

G S M D O O R I N T E R C O M

GDI 4G



User and programming manual V 1.1

Basic technical parameters:

Power supply:	12 (9-24) V AC/DC, 500mA (optionally integrated ACU 900mAh for cca 10h of operation)
GSM 2G bands	3,8 (for EU)
GSM 4G bands	1,3,7,8,20,28A (for EU)
dimension:	185 mm x 99 mm x 40 mm
buttons:	1 or 2 up selected casing (for every button max. 7 phone numbers dialed progressively)
relay:	2x relay with switching contact
Input:	0/5V

Basic features:

GSM Door Intercom is useful for different installation.

You just insert SIM card and connect power supply, eventually connect el.lock. For its operation is used GSM network – so you don't need any telephone line or other cables.

- Model with 1 or 2 buttons. Under each button you can program up to 7 phone numbers which are after button press progressively dialed.
- Automatic regulation of microphone volume.
- 2 independent, remotely controlled switching relays with different ways of activation (activation by ringing or by code during call, by button press, etc...)
- Recording of numbers from which you activated the relay by ringing
- 1 input for connection for example alarm (alerting by SMS) or for control of gate(door) opening (beeps during call), or possibly as an exit button
- Voice signaling of different events (for example. „ Wait please “, „Open “, etc...

Function:

Hands free GSM phone with preprogrammed phone numbers for 1 or 2 buttons with name cards:

1. **Outgoing call:** After button press is dialed first number from saved list of numbers. The numbers are saved under names ABUTTON1 to ABUTTON7 – it means first number under name ABUTTON1. When called party is busy or not available then automatically second number under name ABUTTON2 is dialed etc. When called party picks up the call the connection is established and next numbers are not dial (the same valid for second button and line BBUTTON).
2. **Incoming call:** up settings will be incoming call picked up either for all calls or for saved numbers on SIM card only. (connection for saved numbers only). GDI might also reject incoming calls (see later in relay function).

2 remotely controlled switching relay. Each can be controlled up settings by different ways:

1. **By ringing** – incoming call is rejected (confirmation of command accept) and simultaneously is activated selected relay for preprogrammed time. Selected relay can be activated:
 - a. **only** from numbers saved in the phone list of the SIM card, or
 - b. **from any** number.
2. **By code** – during voice communication (incoming as same as outgoing call). The 1-digit code by DTMF might be dialed by called party for relay activation (for preprogrammed time). For each relay you can program different code.
3. **By SMS** – you can remotely switch ON/OFF selected relay or activate relay for certain time mention in SMS. Relays might be controlled only from preprogrammed numbers at GDI SIM card.

4. **camera mode** – selected relay is ON by picking up the call and it is OFF by hanging up the call.
5. **lighting mode** – selected relay is ON by picking up the call and it stays ON for preprogrammed time after hang up.
6. **button mode** – selected relay is ON after button press and stays ON for preprogrammed time.
1. **exit button mode** – the selected relay is switched on after the input is short-circuited (e.g. by means of a button) and remains on for the programmed time

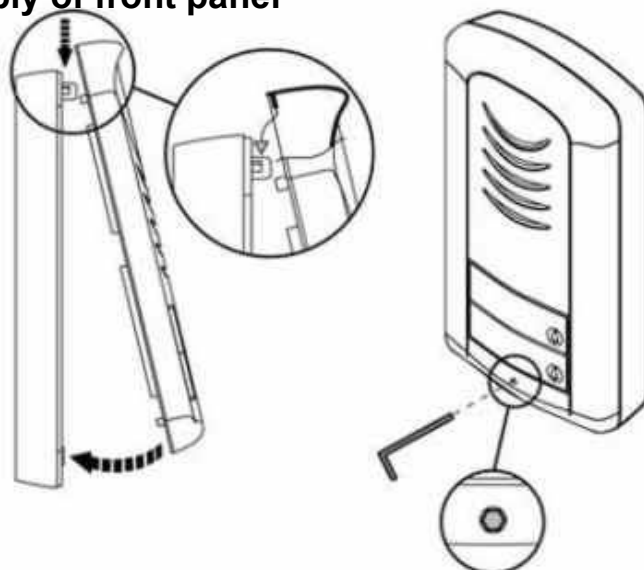
1 adjustable input:

1. **SMS sending** „ALARM ON“ to preprogrammed number when input is short circuit against ground. SMS „ALARM OFF“ to next preprogrammed number when input is disconnected. It might be programmed 1 number only (ON/OFF). Then is send 1 SMS only up selected status.
2. **opening detection**. When input is activated during call (for example by gate (door) opening) the GDI generates into a call 3 short beeps for time of input activation.
3. **exit button**. After short-circuiting the input, the relay switches for a set time

Voice signaling of different status. Up settings might be different status signaling by voice. (language adjustable). E.g. "Please wait for connection" after pressing the button or "It's open" after opening with a code during a call.

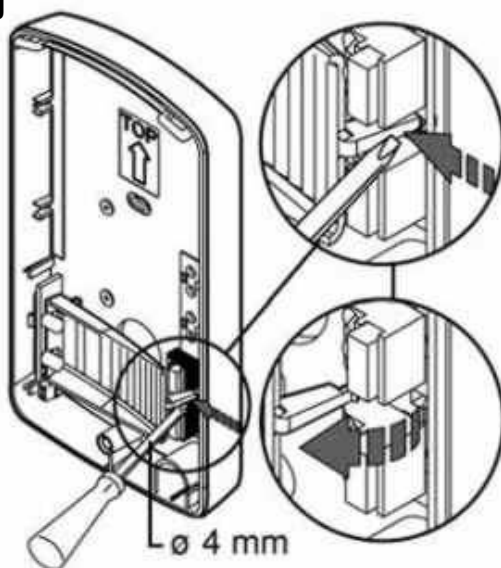
Installation

Assembly of front panel



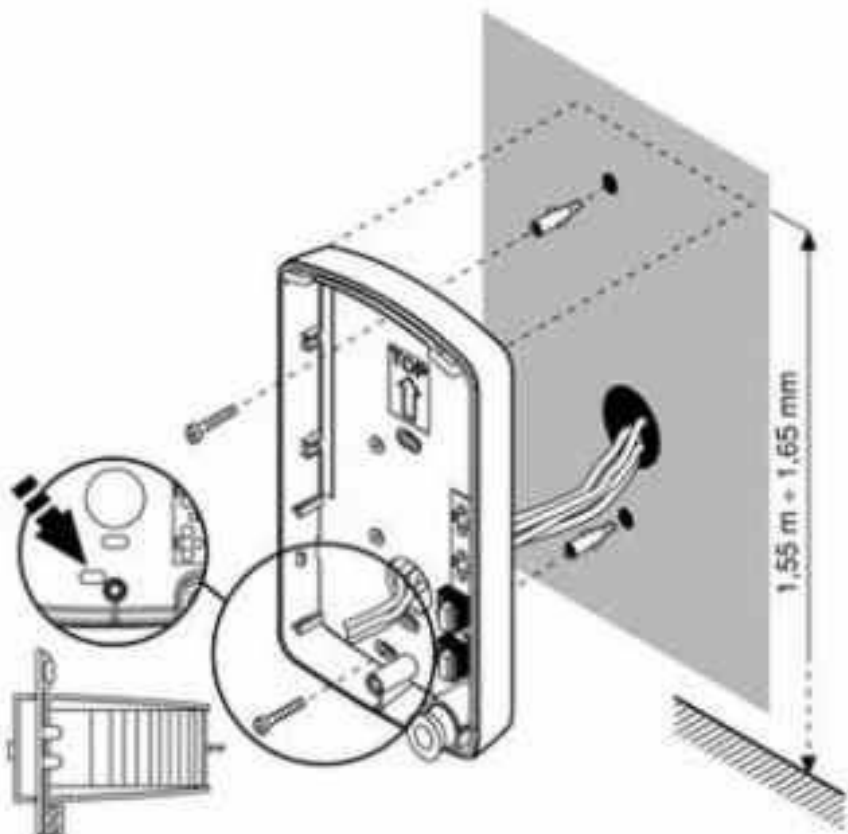
CAUTION! During assembly of front panel, you might connect/disconnect speaker connector (via schematics)

Assembly of cards backlighting

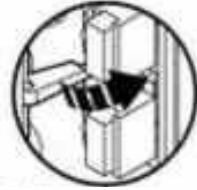


GDI Wall mounting

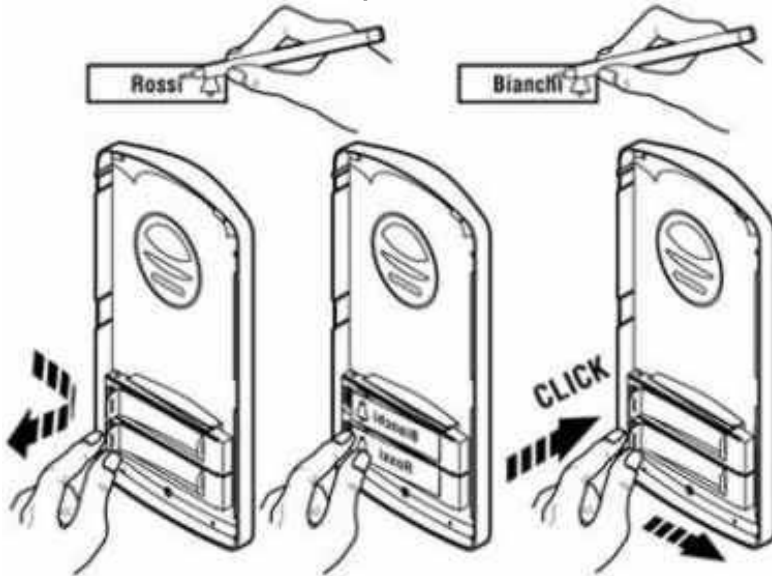
Wall mounting assembly you make by attached screws (5mm).



Replacing backlighting cards after wall mounting

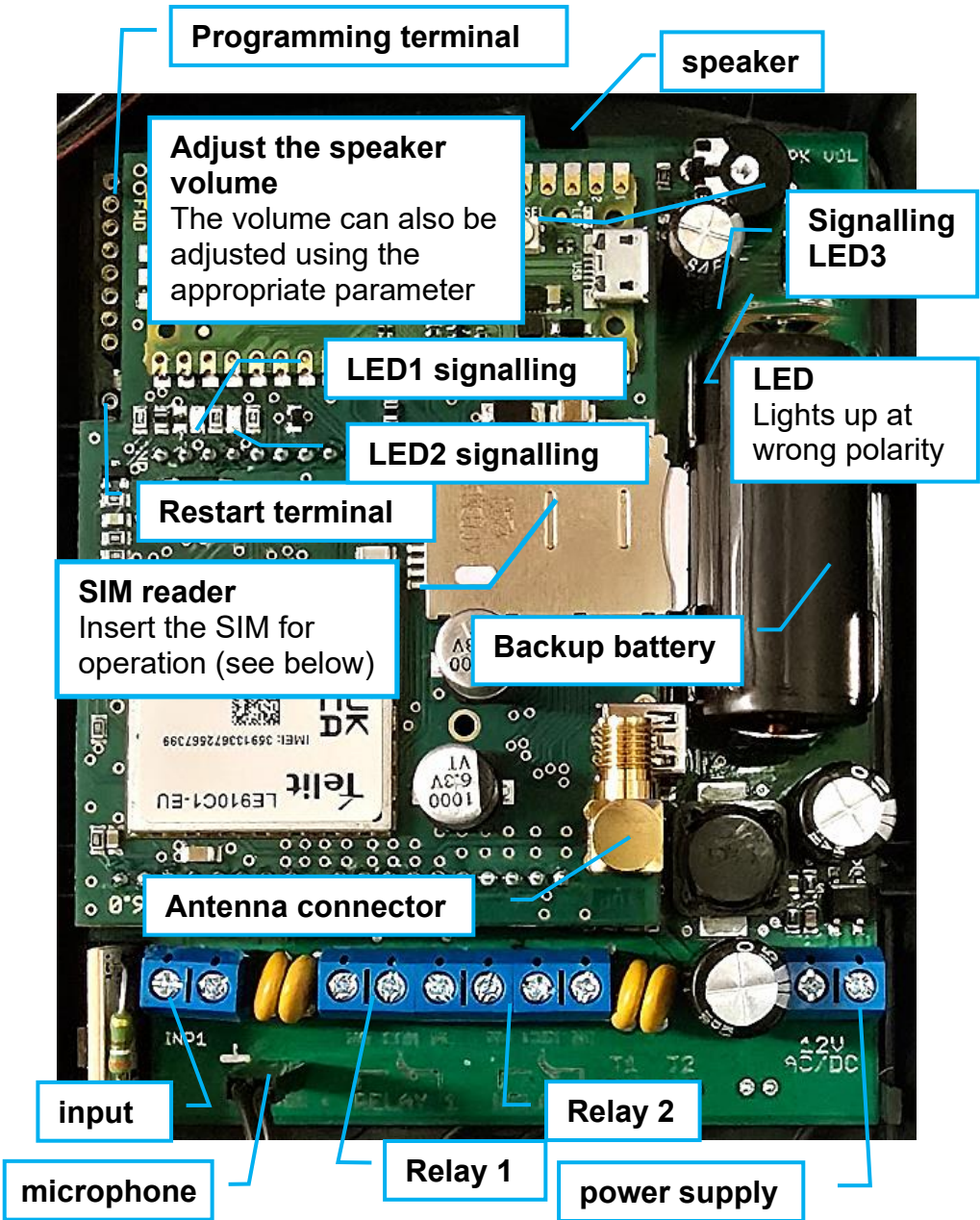


Cards inserting (name cards)



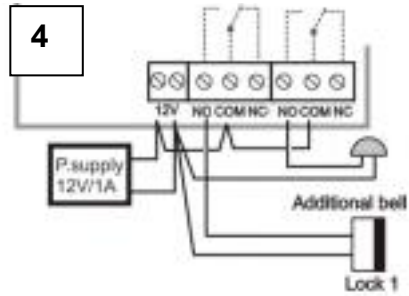
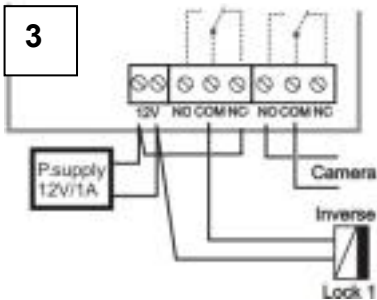
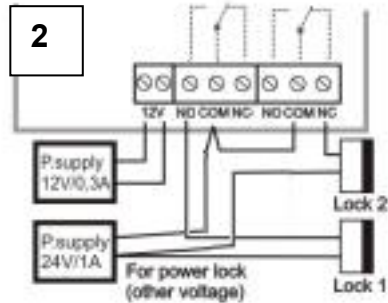
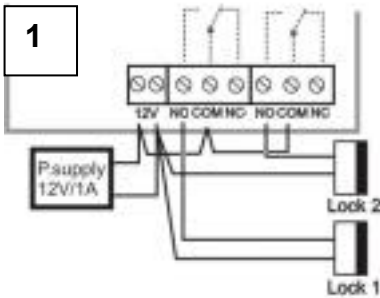
Every button has individual card hold by plastic flag. (via picture).

Control elements and connection



Examples of relay connection

1. Basic connection - 2 electrical locks and possibility control 2 doors (gates)
2. 2x PSU – possibility to use 2x independent PSU. One for GDI and second for electrical locks. The electrical lock 2 is connected inversely (fire emergency doors).
3. External camera or lighting activation.
4. Electrical lock and additional bell combination.

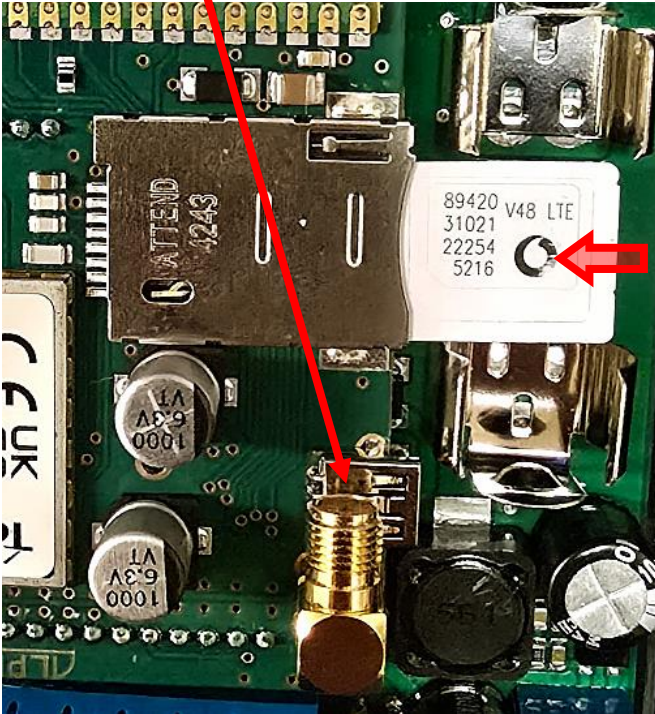


CAUTION! Relay contacts can't close 230V directly. To control directly 230V devices you must use contactor.

Commissioning

1. connect the antenna and insert the SIM

(If you already have GDI with a backup battery in the delivery, follow page 34)



Slide the SIM card into the tray.

We recommend using a SIM without a PIN. If not, set PIN 1234 on the SIM.

Note: All programmed parameters are stored on the SIM. You can insert the SIM into GDI pre-programmed or set up GDI after turning it on in one of the ways described below.

If you want to use call rejection, ask your operator to turn off voicemail for the used SIM!

SIM preprogramming

1. SIM which you desire to use insert to various mobile phone.
2. When PIN is setup – cancel it (or setup PIN to 1234)
3. When you will want to make remote setting save on the SIM phone number of desired mobile under name ADMIN1.
4. On the SIM save phone number which should be dial after pressing button 1 (A), under name „ABUTTON1“.
5. When you have GDI with 2 numbers – save on the SIM also phone number which will be dial after pressing button 2 (B), under name „BBUTTON1“.
6. When you want dial automatically next numbers (when first number is busy or not available) then save those numbers under appropriate names ABUTTON2..7 and BBUTTON2..7
7. Similarly, you can program setting of all parameters (programming table at the end of manual)

The way of phone numbers saving on the SIM depends on mobile phone type. **Please double check that you save numbers to SIM card and not to internal mobile phone memory!**

2. Switch on GDI

If you have the required wiring connected (relays, locks, etc.) CAUTION also the antenna, connect the speaker connector. If a backup battery is used, now connect the battery (see page 35). ATTENTION to polarity! Then connect the power supply. After a while, the green LED2 will flash, followed by the green LED1 and the yellow LED3 (see table). The GDI signaling by tones or by voice SIM reading, GSM network registration and ready for operation (via table). Now you can put on front panel of GDI but don't screw it.

When SIM is preprogrammed, you can try first connection – push the button. The GDI must dial programmed phone number. When SIM is not preprogrammed then first step is SIM programming (via following article (3)) and then try connection. After voice connection you can adjust setting of speaker volume. Then screw up front panel of GDI.

3. Programs GDI parameters

The parameters in GDI (must be switch on) you can program by 2 ways. By SMS or by PC (special sw) via USB port.

A) Programming by SMS.

Due security reasons you can program GDI parameters from authorized numbers only. They are saved on SIM under names ADMIN1 to ADMIN9.

SMS are always written by BIG LETTERS

Each SMS elements are splited by space (words). First word is always command. Further word (s) is one or more parameters.

Example: ***INIT ADMIN1 +420123456789***

All commands are in appropriate table at the end of manual

1. During first setting when SIM doesn't content any ADMINx name is necessary such number insert to SIM by SMS with command INIT. SMS you can send from various number. When SIM already contents even one number under name ADMINx the command is ignored.
2. When you need control relay eventually setup GDI from next ADMIN numbers perform following: from mobile phone with ADMINx number send progressively SMS to GDI with numbers of next ADMINx in SMS format: WRITE ADMIN2 +420xxxxxxxx (WRITE ADMIN3... etc.)
3. From mobile phone with numbers ADMINx send progressively SMS to GDI with numbers which should be

dial after button press, SMS format: WRITE ABUTTON1 +420xxxxxxxx (WRITE BBUTTON1... etc.)

4. Up your needs send next SMS with other parameters for opening by ringing, SMS alarm sending, etc.

5. Setup parameters GDI (via table). Parameters you can setup individually for each parameter appropriate SMS.

When you need setup more parameters simultaneously, we recommend use SMS for batch setting. By SMS „READ PAR“ read firstly current setting to your mobile.

By editor of SMS messages change at received SMS word READ to WRITE as same as adjust parameters up your needs. Such adjusted SMS send back to GDI as reply. The parameters will be setup.

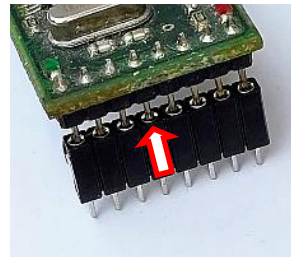
A) Setting by PC through USB via GDSet (optional)

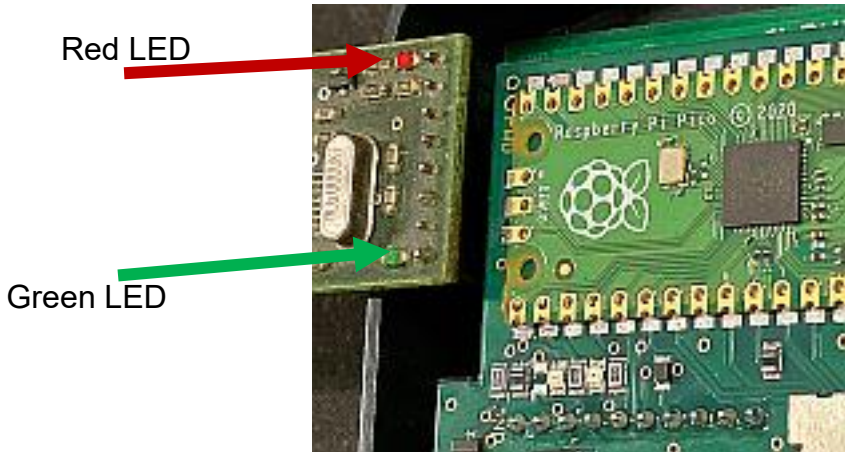
1. First, you need to set (extend) the programming module connector so that it reaches the bottom of the PCB with the connector.

2. Connect the MiniUSB cable to the PC and the programming module – the green LED on the module must light up. The USB driver can

be installed automatically from the Internet when used for the first time.

3. Remove front cover of GDI and insert connector of programming module into GDI (via picture). On programming module must blink red LED



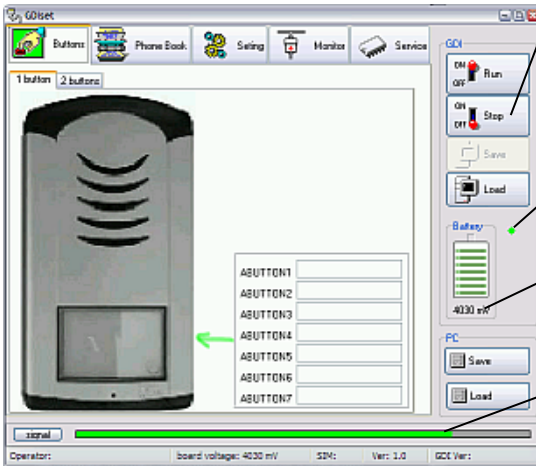


(It is flashing same way like yellow LED on GDI)

4. Run GDIset program and setup appropriate port. -
Attention: The program must be at least version 5.0
5. Program control GDI connection. After that display GSM signal strength and voltage on GDI (back up ACU). Now you can program:

The colour of the LEDs on the option may vary according to the production series. The LEDs location remains the same.

Monitor mode

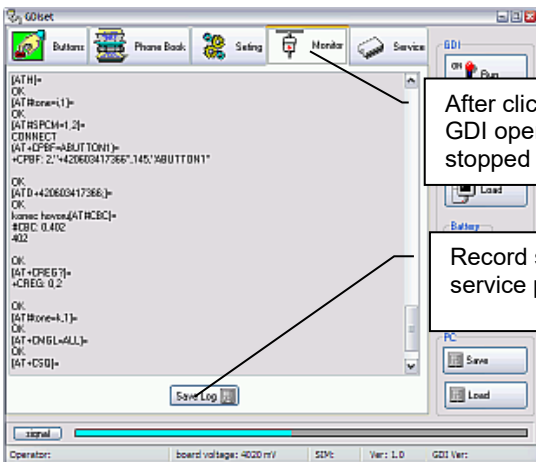


For parameters programming stop firmware running in GDI. For operation monitoring don't press! Stop GDI running!

Identification of serial line connection

After GDI voice connection will show voltage in GDI

After GDI voice connection will show GSM signal strength



After click to button monitor is shown GDI operation (when operation is not stopped by button STOP)

Record savings from monitor to file (for service purposes – record sending)

Programming mode

After button press STOP program sends to GDI command for stop and wait for GDI response (via



Waiting for GDI response

GDI announces the mode with the appropriate message ("Devices in programming mode")

Item Buttons

It is designed for programming phone numbers under each button

Item for 1 button

Field to program up to 7 phone numbers

Field to program up to 7 phone numbers for upper button

Field to program up to 7 phone numbers for second button

Saving of all programmed parameters including numbers to GDI

Reading of all programmed parameters including numbers from GDI

Saving of all programmed parameters including numbers to PC

Reading of all programmed parameters including numbers from PC

GDIset version and fw GDI

SIM number of position

GSM provider where is GDI registered

Operator: "T-Mobile CZ"

board voltage: 4030 mV

SDM: 255 Ver: 1.0 GDI Ver: 301

ABUTTON1 +420123456789

ABUTTON2 +420987654321

ABUTTON3

ABUTTON4

ABUTTON5

ABUTTON6

ABUTTON7

BBUTTON1 +42011111111111

BBUTTON2 +42002222222222

BBUTTON3

BBUTTON4

BBUTTON5

BBUTTON6

BBUTTON7

Plan ON OFF

Save

Load

Battery 4000 mV

PC Save Load

Item Phone Book

Phone book of authorized numbers for ringing opening as same as automatic call receiving.

The screenshot shows the 'Phone Book' tab in the GDIweb interface. The main window contains a table with two columns: 'Name' and 'Phone'. The table lists two entries: 'PAVEL' with phone number '+420333333333' and 'JAN' with phone number '+420444444444'. Below the table are buttons for 'Insert Line' and 'Delete Line'. To the right of the table is a 'Find Name' section with a text input field and a 'Find' button. On the far right, there is a vertical toolbar with buttons for 'Run', 'Stop', 'Save', and 'Load'. At the bottom of the interface, there is a status bar with various system information.

Position for name

Position for phone number

Add line above cursor

Delete line with cursor

Find inserted name

Name	Phone
PAVEL	+420333333333
JAN	+420444444444

Operator: "T-Mobile CZ" board voltage: 4000 mV SIM: 150 Ver: 1.0 GDI Ver: 301

Item Setting

Item Calls

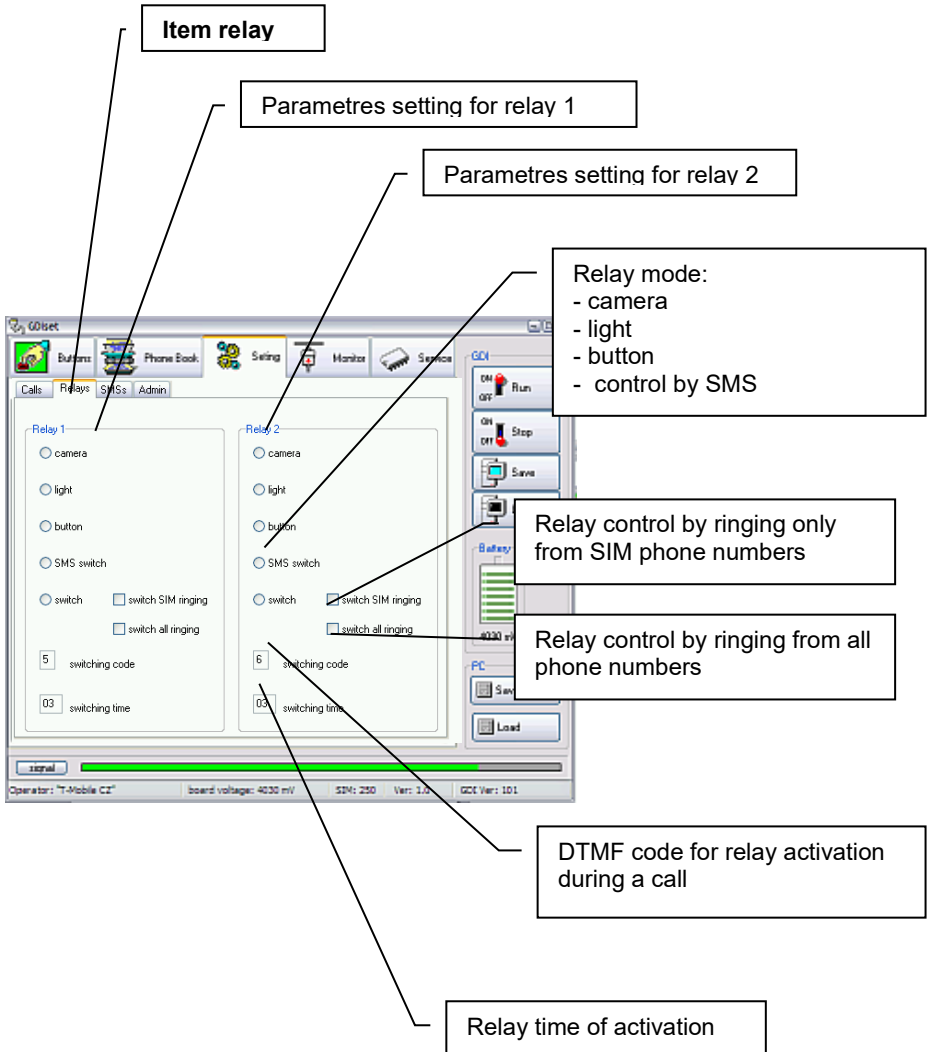
Loudness of speaker setting

Loudness of microphone setting

Way of incoming call receiving:
- reject (opening by ringing)
- automatically picked up calls from numbers at list only
- pick up all calls

Signalization
- Informing GDI tones
- Ringing during incoming call
- Voice signalling

Waiting Call
Waiting to dial the next number on the list of button.



Item SMS

Number where will be sent SMS „ALARM ON” when input is activated

Number where will be sent SMS „ALARM OFF” when input is deactivated

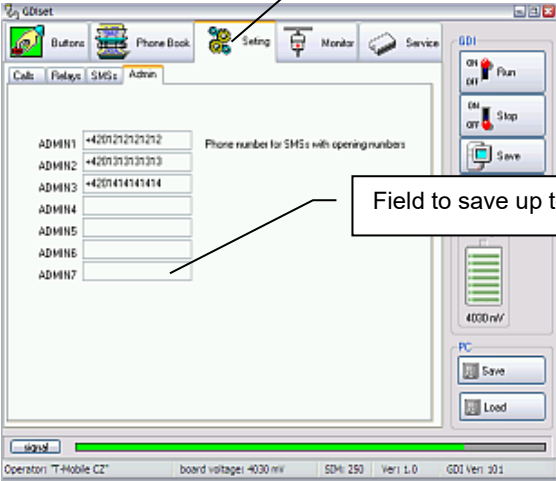
Input mode:

- Input deactivated
- Tones when input is activated during a call (open signal)
- sending SMS

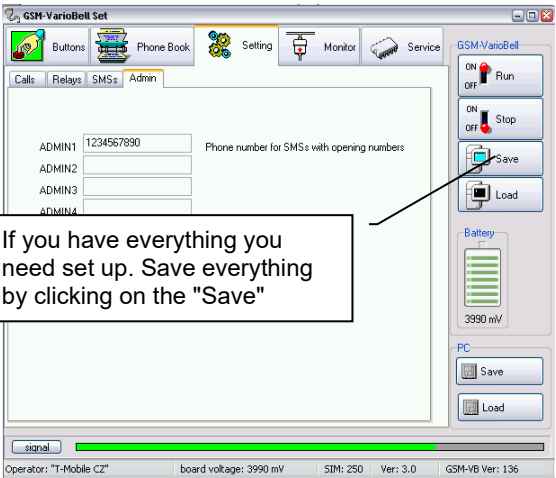
Sending SMS to ADMIN1 with list of numbers which activated relay by ringing.

Activation of time settings from GSM network

Item ADMIN numbers setting



Field to save up to 7 ADMIN numbers

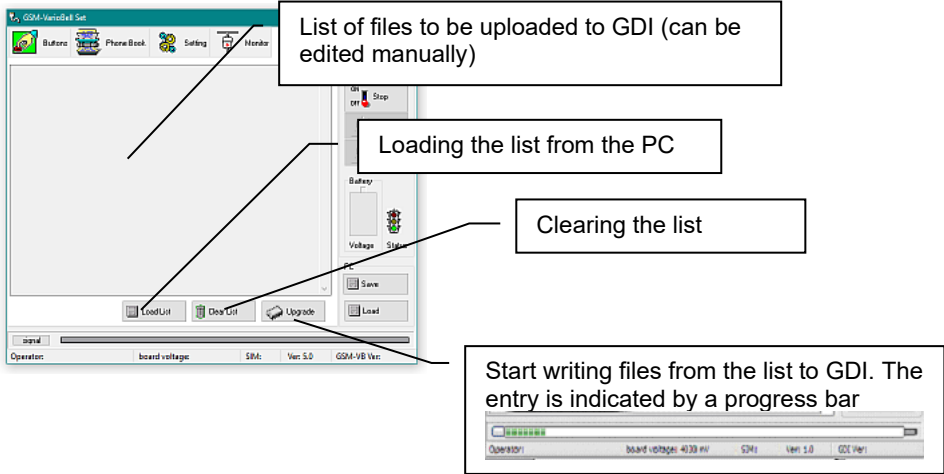


If you have everything you need set up. Save everything by clicking on the "Save"

Folder Service

It is intended for upgrade voice messages in GDI.

ATTENTION! Improper use can cause the GDI to block.

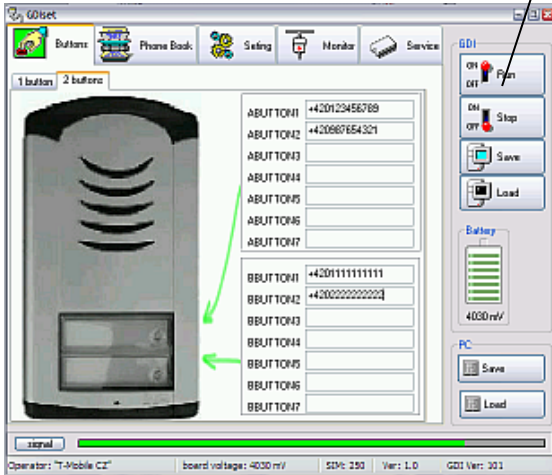


Procedure:

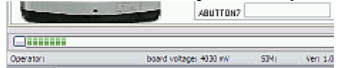
The message file is usually delivered in separate folders, which are zipped.

1. Unzip the zip (including the directory) into the GDIsset directory.
2. Switch GDI to programming mode
3. Use the "LoadList" button select in the following dialog a file with the ".ifo" extension in the uploaded directory (a list of files to be uploaded will appear in the window).
4. Use the "Upgrade" button to start writing to GDI.
5. After successful saving (you can monitor on the "Monitor" tab), you can adjust the parameters, etc. in the appropriate tabs as needed
6. If you have made any changes, save them to GDI with the "Save" button
7. Press the "Run" key to restart GDI

Return from programming mode to monitor mode (restart of GDI)



To return to monitor mode
(run GDI) click on button
„Run“. Programs detects GDI
runs the same way like stop:



GDI behavior after restart is the same like during power supply connection (tones, eventually voice messages).

Table of SMS commands

command (SMS)		Functionality	Des
SMS might be sent from ADMINx numbers only	READ STAT	Reading of GDI status (firmware, time, relays status etc.)	
	READ PAR	Reading of all setup parameters	
	READ JMENO	Reading of phone number for NAME	
	CLR JMENO	Erasing phone number for NAME	
	INIT ADMIN1 +420cc...c	Initialization – first GDI setting – parameters you can program from number ADMIN1 +420cc..c	
	SET REL1 ON	Activation relay 1	
	SET REL1 OFF	Deactivation relay 1	
	SET REL1 ON xx	Activation relay1 for xx minutes (xx=00 -99)	
	SET REL2 ON	Activation relay 2	
	SET REL2 OFF	Deactivation relay 2	
	SET REL2 ON xx	Activation relay 2 for xx minutes (xx=00 -99)	
	WRITE NAME +420cc...c	Saving of phone number under NAME	
	WRITE PAR VOLIN:x	Saving of microphone loudness [x=1-7]	4
	WRITE PAR VOLOUT:x	Saving of speaker loudness [x=1-7]	4
WRITE PAR INCALL:x	Processing of incoming call: x: 0 – calls rejected (ringing in) 1- calls received from SIM only (list) 2 – all calls received	0	
WRITE PAR WRCALL:x	Sending SMS with the numbers of which was to open up 0 – deactivated 1 - activated	0	

	WRITE PAR TMGSM:x	Time setup up GSM network x: 0 – OFF 1 - ON	1
	WRITE PAR TONE:x (Backward compatibility only)	Setting of acoustic signalization x: 0 – switch OFF 1 – signaling by service tones 2 – ringing of incoming call is ON 4 – signaling by voice messages and combination – for ex. 7 – all is ON	5
	WRITE PAR INPMOD:x	Input mode x=0 – deactivated x=1 – beeps into call (opening indication) x=2 – during activation/deactivation sends SMS x=3 – outgoing button for REL1 (REL1 must be in mode x=1 or 5)*	0
	WRITE PAR WAIT:xx	Waiting to dial the next number on the list xx – 10 to 90 sec. (by dozens)	20
SMS might be sent from ADMINx numbers	WRITE PAR RL1COD:y	Code for relay1 activation during call y= 0-9	5
	WRITE PAR RL1MOD:x	Relay 1 modes x=0 – control by SMS x=1 – switch mode (ringing in only from SIM phone number or by code) x=2 – camera mode (activated by pick up, deactivated by hang up) x=3 – lighting mode (activated by pick up and stays ON for „activation time“ after hang up) x=4 – activated for „activation time“ after button press x=5 - switch mode all (ringing in from all phone number or by code)	1

WRITE PAR RL1TMON:yy	Relay1 activation time after ringing in or by code yy seconds yy= 00-99	03
WRITE PAR RL1RING:x	Relay1 activation by ringing in x=0 – OFF x=1 - ON	1
WRITE PAR RL2COD:y	Code for relay2 activation during call y=0-9	6
WRITE PAR RL2MOD:x	Relay 2 modes x=0 – control by SMS x=1 – switch mode (ringing in only from SIM phone number or by code) x=2 – camera mode (activated by pick up, deactivated by hang up) x=3 – lighting mode (activated by pick up and stays ON for „activation time“ after hang up) x=4 – activated for „activation time“ after button press x=5 - switch mode all (ringing in from all phone number or by code)	0
WRITE PAR RL2TMON:yy	Relay2 activation time after ringing in or by code yy seconds yy=00-99	05
WRITE PAR RL2RING:x	Relay2 activation by ringing in x=0 – OFF x=1 - ON	0
WRITE ALARMON +420cc..c	Savings of number for SMS „ALARM ON“ (input grounding)	
WRITE ALARMOFF +420cc..c	Savings of number for SMS „ALARM OFF“	

		(input disconnection)	
	CAL AT+CSQ	Signal strength level	
	CAL AT+CPBR=x	Info about number saved on position x	
	CAL AT+CCLK="<time>"	Setup time in GDI <time> Format <time>= yy/MM/dd,hh:mm:ss±zz yy – year (00-99) MM – month (01-12) dd – day (01-31) hh – hours (00-23) mm – minutes (00 – 59) ss – seconds (00 – 59) ±zz – time zone (-47..+48) hours	

Command types:

READ – command for reading parameters as same as phone numbers from SIM card

CLR – command to erase phone numbers from SIM card.

CAUTION! When you use SMS for numbers erasing then don't forget that one ADMINx number must stayed – otherwise remote settings will not be possible (necessary to make new initialization).

INIT – Initialization. During first setting when SIM doesn't include any ADMINx number is necessary to put such number on the SIM card. It is done by SMS with INIT command. The SMS might be sent from various number. When SIM card already has at least one number with name ADMINx the command is ignored.

WRITE – command to save parameters as same as phone numbers to SIM card

CAL – after command CAL you can put various AT command of used GSM module (for example: module reset, time setting etc.). **Those commands please use with appropriate knowledge only! It can cause blocking of whole unit!**

*- the outgoing button can only be set via SMS

Name's function saved in phone book

NAME	function
ABUTTON1	<ul style="list-style-type: none"> - to this number GDI call when button is pressed (upper button) - relay1 or relay2 activated by ringing in - calls are automatically received from this number
ABUTTON2	<ul style="list-style-type: none"> - to this number is called from GDI when number under ABUTTON1 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
ABUTTON3	<ul style="list-style-type: none"> - to this number is called from GDI when number under ABUTTON2 is busy, unreachable, not picked up a call for certain - relay1 or relay2 activated by ringing in - calls are automatically received from this number
ABUTTON4	<ul style="list-style-type: none"> - to this number is called from GDI when number under ABUTTON3 is busy, unreachable, not picked up a call for certain - relay1 or relay2 activated by ringing in - calls are automatically received from this number
ABUTTON5	<ul style="list-style-type: none"> - to this number is called from GDI when number under ABUTTON4 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
ABUTTON6	<ul style="list-style-type: none"> - to this number is called from GDI when number under ABUTTON5 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
ABUTTON7	<ul style="list-style-type: none"> - to this number is called from GDI when number under ABUTTON6 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
BBUTTON1	<ul style="list-style-type: none"> - to this number GDI call when down button is pressed (version with 2 buttons)

	<ul style="list-style-type: none"> - relay1 or relay2 activated by ringing in - calls are automatically received from this number
BBUTTON2	<ul style="list-style-type: none"> - to this number is called from GDI when number under BBUTTON1 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
BBUTTON3	<ul style="list-style-type: none"> - to this number is called from GDI when number under BBUTTON2 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
BBUTTON4	<ul style="list-style-type: none"> - to this number is called from GDI when number under BBUTTON3 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
BBUTTON5	<ul style="list-style-type: none"> - to this number is called from GDI when number under BBUTTON4 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
BBUTTON6	<ul style="list-style-type: none"> - to this number is called from GDI when number under BBUTTON5 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
BBUTTON7	<ul style="list-style-type: none"> - to this number is called from GDI when number under BBUTTON6 is busy, unreachable, not picked up a call for certain time - relay1 or relay2 activated by ringing in - calls are automatically received from this number
ADMIN2	<ul style="list-style-type: none"> - by ringing in activate relay 1 and relay 2

to ADMIN7	<ul style="list-style-type: none"> - Activate relay 1 and relay 2 by SMS - Read GDI status and numbers in phone book by SMS - Edit name and numbers on SIM card by SMS - Control next features by SMS (AT commands) - Setup parameters by SMS - calls are automatically received from this number
ADMIN1	<p>The same like ADMIN2 to ADMIN7 and moreover:</p> <ul style="list-style-type: none"> - to this number are sending reports by SMS includes list of relay activation by ringing in - to this number is sending SMS with message about low battery level (option)
Various name	<ul style="list-style-type: none"> - relay1 or relay2 activated by ringing in - calls are automatically received from this number
ALARMON	- to this number is send SMS „ALARM ON“ when input is activated against ground
ALARMOFF	- to this number is send SMS „ALARM OFF“ when input is deactivated
VER	- firmware version in GDI - just info – do not adjust!
PARGDI	<ul style="list-style-type: none"> - GDI parameters A#B#C#D#E#F#G#H (default 4#4#0#0#1#5#0#2) A – microphone sensitivity [1-7] B – speaker loudness [1-7] C – incoming calls: 0 – all rejected (ringing in relays activation) <ul style="list-style-type: none"> 1 – accept from numbers on SIM card only 2 – accept all D – record who opened by ringing in: 0 – deactivated <ul style="list-style-type: none"> 1 – activated E – time setup from GSM network: 0 – deactivated <ul style="list-style-type: none"> 1 – activated F – signalling: only for backward compatibility G – input mode: 0 – input deactivated <ul style="list-style-type: none"> 1 – when input is grounded beeps into call (signalling of opened door) 2 – SMS when input is activated/deactivated 3 – exit button for relay1 (relay in mode 1 or 5)*

Names ABUTONx, BBUTONx, ADMINx, ALARMON, ALARMOFF, PARGDI, PARRL1, PARRL2 must be written by big letters. Between names and numbers is not a space

Always store participants' phone numbers in an international format (+.....)

GDI response for SMS „READ STAT“

READ STATUS:
VER: 105#5#3
BATTERY:4030mV
TIME:24/12/14,12:01:55
OPER: T-Mobile CZ
INP:1
RL1:OFF
RL1:OFF

GDI response for SMS „READ PAR“

READ PAR:
VOLIN:4
VOLOUT:4
INCALL:0
WRCALL:1
TMGSM:1
TONE:7
INPMOD:2
WAIT:20
RL1COD:5
RL1MOD:4
RL1TMON:03
RL1RING:1
RL2COD:6
RL2MOD:1
RL2TMON:05
RL2RING:1
WAITBUF:2
DDIAL:0

SMS example for GDI parameters setting





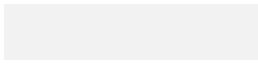




WRITE PAR:
VOLIN:1
INPMOD:1

GDI tones

Except ordinary tones and signaling of GSM communication (ringing tone, busy tone, different provider's messages) the GDI has own signaling of operation.

	<p>High tone- notification GSM-VB identified not registration to GSM network (antenna disconnected) wrong PIN, dialling number to GSM network etc..)</p>
	<p>Middle high tone – control action GSM-VB read SIM, registrate to GSM network, measure voltage, reply to SMS etc...</p>
	<p>Low tone – error GSM-VB identify error (for example low voltage, no reaction of GSM for command,. It might reacts by unit restart</p>
	<p>High tone follows by middle tones repeated after cca 5 sec start and initialization of GSM-VB (registration to GSM network, SIM reading etc..)</p>
	<p>High tone repeated GSM-VB identified disconnection from GSM network (antenna disconnected, wrong PIN....)</p>
	<p>Middle high tone repeated during holding button time, then high tone Detection of button press, dialling of programmed number</p>

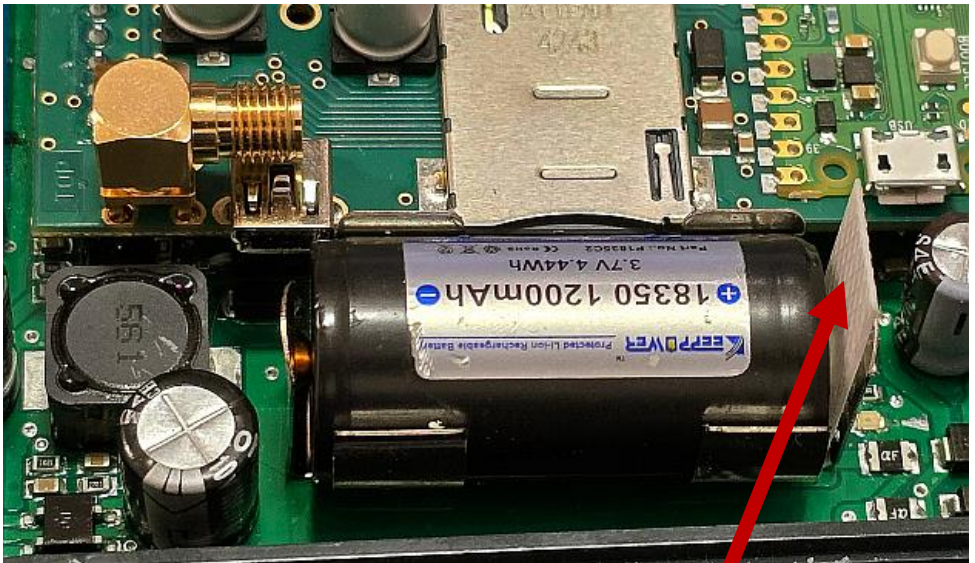
LED signaling

LED1 signaling (Green)		Continuous light The GSM module is turned on
		Not lit GSM module turned off
LED2 signaling (Green)		Flickering gap and glow of eq. length Start and initialization of the GSM module
		Irregular flickering of varying lengths Normal running of the program
LED3 signalling (yellow)		Not lit GSM module turned off
		Flickering gap and glow of eq. length GSM module is logged into the GSM network
		Flashing short gap and long light GSM module sends SMS
		Short flashing after approx. 10 sec. GDI is in programming mode
		Continuous light Start and initialize the GSM module

GDI with backup battery

If you already have GDI with a backup battery in the delivery, you must first remove the battery completely to insert the SIM card (see the chapter on commissioning)

Reinserting the battery is described on the following page

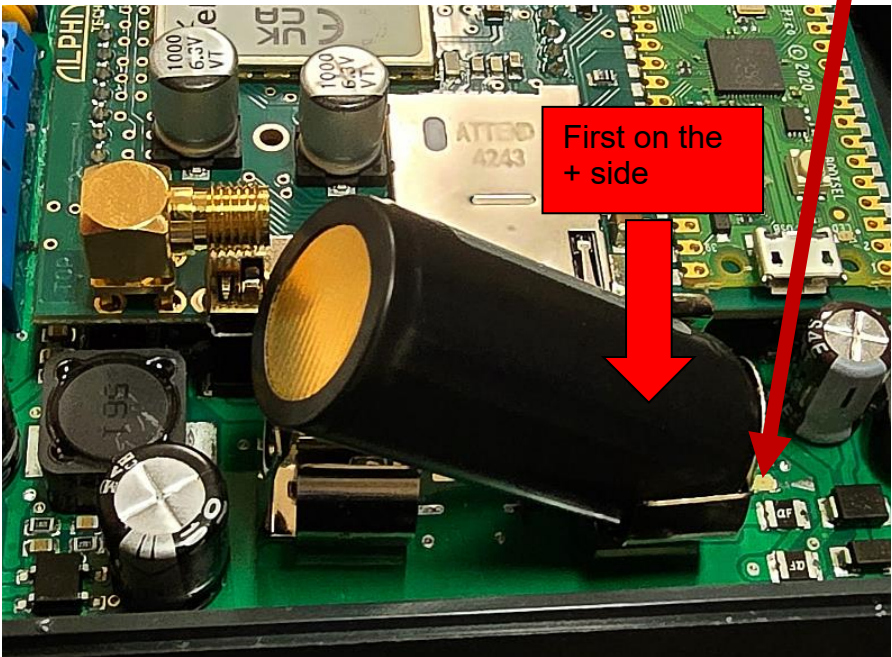


Do not store the device with the battery inserted without insulating tape!

The device would be powered at all times until the battery is completely discharged. This may damage the battery, which is not covered by the manufacturer's warranty.

Inserting the backup battery:

- Use only batteries approved by the manufacturer:
Li-Ion 18350 900 - 1200mAh
- Pay attention to the polarity (+ the cap is insulated from the case). Never insert the battery upside down! This may destroy the device. After inserting the battery, the red LED must not light up (incorrect polarity)!



The manufacturer is not liable for defects caused by failure to comply with the prescribed procedure.

Technical parameters:

Dimension	185 mm x 99 mm x 40 mm
Operating position	various
Operating condition	temperature: -20 to + 50°C humidity: 10% ÷ 80% from 30° C
Power supply	12 (9-24) V AC/DC, 500mA (optionally integrated ACU 900mAh for cca 10h of operation)
Buttons	1 or 2 up casing (for each button max 7 numbers progressively dialed)
Relay 2x	switching contact
Max. voltage	48V when I<1A
Max. Current	2A when U<30V
Activation time by code	1 to 99 sec
Activation time by SMS	1 to 99 min
Input:	0/5V
GSM:	
GSM 2G bands	3,8 (for EU)
GSM 4G bands	1,3,7,8,20,28A (for EU)
SIM	3V, 1.8V



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naše souřadnice GPS (WGS 84)

N 50°02'35.5" E 14°25'42.0"

23.7.2025