INSTALLATION CERTIFICATE

The undersigned qualified installer attests having personally fitted the here described vehicle security system following the manufacturer instructions.

By :

Sold on : .....

Type of product :

☐ **933**

☐ **932**

Vehicle : .....

GEMINI Technologies S.r.l.
Via Luigi Galvani 12 - 21020 Bodio Lomnago (VA) - Italy
Tel. +39 0332 943211
www.gemini-alarm.com
ISO 9001 Certified Company

GEMINI® ALARM SYSTEMS

SERIE 933

933
932

INSTALLATION AND USE MANUAL

UK

CE

Made in Italy **AC2784/UK Rev.07 - 04/22**

UK

TABLE OF CONTENTS

1.0 - INTRODUCTORY NOTE

Dear Customer, this manual illustrates the most fully featured alarm system; not all functions, electrical connections etc. will therefore apply to all models. Before installing, identify your alarm model and refer to it for the correct instructions.

932: same as 933 without self-powered battery.

The following signs are used throughout the manual to emphasize important instructions or special information:

For the user.
This sign highlights useful information.

For the installer.
This sign indicates that the system will work according to the connections and the programming selected or it simply provides useful installation tips.

USER MANUAL

2.0 - SYSTEM OPERATION

2.1 - SYSTEM TOTAL ARMING

Press the lock button on the vehicle original remote control. System arming is confirmed by a Beep (selectable feature) and a flash of the turn indicators.
The system has a 30 sec. arming delay during which the LED is ON steady.

2.2 - SYSTEM PARTIAL ARMING

The system can be armed without activating the volumetric protection and the comfort feature. To exlude these features proceed as follows:

- Make sure the system is disarmed and ignition turned OFF.
- Touch the override key to its receptacle; the LED will give out a quick flash.
- Close all vehicle doors and press the lock button on the original remote control.
- System arming is confirmed by a Beep (selectable feature) and a flash of the turn indicators.

Exclusion of sensors and comfort feature is bound to each single arming cycle.

2.3 - PASSIVE ARMING

When passive arming is enabled, the system automatically arms approx. 60 sec. after ignition is switched OFF and the last door is opened and closed. Arming is confirmed by a Beep (selectable feature) and a flash of the turn indicators.

When the system arms passively, interior protection and comfort output (automatic window roll-up) are excluded.
Opening a door during the 60 sec. arming countdown will cause the procedure to interrupt, it will resume once the door is closed.

2.4 - ARMING DELAY

There is a 30 sec. activation delay from the time the system is armed to allow you to exit the vehicle without setting off an alarm. The arming delay is signaled by the LED ON steady.

2.5 - SYSTEM ARMED

After the arming delay, the system is fully armed and ready to detect any alarm condition. The LED will start flashing to confirm the armed status.

2.6 - ALARM, INHIBIT TIME BETWEEN ALARMS AND ALARM CYCLES

Alarm events are signaled by optical/acoustic signals. There is a 5 sec. inhibit time between each alarm cycle.
Each alarm event can generate up to ten 30-sec. cycles for each input and for each arming cycle.

2.7 - SYSTEM DISARMING

Press the unlock button on the vehicle original remote control. Disarming is confirmed by 2 Beeps (selectable feature) and 2 flashes of the turn indicators.
An alarm event detected while the system is armed will be signaled upon disarming by 5 Beeps (selectable feature) and 5 flashes of the turn indicators.

2.8 - EMERGENCY DISARMING BY OVERRIDE KEY

In case of emergency (remote control lost or inoperative), the system can be disarmed by touching the override key to its receptable. This procedure disarms and switches off the system which will not rearm via remote control.

To restore normal operation, touch the override key to its receptacle.
A Beep and a flash of the status LED will confirm that the system is back to the normal operating mode.

2.9 - ALARM MEMORY

The LED memory allows to identify the last alarm event signaled by 5 flashes of the turn indicators and 5 Beeps (selectable feature) when the system is disarmed. Turn ignition key ON, the status LED will flash according to the last alarm detected prior to disarming (see table below).
The flash sequence is repeated 3 times; to interrupt, turn ignition key OFF.

LED FLASHES	ALARM CAUSES	ALARM CYCLES
✷✷●✷✷	Ignition attempt (+15/54)	10
✷✷✷●✷✷✷	Door tamper	10
✷✷✷✷●✷✷✷✷	Bonnet tamper	10
✷✷✷✷✷●✷✷✷✷✷	Boot tamper	10
✷✷✷✷✷✷●✷✷✷✷✷✷	Volumetric or external sensor	10
✷✷✷✷✷✷✷✷✷✷●✷✷✷✷✷✷✷✷✷✷	Wire tampering	10
● LED OFF (2 seconds) ✷ LED ON (1 second)		

3.0 - WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT

The present device falls within the field of application of the current WEEE Directive. The crossed-out wheeled bin symbol on the equipment or on its packaging indicates that the product, at the end of its useful life, must be discarded separately from other waste to allow adequate treatment and recycling.
The user must therefore take the equipment, at the end of its useful life, to an appropriate waste collection facility.

4.0 - CONNECTOR PINOUTS

20-PIN CONNECTOR

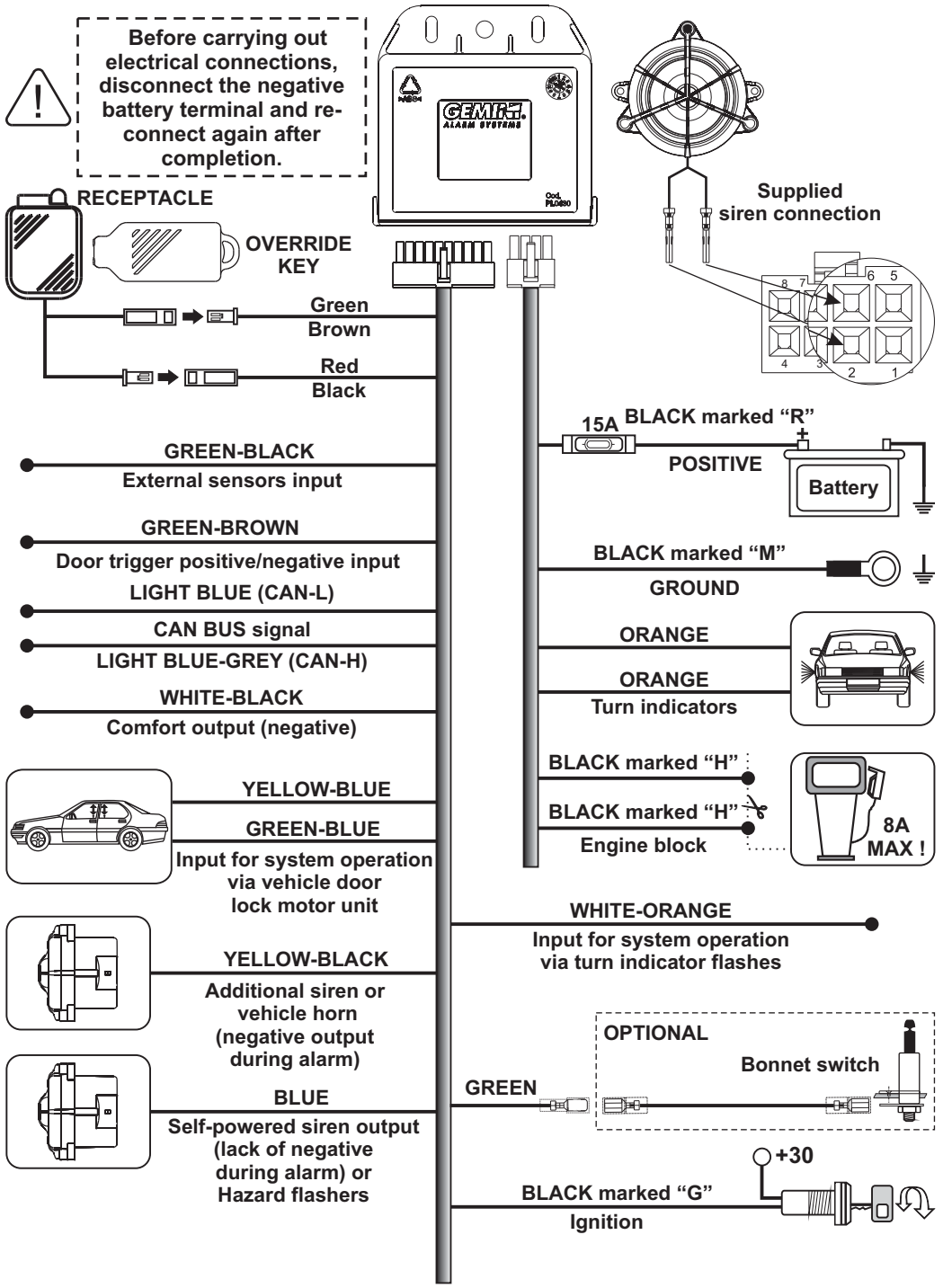
POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	-----	-----
- 2 -	Arm activation signal	YELLOW-BLUE
- 3 -	Disarm activation signal	GREEN-BLUE
- 4 -	-----	-----
- 5 -	Positive/negative input - door switches	GREEN-BROWN
- 6 -	Override key receptacle input	GREEN
- 7 -	Override key receptacle ground	BROWN
- 8 -	LED negative output	BLACK
- 9 -	LED positive output	RED
- 10 -	Ignition	BLACK marked “G”
- 11 -	CAN BUS signal (CAN-H)	LIGHT BLUE-GREY
- 12 -	CAN BUS signal (CAN-L)	LIGHT BLUE
- 13 -	-----	-----
- 14 -	External sensors negative input	GREEN-BLACK
- 15 -	Bonnet switch negative input	GREEN
- 16 -	Self-powered siren (lack of negative during alarm) or Hazard flashers	BLUE
- 17 -	Comfort negative output	WHITE-BLACK
- 18 -	Additional siren or vehicle horn output (negative output during alarm)	YELLOW-BLACK
- 19 -	-----	-----
- 20 -	Learn input and system arm/disarm via turn indicator flashes	WHITE-ORANGE

WHITE-ORANGE wire must ALWAYS be connected if system arms/disarms via the turn indicator flashes.

8-PIN CONNECTOR

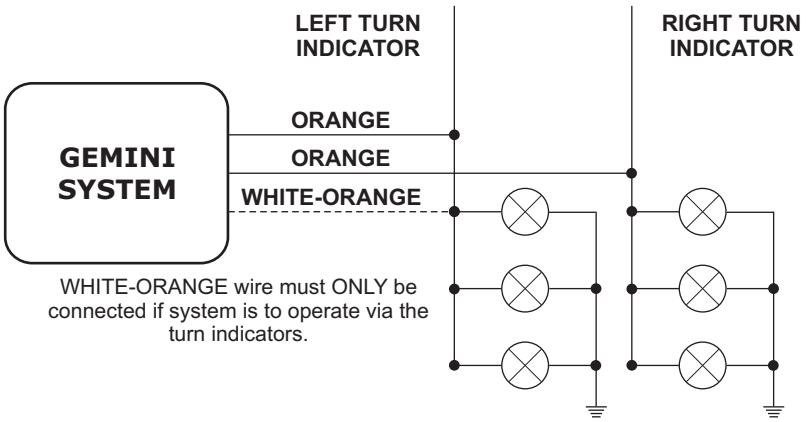
POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	Ground	BLACK marked “M”
- 2 -	Siren output	-----
- 3 -	Positive	BLACK marked “R”
- 4 -	Turn indicators positive output	ORANGE
- 5 -	Engine block	BLACK marked “H”
- 6 -	Siren output	-----
- 7 -	Engine block	BLACK marked “H”
- 8 -	Turn indicators positive output	ORANGE

5.0 - WIRING DIAGRAM

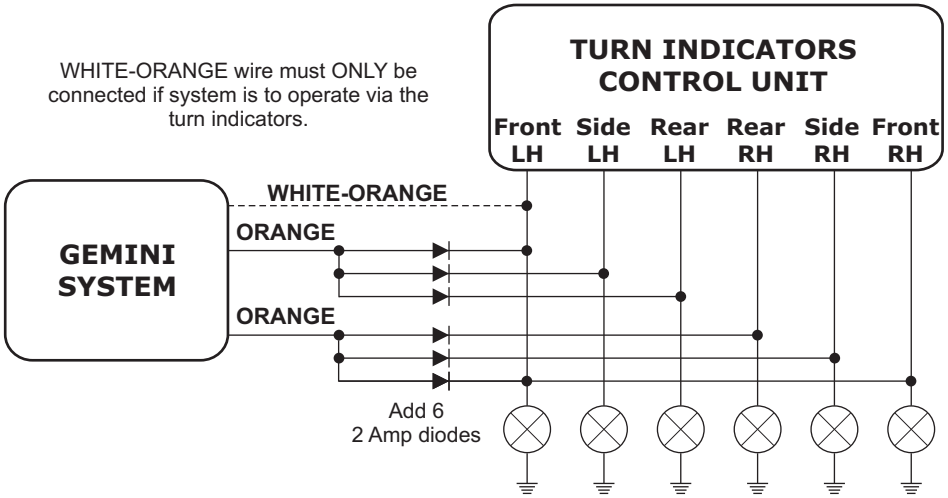


6.0 - CONNECTIONS FOR TURN INDICATORS ACTIVATION

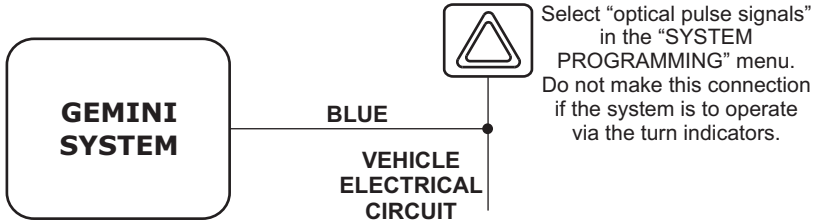
6.1 - STANDARD CONNECTIONS



6.2 - CONNECTIONS FOR VEHICLES WITH SEPARATE LINES



6.3 - CONNECTION TO HAZARD SWITCH



7.0 - CONNECTIONS TO ARM/DISARM THE SYSTEM

The alarm system can operate in various modes according to the vehicle on which it is installed and the available connections (see installation specifications in the restricted area of our website: www.gemini-alarm.com).

Check out the various possibilities listed below and proceed with the applicable connection.

- Arming via CAN BUS line.
- Arming via door lock motors.
- Arming via turn indicator flashes.
- Arming via turn indicator flashes and door lock motors.
- Arming via turn indicator flashes, door lock motors and CAN BUS line.

7.1 - CONNECTIONS AND MANAGEMENT VIA CAN BUS LINE

System arming/disarming and alarms are managed via CAN therefore only connect the alarm system CAN wires to the vehicle CAN line (see available specifications in the restricted area of our website).

7.2 - CONNECTIONS TO DOOR LOCK MOTORS

Arm/disarm connections must be made to the vehicle door lock motor unit (polarity inversion).

7.3 - CONNECTIONS TO TURN INDICATORS

If the turn indicators lock/unlock flashes are identical, connect the door lock motors.

If the turn indicators flash when unlocking with the car mechanical key, do not make this connection.

To arm/disarm the system via the turn indicator flashes, connect the WHITE-ORANGE wire to one of the turn indicator wires.

7.4 - COMBINATION CONNECTION

This type of connection allows the system to operate via the CAN BUS line with the turn indicators or the door lock motors or both.
The system automatically manages the different lock/unlock signals according to the programming and the connections made.

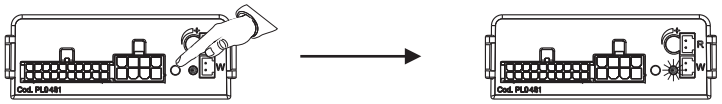
8.0 - VEHICLE CODE PROGRAMMING

If the system is to be managed via CAN-BUS it must be configured according to the vehicle on which it is to be installed. To help you understand the coding procedure, the following example shows how to configure a vehicle with code 1-0-3 (which hypothetically corresponds to a "FIAT XXXXX").

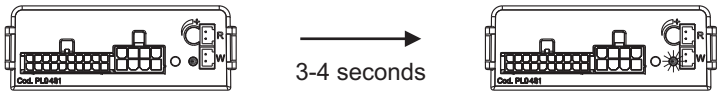
The list of available vehicles and corresponding codes, updated at packaging time, is included in the alarm packaging.
Up-to-date information is available in the restricted area of our website.

The system has an indicator LED that signals any wrong vehicle code inserted.
The code must range between 100 and 235 otherwise the LED on the unit blinks repeatedly and the procedure is interrupted.
The previously entered code will remain stored.
The procedure is also invalidated if the LED blinks more than 10 times.
In this case there is no optical warning, the procedure is simply interrupted.
In either case, the entire procedure must be repeated.

Plug the harness connectors into the alarm unit corresponding sockets.
Press and hold the button shown below until the LED lights up.

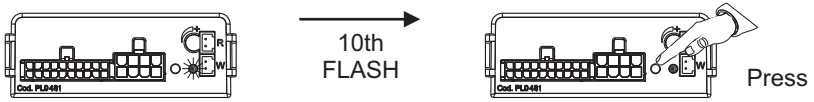


Release the button, the LED will switch off.



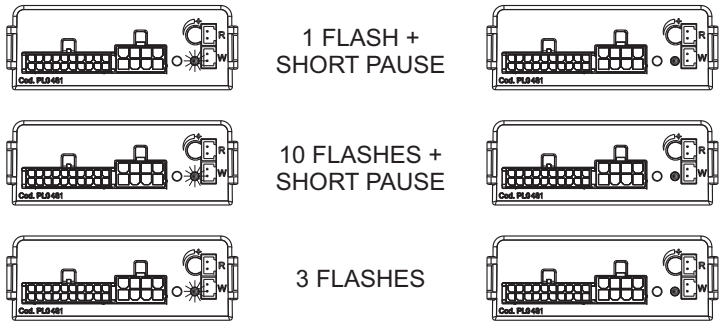
After 3 to 4 seconds the LED will start flashing; count the flashes.
Press the button at the 1st flash which corresponds to the code 1st digit "1".

After a short pause, the LED will start flashing again.
Press the button at the 10th flash which corresponds to the code 2nd digit "0".



After another 4 seconds, the LED will flash for the third and last time.
Press the button at the 3rd flash which corresponds to the code 3rd digit "3".

When the last digit is entered, the alarm system "repeats" the entered code.



Press the vehicle remote control lock/unlock buttons to make sure the alarm system works properly. If needed, disconnect the 8-pin connector and reconnect it after a few seconds

9.0 - HOW TO LEARN TURN INDICATOR LOCK/UNLOCK FLASHES

In order to arm/disarm via the turn indicators, the system must learn the vehicle lock (arm) and unlock (disarm) flashes.
Connect the WHITE-ORANGE wire to the turn indicators and proceed as follows:

- Disconnect the 8-pin harness connector from the alarm unit.
- Turn ignition key ON.
- Plug the 8-pin wiring connector into the alarm unit 8-pin socket; the LED turns on steady.
- Turn ignition key OFF.
- Close all doors and press the lock button on the original remote control.
- When the turn indicators stop flashing, a Beep will confirm the arming flashes have been learned.
- Press the unlock button on the original remote control.
- When the turn indicators stop flashing, 2 Beeps will confirm the disarming flashes have been learned.

To delete the turn indicator confirmation codes reset the system (par. 15.0).

10.0 - SYSTEM PROGRAMMING

The table below applies to the factory settings. Accessing the programming procedure willl reset the features to their initial settings. The procedure must be carried out entirely by scrolling from one feature to the other using either the ignition key or the override key.
A lack of power during electrical system maintenance, will not affect the settings.

	FUNCTION	DEFAULT SETTING	LED FLASHES
1	**"Exclusion"** of arm/disarm optical signals	Disabled*	✷
2	**"Exclusion"** of arm/disarm acoustic signals	Enabled	✷✷
3	System passive arming	Disabled	✷✷✷
4	*For Gemini only*	*Key OFF/ON*	✷✷✷✷
5	Door input - positive	Disabled	✷✷✷✷✷
6	Optical pulse signals (Hazard flashers)	Enabled	✷✷✷✷✷✷
7	Negative output during alarm cycle (Horn)	Disabled	✷✷✷✷✷✷✷
8	*For Gemini only*	*Key OFF/ON*	✷✷✷✷✷✷✷✷

***ATTENTION:** On products Rev.13 and over (see barcode label), "**exclusion**" of arm/disarm optical signals is factory enabled which means that the optical signals are disabled.

10.1 - OPTICAL SIGNALS

Optical signals (turn indicators) to confirm arming/disarming.

> If the vehicle already has optical lock/unlock signals, the turn indicators alarm flashes should be disabled.

10.2 - ACOUSTIC SIGNALS

Acoustic signals (siren chirps) to confirm arming/disarming.(Default setting: acoustic signals OFF).

10.3 - PASSIVE ARMING

If passive arming is enabled the system automatically arms 60 sec. after ignition is switched off and the last door is opened and closed. Opening a door during the 60-sec. passive countdown will cause the procedure to interrupt; it will resume once the door is closed.

10.4 - DOOR SWITCH POLARITY SELECTION

This feature modifies the alarm input signal (positive or negative) according to the signal generated by the door switch.

10.5 - HAZARD FLASHERS / SELF-POWERED SIREN

Selectable output to either enable the optical signals (according to the connection made and only for vehicles where hook-up is to the Hazard switch) or to manage a self-powered siren.

> Optical signals activated by connection to the Hazard switch ONLY turn ON during an alarm condition.
> The alarm BLUE wire must be connected to the Hazard switch. In this case, do not connect the ORANGE wires (see chapter 6.3)

If the feature is disabled, the BLUE wire carries a negative signal under normal operating conditions and, during an alarm cycle, there is a lack of negative.

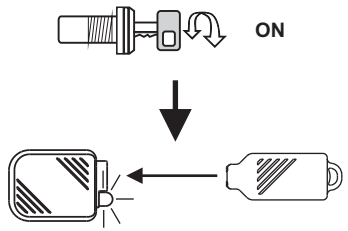
10.7 - NEGATIVE OUTPUT SELECTION (DURING ALARM) FOR HORN OR ADDITIONAL SIREN

Programmable output used to sound the siren (steady) or the horn (pulsed). (Default setting: siren)
If the vehicle's horn is preferred, this feature changes the output from steady to pulsed, allowing the use of the horn for the alarm's audible responses.

11.0 - SYSTEM PROGRAMMING EXAMPLE

Here below is an example that illustrates the steps to follow to modify the programmable features.
NB: Cycling ignition key OFF/ON disables the features while using the override touch key enables them. A Beep or a Bop will confirm the operation and the LED will flash as indicated (par. 10.0).

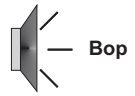
With the alarm system disarmed, turn ignition key ON and touch the override key to its receptacle.



A Beep, a Bop and 2 flashes of the turn indicators will confirm that the system is in programming mode.

DISABLE

To disable the feature cycle ignition key OFF and then back ON.
A Bop will confirm the operation.
The LED will flash according to selected feature (from 1 to 8).



OR

ENABLE

To enable the feature touch the override key once to its receptacle.
A Beep will confirm the operation.
The LED will flash according to the selected feature (from 1 to 8).

In both cases, system moves on to the next feature.
Repeat the above steps to enable or disable other features.
When the last feature is configured, in addition to the confirmation tone, 2 Bops, 1 Beep and 2 flashes of the turn indicators will confirm the end of the programming procedure.

12.0 - PAIRING NEW DEVICES

To carry out the operation successfully, make sure the required electrical connections (bonnet switch and ignition) are properly connected.

Storing memory is for 55 devices. Adding an extra device will automatically delete the first device stored in the alarm memory.

To enter in programming mode proceed as follows:

- With the system disarmed, open the bonnet and leave it open.

The following operations must be carried out within 15 seconds otherwise the procedure is invalidated.

- Cycle ignition key 4 times within 15 sec. ("**ON-OFF**"-"**ON-OFF**"-"**ON-OFF**"-"**ON**") ending the cycle with the key in the "**ON**" position.
- A Beep, a Bop and a flash of the turn indicators will confirm the system is in learn mode. The LED will also power ON steady.

Do not close the bonnet otherwise all previously programmed devices are deleted as described in the next paragraph.

The system is ready to receive the device codes:

- Touch the override key to its receptacle;
- A Beep will sound and the status LED will turn OFF briefly to confirm the device has been learned.
- Repeat the above procedure to program other devices.
- Turn ignition key OFF.
- A Bop and a flash of the turn indicators will confirm the end of the procedure. The status LED will also power OFF.

13.0 - DELETE PAIRED DEVICES

To carry out the operation successfully, make sure the required electrical connections (bonnet switch and ignition) are properly connected.

To clear the alarm memory proceed as follows:

- With the system disarmed, open the bonnet and leave it open.

The following operations must be carried out within 15 seconds otherwise the procedure is invalidated.

- Cycle ignition key 4 times within 15 sec. ("**ON-OFF**"-"**ON-OFF**"-"**ON-OFF**"-"**ON**") ending the cycle with the key in the "**ON**" position.
- A Beep, a Bop and a flash of the turn indicators will confirm the system is in delete mode. The LED will also power ON steady.
- Close the bonnet and keep it closed for at least 8 sec. to fully clear the memory.

If the bonnet is opened before 8 seconds, devices will not be deleted.

- The status LED turns OFF to confirm the memory has been cleared.
- Turn ignition key OFF.
- A long Bop will confirm the end of the procedure.

14.0 - ULTRASONIC VOLUMETRIC PROTECTION

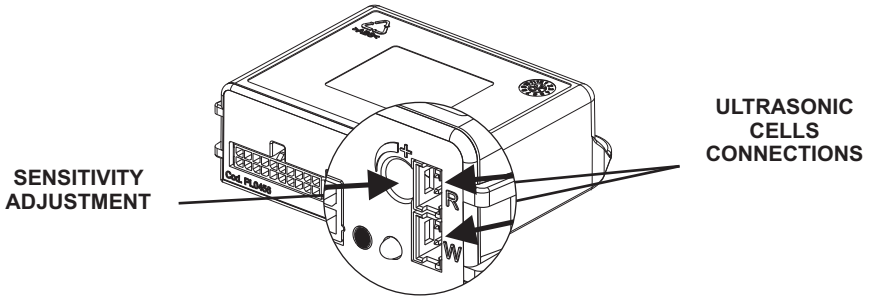
14.1 - CONNECTION AND POSITIONING

Insert the WHITE connector in the “W” marked socket and the RED connector in the “R” marked socket (see figure below).
Install the ultrasonic sensors on the top part of the windshield internal pillars, away from the air vents and point them towards the center of the rear window.

14.2 - SENSITIVITY ADJUSTMENT

To check the sensors sensitivity level proceed as follows:

- With the alarm system disarmed, roll down the front window about 20 cm.
- Set the trimmer to an intermediate position (medium sensitivity).
- Close all doors, bonnet and boot and arm the system.
- During the arming delay introduce an object in the cabin through the window and move it around; the status LED will turn off to signal a presence.
- If the sensitivity level is too high or too low, readjust the trimmer and repeat the above procedure.



15.0 - SYSTEM RESET

A system reset will return the device to the factory default settings.
This procedure must therefore only be used in case of need.

To reset the system proceed as follows:

- Disconnect the alarm power supply.
- Short-circuit the RED and BLACK wires of the 2-pin LED connector.
- Power the system; 4 Beeps and 4 flashes of the turn indicators will confirm the operation.
- Remove the previously created short-circuit; the status LED will light up steady.
- Turn ignition key ON; reset is confirmed by a Beep and the wailing of the siren for approx. 3 sec.
- Turn ignition key OFF.
- The LED will power OFF to confirm the end of the procedure.

16.0 - TECHNICAL SPECIFICATIONS

Power supply	**12 Vdc**
Current absorption @ 12Vdc with system armed and LED flashing	**15 mA**
Working range temperature	**-30°C to +70°C**
Turn indicators relay contact capacity	**8A @ 20°C**
Engine immobiliser relay contact capacity	**8A @ 20°C**
Alarm cycle duration	**30 sec.**
Maximum load of siren output	**1A**