodet. Rohkem teavet [\\_{+}https://mt.lv/help-et+](https://mt.lv/help-et+)

**FI. Käyttöohje:** Kytke virtalähde päälle laitteen. Avaa 192.168.88.1 in selaimen määrittää tuotteen. Lisää tietoa [\\_{+}https://mt.lv/help-fi+](https://mt.lv/help-fi+)

**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 [\\_{+}https://mt.lv/help-fr+](https://mt.lv/help-fr+)

**HR. Uputa za uporabu:** Priključite napajanje i uključite uređaj. Za konfiguraciju uređaja u pregledniku otvorite 192.168.88.1. Više informacija je na [\\_{+}https://mt.lv/help-hr+](https://mt.lv/help-hr+)

**HU. Használati utasítás:** Csatlakoztassa a hálózati adaptert a készülék bekapcsolásához. Megnyitása 192.168.88.1 egy webböngészőben beállítani a terméket. Több információ [\\_{+}https://mt.lv/help-hu+](https://mt.lv/help-hu+)

**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 [\\_{+}https://mt.lv/help-it+](https://mt.lv/help-it+)

**IS. Notkunarleiðbeiningar:** Tengdu straumbreytinn til að kveikja á tækinu. Opnaðu 192.168.88.1 í vafra til að stilla það. Nánari upplýsingar á [\\_{+}https://mt.lv/help-is+](https://mt.lv/help-is+)

**NO. Instruksjonsmanual:** Koble strømadapteren for å slå på enheten. Åpne 192.168.88.1 i nettleseren din for å konfigurere den. Mer informasjon på [\\_{+}https://mt.lv/help-no+](https://mt.lv/help-no+)

**LT. Naudojimosi instrukcija:** Prijunkite maitinimo adapterį įjunkite įrenginį. Į interneto naršyklę 192.168.88.1 Atidarykite galite konfigūruoti gaminį. Daugiau informacijos rasite [\\_{+}https://mt.lv/help-lt+](https://mt.lv/help-lt+)

**LV. Lietošanas instrukcija:** Pievienojiet Strāvas adapteri, lai ieslēgtu ierīci. Atvērt 192.168.88.1 ar interneta pārlūku, lai konfigurētu produktu. Plašāka informācija [\\_{+}https://mt.lv/help-lv+](https://mt.lv/help-lv+)

**MT. Manwal tal-istruzzjoni:** Qabbad l-adapter tal-qawwa biex iddawwar it-tagħmir. Iftaħ 192.168.88.1 fil-web browser tiegħek, biex jiġi kkonfiguratur. Aktar informazzjoni fuq [\\_{+}https://mt.lv/help-mt+](https://mt.lv/help-mt+)

**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 [\\_{+}https://mt.lv/help-nl+](https://mt.lv/help-nl+)

**PL. Instrukcja obsługi:** Podłącz adapter zasilania, aby włączyć urządzenie. Otwórz 192.168.88.1 w przeglądarce internetowej, aby skonfigurować urządzenie. Więcej informacji w [\\_{+}https://mt.lv/help-pl+](https://mt.lv/help-pl+)

**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 [\\_{+}https://mt.lv/help-pt+](https://mt.lv/help-pt+)

**RO. Instrucțiuni de utilizare:** Conectai adaptorul de alimentare pentru a porni aparatul. Deschide 192.168.88.1 într-un browser web pentru a configura produsul. Mai multe informații în [\\_{+}https://mt.lv/help-ro+](https://mt.lv/help-ro+)

**SK. Navodila:** Priključite napajalnik za vklop naprave. Odprite 192.168.88.1 v spletnem brskalniku nastaviti izdelek. Več informacij v [\\_{+}https://mt.lv/help-sk+](https://mt.lv/help-sk+)

**SL. Návod na použitie:** Pripojte napájací adaptér k zapnutiu prístroja. Otvorte 192.168.88.1 vo webovom prehliadači pre konfiguráciu produktu. Viac informácií nájdete v [\\_{+}https://mt.lv/help-sl+](https://mt.lv/help-sl+)

**SV. Instruktionsmanual:** Anslut nätadaptern för att slå på enheten. Öppna 192.168.88.1 i en webbläsare för att konfigurera produkten. Mer information på [\\_{+}https://mt.lv/help-sv+](https://mt.lv/help-sv+)

**NO. Bruksanvisningen:** Koble strømadapteren for å slå på enheten. Åpne 192.168.88.1 i en nettleaser for å konfigurere produktet. Mer informasjon på [\\_{+}https://mt.lv/help-no+](https://mt.lv/help-no+)

**RU. Руководство по эксплуатации:** подключите адаптер питания чтобы включить устройство. Откройте 192.168.88.1 в своем веб-браузере для конфигурации. Дополнительная информация <https://mt.lv/help-ru>

**CN. 说明书.** 连接电源适配器以打开设备。在Web浏览器中打开192.168.88.1进行配置。有关[\\_{+}https://mt.lv/help-zh+](https://mt.lv/help-zh+) 的更多信息