C4D-4MEUAE_V8 - INSTALLATION GUIDE

V 1.1

18/07/2022

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Preface

The information contained in this installation guide is subject to changes in order to improve the reliability, design or features without prior notice. MUNIC Car Data reserves the right to make changes in the content without obligation to notify any person or organisation of such changes or improvements. MUNIC Car Data can in no event be held liable for technical or editorial errors or omissions herein, nor for incidental, special or consequential damages from the furnishing, performance, or use of this installation guide.

Please contact our technical support for current updates and supplemental information concerning the use and operation of this or other MUNIC Car Data products.

Warnings and notices

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Please read the installation guidelines, as well as the safety and operating instructions before operating your device. Follow all instructions and heed all warnings in the installation guide.

Please disconnect telecommunication cable before opening the device.

There is a risk of explosion if the battery is replaced by a wrong battery type.

There is a risk of explosion if the battery is disposed into fire or a hot oven, or mechanically crushed or cut.

There is a risk of explosion or leakage of flammable liquid or gas if the battery is left in an extremely high temperature surrounding environment or is subjected to extremely low air.

Please discard empty battery according to local regulations.

Dispose of used batteries according to the instructions.

RF Exposure Information (SAR)

This device meets the EU requirements (2014/53/EU Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

1. Hardware features

OBD Dongle		
Performance	Processor	ARM A7
	RAM	2 Gbytes
	NAND Flash	2 Gbytes
Power supply	External power supply range	8-18V ⎓ 2A max*
	External voltage measurement	•
	Li-pol battery	450mAh
Communication	Modem	LTE Cat M1 & EGPRS Module (BG96)
	Bands	LTE: band 3, 8, 20, 28 GSM-900 and GSM-1800
	Modem antenna	Internal
	SIM	Micro SIM clot
Positioning	GNSS receiver	U-blox M10 (GPS, GLONASS)
	GNSS antenna	Internal
Interface & Telematics features	Accelerometer	3 axis ±2/4/8/16 g
	OBD protocols	CAN, ISO9141
	CAN interface	Single CAN coprocessor
	LEDs	1 bicolour LED
Environmental	Connectors	OBD connector Micro USB type B connector
	Operating temperature	-20°C/+50°C with Battery -20°C/+60°C without battery
	Dimensions	With OBD connector: 27x50x61 mm Without OBD connector: 27x50x49 mm

*⎓ : direct current

2. Hardware description

2.1. External view

1 : OBD connector
2 : micro USB connector
3 : bicolor led

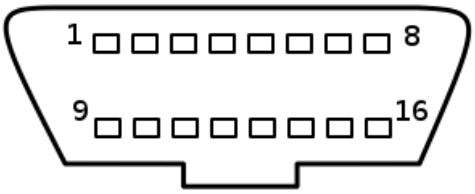
2.2. Internal view

5 : GNSS antenna
6 : micro SIM holder
7 : Internal battery*

* Please read warnings section at the beginning of the installation guide

2.3. OBD connector pin out

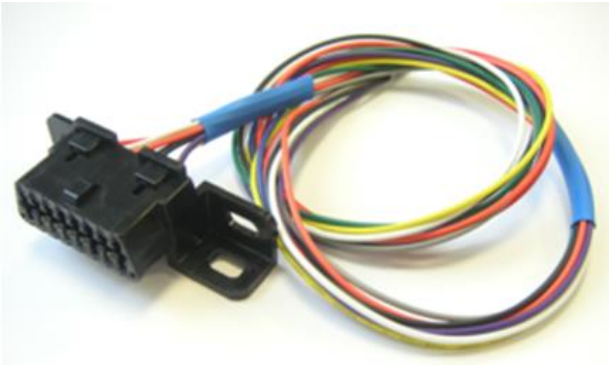
Pin #	Comment
1	OEM specific
2	J1850+ (PWM/VPW)
3	OEM specific
4	Chassis ground
5	Signal ground
6	CAN High
7	K line
8	OEM specific
10	J1850- (PWM)
11	OEM specific
14	CAN low
15	L line
16	Battery voltage



2.4. OBD adapter wires

This adapter is only used to connect the OBD to a computer (laptop/desktop).

Pin #	Wire color
2	Yellow
4	Black
5	Grey
6	Green
7	Blue
10	Violet
14	Orange
15	White
16	Red



3. Preparing/installing the device

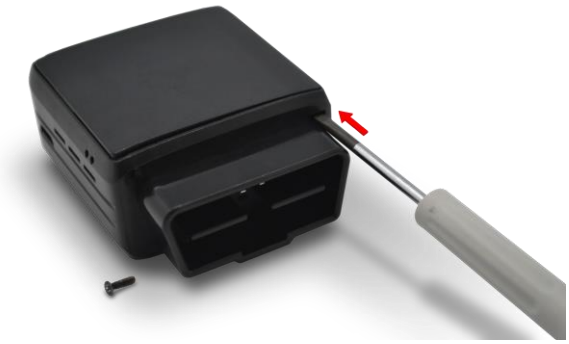
Those operations may need the use of specific tools like :

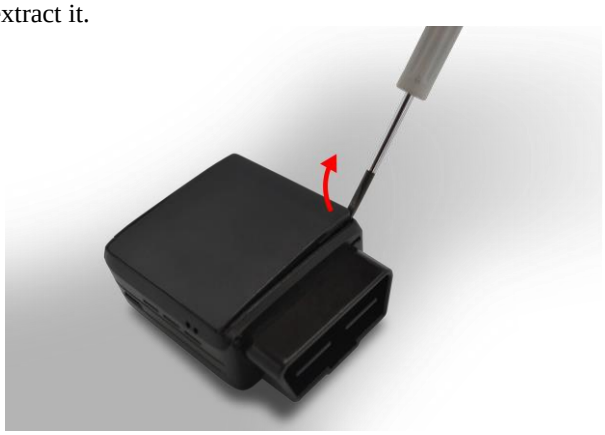
- Small cross-head screwdriver for the screw.
- Small slotted screwdriver to remove the cover.
- Thin tweezers to insert/remove the SIM card.

3.1. Open the device

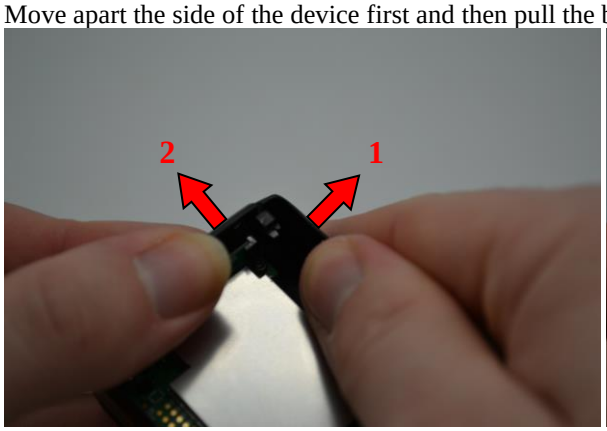
Remove the screw using Small cross-head screwdriver

Insert slotted screwdriver to pop-out the top cover and extract it.





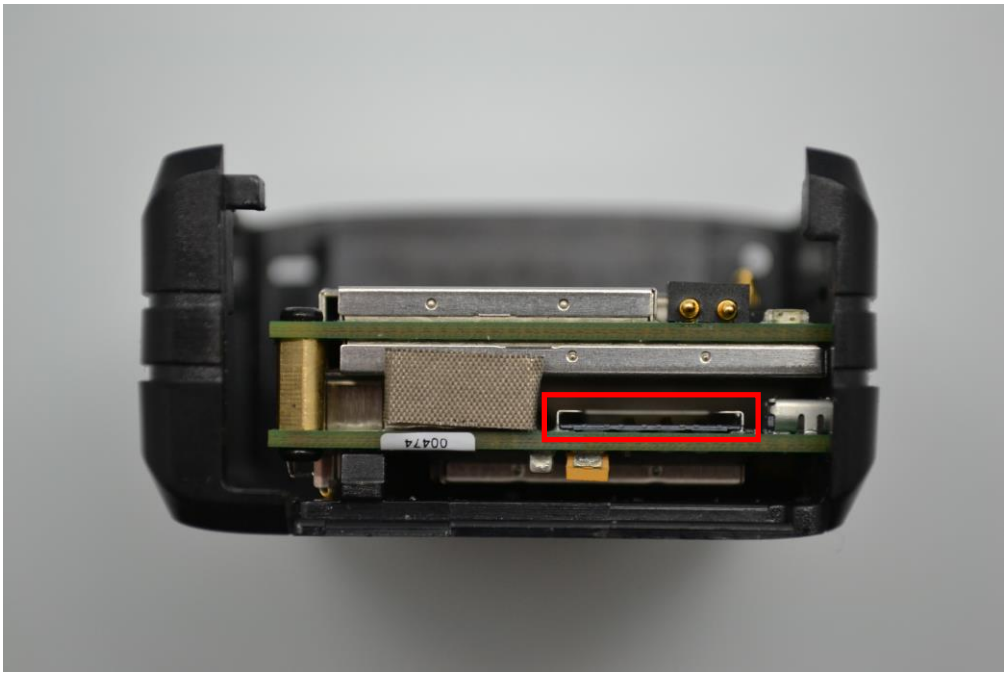
Move apart the side of the device first and then pull the back cover out of his spot



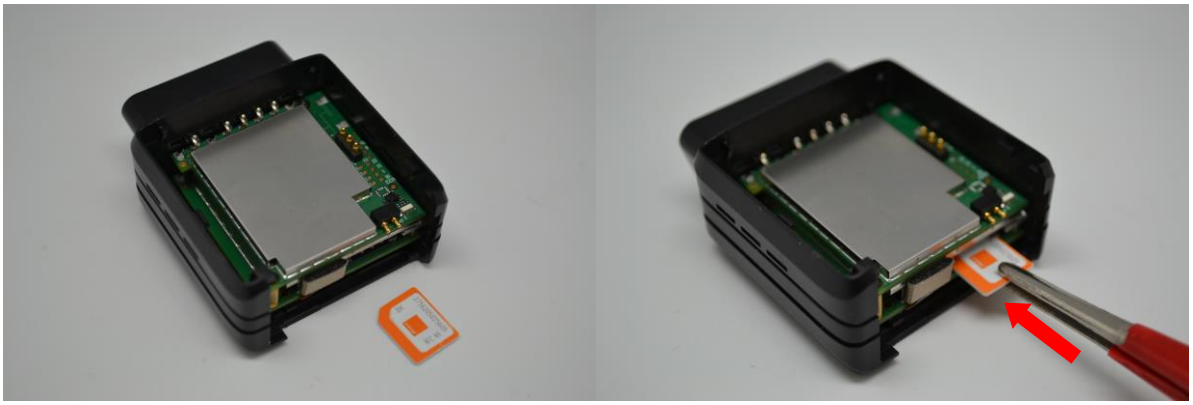
Device is now open

3.2. Insert the SIM card

The micro SIM card slot is located between the two electronic cards.



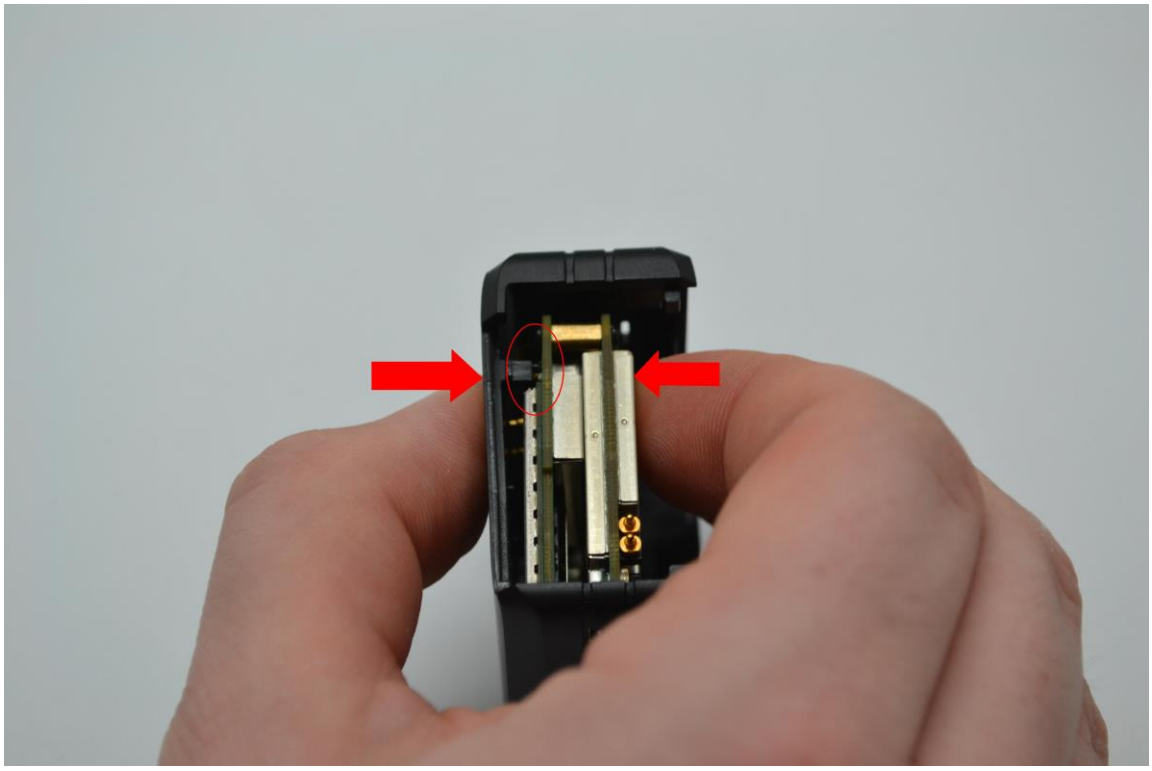
Insert the card with contact on bottom into the slot and push it as far as it will go.

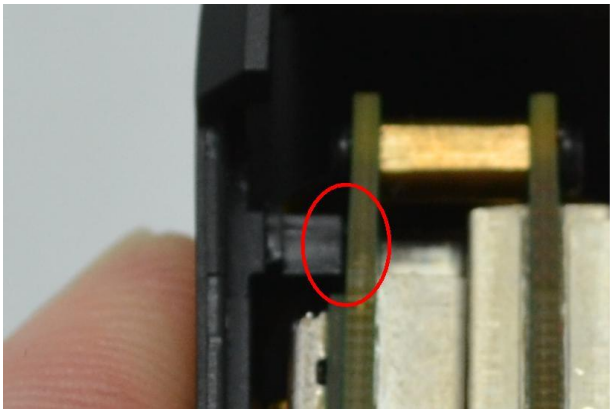


Once inserted the SIM card looks like this:

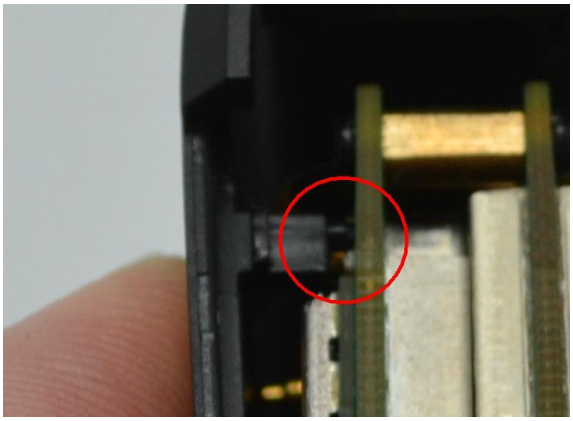
3.3. Properly close the device

First, check that the hole of the electronic card is correctly inserted in the plastic part.
If it's not inserted please move smoothly the electronic cards right and left to place it in correct position.



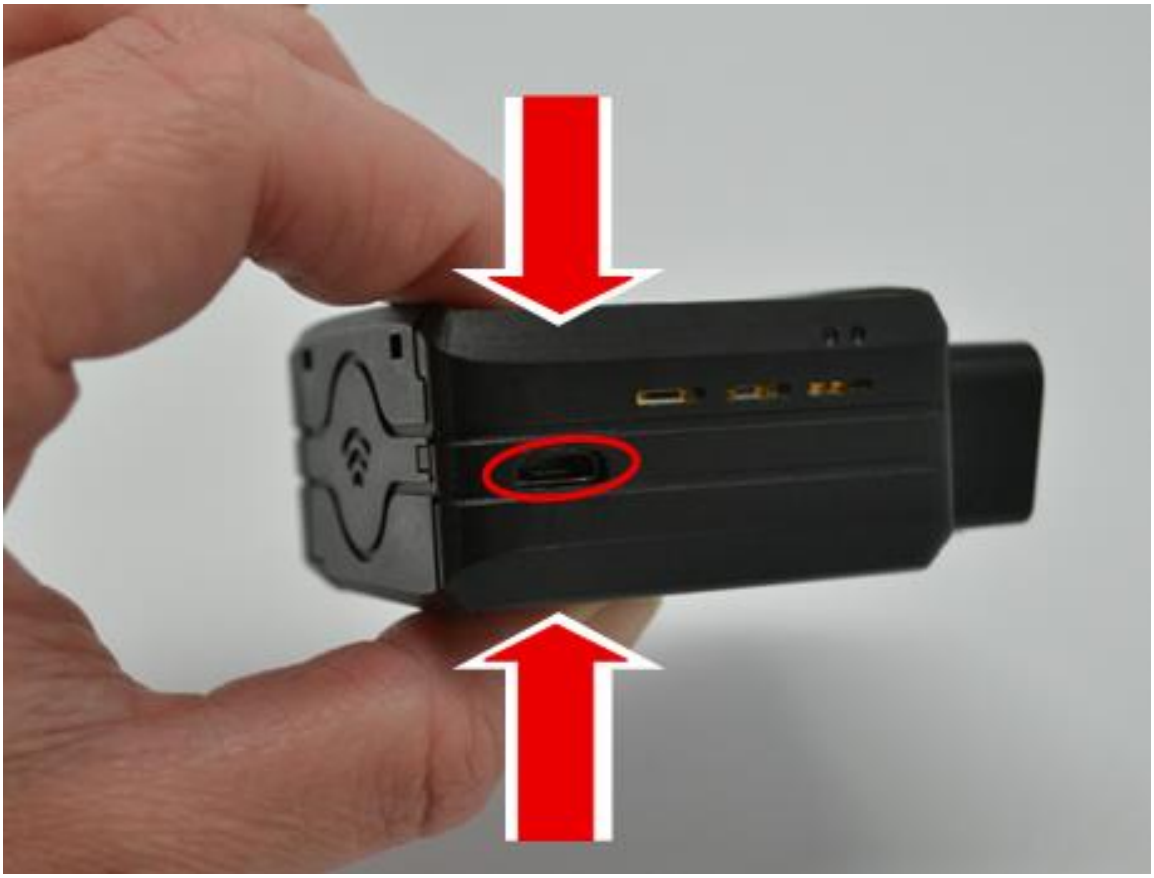


GOOD



NOT GOOD

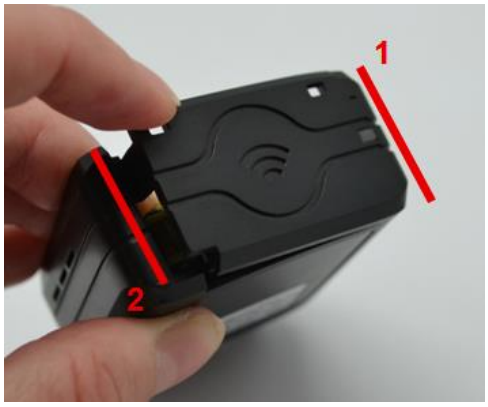
Second, check that the micro USB port is correctly inserted on its place.
If it's not inserted please move smoothly the electronic cards to place it in correct position.



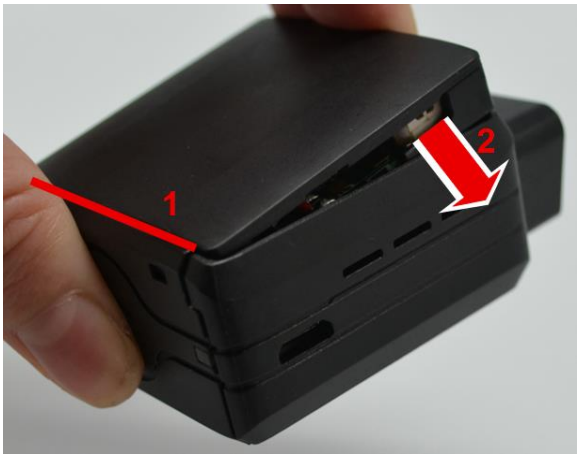
GOOD

NOT GOOD

insert the GPS antenna as shown below.



Finally, insert the battery and place the screw.



3.4. Install the OBD Dongle

Connect the OBD Dongle on your vehicle OBD connector.

4. LED sequences

The Dongle has a two-coloured LED, green and red.
When both colours are brightened, you can see an orange light.

Green LED		Red LED	
Sequence	Meaning	Sequence	Meaning
		Dongle OFF	OFF
No Modem /No GNSS	3 times (50ms ON/100ms OFF) 3550ms OFF	Ext. Power/Run	ON
No Modem /Fix GNSS	2 times (50ms ON/100ms OFF) 3700ms OFF		
Modem OK /No GNSS	1 time (50ms ON/100ms OFF) 3850ms OFF		
Modem OK /Fix GNSS	2000ms ON 2000ms OFF		
		Shutdown/Hibernate	30ms ON / 1 s OFF
		Idle/Sleep	30ms ON / 1 s OFF

5. EU Regulatory

We, MUNIC declares that the radio equipment type C4D-4MEUAE_V8, is in compliance with the Directive 2014/53/EU.

Technology/Band	Mode	Conduct Power (dBm)
GPS	**RX**	-
GLONASS	**RX**	-
LTE Band 3	**QPSK/16QAM**	22,30
LTE Band 8	**QPSK/16QAM**	23,10
LTE Band 20	**QPSK/16QAM**	23,20
LTE Band 28	**QPSK/16QAM**	22,26
GSM 900	**GPRS**	32,64
	EDGE	25,46
GSM 1800	**GPRS**	30
	EDGE	25,26

6. Support

For all questions not related in this installation guide, please contact the support team by email at support@munic.io