Alarm system GSM communicator
GSW1 user manual.

INTRODUCTION. Nowadays environment is full of sounds generated by vehicle alarm systems thus people rarely pay attention to the sound of an alarm and alarm signal does not reach the addressee. GSW1 is a modern solution for this problem developed by "KODINIS RAKTAS". It is a special mobile phone specialized to send alarm messages. Like other GSM devices it must have activated SIM card and to be registered in GSM network. Communicator has a phonebook where it is possible to save up to 3 phone numbers (PHN1, PHN2, PHN3). When the alarm system (E50, GN5, GN6 or C60) is in ARMED state and triggered, these 3 phone numbers will receive voice alarm messages and PHN1 will receive info and alarm SMS messages. For easy use and setup GSW1 has 25 voice channel commands and 69 SMS commands. SMS commands are sent to PHN1 and this PHN1 will receive answers from GSW1.

1. HOW TO SEND COMMAND. Commands are used to check, delete, enter phone numbers into phonebook, set priority, change PIN code and control optional devices connected to GSW1 relays. To send command follow these steps:
- dial GSW1 phone number and make a call;
- hear the GSW1 answer with a voice message about alarm system status;
- still being connected with GSW1, dial GSW1 PIN (1 2 3 4) code using mobile or stationary phone keypad and press ✱;
- hear the GSW1 answer "OK";
- still being connected with GSW1, dial command number (see Paragraph 2) using mobile or stationary phone keypad;
- dial next command number if necessary or finish a call by dialling 0#
- if none of the phone buttons is pressed within period of 45 seconds, the call is finished automatically.


Alarm system GSM communicator GSW1

It's important: GSW1 must be prepared to accept commands:
- make sure that GSW1 incorporates SIM card with prepaid account, that PIN code request is turned off on the SIM card, and SMS service centre number is entered;
- make sure that GSW1 is connected to the alarm system and power supply.

2. THE SET OF VOICE CHANNEL COMMANDS.

0#	- finish a call (when GSW1 reports about alarm and does not get confirmation 0#, it will call to all 3 phone numbers from phonebook 3 times each);
0✱	- check the last alarm message, alarm message of highest priority and system state;
00✱	- delete the last alarm message (alarm message will be also deleted automatically after rearming GSW1);
11✱phone number✱	- save PHN1 into the 1st phonebook position;
22✱phone number✱	- save PHN2 into the 2nd phonebook position;
33✱phone number✱	- save PHN3 into the 3rd phonebook position;
1✱	- check PHN1;
2✱	- check PHN2;
3✱	- check PHN3;
11✱✱	- delete PHN1 from the 1st phonebook position;
22✱✱	- delete PHN2 from the 2nd phonebook position;
33✱✱	- delete PHN3 from the 3rd phonebook position;
5✱	- check the priority of PHN1;
50✱	- reset the priority of PHN1; (when alarm system is triggered GSW1 will call to PHN1, PHN2 and PHN3);
55✱	- set the priority of PHN1; (when a call reaches PHN1 and confirmation 0# from it is received by GSW1, GSW1 will not call to PHN2 and PHN3);
6✱	- check the 1st relay status;
60✱	- turn OFF the 1st relay;
61✱	- turn ON the 1st relay and turn it OFF according to the 1st timer setting;
66✱	- turn ON the 1st relay;
666✱	- temporary switch over the 1st relay, if relay was ON it will be OFF (after 45 seconds or pressing buttons 0, 1,...9, ✱ or # relay will return to previous state);
7✱	- check, whether GSW1 will call to PHN1, PHN2 or PHN3 after system sensor is triggered;
70✱	- disable GSW1 to call after sensor is triggered;
77✱	- enable GSW1 to call after sensor is triggered;
8✱	- check, whether GSW1 will call to PHN1, PHN2 or PHN3 after system additional sensor is triggered;
80✱	- disable GSW1 to call after additional sensor is triggered;
88✱	- enable GSW1 to call after additional sensor is triggered;
9✱	- check the 2nd relay status;
90✱	- turn OFF the 2nd relay;
91✱	- turn ON the 2nd relay and turn it OFF according to the 2nd timer setting;
99✱	- turn ON the 2nd relay;
999✱	- temporary switch over the 2nd relay, if relay was ON it will be OFF (after 45 seconds or pressing buttons 0, 1,...9, ✱ or # relay will return to previous state).

It is important: 1. telephone number must be entered with international country code. Do not add '+' sign before the country code, for example, 11✱ 3706528888✱, PHN1, PHN2 and PHN3 - not longer than 16 digits.
2. Commands 8✱, 80✱, 88✱ operate only when alarm system has an additional sensor input, for ex. C60.

3. GSW1 RESPONSE TO VOICE CHANNEL COMMANDS.

0#	- will finish a call;
0✱	- GSW1 will say twice: "ON, OK" if armed system was not triggered, "OFF" if alarm system is disarmed, or "ALARM, ...", if alarm system was triggered and alarm message of highest priority. Alarm messages according their priority (from the lowest to the highest): "Alarm, car's window" and "Alarm, car's body; "Alarm, panik key"; "Alarm, car's door" and "Alarm, car's trunk; "Alarm, car's engine";
00✱	- GSW1 will say: "ALARM EMPTY";
11✱ phone number ✱	- GSW1 will say: "PHONE NUMBER ONE" after 11✱ was dialled and "OK" after PHONE NUMBER and ✱ was dialled;
22✱ phone number ✱	- GSW1 will say: "PHONE NUMBER TWO" after 22✱ was dialled and "OK" after PHONE NUMBEr and ✱ was dialled;
33✱ phone number ✱	- GSW1 will say: "PHONE NUMBER THREE" after 33✱ was dialled and "OK" after PHONE NUMBER and ✱ was dialled;
1✱	- GSW1 will say: "PHONE NUMBER ONE" and phone number in the 1st phonebook position;
2✱	- GSW1 will say: "PHONE NUMBER TWO" and phone number in the 2nd phonebook position;
3✱	- GSW1 will say: "PHONE NUMBER THREE" and phone number in the 3rd phonebook position; **Note:** If phonebook position is empty GSW1 instead of phone number will say: "EMPTY".
11✱✱	- GSW1 will say: "EMPTY";
22✱✱	- GSW1 will say: "EMPTY";
33✱✱	- GSW1 will say: "EMPTY";
5✱	- GSW1 will say: "ON, NUMBER ONE" if priority set to PHN1 or "ON, NUMBER ONE, TWO, THREE", if all 3 phone numbers have the same priority;
50✱	- GSW1 will say: "ON, NUMBER ONE, TWO, THREE";
55✱	- GSW1 will say: "ON, NUMBER ONE";
6✱	- GSW1 will say: "RELAY 1 ON" if it is on, "RELAY 1 OFF" if it is off, or "RELAY 1 ON" and six digits of remaining duty time: "X X Y Y Z Z" (X X - hours, Y Y - minutes, Z Z - seconds), if it is launched according to the 1st timer setting;
60✱	- GSW1 will say: "RELAY 1 OFF";
61✱	- GSW1 will say: "RELAY 1 ON" and six digits of remaining duty time: "X X Y Y Z Z" (X X - hours, Y Y - minutes, Z Z - seconds);
66✱	- GSW1 will say: "RELAY 1 ON";
666✱	- GSW1 will say: "RELAY 1 OFF", if before dialling 666✱ it was on, or "RELAY 1 ON", if it was off;
7✱	- GSW1 will say: "CAR'S BODY IS PROTECTED" or "CAR'S BODY IS NOT PROTECTED";
70✱	- GSW1 will say: "CAR'S BODY IS NOT PROTECTED";
77✱	- GSW1 will say: "CAR'S BODY IS PROTECTED";

8✱ - GSW1 will say: “WINDOW IS PROTECTED” or “WINDOW IS NOT PROTECTED”;
80✱ - GSW1 will say: “WINDOW IS NOT PROTECTED”; 88✱ - GSW1 will say: “WINDOW IS PROTECTED”;
9✱ - GSW1 will say: “RELAY 2 ON” if it is on, “RELAY 2 OFF” if it is off, or “RELAY 2 ON” and six digits of remaining duty time: “XX YY ZZ” (XX - hours, YY - minutes, ZZ - seconds), if it is launched according to the 2nd timer setting;
90✱ - GSW1 will say: “RELAY 2 OFF”;
91✱ - GSW1 will say: “RELAY 2 ON” and six digits of remaining duty time: “XX YY ZZ” (XX - hours, YY - minutes, ZZ - seconds);
99✱ - GSW1 will say: “RELAY 2 ON”;
999✱ - GSW1 will say: “RELAY 2 OFF”, if before dialing 999✱ it was on, or “RELAY 2 ON”, if it was off.

4. SMS COMMANDS.

For easy use and setup GSW1 has two types of SMS commands. Basic SMS commands are alternative to voice channel commands (see Paragraph 2). There are also setup SMS commands used by installers or clients to customize GSW1.

4.1 Sending SMS command:

- check if PHN1 is saved in GSW1 phonebook (see Paragraph 2);
- use a mobile phone with PHN1 SIM card to write SMS message;
- write a command from the list (see Pararaph 5);
- send SMS to GSW1 phone number;

5. THE SET OF SMS COMMANDS.

Notes: *1. In SMS command text both characters - capitals and minuscules are possible (for example, command ✱**A**✱# is analogue to command ✱**a**✱#);*
*2. **'Space'** symbol can be entered before first command line symbol ✱. In some cases it helps to ensure sending SMS between different GSM networks;*
*3. In case GSW1 does not recognize the command (when inappropriate command or any other symbol is sent) it sends SMS with system state (equivalent to command ✱**0**✱#).*

5.1 Basic commands

✱0✱#	- check the last alarm message or system state;
✱00✱#	- delete the alarm message (alarm message will be also deleted automatically after rearming GSW1);
✱11✱ phone number ✱#	- save PHN1 into the 1st phonebook position;
✱22✱ phone number ✱#	- save PHN2 into the 2nd phonebook position;
✱33✱ phone number ✱#	- save PHN3 into the 3rd phonebook position;
✱1✱#	- check PHN1;
✱2✱#	- check PHN2;
✱3✱#	- check PHN3;
✱11✱✱#	- delete PHN1 from the 1st phonebook position;
✱22✱✱#	- delete PHN2 from the 1st phonebook position;
✱33✱✱#	- delete PHN3 from the 1st phonebook position;
✱5✱#	- check the priority of PHN1;
✱50✱#	- reset the priority of PHN1 (when alarm system is triggered GSW1 will call to PHN1, PHN2 and PHN3);
✱55✱#	- set the priority of PHN1 (when a call reaches PHN1 and confirmation 0# from it is received by GSW1, GSW1 will not call to PHN2 and PHN3);

Timers for relays control

✱T✱#	- report about 1st and 2nd relay timer interval;
✱T6✱ XXhYYmZZs✱#	- to set the 1st relay timer interval, when **XX** - hours, **YY** - minutes, **ZZ** - seconds;
✱T9✱ XXhYYmZZs✱#	- to set the 2nd relay timer interval, when **XX** - hours, **YY** - minutes, **ZZ** - seconds;
✱6✱#	- check the 1st relay status;
✱60✱#	- turn OFF the 1st relay;
✱61✱#	- turn ON the 1st relay and turn it OFF according to the 1st timer setting;
✱66✱#	- turn ON the 1st relay;
✱9✱#	- check the 2nd relay status;
✱90✱#	- turn OFF the 2nd relay;
✱91✱#	- turn ON the 2nd relay and turn it OFF according to the 2nd timer setting;
✱99✱#	- turn ON the 2nd relay;

Sensors

✱7✱#	- check, whether GSW1 will send SMS to PHN1, PHN2 or PHN3 after system sensor is triggered;
✱70✱#	- disable GSW1 to send SMS after system sensor is triggered;
✱77✱#	- enable GSW1 to send SMS after system sensor is triggered;
✱8✱#	- check, whether GSW1 will send SMS to PHN1, PHN2 or PHN3 after additional system sensor is triggered;
✱80✱#	- disable GSW1 to send SMS after additional sensor is triggered;
✱88✱#	- enable GSW1 to send SMS after additional sensor is triggered;

5.2 Setup commands

Alarming mode

✱A✱#	- request for the info about pre-programmed mode of alarm signal transmission;
✱A0✱#	- when alarm system is triggered GSW1 **does not call** up to 3 phone numbers for voice messages, **does not send SMS** to PHN1;
✱A1✱#	- when alarm system is triggered GSW1 **calls** up to 3 phone numbers for voice messages, **does not send SMS** to PHN1;
✱A2✱#	- when alarm system is triggered GSW1 **does not call** up to 3 phone numbers for voice messages, **send SMS** to PHN1;
✱A3✱#	- when alarm system is triggered GSW1 **calls** up to 3 phone numbers for voice messages, **sends SMS** to PHN1;

Broadcasting of state by SMS

✱B✱#	- request for the info about sending SMS with system state after arming/disarming;
✱B0✱#	- when arming/disarming GSW1 does not send validation SMS;
✱B1✱#	- when arming GSW1 sends SMS to PHN1, when disarming does not send SMS;
✱B2✱#	- when disarming GSW1 sends SMS to PHN1, when arming does not send SMS;
✱B3✱#	- when arming/disarming GSW1 sends SMS to PHN1;

Connection

✱C✱#	- request for the info whether or not GSW1 will send SMS message to PHN1 about disappearing / appearing GSM signal;
✱C0✱#	- if GSM signal appears / disappears GSW1 does not send any messages;
✱C1✱#	- if GSM signal appears / disappears GSW1 sends SMS message to PHN1. When GSM signal disappears - **“No network !”**, When GSM signal appears - **“Network restored”**;

Digest

✱D✱#	- is equivalent to **✱A✱#** and **✱B✱#** commands together;

Forwarding SMS

✱F✱#	- request for the info about SMS messages that come not from PHN1 and have to be forwarded to PHN1;
✱F0✱#	- disable forwarding SMS that come not from PHN1 to PHN1;
✱F1✱#	- enable forwarding SMS that come not from PHN1 to PHN1;

Note: Maximum SMS text length is 100 symbols; in case of exceeding this length text will be cut.

Doors

✱H✱#	- request for the info about GSW1 calling on door triggering;
✱H0✱#	- disable GSW1 calling on door triggering;
✱H1✱#	- enable GSW1 calling on door triggering;

Identification

If number identification and C60 mode switch function is ON, the car dims ones lights after first signal if GSW1 receives a call from from the number, which matches the first preprogrammed number in GSW1. If the phope will be hyng up during 7 second from this moment, C60 will change alarm mode (if it was ON, it will be OFF and vice versa). If the call is not ended in 7 seconds, GSW1 answers it.

✱I✱#	- request for the info whether the identification of calling number and the switching of C60 arming mode is on;
✱I0✱#	- disable the function of identification of calling number and switching of C60 arming mode;
✱I1✱#	- enable the function of identification of calling number and switching of C60 arming mode;

Note: Only 10 digits from the end of the calling number (or SMS) are compared.

Entering PIN code

∗P∗# - request for the info if GSW1 enters SIM card's PIN;
∗P0∗# - GSW1 doesn't enter SIM card's PIN;
∗P1∗# - enable PIN entering. GSW1 will enter SIM card's PIN - **4444**;

Blocking commands **P0** and **P1**

∗P4∗# - request for the info if commands **P0** and **P1** are blocked;
∗P40∗# - block command **P0** or **P1**;
∗P40∗# - get command **P0** or **P1**;

Notes: 1)Command **P0*** or **P1*** is gotten only once if you have send **P44*** (GSW1 blocks **P0*** or **P1*** when it was gotten till another command **P44***).
2)If you want to enable PIN entering (**P1***), insert SIM card with enabled PIN entering to GSW1, send **P44*** and then **P1***. Turn GSW1 ON, insert SIM card to mobile phone, enable PIN entering, enter **4444**. Insert SIM card back to GSW1. Now, GSW1 and SIM card are ready to use.

Operational reliability

To ensure correct GSW1 operation it is necessary to restart GSW1 modem few times per day (usually problems occur after prepaying GSW1 SIM card account).

∗O∗# - request for the info about the amount of GSW1 restarts per 24 hours;
∗Oj∗# - set the amount of restarts per 24 hours. Instead of **"j"** digits from 0 to 9 have to be entered. They mean an amount of system restarts per 24 hours;

Version of GSW1

∗V∗# - request for the info about program date and GSW1 version, meaning of sms command settings A, B, C, F, I, J, Y, O, P

Sending SMS via GSW1

∗X∗Telephone no.**∗**Text**#** - send SMS to phone number "Telephone no." with a text "Text". Phone number length - from 3 to 16 digits. Total length of telephone number (including a sign "+" if phone number is entered with international country code) and text cannot be longer than 108 symbols. Any symbols including **∗** and **#** can be used in the text.
∗X1∗Text - request or SIM card account replenish. **"Text"** is the line, which should be entered in the window for telephone number if you want check or replenish your account. For example, in TELE2 you can check your account by entering **"∗245#"**, in Russia - "**100#"**. If your operator supports this service, the required info will be sent to PHN1.

Immobilizer state

GSW1(I) has immobilizer function. If this function is ON GSW1 modem stays turned OFF as logn as ignition is OFF during the system is armed. When ignition is ON, GSW1 modem and relays are turned ON. Alarm message is sent. Relays and modem stay ON till disarming. When modem is turned OFF, GSW1 not only doesn't send SMS, doesn't call, but also it doesn't receive SMS and calls. So, while modem is turned OFF, GSW settings CAN'T BE CHANGED. If immobilizer function is turned OFF, relays are controlled by SMS or calls and modem always stays ON.

∗Y∗# - information request about immobilizer state;
∗Y0∗# - turn OFF immobilizer function;
∗Y1∗# - turn ON immobilizer function.

Blocking function

If blocking function is enabled, rrelay 2 will be switched ON after system arm until C60 disarm (or until blocking will be turned OFF). This function is disabled / enabled by SMS commands ***J0*#/J1*#.*** If blocking function is ON, you can't control relay by SMS or calling GSW1.

∗J∗# - information request if blocking function is ON;
∗J0∗# - turn OFF blocking function;
∗J1∗# - turn ON blocking function.

Note: Immobilizer function takes priority over blocking function. It means that immobilizer function works without reference to the fact if blocking function is ON or OFF.

ⓘ **It is important:** it is possible to **send few commands in one SMS message**. To send few commands, use same commands from the commands lists (see Parapgraph 5 and 6, excluding a command **∗X∗** Telephone no.**∗**Text**#**). This SMS message must be started by **∗** (or **,**) and finished by **#** (or **.**). Commands from 5 and 6 paragraphs must be changed as follows:
1. Remove **∗** in the beginning of command;
2. remove **#** in the end of command;
For example: ∗C∗# and **∗A1∗#** commands can be sent together as such command - **∗C∗A1∗#** (command line not longer than 100 symbols);

Notes: *1. Maximum relays timers interval is 18 hours 12 minutes and 15 seconds or 65535 seconds. Time can be set on hours, minutes, seconds or only on hours, only on minutes or only on seconds. Number of hours has to be with character h or H, minutes with character m or M, seconds with character s or S. For example, possible commands for timer interval 1 hour 15 minutes setting:* ***∗T6∗1h15m∗#*** *or* ***∗T6∗75M∗ #*** *or* ***∗T6∗4500s∗ #****;*
2. Initial ***GSW1*** *settings:* ***A=1****,* ***B=0, C=0, F=0, I=1, O=0, U=0****. Timers intervals - 5 seconds;*

6. GSW1 RESPONSE TO INFORMATIVE SMS COMMANDS.

∗0∗# - GSW1 will send: **"Disarmed", "Armed OK"** or **"Armed xxx"**, where **xxx** - alarm message;
∗1∗# - GSW1 will send: **"Number 1 is: NNNNNN"**, where **NNNNNN** is PHN1;
∗2∗# - GSW1 will send: **"Number 2 is: NNNNNN"**, where **NNNNNN** is PHN2;
∗3∗# - GSW1 will send: **"Number 3 is: NNNNNN"**, where **NNNNNN** is PHN3;
∗5∗# - GSW1 will send: **"Phone number 1 priority off"** or **"Phone number 1 priority on"**;
∗T∗# - GSW1 will send: **"Timer 1 interval: XXhYYmZZs / Timer 2 interval: XXhYYmZZs",** where **XX** - hours, **YY** - minutes, **ZZ** - seconds;
∗6∗# - GSW1 will send:
"Relay 1 ON", if it is on;
"Relay 1 OFF" if it is off;
"Relay 1 is on, will be off after XXhYYmZZs" (**XX** - hours, **YY** - minutes, **ZZ** - seconds), if the 1st relay timer is ON;
∗9∗# - GSW1 will send:
"Relay 2 ON", if it's on;
"Relay 2 OFF" if it's off;
"Relay 2 is on, will be off after XXhYYmZZs" (**XX** - hours, **YY** - minutes, **ZZ** - seconds), if the 2nd relay timer is ON;
∗7∗# - GSW1 will send: **"Car's body is protected"** or **"Car's body is not protected"**;
∗8 ∗# - GSW1 will send: **"Window is not protected"** or **"Window is not protected"**;
∗A∗# - GSW1 will send SMS about alarming mode. Possible messages:
"A=0 (Alarm: don't call, don't send SMS)";
"A=1 (Alarm: call, don't send SMS)";
"A=2 (Alarm: don't call, send SMS)";
"A=3 (Alarm: call, send SMS)";
∗B∗ # - GSW1 will send info about the mode of sending SMS with system state after arming / disarming. Possible messages:
"B=0 (Arm - don't send SMS, disarm - don't send SMS)";
"B=1 (Arm - send SMS, disarm - don't send SMS)";
"B=2 (Arm - don't send SMS, disarm - send SMS)";
"B=3 (Arm - send SMS, disarm - send SMS)";
∗C∗# - GSW1 will send info about whether SMS message is sent to PHN1 when GSM signal disappears / appears. Possible messages:
"C=0 (No network: don't send SMS)";
∗D∗# - GSW1 will send info about alarming mode and the mode of sending SMS with system state after arming / disarming in one SMS message. For example:
"A=1 (Alarm: call, don't send SMS) / B=3 (Arm - send SMS, disarm - send SMS)";
∗F∗# - GSW1 will send: **"F=0 (SMS forwarding is off)"** or **"F=1 (SMS forwarding is on)"**;
∗H∗# - GSW1 will send: **"Door is protected)"** or **"Door is not protected"**;
∗I∗# - GSW1 will send: **"I=0 (Identification is off)"** or **"I=1 (Identification is on)"**;
∗P∗# - GSW1 will send: **"P=0 (SIM PIN is off)"** or **"P=1 (SIM PIN is on)"**;
∗P4∗# - GSW1 will send: **"P4=0 (Setting P lock)"** or **"P4=1 (Setting P unlock)"**;
∗O∗# - GSW1 will send: **"Modem off/on times in 24 h: ..."**;
∗V∗# - GSW1 will send: **"Version: V"**, **V** - GSW1 manufacturing date and version;
∗X∗Teleph. no.**∗**Text**#** - GSW1 will send: **"X-SMS don't sent (Telephone no.∗Text)",** if GSW1 cannot send SMS to indicated telephone number.
∗Y∗# - GSW1 will send: **"Y=0 (Immobilizer is turned OFF)"** or **"Y=1 (Immobilizer is turned ON)"**
∗J∗# - GSW1 will send: **"J=0 (Starter kill is off)"** or **"J=1 (Starter kill is on)"**;

7. THE SET OF COMMANDS FOR CONTROLLING SENSORS.
When using GSW1 version 13.5 together with alarm system C60, it is possible to control electrical sensors attached to C60, microwave sensor MBE or microwave tilt and shock sensor KSD by means of SMS commands. Following SMS commands are used:

***K* #**	- request for the info about all set MBE / KSD parameters;
***K0* #**	- request for the info about sensitivity of MBE / KSD external zone;
***K0XX* #**	- set the sensitivity of MBE / KSD external zone, where XX - digits from 0 till 19;
***K1 * #**	- request for the info about sensitivity of MBE / KSD internal zone;
***K1XX * #**	- set the sensitivity of MBE / KSD internal zone, where XX - digits from 0 till 18;
***K2 * #**	- request for the info about the set mode of MBE / KSD;
***K2Y* #**	- set the mode of MBE / KSD, where Y - digit from 0 till 2, that means: 0 - usual mode of MBE / KSD mode - tilt and shock sensor activated; 1 - MBE mode "Rain - 1" / KSD - shock sensor activated; 2 - MBE mode "Rain - 2" / KSD - tilt sensor activated;

MBE modes: *1. "Rain - 1" means that after external zone is triggered 5 times, during 10 min. period, external zone's pulse of triggering is reduced from 1,36 s to 0,1 s;*
2. "Rain - 1" means that after external zone is triggered 5 times, during 10 min. period, pulses of external zone are blocked;
3. In both cases after internal zone triggers, pulses are neither shortened not blocked.

8. GSW1 RESPONSE TO INFORMATIVE SMS COMMANDS FOR CONTROLLING SENSORS.

***K*#**	- GSW1 will send info about all set MBE / KSD parameters. For example: **"K0=XX (Ext. zone) / K1=XX (Int. zone) / K2=1 (MBE: Rain 1 / KSD: shock sensor)"**;
***K0* #**	- GSW1 will send: **"K0=XX (Ext. zone)"**, where **XX -** sensitivity of external zone;
***K1 * #**	- GSW1 will send: **"K1=XX (Int. zone)"**, where **XX -** sensitivity of internal zone;
***K2 * #**	- GSW1 will send: **"K2=0 (MBE: Rain is off / KSD: shock and tilt sensor)"**, **"K2=1 (MBE: Rain 1 / KSD: shock sensor)"** or **"K2=2 (MBE: Rain 2 / KSD: tilt sensor)"**.

9. THE SET OF SMS COMMANDS FOR CONTROLLING CAR BATTERY VOLTAGE. GSW1 ver. 23.1 can control the car battery voltage. If battery is low GSW1 can send SMS message to PHN1. Controlling is possible without reference to alarm system state. Functions are set by means of SMS commands as follows:

***U* #**	- request for the info about all current battery voltage control settings - current battery voltage (Uv), reaction time (Ur), threshold voltage (Um) and control actuation (U);
***U0* #**	- disable the function of controlling battery voltage;
***U1* #**	- activate the function of controlling battery voltage;
***UM* #**	- request for the info about the set battery threshold voltage;
***UMXXX* #**	- set the battery threshold voltage, where XXX - digit from 80 (80 x 0,1V) to 140 (140 x 0,1V); if battery voltage goes below threshold voltage, GSW1 will send SMS messages;
***UR* #**	- request for the info about the duration (in seconds) of car battery voltage measurement;
***URXXX* #**	- set the duration (in seconds) of car battery voltage measurement; XXX - digit from 0 to 255;

10. GSW1 RESPONSE TO SMS OF CONTROLLING BATTERY VOLTAGE.

***U* #**	- GSW1 will send: **"Uv=ZZ.ZV / Ur=XXX sec/ Um=YY.YV / U=X (...)"**. For example: **"Uv=12.6V / Ur=16 sec / Um=11.9V / U=0 (Battery control is off)"**;
***U0* #**	- GSW1 will send: **"U=0 (Battery control is off)"**;
***U1* #**	- GSW1 will send: **"U=1 (Battery control is on)"**;
***UM*#**	- GSW1 will send: **"Um= ... V"**;
***UR*#**	- GSW1 will send: **"Ur= ... Sec"**;

Note: *1. In case the control of car battery is enabled (U=1), and when battery voltage goes below the threshold voltage, GSW1 sends SMS message with a text "Battery empty, Uv=ZZ.ZV" once. This message again can be sent only if battery voltage goes above the threshold voltage by 0.6 V for a period not shorter than reaction time;*
2. Manufacturer settings of "U" function: U=0, Um=11.9, Ur=16 s.

11. CHANGING THE PIN CODE OF GSW1. Every GSW1 has an individual 5-digit SERVICE CODE. By means of this code it is possible to change the PIN code. SERVICE CODE is indicated on GSW1 label. SERVICE CODE is entered by analogy to the PIN code entering (Paragraph 1). After entering SERVICE CODE the following settings are possible:

4 *	- Listen for the current PIN code;
4 4 *	- Change PIN code. After dialling 4 4 * GSW1 will notify **"PIN code",** then enter new PIN code and press *. GSW1 will notify **"OK".** To finish a call press #.

12. MODEM'S STATE LED. Modem's state LED is for GSW1 operating diagnostic and indicates:
- the LED is off - modem's or GSW1 failure;
- the LED is constantly on - modem is not registered on GSM network;
- the LED flashes rarely (0.2 seconds on, 2 seconds off) - modem is registered on GSM network;
- the LED flashes rapidly (0.2 seconds on, 0.6 seconds off) - modem is registered on GSM network, connection with subscriber established.

13. WARRANTY STATEMENT.
13.1. THE MANUFACTURER AND DISTRIBUTOR OF GSW1 accepts no responsibility for possible vehicle theft!
13.2. ALARM SIGNAL COMMUNICATOR IS GUARANTEED FOR 24 MONTHS from the date of purchase or the date of production (printed on the Identification label) if no original receipts are available.

The installer of your alarm system GSM communicator covenant to eliminate all failures on these conditions:
- the product has to be installed according to the wiring diagram adduced by the manufacturer;
- operations of the product has to be followed by the owner's manual;
- warranty service has to be done only at manufacturer obliged workshop.

This warranty will become invalid in case of: spoilage because of contact with fire, fluids or modification and in other cases unrelated with manufacturing defects of alarm system GSM communicator.

If the alarm system GSM communicator gets out of order or operates incorrectly, please contact the installer of your alarm system GSM communicator for all warranty and post - warranty service. The manufacturer of alarm system GSM communicator - "KODINIS RAKTAS" does not consult on questions regarding installing or using. More information about the manufacturer, products and FAQ you can find in the home page of the company **www.kodinis.lt**.