

# PWR-LINE AP

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The PWR-LINE series devices allow Ethernet like connectivity between supported devices over regular electrical power lines. When plugged into the same electrical circuit, the PWR devices will establish Ethernet connectivity by using the HomePlug AV standard.

The PWR-LINE AP is a wireless access point with a single Ethernet port, a built-in 802.11b/g/n WiFi Access Point and integrated PWR-LINE support.

Simply plug this device directly into one of the LAN ports of your MikroTik router, and add another supported device somewhere further in your premises, allowing to extend wireless network coverage without needing to install any LAN cables. You can install more PWR-LINE devices to further build your network.

## Connecting

1. Plug one PWR-LINE AP device into a power socket.
2. The main device should be plugged into one of the LAN ports of a router.
3. Other PWR-LINE AP devices can be placed anywhere in any sockets in the same power circuit.
4. Use Winbox "Neighbors" tab to discover the addresses of the PWR LINE units.
5. Since there is no password by default, you will be logged in automatically. Set up your wifi password and your country, to make sure local regulations are observed.
6. To add more devices that will connect over the electrical lines, add compatible devices somewhere in the same electrical circuit. See section Buttons and Jumpers on how to pair individual PWR-LINE devices.

Important note! The device is configured as a bridge, for extending your LAN network. By default, it does not have a password or firewall, and should not be connected directly to the internet, without configuring it accordingly.

RouterOS includes many configuration options in addition to what is described in this document. We suggest to start here to get yourself accustomed to the possibilities: <http://mt.lv/help>

In case IP connection is not available, the Winbox tool (<http://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 from network, see section Buttons and Jumpers.

## Powering

The device accepts powering directly from 100-240 V ~50/60Hz wall socket it is plugged into. The power consumption under maximum load can reach 7 W.

## Extension Slots and Ports

- 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.
- Integrated Wireless 2.4 GHz 802.11b/g/n with onboard PIF antennas, max gain 1.5 dBi.

## Buttons and Jumpers

The PWR-LINE AP has the following buttons:

### Reset button

- 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).  
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.

### Sync button

- Hold 0.5 – 3 seconds. For 120 seconds will try to communicate with another PWR-LINE device. A blinking orange LED light indicates that it is in search mode. You have to also do the same on the other PWR device, so they can synchronize. Press button again to cancel the search. You can also manually set the security keys in RouterOS settings.
- Hold 5 – 8 seconds. A new security key is generated. This is needed to remove a PWR-LINE device from an existing PWR network.
- Hold 10 – 15 seconds. Resets all PWR related settings.

### Mode button

This button can be configured from RouterOS software to execute any user supplied RouterOS script. You can also disable this button.

## Operating system support

The device supports RouterOS software with the version number at or above what is indicated in the RouterOS menu `/system resource`. Other operating systems have not been tested.

# Federal Communication Commission Interference Statement

FCC ID: TV7PL64112ND



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. 20 cm minimum distance has to be maintained between the antenna and user. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.

Antenna Installation. WARNING: It is installer's responsibility to ensure that when using the authorized 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-PL64112ND

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 our product page on <https://mikrotik.com/products>

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



EN	Hereby, Mikrotiks SIA declares that this routerboard is in compliance with the essential requirements and other relevant provisions of directive 2014/53/EC.
BG	С настоящето, Mikrotiks SIA декларира, че routerboard е в съответствие със съществениите изисквания и другите приложими разпоредби на директива 2014/53/EC.
CZ	Mikrotiks SIA tímto prohlašuje, že routerboard splňuje základní požadavky a všechna příslušná ustanovení směrnice 2014/53/ES.
DK	Undertegnede Mikrotiks SIA erklærer herved, at følgende udstyr routerboard overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EF.
DE	Hiermit erkläre Mikrotiks SIA dass sich das gerät routerboard in übereinstimmung mit den grundlegenden anforderungen und den übrigen einschlägigen bestimmungen der richtlinie 2014/53/EG befindet.
EE	Käesolevaga kinnitab Mikrotiks SIA seadme routerboard vastavust direktiivi 2014/53/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
GR	Με την παρούσα ο κατασκευαστής Mikrotiks SIA δηλώνει ότι routerboard συμμορφώνεται προς τις ουσιαστικές απαιτήσεις και τις λοιπές σχετικές διατάξεις της οδηγίας 2014/53/ΕΚ
ES	Por la presente, Mikrotiks SIA declara que este routerboard cumple con los requisitos esenciales y otras exigencias relevantes de la directiva 2014/53/EC.
IT	Con la presente Mikrotiks SIA dichiara che questo routerboard è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/CE.
LV	Ar šo Mikrotiks SIA deklarē, ka routerboard atbilst direktīvas 2014/53/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
LT	Šiuo Mikrotiks SIA deklaruoją, kad šis routerboard atitinka esminius reikalavimus ir kitas 2014/53/EB direktyvos nuostatas
HU	A Mikrotiks SIA ezzennel kijelenti, hogy a routerboard típusú berendezés teljesíti az alapvető követelményeket és más 2014/53/EK irányelvben meghatározott vonatkozó rendelkezéseket.
NL	Hierbij verklaart Mikrotiks SIA dat het toestel I routerboard in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EG.
PL	Niniejszym Mikrotiks SIA deklaruje że routerboard jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami dyrektywy 2014/53/EC.
PT	Eu, Mikrotiks SIA declaro que o routerboard cumpre os requisitos essenciais e outras provisões relevantes da directiva 2014/53/EC.
RO	Prin prezenta, Mikrotiks SIA declară că aparatul routerboard este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale directivei 2014/53/CE.
SL	Mikrotiks SIA tímto vyhlasuje, že routerboard splňa základné požiadavky a všetky príslušné ustanovenia smernice 2014/53/ES.
SI	Mikrotiks SIA izjavlja, da je ta routerboard v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 2014/53/ES.
FI	Mikrotiks SIA vakuuttaa täten että routerboard tyyppinen laite on direktiivin 2014/53/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
SE	Härmed intygar Mikrotiks SIA att denna routerboard är i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EG.
NO	Mikrotiks SIA erklærer herved at routerboard er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/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://mt.lv/help> **ES. Instrucción:** 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://mt.lv/help> **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://mt.lv/help> **LV. Lietošanas instrukcija:** Pievienojiet Strāvas adapteri, lai ieslēgtu ierīci. Atvērt 192.168.88.1 ar interneta pārlūku, lai konfigurētu produktu. Plašāka informācija <http://mt.lv/help> **LT. Naudojimosi instrukcija:** Prijunkite maitinimo adapterį jūnkitę įrenginį. Į interneto naršyklę 192.168.88.1 Atidarykite galite konfigūruoti gaminį. Daugiau informacijos rasite <http://mt.lv/help> **HU. Használati utasítás:** Csatlakoztassa a hálózati adaptert a készülék bekapcsolásához. Megnyitása 192.168.88.1 egy webböngészőben beállítani a terméket. Több információ <http://mt.lv/help> **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://mt.lv/help> **PL. Instrukcja obsługi:** Podłącz adapter zasilania, aby włączyć urządzenie. Otwórz 192.168.88.1 w przeglądarce internetowej, aby skonfigurować urządzenie. Więcej informacji w <http://mt.lv/help> **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://mt.lv/help> **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://mt.lv/help> **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://mt.lv/help> **SI. Navodila:** Priključite napajalnik za vklop naprave. Odprite 192.168.88.1 v spletnem brskalniku nastavit izdelak. Več informacij v <http://mt.lv/help> **FI. Käyttöohje:** Kytke virtalähde päälle laitteen. Avaa 192.168.88.1 in selaimen määrittää tuotteen. Lisää tietoa <http://mt.lv/help> **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://mt.lv/help> **NO. Bruksanvisningen:** Koble strømadapteren for å slå på enheten. Åpne 192.168.88.1 i en netleser for å konfigurere produktet. Mer informasjon på <http://mt.lv/help> **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://mt.lv/help> **RU. Руководство по эксплуатации:** подключите адаптер питания чтобы включить устройство. Откройте 192.168.88.1 в своем веб-браузере для конфигурации. Дополнительная информация: <http://mt.lv/help>

## MPE statement

This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body, unless specifically stated otherwise in page 1 of this document. In RouterOS you must specify your country, to make sure local wireless regulations are observed.

## Frequency bands terms of use

Frequency range (for applicable models)	Channels used	Maximum Output Power (EIRP)	Restriction
2412-2472 MHz	1 - 13	20 dBm	Without any restriction to use in all EU Member States
5150-5250 MHz	26 - 48	23 dBm	Restricted to indoor use only*
5250-5350 MHz	52 - 64	20 dBm	Restricted to indoor use only*
5470-5725 MHz	100 - 140	27 dBm	Without any restriction to use in all EU Member States

\* 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 radio devices must be professionally installed!

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.

