CARAVAN ALARM SYSTEM

User & Installer Instruction Manual

Thank you for purchasing this Gemini alarm system specifically designed for caravans with a 12Vdc electrical system. Please read the following instructions carefully to familiarize yourself fully with the alarm system features and operating procedures.

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User Manual

Installer Instructions

Designed and manufactured by GEMINI TECHNOLOGIES srl - Via L. Galvani, 12 – 21020 Bodio Lomnago (VA) – Italy
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USER MANUAL

1.0 - System description

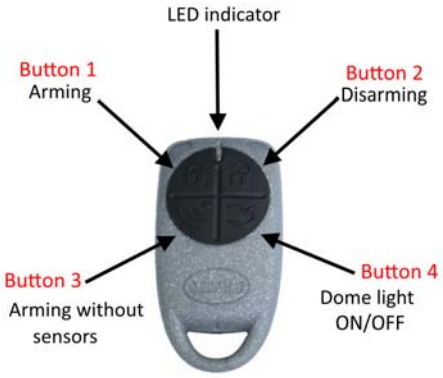
This compact alarm system will ensure the vehicle is protected by means of following security features:

- Built-in triaxial tilt/motion sensor: When the system is armed, the motion sensor triggers an alarm whenever it detects that the vehicle is being moved or lifted.
- Negative trigger switch (optional): a switch installed to protect the vehicle doors (negative trigger input). Opening up doors will trigger the alarm.
- Wireless sensors (optional): window opening detector, door magnetic contact, volumetric or PIR detectors.

1.1 - Remote controls

The alarm is supplied with 2 remote controls:

- A 4-button remote control (P/N 848/ALG)
- A 3-button remote control with adhesive or screw mount dash holder (P/N 938)



848/ALG

The 848/ALG remote control has a low battery charge indicator that gives you early warning to avoid malfunctioning. When the batteries are fully charged, the indicator LED will show a steady light at the press of a button. If the batteries are low, the LED will start blinking rapidly when the button is pressed.

938

The 938 dash-mount remote control can be used to arm the whole system or arm the system partially excluding the volumetric sensors. This last option is useful when people are onboard because it does not alter the perimeter protection.

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1.2- System arming

The alarm unit can be armed by pressing the arming button on either remote control or from a remote device (if connected). Two high-pitched beeps will confirm the operation and the dome light will turn ON for approx. 30 sec. The system has a 30 sec. arming delay which allows you to exit the vehicle without triggering an alarm. After the arming delay, the system is fully armed.

1.3 - System disarming

To disarm the system, press the disarming button on either remote control or from a remote device (if connected). Three high-pitched beeps will confirm disarming and the dome light will turn ON for approx. 30 sec.

1.4 – System arming without sensors

The system can be armed without enabling the wireless volumetric sensors. To do so, press button 3 on either remote control to arm the system. One high-pitched beep will confirm the system is armed with the sensors excluded.

ATTENTION: Sensor exclusion is bound to a single arming cycle. Sensors will automatically be enabled the next time the alarm is armed.

1.5 - Tilt sensor exclusion

To temporarily exclude the TILT sensor, proceed as follows:

1. Arm the alarm system by pressing remote control button 1 (Full Arming) or button 3 (Partial arming - armed with volumetric sensors override).

2. Within 4 seconds, press button 3: TILT sensor exclusion will be confirmed by 1 beep.

NB: TILT sensor will remain excluded for the one arming cycle, it will be automatically restored at the next arming.

1.6 - Tilt sensor adjustment

The TILT sensor sensitivity level is factory set to trigger an alarm if the vehicle is tilted at an angle of approx. 3.5° with respect to the x, y and z-axis.

Sensor sensitivity can be custom-adjusted as follows:

1) Disarm the alarm system.

2) Simultaneously press, twice in a row, remote control buttons 1 and 2: 2 Bops will confirm the system is in 'Adjustment Mode' (every time you enter in 'Adjustment Mode', the sensitivity level will automatically be restored to the 3.5° default setting).

3) Press button 2 once to increase the tilt angle to 7°: operation will be confirmed by 1 beep.

4) Press button 2 again to increase the tilt angle to 10.5°: operation will be confirmed by 1 beep.

5) Press button 2 once more to increase the tilt angle to 14°: operation will be confirmed by 1 beep.

To exit the adjustment procedure and confirm the selected tilt angle, simultaneously press remote control buttons 1 and 2 after having performed the above adjustment steps 2), 3) or 4).

The system will automatically exit the adjustment mode after step 5); 1 BOP will confirm the end of the procedure.

1.7 - Dome light

Arming/disarming the alarm unit will activate the dome light output for up to 30 sec. This function can be used to turn ON a lamp to illuminate the vehicle access door.

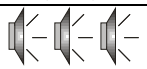
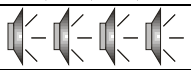
The 4-button remote control can be used to turn the lamp ON/OFF. The light will turn OFF automatically after a time-out of 5 minutes.

1.8 - Alarms

An alarm event will trigger the built-in piezo siren and enable the negative trigger output (to activate an external siren or a remote device such as a GPS tracker).
Alarm events will sound for a maximum of 30 sec. If the alarm remains or if it is not cleared it will trigger another alarm cycle after a 5 sec. delay (trigger interval).
Each alarm condition will trigger a maximum of 8 alarm cycles. Duration and time of occurance of alarms are in compliance with the Environmental Protection (Noise) Regulations.
After each cycle, there will be a rest time of 5 seconds before the system is fully operative again.

1.9 - Alarm trigger memory

If there has been an alarm trigger during your absence, it will be signaled by 5 beeps upon disarming. The last cause of alarm can be identified by the number of beeps as indicated in the table below.

ALARM EVENTS	SIREN CHIRPS
Wireless magnetic contacts or opening detectors	
Wireless infrared (PIR) sensors or wireless hyper-frequency sensors	
Negative input alarm	
Triaxial tilt sensor	

1.10 - Pairing new devices

The alarm is supplied with 2 remote controls but extra optional devices can be added. Pairing new remote controls or new wireless sensors can be done via the LEARN button provided on the alarm harness.
ATTENTION: Alarm memory will store 12 devices, saving an extra device will automatically delete the first one.

Learning procedure:

1. Press the LEARN button 5 times in a row within 5 sec. Each button press will generate 1 beep and 2 final beeps will confirm the system is in learn mode.
2. Press one of the remote control buttons or activate the sensor to be learned within 30 sec. otherwise the system will automatically exit the learn procedure.
3. A siren chirp will confirm the new device has been learned.
4. To exit the learn mode, press the LEARN button once.

1.11 - Battery replacement

When the remote control batteries are too weak, replace them as indicated below:

- Separate the remote control halves taking care not to damage the internal circuit.
- Remove the discharged batteries and insert the new ones taking care not to invert the battery polarity.
- Close the remote halves and make sure the remote works properly by pressing any button. The LED indicator should turn ON.

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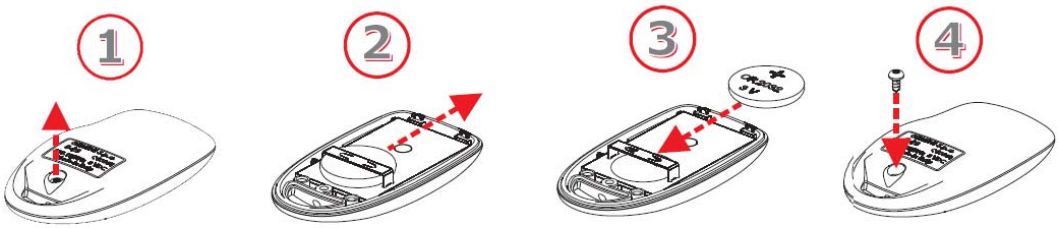
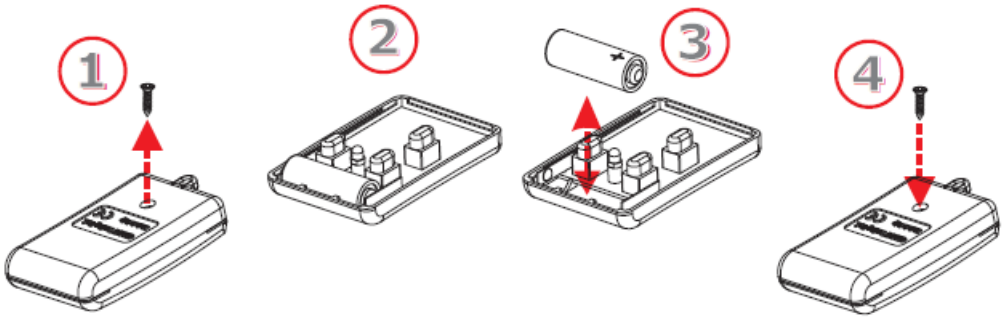
848/ALG remote control:



ATTENTION: Use only CR2032 type batteries. Different type batteries can seriously damage the remote control. Discard used batteries properly in special dedicated containers.

938 remote control:



ATTENTION: Use only 23AE batteries. Different type batteries can seriously damage the remote control. Discard used batteries properly in special dedicated containers.

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After selecting the appropriate position for the alarm unit and harness, carry out the electrical connections.

2.0 – Alarm connector Pinouts

The following table describes the inputs and outputs necessary to interface the alarm to the vehicle electrical system.

Pin	Function	Type	Wire Color	Current	Note
1	GND Power Supply	Supply Input	Brown	----	----
2	GND for Backup Battery link	----	Orange	----	Link to pin no. 15
3	Wire Disarming Input	Input	White-Violet	----	1sec. negative pulse
4	Negative Alarm Input	Negative Input	Green-Black	----	----
5	Positive Output - System Armed	Positive Output	Pink	800mA	----
6	Negative Output – Alarm Triggered	Negative Output	White-Grey	5A max	----
7	Pairing/Configuration Input	Positive Input	Yellow	----	From Push-Button
8	Not applicable	----	----	----	----
9	Not applicable	----	----	----	----
10	Dome Light N.O. Relay Contact	Output (relay contact)	Grey	8A max	----
11	Dome Light Common Relay Contact	Input (relay contact)	White	8A max	----
12	Not applicable	----	----	----	----
13	Wire Arming Input	Input	Orange	----	1 sec. negative pulse
14	Positive Power Supply (7.5A fuse)	Supply Input	Red	----	----
15	Backup Battery Activation Link	----	Orange	----	Link to pin no. 2
16	Radio receiver Antenna Input	Antenna	Black	----	----

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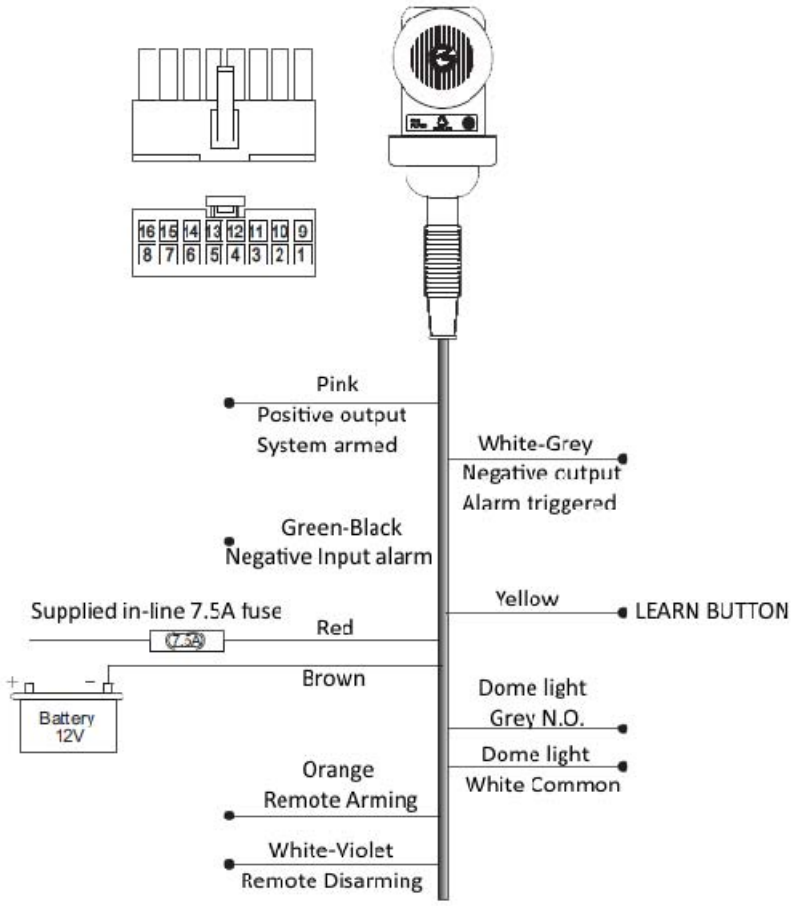
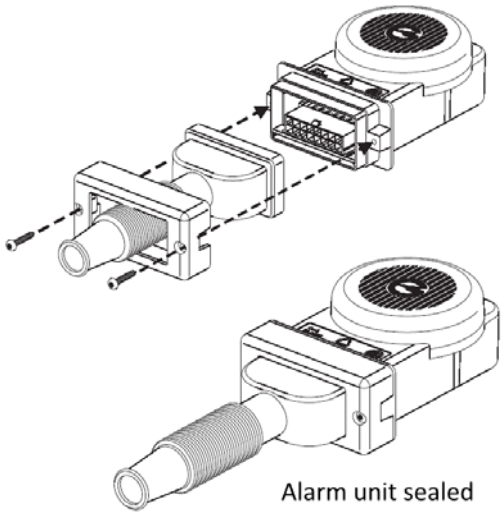
2.1 - Wiring diagram



2.2 - Alarm unit sealing

Position the rubber cap over the external edge of the alarm housing as shown below. Pull the plastic rectangular flange over the rubber cap and secure with the supplied screws.

Attention: take care not over tighten the screws.



2.3 - Harness

The supplied harness includes a protection fuse on the supply line and a derivation to connect the GPS tracker.
A LEARN button is also provided on the harness to program new devices (storing memory is for 8 devices).

2.4 – Back-up battery

The built-in battery provides power to the alarm system when the primary source of power is unavailable (deliberate cutting of battery cables). This will avoid triggering a cable-cut alarm.
To activate the back-up battery feature, after the alarm is installed, insert the harness Molex connector into the alarm mating connector: the activation link on the harness will automatically enable the back-up feature.
To disable the back-up feature, unplug the above connector.

2.5 - 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. N°151 of 25/07/2005.

2.6 - Technical specifications

Power Supply	12Vdc (7.5A fuse)
Operating voltage range	9Vdc to 16Vdc
Current absorption @ 12 Vdc	>1,5 mA
Operating temperature range	-40°C to +85°C
Positive output current – System ON	800mA max. (self-protected)
Negative output current – Alarm trigger	5A max. (self-protected)
Dome light output current	8A max.
Siren sound level	106dB min. – 118dB max.@1m
Remote control radio frequency	433.92 MHz
Tilt sensitivity	3° inclination (±0,5°) at a rate of 1° (±0,5°) per minute

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