ITalks MCS 1608 Installation

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Introduction

The ITalks MCS 1608 LoRa series is developed in order to integrate sensor functionality for various applications. It communicates with the widely available Low Power Wide Area Networks (LPWAN) LoRa. Time to market is very important in the LPWAN market segment. The ITalks MCS 1608 is developed to enable customers to be on the market in a matter of weeks. Three versions can be supplied. The Full version offers multiple different sensors, whereas the two other versions have less sensors on board.

Sensor version

The sticker on the box will show you what version you have in the box.

The box contains

- ✓ 1 MCS1608 device, packed in an antistatic bag with an IMEI number
- ✓ 1 Battery
- ✓ 1 Enclosure (1 cover and 1 bottom)
- ✓ 4 Torx screws, characterized by a 6-point star-shaped pattern
- ✓ 4 Washers
- ✓ 2 pieces of self adhesive

The box with magnets contains

- ✓ 4 magnets – 20 mm in diameter
- ✓ 4 extra long torx screws – 35 mm instead of 30 mm
- ✓ 4 washers

Documentation

For more information and documentation about the ITalks MCS 1806 sensor or any of our other LoRa products, you can visit our website: www.mcs-nl.com.

Select “Dealer area” in the left column. You will be asked to log in with your username and password. If you don’t have a username you can make one by selecting, register and filling in the required fields.

When you are logged on to the dealer area, please select “LoRa”. Within this area you can find information like the datasheet and protocol information.

If you have any question or require more information about our products, you can send an email to: support@mcs-nl.com or contact us by phone: Tel: +31(0) 10 4375 555

Assembly

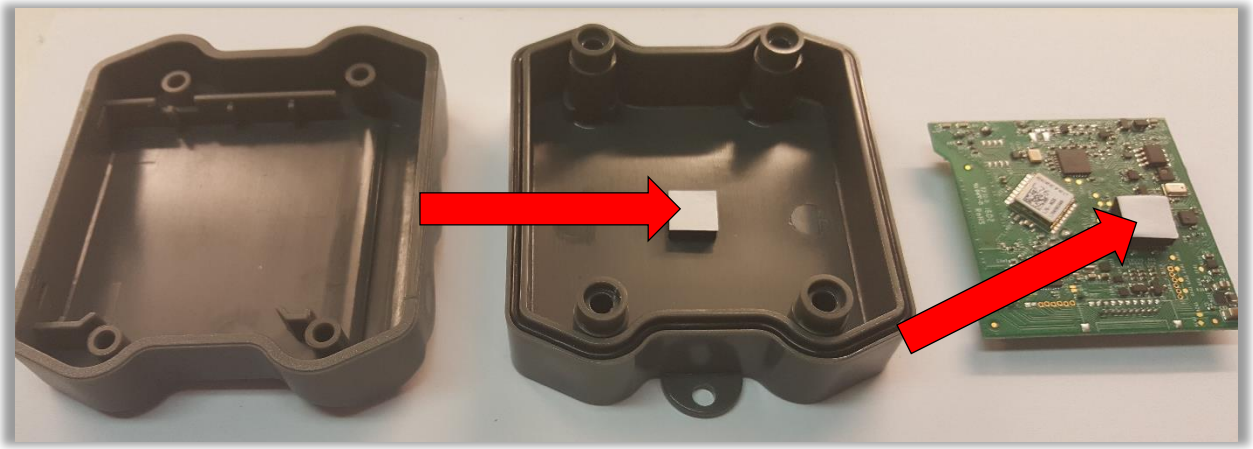
Before you close the enclosure make sure the sensor can connect to the network. If the sensor can't connect it will keep trying to search for a network (join request). This process will drain the battery and shorten its lifespan drastically.

Step 1: IMEI

Open the antistatic bag and put the IMEI sticker on the outside of the enclosure where it is readable.

Step 2: Foam

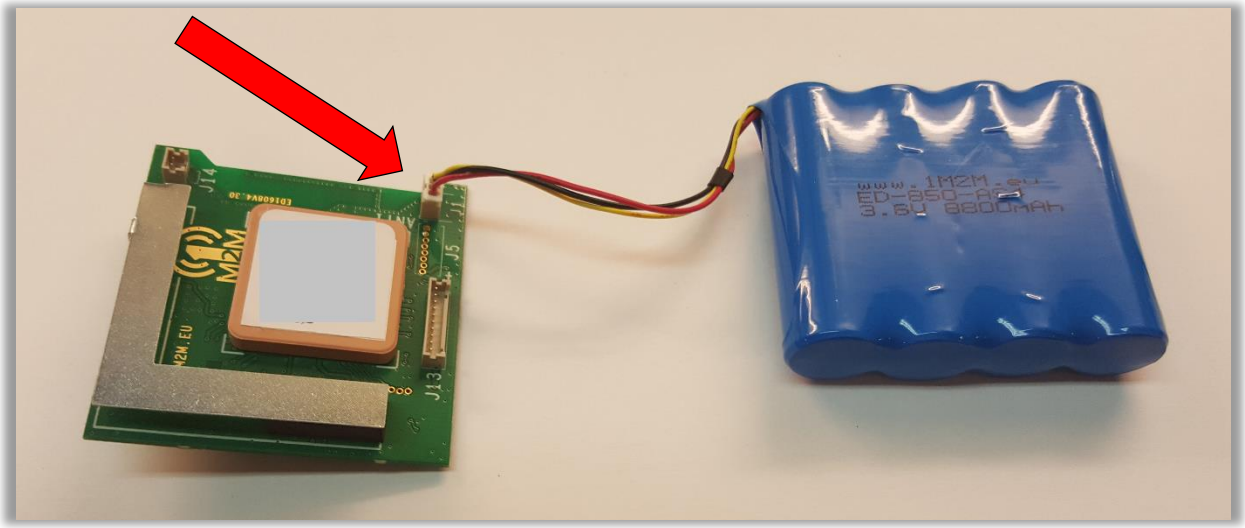
Stick 1 piece of self-adhesive inside the back of the enclosure. The other one needs to be stuck on the processor of the PCB.



Stick the pieces of foam on the same position as in the photo

Step 3: Battery

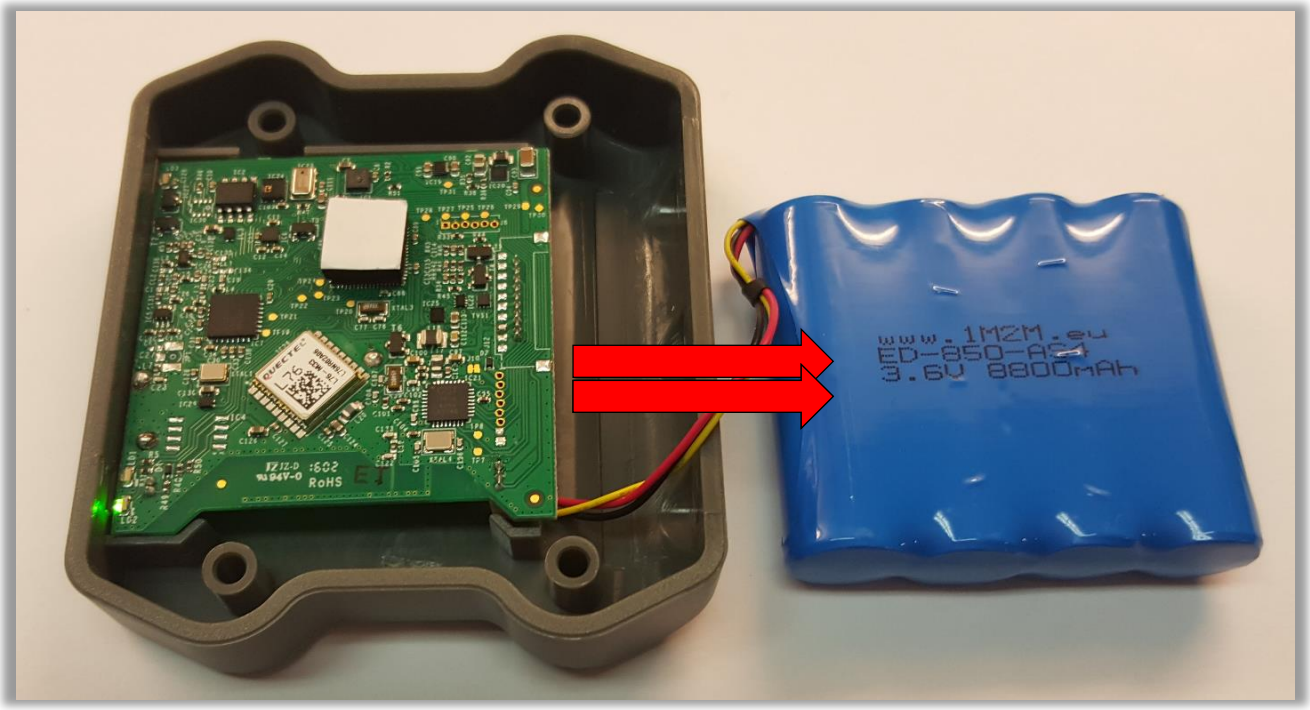
Connect the battery as show in the picture below



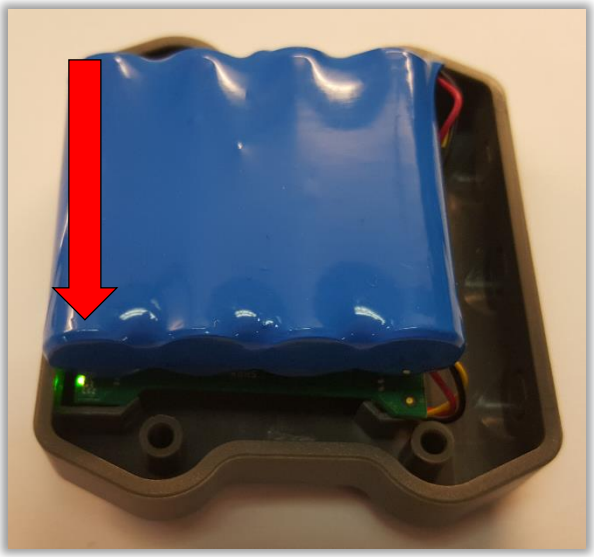
You can check if the battery is connected the right way by checking the blinking led on the side of the board

Step 4: PCB

Place the ITalks 1608 PCB in the enclosure as shown in the picture below.



Place the board in the enclosure. Do this the same way as in the picture



Place the battery on top of the board

Carefully close the casing and check the side. Make sure that you see the LED blinking red/green

Step 5: Washers

Place the washers in the holes of the bottom of the enclosure.

NOTE: If you use magnets, please continue hereafter with "assembly with magnets" chapter on page 9.

Step 6: Closing the case

Place the screws in the holes and tighten them.

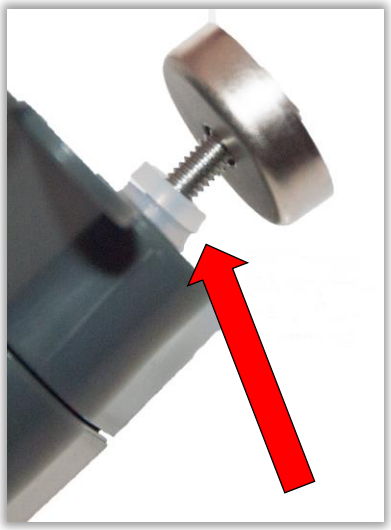
Assembly with magnets

Step 6: Place the extra washers

Place the extra washer on top of the first washer.

Step 7: Screws 35 mm

Place the extra long screw in the magnet and place it then in the washers of the housing.
Or you can place the two washers on the screw first.



Step 8: Screws 35 mm

Tighten the screws in the enclosure

Led indications

Colours

The sensor is able to show the following colours

- ✓ Green
- ✓ Yellow
- ✓ Red

Led light meaning

When you power up the device you will see the led turn green and start to blink.

- When the red led blinks fast, it means the device is sending data (LoRa transmission)
- The yellow light indicates that there is Downlink reception
- If the red light blinks once every second it means that the tracker is moving
- If the red light blinks 2 times every second it indicates that the tracker is getting a GPS Fix

If the led is always on it indicates that there is a problem with the sensor. Please disconnect and connect the battery again. This will restart the device and it will try to make contact with the network again. This could last up to 5 min.