

NOTICE: Read carefully the instructions and recommendations contained in the manual, before the installation. The equipment must be installed and used in accordance with the instructions. The device is designed for installation in vehicles with 12 or 24 volt electrical systems. The device must be grounded by negative. The manufacturer and retailer are not responsible for any damages resulting from improper installation, use, operation or control of the product differently from the instructions. Improper interference with the device or its treatment, may cause risk of damage to the device itself, or vehicle power supply and the guarantee loss. For proper and correct operation of the product we recommend to install by a professional service.

I. SYSTEM DESCRIPTION

GPS SNIPER will help you to secure and to protect your vehicle (passanger car, truck, motorcycle, trailer, construction or agricultural machinery, motorboat etc.). In the event of theft, GPS Sniper will send the current position to your mobile phone. Via mobile phone, you can easily display the current position on the map. The position of guarded vehicle you can also see via PC on the website <http://www.maps.google.com>.

The system consists of GPS Sniper unit and GPS satellite antenna. GPS Sniper unit is usually placed in a hidden and hard to reach place (eg. In automobile under the dashboard). There is located the SIM card of GSM mobile operator (not included in the package) inside the GPS Sniper unit. The unit then has its own phone number. You can use a flat rate or a prepaid SIM card. You can realize the recharge of prepaid SIM card using the mobile phone or using a bank terminal (ask your GSM mobile operator about the possibilities). The system communicates with the user via SMS. Therefore, it is important to pay attention to price tariffs for SMS services when choosing a mobile operator. We recommend to activate also roaming services, in case for locating a vehicle abroad. There is a backup battery and tilt sensor built-in the device. GPS Sniper contains additional user features, which are explained in detail in the user manual.

II. THE SYSTEM INSTALLATION

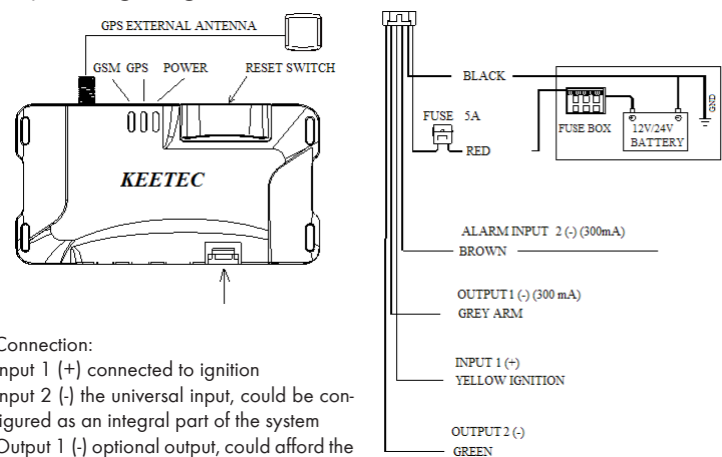
GPS Sniper possible to istall as an autonomous device, or as an accessory with interesting features to the existing alarm.

1. Loosen the screw of plastic cover, remove the cover and insert the SIM card into the SIM card slot.

Note: First, it is necessary to disable the SIM card PIN code protection. The PIN code protection could be turned off in a mobile phone menu for example.

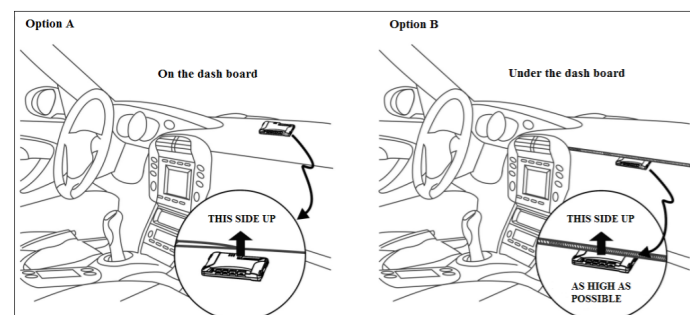
2. Connect the single wires of the cable harness, follow the wiring diagram. While doing so, the cable harness connector must be disconnected from the GPS Sniper.

III. WIRING DIAGRAM



Connection:
 Input 1 (+) connected to ignition
 Input 2 (-) the universal input, could be configured as an integral part of the system
 Output 1 (-) optional output, could afford the actual ARM/DISARM information, or could be set as output controlled by SMS
 Output 2 (-) alarm output, its active while JAMM or TILT alarm triggered

INSTALLATION LOCATION IN A VEHICLE



Connect the GPS antenna and wiring harness connector to the GPS Sniper unit. GPS antenna must be positioned horizontally and can not be shielded by any metal parts from above.

Wait approximately 2 minutes after the power supply connected, the complete initialization will proceed meanwhile. The device is ready to recieve the configuration SMS commands after the 2 minutes had passed.

IV. SYSTEM SETUP

GPS Sniper is configured using the commands in the form of SMS from your mobile phone to the phone number of GPS Sniper. The configuration command is always sent also with a PIN code that authorizes a sender. PIN code is a four-digit number and can be changed, it is set to „4321“ by default. The configuration commands can be entered by capital or small letters. In the case of syntax error sent, GPS Sniper replies with „UNKNOWN COMMAND“ SMS. SMS commands could be combined into one long SMS with the PIN code entered only once, for example „4321 PIN xxxx SPEED xx INPUT ON“. There must be entered spaces between the different parts of the multiple command..

1. AUTHORIZING OF TELEPHONE NUMBER FOR ALARM SMS RECIEVING

If a telephone number authorized, the telephone number will become an alarm SMS recipient and also could control the GPS Sniper.

The command systax:

4321 TEL +xxxxxxxxxxxx +yyyyyyyyyy +zzzzzzzzzz
 +x -first authorized number in international format
 +y -second authorized number in international format
 +z -third authorized number in international format



Example:

There are 2 telephopne numbers authorized. It is also possible to authorize only one telephone number. The three telephone numbers may be authorized in total, as a maximum. Each authorized telephone number could activate the „Monitor“ mode by ringing through the GPS Sniper tel.number (see in next). It is necessary to enter the telephone numbers in the international format only, it must therefore always starts with the + sign. **Note:** It is necessary to activate CLIP service (caller identification) on the SIM card. Unless this service is not active, you can not operate the GPS Sniper by ringing through.

2. SMS FREQUENCY PERIOD ADJUSTMENT, AFTER GPS ALARM TRIGGERED

The command systax:

4321 SMS xx yy zz
 xx -indicates, how long distance traveled (in km), after which the first SMS alarm will be automatically sent
 yy -indicates the distance traveled (in km) between two repetitious SMS if the position has changed
 zz -Indicates the total number of alarm SMS which will be sent, for one GPS alarm triggered

Default values:
 xx - 0.3 yy - 2.0 zz - 05

Example:

After the GPS alarm is triggerred, the first SMS will be sent if the GPS position of the device will change by 0.2 km. The next SMS will be sent if the position will change by 5 km, the total number of SMS sent will be 3.



After the GPS alarm is triggerred, the first SMS will be sent only after the first distance set (xx) is traveled. More SMS are sent after the (yy) interval is traveled. The last parameter (zz) indicating the total number of SMS which will be sent out for one GPS alarm triggered. After all the SMS are sent out, the GPS alarm is deactivated automatically.

3. PIN CODE CHANGE

The command systax:

4321 PIN xxxx
 xxxx - new PIN code
Default PIN code: 4321



We recommend to change the PIN code for security reasons as soon as possible. Keep your current PIN code in a safe place in case you forget it.

4. SMS ALARM TEXT CONFIGURATION (SMS SENT BY GPS SNIPER)

Alarm SMS with predefined text is automatically sent out if the GPS alarm triggerred, to authorized telephone number (numbers). There is also GPS location information attached automatically in the SMS text.



The command systax:

4321 TEXT1 xxxxxxxxxxx (xxxxxxxx alarm text for motion detection)
 4321 TEXT2 xxxxxxxxxxx (xxxxxxxx alarm text for ignition turning ON)
 4321 TEXT3 xxxxxxxxxxx (xxxxxxxx alarm text for speeding)
 4321 TEXT4 xxxxxxxxxxx (xxxxxxxx alarm text for tilt angle change)
 4321 TEXT5 xxxxxxxxxxx (xxxxxxxx alarm text for Input 2 active)
 4321 TEXT6 xxxxxxxxxxx (xxxxxxxx alarm text for GSM signal jamming)
 4321 TEXT7 xxxxxxxxxxx (xxxxxxxx alarm text for weak battery)
 - there is automatically attached to the text also "xxV" (Voltage value)

Default alarm SMS text:

"ALARM! MOTION DETECT" - if motion of the device detected
 "ALARM! IGNITION IS ON" - if ignition turned ON
 "ALARM! SPEED is xx km/h" - if set maximum speed exceeded (xx - actual speed)
 "ALARM! TILT SENZOR" - if tilt angle changed
 "ALARM! INPUT ON" - if Input 2 active
 "ALARM! GPS SIGNAL INTERFERENCE" - if GSM signal jammed
 "ALARM! BATTERY HAS xxV" - if car battery weak (xx - value in Volts)

5. SETTING THE AUTOMATIC CONFIRMATION OF SMS COMMANDS

The command systax:

4321 CONFIRMATION ON - to turn ON
 4321 CONFIRMATION OFF - to turn OFF



Is enabled by default "ON"

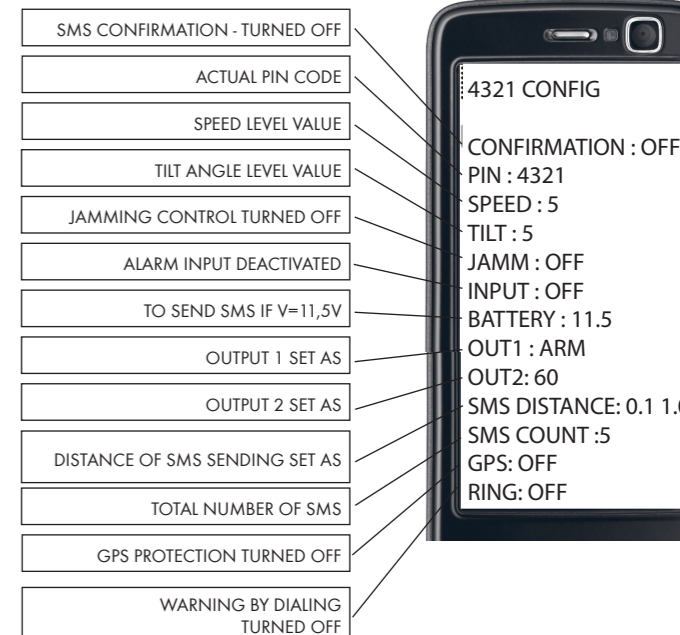
After an authorized user sends any of the commands, the device automatically sends back to him SMS confirmation. As far as validation is turned on, after the successful processing of SMS command, device will send SMS confirmation with the text for example "Speed 45" or "INPUT OFF" to authorized phone number that had sent the SMS command before. Confirmation SMS is not sent as a response to the commands, by which there is a different SMS response.

6. REQUEST FOR GPS SNIPER CONFIGURATION STATUS

The command systax:

4321 CONFIG

After the CONFIG command is sent out, user recieve the information SMS from the GPS Sniper with the actual configuration status. The user receives the information about the set parameters.



7. REQUEST FOR AUTHORIZED TELEPHONE NUMBERS LIST

The command systax:

4321 CONFIG TEL

The device will send BACK SMS in shape:

TEL NUMBER:
 +xxxxxxxxxxxx
 +yyyyyyyyyy
 +zzzzzzzzzz



8. REQUEST FOR GPS POSITION AND DEVICE STATUS INFORMATION

The command systax:

4321 ?

The device will send BACK SMS in shape:

<http://www.maps.google.com/maps?q=48.970333,18.188774>
 GSM : SIGNAL OK (or NO SIGNAL)
 GPS : SIGNAL OK (or NO SIGNAL)
 BATTERY : 13,5V
 ALARM : NO
 INPUT : OFF
 OUT1 : OFF
 SPEED : 0km/h
 IGNITION : OFF
 MONITOR : OFF



9. FACTORY RESET

The command systax:

4321 DEFAULT

or, you can turn ON the ignition and 5x connect/disconnect the power supply instead.



It sets all the parameters to default.

The command runs complete device initialization, its necessary to wait at least 2 minutes, until the device is ready again to receive further commands. The reset command does not affect the set PIN code.

V. USER FUNCTIONS OF GPS SNIPER

GPS Sniper is configured using the commands in the form of SMS from your mobile phone to the phone number of GPS Sniper. The configuration command is always sent also with a PIN code that authorizes a sender. PIN code is a four-digit number and can be changed, it is set to „4321“ by default. The configuration commands can be entered by capital or small letters.

1. PROTECTION

GPS Sniper possible to use for the protection of the vehicle as an autonomous device, or together with the existing alarm. If you are using localizer absolutely, you could use the "GPS ON" mode and "Monitor" mode. If you use it with the external car alarm, then you have additionally available "INPUT Alarm" mode.

WAYS OF PROTECTION:

- 1.1 Motion detected by GPS unit
- 1.2 Turning the ignition ON in "Monitor" protection
- 1.3 Input 2 control- if it is enabled
- 1.4 JAMM protection (detection of GSM signal jamming) - if it is enabled
- 1.5 Car battery discharge protection
- 1.6 Speeding- if it is set
- 1.7 Tilt sensor protection - if it is enabled

1.1 „GPS ON“ Mode

GPS triggers alarm, if the vehicle is set in motion and the ignition is turned OFF. It is the protection against towing the car. This type of protection is recommended to have turned ON permanently. It is not necessary to deactivate before driving. If you start the car, GPS protection is interrupted automatically by itself throughout the drive. Activating the function by SMS command „4321 GPS ON“.

Activation:

GPS protection is activated and deactivated by ignition, it is deactivated by starting the car, activated with the ignition turned OFF. GPS alarm is triggered when the vehicle is set to move and the ignition is turned OFF (pulling off).

Response to GPS alarm:

During the active period of GPS alarm (alarm triggered) the alarm SMS are sent also with the GPS location. The total number of SMS sent depends on the actual configuration set. You can cancel the GPS alarm, if you send SMS command: „4321 GPS OFF“.



1.2 „MONITOR“ Mode

The mode is identical to the GPS ON mode, but does not consider the actual ignition status. GPS alarm is triggered always, if the car is set into move, no matter if ignition ON or OFF.

Activation:

It is activated by dialing GPS Sniper telephone number from an authorized phone number (GPS Sniper rings 2x then reject the call).

Deactivation:

It is deactivated by dialing the GPS Sniper phone number from an authorized phone number (deactivation is confirmed by rejecting the call from the GPS Sniper side). The deactivation must be carried out before each drive. (the call is rejected from the GPS Sniper side immediately).

GPS alarm triggering:

GPS alarm is triggered whenever the car is set to move (if the mode active).

Response to GPS alarm:

The device will send the alarm SMS immediately in the form „ALARM, IGNITION IS ON“, if the ignition is ON by the „Monitor“ mode active. The alarm SMS also includes GPS coordinates and a link to „maps.google.com“. The alarm SMS are sent repeatedly with the GPS location information throughout the period of GPS alarm is active. Total number of alarm SMS sent depends on actual configuration set. You can cancel the GPS alarm by dialing the GPS Sniper phone number from any of the authorized phone numbers. The cancellation is confirmed by immediate rejection of the call.

1.3 Input 2 control protection

You could utilize the Input protection, only if there is oem or aftermarket alarm already installed in the car. The output of the original alarm is connected then to input contact of GPS Sniper. The device will send SMS message to authorized phone number, if the signal occurs on the input of GPS Sniper.

Note: Let the connection to be performed by a professional service.

Activation:

The command systax:
 4321 INPUT ON 0.2 to turn ON
 (alarm input must be in ON-state at least 0,2 seconds)
 4321 INPUT ON 1.5 to turn ON
 (alarm input must be in ON-state at least 1,5 seconds)

Deactivation:
 INPUT protection could be deactivated by SMS command

The command systax:
 4321 INPUT OFF to turn OFF - set as OFF by default

Alarm triggered:

Alarm Input 2 is active only if the ignition is OFF. After the alarm is triggered, the Input 2 is deactivated for 2 minutes.

1.4 Detection of GSM signal jamming

The command systax:

4321 JAMM ON to turn ON
 4321 JAMM OFF to turn OFF

set as turned OFF by default.

We recommend the function to be active with connection to car alarm, siren or the horn, because the user will receive the SMS information about the signal jamming only after the GSM signal recovery.



1.5 Car battery discharge protection

The command systax:

4321 BATTERY xx
 xx- minimum voltage value

Default value 11,5V

- alarm SMS is sent out, if the actual battery voltage drops below the set value for at least 2 minutes.



1.6 Speeding protection

The command systax:

4321 SPEED xx
 xx- value in km/h 0-200,
 - if the value set as 0 (zero),
 alarm SMS will not be sent at all

Default value 130 km/h.

Alarm SMS is sent out automatically, if the car speed exceeds the set value.



1.7 Tilt sensor protection

The command systax:

4321 TILT xx
 xx value in degrees 0° - 30°
 - if the value set as 0° (zero),
 alarm SMS will not be sent at all

Default value 5°.

The protection is activated automatically, 2 minutes after the ignition is switched OFF. If the alarm is triggered by tilt sensor, the next alarm possible to trigger only after 2 minutes had passed.



2. OTHER SETTINGS

2.1 GSM / GPS signal strength

The command systax:

4321 SIGNAL
 Answer:
 GSM 96%
 GPS 9 SATELLITES



2.2 Alarm notification by dialing authorized phone number

GPS Sniper will dial all the authorized phone numbers and only then will send alarm SMS, if alarm triggered.

The command systax:

4321 RING ON - to turn ON
 4321 RING OFF - to turn OFF



2.3 Output 1 setup

a. Settings - to obtain information on the locator status (arm/disarm)

The command systax:

4321 OUT1 ARM
Default setting: OUT1 ARM

The output is active if "Monitor" protection active. If the "Monitor" mode deactivated, the output is deactivated too.



b. Settings - User controlled output

The command systax:

4321 OUT1 USER
 Output 1 activation 4321 OUT1 ON
 Output 2 deactivation 4321 OUT1 OFF



This allows you to switch the relay in GPS locator and thus remotely enable or disable a device in a vehicle (such as a siren, lights, radio).

Output 1 activation for a limited time
 4321 OUT1 11m output is active 11 minutes
 4321 OUT1 6s output is active 6 seconds



2.4 Output 2 settings by SMS

4321 OUT2 30 Output will be switched by impulses 30 seconds (utilization for horn)
 4321 OUT2 60 Output will be switched permanently for 60 seconds



Default value 60 seconds

It is possible to set those 2 values only (30 or 60)

2.5 GPS locator switching to SLEEP mode

The command systax: 4321 SLEEP

In Sleep mode the protection is turned OFF, GPS and GSM receiver is turned OFF too. Sleep mode is automatically deactivated by switching the ignition ON, or by the signal on Input 2, or if the car is tilted. Then the Alarm SMS is sent out.



2.6 GPS locator deactivation

In the GPS OFF mode, the protection is turned OFF, current consumption is reduced. GPS receiver is turned OFF, GSM stays turned ON.

GPS Sniper deactivation:
 4321 GPS OFF

GPS Sniper activation:
 4321 GPS ON



Note: In the case of current shutdown of „Monitor“ protection and „GPS“ protection (GPS OFF), the system automatically turns off also the GPS receiver and therefore the „SPEED“ protection can not be used too.

2.7 Zaslanie informačnej SMS z GPS lokalizátora

It is possible to send out any text SMS from the device phone number, using authorized phone number:

4321 +xxxxxxxxxxxx zzzzzzzzzz
 +xxxxxxxxxxxx - phone number
 zzzzzzzzzz - message text

Note:

The SMS messages received by GPS Sniper from other than authorized phone numbers are automatically forwarded to authorized numbers (info about the credit status for example).

Warning:

Do not enter GPS Sniper SIM card phone number as an authorized phone number! the system may get cycled and huge unexpected fees may occur from GSM operator, because of the high amount of SMS messages sent!

VI. MOBILE APPLICATION

GPS Sniper device allows you to use a mobile application GPS Sniper for the smart phones. The application allows you to perform complete system setup and control the GPS Sniper the similar way, like by the SMS commands. User manual for the mobile application is part of the application itself. Contact your GPS Sniper producer about the issue of the application for Android (Google Play) and iOS (Apple Store).

VII. FREQUENTLY ASKED QUESTIONS (FAQ)

PROBLEM	SOLUTION / THINGS TO CHECK OUT
The device will not turn ON	<ul style="list-style-type: none"> • Check out the power supply connection wires and input ACC wire
The device will not receive the GSM signal	<ul style="list-style-type: none"> • Check the SIM card correct insertion • Check the GSM signal coverage with the operator • Check if the PIN code protection of the SD card is turned OFF • Yellow LED must be ON, if GSM signal receives OK
The device not response to SMS command	<ul style="list-style-type: none"> • Check, if the device is turned ON and if receives the GSM signal. You can check it by dialing the GPS Sniper phone number • Be sure, SMS command entered in correct form with valid PIN code. If you use a prepaid SIM card, make sure the SIM card is still active and there is enough credit for sending SMS. • Before the first SMS command sent, wait approximately 2 minutes after the device is turned ON, the system initialization must be performed first. If you want to send another SMS command, wait pls until the previous SMS command is processed.
The device response to SMS commands, but does not response to dialing from authorized phone number	<ul style="list-style-type: none"> • Check the validity of the authorized phone number, including international phone prefix by the SMS command CONFIG TEL. • Check, if there is the CLIP (Caller ID) service activated with the SIM
The device will not trigger GPS alarm	<ul style="list-style-type: none"> • Check, if there is GPS protection mode activated (GPS / MONITOR). • Check the correct connection and location of GPS aerial. • Check the authorized phone numbers, if it is correct
False GPS alarm triggered	<ul style="list-style-type: none"> • Check, if the GPS aerial is installed horizontally and is not shielded by metal parts from above. • The device has sophisticated algorithm for the alarms triggering. Nevertheless, a false alarm may be triggered in some specific cases, anyway it is not a failure of the device or the incorrect installation. This can happen in a garage near the high buildings, where the device could receive reflected GPS signal for longer period of time.
GPS Sniper PIN code forgotten	<ul style="list-style-type: none"> • Please contact your dealer, the device may be restored to factory settings, including PIN only by the manufacturer

VIII. TECHNICAL PARAMETERS

Operating temperature	from -20 °C to +80 °C
ECU measures	90 x 54 x 12,8 cm
ECU weight	app. 50g
Power supply	9V to 36V
Current consumption	by GPS protection: 40 mA
Current consumption	by SLEEP mode: 17 mA
Output 1	300 mA
Output 2	300 mA
Battery	built-in Li-On, 300 mAh