

## C4D-4G4USAA\_V6+ - INSTALLATION GUIDE

V 1.0

05/09/2018



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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.

Dispose of used batteries according to the instructions.

## FCC Regulations

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## FCC RF Exposure Information

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the United States.

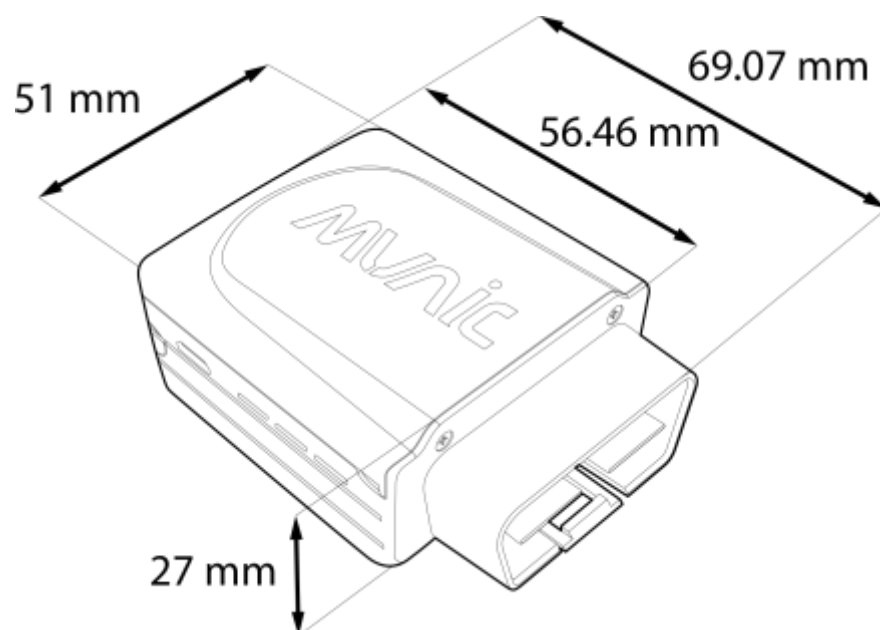
In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

The FCC has granted an Equipment Authorization for this model device with all reported RF exposure levels evaluated as in compliance with the FCC RF exposure guidelines. RF exposure information on this model device is on file with the FCC and can be found under the Display Grant section of [www.fcc.gov/oet/ea/fccid](http://www.fcc.gov/oet/ea/fccid) after searching on FCC ID: **A6GC4D-4G4USV6**.

## 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 ATT module (LE910-NA 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                                                  |
|                                 | OBD protocols                | CAN, KWP2000, VPW, PWM                                                    |
|                                 | CAN interface                | Dual CAN coprocessor                                                      |
|                                 | OBD connector                | Multiplexed OBD                                                           |
| Environmental                   | Connectors                   | OBD connector                                                             |
|                                 |                              | Mini USB                                                                  |
|                                 | Operating temperature        | -20°C/+55°C with Battery<br>-20°C/+60°C without battery                   |
|                                 | Dimensions                   | With OBD connector: 27x69,5x51 mm<br>Without OBD connector: 27x56.5x51 mm |
|                                 | SIM card                     | slot                                                                      |

## 2. Hardware description



### 2.1. External view

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



### 2.2. Internal view

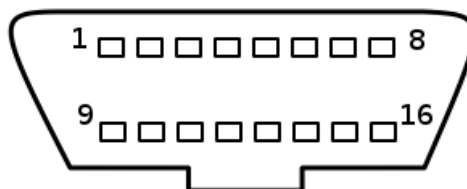
- 4 : GNSS antenna
- 5 : SIM holder
- 6 : Internal battery\*



\* 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

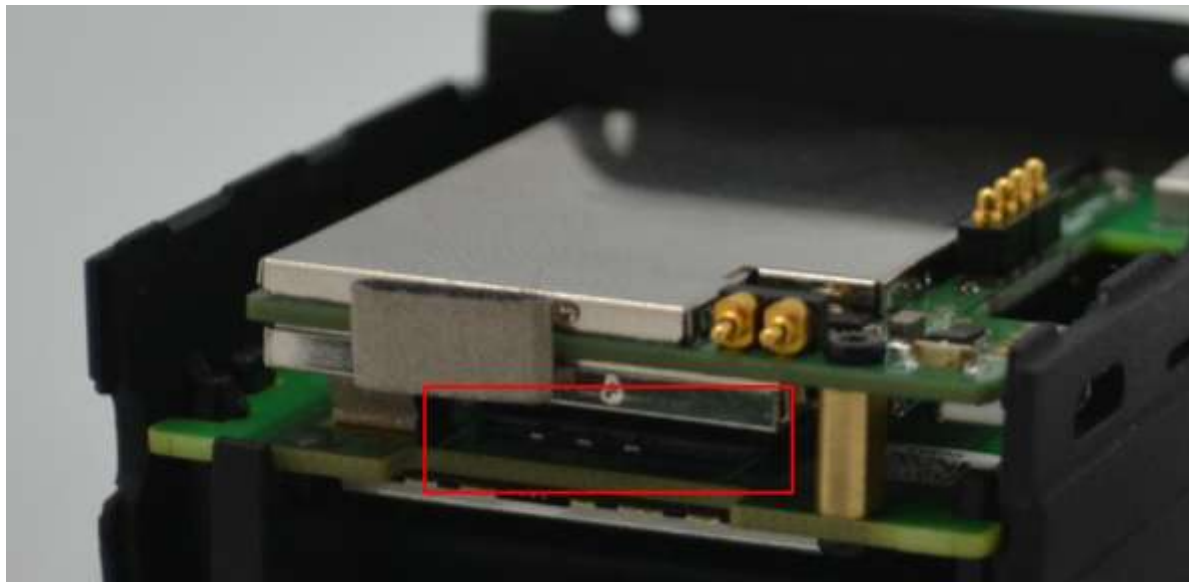
#### 3.1. Open the device





### 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.

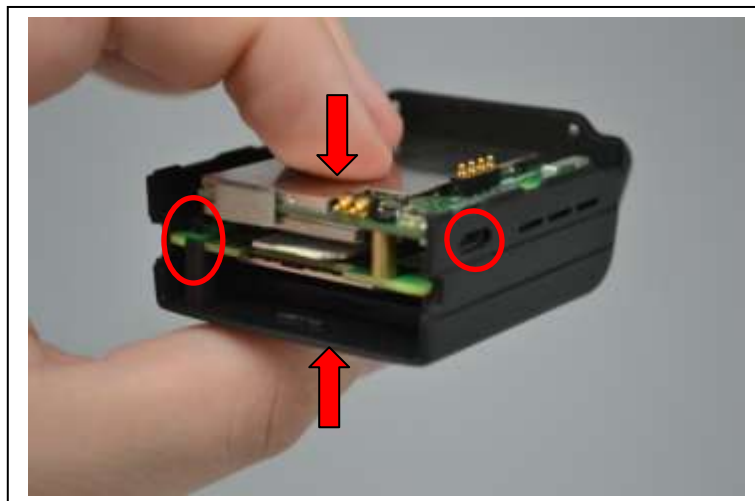
Once inserted the SIM card looks like this:



### 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<br>/No GNSS  | 3 times (50ms ON/100ms OFF)<br>3550ms OFF | Ext. Power/Run     | ON                |
| No Modem<br>/Fix GNSS | 2 times (50ms ON/100ms OFF)<br>3700ms OFF |                    |                   |
| Modem OK<br>/No GNSS  | 1 time (50ms ON/100ms OFF)<br>3850ms OFF  |                    |                   |
| Modem OK<br>/Fix GNSS | 2000ms ON<br>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](mailto:support@mobile-devices.fr)