Proxel EPS-Dual 4.0 with Wireless Display User Manual

Proxel EPS-Dual 4.0 with Wireless Display User Manual

Contents

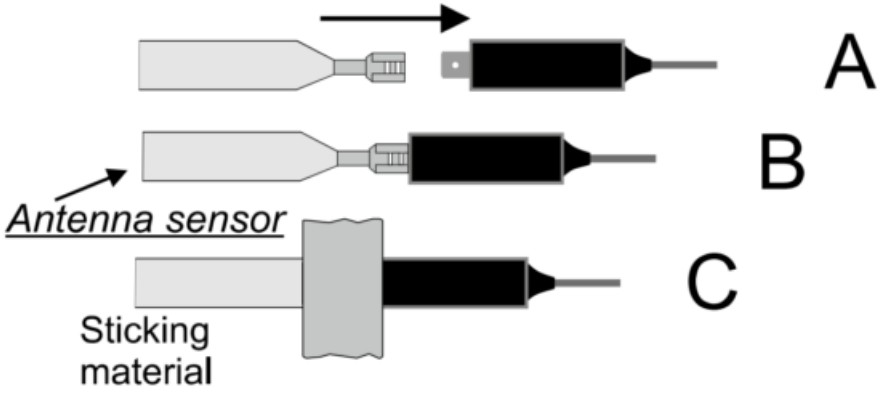
INSTALLATION INSTRUCTIONS

STARTING PROCEDURE

- a) The installation of the antenna sensor, constituted by an aluminum adhesive ribbon, must be applied to the inner surface of the bumper. It is of some importance that the zone of application corresponds to the higher part as regards the ground but also the most distant from the car body.
- b) Identify on the car body the zone close to the extremity of the bumper and, on the side where it is present the back-gear lamp, a possible hole of passage toward the intern of the trunk in order to carry on the data cable to the antenna sensor.

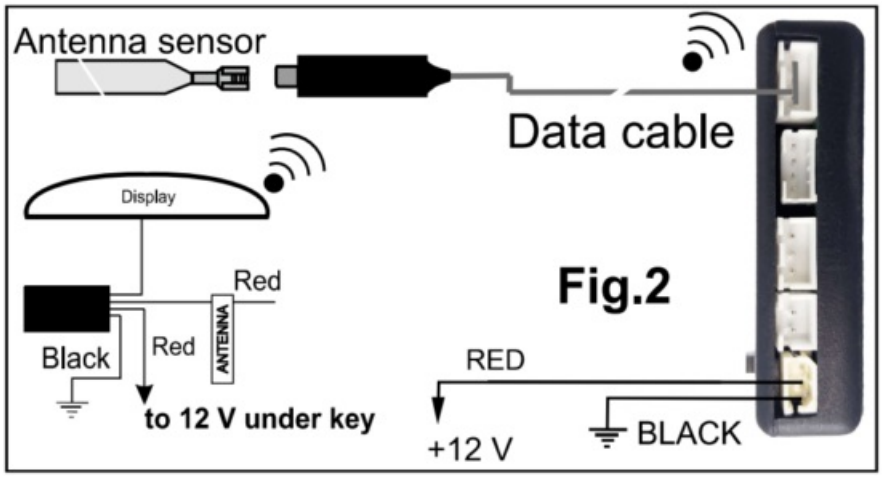
POSITIONING OF ANTENNA SENSOR

- A- Thoroughly clean with alcohol or nitre solvent the inner surface of the bumper of the zone previously identified on which will be applied the antenna sensor.
- B- Fix through its adhesive the black connection module of the data cable on the inner surface of the bumper, starting from approximately 10-15 cm away from the end of the bumper
- C- Connect the black module of the Data cable coming from the ECU to the antenna sensor. and fix it on the bumper by a strong pressure. When arrived at the opposite side of the bumper cut off the antenna in excess and fix the extremity using a piece of sticking material



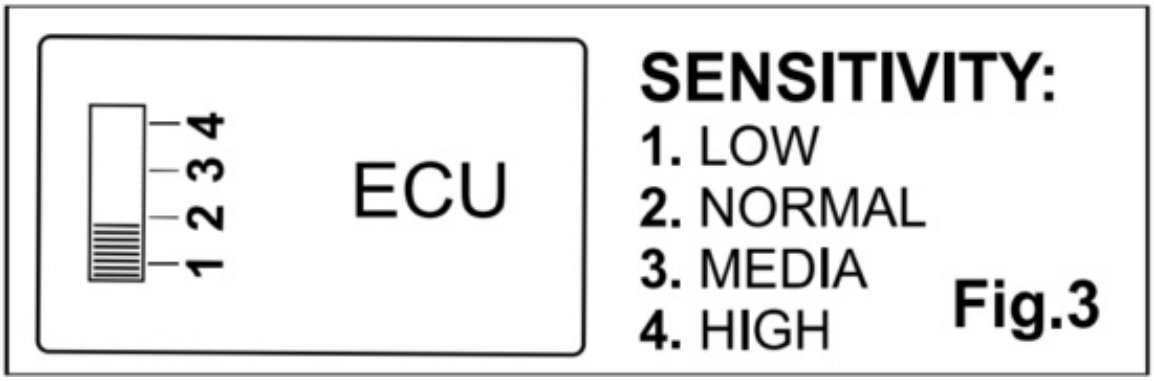
DISPLAY ELECTRICAL CONNECTION

- **a)** Fix the Display in the appropriate position to your liking, using the double-sided tape, in order to also ensure good sound perception by the driver.
- **b)** Connect the black wire of the Display power cable to a good earth point.
- **c)** Connect the red wire of the 12 Volt power cable under key so that the Display is activated when the instrument panel is turned on . Fig.2



NOTE: Some vehicles are equipped with a metal crash protection bar insert facing the inside surface of the bumper. When this metal surface is too close to the inner surface of the bumper where you have placed the antenna sensor, the detection distance can be reduced.

To adjust the signaling distance it is sufficient to change the slide-switch positions (see Fig 3) Take care that the sensitivity No 1 is the lowest and the number 4 is the largest.



TESTING PROCEDURE

- **a)** Switch on the instrument panel and engage reverse gear.
  In a fraction of a second the control unit performs a check of the functionality of the system and, if the system has been mounted correctly, three red dots light up on the display. Once this signal is obtained, the system becomes operational.
  Possible problems and their solutions
  1. If the buzzer emits 8 consecutive quick beeps and AL on the display, check the data cable and its connection to the control unit and that there is no shod circuit between the antenna sensor and the metal body.
  2. If the buzzer emits 3 consecutive beeps and ST on the display, check the connection of the Data cable with the antenna sensor.

- **b)** Starting from about 1 meter away from the center of the bumper, slowly approach both hands to simulate a parking maneuver. At a distance of about 60/70 cm will be heard the first acoustic signals whose repetition rate will increase at the decreasing distance to become a fast intermittent sound and then a continuous higher frequency sound at about 10-15 cm from the bumper.
- c) If the system shows to work regularly it is possible to fix definitely the bumper.

Note: EPS-DUAL 4.0 stads to give the signaling only when the vehicle is being approached to the obstacle; a fixed object in front of the bumper, for instance the hauls hook and a bull bar or the sides walls of a car box, is not cable under key so that the Display is activated when the instrument panel is turned on. Fig.2

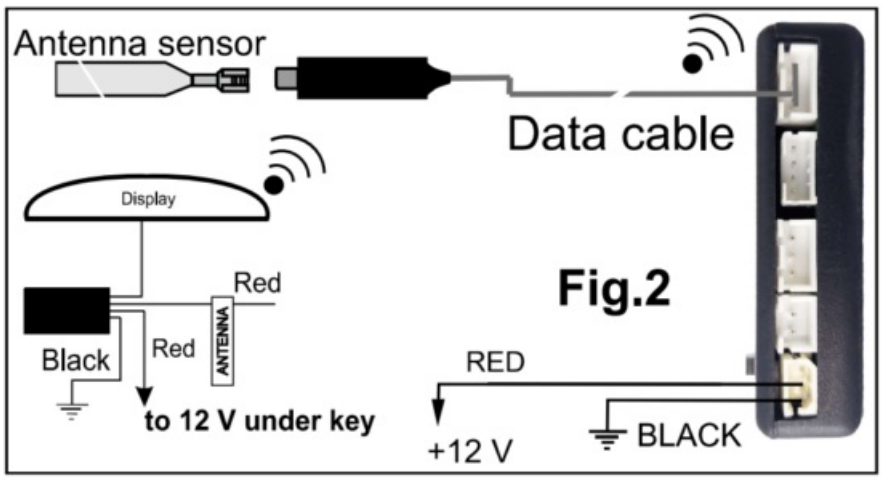


Fig.2

USER MANUAL

The activation of the device is obtained by the insertion of the back gear and confirmed by a signal of “OK”. Once activated, the EPS-DUAL 4.0 generates around the bumper, on which is installed, a protection zone (Fig. 1).

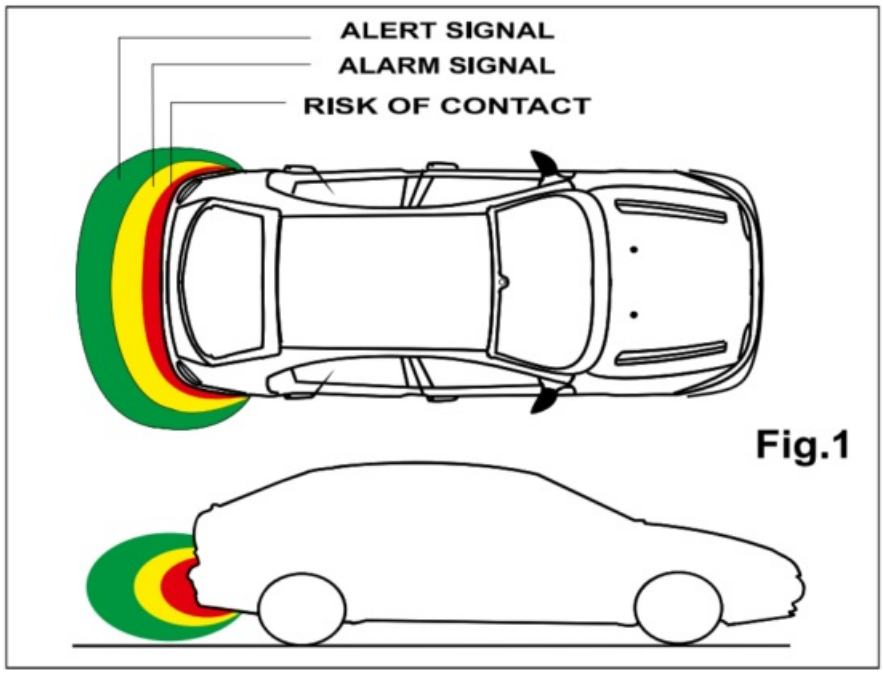


Fig.1

When any obstacle present in the protection zone tends to approach the bumper you will hear a series of beeps.

WORKING EXAMPLE

- **A)** Upon activation, the functionality of the system and the radio transmission of the signals from the control unit to the Display are carried out in a very short time.

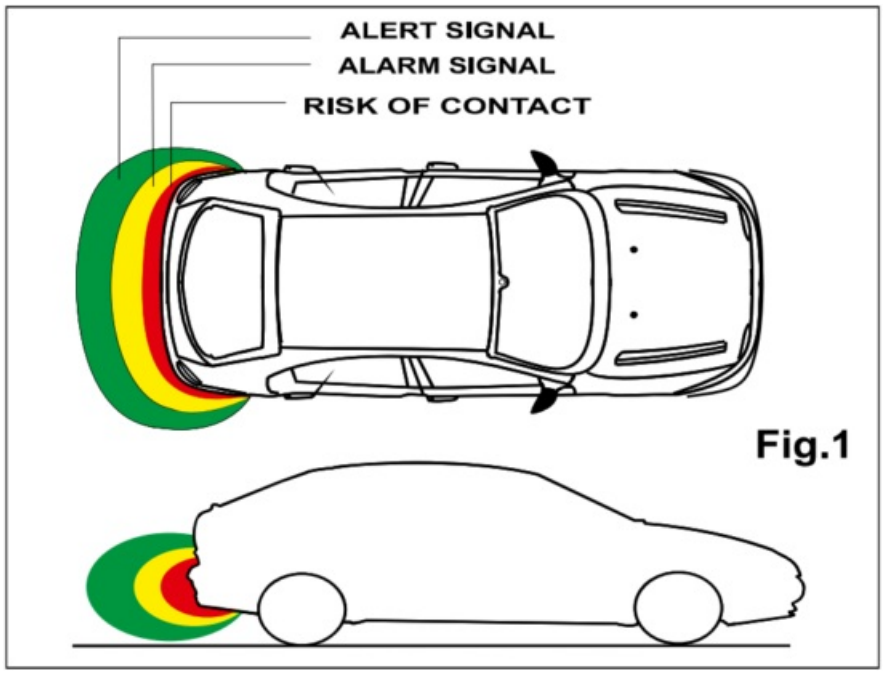
If the Display is connected (via radio) to the control unit, three red luminous points appear immediately on the display. If, when this reverse gear is engaged, no sound is emitted and the green, yellow and red LEDs of the Display do not light up when the obstacle approaches, check the connection of the antenna sensor and the control unit to the Data Cable.

If the three luminous points do not appear when reversing, check all the connections both on the Display and on the control unit.

- **B)** When approaching an obstacle the system activates the acoustic and display signal at a distance between the bumper and obstacle (measured in the central area of the bumper) of about 70 / 80 cm with 3 types of sounds:

1. Lighting of the first two green segments on the display to inform the driver that an obstacle is approaching.
2. Intermittent sound with an increasing repetition frequency simultaneously with the 3 yellow LEDs and the word AL in the center of the Display (ALARM) when the obstacle arrives near the bumper at a distance ranging from 15 to 30 cm.
3. Lighting of the first red led, followed by the second with a continuous sound together with the writing St (STOP) when an obstacle is very close to the bumper (10-15 cm).

   Note:- The detection is depending on the size of the obstacle and while the max corresponds to the central zone in the lateral edges the distances of detection are less (see Fig. 1)

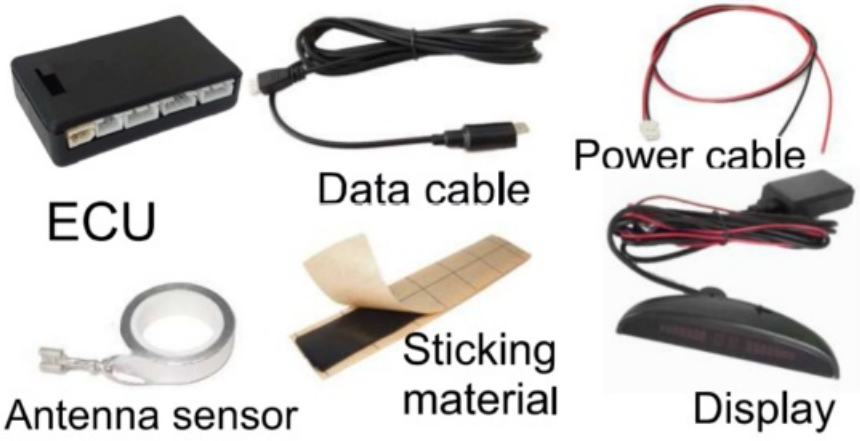


– The a/e/t occurs only when the vehicle is approaching an obstacle, a fixed object in front of the bumper is only detected after the first movement of approach.

WARNING

In presence of rain or high moisture weather, the system reduces his sensibility automatically in order to eliminate a pad of false alarms that could be given by movement of water on the bumper near the antenna.

ELECTRICAL CHARACTRISTICS



PROXEL S.r.l. – Via Val Della Torre 39 – 10149 – TORINO (ITALY)
Tel. +39 011 296022 –
Fax +39 011 2218053
Technical Assistance: eps@proxel.com

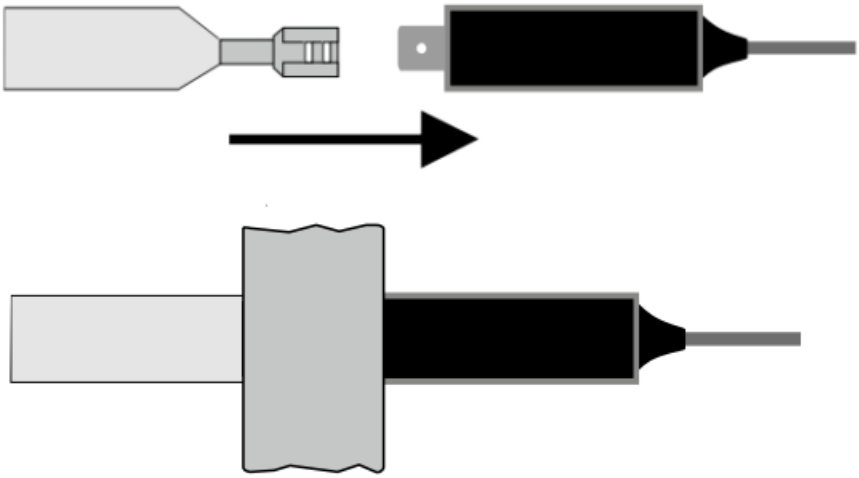
INSTALLATION INSTRUCTION EPS-FRONT 4.0

STARTING PROCEDURE

- **a)** The antenna sensor, constituted by a very strong aluminum adhesive tape, must be applied to the inner surface of the bumper and in the higher part as regards the ground.
- **b)** Locate a passage where, from the driver's place behind the dashboard, it is possible to route the DATA CABLE into the engine compartment up to the extremity of the bumper.
  We suggest to use the interspace that is separing the engine compartment from the lateral outside surface of the car body. The right place where to find it is close the driver door hinge.

MOUNTING THE ANTENNA SENSOR

- **A-** Thoroughly clean with alcohol or nitro solvent the inner surface of the bumper of the zone previously identified on which will be applied the antenna sensor.
- **B-** Place the black fast-on connector of the data cable to the internal surface of the bumper using its double-sided tape, starting from about 10-15 cm from the bumper end and connect the antenna sensor.
- **C-** Coat the connection with a piece of adhesive putty.



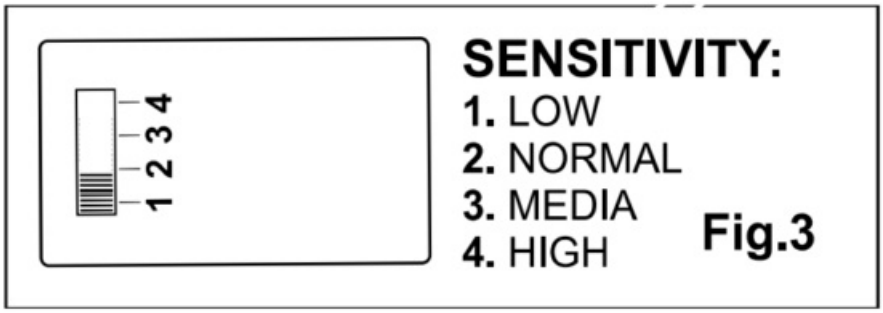
After connecting the antenna sensor, you can start placing the tape on the bumper by applying strong pressure in order to make it adhere well to its internal surface. After application, the excess part of the tape can be cut off.

NOTE: Even if the metal license plate covers the antenna sensor, it does not disturb its obstacle detection capacity in that area.

ELECTRICAL CONNECTIONS

The control unit can be placed under the dashboard and the activation button together with the buzzer in a suitable place on the dashboard. Connect the red wire of the power cable to the 12V positive under key and the black cable to a good earth point.

NOTE: Some vehicles are equipped with a metal crash protection bar insert facing the inside of the bumper. When this metal surface is too close to the inner surface of the bumper where you have placed the antenna sensor, the distance signal can be reduced . To adjust the signaling distance is sufficient to change the slide-switch positions (FIG3).



FINAL TESTING PROCEDURE

Turn on the key, press the push-button. In a fraction of second the control unit performs a check of the functionality of the system and, if everything has been done correctly, the buzzer emits an acoustic sound of “OK” (one note). Once you have this signal the system becomes operational **but automatically deactivates after 2 minutes with a special sound.**

VERY IMPORTANT is not to carry out experimental tests (on bench) before having completely assembled the kit with the antenna applied to the bumper because the system does not work properly without the presence of the metal mass of the vehicle.

Possible problems and their solutions

1. If the acoustic transducer does not emit any signal check all the connections.
2. If the transducer emits an audible warning signal consisting of 2 notes (one high and one low) repeated 3 times) check the connections of DATA cable to the antenna sensor.
3. If the buzzer produces 8 consecutive fast beeps check the DATA cable connection on the central unit.

Starting from about 1 meter from the center of the bumper, bring two hands very slowly together to simulate a parking maneuver. At a distance of about 50/60 cm the first acoustic signals will be heard, the repetition frequency of which will increase as the distance decreases to first become a fast intermittent sound and then continuous at about 10-15 centimeters from the bumper.

NOTES:

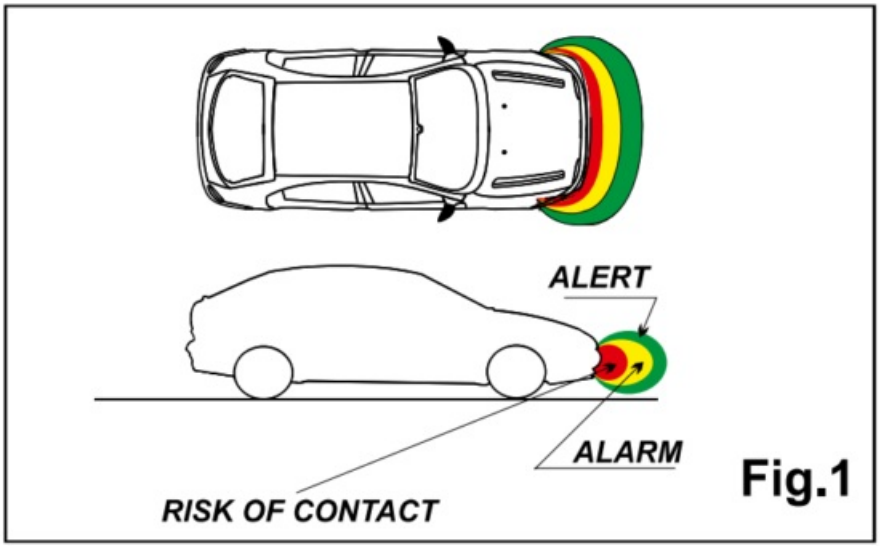
1. EPS-FRONT 4.0 is able to detect obstacles that tend to approach the bumper with an alarm signal all the more

prompt and evident the closer the obstacle is located. By activating the warning only when the vehicle is approaching the obstacle, a fixed object in front of the bumper, for example the “bull bar”, the license plate or the side walls of a garage, are not signaled and the normal operation of the device is not disturbed.

2. The front obstacle detection system must obligatorily be controlled via the button only when necessary, as it cannot always remain active during travel as the advancement of the car would ,Continually produce false signals.

USER MANUAL

The activation of the device is obtained by pressing the activation button and confirmed by a signal of “OK”. Once activated, the EPS-FRONT 4.0 generates around the bumper, on which is installed, a protection zone (Fig. 1). When any obstacle present in the protection zone tends to approach the bumper you will hear a series of beeps. If you want to deactivate the system, simply press the button a second time and a different acoustic signal warns you of deactivation, otherwise it deactivates automatically after 2 minutes.



When approaching an obstacle the system activates the acoustic signal at a distance between the bumper and obstacle (measured in the central area of the bumper) of about 50/70 cm with 3 types of sounds:

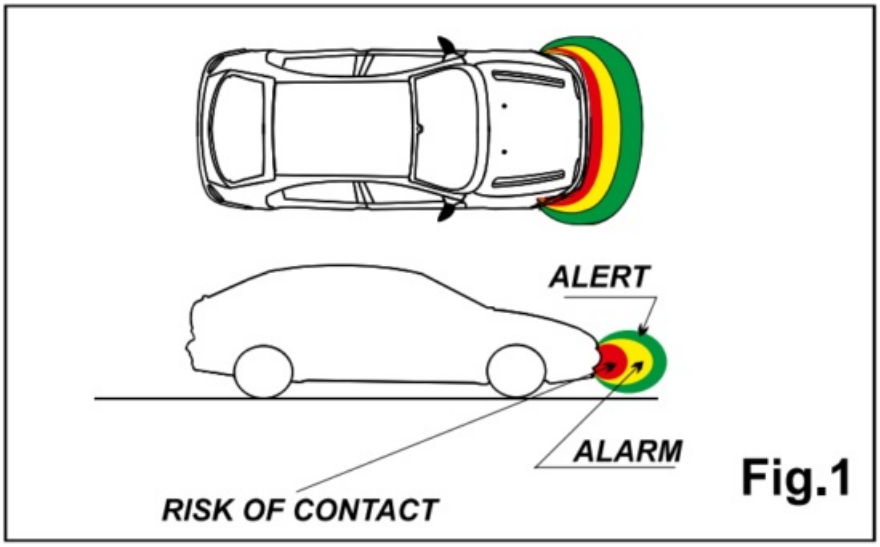
1. an increase in sequence of “BIP” (alert) informs the driver that an obstacle is approaching
2. intermittent sounds of fast repetition rate when the obstacle comes close to the bumper at a distance between 15 and 30 cm measured on the middle of bumper (alarm).
3. continuous sound at a more acute frequency (risk of contact) when an obstacle is very close to the bumper (10-15 cm).

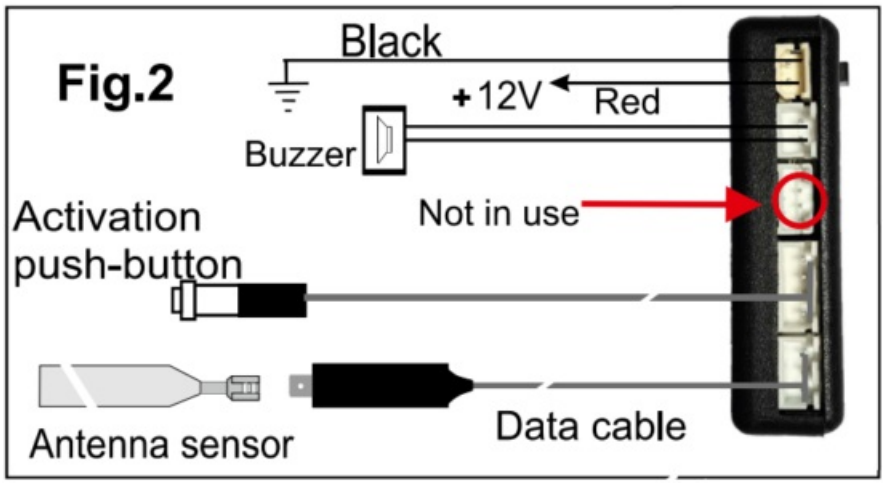
Note:

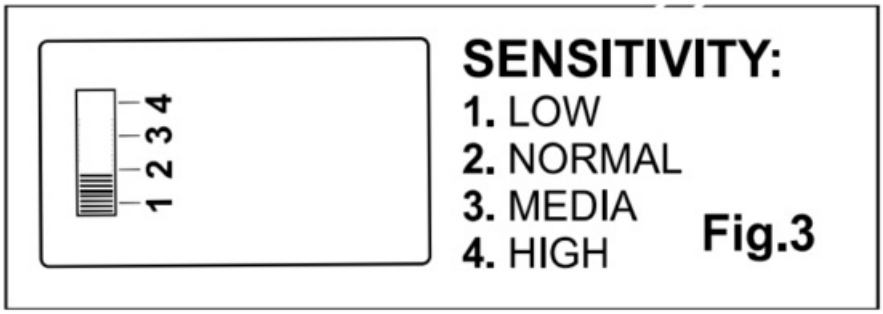
- The distances will vary depending on the size of the obstacle and corresponds to the central zone of the bumper; on the lateral edges the distances is less (Fig. 5)
- The alert occurs only when the vehicle is approaching an obstacle, a fixed object in front of the bumper is only detected after the first movement of approaching.

WARNING

In presence of rain or high moisture weather, the system reduces his sensibility automatically in order to eliminate a part of false alarms that could be given by movement of water on the bumper.
In this situation, the alarm zone could be eliminated and only the risk of contact signal maintained (Fig. 1).



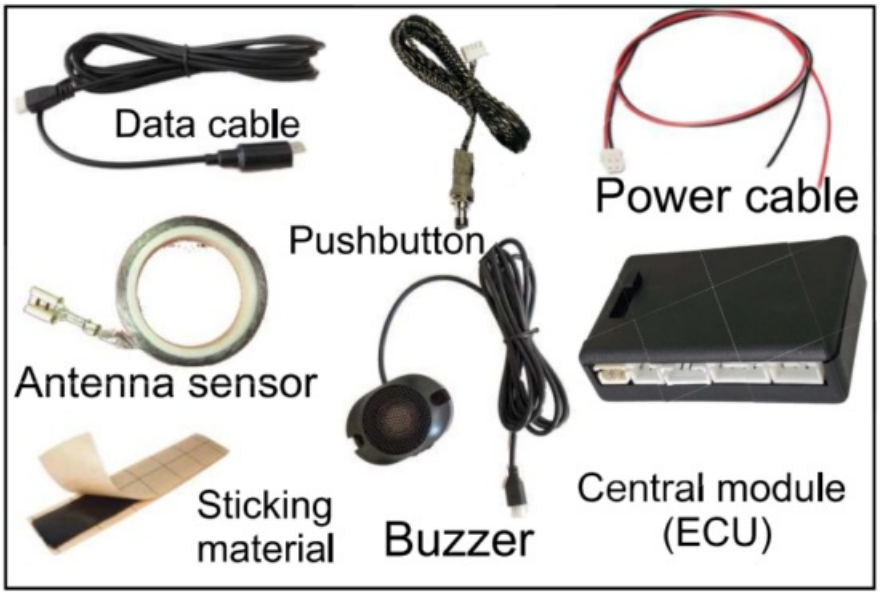




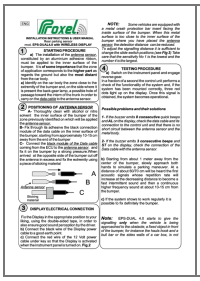
TECHNICAL CHARACTERISTICS

Operating range: from 9,5 to 18V
Max current absorption: 70mA

- Operating temperature from -20 °C to +90°C
- Max. Distance to begin detection 40-50 cm



Documents / Resources

	Proxel EPS-Dual 4.0 with Wireless Display [pdf] User Manual EPS-Dual 4.0 with Wireless Display