1M2M EDxx magnet housing

Content (see image 1):

- 1x ED16xx device, packed in an antistatic bag and stickers with the DevEUI number and SIGFOX ID.
- 1x Batterypack
- 1x Enclosure (1 top cover, 1 bottom cover,
- 4x M4x30 screws (Torx or Philips head)
- 1x Rubber seal (moulded)



The two foam parts are normally already installed, see Image 2.

Assembly instructions, step by step:

- 1. If you have one or more sensor/power cables then first see the next chapter (**Optional sensor mounting**) before moving on to step 2.
- 2. Open the antistatic bag and put the DEVEUI/SIGFOX stickers on the enclosure where it is legible.
- Connect the battery as pictured (Image 3A for ED1608, Image 3B for ED1610).
 Note: please do this carefully and in the correct connector (J1).







Image 3B

Check: you will see a LED blink.

4. Before fitting the electronics in the enclosure, check if the rubber seal is placed correctly inside the outer ring of the bottom part of the enclosure (see Image 4). The seal is very important for the water resistance of the enclosure.

Image 4



5. Put the ED1608 PCB in the enclosure, fold the battery on top and close the enclosure (see Image 5).



Check: on the side where the pcb touches the enclosure one or more LEDs will blink.

- 6. Now check again if the rubber seal is mounted properly, if not push it back into the opening on the side of the enclosure.
- 7. If you have the option magnet mounting kit, then skip step 8 an go to chapter "Optional magnet mounting"
- 8. Place the washers in the holes of the bottom part of the enclosure and put the screws in the enclosures. Now you can tighten the enclosure with the 4 screws (see Image 6).



Image 6

Optional sensor mounting:

The lid of the housing is prepared with three break-out holes for external sensors, switches or power supply. 1M2M has several sensors available, please contact 1M2M for more information if you need an external sensor.



Image 7

The break-out holes are made to fit a small M10 cable gland. Sensors assemblies normally include a cable gland.



Installation manual

If the hole is not open you can use a screwdriver or another tool to break the inner circle out. Please remove remaining plastic on the edge to get a nice round hole.

Then put the sensor cable with the connector(s) though the hole, take the plastic nut and put it carefully over the connector(s) and the turn the cable gland until it has a tight fit (see Image 8). There is a rubber seal on the gland so do not use too much force.

Now is the time to connect the sensor to the ED16xx pcb.

One-wire temperature sensor

Use J14 to connect a one-wire sensor. Some boards have a 2-pin connector, others a four pin connector. In case of the 2-pin connector there is also a 10-pin connector with the red wire which should be placed in J13. See Image 9.

Power cable

A external power cable can be connected to J13.

Now go back to step 5. of the previous chapter to finish the assembly of the device.

Mounting:

The housing has a two mounting options.

- 1. On both sides of the bottom part there are mounting holes. Make sure that it is nice and flat below the device.
- 2. Magnets, instead of the 4 screws which fasten the enclosure there is a kit available with magnets. See the next chapter.



Image 8



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Installation manual

Magnet mounting box content (see Image 11):

- 4 magnets, 20 mm diameter, strength approximately 9 kg per magnet
- 4 extra long Torx screws, 35mm characterised by a
 6-point star-shaped pattern
- 4 extra rubber washers
- 4 metal rings



The correct assembly order is 2 washers on top of each other, then the metal ring and the magnet with the 35mm screw through. There are two ways to assemble this, the easiest is to put one rubber washer in the bottom enclosure hole, then put the screw through the magnet, slide the metal ring over the screw, then the second washer. Then place this in the hole and repeat 4 times. Then tighten all 4 screws (Image 12).

The other way is to put both washers on the screw (Image 13) and make sure to get the washer in place when you put the screw in the enclosure.





Warning, only use the 35mm screws you received with the kit



Optional magnetic one wire attachment

A special 3-d printed add-on is available to mount a one-wire temperature sensor below the ED16xx housing. This add-on is designed to be mounted to the enclosure with 4 magnets.

Beware that all rubber rings have to be placed between the enclosure and the 3-printed add-on.



Note:

Only when properly assembled and mounted this housing can withstand wet conditions comparable to IP67.