

# RouterBOARD 433UAHL

## Quick Setup Guide and Warranty Information

The RB433UAHL is equipped with three Ethernet ports, and three mini-PCI slots. There are two other models available in this series

- **RB433L:** 64MB RAM, 300MHz CPU, 3x 10/100Mbit ports
- **RB433UAHL:** 128MB RAM, 680MHz CPU, USB port, 3x 10/100Mbit ports, DC jack (this model)
- **RB433GL:** 128MB RAM, 680MHz CPU, USB port, 3x 10/100/1000Gigabit ports, DC jack

## Assembling the Hardware

First use of the board:

1. Insert the miniPCI cards
2. Install the board in a case and connect antenna cables
3. Connect other peripherals and cables
4. Plug in PoE powered Ethernet, or the power adapter, to turn on the device

## Powering

It's possible to power the device with the following methods:

- The first Ethernet port (Ether1) accepts 8-30V DC input (at the board; higher voltage needed to compensate for power loss on long cables; at least 18V suggested) from non-standard (passive) Power over Ethernet injectors. This device does **not** work with IEEE802.3af compliant 48V power injectors.
- DC power jack which accepts 8-30V (5.5mm outside and 2mm inside diameter, female, pin positive plug)

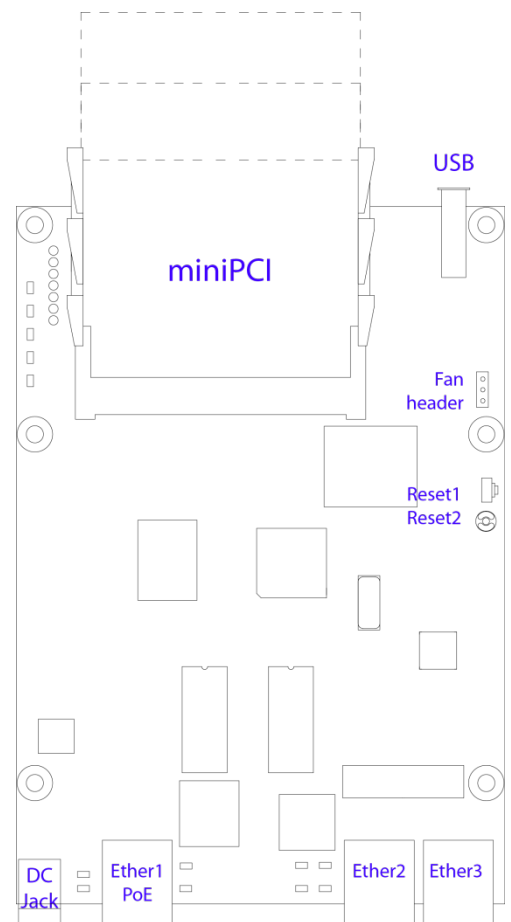
## Booting process

**RouterOS is the operating system of all RouterBOARD routers. Please see detailed configuration guide here: <http://wiki.mikrotik.com/wiki/Category:Manual#list>**

This device doesn't come fitted with a Serial Port connector, so 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** with the username **admin** and **no password**.

In case you wish to boot the device from network, for example to use MikroTik Netinstall, hold the RESET button of the device when starting it until the LED light turns off, and Groove will start to look for Netinstall servers.

In case IP connection is not available, Winbox can also be used to connect to the MAC address of the device. More information here: [http://wiki.mikrotik.com/wiki/First\\_time\\_startup](http://wiki.mikrotik.com/wiki/First_time_startup)



## Extension Slots and Ports

- Three 10/100Mbit Ethernet ports , 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. The first Ethernet port accepts 8-30V DC powering from a passive PoE injector. The other two Ethernet ports **do not** support PoE powering.
- Three MiniPCI Type IIIA/IIIB ports with 3.3V power signaling.
- One powered USB 2.0 port (5V)
- One 8-30V DC power jack
- One fan header, for connecting an optional cooling fan (5V)

## Buttons

- Bootloader backup button (Reset 1). Holding the button while booting will cause the backup bootloader to be used
- RouterOS reset hole (Reset 2). While booting, and holding a metal object in this hole (for example a screwdriver) will cause RouterOS software to be reset to defaults

## Operating System Support

Currently tested operating system is MikroTik RouterOS (starting from v5).

## Copyright and Warranty Information

**Copyright and Trademarks.** Copyright MikroTiks SIA. This manual contains information protected by copyright law. No part of it may be reproduced or transmitted in any form without prior written permission from the copyright holder. RouterBOARD, RouterOS, RouterBOOT and MikroTik are trademarks of MikroTiks SIA. All trademarks and registered trademarks appearing in this manual are the property of their respective holders.

**Hardware.** MikroTiks SIA warrants all RouterBOARD series equipment for the term of fifteen (15) 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.

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 Latvia

To return failed unit or units to MikroTiks you must perform the following RMA (Return Material Authorization) procedure. Follow the instructions below to save time, efforts, avoid costs, and improve the speed of the RMA process. Take into account that all goods have one year warranty.

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

Manual. This manual is provided “as is” without a warranty of any kind, expressed or implied, including, but not limited to, the implied warranty of merchantability and fitness for a particular purpose. The manufacturer has made every effort to ensure the accuracy of the contents of this manual, however, it is possible that it may contain technical inaccuracies, typographical or other errors. No liability is assumed for any inaccuracy found in this publication, nor for direct or indirect, incidental, consequential or other damages that may result from such an inaccuracy, including, but not limited to, loss of data or profits. Please report any inaccuracies found to [support@mikrotik.com](mailto:support@mikrotik.com)

# CE Declaration of Conformity



The full Declaration of Conformity (DoC) may be obtained by visiting this web page:

<http://routerboard.com/certification/>

[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.
[CZ] Czech	MIKROTİK, LTD. tímto prohlašuje, že ROUTERBOARD splňuje základní požadavky a všechna příslušná ustanovení Směrnice 1999/5/ES.
[DK] Danish	Undertegnede MIKROTİK, LTD. erklærer herved, at følgende udstyr ROUTERBOARD overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
[DE] German	Hiermit erkläre MIKROTİKLS SIA dass sich das Gerät ROUTERBOARD in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
[EE] Estonian	Käesolevaga kinnitab MIKROTİK, LTD. seadme ROUTERBOARD vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
[GR] Greek	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Ο ΚΑΤΑΣΚΕΥΑΣΤΗΣ MIKROTİK, LTD. ΔΗΛΩΝΕΙ ΟΤΙ ROUTERBOARD ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ
[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.
[IT] Italian	Con la presente MIKROTİK, LTD. dichiara che questo ROUTERBOARD è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
[LV] Latvian	Ar šo MIKROTİK, LTD. deklarē, ka ROUTERBOARD atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
[LT] Lithuanian	Šiuo MIKROTİK, LTD. deklaruoją, kad šis ROUTERBOARD atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas
[HU] Hungarian	A MIKROTİK, LTD. ezennel kijelenti, hogy a ROUTERBOARD típusú berendezés teljesíti az alapvető követelményeket és más 1999/5/EK irányelvben meghatározott vonatkozó rendelkezéseket.
[NL] Dutch	Hierbij verklaart MIKROTİK, LTD. dat het toestel I ROUTERBOARD in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
[PL] Polish	Niniejszym MIKROTİK, LTD. deklaruje że ROUTERBOARD jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami Dyrektywy 1999/5/EC.
[PT] Portuguese	Eu, MIKROTİKLS SIA declaro que o ROUTERBOARD cumpre os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.
[RO] Romanian	Prin prezenta, MIKROTİKLS SIA declară că aparatul ROUTERBOARD este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale Directivei 1999/5/CE..
[SK] Slovak	MIKROTİK, LTD. týmto vyhlasuje, že ROUTERBOARD splňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
[SI] Slovenian	MIKROTİK, LTD. izjavlja, da je ta ROUTERBOARD v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 1999/5/ES.
[FI] Finnish	MIKROTİK, LTD. vakuuttaa täten että ROUTERBOARD tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
[SE] Swedish	Denna utrustning är i överensstämmelse med de väsentliga kraven och andra relevanta bestämmelser i direktiv 1999/5/EC.
[NO] Norwegian	MIKROTİKLS SIA Erklærer herved at ROUTERBOARD er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

- 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://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 laitteeseen. 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>