

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 : ☐ 814

Car :

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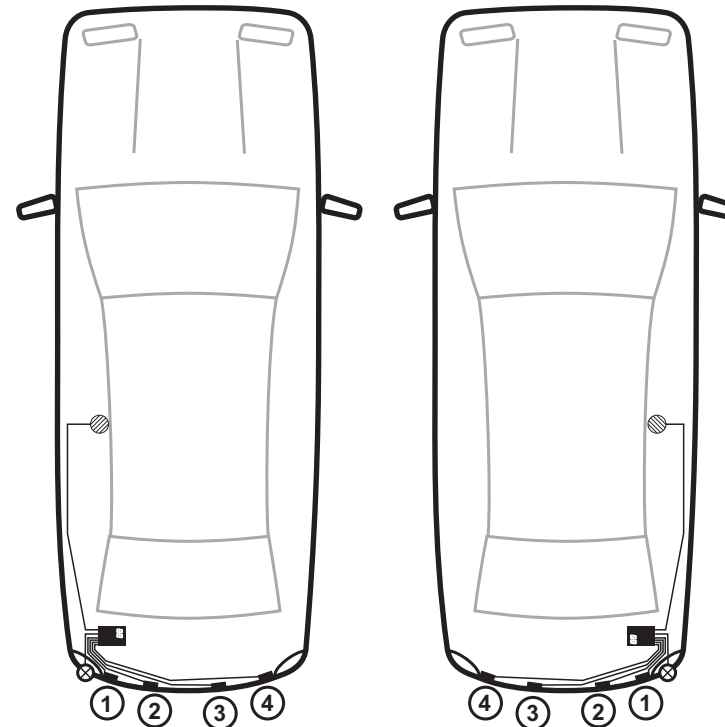
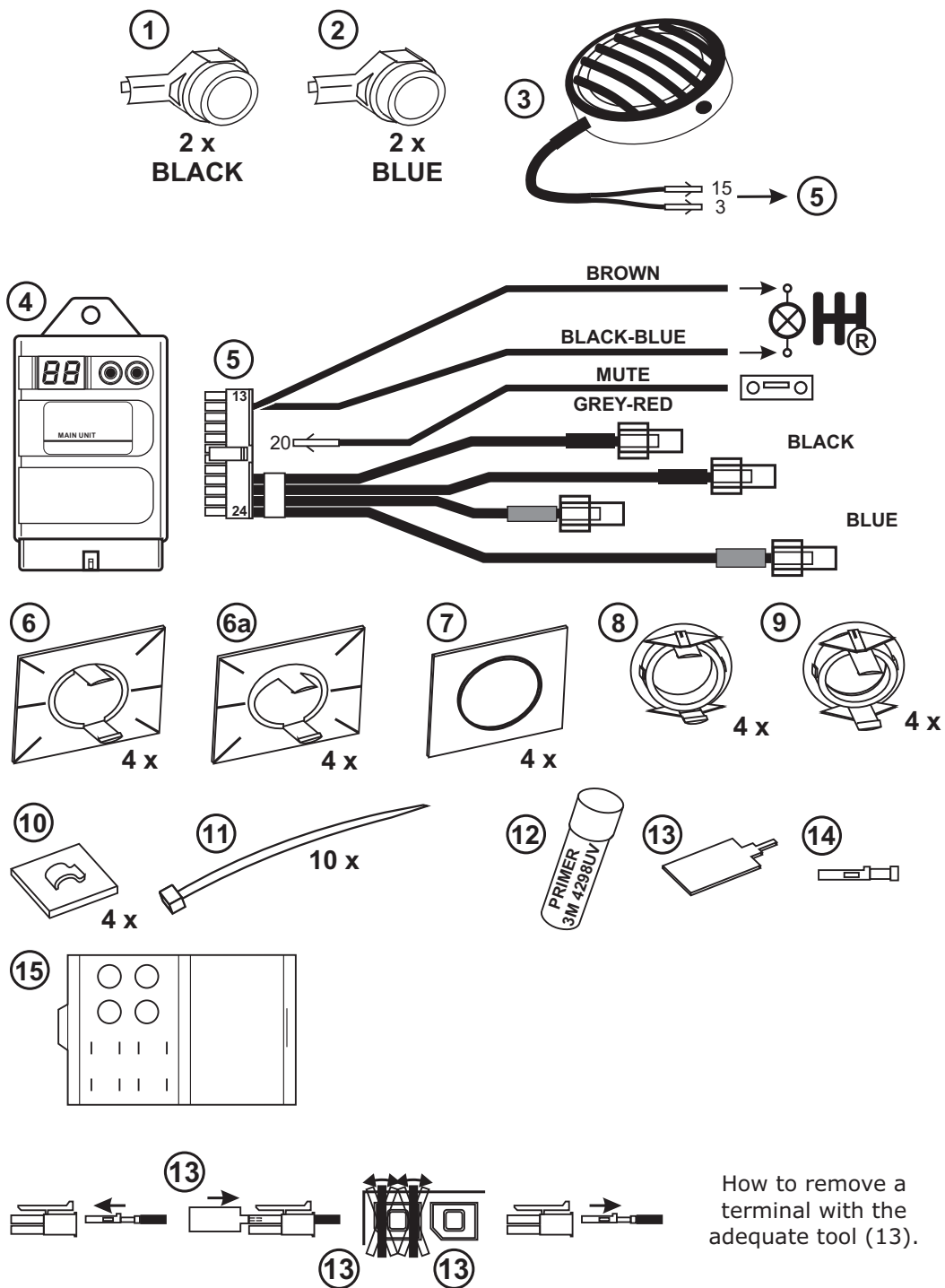


KIT Parking Sensor 814

INSTALLATION AND USE MANUAL



AC 2745/UK Rev. 02 - 10/11



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

TECHNICAL SPECIFICATIONS

Supply voltage	From 9 to 30 Vdc
Current consumption when system running	350mA max.
Service temperature range	From -30°C to +70°C
Ultrasound frequency	40Khz
Software version reference (reported on control unit)	SW04

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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.

USER MANUAL

3.0 - SYSTEM OPERATION

Remember to always look behind the vehicle while parking.
Small obstacles or objects with low reflectance might not be detected.

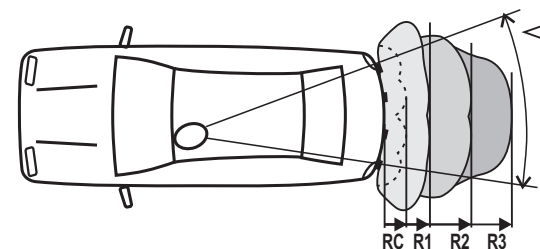
The parking system is designed only as a parking aid, it should not be considered to replace care and attentiveness while manoeuvring.

3.1 - DETECTION ZONES

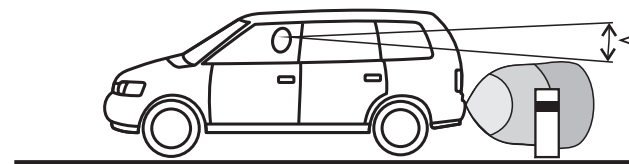
Detection zones are indicated as "R" (rear).
Detection zones closest to the obstacle are indicated as "RC".
The STOP zone is the minimum distance detected between an obstacle and the sensor.
In this case the warning tone is solid.

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 parking system, check the programming of the sensors.



ZONE	DISTANCE
RC	35 cm
R1	55 cm
R2	115 cm
R3	160 cm



3.2 - REAR SENSORS

The rear sensors are activated when reverse gear is engaged; an audible signal will indicate the sensors are active.

Detection of obstacles is signalled by the buzzer.

The tone of the buzzer indicates in which detection zone the obstacle is located.

The faster the beeping, the closer the obstacle..



By means of a specific connection, the system functioning can be inhibited in case of towing.

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 almost immediately give out a deep warning tone for 5".

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 control unit is turned on or the reverse gear is engaged, one of the sensors turns out to be inoperative or not connected, an audio signal will sound for 3".

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

E1

Sensor 1 inoperative.

E4

Sensor 4 inoperative



One single faulty sensor alters the correct functioning of the whole parking 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



If necessary, adjust the sensors sensitivity level (see chap. 8.0, Setting of parameter - parameter 17).

INSTALLER MANUAL

5.0 - INSTALLATION OF SENSORS

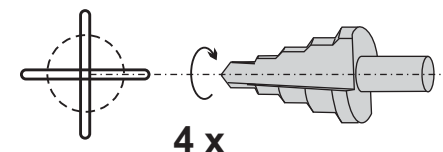


To install the sensors on a metal bumper, you must use appropriate adapters (not supplied).

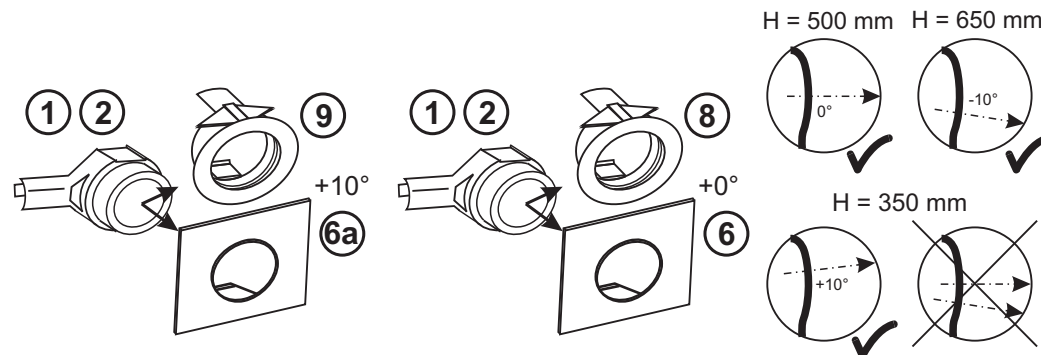
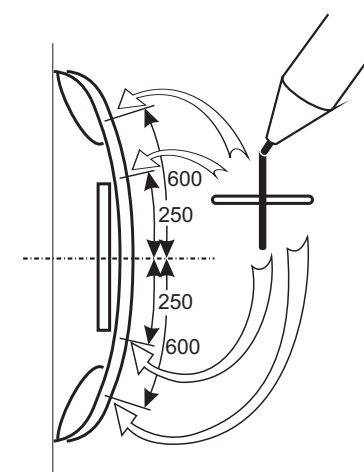
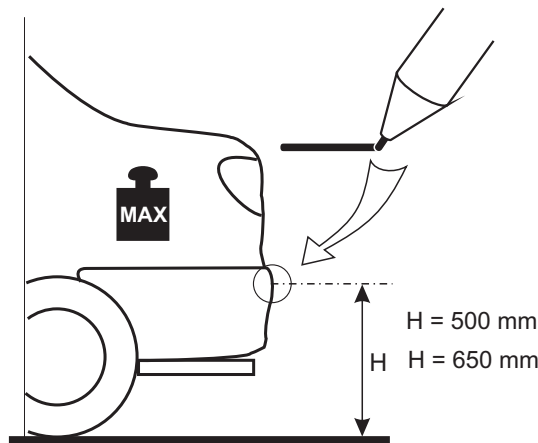
Choose the suitable type of plastic bracket and mark the center of the holes to drill. For brackets "6" drill holes with a 18mm diameter, for brackets "6a" drill holes with a 22mm diameter and for brackets "8" and "9" drill holes with a 24mm diameter.

Sensors and plastic brackets can be painted to match the color of your bumpers.

$\textcircled{1} \textcircled{2} + \textcircled{6} \rightarrow \varnothing 18$
 $\textcircled{1} \textcircled{2} + \textcircled{6a} \rightarrow \varnothing 22$
 $\textcircled{1} \textcircled{2} + \textcircled{8} \textcircled{9} \rightarrow \varnothing 24$

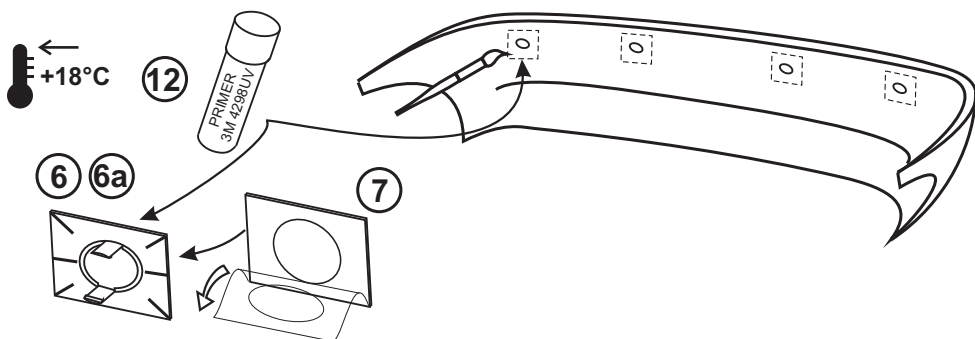


Before drilling, inspect behind the bumper to check for any possible obstruction such as iron struts and, in any case, be careful to avoid damaging parts behind the bumper.



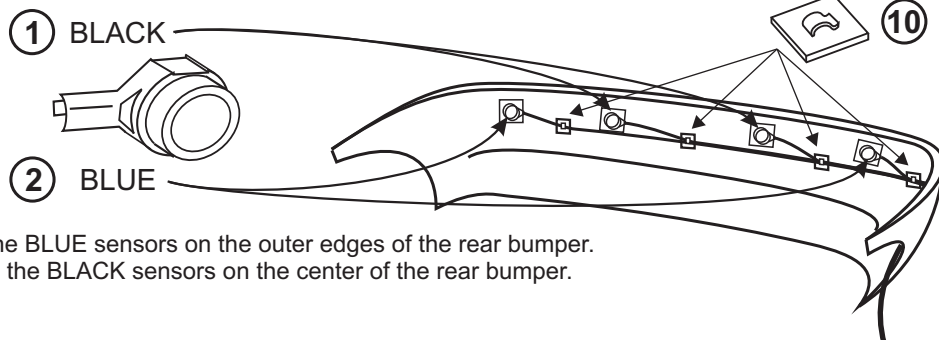
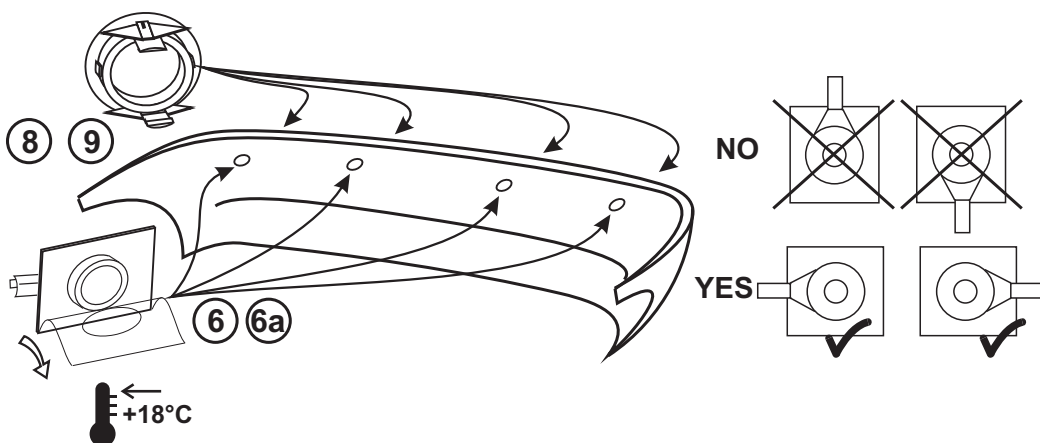


Clean thoroughly the plastic brackets (6 or 6a) and around the holes, apply "PRIMER" (12), let dry for at least one minute and then proceed as follows.



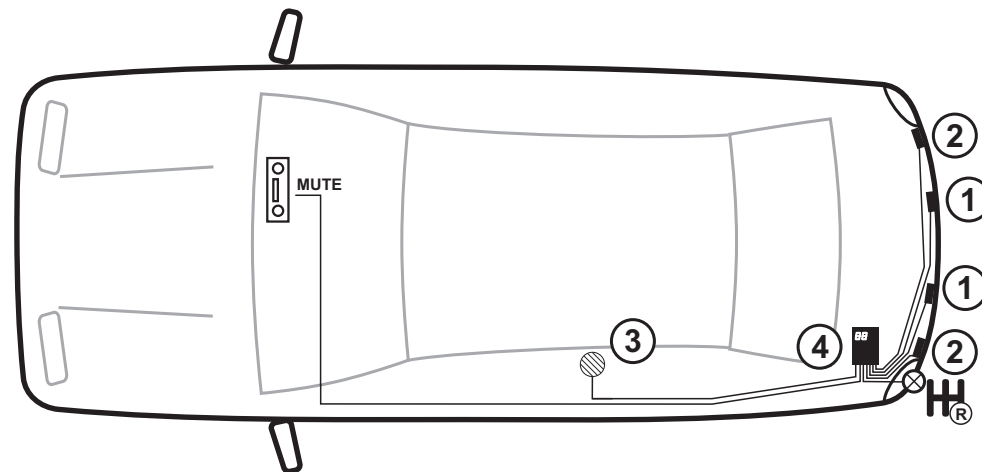
Remove the protective film from the adhesive (7) and apply it to the bracket (6 or 6a) or snap the bracket (8 or 9) in the hole from the outer part of the bumper.

In both cases position the plastic brackets 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 buzzer (3) inside the vehicle cabin where you can hear the warning signal. Make sure you install it in a dry spot, away from eventual water infiltrations and heat sources.
- 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 buzzer (3) terminals with the YELLOW and BLUE wires to the main control unit connector (5), respectively in positions 15 and 3.
- (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 rear sensors wiring into the corresponding connector of the control unit (4).



To inhibit the system, ground pin 19 inside the wiring connector (5).

This connection is useful in case of towing.

Automatic inhibition is also possible if the vehicle and the trailer are electrically connected and an eventual free position is used to ground pin 19 of the connector (5).

7.0 - PROGRAMMING



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

The display will indicate:



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



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

To activate the programming procedure proceed as follows:

Press one of the two push-buttons on the control unit and keep it pressed for at least two seconds; the system will activate and enter in the programming mode.



Press the left push-button to go to the previous parameter.

Press the right push-button to go to the next parameter.



When the parameter you want to modify is displayed, press one of the push-buttons and keep it pressed until the display starts to blink; at this point you can modify the parameter.



Press the left push-button to decrease the value of the parameter. Press the right push-button to increase the value of the parameter.



Press one of the two push-buttons on the control unit and keep it pressed for at least two seconds to register the value.

The display will stop blinking and the selected parameter will be displayed.



If no button is pressed within 10 seconds, the system will exit the programming mode.



Press the two push-buttons on the control unit and keep them pressed for more than two seconds to reset all the factory settings (FS).

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 to 180 cm (Ref.2)	160
05	Detection range of rear corner sensors	From 50 to 95 cm	55
08	STOP zone of rear central sensors	From 35 to 70 cm	35
09	STOP zone of rear corner sensors	From 35 to 70 cm	35
10	Suppression of spare wheel indication	0, 1, 2, 3 (Ref.3)	0
13	Delay of rear sensors activation	0, 1 (Ref.4)	0
15	Service display (testing)	0, 2 (Ref.5)	0
17	Sensitivity to detect obstacles	1, 2, 3 (Ref.6)	2

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

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

Ref.3: 0 = no activated.

1 = minimum detection range from bumper, 10cm.

2 = minimum detection range from bumper, 20cm.

3 = minimum detection range from bumper, 30cm.

Ref.4: if your vehicle has an automatic transmission, select "1".

Ref.5: 0 = not activated, 2 = distance from the closest rear obstacle.

Ref.6: 1 low, 2 standard, 3 high.

9.0 - TESTING

- Press one of the two push-buttons on the control unit (4) to enter in the programming mode.
- Select parameter "15" (see "Setting of parameters").
- Press and keep pressed one of the two push-buttons and select the test (2 for testing the sensors).
- Press and keep pressed one of the two push-buttons; the display will show "--".
- Proceed with the test of rear sensors; the system will indicate the value detected in real time.
- Reprogram setting of parameter to "0".
- Press one of the two push-buttons and keep it pressed until the previously selected parameter is displayed (15).
- The system will automatically exit the programming mode 10 seconds after the push-button has been pressed.

10.0 - WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) DIRECTIVE

The present device does not fall within the scope of Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) as specified in art. 2.1 of L.D. no. 151 of 25/07/2005.