

C4DONGLE-3GNAV6 INSTALLATION GUIDE

V 1.1

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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.

1. Hardware features

OBD Dongle		
Performance	Processor	Atmel - 500MHz
	RAM	128 Mbytes
	NAND Flash	256 Mbytes
Power supply	External power supply 8-32V	•
	External voltage measurement	•
	Li-pol battery	450mA.h
Communication	Modem	3G US Data module (u-blox SARA-U260) <ul style="list-style-type: none"> • GSM 850, PCS 1900 • 3G WCDMA FDD B2, B5
	GSM antenna	Internal
	GPS receiver	u-blox UBX-M8030-KT-B3000A
Positioning	GPS antenna	Internal
	(Micro) USB (2.0 Host)	powered (limited to 500 mA on 5V) optional
	3D Accelerometer	±2g, ±4g, ±8g
	3 axis Gyroscope	Please contact us
	LED	1 (controlled by software)
Environmental	Connectors	OBD connector
		Micro USB (Engineering use only)
	Operating temperature *	-25/+55°C with battery -25/+60°C without battery
	Dimensions	With OBD connector: 27x60,5x49,5 mm Without OBD connector: 27x48x49,5 mm"
	SIM card	Slot

OBD messaging protocols could be provided as an option (not included in standard catalogue)

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

2. Hardware description

2.1. External view

1. ODB connector
2. microUSB connector
3. LED



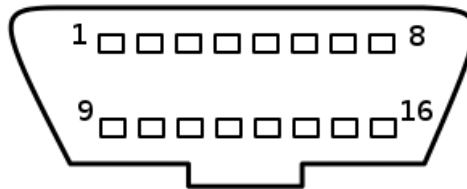
2.2. Internal view

4. GSM antenna
5. GPS antenna
6. SIM holder
7. Internal battery*



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

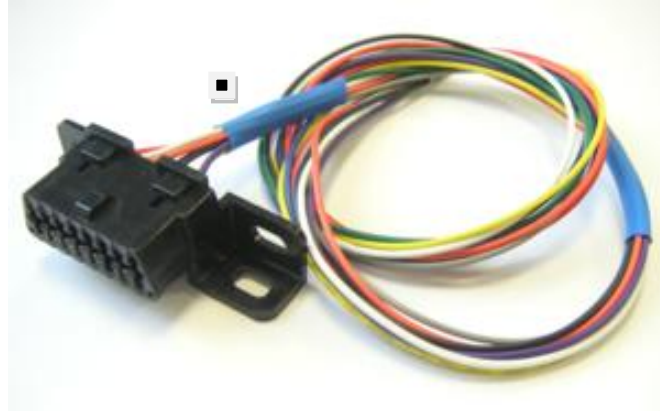


* Please read warnings section at the beginning of the installation guide

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 to insert a SIM card

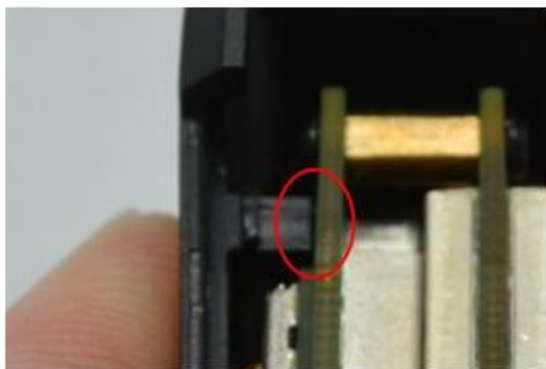
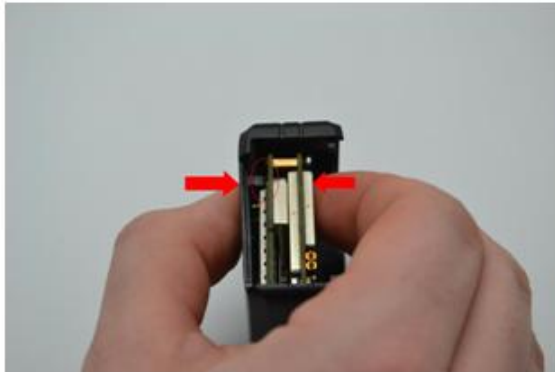


The SIM card PIN must be deactivated

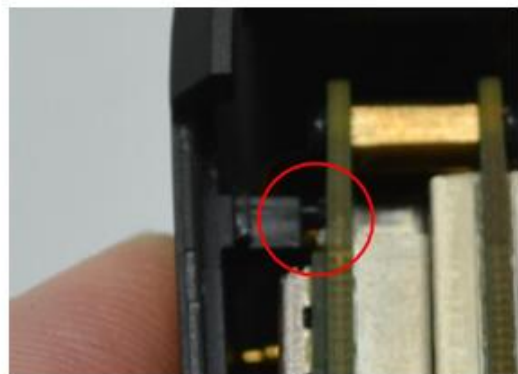


3.2. Properly close the device

First, check that the hole of the electronic card is correctly inserted in the plastic part.
If it's not inserted proceed as shown below.



GOOD

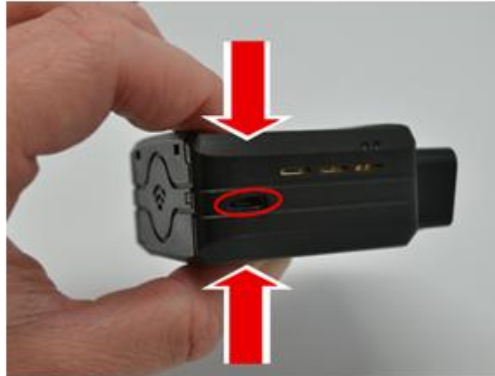


NOT GOOD

Second, insert the GPS antenna as shown below.



Third, check that the micro USB port is correctly inserted on its place.
If it's not inserted proceed as shown below.



GOOD



NOT GOOD

Finally, insert the battery and 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 GPRS/No GPS	3 times (50ms ON/100ms OFF) 3550ms OFF	Ext. Power/Run	ON
No GPRS/Fix GPS	2 times (50ms ON/100ms OFF) 3700ms OFF		
GPRS OK/No GPS	1 time (50ms ON/100ms OFF) 3850ms OFF		
GPRS OK/Fix GPS	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

6. 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.

7. FCC RF Exposure Information (SAR)

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.

During SAR testing, this device is set to transmit at its highest certified power level in all tested frequency bands, and placed in positions that simulate RF exposure in **usage near the body with the separation of 15 mm**. Although the SAR is determined at the highest certified power level, the actual SAR level of the while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

The exposure standard for wireless employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.

The FCC has granted an Equipment Authorization for this model device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR 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 after searching on FCC ID: A6G-C4DGL3GV6.

For this device, the highest reported SAR value for usage near the body is 1.46 W/kg.

While there may be differences between the SAR levels of various devices and at various positions, they all meet the government requirement.

SAR compliance for body operation is based on a separation distance of **15 mm** between the unit and the human body.

8. ISED Notice

This device complies with Innovation, Science and Economic Development Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

IC: 20253-C4DGL3GV6

9. ISED Radiation Exposure Statement

This device is compliance with SAR for general population/uncontrolled exposure limits in ISED RSS-102 and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528 and IEC 62209. This equipment should be installed and operated with minimum distance **1.5 cm** between the radiator and your body. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet appareil est conforme aux limites d'exposition DAS incontrôlée pour la population générale de la norme CNR-102 d'Industrie Canada et a été testé en conformité avec les méthodes de mesure et procédures spécifiées dans IEEE 1528 et IEC 62209. Cet appareil doit être installé et utilisé avec une distance minimale de **1.5 cm** entre l'émetteur et votre corps. Cet appareil et sa ou ses antennes ne doivent pas être co-localisés ou fonctionner en conjonction avec tout autre antenne ou transmetteur.