PWR-LINE AP kit

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.

This particular kit allows you to plug one of the devices directly to your ISP cable or modem, and 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. Connect your Internet cable to the ethernet port.
3. From your PC or smartphone, connect to the wireless network name which starts with "MikroTik".
4. Once connected, open http://192.168.88.1 in your web browser to start configuration. Since there is no password by default, you will be logged in automatically. Set up your password in the screen that loads. Please also specify your country, to make sure local regulations are observed.
5. (Optional) to add more devices that will connect over the electrical lines, add compatible devices somewhere in the same electrical circuit. Devices sold in kits are already paired, and your local network will automatically be extended. See section Buttons and Jumpers on how to pair individual PWR-LINE devices.

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 110-240 V wall socket it is plugged into. The power consumption under maximum load can reach 5 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.

PWR connection button (lock icon)
- 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. 20cm 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.

IMPORTANT NOTE:

IC Radiation Exposure Statement:

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

CE Declaration of Conformity

Full Declaration of Conformity (DoC) may be obtained by visiting our product page on https://mikrotik.com
Manufacturer: Mikrotikls SIA, Brivibas gatve 214i Riga, Latvia, LV1039.

Maximum Output Power (EIRP) in the frequency range 2412-2472 MHz is 20 dBm and in 5150-5250, 5250-5350 and 5470-5725 MHz ranges it is 23/20/27 dBm (only for applicable models).

CE

EN	Hereby, Mikrotīkls SIA declares that this routerboard is in compliance with the essential requirements and other relevant provisions of directive 2014/53/ec.
BG	С настоящето, Mikrotīkls SIA декларира, че routerboard е в съответствие със съществените изисквания и другитеприложими разпоредби на директива 2014/53/ec.
CZ	Mikrotīkls SIA tímto prohlašuje, že routerboard splňuje základní požadavky a všechna příslušná ustanoveni směrnice 2014/53/es.
DK	Undertegnede Mikrotīkls SIA erklærer herved, at følgende udstyr routerboard overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/ef.
DE	Hiermit erklärt Mikrotīkls 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 Mikrotīkls SIA seadme routerboard vastavust direktiivi 2014/53/eü põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
GR	Με την παρούσα ο κατασκευαστης Mikrotīkls SIA δηλωνει οτι routerboard συμμορφωνεται προς τις ουσιωδεις απαιτησεις και τις λοιπες σχετικες διαταξεις της οδηγιας 2014/53/εκ
ES	Por la presente, Mikrotīkls SIA declara que este routerboard cumple con los requisitos esenciales y otras exigencias relevantes de la directiva 2014/53/ec.
IT	Con la presente Mikrotīkls SIA dichiara che questo routerboard è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/ce.
LV	Ar šo Mikrotīkls SIA deklarē, ka routerboard atbilst direktīvas 2014/53/ek būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
LT	Šiuo Mikrotīkls SIA deklaruoja, kad šis routerboard atitinka esminius reikalavimus ir kitas 2014/53/eb direktyvos nuostatas
HU	A Mikrotīkls SIA ezzennel kijelenti, hogy a routerboard típusú beren-dezés teljesíti az alapvető követelményeket és más 2014/53/ek irányelvben meghatározott vonatkozó rendelkezéseket.
NL	Hierbij verklaart Mikrotīkls SIA dat het toestel I routerboard in overeenstemming is met de essentiële eisen en de andere relevante bepalin-gen van richtlijn 2014/53/eg.
PL	Niniejszym Mikrotīkls SIA deklaruje że routerboard jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami dyrektywy 2014/53/ec.
PT	Eu, Mikrotīkls SIA declaro que o routerboard cumpre os requisitos essenciais e outras provisões relevantes da directiva 2014/53/ec.
RO	Prin prezenta, Mikrotīkls SIA declară că aparatul routerboard este în conformitate cu cerinţele esenţiale şi cu alte prevederi pertinente ale directivei 2014/53/ce.
SL	Mikrotīkls SIA týmto vyhlasuje, že routerboard spĺňa základné požiadavky a všetky príslušné ustanovenia smernice 2014/53/es.
SI	Mikrotīkls SIA izjavlja, da je ta routerboard v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 2014/53/es.
FI	Mikrotīkls SIA vakuuttaa täten että routerboard tyyppinen laite on direktiivin 2014/53/ey oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
SE	Härmed intygar Mikrotīkls SIA att denna routerboard är i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/eg.
NO	Mikrotīkls 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 **BG. Инструкция**: Свържете адаптера на захранване, за да включите устройството. Отворете 192.168.88.1 в уеб браузър, за да настроите продукта. Повече информация в http://mt.lv/help **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://mt.lv/help **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://mt.lv/help **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://mt.lv/help **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://mt.lv/help **EE. Kasutusjuhend**: Ühendage toiteadapter seadme sisselülitamiseks. Avatud 192.168.88.1 in veebilehitseja seadistada toodet. Rohkem teavet http://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 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 įjunkite 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. Instrucţiuni de utilizare**: Conectaţi adaptorul de alimentare pentru a porni aparatul. Deschide 192.168.88.1 într-un browser web pentru a configura produsul. Mai multe informaţii 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 spletnim brskalniku nastaviti izdelek. 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 nettleser 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

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