GEMINI
ALARM SYSTEMS

932 SERIES

INSTALLATION AND USE MANUAL

UK

CE

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 enabled) 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 FEATURE EXCLUSION

When the system is armed, the internal volumetric protection and comfort feature can be excluded as follows:
- Disarm the system and turn ignition key "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 only bound to each single arming cycle.

2.3 - PASSIVE ARMING

When this function is programmed, the system passively arms approx. 60" after ignition switch OFF and after the last door is opened and closed.
System activation is confirmed by the standard optical/acoustic signals.

> If passive arming is enabled, the internal sensors and the 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

The arming delay lasts approximately 30" and is signalled by the LED turned ON steady; it is possible to exit the vehicle without triggering any 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 will start flashing.

2.6 - ALARM, NEUTRAL TIME BETWEEN ALARMS AND ALARM CYCLES

An alarm condition is signalled by optical/acoustic signals.
After the alarm is triggered, but before another alarm cycle starts, there is a "neutral time" of approx. 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 enabled) and 2 flashes of the turn indicators.
An alarm condition is signalled by 5 acoustic signals (if feature has been enabled) and 5 flashes of the turn indicators.
The various alarm causes and relative LED signals are detailed in paragraph (2.9).

2.8 - EMERGENCY DISARMING BY ELECTRONIC KEY

This disarming mode is used for "EMERGENCY DISARMING" and "TOTAL DISARMING".
Touching the electronic key to its receptable 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

If, when disarming, the turn indicators flash 5 times and the siren chirps 5 times (if feature has been enabled), it means that an alarm conditon has occured while away from your vehicle.
The cause that triggered the last alarm can be identified by the LED memory.
Turn ignition key "ON" ; the vehicle status LED will blink according to the last alarm detected.
Optical signals are 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.

INSTALLER MANUAL

5.0 - PIN-OUT TABLES

5.1 - 20-PIN CONNECTOR

POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	-----	-----
- 2 -	System arming signal	YELLOW-BLUE
- 3 -	System disarming signal	GREEN-BLUE
- 4 -	-----	-----
- 5 -	Door trigger positive/negative input	GREEN-BROWN
- 6 -	Receptacle for electronic key input	GREEN
- 7 -	Receptacle for electronic key negative 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 with 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 Hazard warning lights	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 via turn indicators flashes	WHITE-ORANGE

⚠ WHITE-ORANGE wire must ALWAYS be connected if system 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

Before carrying out electrical connections, disconnect the negative battery terminal. Re-connect ONLY after completion.

ELECTRONIC KEY

GEMINI
ALARM SYSTEMS
Cod. PL0480

Connection of 933 unit with supplied siren

Green
Brown

Red
Black

GREEN-BLACK
External sensors input

GREEN-BROWN
Door trigger positive/negative input

LIGHT BLUE (CAN-L)
CAN BUS signal

LIGHT BLUE-GREY (CAN-H)

WHITE-BLACK
Comfort output (negative)

PINK
Positive output with system armed (+A)

YELLOW-BLUE

GREEN-BLUE
Input for system operation via door lock motor unit

YELLOW-BLACK
Additional siren or vehicle horn (negative output during alarm)

BLUE
Self-powered siren output (art. 7725, lack of negative during alarm) or Hazard warning lights

15A **BLACK marked "R"**
POSITIVE
Battery

BLACK marked "M"
GROUND

ORANGE

ORANGE
Turn indicators output

BLACK marked "H"

BLACK marked "H"
Engine immobilizaton

8A MAX !

WHITE-ORANGE
Input for system operation via the turn indicators

OPTIONAL
Bonnet switch

GREEN

+30

BLACK marked "G"
Ignition

7.0 - CONNECTION FOR TURN SIGNALS ACTIVATION

7.1 - STANDARD CONNECTIONS

LEFT TURN INDICATORS

RIGHT TURN INDICATORS

GEMINI 933 SYSTEM

ORANGE

ORANGE

WHITE-ORANGE

WHITE-ORANGE wire must ONLY be connected if the system is to operate through turn indicators.
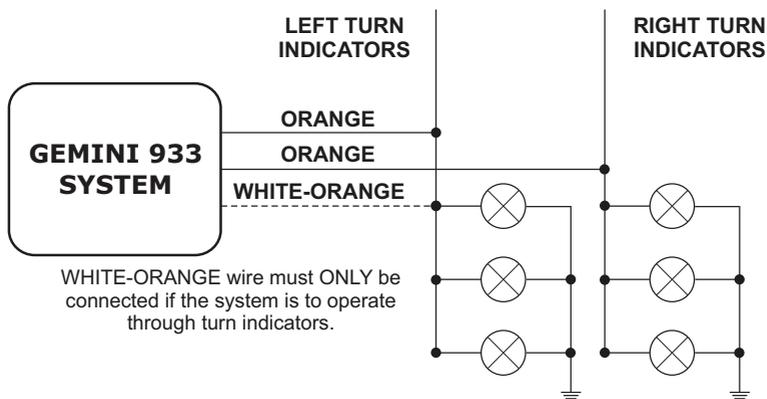
7.2 - CONNECTIONS FOR VEHICLES WITH SEPARATE LINES

WHITE-ORANGE wire must ONLY be connected if the system is to operate through turn indicators.

TURN INDICATORS CONTROL UNIT

Front LH	Side LH	Rear LH	Rear RH	Side RH	Front RH

GEMINI 933 SYSTEM

WHITE-ORANGE

ORANGE

ORANGE

Insert nr. 6 2 Ampere diodes.
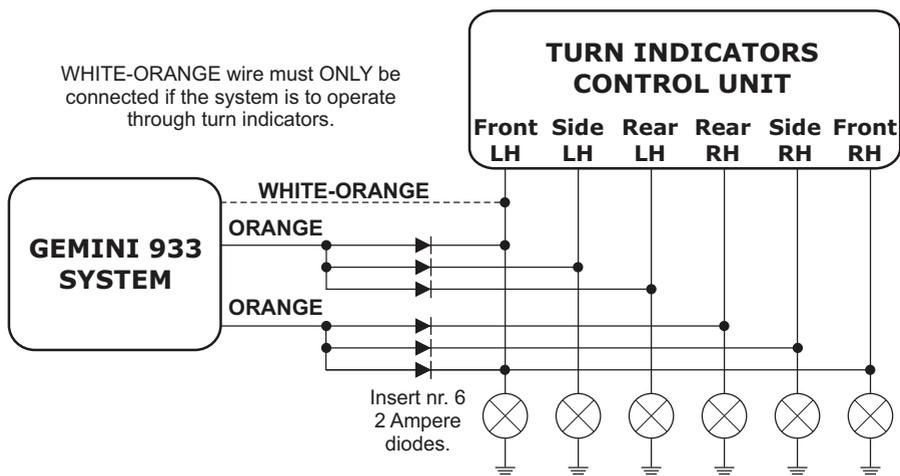
7.3 - CONNECTION TO HAZARD SWITCH

GEMINI 933 SYSTEM

BLUE

VEHICLE ELECTRICAL SYSTEM

In the "SYSTEM PROGRAMMING" menu, select "Hazard warning lights" (optical pulse signals). Do not make this connection if the system is to operate through turn indicators.
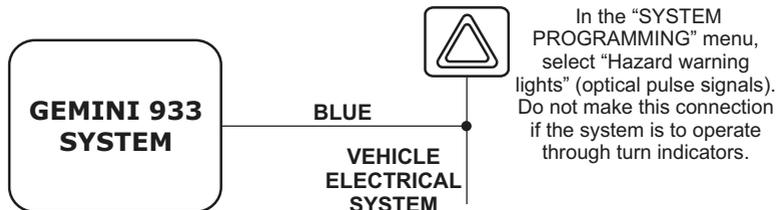
8.0 - CONNECTIONS TO ARM/DISARM THE SYSTEM

The 933 system can operate in various modes according to the vehicle on which it is installed and the connections that can be made.

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

Refer to the wiring diagrams available for most makes and models of vehicle (www.gemini-alarm.com, restricted access section).

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

8.1 - CONNECTIONS AND MANAGEMENT BY CAN BUS LINE

System arming/disarming and alarms are managed via CAN BUS line, only connect the alarm system CAN BUS wires to the vehicle CAN line (see available diagrams).

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 motor unit.

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

To arm/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 via the CAN BUS line with the turn indicators or the door lock motor unit or both.

The system will automatically manage 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, it must be configured according to the vehicle on which it is 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 all the available vehicles (codes are updated at packaging time).
> Up-to-date information on supported vehicle models can be found at: www.gemini-alarm.com (restricted access section).

> ⚠️ The system has a LED indicator 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 is no optical warning, the procedure is simply be interrupted.
> In either case, repeat the whole procedure.

Connect the harness connectors to the relative connectors of the alarm unit.
Press and hold the button shown below until the LED lights up.
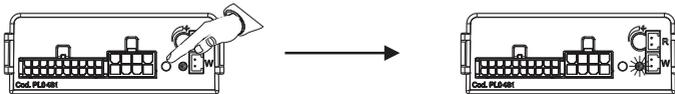
Release the button, the LED switches off.
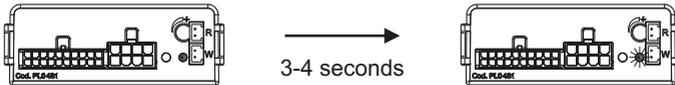
3-4 seconds

After a 3/4 seconds, the LED starts a flashing sequence; count the flashes.
In this case, press the button at the 1st flash (which corresponds to number "1").

1ST FLASH

Press

After 4 seconds, the LED starts blinking again.
Press the button at the 10th flash (which corresponds to "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.
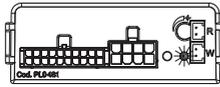
 1 FLASH AND A
SHORT PAUSE
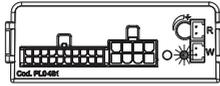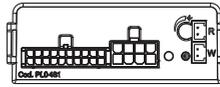
 10 FLASHES AND A
SHORT PAUSE
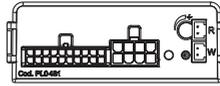
 3 FLASHES
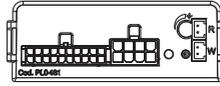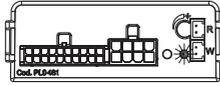
Press the vehicle remote control lock/unlock buttons to make sure the alarm system works
properly.
Eventually disconnect the 8-way connector and reconnect it after few seconds.

10.0 - SELF-LEARNING OF TURN INDICATORS 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-way harness connector from the 8-way alarm connector.
- Turn ignition key "ON".
- Connect the 8-way wiring connector to the 8-way alarm 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-pitched acoustic signal confirms the arming flashes.
- Press the unlock button on the original remote control.
- When the turn indicators stop flashing, 2 high-pitched audio signals confirm the the disarming
  flashes.
- This completes the procedure.

⚠ 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	✳✳✳✳✳
Hazard warning lights (Optical pulse signal)	Enabled	✳✳✳✳✳✳
Negative output during alarm cycle	Disabled	✳✳✳✳✳✳✳
For Gemini only, turn ignition key	-----	✳✳✳✳✳✳✳✳

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 features are briefly described below while the programming instructions are illustrated in the next paragraph.

11.1 - OPTICAL SIGNALS

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

11.2 - ACOUSTIC SIGNALS

This function activates acoustic signals to confirm system arming (1) and disarming (2).

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 doors switch.

11.6 - HAZARD WARNING LIGHTS/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 Hazard warning flashers are enabled, optical signals will ONLY switch on during an alarm condition.
The system BLUE wire MUST be connected to the Hazard switch. In this case, do not connect the alarm ORANGE wires to the turn indicators (see chapter 7.3)

If this 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

Once enabled, this function can activate 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 various steps to follow to modify the programmable functions.

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 pitched signal sounds and the LED flashes according to table in chapter 11.0.

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

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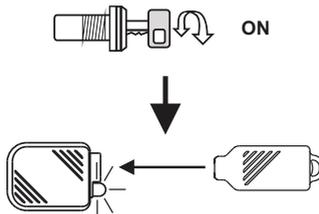
Two acoustic signals (a high and a low-pitched sound) and two flashes of the turn indicators will confirm that the system is in program mode.

To disable the function, turn ignition "OFF" and then back "ON"
A low-pitched acoustic signal confirms the operation.
The LED will flash according to the selected function (from 1 to 8).

OFF-ON

— **Boop**
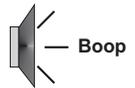
OR

To enable the function, touch the electronic key once to its receptacle
A high-pitched acoustic signal confirms the operation.
The LED will flash according to the selected function (from 1 to 8).

— **Beep**

In both cases, the system will move on to the next function.
Repeat the above steps to enable or disable the remaining functions.
When the last function is programmed (either with the electronic key or the ignition key), in addition to the confirmation tone, the system gives 2 low-pitched and 1 high-pitched acoustic signals and the turn indicators flash twice.
These last two 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 igntion) 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 learn 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 will be deleted as described in the next paragraph.

- The system is ready to receive the device codes.
- Touch the electronic key to its 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 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".
- 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 windshield 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 approx. 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 sensitity lelvel is too high or too low, readjust the trimmer and repeat the above procedure.

SENSITIVITY ADJUSTMENT

ULTRASONIC CELLS CONNECTIONS
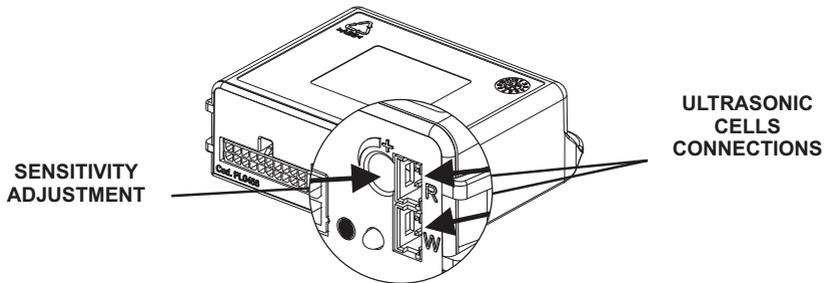
16.0 - SYSTEM RESET

⚠️ By activating the following procedure, the system returns to the factory default setting.
This procedure must therefore only be used in case of need, before programming the system or learning the turn indicator 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.
- Connect the alarm; 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 lights up steady.
- Turn ignition key "ON"; reset is confirmed by an aucoustic 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 temperature range	-30°C to +70°C
Turn indicators relay contact capacity	8 A @ 20°C
Engine immobiliser relay contact capacity	8 A @ 20°C
Alarm cycle duration	30 sec.
Maximum positive current output when armed (+A)	700 mA
Maximum load of siren output	1 A

Aftermarket Vehicle Solutions Limited
7 Dudley Court , Jessop Close, Clacton-on-Sea, Essex, CO15 4LY

TEL: +44 (0) 1255 434353
Email: sales@avsgemini.com | Web: www.avsgemini.com

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