

# GTCOM2 GSM Communicator Contact ID to SMS converter

**Stay informed, take control**

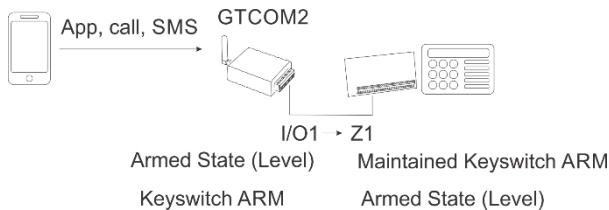
## Quick setup guide

When primary alarm panel is triggered, it signals the alarm communicator which in turn notifies a CMS. Integrated SIA IP DC-09 protocol. The module **receives Contact ID DTMF codes** from the dial-up communicator of security control panel, **converts them into readable texts and sends SMS message to the mobile phone** of a user. It is possible to check the status, control the panel via **mobile app**. **Selectable 2G, 3G or 4G Cat-M1 modem. App notifications, Call alarms, SMS alarms, Events log list.** Configuration templates and remote configuration possibility. **Easy SIM card, USB access.** No need to open enclosure!

### REQUIREMENTS OF THE SECURITY CONTROL PANEL

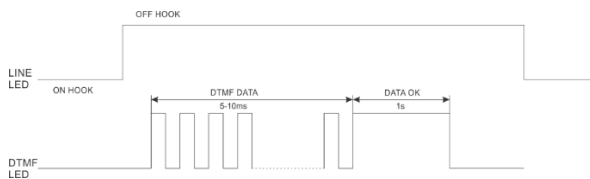
The security control panel should meet the following requirements:

1. To support Ademco Contact ID protocol according to SIA DC-05 standard.
2. To support dialing in DTMF tones.
3. To support Contact ID data transfer in DTMF tones.
4. It is recommended for the control panel to support automatic Contact ID codes.



### MEANING OF LEDS AND CONTACTS

Name	Indication variations	Meaning
REG (yellow) built-in LED	Lights continuously	Modem has been registered to the network
	Flashes, remains lit for 50ms, turns off for 300ms	Modem is being registered to the GSM network.
	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.
PWR (green) built-in LED	Watchdog heart beat blinking, remains lit for 50ms, and turns off after 1000ms.	The module is functioning.
	Off	The module is out of order or no voltage
LINE (blue)	Lights continuously	The security control panel has picked up a handset Off-hook
	OFF	The security control panel has not picked up a handset On-hook
DTMF	Blinking 5-10ms	DTMF tones are receiving from the control panel
	Blinking 1s	DATA OK. Data received correctly.



LINE (blue) LED lights continuously, when central panel OFF HOOK DTMF LED is blinking (5-10ms). When DTMF LED lights for 1s, data received correctly.

### FIRST STEPS TO PREPARE GTCOM2 MODULE & SERA2 SOFTWARE

#### Preparation procedure of the module GTCOM2.

1. Connect the GSM antenna to the antenna connector.
2. 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. To avoid entering the PIN code in Sera2 software, insert the SIM card into your mobile phone and turn off the PIN request function.

3. Connect the module to the primary alarm panel.
4. Connect the module to the computer via mini USB cable

#### Install configuration software SERA2

Download SERA2 from [www.topkodas.lt](http://www.topkodas.lt), install and open it. **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)

#### COMMUNICATOR WIRING METHODS

The alarm panel is linked up with GTCOM2 communicator via the RING and TIP terminals simulating the connectivity of the PSTN line.

RING/TIP interface – Retrieves Ademco Contact ID data from the alarm panel, converts it into user-understandable text and **delivers to up to 8 listed users by SMS text message.**

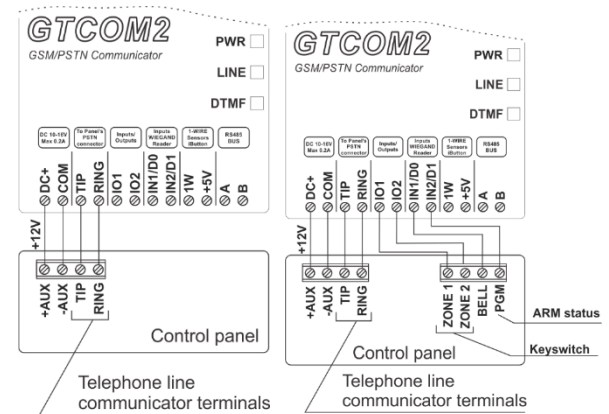


Figure 2 Communicator wiring diagram

Figure 1 ARM/ DISARM the panel via keyswitch zone

The outputs can also be used for arming/ disarming by connecting an output 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 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 could be used for all control panel control, gate control. The second keyswitch can be used to stay ARM.

The first keyswitch could be used for arm the first partition and the second keyswitch can be used for arm the second partition

## ALARM PANEL & GTCOM2 SYNCHRONIZATION

### Control primary panel via short call, app, SMS

#### Control primary panel from GTCOM2 and see the status in app

Control primary panel from GTCOM2 and see the status in app  
Receive status SMS.

See the same status in keypad

#### Control GTCOM2 from primary panel and see the status in keypad.

Control GTCOM2 from primary alarm panel and see the status in keypad

The same status in mobile app and SMS

### How to set 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 central panel which has PSTN communicator and meets Ademco Contact ID data format according to SIA SIA DC-05 standard. Also Central panel must support phone number dialing using DTMF tones.

#### Panel's PSTN communication settings:

Set communication enabled

Set communicator account number 4 digits. E.g. "1234"

Set communications Telephone. Enter the monitoring station receiver's telephone number (you can use any number longer than 2 digits. The GTCOM2 pick up and answer when the panel calls to any phone number). Telephone number e.g. "1234".

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

#### Panel's settings for two ways ARM/DISARM synchronization\*\*\*.

Set Panel PGM to monitoring ARM status in level (steady) Mode

Activation event:[ ARM Area1 ]

Deactivation Event : [ DISARM Area1 ]

Mode: [Steady]

NO/NC depending of GTalarm2 input keyswitch settings.

In our example set to [NO]

Set Panel Keyswitch to Momentary (Pulse) Mode

Zone Type : [Keyswitch Momentary] (Pulse)

Area Assigment: [Area 1] (Set AREA you want to control)

Keyswitch Action: [ARM/DISARM]

\*Communicator's data package protocol SIA Ademco CONTACT ID is being supported (according to SIA DC-05 standard)

\*Telephone number and data transfer format DTMF (tone)

\*\*\* Two ways ARM/DISARM synchronization means USER able to control panel via panel's keyboard as well as remotely form GTCOM2 APP/WEB/SMS/iButton/RFID/Call. This means that

the GTCOM2 APP will show the same system status as keyboard of security panel.

### HOW TO SET GTCOM2 & PRIMARY PANEL SYNCHRONIZATION **By Panel's PGM?**

Go to SERA2> System Options> General System Options  
Set App ARM/ DISARM Synchr mode to "**By Panel PGM**"

#### Set GTCOM2 keyswitch zone

Go to SERA2> Inputs/ Burglar Alarm Zones and set:

Keyswitch Zone Mode : [Level] (Steady)

Definition: [keyswitch ARM/DISARM]

Type: [NC]

Press "Write"

#### Set module PGM action on ARM/DISARM command from

##### APP/CALL/SMS/iButon/RFID

Go to SERA2> Outputs (PGM).

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)

### HOW TO SET GTCOM2 & PRIMARY PANEL SYNCHRONIZATION **By Panel's Events**

#### A) *do not need one wire from GTCOM2 input to Panel's PGM*

Go to SERA2> System Options> General System Options

Set App ARM/ DISARM Synchr mode to "By Panel Events"

#### Set module PGM action on ARM/DISARM command from

##### APP/CALL/SMS/iButon

Go to SERA2> Outputs (PGM)

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)

#### B)

**Need to connect: TIP/RING**

**GTCOM PGM -> Panel Keyswitch (Pulse mode)**

**GTCOM Keyswitch <- Panel PGM (Level Mode)**

Go to SERA2> System Options> General System Options

Set App ARM/ DISARM Synchr mode to "By Panel Events"

#### Set GTCOM2 keyswitch zone

Go to SERA2> Inputs> Burglar Alarm Zones and set:

Keyswitch Zone Mode : [Level] (Steady)

Definition: [keyswitch ARM/DISARM]

Type: [NC]

Press "Write"

#### Set module PGM action on ARM/DISARM command from

##### APP/CALL/SMS/iButon

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)

### Install Android app.

Scan QR code:



Or go to <https://play.google.com>  
And find  
SERA Cloud IOT

**Add new system in app (in the top write corner, near the user icon)**



Default App Key: 123456

Default User Access Code: 123456

If you don't know IMEI, you will find it by connecting module to the SERA2 software. IMEI: Go to SERA2> System Options> General System Options

### ARM/ DISARM with SMS

User phone number must be the SERA2> Users/ Access control list

Send SMS message to the module: USER123456\_030\_ST  
USER – command from user commands list  
123456 – user's password (default)

\_ - Space character

030- command code

\_ - Space character

ST - Configuration array

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

### 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 will see the same process in your smart phone. In mobile app.**