



**accessory line**

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## **ALARM device installation manual for LAIKA/DUCATO Euro 6**

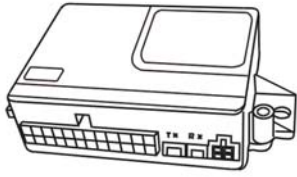
**P. N. 2021140**

The technical information included in this manual are purely indicative and the manufacturer assumes no liability in connection with these.

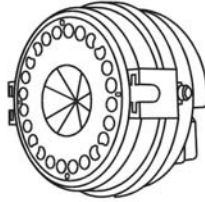
The technical personnel in charge of installation must check, with due care and on their own responsibility, the information contained according to the type of vehicle (i.e. specific connection points for the model)

## KIT COMPOSITION

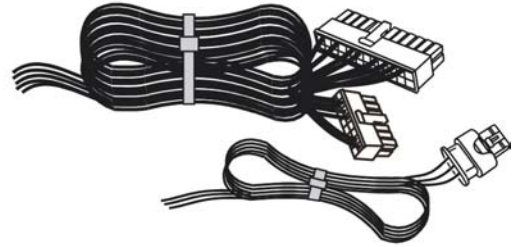
### ALARM CONTROL UNIT



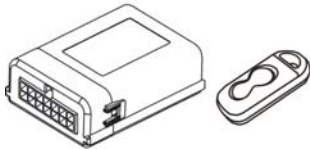
### SELF-POWERING SIREN



### SIREN ALARM AND IWM MODULE WIRING



### IWM MODULE



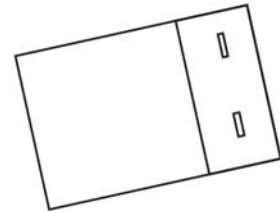
### US CAPSULE



### LED



### ACCESSORY BAG

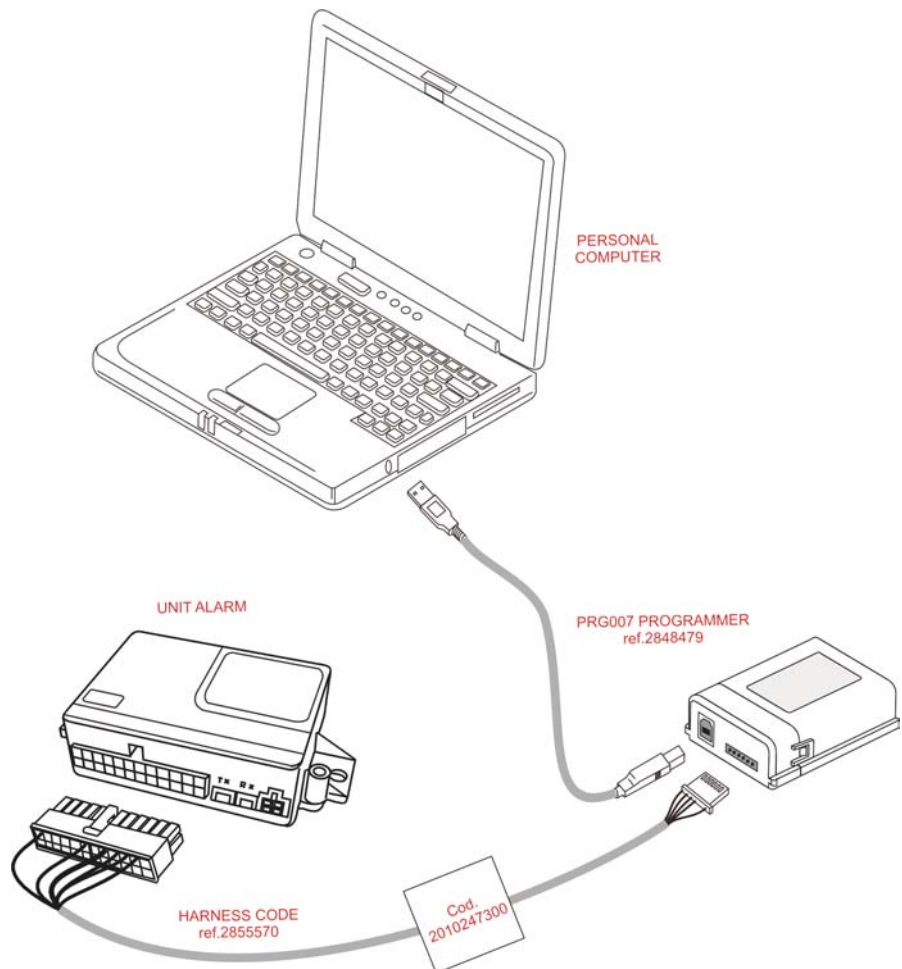


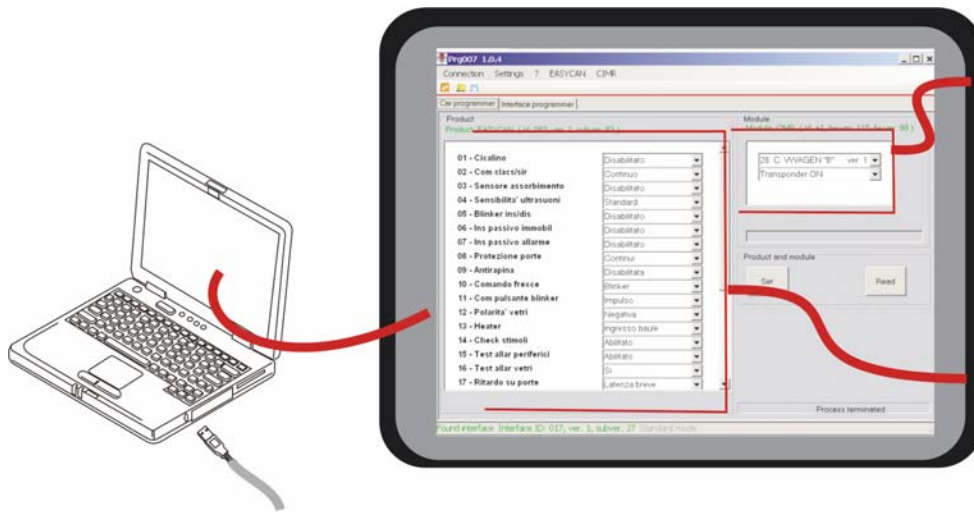
## PRODUCT PROGRAMMING

Before installing the alarm unit on the vehicle it is necessary to set up using the alarm programmer tool **ref. code 2848479 + ref. code 2855570**.

This setting is necessary to set up the can bus protocol like the one on the vehicle and set up accessory functions too.

**NOTE:** Please verify the car scheme to know the correct setting : see **PROGRAMMING** pag.2





25 - SET UP MODULE on - off TRANSPONDER

- 01 - Buzzer
- 02 - Ctrl horn/siren
- 03 - Current sensor
- 04 - US sensitivity
- 05 - Blinker ins./dis.
- 06 - Pass arm immobil
- 07 - Pass arm alarm
- 08 - Perimeter alarms
- 09 - Anticarjacking
- 10 - Blinker command
- 11 - Blinker switch type
- 12 - Windows out pol.
- 13 - Heater
- 14 - Stimuli check
- 15 - Periph.alarm test
- 16 - Windows alarm test
- 17 - Doors delay time
- 18 - US surveill.dis.
- 19 - ARM flashes num.
- 20 - DIS.flashes num.
- 21 - Car finder
- 22 - Override free
- 23 - Override code
- 24 - Erase elec.keys
- 26 - New pairing
- 27 - T.ver.blinker
- 28 - Disable by key
- 29 - IWM
- 30 - Blinker arming/disarming
- 31 - Indicator flash longer

**PROGRAMMING NECESSARY FOR PRODUCT OPERATION**  
*Via the programmer, select:*

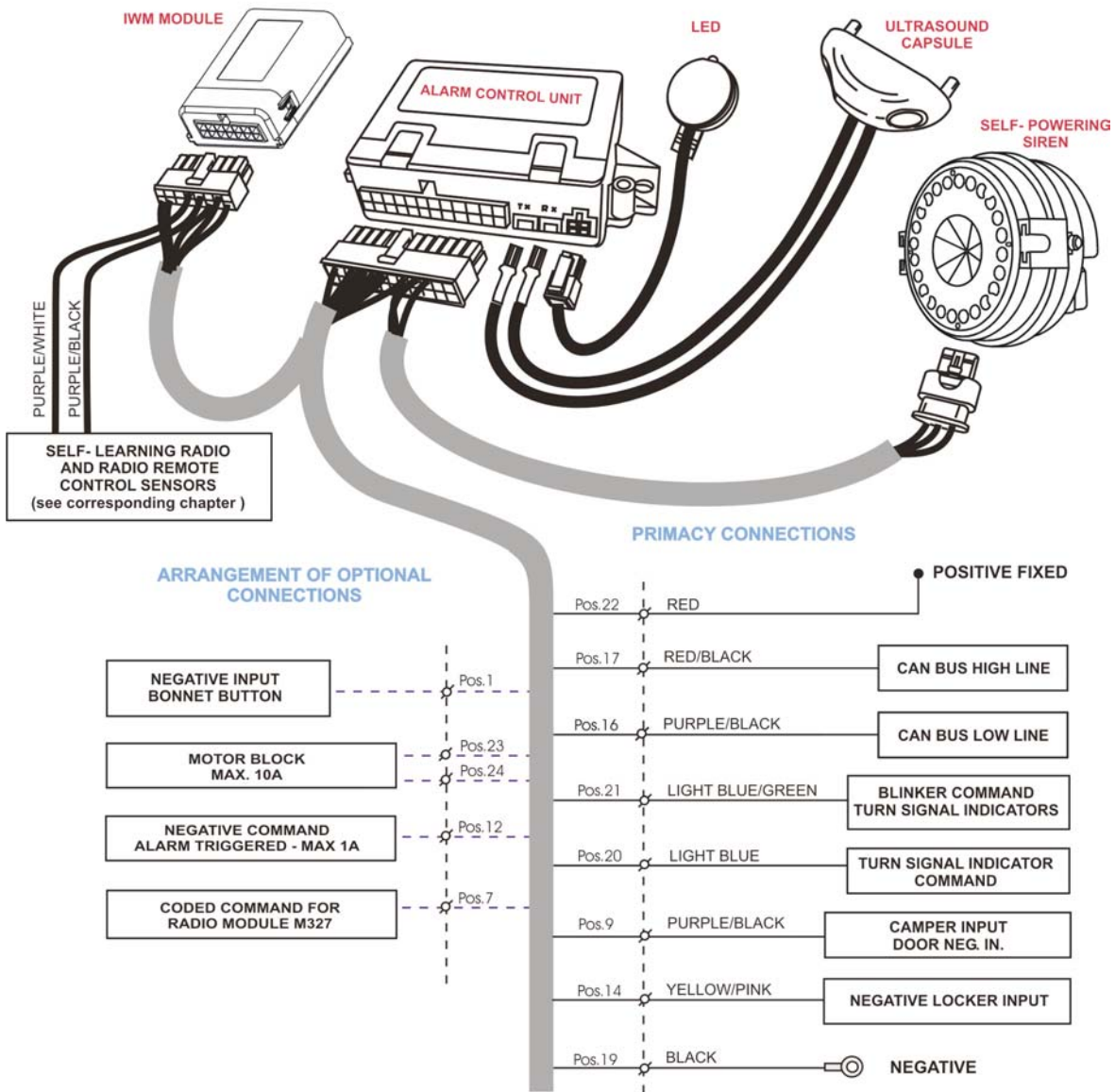
- Step 10 (arrow command) and select **BLINKER**.
- Step 11 (blinker button command) and select **IMPULSO (PULSE)**.
- Step 25 (module set-up) and select **Command 59 (FIAT 6)** and **TRANSPONDER ON**.
- Step 29 (Iwm) and select **ON**.

**COMPLETE LIST OF PROGRAMMING STEPS**

- 1 Buzzer:** This function allows you to enable or disable the buzzer when activating or deactivating the alarm system. - ENABLED / **DISABLED**
- 2 Horn/siren command:** This function allows you to edit the type of All AUX pin command. # 12. - CONTINUOS / **ALTERNATING**
- 3 Sensor absorp. :** This function allows you to enable to disable the detection of absorption on power over 3 W. - ENABLED / **DISABLED**
- 4 Sensitivity US:** This function allows you to edit the mode of volumetric detection via ultrasound. - HIGH/ **STANDARD**
- 5 Blinker on/off:** This function allows you to enable or disable the optical signal when activating or deactivating the alarm system. - ENABLED / **DISABLED**
- 6 Ins pass immobilise:** This function allows you to enable or disable engine block self-activation. -ENABLED / **DISABLED**
- 7 Ins pass alarm:** This function allows you to enable or disable alarm self-activation. - ENABLED / **DISABLED**
- 8 Door protection:** This function allows you to edit open door detection control. - **CONTINUOS/ DERIVED**
- 9 Burglary alarm:** This function allows you to enable or disable the burglary alarm function. - ENABLED / **DISABLED**

<b>10 Arrow command:</b> This function allows you to edit the type of turn signal indicator command.	- <b>POWER</b> / BLINKER
<b>11 Blinker button command:</b> This function allows you to edit the type of blinker button command if enabled in the function. 10.	- <b>PULSE</b> / SWITCH
<b>12 Glass polarity:</b> This function allows you to edit the type of glass up command.	- POSITIVE/ <b>NEGATIVE</b>
<b>13 Heater:</b> This function allows use of input pos.14 to control trunk opening or to disable ultrasound upon activation of an automatic cabin heater.	- <b>TRUNK IMPUT</b> / HEATHER
<b>14 Check stimuli:</b> This function allows you to detect alarm stimuli via a buzzer sound within the first 25 seconds of activation.	- <b>ENABLED</b> / DISABLED
<b>15 Peripheral alarm test:</b> This function allows you to check activation with compartments open.	- <b>ENABLED</b> / DISABLED
<b>16 Glass alarm test:</b> This function allows you to check activation with open glass.	- <b>SI</b> / NO
<b>17 Delay on doors:</b> This function allows you to set a door alarm delay.	- Long latency / <b>Short latency</b>
<b>18 Self-exclusion US:</b> This function allows you to automatically exclude volumetric protection when open windows are detected.	- <b>YES</b> / NO
<b>19 Flashing number - connection:</b> This function allows you to select the flashing turn signal indicators during the activation phase.	- da 0 a 255 - <b>2</b>
<b>20 Flashing number - disconnection:</b> This function allows you to select the flashing turn signal indicators during the deactivation phase.	- da 0 a 255 - <b>1</b>
<b>21 Car finder:</b> This function allows you to enable or disable the car park finder search function.	- ENABLED / <b>DISABLED</b>
<b>22 Override free:</b> This function allows you to enable the control unit for the storing of new electronic keys.	-
<b>23 Override code:</b> This function allows you to edit the override safety code.	
<b>24 Cancel keys:</b> This function allows you to cancel all stored electronic keys from the memory.	
<b>25 Module set-up:</b> This function allows you to program the CAN protocol used from the vehicle where the product is installed.	
<b>Command :</b> Command protocol number 13 (FIAT 4).	- All vehicles available
<b>Trasponder :</b> This function allows you to activate an emergency via original vehicle key transponder recognition.	- YES / NO
<b>26 Combining:</b> This function allows you to pair an M327 module.	
<b>27 T. ver BLK:</b> This function allows you to edit a time to optimise turn signal indicator feedback reading.	- da 0,5 a 2,0 - <b>1,2 SEC.</b>
<b>28 Deactivate by key:</b> This function allows you to activate an emergency via electronic key.	- YES / <b>NO</b>
<b>29 lwm :</b>	- <b>OFF</b> / ON

## GENERAL INSTALLATION DIAGRAM



## DESCRIPTION OF COMPONENTS

**Alarm control unit:** the main electronics unit of the alarm system.

**IWM radio remote control module:** the electronic unit for the combination of radio, radio remote control and ultrasonic deactivation.

**Self-powered siren:** the acoustic unit of the alarm system. It contains a back-up battery which ensures operation continuity even without vehicle power supply.

**Ultrasonic capsules:** include the transmitter and receiver for volumetric protection of the cabin.

**LED:** light that shows the status of the alarm system and any alarms recorded by the alarm control unit.

## DESCRIPTION OF CONNECTIONS

**RED wire:** fixed positive.

**BLACK wire:** negative.

**LIGHT BLUE/GREEN wire (Command):** negative command for control of vehicle turn signal indicators.

**LIGHT BLUE wire (Feedback):** reading of vehicle turn signal indicator flashing.

**RED/BLACK twisted wire:** Can High.

**PURPLE/BLACK twisted wire:** Can Low.

**WHITE/PURPLE and BLACK/PURPLE wires:** radio and remote control sensors self-learning (see chapter page 9).

**YELLOW/PINK wire:** input for locker protection.

**PURPLE/BLACK wire:** input for camper entry door protection.



## INSTALLATION GUIDELINES

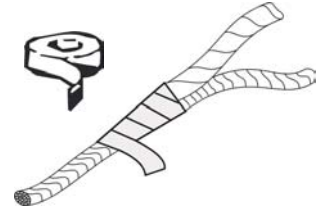
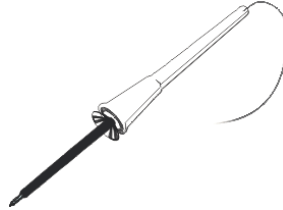
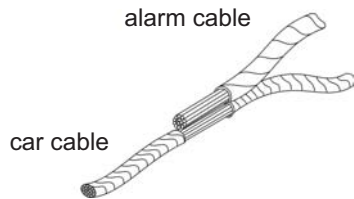


- Disconnect the negative battery terminal before performing any operations.
- The self-powered siren must be installed in the engine compartment or, if necessary, in a wheel arch.
- To prevent vibrations, it is advisable to bind up system wiring with duct tape.
- For connections to the vehicle, solder wires and insulate the juncture with insulating tape or heat-shrink sleeving. Avoid using fast-connect electrical connections.

A) Strip the vehicle cable, strip the end of the alarm cable and wind it on the vehicle cable.

B) Solder the water-tight junction.

C) Insulate soldering with insulating tape.

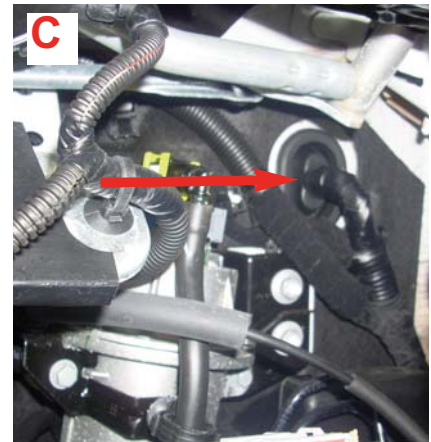
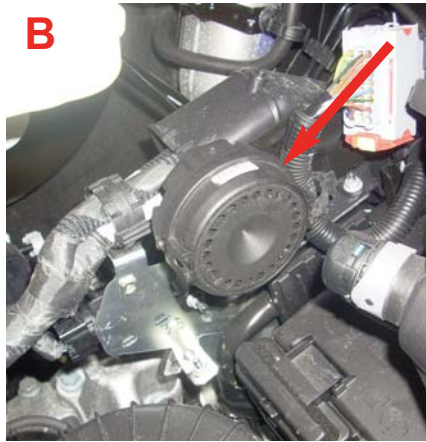
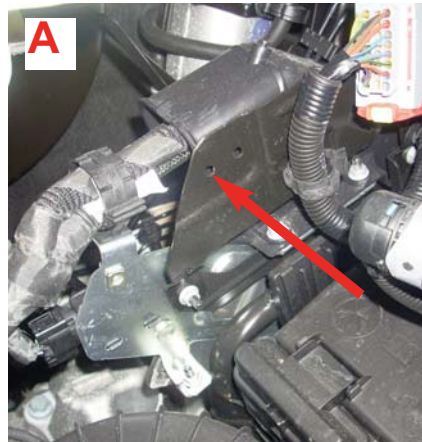


## INSTALLATION ON VEHICLES



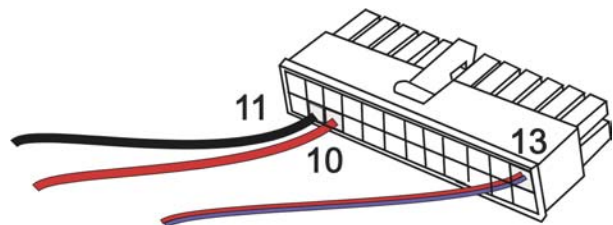
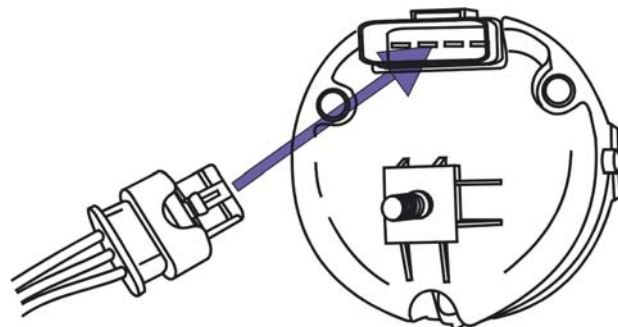
### Positioning the alarm siren and cable glands

On the driver's side of the engine compartment, identify the hole available on the metal bracket (**PHOTO A**). Fasten the alarm siren on bracket through the supplied bolts in the kit. (**PHOTO B**). For wiring passage, use the original cable gland in the driver's side of the engine compartment, to the right of the windscreen wiper motor bracket (**PHOTO C**).



### Connecting siren wiring to the alarm connector

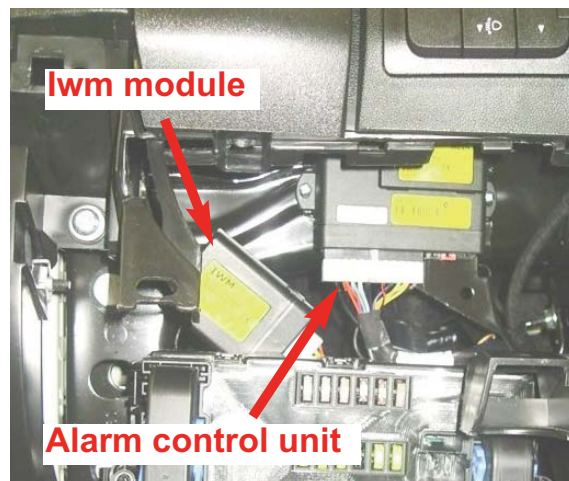
- BLACK wire siren in pos. 11 on the alarm control unit connector.
- RED wire siren in pos. 10 on the alarm control unit connector.
- RED/BLUE wire siren in pos. 13 on the alarm control unit connector.





### Positioning the alarm control unit and IWM module

Using self-tapping screws, fasten the alarm control unit and the IWM module over the body of the control unit under the driver's side dashboard.



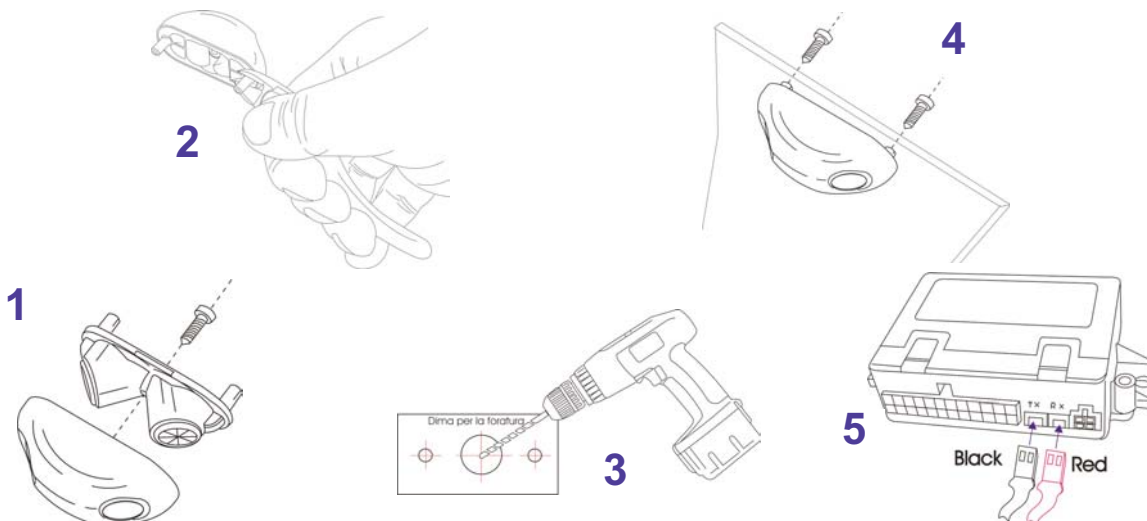
### Ultrasounds caps holder installation

Install the caps holder in the central area close to the interior ceiling light so that the caps are pointing towards the driver and passenger seats.

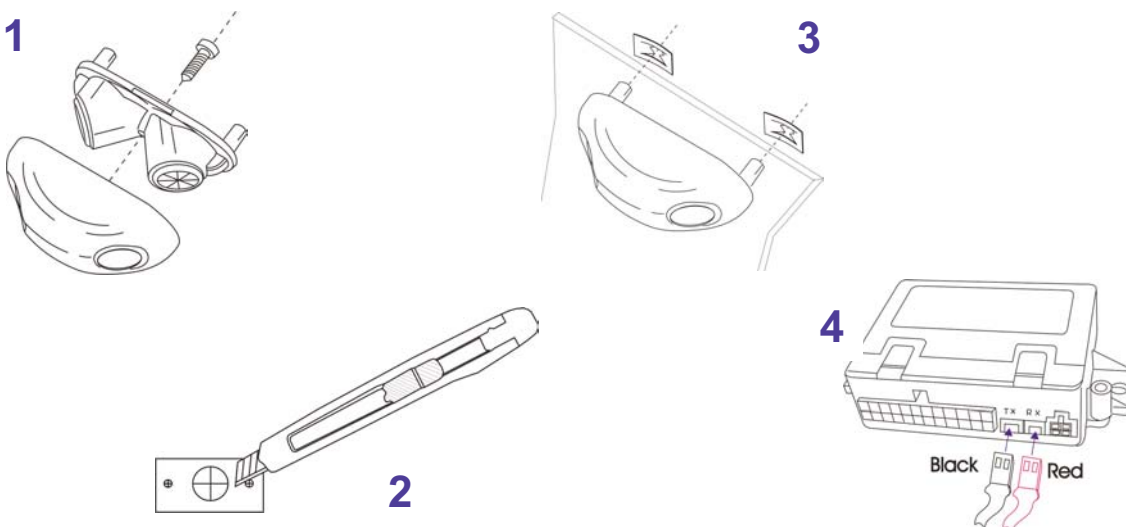
In the drafting of the cables be careful they don't obstruct the proper opening of the airbags.

For fixing observe the following illustrative drawings.

#### Fixing on rigid plastic



#### Fixing on soft materials (for example ceiling cockpit)

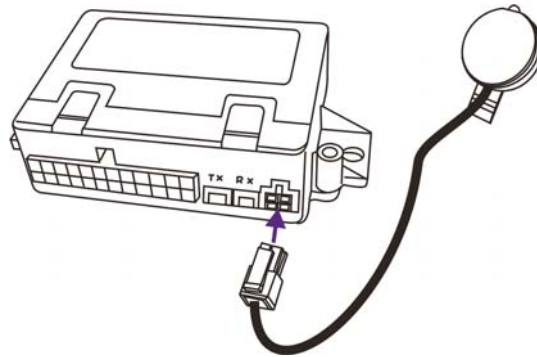






### Led installation

Install the led on the dashboard so that it is visible from the outside of the windscreen, then bring the led cable to the control alarm unit and connect to the related connector.

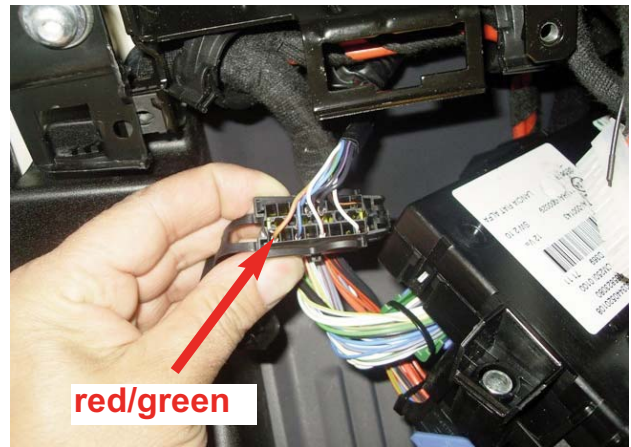
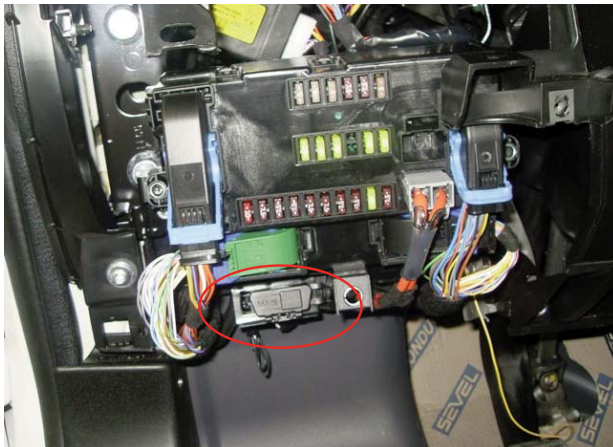


**+30**

### FIXED POSITIVE +30 connection

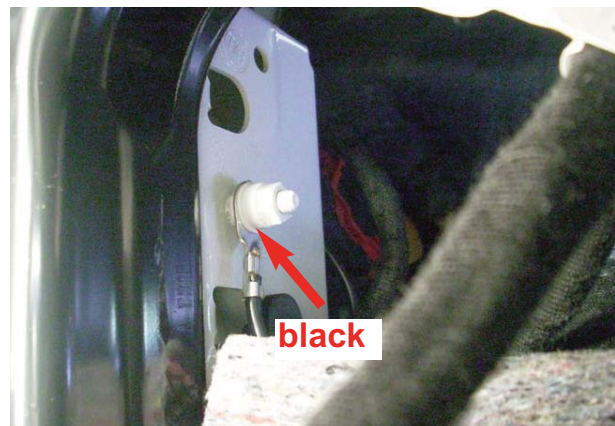
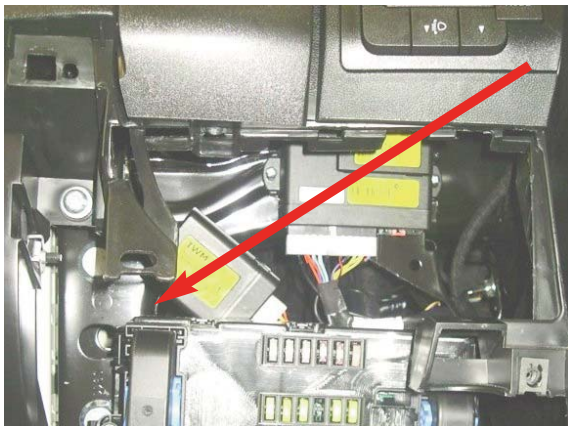
Connect the RED wire on the alarm control unit to the RED/GREEN wire pos.16 in the black 16-pin OBD connector located under the body control unit under the driver's side dashboard. It is advisable to interpose a 10A fuse in the connection.

Perform this connection by means of cable soldering (see chapt. on installation guidelines page 5).



### NEGATIVE GND connection

Connect the BLACK wire on the alarm control unit to the original ground point behind the body control unit under the driver's side dashboard.



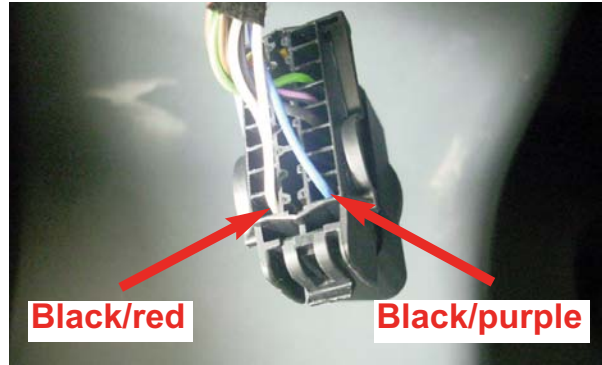


## BUS

### CAN BUS connection

Connect the BLACK/RED wire on the alarm control unit to the LIGHT BLUE wire pos.1 and the BLACK/PURPLE wire on the alarm control unit to the WHITE wire pos.9 in the black 16-pin EOBD connector under the body control unit under the driver's side dashboard. Perform this connection by means of cable soldering (see chapt. on installation guidelines page 5).

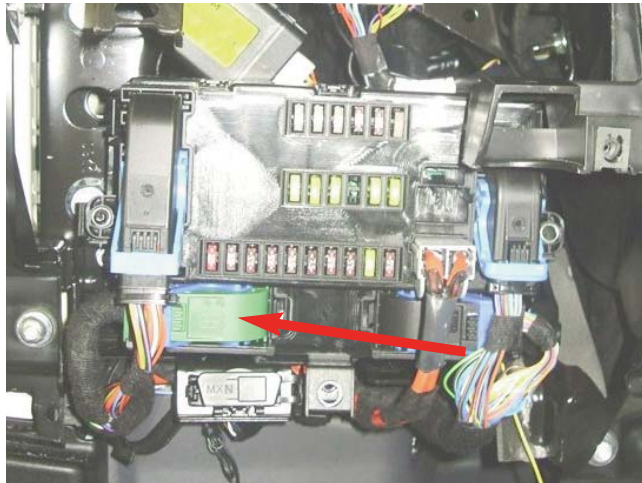
**Note: Make this connection only after the vehicle battery has been disconnected. Incorrect connection of these cables can compromise vehicle operation.**



### Turn signal indicator connection

Connect the LIGHT BLUE (feedback) wire on the alarm control unit to the BLUE/BLACK wire pos.18 in the green 60-pin connector at the back of the body control unit under the driver's side dashboard. Photo A.

Connect the LIGHT BLUE/GREEN (command) wire on the alarm control unit to the PURPLE/ORANGE wire pos.55 in the grey 60-pin connector at the back of the body control unit under the driver's side dashboard. Perform this connection by means of cable soldering (see chapt. on installation guidelines page 5).



### Living area door button connection

#### Locker button connection

- The PURPLE/BLACK wire is provided for connection to an N.O. line that closes to negative upon opening of the front door of the living area.
- The YELLOW/PINK wire is provided for connection to an N.O. line that closes to negative upon opening of one or more lockers.

## RADIO AND RADIO REMOTE CONTROL SENSOR PROGRAMMING IN THE IWM MODULE



After installation has been completed and after having connected the negative battery pole, switch the vehicle instrument panel on and off once to allow regular system operation.

Per un funzionamento congruo con le istruzioni UTENTE seguire la programmazione evidenziata in BLU Follow programming highlighted in BLUE for operation in line with USER instructions.

### ATTENTION:

The IWM module is equipped with a radio remote control that is already combined as factory default. You will need to re-program the radio remote control to program other wireless modules (HTP0008).

### Radio remote control (5 maximum programmable numbers)

The IWM module is equipped with a radio remote control whose function is to completely or partially exclude wireless module protections combined with it or the volumetric alarm sensor, thus permitting camper liveability without losing perimeter protections (window doors and compartments).

#### PROCEDURE:

Connect the Purple/White wire to the "GND" mass and wait for the IWM control unit to emit a buzzer 2 sec. after connection to indicate programming mode input.

Have the wireless module transmit and verify that the control unit confirms its storing with a buzzer. Disconnect and isolate the Purple/White wire to complete the procedure.

**Note:** If by mistake transmission of a module that has already been stored is received, it will be ignored.

### Wireless module programming modes.

Wireless modules can be programmed in 2 ways: EXCLUDABLE OR NON EXCLUDABLE RADIO REMOTE CONTROL.

#### *Programming wireless modules in NON EXCLUDABLE mode.*

Connect the Purple/White wire to the GND and wait for the IWM control unit to signal via a single BOOP of its Buzzer 2 sec. after connection to indicate programming mode input.

Have the wireless module transmit and verify that the control unit confirms its storing with a BEEP. Disconnect and isolate the Purple/White wire to complete the procedure.

**NB:** Nel caso venga ricevuta per errore la trasmissione di un modulo già memorizzato come escludibile o fisso, questa sarà ignorata. Note: If by mistake transmission of a module that has already been stored as excludable or fixed is received, it will be ignored.

#### *Programming wireless modules in EXCLUDABLE mode.*

Connect the Purple/Black wire to the GND and wait for the IWM control unit to signal via a single BOOP of its Buzzer 2 sec. after connection to indicate programming mode input.

Have the wireless module transmit and verify that the control unit confirms its storing with a BEEP. Disconnect and isolate the Purple/Black wire to complete the procedure.

**Note:** If by mistake transmission of a module that has already been stored as excludable or fixed is received, it will be ignored.

**NOTE:** See the user manual for operation.

**WARNING:** If after recognition the system does not activate or deactivate from the transmitter, disconnect the control unit from the connector for approximately 30 seconds, re-connect it to wiring and repeat the procedure (INSTRUMENT PANEL ON AND OFF), taking care to keep vehicle doors closed during the operation.

## SYSTEM CHECK

**1) Close locks** on doors via the source radio remote control and verify: The flashing source turn signal indicator lights of the vehicle

flashes its LED with short switch-offs for a duration of 25 sec (neutral time): it is possible to perform alarm tests during this phase.

In this phase, any attempts at intrusion or start-up will cause a cycle of turn signal indicator flashing and a buzzer sound with resetting of the neutral time (25 sec.).

If one or more of the cabin doors is not correctly closed, four "BEEP" signals will be generated after a few seconds from activation.

After neutral time has been completed (no requests for 25 sec.), the alarm system goes into surveillance conditions: LED flashing with long shut-offs. In this phase, any attempts at intrusion or start-up will cause an alarm cycle.

**2) Release locks** on doors via the source radio remote control (alarm system deactivation) and verify: The flashing source turn signal indicator lights of the vehicle; LED shut-down.

### Alarm test.

- After having activated the alarm via original radio remote control, perform the first test within 25 sec of neutral time. Neutral time will re-start from zero every time an alarm command is detected, thus permitting verification of the entire system without sounding the siren.

### Volumetric protection test.

- Activate the alarm from inside the cabin. Move around and verify coverage of the ultrasound sensors via the turn signal indicator flashing lights and the buzzer.

### Perimeter protection test.

- At the beginning of neutral time, after having activated the alarm, open each vehicle door individually and check that each opening corresponds to a flashing of the turn signal indicators.

**N.B.** Per effettuare i test sulle protezioni perimeriche è consigliabile escludere la protezione volumetrica.

### Volumetric protection exclusion test.

- Close the door locks via original radio remote control (alarm system activation) and, immediately after, press the radio remote control button supplied with the IWM system. Two beeps from the alarm siren will confirm that the ultrasound sensors have been deactivated.

Note: Volumetric protection will be automatically re-enabled at the next activation.

### Self-powering test.

- Activate the alarm system via source radio remote control.

- After neutral time (25 sec.), remove the connector from the siren and verify that it is sounding.

### Emergency deactivation test.

- With the control unit activated and in alarm conditions, switch on the vehicle instrument panel.

- The alarm will deactivate upon transponder recognition.

After neutral time has been completed (no requests for 25 sec.), the alarm system goes into surveillance conditions.

## ALARM PHASE TEST

- Generate an alarm via any sensor: the siren will emit a modulated sound and turn signal indicators will flash.

- Cut off the alarm cycle by pressing the door open button on the original radio remote control.

- You will hear one long and one short signal (beep and boop). The control LED will flash in a differentiated sequence to signal the cause that generated the alarm (see the ALARM MEMORY chapter table).

- If different alarms have been generated, the control unit will signal them in sequence with a 3 sec. pause, repeating this sequence every 6 sec.

- Alarm memory will be reset by simply switching on the vehicle instrument panel, or by re-activating and deactivating the alarm.

- If the control LED does not flash upon alarm deactivation, this means that no alarms have been detected.

## ALARM MEMORY TABLE

**1 flash:** ultrasound alarm.  
**2 flashes:** door alarm.

**3 flashes:** bonnet alarm.  
**4 flashes:** locker alarm.

**5 flashes:** radio module alarm.

## TECHNICAL FEATURES

### ALARM CONTROL UNIT

Power supply: 12Vcc (10V - 15V).  
Consumption: activated 5mA - deactivated 1.5mA.  
Operating temperature: -40°C + 85°C.  
Siren sound level: 5 minutes (European regulations).

### TIMING

Neutral time: 25 seconds.  
Arrow flashing time: 0.4 sec.on - 0.4 sec. off.  
Alarm cycle time: 25 seconds.

### MAX NUMBER OF ALARMS DURING AN ACTIVATION/DEACTIVATION CYCLE

For ultrasound, door, bonnet, locker, radio module and power-on alarms 10 cycles.  
For 9-cycle self-powering alarm.

### IWM MODULE

Power supply: 12Vcc (10V - 15V).  
Consumption: 3.5mA.  
Operating temperature: -25°C + 85°C.

**The sole function of the alarm device is as a deterrent to theft. In no case can it be considered as insurance against theft. The manufacturer accepts no responsibility for breakdowns or faults of the device, accessories or the vehicle electrical system due to poor installation.**

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