SAFETY WARNINGS

The device must be installed in a place with limited access.

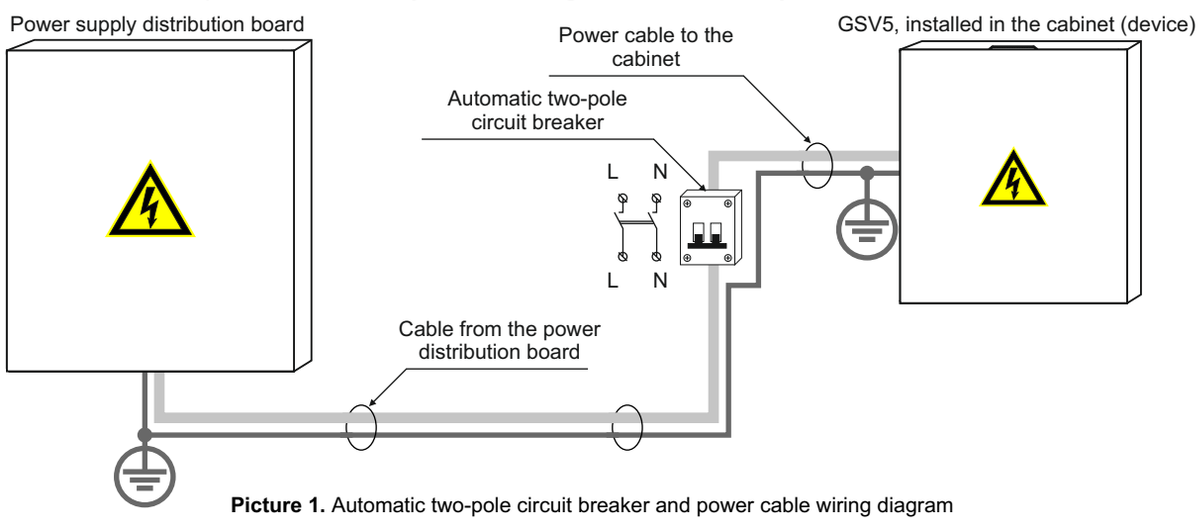
The device must be connected to AC power supply with Protective Earthing. Cable wire insulation colors: Phase or Live line (L) - black or brown cable, Neutral line (N) - blue cable, Protective Earth line (PE) - green cable with a vertical yellow stripe. Please use only double isolated cables with a cross-sectional area of no less than 0,75 mm^2 for 230V power supply.

The device uses two power supplies: main and back-up.
Main power supply: a power transformer with:
- primary winding: ~230V, 50 Hz;
- secondary winding: ~20V, 1.5A, 50Hz.

Back-up power supply: 12V, 7Ah/20HR capacity, rechargeable hermetically sealed Lead-Acid battery.

GSV5 is compliant with EN 60950-1 safety requirements.
Power supplies described above must comply with the EN 60950-1 safety requirements.
All devices connected to the intruder alarm system (sirens, detectors, computer for programming, and etc.) must comply with EN 60950-1 safety requirements.
The communicator contains a radio transceiver operating within GSM900/1800 frequency ranges.
DO NOT USE the communicator where interferences can arise due to influences of other devices and may cause potential danger.
DO NOT USE the communicator close to medical devices.
DO NOT USE the alarm system device in a dangerous environment with the risk of fire and explosion.

Additional **automatic Two-Pole Circuit Breaker** should be installed in AC electric power circuit in order to protect against over-current, short circuits, and earthing faults.
The circuit breaker contact gap should be no less than 3mm, protective circuit breaker current must be in a 0,5A - 2A range.
The circuit breaker should be placed close to the system's housing and should be easily accessed.



Picture 1. Automatic two-pole circuit breaker and power cable wiring diagram

Device installation and service should be performed by trained personnel with sufficient knowledge about the device and general safety requirements to work with low voltage (up to 1000V) AC power lines. In case of a device malfunction repair works can only be performed by qualified personnel. If the system is malfunctioning, the end user should infor qualified personnel as soon as possible. The user is not allowed to repair the system.

Before performing any work of installation or service **always** disconnect the device from power supplies in the following order:
- cut off the 230 V AC power line with the automatic Two-pole Circuit Breaker;
- disconnect the 12V back-up battery by removing battery female plug from a male socket BAT.

Two-pole Circuit-Beaker installation on flexible cables is forbidden.

Universal GSM/GPRS communicator comes with a built-in LED indicator, which blinks when the communicator is powered up.

General safety requirements:
- do not touch any part of the main power supply under voltage: transformer, a fuse block and connection wires;
- it is forbidden to perform any device installation or service work during lightning;
- use batteries as per manufacturer's recommendations. The use of improper battery type may cause an explosion;
- battery replacement : make sure that battery terminals are isolated; battery terminals' short-wiring may cause an explosion.

It is not recommended to connect the device to a fully discharged battery. To avoid system malfunction use an adequate charger to charge a new or discharged battery before connecting the battery to the device.
Inoperative or expired batteries should be recycled according to the local rules or EU directives 2006/66/EC and 93/86/EEC.
Collection and separate utilization of waste battery is mandatory!

Connection to the main supply must be made as per local authority rules and regulations.
The end of a stranded conductor should not be consolidated by soft-soldering. Insulated pins should be used and connected in a manner that they are and will remain mechanically efficient.

Please act according to your local rules and do not dispose of your unusable alarm system or its components with other household waste. This product utilization in EU is covered by European Directive 2002/96/EC.

GSV5 communicator

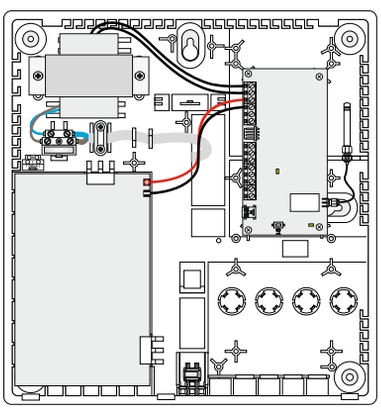
GSV5 – GSM/GPRS communicator is designed to be used in objects along with other manufacturers intruder alarm systems. It expands the functionality of other manufacturers intruder alarm systems by giving options to report to the receiver of Central Monitoring Station via GPRS, to send notifications via SMS or via a phone call. If there is a need to control the alarm system via a mobile phone, it can be done by managing the control panel via GSV5 PGM outputs, by sending control commands to the control panel's KEYBUS, or interfacing with a control panel via SERIAL port.

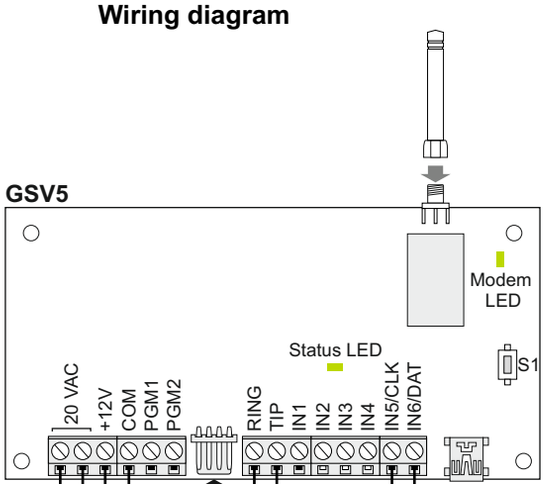
The GSV5 can be connected to other manufacturers alarm systems in a few different ways:

- Connection to the control panel's PSTN communicator;
- Connection to the control panel's KEYBUS;
- Connection to the control panel's SERIAL port;
- Connection to the control panel's zones/PGM outputs.

Wiring diagram

Installation in a plastic cabinet





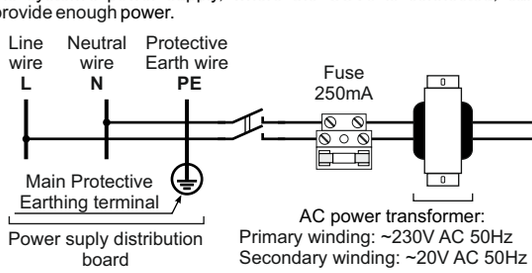
LED indication

Status LED:
- Off – failed to establish a connection with the GSM network;
- 1 blink – GSM signal strength:
- 2 blinks – GSM signal strength:
- 3 blinks – GSM signal strength:
- 4 blinks – GSM signal strength:
- 5 blinks – GSM signal strength:
- On (2 sec.) – received report (from the PSTN communicator, SERIAL, or KEYBUS), triggered GSV5 input.

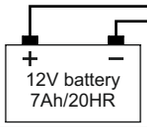
Modem LED:
- Off – modem malfunction or trouble;
- Blinks (every 0,5 sec.) – failed to establish a connection with GSM network;
- Short blink every 2 sec. – the connection with GSM network successfully established;
- On – ongoing "conversation" with the device or data sending is in progress.

Powering from an independent AC power supply with a battery backup

It is recommended to power the GSV5 from an independent power supply. This way of powering ensures a stable operation of GSV5, if the system's power supply, where the GSV5 is connected, can't provide enough power.

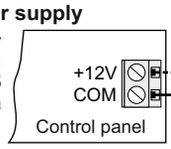


Note: The communicator and an independent power source consisting of a fuse, AC power transformer,and a 12V 7Ah/20HR rechargeable battery must be placed in a grounded cabinet.



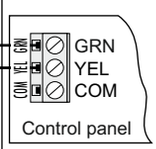
Powering from any +12V power supply

The communicator can be powered from any +12V DC power supply, eg., from the control panel's power supply +AUX. **Attention! GSV5 consumes 260 mA of the current during data transmission.**



Cut if device is powered from control panel +AUX or other power supply.

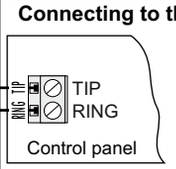
Connecting to the control panel's data bus – KEYBUS



Compatible control panels:
- PC5xx
- PC15xx
- PC18xx
- PC14xx
- PC16xx
- PC1404

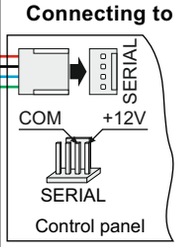
Attention! If the GSV5 is powered from an independent power supply it is necessary to make a common ground (COM).

Connecting to the control panel's PSTN communicator



Control panel's PSTN communicator settings:
- Reporting: *Enabled*;
- Protocol: *Contact ID*;
- Phone number for connection: *12345*;
- Dial tone check: *Off*;
- Telephone line monitoring: *Off*.

Connecting to the control panel's SERIAL interface



Compatible control panels:
- SP4xxx
- SP5xxx
- SP6xxx
- SP7xxx
- EVOxxx*
- MG5xxx

Attention! GSV5 is powered from SERIAL terminal. Power consumption can reach 260 mA during data transmission. Use extra power supply only if the control panel can't supply enough power (common ground (COM) with control panel is required).

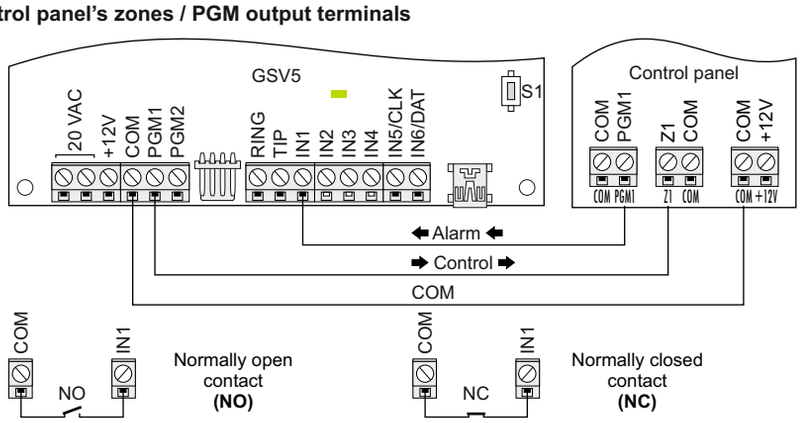
Connecting to the control panel's zones / PGM output terminals

If the alarm system does not have a PSTN communicator, information about the system status can pass through the control panel's PGM outputs. When PGM output status changes (turned on/off), the GSV5 communicator can detect it at its inputs and send the report to the monitoring station and/or send a notification to the user's mobile phone (SMS, call).

If there is a need to control the system by a mobile phone, it can be done by managing the control panel through the GSV5 PGM outputs. The control panel can detect PGM output's status changes (turned on/off) by its zone inputs and perform the assigned function (eg., to arm or disarm the system, or to clear an alarm).

Note: This wiring diagram shows the connection between the PGM output and a zone when the PGM output is an open collector type. If the PGM output type is different, use the relays. A parallel connection of the diode to the relay is recommended to suppress voltage surges on relay.

Note: If the communicator's PGM output is used to control the relay, use an extra +12V DC power supply to power it (relay). Maximum current must not exceed 50 mA.



* - the latest firmware is required. Please download it from www.secolink.eu .

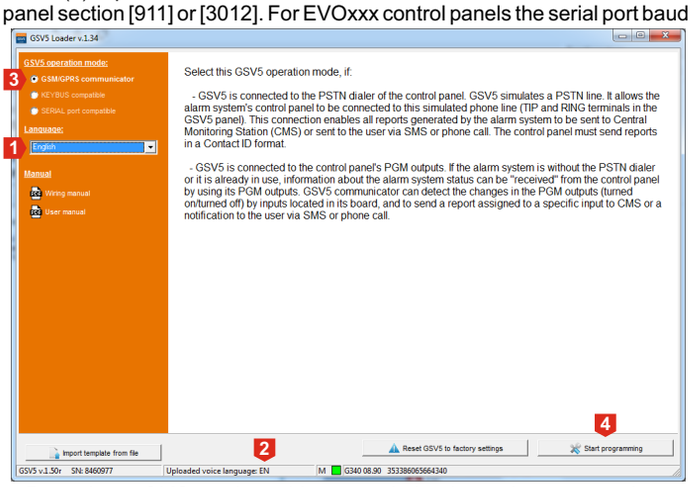
GSV5 Loader software

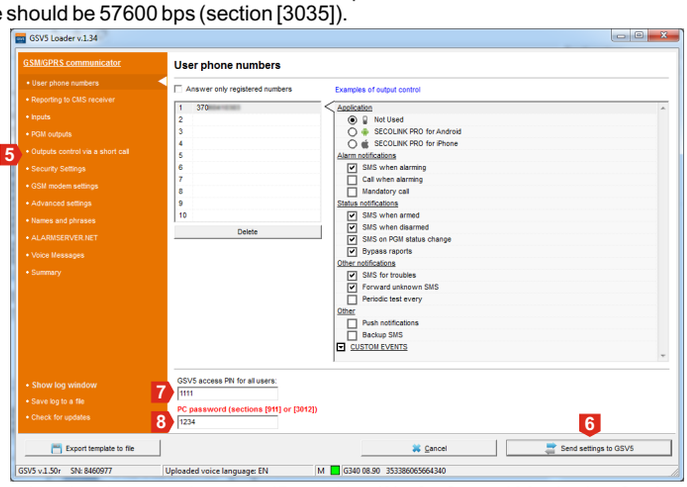
To program the communicator GSV5, connect it to your computer by using a USB connection. USB connection could be locally established when device is powered from external power supply, also it can be pre-programmed at office prior to installation (powered from USB). Run the software GSV5 Loader and wait until the software will automatically download the necessary data from GSV5.
Before you start the GSV5 programming, set the GSV5 Loader's interface language (**1**). Software interface language must match with the language of voice messages (**2**) pre-installed in GSV5 at the factory. Afterwards, select the proper GSV5 operating mode (**3**). The GSV5 functionality directly depends on the selected operating mode:

- *GSM/GPRS communicator* - select this operating mode, if the GSV5 is connected to the control panel's PSTN communicator or to the control panel's zones / PGM outputs.
- *KEYBUS compatible* - select this operating mode, if the GSV5 is connected to the control panel's KEYBUS.
- *SERIAL port compatible* - select this operating mode, if the GSV5 is connected to the central panel's SERIAL port.

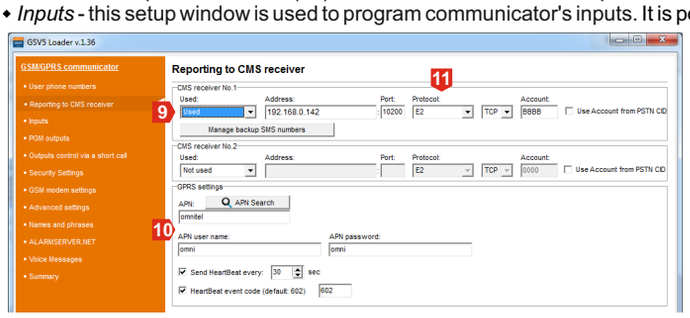
After selecting the proper GSV5 operating mode, press *Start programming* (**4**).
GSV5 settings are divided into categories (**5**). **Note:** Entered phone number, checked checkbox and etc. are automatically saved in software's cache memory. Do not forget to send setting changes to GSV5 after you end the programming. To do this press *Send settings to GSV5* (**6**).

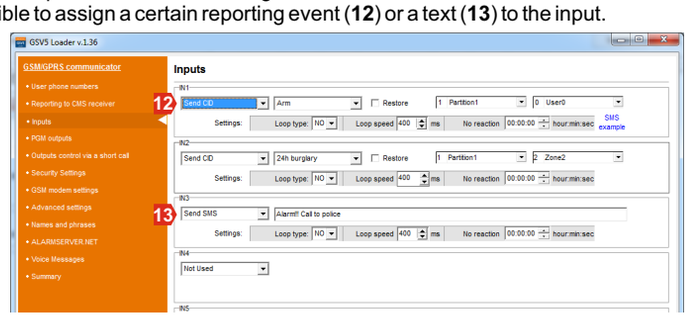
- *User phone numbers* - this setup window is used to enter the user phone numbers to which the GSV5 calls or sends SMS in case of an alarm, arming or disarming, and etc. User phone numbers must be entered with an international code, there is no need to enter the plus sign ("+"), since it is automatically added by the system. If there is a need to control the GSV5 communicator or control the intruder alarm system, then it is necessary to know the access PIN code. This PIN code depends on the selected operating mode :
  - ◇if the GSV5 operating mode is *GSM/GPRS communicator*, then the user should use a common PIN code (**7**). By default this PIN is 1111;
  - ◇if the GSV5 operating mode is *KEYBUS compatible*, then the user has to use the same PIN code as the one that is used to control their intruder alarm system.
  - ◇if the GSV5 operating mode is *SERIAL port compatible*, then the user has to use the same PIN code as the one that is used to control their intruder alarm system. **Note:** In order to establish a connection between the intruder alarm system and GSV5 via a SERIAL port, it is necessary to program a *PC password*. This 4-digit password identifies the GSV5 to the panel before establishing communication. Program the same *PC password* into both the control panel and GSV5 (**8**). If passwords do not match, the GSV5 will not establish communication and control will not be available. The password must be entered in control panel section [911] or [3012]. For EVOxxx control panels the serial port baud rate should be 57600 bps (section [3035]).



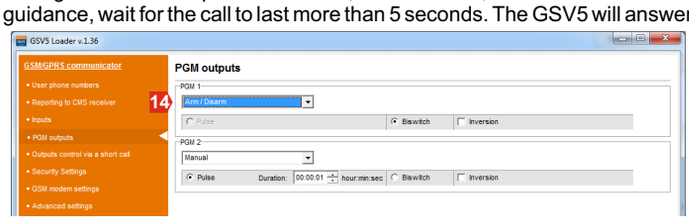


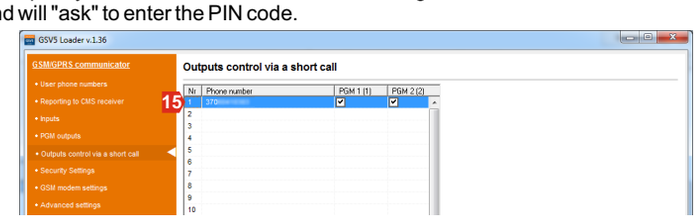
- *Reporting to CMS receiver* - this setup window is used to program the settings related to the reporting to an IP receiver (**9**) of a Central Monitoring Station (CMS). Reports to the monitoring station are sent via GPRS, so it is necessary to have a compatible SIM card with a correctly entered data in the APN, APN user name, and password fields (**10**). Use one of the four available protocols (**11**) to report to central monitoring station.
- *Inputs* - this setup window is used to program communicator's inputs. It is possible to assign a certain reporting event (**12**) or a text (**13**) to the input.



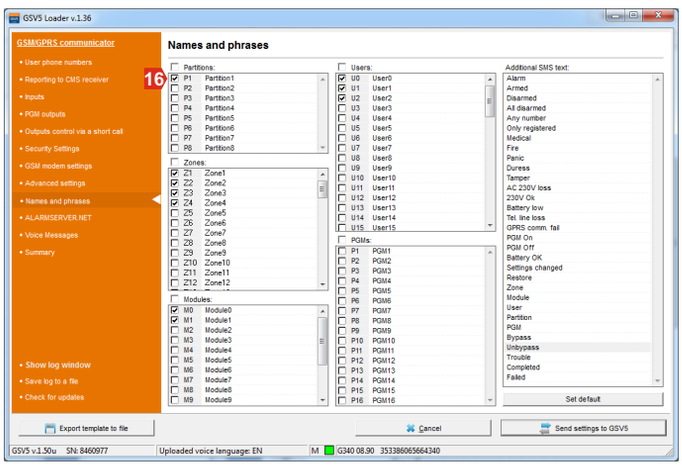


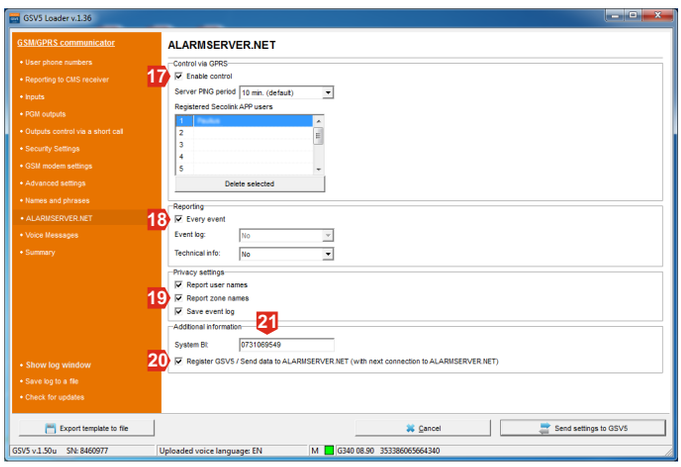
- *PGM Outputs* - this setup window is used to program GSV5 outputs. The output can be turned On / Off with a DTMF command during the call or it can be controlled by SMS command. The control command depends on the selected PGM output function (**14**):
  - ◇ *Manual* - call command: *61#* or *62#*; SMS command: *O1* or *O2* (example: *1234 O1*); app SECOLINK PRO: press "Control" and then choose an output.
  - ◇ *Arm* - call command: *1#*; SMS command: *A* (example: *1234 A*); application SECOLINK PRO: "Arm"
  - ◇ *Disarm* - call command: *0#*; SMS command: *D* (example: *1234 D*); application SECOLINK PRO: "Disarm"
  - ◇ *Clear alarm* - call command: *00#*; SMS command: *C* (example: *1234 C*); application SECOLINK PRO: "Clear alarm"
  - ◇ *Arm / Disarm* - call command: arm - *1#*, disarm - *0#*; SMS command: arm - *A*, disarm - *D* (example: *1234A* or *1234 D*); application SECOLINK PRO: "Arm" or "Disarm".
- *Output control with a short call* (a call that is hung-up) - this setup window is used to enter the phone numbers of the system users (**15**), who will be able to control the output by a short call (in *PGM Outputs* window output function should be *Manual*). If user's phone number has also been programmed in the settings window *User phone numbers*, then this user, who wants to control the output by a short call should end the call during the first 5 seconds. For vocal guidance, wait for the call to last more than 5 seconds. The GSV5 will answer and will "ask" to enter the PIN code.



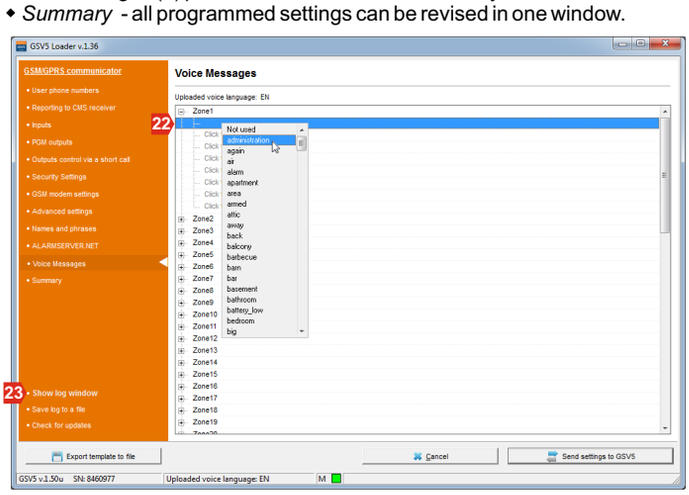


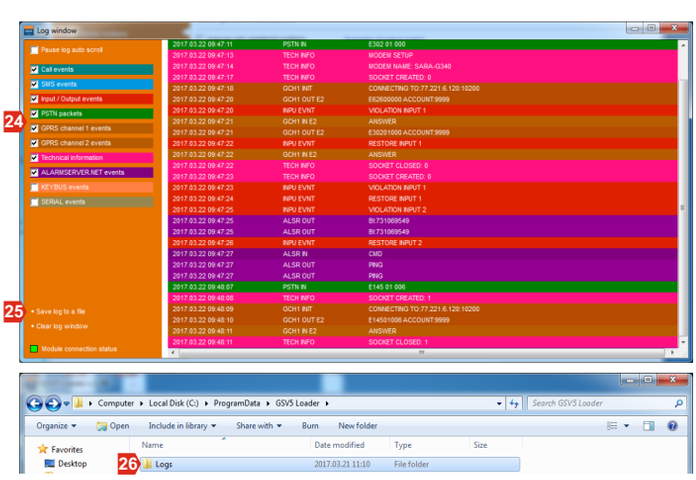
- *Security settings* - this setup window using a password allows to block the access to a device via a USB or limits the access to the settings which are related to the reporting sent to CMS.
- *GSM Modem settings* - this setup window allows to enter the PIN code of a SIM card or to monitor the work of GSV5.
- *Advanced settings* - this setup window allows to change the settings related to the simulated PSTN phone line.
- *Names and phrases* - this setup window allows to enter real names to system zones, partitions, users, and modules. **Note:** tick the checkbox next to names (**16**) of the system elements (zone, partition and etc.) which will be used when user will decide to sync the GSV5 with the application SECOLINK PRO using SMS service.





- *ALARMSERVER.NET* - this setup window allows to change the settings related to online services for security systems. The additional services are provided from the server ALARMSERVER.NET (link: www.alarmserver.net). To establish a connection and transfer the data between GSV5 and the server an Internet connection is required, which may generate additional charges. Available settings:
  - *Enable TCP control* - this setting must be enabled, if SECOLINK PRO application will be used to control the system via TCP/IP (**17**). The module establishes a continuous connection (keep-alive) with the server to ensure real-time control. New user will appear in the registered user's list when he/she will link SECOLINK PRO application with a GSV5. User can be deleted using the button *Delete selected*.
  - *Every event* – send every new event to ALARMSERVER.NET (**18**). This checkbox must be checked if end user has paid for the additional services and has the SECOLINK PRO app.
  - *Report users names* – if this checkbox is checked, then real names of the users (programmed at settings window *SMS Phrases*) will be sent to ALARMSERVER.NET and later seen on the SECOLINK PRO app (**19**). If the checkbox is not checked, GSV5 will send default user names, such as: User 01, User 02, and etc.
  - *Report zone names* – if this checkbox is checked, then real names of the zones, partitions and etc. (programmed at settings window *SMS Phrases*) will be sent to ALARMSERVER.NET, and later seen on the SECOLINK PRO app(**19**). If the checkbox is not checked, GSV5 will send default names, such as: Zone 01, Zone 02, Partition 01, and etc.
  - *Save event log* – if this checkbox is checked, then events will be saved at ALARMSERVER.NET and later all logged events will be seen on the SECOLINK PRO app(**19**). This checkbox must be checked if the end user has paid for additional services and has the SECOLINK PRO app.
  - *Register GSV5 on a server / Send data to ALARMSERVER.NET* – if this checkbox is checked (**20**), then GSV5 will try to register itself on a server, after sending the settings to it (after pressing the button *Send settings to GSV5* (**6**). It is recommended to register the device on a server, when all programming is finished. After a successful registration user should go to www.alarmserver.net to create a free account. User will need to enter a valid BI number (**21**) to add the system to an account.
- *Voice messages* - this setup window allows to assign a voice message to any zone (**22**). Software interface language must match with the language of voice messages (**2**) pre-installed in GSV5 at the factory.
- *Summary* - all programmed settings can be revised in one window.





Events that occur on a device will be logged if *GSV5 Loader* software is running and GSV5 module is connected. Event log records provide an audit trail that can be used to understand the activity of the device and to diagnose the problems. Click on button *Show log window* (**23**) to open the event log window. Use the checkboxes on left menu to filter the events (**24**). Events will be saved to a log file: when the button *Save log to a file* (**25**) is clicked or GSV5 Loader software is closed or GSV5 module is disconnected from the computer. In case of trouble that could not be solved locally at the site please contact customer service team and send an explanation how this problem appeared with *Logs* folder (**26**) attached to your explanation email.

SYSTEM COMPLIANCE AND WARRANTY

Kodinis Raktas UAB, manufacturer of SECOLINK Intruder Alarm System, offers a Warranty for a term of twenty-four months. It declares, that product GSV5 complies with essential EU directives and EU standards EN 50131-1. For more information visit manufacturer's website www.kodinis.lt or www.secolink.eu for a complete text of declaration. SECOLINK Intruder Alarm System is designed and manufactured in Lithuania.