TOPKODAS

PROGATE

Cellular Gate Access Controller
Quick setup guide

QR Short Manual

QR Full manual

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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:
AC 10-24 V 50 Hz ~ 200 mA max / DC 10-30 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)
Relay Output: 1A 30 V DC, 0.5A 125 V AC
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 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)	LED blinks, 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 for user/server.
	Off	All reports have been sent.
RELAY(blue)	On/Off	Relay state On/Off

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3. Quick set up of the controller

1. Insert SIM card. Turn off PIN code requests
2. Screw GSM antenna.
3. Connect a 10-30VDC power supply.
    Note: Use the USB power supply only for configuration; it cannot power the modem.
4. Make a call to the module.

Note: The first caller becomes the system administrator. The device activates the RELAY for 2 seconds. This phone number is stored in the module's memory automatically, and a greeting SMS with the module's IMEI is sent. Thereafter, other numbers are rejected. If this mode is acceptable, no further configuration is necessary."

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

    Complete SMS commands in the Programming Manual at:
    https://www.topkodas.lt/product/progate-4g

3.1. SMS commands

! In this guide, "_" represents a single space character in SMS. Replace each "_" with a space, avoiding extras.

Add user to Remote Control RELAY output via short call:
INST000000_013_TEL#NAME#
013= command code (add user's telephone number)
TEL = user's phone; #= delimiter; NAME = User Name
e.g. INST000000_013_37066666666#Jon#

Add user Phone Number at Specific Index:
INST000000_004_ID#TEL#OUT#OPT#NAME#
004= command code (enter user's telephone number for remote control via short call)
ID = user index 1-800, TEL = user's phone #;
OUT = Output number = (0-32). 0 = Disabled, 1=OUT1 (RELAY), 2=OUT2,
OPT = 0 – disabled 1 – enabled, Sequence from the left to the right
    1.   User Enabled/Disabled
    2.   Enable Arm/Disarm alarm system by call
NAME = User Name
e.g. INST000000_004_1#37066666666#1#10#Jon#

Add/Edit admin User to receive SMS/DIAL notifications:
INST000000_001_ID#TEL#SMS#DIAL#
001= command; ID = user index 1-8; TEL = telephone number international format without (+); SMS = notifications event filter; DIAL = event filter; #= delimiter
Event filter from left to right 0-disabled; 1-enabled:
1. Alarm/Restore (CID 100 group)   5. Test Events (CID 600 group)
2. System ARM/DISARM (CID 400 group)   6. Other Events
3. System Troubles (CID 300 group)   7. Input/Zone1 Alarm/Restore
4. Sensor1-Sensor32 Alarm/Restore   8. Input/Zone2 Alarm/Restore
     9. Input/Zone3 to ...n etc.
e.g. INST000000_001_1#37066666666#0000000000#0000000000#
This example disable all User1 SMS and DIAL notifications.

Delete a user's by phone number:
INST000000_005_TEL#
005 = Command code for deletion. TEL = User's phone number. The number must match the one in the module's memory.
e.g. INST000000_005_37061611111#

Delete user by index:
INST000000_006_ID   ID = user's index number from 001 to 800.

! Delete all users in database! INST000000_003
View Users' Phone Numbers in Database INST000000_018

3.2. Setting parameters using SERA2 software
You can change the controller's settings with the SERA2 software if the default settings are not sufficient.
1. Download and install SERA2 from https://www.topkodas.lt/downloads
2. Connect the controller using a mini USB cable.
3. Open SERA2; it auto-detects the device.
4. Click [Read] to view current configuration settings.
Note: Use [Read] to display current settings and [Write] to save changes to flash memory. 'File > [Save]' allows you to store settings for future use, facilitating quick configuration of multiple devices. 'File > [Open]' retrieves stored settings.
To reset to default settings, select 'Update FW' and leave 'Preserve settings' unchecked.

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4. SERANOVA app

With the SERANOVA app, users can remotely control the gate, manage users, and receive push notifications for all events."

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

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

SERANOVA

GET IT ON Google Play

Download on the App Store

New User? Create your account now!

4.1. SERANOVA & SERA Cloud Service

Use the SERANOVA app or SERA2 remote connection with the activated **SERA cloud service** (default setting). Activate with SERA2 or SMS command: `INST000000_010_1`.

> ⚠ **Imortant!** *Without a data plan, deactivate the [SERA Cloud service] using SERA2 or SMS command:* `INST000000_010_0` *to prevent module malfunction due to 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 sending an **SMS 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 it, users can't control the 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 users should download the SERANOVA app and set up an account.

- *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
Users must log in to a SERANOVA account with the email added by the admin to the user list. The admin provides PROGATE details (IMEI and user access code), allowing the user to add the system to their app. Refer to section *4.3* for more details.

5. Installation & wiring

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

5.1. Mounting Options
Choose from wall mounting (no enclosure opening required), Velcro adhesive fasteners, DIN Rail mounting.

5.2. Wiring diagram for automatic gate opener
Connect power supply.
Connect PROGATE relay's NC/NO contacts to gate control input.
Use position sensor for gate status. On gate movement, relay K1 signals to PROGATE's IN1, reflecting gate position (closed or open). See full manual for more diagrams.

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Gate control unit

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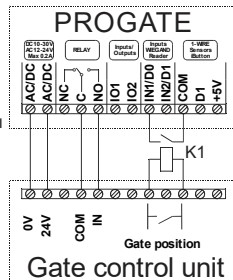
6. Wiegand keypad & RFID card reader wiring
- Connect Wiegand keypad as shown in the Fig
- How to configure Wiegand keypad:
- Install SERA2 software. Device> PROGATE
- Connect the module to the computer via mini USB cable

A) Enter RFID Keycard codes manually.
In that case, you have to:
- Go to "Users& Remote Control" table. Enter RFID Keycard number and other required parameters
- Enter RFID Keycard codes for users.
- Select RFID Keycard action OUT/ARM/DISARM, etc.
- Write the configuration into the module by pressing "Write" icon

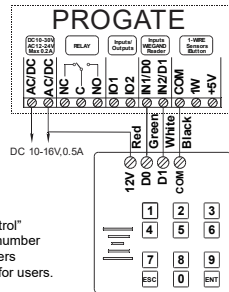**B) Enter RFID Keycard codes automatically via SERA2 software.**
- Press [Learn iButtons/RFID mode] in: SERA2> System Options> General System Options
- Write configuration by pressing "Write" icon.

C) Enter RFID learning/ deleting mode by sending SMS message
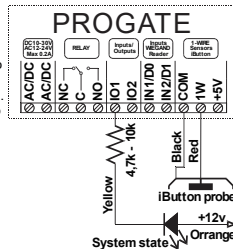Send SMS: `INST000000_063_S`
S= keys entering/deletion mode.
- 0- Disable
- 1- Keys learning mode
- 2- Keys deleting mode


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7. iButton Keys
Use Maxim-Dallas iButton keys (iButton DS1990A – 64 Bit ID) to control selected outputs or ARM/DISARM the alarm system. Assign up to 800 iButton keys to the system similarly to RFID (Refer to section *6*).

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8. Remote control

8.1. Control using SERANOVA app
- How to start SERANOVA app read paragraph *4*
- Add output widget, set parameters: name, pulse/level, icon, etc.
- If the gate is controlled by impulse. Select the input associated with the gate position sensor to reflect the actual state of the gate.
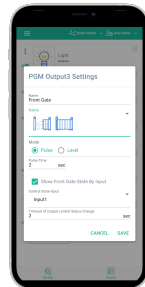
8.2. Control with phone call
System checks caller's number in database. If recognized (1 of 800 users), call is rejected free, RELAY opens gate. Unrecognized calls are ignored.

8.3. Control with SMS messages
Activate or deactivate selected output
`USER123456_021_N#ST`
021= command code (Activate or deactivate selected output N)
N = output number (1-32); ST= output state: 0 – deactivated output, 1- activated output
e.g. `USER123456_021_1#1`   Activate OUT1

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 essential device information. For more details, refer to the full manual:

[Installation & Programming Manual](https://topkodas.lt/Downloads/media/Manuals/PROGATE_UM_EN.pdf)

https://topkodas.lt/Downloads/media/Manuals/PROGATE_UM_EN.pdf
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