

LDF series

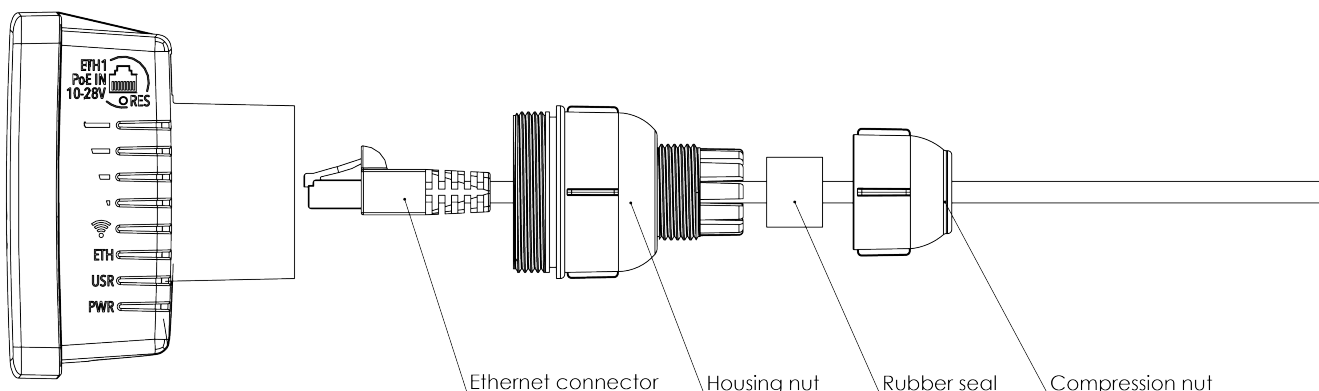
The LDF (Lite dish feed) is an outdoor wireless system with a built in antenna, meant to be installed on satellite offset dish antennas. The device comes preinstalled with RouterOS and is ready to use.

Assembly

The device is compatible with standard offset dishes, commonly used for satellite television. The offset mount is universal at 40mm diameter, and the LDF can easily be placed inside it.

To attach the ethernet cable to the LDF unit, follow these steps:

1. Assemble all components as shown in the illustration. If using pre-made cables, cut the rubber seal on one side, to put it onto the cable. Self crimped cables should be crimped after the seal is on the cable
2. Connect ethernet cable to ethernet connector on LDF
3. Attach Housing nut to LDF body by rotating clockwise
4. Slide rubber seal into housing nut
5. Enclose the waterproof gland by turning compression nut clockwise



Powering

The device accepts 10-28V DC input from passive Power over Ethernet injectors. The device does not work with IEEE802.3af compliant 48V power injectors. A PoE injector is included in the package.

Connecting

1. Connect an ethernet cable to the ethernet port, connect the other end of the Ethernet cable to a PoE injector. Plug the PoE injector into your PC or into your local network switch.
2. Set your computer IP configuration to *automatic* (DHCP).
3. Default IP address of the unit is 192.168.88.1, open this address in your web browser to start configuration. The username is **admin** and there is **no password**.

See RouterOS documentation for more information about features and their configuration options:
<http://wiki.mikrotik.com/wiki/Manual:TOC>

Extension Slots and Ports

- One Integrated Wireless 5GHz 802.11a/n, 2x2 MIMO with built in antenna, max gain 9dBi + the gain of the dish that it is mounted in.
- One 10/100 Ethernet port, 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.

Resetting the device

You can use the reset button if you have forgotten the password to access the device, or simply wish to return the unit to its default configuration state. The reset button is located below the ethernet port, and has three functions:

- Hold this button during boot time until 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 CAPs management mode (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)

Operating System Support

Currently tested operating system is MikroTik RouterOS (starting from version v6.37).

Federal Communication Commission Interference Statement

FCC ID: TV7LHG5ND. 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. This device and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.

IMPORTANT: Exposure to Radio Frequency Radiation. 13 cm minimum distance has to be maintained between the antenna and the occupational user and 28 cm to general public. Under such configuration, the FCC radiation exposure limits set forth for a population/uncontrolled environment can be satisfied.

Antenna Installation. WARNING: It is installer's responsibility to ensure that when using the authorised antennas in the United States (or where FCC rules apply); only those antennas certified with the product are used. The use of any antenna other than those certified with the product is expressly forbidden in accordance to FCC rules CFR47 part 15.204. The installer should configure the output power level of antennas, according to country regulations and per antenna type. Professional installation is required of equipment with connectors to ensure compliance with health and safety issues.

Industry Canada (IC: 7442A-LHG5ND)

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

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

[EN] English	Hereby, MIKROTİKLS SIA declares that this ROUTERBOARD is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
[BG] Bulgarian	С настоящето, MIKROTİKLS SIA декларира, че ROUTERBOARD е в съответствие със съществените изисквания и другите приложими разпоредби на Директива 1999/5/EC.
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[ES] Spanish	Por la presente, MIKROTİKLS SIA declara que este ROUTERBOARD cumple con los requisitos esenciales y otras exigencias relevantes de la Directiva 1999/5/EC.
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[FI] Finish	MIKROTİKLS SIA vakuuttaa täten että ROUTERBOARD tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
[SE] Swedish	Härmed intygar MIKROTİKLS SIA att denna RouterBOARD är i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
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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. Instrucțiuni 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 määrittää 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 πρόγραμμα περιήγησης στο Web για να διαμορφώσετε το προϊόν. Περισσότερες πληροφορίες στο <http://wiki.mikrotik.com>