



Application manual

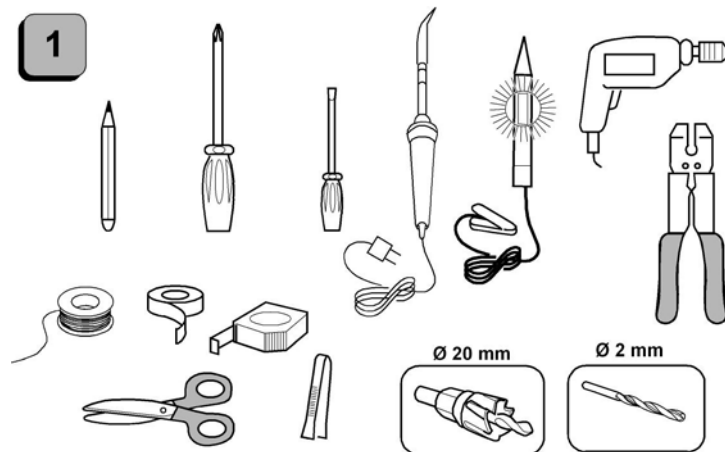
Parkmaster F294

Installation and configuration guide

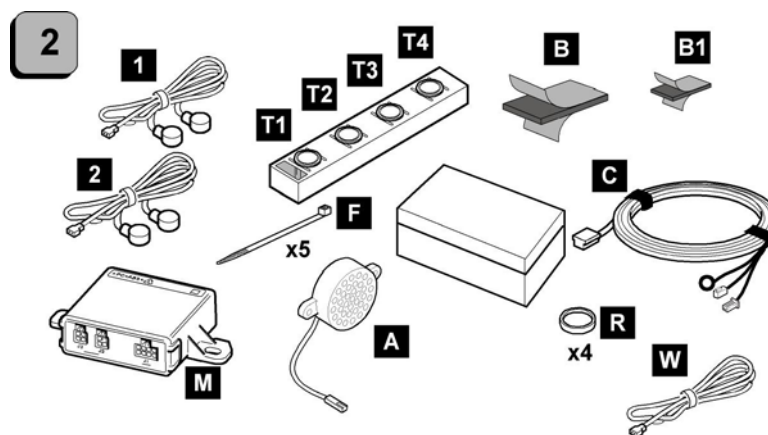
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Installation tools

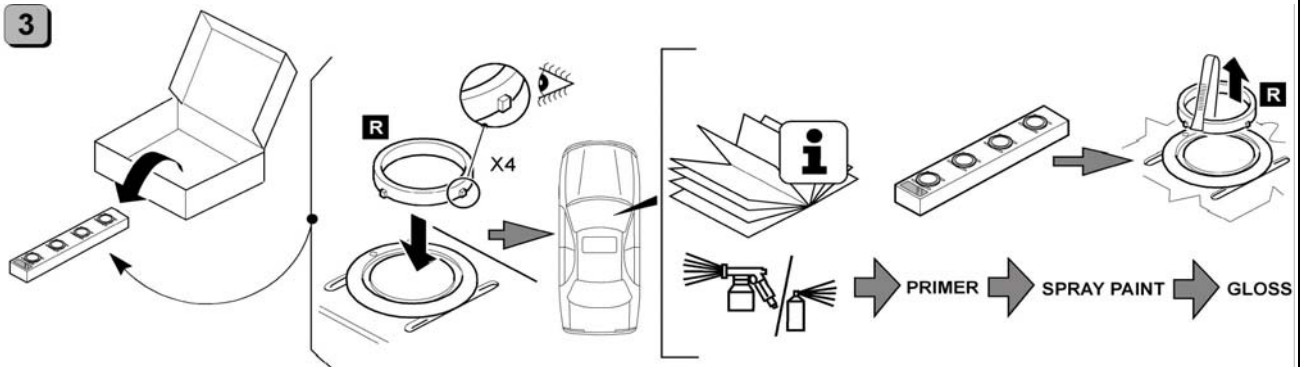


Kit content



- 1= sensors wiring harness 1-2
- 2= sensors wiring harness 3-4
- T1-T2-T3-T4= Sensors
- F= Tie-raps
- A= Loudspeaker
- M= Central unit
- B= Biadhesive for central unit
- B1= Biadhesive for loudspeaker
- R= Plastic rings for painting
- C= Wiring harness for central unit
- W= Power supply wire (Green-Red)

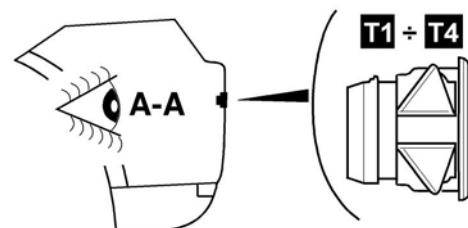
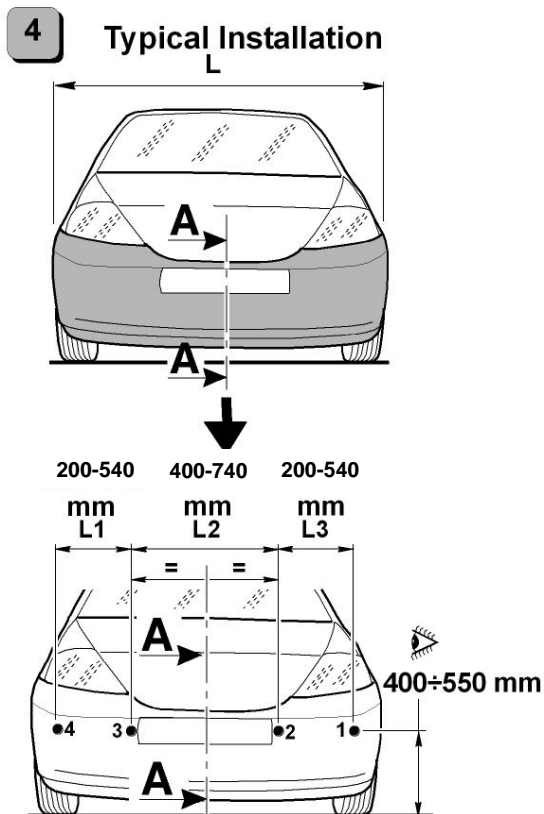
Sensors painting



Place the rings in all sensors, paying attention to enter them as shown in the picture, check the original code of the car colour before painting.

Spray the primer and when it will be dried, paint the sensors with the desired colour. Let it dry and spray the gloss to protect the painting

Recommended installation

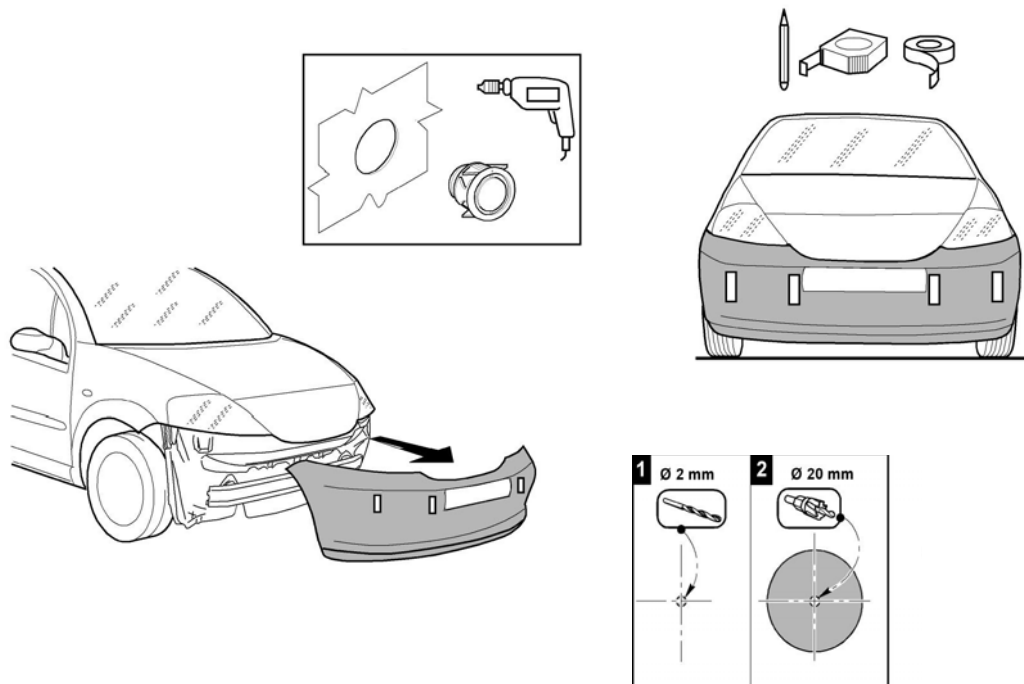


Installing the sensors within the following range: L1= min 200- max 540 mm – L2= min 400- max 740 mm – L3= min 200 - max 540 mm, usually it is not necessary to perform the central unit configuration procedure. After having installed the system, we suggest you, to perform a functional test, if the test result is negative, it is necessary to perform the central unit configuration procedure. (Chapter 1.3 and 12.4).

The sensors minimum installation height is 400 mm with a 0 degrees angle. If fitted at lower height or with negative angles more than 0 degrees it is required to fit the 10° angles adapter (Optional). If fitted at higher height (more than 550 mm) a sensitivity increasing could be required to guarantee proper obstacle detection.

Sensors position, bumper removal and drilling

4.1

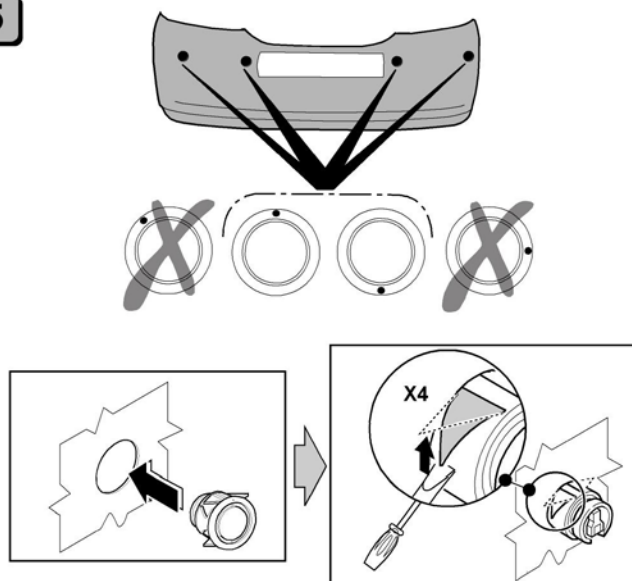


Use a paper tape to mark the positions of the sensors holes on the bumper.

After having marked the positions, remove the bumper and make a 2 mm hole for each sensor. Then use a 20 mm drilling tool to enlarge the hole. **(PAY ATTENTION: drill keeping the tool in horizontal position)**

Insertion of the sensors in the bumper

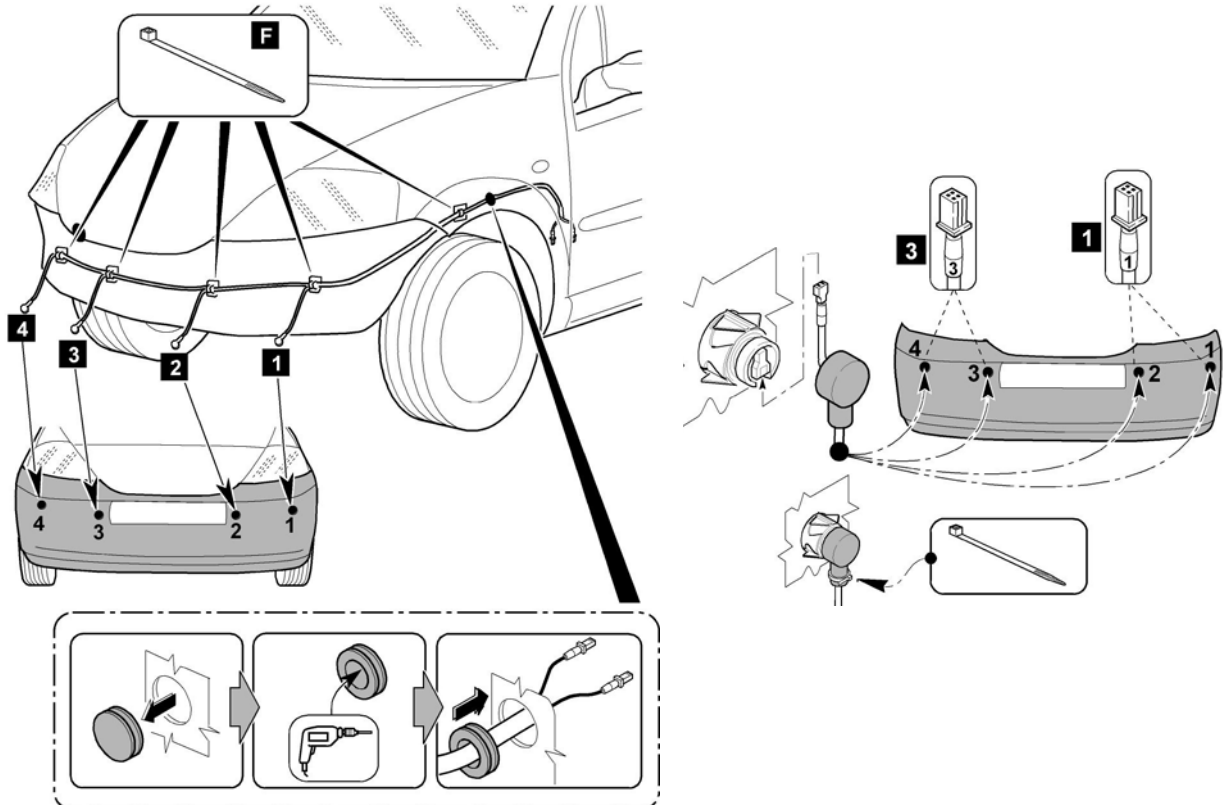
5



The sensors must be inserted in the bumper with the reference mark upwards. They can be rotated 180° degrees without compromising the proper functioning. Check that the fixing wings are correctly opened, otherwise open them using a small screwdriver as shown in the picture.

Wirings positioning and sensors connection

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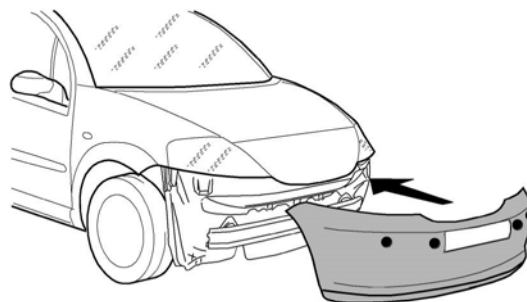


Use an original grommet to route the sensors wirings out of the vehicle.

Fix the wirings using the supplied tie raps. This operation will facilitate you during the replacement of the bumper. The wirings of the sensors are numbered and they have to be connected from 1 to 4, as shown in the picture. After having connected the sensors to the wiring, fit the cover rubbers.

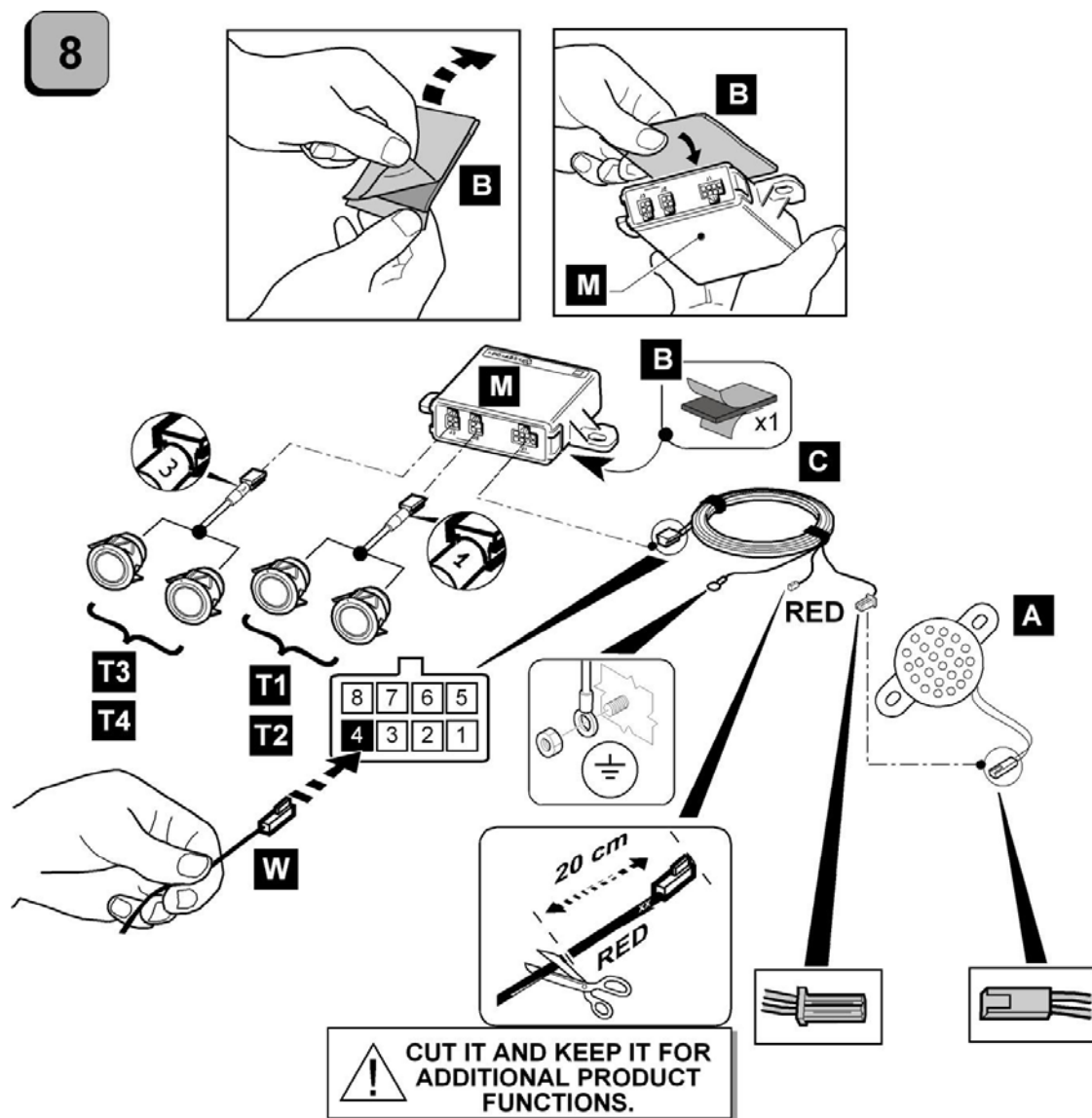
Bumper reassembling

7



After having performed the sensors connections, reassemble the bumper on the vehicle, paying attention to the wires.

Power supply and sensors connections diagram



Use the B biadhesive to fix the central unit. Connect the connector marked 1 in J2 position and the connector marked 3 in J3 position of the central unit.

Connect the black wire with ring terminal to ground.

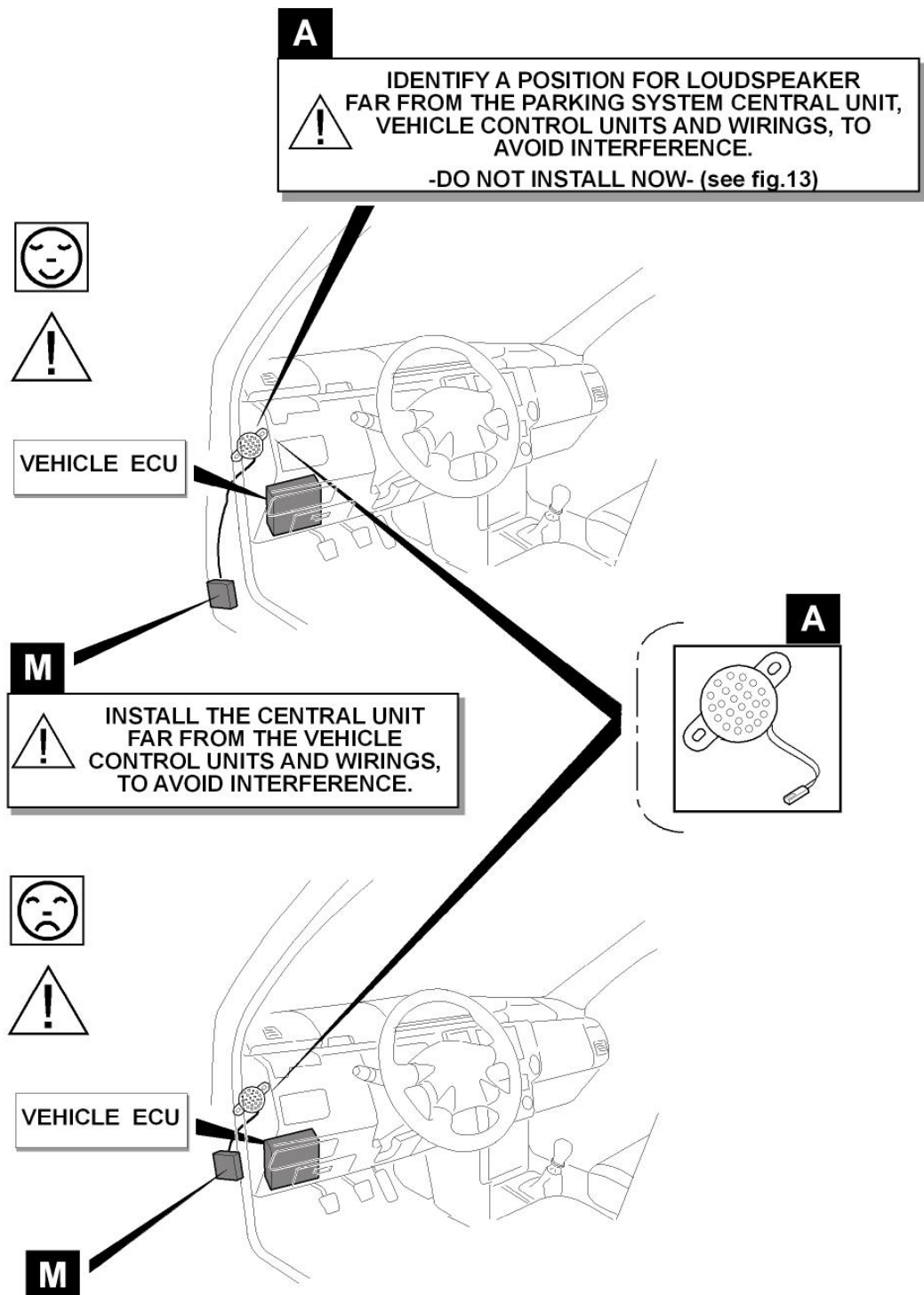
Insert the Green-Red wire in pos. n. 4 of the power supply connector (W) to the ignition key wire(+15/54)

Shorten the RED wire 20 cm. This piece of wire with terminal can be used to make available the special functionalities as for them there is no wire in the main connector. (See chapter of special functionality).

Connect the RED wire of the main harness to the reverse light wire.

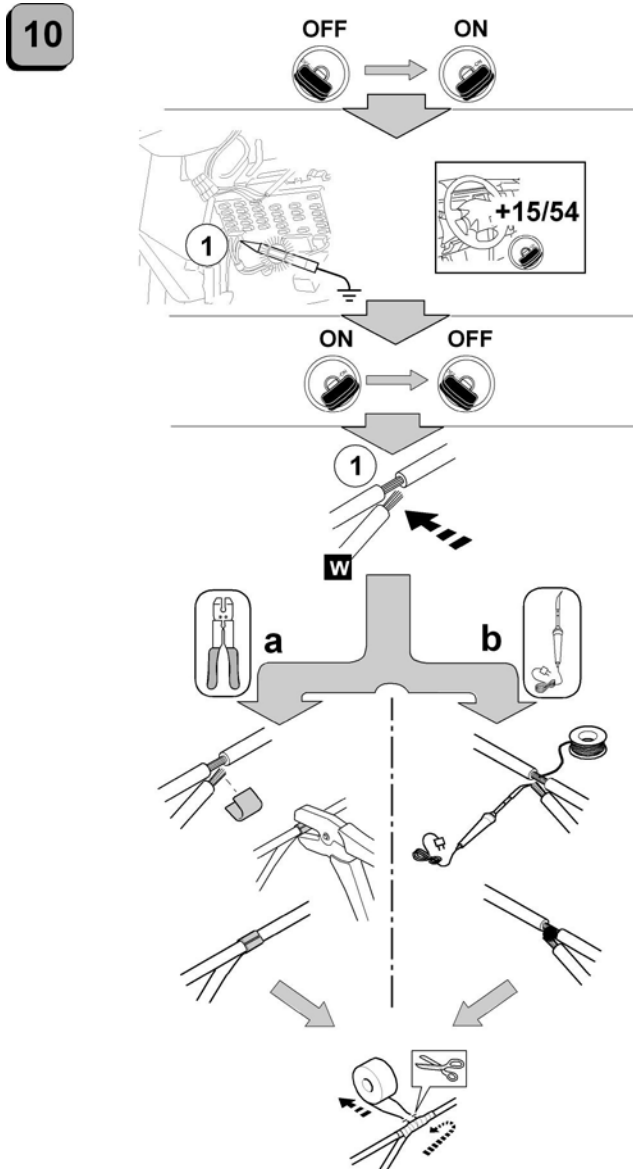
Central unit positioning

9



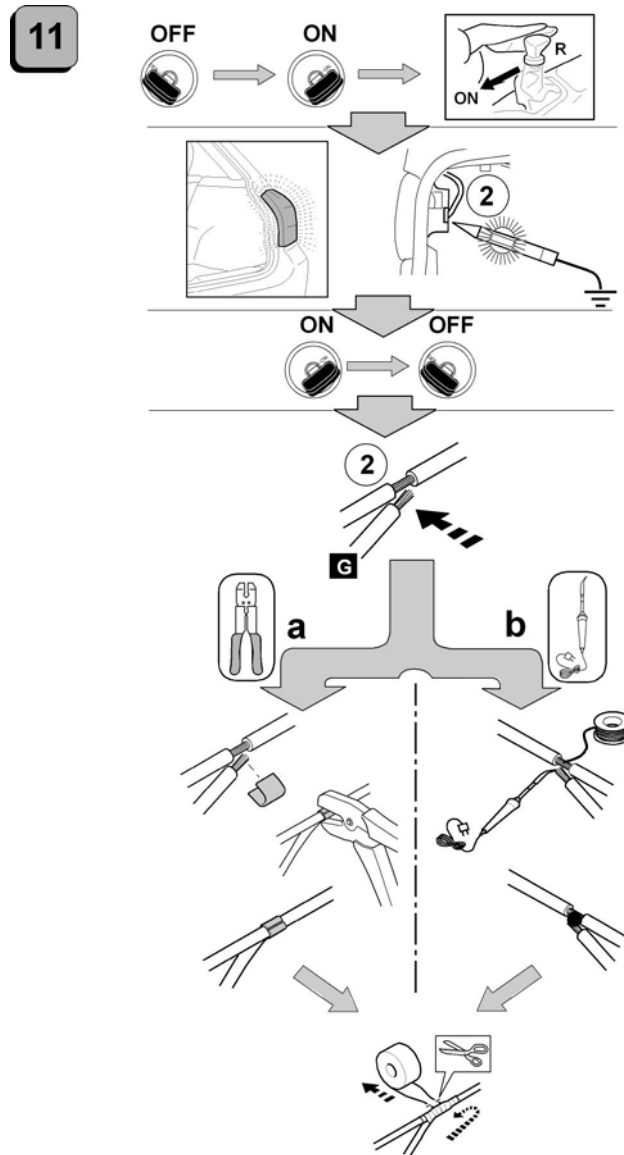
Place the control unit as shown in the upper picture to avoid interference

+15/54 wire identification and power supply connections



To identify the ignition key (+15/54) wire, it is necessary to turn the ignition on and check with the test lamp. Turn off the ignition, connect the Green-Red (W) wire to the ignition wire by crimping or soldering it. Isolate the junction with tape.

Reverse wire identification and connection

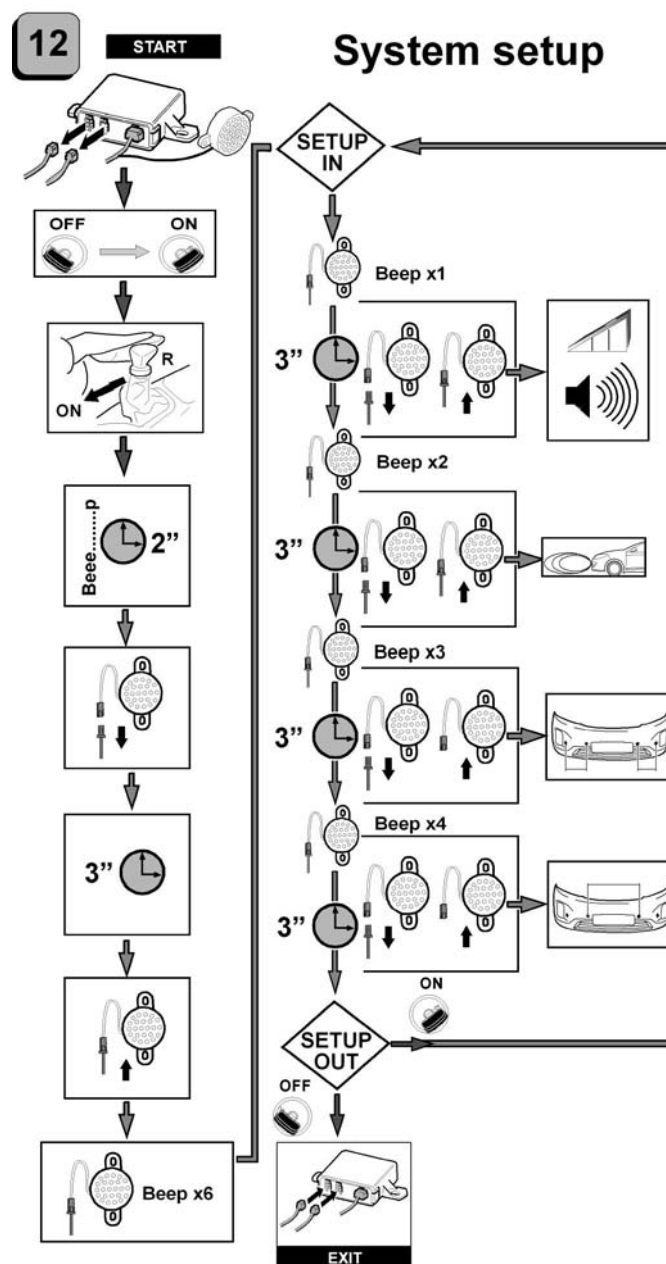


To identify the reverse wire, it is necessary to turn the ignition on, engage the reverse gear and check with the test lamp. Turn off the ignition, connect the RED of the main harness wire by crimping or soldering it. Isolate the junction with tape.

The front sensors will be also activated when the reverse gear is engaged.

If the reverse gear is disengaged and the sensors don't detect any obstacles, within 10 s are automatically deactivated.

Configuration procedure



Disconnect J2 and J3 connectors, turn on the ignition and engage the reverse; the system beeps sounds for 2 s, disconnect and reconnect the connector of the loudspeaker to enter in the programming procedure, the system beeps 6 times.

If during the 2 s sounding the loudspeaker is not disconnected and reconnected again, the system will perform the self-diagnostic.

To exit from the self-diagnostic turn off and on the ignition.

After the 6 beeps the system beeps from 1 to 4 times indicating the four functions you can adjust.

1 beep – Loudspeaker volume (3 levels - standard level 3 - high)

2 beep – Sensors sensitivity (3 levels - standard level 2 - medium)

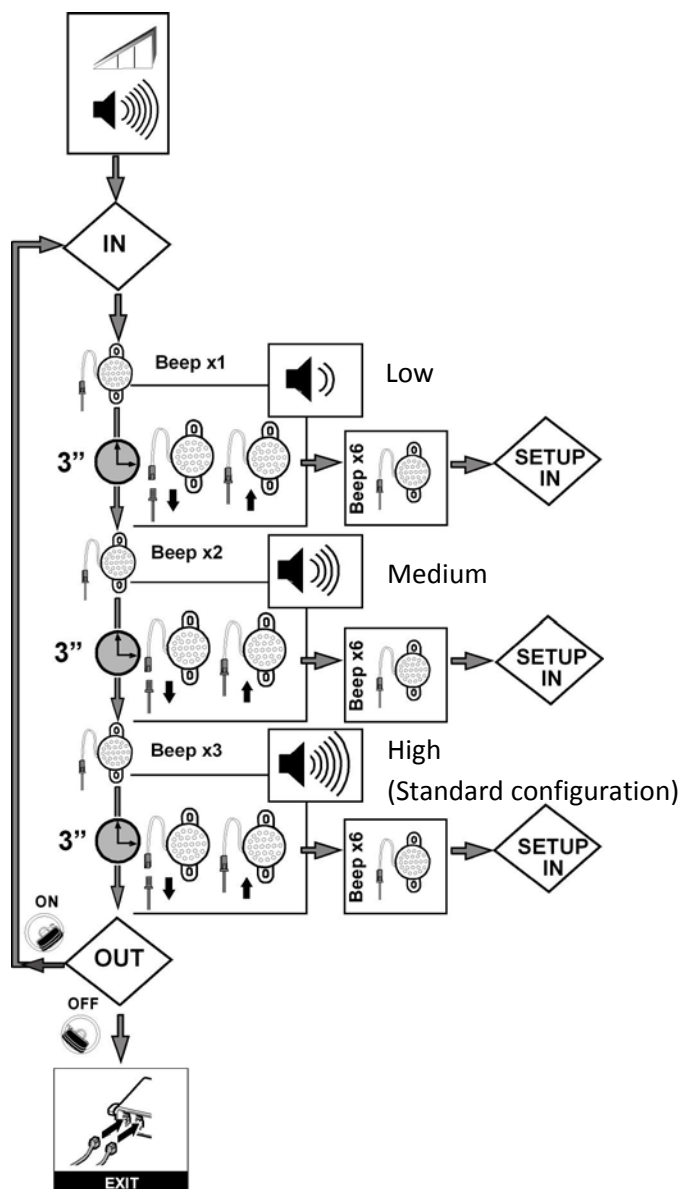
3 beep – Side sensors distance (3 levels - standard level 3 - 450-540 mm)

4 beep - Central sensors distance (4 levels – standard level 4 - 650-740 mm)

Disconnect the connector after hearing the number of the beep selected. When the loudspeaker connector is reconnected the system goes to the sub-menu of the selected function.

Loudspeaker volume adjustment

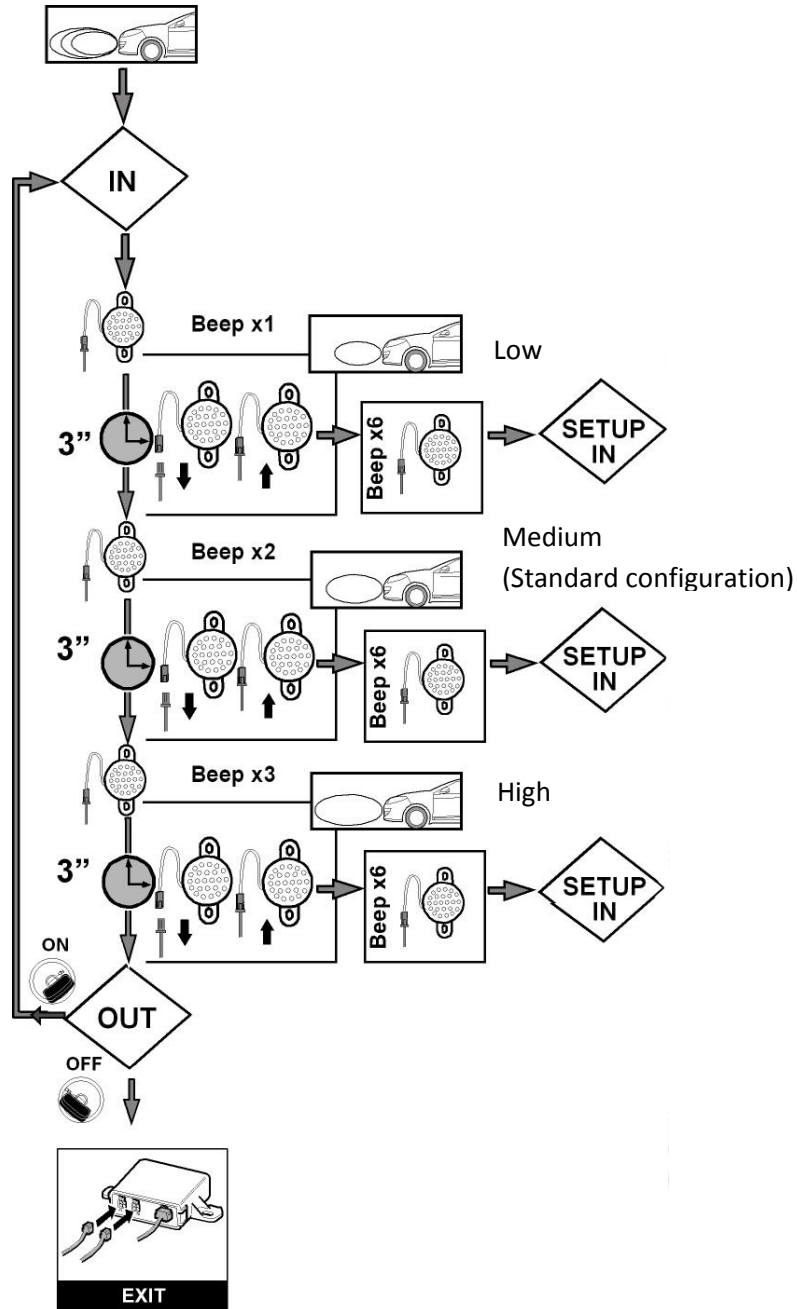
12.1



The system beeps once indicating the low volume, after 2 s beeps 2 times indicating the medium volume and after other 2 s beeps 3 times indicating the high volume. To choose the desired volume value disconnect and reconnect the connector after hearing the number of the beep you want to select. When the loudspeaker connector is reconnected the system memorizes the desired volume and goes back to the main menu beeping 6 times.

Sensors sensitivity adjustment

12.2



The system beep once indicating the low sensitivity, after 2 s beeps 2 times indicating the medium sensitivity, after other 2 s beeps 3 times indicating the high sensitivity. To choose the desired sensitivity, disconnect and reconnect the connector after hearing the number of beep selected. When the loudspeaker connector is reconnected the system store the desired sensors sensitivity and goes back to the main menu beeping 6 times.

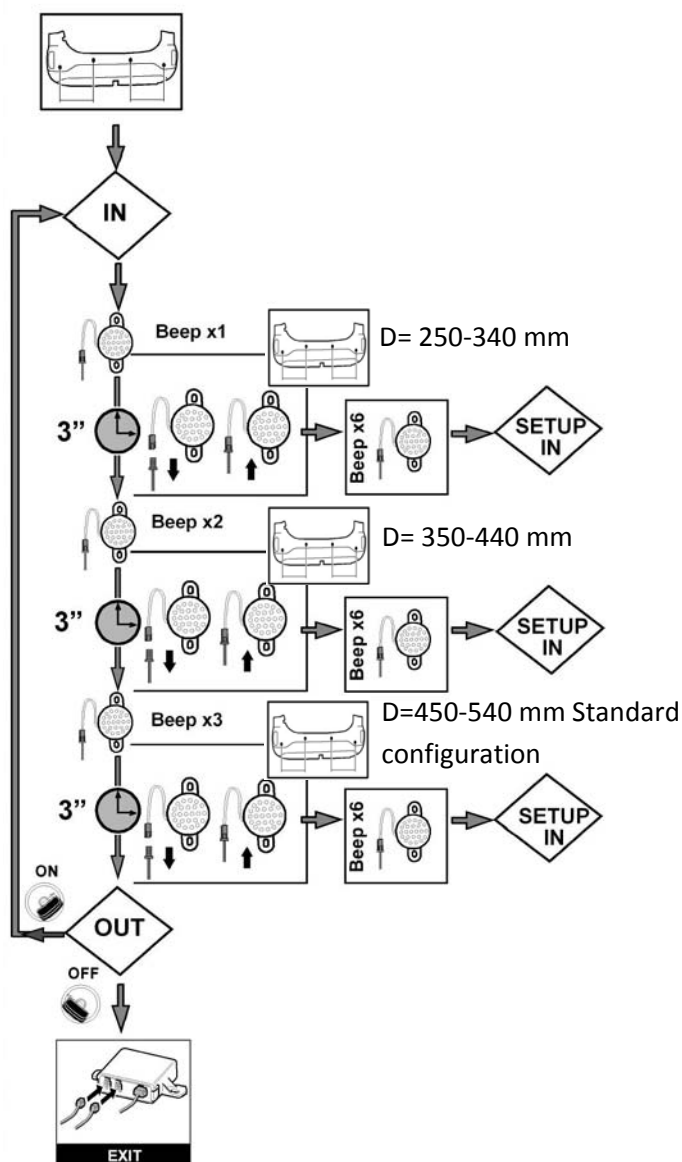
Low sensitivity: suitable for sensors height between 400-450 mm. If the height is lower you must use the 10° angle adapters.

Medium sensitivity: suitable for sensors height between 450-550 mm

High sensitivity: suitable for sensors height higher than 550 mm

Side sensors distance adjustment

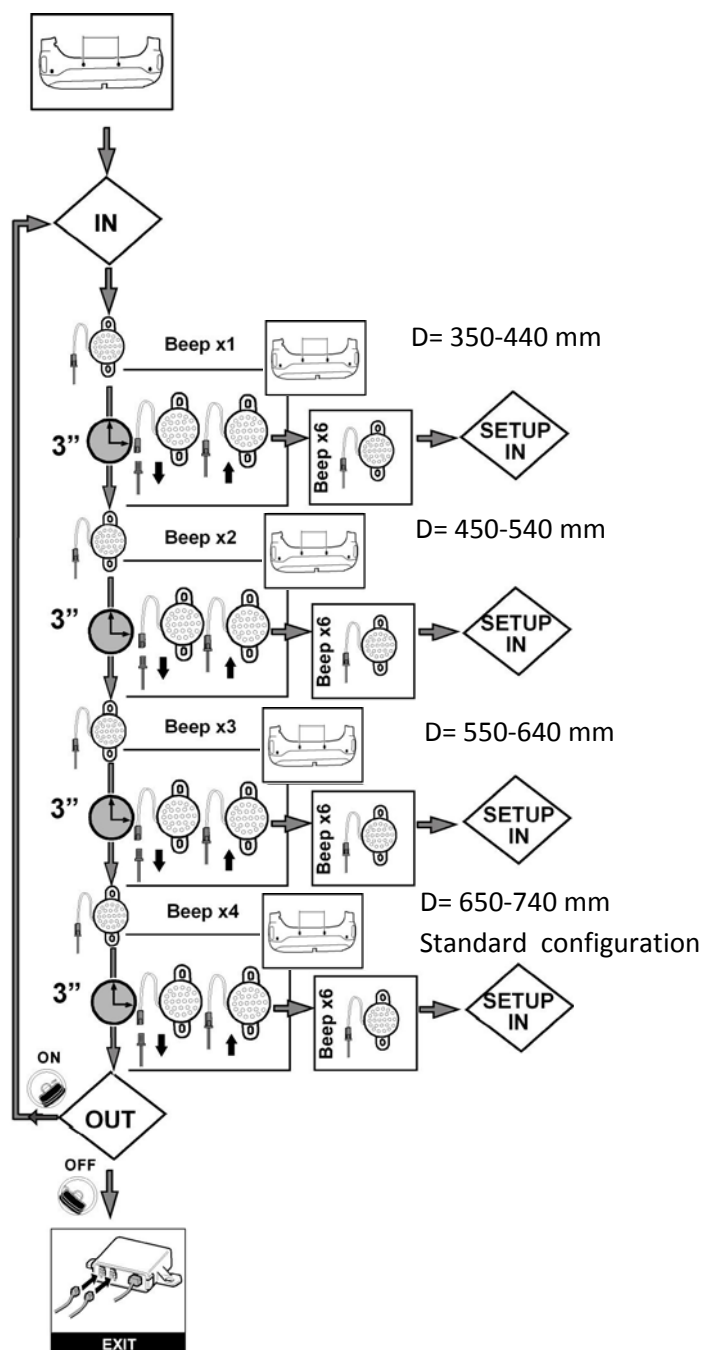
12.3



The system beep once indicating the sensors distance of 250-340 mm, after 2 s beeps 2 times indicating the sensors distance of 350-440 mm and after other 2 s beeps 3 times indicating the sensors distance of 450-540 mm. To choose the desired distance, disconnect and reconnect the connector after hearing the number of beep selected. When the loudspeaker connector is reconnected the system store the selected distance choice and goes back to the main menu beeping 6 times.

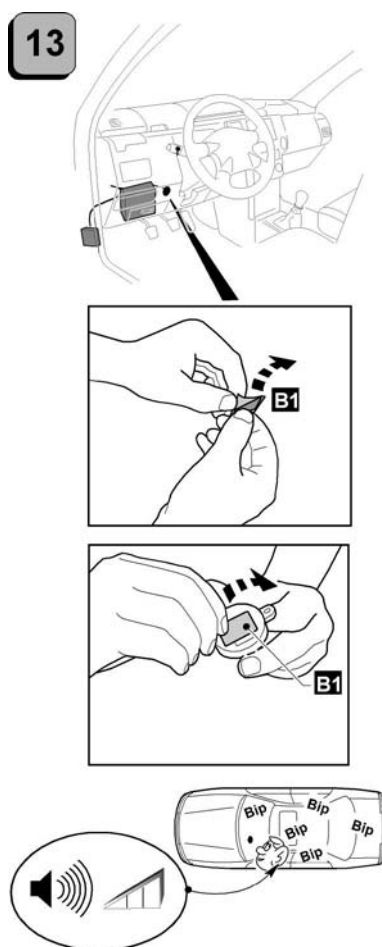
Central sensors distance adjustment

12.4



The system beep once indicating the sensors distance of 350-440 mm, after 2 s beeps 2 times indicating the sensors distance of 450-540 mm, after 2 s beeps 3 times indicating the sensors distance of 550-640 mm and after other 2 s beeps 4 times indicating the distance of 650-740 mm. To choose the selected distance, disconnect and reconnect the connector after hearing the number of beep selected. When the loudspeaker connector is reconnected the system store the selected distance choice and goes back to the main menu beeping 6 times.

Loudspeaker connection and positioning

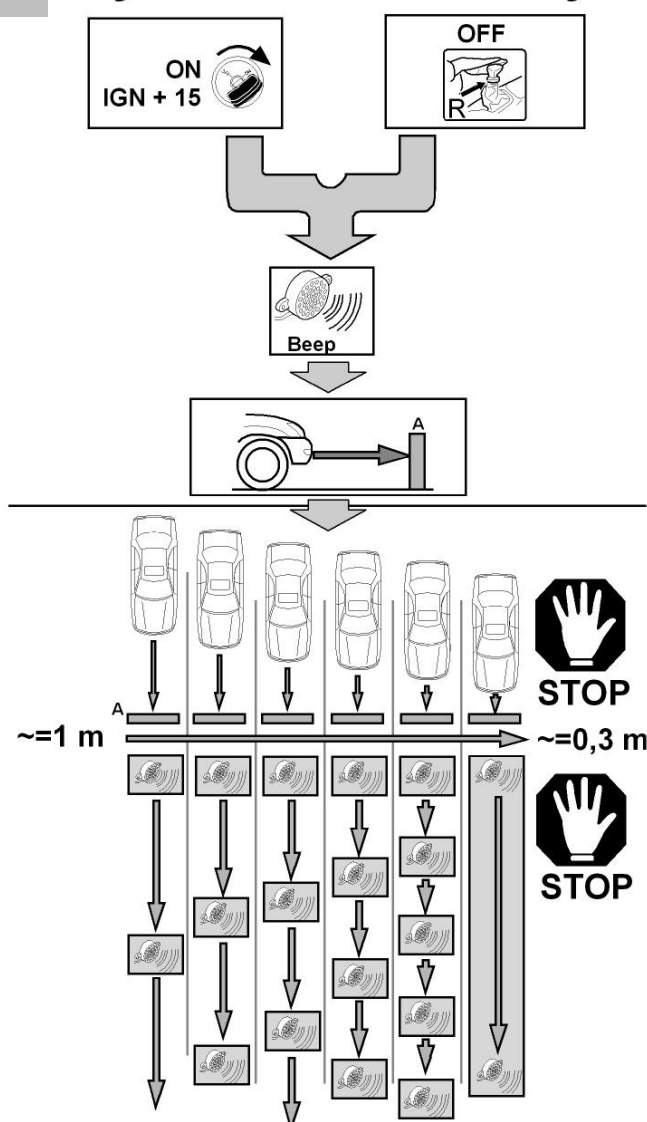


Test the loudspeaker volume before fixing it. Put an obstacle in front of the bumper and turn the ignition on or engage the reverse gear. The loudspeaker beeps: check if the sound is well audible for the driver (with the engine running). If the sound level needs to be adjusted, perform the procedure of chapter 12.1. After checking, remove the protective film of the B1 biadhese and fix it.

System functionality check

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System functionality



Position the vehicle with the sensors facing a wall at a distance of approximately 1 mt, turn the ignition on and engage the reverse gear. The system confirms its activation with 1 beep. Get closer to the wall at a low speed. The beeps frequency increases getting closer to the wall. When the vehicle is at 30 cm from the wall, the sound becomes continuous.

Fault reporting

The system reports any failures of sensors or the control unit with a long sound followed by beep of the fault detected. The system signals the failure, to the power on and also during operation.

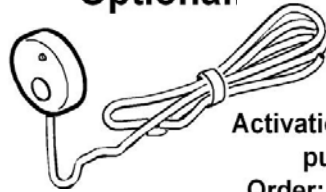
Sensor 1 fault	1 long beep followed by 1 beep	Contact your installer
Sensor 2 fault	1 long beep followed by 2 beeps	Contact your installer
Sensor 3 failure	1 long beep followed by 3 beeps	Contact your installer
Sensor 4 fault	1 long beep followed by 4 beeps	Contact your installer
Central unit fault	1 long beep followed by 5 beeps	Contact your installer

Pushbuttons installation to activate/deactivate the system

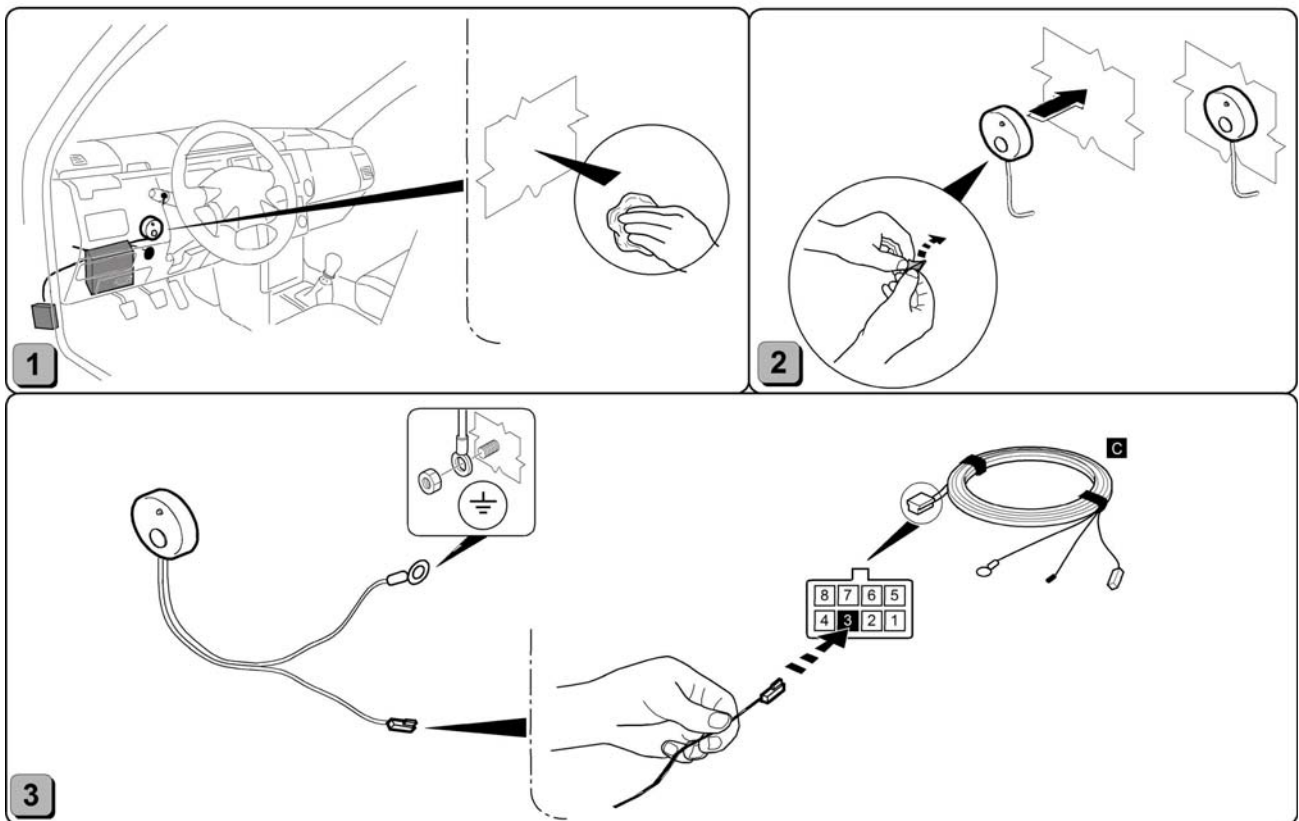
RV3608EUSAA

15

Optional

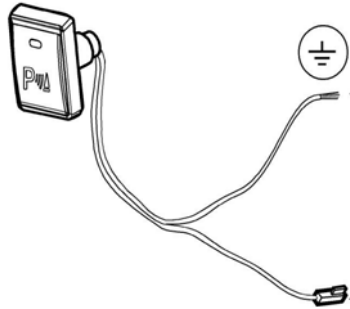


Activation / Deactivation
push button.
Order: RV3608EUSAA



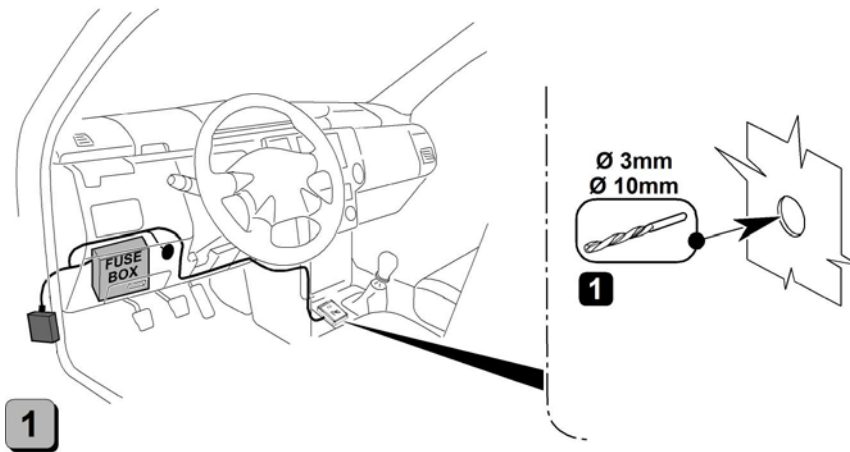
Clean the chosen location to install the pushbutton, remove the protective film of the biadhesive and fix it.
Connect the black wire with ring terminal to ground.
Insert in position 3 of the J1 power supply connector the fastened wire.

RV3637EUSAA

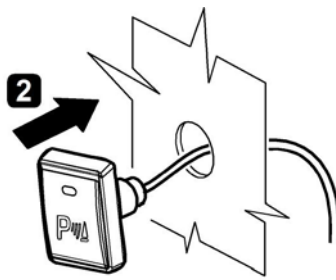


OPTIONAL

Activation / Deactivation
push button.

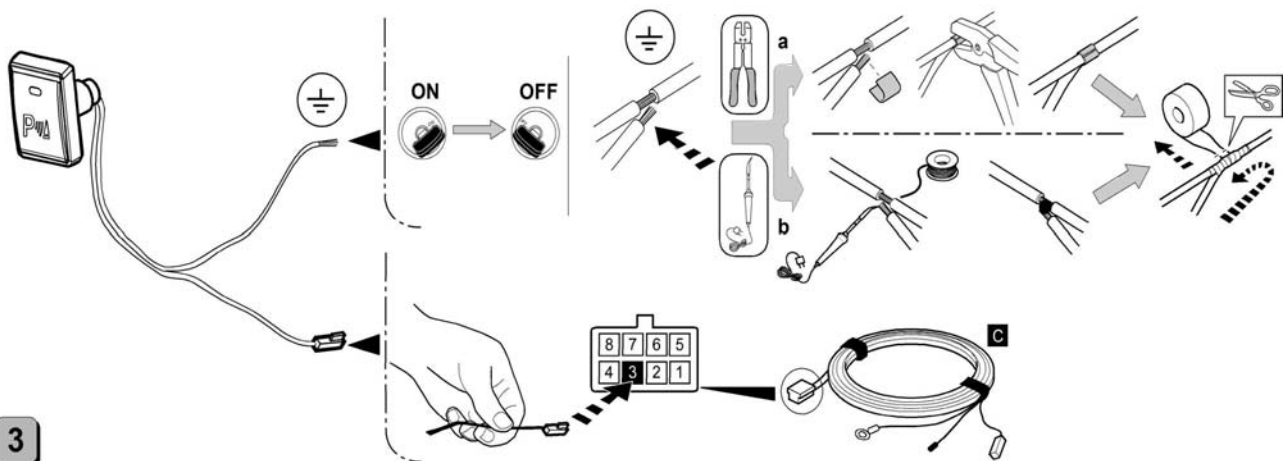


To make a hole of 3 mm and then 10 mm in the chosen location for the installation of the pushbutton.



2

Insert the wiring and install the pushbutton.



3

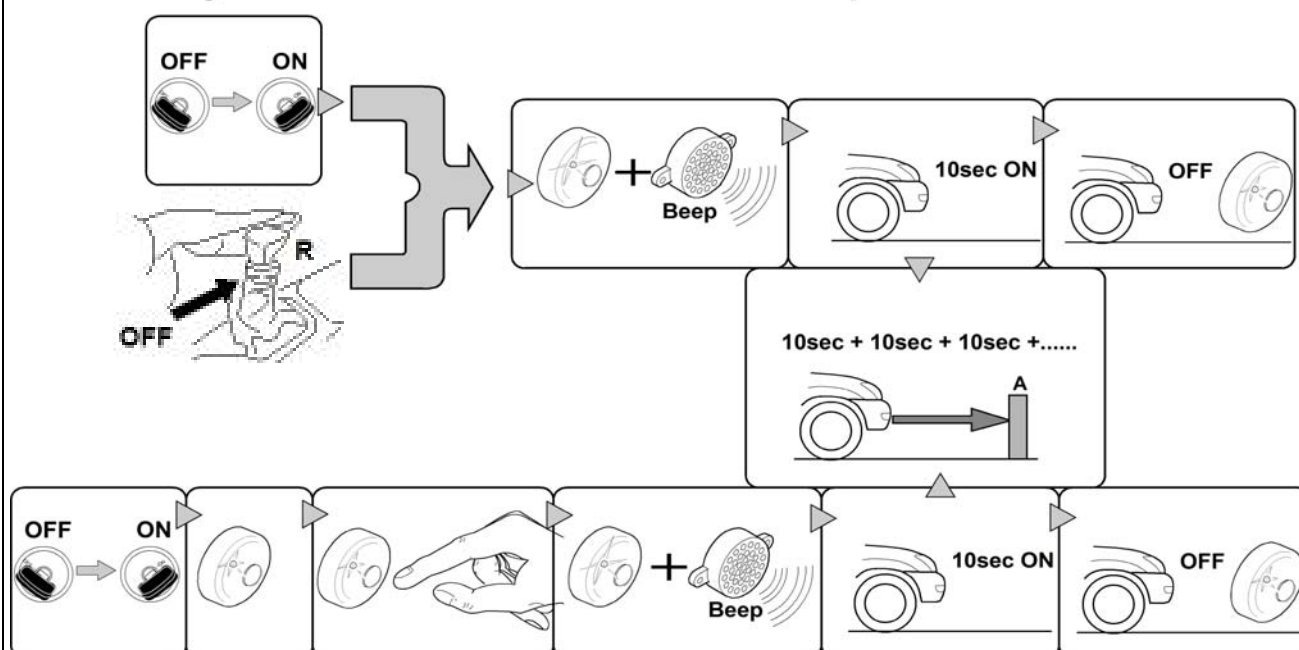
Connect the wire without terminal to ground and insert in position 3 of the J1 power supply connector the fastened wire.

System activation and deactivation

RV3608EUSAA

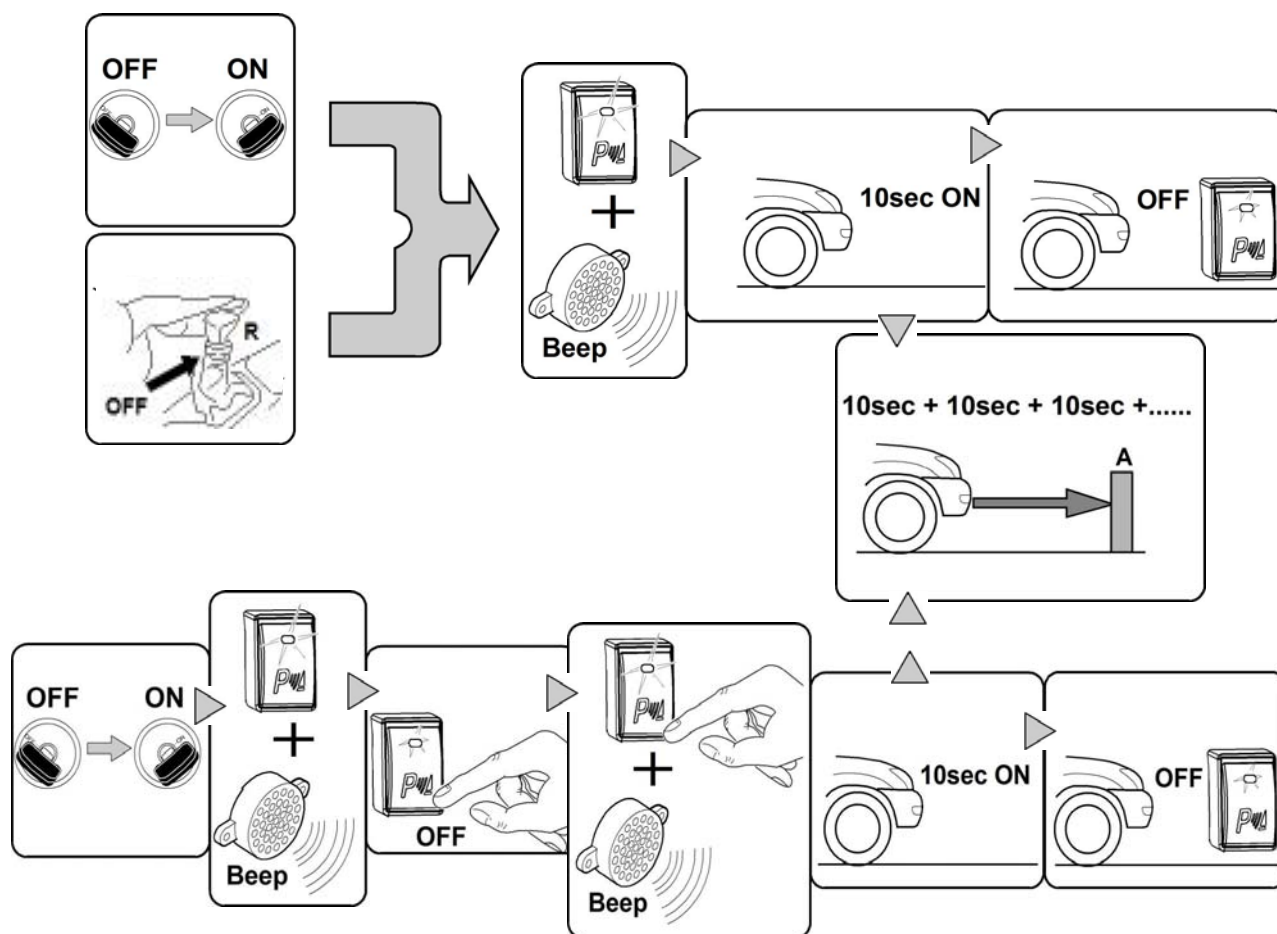
16

System activation/deactivation with push button



The system is activated at the ignition on , if not detects obstacles within 10 s is deactivated.
 The system is also activated when reverse is engaged and remains active until the reverse is disengaged.
 When the reverse gear is disengaged, if not detects obstacles within 10 s is deactivated.
 The system can be activated and deactivated by the pushbutton.

RV3637EUSAA



The system is activated at the ignition on , if not detects obstacles within 10 s is deactivated.
 The system is also activated when reverse is engaged and remains active until the reverse is disengaged.
 When the reverse gear is disengaged, if not detects obstacles within 10 s is deactivated.
 The system can be activated and deactivated by the pushbutton.

17

Special functionalities

17.1 Procedure learning speed threshold

The pushbutton RV3608EUSAA or Rv3637EUSAA is necessary to perform the speed signal procedure

Press and keep pressed the pushbutton of the led panel and start the engine

Continue to keep pressed the pushbutton of the led panel, until the system confirms with 6 beeps.

Release the pushbutton to enter into learning speed signal procedure.

Drive the vehicle at the speed you want to use for the activation of the system,
(Recommended speed 10 Km/h), press the button for 1 second to store the speed, the system will confirm the storage with 2 beeps.

Drive the vehicle at the speed you want to use for the deactivation of the system,
(Recommended speed 20 Km/h), press the button for 1 second to store the speed, the system will confirm the storage with 4 beeps.

Turn the ignition off to confirm the chosen speed thresholds.

After having performed the procedure, the system automatically activates the system deactivation by the speed signal.

To activate the system activation by speed signal, follow the activation/deactivation of the features (17.2).

17.2 Activation /deactivation of the features

The pushbutton RV3608EUSAA or RV3637EUSAA is necessary to perform the procedure

- 1) Press and keep pressed the pushbutton of the led panel and start the engine.
- 2) Continue to keep pressed the pushbutton till the system confirms with 3 beeps.
- 3) Release the pushbutton to enter into the programming procedure.
- 4) The system repeats cyclically the beeps from 1 to 6 (see table of programming features) .
- 5) To activate/deactivate a feature, press the pushbutton during the beeps or within 3 seconds by the end of them, which indicate one of the functions you want to program.
The activation/deactivation of the features is confirmed by 6 beeps. The system returns to repeat cyclically the beeps from 1 to 6 to allow yourself to activate/deactivate other features.

17.3 Table of programming features

1 Beep	Activation of the system by speed signal	Active
2 Beeps	Activation of the system by speed signal	Deactive (Standard configuration)
3 Beeps	Time system deactivation after the activation if no obstacles is detected	10 s (Configurazione standard)
4 Beeps	Time system deactivation after the activation if no obstacles is detected	20 s
5 Beeps	System activation when the ignition is on	Active (Standard configuration)
6 Beeps	System activation when the ignition is on	Deactive

17.4 Deactivation of the system by the speed signal

The system is automatically deactivated when the vehicle exceeds the speed threshold stored. (See learning speed thresholds procedure). The LED panel will turn off to indicate that the system is deactivated.

17.5 Activation of the system by the speed signal

The system is automatically activated when the vehicle slows down and reaches the speed threshold stored(see learning speed thresholds procedure). The LED panel lights up to indicate that the system is activated.

17.6 Deactivation of the system after activation if not detected obstacles

After activation, the system does not detect any obstacle within 10s or 20 s, depending on the selected function, it is deactivated. It will be reactivated, by the reverse gear, turning on the ignition again or by pushbutton if available.

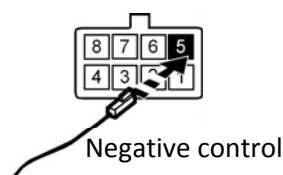
17.7 Phone mute

Insert in position 5 of the J1 connector the faston of the RED wire cut during the installation.

Connect the other end of the wire to the Phone mute input wire of the radio.

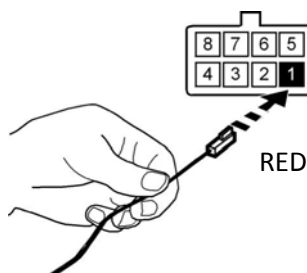
(The output signal from the system is negative).

Each time the system is activated the radio volume is lowered, thus allowing you to hear the loudspeaker of the system.



18 Odometer signal connection

Insert in position 1 of the J1 connector the RED wire cut from the main harness and connect it to the odometer signal wire of the vehicle.



Drilling tool

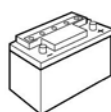
Cutting tool AV0092EUSAA ø 20 mm

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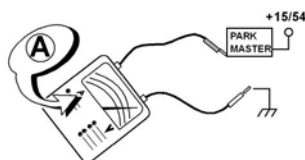


Product technical future

20



12 VDC.



A < 30 mA typ.



-40° C ÷ +85° C

ELECTRICAL/ELECTRONIC SUB-ASSEMBLY WAS APPROVED
WITH REGARD TO:
E/CCE/24-E/EE/TRANS/505 Add 9/Rev.3 Regulation No. 10
UNIFORM PROVISIONS CONCERNING THE APPROVAL
OF VEHICLES WITH REGARD TO ELECTROMAGNETIC
COMPATIBILITY