INSTALLATION CERTIFICATE

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

By :

Sold on : .....

Type of device : ☐ **932MHW & 725W SIREN**

Vehicle : .....

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ISO 9001Certified Company

GEMINI® ALARM SYSTEMS

ALARM KIT 932MHW & Siren 725W

USER AND INSTALLER MANUAL

UK

CE

Made in Italy

Rev.02 - 03/24

UK

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1.0 - INTRODUCTORY NOTE

Dear customer, thank you for choosing this GEMINI product manufactured in Italy specifically for recreational vehicles.The 932MHW CAN BUS alarm and siren kit has been implemented with a 2.45GHz transceiver and ZigBee wireless technology with anti-jamming reliability.

Please read the present manual carefully to familiarize yourself fully with the operation of your alarm system and do keep it for future reference.

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 operate according to the selected connections and programming or it simply provides useful setup instructions.

USER MANUAL

2.0 - OPERATING INSTRUCTIONS

2.1 - SYSTEM TOTAL ARMING

Press the lock button on the vehicle remote control or button "**1**" on the Gemini 738NW remote control (see page 5); system arming is confirmed by a Beep (if acoustic signals are enabled). The system has a 30 sec. arming delay during which the LED is ON steady.

2.2 - SYSTEM PARTIAL ARMING

To arm the system without arming interior protection press button "**3**" on the Gemini remote control. System arming is confirmed by a Bop (if acoustic signals are enabled).

Sensors can be excluded via the vehicle original remote control on the following vehicles:

- FIAT DUCATO '11›
- FORD TRANSIT '14›
- RENAULT MASTER '10›

To exclude interior protection via the vehicle original remote control, proceed as follows:
- Lock the vehicle via the vehicle original remote control.
- Wait at least 5 sec., **but before the end of the arming delay,** and press the lock button again.
- Exclusion is confirmed by 1 Bop.

NB: THIS CONFIRMATION TONE CANNOT BE EXCLUDED.

Exclusion is bound to each single arming cycle, sensors will be reset upon next arming.

2.3 - PASSIVE ARMING

If passive arming mode 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 (if acoustic signals are enabled).

When the system passively arms, interior protection is excluded.
Opening a door during the 60-sec. passive 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. delay from the time the system is armed to allow you to leave the vehicle without triggering an alarm: it will be signaled by the LED powered ON steady.

2.5 - SYSTEM ARMED

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

2.6 - ALARM, NEUTRAL TIME BETWEEN ALARMS AND ALARM CYCLES

Alarm events are signaled by acoustic signals. After an alarm event, there is a 5 sec. pause period before another alarm can be triggered. Each alarm event can generate up to 10 cycles for each input and for each arming cycle. One alarm cycle lasts for 30 sec.

2.7 - SYSTEM DISARMING

Press the unlock button on the vehicle original remote control or button "**2**" on the Gemini remote control; disarming is confirmed by 2 Beeps (if acoustic signals are enabled).

If an alarm has been triggered while the system was armed, 5 Beeps will be heard upon disarming.

2.8 - ALARM MEMORY

The LED memory allows to identify the last alarm event signaled by 5 Beeps upon disarming.

Turn ignition key ON, the status LED will flash a number of times to indicate what triggered the alarm (see table below).

The flash sequence is repeated 3 times; to interrupt turn ignition key "OFF".

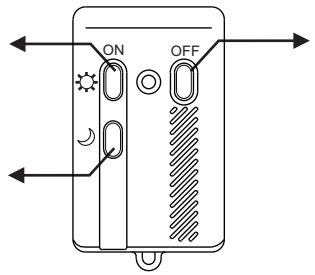
LED FLASHES	ALARM CAUSES	ALARM CYCLES
✷✷●✷✷	Ignition attempt (+15/54)	10
✷✷✷●✷✷✷	Door tamper	10
✷✷✷✷●✷✷✷✷	Bonnet tamper	10
✷✷✷✷✷●✷✷✷✷✷	Boot tamper	10
✷✷✷✷✷✷●✷✷✷✷✷✷	Volumetric or optional sensor	10
✷✷✷✷✷✷✷✷●✷✷✷✷✷✷✷✷	Wireless magnetic contacts or opening detectors	10
✷✷✷✷✷✷✷✷✷●✷✷✷✷✷✷✷✷✷	Wireless infrared sensors (PIR)	10
✷✷✷✷✷✷✷✷✷✷✷●✷✷✷✷✷✷✷✷✷✷✷	Wire tampering	10
● LED OFF (2 seconds) ✷ LED ON (1 second)		

3.0 - GEMINI REMOTE CONTROL DESCRIPTION

If the required connections have been made, the arming/disarming buttons can be used to lock/unlock the vehicle doors .

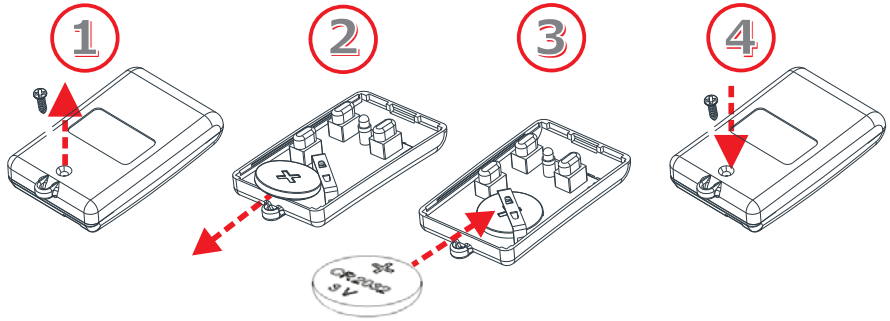
BUTTON 1:
TOTAL SYSTEM ARMING
(+ door lock)

BUTTON 3:
PARTIAL ARMING
(door lock & sensor exclusion)



BUTTON 2:
SYSTEM DISARMING
(+ door unlock)

If the LED blinks 3 times when pressing any button, the battery is weak and must be replaced as follows:



Use only CR2032 batteries. Risk of explosion if battery is replaced by an incorrect type.
Discard used batteries properly in special dedicated containers.

INSTALLER MANUAL

4.0 - WIRELESS SIREN 725W

The wireless waterproof digital siren with back-up battery has a transceiver which operates at a frequency of approx. 2.45 GHz. The 3-wire siren, which also manages the bonnet switch, connects directly to the vehicle battery with no wires to be routed from the engine compartment (siren and bonnet switch) to the control unit inside the cabin. Use the supplied metal bracket and screws to mount the siren to a suitable metal surface in the engine bay, away from heat sources and moving parts.

- The L-bracket can be attached on the long or short side (Fig.1).
- Face the siren speaker downward so as to avoid water damage (Fig.2).

Drill a hole using a 3mm drill bit

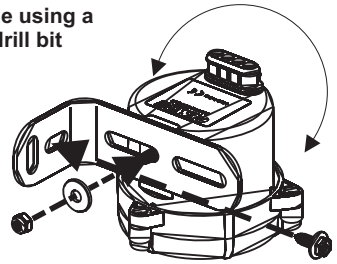


Fig.1

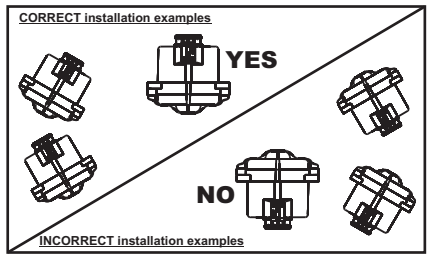


Fig.2

5.0 - CONNECTOR PINOUTS

20-PIN CONNECTOR

POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	-----	-----
- 2 -	-----	-----
- 3 -	-----	-----
- 4 -	-----	-----
- 5 -	Positive/negative input - door switches	GREEN-BROWN
- 6 -	*DO NOT CONNECT*	GREEN
- 7 -	*DO NOT CONNECT*	BROWN
- 8 -	LED negative output	BLACK
- 9 -	LED positive output	RED
- 10 -	Ignition	BLACK marked “G”
- 11 -	CAN BUS (CAN-H) signal	LIGHT BLUE-GREY
- 12 -	CAN BUS (CAN-L) signal	LIGHT BLUE
- 13 -	-----	-----
- 14 -	Negative input - external sensors	GREEN-BLACK
- 15 -	Negative input - bonnet switch (for pairing purposes)	GREEN
- 16 -	Optical pulse signals (Hazard flashers)	BLUE
- 17 -	Lock command (1.5 sec.* negative pulse when pressing remote control button “1” or “3”)	WHITE-BLACK
- 18 -	Unlock command (1.5 sec.* negative pulse when pressing remote control button “2”)	YELLOW-BLACK
- 19 -	-----	-----
- 20 -	-----	-----

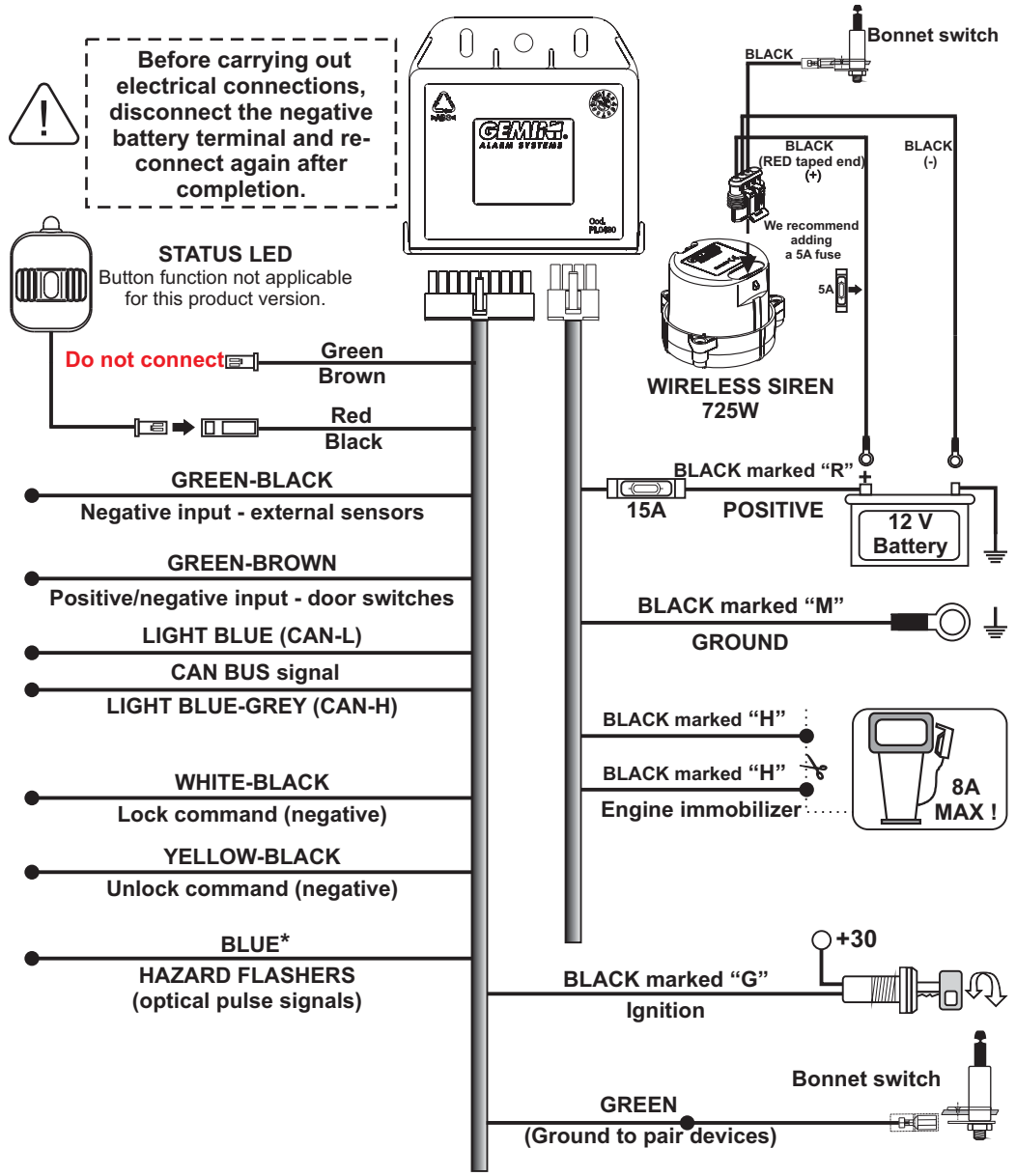
*** If “Double pulse unlock” feature is enabled (par. 9.4), lock/unlock pulse time will be 0.5 sec. instead of 1.5 sec.**

8-PIN CONNECTOR

POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	Ground	BLACK marked “M”
- 2 -	Siren output	-----
- 3 -	Positive supply	BLACK marked “R”
- 4 -	-----	-----
- 5 -	Engine immobilization	BLACK marked “H”
- 6 -	Siren output	-----
- 7 -	Engine immobilization	BLACK marked “H”
- 8 -	-----	-----

For complete information regarding connections, please refer to your vehicle specific wiring diagram (available diagrams can be downloaded from the restricted area of our website: www.gemini-alam.com).

6.0 - WIRING DIAGRAM



***BLUE wire:** Optical signals activated by connection to the Hazard switch will **ONLY** turn ON during an alarm condition.

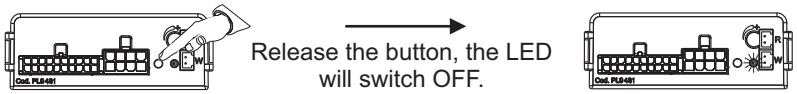
7.0 - VEHICLE CODE PROGRAMMING

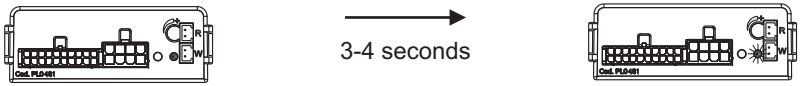
The system must be configured according to the specific vehicle model on which it is to be installed. To help you understand the coding procedure, here below is an example shows how to configure a vehicle with code **1**-**0**-**3** (which hypothetically corresponds to a "FIAT XXXXX").

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

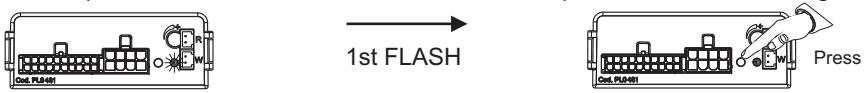
The vehicle code must range between 100 and 235 otherwise the LED on the unit blinks repeatedly and the procedure is interrupted. The previously entered code remains stored.
The procedure is also invalidated if the LED blinks more than 10 times. In this case there is no optical warning, the procedure is simply interrupted.
In either case, repeat the entire procedure.

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





The LED will start flashing after 3 to 4 seconds; count the flashes.
In this case 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 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 3rd digit "**3**".

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

- 1 FLASH + SHORT PAUSE
- 10 FLASHES + SHORT PAUSE
- 3 FLASHES

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.

8.0 - CONNECTIONS TO ARM/DISARM THE SYSTEM

The alarm system can work via CAN BUS (with the vehicle original remote control) and via the Gemini remote control (P/N 738NW).

During an alarm event the system cannot be disarmed via the Gemini remote control but only with the vehicle original remote control.

8.1 - OPERATION VIA CAN BUS

Since arming/disarming and alarms are managed via the CAN BUS line, only the alarm CAN wires need to be connected to the vehicle CAN wiring (see available diagrams in the restricted area of our website).

8.2 - OPERATION VIA THE GEMINI REMOTE CONTROL

This connection allows to arm/disarm the system and lock/unlock the vehicle doors via the Gemini remote control (see wiring diagram).

For vehicle specific information, see available installation guidelines in the restricted area of our website.

9.0 - SYSTEM PROGRAMMING

The programming procedure must be carried out entirely by pressing the "ON" or "OFF" button to scroll through the features. The table below applies to the factory settings, accessing the programming procedure will reset the features to their initial settings.
NB: A lack of power will not affect the programming.

	SELECTABLE FEATURES	DEFAULT SETTING	LED FLASHES
1	***For Gemini only***	***Key OFF/ON***	✷
2	**Arming/disarming acoustic signals**	**Enabled**	✷✷
3	**System passive arming**	**Disabled**	✷✷✷
4	**Door input - positive**	**Disabled**	✷✷✷✷
5	**Double pulse unlock**	**Disabled**	✷✷✷✷✷

9.1 - ACOUSTIC SIGNALS

Acoustic signals (Beeps) to confirm system arming/disarming operations.

9.2 - PASSIVE ARMING

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

9.3 - DOOR SWITCH POLARITY SELECTION

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

9.4 - DOUBLE PULSE UNLOCK

If this feature is enabled, 2 unlocking pulses will be supplied to unlock all doors at the same time. This is useful in case separate actions are required to open the driver door and then the other doors.

DOUBLE PULSE UNLOCK QUICK ACTIVATION:

- Disconnect the alarm and ground the Green/Black wire.
- Connect the alarm power supply; 3 Beeps will confirm operation.
- Remove the Green/Black wire from ground.

NB: To reset the default settings, repeat the above steps; a Bop will confirm the operation.

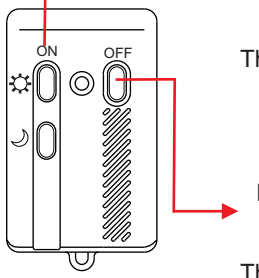
10.0 - SYSTEM PROGRAMMING EXAMPLE

Press the "**ON**" button to enable the features and the "**OFF**" button to disable them.

To enter in programming mode proceed as follows:

- With the alarm system disarmed, turn ignition key ON.
- Wait approx. 2 sec. for the LED to light up.
- While the LED is ON, press remote control "**ON**" button.

A Beep and a Bop will confirm the system is in programming mode.



Press the **"ON" BUTTON** once to **ENABLE** the feature.
A Beep will confirm the operation.
The LED will flash according to the feature being configured (from 1 to 5).

OR

Press the **"OFF" BUTTON** once to **DISABLE** the feature.
A Bop will confirm the operation.
The LED will flash according to the feature being configured (from 1 to 5).

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

11.0 - PAIRING NEW DEVICES

To carry out the operation successfully, make sure the required electrical connections (bonnet switch and ignition) are properly connected.
If there is no bonnet switch, ground the GREEN wire (20-pin connector, pos. 15).

Storing memory is for 60 devices. Adding an extra device will automatically delete the first device stored in the alarm memory.

To enter in pairing mode proceed as follows:

- With the system disarmed, open the vehicle bonnet and keep it opened or ground the GREEN wire.

The "ON-OFF" cycles must be carried out within 15 sec. 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 and a Bop (only if the siren has already been programmed) will confirm the system is in pairing mode. The LED will power ON steady.

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.

1. Depending on which device has to be paired:

- **Remote control**: Press twice one of the buttons;
- **Magnetic contact**: Make it transmit twice (bring contact and magnet together and then move apart);
- **Opening detector**: Press the button twice;
- **Inclination sensor**: Take out the battery and reinsert it to pair the device (see par. 14.0);
- **Siren**: Disconnect and reconnect the connector.

2. A Beep will confirm the device has been learned.

3. Repeat this same procedure to learn other devices.

4. Turn ignition key OFF.

5. A Bop will confirm the end of the procedure and the status LED will power OFF.

6. Close the bonnet or remove the GREEN wire from ground (bonnet switch).

12.0 - DELETING PROGRAMMED DEVICES

To carry out the operation successfully, make sure the required electrical connections (bonnet switch and ignition) are properly connected.
If there is no bonnet switch, ground the GREEN wire (20-pin connector, pos. 15).

To clear the alarm memory proceed as follows:

- With the system disarmed, open the vehicle bonnet and keep it opened or ground the GREEN wire.

The “ON-OFF” cycles must be carried out within 15 sec. 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 and a Bop will confirm the system is in delete mode.The LED will power ON steady.
- Close the bonnet or remove the GREEN wire from ground (bonnet switch).
- Leave the bonnet closed for at least 8 seconds to clear the memory.

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

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

13.0 - ULTRASONIC VOLUMETRIC PROTECTION

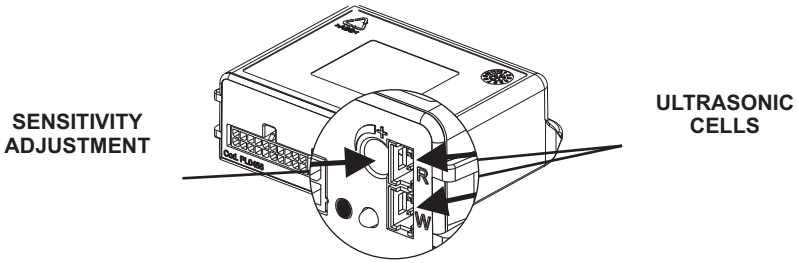
13.1 - CONNECTIONS AND POSITIONING

Insert the WHITE connector in the “W” marked socket and the RED connector in the “R” marked socket (see figure below).
Install the cells, inside the cabin, in the top corners of the windshield pillars, away from the air vents and point them towards the center of the rear window.

13.2 - SENSITIVITY ADJUSTMENT

To check the sensor sensitivity level proceed as follows:

- With the alarm system disarmed, roll down the front window approx. 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.



14.0 - WIRELESS WINDOW INCLINATION SENSOR 330W

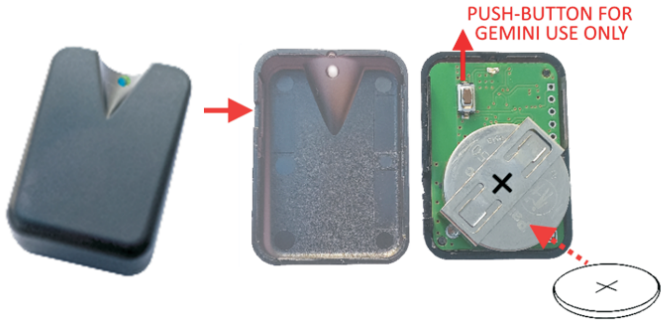
This wireless inclination sensor which integrates a 2.45GHz radio transceiver is compatible with the Gemini 933MHW and 932MHW security systems (see par. 11.0 “PAIRING NEW DEVICES”).

OPERATION:
This inclination sensor is designed to detect break-in attempts through caravan push-out windows or swing up hatch doors. It is easy to install with the supplied double-sided adhesive tape, just press onto the window pane to protect.
Once installed and paired, the sensor starts monitoring the window inclination angle. After approximately 10 seconds of inactivity, the sensor records the detected position and a quick flash of the LED will confirm the registration.
The sensor will then constantly compare the recorded initial position with subsequent readings and, if there is a deviation of at least 3 degrees, it will set off an alarm. A quick flash of the LED will confirm that an alarm has been triggered.
After an alarm has been set off, the sensor will wait for a 10-second period of inactivity before recording a new position.

BATTERY REPLACEMENT:

Use only CR2450 batteries. Risk of explosion if battery is replaced by an incorrect type.
Discard used batteries properly in special dedicated containers.

To remove the plastic cover from its base, insert a small screwdriver into the side notch and lightly pry open. Carefully remove the old battery and insert the new one with the positive side (+) facing upwards as indicated. Replace the sensor cover and make sure that it snaps shut.



15.0 - SYSTEM RESET

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

To reset the system proceed as follows:
- Disconnect the alarm.
- Short-circuit the RED and BLACK wires of the 2-pin LED connector.
- Connect the alarm; 4 Beeps 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 a Beep and the wailing of the siren for approx. 3 seconds.
- Turn ignition key OFF. The LED will power OFF to confirm the end of the procedure.

16.0 - TECHNICAL SPECIFICATIONS

932MHW UNIT :

Power supply	**12Vdc**
Current draw (system armed + LED flashing)	**15mA @ 12Vdc**
Operating temperature range	**-30°C => +70°C**
Engine immobilizer relay contact capacity	**8A @ 20°C**
Alarm cycle duration	**30 sec.**

725W SIREN:

Power supply	**10 - 15 Vdc**
Operating temperature range	**-35°C => +80°C**
Current draw (when triggered)	**1.5A @12Vdc**
Current draw (in standby)	**2.5mA @12Vdc**
Maximum siren output	**108dB @ 1m**

17.0 - 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.

NOTES