

GLITE PRO SERIES



By StealthTronic.com

v. 2.01

MODULE GLite Variations:

	Microphone	Measurements (mm)	Standby days		Callback days		In Call hours	
			MAX	MIN	MAX	MIN	MAX	MIN
GLite PRO 750	short	48 x 29 x 15,2	7.8	6.3	4.5	3.1	5.0	4.7
GLite PRO+ 750	long	45,3 x 29,7 x 15	7.8	6.3	4.5	3.1	5.0	4.7
GLite PRO 1200	short	44,5 x 30,8 x 17,3	12.5	10.0	7.1	5.0	8.0	7.5
GLite PRO+ 1200	long	44,6 x 30,6 x 16,9	12.5	10.0	7.1	5.0	8.0	7.5
GLite PRO large 3600	short	57,9 x 35,6 x 26	37.5	30.0	21.4	15.0	24.0	22.5
GLite PRO vario 7200 (m)	long	33 x 25,4 x 6,7	60.0	75.0	30.0	42.9	45.0	48.0

G-LITE PRO QUICK SETTING

P	PASSWORD	THIS COMMAND FOR CHANGING THE PASSWORD FROM ORIGINAL "123456" TO YOUR SPECIFY 6 DIGIT	123456 (SPACE) P (SPACE) 654321 (EXAMPLE OF NEW PASSWORD) YOU WILL RECEIVE A SMS WITH THE NEW PASSWORD: „NEW PASSWORD: 654321“
N	NUMBER FOR OUTGOING CALLS	THIS COMMAND SETS THE NUMBER TO WHICH THE DEVICE CALLS OR SENDS SMS	123456 (SPACE) N (SPACE) +420111222333
I	NUMBER FOR INCOMING CALLS	THESE COMMANDS SET THE NUMBERS FROM WHICH YOU CAN CALL TO THE DEVICE (UP TO 3 DIFFERENT NUMBERS) I1 / I2 / I3	SEND SMS WITH THE CONTROLLING CODE ONLY. EXAMPLE: 123456 (SPACE) I1 / I2 / I3 123456 (SPACE) I1 (SPACE) +420111222333 123456 (SPACE) I2 (SPACE) +420444555666 123456 (SPACE) I3 (SPACE) +420777888999
H	DEACTIVATION OF INCOMING CALL	THIS COMMAND YOU CAN TURN OFF THE PROTECTION OF RECEIVING CALLS FROM AUTHORIZED NUMBERS (I1 / I2 / I3)	123456 (SPACE) H (SPACE) 1 / 0 H 1 = DEVICE WILL RECEIVE ANY NUMBER. H 0 = DEVICE WILL RECEIVE SET NUMBER.
T	VOX SET	COMMAND SETS THE SENSITIVITY OF DEVICE INTEGRATED DETECTOR AUTOMATIC SOUND DETECTION AND DEAD TIME	123456 (SPACE) T (SPACE) 02 (SPACE) 50 FIRST VALUE = NOISE LEVEL 00 – 10 (MAX) SECOND VALUE = IGNORE PIR MODE 00 – 90 MIN
G	MICROPHONE GAIN	THIS COMMAND ADJUSTS THE INNER AMPLIFIER	123456 (SPACE) G (SPACE) 1–7 1–5 LEVEL OF AMPLIFIER 6 FOR SILENT ENVIRONMENT 7 FOR LOUDER ENVIRONMENT
L	LIGHT CONTROL	THIS COMMAND ADJUSTS THE LIGHT DETECTION ON/OFF	123456 (SPACE) L (SPACE) 1/0 1 = ON / 0 = OFF
RESET	FACTORY RESET	THE DEVICE DEFAULTS TO FACTORY SETTING. COMMUNICATOR WILL SEND SMS WITH THE NEW (FACTORY) SETTING	123456 (SPACE) RESET

v. 2.1ENG

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Safety Precautions

For safety reasons, please do not disassemble, repair or modify the product. If you have any problems, please contact an authorized service center. Do not expose the device to moisture, water or direct sunshine; strong vibrations or shocks may lead to damage or malfunction. Keep children away from the communication device, its accessory and packing material. Do not throw the device or its accessory into fire. For correct operation, please read the enclosed User Manual carefully.

Do not use GCDC12 power cord for charging batteries!!

Declaration of conformity:

The device complies to the following regulations and standards: EN 60950-1:2006+A11:2009+A1:2010, EN 62311:2008, EN301489-1 V 1.8.1, EN301489-7 V1.3.1, EN301511 V9.0.2

Disposal and recycling information

The device, its accessory or battery should not be disposed with other household wastes. At the end of the product life, please dispose of the individual parts at a local collection point.



Contents of Package

Parts may vary according to the chosen configuration and accessory.

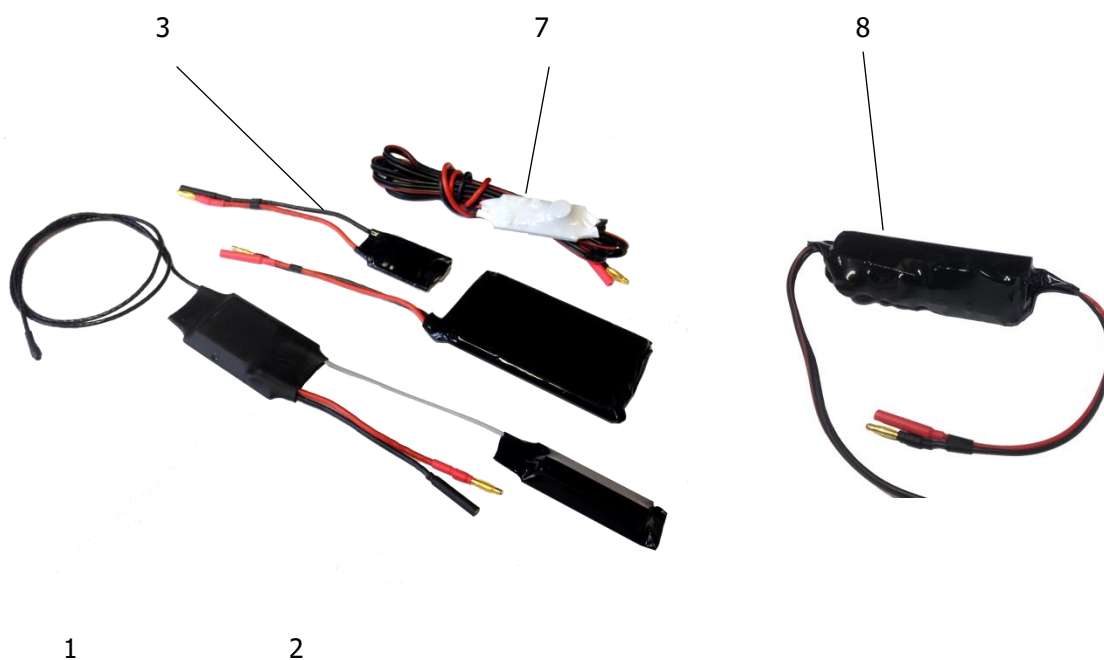
Basic GLite set includes:

1. GLite module with antenna and microphone
2. Li-Ion/Li-Pol battery
3. USB Li-Ion/Li-Pol charger
4. Charger adapter
5. Micro USB cable
6. User Manual

GLite accessory:

7 **GC-DC-12**

8. **GC-UPS-1200**



About the Product

GLite GSM Communication Device is a mini module designed for one-way or two-way communication via GSM networks. The module is equipped with a sound detector that enables call initialization or SMS notification. Due to provided switchable digital filters, ambient disturbances can be easily eliminated to obtain a clearer sound. If needed, the module can be set via SMS messages and some parameters enable setting even during a call via dial keys. All functions and their settings are described in detail on the following pages.

GLite can be used e.g. for the protection of your property, as a covert listening device, electronic babysitter or communication module in elevators or any units that require remote communication.

Battery charging instructions:

Never leave the batteries charging unattended! The use of wrong battery type, over-discharged or damaged batteries may result in battery explosion in worst cases. Always use the supplied power adaptor as a power source for the charger (never use computer as a power source).

GC-DC-12 power cable is not to be used for battery charging.

Device First Use

SIM insertion

For the correct function of the device, a micro SIM card must be inserted. Before initial setting, please make sure no PIN code is needed. This can be tested by inserting the micro SIM card into any mobile phone. When installing the SIM card, insert the side with angled corner, contacts facing the printed circuit. If you use a SIM card which requires PIN code, first insert other SIM without activated PIN code, set the PIN of the device via SMS and then insert the SIM card with PIN request.

Power supply connection

Insert the SIM card into GLite first and then connect the device to battery or other recommended power source. The input voltage range is 3.7V-4.2V. Recommended/optimum voltage input is 4V.

After connecting the power supply, LED diode (on the side where SIM card is installed) will flash once and after few seconds the communicator automatically selects the network.

The device automatically checks its battery level and sends a warning SMS message in case battery capacity falls below 20% or 10%.

While using the supplied power cord, be sure to follow the correct voltage polarity.

DO NOT CONFUSE POSITIVE (+/RED) AND NEGATIVE (-/BLACK) CONDUCTOR AND DO NOT USE POWER SUPPLY WITH A VOLTAGE OVER 4.2V.

This will prevent permanent damage to the device!

Basic Setting

The first SMS messages should include a new password and number for outgoing and incoming calls. GLite sends a reply to the number from which the SMS was received. The setting of the number for incoming calls is performed by sending SMS in the following format:

„123456(space)I1(space)+420123456789“ or just **„123456(space)I1“**

Replace the sequence of numbers “+420123456789” with a phone number (including the international country code) which will be received by GLite (other numbers will be denied). If you do not set the phone number, GLite will automatically set the number from which the message was received. After processing the message, GLite will send SMS message with newly set number “New incoming number 1: +420123456789”. Then you can call to GLite from this number and the call will be received automatically.

Quick Setting

Send the following SMS messages to the device’s SIM card:

„123456(space)I1“ –After receiving the confirmation SMS message, the device will receive calls from the phone number from which you sent the message.

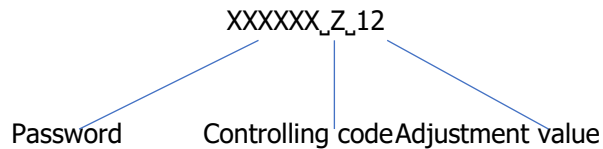
„123456(space)N“ – After receiving the confirmation SMS message, the number for outgoing calls is set (the phone number from which you sent the SMS will be set).

„123456(space)T(space)07(space)05“ – After detecting noise in the surrounding environment, the device will make a call. Detailed description of this function, including configuration parameters, is described below.

Communicator Setting

The setting of the device is realized by sending an SMS message in the correct form to the phone number of micro SIM card inside the communicator.

Correct SMS message form:



The first part of each SMS command must consist of a 6-digit password by which the device is protected from unauthorized changes in the setting.

After setting the password, please put a space in the message and write the controlling code of the adjusted parameter. The adjusted value(s) must also be separated from the controlling code by a space.

If you do not receive the confirmation SMS message, the module is not working or has lost signal and the setting may be unsuccessful. Sometimes the message may not be delivered, so if you do not receive the confirmation message while the communicator is turned on, please try to send the setting message once again.

The setting of GLite device via SMS enables the adjustment of the following parameters:

- 1 6-digit password
- 2 Phone number for outgoing calls
- 3 Up to 3 phone numbers for incoming calls
- 4 Microphone amplification
- 5 Sound detection level & dead time
- 6 Light detection notification

All the parameters are described in detail in the following chapter.

Factory Setting

The basic, factory setting of GLite is shown below. In case of sending a reset request, the device defaults to the following parameters:

Parameter	Report Title	Setting
Password	Pass	123456
Microphone amplification	Gain	3
Level of sound detection	Treshold	0
Dead time	Deadtime	1
Number for outgoing calls	Out N	Unset
Number for incoming calls 1	In1	Unset
Number for incoming calls 2	In2	Unset
Number for incoming calls 3	In3	Unset
Light detection	Light	OFF
Level of light detection	Light treshold	21

Configuration Parameters

Parameter	Controlling code	Function description
Password	P	<p>Choose any 6-digit password of the device. This new password will be typed at the beginning of any change in the setting. The change of device's password considerably increases the safety of your information! Please write down the password, do not show it to anybody and keep it in a safe place. Command for changing the password from original "123456" to new, e.g. "147258" should be sent in this format: 123456(space)P(space)147258 You will receive a confirmation SMS with the new password: <i>„New password: 147258“</i></p>
Number for outgoing calls	N	<p>This command sets the number to which the device calls or sends SMS, if VOX (sound detection) is turned on to record sounds in the surrounding environment.</p> <ol style="list-style-type: none"> Setting of number from which the SMS is sent: Send SMS with the controlling code only. Example: 123456(space)N Setting of other number: The message must also include required phone number including international country code. Example: 123456(space)N(space)+420123456789 <p>Change in the setting is confirmed via SMS with the newly set number: <i>„New outgoing number: +420123456789“</i></p>
Number for incoming calls I	I1	<p>These commands set the numbers from which you can call to the device. These numbers will be received by the device automatically and calls from other numbers will be refused.</p> <ol style="list-style-type: none"> Setting of number from which the SMS is sent: Send SMS with the controlling code only. Example: 123456(space)I1 Setting of other number: The message must also include required phone number including international country code. Example: 123456(space)I1(space)+420123456789 <p>Change in the setting is confirmed via SMS with the newly set number: <i>„New incoming number 1: +420123456789“</i></p>
Number for incoming calls II	I2	
Number for incoming calls III	I3	

<p>Setting of VOX function – automatic sound detection</p>	<p>T</p>	<p>The communicator is equipped with an integrated detector of the ambient sound volume that, if the preset sound level is exceeded, automatically initiates a call to the phone number for outgoing calls (set with controlling code N). Setting change is always confirmed via SMS with new values.</p> <p>Numeric value represents the adjustment of noise level. Setting range is 0-10. Level 0 means the detector is off. Value 1 represents the smallest sensitivity (detection of really strong noise), while value 10 means that the detector is most sensitive (detecting weak sounds). For the detection of human voice in silent environment value 5-8 is recommended.</p> <p>Format of SMS message to set the level 7 of detection: 123456(space)T(space)07</p> <p>Service Mode (S) VOX function also includes the so called "Service Mode", which is used for testing the sensitivity of detection, e.g. during installation. In this mode the device does not make calls and the exceeding of sound level is signaled by a single flash of the LED diode on the module. Activation is realized by adding "S" behind the adjustment values (separated by a space).</p> <p>Example of SMS format: 123456(space)T(space)7(space)S Once you are satisfied with detector level, send SMS with adjustment values again, without the "S" letter (SMS: 123456 T 7).</p>
<p>Deadtime</p>	<p>DT</p>	<p>This command is for set time for which the module ignores sound impulses since the last detection. Time is adjustable in the range of 1-90 minutes (unit of adjustment: minutes). After this time interval, the module starts to detect sound and make calls (or send SMS) to the preset number again. Format of SMS message to set the level of detection: 123456(space)T(space)5 <i>Time period for next detection: 5 minutes.</i></p>

Microphone gain	G	<p>This command adjusts the inner amplifier. You can set the amplification directly to levels 1-5 or use automatic sound level control under values 6 and 7.</p> <p>Number 1 means the smallest amplification, number 5 the biggest amplification.</p> <p>Numbers 6 and 7 activate function for automatic sound level control. While calling the value is adjusted automatically according to the noise intensity in the surrounding environment.</p> <p>Number 6 is suitable mostly for silent environment, while number 7 for louder environment.</p> <p>Over-amplification can make the call difficult to understand, thus you have to find the optimum level first.</p> <p>Audio gain can also be adjusted in course of the call via DTMF commands – by using keys to type commands.</p> <p>Change in the setting is confirmed via SMS reply with the newly adjusted value.</p>
Light detection ON/OFF	L	<p>The device also has an inbuilt light detector. After detecting light the communicator sends a notifying SMS and the detector turns off automatically. To turn on the detector again, it is necessary to send the settings again.</p> <p>Detection can be switched on (1) or switched off (0).</p> <p>0 – light detection switched off 1 – light detection switched on</p> <p>Example of SMS format for switching on the detector: 123456(space)L(space)1</p>
Light detector sensitivity	L_T	<p>Detector's sensitivity can be adjusted in the range of 00-41. The adjusted value represents the level of light which is necessary for sending SMS notification to the preset number (via N code). This function does not turn on or off the detector, but adjusts the sensitivity of detection only. L and T must be separated by a space.</p> <p>00 – highest sensitivity, detection of really low illumination 20 – recommended value 41 – smallest sensitivity, detection of really strong illumination</p> <p>Example of SMS format for adjusting detector's sensitivity to value 20: 123456(space)L(space)T(space)20</p> <p>Service Mode (S)</p> <p>Like the sound detector, the light detector also has the so called "Service Mode", which enables you to test the actual value of detection sensitivity. Service Mode is activated by adding S letter to controlling codes. In the service mode, the level of light necessary for an SMS notification is signaled via the LED light on the communicator. Final level adjustment is completed by sending SMS with the desired value – without the "S" code.</p> <p>Example of SMS format for activation Service Mode and adjustment of detection level to value 20: 123456(space)L(space)T(space)S(space)20</p>

Factory reset	Reset	<p>The device defaults to factory setting. Communicator will send SMS with the new (factory) setting – see chapter Factory Setting.</p> <p>SMS for reset: 123456(space)Reset</p>
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Operation during Phone Calls

Changes in GLite's setting can be made even during a call. You just need to set the parameters by means of numbers, as if you were operating a customer helpline. A change in the setting is confirmed by a beep sound in the call. If setting changes are not confirmed, try to hold the number key longer. While reaching maximum or minimum values you will hear a double beep.

Key	Function description
4	Mic amplification -1 level (adjustment range: 1-5)
5	Mic amplification +1 level (adjustment range: 1-5)
6	Min amplification (level 1)
7	Max amplification (level 5)
8	Automatic control of sound level (silent environment)
9	Automatic control of sound level (loud environment)

Reports

The communicator can inform you about the current setting, battery capacity, signal strength or its current position.

Parameter	Control. code	Function description
Battery capacity check	B	The SMS message includes battery capacity percentage and voltage in mV.
Signal strength check	S	Signal strength detection function. The SMS report contains RSII and BER data. RSSI: range: 0 - 31 (31 = best signal)
IMEI check	Q	Identifying IMEI of your device.
Current settings	R	Communicator sends SMS report with current setting. The report also includes current firmware version. SMS with the report is divided into two separate messages, so please wait until you receive both parts.

Technical Parameters

Power supply	Battery: 3.7-4.2V (Li-Ion / Li-Pol) When using or GC-DC-12 converter or converter with GC-UPS-12 backup battery the voltage range can be 9-14V.
GSM bands	850 MHz / 900 MHz / 1800 MHz / 1900 MHz
Power consumption	Max 150 mA while calling Up to 4mA in idle mode
Antenna	With flexi tape (with self-adhesive layer) or ceramic PCB antenna
Dimensions	25 mm x 50 mm x 8 mm
SIM card	Micro SIM – compatible with any operator
Battery	Li-Pol / Li-Ion, capacity depends on the actual battery type

Troubleshooting

Communicator is not available – If the communicator is unavailable, disconnect and reconnect the battery. After connecting the battery, LED diode must flash once and after few seconds once again. If LED diode does not flash, try to charge the battery. If the diode flashes only once, try to remove and reinstall both the battery and SIM card. If it flashes 60 times, then the inserted SIM card requires PIN code (see below). If it flashes both for the first and second time, check you have signal in the area.

Communicator requires PIN code – Insert a SIM card without PIN into the communicator first. Set the desired PIN code via SMS (control. code **U**) and then use the SIM card with PIN. You may also deactivate the PIN code via any mobile phone. If SIM requires a PIN code other than the one set in the communicator (default PIN: **1234**), the LED diode will flash 60 times to inform you.

Communicator has no signal – Check signal strength in the environment via any device with a display. If the device has poor signal, then you may hear interferences while calling ("td td td"). If it is possible, place the device to a place with better signal (battery will last longer and sound quality will be much better).

Change in communicator's setting is not followed by confirmation SMS – You may be located in the environment without signal. Check the strength of signal in the environment via any device with a display. Sometimes the message can get "lost" on its way, so eventually try to send the setup message again.

When making a call the communicator is available, but does not accept the call – Check the setting of phone numbers (codes I1-I3). Or wait 30-60 seconds after the last communication with GLite.

No sound can be heard after dialing the number or the device – After answering the call it takes a few seconds before you can hear the sound. If you cannot hear anything even after few seconds, check the microphone setting and turn up the volume of the device if necessary.

LED diode flashes every 5-10 seconds – The module cannot log into the network. Check signal strength and make sure the SIM card is inserted.

Accessories

There are also accessories available for the device, especially voltage converters:

GC-DC-12 Voltage Converter

GC-DC-12 Voltage Converter is designed for use e.g. in cars, where the supply voltage is 12V. Input conductors (longer twisted pair, without connectors) allow the connection of voltage in range of 9-14V. The output side consists of two shorter, silicone conductors with gilded connectors. These connectors are used for direct attachment to the device. The output connectors have voltage of 4V.

This converter is optimized to be compatible with this device. Therefore do not use converters, which are not designed for this device.



GC-UPS-12 Voltage Converter with Backup Battery

Its use is quite similar to the use of the abovementioned version. The difference is an added backup battery, which can keep the device working even after the disconnection of supply voltage (e.g. many cars turn off most electricity after removing key from ignition). After reconnecting the supply voltage, the backup battery starts charging to be ready for the next power supply failure. Thus the device will be activated permanently.

Input conductors (longer twisted pair, without connectors) allow the connection of voltage in range of 9-14V. The output side consists of two shorter, silicone conductors with gilded connectors. These connectors are used for direct attachment to the device. The output connectors have voltage in the range of 3.7V – 4.2V (depending on battery voltage).

