

C4D-4G4EUWBT_V6+ - INSTALLATION GUIDE

V 1.4

20/12/2017



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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. Mobile Devices Ingénierie reserves the right to make changes in the content without obligation to notify any person or organisation of such changes or improvements. Mobile Devices Ingénierie 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 Mobile Devices Ingénierie 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.

There is a risk of explosion if the battery is replaced by a wrong battery type. Please discard empty battery according to local regulations.

Hereby, Mobile Devices Ingénierie declares that the radio equipment type C4D-4G4EUWBT_V6+ is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <http://www.mobile-devices.com/>

The device could be used with a separation distance of 0.5cm to the human body. Users have to adopt a holster/sleeve/cover without any metal components to maintain this distance.

Dispose of used batteries according to the instructions.

RF Exposure Information (SAR)

For this device, the highest reported SAR value for usage near the body is **1.670** W/kg.

According to REDCA Technical Guidance on the publication with a restriction in the Official Journal of Europe of the reference of standard EN 50566:2017, ensuring the safe a **separation distance of 5mm** or less is applied for handled device and body-mounted wireless communication device used by the general public, the 5mm distance is used for SAR testing and this device is compliance with Specific Absorption Rate (SAR) for general population/ uncontrolled exposure (Localized 10-gram SAR for head and trunk, limit : 2.0W/kg) specified in Council Recommendation 1999/519/EC, and ICNIRP Guidelines, and RED (Directive 2014/53/EU), and had been tested in accordance with the measurement methods and procedures specified in EN50566:2017, EN62311:2008 and EN62209-2:2010

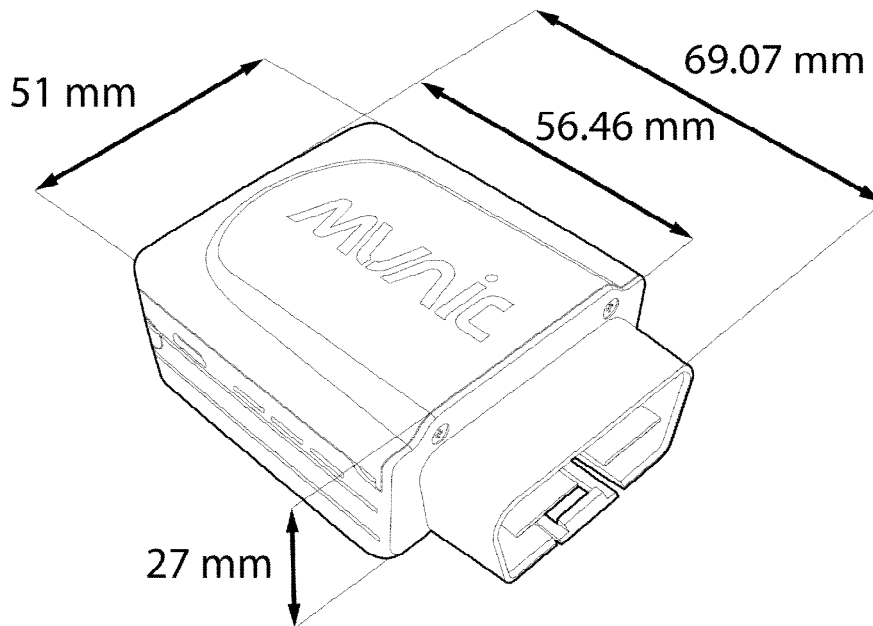
1. Hardware features

| OBD Dongle | | |
|---------------------------------|------------------------------|---|
| Performance | Processor | Cortex A5 - 500MHz |
| | RAM | 128 Mbytes |
| | NAND Flash | 256 Mbytes |
| Power supply | External power supply range | 8-18V |
| | External voltage measurement | • |
| | Li-pol battery | 270mA.h |
| Communication | Modem | 4G Cat.4 Europe module (LE910-EU V2) |
| | Modem antenna | Internal |
| WLAN | Wifi | WiFi 802.11 b/g/n 2.4G |
| | Bluetooth | BT 4.1 LE |
| Positioning | GNSS receiver | U-blox M8 (GPS, GLONASS) |
| | GNSS antenna | Internal |
| Interface & Telematics features | USB (2.0 Host) | powered (100mA on 5V minimum) optional |
| | 3D Accelerometer | ±2g, ±4g, ±6g, ±8g, ±16g |
| | 3 axis Gyroscope | Optional, please contact us |
| | OBD protocols | CAN, KWP2000, VPW, PWM |
| | Additional CAN interface | Optional, please contact us |
| Environmental | Connectors | OBD connector Mini USB |
| | Operating temperature | -20°C/+55°C with Battery -20°C/+60°C without battery |
| | Dimensions | With OBD connector: 27x69,5x51 mm Without OBD connector: 27x56.5x51 mm |
| | SIM card | slot |

Below value is the real value tested on conductive power, we kept sample at Lab. for trace.

| Mobile (UE) – GSM | | |
|-----------------------------|-------------|-------------|
| Band | Power Class | Power (dBm) |
| E-GSM 900 | 4 | 32.70 |
| DCS 1800 | 1 | 28.67 |
| Mobile (UE) - UMTS | | |
| Band I | 3 | 22.14 |
| Band VIII | 3 | 23.1 |
| Mobile (UE) - LTE | | |
| FDD 1: Japan, Korea, Europe | | 21.85 |
| FDD 3: Europe, Asia, Taiwan | | 22.28 |
| FDD 7: Europe, Taiwan | | 22.7 |
| FDD 8: Europe, Taiwan | | 22.67 |
| FDD 20: Europe | | 22.69 |
| WLAN | | |
| Bluetooth | | 9.5 |
| WIFI 802.11b | | 14.5 |
| WIFI 802.11g | | 13 |
| WIFI 802.11n HT20 | | 13.2 |

2. Hardware description



2.1. External view

- 1 : OBD connector
- 2 : USB connector
- 3 : Status led



2.2. Internal view

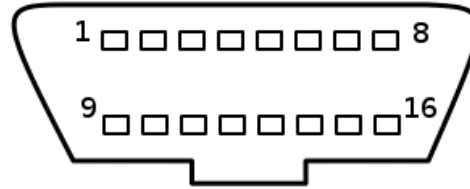
- 4 : GNSS antenna
- 5 : SIM holder
- 6 : Internal battery*



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

2.3 OBD connector pin out

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

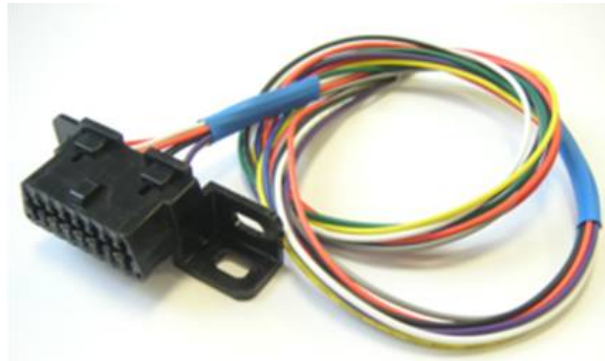


* Please read warnings section at the beginning of the installation guide

2.4 OBD adapter wires

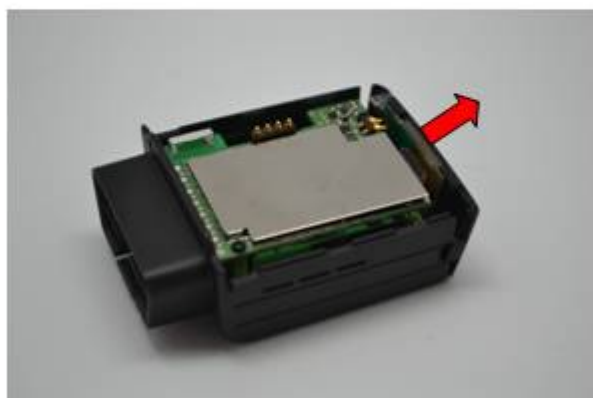
This adapter is only used to connect the OBD to a computer (laptop/desktop).

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



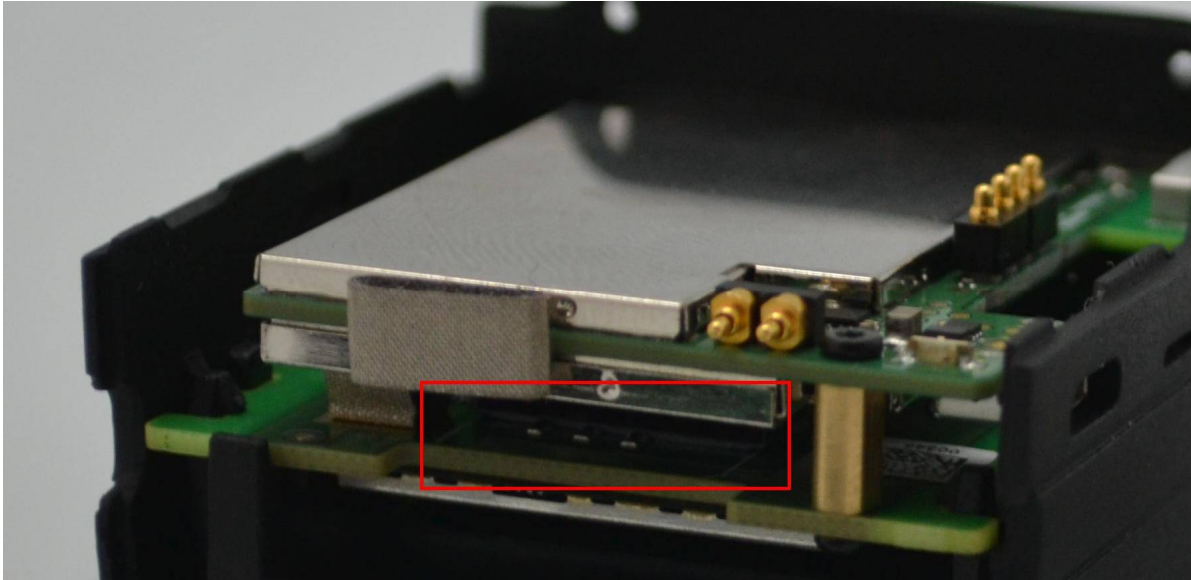
3. Preparing/installing the device

3.1. Open the device



3.2. Insert/remove the SIM card

The 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.

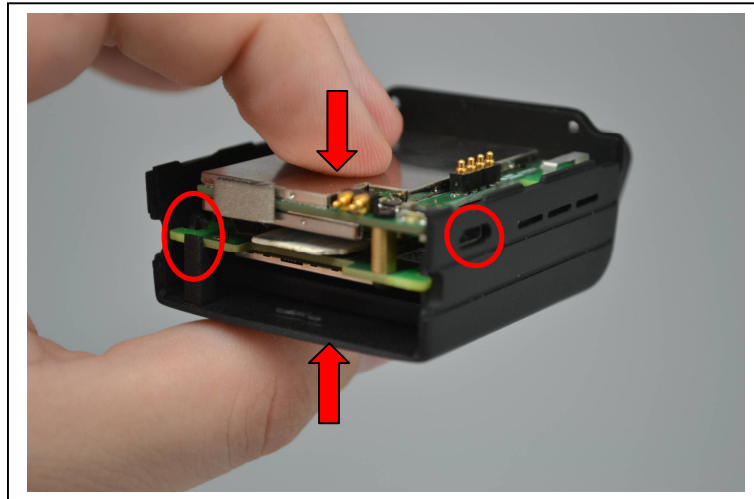
Once inserted the SIM card looks like this:



3.3. Properly close the device

First, check that the electronic card is correctly inserted in the plastic part and that usb port is correctly positioned into the casing.

If it's not inserted proceed as shown below.



GOOD



NOT GOOD

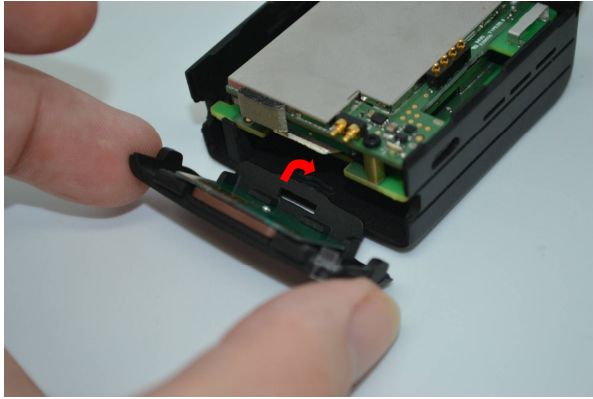


GOOD



NOT GOOD

Second, insert the back cover beginning with the bottom.



Third, insert the top cover beginning with the back and push on top to clip-on the top cover



Finally, place the screw.



3.3. 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. Support

For all questions not related in this installation guide, please contact the support team by email at support@mobile-devices.fr