INSTALLATION CERTIFICATE

The undersigned qualified installer, attests having personally fitted the GPS system on the vehicle specified below, following the manufacturer's instructions.

By :

Sold on :   Product type : ....

Vehicle:

Signature

....

GEMINI Technologies S.r.l.
Via Luigi Galvani 12 - 21020 Bodio Lomnago (VA) - Italy
Tel. +39 0332 943211 - Fax +39 0332 948080
www.gemini-alarm.com
ISO 9001 Certified Company

GEMINI
ALARM SYSTEMS

992
STANDALONE TRACKER

INSTALLATION AND USE MANUAL

UK

CE

Made in Italy   **Rev.00 - 07/23**

CONTENTS

USER MANUAL

INSTALLER MANUAL

USER MANUAL

1.0 - INTRODUCTORY NOTE

Dear customer,

Thank you for purchasing this self-managed GSM/GPS tracker designed and manufactured in Italy by GEMINI Technologies. This tracker is ideal for real-time tracking and monitoring of any vehicle (cars, bikes, scooters, etc.). No subscription fees, communication is by SMS (SIM card not included). GPS and GSM antennas and triaxial digital accelerometer are built-in for easy installation. The tracker connects with two simple cables.

Please read this manual carefully to fully take advantage of all the security features offered by the system and avoid triggering false alarms which use up your SIM credit.

Keep note of your Password as you will need it to communicate with the tracker.

2.0 - OPERATION

The standalone tracker will only accept a Nano size SIM card. If set up with a prepaid card periodically check on your balance to make sure you always have enough credit.

> We recommend you register your SIM card on your phone provider website before inserting it in the tracker.
> Remove the PIN code from the SIM card in use. Some providers do not allow it, in this case set it to "0000".

In case of theft, you can track and locate your vehicle and immobilize the engine with a simple SMS. The tracker will reply with a text message containing a link to *Google Maps* showing the vehicle current position.

If you have a data plan to access internet, simply click on the *Google Maps* link contained in the SMS message received in response to the locate command otherwise enter the GPS coordinates in the *Google Maps* search field.

The tracker can be configured in 3 different languages (Italian, English and Spanish). It can receive SMS commands from any phone number as long as the correct password is entered and answers are always sent back to the sender's telephone number.

SMS alerts and notifications are delivered in real time to the preset phone numbers (max. 2 recipients).

3.0 - SMS MESSAGE FORMATTING

The tracker is configured by a set of commands sent via SMS. Commands can either be sent with capital or small letters and fields must be separated by commas. They can be delivered under any condition except in case of GSM network failure.

> ⚠ **ATTENTION**
> Do not include spaces in SMS commands as they will make the command invalid.

4.0 - FIRST TIME SETUP

The initial configuration command must be sent to the tracker to notify "password", "tracker model", "language" and "phone numbers" to which SMS must be delivered, where:

• **Field 1:** 5 characters "**SETUP**" in capital or small letters for all languages.
• **Field 2:** 6-digit password "**000000**" (six zeros) for factory set password.
• **Field 3:** 1 digit "**4**" that indicates the tracker model (992).
• **Field 4:** 2 characters for the language identifier (EN, IT or ES).
• **Field 5:** 1st phone number, always preceded by country code (+44 for UK).
• **Field 6:** 2nd phone number, always preceded by country code (+44 for UK).

Example: ***setup,000000,4,EN,+44xxxxxxxxxx,+44xxxxxxxxxx***

When the message is received, the tracker replies: **Setup OK**

> ⚠ **ATTENTION**
> If the "**Setup**" messagge is sent with a wrong format, the tracker will not reply.

When the tracker receives the initial configuration command, it connects the built-in backup battery. The tracker will then process the SMS text commands received and respond in the selected language.

4.1 - NEW PASSWORD

To change the default password send and SMS to the tracker with the following content:
• **Field 1**: 3-letter abbreviation for password "**pwd**".
• **Field 2:** 6-digit factory set password "**000000**" or current password.
• **Field 3:** 6-digit new password.

SMS example: ***pwd,000000,YYYYYY***

If the change was successful, the tracker will reply:
New password OK,YYYYYY

4.2 - PASSWORD RESET

If password is forgotten, default password must be reset by sending the following command, without any password, ONLY from the 1st preset number: ***pwd reset***

SMS response to confirm default password reset: ***Password OK,000000***

5.0 - LOW POWER MODE

The tracker is optimized for low power consumption. The GPS will power OFF 5 min. after ignition is switched OFF to conserve the vehicle battery life. An event or incoming SMS will automatically wake the GPS which will update the recorded position as soon as a valid fix is acquired. The GPS will power OFF again after 5 min. if no other command or incoming event is received.

The GSM will power OFF 12h after ignition is switched OFF. The accelerometer sensor and the radio receiver (where available) will remain active. The receiver module will power OFF after 72h of inactivity.
If inputs TILT and IGNITION are triggered while the tracker is in *sleep mode*, they will not generate an alert. They will wake up the system and reactivate the GSM and GPS modules to allow disarming the system.
Any further triggers will generate an alert.

> ⚠ **ATTENTION**
> The "TRACK" command will keep the GPS ON until all 6 SMS position updates are sent (see par. 6.5).

5.1 - SMS IN LOW POWER MODE

In case of an event or if a command (except a configuration command) is received while the tracker is in low power mode, the SMS will include the following information:

a. Coordinates of the last valid fix registered before the GPS shutdown.

b. GPS status at the time of shutdown (ex. in a covered parking structure, the last valid position will be the one before entering the parking and the GPS status will be "NO GPS" because it powered OFF when it could no longer receive a satellite signal).

c. Date/time updated at the time the event or SMS command was received.

6.0 - MESSAGES TO AND FROM THE TRACKER

⚠ ATTENTION
If a text message is sent with a wrong password or a wrong format, the tracker will reply: ***Command error***

The tracker communicates events and responds to commands exclusively via SMS.

All outgoing messages,with the sole exception of setting requests, will include the following information:

1. Type of event: Alert, notification or response to a received command.
2. System status: Armed, partially armed or disarmed.*
3. GPS status: GPS OK (if there is a GPS fix) or NO GPS.
4. Speed: km/h
5. Date: dd/mm/yy
6. Time: Greenwich Mean Time (GMT)
7. Google Maps link: Clickable link for real-time location on a map.

*** The system status is only provided in the "ARMING", "PARTIAL ARMING" and "DISARMING" text messages.

6.1 - SYSTEM TOTAL ARMING COMMAND:
on,password

When the engine is OFF and the tracker receives the arming command it will execute the command and reply:
System on, GPS status, speed, date, time, Google Maps link
If ignition is ON it will reply: ***on command received***

It will execute the command and send the confirmation message as soon as the engine is turned OFF.

6.2 - PARTIAL ARMING COMMAND:
on par,password

When the engine is OFF and the tracker receives the partial arming command, it will arm without enabling the motion sensor and reply: ***System on-partial mode, GPS status, speed, date, time, Google Maps link***
If ignition is ON it will reply: ***on par command received***

It will execute the command and send the confirmation message as soon as the engine is switched OFF.

6.3 - DISARMING COMMAND:
off,password

Upon request, the system will disarm and reply:
System off, GPS status, speed, date, time, Google Maps link

6.4 - VEHICLE LOCALIZATION COMMAND:
loc,password

When the tracker receives a real-time location query it will report the vehicle current position: ***Loc, GPS status, speed, date, time, Google Maps link***

NB: If the engine is OFF, the speed in the text message will be 0 km/h.

6.5 - TRACKING COMMAND (VEHICLE IN MOTION):
track,password

When the tracker receives a tracking query it immediately reports the vehicle current position and then sends 5 other updates upon both the pre-set time and distance. The track interval is 90 sec. and 1000m, both conditions must be met:
Tracking, GPS status, speed, date, time, Google Maps link

If the tracker does not have a valid GPS fix when it receives the tracking request (ex. vehicle parked in a covered structure), it will report the last visible position and then send another SMS once a position fix is acquired.

6.6 - GEOFENCE COMMAND:
Area ON,password
Area OFF,password

When the engine is OFF and the tracker receives the "Area ON" command, it will enable the motion sensor and reply:
Geo activated, GPS status, speed, date, time, Google Maps link

When the tracker receives the "Area OFF" command, it executes the command and replies:
Geo deactivated, GPS status, speed, date, time, Google Maps link

6.7 - SYSTEM STATUS REQUEST:
stat,password

When the tracker receives a system status request, it replies to both preset numbers:
System status (armed, partially armed, disarmed), GPS status, speed, date, time, Google Maps link

7.0 - SMS ALERT NOTIFICATIONS

⚠ ATTENTION

DISPLACEMENT, IGNITION ATTEMPT and GEOFENCE alarm events will trigger a single SMS notification to both preset numbers.
These alarms will set up again when a valid command is received with the correct password.

7.1 - DISPLACEMENT ALERT

The tracker provides protection against possible displacement attempts of the vehicle when ignition is turned OFF and the system is fully armed.

SMS: ***Tilt trigger, GPS status, speed, date, time, Google Maps link***

7.2 - GEOFENCE ALERT (24H)

If, when this feature is enabled, the vehicle moves out of the set boundary area by at least 150m (engine OFF and system armed or disarmed), the tracker will send an alert SMS to both preset numbers:

Geo alert,GPS status, speed, date, time, Google Maps link

7.3 - IGNITION ATTEMPT ALERT

If someone attempts to turn ignition ON while the system is armed, either fully or partially, the system sends an alert SMS to the preset numbers.

Ignition trigger, GPS status, speed, date, time, Google Maps link

7.4 - BATTERY TAMPER ALERT (24H)

The tracker provides protection against power source and wire tampering. The following message will be sent to the preset numbers if power supply is cut-off.

Battery tamper alert, GPS status, speed, date, time, Google Maps link

7.5 - LOW BATTERY ALERT (24H)

An alert SMS will be sent to the preset numbers if the vehicle battery voltage drops under the default value (11,5V) for at least 5 consecutive minutes. This input is active 24h regardless of the tracker status.

Low battery alert, GPS status, speed, date, time, Google Maps link

8.0 - ADDITIONAL INFORMATION

The tracker uses the GPS satellite network and the GSM telephone network. The 2 antennas are housed inside the tracker:
- **GPS antenna**: Detects GPS signals to obtain the geographical coordinates of the vehicle.
- **GSM antenna**: Transmits information to the owner's mobile phone through text messages.

In order to guarantee the maximum safety level provided by the system, you must be aware that:

- GPS reception in certain environments can be weak or unavailable. Satellite signal blockage can be due to buildings, tunnels, trees, etc. Rain, fog and snow may also affect the signal quality.
- Sometimes covered parking structures can obstruct reception of GPS signals which make it impossible to get a location fix. The tracker will nonetheless register the last visible position before entering the parking.
- Many covered parking structures (if not a multi-floor underground garage), have GSM coverage which allows the system to communicate regularly with the user.

NB: Even though the tracker power consumption is very low, if your car is left idle for an extended period of time, check the battery periodically and, if necessary, recharge it with an external power supply.

⚠ ATTENTION

**DO NOT REMOVE WARRANTY LABELS.
GEMINI TECHNOLOGIES DECLINES ANY LIABILITY FOR DAMAGES TO THE SYSTEM DUE TO IMPROPER USE OR INSTALLATION.**

9.0 - MESSAGE OVERVIEW

REQUEST	COMMAND
Initial configuration and/or data modification	setup,000000,4,EN,+44xxxxxxxxxx,+44xxxx xxxxxx
Vehicle localization	loc,password
Tracking (vehicle in motion)	track,password
System total arming	on,password
System partial arming	on par,password
Disarming	off,password
Geofence activation	area on,password
Geofence deactivation	area off,password
System status	stat,password

10.0 - 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 this 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.

INSTALLER MANUAL

11.0 - GENERAL INSTALLATION ADVICE

⚠ ATTENTION

Installation must be done by a qualified and experienced technician. Gemini does not accept liability for any damages caused due to incorrect installation of the tracker.

Dear installer, the 992 tracker is a safety device that provides full active protection to 12/24V vehicles via GPS location tracking and GSM communication (mobile phone text messaging).

IMPORTANT:

The built-in GSM and GPS antennas make it easy and simple to install the tracker. Choose a well-hidden position inside the vehicle cabin away from heat sources and potential water infiltrations. Make sure the LED is facing upwards and is not covered by metal surfaces (steel, aluminium, metallized coating, etc.) as it will shield the GPS signal. Plastic and non metallized material will not interfere with GPS signal reception.

12.0 - SIM CARD

The unit must be powered OFF when carrying out the following operations.

• Separate the top and bottom shells by gently lifting the retaining tabs on all sides of the casing (Fig.1).
• Fully insert the nano SIM into the card slot on the PCB (logo side up, Fig.2).
• Reassemble the shells and press down the retaining tabs until they snap into place.
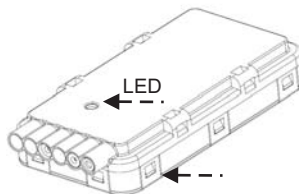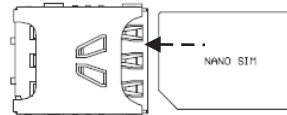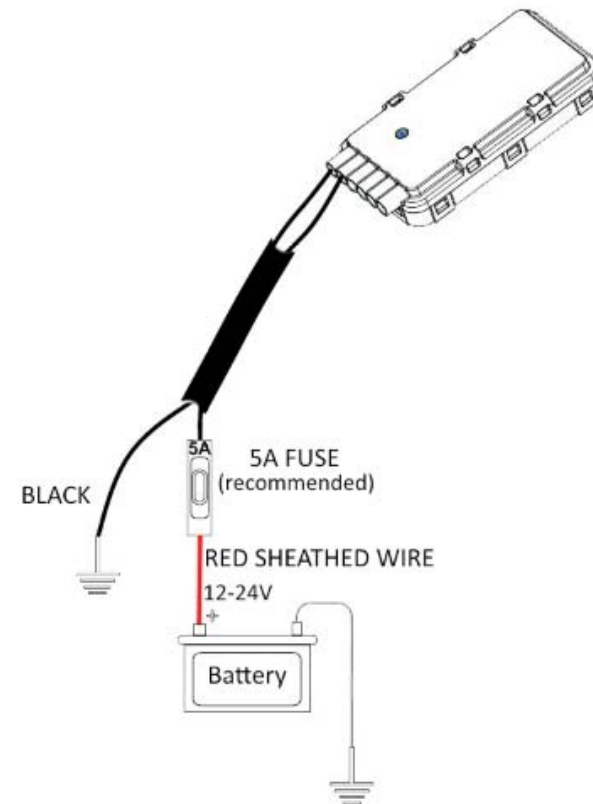

Fig.1   Fig.2

13.0 - WIRING DIAGRAM

⚠ ATTENTION

Before carrying out electrical connections, disconnect the negative battery terminal and only re-connect after completion.

14.0 - TRACKER CONFIGURATION

After wiring connections are completed, activate and configure the system as follows:

- Power the tracker (reconnect the battery negative terminal).
- Move the vehicle outside for better satellite reception.
- Turn ignition ON for approx. 1 min. to get a valid GPS fix.

⚠ ATTENTION

GPS reception can be weak or lost in certain areas due to various interference factors. In this case, when ignition key is ON, the GREEN LED will blink once every 2 sec. (instead of twice every 2 sec.) to indicate that, in that particular point, the GPS signal is too weak to provide an accurate positioning.

If, when the ignition key is turned OFF, there is no GSM reception or the signal strength is too weak, the BLUE LED will be OFF.

- Send the "Setup" message to the tracker.
- If correctly configured, you will receive a confirmation SMS.
- Send a location request.

15.0 - GPS/GSM LED INDICATOR

GREEN LED (GPS):
- 1 flash every 2 sec.: GPS OFF (low power mode, par. 5.0 or no GPS fix).
- 2 flashes every 2 sec.: GPS OK.

BLUE LED (GSM/GPRS):
- 1 flash every 2 sec.: modem connected to network, GSM OK.
- LED OFF:
  › Modem not connected to network.
  › No SIM card detected.
  › Pin-protected SIM card.

16.0 - TECHNICAL SPECIFICATIONS

Nominal supply voltage	12/24 Vdc
Current absorption @12V	0,5A max.
Operating temperature range	-40°C to +85C
Protection rating	Ip67