GTM1

Installation & Programming Manual

Security, monitoring, control and automation system

This manual includes steps to install, set up and use your system.



Features of the module GTM1

- Communication via SIA IP DC09 protocol
- 2G Quad-band (850/900/1800/1900 MHz)
- or 4G LTE modem

INPUTS:

- IO1and IO2 programmable selectable input or output
- IO1: 0-30V _
- IO2: 0-30V IO3/D0 programmable selectable _
- _
- IO3/D0: 0-30V analog input (zone or sensor) IO3/D0: 0-20mA 4-20mA current loop sensor -
- 2- wire Smoke Detector (Fire urrent loop) -
- -IN1/D1: 0-30V
- 1W programmable selectable
- Digital input (Max 3.3V!!!)
- -Dallas 1-wire bus
- Aosong 1-wire bus _
- -Wiegand keypad inputs: IO3/ D0 ir IN1/D1

OUTPUTS:

-

- OUT1 (1A) -
- OUT2 (1A) _
- . Programmable selectable outputs
- IO1 (1A)
- 1O2 (1A) -.
- IO3 (20mA)
- -1W, 10mA, Max voltage 3.3V!
- **Output state indication LED FN** _
- Power supply DC 10-30V AC 12-24V Maks 0,5A
- AUX+ 10-30V/1A
- +5V (power source output for sensors, wired to 1 wire bus) _

Up to 32 sensors, temperature, humidity etc.

- Built-in access control features
- In-field firmware upgradeable via USB and SERA2 software -
 - Events log buffer. 2048 events
- Program remote controls using the master or installer codes -
- Up to 800 users remote controls with mobile, web app.
- Up to 800 users remote controls with iButton or RFID keycard
- Up to 800 user code. To control with Wiegand keyboard.
- Unlimited control via SMS.
- Push button software reset



MARKETS:

Chemical Injection Light oil separator Cold Room Regulation Ice Vending Machines Commercial Dishwashing Equipment Smart Home Building Security - Access Control Systems

COULD BE USED TO:

Turn pumps on and off to inject chemicals
Read levels of chemicals in storage tanks
Report low levels of chemicals to home office for refilling
Pressure and temperature monitoring
Level control
Control of pumps and valves
Precisely regulate temperature in refrigerated
Monitor temperature with up to 32 high accuracy temperature sensors
Ventilation control
Monitoring of the doors
Energy management as well as humidity and temperature control
Programming at a distance
Events history readings
Receive alarm events via SMS, App notifications
Access control via mobile, web app, free short call, SMS, iButton keys,
RFID cards, Wiegand keypad

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1.1 Specifications

Parameters of built-in GSM module:

- Quad-band (850/900/1800/1900 MHz)
- Optional 3G ,4G LTE bands
- Sending of SMS messages
- · Receiving of calls and dialing
- Data download/upload via GPRS network

Outputs:

OUT1 (1A)

OUT2 (1A)

Programmable selectable outputs

- IO1 (1A)
- IO2 (1A)
- IO3 (20mA)
- 1W, 10mA, Max voltage 3.3V!

Output state indication LED FN

- All outputs can be controlled via short call DIAL or via SMS message, mobile, web app. This feature may be used for gate opening.
- Output alarm parameters may be programmed.
- Programmable algorithms for outputs operation: CTRL/SMS/DIAL, SIREN, BUZER, ARM state, Zones OK, Light Flash, inverting, pulse mode

Inputs:

IO1and IO2 programmable selectable input IO1: 0-30V

IO2: 0-30V

IO3/D0 programmable selectable

IO3/D0: 0-30V analog input (zone or sensor) IO3/D0: 0-20mA 4-20mA current loop sensor 2- wire Smoke Detector (Fire urrent loop)

IN1/D1: 0-30V

1W programmable selectable Digital input (Max 3.3V!!!)

Dallas 1-wire bus

Aosong 1-wire bus

Wiegand keypad inputs: IO3/ D0 ir IN1/D1

- SMS text for input alarm and restore
- Available to control up to 32 sensors
- Programmable enabling or disabling of inputs;
- Burglary alarm zones. Input type NC/NO/EOL/EOL+TAMPER 5.6K + 5.6K
- Algorithm for zones operation: delay, interior, instant, 24 hours, silent, fire
- Response time;
- Time of additional response;
- · Commutation of selected output

Digital input/ output 1W:

- Programmable optional digital input or output
- Max. Voltage 3.3V
- Dallas 1-Wire Bus, DS18b20, DS1990A
- Aosong 1-Wire bus Humidity Sensor AM2302 DHT22 AM2305 AM2306 AM2320 AM2321
- Wiegand interface DATA0/ DATA1, RFID reader, Keyboard.

• The total length of the bus from 10 to 100m. Module control:

ARM/DISARM of the security system via:

• "Key switch" input level or pulse mode.

- SMS message 800 users
- short call DIAL 800 users
- Maxim-Dallas iButton key (iButton DS1990A 64 Bit ID)) 800 users.
- Wiegand keypad code or RFID keycard or key fob 800 users
- tob 800 users

• Mobile, web app 5V power source output for Dallas 1-Wire Bus, DS18b20, DS1990A, Aosong 1-Wire bus Humidity Sensor AM2302 DHT22 AM2305 AM2306 AM2320 AM2321

- Voltage 5V
- Current limit 100mA
- AUX+ 10-30V/1A

Output state indication LED FN Automatic periodical test:

 Test sending in a form of SMS message. Periodicity for communication control messages (tests) from 1 to 99 nights and days according to selected time. Or fixed periodical interval 1-99999 minutes.

Power supply voltage:

- DC 10-30V
- AC 12-24V
- Max. Allowed ripple voltage 100mV
- Min 0.5A

Consumption current:

- In standby mode less than 50 mA.
- In dialing or SMS/GPRS sending mode less than 300 mA.

Events Log:

Nonvolatile flash events log 2048 events Environmental parameters:

- Storage temperature range from -40 to
- +85 °C / -40 to 185 °F • Operational temperature range from -30
- to +75 °C / from -22 to 167 °F • Max relative humidity under +40 °C / 104 °F 95%

Package weight 90g Module weight: 70g

Overall dimensions of the module: 73x62x26mm

1.2 Used definitions and terms

Term	Description
Alarm Log	Contains information about alarms that are currently active on the system or information about alarms that have been
	raised and then resolved on the system. This log can be useful in analyzing problems and trends in the system.
Arming/Disarming	A process of enabling/disabling system's security.
Authorized user	It is a person whose mobile phone's number is entered in Progate module. Several authorized users with the same rights
	may be entered into the module.
Backup battery	The secondary power source of the system. In case of a main power failure, the backup battery will take over.
Bell squawk	If enabled, the siren/bell indicates the completed system arming and disarming process (except the arming in STAY mode).
	After the system is successfully armed, the siren/bell will emit 2 short beeps and 1 long beep after the system is disarmed.
	By default, the parameter is disabled.
Bypass/Activate Zone	Zone bypassing allows the user to deactivate a violated zone and arm the system without restoring the zone. If a bypassed
	zone is violated or restored during exit/entry delay, or when then system is armed, it will be ignored. The zone will remain
	bypassed until the system is disarmed. Zones can only be bypassed and activated when the system is not armed.
Caller ID	Caller's identification
COM	Negative power supply terminal.



periodicity for sending SMS message, input names etc. CMS Central monitoring station DIAL The system makes a call to the number specified. Diagnostic Tool When using Configure necessary options, for example, enabling/disabiling PCM outputs, etc. Entry Delay The system initiates the entry delay countdown if a Delay type zone is violated. The countdown is indicated by short beeps entitled by keypad buzzer and by steady beep entitled by system's buzzer. The indication is intended to advise the user that the system should be disarmed. If the system is violated. The countdown is indicated by short beeps that the system should be disarmed. If the system is disarmed before the entry delay expires, no alarn will be caused. EVent The information that the user receives. Event The information about system configuration, system actions and info messages. Ext Delay A period of time intended for user to leave the secured area. The system begins the countdown after the arrning process initiation. Fault A specific problem or error that prevents the system from working properly. The system arrning and instreme. Ibstation A unique 64-bit ID code containing chip enclosed in a stairless steel tab usualy implemented in a small plastic holder. The module supports up tool 0 stuton keys each holding a unique identity code (ID), which is used for system arrning and idsarming. Ibstation a person provided with INST (installer's) password Master/User Code	Configuration	Programming of the settings, which will define the operation of the item. For example, user's telephone numbers, set-up of
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Normally closed (NC) It is a switch that passes current until actuated. Normally open (NO) It is a switch that must be actuated to pass current. Periodic Test Event Provides the following information on alarm system: date & time, status (armed/disarmed), GSM signal strength, mains power supply status, temperature value measured by primary and secondary temperature sensors (if any). Pull-up resistor Is that it weakly "pulls" the voltage of the wire it is connected to towards +V (or whatever voltage represents a logic "high"). PGM output A PGM output is a programmable output that toggles to its set up state when a specific event has occurred in the system or if the user has initiated the PGM output state change manually. Ping period Sets period of time defining how often the module sends ping data packet to the server. SSR Solid State Relay SSR Solid State Relay SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points o	Master/User Code	Allows to carry out system arming/ disarming as well as minor system configuration and control
Normally open (NC) It is a switch that must be actuated to pass current. Periodic Test Event Provides the following information on alarm system: date & time, status (armed/disarmed), GSM signal strength, mains power supply status, temperature value measured by primary and secondary temperature sensors (if any). Pull-up resistor Is that it weakly "pulls" the voltage of the wire it is connected to towards +V (or whatever voltage represents a logic "high"). PGM output A PGM output is a programmable output that toggles to its set up state when a specific event has occurred in the system or if the user has initiated the PGM output state change manually. Ping period Sets period of time defining how often the module sends ping data packet to the server. SSR Solid State Relay SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	Normally closed (NC)	It is a switch that passes current until actuated
Periodic Test Event Provides the following information on alarm system: date & time, status (armed/disarmed), GSM signal strength, mains power supply status, temperature value measured by primary and secondary temperature sensors (if any). Pull-up resistor Is that it weakly "pulls" the voltage of the wire it is connected to towards +V (or whatever voltage represents a logic "high"). PGM output A PGM output is a programmable output that toggles to its set up state when a specific event has occurred in the system or if the user has initiated the PGM output state change manually. Ping period Sets period of time defining how often the module sends ping data packet to the server. SRR Solid State Relay SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	Normally open (NO)	It is a switch that must be actuated to pass current
power supply status, temperature value measured by primary and secondary temperature sensors (if any). Pull-up resistor Is that it weakly "pulls" the voltage of the wire it is connected to towards +V (or whatever voltage represents a logic "high"). PGM output A PGM output is a programmable output that toggles to its set up state when a specific event has occurred in the system or if the user has initiated the PGM output state change manually. Ping period Sets period of time defining how often the module sends ping data packet to the server. SSR Solid State Relay SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	Periodic Test Event	Provides the following information on alarm system: date & time_status (armed/disarmed), GSM signal strength mains
Pull-up resistor Is that it weakly "pulls" the voltage of the wire it is connected to towards +V (or whatever voltage represents a logic "high"). PGM output A PGM output is a programmable output that toggles to its set up state when a specific event has occurred in the system or if the user has initiated the PGM output state change manually. Ping period Sets period of time defining how often the module sends ping data packet to the server. Service messages ARM/DISARM, test, resetting of the system. SSR Solid State Relay SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.		power supply status, temperature value measured by primary and secondary temperature, sensors (if any).
PGM output A PGM output is a programmable output that toggles to its set up state when a specific event has occurred in the system or if the user has initiated the PGM output state change manually. Ping period Sets period of time defining how often the module sends ping data packet to the server. Service messages ARM/DISARM, test, resetting of the system. SSR Solid State Relay SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	Pull-up resistor	Is that it weakly "pulls" the voltage of the wire it is connected to towards +V (or whatever voltage represents a logic "high").
Ping period Sets period of time defining how often the module sends ping data packet to the server. Service messages ARM/DISARM, test, resetting of the system. SSR Solid State Relay SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	PGM output	A PGM output is a programmable output that toggles to its set up state when a specific event has occurred in the system or if the user has initiated the PGM output state change manually.
Service messages ARM/DISARM, test, resetting of the system. SSR Solid State Relay SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	Ping period	Sets period of time defining how often the module sends ping data packet to the server.
SSR Solid State Relay SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	Service messages	ARM/DISARM, test, resetting of the system.
SMS forward System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user. User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	SSR	Solid State Relay
User It is a person being aware USER password. Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	SMS forward	System can re-sent all incoming SMS messages to the specified users. It is useful if the GSM operator of the inserted SIM card sends some useful information (SIM card validation or payment account status and etc.) or it is necessary to monitor all incoming SMS messages by specified user.
Zone Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals. Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	User	It is a person being aware USER password.
Zone state/status Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored. +V Positive power supply terminal.	Zone	Detection devices such as motion detectors and door contacts are connected to the alarm system's zone terminals.
+V Positive power supply terminal.	Zone state/status	Zone status is a position of a certain zone being enabled or disabled. Meanwhile, zone state points out the condition of a certain zone, which can either be violated (i.e. In case of alarm) or restored.
	+V	Positive power supply terminal.

1.3 Package content

Table 1 Standard package content



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GTM1 module - 1 pcs

Shipping Package - 1 pcs

Package content may be vary without a notice. Ask the seller before buying!

Table 2 Additional, under request package content





1.4 General view of the module



Figure 3General view of the module



See the table below

Power supply and inputs, outputs connector Overall dimensions: 73x62x26

Figure 4 General view of the module

1.5 Meaning of LEDs and contacts

Table 3 Meaning of LEDs

Name	Indication variations	Meaning			
PWR (green) built-in	Watchdog heart beat blinking, remains lit for 50ms, and turns off after 1000ms.	The module is functioning.			
LED	Off	The module is out of order or no voltage			
	Lights continuously	Modem has been registered to the network			
REG (yellow) built-in	Flashes, remains lit for 50ms, turns off for 300ms	Modem is being registered to the GSM network.			
LED	Blinking fast, remains lit for 50ms turns off for 50ms	PIN code of SIM card error. PIN code request should be removed			
	Off	Modem failed to register to the network.			
DATA (red) built-in LED	Lights continuously	The memory of the module contains unsent reports to the user or to the server.			
	Off	All reports has been send.			
FN (blue) built-in LED	ON OFF	Selected output or input ON Selected output or input OFF			

Table 4 Terminal block. Contacts.

Name	Optional functions and Description					
AC/DC	DC	10-30V				
	AC	12-24V				
	Max	0.2A				
OUT1 OUT2	Outputs	1A				
AUX+		10-30V, 1A				
I/O1-I/O2	Programmable functions	Input with 10K resistor to the VD+ (Pull UP Output 1A Analog voltage input 0-30V				
	Max available voltage	30V				
		0-30V analog input (zone or sensor)				
	Drogrommoble functions	Output				
IO3/ D0	Programmable functions	2-wire smoke detector (fire current loop)				
		0-20mA, 4-20mA current loop sensor				
	Max available voltage	30V				
		0-30V input				
	Programmable functions	Input with 10K resistor to the VD+ (Pull UP)				
IN1/D1		The zone for security system NC/NO/EOL/EOL+Tamper				
		Wiegand (1) interface, RFID reader, keypad				
	Max available voltage	30V				
COM	Negative supply terminal for keyboard(s)	, indicators and sensors.				

		Digital output (Max 3.3V)
		Digital input (Max 3.3V)
1).07	Programmable functions	Dallas 1-Wire bus. DS18b20, DS1990A
1 V V		Aosong 1-Wire bus. Humidity Sensor AM2302, DHT22, AM2305, AM2306
	Max available voltage	+3,3V
	Max available current	10mA
	Power output for external temperature, h	umidity sensors
+5V	Max available voltage	+5V
	Max available current	100mA

1.6 Configuration methods

SMS text messages

In order to configure and control the device by SMS text message, send the text command to the PROGATE SIM card from one of the listed administrator phone numbers.

Sera2 software

Sera2 software is intended for PROGATE configuration locally via USB port or remotely via 2G/3G/4G network. This software simplifies system configuration process. Sera2 software is free, which you can download from our website: topkodas.lt

Remote connection

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The system will NOT transmit any data to monitoring station while configuring the system remotely via 2G/3G/4G TLE network connection. However, during the remote connection session, the data messages are queued up and will be transmitted to the monitoring station after the configuration session is over.

Sera2 software provides remote system configuration ability using Topkodas Cloud server via GPRS.

1.7 System Access codes

Password	Default	How to find and how to change	Explanation
SIM card PIN	1234	SERA2> System Options> General system options	It is automatically ignored if pin request in SIM card is disabled
Installer Password	000000	SERA2> System Options> General system options	This password allows you to enter programming mode, where you can program all features, options, and commands of the module.
SMS User Password	123456	SERA2> System Options> General system options	This code allows you to utilize arming method, as well as program user codes.
User password of GSM operator	123456	SERA2> GSM Communications> GPRS/IP/TCP/UDP	User password of GSM operator network where SIM card inserted in the module is operating.
Арр Кеу	123456	SERA2> GSM Communications> Sera Cloud Service	"APP Key" in module must be same as Remote connection password via [cloud app] also in [SERA remote] default: 123456
Installer code (for SMS control and configuration)	000000	INST000000_090_PSW 090= command code (Change of installer's code) PSW = New Installer's password.	6-digit password used for system configuration, control and request for information.
User code (for SMS control and configuration)	123456	INST000000_091_PSW Change user's code 091= command code (Change user's code) PSW = New user's password.	6-digit password used for system control and request for information.
Master password (Keybutton code)	1234 or 123456 (if selected 6 digit)	in user table SERA2> Users/ Access control 6 or 4 digit code selected: System Options> General system options> User Access Code Format	Control functions for all newly associated keys will be assigned according to MASTER key. For example: If MASTER key will control Out1, all newly associated keys will also control Out1.

Table 5 Default passwords and explanation

1.7.1 AppKey

- 1. Change default App Key (Default 123456). Sera2> GSM Communication> Sera Cloud Service
- 2. Enter App Key for the remote connection via Sera2. Go to Sera2> Settings Enter the same App Key as in the Sera2> GSM Communication> Sera Cloud Service

Enter App Key for the remote connection via Cloud service. Go to https://cloud.topkodas.lt/index.php > Settings

File Settings Devices System Octions USER Communication Users/Access control Burglar Alarm Zones	Read [F3] Write [F6] Word Reporting Communication Event Reporting Communication SMESEVAL reporting SMENDAL reporting SMESEVAL reporting Custon SMES Text OPRS/#VTCP/LEP CMES Reporting SERA Cloud Service	System Options OSM Communications Users/Access control Burglar Alarm Zones Ontota (2000)	Second Sub Counter Sub Counter Second Sub Counter Second Sub Counter Second Sub Counter Second Sub Cou
AutomationSensors Event Summary Event Summary Events Log HT Testing&Monitoring Firmware	Enable I7 If SERA.Cloud Service (Default) IP or Donair:	- AutomationSensors - Event Summary - Event Summary - Event Sug - RT TestingMonitoring - Firmware	Language Torglish Torglish Torglish Torglish Torglish Check for Lipidetes Automatically Torglish Check for Lipi
		E SAAT A	Seed diright dirick dirities of connect of c

Figure 5 GSM Communication> Sera Cloud Service> App Key and Settings> App Key

< > C 🔀 🗞 🔒 cloud.topkodas.lt/index.php
🖪 Booking.com 🧕 Amazon.com 💼 eBay 📑 Facebook 💩 Getting St
Settings Online @ 09/07/2019, 09:48:43
R System
GTMt program
Device UIDIMEIMAC*
Contral 86939
Outjust App Key ⁴
Oject Address
Dject Address
User Code
Users Control System Access
0
Settings Update @ Delete System

Figure 6 https://cloud.topkodas.lt/index.php> Settings > App Key

1.7.2 Installer and User passwords

If you want to edit existing configuration,

- You have to read it (press "Read" in the command line)
- Edit settings
- Write edited configuration (press "Write" in the command line)

The password for remote and SMS configuration. Installer Password (Default: 000000). This password used for remote configuration or for configuration via SMS messages with INST code

The password for remote control or for control via SMS messages. SMS user password: 123456. The password used for remote control of the module or control of the module via SMS messages with USER code

File Settings Devices	Read [F5] 🙀 Write [F6] System	Update About Fault/Troubles Digital I/O Settings S	vstem Info]		
Users/Access control Burglar Alarm Zones Outputs (PGM) Automation/Sensors Event Summary Events Log RT Testing&Monitoring	System Options Object Name: SMS/APP Text Charset SIM Card PIN:	Object Name Latin (160 SMS symbols)	System Timers Test Time: Test Period: Entry Delay	13:30 hhumm 1 Days v 15 s	
Firmware	User Access Code Format: USer Access Code Format: UO1 Settings UO2 Settings	(6 symbols) 4 - Digits 2-Wire Smoke Detector (Fire current 2-Wire Smoke Detector (Fire current	loop) 💌	Exit Delay: Bell/Siren Cut-off Timer: Time Zone: Daylight saving time: Clock synchronization:	20 s 120 s (GMT: + 2) ▼ ✓ Cloud Server ▼
	Clear Events Bufer after reset Door Chaim Bell Squawk on ARM/DISARM Auto - reARM Start iButton/RFID programmin	I⊽ I⊽ I⊂ Ig mode Stop iButton/RFID progr	amming	Set Module Time from PC PC time: 2019 Panel Time:	Read Module Time
	Reset Device				

Figure 7System Options> General System Options

1.7.3 Master code for access control via keypad

If you want to edit existing configuration,

• You have to read it (press "Read" in the command line)

- Edit settings
- Write edited configuration (press "Write" in the command line)

Master Code for access control via keypad. Defaul Master code: 1234 or 123456

- 1. Select 6 or 4 digits user access code format. Sera2> System Options> General System Options> User Access Code Format
- 2. Enter 6 or 4 digits codes in the Sera2> Users/ Access control > Keyb Code

 SERA2 File Settings Devices 	Read (F5)	🐺 Write [F6]	🗶 Upda	te About								-		×
System Options GSM Communications	Remote Con	trol Users table						_			Temporary access Date	e/Time window		1
Users/Access control	ID En	User Name	Type	User Tel.	iButton Code	RFID Keycard	Keyb Code	OUT	ARM/DISARM	Date En	Start Date	Expiration	Date	^
Outputs (DOM)	▶1 🔽 N	Aaster	User	+	000000000000	0000000000	*****	NONE	~		2019-06-01 18:47:50	2019-06-01 1	8:47:50	
- Automation/Sensors	2		User	•	000000000000	0000000000		NONE			2019-06-01 18:47:50	2019-06-01 1	8:47:50	
- Event Summary	3	CERAD												-
- Events Log		U SERAZ												
- RT Testing&Monitoring		File Setting	s Devices	👸 Read (F5) 🛛 🦉 Wr	ite [F6] 🛛 🔮 Upda	ate About								
Firmware		GSM Comm Users/Acce	unications ess control	System General System Opti System Options	ons System Fault/T	roubles Digital I/O :	Settings Syste	m Info	System Timers					
		-Burglar Ala	rm Zones	Object Name	Ohio	t Nome			To at The ex		12:20 blues			
日, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10	9 L	- Outputs (PO	/M) Sepecire	Object Name:	looled	A Norne			lest line:		13.30 nr.mm			
	10	-Event Sum	narv	SMS/APP Text Char	SMS/APP Text Charset Latin (160 SMS symbols) Test Perior			Test Period:	Period: 1 Days 💌					
SMART	11	-Events Log	,	SIM Card PIN:	SIM Card PIN: Entry [Entry Delay	Entry Delay 15 s				
	12	-RT Testing	Monitoring	Installer Deserverst					Evil Dalaur					
				Installer Password.	(o symbols) EXit Delay.					20 5				
	14			SMS User Passwo	SMS User Password: (6 symbols) Bet				Bell/Siren Cut-off Timer: 120 s					
				User Access Code	Format: 4 - Di	gits 💌			Time Zone:	(GMT: + 2)				
				I/O1 Settings	I/O1 Settings 2-Wire Smoke Detector (Fire current loop) V Daylight sa					saving time: 🔽				
				I/O2 Settings	2-Wir	e Smoke Detector (F	ire current loop)		Clock synchro	opization:	Cloud Server			
		D 1		Charles Excepte Dates	affer and E				CICCR Synchro	of Recomposition 1.	1	_		
				Clear Events Buter	aπerreset j♥									
Door Chain														
				Bell Squawk on AR	M/DISARM	1								
	Auto - reARM	Auto - reARM			Set Module Time from PC Read Module Time									
				Start iButton/RFI) programming mode	Stop iButton	RFID programmi	ing	PC time: Panel Time	e:	2019-07-08 19:24:3	9,Monday		
				Reset De	vice									

Figure 8User/ Access control and System Options> General System Options

Preparation procedure of the module PROGATE.

Connect the GSM antenna to the antenna connector.

Insert the SIM card in the SIM card holder. Ensure that PIN request function is disabled.

Ensure that mobile internet service (mobile data) is enabled if mobile app or IP connection with CMS will be used.

Connect power supply.

Connect the module to the computer via mini USB cable.





Figure 9Screw GSM antenna



Figure 11 Connect power supply



Figure 12 Connect the module to the computer

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Figure 10 Insert SIM card

CALL TO THE MODULE FROM YOUR MOBILE YOU WILL RECEIVE SMS FROM THE MODULE

Install configuration software SERA2.

Go to the http://topkodas.lt/ website and download SERA2 software.

Open the folder containing installation of the software SERA2. Click the file "SERA2 setup.exe"

If installation directory of the software is OK, press [Next]. If you would like to install the software in the other directory press [Change], specify other installation directory and then press "next".

- Check if the correct data are entered and press Install
- After successful installation of the software SERA2, press [Finish]

3.Fasten the base of the case in the desired place using screws. DIN rail

3 Fastening



Figure 13 Remove the top lid

1.Remove the top lid.

standard.

2.Remove the PCB board.



Figure 15 Remove the PCB board



Figure 14 Fasten the base of the case



Fasten the base of the case in the desired place using screws.



4 Installation

This Installation & Programming manual provides the basic installation, wiring and programming information required to program the module Progate and connect all third party devices to the module.

Disconnect p	ower	supply	befo	ore v	vir

The correct wiring procedure is as follows:

Make sure power is turned off;

Make wiring connections to the terminals;

ng!

Apply power.

4.1 Power supply, Battery Wiring

Power supply DC 10-30V AC 12-24V Max 0.2A. It is necessary to calculate max current of power supply. The current of the alarm system is the current used by sensors, relays, siren and other devices. It is most convenient to use power supply source applied for power supply of security systems with the option to connect backup lead battery. It is recommended to mount remote control relays into sockets. Sockets may be easily fixed in metal box. It is necessary to select relays according to preferred voltage and current.

Prepare the module GTM1

- Insert SIM card
- Screw GSM antenna

The example how to configure the module GTM1 for AC failure, restore function



Figure 17 Power supply, battery wiring

How to configure the module GTM1 for AC failure, restore function

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line) Connect the module to the computer via mini USB cable Start free configuration program Sera2 You will find it in <u>https://www.topkodas.lt/</u> website HELP & SUPPORT> Downloads

Go to SERA2> Inputs/ Burglar Alarm Zones Double click on the 4th row

File Settings Devices Read [F5] Write [F6] Update Help System Options - SSM Communications - Settings - Settings - Settings Users/Access control - Inputs/Burglar Alarm Zones - Zn Name Zone Hardware Input Definition Type CID Bypass Tamper Shutdown Force Report R Spectral - Unputs/Burglar Alarm Zones - Zn Zn Zn Name Zone Hardware Input Definition Type CID Bypass Tamper Shutdown Force Report R Spectral - Outputs/Burglar Alarm Zones - Zn Zn Zn Mame Zone Hardware Input Definition Type CID Bypass Tamper Shutdown Force Report R Spectral - Outputs/Burglar Alarm Zones - Zn I Door GTM1, IO1 delay (Entry/Exit) NO 134 Image: Communication Sector Image: Communication	③ SERA2 [GTM1]														— C		×
Zones GSM Communications Settings Isers/Access control Zin Zin Name Zone Hardware Input Definition Type Clib Bypass Tamper Shutdown Force Report A Report R Spectrol Outputs (Pow) Zin 1 Door GTM1, IO1 delay (Entry/Exit) NO 134 Image: Construction of the construction of	📄 File 🔌 Settings 🛛 🔒 Devi	ices	010 	Read [F5]	🎇 Write (F6) 👘 📋 l	Jpdate 🔞 H	elp										
- GSM Communications - Users/Access control - Dutplits/Eurglar_Alarm Zones - Outputs (PcM) - Automation/Sensors - Event Summary - Event	···· System Options	Zo	nes														-
Users/Access control Image: Contro Image: Control	GSM Communications	Se	ttings														
Imputs/Burglar Alarm Zones Zn Name Zone Hardware input Definition Type ClD Bypass Tamper Shutdown Force Report R Spectral - Outputs (Pcwn) - 0 - 0 GTM1, IO1 delay (Entry/Exit) NO 134 Imput Impu<	Users/Access control			1				1 -	Low		-		-		In	-	T
Outputs (PGM) Image: Doing and the second seco	Inputs/Burglar Alarm Zones	Ц	ΖN	Zn Name	Zone Hardwa	re Input	Definition	Type	CID	Bypass	Tamper	Shutdown	Force	Report A	Report R	Speed	1
Automation/Sensors Image: 2 PIR GTM1,IO2 follow/Interior NO 130 Image: 2 Image: 2 <thimage: 2<="" th=""></thimage:>	- Outputs (PGM)		21	Door	GTM1, IO1		delay (Entry/Exit)	NO	134	~		\checkmark			✓	200ms	
Event Summary	Automation/Sensors	П	2	PIR	GTM1, IO2		follow/interior	NO	130	~		~	V	~	~	200ms	
	Event Summary		3	Fire	GTM1. IO3		fire	NO	110	~		V			~	200ms	
AC power loss NO 301 V V V 200	- Events Log	H	2 4	AC Loss	GTM1, IN1		AC power loss	NO	301	V		V		~	>	200ms	
		ľ															1

Figure 18 SERA2> Inputs/ Burglar Alarm Zones

Enter the required parameters.

Press "Write" icon (in the command line.)



Figure 19 SERA2> Inputs/ Burglar Alarm Zones. Double click on the selected line



Figure 20 SERA2> Inputs/ Burglar Alarm Zones. Double click on the selected line



Figure 21 SERA2> Inputs/ Burglar Alarm Zones. Double click on the selected line

How to set SMS alarm funkction Go to SERA2> GSM Communication> SMS/ DIAL reporting

_				
③ SERA2 [GTM1]				– 🗆 ×
📄 File 🔌 Settings 🏻 🔒 Dev	ices 🐺 Read [F5] 🛛 🞇 Write	[F6] 🛛 🛑 Update Help		
System Options	Event Reporting/Communication			
GSM Communications	SMS/DIAL reporting Custom SMS	S Text GPRS/IP/TCP/UDP CMS Reporting SERA Cloud Servic	e	
Users/Access control Inputs/Burglar Alarm Zones	SMS/autoDIAL Phone Number]	SMS Notifications to USER	Auto DIAL to USER
- Outputs (PGM)	Tel.1 + 37065558449	D Events	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 🔨
- Automation/Sensors	Tel.2 +	I 2 System Open/Close (CID 400 group		
- Event Summary	Tel 3 +	3 System Truobles(CID 300 group)		
- RT Testing&Monitoring	161.3 4	4 Sensor1-Sensor32 Alarm/Restore		
Firmware	Tel.4 +	5 Test Events (CID 600 group)		
	Tel.5 +	6 Other Events		
	Tel.6 +	7 Input/Zone1 Alarm/Restore		
	Tel 7 1	8 Input/Zone2 Alarm/Restore		
	161.7 +	9 Input/Zone3 Alarm/Restore		
	Tel.8 +	10 Input/Zone4 Alarm/Restore		
SMART				

Figure 22 SERA2> GSM Communication> SMS/ DIAL reporting

SERA2> System Options> System Fault/ Troubles

(g) SERA2 [GTM1]						-		>
File Settings Devi System Options OSM Communications - Users/Access control - Input/seturdiar Alarm Zones	ces 👿 Read [F5] 🐺 Write [F6] 🛑 Update System General System Options System Fault/Troubles System Faults/Troubles	🍥 Help em Info			Fault/Troubles Global Settings			
Outputs (PGM) Automation/Sensors Event Summary Events Log	D Trouble 1 Battery trucble 2 Clock trucble 3 BUS trucble	Enable	Restrict ARM	^	Trouble Event Limit : Reset Trouble Event Counter After :	3	min	
- RT Testing&Monitoring - Firmware	4 Tamper truoble 5 Fire loop truoble 6 SIM card truoble 7 Znee artimesting truoble	য হ হ			System Voltage (Low Battery) settings-	,		
SMART O	8 GSM network truoble				Low System Voltage Alarm: System Voltage Restore:	11.6	v v	
				Ā	Event Delay: Global Tamper Recognition: sudible alarm when disarme / alarm as pe	60 er zone whe	s en armed	-

Figure 23 SERA2> System Options> System Fault/ Troubles

Go to SERA2> GSM Communication> Custom SMS text

(i) SERA2 [GTM1]		
📄 File 🛛 🍇 Settings 🛛 🔒 Dev	ices 📱 Read [F5] 🛛 🞇 Write [F6] 🛛 🛑 Update	e 🐌 Help
System Options	Event Reporting/Communication	
GSM Communications	SMS/DIAL reporting Custom SMS Text GPRS/IP/TCI	P/UDP CMS Reporting SERA Cloud Service
Users/Access control	ID Text Descrition	SMS Text
Outputs (PGM)	▶ 1 Alarm	
Automation/Sensors	2 Restore	Restore Edit text
Event Summary	3 Open	Open
···· EVENTS LOG ···· RT Testing&Monitoring	4 Close	Close
Firmware		

Figure 24 SERA2> GSM Communications> Custom SMS Text

9 •8 0 ←	a D @ U R 144 144 144 Temperature Co		Power supply TPS12 installation manual: <u>https://topkodas.lt/Downloads/TPS12_UM_EN.pdf</u> Power supply TPS12 : <u>https://topkodas.lt/Downloads/GTalarm2_TPS12_AN_EN.pdf</u>
	Object Name AC Restore 2020-07-21 14:29:46 CID:3:301:01:004	!!!	AC equipment cannot be connected directly to the module. It is necessary to use a special relays or other methods, which are in compliance with electrical safety requirements. When controlling devices from the AC network, it is necessary to follow all electrical safety requirements.
	Now		
•	Object Name AC Loss 2020-07-21 14:31:05 CID:1: <u>301</u> :01:004		
	Now		
Write n	nessage 🔹 🗅 >		

4.2 Inputs

IO1and IO2 programmable selectable input or output

- IO1: 0-30V
 - · IO2: 0-30V

IO3/D0 programmable selectable

- IO3/D0: 0-30V analog input (zone or sensor)
 - Output
 - IO3/D0: 0-20mA 4-20mA current loop sensor
 - 2- wire Smoke Detector (Fire urrent loop)

IN1/D1: 0-30V

1W programmable selectable

- Digital input (Max 3.3V!!!)
- Dallas 1-wire bus
- Aosong 1-wire bus

Wiegand keypad inputs: IO3/ D0 ir IN1/D1

4.2.1 4-20mA sensors



PREPARE the module GTM1

- Insert SIM card
- Screw GSM antenna
- Connect analog current sensor as in the diagram
- Connect the power supply
- Connect the module to the computer via mini USB
- Install SERA2 software.
- You will find it in https://www.topkodas.lt/ website
- (HELP & SUPPORT > Downloads)
- Open SERA2
- Go to SERA2> System Options> General System Options
- Set I/O3 Settings > 0-20mA, 4-20mA Current Loop Sensor
- Press "Write" icon (in the command line)



Figure 25 Example of 4-20mA sensor wiring

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)



Go to SERA2> Automation/ Sensors

Select GTM1, Input IO3, 0-20 mA

Press "Write" in the command line

-

Figure 26 SERA2> System Options> General System Options

🛾 File 🔏 Settings 🚠 Dev	/ICe	s 遵	Read [F5]	Write [F6] Update 📎 Help		
System Options		utoma	tion/Sensors/Analo	og inputs		
GSM Communications		ID	Sensor Name	Sensor Hardware ID	U	
	Ī	2 1	Sensor Name 1	GTM1,Input IO3,0-20mA	°C	
- Inputs/Burgiar Alarm Zones		2 2	Sensor Name 2	Sensor Disabled	-	
- Automation/Sensors	nation/Sensors		3 🗹	Sensor Name 3	GTM1 input IN1 0-30V GTM1 input IO1 0-30V	
Event Summary		🗹 4	Sensor Name 4	GTM1, Input IO2,0-30V		
- Events Log		🗹 5	Sensor Name 5	GTM1 Joput IO3 0-30V		
RT Testing&Monitoring		Μ 6	Sensor Name 6	GTM1, Input IO3,0-20mA	iωπ	
Firmware		7	Sensor Name 7	GTM1 Input 1W,1-Wire bus, Temperature, Aosong 1-Wire bus Humid	ity/Т	
		٤ 🗹	Sensor Name 8	GTM1,Input 1W,1-Wire,DS18B20 Temperature,SN:28FFB5795516	-	
		1 9	Sensor Name 9	Sensor Disabled	°C	

Figure 27 SERA2> Automation/ Sensors

Double click on the line

③ SERA2 [GTM1]								
📄 File 🔌 Settings 🛯 Devices 🛛 Read [F5] 🛛 🖓 Write [F6] 🛛 🛑 Update Help								
	A	utomati	on/Sensors/Analo	g Inputs				
GSM Communications		ID	Sensor Name	Sensor Hardwar	re ID Unit			
Users/Access control	Þ	🕑 1	Sensor Name 1	GTM1,Input IO3,0-20mA	۳C			
Inputs/Burgiar Alarm Zones		2 🚺	Sensor Name 2	Sensor Disabled	°C			
Automation/Sensors		🚺 З	Sensor Name 3	Sensor Disabled	uble C			
Event Summary		2 🗹	Sensor Name 4	Sensor Disabled	click PC			
Events Log		2 🗹	Sensor Name 5	Sensor Disabled	•C			
DT Testing@Monitoring				1				

Figure 28 SERA2> Automation/ Sensors. Double click on the selected line

- Change default settings under your requirements
- Press "Write" in the command line
- Sensor calibration is possible

Contact manufacture for calibration file (email: info@topkodas.lt)

3SM Communications	D	Sensor Name:	Sensor Name 1			
Jsers/Access control nputs/Burglar Alarm Zones Dutputs (PGM) Automation/Sensors	1 2 3	Sensor type/hardware location: Sensor Unit Text:	GTM1.Input ID3.0	-20mA	<u>.</u>	
Automaticity Series	X 4 X 5 X 6 X 7 X 8 X 9 X 10 X 11 X 12 X 13 X 14 X 15 X 16	High/Max (e.g. A/C Coder, Fan) Val Max Value Alarm Ever//SMS: Max Value To Activate Duput: Max Value Hysteresii: Max Alarm Evert Delay: Max Value Duput Control Delay: Duput: Contact ID Repot Code: Alarm Evert SMS Text: Alarm Evert/SMS I	Lue Action Settings 30 28 1 1 10000 1000 1000 NONE 158 Max Value Restore Event/	ms ms SMS V	High Temp Alarm Low Temp Alarm Low Temp Alarm Low Temp Alarm SMS Alarm High Temperature Cooler Hysteresh Heater Hysteresh Migh Temperature Heater Hysteresh Heater Hy	ooler ON ooler OFF eater OFF eater ON
	20 20 21 22 22 22 22 22 24 24 25 26	Lowinn (e.g. Reserv) value Action Min Value Alam Event/SMS: Min Value Alam Event/SMS: Min Value Hysteresis: Min Value Output Control Delay: Output: Contact ID Report Code: Alam Event SMS Text:	5 10 1 10000 1000 1000 1000 1000 159 Min Value	ms ms	Sensor Calibration X + Multiplier Y - Offset Q Equation: Temperature=XADC+Y	
	< 27	Alarm Event/SMS	Restore Event/	SMS 🔽		>

Figure 29 SERA2> Automation/ Sensors

Please visit:
How to activate output, when defined value is reached?
How to test the system: hardware status & real time sensor values, event list.
How to read event log from internal memory of the module?
How to set SMS alarms?
How to change temperature scale from Celsius to Fahrenheit

4.2.2 Humidity sensors AM2302/DHT22/AM2305/AM2306/AM2320/AM2321

Module should work with following sensors: Aosong 1-Wire bus Humidity Sensor AM2302, DHT22, AM2305, AM2306. Also a new smaller sensor exists AM2320 & AM2321.

Table 6 Sensors AM2302, AM2320/AM2321 specification

Manufacturers' Specification		
	AM2302	AM2320/AM2321
Operating Range	0–100	0–100
Absolute accuracy (%RH, 25°C)	±3% (10-90%) ±5% (<10, >90%)	±3% (10-90%) ±5% (<10, >90%)
Repeatability (%)	±0.3	±0.1
Long term stability (% per year)	0.5	0.5
1/e Response (sec)	5	5
Voltage supply (V)	3.3–5.5	3.1–5.5(AM2320) 2.6–5.5(AM2321)

The table lists values taken from datasheets. The Aosong data sheets do not specify maximum tolerances for most parameters, just 'typical' values. It would therefore seem that any particular device is not guaranteed to meet these specifications. For all the other devices the numbers above are the maximum tolerances and most also offer better 'typical' specifications.

Each AM2302 sensor connects on separate bus line to digital input D1 (Digital I/O D1 in Sera2). Total up to 1 AM2302 Aosong (Guangzhou) humidity sensor could be connected to GTM1 Steps to start AM2320 and AM2302 sensors:

Prepare the module GTM1

- Insert SIM card
- Screw GSM antenna
- Connect AM2320 or AM2302 to the 1W according connection diagram.



Figure 31 AM2302 connecting diagram

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If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

- Connect the module to the computer via mini USB cable
- Connect the power supply.
- Start free configuration program Sera2
- You will find it in https://www.topkodas.lt/ website
- HELP & SUPPORT> Downloads •
- Go to SERA2> System Options> General System Options window.
- Set 1W (1-Wire Bus)> Aosong 1 Wire bus Humidity/ Temperature Sensor AM2302... Press "Write" in the command line -
- -
- Press "Read" in the command line _

SERA2 [GTM1]				- 0
📄 File 🔌 Settings 🏻 🔒 Devi	ices 👸 Read [F5] 🛛 🞇 Write [(F6) 🛑 Update 🥎 Help		
- System Options GSM Communications Users/Access control	General System Options System	Fault/Troubles System Info		
Inputs/Burglar Alarm Zones	System Options		System Timers	
Outputs (PGM)	Object Name:	Object Name	Test Time:	13:30 hh:mm
Automation/Sensors Event Summary	SMS/APP Text Charset	Latin (160 SMS symbols)	Test Period:	1 Days 💌
Events Log	SIM Card PIN:	****	Entry Delay	15 s
RT Testing&Monitoring Firmware	Installer Password:	(6 symbols)	Exit Delay:	20 s
	SMS User Password:	****** (6 symbols)	Bell/Siren Cut-off Timer:	120 s
	User Access Code Format:	4 - Digits	Time Zone:	(GMT: + 2)
	Keyswitch Zone Mode:	Pulse/Edge	Daylight saving time:	\checkmark
	1W (1-Wire Bus)	M2302/AM2305/AM2306/AM2320/AM2320E		
SMART (I/O3 Settings	Digital Input (Max. 3.3V!!!!) Digital Output (Max. 3.3V!!!!) Delles 1 Mire BS10004/DS18b20		
	Clear Events Bufer after reset	Aosong 1-Wire bus Humidity/Temperature Sensor	DHT22/AM2301/AM2302/AM23	05/AM2306/AM2320/AM2320B
	Door Chime			
~0- & ~	Bell Squawk on ARM/DISARM			

Figure 32 SERA2> System Options> General System Options

- Go to SERA2> Automation/ Sensors window. The sensor will appear in the list automatically.
- **Double click** on the selected sensor's line.

③ SERA2 [GTM1]			
📄 File 🔌 Settings 🔒 Dev	vices 🛛	🐺 Read [F5] 🛛 🚆	Write [F6] 🛛 🛑 Update Help
···· System Options	Auton	nation/Sensors/Analo	g Inputs
GSM Communications) Sensor Name	Sensor Hardware ID
Users/Access control		1 Sensor Name 1	GTM1,Input 1W(1-Wire,DS18B20 Temperature,SN:28FFB5795516
Inputs/Burglar Alarm Zones		2 Sensor Name 2	GTM1 Input 1W(1-Wire bus, RH, Humidity, Aosong 1-Wire bus Humidity/Temperature Sensor DHT22/AM2301 /AM
- Automation/Sensors		3 Sensor Name 3	GTM1 Input 1W,1-Wire bus, Temperature, Aosong 1-Wire bus Humidity/Temperature Sensor DHT22/AM2301/AM2
- Event Summary		4 Sensor Name 4	Sensor Disabled
Events Log		5 Sensor Name 5	Sensor Disabled
RT Testing&Monitoring		6 Sensor Name 6	Sensor Disabled
· Firmware		7 Sensor Name 7	Sensor Disabled

Figure 33 SERA2> Automation/ Sensors

- Set other parameters of the sensor MIN, MAX values Units etc.
- Press "Write" in the command line



Figure 34 SERA2> Automation/ Sensors



How to activate output, when defined value is reached? How to test the system: hardware status & real time sensor values, event list. How to read event log from internal memory of the module? How to set SMS alarms? How to change temperature scale from Celsius to Fahrenheit

4.2.3 Analog inputs 0-30V

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)



Analog 0-30V sensors could be connected to IO3, IN1

<u>Steps to start analog sensors:</u> Connect analog voltage sensors to IO3, IN1 according connection diagram.

If sensor connected to IO3, go to SERA2> System Options> General System options Set IO3 to 0-30V Analog Input (Zone or Sensor) Press "Write" in the command line

If analog inputs sensors is not in use, the inputs should be disabled in "Zones" or "Sensor" window.

Analog sensors should be calibrated and parameters should be set in the **SERA2> Automation/Sensors** window. Go to SERA2> Automation / Sensors, **double click** on the selected line. Sensors calibration is possible by changing multiplier, offset. When all changes has been done, the configuration should be written to module, by pressing **write** icon.

ystem Options	System									
SM Communications	General System Options System Fault/Troubles System Info									
puts/Burglar Alarm Zones	System Options		System Timers							
utputs (PGM)	Object Name:	Object Name	Test Time:	13:30	hh:mm					
tomation/Sensors	SMS/APP Text Charset	Latin (160 SMS symbols)	Test Period:	1	Days	•				
ents Log	SIM Card PIN:	****	Entry Delay	15	8					
Testing8Monitoring	Installer Password	(6 symbols)	Exit Delay:	20	s					
niware	SMS User Password	(6 symbols)	Bell/Siren Cut-off Timer:	120	5					
	User Access Code Format	4 - Digits 👻	Time Zone:	GMT: 4	+ 2)	•				
	Keyswitch Zone Mode:	Pulse.Edge v	Daylight saving time:	V		_				
	1W (1-Wre Bus)	Dallas 1-Wre Bus DS1990A/DS18b20	न							
SHADT	1/03 Settings	D-30V Analog Input (Zone or Sensor)	Clock synchronization:	Cloud S	erver	•				
	Clear Events Bufer after reset Door Chime Bell Squawk on ARM/DISARM	0-30V Analog Input (Zone or Sensor) Utput 2-Wre Smoke Detector (Fire current loop) 0-20 mA, 4-20 mA Current Loop Sensor								
Frank Land	Auto - reARM		Set Module Time from	PC	Read M	odule Time				
. (EI	Start IButton/RFID/Phone pro	ogramming mode Stop programming	PC time: 20:	20-08-12	2 12:49:45,V	Vednesda	ay			
	Reset Device		Panel Time:							

Figure 350-30V sensor connecting diagram

Figure 36 SERA2> System Options> General System Options IO3 Settings> 0-30V Analog Input (Zone or Sensor)

 SERA2 [GTM1] File Settings Convices 	🕃 Read [F5] 🔄 Write [F6]	Update 🐞 Help	×
System Options - System Options - Users/Access control - Inputs/Burgior Alarm Zones - Outputs (POM) - Event Summary - Event Summary - Event Log	omation/Sensors/Analog Inputs Sensor 1 Settings Sensor Settings Sensor Name: Sensor Name: Sensor lype/hardware location: Sensor line Text	Sensor Name 1	×
RT Testing&Monitoring	High/Max (e.g. A/C Cooler, Fan) Val Max Value Alarm Event/SMS: Max Value To Activate Output:	GTM J. Input IN1, J-30V GTM J. Input ID1, 2-30V GTM J. Input ID1, 2-30V GTM J. Input ID3, 2-20M GTM J. Input ID3, 2-20M GTM J. Input ID3, 2-20M GTM J. Input IW, 1-Wire bus, FIH, H GTM J. Input IW, 1-Wire bus, Temp GTM J. Input IW, 1-Wire bus, Temp	tumidity,Aosong 1-Wire bus Humidity/Temperature Sensor DHT22/AM2 erature,Aosong 1-Wire bus Humidity/Temperature Sensor DHT22/AM2 Temperature,SN:28FFB5795516
SMART C	Max Value Prysetess: Max Alarm Event Delay: Max Value Output Control Delay: Output: Contact ID Report Code:	10000 ms 1000 ms NONE v 158	Comfort Zone Heater Hysteress
	Alarm Event/SMS Text: Alarm Event/SMS Cow/Min (e.g. Heater) Value Action : Min Value Alarm Event/SMS	Max Value Restore Event/SMS	Low Temp Alarm SMS Alarm Low Temperature
- Ve.	Min Value To Activate Dutput: Min Value To Activate Dutput: Min Value Hysteresis:	10 1 10000 me	X - Multiplier 1 Y - Offset 0

Figure 37 SERA2> Automation/ Sensors Double click on the selected line

Any automation voltage analog sensors 0-10V, can be connected to IN1-IN4 (has internal pull up resistor 5.1K) , and I/O1, I/O2

Please visit:

How to activate output, when defined value is reached? How to test the system: hardware status & real time sensor values, event list. How to read event log from internal memory of the module? How to set SMS alarms? How to change temperature scale from Celsius to Fahrenheit

4.2.4 Temperature sensors Dallas 1-wire DS18b20 installation & recommendations



The DS18B20 digital thermometer provides 12-bit Celsius temperature measurements. The DS18B20 communicates over a 1-Wire Each DS18B20 has a unique 64-bit serial code, which allows multiple DS18B20s to function on the same 1-Wire bus. Thus, it is simple to use one to control many DS18B20s distributed over a large area. Applications that can benefit from this feature include HVAC environmental controls, temperature monitoring systems inside buildings, equipment, or machinery, and process monitoring and control systems.

Applications/Uses

- Consumer Products
- Industrial Systems
- Thermally Sensitive Systems
- Thermometers
- Thermostatic Controls

Key Features

- Measures Temperatures from -55°C to +125°C (-67°F to +257°F)
- ±0.5°C Accuracy from -10°C to +85°C
- Each Device Has a Unique 64-Bit code.

Prepare the module GTM1

- Insert SIM card
- Screw GSM antenna

Connect temperature sensor DS18b20 to the 1W according connection diagram.

[It is possible to connect up to 32 temperature sensors DS18b20]

DS18b20 connection withA long distance UTP or FTP cable



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82-120 Ohm max 100m line

Sensor_3 DS18b20



4.2.5 Temperature sensors Dallas 1-wire DS18b20 programming

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

- Connect the module to the computer via mini USB cable
- Connect the power supply.
- Start free configuration program SERA2
- You will find it in https://www.topkodas.lt/ website

HELP & SUPPORT> Downloads

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- Go to SERA2> System Options> General System Options window. -
- Set 1W (1-Wire Bus)> Dallas 1-Wire Bus DS18b20... -
- -Press "Write" in the command line
- Press "Read" in the command line _

(i) SERA2 [GTM1]				-	
📄 File 🔌 Settings 🔒 Devi	ces 選 Read [F5] 🛛 🞇 Write ([F6] 👘 Update Help			
- System Options	System				
	General System Options System	Fault/Troubles System Info			
Inputs/Burglar Alarm Zones	System Options		System Timers		
- Outputs (PGM)	Object Name:	Object Name	Test Time:	13:30 hh:mm	
	SMS/APP Text Charset	Latin (160 SMS symbols)	Test Period:	1 Days 🔻	
Events Log	SIM Card PIN:	****	Entry Delay	15 s	
RT Testing&Monitoring	Installer Password:	(6 symbols)	Exit Delay:	20 s	
T I I III WOLC	SMS User Password:	****** (6 symbols)	Bell/Siren Cut-off Timer:	120 s	
	User Access Code Format:	4 - Digits	Time Zone:	(GMT: + 2)	
	Keyswitch Zone Mode:	Pulse/Edge	Daylight saving time:		
	1W (1-Wire Bus)	Dallas 1-Wire Bus_DS1990A/DS18b20 💌			
SMART	I/O3 Settings	Digital Input (Max. 3.3∀!!!!)			
	_	Didital Output (Max. 3.37/IIII) Dallas 1-Wire Bus DS1990A/DS18b20			
	Clear Events Bufer after reset	Aosong 1-Wire bus Humidity/Temperature Senso	r DHT22/AM2301/AM2302/AM230	5/AM2306/AM2320/AM2320B	
	Door Chime				
	Bell Squawk on ARM/DISARM				
	Auto - reARM		Set Module Time from PC	Read Module Time	
4- 111' million	Start iButton@EID@hone_ner				
		Stop programming	PCtime: 202	0-07-2011:33:52,Monday	
a gar	Reset Device		Panel Time:		
					_

Figure 39 SERA2> System Options> General System Options

- Go to SERA2> Automation/ Sensors window.
- The sensor will appear in the list automatically.
 - Double click on the selected sensor's line.
 - Set other parameters of the sensor MIN, MAX, alarm values etc.
 - Press "Write" in the command line

G SERA2 [GTM1]							
📄 File 🔌 Settings 🔮 Devices 🕃 Read [F5] 🛛 📓 Write [F6] 🛑 Update 🧐 Help							
- System Options	System Options Automation/Sensors/Analog Inputs						
GSM Communications		L II)	Sensor Name	Sensor Hardware ID		
Users/Access control	Þ	2	1	Sensor Name 1	GTM1,Input 1W,1-Wire,DS18B20 Temperature,SN:28FF004BA016		
- Inputs/Burgiar Alarm Zones			2	Sensor Name 2	Sensor Disabled		
Automation/Sensors	Г		3	Sensor Name 3	Sensor Disabled		
- Event Summary			4	Sensor Name 4	Sensor Disabled		
Events Log		Ø	5	Sensor Name 5	Sensor Disabled		
RT Testing&Monitoring			6	Sensor Name 6	Sensor Disabled		
····· Firmware			7	Sensor Name 7	Sensor Disabled		

Figure 40 SERA2> Automation/ Sensors

Please visit:

How to activate output, when defined value is reached? How to test the system: hardware status & real time sensor values, event list. How to read event log from internal memory of the module? How to set SMS alarms? How to change temperature scale from Celsius to Fahrenheit

Using cat 5 cable is best and will make it easier to maintain a working 1-wire network when you expand and add more sensors. The data and ground should use one twisted pair, for example blue/blue-white. A single wire from another pair is used for the 3.3 volt supply.

Don't double up wires on the assumption that this lowers resistance and is a 'good thing', it actually alters the impedance of the network and makes it less reliable. All unused wires in the cat 5 cable should be left unconnected (don't connect them to ground). When running a 1-Wire bus, Dallas recommend that you use an unshielded Cat5 cable for the bus. Do not use shielded cable as the capacitance increase will upset the network.

If you intend to have a large 1-Wire network, it is important that you design the network correctly, otherwise you will have problems with timing/reflection issues and loss of data. You must connect each sensor to a single continuous cable which loops from sensor to sensor in turn (daisy chain). This will reduce potential miss-reads due to reflections in the cable. Each sensor should have a maximum of 50mm (2") of cable connected off this main network. Even when using this method, connecting more than 10-15 sensors will still cause problems due to loading of the data bus. To minimize this effect, place a 100-120 Ω resistor in series in the data line of each sensor before connecting to the network. The total length of the bus from 10 to 100m. Depending of cable quality sensors number on bus, and environment noise. There is possibility to connect up to 32 devices.



Begin the installation by mounting additional devices in the cabinet using the stand-offs provided, then mount the cabinet in a dry, protected area with access to unstitched AC power. Install hardware in the sequence indicated in the following pages. Do NOT apply power until installation is complete.

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All circuits are classified UL power limited except for the battery leads. Minimum ¼" (6.4mm) separation must be maintained at all points between power limited and non-power limited wiring and connections.

4.2.6 How to change temperature scale from Celsius to Fahrenheit

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

1. Go to SERA2> Automation/ Sensors (double click on the sensor's line).

- 2. Enter Y (offset) and X (multiplier) values.
- 3. Change the units to Kelvin or Fahrenheit in the SERA2> Automation/ Sensors (double click on the sensor's line).

Y(offset)=273.15, X(multiplier)=1 Celsius to Fahrenheit conversion Y(offset)=32, X(multiplier)=1.8 Celsius to Kelvin conversion

Refer to: Error! Reference source not found.

4.2.7 How to activate output, when defined value is reached?

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line) It is possible to set:

trigger conditions ("Min", "Max" and "Hys.") and wanted action. SMS alarm event values

Hysteresis ("Hys") is used to prevent from excessively triggering when the value fluctuates around the trigger point.

Example:

The wanted minimum temperature is 19°C. So sensor1: Min=19 and Hysteresis=0.5





4.2.8 How to test the system: hardware status & real time sensor values, event list.

Real time hardware status

Go to SERA2> RT Testing & Monitoring > Hardware Press "Start Monitoring"



Figure 41 SERA2> RT Testing & Monitoring> Hardware

③ SERA2 [GTM1]	
📄 File 🔌 Settings 🛛 🔒 Dev	ices 📱 Read (F5) 🛛 🞇 Write (F6) 💼 Update 🧐 Help
- System Options - GSM Communications	Monitoring window
Users/Access control	Sensor Name 1, GTM1, Input 1W,1-Wire, DS18B20 Temperature, SN:28FF004BA016
- Outputs (PGM)	Value 27.31 °C Active 🔽 High Val Alarm 🔲 Low Val Alarm 🗍
Automation/Sensors Event Summary	Sensor Name 2,Sensor Disabled
Events Log	Value IVA C Acuve Ingri Var Alarm I Luvy Var Alarm
Firmware	Value N/A •C Active High Val Alarm Low Val Alarm

Figure 42 RT Testing & Monitoring> Sensors/Automation

Real time sensor values

Go to RT Testing & Monitoring> Sensors Automation

Near time events usi		
	(@) SERA2 [GTM1]	
Go to SERA2> RT Testing & Monitoring> Event Monitoring	File Settings Devices Read [F5] Write [F6] Update Help System Options -OSM Communications -Users/Access control Monitoring window Users/Access control Inputs/Burglar Alarm Zones Security Alarm Panel/Access Sensors/Automation Event Monitoring - Outputs (PGM) - Automation/Sensors - Vents Log - Vents Log Low Temp Alarm, Sensor:001 Note: Sensor1, :: - Event Summary - Events Log - Firmware - Firmware - Vents Log Low Temp Alarm, Sensor:001 Note: Sensor1, ::	0.69 2.50 1.25

Figure 43SERA2> RT Testing & Monitoring> Event Monitoring

4.2.9 How to read event log from internal memory of the module?

Read events log

Go to SERA2> Events Log	
Press "Read Event Log" button	

System Options	Events Log	Update Optielp
GSM Communications Users/Access control Inputs/Burgler Alerm Zones Outputs (PGM) Automation/Sensors Event Summary Event Summary Event Summary Event Summary Event Summary	Read Event Log	Clear Event Log

SERA2 [GTM1]					
🗎 File 🔌 Settings 🛛 🔒 Dev	ices 🦉	Read [F5] 🛛 🞇 Write [F6]	🛑 Update 🔞 Help		
- System Options	Events	Log			
 GSM Communications Users/Access control 		Read Event Log	Clear Event Log		
 Inputs/Burglar Alarm Zones Outputs (PGM) Automation/Sensors Support Support 	0705 0704 0703	Event:1:158:00:001 Event:3:159:00:001 Event:1:159:00:001	Time:2020-07-20 12:11:35 Time:2020-07-20 12:09:59 Time:2020-07-20 12:08:49	High Temp Alarm, Sensor:001 Low Temp Restore, Sensor:001 Low Temp Alarm, Sensor:001	Note: Sensor1,:30.69 Note: Sensor1,:12.50 Note: Sensor1,:3.25
- Events Log - RT Testing&Monitoring	0702 0701 0700 0699	Event: 1:373:01:003 Event: 3:380:00:001 Event: 1:531:00:001 Event: 1:305:00:000	Time:2020-07-20 11:45:23 Time:2020-07-20 11:45:22 Time:2020-07-20 11:45:21 Time:2020-07-20 11:45:16	Fire Trouble, Zone.003, Fire Sensor Restore, No:001 New Mod Added, No:001 Note: II System Reset	D1,D1,DS18B20

Figure 44 SERA2> Event Log

Figure 45 SERA2> Event Log

4.2.10 How to set SMS alarms?

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

Alarm SMS to the mobile phone

Go to SERA2> GSM Communication > SMS/ DIAL reporting Enter your phone number Mark alarm events Press "Write" in the command line



Figure 46 SERA2> GSM Communication> SMS DIAL Reporting

4.2.11 Burglar Alarm sensor zones wiring EOL NO NC



The module GTM1 has:

- IN1/D1: 0-30V
- IO1and IO2 programmable selectable input or output
- IO1: 0-30V
- IO2: 0-30V
- IO3/D0 programmable selectable
- IO3/D0: 0-30V analog input (zone or sensor)
- IO3/D0: 0-20mA 4-20mA current loop sensor
- 2- wire Smoke Detector (Fire urrent loop)

Inputs can be used or use it as security system's zones with selectable type: NC/NO/EOL/EOL+TAMPER.

It is recommended to use standard motion, fire, and glass breaking sensors. For powering of sensors we recommend to use standard 6-8 wires cable for, designed for installation of security system.

INSTALLATION:

1

The correct wiring procedure is as follows:

- Make sure power is turned off;
- Make wiring connections to the terminals;
- Apply power.

Prepare the module GTM1:

- Insert SIM card
- Screw GSM antenna
- Connect the sensors as in the diagrams:



PROGRAMMING:

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

STEP by STEP:

- Connect the module to the computer via mini USB cable
- Connect the power supply.
- Start free configuration program SERA2
- You will find it in https://www.topkodas.lt/ website

HELP & SUPPORT> Downloads

- If you use IO1, IO2, IO3/D0 as inputs for security system sensors
- You have to disable IO1, IO2, IO3/D0 in Output window
- Press "Write" icon in the command line

File 🔌 Settings 🚑 Devi System Options	ces Outp	🕉 Read (F5) 🛛 🖉 Write (F6) uts	Update 🗧	🔇 Help	
OSM Communications	ĪD	Cutput Location in Hardware	Output	Label	Out
Users/Access control	1	GTM1, CUT1 (1A)	OUT1		Automation
Inputs/Burglar Alarm Zones	2	GTM1_CLIT2 (1A)	OLIT2		Automation
Automation/Sensors	3	GTM1, IO1 (1.A)	OUT3		Automation
Event Summary	4	GTM1, IO2 (1A)	OUT4		Automation
Events Log	5	GTM1, IO3 (20mA)	OUT5		Fire Sensor
RT Testing&Monitoring	6	GTM1, 1W (10mA, Max Votage 3.3V	OUT6		Automation
Firmware	7	GTM1, LED FN	LED FN		Output State



A 000 L 0 L 0 000 L 0 1



Figure 47 SERA2> Outputs (PGM)

Figure 48 SERA2> Outputs (PGM)

In addition:

- If you use IO3/D0 as inputs for security system sensors
- You have to set IO3 Settings to 0-30V Analog Input (Zone or sensor)
- In SERA2> System Options> General System Options window
- Press "Write" icon

System Options	System	era 🗧 ekona 🖉 rask
- GSM Communications	General System Options System	Fault/Troubles System Info
-Users/Access control -Inputs/Burglar Alarm Zones	System Options	
Outputs (PGM)	Object Name:	Object Name
-Automation/Sensors Event Summary	SMS/APP Text Charset	Latin (160 SMS symbols)
Events Log	SIM Card PIN:	****
RT Testing&Monitoring Firmware	Installer Password:	(6 symbols)
	SMS User Password:	(6 symbols)
	User Access Code Format:	4 - Digits 💌
	Keyswitch Zone Mode:	Pulse/Edge
	1W (1-Wre Bus)	Dallas 1-Wire Bus DS1990A/DS18b20 🔻
SMART A	I/O3 Settings	0-30V Analog Input (Zone or Sensor)
		0-30V Analog Input (Zone or Sensor)
	Clear Events Bufer after reset	2.Wre Smoke Detector (Fire current loon)
	Door Chime	0-20 mA, 4-20 mA Current Loop Sensor
	Bell Squawk on ARM/DISARM	Г

Figure 50 SERA2> System Options> General System Options

Go to

- SERA2> Inputs/ Burglar Alarm Zones window
- Double click on the selected line
- Edit default settings
- Press "Write" in the command line

🛉 File 🔌 Settings 🛛 🚑 De	vices 🛛 😽 Read (F!	i] 📲 Write (F6) 💼	Update 🅎 He	lp			
- System Options - GSM Communications	Zones Settings		- -				
- Inputs/Burglar Alarm Zones	Zn Zn N	arne Zone Hardw	are Input	Definition	Type	CID	B
- Outputs (PGM)	1 Door	GTM1, IO1		delay (Entry/Exit)	NO	134	Γ
- Automation/Sensors	2 PR	GTM1, IO2		follow/interior	NO	130	
Event Summary	3 Fire	GTM1, IO3	1	lire	NO	110	
Events Log	1 🗹 4 AC Los:	OTM1, IN1		AC power loss	NC	301	

Figure 52 SERA2> Inputs/ Burglar Alarm Zones

 In the second se	ices 🗿 Read (FS)	Write [F6]	Update 🏷 Help		
- System Options	Zones				
- GSM Communications	Settings		Zone 4 Settings		
Users/Access control	7n 7n Neme	Zone Herds			
- Inputs/Burglar Alarm Zones	Ziri Ziriveine	OTML IOI	Zone Name	AC Loss	
- Sutomation Sensors			Alarm Text	Alarm 4 Text	
- Event Summary	2 PIK	G1M1,102		Deathers 4 Text	
-Events Log	3 Fire	GTM1,103	Restore lext	restore 4 lext	_
-RT Testing8Monitoring	1 4 AC Loss	GTM1, IN1	Zone Hardware Location	GTM1, IN1	
Firmware					
			Zone Definition	AC power loss	
			Wring Type	NC -	
			Contact ID code	301	
			Zone Sneed	60000ms	
			2010 00000		
SMART A			Event Repeat Timeout	600s	
			Max Alarm Count	5	
			Zone Alarm action:	N/A -	
			- Zone Ortions		
~~			Alarm ranort Enabled		
			Restore report Enabled		
1 111' milli			Tamper Enabled		
· · · · · · · ·			Bypapss Enabled	2	
1 1.21			Shutdown if max alarm cou	nt 🗸	
			Zone Force ARM		
			Delay Restore Event	Ē	
	<			OK	

Figure 51 SERA2> Inputs/ Burglar Alarm Zones

4.2.12 Fire alarm and Smoke sensors

4.2.12.1 Guidelines for Locating Smoke Detectors and CO Detectors



The following information is for general guidance only and it is recommended that local fire codes and regulations be consulted when locating and installing smoke and carbon monoxide alarms.

Smoke Detectors. Research indicates that all hostile fires in homes generate smoke to a greater or lesser extent. Detectable quantities of smoke precede detectable levels of heat in most cases. Smoke alarms should be installed outside of each sleeping area and on each level of the home.

Additional smoke alarms beyond those required for minimum protection be installed. Additional areas that should be protected include: the basement; bedrooms, especially where smokers sleep; dining rooms; furnace and utility rooms; and any hallways not protected by the required units.

On smooth ceilings, detectors may be spaced 9.1m (30 feet) apart as a guide. Other spacing may be required depending on ceiling height, air movement, the presence of joists, uninsulated ceilings, etc.

· Do not locate smoke detectors at the top of peaked or gabled ceilings; dead air space in these locations may prevent smoke detection.

• Avoid areas with turbulent air flow, such as near doors, fans or windows. Rapid air movement around the detector may prevent smoke from entering the unit.

• Do not locate detectors in areas of high humidity.

• Do not locate detectors in areas where the temperature rises above 38°C (100°F) or falls below 5°C (41°F).

Where required by applicable laws, codes, or standards for a specific type of occupancy, approved single- and multiple-station smoke alarms shall be installed as follows:

(1) In all sleeping rooms and guest rooms.



Figure 49 SERA2> Outputs (PGM)

(2) Outside of each separate dwelling unit sleeping area, within 6.4 m (21 ft) of any door to a sleeping room, the distance measured along a path of travel.

(3) On every level of a dwelling unit, including basements.

(4) On every level of a residential board and care occupancy (small facility), including basements and excluding crawl spaces and unfinished attics.

(5) In the living area(s) of a guest suite.

(6) In the living area(s) of a residential board and care occupancy (small facility).

CO Detectors. Carbon monoxide gas moves freely in the air. The human body is most vulnerable to the effects of CO gas during sleeping hours. For maximum protection, a CO alarm should be located outside primary sleeping areas or on each level of your home.

The electronic sensor detects carbon monoxide, measures the concentration and sounds a loud alarm before a potentially harmful level is reached. Do NOT place the CO alarm in the following areas:

• Where the temperature may drop below -10°C or exceed 40 °C.

• Near paint thinner fumes.

• Within 5 feet (1.5 meters) of open flame appliances such as furnaces, stoves and fireplaces.

• In exhaust streams from gas engines, vents, flues or chimneys.

• In close proximity to an automobile exhaust pipe; this will damage the detector.

Progate. Begin the installation by mounting additional modules in the cabinet using the stand-offs provided, then mount the cabinet in a dry, protected area with access to un switched AC power. Install hardware in the sequence indicated in the following pages. Do NOT apply power until installation is complete.

4.2.12.2 [4-Wire] Smoke detector Wiring



Connect the 4-wire smoke detectors and a relay as shown in the figure below. Install the 4-wire smoke detectors with 18 gauge wire. If power is interrupted, the relay causes the control panel to transmit the Fire Loop Trouble report. To reset (unlatch), connect the smoke detector's negative (-) to a PGM.

1

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

The parameters of the zone should be defined as a "Fire Zone". If a line short occurs or the smoke detector activates, whether the system is armed or disarmed, the control panel will generate an alarm. If the line is open, the "Zone Fault" report code is sent to the monitoring station or to the user, if programmed.



Figure 53 4-Wire Smoke Detector Installation

- Go to SERA2> Inputs/ Burglar Alarm Zones
- Double click on the selected line
- Set Zone Definition to "fire"
- Set required parameters
- Press "Write" in the command line

O SERA2 [GTM1]					
📄 File 🔌 Settings 🚗 Devi	ces 👸 Read (F5) 🛛	🍄 Write [F6]	Zone 4 Settings		
System Options	Zones				
GSM Communications	Settings		Zone Name	AC Loss	
Users/Access control	Zn Zn Name	Zone Ha	Alarm Text	Alarm 4 Text	
- Outputs (PGM)	1 Door	GTM1, IO3	Restore Text	Restore 4 Text	
- Automation/Sensors	2 PIR	GTM1, IO2			
- Event Summary	3 Fire	GTM1, IO1	Zone Hardware Location	GTMT, INT	
Events Log	I 4 AC Loss	GTM1, IN1	Zone Definition	fire 🗸	
- RT Testing&Monitoring - Firmware			Wiring Type	delay (Entry/Exit) follow/interior	
			Contact ID code	instant/Burglary 24 hours (safe)	
			Zone Speed	24 hours (silent)	
			Event Repeat Timeout	keyswitch ARM/DISARM follow/interior STAY	
SMART			Max Alarm Count	instant STAY AC power loss	
			Zone Alarm action:	N/A.	
			Zone Options		- I
			Alarm report Enabled		
			Restore report Enabled		
			Tamper Enabled		
THE W SER			Bypapss Enabled	\checkmark	
- · · · · ·			Shutdown if max alarm cour	nt 🔽	
I III AEI AEI			Zone Force ARM	v	
1 1.0.			Delay Restore Event		
				ок	
	<				

Figure 54 Burglar Alarm Zones window

4.2.12.3 2-Wire] Smoke Detector Wiring to I/O Inputs

The 2-wire Smoke zone on the module is the only zone in the system that can have 2-wire smoke detectors as Fire Alarm initiating devices. This zone is an end-of-line EOL 2.2K resistor type and can accommodate up to 30 compatible 2-wire smoke detectors. The zone is fixed as a 2-wire smoke zone. I/O 2-wire smoke zone is trouble supervised zone. The zone wiring is supervised by the control panel.

The parameters of the zone should be defined as a "Fire Zone". I/O1 and I/O2 can be defined as a 2-wire smoke detector input if a line short occurs or the smoke detector activates, whether the system is armed or disarmed, the control panel will generate an alarm. If the line is open, the "Zone Fault" report code is sent to the monitoring station or to the user, if programmed.



If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

- 1. Connect the [2-wire] smoke detector (current sensor) to the I/O1, I/O2 inputs as in the wiring diagram.
- 2. Connect the power supply.
- 3. Install SERA2 software.
- 4. Connect sensors to the module as in the diagram.
- 5. Set required parameters
- 6. Press "Write" in the command line.



Figure 55 [2-Wire] Smoke Detector settings

- If IO3 will be used as fire zone
- Go to SERA2> System Options> General System Options
- Set I/O3 to "2- wire Smoke Detector (fire current loop)
- Press "Write" in the command line
- Go to SERA2> Outputs (PGM)
- IO3 should be set to "Fire Sensor"

SERA2 [GTM1]						
🗎 File 🛛 🍇 Settings 🛛 🔒 Dev	/ice	\$	🐺 Read [F5] 🛛 🙀 Write [F6]	🛑 Update	📎 Help	
System Options	0	utp	uts			
GSM Communications	Γ	ID	Output Location in Hardware	Output	Label	Out definition
Users/Access control	Γ	1	GTM1, OUT1 (1A)	OUT1		Automation & Access Control
- Inputsatiurgiar Alarm Zones		2	GTM1, OUT2 (1A)	OUT2		Automation & Access Control
- Automation/Sensors		3	GTM1, IO1 (1A)	OUT3		Automation & Access Control
-Event Summary		4	GTM1, IO2 (1A)	OUT4	L.	Automation & Access Control
- Events Log	Þ	5	GTM1, IO3 (20mA)	OUT5		Fire Sensor
 RT Testing8Monitoring 	Г	6	GTM1, 1W (10mA, Max Voltage 3.3V)	OUT6		Automation & Access Control
Firmware		7	GTM1, LED FN	LED FN		Output State

Figure 57 SERA2> Outputs (PGM)

- Go to SERA2> Inputs/ Burglar Alarm Zones
- Set Zone Definition to "fire"
- Set the required parameters
- Press "Write" in the command line

- System Options	System	
- Users/Access control	General System Options System	Fault/Troubles System Info
- Inputs/Burglar Alarm Zones	System Options	
- Outputs (PGM)	Object Name:	Object Name
- Event Summary	SMS/APP Text Charset	Latin (160 SMS symbols)
-Events Log	SIM Card PIN:	
- RT Testing8Monitoring	Installer Password	(6 symbols)
- Farriward	SMS User Password	(6 symbols)
	User Access Code Format:	4 - Diats
		D tas E tas
HOOR	Keyswitch Zone Mode:	Pusecage
	1W (1-Wire Bus)	Dalas 1-Wire Bus DS1990A/DS18b20
SMART	UO3 Settings	2-Wire Smoke Detector (Fine current loop)
	Charle Daniel D day after sound	0-30V Analog Input (Zone or Sensor) Outruit
	Clear Events Duter after reset	2-Wire Smoke Detector (Fire current loop)
Una	Door Crime Dail Countries on ADM/P/CADM	0-20 HM, 4-20 HM CONTENE LOOP SENSO
	tele squark or works work	-
Ex In	PANO - I DPICH	
1	Start Button/RFID/Phone pr	ogramming mode Stop programming
A LOU MARK LINE L		

Figure 56 SERA2> System Options> General System Options



Figure 58 SERA2> Inputs/ Burglar Alarm Zones

4.3 Alarms to the mobile phone & to the Central Monitoring Station

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

ALARMS TO THE MOBILE PHONE

I

Go to

- SERA2>GSM Communication> SMS/DIAL reporting
- Enter Your phone number
- Mark alarm events
- Press "Write" in the command line

SERA2 [GTM1]				- 0	ı ×
File System Options	ces Read [F5] Write Event Reporting/Communication SMS/DIAL reporting Custom SMS	[F6] 🛑 Update \infty Help 5 Text GPRS/IP/TCP/UDP CMS Reporting SERA Cloud Se	ervice		
- Inputs/Burglar Alarm Zones	SMS/autoDIAL Phone Number		SMS Notifications to USER	Auto DIAL to USE	R
- Outputs (PGM)	Tel.1 + 37065558449	D Events	1 2 3 4 5 6 7 8	1 2 3 4 5 6	78 ^
- Automation/Sensors	Tel 2 +	2 System Open/Close (CID 400 group			
-Event Summary		3 System Truobles(CID 300 group)			
-Events Log	1el.3 +	4 Sensor1-Sensor32 Alarm/Restore			
Firmware	Tel.4 +	5 Test Events (CID 600 group)			
- THINKIC	Tel.5 +	6 Other Events			
	740.	7 Input/Zone1 Alarm/Restore			
		8 Input/Zone2 Alarm/Restore			
	Tel.7 +	9 Input/Zone3 Alarm/Restore			
	Tel.8 +	10 Input/Zone4 Alarm/Restore			
	Linit of alem daing: 10 Statis forwarding to Tell Charles Confect Name Show Zondlear Number Show Zondlear Number Show Confect Name Show Coll Code	Use mult type noble number in the international format. Use mult type noble number in the international format is a type noble number in data of type data of type in the dat	t consist of only those digits that oversee v, 113 sock sock, bootsock	is callers must type:	>

Figure 59 SERA2> GSM Communication> SMS DIAL Reporting

ALARMS TO THE CENTRAL MONITORING STATION:

Stellag (STM1) File & Setting: Development Setting: Seting: Setting: Setting: Setting: Seting:	OPRS settings OPRS settings APR Items Description OPRS settings APR Items Description Description Description Description
E & O B	

Figure 61 SERA2> GSM Communication>GPRS/IP/TCP/UDP

- System Options	Event Reporting/Communication		
GSM Communications	SMS/DIAL reporting Custom SMS Text GPRS/IP/TCP/UDP CMS	Reporting SERA Cloud Service	
 Users/Access control Inputs/Burglar Alarm Zones 	CMS Reporting	ANSI/SIA IP DC-09	
 Outputs (PGM) Automation/Sensors 	SPRS V	SIA IP Standard:	ANSI/SIA DC-09-2013
- Event Summary - Events Log	IP or Domain OPRS	Encryption AES128:	Γ
	Remote Port 0	Key 32 char (Hex):	0123456789ABCDEF0123456789ABCD
	Backup 1	Account Number (Hex):	12345A
	Disable 👻	Account Prefix (Hex):	789ABC
	IP or Domain	Receiver Number (Hex):	579BDF
	Remote Port 0	Supervision Message:	□ 60 s
SMART	Settinos	Use Time Stamp:	$\overline{\mathbf{v}}$
7 11 7	Transport Protocol:		
	Backup reporting after: 3 Attempts		
— —	Return To Primary After: 30 min		

Figure 60 SERA2> GSM Communication> CMS Reporting

4.4 Test the security system

Go to

- SERA2> RT Testing & Monitoring > Hardware
- Press "Start Monitoring" button





SERA2 [GTM1]										-	
📄 File 🔌 Settings 🛛 🔒 Devi	ces 🛛 👸 Read (F5)	🛐 Write [F6] 🛛 📋 Update	🏷 н	elp							
System Options 	Monitoring window Hardware Securi	ty Alarm Panel/Access Sensors/Au	tomatic	on Ever	t Monitori	ng					
Inputs/Burglar Alarm Zones	自分 Start M	fonitoring Stop Monitoring	_ Ine	outs (AD	values)				Outputs state	s	
Outputs (PGM)	-00		1						C OUT1	OUT1 On/Off	
Automation/Sensors	GSM info	69395038808881							C OUT2	OUT2 On/Off	
Events Log	enuicen la	000000000000000000000000000000000000000	ю	1 1155	11.05	v 🗵 Pul	Up		F 101	IO1 On/Off	
RT Testing8Monitoring	Simical: jo	337002190800195358	10	2 1152	11.02	V 🗹 Pul	Up		F 102	IO2 On/Off	
reniware	SM card:	READY	10	3 20	0.19	V 🔽 Pul	Up 183	1.11 mA	₩ 103	IO3 On/Off	
	Signal levet 2	5	IN	1061	10.15	V 🔽 Pul	Up				
00	Registration:			-	-		í.		ET 114/140	110/00/011	
	Registered, hom	ie network		IN1	103 PullL	lp On/Off			10 100100	100 010011	
	SMS Service Cer	ntre Address:		D 49	1/1 1844	Due Diaite	1100				
SMART X	: *+37069950115	5",14		I. 11	(1-146	bus, bigita	100)				
	System Status										
	Custom Valleyer	1343 13.61 17									
	System volage.	1040 12.01 4									
	System Voltage	I OK									
En III	RTC Clock	CK OK									
	Module Real Time	e Clock: 🕓 Set RTC Clock									
· 081 8=	2020-07-24 08	3:16:03,Friday									

Figure 62 SERA2> RT Testing & Monitoring> Hardware

- Go to SERA2> RT Testing & Monitoring > Security Alarm Panel/Access
- You will see the real time status

SERA2 [GTM1]		
📄 File 🔌 Settings a Dev	ices 🐻 Read [F5] 🛛 🐺 Write [F6] 🛑 Update Help	
System Options GSM Communications	Monitoring window Hardware Security Alarm Panel/Access Sensors/Automation Event Monitoring	
Users/Access control Inputs/Burglar Alarm Zones	Zone1 Alarm Shutdown Bypassed Forced	-Security Alarm Panel Monitoring
Outputs (PGM) Automation/Sensors	Tamper/Fault Tamper Stutdown	System State 4014
Event Summary	Alarm Alarm Shutdown Bypassed Forced	DISARM ARM SLEEP STAY
- Firmware	Zone3	
	Tamper/Faut Tamper Shutdown	System Voltage 🔽 🖬
E COB	Alarm Shutdown Bypassed Forced	Module Real Time Clock: Set RTC Clock
SMART P	Tamper/Fault Tamper Shutdown	2020-07-24 00:43:30,Fnday
5 🗖 3		Button Read 0000000000
B BBB		Incoming Call 37065558449
		wiegand RHD Cardikey 000000000
· · · · · · · · ·		

Figure 64 SERA2> RT Testing & Monitoring> Security Alarm Panel/ Access

4.5 Event Monitoring

Go to

SERA2> RT Testing & Monitoring> Event Monitoring

 You will see real time events 	list	
---	------	--

SERA2 [GTM1]							
📄 File 🔌 Settings 🛛 🔒 Dev	vices 選 R	lead [F5]	Write [F6]	📋 Update	📎 Help		
System Options	Monitoring	window					
GSM Communications	Hardware	e Security A	larm Panel/Acce	ss Sensors/A	Automation	Event Monitoring	
Include Rurder Alarm Zones	0015	Event:3:301:0)1:004	Time: 2020-07-2	24 08:43:46	AC Restore	
Outra to (POM)	2014	Event:1:301:0	1:004	Time: 2020-07-2	24 08:43:41	AC Loss	
oupus (Fow)	0013	Event:3:301:0	1:004	Time: 2020-07-2	24 08:43:38	AC Restore	
Automation/Sensors	0012	Event:1:301:0	1:004	Time: 2020-07-2	24 08:43:36	AC Loss	
- Event Summary	0011	Event:3:407:0	01:001	Time: 2020-07-:	24 08:43:23	Remote Close, L	Jser:001, Name:Master
Events Log	0010	Event:1:407:0	01:001	Time: 2020-07-2	24 08:43:06	Remote Open, U	Iser:001, Name:Master
 RT Testing&Monitoring 	0009	Event:1:380:0	0:001	Time: 2020-07-3	24 08:35:52	Sensor Trouble,	No:001
Firmware	8000	Event:1:305:0	00:000	Time: 2020-07-2	24 08:33:57	System Reset	
	0007	Event:1:627:0	00:000	Time: 2020-07-2	24 08:33:51	Program mode e	entry
	0006	Event:1:380:0	0:001	Time: 2020-07-2	24 08:23:43	Sensor Trouble,	No:001
	0005	Event:1:305:0	00:000	Time: 2020-07-3	24 08:21:48	System Reset	
00	0004	Event:1:627:0	00:000	Time: 2020-07-:	24 08:21:42	Program mode e	entry
	0003	Event:1:380:0	0:001	Time: 2020-07-2	24 08:20:43	Sensor Trouble,	No:001
± 25	0002	Event:3:301:0	1:004	Time: 2020-07-2	24 08:20:21	AC Restore	
	0001	Event:1:301:0	1:004	Time: 2020-07-2	24 08:20:20	AC Loss	
SMART A	0000	Event: 3:301:0	1:004	Time: 2020-07-2	24 08:20:14	AC Restore	

Figure 65 SERA2> RT Testing & Monitoring> Event Monitoring

4.6 Read events log



Figure	66	SERA2>	Events	Log
--------	----	--------	--------	-----

🛉 File 🔌 Settings 🛛 🔒 De	vices 🚦	🖞 Read (F5) 🛛 🞇 Write (F	6) 🍵 Update Help	
- System Options	Events	Log		
 GSM Communications Users/Access control 		Read Event Log	Clear Event Log]
- Inputs/Burglar Alarm Zones	0799	Euget 2:201:01:004	Time:2020.07.24.09:42:46	AC Partora
- Outputs (PGM)	0788	Event 1:301:01:004	Time: 2020-07-24 00:43:40	ACLOSS
 Automation/Sensors 	0797	Event 2:201:01:004	Time: 2020-07-24 00:43:41	AC Partora
- Event Summary	0786	Event 1:301:01:004	Time: 2020-07-24 00:43:36	ACLOSE
Events Log	0785	Event 3: 407:01:001	Time: 2020-07-24 08:43:23	Remote Close Liser:001 Name:Master
-RT Testing&Monitoring	0784	Event:1:407:01:001	Time: 2020-07-24 08:43:06	Remote Open, User:001, Name:Master
Firmware	0783	Event:1:380:00:001	Time: 2020-07-24 08:35:52	Sensor Trouble, No:001
	0782	Event:1:305:00:000	Time: 2020-07-24 08:33:57	System Reset

Figure 67 SERA2> Events Log

Outputs



The output toggles to its set up state when a specific event has occurred in the system. The output can be used to open/ close garage doors, activate lights, heating, watering and much more.

i	Each output has a name that can be customized by the user. Typically, the name specifies a device type connected to a determined output, for Example: Lights
!	If the output is not in used, it must be disabled. Once the output is disabled, it can no longer be turned ON or OFF unless it is enabled again.
i	It is possible to instantly turn ON an individual output for a determined time period and automatically turn it OFF when the time period expires.

4.7.1 Output PGM wiring. Bell, Relay, Led Wiring

Output switch to ground when activated from the module. Connect the positive side of the device to be activated to the VD+ terminal. Connect the negative terminal to the selected output.

Connect devices to the selected outputs as shown in the figures below. For sound signaling we recommend to use siren DC 12V up to 1500mA. 1. It is recommended to connect the siren to the system by using 2 x 0,75 sq. mm double insulation cable. Auxiliary BUZZER is recommended to be installed inside the premises not far from the entrance. Buzzer operates together with the main siren also when the system starts calculating the time to leave the premises and the time till alarm response of the security system after entering the premises (see claus e 7.1). It is possible to use buzzer of hit point PB12N23P12Q or similar modified piezoelectric 12V DC, 150mA max Buzzer



Figure 68 Bell, buzzer connection to I/O1, I/O2



Figure 69 Relay connection to, I/O1, I/O2

Output mode: timer, steady, pulse count.

The output action can automatically switch ON or OFF under the following conditions:

- System armed or disarmed, -
- Alarm begins or stops, ·
- Temperature falls below the set MIN value,
- Temperature rises above the set MAX value,
- Zone violated, Zone restored.

The user can also set a custom text, which will be sent by SMS text message to user phone number when the automatic PGM output action is carried out.

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

Set output's parameters step by ste

- Go to SERA2 > Outputs 1.
- Enter the required parameter 2. 3. If the output is not in used
- should be disabled
- 4 Press "Write" icon.

	outpu	ds											
- GSM Communications	ID	Output Location in Hardware	Output Label	Out definition	No	Mode	Timer	Invert	Pulsating	ON Time	OFF Time	Count	Inp
Users/Access control	1	GTM1, OUT1 (1A)	OUT1	comation & Access Control	N/A	Steady	10s			100ms	100ms	0	N
Outputs (PGM)	2	GTM1, OUT2 (1A)	OUT2	Disable	N/A	Steady	10s			100ms	100ms	0	N
- Automation/Sensors	3	GTM1, IO1 (1A)	OUT3	Buzzer	N/A	Steady	10s			100ms	100ms	0	N
- Event Summary	4	GTM1, IO2 (1A)	OUT4	Flash	N/A	Steady	10s			100ms	100ms	0	N
- Events Log	5	GTM1, IO3 (20mA)	OUT5	System State	N/A	Steady	10s			100ms	100ms	0	N
- RT Testing&Monitoring	6	GTM1, 1W (10mA, Max Voltage 3.3V	OUT6	Automation & Access Control	N/A	Steady	10s			100ms	100ms	0	N
- Firmware	7	GTM1, LED FN	LED FN	AC OK	1	Steady	10s			100ms	100ms	0	N
				System Armed Status Aarm Holdstöton Lost Primary Chanel Fire Sensor Trouble Access Geined STAY Armed Status SLEEP Armed Status Pulse On ARM / DISARM Output State									

Figure 70Outputs (PGM) window

USER123456_021_N#ST	Activate or deactivate selected output N. 021= command code (Activate or deactivate selected output N) N = output number ST= output mode: 0 – deactivated output, 1- activated output	
---------------------	--	--

4.7.3 Control Outputs via short call, iButton, RFID

4.7.4 Control Outputs via app

4.7.5 Output programming

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

Quick start outputs

- 1. Install SERA2 software. For more information look at SERA2 Uploading/Downloading Software
- 2. Connect the module to the computer via mini USB cable.
- 3. Go to Outputs (PGM) window in the SERA2 software
- 4. Parameters of the selected output should be set:

output operation description (OUT definition): disable, bell, buzzer, flash, system state, ready, automation/ CTRL, AC OK, battery OK, ARM/ DISARM, alarm indication, lost primary channel, lost secondary channel, fire sensor, RH sensor trouble.

- 5. State type: flash, timer, steady mode.
- 6. If necessary output operation might be inverted.
- 7. Write configuration by pressing write icon

SERA2 [GTM1]											-	
📄 File 🔌 Settings 🚗 Devices	👸 Read (F5) 🛛 🙀 Write (F6)	🛑 Update 🛭 🔞 Hel	р									
-System Options Out	puts											
GSM Communications	D Output Location in Hardware	Output Label	Out definition	No	Mode	Timer	Invert	Pulsating	ON Time	OFF Time	Count	Input
Users/Access control	GTM1, OUT1 (1A)	OUT1	:ornation & Access Control 💌	N/A	Steady	10s			100ms	100ms	0	N/A
Outputs (PGM)	2 GTM1, OUT2 (1A)	OUT2	Disable	N/A	Steady	10s			100ms	100ms	0	N/A
- Automation/Sensors	GTM1, IO1 (1A)	OUT3	Bell	N/A	Steady	10s			100ms	100ms	0	N/A
-Event Summary	4 GTM1, IO2 (1A)	OUT4	Flash	N/A	Steady	10s			100ms	100ms	0	N/A
-Events Log	5 GTM1, IO3 (20mA)	OUT5	System State	N/A	Steady	10s			100ms	100ms	0	N/A
-RT Testing&Monitoring	GTM1, 1VV (10mA, Max Voltage 3.3V!	OUT6	Automation & Access Control	N/A	Steady	10s			100ms	100ms	0	N/A
- Firmware	GTM1, LED FN	LED FN	AC OK	1	Steady	10s			100ms	100ms	0	N/A
			Battery OK System Armed Status Alarm Indication Lost Primary Chanel Lost Secondary Chanel Fire Sensor RH Sensor Trouble Access Gained STAY Armed Status SLEEP Armed Status Pulse On ARM / DISARM Output State Zone OK									

Figure 71 Outputs (PGM) window

Out	puts can be set as timers.		Output ON			
1. 2. 3.	When output is activated for "Out Timer" time interval, Relay contact start changing state from ON (pulse time ON) to OFF (Pulse time Off) This cycle will repeat until output is deactivated.	Output state	Pulse time ON	Pulse time ON		Output OFF
Bel sys	I: Output for connection of audible sou em actuation a continuous or pulse (fire) Alarm	nder (siren). After the alarm signal is generated.	Pulse time ARM/DISARM: Or system status. W generated.	e OFF utput for connect /hen the alarm sy ARM	Pulse time OFF ion of light inc ystem is on a DISA	licator of the alarm continuous signal is
В	ell Bell tim	e	OFF ARM/DISARM ON	Close		, Open
Buz acti sigr Wh	tzer: Output for connection of audio individed a pulse signal is generated within E hal - within Entry Delay time or when the alarm system is turned off, operate	cator. After the alarm system ixit Delay time, and continuous he alarm system is disturbed es like keyboard buzzer.	h Flash: Output for d s is on, a continuo disturbed - pulse s system.	connection of light us signals gener signal. Signal is t	t indicator. Whe rated, and if th rerminated by t	en the alarm system ne alarm system is urning off the alarm



Remote Control: Output designed for connection of electrical devices which will be controlled by SMS message or phone call a) control by SMS message



System State: Output for connection of light indicator of the alarm system status. Within Exit Delay time a pulse signal is generated, and when the alarm system activated - continuous. Signal is terminated by turning off the alarm system.



Ready: Output for connection of light indicator of input statuses. If all zones are clear (none violated), a continuous signal is generated.



Alarm indication: Output for connection of light indicator showing alarm status of the alarm system. After the alarm system actuation a continuous signal is generated.

AC OK: Output for connection of indicator about control panel supply from alternating current



Open

Battery OK: Output for connection of indicator about control panel supply from battery.

Battery Ok	<	Battery OK
OFF		
Battery OK		
ON	Battery Lost	

Lost Primary Channel: Output where a continuous signal is generated when communication with primary channel was lost.

	Lost Primary Channel	Restore Primary Channel	
OFF	†	↓	
Lost Primary Channel	,		
ON			

Remote Control b) control by phone call



Fire Sensor Reset: Output for reset of fire sensor operation. Its status changes 5 sec. and returns to the initial one.

Lost Secondary Channel: Output where a continuous signal is generated when communication with secondary channel was lost.



4.7.6 Access control output with logging

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

Access Control:

- Go to SERA2> Users/ Access Control> Users
- Enter your phone number
- Mark ARM/DISARM
- (ARM/DISARM the system via free short call)
- Press "Write"

SERA2 [GTM1]											1
📄 File 🔌 Settings 🔒 Dev	ice	s 選	Rea	d [F5] 📲 Write [F6] 💼 Up	date 🐞 Help						1
System Options	Re	ernote	Cont	rol Users table							
GSM Communications	U	sers	Acc	ess Shedules Holidays							1
Users/Access control											
Inputs/Burglar Alarm Zones				<u> </u>							
Outputs (PGM)		ID I	En	User Name	User Tel.	iButton Code	RFID Keycard	Keyb Code	OUT	ARM/DISARM	Ε
Automation/Sensors	I	001	7	Master	+37065558449	000000000000000000000000000000000000000	0000000000	****	OUT1	7	Ē
Event Summary		002	Г	User Name 2	+	000000000000000000000000000000000000000	0000000000		NONE		T.
Events Log		003		User Name 3	+	000000000000000000000000000000000000000	0000000000		NONE		d
Firmware		004		User Name 4	+	000000000000000000000000000000000000000	0000000000		NONE		ī.
		1	-							-	Ш

Figure 72 SERA2> Users/ Access Control> Users

It is possible to set: temporary access and access schedules

SERA2 [GTM1]												-	0
File 🗞 Settings 🚘 De	evices 🗿 Read [F5] 👩 Write [F6] 🛑 L Remote Control Users table	ipdate 🍖 Help											
Users/Access control	Users Access Shedules Holidays								Temporary access D	ste/Time window	Access schedules	Co	unter
- Outputs (PGM)	ID En User Name	Uper Tel.	Button Code	RFID Keycard	Keyb Code	OUT	ARMOISARM	En	Start Date	Expiration Date	1 2 3 4 5 6 7 8	L	C Er
- Automation/Sensors	▶ 001 🔽 Master	+37065558449	000000000000	0000000000	*****	OUT1	K		2020-06-29 18:49	2020-06-29 18:49		0 0	X
-Event Summary	002 User Name 2	*	0000000000000	0000000000		NONE			2020-06-29 🛗 18:49	2020-06-29 🛗 18:49		0 0	X
- Events Log - RT Testing&Montoring	003 User Name 3	+	000000000000	0000000000		NONE			2020-06-29 🛗 18:49	2020-06-29 🛗 18:49		0 0	XD
Firmware	004 User Name 4	•	000000000000	0000000000		NONE			2020-06-29 🛗 18:49	2020-06-29 🛗 18:49		0 0	X
	005 Ulter None 5		000000000000	0000000000		NONE	—		2020-06-29 🛤 18:49	2020-06-29 🛤 18:49		0.0	Y E

Figure 73 SERA2> Users/ Access Control> Users

Set output definition to [Access Gained] . Sera2>Outputs

SERA2

File Settings D	levices 👸	Read	d [F5] 🛛 🞇 Write [F6] 🛛 🤡 Updat	te About								
System Options		Out	iputs									
GSM Communicat	tions		D Output Location in Hardware	Output Label	Out definition		Mode	Out Timer	Invert	Pulsating	Pulse ON Time	Pulse OFF Time
Users/Access co	ontrol	I 1	I GTM1, RELAY	OUT1	Access Gained	-	Steady	10s			100ms	100ms
Outputs (PGM)	nes	2	2 GTM1, I/O1(1A)	OUT2	Disable		eady	10s			100ms	100ms
Automation/Sens	ors	3	3 GTM1, I/O2(1A)	OUT3	Bell		eady	10s			100ms	100ms
- Event Summary		4	4 GTM1, D1 10mA, Max Voltage 3.3V!!!	OUT4	Flash		eady	10s			100ms	100ms
Events Log		-			System State							
RT Testing&Monit	toring				Ready		-					
IIIII Firmware					AC OK	SS COI	liuru					
					Battery OK							
					ARM/DISARM							
-8-0					Alarm Indication	1						
	25				Lost Secondary Cha	anel						
					Fire Sensor							
SMART					RH Sensor Trouble							
					Access Gameu							
	A											

Figure 74Outputs (PGM) window

This output could be controlled as fallowing:

- If the user has right to ARM/DISARM system, it always has access to this output.
- If the user has not the right to ARM/DISARM the system (field near ARM/DISARM is not marked (Sera2> User/ Access control)), the user can access this output only if system is Disarmed.

SERA2				•	-	-								-
File Settings Devices	Read [F5]	🐺 Write [F6]	🧇 Update	About									
System Options	Remot	te Cor	ntrol Users table											
GSM Communications													Temporary access Date	e/Time window
Users/Access control	ID	En	User Na	ame	Туре	User Tel	. iButton Code	RFID Keycard	Keyb Code	OUT	ARM/DISARM	Date En	Start Date	Expiration Date
- Outputs (PGM)	1		Master		User	+	000000000000	0000000000	*****	NONE	•		2019-07-09 17:02:21	2019-07-09 17:02:21
- Automation/Sensors	2				User	+	000000000000	0000000000		NONE			2019-07-09 17:02:21	2019-07-09 17:02:21
- Event Summary	3				User	+	000000000000	0000000000		NONE			2019-07-09 17:02:21	2019-07-09 17:02:21
Events Log					Hear	1	0000000000	000000000		NONE			2010/07/00/17:02:21	2010 07 00 17:02:21

Figure 75User/Access control window

- If access is granted by user, 421 event Access granted is stored into the log. If not Access denied event 422 is stored to the log (Sera2> Events Log)
- if output will have definition [Automation / CTRL] it also can be controlled by user in any way but it will not generate 421 and 422 events

Event log e.g.

V

1853	Event:1234:1:401:01:001	Time:2017-08-20 14:42:36	Note: , Open by User, User:001, Name:Master
1852	Event:1234:1:422:00:001	Time:2017-08-20 14:41:41	Note: , Access Gained by, User:001, Name:Master
1851	Event:1234:1:406:01:001	Time:2017-08-20 14:41:27	Note: , Cancel, User:001, Name:Master

Outputs can be controlled in "Automation & Access control", "Access Gained" modes.

 If you need to control outputs by short call or SMS, go to Sera2> Users/ Access control window and enter phone numbers of users, who will be able to control selected outputs via free short call.

O SERA2												
File Settings Devices	🛐 Read (F5)	😴 Write [F6] 🛛 🛷 Up	date About									
System Options	Remote Con	trol Users table										
GSM Communications											Temporary access Date	e/Time window
Users/Access control Burder &lern Zoper	ID En	User Name	Type	User Tel.	iButton Code	RFID Keycard	Keyb Code	OUT	ARM/DISARM	Date En	Start Date	Expiration Date
- Outputs (PGM)	17		User	+	000000000000	0000000000		NONE			2019-07-09 17:02:21	2019-07-09 17:02:21
- Automation/Sensors	18 🗆		User	+	000000000000000000000000000000000000000	000000000		NONE			2019-07-09 17:02:21	2019-07-09 17:02:21

Figure 76Users/ Access control window

- 9. Write configuration by pressing write icon
- In order to control big power alternating current equipment, it is comfortable to use solid state relays.



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4.8 Access control. Arming/Disarming methods



- If ready (no violated zone/tamper), the system will arm.
- If unready (violated zone/tamper is present), the system will not arm and provide a list of violated zones/tampers by SMS text message to user phone number. In such case the user must restore all violated zones and tampers before arming the system. Alternatively, the violated zones can be bypassed, disabled or a Force attribute enabled, and the tampers can be disabled when arming. The system initiates the exit delay countdown intended for the user to leave the secured area.



Access control methods is defined in Sera2> User/ Access control window

SERA2) SER42											
File Settings Devices	Settings Devices 🛐 Read [F5] 📓 Write [F6] 💿 Update About											
System Options	/stem Options Remote Control Users table											
- GSM Communications	Communications Temporary access Date/Time window											
Lisers (&ccess control			1	1			1			i (1
Distribution Alexan Zanan	ID En	User Name	Type	User Tel.	iButton Code	RFID Keycard	Keyb Code	OUT	ARM/DISARM	Date En	Start Date	Expiration Date
- Burglar Alarm Zones - Outputs (PGM)	ID En ▶ 17 □	User Name	Type User	User Tel. +	iButton Code 000000000000	RFID Keycard 0000000000	Keyb Code	OUT NONE	ARM/DISARM	Date En	Start Date 2019-07-09 17:02:21	Expiration Date 2019-07-09 17:02:21
— Burglar Alarm Zones — Outputs (PGM) — Automation/Sensors	ID En ▶ 17 □ 18 □	User Name	Type User User	User Tel. + +	iButton Code 0000000000000 000000000000000	RFID Keycard 0000000000 0000000000	Keyb Code	OUT NONE NONE	ARM/DISARM	Date En	Start Date 2019-07-09 17:02:21 2019-07-09 17:02:21	Expiration Date 2019-07-09 17:02:21 2019-07-09 17:02:21

Arm/Disarm by mobile, web app

Tap the ARM, ARM (Stay), ARM (Sleep), DISARM in the mobile, web app> System window

Arm/Disarm by call

ARM

It is possible to arm, disarm the system and turn OFF the alarm by dialing the system's phone number from any of 800 available user phone numbers. The system **ignores any incoming calls from a non-listed phone number**. **The phone call is free of charge** as the system rejects it and carries out arming/disarming procedure afterwards. If there is more than one listed user dialing to the system at the same time, the system will accept the incoming call from the user who was the first to dial while other user (-s) will be ignored. To disable/enable arming or disarming for certain listed user phone numbers, please mark near ARM/DISARM in the "Users & Remote control" window

U SERVAZ											- L
File Settings Devices 🕃	Read [F5] 🛛 🞇 Write [F6] 🛛 🧇 Update	About	1. Enter	phone number							
System Options	Remote Control Users table		/2. Selec	t the output for n	emote control vi	ia mobile					
GSM Communications			3. Mark	if it is needed to	control the outp	out via speci	fied date	and time —	-	Temporary access Date	/Time window
Users/Access control	ID En User Name	Туре	🖌 User Tel.	iButton Code	RFID Keycard	Keyb Code	OUT	ARM/DISARM	MIC Date En	Start Date	Expiration Date
- Outputs (PGM)	1 Master	User +37	0	0A0D00037D22	000000000	*****	OUT1	•		2019-02-25 16:24:26	2019-02-25 16:24:26
Automation/Sensors	1 2 🔽 zivile	User +37	0	0000000000000	000000000		OUT2 👻			2019-02-25 16:24:26	2019-02-25 16:24:26
Eiguro 79 A DM	DISARM by call softing	20						_			

Figure 78 ARM/	′ DISARM by	[,] call settings
----------------	-------------	----------------------------

Arm/Disarm via SMS

Enter user phone number in the Sera2> Users/ Access control list

The system **rejects the SMS text messages containing wrong SMS password** even from a listed user phone number. To arm the system by SMS text message, send the following text to the system's phone number <u>USER 123456_030_ST</u> 030= command code (Change security system's mode (ARM/DISARM/STAY/SLEEP)

ST = Security system mode 0-DISARM, 1-ARM ,2-STAY ,3-SLEEP

Arm/Disarm by keypad

To arm/ disarm the system by Wiegand Keypad, enter User/Master Code

To cancel the arming process: Enter the user/master code again during exit delay countdown.

Disarming the System and Turning OFF the Alarm To disarm and turn OFF the alarm, enter any out of available user codes or master code using the number keys on the keypad.



O SERAZ														-	L
File Settings Devices 👸	Read [F5]	🕎 Write [F6] 🛛 🤮	Update About		/ 1. Ente	r keybutton code									
- System Options - GSM Communications	Remote (Control Users table		(2. Sele 3. Mark	ct the output for it is needed to	control the outp	a keybutton out via specil	code. fied date	and time —			Temporary access Date	e/Time window	1
Users/Access control	ID Er	u User Name	Туре	Us	ser Tel.	iButton Code	RFID Keycard	Keyb Code	OUT	ARM/DISARM	MIC	Date En	Start Date	Expiration Date	Т
- Outputs (PGM)	1 🔽	Master	User	+370		0A0D00037D22	0000000000	*****	OUT1	V			2019-02-25 16:24:26	2019-02-25 16:24:26	1
- Automation/Sensors	I 2 🔽	zivile	User	+370		000000000000	0000000000		OUT2 👻				2019-02-25 16:24:26	2019-02-25 16:24:26	
Figure 79 ARM/		RM by keynad	d settinas							_	_				

Figure 79 ARM/DISARM by keypad settings



Arm/Disarm by iButton key

To arm or disarm the system and turn OFF the alarm, touch the iButton key reader by any of 800 available iButton keys. When the iButton is touched to the iButton key reader for arming/ disarming, the system will proceed arming/ disarming process.

(0) SERA2										_	(
File Settings Devices 🕃 Read [F5] 🙀 Write [F6] 😒 Update Abo	ut	1. Enter iBu	tton code. iButt	ons must be	from 0°	family.					
	10 ° ° ° 0 1	2. Select the	e output for rem	note control v	ia kevb	utton code.					
- GSM Communications		3. Mark if it	is needed to co	ntrol the out	put via s	pecified date	and	time –	→ Temporary access Date	a/Time window	٦
Users/Access control ID En User Name	Type	iButton Code	RFID Keycard	Keyb Code	OUT	ARM/DISARM	MIC	Date En	Start Date	Expiration Date	
Outputs (PGM)	r Market Stranger	000000FBC52B	000000000	*****	OUT1	V			2019-02-25 16:24:26	2019-02-25 16:24:26	
- Automation/Sensors 2 🔽 zivile Use	r Contraction	00000000000	0000000000		OUT2				2019-02-25 16:24:26	2019-02-25 16:24:26	
						-	-	-			
Figure 80 ARM/DISARM by iButton code se	ettings										
	_										



Arm/Disarm by RFID key card, keyfob To arm/ disarm the system with RFID keycard, touch 1 of 800 RFID keycard to the Wiegand keypad. When the RFID keycard is touched to the reader for arming/ disarming, the system will proceed arming/ disarming process.



Refer to: Error! Reference source not found. And Refer to: Error! Reference source not found.



Wiegand keypad specifications: 26bit Wiegand (Default); 8bit key press code Maxim-Dallas iButton keys (iButton DS1990A – 64 Bit ID)) can be used to ARM/DISARM security panel or control selected output. Up to 800 iButton keys can be assigned to the system. The First iButton key may be learned (recorded) by touching it to the reader. Without the need to send any SMS. The system will notify about successfully recording of the key into memory by shortly beeping twice via buzzer. The system will automatically assigns control function (ARM/DISARM). The first key is the main key (MASTER) The total length of the bus from 10 to 100 m. Depending of cable quality, and environment noise. If LED is without resistor. External 4.7k – 10k resistor required.





③ SERA2 [GTM1]									-	o x
📄 File 🔌 Settings 🛛 🔒 Devi	ces 🐺 Read (F5) 🛛 🞇 Write (F6)	🛑 Update 🛭 🔞 He	lp							
- System Options	Outputs					96		1		
GSM Communications	ID Output Location in Hardware	Output Label	Out definition	No	Mode	Timer	Invert	Pulsating	ON Time	OFF Time \land
Users/Access control	1 GTM1, OUT1 (1A)	OUT1	Automation & Access Control	N/A	Steady	10s			100ms	100ms
Inputs/Burglar Alarm Zones	2 GTM1, OUT2 (1A)	OUT2	Automation & Access Control	N/A	Steady	10s			100ms	100ms
Outputs (PGM)	I 3 GTM1, IO1 (1A)	OUT3	System State	N/A	Steady	10s	Г		100ms	100ms
- Event Summary	4 GTM1, IO2 (1A)	OUT4	Disable	N/A	Steady	10s	Г		100ms	100ms
Events Log	5 GTM1, IO3 (20mA)	OUT5	Bell	N/A	Steady	10s	Г		100ms	100ms
-RT Testing&Monitoring	6 GTM1, 1W (10mA, Max Voltage 3.3V)	OUT6	Buzzer	N/A	Steady	10s	Г	Г	100ms	100ms
Firmware	7 GTM1, LED FN	LED FN	System State	1	Steady	10s	Г		100ms	100ms
			Automation & Access Control Actomation & Access Control AC OK Battery OK System Armed Status Alarm Indication Lost Primary Chanel Lost Secondary Chanel Fire Sensor RH Sensor Trouble Access Gained STAY Armed Status SLEP Armed Status Pulse On ARM / DISARM Output State Zone OK							

Figure 84 SERA2> Outputs (PGM)

If you want to edit existing configuration, You have to read it (press "Read" in the command line)

Edit settings, Write edited configuration (press "Write" in the command line)

Wiegand keypad programming

Go to SERA2> System Options> General System Options Press "Start iButton/ RFID/Phone programming mode

🎯 SERA2 [GTM1] 📄 File 🔌 Settings 🚗 Devis	ces 🦉 Read [F5] 🛛 👸 Write	[F6] 🛑 Update 🍓 Help
- System Options - USM Communications - USM Communications - Users/Access control - Inputs/Burgler Alarm Zones - Outputs (POM) - Automation/Sensors - Event Summery - Events Log - RT TestingSMontoring - Firmware	System General System Options System Options Object Name: SMS/APP Text Charset SM Card PIN: Installer Password:	Fault/Troubles System Info Object Name Latin (160 SMS symbols)
	SMS User Passwork User Access Code Formit: Keyswitch Zone Mode: 1W(1-Wire Bus) WO3 Settings Clear Events Buter after reset Door Chine Bell Squawk on ARMDISARM Auto - reAMM	(6 symbols) 4 - Digits visedEdge visedEdgee visedEdgee visedEdgee visedEdgee visedEdgee vis
100 (AB)	Start ButtoruRFID/Phone pro	ogramming mode Stop programming
	U	SB Connected GTM1_042007241441

Figure 85 SERA2> System Options> General System Options

Go to SERA2> Users/ Access control Touch RFID cards to the reader Go to SERA2> System Options> General System Options Press "Stop Programming" button

Start iButton/RFID/Phone programming mode						ode	Stop	progra	mmin	g		l
SIRA2 [GTM1] File & Settings @ Dev "System Options	Re U	anole Soro	Rea Cont Acc	d (F5) 📓 Write (F6) 🛑 Up rol Users takle esss Sinedules Huildays Q.	date 🏷 Help					- 0		×
- Outputs (PGN)	h	D	En	User Name	User Tel.	Button Code	RFID Keypard	Keyb Cade	OUT	ARMIDISARI	d Fr	T,
Automation/Sensors		001	M	Master	+	000000000000000000000000000000000000000	0007773160		NONE	₩		Ξ.
- Event Summary		002	2	User Name 2	+	000000000000000000000000000000000000000	0012611250		NONE	V		
- Events Log - ST Testico&Montaring	Þ	303	7	Uper Name 3	+	000000000000000000000000000000000000000	0000256501		NONE	2		
- Firriware		004	4	User Name 4	+	000000000000000000000000000000000000000	0001645911		NONE	v		
		005		User Name 5	•	000000000000000000000000000000000000000	0000000000		NONE			
		re		Line Monte C		000000000000000000000000000000000000000	000000000		NONE			Π.

Figure 86 SERA2> Users/ Access Control> Users

Go to SERA2> RT Testing & Monitoring> Hardware Press "Start Monitoring" button Go to SERA2> RT Testing & Monitoring> Security Alarm Panel/ Access You will see real time system status

iButton probe programming

Go to SERA2> System Options> General System Options Set 1W (1- Wire Bus) to Dallas 1-Wire Bus DS1990A/ DS18b20 Press "Write" in the command line

GSM communications	General System Options System	n Fault/Troubles System Info				
Users/Access control	System Options	1.1.1.1	System Timers			
Outputs (PGM)	Object Name:	Object Name	Test Time:	13:30 hhumm		
Automation/Sensors	SMS/APP Text Charset	Latin (160 SMS symbols)	Test Period:	1 Days		
Events Log	SIM Card PIN		Entry Delay	15 s		
RT Testing&Monitoring	Installer Password	(6 symbols)	Exit Delay:	20 8		
rinnware	SMS User Password	(6 symbols)	Bell/Siren Cut-off Timer:	120 8		
	User Access Code Format:	4 - Digits 💌	Time Zone:	(GMT + 2)		
	Keymelich Zone Moder	Putrafidae -	Daviaht saving time:	P	_	
E Ca	10/(1 Mire Day)	Date 1 Max But DC19004 0018000	1	,.		
	100 (1-110 DOD)	Diatel Input (Max. 3.3VIII)	1			
	903 Settings	Diatel Output (Max, 3.3VIII)			_	
	Clear Events Bufer after reset	Aosong 1-wwe bus Humaty/remperature Sens	or UH122/AM2301/AM2302/AM23	05/AM2306/AM2320/AM2320	08	
	Door Chine	5				
	Bell Squawk on ARMDISARM	Г				
1	Auto - reARM	Г	Set Module Time from P	PC Read Mic	odule Time	
······	Start iButton/RFID/Phone pr	rogramming mode Stop programming	PC time: 202	20-08-13 16:44:57,T	hursday	
. 051	Reset Device		Panel Time: 202	20-08-13 16:44:55,T	Thursday	

Figure 87 SERA2> System Options> General System Options

Go to SERA2> System Options> General System Options Press "Start iButton/ RFID/Phone programming mode"

- System Options	System	(roj 🧧 update 🐚 Heip					
- GSM Communications	General System Options System	Fault/Troubles System Info					
- Inputs/Burgler Alerm Zones	System Options		System Timers				
- Outputs (PGM)	Object Name:	Object Name	Test Time:	13:30 M	cmm		
- Automation/Sensors	SMS/APP Text Charset	Latin (160 SMS symbols)	 Test Period: 	1	Deys	•	
-Events Log	SIM Card PIN:		Entry Delay	15 s			
- RT Testing&Monitoring	Installer Password:	(6 symbols)	Exit Delay:	20 s			
Firmware	SMS User Password:	(6 symbols)	Bell/Siren Cut-off Time	r: 120 s			
	User Access Code Format	4 - Diots	Time Zone:	(GMT + 2)		-	
	Name and Annual State	D day 5 day	Devilable cauloo time:			_	
E B	Neyswach Zone wode:	Pasecuje	Durjugit corriguine.	1.			
· · · · · · · · · · · · · · · · · · ·	1W (1-Wre Bus)	Delles 1-Wire Bus, DS1990A/DS18b20	<u>•</u>				
SHART A	VO3 Settings	2-Wire Sinoke Detector (Fire current loop)	Clock synchronization	Cioud Serv	ы	•	
	Charles Dates and an and						
	Clear Events Burer after reset						
	Ball Countrals on ADM/DICADM	r F					
	Auto un ABM	F					
IT a LL	ADIO - TEARM	1	Set Module Time	from PC	Read Module Ti	ne	
	Start iButton/RFID/Phone pr	ogramming mode Stop programming	PC time:	2020.08.13.1	8:45:20 Thure	-lav	
. (EI 200)			Denal Terrar	2020-00-13 1	2.45.23,Thuisi	aciy	
G.	Reset Device		Paner nime.	2020-08-13 1	5:45:27,1 nursi	Jay	
	L						

Figure 88 SERA2> System Options> General System Options

Go to SERA2> Users/ Access control Touch iButton keys to the probe Go to SERA2> System Options> General System Options Press "Stop Programming" button

Start iButton/RFID/Phone programming mode							Stop pro	grammi	ng		i.			
O SERA2 [GTM1]											-)	×
📄 File . 🗞 Settings a 🔒 De	vices		lead	[F5] 🧕 Write [F6] 🛑 Up	date 🐞 Help									
System Options GSM Communications Users/Access control International Control	Remo	te () 5	ontri Acce	I Users table ss Shedules Holidays Q.		_		•						
- Outputs (PGM)	E	D	En	User Name	User Tel.	Ð.M	on Code	RFID Keycard	Keyb Code	OUT	ARMO	JISARM	En	^
Protection of Delins of S		л	× 1	Master	*	DA0D0	UBAE62D	0000000000		I INCINE	4 P	× 1	• 12	

Figure 89 SERA2> Users/ Access Control> Users

Go to SERA2> RT Testing & Monitoring> Hardware Press "Start Monitoring" button Go to SERA2> RT Testing & Monitoring> Security Alarm Panel/ Access You will see real time system status

4.8.2 Enter iButton, RFID, Phone numbers to the memory of the module

If you want to edit existing configuration, You have to read it (press "Read" in the command line) Edit settings, Write edited configuration (press "Write" in the command line)

First steps:

Configurations methods:

Connect iButtons or RFID reader to the module. Insert SIM card; Screw GSM antenna; Connect power supply; Connect the module to the computer. Start automatic learning mode via mini USB cable (Sera2 software). Start automatic learning mode via SMS command INST000000 063 1 Enter Keycard numbers manually via mini USB cable (Sera2 software). Start automatic learning mode remotely via Sera2 software.

Start automatic learning mode via mini USB cable (Sera2 software).

Go to Sera2> System Options> General system Options. Select Dallas 1- Wire Bus (<u>for iButton keys</u>) Press "Write" Press "Start iButton/ RFID/ Phone programming mode. Go to Sera2> Users/ Access control window. Touch RFID keycards, iButton keys to the reader. RFID keycard, iButton key numbers will appear in the list. Go to System Options> General system Options and Press "Stop programming" or wait until it will stop automatically.

Edit setting in the Users/ Access control window. Press "Write" Go to RT Testing & Monitoring> Hardware. Press "Start Monitoring" Go to RT Testing & Monitoring> Security Alarm Panel/ Access

Enter Keycard numbers manually via mini USB cable (Sera2 software).

Go to Sera2> System Options> General system Options. Select Dallas 1- Wire Bus (<u>for iButton keys</u>) Press "Write" Go to Sera2> Users/ Access control. Enter RFID keycard, iButton key numbers Edit other settings Press "Write" Go to RT Testing & Monitoring> Hardware Press "Start Monitoring" Go to Security Alarm Panel/ Access" Touch the keycard to the RFID reader and iButton keys to the probe Start automatic learning mode via SMS command INST000000 063 1

Send SMS message: INST00000 063 1 You will receive the message: iButton/RFID/Caller ID Learning Mode is Swithed ON Touch RFID keycards to the RFID reader. Sent the message: INST000000 063 0 You will receive the message: iButton/RFID/Caller ID Learning Mode Stopped

INST000000_063_S

INST = Install. Configuration of the parameters.

000000= Installer's password

_= Space character 063= command code (iButton keys learning/deleting mode)

_= Space character

S=iButton keys entering/deletion mode.

- 0- Disable iButton keys learning mode,
- 1- Enable iButton keys learning mode,
- 2- iButton keys deleting mode,

Delete these keys from memory, which will be touched to the reader.



Before activating the RFID learning mode via SMS, the module must have the appropriate System Options> General System Options settings

Start automatic learning mode remotely via Sera2 software.

Start Sera2 software Press "Connect remotely" button Enter required parameter. (Default App Key is 123456) Press "Connect" Go to Sera2> System Options> General system Options. Select Dallas 1- Wire Bus (for iButton keys) Press "Write" Press "Start iButton/RFID/Caller ID Learning Mode" Touch RFID keycards, iButton keys to the reader Press "Stop programming" button Or wait until the learning mode will stop automatically

4.9 How to set clock synchronization?

If you received SMS messages with wrong date/ time, you need to set clock synchronization correctly

You can select clock synchronization via:

GSM modem

(If you will not use mobile app and cloud service)

Cloud Server

- (If you will use mobile app)
- SIM card must have data available
 - Insert the SIM card in your smart phone and check is the internet available

Or disable clock synchronization

Clock synchronization via GSM modem

- Go to SERA2> System Options> General System Options
- Set Clock synchronization via GSM modem
- Press "Write" in the command line

SERA2 [GTM1] File Settings 2 Devi	ices 🖏 Read [F5] 🛛 🖏 Write	2 [F6] Update 🚯 Help		- 0
System Options - GSM Communications - Users/Access control - Inputs/Burglar Alarm Zones - Outputs (PGM) - Automation/Sensors - Event Summary - Events Log - RT Testing&Monitoring - Firmware	System General System Options Syste System Options Object Name: SMS/APP Text Charset SIM Card PIN: Installer Password: SMS User Password:	m Fault/Troubles System Info Object Name Latin (160 SMS symbols)	System Timers Test Time: Test Period: Entry Delay Exit Delay: Bell/Siren Cut-off Timer:	13:30 hh:mm 1 Days 15 s 20 s 120 s
SMART,	Keyswitch Zone Mode: 1W (1-Wire Bus) I/O3 Settings	Pulse/Edge Pulse/Edge Pulse	Daylight saving time:	SSM Modern

Figure 90SERA2> System Options> General System Options

Clock synchronization via Cloud server

Go to SERA2> GSM Communication> SERA Cloud Service Enable SERA Cloud Service

③ SERA2 [GTM1]			
📄 File 🔌 Settings 🛛 🔒 Devi	ices 📲 Read [F5]	🞇 Write [F6] 🛛 🛑 Update Help	
···· System Options	Event Reporting/Comm	munication	_
- GSM Communications	SMS/DIAL reporting	Custom SMS Text GPRS/IP/TCP/UDP CMS Reporting SERA Cloud Service	
- Users/Access control			
Inputs/Burgiar Alarm Zones			
- Outputs (PGM)			
Automation/Sensors	Enable	SERA Cloud Service (Default)	
Event Summary Events Log	IP or Domain:	cloud.topkodas.lt	
RT Testing&Monitoring Firmware	Remote Port:	10000	
	APP Key:	****	

Figure 91 SERA2> GSM Communication> SERA Cloud Service

- Go to SERA2> System Options> General System Options Set Clock synchronization via Cloud Server Press "Write" in the command line ٠
- •
- •

SERA2 [GTM1]	×						-
📄 File 🔌 Settings 🏻 🔒 Dev	ices 👸 Read [F5] 🛛 🞇 Write	[F6] 🛑 Update 🧐 Help					1
System Options	System						I I I
- GSM Communications	General System Options Syste	m Fault/Troubles System Info					1
Inputs/Burglar Alarm Zones	System Options		Sys	stern Timers			1
-Outputs (PGM)	Object Name:	Object Name	Te	est Time:	13:30	hh:mm	1
- Automation/Sensors	SMS/APP Text Charset	Latin (160 SMS symbols)	• Te	est Period:	1	Days	-
-Events Log	SIM Card PIN:	****	E	ntry Delay	15	s	1
-RT Testing&Monitoring	Installer Password:	(6 symbols)	E	xit Delay:	20	s	1 1 1
	SMS User Password:	(6 symbols)	в	ell/Siren Cut-off Timer:	120	s	1
	User Access Code Format:	4 - Digits 💌	п	ime Zone:	(GMT: +	2)	
CO OR	Keyswitch Zone Mode:	Pulse/Edge	D	aylight saving time:	$\overline{\mathbf{v}}$		
	1W (1-Wire Bus)	Dallas 1-Wire Bus DS1990A/DS18b20	J _				1
SMART SMART	I/O3 Settings	2-Wire Smoke Detector (Fire current loop)	-	lock synchronization:	Cloud S	erver	-

Figure 92 SERA2> System Options> General System Options

If you want to edit existing configuration,

- You have to read it (press "Read" in the command line)
- Edit settings
- Write edited configuration (press "Write" in the command line)



Figure 93 SERA2 Command line

5 Programming

In order to configure and control the system by SMS text message, send the text command to the Progate phone number from one of the listed user phone numbers. More

SERA2 software configuration tool is intended for the module Progate configuration locally via USB port or remotely via GPRS network. This software simplifies system configuration process by allowing to use a personal computer in the process.

5.1 SERA2 Uploading/Downloading Software

Q. (2)

We recommend programming the module Progate with SERA2 software

- 1. Open the folder containing installation of the software SERA2. Click the file "SERA2 setup.exe"
- If installation directory of the software is OK, press [Next]. If you would like to install the software in the other directory press [Change], specify other installation directory and then press next>.
- 3. Check if the correct data are entered and press Install
- 4. After successful installation of the software SERA2, press [Finish]

Start the software SERA2. Go to "Start"> "All programs"> "SERA2"> "SERA2" or go to installation directory and click "SERA2.exe". Connection of the module to your PC



Figure 94How to start configuration with Sera2 software

Power supply: DC 10-33V, AC 12-24V, Max 0.2A. The module should have inserted SIM card (with replenished account and removed PIN CODE REQUEST). Module must be connected to the PC via mini USB cable

Work with the software SERA2

If you are sure that the module is fully connected to PC and power supply, please go to Devices > Progate

0	SERA2								
File	Settings	Devices	🐺 Read [F5]	🙄 Write (F6)	🎯 Update	About			
1	2	▲ 3	4	5	▲ 6	▲ 7			
Figu	re 95 Coi	nmand li	ne						
1	E V	ach tim Vait until	e after config I progress ba	uring the mod r line will indic	ule press \ ate that th	Vrite 5 icon th e configuratior	us the software SERA2 will writ has been written successfully	e configuration ch	anges into the module!
							GTalarm v2_0410	IMELO60250	SNI-000009C TCD connected
	ŀ	igure 96	Progress bar				j 0100000 02_04150		

After configuration of the module, all settings may be saved at PC. It enables to save time, when next time the same configuration will be used – it will not be necessary again to set the same parameters. If you want to save that is already recorded by the module, firstly you must read configuration of the module. Press Read 4 icon. In order to save configuration go to File 1 then press "Save As" or "Save". Enter configuration parameter in the displayed table and press "OK"

In order to start saved configuration go to File then press Open. It allows to copy the same programmed content into as many modules as required.

!

If you want to receive software updates, go to Settings and mark "Check for Updates Automatically". When new update will be available, the program will inform you, and you have to start the update. After that you have to connect the module to the computer via mini USB cable. You have to write this update to the module Progate by pressing "Update" in the bottom line in SERA2 software.

If you want to update the module manually, got to "About" and press "Check for updates"

If you need to contact the seller with the questions about the configuration, you have to:



Press "Read" icon first to read the configuration from the module, the press "File>Save us" and save the configuration.

Save the Events Log file and send these files with the question to the seller.

These steps will let better understand the problem and will reduce the time to find the solution.



An unlimited number of modules can be configured remotely on the same computer at the same time. The configuration reading and writing speed does not decrease because the processes are running in parallel. Many Sera2 programs could be opened and used at the same time.

About		×
To	pkod	as
Product Name: Version: Copyright: Comments: Website:	SERA2 041907101622 UAB Topkodas JS Configuration pro http://www.topko	Check For Updates SC gram ndas.lt
	OK	

Figure 97Press about in the command line

6 Recommendations for the user & installer

What should you do, if you noticed, that there is Sensor trouble in the "Event Log" window?

 0009
 Event:1234:1:110:01:006
 Time:2017-02-14 08:51:41
 Note: , Fire Alarm, Zone:006

 0010
 Event:1234:1:380:00:001
 Time:2017-02-14 08:53:30
 Note: , Sensor Trouble, Zone:001

Figure 98Sera2> Events Log window

- 1. It is comfortable to use "RT Testing&Monitoring" window. Red field indicates sensor's troubles.
- 2. Go to Automation/ Sensors window, disabling this sensor and press "Write". Maybe there is the problem with sensor's connection to the module.
- 3. If the problem still exist, please read, save and send the configuration to the seller. Describe what and how is connected to zone: 001 and send this information to the seller.

7 Remote control and configuration using SMS Commands



ĺ

Users allowed: Control outputs, Arm/disarm the system or select stay, sleep mode Bypass zones Set the time of the module Request zone test and system state Forward messages to other number Installers allowed: Control outputs Arm/disarm the system or select stay, sleep mode Bypass zones Set the time of the module Request zone test and system state Forward messages to other number Enter/ deleting user phone numbers Set periodical test, Set GPRS network settings Remote control via Internet Activate/ deactivate connection to the remote control server. Enter/ deleting iButton keys Change sensor's values Request module configuration information Change user, installer password

Installer code – 6-digit password used for system configuration, control and request for information. By default, installer code is 000000, which is highly recommended to change.

User code – 6-digit password used for system control and request for information. By default, installer code is 000000, which is highly recommended to change.





8 The table of installers commands

ļ	SMS commands with correct INST password can be send from any phone number. Keep INST password in secret!
ļ	SMS configuration is allowed only with Latin characters. Unicode is not allowed.

Table 7 The table of installers commands	
INST000000_001_N#TEL#SMS#DIAL#System	Programming of users telephone numbers to send SMS and to make a call if the event occur: 001= programming user's tel. numbers for DIAL and send SMS N = user ID number 1-8 TEL = user's telephone number (max 16 digits) without (+) country code, operator's code and user's telephone number included. The end symbol #; SMS = event filter for sms. 1- send event, 0- don't send event. Sequence of the events 1.2.3n For example: 001000 DIAL = event filter for DIAL. 1-DIAL if the event occur, 0-don't DIAL Sequence of the events 1.2.3n For example: 101000 #= delimiter
	e.g.: INST000000 001 1#370666666666660001000000#0000011111#
	Event filter eiliskumas: 1-reserved 2-system open close
	10-Input/Zone4 Alarm/Restore
INST000000_002_ID	Delete user's phone number according the user ID number. Phone number used for receive user's information. 002= command code (deleting user's numbers according the user ID number) ID = user ID number from 1 to 8
INST000000 004 ID#TEL#OUT#OPT#NAME#	To enter user's telephone number for remote control via short call USER NAME-only Latin characters is allowed inside SMS 004= command code (enter user's telephone number for remote control via short call) ID = user ID number 001-800 TEL = user's telephone number (max 16 digits) without (+) comprised of country code, operator's code and user's telephone number. the end symbol #; OUT= output number, that will be controlled, 1-10. OPT = DIAL function: 0 – disabled 1 – enabled, Sequence from the left to the right OPT: 1-ARM/DIARM 2-Reserved (GTIarm2 =MIC)
INST000000 005 TEL#	To delete user's phone number for remote control, according phone number 005= command code (delete user's phone number for remote control, according phone number) TEL = user's phone number (max 16 digits) without (+) comprised of country code, operator's code and user's telephone number. User's phone number must be the same as in the memory of the module.
INST000000_006_N	Delete user's phone number whose ID number is N. 006= command code (Delete user's phone number according user's ID number) N = user's ID number from 001 to 800.
INST000000_007_P#PER#HH:mm#	Automatic periodical test settings 007= command code (Automatic periodical test) P= 0-test disabled, 1- test period by 24 hours, 2- period by minutes PER= automatic test sending period from 1 to 99999 days or minutes HH-hours 0-23,

	mm- minutes 0-59						
INST000000_008_APN#LOGIN#PSW#	e.g. INST000000 007 2#1#14:50# The test will be send every 1 minute GPRS network settings 008= command code (GPRS network settings) APN=31 symbols LOGIN=31 symbols PSW=31 symbols						
INST000000 009 ADDR#PORT# INST000000 009 ADDR#PORT#PING#	SERA cloud Service Parameters 009= command code (Remote control of the module over the Internet) ADDR = the format of IP address xxx.xxx.xxx (the numbers from 0 to 255 should be separated by dot or domain text length of up to 47 characters) PORT= TCP port number from 1 to 65535 Default parameters is in the picture bellow. We recommend do not change these parameters. Image: String: Device: Read [F5] Write [F6] Image: Update About File Setting: Device: Read [F5] Write [F6] Image: Update About File Setting: Device: Read [F5] Write [F6] Image: Update About File Setting: Device: Read [F5] Image: String Communication Image: String: Device: Read [F5] Image: String: Str						
INST000000_010_E	To activate the connection to the remote control server 010= command code (To activate the connection to the remote control server) E= 1-enabled, 0-disabled						
INST000000_019_N#P	To change the operation algorithm of the output 019= command code (To change the operation algorithm of the output) N = output number from 1 to 10 P = output operation algorithm. 0 – output disabled, 1 – Bell, 2- buzzer, 3- flash led, 4- system state LED, 5-LED "system ready", 6- Automation & access control, 7- AC OK, 8 – Battery OK, 9- ARM/DISARM 10-alarm indication, 11- Lost Primary chanel 12- Lost secondary chanel 13- Fire sensor14-RH Sensor trouble , 15- Access Gained						
INST000000_020_N	Invert output state 020= command code (outputs inversion) N = output number from 1 to 10.						
INST000000_021_N#ST	Output activation or deactivation 021= command code (Output activation or deactivation) N = output number 1-10 ST = output mode 0 – OFF, 1- ON						
INST000000_022_N#TIME#	Output activation for the time interval 022= command code (Output activation for the time interval) N = output number 1-10 TIME = 0-9999999 Time interval in seconds for the output activation.						
INST000000_030_ST	Change security system's mode (ARM/DISARM/STAY/SLEEP) 030= command code (Change security system's mode) ST = 0-DISARM, 1-ARM, 2-STAY, 3-SLEEP						
INST000000_031_ZN#BYP	Zone bypassing by sms command 031= command code (Zone bypassing) ZN = zone number from 1 to 32 BYP= 1 - zone bypass 0- zone active.						
INST000000_063_S	iButton keys learning/deleting mode 063= command code (iButton keys learning/deleting mode) S=iButton keys entering/deletion mode. 0-Disable iButton/RFID keys learning mode 1-Enable iButton/RFID keys learning mode 2- iButton/RFID keys deleting mode. To delete these keys from memory, which will be touched to the reader						
INST000000_070_N#VALUE #	Programming of max sensors value upon reaching, the SMS message with "High Alarm" text will be sent 070= command code (max sensors value upon reaching which, the SMS message with "High Alarm" text will be sent) N = sensor number VALUE= Format 0000.00 High Alarm Value						
INST000000_071_N#VALUE #	Programming of minimal sensors value upon reaching the SMS message with "Low Alarm" text will be sent 071= command code (min sensors value upon reaching which, the SMS message with "Low Alarm" text will be sent) N = sensor number VALUE = Format 0000.00 Low Alarm Value						
INST000000_072_N#VALUE#	Programming of sensor max value upon reaching the selected output will be activated. For example cooling equipment 072= command code (sensor max value upon reaching the selected output will be activated.) N = sensor number						

	VALUE= Format 0000.00 sensor max value upon reaching, the selected output will be activated.
INST000000_073_N#VALUE#	Programming of sensor min value upon reaching the selected output will be activated. For example heating equipment 073= command code (sensor min value upon reaching the selected output will be activated.) N = sensor number VALUE= Format 0000.00 Sensor min value upon reaching which, the output will be activated.
INST000000 090 NEW_INST_PSW	Change installer's password (Installers password should be changed before exploitation of the module) 090= command code (Change of installer's password) NEW_INST_PSW = New Installer's password.
INST000000 091 NEW_USER_PSW	Change user's password (User's password should be changed before exploitation of the module) 091= command code (Change user's password) NEW_USER_PSW = New user's password.
INST000000_092	Remote reset of the module via SMS messages 092= command code (Remote reset of the module via SMS messages)
INST000000 093 yyyy/MM/dd#HH:mm#	Time of the module setting via SMS message 093= command code (Time of the module setting via SMS message) Time format of the module: yyyy/MM/dd#HH:mm# yyyy -year MM-month 1-12 dd - day of the month 1-31 HH-hours 0-23 mm- minutes 0-59
INST000000_094_TEL#SMS	SMS from the module forwarding to the other phone number SMS from the module forwarding to the other phone number 094= command code (SMS from the module resending to the other phone number) TEL = phone number to which will be forwarded sms textSMS = sms text that will be send to the referred number. TEL=861611111111 local number arba international format e.g. +370616111111 INST000000 094 +37061611111#Hello SMS from the module forwarding to the other phone number094= command code (SMS from the module fowarding to the other referred phone number)TEL = phone number to which will be forwarded sms textSMS = sms text that will be send to the referred number TEL=861611111111 local number arba international format e.g. +370616111111 INST000000_094_+37061611111#Hello TEL=861611111111 local number arba international format e.g. +370616111111 INST000000_094_+37061611111#Hello international must be with '+' local without'+' SMS text =Latin Charset After this commands could not be other commands like: 094 SMS 030 1 because all messages will be forwarded to other numer "SMS 030 1"
INST 000000_095_E	Zone Walk Test request 095= command code (Zone Test request) E = 1- test request activated, 0- test request deactivated When zone is activated, the bell generates the sound, ARM/DISARM system automatically turn off this function
INST000000 096	Fire sensors reset.
INST000000_100_N	System state request: 100= command code (System state request) N = System state request type 1- System test request, Request information about the module (: IMEI, FW, LEVEL etc.) 2- the values of active sensors request 3 -Request about active zone states 4 -Request about output states 5 - System state request. The module will send information on input/output states and system state (ARM/DISARM/STAY).

9 The table of users commands

The phone number must be in the **Sera2> Users/ Access control** list if USER123456 commands will be used If the phone number is not in the list, the sms commands from this phone number will be blocked.

SMS configuration is allowed only with Latin characters. Unicode is not allowed.

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Fi	ile Settings Devices 選	Rea	d [F5]	🞇 Write (F6) 🛛	🕭 Update	About										
	- System Options	Rer	note Co	introl Users table												
-	- GSM Communications											Temporary access Date/Time window				
	Users/Access control		D En	User Name	1	Туре	User Tel.	iButton Code	RFID Keycard	Keyb Code	OUT	ARM/DISARM	MIC	Date En	Start Date	Expiration Date
	- Outputs (PGM)	1		Master		User	+3700000000	000000000000	0000000000	*****	NONE	~			2019-02-25 16:24:26	2019-02-25 16:24:26
-	- Automation/Sensors	I_2				User	+	000000000000	0000000000		OUT1				2019-02-25 16:24:26	2019-02-25 16:24:26

Table 8 The table of user's commands

USER123456_020_N	Change state of selected OUT output to the inverted state. Output state changes every time after sending command code. 020= command code (Change state of selected OUT output to the inverted state.) N = output number from 1 to 10.
USER123456_021_N#ST	Activate or deactivate selected output N. 021= command code (Activate or deactivate selected output N) N = output number from 1 to 10. ST= output mode: 0 – deactivated output, 1- activated output
USER123456_022_N#TIME#	Output activation for the time interval 022= command code (Output activation for the time interval) N = output number 1-10 TIME = 0-999999 Time interval in seconds for the output activation.
USER123456_030_ST	Change security system's mode (ARM/DISARM/STAY/SLEEP) 030= command code (Change security system's mode (ARM/DISARM/STAY/SLEEP) ST = Security system mode 0-DISARM, 1-ARM, 2-STAY, 3-SLEEP Enter user phone number in the Sera2> Users/ Access control list
USER123456_031_ZN#BYP	Zone bypassing by sms command 031= command code (Zone bypassing) ZN = zone number from 1 to 32 BYP= 1 – zone bypass 0- zone active.
USER123456_094_TEL#SMS	SMS from the module forwarding to the other phone number 094= command code (SMS from the module resending to the other phone number) TEL = phone number to which will be forwarded sms text SMS = sms text that will be send to the referred phone number
USER123456_100_N	System state request: 100= command code (System state request) N = System state request type 1- System test request, Request information about the module (: IMEI, FW, LEVEL etc.) 2- the values of active sensors request 3 -Request about active zone states 4 -Request about output states 5 - System state request. The module will send information on input/output states and system state (ARM/DISARM/STAY).
	Only for the firmware versions > 190926

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10 APP configuration

	C 🕮 🔍 🔒 cloud	I topkodas.lt/index.php
	Settings Online 2 02/08/20	019, 11:18:52
System	Smart Home 800	ysName *
Zones	Device UID/II 862951021	VEI/MAC*
Outputs		Арр Кеу"
	Oject	Address
Events Users Settings	File Settings Devices S - System Options - Users/Access control - Burglar Alarm Zornes - Outputs (POM) - Automation/Sensors - Evert Summary - Everts Log - RT TestingsMontoring - Firmware	Read [F5] Write [F6] Update About Event Reporting/Communication SMS/DIAL reporting Custom SMS Text OPRS/IP/TCP/UDP CMS Reporting SERA Cloud Service Enable Image: Court of the service (Default) Image: Court of the service (Default) Image: Court of the service (Default) IP or Domain: Cloud topkodas /l Image: Cloud topkodas /l Image: Cloud topkodas /l Remote Port: 10000 Image: Cloud topkodas /l Image: Cloud topkodas /l
	T B DITTOR C	APP Key:

Figure 99 https://cloud.topkodas.lt/index.php> Settings and GSM Communications> Sera Cloud Service windows

App key in module and APP must be the same. IMEI (device UID) you can find on the modem of the module or in SERA program System Options> System info.

i Sera2



Figure 100System Options> System Info window

11 Warranty Terms and Conditions

SAFETY INSTRUCTIONS FOR SERVICE PERSONS

Use the following list as a guide to find a suitable place for Progate module:

• Locate the module near a power outlet.

Select a place that is free from vibration and shock.

• Place the module on a flat, stable surface and follow the installation instructions:

Do NOT locate the module where persons can walk on the secondary circuit cable(s).

Do NOT connect the module to electrical outlets on the same circuit as large appliances.

Do NOT select a place that exposes the module to direct sunlight, excessive heat, moisture, vapors, chemicals or dust.

Do NOT install the module near water (e.g., bathtub, wash bowl, kitchen/laundry sink, wet basement, or near a swimming pool).

Do NOT install the module and its accessories in areas where there is a risk of explosion.

Do NOT connect the module to electrical outlets controlled by wall switches or automatic timers.

AVOID sources of radio interference.

AVOID setting up the equipment near heaters, air conditioners, ventilators, and/or refrigerators.

AVOID locating module close to or on top of large metal objects (e.g., metal wall studs).

Safety Precautions Required During Installation

• NEVER install the module during a lightning storm.

• Ensure that cables are positioned so that accidents cannot occur. Connected cables must not be subject to excessive mechanical strain.

• The power supply must be Class II, FAIL SAFE with double or reinforced insulation between the PRIMARY and SECONDARY circuit/ENCLOSURE and be an approved type acceptable to the local authorities. All national wiring rules shall be observed.

Limited Warranty

UAB "Topkodas" warrants the original purchaser that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use. During the warranty period, UAB "Topkodas" shall, at its option, repair or replace any defective product upon return of the product to its factory, at no charge for labor and materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original purchaser must promptly notify UAB "Topkodas" in writing that there is defect in material or workmanship, such written notice to be received in all events prior to expiration of the warranty period. There is absolutely no warranty on software and all software products are sold as a user license under the terms of the software license agreement included with the product. The Customer assumes all responsibility for the proper selection, installation, operation and maintenance of any products purchased from UAB "Topkodas". In such cases, UAB "Topkodas" can replace or credit at its option.

International Warranty

UAB "Topkodas" shall not be responsible for any customs fees, taxes, or VAT that may be due.

Warranty Procedure

To obtain service under this warranty, please return the item(s) in question to the point of purchase. All authorized distributors and dealers have a warranty program. Anyone returning goods to UAB "Topkodas" must first obtain an authorization number. UAB "Topkodas" will not accept any shipment whatsoever for which prior authorization has not been obtained.

Conditions to Void Warranty

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover:

- Damage incurred in shipping or handling;
- Damage caused by disaster such as fire, flood, wind, earthquake or lightning;
- Damage due to causes beyond the control of UAB "Topkodas" such as excessive voltage, mechanical shock or water damage;
- Damage caused by unauthorized attachment, alterations, modifications or foreign objects;
- Damage caused by peripherals (unless such peripherals were supplied by UAB "Topkodas".);
- Defects caused by failure to provide a suitable installation environment for the products;
- Damage caused by use of the products for purposes other than those for which it was designed;
- Damage from improper maintenance;
- Damage arising out of any other abuse, mishandling or improper application of the products.

Items Not Covered by Warranty

- (i) Freight cost to the repair center;
- (ii) Products which are not identified with UAB "Topkodas" product label and lot number or serial number;

Poducts disassembled or repaired in such a manner as to adversely affect performance or prevent adequate inspection or testing to verify any warranty claim.

Under no circumstances shall UAB "Topkodas" be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of the product or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property. The laws of some jurisdictions limit or do not allow the disclaimer of consequential damages. If the laws of such a jurisdiction apply to any claim by or against UAB "Topkodas", the limitations and disclaimers contained here shall be to the greatest extent permitted by law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so that the above may not apply to you. **Disclaimer of Warranties**

UAB "Topkodas" neither assumes responsibility for, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

WARNING:

UAB "Topkodas" recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

Out of Warranty Repairs

UAB "Topkodas" will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions. Anyone returning goods to UAB "Topkodas" must first obtain an authorization number. UAB "Topkodas" will not accept any shipment whatsoever for which prior authorization has not been obtained. Products which UAB "Topkodas" determines to be repairable will be repaired and returned. A set fee which UAB "Topkodas" has predetermined and which may be revised from time to time, will be charged for each unit repaired. Products which UAB "Topkodas" determines not to be repairable will be replaced by the nearest equivalent product available at that time. The current market price of the replacement product will be charged for each replacement unit.

WARNING - READ CAREFULLY

Note to Installers

This warning contains vital information. As the only individual in contact with system users, it is your responsibility to bring each item in this warning to the attention of the users of this system.

System Failures

This system has been carefully designed to be as effective as possible. There are circumstances, however, involving fire, burglary, or other types of emergencies where it may not provide protection. Any alarm system of any type may be compromised deliberately or may fail to operate as expected for a variety of reasons. Some but not all of these reasons may be:

Inadequate Installation

The module must be installed properly in order to provide adequate protection.

Criminal Knowledge

This system contains security features which were known to be effective at the time of manufacture. It is possible for persons

With criminal intent to develop techniques which reduce the effectiveness of these features. It is important that a system be reviewed periodically to ensure that its features remain effective and that it be updated or replaced if it is found that it does not provide the protection expected.

Access by Intruders

Intruders may enter through an unprotected access point, circumvent a sensing device, evade detection by moving through an area of insufficient coverage, disconnect a warning device, or interfere with or prevent the proper operation of the system.

Power Failure

Control units, intrusion detectors, smoke detectors and many other security devices require an adequate power supply for proper operation. If a device operates from batteries, it is possible for the batteries to fail. Even if the batteries have not failed, they must be charged, in good condition and installed correctly. If a device operates only by AC power, any interruption, however brief, will render that device inoperative while it does not have power. Power interruptions of any length are often accompanied by voltage fluctuations which may damage electronic equipment. After a power interruption has occurred, immediately conduct a complete system test to ensure that the system operates as intended.

Failure of Replaceable Batteries

Ambient conditions such as high humidity, high or low temperatures, or large temperature fluctuations may reduce the expected battery life. While each transmitting device has a low battery monitor which identifies when the batteries need to be replaced, this monitor may fail to operate as expected. Regular testing and maintenance will keep the system in good operating condition.

Compromise of GSM network

Signals may not reach the receiver under all circumstances which could include metal objects placed on or near the radio path or deliberate jamming or other inadvertent signal interference.

System Users

A user may not be able to operate a panic or emergency switch possibly due to permanent or temporary physical disability, inability to reach the device in time, or unfamiliarity with the correct operation. It is important that all system users be trained in the correct operation of the module and that they know how to respond when the system indicates an alarm

Smoke Detectors

Smoke detectors may not properly alert occupants of a fire for a number of reasons, some of which follow. The smoke detectors may have been improperly installed or positioned. Smoke may not be able to reach the smoke detectors, such as when the fire is in a chimney, walls or roofs, or on the other side of closed doors. Smoke detectors may not detect smoke from fires on another level of the residence or building.

Every fire is different in the amount of smoke produced and the rate of burning. Smoke detectors cannot sense all types of fire is equally well. Smoke detectors may not provide timely warning of fires caused by carelessness or safety hazards such as smoking in bed, violent explosions, escaping gas, and improper storage of flammable materials, overloaded electrical circuits, and children playing with matches or arson.

Even if the smoke detector operates as intended, there may be circumstances when there is insufficient warning to allow all occupants to escape in time to avoid injury or death.

Motion Detectors

Motion detectors can only detect motion within the designated areas as shown in their respective installation instructions. They cannot discriminate between intruders and intended occupants. Motion detectors do not provide volumetric area protection. They have multiple beams of detection and motion can only be detected in unobstructed areas covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floor, closed doors, glass partitions, glass doors or windows. Any type of tampering whether intentional or unintentional such as masking, painting, or spraying of any material on the lenses, mirrors, windows or any other part of the detection system will impair its proper operation.

Passive infrared motion detectors operate by sensing changes in temperature. However their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are intentional or unintentional sources of heat in or near the detection area. Some of these heat sources could be heaters, radiators, stoves, barbeques, fireplaces, sunlight, steam vents, lighting and so on.

Warning devices such as sirens, bells, horns, or strobes may not warn people or waken someone sleeping if there is an intervening wall or door. If warning devices are located on a different level of the residence or premise, then it is less likely that the occupants will be alerted or awakened. Audible warning devices may be interfered with by other noise sources such as stereos, radios, televisions, air conditioners or other appliances, or passing traffic. Audible warning devices, however loud, may not be heard by a hearing-impaired person.

GSM network

If GSM network are used to transmit alarms, it may be out of service for certain periods of time.

Insufficient Time

There may be circumstances when the system will operate as intended, yet the occupants will not be protected from the emergency due to their inability to respond to the warnings in a timely manner. If the system is monitored, the response may not occur in time to protect the occupants or their belongings. • Component Failure

Although every effort has been made to make this system as reliable as possible, the system may fail to function as intended due to the failure of a component.

Inadequate Testing

Most problems that would prevent the module from operating as intended can be found by regular testing and maintenance. The complete system should be tested weekly and immediately after a break-in, an attempted break-in, a fire, a storm, an accident, or any kind of construction activity inside or outside the premises.

•Security and Insurance

Regardless of its capabilities, the module Progate is not a substitute for property or life insurance. The module Progate also is not a substitute for property owners, renters, or other occupants to act prudently to prevent or minimize the harmful effects of an emergency situation.