

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 :

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ISO 9001 Certified Company



SERIE 933

933

932

INSTALLATION AND USE MANUAL



Made in Italy

AC 2784 Rev. 06 - 05/16

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1.0 - PRELIMINARY ADVICE

Dear Customer, the present 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.

GEMINI 932: same as 933 without self-powered battery.

The following signs, intended for the installer or the user, indicate particular functions or connections as follows:

**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 - OPERATING DESCRIPTION****2.1 - COMPLETE SYSTEM ARMING**

Press the lock button on the vehicle original remote control; system arming is confirmed by a siren chirp (if feature has been configured) and a flash of the turn indicators.

The system has a 30" arming delay (indicated by the LED turned ON steady).

2.2 - SYSTEM ARMING WITH SENSOR AND COMFORT CONTROL EXCLUSION

To arm the system without activating the internal volumetric protection and comfort function proceed as follows:

- Make sure the system is disarmed and ignition turned "OFF".
- Show the electronic 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 the standard optical/acoustic signals.



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

2.3 - PASSIVE ARMING

If this function is configured, the system passively arms approx. 60" after ignition switch off and after the last door is closed.

System activation is confirmed by the standard optical/acoustic signals.



If passive arming is activated, functioning of internal sensors and comfort output (automatic window roll-up) are excluded.
Opening a door 60" before the system is armed causes the procedure to interrupt; it is resumed once the door is closed.

2.4 - ARMING DELAY

Before the system is fully armed, there is a 30" arming delay, signalled by the LED turned ON steady, to exit the vehicle without triggering an alarm.

2.5 - SYSTEM ARMED

After the arming delay, the system is fully armed and ready to detect any alarm condition. When the system is fully armed, the LED starts flashing.

2.6 - ALARM, NEUTRAL TIME BETWEEN ALARMS AND ALARM CYCLES

An alarm condition is indicated by optical/acoustic signals.

After the alarm is triggered, but before another alarm cycle starts, the system goes into “neutral time” for about 5”.

An alarm event generates a maximum of ten 30” alarm 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 siren chirps (if feature has been configured) and 2 flashes of the turn indicators.

An alarm condition is signalled by 5 acoustic signals (if feature has been configured) and 5 flashes of the turn indicators.

Paragraph 2.9 below lists the various alarm causes and relative LED signals.

2.8 - EMERGENCY DISARMING BY ELECTRONIC KEY

This disarming mode is used for “EMERGENCY DISARMING” and “TOTAL DISARMING”.

Touching the electronic key to its receptacle disarms and switches off the system which does not rearm when the remote control is used.



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

2.9 - ALARM MEMORY

Five flashes of the turn indicators and 5 siren chirps (if feature has been configured), triggered when disarming the system, indicate that an alarm event has occurred while the system was armed. The LED memory allows to determine the cause that generated the last alarm.

Turn ignition key “ON”; the vehicle status LED will blink according to the last alarm detected.

The flash sequence is repeated 3 times; to interrupt, turn ignition key “OFF”.

The table below lists the various alarm causes and relative LED signals.

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

3.0 - WARRANTY CONDITIONS

This product is guaranteed to be free from manufacturing defects for a period of 24 months from the installation date shown on this warranty, in compliance with the Directive 1999/44/CE.

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 guarantee is valid exclusively at authorized Gemini Technologies S.p.A. Service Centers.

The manufacturer declines any responsibility for eventual malfunctions of the device or any damage to the vehicle electrical system due to improper installation, use or tampering.

This alarm system is solely intended to be a theft-deterrent device.

4.0 - 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.

5.0 - PINOUT TABLES

5.1 - 20-PIN CONNECTOR

POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	-----	-----
- 2 -	System arming confirmation signal	YELLOW-BLUE
- 3 -	System disarming confirmation signal	GREEN-BLUE
- 4 -	-----	-----
- 5 -	Positive/negative input - door switches	GREEN-BROWN
- 6 -	Electronic key receptacle Input	GREEN
- 7 -	Electronic 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 -	Positive output - system armed (+A)	PINK
- 14 -	External sensors negative input	GREEN-BLACK
- 15 -	Bonnet switch negative input	GREEN
- 16 -	Self-powered siren (lack of negative during alarm) or optical pulse signals (Hazard)	BLUE
- 17 -	Comfort negative output	WHITE-BLACK
- 18 -	Additional siren or vehicle horn output (negative output during alarm)	YELLOW-BLACK
- 19 -	-----	-----
- 20 -	Input for self-learning and system arming/disarming by turn indicators	WHITE-ORANGE

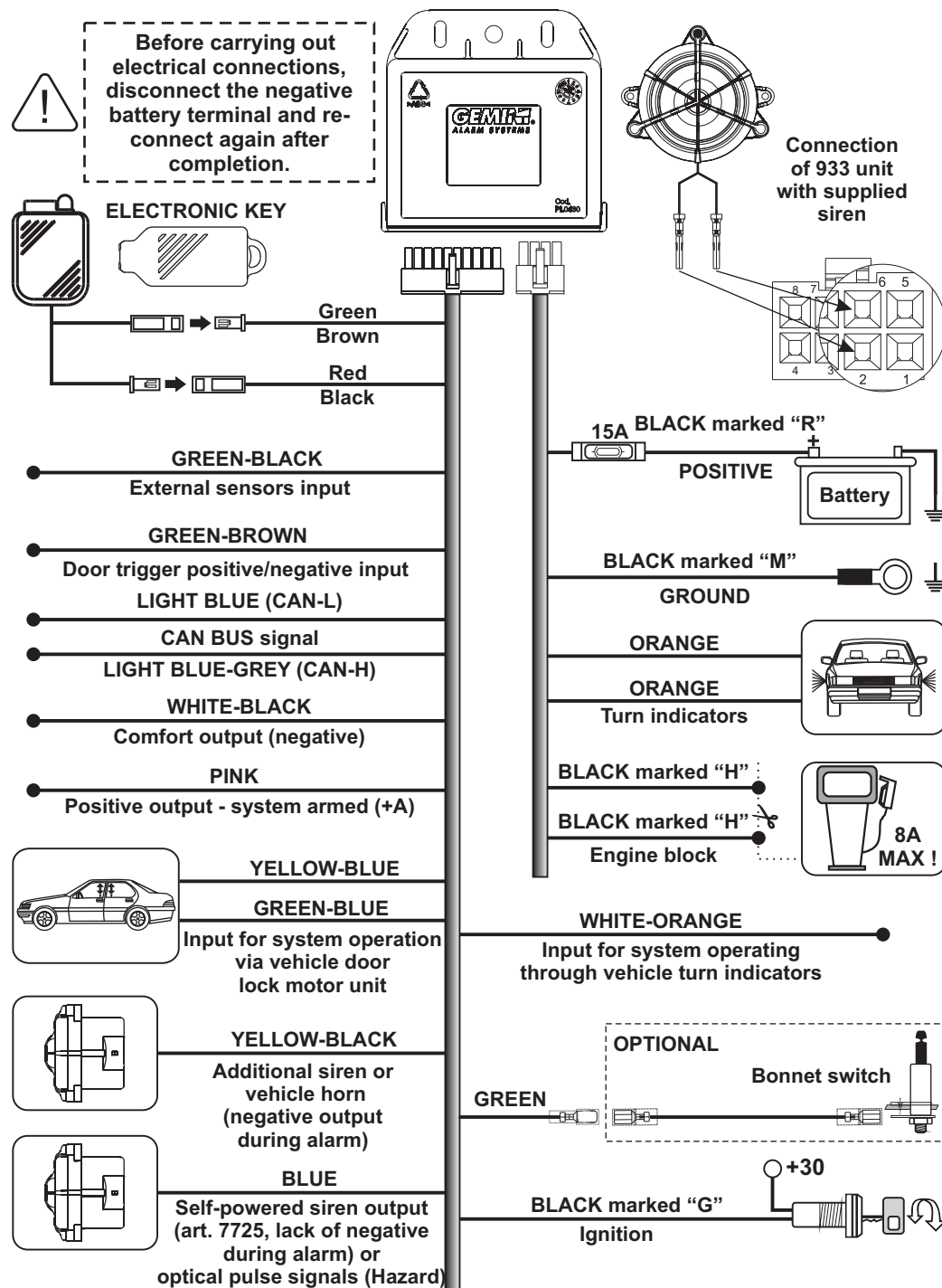


WHITE-ORANGE wire must ALWAYS be connected if system is arms/disarms via the turn indicators.

5.2 - 8-PIN CONNECTOR

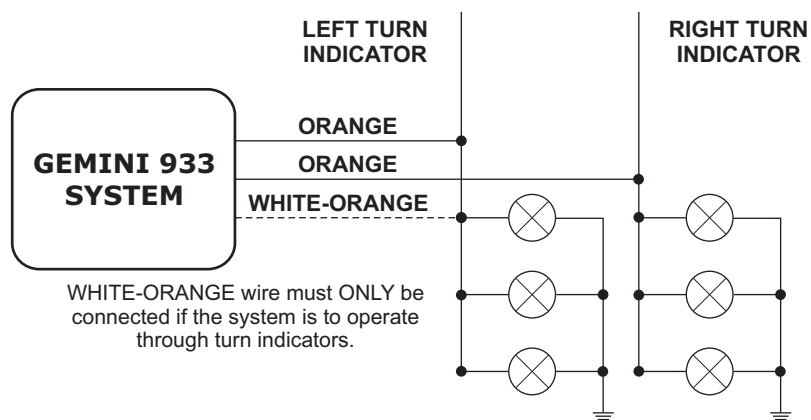
POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	Ground	BLACK marked "M"
- 2 -	Siren output	-----
- 3 -	Positive	BLACK marked "R"
- 4 -	Turn indicators positive output	ORANGE
- 5 -	Engine block	BLACK marked "H"
- 6 -	Siren output	-----
- 7 -	Engine block	BLACK marked "H"
- 8 -	Turn indicators positive output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

6.0 - WIRING DIAGRAM

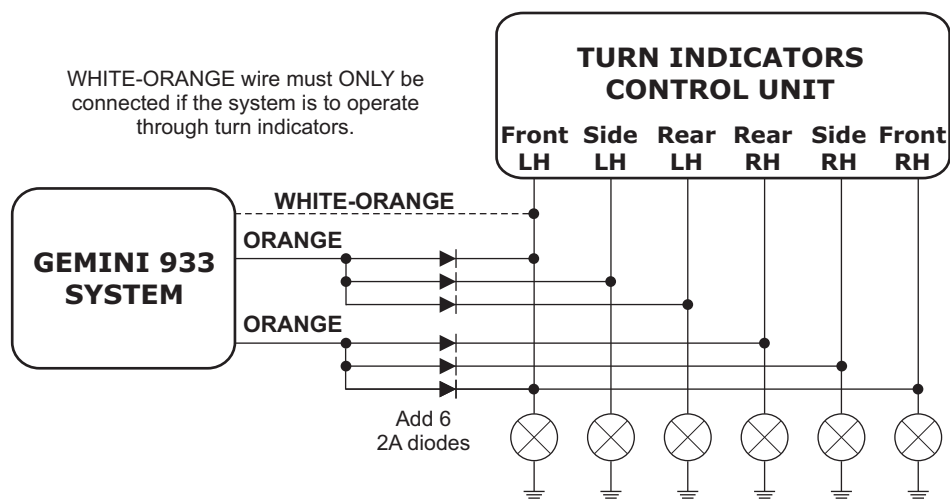


7.0 - CONNECTION FOR TURN SIGNALS ACTIVATION

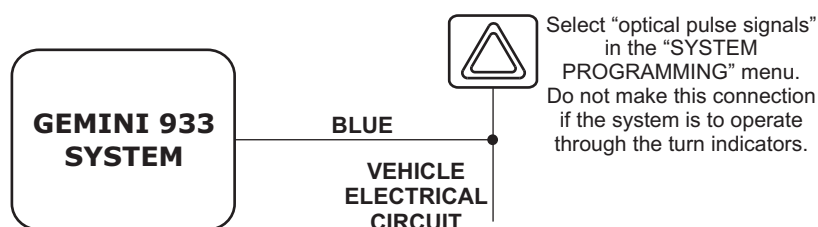
7.1 - STANDARD CONNECTIONS



7.2 - CONNECTIONS FOR VEHICLES WITH SEPARATE LINES



7.3 - CONNECTION TO HAZARD LIGHT SWITCH



8.0 - CONNECTIONS TO ARM/DISARM THE SYSTEM

The 933 system can operate in various modes according to the vehicle on which it is installed and the available connections (refer to the vehicle installation specifications).

The alarm system can be managed via the vehicle CAN BUS line and operate in combination with the CAN signals, with the turn indicators flashes and/or the door lock motor unit. The system automatically manages the different arming/disarming signals.

The various arming modes are listed below and the connections indicated in the following paragraphs.

- Arming via CAN BUS line.
- Arming via door lock motor unit.
- Arming via turn indicators flashes.
- Arming via turn indicators flashes and locking motors.
- Arming via turn indicators flashes, locking motors and CAN BUS line.

8.1 - 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 diagrams on our website reserved area: www.gemini-alarm.com).

8.2 - CONNECTIONS TO DOOR LOCK MOTOR UNIT

System arming/disarming connections must be made to the vehicle door lock motor unit (polarity inversion).

8.3 - 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 armi/disarm the system, connect the WHITE-ORANGE wire to a wire of the turn indicators.

8.4 - COMBINATION CONNECTION

This type of connection allows the system to operate through the CAN BUS line with the turn indicators or the door lock motor unit or both.

The system automatically manages the different lock/unlock signals according to the programming and the connections made.

9.0 - VEHICLE CODE PROGRAMMING

If the system is to be managed via CAN-BUS line, 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").

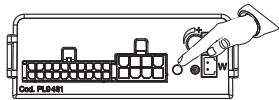


A separate leaflet, included in the alarm packaging, lists the available vehicles (codes are updated at packaging time).
Up-to-date information on supported vehicle models can be found in the private area of our website: www.gemini-alarm.com.

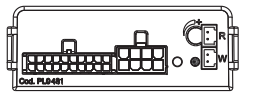


The system has an indicator LED that signals any wrong vehicle code inserted. The code must range between 100 and 235 otherwise the LED on the unit blinks repeatedly and the procedure is interrupted. The previously inserted code remains stored. The procedure is also invalidated if the LED blinks more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

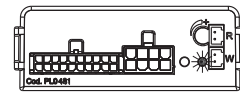
Connect the wiring harness connectors to the corresponding alarm connectors.
Press and hold the button shown below until the LED lights up.



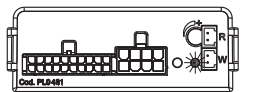
Release the button, the LED switches off.



3-4 seconds



After a 3/4 seconds pause, the LED starts flashing.
Press the button at the 1st flash which corresponds to number "1".

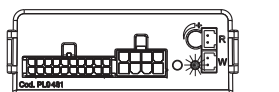


1ST
FLASH

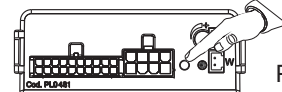


Press

After 4 seconds, the LED starts flashing again.
Press the button at the 10th flash which corresponds to number "0".

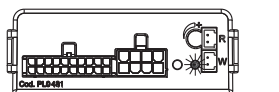


10TH
FLASH

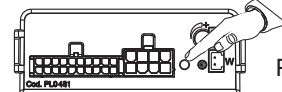


Press

After another 4 seconds, the LED flashes the third sequence.
Press the button at the 3rd flash which corresponds to number "3".

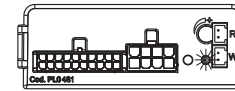


3RD
FLASH

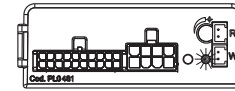
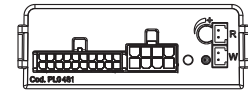


Press

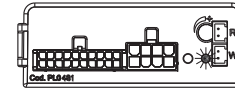
When the last digit is entered, the alarm system "repeats" the entered code.



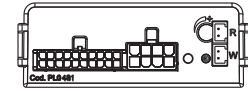
1 FLASH AND A
SHORT PAUSE



10 FLASHES AND A
SHORT PAUSE



3 FLASHES



Press the vehicle remote control lock/unlock buttons to make sure the alarm system works properly.

Eventually disconnect the 8-pin connector and reconnect it after few seconds

10.0 - LEARNING OF TURN INDICATORS FLASHES

In order to arm/disarm through 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 8-pin system connector.
- Turn ignition key "ON".
- Connect the 8-pin wiring connector to the 8-pin system connector; 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 high-pitch acoustic signal confirms the arming flashes have been learned.
- Press the unlock button on the original remote control.
- When the turn indicators stop flashing, 2 high-pitch acoustic signals confirm the disarming flashes have been learned.



To cancel the programming of the turn indicators reset the system (see chapter 16.0).

11.0 - SYSTEM PROGRAMMING

The table below applies to the system programmed in "standard configuration".
Every time you enter the programming procedure, the alarm resets to the default settings.

FUNCTION	STATUS	LED FLASHES
Exclusion of arming/disarming optical signals	Disabled*	*
Exclusion of arming/disarming acoustic signals	Enabled	**
System passive arming	Disabled	***
Enabling coded output for self-powered siren	Disabled	****
Door input - positive	Disabled	*****
Optical pulse signaling (Hazard)	Enabled	*****
Negative output during alarm cycle	Disabled	*****
For Gemini use only: Turn ignition key	-----	*****

***ATTENTION:** Starting from Rev.13 (indicated on barcode label), the function 'exclusion' of arming/disarming optical signals will be factory enabled which means that the optical signals will be disabled.

A lack of power during electrical system maintenance, will not affect the programming.
The procedure must be carried out entirely. Every turn of the ignition key disables the selected function and moves up to the next one until the programming procedure is completed.
The programmable functions are briefly described below while the programming instructions are illustrated in the next paragraph.

11.1 - OPTICAL SIGNALS

This function activates optical signals to confirm system arming and disarming.



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

11.2 - ACOUSTIC SIGNALS

This function activates acoustic signals to confirm system arming and disarming.

11.3 - PASSIVE ARMING

This function arms the system 60" after ignition is switched off and the last door is opened and closed.
If a door is opened during this lapse of time, the procedure is interrupted and will resume when the door is closed.

11.4 - ENABLING OF SIREN (7725) OUTPUT

This function enables the relative output (20-pin connector, position 13, PINK wire) to activate the self-powered coded siren (art. 7725).

11.5 - DOOR SWITCH POLARITY SELECTION

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

11.6 - OPTICAL PULSE SIGNAL (HAZARD) / SELF-POWERED SIREN

This function activates the optical signals according to the connection made; only for vehicles where hook-up is to the Hazard switch.



If the optical pulse signaling (Hazard) feature is enabled, the blinkers will ONLY flash during an alarm cycle.
The system BLUE wire MUST be connected to the Hazard switch.
In this case, do not connect the ORANGE wires (see chapter 7.3)

If the function is disabled, the BLUE wire, under normal operating conditions, will carry a negative signal while, during an alarm cycle, there will be a lack of negative.

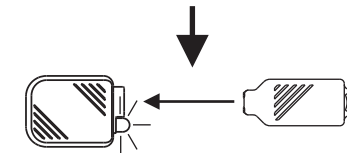
11.7 - NEGATIVE OUTPUT SELECTION (DURING ALARM) FOR HORN OR ADDITIONAL SIREN

If configured, this function activates the output for the siren (continuous tone) or for the horn (intermittent tone).

12.0 - SYSTEM PROGRAMMING EXAMPLE

Here below is an example that illustrates the steps to follow to modify the programmable features.
As mentioned before, every key rotation disables a function, while the electronic key enables it.
When ignition is turned On or Off or the electronic key is touched to its receptacle, a high or low pitch signal sounds and the LED flashes according to table 11.0.

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



Two acoustic signals (a high and a low-pitch sound) and two flashes of the turn indicators confirm that the system is in programming mode.

To disable the function: Turn ignition "OFF" and then back "ON"



A low-pitch acoustic signal confirms the operation.

The LED will flash according to selected function (from 1 to 8).



OR

To enable the function: Touch the electronic key once to its receptacle .



A high-pitch acoustic signal will confirm the operation.

The LED will flash according to the selected function (from 1 to 8).



In both cases, system moves on to the next function.

Repeat steps above to enable or disable other functions.

When the last function is configured (either with the electronic key or the ignition key), in addition to the confirmation tone, the system gives 2 low-pitch and 1 high-pitch acoustic signals and the turn indicators flash twice.

These last 2 signals indicate the end of the programming procedure.

13.0 - ADDING NEW DEVICES



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



Storing memory is for 55 devices.

If an extra device is added, it automatically deletes the first device stored in the system memory.

To activate the procedure proceed as follows:

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



The following operations must be carried out within 4 seconds otherwise the procedure is invalidated.

- Turn ignition key “ON-OFF”-“ON-OFF”-“ON-OFF”-“ON”.
- At the 4th rotation, leave it “ON”.
- To confirm it has entered in the self-learning mode, the system gives 2 acoustic signals (1 high and 1 low-pitched), the turn indicators flash once and the LED turns ON.



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 electronic key to the receptacle; each time a device is learned a high-pitched signal sounds and the status LED turns OFF briefly.
- Repeat this procedure to program other devices.
- Turn ignition key “OFF”.
- To confirm the end of the procedure, a low-pitched signal sounds, the turn indicators flash once and the status LED turns OFF.

14.0 - DELETING PROGRAMMED DEVICES



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

All previously programmed devices can be deleted.

To clear memory proceed as follows.

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



The following operations must be carried out within 4 seconds otherwise the procedure is invalidated.

- Turn ignition key “ON-OFF”-“ON-OFF-ON”-“OFF-ON”.
- After the 4th rotation, leave it “ON”.
- To confirm it has entered in the delete mode, the system gives 2 acoustic signals (1 high and 1 low-pitched), the turn indicators flash once and the LED turns ON.
- Close the bonnet.
- To clear the memory, leave the bonnet closed for at least 8 seconds.



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

- The status LED turns OFF when the devices are deleted.
 - Turn ignition key “OFF”.
- One long low-pitched acoustic signal will confirm the end of the procedure.

15.0 - ULTRASONIC VOLUMETRIC PROTECTION

15.1 - CONNECTION AND POSITIONING

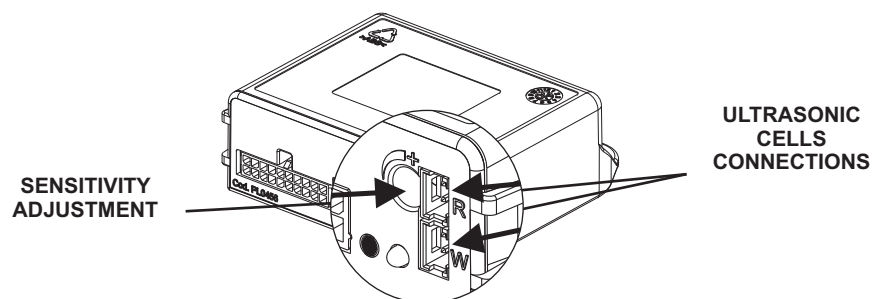
Insert the WHITE connector in the "W" marked socket and the RED connector in the "R" marked socket (see figure below).

Install the ultrasonic sensors on the top part of the windscreen internal pillars, away from the air vents and point them towards the center of the rear window.

15.2 - SENSOR ADJUSTMENT

To check the sensitivity level proceed as follows:

- With the alarm system disarmed, roll down the front window about 20 cm.
- Adjust the trimmer at a medium setting.
- 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.



16.0 - SYSTEM RESET



By activating the following procedure, the system returns to the factory default settings.

This procedure must therefore only be used in case of need, before programming the system or learning the turn indicators flashes.

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 acoustic signals and 4 flashes of the turn indicators will confirm the alarm is powered.
- Remove the previously created short-circuit; the status LED will light up steady.
- Turn ignition key "ON"; reset is confirmed by an acoustic signal and the wailing of the siren for approx. 3 seconds.
- Turn ignition key "OFF"; the LED will turn off. There are no acoustic signals.

17.0 - 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	8 A at 20°C
Engine immobiliser relay contact capacity	8 A at 20°C
Alarm cycle duration	30 sec.
Maximum positive current output when armed (+A)	700 mA
Maximum load of siren output	1 A