

GSM LIFT COMMUNICATION SYSTEM

# GSM Lift Watch *Voice*



**Installation and programming manual v3.2**  
from fw 127

The GSM lift watch is designed for emergency call from lift cabin to first aid ( service department, security, etc..).  
The unit is developed up directive EN 81-28+AC:2019-04 and EN 81-70.

### **Basic technical parameters:**

Power supply	8 to 30V ss, 50 to 500mA (up operation)
Integrated ACU	Li-Ion 2000 mAh - cca 12h of operation in stand by
GSM network	900/1800MHz
Ext. signalization	LED or light 12V (24V) max.100mA
Inputs	2x – 1x calling blocked, 1x universal
Relay contact	1x 24V/100 mA
PC interface	mini USB
Basic unit	131 x 111 x 38,5 mm
ReMic module	110 x 78 x 38 mm
ReMicAS1 module	135 x 66 x 22 mm

### **Functionality:**

- At installation place is not necessary phone line availability
- Possibility of Voice communication for cabin, shaft and machine room (ReMicA1, ReMicAS1, ReMicB + PREPOJ) – simultaneous connection of all units with operator/ connection machine room – shaft – cabin only
- Changeable back up Accumulator (ACU)
- User friendly installation as same as settings (for start just saving 1 phone number on the SIM card)
- After activation (button push) progressively call up 7 numbers (MASTER1-7) saved on the SIM card. Other numbers are restricted to call.
- Automatic verification call once for 1-9 days to TEST number(s) (TEST1-7) saved on the SIM card
- Adjustable emergency call blocking (delay/ prolong of blocking) - if the call button is held for more than 30s,

the call is made regardless of the blocking (EN 81-28:2018)

- Indication of establishing as same as running call.  
Indication of other device status by switches for optical signalization and acoustically (voice messages) – possibility record own messages
- Relay mode for lift blocking during lift failure or GLWV issue (GSM network logging, correct ACU voltage, not blocking emergency call button)
- Call back only from numbers saved on SIM card (other calls are blocked)
- Automatic call termination after 5 minutes
- Individual acoustic test (speaker/MIC check, ReMic connection)
- „Emergency“ status with saving time and date of call, cancel locally (technician) or remotely (SMS) according to the standard EN 81-28:2018
- During the "Emergency" state call blocking is cancelled, incoming calls can be made from any number. Outgoing calls are not blocked.
- Notification SMS with low voltage info (adjustable value), Announcement SMS with correct voltage info (return over setup value), Notification SMS with info about low voltage of backup ACU
- Report of service lift visits includes date of last visit
- Exact date and time from GSM network
- Resending of GSM operator SMS to preprogramed number (TEST8)
- Operation with or without PIN code – automatically generation of random PIN for SIM card (protection against abuse)
- Command SMS mode for remote management (SMS is possible send just from TESTx numbers):
  - Setting of all parameters
  - Relays contacts control

- Device status info (voltage level includes ACU, time, „Emergency“, operator, temperature, blocking status, input status, relay status, acoustic test result...)
- Cancel status „Emergency“
- MASTER and TEST numbers exchange
- GSM network status
- SMS with AT commands for GSM module
- Sending of adjustable SMS when input status is changed – individual SMS for both input status
- SMS when the button is locked for more than 60 seconds.
- 7 modes of relay closing
- automatic limiter of MIC amplification

## Setting/programming

There are 3 possibilities:

- 1) when you use SIM card from previous model GSM Lift Watch then just insert this SIM into new model GSM LW Voice. All settings except SMS will be automatically saved into new GSM LW Voice.
- 2) Insert SIM card into ordinary mobile phone and save on the SIM desired number for emergency call under name MASTER1, eventually TEST1 (more details capture programming).
- 3) Start the unit (via. capture Start the unit). Send SMS „INIT TEST1 xxxxxxxx“ (xxxxxxx is number from which you will be programm GLWV) to number of SIM card inserted into GLWV. Wait for answer („OK“). From number TEST1 send SMS „WRITE MASTER1 yyyyyyyy“ (yyyyyyyy is number onto which GLW will be call when emergency button is pressed.).

Detail settings:

- 1) Setting by GLWVset program
- 2) By SMS

Detail settings will be explained later in manual in appropriate capture.

## Emergency call from lift cabin

By button press you activate the device (adjustable button pressing time for activation). It is close port I1 on ReMic (for lighting up yellow indication light – activation/call establish), You hear message „Wait please to connection“ and the unit progressively dials phone numbers saved under names MASTER1 to MASTER7 on inserted SIM card. Before dialling each number is activated voice message „Wait please to connection“. Once the connection to the station has been established, other numbers are no longer counted. Ports I1 and I2 (yellow and green light) are switched on / off depending on the type of ReMic used (and the standard - see table). The "Emergency Lift Communicator" message is activated (the lift location can be reached). The system returns to standby by ending the call with the station. The port (s) (I1, I2) on the ReMic (see the table) is disconnected and the "call is terminated" message is activated.

	Indication according to used ReMic	
status	Current indications (ReMicA, ReMicB, ReMicAS ReMicL)	Indications according EN 81-28:2018 (ReMicAS1,ReMicL1,ReMicA1)
Initialize of connection	Closed I1 (yellow)	Closed I1 (yellow)
Connection established	Closed I2 (green)	Closed I1 and I2 (yellow and green lit)
Connection terminated	Open I2	Open I2, I1 remains closed to the end of the EMERGENCY (ALARM) status. *
ALARM (EMERGENCY) status terminated	-	

\*Applies when function "EMERGENCY mode" is on. Otherwise, the EMERGENCY (ALARM) status is terminated automatically when the call is terminated and I1 is also open.

Example 1 (indication according to EN 81-28: 2018):

*Setting*

*Numbers MASTER1 and MASTER2,*

*Activation time 3 s*

*Waiting for dialling next number 20 s*

*Emergency alarm mode (ECALL) set (= 1)*

After button press for time longer than 3 sec is closed port I1, it is play message „Wait, please, to connection“, it is dialling number saved under MASTER1. Nobody picks up. The 20s after number dial is calling ended. Again is activated message „Wait, please, to connection“ and is dialling number saved under MASTER2. Call is picked up. Port I1 remains closed and I2 port is closed also. It is activated message „Emergency communicator of lift“. Call is running. Called party hang up the call. Ports I2 are switch off (function “EMERGENCY mode” is on). It is activated message „call is terminated“. After the situation is resolved (rescuing the person from the elevator), the lift technician terminates the EMERGENCE (ALARM) status (button or SMS) and also I1 is open.

Example 2:

*Setting*

*Numbers MASTER1, MASTER2, MASTER5*

*Activation time 3 s*

*Waiting for dialling next number 20 s*

*Emergency alarm mode (ECALL) set (= 1)*

After button press for time longer than 3 sec is closed port I1, it is play message „Wait, please, to connection“, it is dialling number saved under MASTER1. Nobody picks up. The 20s after number dial is calling ended. Again is activated message „Wait, please, to connection“ and is dialling number saved under MASTER2. Nobody picks up. After 20 sec is calling ended. The unit identify that there is not MASTER3 number

saved – next number in order. It is activated message „Connection failed. Try again later please.“ Port I1 remains closed (EMERGENCY (ALARM) status is activated). Number MASTER5 (numbers saved after interrupted serie) are used as numbers which you can make incoming call into unit.

## **Blocking of emergency call**

Emergency call activation might be blocked by short circuit of blocking input IN2. It is adjustable how long must be port closed for blocking activation as same as time for which is blocking still active even port is deactivated (off). In case of button press during blocking (button press for time necessary to activate emergency call) is activated message „Emergency call is blocked. Try again later please.“. But if the button is pressed for more than 30 seconds, the lockout is cancelled and the emergency call is activated (EN 81-28: 2018)

### **Example1**

*Blocking is connected to door contact. The door are opened-port is short circuited*

*Setting:*

*Activation time of port short circuit 3s*

*Blocking surveillance after port is deactivated 65s (time of longest lift run)*

Lift doors are closing, lift starts running, call is blocked. After button is pressed, the message „Emergency call is blocked. Try again later please.“ is activated.

### **Example2**

*Blocking is connected to door contact. The door are opened-port is short circuited*

*Setting:*

*Activation time of port short circuit 3s*

*Blocking surveillance after port is deactivated 65s (time of longest lift run)*

Lift doors are closing, lift starts running, call is blocked. The lift stops, the doors are not opening. Lift service try open doors manually, press different buttons. Meantime run out blocking time. The service person press emergency call button – continue via examples emergency call.

### Example3

*Blocking is connected to elevator fault status output, elevator fault - port shorted.*

*Setting:*

*Activation time of port short circuit 1s*

*Blocking surveillance after port is deactivated 1s*

An emergency call is only possible in the event of an indicated lift fault

**Caution:** If the button is pressed for emergency communication for longer than 30 seconds, the call is made and when blocking

## Back calling

The unit might be activated also by calling to his phone number. Connected will be numbers saved on SIM card only. Other numbers are ignored. Due this is possible even without people in lift cabin assistance make again connection and control situation in lift cabin. If the connection is established, is replayed message „emergency communicator of lift“ for possible identification. In the "Emergency" state, the communicator receives calls from any phone number.

## Testing (control) calling

When are saved on the SIM card numbers under names TEST1 to TEST7 then is generated automatic call into those numbers every 3 days (adjustable). The unit behaviour is similar like during emergency call just other numbers are called (not MASTER but TEST) and blocking port is ignored.

There is also activated different voice message during activation and call picked up - „Attention it is test of connection“. When call is hanged up then is activated standard message „Call is ended“. Phone numbers might be the same in both sets (MASTER and TEST).

In the same time might be beside or instead testing call tested local acoustic connection (GLWV – cables – ReMic speaker – ReMic microphone – cables GLWV). During test is activated message „Sound test – one, two, three, four – end.“. The GLWV measures change of signal level identified by MIC between stand by mode and sound level during message playing. The testing will not be correctly evaluated when surrounding noise is too high – any or very small change signal level. The test can discover not connected ReMic or short circuited MIC.

In the same time might be send SMS TEST including info:

Firmware version

Back up ACU voltage

Power supply voltage

Setup time and date in GLWV

GSM operator

GLWV temperature

Number of service visits with date of last one (1)

Input status IN1

Blocking status (input IN2)

Relay status

Date and time of last emergency call (2)

Result of acoustic test (3)

- 1) When „Service OK“ mode was setup
- 2) When was setup „Emergency“ mode it is shown, date and time last mode activation. When mode is deactivated (remotely or locally) it is signalized by „- - „
- 3) When is setup Acoustic test as same as sending SMS TEST then acoustic test is firstly made to be mentioned current status in SMS TEST.

If the connection fails to connect, the I1 and I2 ports alternately switch on / off at one-second rhythm. Alternate blinking takes place until another outgoing call (emergency or test) can be established - EN 81-28: 2018.

## Status information (SMS)

Status information's GLWV sending by different SMS:

- **TEST/STATUS:** SMS via previous capture. Except test could be activated also by SMS „READ STATUS“ (more about in capture about SMS). When is setup Acoustic test then is performed always before SMS sending.
- **Power supply information:** SMS 'Power LOW' is sends to TEST8 number when power supply decrease under preprogramed level for longer time tan 1 minute. The SMS 'Power OK' is sends to TEST8 number when power supply increase over preprogramed level for longer time than 1 minute.
- **Discharged back up ACU information:** SMS „Low Voltage“ is sends to TEST8 number when Acu voltage decrease under preprogramed level (3.3V). The GLW V than works correctly approximately 1 hour. When power supply is reactivated after this time the unit behaviour is like when you start it. (switch ON) (SMS 'Power OK' is not sends).
- **Input change IN1 information:** SMS with info about input change from open to closed (,PORT OPEN') is sends to PORTOPEN number. The SMS with info about input change from closed to open (,PORT CLOSE') is sends to PORTCLOSE number . When mode „Emergency alarm“ is setup then during IN1 port closing (etc. Reset emergency status) is sending to PORTCLOSE number SMS in format 'Reset last Emergency Call'. When service is setup then during port closing is sends SMS in format 'SERVICE'
- **Button blocking:** when is detected short circuit at button of emergency call activation (for example

blocked button) for time longer than 1 minute, then is sending SMS ‚Button blocked‘ to TEST8 number.

- **GSM operator information:** when is GSM operator number saved on the SIM card under name its part includes word „oper“ then all SMS received from this number will be forwarded automatically to TEST 8 number.

Contents of all SMS (text of all SMS) might be edited up desire by PC programme for GLWVset (via later).

## Emergency alarm mode

At this setting is activated „emergency“ (Alarm) mode during emergency call (EN 81-28:2018). The date and time of this status is recorded for report in SMS STATUS. Up settings might be during „emergency“ mode closed relay – status indication, activation/blocking of further activities in the lift.

The status „emergency“ is possible cancel up settings either by short circuit on port IN1 (technician locally after fixing of emergency call problem ) or remotely by SMS 'RESET ECALL'. During this state the pushbutton blocking via IN2 is cancelled, also incoming calls only from the allowed numbers (the incoming call can be from any number).

## Relay

The Relays might be programmed into 7 different modes:

- Close/open is control by SMS (for example. „SET REL1 ON“)
- Close/open is control by „emergency“ status (via previous capture)
- „Camera“ mode when relay close after call is picking up and open when call is hanged up
- „Running“ mode for eventual lift blocking: Close/open is control by unit status – its functionality for emergency

call. Relay is closed when unit is registered to GSM network ,it is correct voltage on backup ACU, (internal unit voltage) and it is not blocked (emergency call button is permanently pressed) . The contact connect to appropriate input of lift control unit. The lift control unit must provide to go to nearest station after open/close of contact (switching relay) and open the door and stay out of order.

- „Lighting“ mode when relay close when call is picked up (the same like camera mode“). But when call is hanged up the relay stays close for preprogramed time.(adjustable).
- „Button“ mode, when relay close after emergency call button is pressed and stays closed for preprogramed time ( adjustable).
- „Service OK“ mode. In this mode relay is closed for preprogramed time after short circuit on port IN1. Simultaneously is send SMS 'SERVICE' to number saved under PORTCLOSE and into phone number saved under name SERVICES is saved current date with number of all short circuit on IN1 (message „Service OK“)

Information of relay status is in STATUS/TEST SMS.

## **SIM PIN**

When you desire to operate the unit with SIM card without PIN then before inserting SIM card into unit switch off the PIN.

(in any mobile phone)

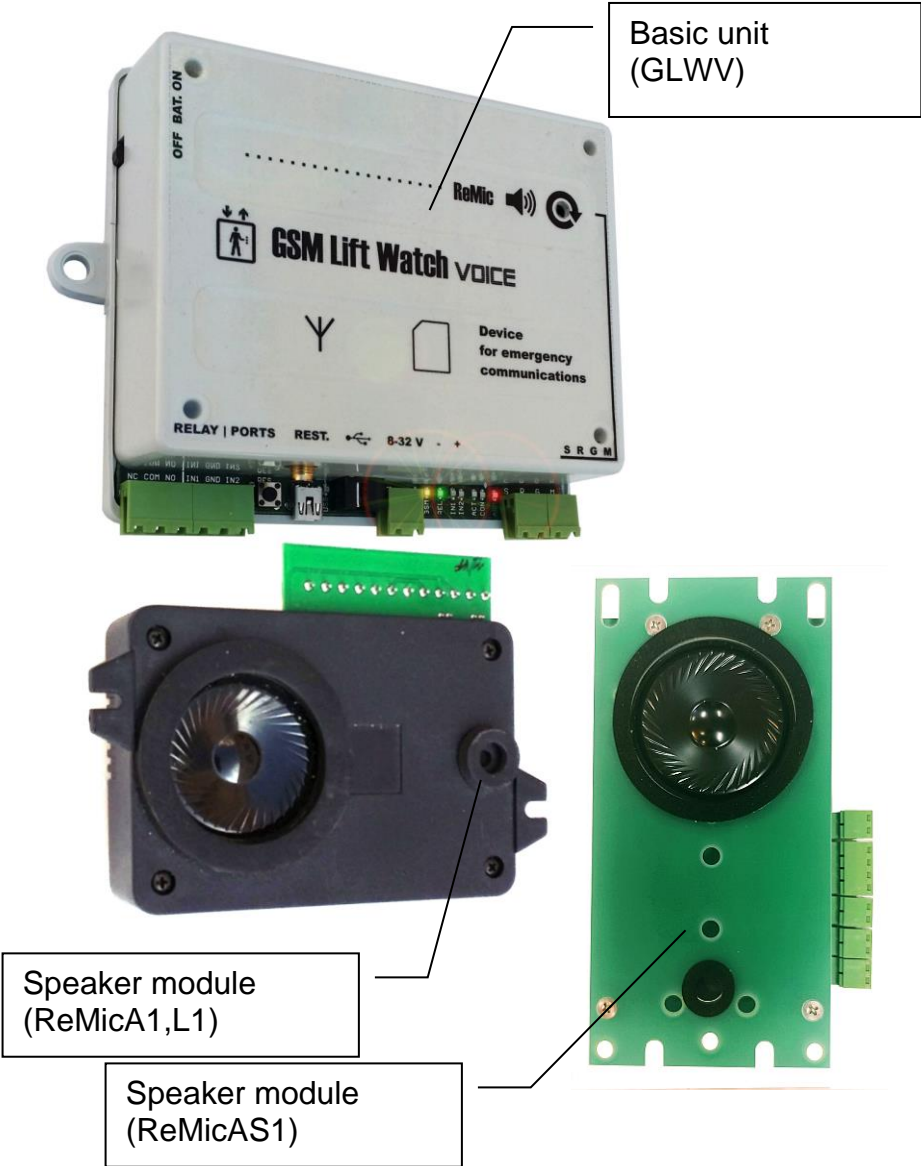
When you desire to operate the unit with SIM card with PIN you have to setup PIN at any mobile phone to 0000.

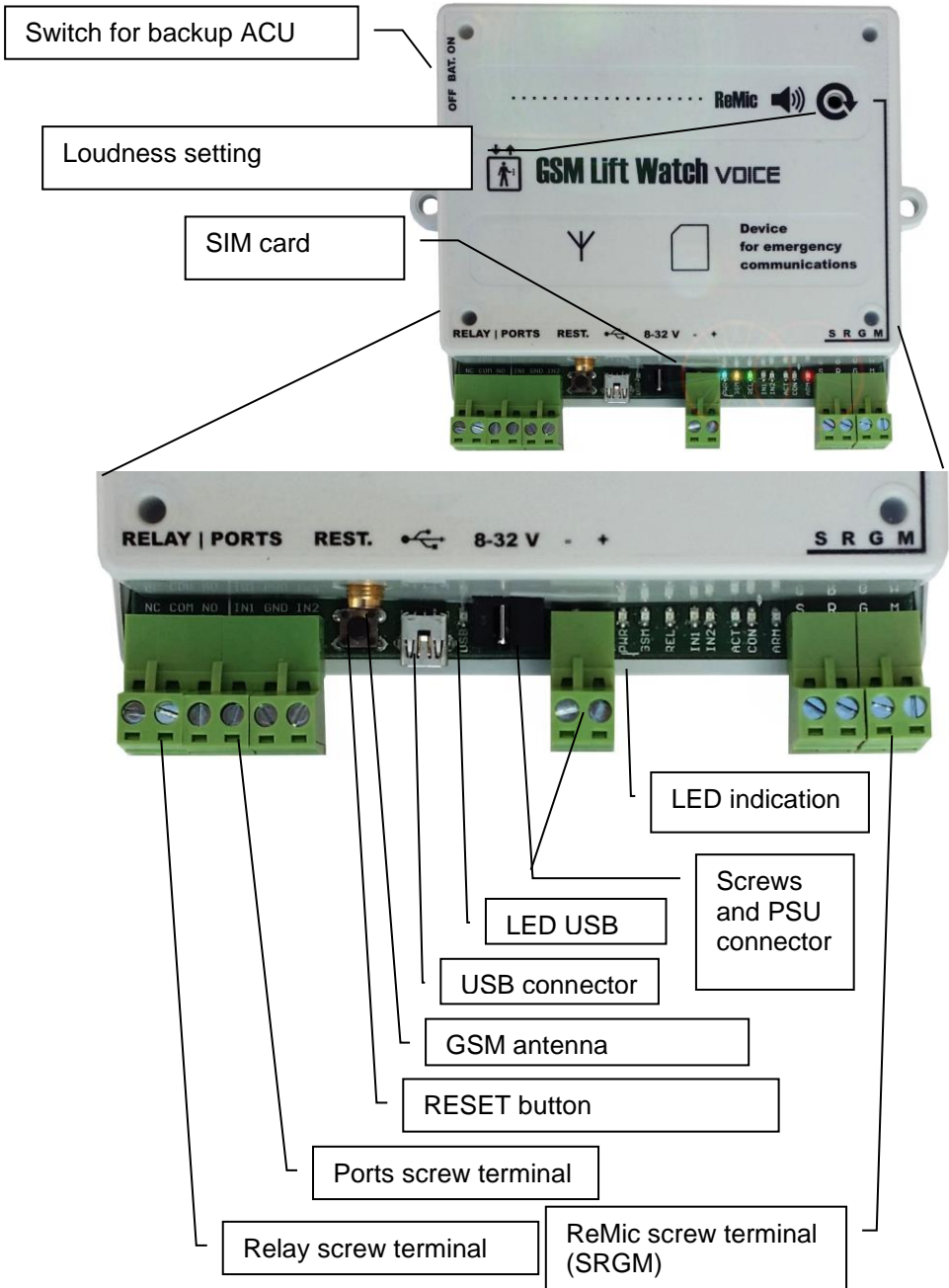
GSM LiftWatch Voice will change this PIN (0000) to other PIN when you insert the SIM card into unit. The new PIN is calculated from GSM module.

- Every GSM LiftWatch Voice has his own PIN (of course it is 4 digit number)

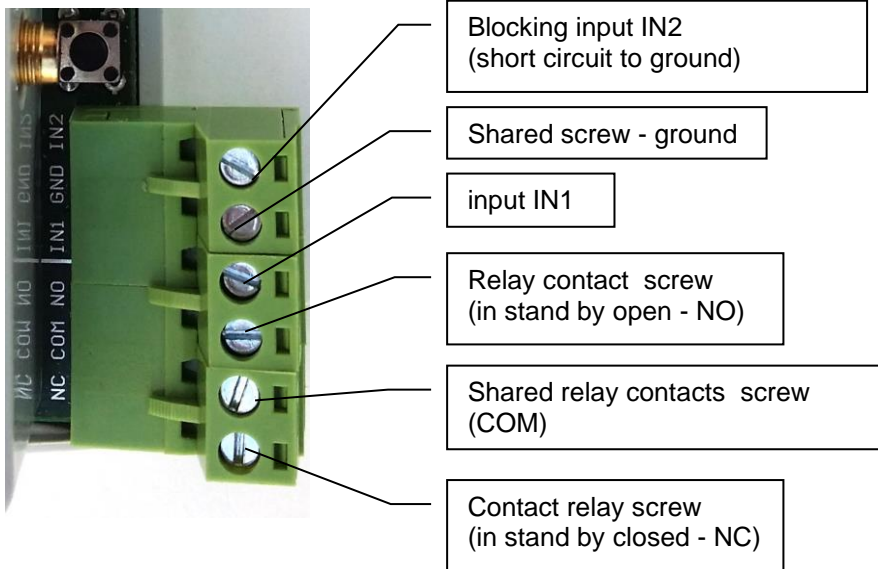
- When you will want use this SIM at any other device you have to know PIN2 of this SIM card – because you don't know the PIN you will need the PIN2 to setup new PIN (possibly again 0000 for using in other GLWV) – work with PIN/PIN2 has no influence to saved data and settings. There are stayed saved on the SIM card.
- **CAUTION! When you insert SIM card with different PIN than 0000 the unit will not work!!!** Exception is inserting SIM card with PIN corresponding to unique GSM module. So when you switch off GLWV and out the SIM and again insert it back to the same unit then all will work correctly even without PIN change.

Parts of GSM Lift Watch:

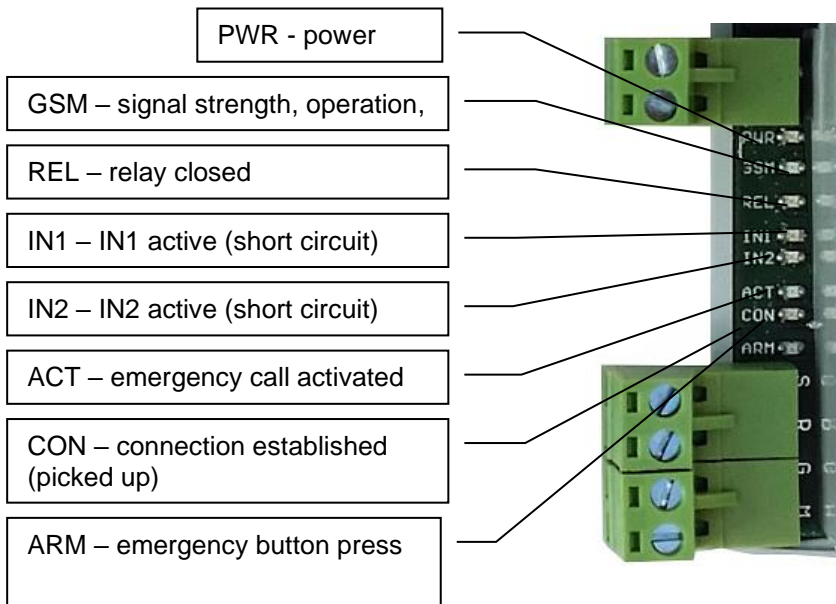




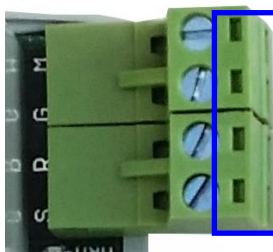
## Ports (IN1, IN2) and relay screw terminal



## LED indicators

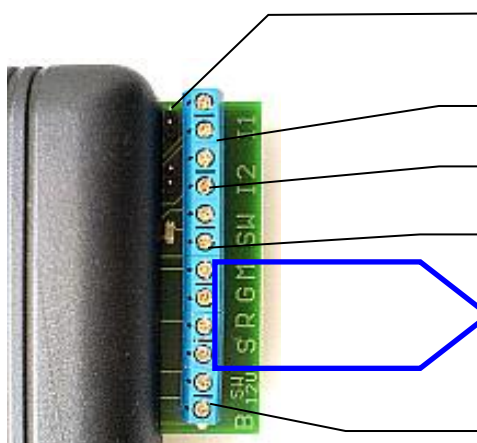


## Screw terminal for ReMic (SRGM)



Screws for connection to ReMic module in lift cabin – connect same marked screws  
M – microphone  
G – ground  
R – speaker  
S - signalling

## Screw terminal of speaker module ReMicA (ReMic)



Jumper current limiting of switch (see example examples)

Screws of indicator switch I1

Screws of indicator switch I2

Screws of emergency button

Screws for connection to GLWV basic unit – connect together same marked screws (see above)

Isolated screws of call activation by voltage 12V

## Screw terminal of ReMicL module



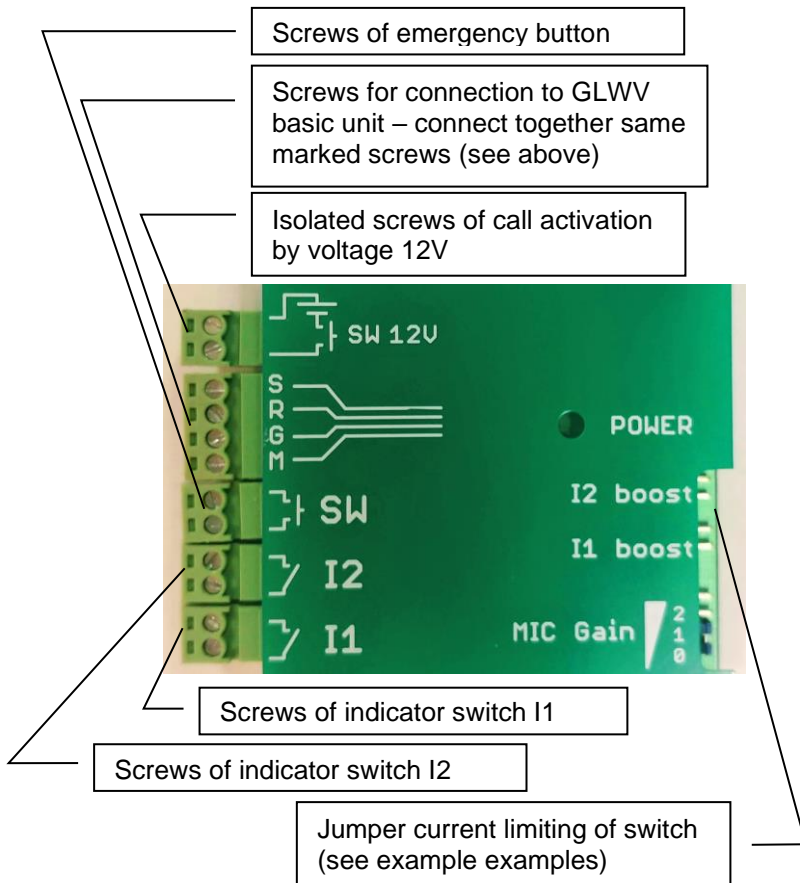
Jumpers for LED selection

Screws for LED connection (I1, I2)

This module is designed just for indication by LED – two pairs of LED are integrated directly in module, next are connected to screws I1 a I2. Don't need external PSU (via examples of connection at the end of manual)

## Screw terminal of speaker module ReMicAS1

The module is a variant of ReMicA1 designed for low panel installation (height 22mm)



### Installation:

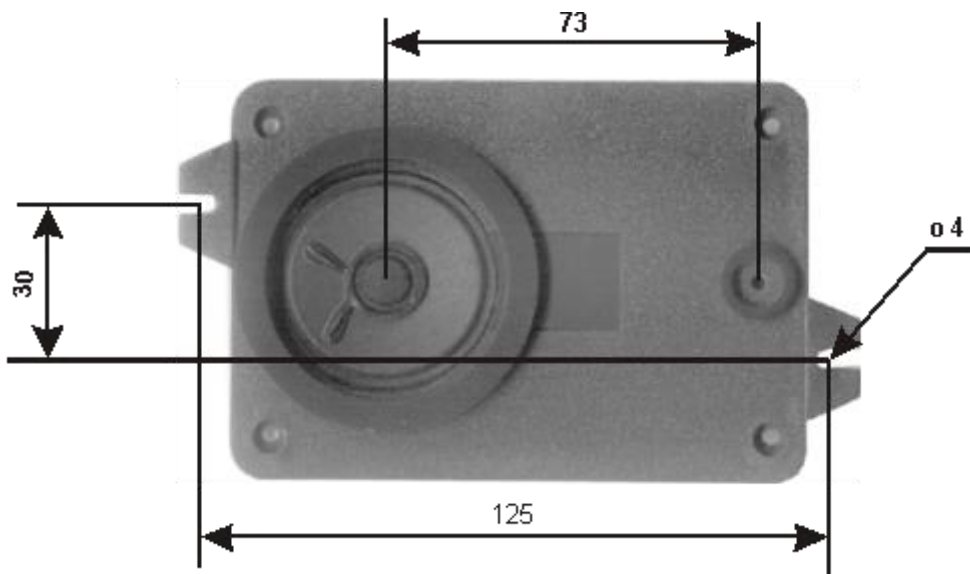
- Fix the acoustic unit (ReMicA/L) behind table panel in the lift cabin. To approach good voice quality we recommend place the REMIC unit in level of human head. **At front of MIC must be hole in table button panel otherwise there will be bad voice quality from lift cabin!**



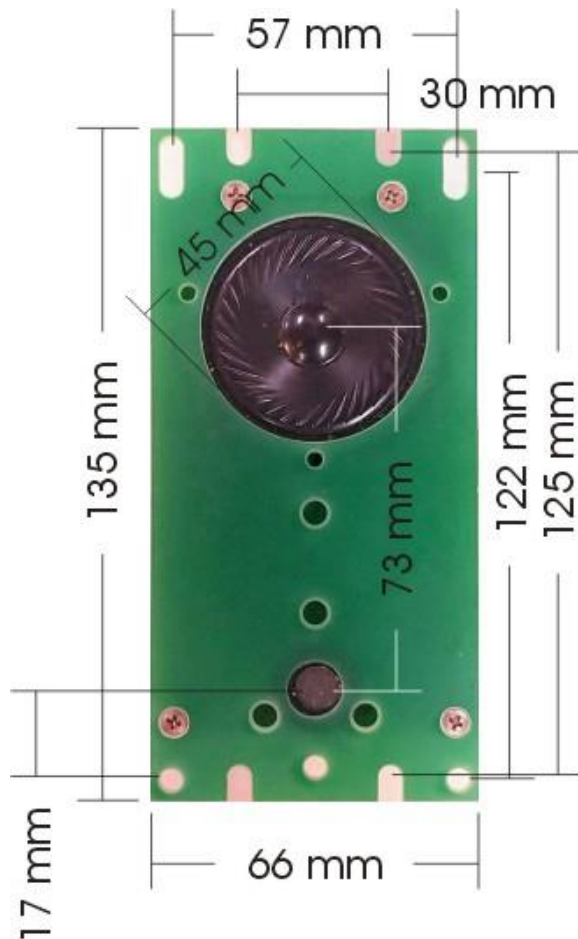
speaker and MIC are  
installed toward to lift  
cabin

Fixing of REMIC at  
back side of lift cabin  
(button panel)  
(for example by  
screws)

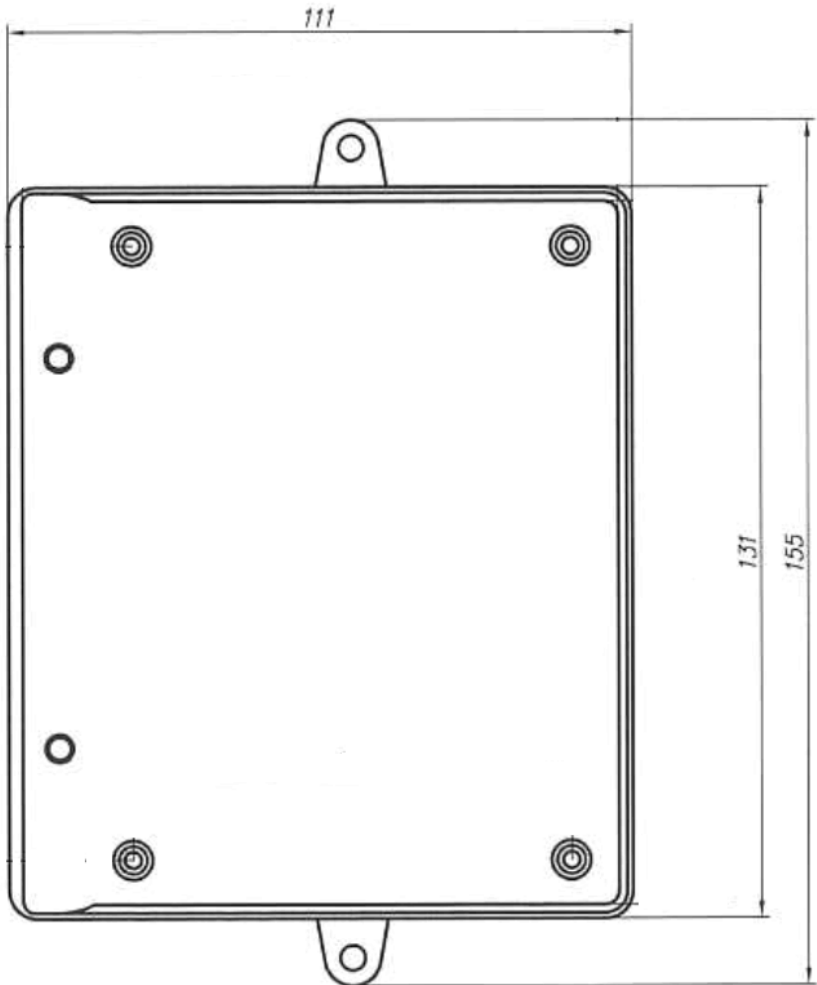
## ReMicA/L1



## ReMicAS1



- Fix the GSM part of unit either on lift cabin or in machine room. You have to select right place regards to GSM signal strength. Lift cabin installation is easier (it is not necessary cable from lift cabin to machine room and due this is avoid of interference). However you have to provide good signal strength for all lift shaft! Keep in mind enough manipulation space for SIM card.

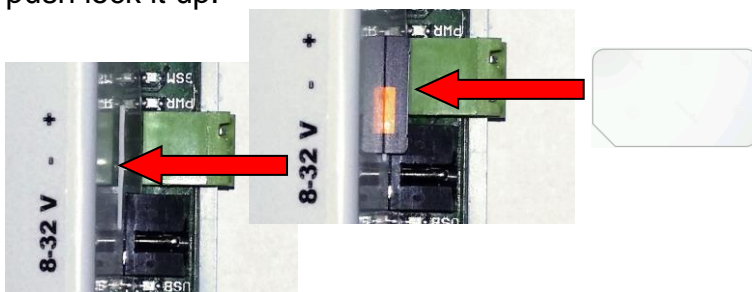


- Screw up antenna cable connector. The antenna position must not be in space surrounding by metal (metal shafts etc.) It caused reduction of GSM signal. When you connect magnetic antenna please put it to some bigger iron subject. which enables to create bigger GSM signal power. It is also important to place antenna out of basic unit to not interference the voice channel by GSM radiation (you know it from radio in car)

- Up drawing mentioned above connect ReMic module to basic unit. To the ReMic module connect indication and activation button. Do not connect power supply. At the basic unit do not connect inputs (port) yet.

## Operation start:

- When you programme parameters directly to SIM by savings numbers and names please insert SIM into mobile phone and programme it.
- Switch off PIN on the SIM card or setup PIN 0000 (via capture SIM PIN). Programmed SIM (via previous item) or not programmed SIM insert to the unit (see picture) and by push lock it up.



- When you have installed ACU let its switch in bottom position (switch off).
- Connect power supply
- Blue LED lights up (PWR) as same as RED LED on speaker module (ReMic).
- Until cca 5 seconds you hear beeps from REMIC speaker
- Until cca 25 seconds will start flashing yellow LED (GSM)
- Until cca 1 minute (up GSM network status) you hear message „Device is in stand by mode“. The yellow LED (GSM) will start flashing (1 to 5 flash) up GSM network signal strength. When is setup relay mode „running“ its closed (light up green LED REL).

- When you programme the unit by computer please connect USB cable and follow instructions in appropriate capture.
- When you programme the unit by SMS and there is not saved any TESTx (x is number 1-8) number on the SIM card please send SMS „INIT TEST1 xxxxxxxx“ (xxxxxxx is number which from you will programme GLWV) to number of SIM card inserted in GLW V. Wait for answer („OK“).
- When you programme the unit by SMS and there is already saved TESTx (x is number 1-8) number, please use this TESTx number for sending SMS. From other numbers SMS are not accepted. Send SMS „WRITE MASTER1 yyyyyyyy“ (yyyyyyy is number which will be called when button is pressed). Eventually further setting SMS (via table in appropriate capture). **ATTENTION! If you use the same numbers for TESTx and MASTERx, you must first store all TESTx numbers on the SIM! Only then MASTERx numbers!**
- Push emergency call button (calls may not be blocked – via. Input for emergency call blocking): During button press lights red LED „alarm“ (ARM) on the GLWV and light off red LED on ReMic. During button push for preprogramed time necessary for emergency call activation you hear tone of pressed button. It lights up yellow LED „activation“ (ACT), ON ReMic I1 port will be closed and „ Wait, please, to connection“ message is played. It is dial number saved under MASTER1. In speaker you hear signalling from GSM network (searching called party, ringing tone etc..) When call is picked up by called party, then is made connection to lift cabin. Lights up green LED „connect“ (CON) and „Emergency lift call.“ message is played. Terminals I1 and I2 behave according to the type of ReMic used (see table above)
- Loudness might be adjusted by controller on GLWV (thin screw driver!). By configuration PC program or by SMS you can setup loudness as same as microphone sensitivity (mostly is not required any adjustment). When is loudness

too high you can get different acoustic troubles like acoustic shock, etc. In this case decrease loudness or microphone sensitivity.

- By called party hanging up end connection with GLWV. I2 (I1) port contacts are opened. On GLWV green LED lights off „connect“ (CON) and „Call is ended“ message is played.
- Make incoming call from any MASTERx number to GLWV. Your call will be accepted. By call hanging up cancel connection with GLWV.
- Try contacts relays switching.
- Connect data inputs as same as other cables which has not been connected yet (for easier operation start) and test complete unit functionality.
- When you use integrated backup ACU connect him into system by moving its switch to UP position (via capture backup ACU).

## **FAQ during operation start**

No LEDs are lighting.

Power supply error. Check power supply and polarity.

Blue LED lights up LED (PWR), yellow LED (GSM) flashing.

„No SIM card inserted“ message is played.

SIM card is not inserted (or incorrectly inserted).

Blue LED lights up LED (PWR), yellow LED (GSM) flashing.

„ERROR“ message is played and yellow LED (GSM) light up permanently.

GLWV is not capable read inserted SIM card.

Most probably SIM has PIN activated but it is not „0000“ or does not correspond to unique PIN of the unit ( GSM module) (via capture SIM PIN)

Blue LED (PWR) lights up, yellow LED (GSM) is flashing, message „ Not logged into GSM network“ is played

periodically. The unit can't log into GSM network. It is either too low GSM signal or antenna is not connected.

Blue LED (PWR) lights up, yellow LED is flashing up GSM signal strength. It has been played message „ The unit in stand by mode“. When button is pressed the red LED (ARM) lights up, message „Error. No save number from MASTER1.“, no telephone number is dialled.

There is not saved number under MASTER1 on the SIM card or it is saved incorrect name (MASTER 1, master1 MASTER1/1 etc.)

Blue LED (PWR) is lighting, yellow LED is flashing up GSM signal strength, message „The unit in stand by mode“ has been played, permanently lighting red LED (ARM), after button press nothing happen.

Incorrectly connected or in short circuit output M in cable to ReMic (SRGM).

You hear interference in the call.

Power voltage filtration is not enough or it is used AC voltage. GSM signal break into voice channel (via. Installation). Some of wire (except power supply) is grounded.

You hear different acoustic shocks and feedbacks in the call (whistling, ECHO etc.)

Too big amplification in whole system (microphone of called party phone – speaker in lift cabin – acoustic parameters of lift cabin – microphone in lift cabin – speaker of called party phone). Mostly you have to decrease volume of speech. It helps better muffling of lift (walls covered by carpet). There are different acoustic parameters of empty lift cabin and cabin with people.

Bad volume level from lift cabin.

Incorrect microphone installation (must be placed directly behind the panel hole) or low level of microphone amplification (via capture Installation).

## System programming

There are 3 ways of System programming:

1. By savings appropriate numbers (MASTERx eventually TESTx, eventually PARGLWV and PARRL1) to SIM card by mobile phone.
2. Remotely by SMS messages. On the SIM card inserted in the unit must be already programmed number from which we send SMS like TESTx (x is number1 to 8). First TESTx number might be saved even remotely from any number by initiating SMS „INIT TESTx yyyyyyyyyy” (yyyyyyyyyy is number from which you will programme GLWV). CAUTION! When is already exist some TESTx number on the SIM then initiating SMS will be ignored.
3. By PC using GLWVset configuration program (via appropriate capture) over USB.

On the SIM card are saved all numbers which are used by unit. The numbers which are dialled during button press are saved under names MASTER1 to MASTER7, eventually TEST1 to TEST8. Further are saved numbers PARGLWV and PARRL1. Under them are saved all unit parameters (except SMS texts and voice messages).

- Numeral after MASTER (TEST) name determine order of numbers dialing. Of course save as much MASTERx (TESTx) numbers as you need (for example MASTER1 only). **Caution! All letters must be capital! Between name and order number MAY NOT be a space! Telephone numbers have to be saved in international format (for example +420123456789).**
- When will be interrupted order of names (for example MASTER1, MASTER2, MASTER4) the unit will dial progressively numbers until the space in the line (in example MASTER1 and MASTER2), then hang up. The numbers saved before as same as after the space are allowed make incoming call (MASTER) and programming

(TEST). The line after space it means numbers which are not dialled by unit might be multiple (on the SIM card might be saved 6 numbers under name MASTER4). It means that amount of numbers allowed for incoming calls or programming are limited just by SIM card capacity.

## **SIM programming by mobile phone**

- Insert SIM card into mobile phone which you will use for programming.
- Switch off the PIN or setup PIN to 0000 (via capture SIM PIN)
- Save to phonebook on the SIM card phone numbers which will be called (in international format!) under names MASTER1, MASTER2,... , eventually TEST1, TEST2....  
**ATTENTION: TESTx numbers must be stored on the SIM card as first!**
- When you need change default parameters save numbers under names PARGLWV and PARRL1. For sending SMS from input IN1 names PORTCLOSE eventually PORTOPEN.
- If a SMS messages are stored on the SIM card, delete them.
- Switch off mobile phone and out SIM card.

### **Note:**

- When working with a mobile phone, follow the instructions for the type of mobile phone.
- When you are not sure about parameters saving do not save those numbers on the SIM card. When GLWV will not find those numbers on SIM card creates them with default parameters. When you switch off GLWV after operation start you will find both names on the SIM card (PARGLWV and PARRL1) even with parameters. Now up your desire you can adjust the parameter – you can't calculate each digit in number.

## Numbers and names saved on SIM card meaning

name	operation
MASTER1	<ul style="list-style-type: none"> <li>- first number which is call by GLWV after emergency call activation. <b>When GLWV should has emergency functionality this number must be saved on the SIM card.</b></li> <li>- this number is allowed make incoming calls</li> </ul>
MASTER2	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when MASTER1 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> </ul>
MASTER3	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when MASTER2 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> </ul>
MASTER4	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when MASTER3 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> </ul>
MASTER5	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when MASTER4 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> </ul>
MASTER6	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when MASTER5 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> </ul>
MASTER7	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when MASTER6 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> </ul>
TEST1	<ul style="list-style-type: none"> <li>- first number which is call by GLWV after activation test feature (test call once per preprogramed number of days). <b>When number is not saved the feature is not activated.</b></li> <li>- this number is allowed make incoming calls</li> <li>- this number is allowed make remote SMS configuration</li> </ul>
TEST2	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when TEST1 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> <li>- this number is allowed make remote SMS configuration</li> </ul>

TEST3	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when TEST2 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> <li>- this number is allowed make remote SMS configuration</li> </ul>
TEST4	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when TEST3 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> <li>- this number is allowed make remote SMS configuration</li> </ul>
TEST5	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when TEST4 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> <li>- this number is allowed make remote SMS configuration</li> </ul>
TEST6	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when TEST5 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> <li>- this number is allowed make remote SMS configuration</li> </ul>
TEST7	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when TEST6 number is unreachable, busy or doesn't pick up call a long time</li> <li>- this number is allowed make incoming calls</li> <li>- this number is allowed make remote SMS configuration</li> </ul>
TEST8	<ul style="list-style-type: none"> <li>- when this number is saved the GLWV call him when TEST7 number is unreachable, busy or doesn't pick up call a long time</li> <li>- when this number is saved, GLWV sends to this number Inform SMS (via capture about inform SMS): 'Power LOW', 'Power OK' „Low Voltage“ ,Button blocked ‘ GSM operator information</li> <li>- this number is allowed make incoming calls</li> <li>- this number is allowed make remote SMS configuration</li> </ul>
PORTCLOSE	<ul style="list-style-type: none"> <li>- into this number is sends SMS: ,PORT CLOSE' when IN1 port is closed against ground, 'Reset last Emergency Call' when IN1 port is closed in mode “Emergency alarm” 'SERVICE' when port IN1 is closed in mode „service“</li> </ul>
PORTOPEN	<ul style="list-style-type: none"> <li>-into this number is sends SMS - ,PORT OPEN' when IN1 port is open</li> </ul>

VOLTAGE	<p>- voltage limit. A low voltage SMS is sent when the value falls below this value.</p> <p>AA * B (not set by default - voltage not monitored)</p> <p>AA - Volts [01-24]</p> <p>B - tenths of volts [0-9]</p>
VER	- firmware version in GLWV - <b>just info don't change!</b>
SERVICES	- date of last service check and number of checks (mode "Service OK") - <b>just info – don't change!</b>
PARGLWV	<p>- GLWV parameters</p> <p>A#B#C#D#E#F#GG#H#I#J</p> <p>(default '4#4#3#0#1#5#60#3#2#0')</p> <p>A – microphone sensitivity [1-7]</p> <p>B – speaker loudness [1-7]</p> <p>C – period of service call activation TEST [0-9] days:</p> <p>0 – off</p> <p>D – movement of TESTs start from midnight [0-9] x2 hours (e.g. 9=18h)</p> <p>E – types of performed tests</p> <p>0 – no test</p> <p>1 – service calls to numbers TESTx</p> <p>2 – SMS TEST (STATUS)</p> <p>4 – acoustic connection test</p> <p>possibility of all bits combination: for example 7 – all tests activated, 6 – SMS and acoustic connection test</p> <p>F – closing time of IN2 port necessary to start blocking [0-9]s</p> <p>GG – blocking duration after open IN2 port [00-99]s</p> <p>H – duration of button press for emergency call activation [0-9]s</p> <p>I – waiting time for connection before dialling next number in order [1-9] x 10s</p> <p>J – [0-3] Extended mode</p> <p>0 – off emergency mode and service mode</p> <p>1 - on emergency mode, service mode is off</p> <p>2 - on service mode, emergency mode is off</p>
PARRL1	<p>- relay parameters</p> <p>A#B#CC#D (default 5#0#03#1)</p> <p>A – [5] – reserved – necessary fill by 5</p> <p>B – relay modes:</p> <p>0 – SMS mode, control by SMS</p> <p>1 – ECALL mode (relay closed during mode "emergency")</p> <p>2 – camera mode (close by pick up, open by hang up)</p> <p>3 – lighting mode (close by pick up, stays close for „closing time“ after hang up)</p> <p>4 – button mode, close for „closing time“ after button press</p>

	5 – „servis” mode – after short circuit on IN1 port as mode 4 + sends SMS "SERVICE" to number PORTCLOSE 6 – „running” mode – relay closed, when GLWV operates (voltage, logged in GSM network) CC – closing time [00-99]s D – [1] – reserved necessary fill by 1
--	---

## Remote setting and control by SMS

They are accepted just SMS sends from registered numbers on the SIM as TEST1 to TEST8. The SMS from other numbers are accepted but ignored and erased immediately.

**CAUTION! When you use SMS for erasing of numbers it must stay in system at least 1 number as TESTx – otherwise you cant program remotely – you will have to use again command INIT (via. Table upper).**

SMS are always written by **BIG LETTERS**.

SMS body includes words split by spaces. First word express what will be done:

READ – read (name/phone number or parameter)

CLR – clear (name/phone number)

INIT – initialize

SET – set (relay)

RESET – reset (e.g. ECALL)

START - start of procedure (e.g. TEST)

WRITE – write (store)

CAL – call AT command **Caution! The commands can make unfunctionally of whole system!**

After space follow one or multiwords explanation what command concern (words are again split by spaces). For example:

READ PAR – parameters reading

SET REL1 ON – relay closing

When is programmed some numerical parameter its value is mentioned after colon,,:“. When parameter has more digits both digits must be mentioned. For example:

WRITE PAR TPERIOD:3

WRITE PAR BLOCK:09

GLWV sends back SMS where is copied inserted command at beginning. Then follows colon after which is result of command (for example OK when name and phone number is saved)

## Commands table for SMS

Command ( SMS)	Function	Def.
<b>READ STAT</b>	GLWV status reading (version, time, temperature ... via capture status information.)	
<b>READ PAR</b>	All parameters reading	
<b>READ NAME</b>	Phone number reading for NAME	
<b>READ ATEST</b>	last measured values in ATEST	
<b>READ REL1</b>	relay status (ON, OFF)	
<b>READ TEST</b>	time and result of the test (service) call	
<b>READ IMEI</b>	IMEI number for the approximate calculation of the TEST call delay	
<b>CLR NAME</b>	Phone number erasing for NAME	
<b>INIT TEST1 +420cc...c</b>	Initiating – first GLWV setting– parameters is possible program from number TEST1 +420xxxxx	
<b>SET REL1 ON</b>	Relay 1 close	
<b>SET REL1 OFF</b>	Relay 1 open	
<b>SET REL1 ON xx</b>	Relay 1 close for xx minutes (xx=00 - 99)	
<b>RESET ECALL</b>	Reset of Emergency Call status	
<b>START ECALL</b>	Starts a complete action like after activating an emergency call. (including setting Emergency Call status!)	
<b>START TEST</b>	Starts a complete action for test (including e.g. acoustic path test, if set)	
<b>START ACALIB</b>	starts calibration of acoustic path measurement	4
<b>WRITE PAR VOLOUT:x</b>	Speaker loudness saving [x=1-7]	4
<b>WRITE PAR TPERIOD:x</b>	Period of x days for activation of service calls (TEST)	3

	[x=0-9] 0 – function is off	
<b>WRITE</b> PAR TSHIFT:x	Move service call start from midnight [0-9] x2 hours (i.e. 8= shift 16 hours)	0
<b>WRITE</b> PAR TMODE:x	Type of performed tests x=0 – no test x=1 – service call for TESTx numbers x=2 – SMS TEST (STATUS) x=4 – acoustic connection test all bit combination possible for example x=7 – all tests activated x=6 – SMS and acoustic connection test	1
<b>WRITE</b> PAR WBLOCK:x	time x sec. Of IN2 port closing necessary for blocking start [x=0-9]s	1
<b>WRITE</b> PAR BLOCK:xx	Blocking duration xx sec. After IN2 port is opened [xx=00-99]s	01
<b>WRITE</b> PAR ACALL:x	Time x sec. Of button press to make emergency call [x=0-9]s	3
<b>WRITE</b> PAR WCALL:xx	time xx sec. Waiting for connection before dialling next number in order [xx=10,20,30..90] sec.	20
<b>WRITE</b> PAR EXMODE:x	Extended mode x=0 – off emergency mode and service mode x=1 - on emergency mode, service mode is off x=2 - on service mode, emergency mode is off	0
<b>WRITE</b> PAR RL1MOD:x	Relay mode x=0 – SMS mode, control by SMS x=1 – ECALL mode (relay is closed for time “emergency” x=2 – camera mode (close by pick up open by hang up) x=3 – lighting mode (close by pick up, stay closed for „closing time“ after hang up x=4 – button mode, close for time „closing time“ after button press x=5 – „service” mode – after IN1 port	0

	activation as mode 4 + sends SMS "SERVICE" to number PORTCLOSE x=6 – „running” mode – relay closed, when GLWV operates (voltage, GSM network registration)	
<b>WRITE</b> PAR RL1TMON:yy	Closing time in seconds [yy=00-99]s	05
<b>WRITE</b> PORTCLOSE +420cc..c	When IN1 is grounded sends SMS to number (according to the settings) : „PORT CLOSE“ 'Reset last Emergency Call' 'SERVICE'	
<b>WRITE</b> PORTOPEN +420cc..c	Saving number for SMS „PORT OPEN“ (Input open)	
<b>CAL</b> AT+CSQ	GSM signal strength measurement	
<b>CAL</b> AT+CPBR=x	Identification of number saved under position x	
<b>CAL</b> AT+CCLK=<time>“	Time setting in GLWV on <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	

### Note:

When you desire program by SMS some GLWV parameters we recommend you sends first command to read current parameters from unit: „READ PAR“

GLWV answer:

READ PAR:

VOLIN:4

VOLOUT:4

TPERIOD:3

TSHIFT:9

TMODE:7

WBLOCK:1

BLOCK:01

ACALL:3

WCALL:30  
EMODE:0  
RL1MOD:0  
RL1TMON:10

Then is just edit this received SMS - „READ“ rewrite it to „WRITE“, erase parameters which you not setup, adjust values of rest parameters and by adjusted SMS sends back as answer to GLWV. The GLWV will mention in answer just adjusted parameters.

### **SMS example for setting GLWV parameters:**

WRITE PAR:  
VOLIN:1  
VOLOUT:4  
BLOCK:60  
RL1MOD : 1

#### **GLWVanswer:**

WRITE PAR:  
VOLIN:1  
BLOCK:60

### **Next examples:**

#### **Read of service visits number and date of last one:**

READ SERVICES

#### **GLWV answer:**

READ SERVICES:14\*09\*23#3

Where 14\*09\*23 is date 23.9.2014 and 3 is number of visits

#### **Relay close attempt in incorrect mode (different from determined for control by SMS)**

SET REL1 ON

#### **GLWV answer:**

SET REL1 ON:ERROR

## GLWV status report:

READ STATUS

## GLWV answer:

READ STATUS:

VER: 123

BATTERY: 3960mV

POWER: 15.5V

TIME: "14/09/23,09:21:55"

OPER: T-Mobile

TEMP: 26C

SERV: 14/09/23#126

INP: 0

BLOCK: 0

REL: OFF

ECALL:-

AKUSTIC: PASS

## Single parameter saving – setting of waiting time for dialing next number 30 seconds:

WRITE PAR WCALL:30

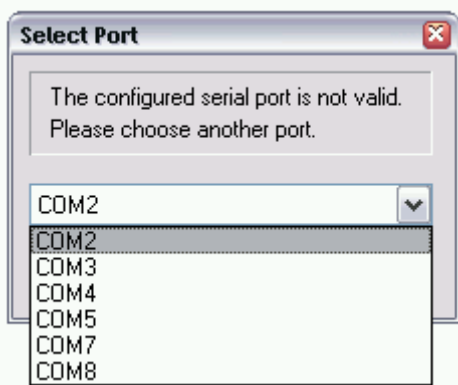
## GLWV answer:

WRITE PAR:

WCALL:30

## Computer ( PC) programming

1. To preselected directory in PC (for example GLWV) copy from CD program GLWVset. The program is „portable“ – doesn't need installation. In case of need you will be add to same directory sounds files address etc..
2. GLWV must operates (yellow LED GSM flashing up signal strength, message „Unit in stand by mode“ has been played)
3. Connect MiniUSB cable to PC and GLWV – on GLWV musts light up red LED (USB).
4. The USB driver can be automatically installed on the PC the first time it is used. Keep your computer connected to the Internet so that you can download the driver.
5. Run GLWVset program and select correct COM port.



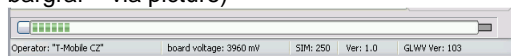
6. 

Program checks connection with GLWV. After verification of connection will go to appropriate status of GLWV – in this case go to status „ON“, when shows GSM signal strength, size of power supply and motherboard voltage (backup ACU). In this status is interesting item „Support“ on which you can monitor unit operation eventually creates „log“ files for problems identification.

## „ON“ mode



„ON“ mode is identify by switch in position ON  
 To program parameters stop GLWV operation (programming mode) by click to button. Program sends signal to GLWV and wait for answer (shows bargraf – via picture)



After a while (GLWV checks signal every 30 seconds) will GLWV switch – program reacts by switch moving to position OFF – programming mode. **To monitor operation do not click! You stop GLWV operation!**

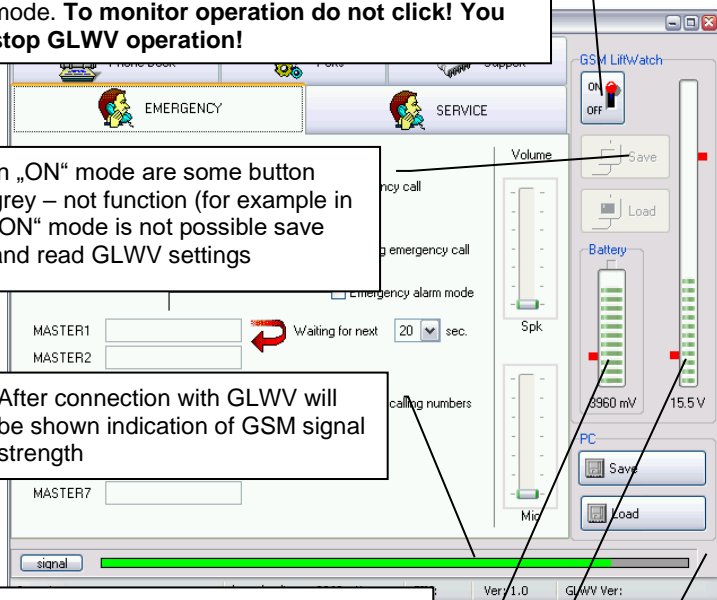
In „ON“ mode are some button grey – not function (for example in „ON“ mode is not possible save and read GLWV settings)

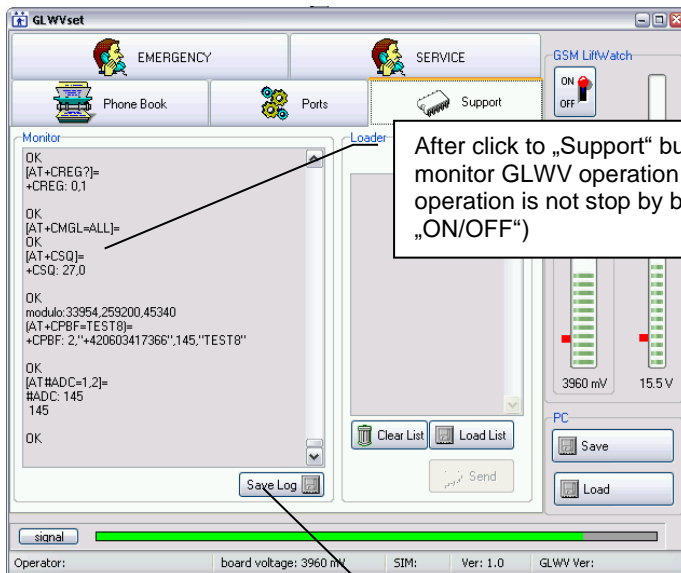
After connection with GLWV will be shown indication of GSM signal strength

After connection with GLWV will be shown indication of motherboard voltage (backup ACU)

After connection with GLWV will be shown indication of GLWV power supply

Green point identify serial line operation





After click to „Support“ button is possible monitor GLWV operation (when operation is not stop by button „ON/OFF“)

Saving of report (log) from monitor to file (for service purposes – report sending)

## Programming mode (position OFF)

GLWV is signalling programming mode by message „Device in stand by mode“ and permanent light of yellow LED (GSM). Program indicates mode by switch in position „OFF“. All parameters are automatically recorded from GLWV to the program.



### „EMERGENCY“ folder

It is designed for emergency call parameters programming

The screenshot shows the GLWVset software interface with the "EMERGENCY" folder selected. The interface includes various settings for emergency calls, such as activation time, blocking duration, and speaker loudness. Annotations point to specific features:

- „EMERGENCY“ button**: Points to the "EMERGENCY" folder icon.
- Press time for call activation**: Points to the "Push for activate" setting (3 sec).
- Closing time of IN2 port necessary to start of call blocking**: Points to the "Port close for activate" setting (0 sec).
- Blocking duration after IN2 port is open**: Points to the "Blocking duration" setting (20 sec).
- Speaker loudness**: Points to the "volume" slider.
- Control of „Emergency alarm“ mode**: Points to the "Emergency alarm mode" checkbox.
- Waiting for connection before dialling next number**: Points to the "Waiting for next" setting (20 sec).
- Field to programm up 7 phone numbers for emergency call**: Points to the "MASTER1" through "MASTER7" list.
- Microphone sensitivity**: Points to the "Mic" slider.

The interface also displays a signal strength bar, operator information ("T-Mobile CZ"), board voltage (3960 mV), SIM card number (250), version (1.0), and GLWV version (103).

## Folder „SERVICE

It is designed for service call parameters programming

The screenshot shows the 'SERVICE' folder in the GLWVset software. The interface includes a top menu bar with 'Phone Book', 'Ports', and 'Support'. Below this is a sub-menu with 'EMERGENCY' and 'SERVICE'. The 'SERVICE' sub-menu is active, displaying a clock icon and a 'Periode of test' section with dropdowns for 'day(s)' (set to 3) and 'hour(s)' (set to 9), and a checkbox for '+ randomize of minutes via ME'. To the right, there's a 'Test type setting' section with checkboxes for 'Test Call', 'Test Acoustic path', and 'SMS TEST'. Below these are input fields for 'TEST1' through 'TEST7' and 'TEST8', each with a phone number. A red arrow points to the 'TEST1' field with the text '20 sec.'. On the right side, there's a 'GSM LiftWatch' section with 'ON' and 'OFF' buttons, a 'Load' button, and a 'Battery' section with a battery level indicator and voltage readings (3960 mV and 15.2 V). At the bottom, there's a 'signal' bar and a status bar showing 'Operator: "T-Mobile CZ"', 'board voltage: 3960 mV', 'SIM: 250', 'Ver: 1.0', and 'GLWV Ver: 103'. Several callouts provide additional information: 'Period of TEST function activation' points to the 'Periode of test' section; 'Movement of TESTs start from midnight' points to the 'hour(s)' dropdown; 'Test type setting' points to the 'Test Call', 'Test Acoustic path', and 'SMS TEST' checkboxes; 'Number for sending status SMS' points to the 'TEST8' field; 'Waiting for connection before dialling next number in order. Overtake from EMERGENCY' points to the 'TEST1' field; and 'Field to programm up 7 phone numbers of service call' points to the 'TEST1' through 'TEST7' fields.

Period of TEST function activation

Movement of TESTs start from midnight

Test type setting

20 sec.

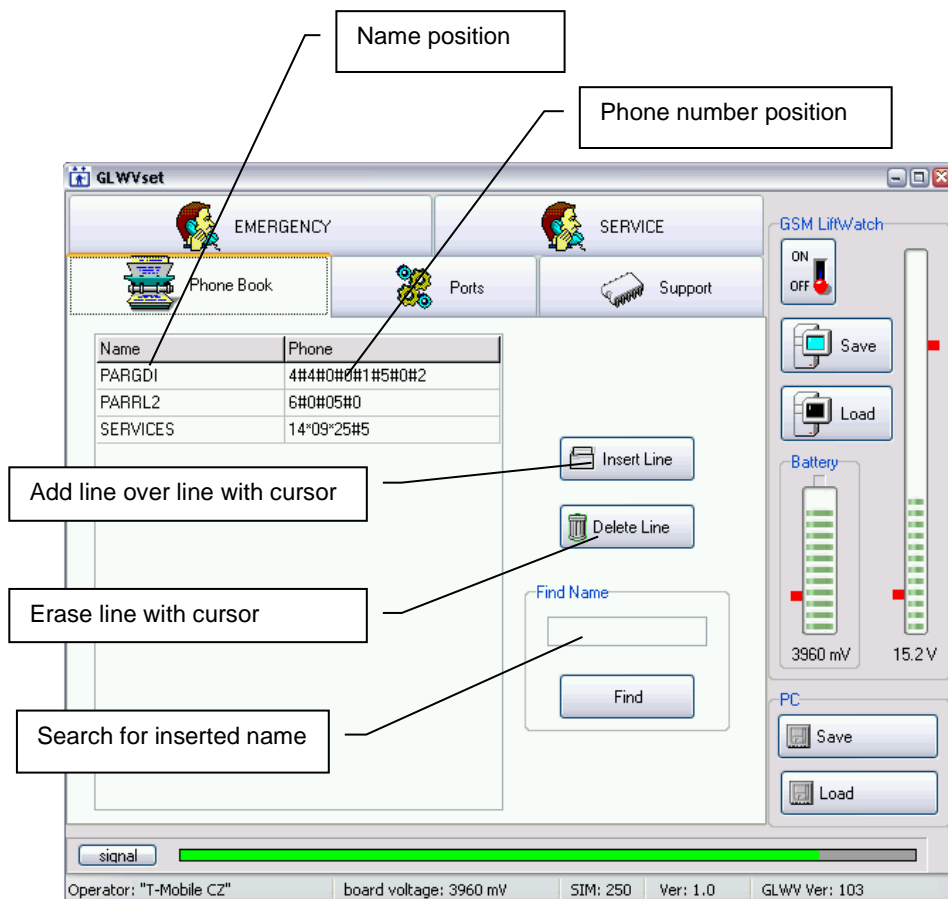
Number for sending status SMS

Waiting for connection before dialling next number in order. Overtake from EMERGENCY

Field to programm up 7 phone numbers of service call

## Phone Book folder

Phone book on the SIM – checking numbers on the SIM – for example: GSM operator, service status (SERVICE) etc....



## „Ports“ folder

Relay mode setting

Numbers where are send SMS when IN1 port is open and closed  
When number is not filled SMS is not send

Relay 1

- ☐ SMS switch
- ☐ Emergency alarm mode
- ☐ camera
- ☐ running
- ☐ light
- ☐ button
- ☒ service OK

switching time 10 sec.

IN1

SMS PORT OPEN

SMS PORT CLOSE +420603417366

☐ ECALLmode

☒ Service OK

Power supply monitor

Low supply voltage 11.5 V

Information about mode which influence using type of IN1 port(SMS)

Voltage on limit level for decision acceptable/low voltage.

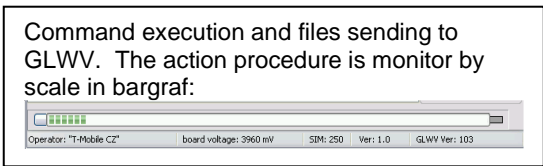
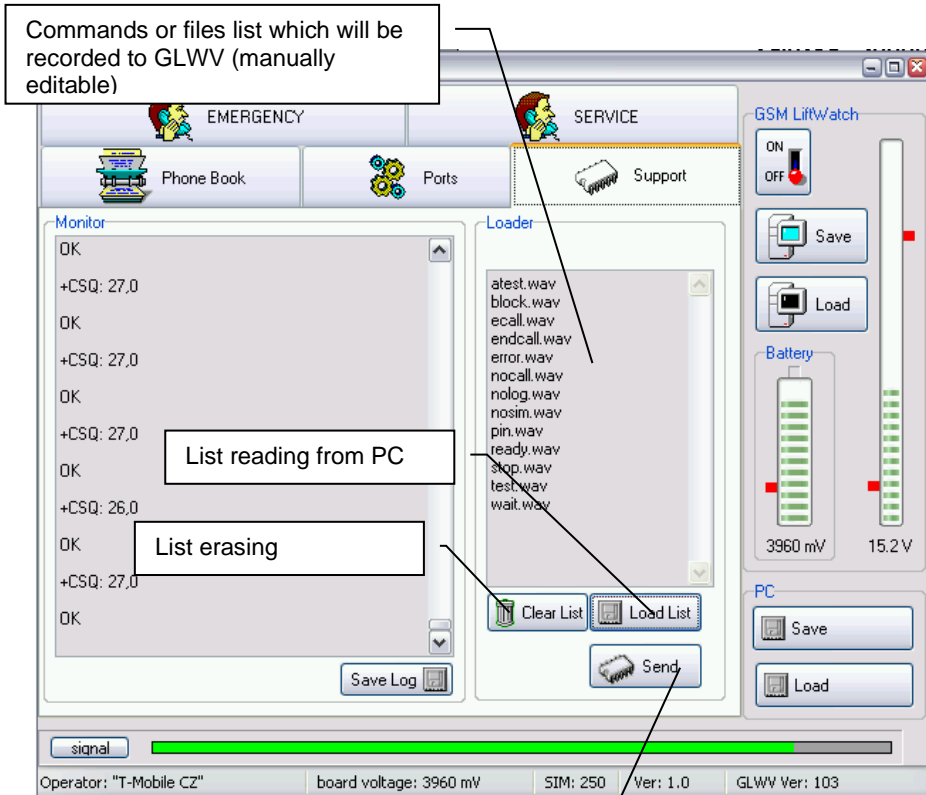
Items connected to relay closing time

Relay closing time

## „Support“ folder

In „ON“ mode is designed for operation monitor (via „ON“ mode) In „OFF“ mode is designed for upgrade fw, adjustment voice messages and SMS contents.

**CAUTION! Not expert manipulation might caused unfunctionally of GLWV which is not responsibility of producer.**



## Examples

We recommend copy of command examples from CD to directory with PC configuration program.

### Voice messages substitution by other language from sent file.

1. open the zip file (even with directory) into directory where you have PC configuration program GLWVset.
2. Click on button „Load List“ (via previous picture) and in opened directory select file „VoiceMessages.ifo„ – it shows list of voice messages – wav files – which will be recorded to GLWV (via previous picture).
3. by click on „Send“ button send files into GLWV – procedure is indicated by growing scale in bargraf.

Note: When you desire load the same list again (for example after test and adjustment some files – via follow), you cant read the list again. Contrarily when you desire load other list you must erase previous list – otherwise lists are added together to execute more actions simultaneously.(via follow)

### Erasing of „emergency communicator of lift“

1. Click on button „Load List“ and at commands examples select file „DELMessageECALL.ifo“ – script (command will be shown in list of commands).

By click on „Send“ button send command to GLWV – procedure is indicated by growing scale in bargraf.

### Voice message substitution by own messages with miss message „emergency communicator of lift“

1. Zip file VoiceMessages from examples open (even with directory) to directory in which you have PC configuration program GLWVset
2. Files substitute by yours (except file ecall.wav) in the same format (wav, PCM, 8kHz, mono, 8 bits) – maximal length of one file might be 64000 byte. The files names must be kept.
3. The file ecall.wav you can erase (May not but it will be uselessly recorded to GLWV)
4. Into directory with corrected wav files (and file „VoiceMessages.ifo„) copy from examples next script file- „DELMessageECALL.ifo“
5. Click on button „Load List“ and at directory select file „VoiceMessages.ifo„ – will be shown list of voice messages – wav files – which will be recorded to GLWV
6. We have to also provide erasing useless file „ecall.wav“ from GLWV: Click again on button „Load List“ and add one more file „DELMessageECALL.ifo“ – in report is now list of recorded wav files supplemented by command for erasing file „ecall.wav“
7. By click on button „Send“ send files and command to erasing together to GLWV. – process is indicated by growing scale in bargraf.

### Lift identification by voice message.

When is not enough identification by CLIP (calling party number) which might be easily processed you can download your voice lift identification instead of standard message „emergency communicator of lift“ which is played after pickup of emergency call from lift by operator.

1. Into preselected directory copy contents of directory „ident“ from examples (file „ecall.wav“ and „EcallMessages.ifo“).
2. Create here your file ecall.wav (wav, PCM, 8kHz, mono, 8 bits) with your own identifying record. As base you might use current ecall.wav.

3. Click on button „Load List“ and in directory select file „EcallMessages.ifo“ – will be shown list of sound messages (here just one – ecall.wav) which will be recorded to GLWV.
4. By click on button „Send“ send file to GLWV (you rewrite current „ecall.wav“ by your own file) – process is indicated by growing scale in bargraf.

#### Contents change of sending SMS messages.

1. to preselected directory copy contents „SMSs“ directory from examples (file „SMSs.txt“ and „SMSsupgrade.ifo“).
2. In text file SMSs.txt adjust text on right side from „=“ according your requests. Text must be without diacritics (hitch and comma), line spacing („Enter“). The length is maximal 100 letters per one SMS.
3. Click on button „Load List“ and in directory select file „SMSsupgrade.ifo“ – in recorded list will appear file of text messages.
4. By click on „Send“ button send file to GLWV – process is indicated by growing scale in bargraf.

#### Upgrade fw GLWV

1. ZIP file with upgrade open (even with directory) into directory where you have PC configuration programm GLWVset.
2. Click on button „Load List“ and in recorded directory select file „glwvupgrade.ifo“ – in recorded list will appear file upgrade.
3. By click on button „Send“ send file to GLWV – process is indicated by growing scale in bargraf.

## Return from programming mode to stand by mode „ON“ (again start of GLWV)

When all settings is done by press button Save do GDI.

GLWV will start again by switching to mode „ON“ – click on button. Program will send signal to GLWV and wait for answer (monitor by bargraf – via picture)

Program control status of GLWV and operation start signalled by moving of switch to position „ON“

Push for activate



3

sec.



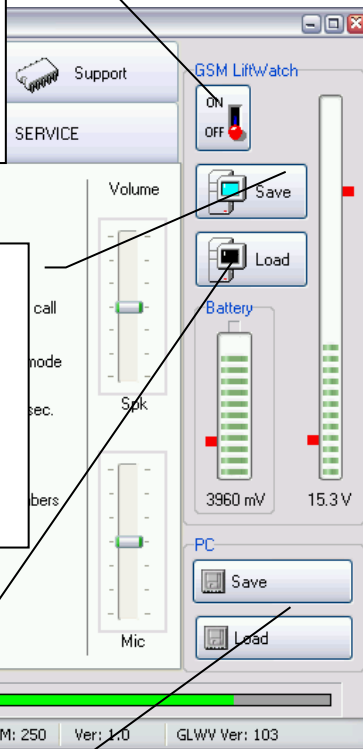
Emergency call

When settings of all parameters is done (not concern activities on button „Support“, save all by button „Save“ to GLWV. Process of saving is indicated by bargraf– via picture.

Therefore all positions on SIM card are progressively rewrite or erase it can také a couple of minutes ( according size of SIM card). The end of operation is signalled by bargraf disappearing.

In „OFF“ mode you can record all parameters to GLWV program anytime.

You can save or record parameters from PC



**After GLWV restart its behaviour is same as power supply connection (LED, voice information)**




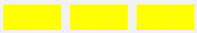










## **Function Calibrate the acoustic path.**

If you want to use the Acoustic Path Test function (see settings) and you are using multiple connected ReMic devices, the device has difficult conditions for status recognition (multiple microphones and speakers are connected). In this case, it is necessary to measure the acoustic path in good condition (with the final ReMics positioning and volume setting). The device stores the measured values as reference. The device then, during the acoustic path test, compares these calibration values with the ranks newly in the measured test. The comparison then evaluates the momentary deviation of the acoustic path parameters.

Calibration can only be started by SMS "START ACALIB".



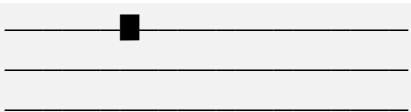
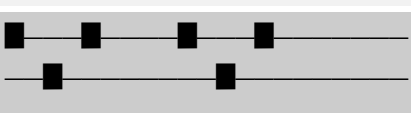
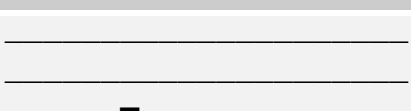

If a outgoing call has been made just before the calibration (eg when testing the device or device performs function Automatic test), the device will wait about 2 minutes and then perform the calibration afterwards.

## GLWV LED signalling

Blue LED (PWR)		<b>Permanent light</b> GLWV power supply ON <b>Permanent light – weak lighting</b> GLWV is powered from backup ACU
		<b>Not light</b> GLWV is OFF
Yellow LED (GSM)		<b>Short flashing with period 2 sec.</b> GLWV initiating (registration to GSM network, parameters reading etc.)
		<b>1 to 5x short flash</b> GLWV in stand by mode, number of flashes express GSM signal strength
		<b>Flashing, long flash, short space</b> call is running (connection)
		<b>Fast short flashing</b> SMS message sending
		<b>Permanent light</b> GLWV is in programming mode (mode "OFF")
Green LED (REL)		<b>Permanent light</b> relay closed
		<b>Not light</b> relay open
Green LED (IN1, IN2)		<b>Permanent light</b> port short circuited against ground (port voltage < 1V)
		<b>Not light</b> port open (port voltage > 2V)
Yellow LED (ACT)		<b>Permanent light</b> Activation of emergency call by button press (copy closing I1 port on ReMic)
		<b>Alternating flashing 1 sec green / red.</b>
Green LED (CON)		Negative result of automatic test (TESTx connection) - new EN 81-28
		<b>Permanent light</b> emergency call picked up by called party (operator) (copy closing I2 port on ReMic)
Red LED (ARM)		<b>Permanent light</b> emergency button is pressed
Red LED (USB)		<b>Permanent light</b> GLWV connected to PC via USB cable

## GLWV voice messages and tones

Besides ordinary tones and signals of GSM communication (ringing tone, busy tone, different operator messages), has GLWV own operation signals.

	<b>Trill up</b> start (restart) GLWV
	<b>medium height tone</b> GLWV accepted press of emergency button
	<b>High tone once after number dialing</b> GLWV gets answer form GSM network during making connection (for example: callpick up by called party)
	<b>2x trill</b> SMS message received
	<b>Low tone– error</b> GLWV identified error (for example: low voltage, no GSM reaction for command. You can react by unit reset.
	<b>Beep by high tone with growing number of beeps.</b> GLWV identified disconnection from GSM network (antena d isconnected, too low GSM signal...)
Message ready.wav: <b>„Device in stand by mode“</b>	GLWV after start (restart) is ready for operation
Message stop.wav: <b>„Device in programming mode“</b>	GLWV way switched by programm to programming mode
Message atest.wav: <b>„Sound test: 1, 2, 3, 4. End.“</b>	GLWV tests local acoustic connection (GLWV-cable to ReMic-speaker-microphone-cable to GLWV). we recommend to not change this message - it is adjusted for acoustic connection t est.

Message block.wav: <b>„Emergency call is blocked. Try again later please.“</b>	Message during button press and call blocking by port IN2
Message ecall.wav: <b>„Emergency communicator of lift.“</b>	Message during making connection - call picked up by called party ( operator) green LED (CON) light up, I2 on ReMic is closed
Message endcall.wav: <b>„Call is terminated.“</b>	Message when call is hanged up green LED (CON) light off , port I2(I1) on ReMic is opened
Message error.wav: <b>„ERROR“</b>	Message during error in unit
Message nocall.wav: <b>„Connection failed. Try again later please.“</b>	Message in case of unsuccesfull connection with any phone number programmed in line MASTERx yellow LED (ACT) light off, port I1 on ReMic is opened
Message nolog.wav: <b>„Not log in GSM network.“</b>	GLWV is not capable registrate after start to GSM network - Probably not connected antenna or too low GSM signal
Message nosim.wav: <b>„SIM card is not inserted.“</b>	GLWV not detected SIM card - either is not at all or incorrectly inserted
Message pin.wav: <b>„Incorrect PIN.“</b>	Message after start in case of inserted SIM card with PIN diferent from 0000 or with PIN corresponding to unique number of GSM modul (via capture SIM PIN)
Message test.wav: <b>„Attention. This is a test connection.“</b>	message during test connection (calling from line TESTx).
Message timeout.wav: <b>„Attention. The connection will be terminated.“</b>	Message before automatic ending of connection (after 5 minutes).
Message wait.wav: <b>„Wait please to connection.“</b>	Message during emergency call activation.

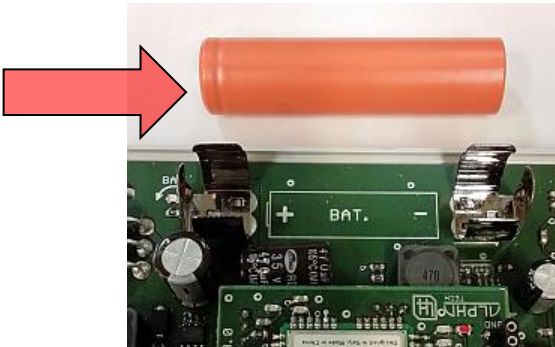
## GLWV with backup ACU

When you have GLWV with backup ACU already integrated before installing and operation start check if ACU switch is in down position (off).

**Do not store unit with ACU when ACU switch is not in down position!** By self discharging might be ACU destroyed without warranty.

### Inserting of ACU:

- Use ACU approved by producer only: Li-Ion 18650, 2000-2600mAh
- Keep polarity. Never insert ACU in wrong polarity! You can damage whole unit!



**CAUTION on polarity!**  
**+ of ACU is isolated hat from ACU**

**The switch must be in the bottom position!**



**When ACU polarity is incorrect flash or light permanently red LED.**

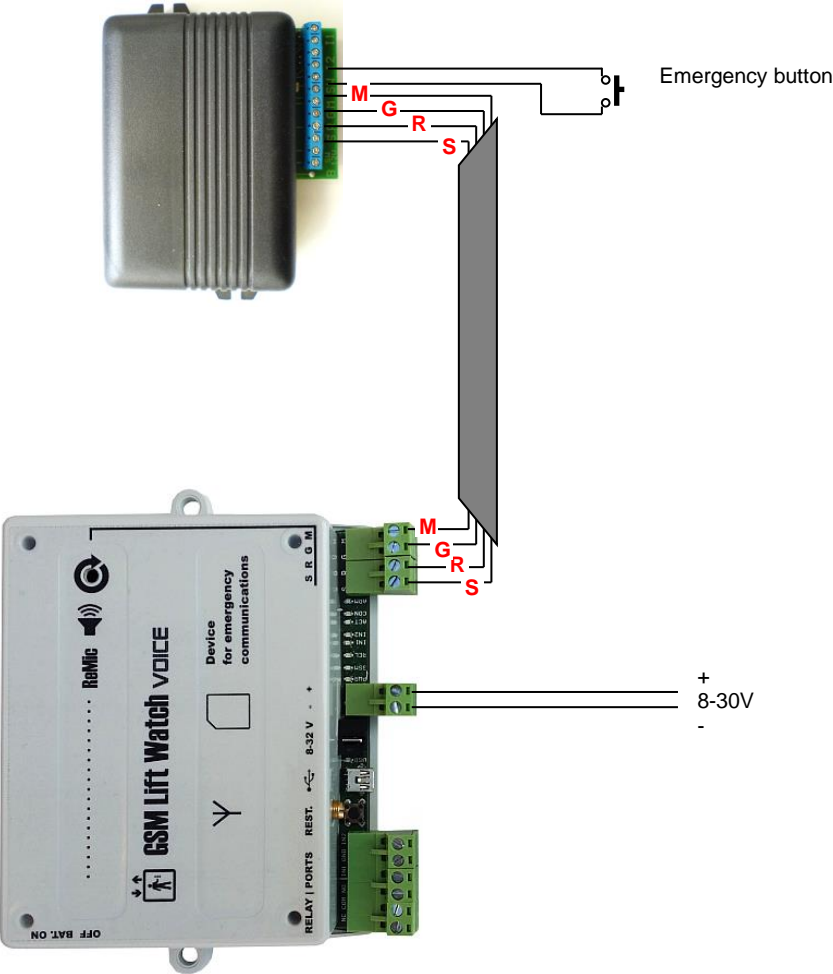


When all is correct then connect power supply and move switch to up position. – By this connect ACU into system.

Test ACU operation by disconnecting of main power supply.

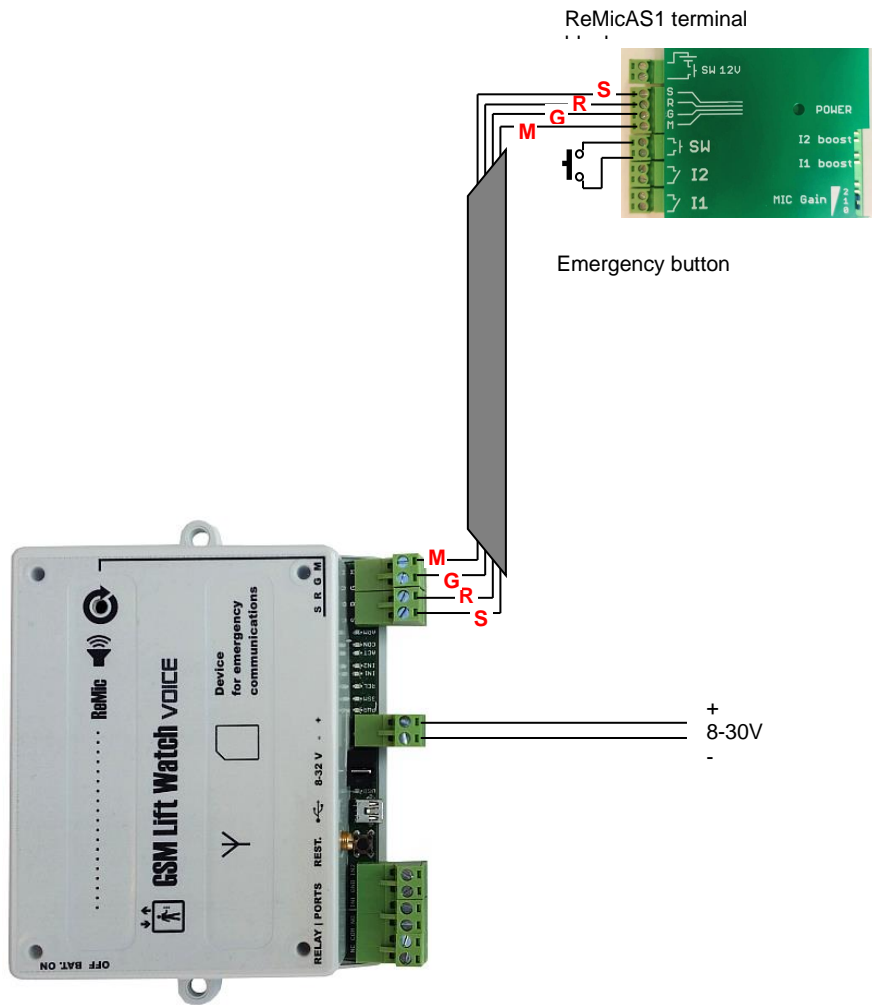
**We not provide warranty for damages caused by incorrect progress of ACU connection.**

**Simplest connection ReMicA1 without optical signalling**  
signalling in lift cabin by voice only, power supply from lift system.

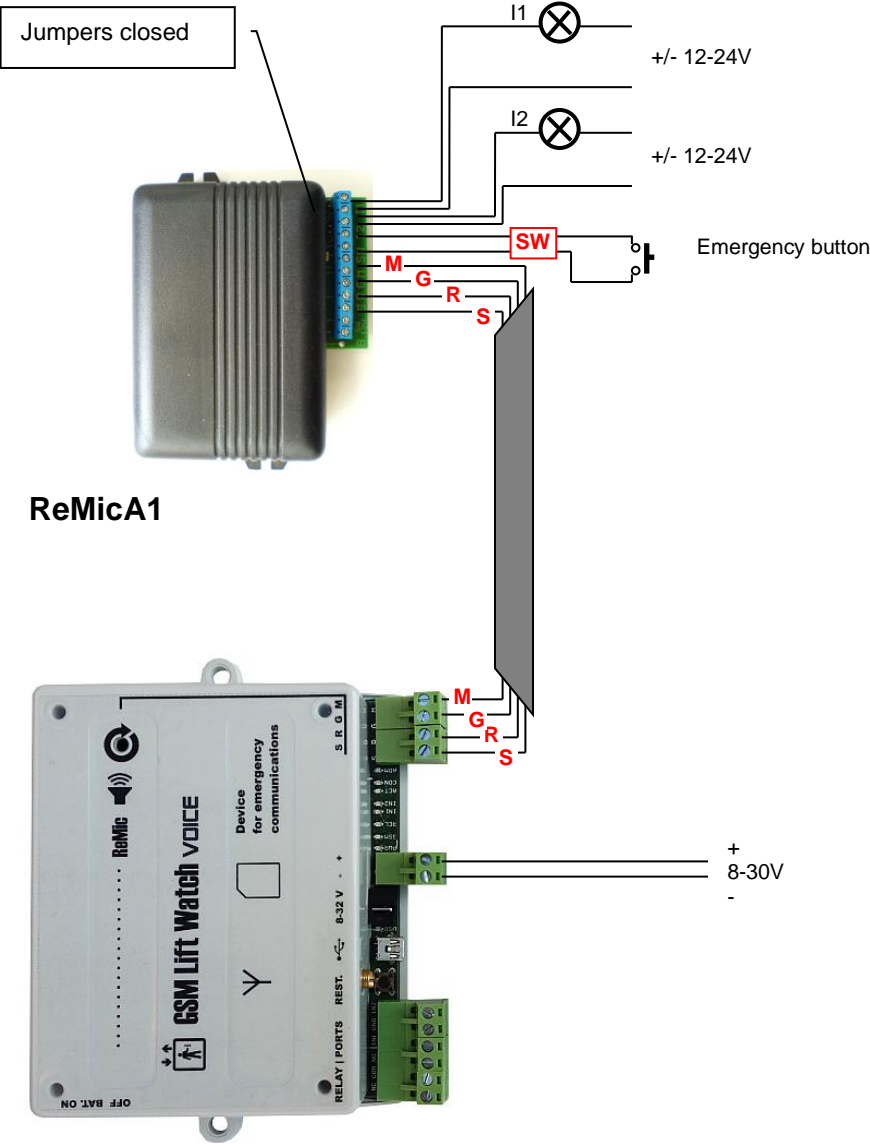


# Simplest connection ReMicAS1 without optical signalling

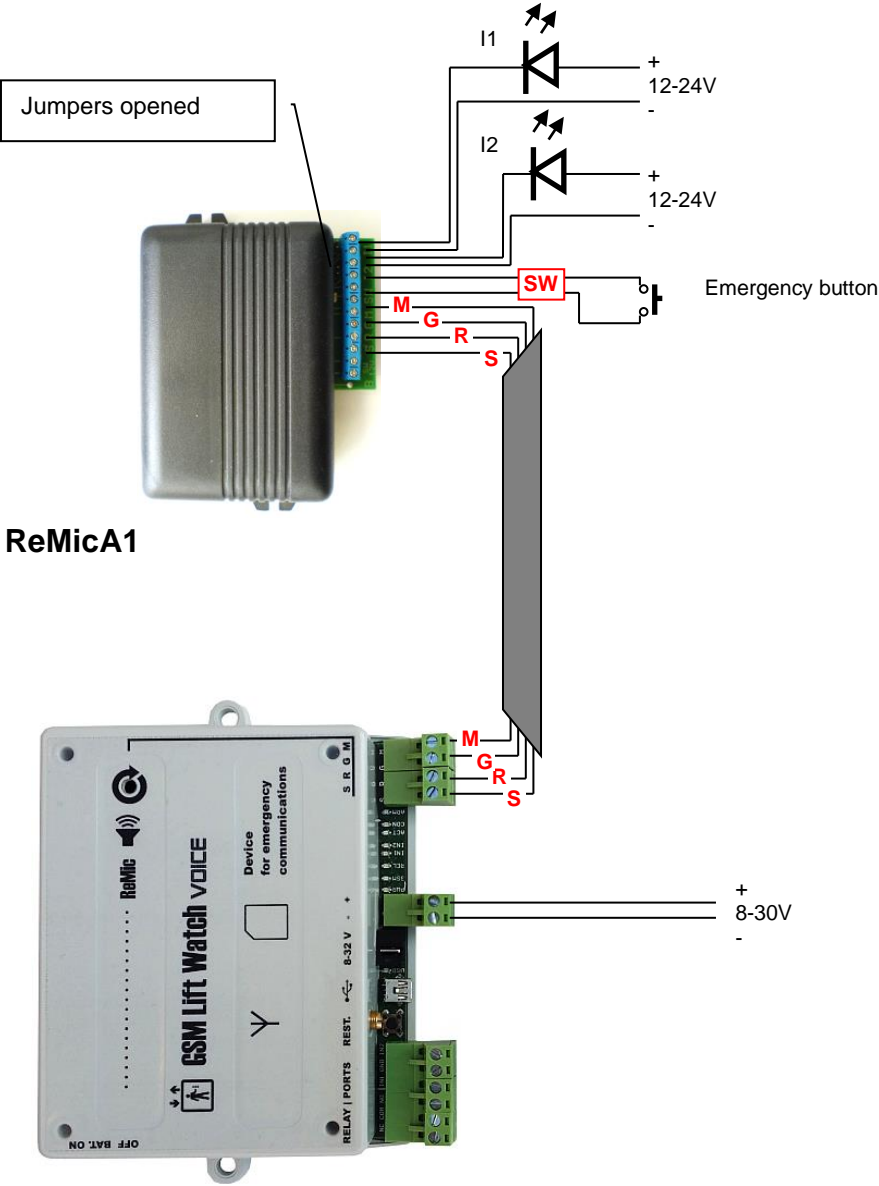
The schematic is the same as on the previous page. Because it is completely identical, the other examples that will be for ReMicA1 also apply to ReMicAS1.



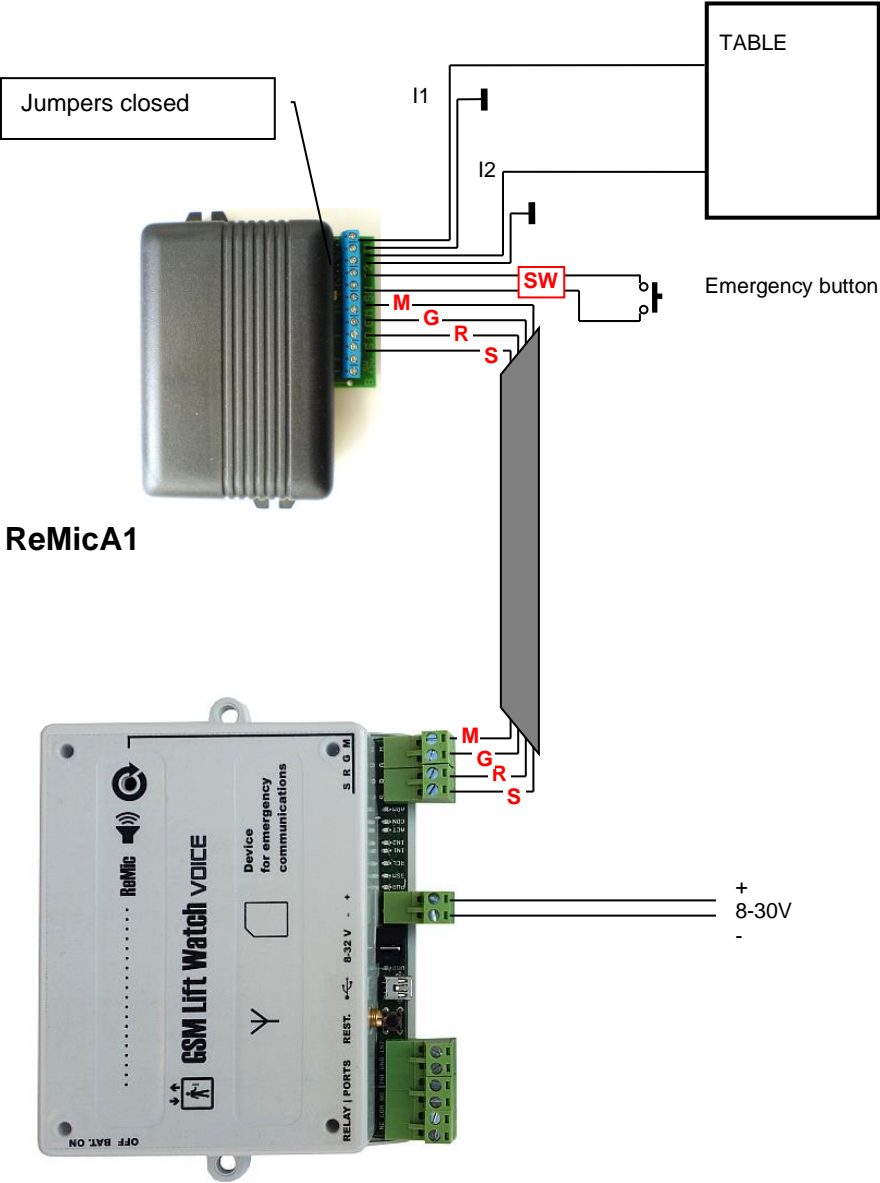
**Basic connection ReMicA1 with signalling bulbs**  
power supply from lift system.



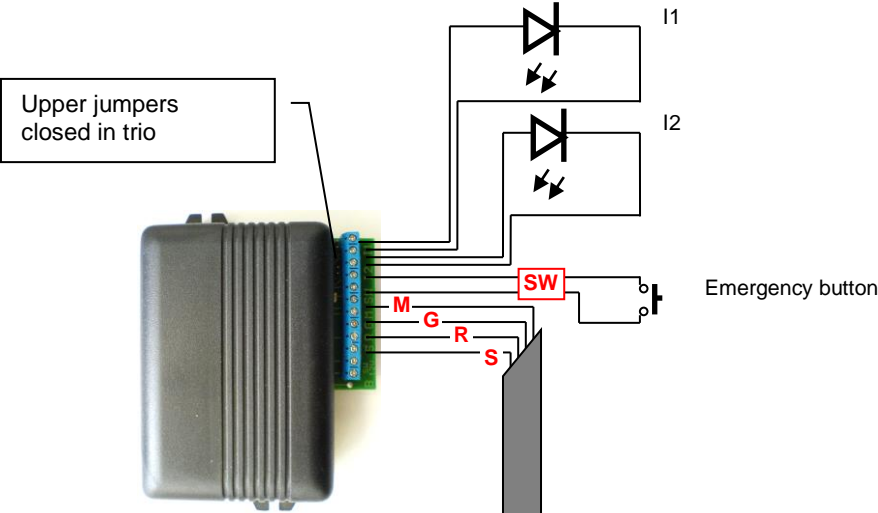
**Basic connection ReMicA1 with signalling LEDs**  
power supply from lift system.



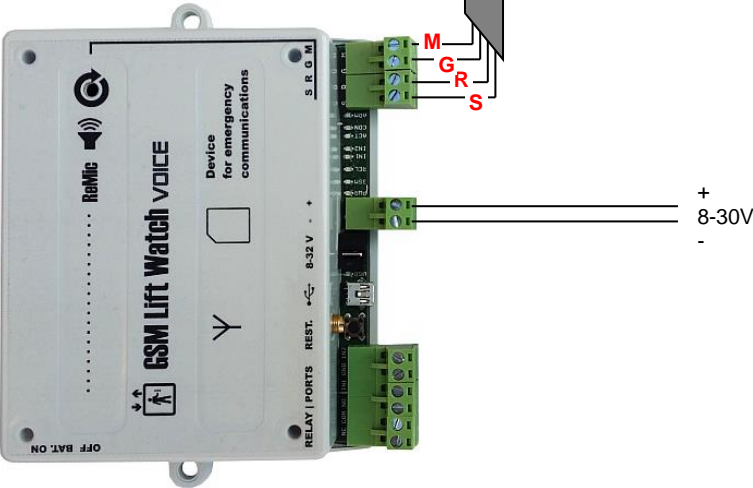
**Basic connection ReMicA1 with controlling of signalling logic inputs table in the cab (to ground)  
power supply from lift system.**



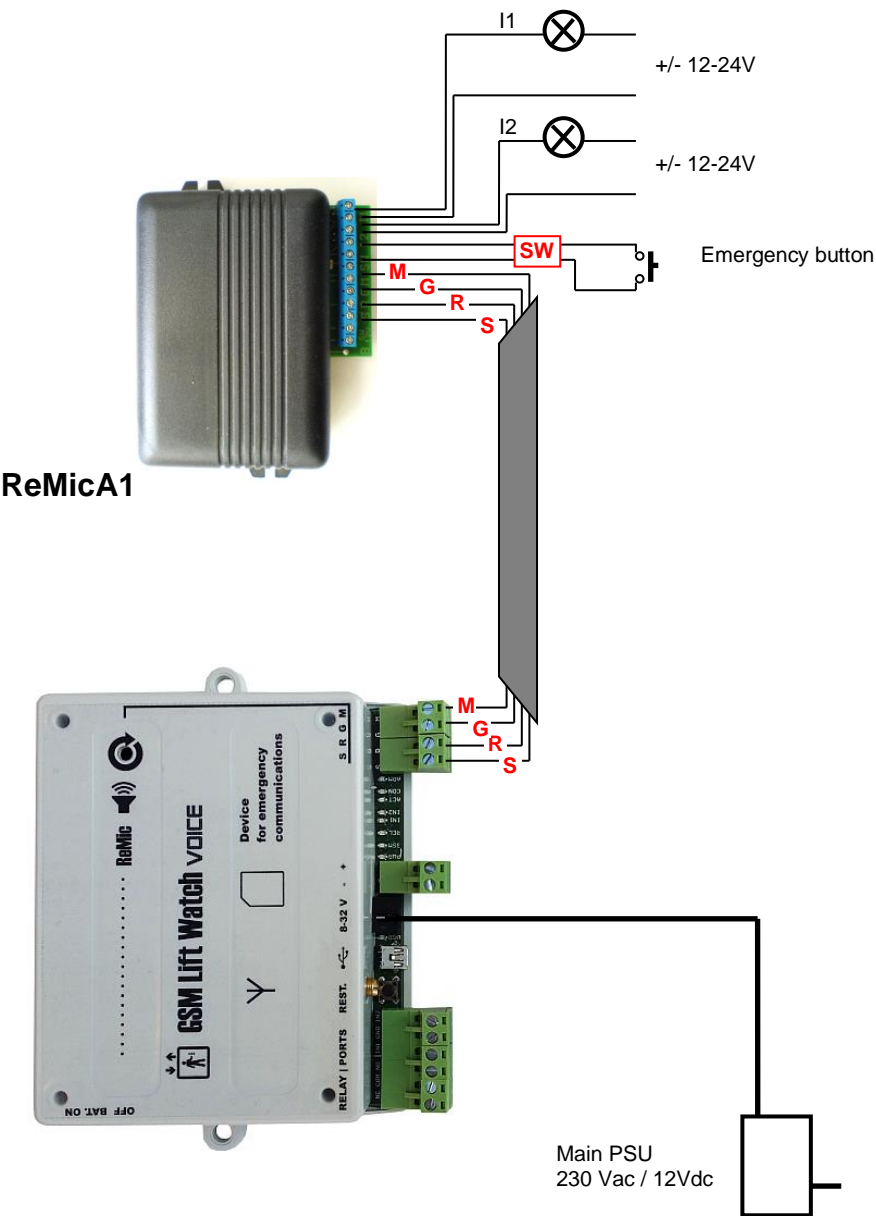
**Basic connection ReMicL1 with signalling LEDs**  
power supply from lift system.  
(ReMicL1 is intended only for direct LED connection)



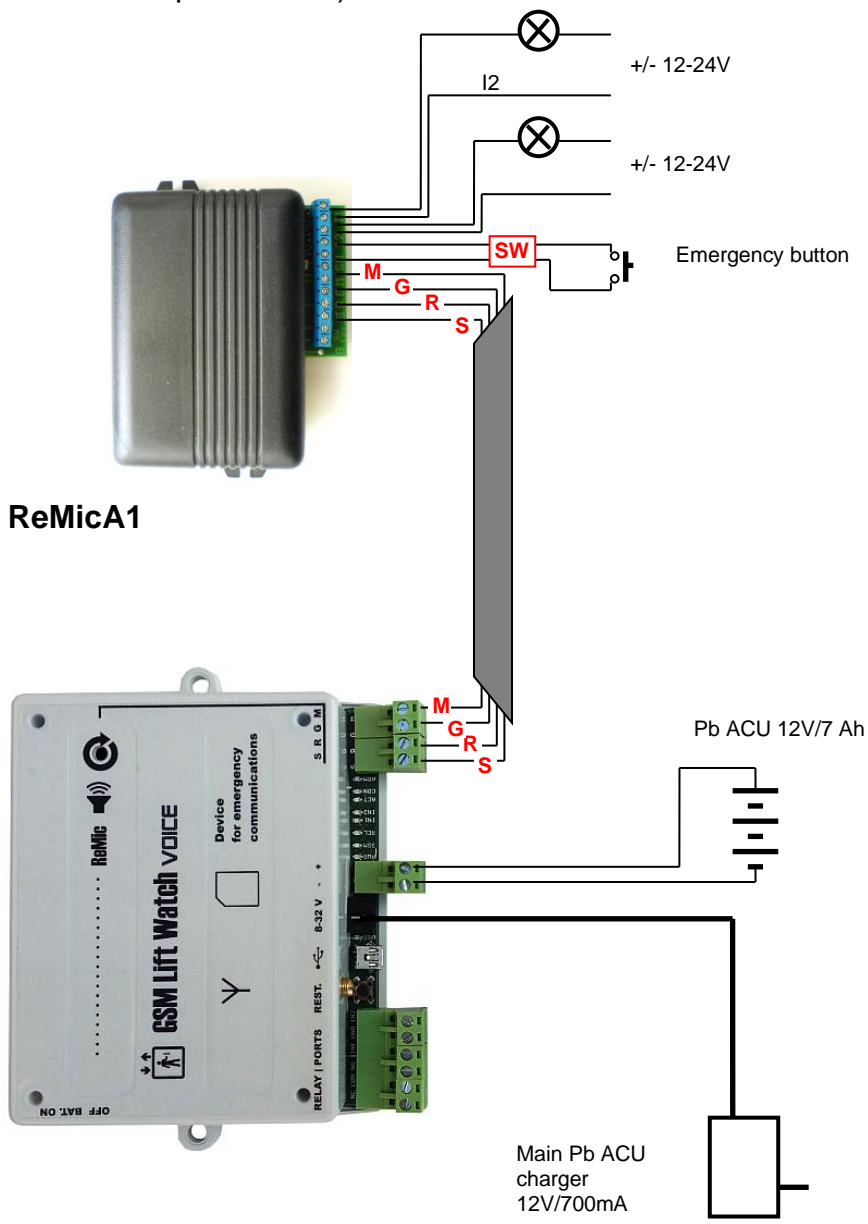
**ReMicL**



Basic connection with main power supply

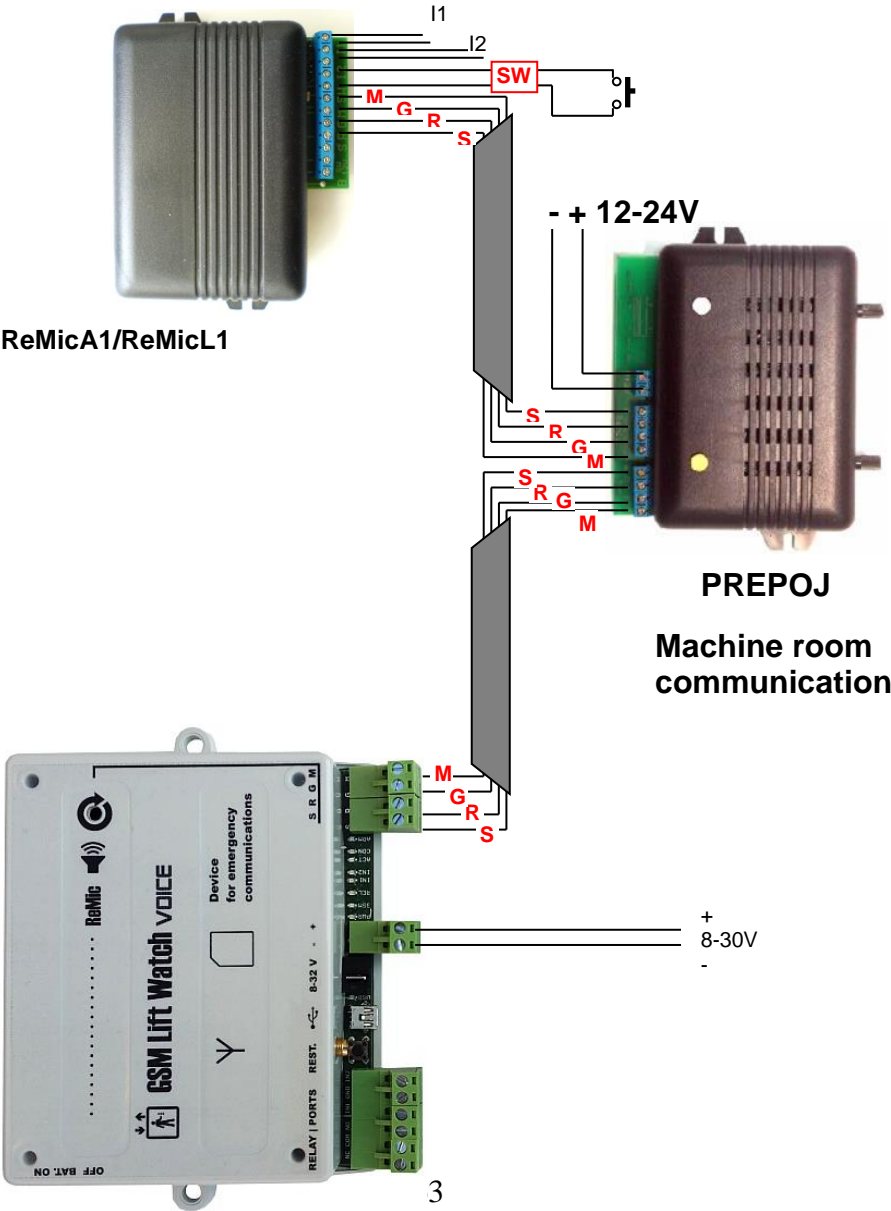


**Connection example with external ACU and charger**  
(Of course, the device may include a built-in backup battery - see technical parameters)



Connection example for lift cabin – machine room (PREPOJ) communication

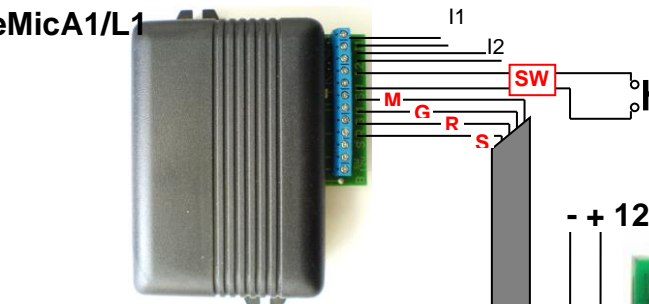
Lift cabin communication



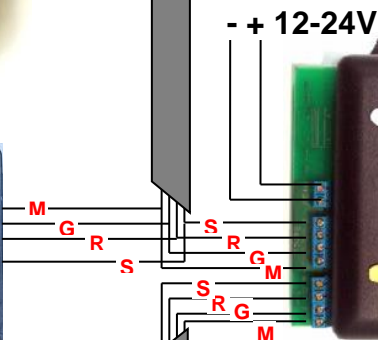
# **Connection example for communication lift cabin – shaft – machine room (totally possible connect 3pcs ReMic)**

## **Lift cabin communication**

ReMicA1/L1

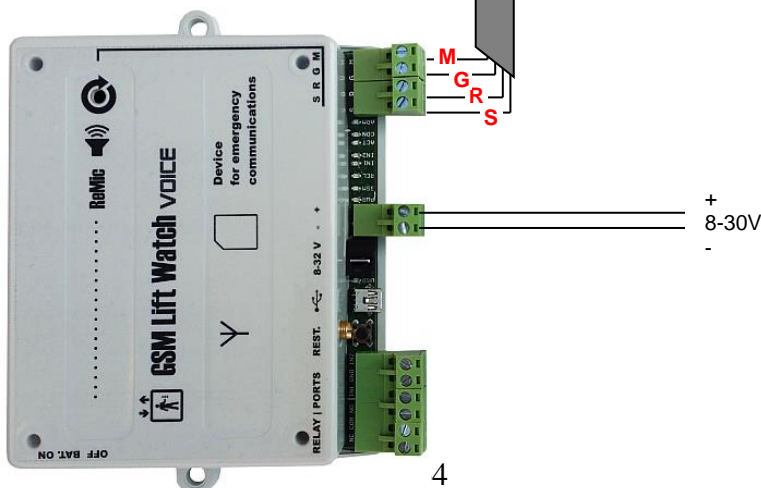


## **Lift shaft communication** **2x ReMicB**

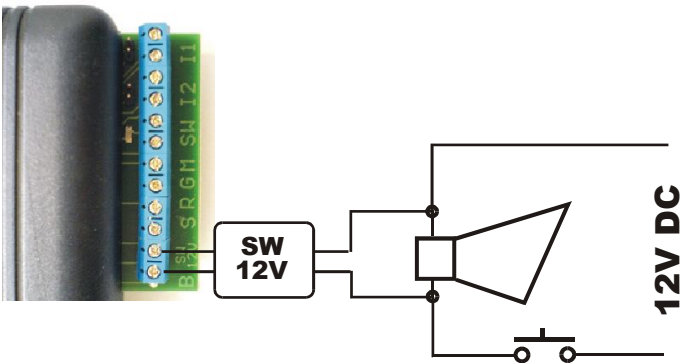


**PREPOJ**

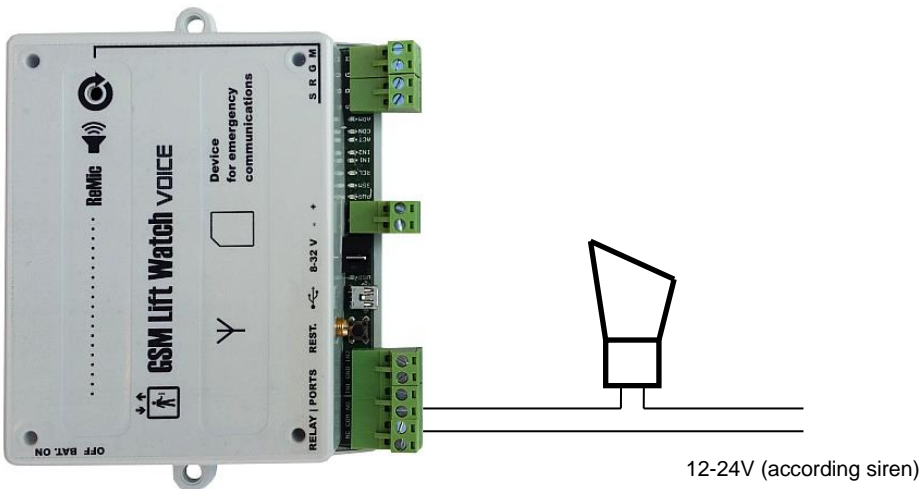
## **Machine room communication**



**Connection example of activation by galvanically isolated screws of switch 12V ReMicA(L)1 – connection to bell or siren.**

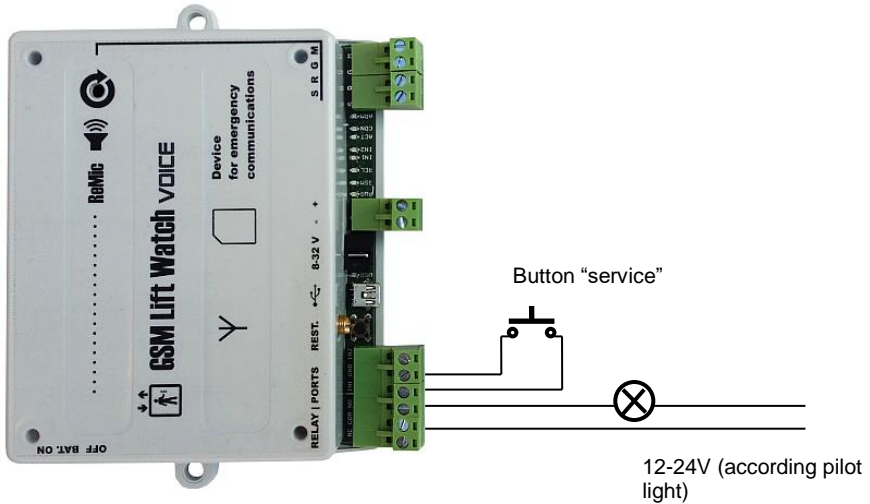


**Siren connection example in relay mode „button“**  
(Relay closed during button press)



## Connection example of „service“ button with pilot light of „confirmation“

(Pilot light will lights up when GLWV receive „service“ button press and send SMS)





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