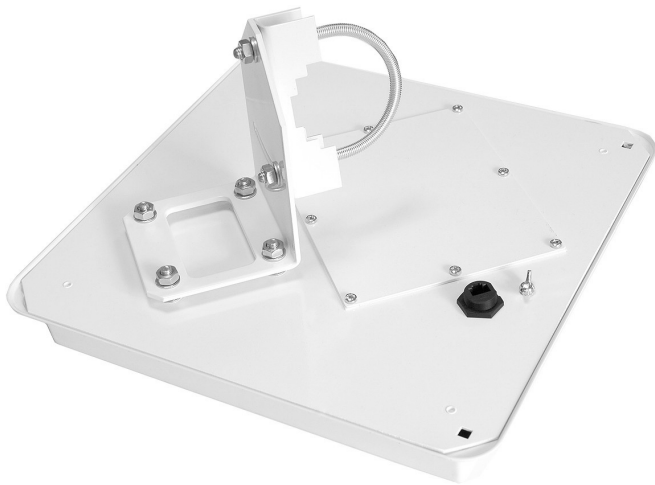


# RouterBOARD 5GHz 22dBi Integrated Router Antenna

## Installation Guide and Warranty Information



### Mounting Kit

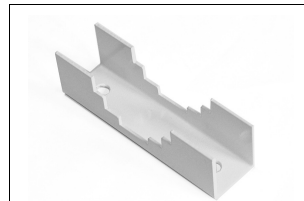
The RouterBOARD you have received, is shipped with the following parts that should be used to mount it on a mast:



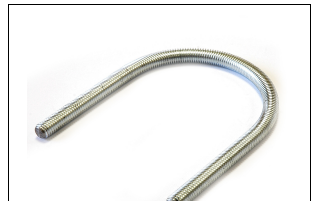
**Item A** (1 pc.). RouterBOARD outdoor case



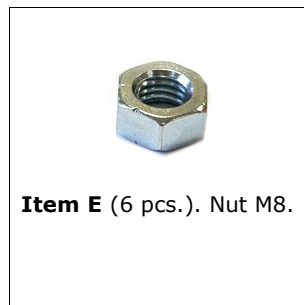
**Item B** (1 pc.). Bracket for adjusting tilt.



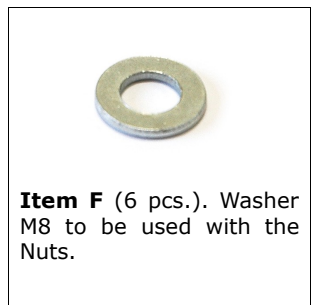
**Item C** (1 pc.). Clamp for securing the case on the mast.



**Item D** (1 pc.). U-bolt to press mast to the Clamp

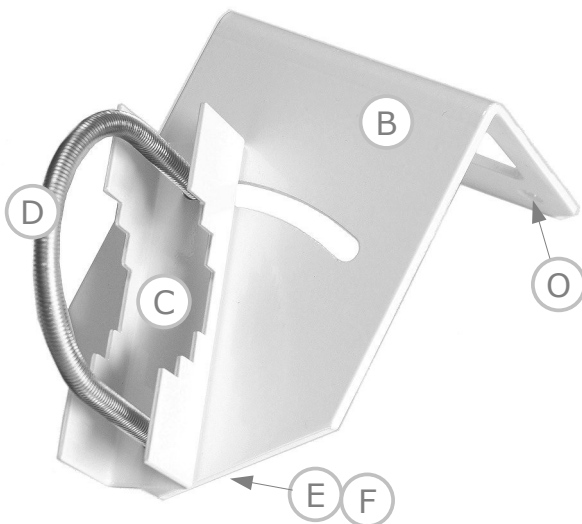


**Item E** (6 pcs.). Nut M8.



**Item F** (6 pcs.). Washer M8 to be used with the Nuts.

### Assembling the Kit



1. Secure the Bracket **B** on the RouterBOARD outdoor case body **A**, using Nuts **E** and Washers **F**. **Note** that the nuts already put on the case body should not be used for this task, instead the item **B** should be placed directly on top of them. The Bracket may be placed four different ways depending on the desired polarization and positioning.
2. When installing the device on a mast, put the Clamp **C** on top of the Bracket **B** connecting them with the U-bolt **D**, facing the Clamp with the carved side against the Bracket (like shown on the picture), so that the mast would be held between the Clamp and the U-bolt. This joint can be used for tilt adjustment.
3. Secure the mast by tightening Clamp with Nuts **E** and Washers **F** reliably on the opposite to the Clamp side of the Bracket to prevent the device shift/rotate in high wind.

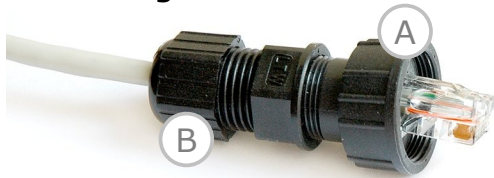
### Notes:

Note that it is recommended to use Washers **F** beneath nuts to increase adhesion.

It is recommended to wrap the mast with a rubber tape under the mounting assembly to increase adhesion.

The device body is equipped with two square holes at the corners. Make sure at least one of these holes is the **lowest** point of the body, so that moisture would not come inside the case through these holes. In some positions it is better to cover the other hole leaving only one of them open. Note that at least one of the holes **must** be open so that water do not accumulate inside the case.

## Connecting Ethernet Cable



1. Pull the Ethernet cable through the assembly shown on the picture (you should have received the assembly together with the device).
2. Install an RJ45 connector on the Ethernet cable, and plug it in the device.
3. Screw the **A** part on top of the Ethernet socket of the device.
4. Hand tighten the **B** part to seal the opening of the assembly.

## Connecting External Antenna Cable (optional)

If the RouterBOARD was purchased with external antenna connector option, screw the connector of the antenna cable cable on the appropriate antenna attachment of the case. Hand tighten the connector (do **not** use vice grips for this job). When tying the coaxial cable, make sure no water can get into it and/or into the equipment it is attached to. It is very important to seal the connection properly with a good rubber tape made particularly for this purpose (note that many general purpose tapes will not prevent moisture to leak into connector, or will fail after some time). **Note:** do not bend the cable straight: you should keep a radius of curvature allowing the cable to bend without applying force.

## Safety Precautions

**IMPORTANT: LIVES MAY BE AT RISK!** Contacting power lines may cause injury or death. Make sure that in no case may equipment or personnel come in direct or indirect contact with power lines. All overhead wiring should be assumed to be power lines. Ensure that the mast may not contact power lines even if it falls during or after installation. If a person comes in contact with electricity and is not able to move, you **MUST NOT** touch that person to avoid the same fate! Instead, use a known non-conductive stick or rope to pull him/her away from the electric line.

Respect safe procedures when working above the ground. Do not work alone: a friend or co-worker can save your life in case of an accident.

## Grounding

The installation infrastructure (towers and masts), as well as antennas and the device itself (there is a small screw with a wing nut on the case with a sticker identifying chassis grounding), must be properly grounded, and lightning arrestors must be installed on all external antenna cables (near the antennas or on the antennas themselves) to prevent equipment damage and human injury. Note that lightning arrestors will not have any effect if not grounded. Note also that damages caused by static electricity and lightning are not covered by warranty.

Use 1 AWG wire with corrosion-resistant connectors for grounding. Be sure to check that the grounding infrastructure you use is indeed functional (as opposed to decorative-only grounding present on some sites).

## Copyright and Warranty Information

**Copyright and Trademarks.** Copyright 2004-2005 MikroTik 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. MikroTik is a trademark of MikroTik SIA. All trademarks and registered trademarks appearing in this manual are the property of their respective holders.

**Hardware.** MikroTik SIA warrants all RouterBOARD series equipment for the term of one year from the shipping date to be free of defects in materials and workmanship under normal use and service. All parts will be repaired or replaced with similar or functionally equivalent parts by MikroTik SIA during the warranty term, except in case the returned parts have mechanical, electrical or other accidental or intended damages caused by improper use or due to wind, rain, fire or other acts of nature.

Parts (or systems) must be shipped pre-paid to our facility in Riga, Latvia. All items must have a Return Material Authorization (RMA) which you can get by contacting us via email, telephone or fax. RMA must be printed, signed, and enclosed with the shipment, also the RMA number must be written on the package itself. Parts sent without following the proper procedure will be treated as those not to be repaired or replaced due to the above mentioned conditions. Items proved to be free of defects in our lab will be returned to the customer at the customer's expense. Those that do meet the warranty repair requirements will be repaired or replaced, and returned to the customer's location at our expense, extending the warranty term for the time the items are being shipped to and from our facility and replaced or repaired.

**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 [docs@mikrotik.com](mailto:docs@mikrotik.com).