

### INSTALLATION CERTIFICATE

The undersigned qualified installer attests to have personally fitted the here described system following the manufacturer instructions.

By :

Sold on :

Type of product :  814D

Car :

# KIT Parking Sensor 814D

## INSTALLATION AND USE MANUAL

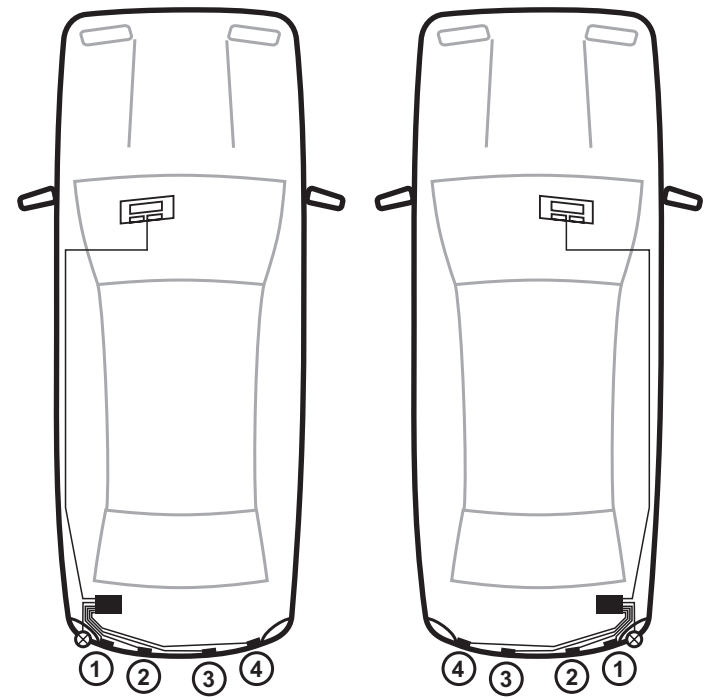
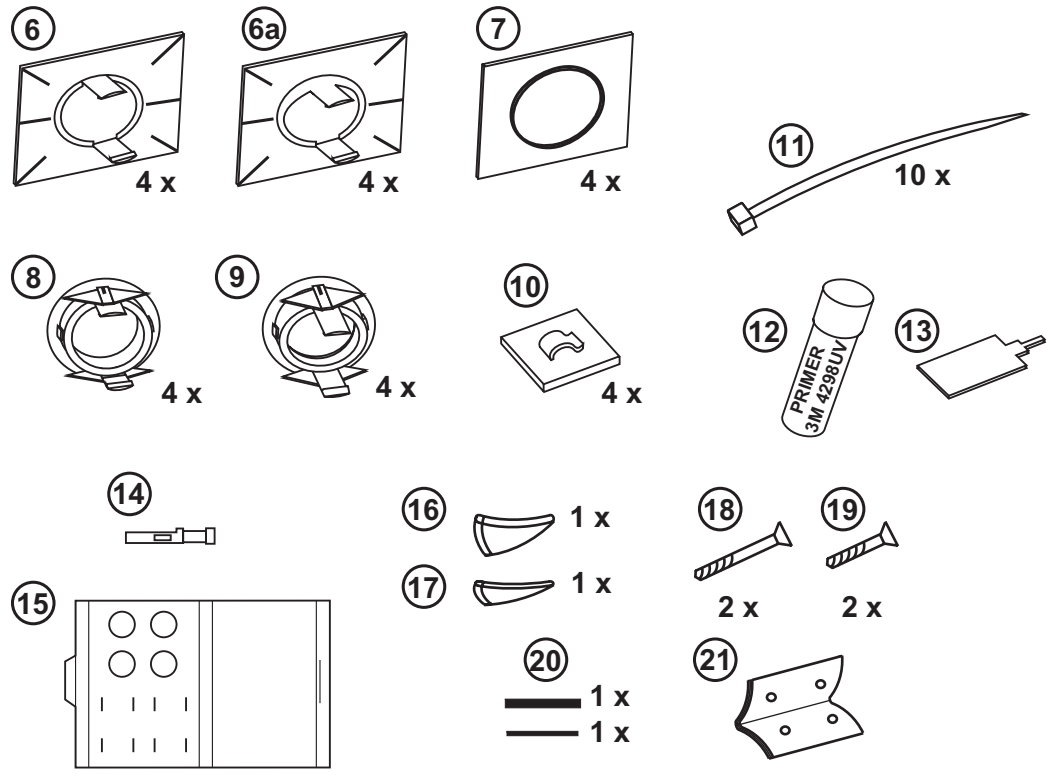
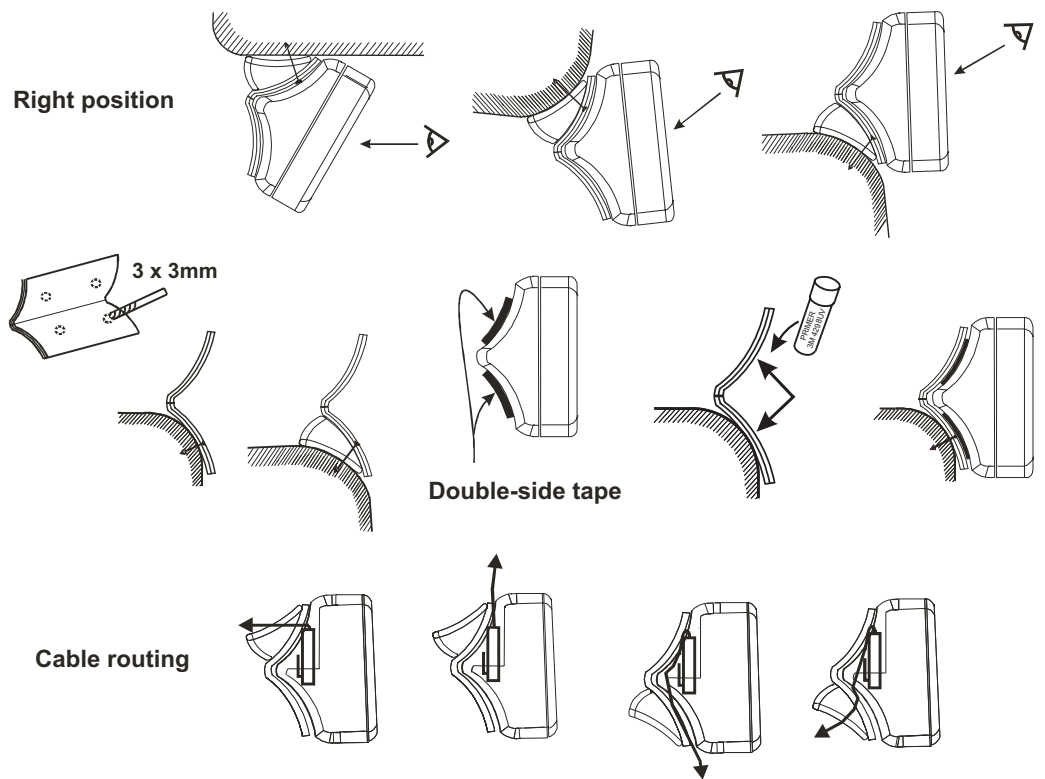
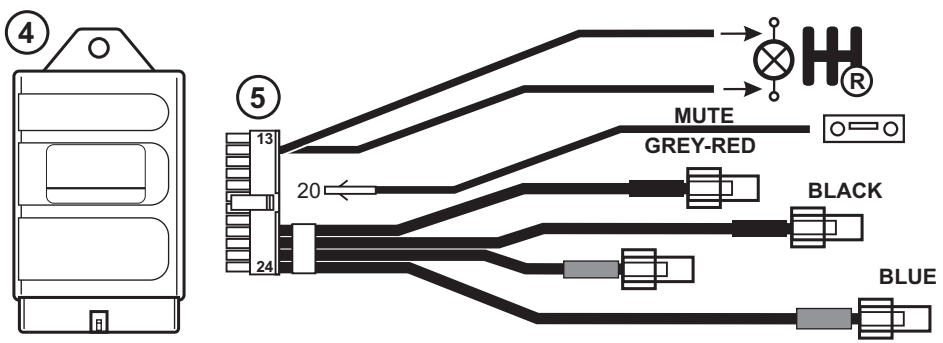
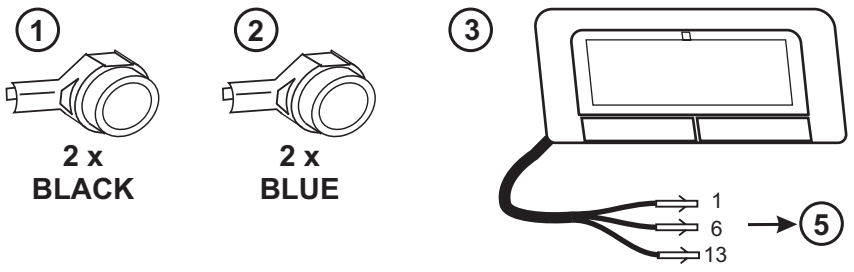


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For all EU Countries

AC 2746/UK Rev. 00 - 02/09



Sensor 1: rear with shortest cable.  
Sensor 4: rear with longest cable.

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**1.0 - PRELIMINARY ADVICE**

Dear customer,  
 Before installing, identify your kit and refer to it for the correct instructions.  
 The Caution and Warning signs in this manual provide important notices for installing and using this product.  
 Be sure to follow them in order to ensure a safe and reliable use:

**For the user.**  
 This sign highlights useful information or indications regarding the use of the parking system.

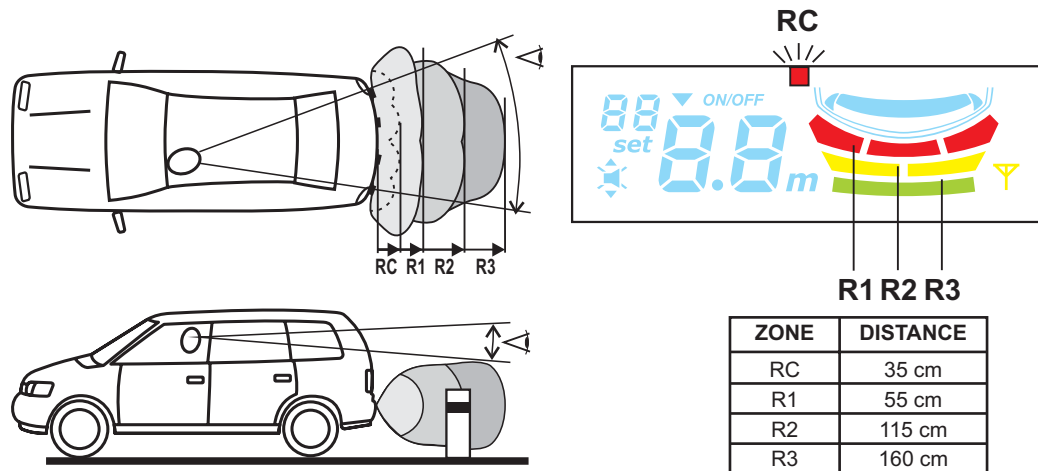
**For the installer.**  
 This sign indicates various operating modes according to connections and programming of the system or it simply provides useful indications for the installation.

**2.0 - WARRANTY CONDITIONS**

This product is guaranteed to be free from defects in workmanship for a period of 24 months from the date of installation reported on this warranty, in compliance with the 1999/44/CE Warranty Directive (L. D. N° 24 of the 02/02/2002).  
 Please fill-in entirely the guarantee certificate included in this booklet and DO NOT REMOVE the guarantee label from the device.  
 The warranty will become void if labels are missing or torn, if the installation certificate is not fully compiled or if the enclosed sale document is missing.  
 The warranty is valid exclusively at authorized Gemini Technologies centers.  
 The manufacturer declines any responsibility for eventual malfunctions of the parking sensors or any damage to the vehicle electrical system due to improper installation, use or tampering.  
 The parking system is strictly a parking assist device, it should not be considered to be a safety device for any purpose.

**3.0 - SYSTEM OPERATION**

- ➔ Remember to always look behind the vehicle while parking. Small obstacles or objects with low reflectance might not be detected.
  - ➔ The parking system is designed only as a parking aid, it should not be considered to replace care and attentiveness while manoeuvring.
- 3.1 - DETECTION ZONES**
- ➔ Detection zones are indicated as "R" (rear). Detection zones closest to the obstacle are indicated as "RC" and are signaled by the LED switching ON.
  - ➔ The detection range and the volume of the buzzer can be adjusted (see "Setting of parameters") according to the needs of the user and the vehicle on which the system is installed. The stage-by-stage sound alert will vary according to the detection zone.
  - ➔ For the overall functionality of the system, check the programming of the sensors.



**3.2 - REAR SENSORS**

The rear sensors are activated when reverse gear is engaged; two acoustic signals with different tones will indicate the sensors are active.  
 An obstacle will be signaled by the lighting up of the coloured alert zone (green, yellow, red or LED) in which it is located and by the warning buzzer.  
 The tone of the buzzer indicates in which zone the obstacle is detected; the faster the beeping, the closer the obstacle.  
 Short press the button on the right of the display to deactivate the system.  
 Short press the button on the left of the display to deactivate the warning buzzer.

## 4.0 - TROUBLESHOOTING GUIDE

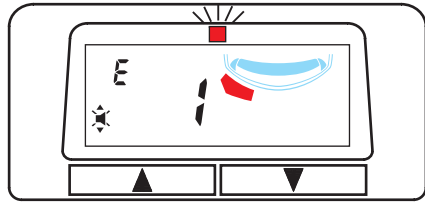
### 4.1 - LOW POWER SUPPLY SIGNAL

If, when the control unit is turned on, the battery level is too low to guarantee the accuracy of the system, the buzzer will sound to indicate activation but there will be no video display. This will inform the user that ALL the sensors are deactivated. The driver will therefore know that he will have to do without the parking sensors.

### 4.2 - FAULTY SENSORS

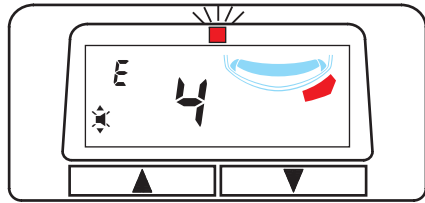
If, when the reverse gear is engaged, one of the sensors turns out to be inoperative or not connected, you will hear 4 deep-toned beeps and 1 long high-pitched beep. The display will indicate the deactivation of the beeping, the number of the inoperative sensor, the detection zone and the LED will be ON.

Sensor 1  
inoperative



If more than one sensor is inoperative, the number of the faulty sensors and the detection zone will be alternatively displayed on the main control unit.

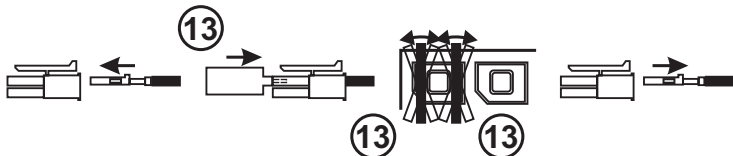
Sensor 4  
inoperative



➔ One single faulty sensor alters the correct functioning of the whole system.

### 4.3 - OTHERS

| POSSIBLE CAUSE                             | SOLUTION  |
|--|---|
| Ice on sensors                             | Clean the sensors   |
| Sensors mounted too low                    | Use the angle brackets (6a or 9) to tilt axe of sensors upwards |
| Back part of sensors in contact with frame | Create a separation between the sensors and the vehicle         |
| Sensors detect external spare wheel        | Modify the setting of parameter 10                              |



How to remove a terminal with the adequate tool (13).

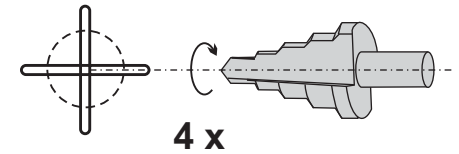
## INSTALLER MANUAL

### 5.0 - INSTALLATION OF SENSORS

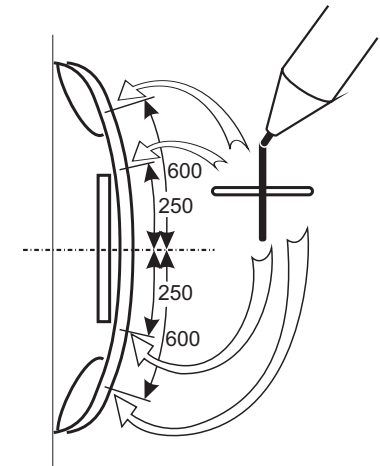
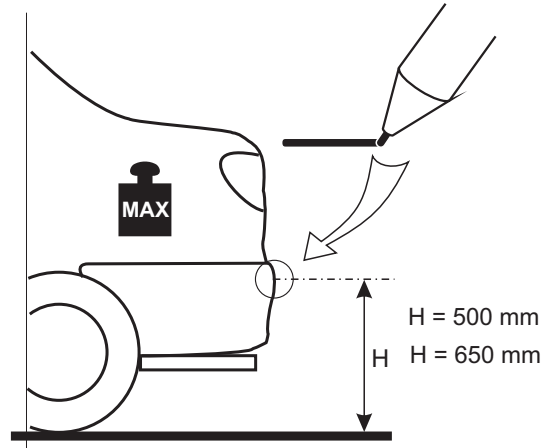
⚠ To install the sensors on a metal bumper, you must use appropriate adapters (not supplied).

Choose the suitable type of plastic bracket and mark the center of the holes to drill. For brackets "6" drill holes with a 18mm diameter, for brackets "6a" drill holes with a 22mm diameter and for brackets "8" and "9" drill holes with a 24mm diameter. Sensors and plastic brackets can be painted to match the color of your bumpers.

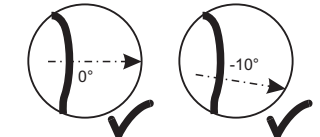
① ② + ⑥ → Ø 18  
 ① ② + ⑥a → Ø 22  
 ① ② + ⑧ ⑨ → Ø 24



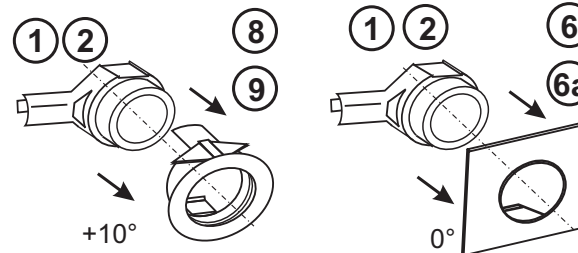
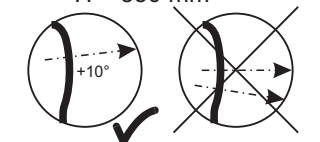
⚠ Before drilling, inspect behind the bumper to check for any possible obstruction such as iron struts and, in any case, be careful to avoid damaging parts behind the bumper.



H = 500 mm H = 650 mm

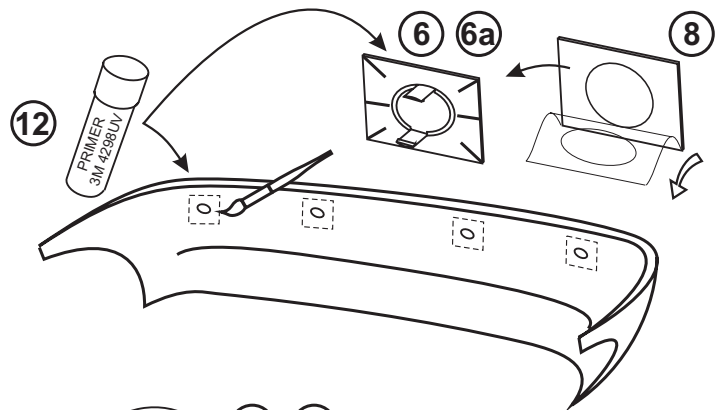


H = 350 mm

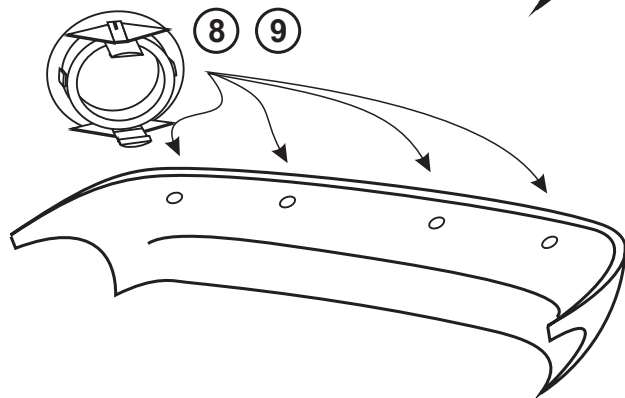




Clean thoroughly the plastic brackets (6 or 6a) and around the holes, apply "PRIMER" (12), let dry for at least one minute and then proceed as follows.

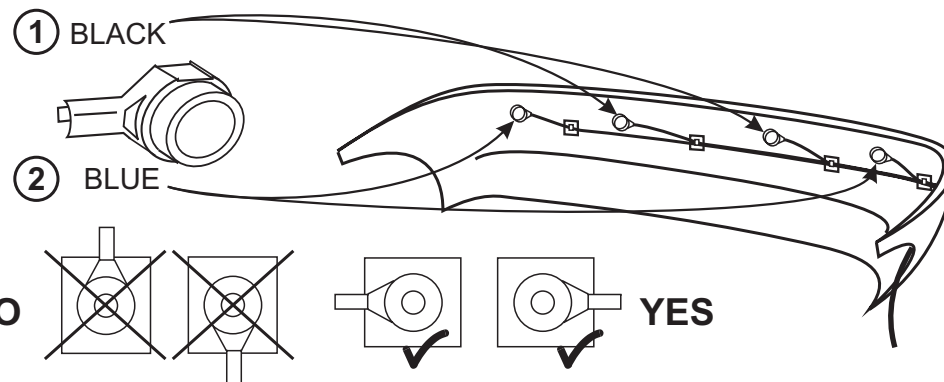
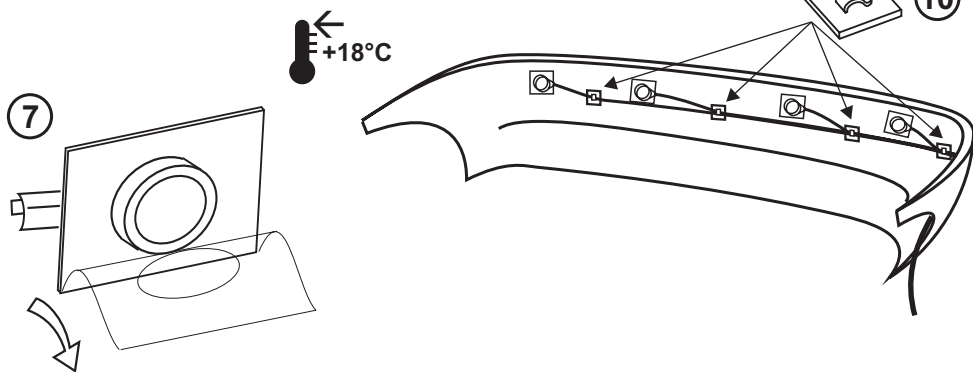


Place the sensor in the bracket and remove the adhesive protection.

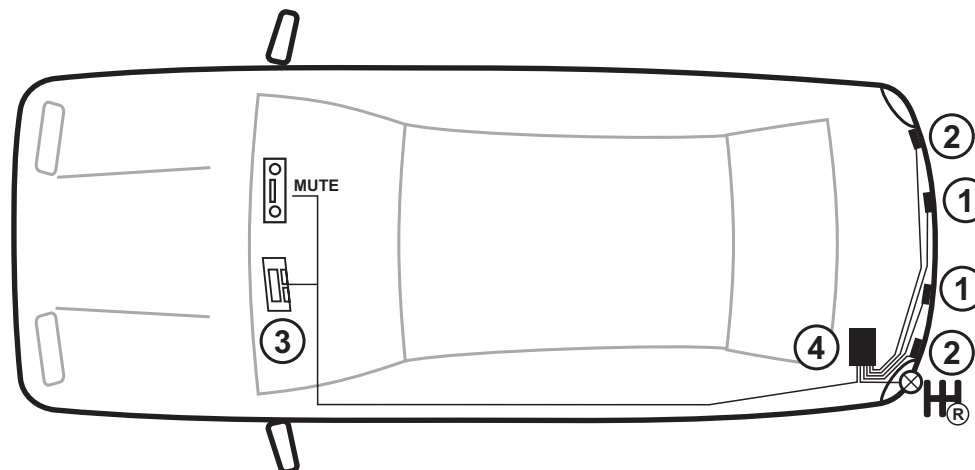


Put the sensors in the hole and snap-in the bracket. Position the bracket so that the connector of the sensor comes out horizontally.

Install the BLUE sensors on the outer edges of the rear bumper.  
Install the BLACK sensors on the center of the rear bumper.



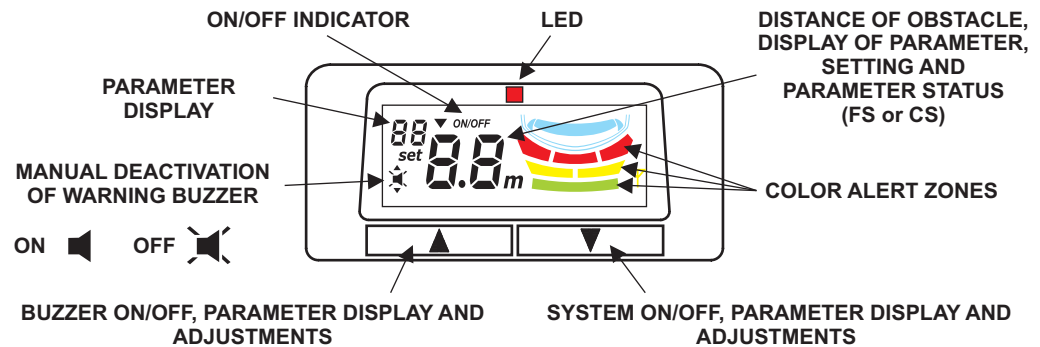
## 6.0 - CONNECTIONS



Check the length of the cables before proceeding with the final positioning of the accessories.

- ✎ Position the control unit (4) in the luggage compartment, in a dry place, away from eventual water infiltrations and heat sources.
- ✎ Run the cables along the rear bumper and route them inside the luggage compartment.
- ✎ Fix the display (3) inside the vehicle cabin, a dry place, away from eventual water infiltrations and heat sources where you can easily see it while parking.
- ✎ Connect the BLACK-BLUE wire of the control unit wiring harness (5) to the positive of the reverse light.
- ✎ Connect the BROWN wire to the metal frame of the vehicle (ground).
- ✎ Plug the display (3) terminals with the BROWN, RED-YELLOW and WHITE-BLUE wires to the control unit connector (5), respectively in positions 1, 6 and 13.
- ✎ (Optional) connect the GREY-RED wire for the "mute" feature to the corresponding wire of the car radio preset for this feature.
- ✎ Plug the 24-way connector of the front sensors wiring into the corresponding connector of the control unit (4).

## 7.0 - DISPLAY AND PROGRAMMING



On every button press, the buzzer and relative icon will be turned ON or OFF.

On every button press, the system is activated/deactivated (when reverse gear is engaged) and the alert zones will be displayed or turned OFF accordingly.

If the display is turned OFF and the reverse gear disengaged, it will remain OFF even if the reverse gear is re-engaged.

Only expert users should modify these settings to avoid malfunctions of the parking system.

To activate the programming procedure proceed as follows:

- Engage reverse gear and make sure the display is turned ON.
- Press and keep pressed one of the two buttons on the display; the system will emit a series of audible sounds and the display will show the selected program (FS or CS).

**FS** FS: Factory Setting, standard adjustment, "Factory parameters".

**CS** CS: Custom Setting, user-chosen adjustment, "Custom Parameters".

- Only by pressing the button for another 3 seconds does the system enter in the programming mode, signaled by a different beep and one LED flash.
- On the top left corner of the screen will appear the number "1", to indicate that you can enter in the first parameter settings.

The first parameter is the buzzer volume adjustment; if the buzzer is deactivated, the display will show the OFF icon.

- Scroll the parameters and select the one to be adjusted. Press one of the two buttons and keep it pressed for a few seconds to view the actual setting.
- Adjust to the required setting then press and keep pressed one of the two buttons to return to the parameter list.

Before the system returns to the parameter list, the buzzer will emit an audible sound and the LED will switch ON for about one second; if necessary, adjust other parameters or disengage reverse gear to exit the programming mode.

Parameter registration is confirmed by an acoustic signal and a flash.

## 8.0 - SETTING OF PARAMETERS

| Nr. | PARAMETERS                              | RANGE                     | SETTING |
|-----|---|---------------------------|---------|
| 01  | Volume of buzzer                        | 0, 1, 2 (Ref.1)           | 2       |
| 04  | Detection range of rear central sensors | From 120 a 180 cm (Ref.2) | 160     |
| 05  | Detection range of rear corner sensors  | From 50 to 95 cm          | 55      |
| 08  | STOP zone (RC) of rear central sensors  | From 35 to 70 cm          | 35      |
| 09  | STOP zone (RC) of rear corner sensors   | From 35 to 70 cm          | 35      |
| 10  | Suppression of spare wheel indication   | 0, 1                      | 0       |
| 13  | Delay of rear sensors activation        | 0, 1 (Ref.3)              | 0       |
| 14  | Sensors numbering direction             | 0, 1 (Ref.4)              | 0       |

**Ref.1:** 0 = deactivated, 1 = low, 2 = high.

**Ref.2:** the display having only 2 digits, the range will be indicated as 20 and 80 instead of 120 and 180.

**Ref.3:** if your vehicle has an automatic transmission, select "1".

**Ref.4:** 0= standard detection (sensors position 1-2-3-4); 1= inverted detection (sensor position 4-3-2-1).

The STOP zone is the minimum distance detected between obstacle and sensor. The warning tone is solid and the LED is ON steady (RC zone).

## 9.0 - WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) DIRECTIVE

In the European Community, the present label indicates that this product must not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling (directive 2002/95/CE, 2002/96/CE and 2003/108/CE).

For information on how to recycle this product in your Country, please visit: [www.eur-lex.europa.eu](http://www.eur-lex.europa.eu)



**APPROPRIATE  
CONTAINERS  
ONLY**

## 10.0 - TECHNICAL SPECIFICATIONS

|   |                     |
|---|---------------------|
| Supply voltage                          | From 9 to 30 Vdc    |
| Current consumption when ignition is ON | 250mA max.          |
| Service temperature range               | From -30°C to +70°C |
| Ultrasound frequency                    | 40Khz               |