

A **MobilGate-Mini** is a GSM module suitable for remotely operating and controlling doors, barriers, garage doors and parking poles. The device has a low-current, single-circuit **relay output**. The output can be programmed to be operated by up to **50 users** by initiating phone calls to the device based on **caller-id** recognition. The users can be configured with names and telephone numbers. The output can be programmed to operate in **monostable mode** (trigger for a fixed duration, then release) or **bistable mode** (triggers on/off indefinitely with separate commands, operated by the user as a normal switch). In bistable mode, a voice call initiated to the device triggers the relay indefinitely after approximately the **3rd ringing**, then the module ends the call (user busy signal). The next voice call initiated to the device switches off the relay after approximately the **1st ringing**, then the module ends the call. The inputs of the module can be freely configured and used for forwarding any kind of events (for example error signals, general notifications, etc.) via **SMS**. **MobilGate** controllers can be operated



from **10-40Vdc** or **10-24Vac** voltage and min. **500mA** current. The output relay is low-current, common-circuit **"NO"**-type relay, with its max. load of **48V/1A**. The received SMS-s, including carrier messages, can be forwarded to a pre-configured phone number. The device is capable of sending status signals of its operation, thus the operation of the device can be regularly controlled. The device is manufactured in two editions. The module with gray enclosure equips a built-in antenna. The module with black enclosure has an **SMA** connector that provides connectivity for external antennas. The **MobilGate-Mini** is mid-range member of the **MobilGate** family. The **MobilGate-Midi** is capable of handling **200 users**, moreover the **MobilGate-Max** can operate with also **200 users** in online mode. The device is capable of connecting to a remote server wirelessly over **GPRS**, therefore the events and notifications can be logged remotely. The logged data can be used as a database for security and/or other enterprise software. All of our devices, including the **MobilGate** family can

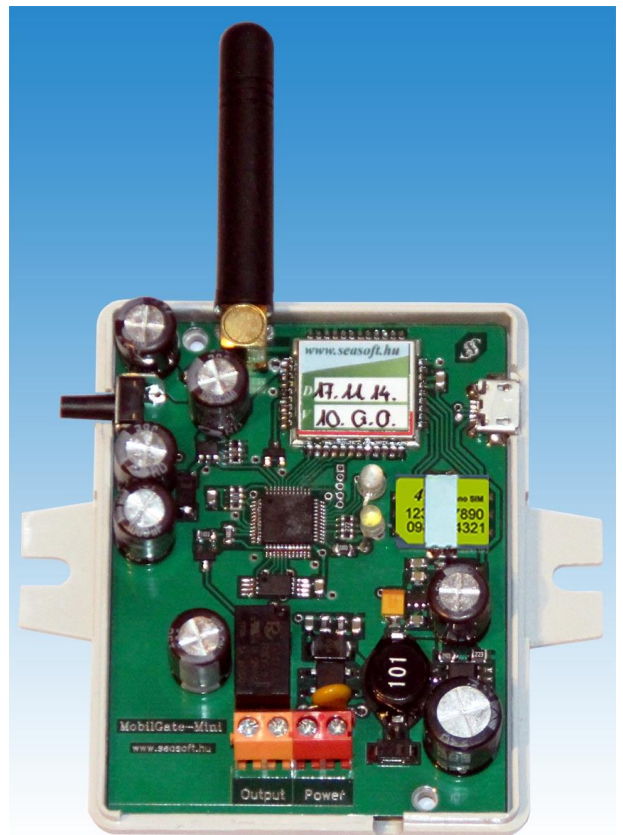
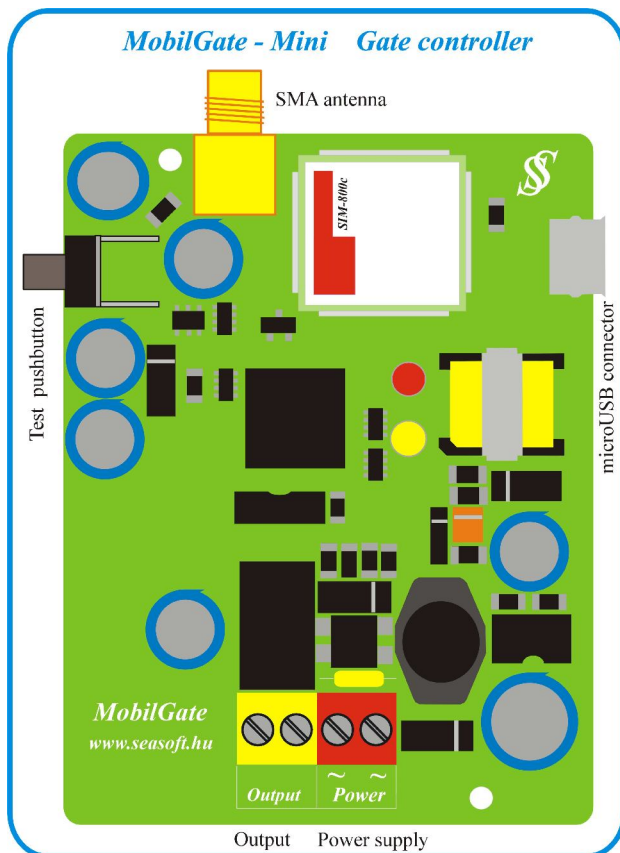
be configured conveniently with our free configuration software called **"Unified"** which can be downloaded from our website www.seasoft.hu. The **MobilGate-Mini** device is carrier-independent and it is fully operational with any **nanoSIM** card, including prepaid and subscription-based SIM cards.

Description of status LED:

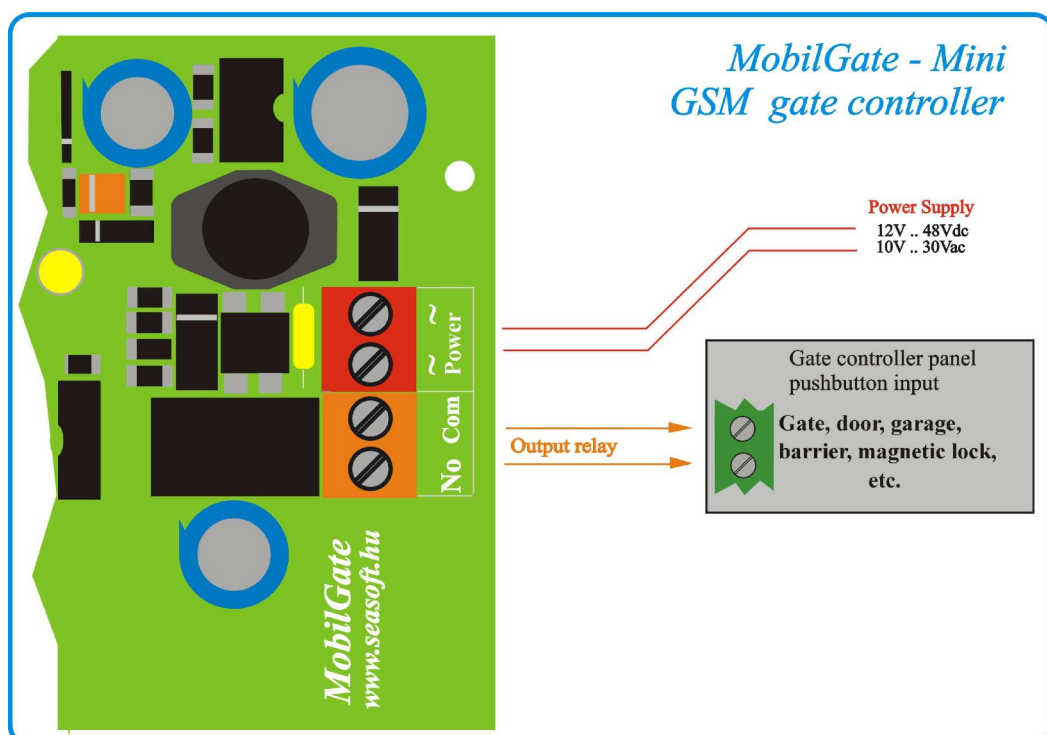
- **Red/Yellow:** After power-on, the yellow LED is on for approximately 10 seconds. During this period, the GSM is initialized. While the module is searching and registering to a GSM network, the yellow LED blinks. After approximately 40 seconds, the yellow blinking stops and turns into green.
- **Green** (blinking) The frequency of the blinking reflects the signal strength. More blinks within a period mean greater signal strength.
 - 1 blink than pause** - very weak signal, module sometimes disconnects from network
 - 2 blinks than pause** - weak signal, device may restarts sometimes
 - 3 blinks than pause** - medium signal strength, device is capable of stable operation
 - 4 blinks than pause** - strong signal, device is capable of stable operation
 - 5 blinks than pause** - maximum signal strength
- **Red** (fast blinking) The module cannot find GSM network or antenna is faulty. It may also indicate the followings:
SIM card error, **SIM PIN is not disabled**, SMS or **voice modes** are **disabled** on SIM card.

Module wiring

The hardware of the *MobilGate-Mini*, *MobilGate-Midi* and *MobilGate-Max* devices are all enclosed in the same enclosure with either a built-in antenna or an external magnetic antenna with **SMA** connector. Therefore, the wiring and connection of all devices are almost identical.

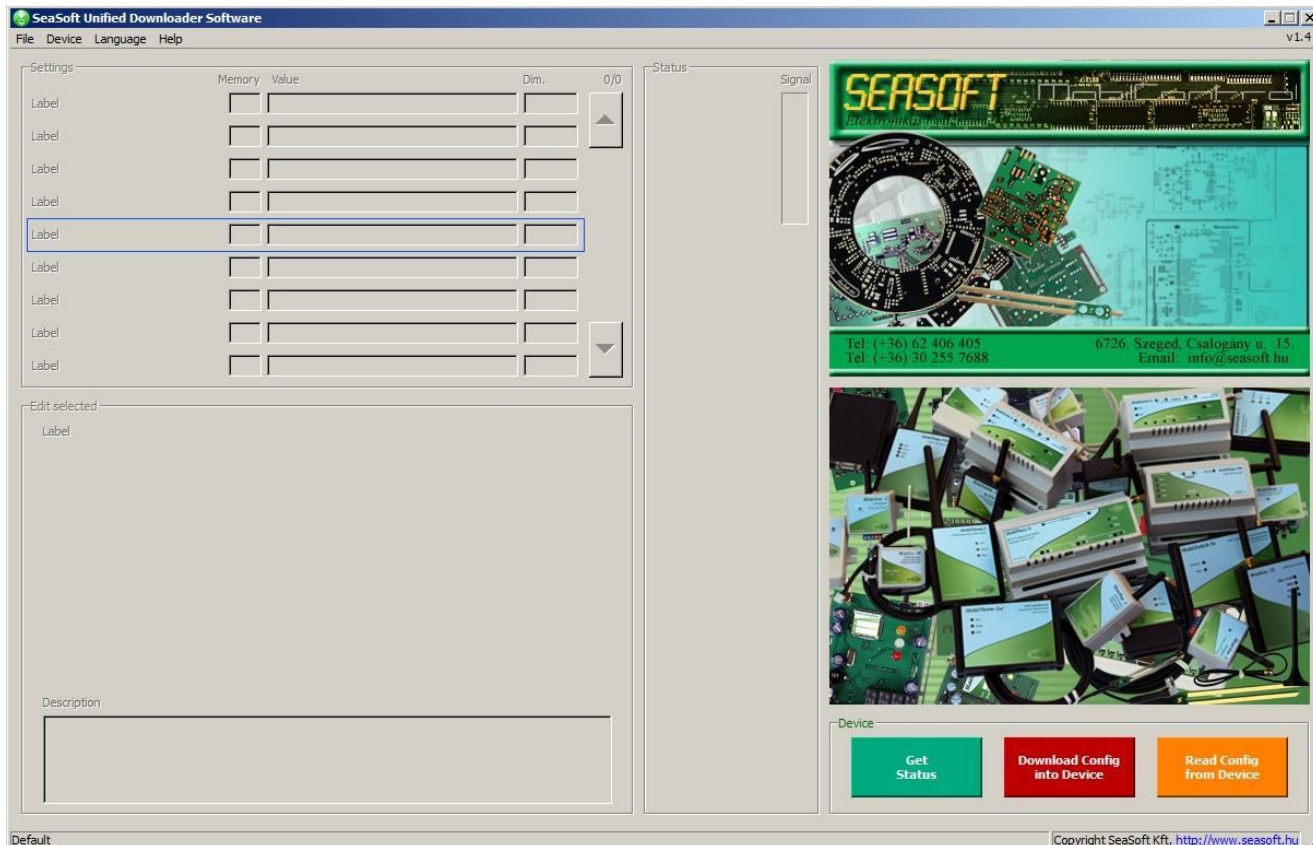


The devices essentially have differences within their firmware only. The *MobilGate* module requires **10-40Vdc** voltage or **10-24Vac** voltage connected to its red connectors. It requires a **nanoSIM** card and it can be connected with a **microUSB** cable to a **PC**. With our configuration software, every user-parameter of the module can be freely and widely configured.

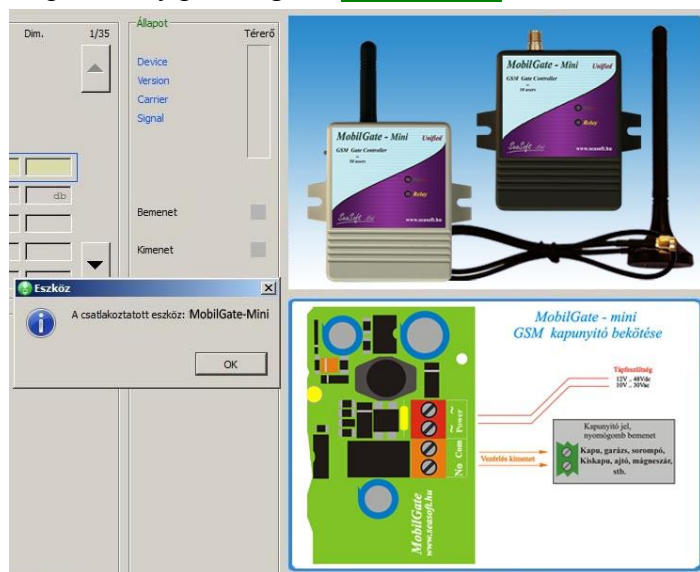


Programming and configuration from PC

The **MobilGate-Mini** GSM device can be fully programmed and configured with our universal downloader software called "**Unified**" via a **microUSB** cable. After powering on the device and plugging in the **USB cable**, all **Windows** operating systems (**Windows XP**, **Win-7**, **Win-8**, and the **Win-10**) automatically recognize the connected device. Our universal configuration software handles and configures all products from the **MobilSwitch**, **MobilArm**, **MobilGate** and **MobilTherm** families.



The software automatically recognizes the type of the connected device and it shows its appropriate image. The status of the device, including the carrier information, status of the inputs and outputs can be queried by pressing the **Get Status** button. All the user parameters can be freely edited; however, it



is strongly advised to keep the original format and change the factory values only when necessary. Filling the first telephone number is mandatory, the rest are optional, they can be left either filled or empty. For each telephone number, it can be freely specified which telephone numbers should receive an SMS notification when an input has changed with the appropriate checkboxes.

Each configurable memory location has a short description located at the bottom. Please fill the configuration values with care and do not use accented or special characters. All telephone numbers must be given in the

international telephone number format. The edited configuration can be saved to a file and loaded whenever necessary.

SMS commands:

The device and all of its parameters can be programmed remotely with fixed-format SMS commands. All received SMS commands are acknowledged with a response SMS by the device. The SMS commands and their acknowledge-responses are described below.

- Query command: **#?***

Response SMS: **MobilGate-Mini Ver:1.23 T-MobileH Rssi:4 Ubat:13.0V A:1, 00:10:00 Garage gate:0**

where: **Ver.: 1.23** - firmware **A:1** - modul active(1) or passive (0)
T-MobileH - provider's name (hungarian) **00:10:00** - timing of relay
Rssi:4 - signal quality **Garage gate:0** - status of relay output
Ubat:13.0V - power supply in Volts

- Output relay on command: **Pull up**
(Memory #031)

Returns: **MobilSwitch-Mini Ver:1.23 T-MobileH Rssi:4 Ubat:13.0V A:1, 00:00:05 Garage door:1**
ahol: **Garage door:1** (the door was pulled up)

Memory map of MobilGate-Mini

No.	Memories's function	Factory settings	User settingd
001	Provider's SMS central	36309888000	
002	Maximal number of sent SMS in 2 hours	5	
003	Name of module	My module	
004	SMS command of modul's SMS forwarding enable status	Fwd on	
005	SMS command of modul's SMS forwarding disable status	Fwd off	
011	Timing of output relay	00:00:05	
024	Functions for service SMS messages	36 20 888 8888	
025	Phone number in case of a call of an un-dedicated user	36 70 555 5555	
026	Master phone number (can program with SMS-s)	36 70 666 6666	
030	Name of output	Garage door	
031	SMS command to switch "ON" the output	Pull up	
032	SMS command to switch "OFF" the output	Push down	
037	SMS message in case of a call of an un-dedicated user	Unknown number:	
038	Functions in case of acknowledge requirements		
100- -200	User names and phone numbers		
500	Type of module	MobilGate-Mini	<i>Non editable !</i>
501	Firmware	1.28	<i>Non editable !</i>
502	Signal quality	4	<i>Non editable !</i>
509	Proider's name	T-MobileH	<i>Non editable !</i>
510	Power supply	13.0	<i>Non editable !</i>

- Re-program memory command: *011#00:00:10*

(Memory #011) where: **00:00:10** - reflects the new duration of **on status** of relay output.
#011 - memory location
00:00:05 - the old value of memory location
00:00:10 - the overwritten value of memory location

Warning ! Please note that the device only recognizes the SMS command if the sent SMS command is completely the same (letter by letter) as the command located in the appropriate memory location of the device. In case the sent SMS command does not match any of the commands, the device will not process the command and will forward the faulty command SMS to the telephone number located in the #024 memory location.

Miscellaneous and other information:

- a.* The device is operational with any **nanoSIM** card
- b.* The received SMS-s from the carrier and unknown numbers are forwarded to the telephone number specified under the #024 memory location. Therefore, if a prepaid SIM card is used, the balance status SMS-s are also forwarded to this number. When the prepaid SIM card reaches zero credit, the device is still functional, however it is unable to send SMS-s. Consequently, it is advised to regularly check the credit balance of the SIM card.
- c.* After disconnecting the **MobilGate-Mini** GSM signaling and control device from the PC, it restarts itself, which lasts approximately for 40 seconds while the module searches and registers to the carrier network.
- d.* The PIN protection must be removed from the **nanoSIM** card prior to usage. The device only works with nanoSIM cards that are not PIN-protected.
- e.* If a prepaid card is used, displaying the **caller-ID** functionality must be enabled via the carrier customer service. In case of an alarm or notification, the user is only able to recognize the device if its telephone number is displayed.
- f.* Call-forwarding must be disabled on the SIM card. Carrier SMS-s about missed calls have to be disabled as well.

Specifications:

Range of dc power supply:	10-40 Vdc	Frequency:	800/900/1800/1900MHz
Range of ac power supply:	10-24 Vac	Communication:	SMS, voice
Current consumption when relay on:	50 mA	Aerial connector:	SMA
Current consumption when relay off:	20 mA	Ambient temperature	-30 ... +70 C
Max. consumption:	178 mA		
Vertical size of enclosure:		78 mm	
Vertical size with aerial:		110 mm	
Vertical size of magnetic aerial:		110 mm	
Horizontal size of enclosure (with wings):		77 mm	
Horizontal size of enclosure:		57 mm	
Enclosure Z size:		21 mm	

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