GTCOM2

Cellular PSTN Communicator
Quick setup guide

QR Short Manual   QR Full manual

1. Specifications

Network technology: LTE CAT-1 or GSM/GPRS/EDGE
Administrators: up to 8 can receive SMS and Call
Users database (Phones, iButton, RFID, Codes): up to 800
Power supply: DC 10-16 V / 200 mA max
Current consumption in idle state w/o external devices connected: up to 50mA
Number of inputs: 2
    Zone: NC, NO or EOL=5.6kΩ (settable) or analog: 0-30V (settable)
Number of I/O input/output: 2 - Open Drain 24V/1A,
    Zone: NC, NO or EOL=5.6kΩ (settable), no pool up resistor.
PSTN emulator: Receives DTMF Contact ID events from the control panel.
Wiegand interface: 26-bit Wiegand format, 8-bit Keypad PIN/CODE format
Maxim's 1-Wire® interface: iButton Keys DS1990A; temperature sensors DS18b20
Aosong 1-Wire interface: Humidity/Temperature Sensor AM23xx
Buffer for unsent events: up to 3072 events
Nonvolatile flash Event LOG: up to 3072 events
Dimensions: 73x62x26mm
Operating temperature range: -20…+55 °C
Module weight: 70g
Package weight: 90g
Humidity: 0-90% RH @ 0… +40°C (0-90% RH @ +32… +104°F) (non-condensing)

2. LED indication

LED	Indication variations	Meaning
POWER (green)	Watchdog blinking, on 50ms,off for 1000ms	The module is functioning.
	Off	No power voltage.
NET (yellow)	Lights continuously	Modem is registered
	Flashes, remains lit for 50ms, turns off for 300ms	Modem is being registered to the network.
	Blinking fast, 50ms on, and off for 50ms	PIN code of SIM card error. PIN code request should be removed
	Off	Modem is not registered
DATA (red)	Lights continuously	Module contains unsent reports to the user or to the server.
	Off	All reports has been send.
LINE (blue)	Lights continuously	The control panel has picked up a handset Off-hook
	Off	PSTN On-hook / Line Off
DTMF (yellow)	Blinking 5-10ms	DTMF tones are receiving
	Long Blink 1s	DATA OK. Data received correctly.

3. Quick set up of the controller

1. Insert SIM card. Turn off PIN code requests
2. Screw GSM antenna,
3. Connect power supply 10-16VDC

> ⚠ Note: the USB power supply can only be used for configuration. It is not sufficient to power the modem.

4. Call to the module.

Note: The first one to call the controller will become the system administrator. The phone number will be stored in the module's memory automatically. The caller will receive a greeting SMS with the IMEI of the module. At this moment all calls from different phone number will be rejected. The controller can be installed without any additional configuration if such operation mode is acceptable.

5. Configuration and control methods:
SERA2 - configuration software via **USB** or **Internet** remote
https://www.topkodas.lt/Downloads/SERA2_Setup.exe
SERANOVA - Free WEB app https://seranova.eu/login
SMS – configuration with INST commands.

> ℹ Complete SMS commands can be found in full Installation & Programming manual. Scan QR code or download here: https://www.topkodas.lt/product/gtcom2

3.1. Setting parameters using SERA2 software

With SERA2 software you can change the controller's settings (if default settings are not enough)
1. Download the configuration software SERA2 from https://www.topkodas.lt/downloads/ and install it.
2. Connect the controller to a computer using a mini USB cable.
3. Launch the configuration software SERA2. The program will automatically recognize the connected device.
4. Click Read to see current controller parameters
Note: The button [Read] will read configuration and show the settings currently saved on the device.
The [Write] button will save the settings to the flash memory.
The button File> [Save] will save the configuration to file for later use. This allows to quickly configure multiple devices with the same settings.
The button File> [Open] open configuration file and load saved settings.

To revert to the default settings, go to Update FW without checking the Preserve settings checkbox.

4. SERANOVA app

With **SERANOVA** app users will be able to control the Alarm Panel remotely and administrate users. They will also be able to see the system state and receive push Notifications, all event messages.

Free WEB SERANOVA app https://seranova.eu/login

Scan QR code and install **SERANOVA** app.

New User? Please create an account.

4.1. SERANOVA & SERA Cloud Service

To use the **SERANOVA** app or the **SERA2** remote connection. The **SERA cloud service** needs to be activated by using the **SERA2** or SMS command e.g. INST000000_010_1.
By default this service is activated.

> ⚠ **Imortant!** If there is no data plan on your SIM card. **[SERA Cloud service]** must be deactivated. Using **SERA2** or SMS command: INST000000_010_0. Otherwise the module will stop working due to a lost data connection.

SMS command to set APN DATA/GPRS/LTE network settings
INST000000_008_APN#LOGIN#PSW#
e.g. INST000000_008_internet### where APN='internet';

4.2. Ways to get device IMEI (UID)

- **First call** to module. The caller will receive a greeting SMS with the IMEI of the module.
- **By SMS** sending command. INST000000_100_1
- Run **SERA2** and connect device to USB.
- Go to: SERA2> System Options> System Info

4.3. Add a new system to SERANOVA app

- Enter the IMEI (UID)
- Enter App key. Default 123456.
- Enter user access code. Default 123456. Without a user access code, user unable to control system.
- Enter system SIM phone number
- Enter system name.
- Press [Save]

4.4. Add additional system

A SERANOVA user can add an unlimited number of systems.
Go to SYSTEMS> [Add new system]

4.5. Add a new user

- New user must download the **SERANOVA** app and create an account

- System admin press *SERANOVA>Menu>Users> [Add new User]*.
- Fill all required fields: *email, user code, output, user permissions …*

⚠ Enter a valid email address of a user who already has a SERANOVA account. The system will automatically be added to the user's account.

4.6. Add the System manually

The user must log in to SERANOVA account with the same email that the admin added to user list. Then the admin has to tell PROGATE details IMEI, user access code. And only then the user will be able to add the system to their app see: *4.3*

5. Installation & wiring

⚠ All wiring should be done with the power supply disconnected!

GTCOM2 is linked up with Control Panel communicator via the **RING/TIP** dial-up terminals emulating the connectivity of the PSTN line. Receives **Ademco Contact ID** data from the control panel and converts events into:
- Readable SMS message to user
- Push notifications to app.
- Reporting all panel events to CMS (central monitoring station) via standard SIA DC-09 protocol.

5.1. Setup PSTN communicator for the primary panel

Configuration of the panel PSTN communicator should be the similar as event transmission to the monitoring station receiver in CONTACT ID DTMF protocol. Practically the module can work with any control panel which has PSTN

GTCOM2
GSM/PSTN Communicator
LINE ☐
DTMF ☐

Control panel
Telephone line communicator
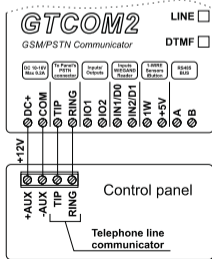
communicator and meets **Ademco Contact ID** data format according to **SIA DC-05** standard. Control panel must support phone number dialing using DTMF tones.
- Set communication enabled
- Set communicator account number 4 digits. E.g. [1234]
- Enter dial phone number e.g. [1234] (you can use any number longer than 2 digits. The GTCOM2 pick up and answer when the panel calls to any phone number).
- Set communication dialing options to [DTMF Dialing]
- Set Communications protocol to [DTMF Contact ID]
- If panel has such option set [Contact ID Automatic Reporting Codes]
- Enable PSTN communication events upon your needs Open/Close/Alarm/Restore/Maintenance/Test
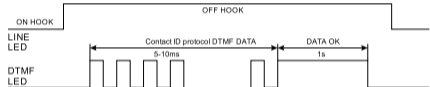
Check the progress of the communication on LEDs.
LINE (blue) LED lights continuously, when central panel OFF HOOK.
DTMF LED is blinking (5-10ms) during communication.
When DTMF LED lights for 1s, data received correctly.

5.2. ARM / DISARM Control Panel via keyswitch zone
- Control primary panel via short call, SERANOVA app, SMS
- Control primary panel using keyboard and see the status in app GTMOM2 outputs can be used for arming/ disarming by connecting to one of the alarm panel's zones pre-configured as a keyswitch. If the control panel status changes from ARM to DISARM, the status of

App, call, SMS   GTCOM2   Control Panel
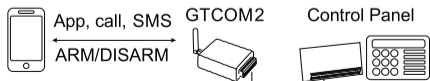
ARM/DISARM

[Activate by ARM/DISARM Command] (Pulse) I/O1 → Zn1 Keyswitch ARM

GTCOM2 changes from ARM to DISARM also if the siren is triggered, the SMS will be send to the user's mobile followed by a call GTCOM2 can be used as communicator with primary control panel and also home gate control.

5.2.1. Set GTCOM2 PGM action on ARM/DISARM
Go to *SERA2>Outputs (PGM)* and set:
- Out Definition: [Activate by ARM/DISARM Command]
- No: [1]   (this is partition number)
- Mode: [Pulse]
- Timer: [2s]   (this is PGM pulse time on ARM/DISARM command)

5.3. Synchronization of control panel ARM/DISARM status with GTCOM2
There are two ways to synchronize the ARM state of the panel with GTCOM2:
1. Synchronize [By Panel Events].
2. Synchronize [By Panel PGM] (recommended)
Go to *SERA2> System Options> General System Options*
Set [App ARM/ DISARM Synchr. mode]
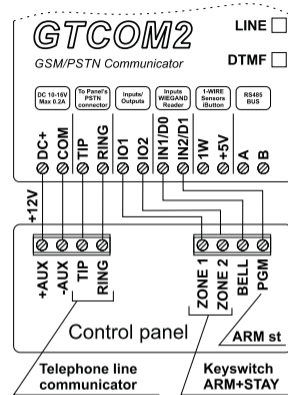
5.3.1. ARM state synchronization by panel PGM
Set Panel PGM to monitoring ARM status in level (steady) Mode
- Set PGM activation event: [ARM Area1]
- Deactivation Event: [DISARM Area1]
- Mode: [Steady]
- NO/NC depending of GTCOM2 input keyswitch settings.
Set Panel Keyswitch to Momentary (Pulse) Mode
- Zone Type: [Keyswitch Momentary] (Pulse)
- Area Assignment: [Area 1]   (Set AREA you want to control)
- Keyswitch Action: [ARM/DISARM]

5.3.2. Set GTCOM2 keyswitch zone
Go to *SERA2>Inputs/Zones* and set:
- Keyswitch Zone Mode: [Level] (Steady)
- Definition: [keyswitch ARM/DISARM]
- Type: [NC]
- Press [Write]

GTCOM2
GSM/PSTN Communicator
LINE ☐
DTMF ☐

Control panel
Telephone line communicator

Keyswitch ARM+STAY
ARM st

5.3.3. How to test GTCOM2 & Primary Panel synchronization?
Go to *SERA2> RT Testing & Monitoring> Hardware*
Press "Start Monitoring" button
Press I/O1 On/Off button
See in Inputs (ADC values) should change 1 > 0 or 0 > 1
Status of the primary panel should change
Go to *SERA2> RT Testing & Monitoring> Security Alarm Panel/ Access*
The status of GTCOM2 module should change
You'll see the same process in the mobile app on your smartphone.

6. Remote control

6.1. Control using SERANOVA app
- How to start SERANOVA app read paragraph *4*
- Add partition or output widget and set the parameters

6.2. Control with phone call
The first one to call the controller will become the system administrator. Call the number of the SIM card inserted into the controller. The controller automatically rejects the call and this phone number will be able to ARM/DISARM system with free short call.

6.3. Control with SMS messages

ARM/DISARM/STAY/SLEEP
USER123456_030_ST 030= command code (Change security system's mode (ARM/DISARM/STAY/SLEEP)
ST = Security system mode 0-DISARM, 1-ARM, 2-STAY, 3-SLEEP

Output pulse activation for the time interval
USER123456_022_N#TIME#
022= command code, N = output number 1-32; TIME = 0-999999 Time interval in seconds for the output activation.
e.g. USER123456_022_2#5#   Activate OUT2 for 5 seconds

This Quick Start Guide provides only basic information about the device. For more detailed information, please refer to the full manual:

Installation & Programming Manual
https://topkodas.lt/Downloads/media/Manuals/GTCOM2_UM_EN.pdf

Website: https://topkodas.lt   Email: info@topkodas.lt