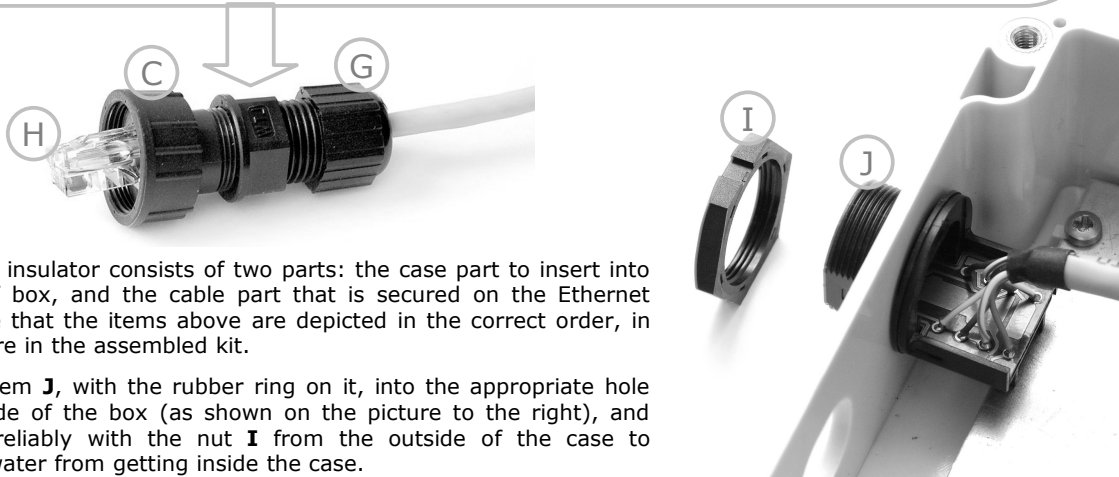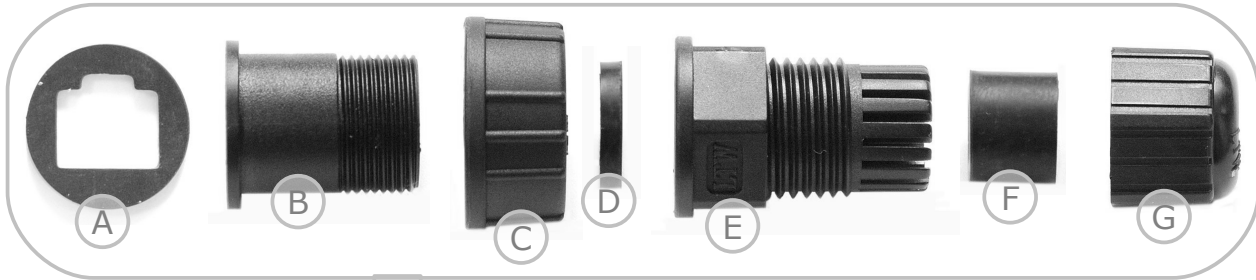# RouterBOARD Outdoor Case Connectors
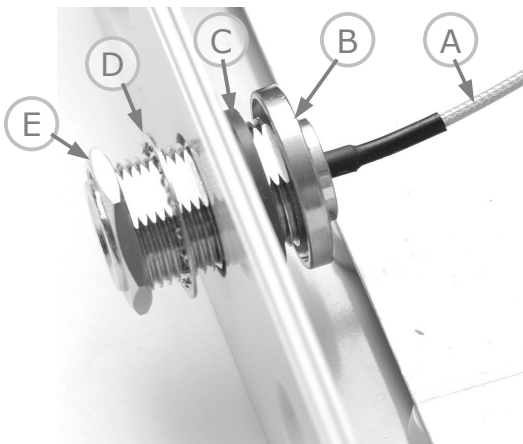
Installation Guide

Ethernet insulator

The Ethernet insulator consists of two parts: the case part to insert into a waterproof box, and the cable part that is secured on the Ethernet cable. Note that the items above are depicted in the correct order, in which they are in the assembled kit.

1. Put the item **J**, with the rubber ring on it, into the appropriate hole from inside of the box (as shown on the picture to the right), and secured reliably with the nut **I** from the outside of the case to prevent water from getting inside the case.

2. Glue the item **A** (it has a sticky side, covered with a white paper) to the item **B**.

3. Insert the rubber pieces **D** and **F** into the item **E**. Please mind the orientation of the item **D** as the **E** has a circular ridge that must match the oblique cut of the **D**.

4. Put the item **C** on the item **B**, as shown on the picture. Then screw the item **E** on it tightly. The item **G** only needs to barely hold on the **E** (turn it half-revolution, so that it does not fall off), not tightened, before the Ethernet cable is finally fixed in it's position (when both parts of the insulator assembly are connected and sealed).

5. Pull the Ethernet cable through the cable part of the insulator, and install the RJ45 connector **H** on the Ethernet cable (with the appropriate tools) from the **A** item's side of the assembly.

6. Plug the cable into the Ethernet socket **J** and screw the part **C** on it. Note that you will have to press the plug's **H** lock and push it inside the matching part **B**, otherwise you wouldn't be able to seal the connection.

7. Hand tighten the **G** part to fixate the Ethernet cable and seal the opening of the assembly.

Antenna pigtail

The N-female antenna "pigtail" connector is assembled on the case, as shown on the picture to the left. The red rubber ring **C** is put on the connector **B**, then the connector is inserted into the appropriate hole of the waterproof case (from inside the case), and secured reliably with the nut **E** and lock washer **D** from outside of the case.

Note that the connection between the coaxial pigtail wire **A** and the antenna connector **B** is fragile, so you must not rotate the cable **A** inside the connector, or bend/pull it with force near the connector. Moreover, you must never bend the cable straight at any point: you should keep a radius of curvature allowing the cable to bend without applying force. Same rule applies to all external coaxial antenna cables as well.

When connecting an external antenna cable, screw the connector of the antenna cable cable on the pigtail installed on 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).