

COMMUNICATOR

# TritonOS

# Manual utilizare v1.0

## Instructiuni de siguranta

Cititi cu atentie si urmariti aceste indrumari in vederea mentinerii sigirantei operatorilor si a persoanelor din jur:

- Comunicatorul GSM Triton08 contine un transmitator radio ce functioneaza in : GSM850/900/1800/1900.
- Nu folositi sistemul acolo unde poate interfera cu un alt dispozitiv si poate provoca un potential pericol.
- Nu folositi sistemul cu echipamente medicale daca in manualul lor nu specifica acest lucru.
- Nu folositi sistemul in medii periculoase.
- Nu expuneti sistemul la umiditate mare, medii cimice sau impact mecanic.
- Don't attempt to personally repair the system.
- System labelling sticker is at the bottom of the device.



System Triton08 is a device mounted in limited access areas. Any system repairs must be done only by qualified, safety aware personnel.



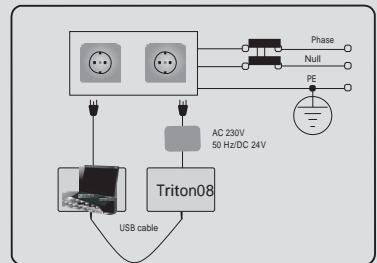
Mains power must be disconnected before any installation or tuning work starts. The system installation or maintenance must not be done during stormy conditions.



The system must be powered by main 10-24V  $\pm$  300mA power supply which must be approved by LST EN 60950-1 standard and be easily accessible.



External power supply can be connected to AC mains only inside installation room with automatic 2-pole circuit breaker capable of disconnecting circuit in the event of short circuit or over-current condition. Open circuit breaker must have a gap between connections of more than 3mm.



Any additional devices linked to the system Triton08 (computer, sensors, relays etc.) must be approved by LST EN 60950-1 standard.



Fuse resettable F1 type - miniSMDC 500mA. Blown fuse cannot be replaced by the user and the replacement fuses have to be exactly the same as indicated by the manufacturer.



If you use I security class computer for setting the parameters it must be connected to earth



ET08 can be powered direct from 12V battery. The battery capacity shouldn't be higher than 7Ah.



The device is fully turned off by disconnecting 2-pole switch off device of the external power supply or any other linked device that the system Triton08 is powered from.



The WEEE (Waste Electrical and Electronic Equipment) marking on this product (see left) or its documentation indicates that in the EU the product must not be disposed of together with household waste.

## Limited Liability

The buyer must agree that the system will reduce the risk of fire, theft, burglary or other dangers but does not guarantee against such events. "GSMALERT" will not take any responsibility regarding personal, property or revenue loss while using the system. "GSMALERT" responsibility according to local laws does not exceed value of the purchased system. "GSMALERT" is not affiliated with GSM operators providing cellular services, therefore is not responsible for network services, coverage or its operation.

## Manufacturer Warranty

The system carries a 24-month warranty by the manufacturer "GSMALERT".

Warranty period starts from the day the system has been purchased by the end user. The warranty is valid only if the system has been used as intended, following all guidelines listed in the manual and within specified operating conditions. Receipt with purchase date must be kept as a proof.

The warranty is voided if the system has been exposed to mechanical impacts, chemicals, high humidity, fluids, corrosive and hazardous environment or other force majeure factors.

## Package Content

System Triton08.....	1 pcs
Triton08 user manual.....	1 pcs
GSM antenna.....	1 pcs
Fastening holders.....	4 pcs

## About User Manual. Quick Start.

This document describes communicator Triton08, its operation and installation. It is very important to read User Manual before start using the system. A quick start guide is located in first two chapters.

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# 1. Informatii generale

## 1.1 Functionare

Communicatorul Triton08 este un dispozitiv de transmitere a informatiilor de la un sistem de alarma la un dispecerat prin GSM audio sau/si catre utilizatori prin SMS, sau pe GPRS.

**Sistemul poate fi folosit in urmatoarele aplicatii:**

- securitatea proprietatii
- ca Backup PSTN dolosind retea GSM

## 1.2 Descrierea operatiilor

Triton08 provides a "dial tone" and fully replaces a telephone landline (PSTN) for Alarm Control Panel reporting to the central monitoring station when telephone line is unavailable or has been cut or disconnected by PSTN provider. Triton08 supports only outgoing calls. DTMF number dialling mode in alarm control panel must be enabled.

Can detect temporary service suspension by the service provider for technical or billing reasons even if a "dial tone" is still present (optional feature).

**Communicator Triton08 backup function can work in 2 modes:**

- **Backup Mode 1. Triton08 is connected direct to PSTN landline.**  
If this mode is enabled the Alarm Control Panel's Ring&Tip contacts are switched direct to the PSTN landline and the Triton08 communicator just monitors the PSTN landline. In case of PSTN failure, Triton08 „switches“ the Alarm Control Panel's Ring&Tip contacts to the GSM network and all communication goes to the Alarm receiving centre (ARC) through GSM voice.
- **Backup Mode 2. Triton08 is connected to PSTN landline via PBX station.**  
If this mode is enabled the Alarm Control Panel's Ring&Tip contacts are switched by Triton08 direct to the PBX station internal line. Then the signal initiated by the Alarm Control Panel for the Alarm Receiving Centre (ARC) is routed via the PBX to an external PSTN landline. The Triton08 communicator only monitors that the external PSTN landline is connected to the PBX and does not monitor the internal line. In the case of external PSTN failure, the PBX still provides a dial tone but Triton08 „switches“ the Alarm Control Panel's Ring&Tip contacts to the GSM network and all communication goes to the ARC through GSM voice. This mode is used for sites where the internal telephone lines are sufficiently protected by the alarm system but where it is impossible for the alarm system to protect the external PSTN landlines and ensure they are connected to the PBX.

**Triton08 can operate in 4 communication modes, i.e.:**

1. transmits information from the Alarm Control Panel to the monitoring station via GSM voice;
2. transmits information from the Alarm Control Panel only to the registered users via SMS message;
3. transmits information from the Alarm Control Panel to the monitoring station via GSM voice as well as to registered users via SMS message.
4. transmits information from the Alarm Control Panel to the monitoring station via GPRS network.

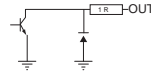
The system has 1 digital input (normally open) Z1 for sensor connection. The built-in open collector output C1 allows to connect 1 electronic device and control it on receipt of the correct SMS text message from one of the authorised phone numbers. This feature provides control over heating, lighting, gates, blinds etc.

A computer program GSMALERT "Configuration Tool" is used for configurations which are necessary for the system to operate in the second, third and fourth modes, i.e., to send SMS messages to the registered users. The device is connected to the computer via USB connection.

## 1.3 Technical Specifications

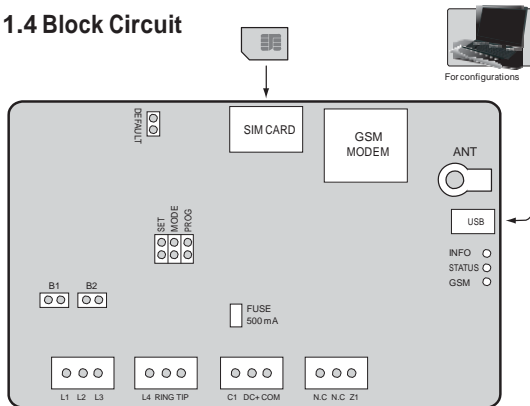
### Electrical and Mechanical Specifications

Supply voltage	10-24V $\overline{\text{---}}$ 300mA max
Current used in standby mode	120mA max
GSM modem frequency	850/900/1800/1900 MHz
Supported protocols	CONTACT ID, 4+2*
Maximum number of users to whom SMS messages are delivered	5
Number of "low" level (negative) inputs	1
Allowable input values	Voltage: 0... 1.45V; current: 0.8... 0.6mA
Number of outputs	1
Output circuit	Open collector output. Output is pulled to COM when enabled
Output Maximum Commutation Values	Voltage: 30V ; current: 50 mA
Dimensions	130x73 mm
Operating temperature range	-20...+55oC
Generated phone line voltage	18 V
Generated phone line current	25 mA
Generated phone line impedance	600 Ohm
Dial tone of generated phone line	350 Hz



\* When SMS mode is enabled, system doesn't support 4+2 protocol. 4+2 protocol works only with Monitoring Station Mode.

## 1.4 Block Circuit



## 1.5 Connectors Functionality

### Main Units

GSM MODEM	GSM network 850/900/1800/1900 MHz modem
SIM CARD	SIM card holder
ANT	GSM antenna SMA type connector
FUSE	Resettable F1 type – miniSMDC 500mA

### Connector Functionality

Labelling	Explanation
DC+	Power supply positive connector
COM	Common contact
RING	Pin connected to the Alarm Control Panel pin RING
TIP	Pin connected to the Alarm Control Panel pins TIP
L1-L4	Pins connected to landline or PBX according back-up mode
USB	Mini USB port
N.C.	Not connected
Z1	Security zone input
C1	Controlled output

## 1.6 Jumpers Functionality

Labelling	Explanation
DEFAULT	Jumpers for restoring factory default settings
SET	Jumpers for enabling the 3rd or 4th operation mode of the device
MODE	Jumpers for connecting the 2nd or 4th operation mode of the device
PROG	Not used
B1 and B2	Jumpers for choosing GSM back-up operation mode

## 1.7 LED Indicators Functionality

### Light Emitting Diodes LED

INFO	Working mode indicator
STATUS	Device activity indicator
GSM	GSM network quality indicator

### Connection Strength Indicator

To identify connection strength GSM indicator is used. To ensure the best quality of the network adjust the position of GSM antenna and find the best possible connection by watching the frequency of indicator blinking.

GSM indicator blinking	Meaning
Off	No connection
Every 3 seconds	The connection is not reliable
Every second	Satisfactory
Several times per second	Good
Indicator is lit	Excellent

It is recommended to install the antenna remotely from communicator panel. Thus you will ensure better quality of audio signal. We do not recommend installing the antenna in a metal box.

### Device Activity Indication

STATUS indicator blinking	Meaning
Off	No power supply or some fault is present
Blinking several times per second	SIM card is used improperly/is not used
Indicator is lit	The device is working properly and ready for use

### Working Mode Indication

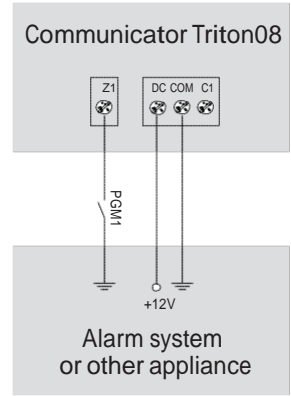
INFO indicator blinking	Reikšmė
Off	The device is in passive mode
Blinking several times per second	The device retransmits the data sent from Security Control Panel to the panel of security service. (this indication is possible then device is working in first mode)
Indicator is lit	The device decodes the data sent via CONTACT ID protocol to textual, user-understandable information.

## 1.8 Connection Circuit

COM connectors of Triton08 and alarm system unit must be connected.

Input Z1 is connected to PGM output of alarm system unit if PGM output is implemented as open collector circuit or any other circuit and if it commutates with COM. It is also possible to connect motion sensor or any other sensor to Z1 input.

C1 open collector output can be connected to input of electronic appliance and if it commutates with COM. This connection allows to control heating, lighting, gates, blinds, water pump etc."



## 1.9 System Installation

### NOTE

Due to GSM network characteristics it is recommended to use the system Triton08 with the same GSM operator which is used by system users. Thus you will ensure the quickest SMS message delivery and receipt.

### NOTE

To ensure maximum system operation reliability we recommend do not use prepaid cards. If the balance is insufficient the system will not be able to inform users about the alarm.

### IMPORTANT:

power supply at Alarm Control Panel must be disconnected before any installation or tuning work.

The system can be installed in a metal or non-flammable plastic enclosure together with alarm control panel. When the metal box is also used it is necessary to ground the box using yellow/green colour cable. For the connection use 0.50 mm<sup>2</sup> 1 thread cable.

### Device installation and Pre-operation:

1. Fasten the system in the enclosure using fastening holders.
2. Place SIM card into the holder but make sure that SIM card PIN code is disabled. (PIN code can be disabled by putting SIM card into mobile phone and following proper menus). SIM card should not have any remaining SMS messages.
3. Connect the antenna (the device cannot be turned on without antenna).

### For Triton08 use with no landline:

1. Connect the circuit as shown in Fig. No.2 – connect telephone input of the Alarm Control Panel RING/TIP to RING/TIP connectors of communicator Triton08.
2. Connect power supply to DC+/COM pins. Power supply is usually used as AUX- and AUX+ output of Alarm Control Panel.
3. The system should start in less than a minute. GSM LED indicator should be blinking or be ON indicating connection to GSM network.

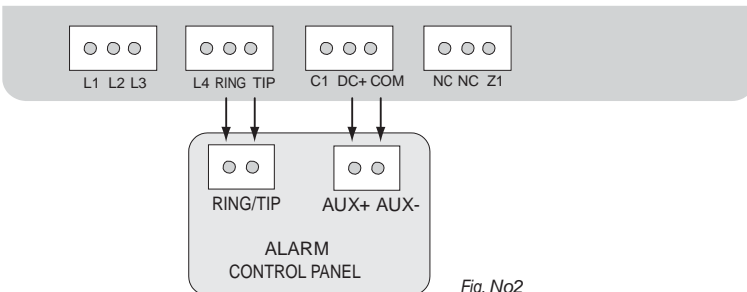


Fig. No2

**For Triton08 use with landline backup mode 1:**

1. Connect the circuit as shown in Fig. No.3 – connect telephone input of the Alarm Control Panel RING/TIP to RING/TIP connectors of communicator Triton08.
2. Connect L3&L4 pins to external landline (PSTN).
3. Put Jumpers B1 & B2.
4. Connect power supply to DC+/COM pins. Power supply is usually used as AUX- and AUX+ output of Alarm Control Panel.
5. The system should start in less than a minute. GSM LED indicator should be blinking or be ON indicating connection to GSM network.

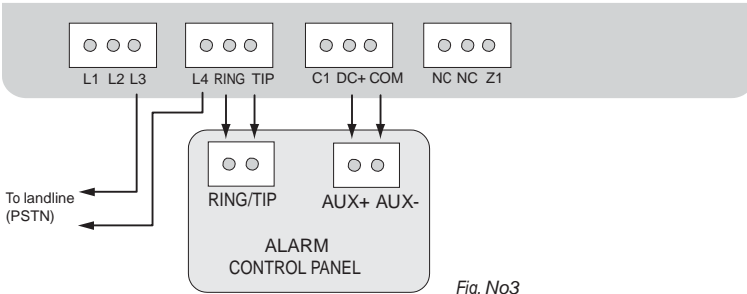


Fig. No3

**For Triton08 use with PBX & landline backup mode 2:**

1. Connect the circuit as shown in Fig. No.4 – connect telephone input of the Alarm Control Panel RING/TIP to RING/TIP connectors of communicator Triton08.
2. Connect L1&L2 pins to external landline (PSTN).
3. Connect L3&L4 pins to Internal PBX line.
4. Remove Jumpers B1 & B2.
5. Connect power supply to DC+/COM pins. Power supply is usually used as AUX- and AUX+ output of Alarm Control Panel.
6. The system should start in less than a minute. GSM LED indicator should be blinking or be ON indicating connection to GSM network.

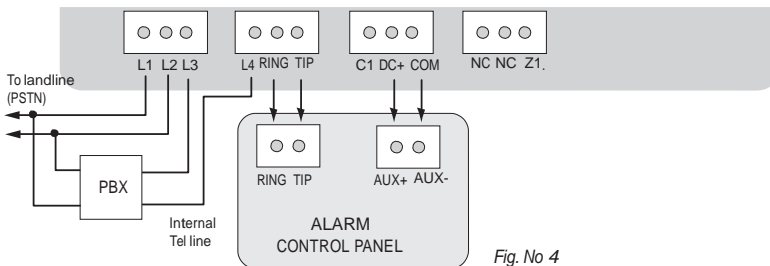


Fig. No 4



# 2. System Pre-operation

## 2.1 Operation Modes

Triton08 can operate in 4 communication modes, i.e.:

- transmits information from the Alarm Control Panel to the monitoring station via GSM voice;
- transmits information from the Alarm Control Panel only to the registered users via SMS message;
- transmits information from the Alarm Control Panel to the monitoring station via GSM voice as well as to registered users via SMS message.
- transmits information from the Alarm Control Panel to the monitoring station via GPRS network.

This chapter describes pre-operation and system operation when each of the above mentioned modes is enabled.

**ATTENTION:** on the Alarm Control Panel you should enable tonal (DTMF) number dialling mode, activate CONTACT ID or 4+2 data transmission protocol and enter telephone number of Alarm receiving centre with geographic area or international code, i.e. For UK London 20xxxxxxx or 004420xxxxxxx. The <plus> character is not allowed.

**ATTENTION:**

it is also necessary to enter telephone number of security service on the Alarm Control Panel when you do not need to transmit data to security service and you are using only SMS messaging mode. In such a case you can use any telephone number (you can use the number consisting of one digit).

### 2.1.1 Monitoring Station Mode

If you want the device to operate in Monitoring station mode you must ensure that all Jumpers SET-MODE-PROG are not used.

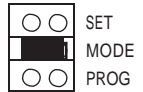
When this mode is enabled communicator ET08 only retransmits data sent from Alarm Control Panel via CONTACT ID or 4+2 protocol to security service panel via GSM voice channel. Triton08 does not require any additional configurations.



### 2.1.2 SMS Messages Mode

This operation mode is enabled by putting a jumper on MODE connectors in connector group SET-MODE-PROG (as demonstrated in the example). Other connectors must not be short-circuited.

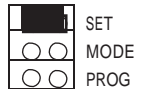
When this operation mode is used the information about the secured object is delivered only to user (users) and alarm receiving centre is not informed. In this case Triton08 decodes the data sent from the Alarm Control Panel via CONTACT ID protocol to user-understandable text and sends it via SMS message. This decoding is performed according to the preset parameters which can be specified by the user only by using the program GSMALERT "Configuration Tool" (for more information please refer to user manual of this program). SMS messages can be received by up to 5 users.



### 2.1.3 Combined Monitoring Station Mode and SMS Messages Mode

This operation mode is enabled by putting a jumper on SET connectors in connector group SET-MODE-PROG (as demonstrated in the example). Other connectors must not be short-circuited.

When this operation mode is used the information about the secured object is received by the user (users) as well as alarm receiving centre (ARC). Device retransmits the data sent from the Alarm Control Panel via CONTACT ID protocol to the ARC and decodes this data to user-understandable text and sends it via SMS message (indicator INFO informs only about decoding). The text is created by the user. This decoding is performed according to the preset parameters which can be specified by the user only by using the program GSMALERT "Configuration Tool" (for more information please refer to user manual of this program). SMS messages can be received by up to 5 users.



### 2.1.4 Monitoring Station with GPRS mode

This operation mode is enabled by putting one jumper on SET connectors and another jumper on MODE connectors in connector group SET-MODE-PROG (as demonstrated in the example). Other connectors must not be short-circuited.

When this mode is enabled communicator Triton08 retransmits data sent from Alarm Control Panel via CONTACT ID protocol to EGR100 software via GPRS network connection. EGR100 software must be used to receive and transmit data to security service panel. The GPRS settings of Triton08 must be configured using GSMALERT "Configuration Tool" (for more information please refer to user manual of this program) before transmitting data.



## 3. SMS Commands

**ATTENTION!** In this user manual the underscore \_ character represents one <space> character. There must be no spaces or other characters at the beginning and at the end of the message. XXXX – 4-digit SMS password.

In order to configure and control Triton08 system using SMS message, send the text command to the Triton08 SIM card phone number from one of the authorized phone numbers. The structure of SMS message consists of 4-digit SMS password (the default SMS password is 0000 – four zeros), the command and the parameters. For some commands the parameters are not applied, i.e. STATUS.

### Status

The SMS report indicating information on system input and output status.



**SMS text:**  
XXXX\_STATUS

### Password

The 4-digit SMS password intended for system configuration and control over SMS messages. Manufacturer default SMS password is 0000 (four zeros) which is NECESSARY to change.



**SMS text:**  
0000\_PSW\_XXXX  
Value: XXXX – new 4-digit password.

## Output ON

This function switches the output ON.



### SMS text:

XXXX\_ON

## Output OFF

This function switches the output OFF.



### SMS text:

XXXX\_OFF

## Output Pulse ON

This function switches the output ON for a set period of time and switches the output back to OFF after the set period of time is over.



### SMS text:

XXXX\_ON\_T

Value: T – period of time in seconds, range - [1-9999]

## Output Pulse OFF

This function switches the output OFF for a set period of time and switches the output back to ON after the set period of time is over.



### SMS text:

XXXX\_OFF\_T

Value: T – period of time in seconds, range - [1-9999]

## Telephone Line Failure/Restore Delay

The delay period of time between telephone line failure and restore events. If telephone line failure and restore events occur before the set delay period of time is over, the system will not send the SMS report.



### SMS text:

XXXX\_TELDLY\_T

Value: T – period of time in seconds, range - [1-250]

# 4. Appendix

## 4.1 Restoring Factory Default Parameters

To restore factory default parameters:

- disconnect power supply and USB from PC in case it was connected;
- short circuit (connect) connectors DEFAULT;
- connect power supply for 5 seconds;
- disconnect power supply;
- disconnect connectors DEFAULT.

## 4.2 GSMALERT “Configuration Tool” Program

System configuration is performed by using program software GSMALERT “Configuration Tool” that can be downloaded from internet website [www.gsmalert.eu](http://www.gsmalert.eu)

Before connecting the cable to the computer via USB port read GSMALERT “Configuration Tool” user manual that can be found in HELP section of the program.

## 4.3 Technical Support

Indicator STATUS is off and not blinking	<ul style="list-style-type: none"><li>• no external power supply</li><li>• circuit not properly connected</li><li>• blown fuse</li><li>• no network signal</li></ul>
Indicator STATUS is blinking several times per second	<ul style="list-style-type: none"><li>• SIM card is not inserted</li><li>• SIM card PIN code request has not been disabled</li><li>• SIM card not active</li></ul>
System does not deliver any SMS messages	<ul style="list-style-type: none"><li>• SIM card account depleted</li><li>• incorrect SMS central number</li><li>• no network signal</li><li>• user telephone number is not programmed in users list</li><li>• user telephone number is indicated improperly (read more about it in Triton08 „Configuration Tool“ user manual which can be found in Help section of the program)</li></ul>

If your problem could not be fixed by the self-guide above, please contact your distributor or GSMALERT technical support by e-mail [support@GSMALERT.lt](mailto:support@GSMALERT.lt). More up to date information about your device and other products can be found at the manufacturer's website [www.gsmalert.eu](http://www.gsmalert.eu)