

Welcome

The RUKRA Elevator Phone is designed for emergency call from lift to first aid (service department, police, etc...)

The RUKRA ElevatorPhone is certified for 1 to 5 lift cabin. It is connectable to analog PSTN, GSM or VOIP-line or analog extension of PABX. The RUKRA ElevatorPhone is powered from telephone line – the features reminds hands free phone. Is possible to one telephone line connect up to 5 RUKRA ElevatorPhones parallel. It is completely independent on lift power supply. The LED signalization as same as status detection is powered from telephone line, extended signalization requires connection of external power supply. All inputs on basic module are galvanically connected with telephone line.

Basic module is possible expand on Monitoring module. The Monitoring module is powered only from 12/24V and it's galvanically isolated from telephone line including inputs and outputs on the Monitoring board.

The RUKRA ElevatorPhone has adjustable parametres saved in internal memory. The parametres might be programmed either by phone via tone (DTMF) dial or by computer PC via configuration software. For connection the RUKRA ElevatorPhone to PC you have to use special USB cabel.

After button pressing the RUKRA ElevatorPhone enables to make phone call up 6 numbers max 16 digits in tone or pulse dial. It is possible also dial “ * ”, “ # ”, **Pauze** and **Flash** in tone dial. The button activation might be blocked by input BLOCK.

At all numbers is possible to use mode with or without confirmation.



The manufacturer continuously improves the product firmware. The technology used allows you to upload to RUKRA ElevatorPhone the latest version of the firmware any time using a standard computer with RUKRA ElevatorPhoneSet and USB cable. The latest version of the firmware is available at <http://www.rukra.eu>



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(for FW 4.45 and higher)

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1. Basic description

1.1 Features

- The Basic unit is powered from telephone line only.
- The unit includes acoustic part (microphone and connection to speaker) and LED indication – compact solution!
- Programming is either remotely by phone (DTMF tones) or by PC (cable on USB port) or remotely by BlackBox from PC.
- It includes indication light (LED) – yellow, indication of dialling the number.
- It includes indication light (LED) – green, indication confirm of call.
- Possible connect pushbutton with switch-on or switch-off contacts
- Possible connect two pushbuttons - one with blocking second without function blocking
- Input BLOCK (RUKRA ElevatorPhone alarmfilter) for blocking dial from button Btn2. This input is also for registration Engineer has arrived and Engineer has left the Elevator.
- Special mode with autoblocking function (from move of cabine door)
- The time of each button activation is adjustable from 0,5 sec to 39 sec
- The possibility of activation via third wire INT from "Prepoj" or two wire and up to 3 Elevator Phones paralel from „SwitchBoard“ for communication with machine room
- Inputs on Basic unit is galvanic connect with telephone line!
- Regular automatic control of system functionality (automatic calling to preprogrammed numbers in set time period from 1 to 59 days)
- Possible switched on acoustic tick to the conversation for speech recognition
- Adjustable parameters of tone dial, length of Flash and Pause
- Adjustable parametres of tones detector and parametres of acoustical signalization
- Elektronical loudness settings (without necessity open the unit)
- The possibility to programm 6 numbers (16 digits – includes *,#,Pause,Flash) with note if you want use confirmation or not .The numbers are progressively dial.
- Possible expand Basic module with Monitoring module and Speaker module.
- Automatic test of acoustic path (microphone and speaker). Switchtable by parameter.
- Automatic test of permanent activate buttons (BTN1 or BTN2)
- Possibility call to the machine room with SwitchBoard
- Possibility set mute for service, technical and counter calls

- Monitoring module is galvanic isolate from telephone line and powered only from 12/24V power supply:
 - Include 3 (8)* universal inputs.
 - Include 3 (4)* universal outputs (open collector).
 - Special input INP3 for connection to door contact for count of move the cabin.
 - Special relay output for connection parallel to button of lift system for activate move of cabin.
 - Two outputs for activate announcement message to cabin and to the telephone line (special outputs for Floortalker activate).
- * - two version of HW Monitoring module

1.2 Terminology

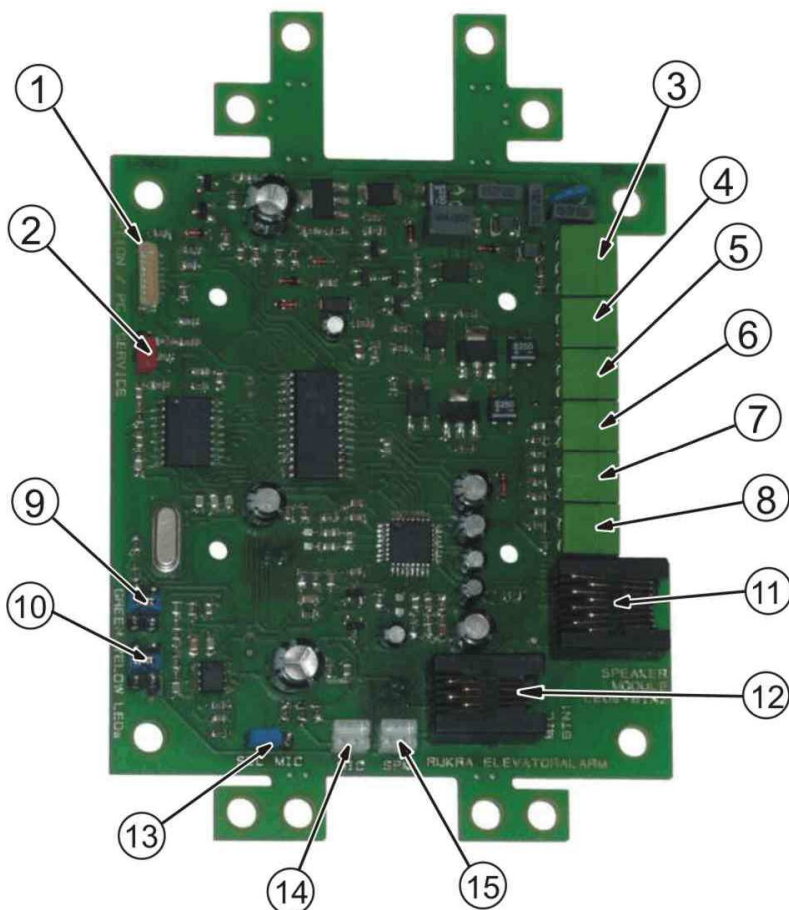
It is explain here the meaning of used words in manual.

Elevator Phone	it is final product designed for communication from lift cabin to service center.
Emergency call	it is person calling while lift failure or other emergency situation happened. It is activates by button pushing. The call is being between lift cabin and service center.
Service call	it is calling regularly repeated. (for example every 3 days). It is automatic proving of RUKRA ElevatorPhone functionality.
Technical call	it is calling caused by status change on input INP1 or INP2 on Monitoring module
Machine room call	it is calling between lift cabin and machine room.
Incoming call	it is calling coming from outside into RUKRA ElevatorPhone unit. The RUKRA ElevatorPhone pick up (you can programm parametres)
Dial	it is kind of dial on telephone line – dial (DTMF) dial (dial even acknowledgement * and # , use loop interruption = Flash) or pulse – (dial only numeral)
Telephone line	PSTN line (public line) (line coming directly from Telecommunication carrier) or extension line (coming from PBX)
Confirmation	dial of combination star * and numerals. After dialling of those characters the call is authorised and lift Elevator Phone reply ones of 4 kind answer
Serial number	each RUKRA ElevatorPhone has unique serial number since 00001 to 65535. This number is sending via DTMF every time when RUKRA ElevatorPhone receives confirmation character
Call connection	this status is indicated via lighting of green check –light and might be caused either by call confirmation (dial confirmation character) or when is not present ringing tone for longer time period.

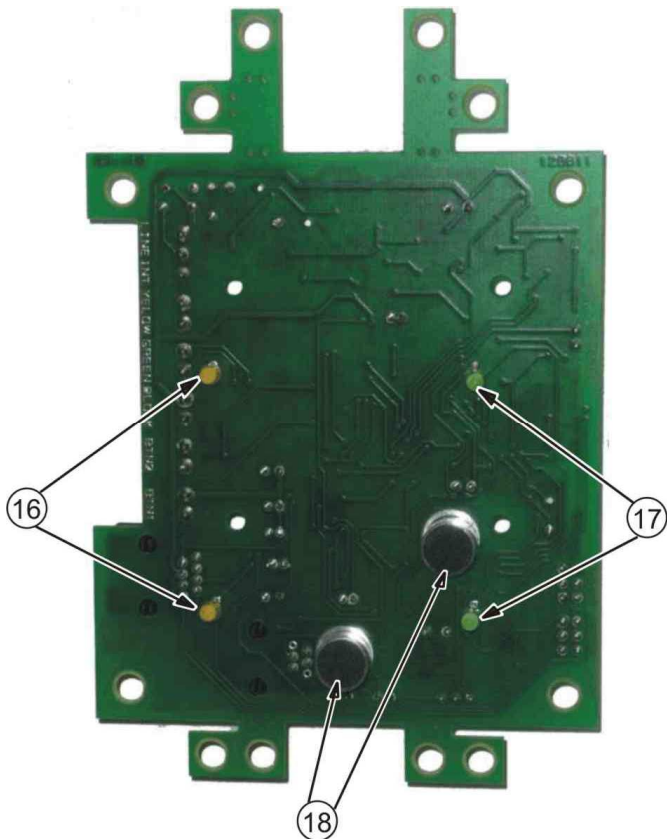
1.3 Description of the modules

1.3.1 Description of basic module

The RUKRA ElevatorPhone is compact solution of Elevator Phone, it means that contains LED, microphone, connector for PC connection (configuration). At picture 1 and 2 is drawing of RUKRA ElevatorPhone basic board. Functionality of connection is explain in follow chapters.



Picture 1: RUKRA ElevatorPhone Basic Board top



Picture 2 RUKRA ElevatorPhone Basic Board bottom

On Basic board is standard include two microphone and two LED pair of indication. Next possibilities of connection microphone is to connector on Basic board or to the connector on Speaker module or to the connection Btn1 connector for long distance on top or bottom cabine. Caution on polarity of microphone because is powered (+ -). Speaker is possible connect to the connector SPK on Basic board or to the Speaker module.

Here you can see that when is set high volume of microphone as same as speaker then signals influence each other. The result might be that call is interrupted or one direction is silent. Volume of all acoustic parameters is settings by program parameters.

1.3.2 Explanation of all mount points

Numbers on picture in circle:

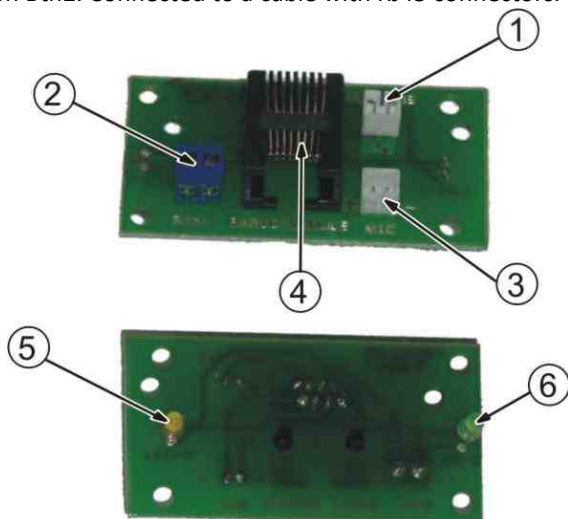
1. connector for **Monitoring module** connection or **PC** connection by special USB cable KAB. The cable is galvanically isolated convertor USB and RUKRA ElevatorPhone interface. Galvanical isolation is necessary because PC might be grounded and telephone line **MUST NOT** be grounded! All signals is galvanically connected with telephone line.
2. the jumper marked **SERVICE** is available for automatic enter to programming mode when password is forgotten. When jumper is ON and you make incoming call on RUKRA ElevatorPhone then after picking up you are directly in programming mode. In programming mode you can change all parametres includes new password as well.
3. telephone line connection - **LINE** and third wire connection **INT**, this signal activate call from machine room.
4. **Yellow** external indication output - galvanic isolate switch max 48V/0.5A
5. **Green** external indication output - galvanic isolate switch max 48V/0.5A
6. input for signal **block** of dial from button Btn2, this input is gavanically connect with telephone line. Use only contact without voltage potential, can be used NO or NC contacts.
Input can also be used for registration "Engineer arrived / Engineer has left"
7. input for button **Btn2** for emergency call with possibilities of blockinkg. Use only contact without voltage potential, can be used NO or NC contacts
8. input for button **Btn1** for emergency call without possibilities of blockinkg. For Technical call - End of RUKRA ElevatorPhone is possible use this button BTN1, resolution is in time (param. 52) if you hold the button longer then 8 x param.52 this call is Technical call. Use only contact without voltage potential, can be used NO or NC contacts
9. **jumpers** for setting output of indication **green LED**, up position is up LEDs row on basic board, middle position is down LEDs row on basic board and down position is LED on speaker module. Extenal indication is always active
10. **jumpers** for setting output of indication **yellow LED**, up position is up LEDs row on basic board, middle position is down LEDs row on basic board and down position is LED on speaker module. Extenal indication is always active
11. connection external **speaker module**, all signals is galvanically connect with telephone line
12. connection button **Btn1 with microphone** for install to top or bottom cabine, all signals is galvanically connect with telephone line, Btn1 is without possibilities of blockinkg
13. **jumper** for select **microphone** on basic board, if disconnect, so both microphone is disable



14. connector for connect **microphone**
15. connector for connect **speaker**
16. yellow LEDs
17. green LEDs
18. microphones

1.3.3 Description of Speaker module

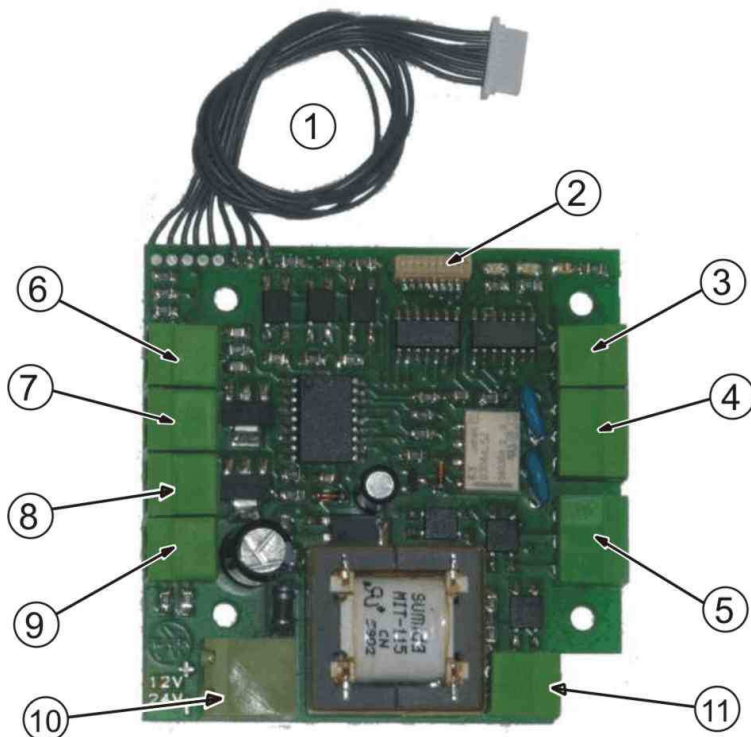
Speaker module is extended connection of speaker, microphone, LEDs indication and emergency button Btn2. Connected to a cable with RJ45 connectors.



1. connector for connect **speaker**
2. connection of button **Btn2** for emergency call with possibilities of blockinkg. Use only contact without voltage potential, can be used NO or NC contacts
3. conector for connect **microphone**
4. connection **to Basic module**
5. yellow LED
6. green LED

1.3.4 Description of Monitoring module V1

Monitoring module is expand module connection via PC programming conector. This connection contain galvanic isolation from telephone line. Module is powered only from 12/24V external power supply.All inputs and outputs is galvanically connected with 12/24V power supply, only contacts of relay (output 3) is galvanically isolated.

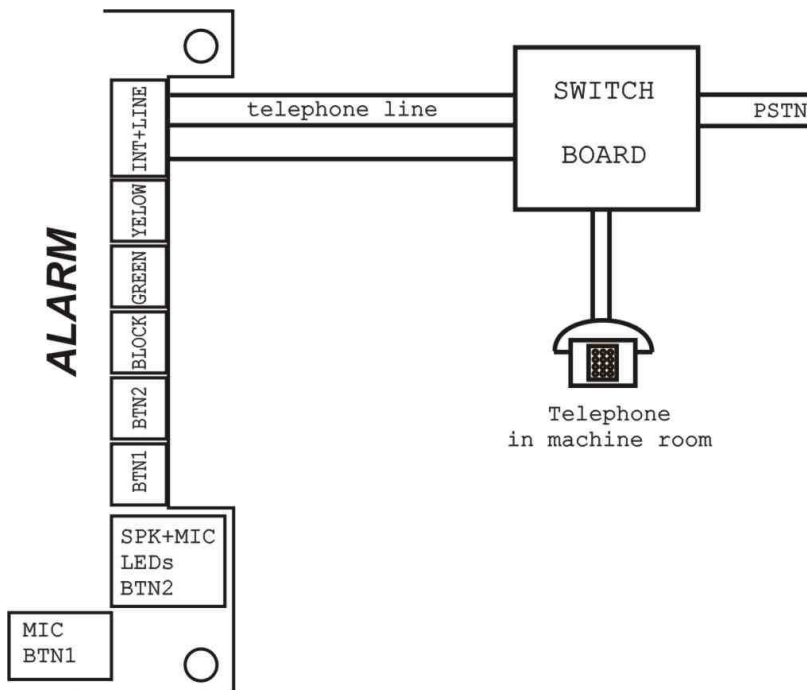


Numbers on picture in circle:

1. connection to **Basic module** of RUKRA ElevatorPhone
2. **PC** connection by special USB cable KAB. The cable is galvanically isolated convertor USB and RUKRA ElevatorPhone interface.
3. **Inp3** - input for counter of cabine moving
4. **Output3** - NC-COM-NO relay output for simulate switch button of Lift system for move the cabin
5. two signals for activate announcer (**FloorTalker**) - 1 for message to the cabin, 2 for message to the line . Signals is galvanic isolate switch without polarity
6. **Inp1** - universal input (Use only contact without voltage potential, can be used NO or NC contacts)
7. **Inp2** - universal input (Use only contact without voltage potential, can be used NO or NC contacts)
8. **Out1** - universal output - open collector switch max 48V/0.5A
9. **Out2** - universal output - open collector switch max 48V/0.5A
10. **12V-24V** external power supply DC - attention on polarity!
11. **Input** for acoustic signal from Floor Talker to telephone line (galvanic isolate)

1.4 Connection Basic module

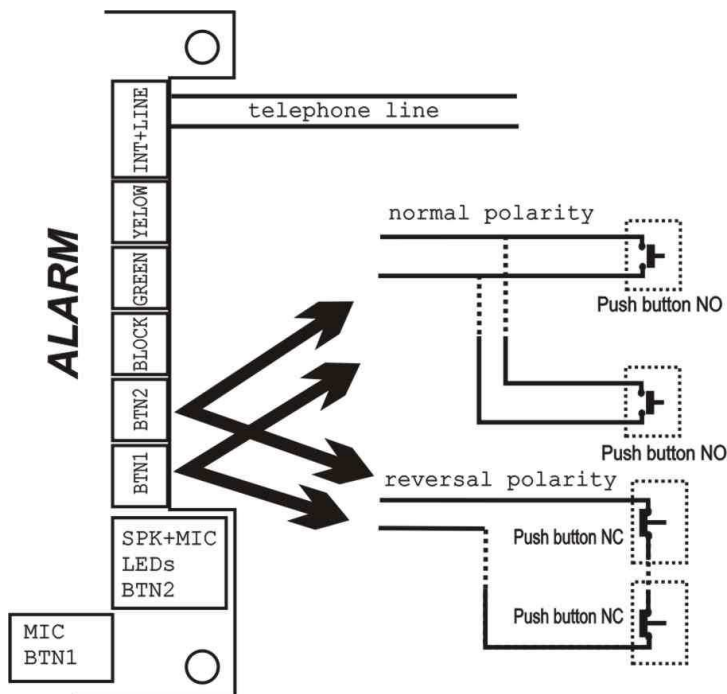
1.4.1 Connection telephone line



Connector for connection telephone line has two wires for telephone line connection and one wire for activate RUKRA ElevatorPhone from Machine room from Switch board. If you not use Switch board, then wire INT not connected. Exists possibilities use Switch board new generation with connection only two wires.

Telephone line interface has following typical parametres. The voltage in Hang up status (disconnect loop) 20-60V DC (during connection not depends on polarity), when RUKRA ElevatorPhone pick up (active status) on telephone line is cca 7-12V, depends on line current which is in range 20-60mA. Further telephone line parametres are signalling, ringing (incoming call) is define by AC voltage from 50-90V and frequency 20 – 60Hz. To the signalling belongs even tones, have frequency 425Hz +/- 20Hz and level -10dBm (cca 0,22V) and different cadences. The RUKRA ElevatorPhone reacts on those tones.

1.4.2 Connection emergency push button



When telephone line is connected we need connect button only.

The button is connected to screw terminal mark BTN

Button is possible connecting up to 10m and is possible connecting more buttons „switch NO“ parallel or „switch NC“ buttons serial. Control of type buttons use is possible programming by parameter 33 for BTN2 and parameter 39 for BTN1 - 1 or 0

RUKRA ElevatorPhone has two inputs for button connection, BTN1 is without function blocking telephone dialing and BTN2 is with function blocking telephone dialing.

BTN1 has function Technical call - "End of RUKRA ElevatorPhone", this function is provide long press this button. If you set time for hold button BTN1 to 2 sec, then if you press BTN1 shortly time then 2 sec, so RUKRA ElevatorPhone not dial.

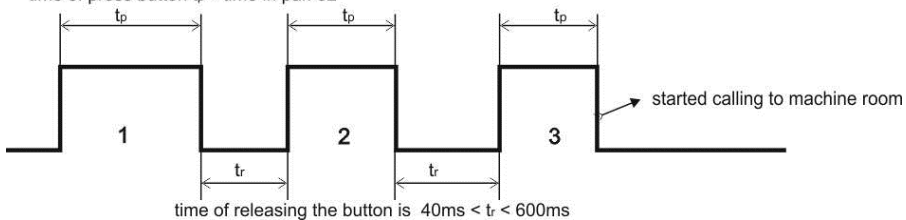
If you press longer then 2sec, so RUKRA ElevatorPhone dial "Emergency call" and if you press BTN1 longer then 16 sec (8 x 2sec), so RUKRA ElevatorPhone dial "Technical call". Resolution is 8 times set time in parameter 52.

Use only contact without voltage potential.

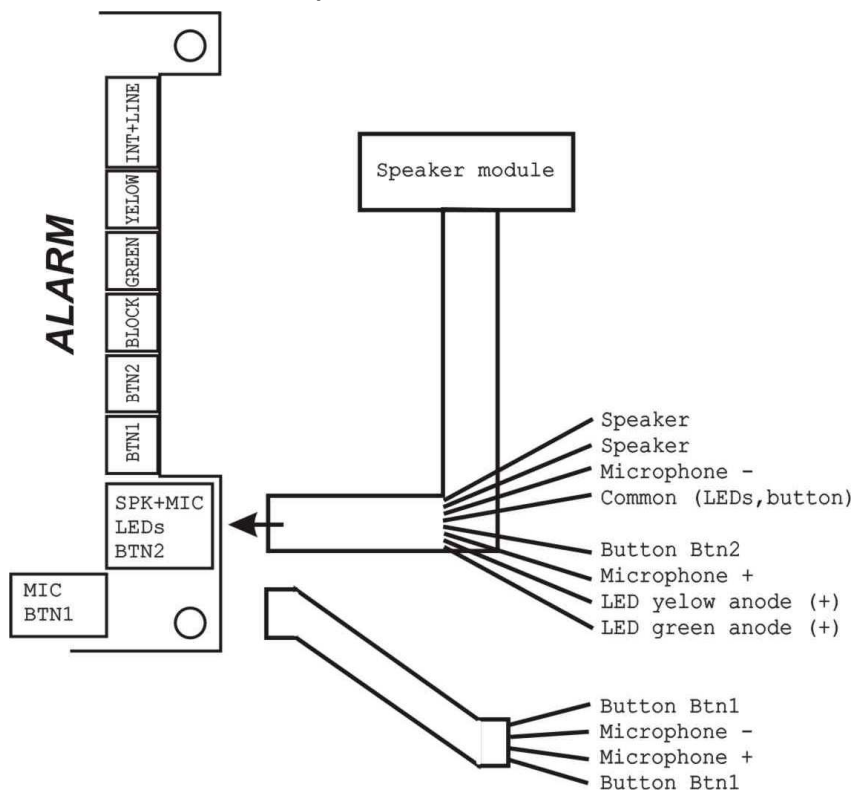
BTN1 button has three function:

1. emergency call – press BTN1 longer than time parameter 52 (2sec)
2. technical call – přes BTN1 longer than (time parameter 52) x 8 (16sec)
3. cal to the machine room – three times press button BTN1 (explain in picture)

time of press button $t_p <$ time in par. 52



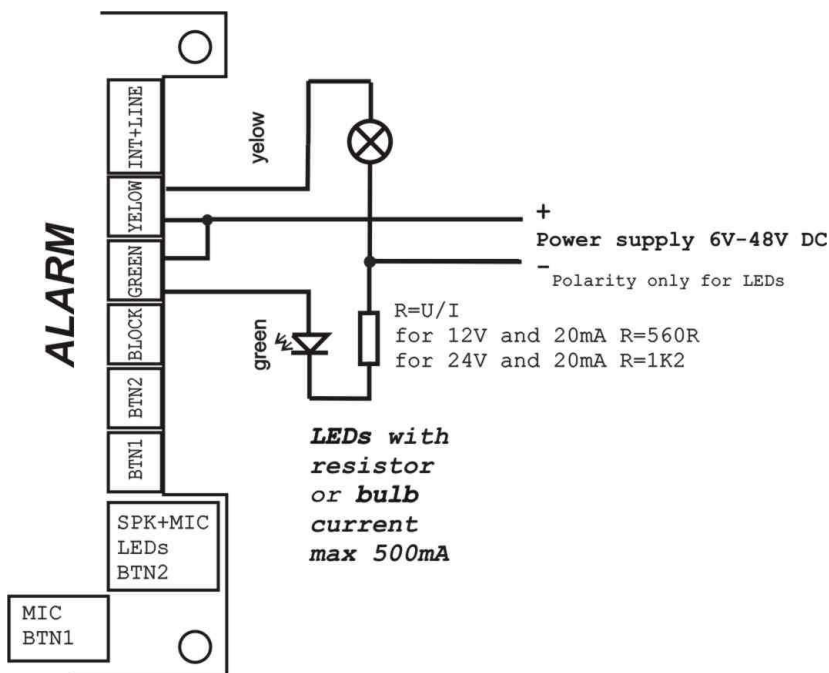
1.4.3 Connection Speaker module



Speaker module is connect via not crossing cable (8 wires) with crimple connectores RJ45 like as UTP cable with same rule as for ethernet connection. Distance would be longest then 50m, if used cable is normal telephone flat cable, so distance is max. 10m.

Next connector RJ11 is for connection push button with microphone for install to over or under lift cabine. Max distance is 50m.

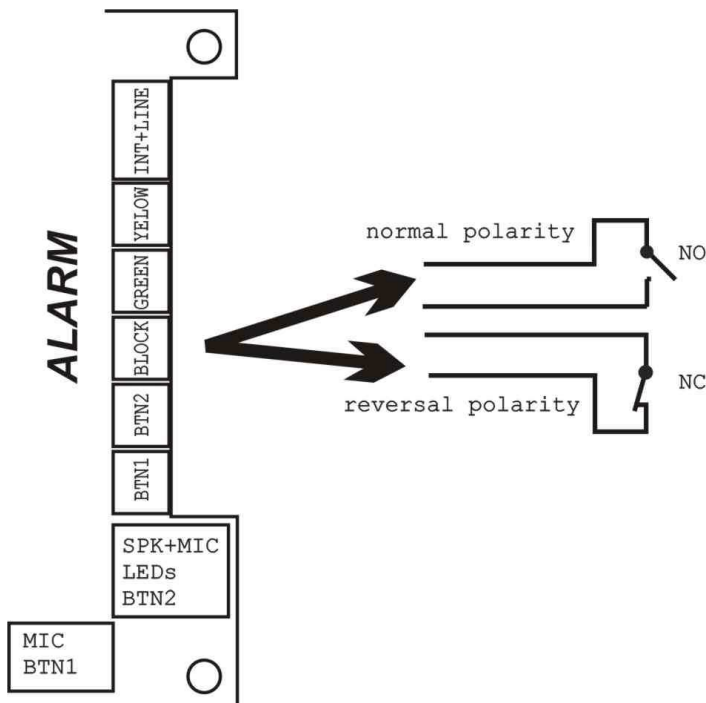
1.4.4 Connection external indication



The RUKRA ElevatorPhone is equipped by call status indication. It is by yellow and green status indicator. Standard indication is on Basic board or on speaker module. Next possibilities is connection external indication powered from external power supply. The switcher outputs for those indicators are isolated from other components and each from other as well. The switchers are made until current 0,5A and voltage 48V. On Picture you can see examples of lamp indicator connection (power consumption should not be higher than 5W).

1.4.5 Connection blocking call from Btn2 /

or send message when engineer arrived and has left the Elevator



The connector BLOCK is designed for blocking of button Btn2 for emergency call. Input is galvanically connect with telephone line. Possibility connect contact NO or NC (programable by parameter). Use only contact without voltage potential.

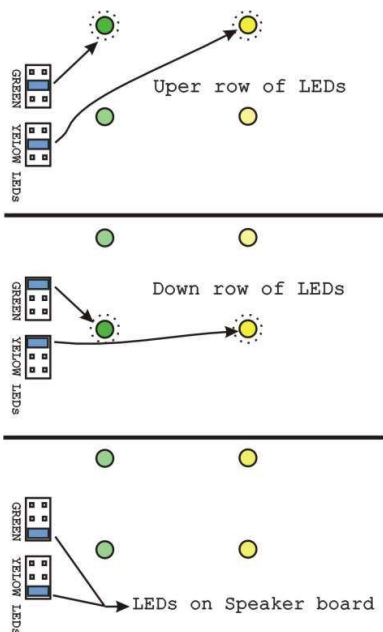
Engineer Arrived / Engineer has left

From Version of Firmware V4.5 is new feature of this input.

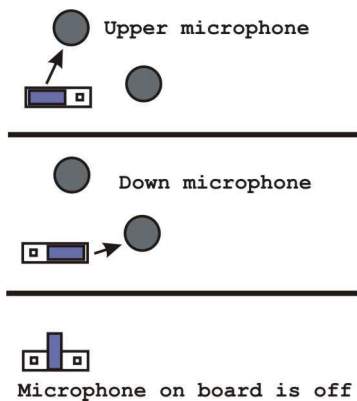
If we set parameter 34 = 2, so system of Blocking call from Btn2 is disable and this input has new function: present engineer at lift cabin.

If engineer arrived on the cabin, switch NO switcher to close and after 1-2min is begin technical call with mark [*]. Before engineer leave the lift cabin switch NO switcher to open and after 1-2min is begin technical call with mark [#].

1.4.6 Jumpers description

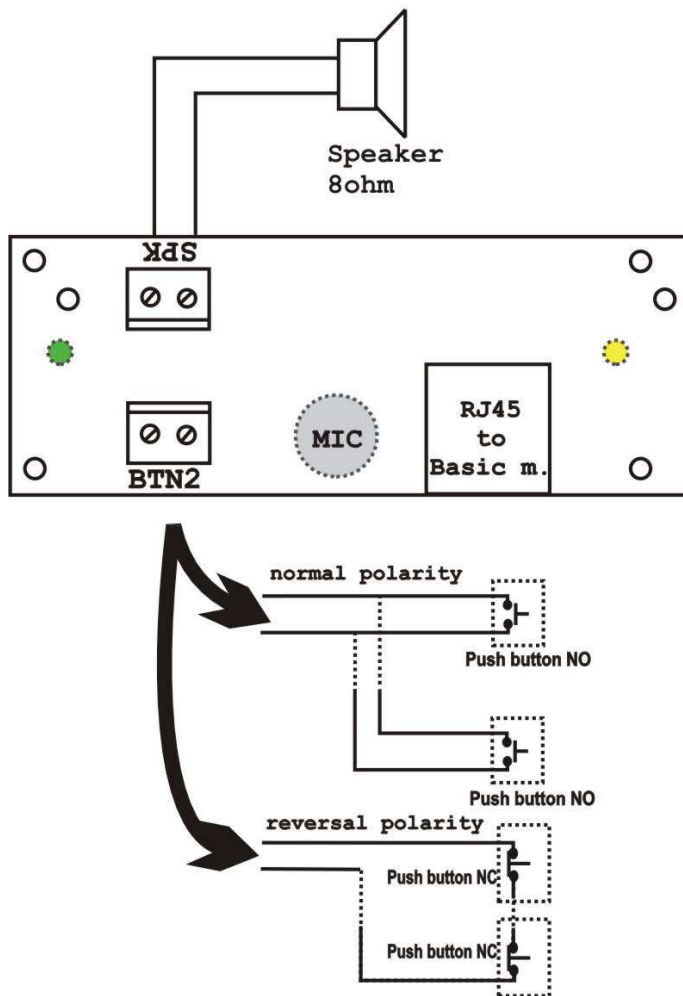


On picture is explain principle of select LEDs indication. External indication thru switch is working always



On picture is explain principle of select microphones on Basic board, next connection microphone - on Speaker module or on connector RJ11 is working always.

1.5 Connection Speaker module



Speaker module is connect via not crossing cable (8 wires) with crimple connectores RJ45 like as UTP cable with same rule as for ethernet connection.

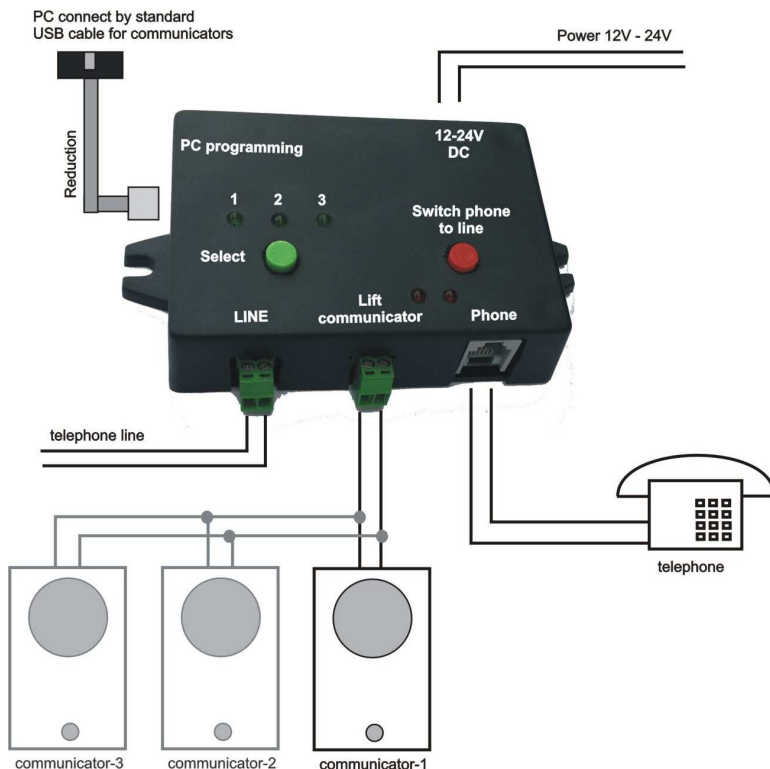
To the Speaker module is possible connect button **Btn2** for emergency call with possibilities of blockinkg. Use only contact without voltage potential, can be used NO or NC contacts (programable).

To Speaker module is possible connect speaker (8ohms)

On Speaker module is include microphone and two LEDs indication

1.6 Connection Phoneline SwitchBoard

Switch board is simply device for communication between machine room and lift cabin.



1.6.1 Wiring Phoneline SwitchBoard

SwitchBoard is connected between the telephone line and lift Elevator Phone (only two wires). For correct function, just more connect 12V or 24V DC. Power is independent of the polarity. Consumption is 40mA in an inactive state, at communication consumption is 300 mA at 12V and 150 mA at 24V.

1.6.2 Functions Phoneline SwitchBoard

So that SwitchBoard worked with connected Elevator Phones, they must have some programmable parameters. Switchboard can be used to connect one

Elevator Phone (single mode) or for 2 or 3 parallel connected Elevator Phones (parallel mode).

Single mode:

In this mode, only two important parameters: disable **parallel connection** and **call duration**. These two parameters must be set in the SwitchBoard as well as in the Elevator Phone. It is also necessary for the correct function a set same character prolongation call duration and code for hanging Elevator Phone.

Indication: Green *LED 1* flashes, green button does not respond.

Function: After picking up handset of the telephone is disconnected telephone line begins to ring and then Elevator Phone pick. Normal call progress. Whenever is allotted time to expire maximum call duration,so Switchboard automatically dial the prolongation character. If you hang up the phone, so to the Elevator Phone will send hanging code.

Parallel mode:

In this mode it is necessary to set the same parameters in the SwitchBoard and connected Elevator Phones. Without this, you can not synchronize operation. These are the parameters: 42 character prolongation, 43 hangup code, 45 activate parallel mode, 4 * constant time detection, 51 maximum call duration.

Indication: Green *LEDs* light, green button switch address where do will be called. Switches in the order 1 / 2 / 3 / 1+2 / 1+2+3.

Function: Select the address (by green button) where do will be called. After picking up handset of the telephone is disconnected telephone line begins to ring and parallel connected communicators gradually pick up and Switchboard selects the desired Elevator Phone. Normal call progress. Whenever is allotted time to expire maximum call duration,so Switchboard automatically dial the prolongation character. If you hang up the phone, so to the Elevator Phone will send hanging code.

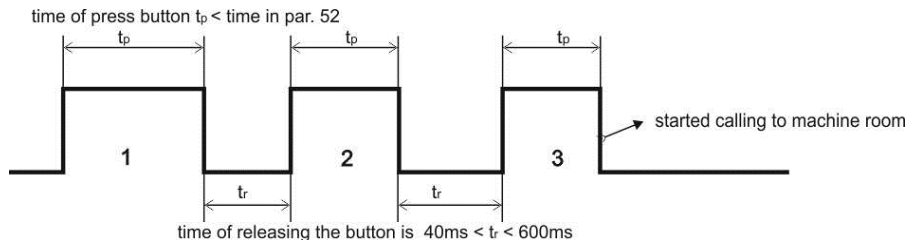
Red button:

Red switch enables the possibility to connect your phone in the machine room with external line. This is mainly for safety reasons, to call for help (ambulance, fire brigade). If the switch is closed, so the external line is connected directly to the phone and Elevator Phones in the elevator is not working.

Call from cabine to Machine room:

From version V3.4 of firmware is possible call to the machine room. For call use not blocked **BTN1**. This Button has three function:

4. emergency call – press **BTN1** longer than time parameter 52 (2sec)
5. technical call – přes **BTN1** longer than (time parameter 52) x 8 (16sec)
6. cal to the machine room – three times press button **BTN1** (explain in picture)



Picture explain how pressed button for successful call to the machine room.

1.6.3 Programming Phonline SwitchBoard

SwitchBoard is possible programming only from PC, from program RUKRAelevatorphoneSetting. Connector for PC has only 4 pins and we need use reduction between 4 pins connector and standard 10 pins programming connector. Programming is easy, in program RUKRAelevatorphoneSetting we have settings for connected Elevator Phones and now we connect SwitchBoard, and write this parameters (without changes) to the SwitchBoard, so this is all. This settings we recommended save to the PC for next other possible future servicing.

Parameters affected thereby:

42 – page: 5057

43 – page: 50

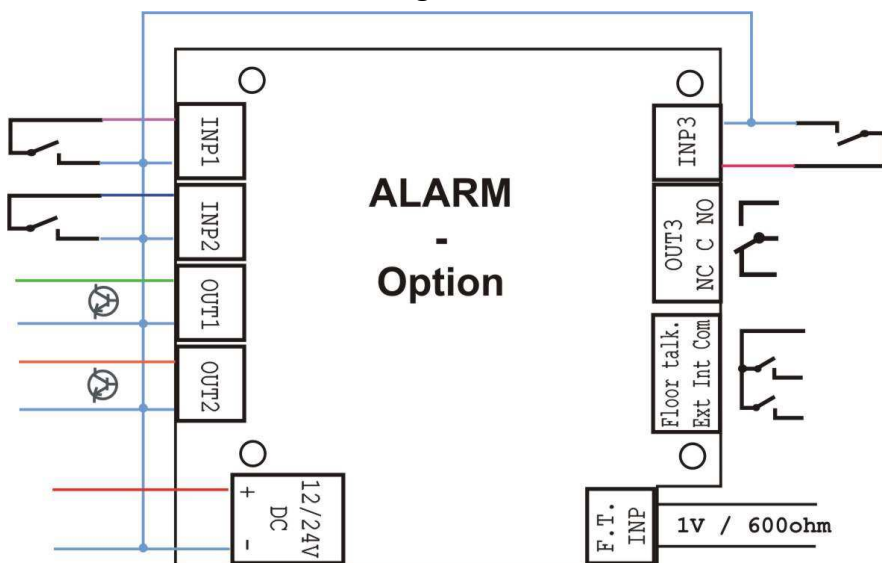
45 – page: 50

46 – page: 50

4* – page: 50

51 – page: 53

1.7 Connection Monitoring module V1



Monitoring module has inputs and outputs galvanic connect with power supply 12/24V (in picture blue connection). Except the output relay (OUT3) and interconnection talking messages (FloorTalker) - Switch messages and announcement input to the telephone line.

For inputs INP1-INP3 use only contact without voltage potential, can be used NO or NC contacts. This inputs react on change of status with programable filter (time filter).

Outputs OUT1, OUT2 is open collector outputs with parameters: $U_{max}= 48V$ and $I_{max}= 0,5A$. Attention of polarity, common signalis - and collector is +.

OUT3 is relay standard galvanic isolated output with NO/NC contacts. This output connected parallel or serial (according to the type of buttons in the lift cabin) with button in the lift cabin.

Connection with FloorTalker is in a separate chapter 1.7.1.

12V/24V power supply input is DC input with polarity and maximal current consumption is 65mA.

1.7.1 Connection FloorTalker

- we prepare -

1.7.2 Connection Talker module-4

Talker module-4 is small module with three permanent messages. Connect the module to the PC connector on RUKRA ElevatorPhone by special cross cable.

Talker module contain three messages H1 – H3:

- H1 is message after dial DTMF (time to the pickup country part the message is repeat)
- H2 is message after begin the speak (green LED is light), the message is play only one. This message can be invoked at any time the conversation by DTMF dial * ## (Message H2 must be allowed in par. 01).
- H3 is message befor hangup the Elevator Phone (the message is play only one)

The module Talk is possible programming (record the messages) by special USB cable from PC (include power supply for module). Record the messages we prefer by programator in production because recording via USB cable takes a long time and it is not pleasant. Therefore, it is recommended to only record the following message about the installation place of elevators (message 4)and other reports let predefined.

For the record there are two ways - either send text (s) and e-mail messages in the Alphatech processed and sent back as a WAV file, this file is used in the program RUKRAelevatorphoneSetting. Another possibility is that the WAV file you create yourself (8bit, 11kHz, mono) and upload to the Talker module.

The maximum length of messages are:

H1 - 1,6sec

H2 - 2,2sec

H3 - 2,2sec

H4 - 5,5sec

Talker module-4 is connected only with a special flat cable (crossover) into the PC for programming RUKRA ElevatorPhone. Once connected, you must still select which messages are played (parameter 01). Programming RUKRA ElevatorPhone i Talker module in the same USB cable (cable phone) and the same program - RUKRAelevatorphoneSetting - Attention USB cable for recording messages to Talker module contains the external power switch - Power Talker module during programming.

Talker module-4 can only be connected to the Elevator Phone and self RUKRA ElevatorPhone is broken, it is only Monitoring module.

Part of the module is a cross cable..



Attention, USB cable with the power switch for programming always use as follows:

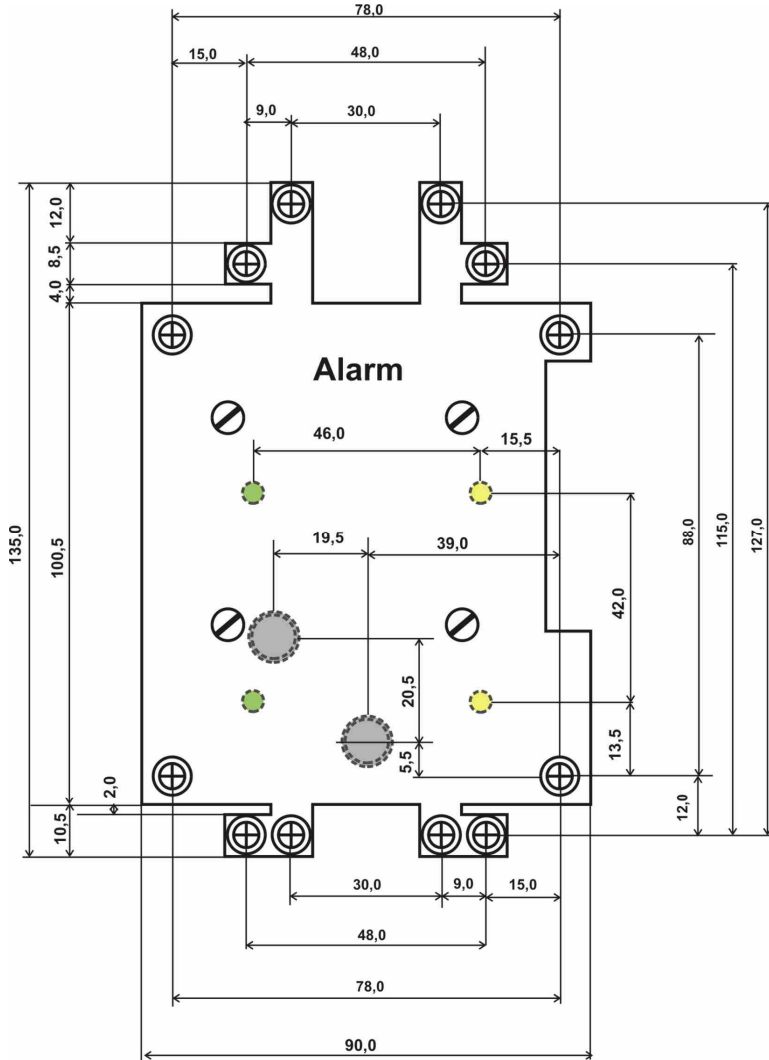
Position **Off** - The standard USB cable using as before (Talker module can not be programmed)

Position **On (power)** - programming of all devices **not connected** to other circuitry (especially to a phone line)

!! for programming LCL-C connected to the telephone line and the **On** position of the switch **can damage** the PC, LCL-C and PBX!!

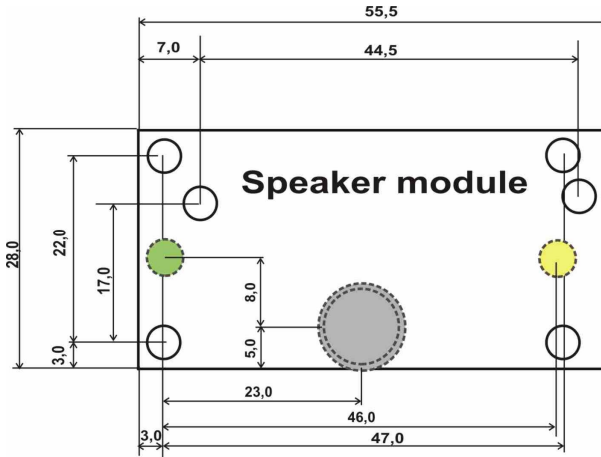
1.8 Installation

The compact solution of RUKRA ElevatorPhone enables easy installation into lift cabin panel. Dimension and installation holes are described on pictures.



View is to the bottom side of panel in the cabin, LEDs and microphones is grey dashed line, because it is on bottom side of Basic board of RUKRA ElevatorPhone.

The lift cabin panel should be equipped by acoustic holes in microphone as same as LED indication part. Speaker is connected wires to screw connector on Basic or Speaker module.



View is to the bottom side of panel in the cabin, LEDs and microphones is grey dashed line, because it is on bottom side of Speaker board of Speker module.

1.9 Acoustic path setting

The principle of setting acoustic paths:

There are three parameters 71, 72 and 73. Interaction of these parameters influences the audio performance in various environment conditions.

- in a quiet environment, the parameters 71,72,73 are set to value 7
- in an environment where there is a strong ambient noise at the Elevator Phone and quiet environment at the phone, it is necessary to reduce the microphone´s gain (for example the parameter 72 = 1-3) and also change the ratio of the parameters 71/73 in a way that value 73 increases (for example the parameter 73 = 11-15) and the value of 71 parameter decreases (71 = 2-4)
- in an environment where there is a strong ambient noise at the phone and a quiet environment at the Elevator Phone. In this case we keep the value of parameter 72 = 7 and 73 and 71 parameters should be set as follows, for example: parameter 71 = 11-14 and 73 = 2-4

The principle of setting of the parameters is the following:

the signal from the microphone is amplified by the sum of parameters **72+71 = volume of microphone** and the signal to the speaker is amplified by the sum of parameters **71+73 = volume of speaker**. Switching the direction of the ratio is evaluated by parameters 73/72 ratio (**threshold**).

If the value of the parameter 72 is greater than the value of the parameter 73, then we are favoring the direction from the microphone. This is for cases when the audio direction to the phone is being interrupted.






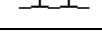

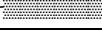

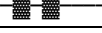





If the parameter 73 is greater than the parameter 72, then we are favoring the direction to the speaker. This is for cases when there is an interrupted sound in the speaker of the Elevator Phone.

2. RUKRA ElevatorPhone service

Functionality of RUKRA ElevatorPhone lift intercom is adjustable by parametres settings (via. Programming parametres capture page 46).

2.1 Signalling overview

The RUKRA ElevatorPhone lift intercom signalling acoustically stages which are happening during operation. Samples of acoustical sounds you can play in RUKRAelevatorphoneSetting (PC programm).

Stage	Tones	Tone frequency
Line pick up (OFF HOOK) type 1		980-1333-1650
Line hang up (ON HOOK) type1		1650-1333-980
Line pick up (OFF HOOK) type 2		800-1067-1200-1333
Line hang up (ON HOOK) type2		1333-1200-1067-800
Command confirmation by phone		800
Alerting (knocking) into call		
Call ending alert		1333
Relay activation signal		Moduled
Programming enter by phone		980-1067-1180
Programming by phone		Moduled
Parametr confirmation		800
Programming enter by PC		980-1067-1180
Line connection (Reset)		1850-1067-1850
Error (generally all incorrects)		800
Memory empty (no number programmed)		1300-2100

During problems identification is very good when you know the tones. It helps you monitor how door intercom works and where from comes the problem. The signalling might be switch of in a few levels (*parameters 61,62 and 63*).

2.2 Calling from RUKRA ElevatorPhone

RUKRA ElevatorPhone offers several types of calls. Calling differs by phone number to which the calls and at technical calls are still distinguishes species using DTMF signals. The principle of all calls is that the selected phone number to call, you can choose to use the automatic status or using confirmation code. In addition to the five acknowledgment (confirmation code for each is different reactions Elevator Phone) is still the query sequence * # * on the Elevator Phone responds (DTMF) what type of call it is.

The Elevator Phone can be connected expansion module Talker message, if enabled in the parameter 01 message H2 so the DTMF dialing * ## the message is played back on the localization of the Elevator Phone.

2.2.1 Emergency call (button activation)

The emergency call is basic and most important feature of RUKRA ElevatorPhone. It is activated by button pressing (connector BTN1 or BTN2). Button BTN1 is for directly call (without blocking by BLOCK signal), button BTN2 is possible blocg by signal on connector BLOCK. For each button input is possible set different time for activation the emergency call, common setting is a kind of polarity of the (NO or NC system).

To provide correct functionality for **BTN2** you must keep 2 conditions:

First condition is that, button blocking is not active. Please note that blocking might be either by close contact or by open contact of switch connect to the connector BLOCK.

Second condition is that button BTN2 you must hold enough time. It is adjustable from 0,5 sec to 39 sec.

To provide correct functionality for **BTN1** you must keep 1 condition:

Condition is that button BTN1 you must hold enough time. It is adjustable from 0,5 sec to 39 sec and not hold longer then 8 x parameter 52 (therefore then it is technical call)

Common condition in parallel mode connections is free line. The RUKRA ElevatorPhone measure the voltage on the line and if it is simultaneously picked up other telecommunications equipment (another parallel RUKRA ElevatorPhone) so the line not pickup and not calling.

During emergency call is active both way voice communication. During establishing call is lighting yellow indicator . After call connection – call confirmation – green indicator light up.

Emergency call dial progressively stored numbers (1÷6 position). It starts from position 1 up to position which is not programmed. It means when you programm numbers to all 6 position then progressively dial all 6 numbers. When you erase number on position 3 then dial numbers on position 1 and 2 and returns back to

position 1. You can also program how many times the round (programmed numbers on position 1-6 should be repeated (1 to 9 times). While is emergency call the button does not react on other pressing and even more any other stage might not break emergency call procedure.

The machine room call only can break emergency call by using 3rd wire **INT** from Switch board, if using connection with machine room by only 2 wires, then not possible break emergency call. The last point of emergency call is call confirmation . At every emergency number (position 1-6) you can select confirmation or not.. Dialling is stopped after call connection (confirm call = light green LED indicator).

End of alarm is function for fitters - if fitter is on place - on lift, so he confirm this event as End of alarm - you must press button BTN1 longer then 8 x parameter 52, next is call is technical call - End of Alarm.

2.2.2 Emergency call with cancelation (RUKRA ElevatorPhone button)

For button BTN2 (Emergency call with function blocking - BLOCK) is possible use method call with a time blocking. Use them where there is no proper signal for blocking calls from the system electronics elevator. Blocking be on the principle movement of the door. If you press the RUKRA ElevatorPhone button and to the programmed time (par. 02) no signal blocking BLOCK (change) so he makes a call. When the doors open at this time (cab reached the destination) and the call from the button cancels and nowhere is calling.

Advantage - simple principle of blocking

Disadvantage - delays call from the button BTN2 for time (par. 02)

2.2.3 Service calling (from timer)

Service calling is Monitoringal parameter. You also define if this parameter is activated since first connection of RUKRA ElevatorPhone to telephone line. This service calling is adjustable from 1 to 59 day period, for example 03 means that RUKRA ElevatorPhone is make automatically every 3th day a call to preprogrammed number (test of RUKRA ElevatorPhone functionality).

For service calling you program special number which might be of course the same as emergency calling number. You can also select if will be dialling only this number or all round of emergency numbers (then you have max 7 numbers) .

The service calling is repeated in period 0-9 min (programmable) until succesfull call (confirmation). The repeated time between calls is programmable because to service department can call more RUKRA ElevatorPhone. To avoid of problem that service

department line is busy you can programm different time period for service calling up installation place.

During failure calling is not lighting any indicator. It is not voice communication.

Automatic test acoustic path - automatic function requires activating "function call service" and enabling service automatic test acoustic path. Otherwise, you can invoke the service confirmation (**par.07**) with instantaneous start the service call (this is done only when it is on, but the test is performed acoustic paths). Detail about the error in the acoustic path get technical call with the code "0" (test with * # *).

2.2.4 End of calling – call confirmation

The RUKRA ElevatorPhone enables to program at every number if will be confirm or not. Every call needs authorisation if it was succesfull or not. Therefore analog line doesnt support any kind of authorisation (signalling) we can define success of call by 2 ways. The RUKRA ElevatorPhone needs this info to not dial further telephone numbers.

First way (**no confirmation**) is detection that call was succesfull on the base control ringing tone (CRT). It is tone which we are hearing in handset when make call to other subscriber. The RUKRA ElevatorPhone detects this tone and when is missing for certain time then evaluate the call was succesfull (Green indicator light up and yellow light down). The time which define undetection of CRT (called part picks up) is adjustable because each type of PBX can be different. Usually should be 5 seconds as the best (parameter 56). At this call authorisation stays possibility confirm the call by dial confirmation characters (kxxxx, where xxxx is 1-4 numerals). After dialling of confirmation characters RUKRA ElevatorPhone reply and reactions are four possibilities for the confirmation of four different confirmation codes - specified below.

Second way (**with confirmation**) is detection that call was succesfull only by dial confirmation characters (kxxxx, where xxxx is 1-4 numerals). This way is most reliable but requires trained people in service department (they must be able insert confirmation characters when call is pick up), or at service department must be used evaluation software. After dialling of confirmation characters the RUKRA ElevatorPhone reply and reactions are four possibilities for the confirmation of four different confirmation codes - specified below.

Types confirmation codes (all is same principe - call kxxxx where xxxx is 1-4 numerals - numbers 0-9):

- **par. 47** - return DTMF serial number of the RUKRA ElevatorPhone. By this way is detected where from is coming a call even when more RUKRA ElevatorPhone is installed behind PBX. In this case is not possible detect it by CLIP because all RUKRA ElevatorPhones have the same CLIP due the

same telephone line use for outgoing calls. The same is the case with parallel connection Elevator Phones in one telephone line.

- **par. 48** - return DTMF state of counter of move lift cabin. This parameters is on Monitoring module!
- **par. 49** - react on this confirmation is hang up and dial Emergency call like as after press bytton BTN1 (without function of blocking)
- **par. 40** - return DTMF last two dial numbers (separate by special DTMF tone "D"), first is last and second is pre last dialing telephone numbers
- **par. 07** - react on this confirmation is hangup and dial Service call like as after time expires for Service call (must be set Service call (par.31) and call is after timeout for Service call (par. 32)

Character k is common first character (0-9,*,#) for all four type of confirm code. The last possibility to call confirm is dial hangup code (parameter 43).

2.2.5 Machine room connection

Connection between machine room and RUKRA ElevatorPhone is special case which has absolut priority. The reason is that during machine room communication is disconnected telephone line. The RUKRA ElevatorPhone accept machine room call as incoming, it means you can programm the unit , control oputs/ inputs. The call is not time limited as same as not possible hang up.

Possibility to make machine room connection is only when you use Monitoring box named „switchboard“ and via connection of third wire **INT** (telephone line has 2 wires and third is for RUKRA ElevatorPhone controlling). Wires connection is displayed on page 14. The call is activated by picking up of phone. The RUKRA ElevatorPhone picks up immediatelly (is active). This status is indicated by both indicators (green and yellow) light up. You can make voice communication. The call duration is until hang up phone in machine room.

Special case is by using new generation of Switch board. Connection between machine room and RUKRA ElevatorPhone is same as normal conection telephone line - two wires. In Machine room is equipment powered from 12-24V (switchboard), which allows the connection of the telephone line, the telephone and one to three parallel connected Elevator Phones. The reason is that during machine room communication is disconnected telephone line. The RUKRA ElevatorPhone accept machine room call as incoming, it means you can programm the unit , control oputs/ inputs. The call is normal time limited and prolong is automaticaly from SwitchBoard by DTMF.

The call is activated by picking up of phone. The RUKRA ElevatorPhone picks up immediately (if you use one Elevator Phone) or after address decode - parallel connection (2-3 Elevator Phones parallel connection). This status is indicated by green indicator. You can make voice communication. The call duration is in parameter 51. Switch board is programmable device and for right function is need program same parameters to the RUKRA ElevatorPhone and to the SwitchBoard.

As new feature is possibility call directly from RUKRA ElevatorPhone to the machine room. This call is make from BTN1 button – three times press the button.

2.2.6 Incoming call

Incoming call is coming from outside to RUKRA ElevatorPhone. After extension dialling or land line number where is RUKRA ElevatorPhone connected, the RUKRA ElevatorPhone is ringing and after preprogrammed number of rings (parameter 46) the RUKRA ElevatorPhone picks up and you can speak to lift cabin.

Exceptional is first 10sec, where is additionally possible insert "# and service password" (*parameter 44*), to enter programming mode.

When jumper "SERVIS" on RUKRA ElevatorPhone basic board is closed you are automatically going to programming mode when call is picks up. (without service password). It is usefull when you forget service password and by this way you can programm the new one. Do not forget disconnect jumper after programming . Jumper is on the basic board (page 8).

Incoming call is detected by green indicator. It is possible voice communication. After confirmation by code behaves the same as described in chapter 34.

RUKRA ElevatorPhone enables a special mode - **parallel connection** of several Elevator Phones. Moore about in the next chapter.

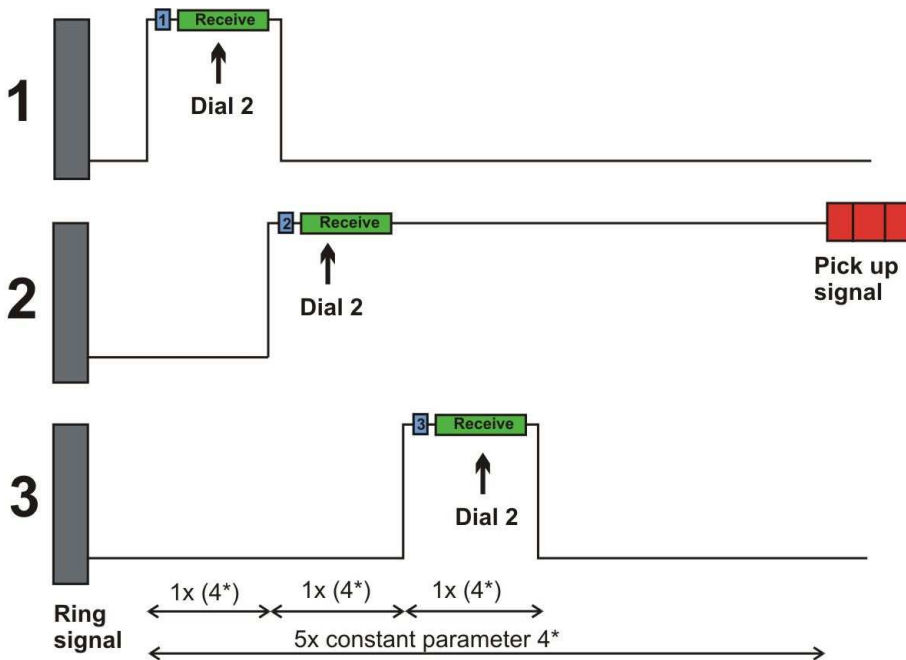
2.2.7 Parallel connection RUKRA ElevatorPhones

In this mode (parameter 45) is the outgoing call control voltage telephone line and for incoming call here the system is addressing DTMF which Elevator Phone should stay pickpued. Therefore it is important to set the number 1-5 for Elevator Phone connected parallel (parameter 46). Among the numbers must not be a space. For 3 parallel connected is only right to set the Elevator Phones numbers 1-2-3. 1-3-4 or 1-2-2 settings are not correct!

The whole system works by detection the ring (connected in parallel in all Elevator Phones) rises first line first and immediately notify the DTMF dial own number i.e. 1 He is waiting for confirmation own number 1 pick up if and if does not detect own number 1 or not to accept nothing he not stay so pickpued. On the detection is reserved time in 0.1 seconds - default 2,5sec (parameter 4 *). After this time next pickup Elevator Phone, which is reported as 2 (DTMF) and the first Elevator Phone either hang up, or stays off the hook. This method ensures that at the time of detection is connected to the line is always one Elevator Phone, so there is no distortion of detection. If disagree received numbers With each Elevator Phone with the number of Elevator Phone, so the time constant of $5 \times 4 *$ parameter, the line will be hanging and not connection is established. If it matches the number one Elevator Phone and the Elevator Phone remains pickpued and after the time constant of $5 \times 4 *$ parameter to Elevator Phone works the normal way.

Calling in a parallel connection is follows - you want pick up Elevator Phone 2:

- dial number of line which are parallel Elevator Phones
- first picks up Elevator Phone 1 and you will hear DTMF 1
- confirm the dial DTMF 2
- picks up the Elevator Phone 2 and Elevator Phone 1 hang up
- second Elevator Phone is register DTMF 2
- confirm the dial DTMF 2
- picks up the Elevator Phone 3 and Elevator Phone 2 not hang up
- third Elevator Phone is register DTMF 3
- confirm the dial DTMF 2 (Monitoringal)
- Elevator Phone 3 hang up and Elevator Phone 2 is still pickpued time $2 \times$ constant parameter 4 *
- Elevator Phone 2 is works as a normal incoming call, ie you will hear a tone pick-up Elevator Phone and for 10 seconds to enter the programming mode



2.2.8 CallCentrum and types of calls

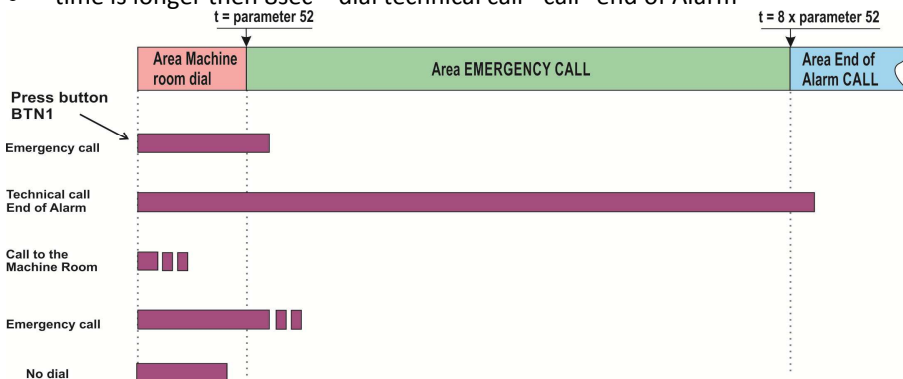
In Call centrum is fix code ****** for identification call. This code can query the type of call. Code *** # *** is dial by DTMF and RUKRA ElevatorPhone response sends one character what kind of call is in progress. This is mainly use for technical calls when one phone number are three types of call.

Type of call	returned DTMF character
Emergency call:	1 – 6
Service call:	8
Monitoring module counter from INP3:	9
Technical call:	
- end of Alarm	A
- cal from combination inputs (Monitoring module)	BaaaaaaaaDnnnnnnnnDiiiiiii where D is separator, aaaaaaaaa is change to active of 8 inputs on Monitoring module, nnnnnnnn is change to inactive of 8 inputs on Monitoring module and iiiiii is ste of 8 inputs on Monitoring module
- call from not move cabine (Monitoring module)	C
- call if acoustic path is bad	0
- call if permanent activate button	7
- call if Engineer is arrived at the elevator	*
- call if Engineer has Left the Elevator	#

2.2.9 End of Alarm

One type of the technical call is to confirm processing emergency call in place (in the lift cabin). This call can be done by holding down Btn.1. This button is not blocked by Alarmfilter signal. The minimum holding period is a button 1 in parameter 52 , for example this time is 1sec, next function of this button is:

- time of hold Btn1 is lower then 1 sec = no dial
- time is between 1sec and 8sec (resolution is 8times for easy programming) = dial emergency call
- time is longer then 8sec = dial technical call - call "end of Alarm"



3. Parameters programming

3.1 Programming by telephone:

3.1.1 Enter to programming mode

The RUKRA ElevatorPhone will be set to programming mode in two ways:

1. **by password** – only incoming call! – answer the telephone and dial a number, where the RUKRA ElevatorPhone is connected (*either extension number, if connected to PBX or number of state line to object, where the RUKRA ElevatorPhone is placed and let you put through to PBX directly connected with RUKRA ElevatorPhone*). The RUKRA ElevatorPhone will answer (you hear tone for answering – see table on page 31) up to 10 sec dial **#xxxx**, where xxxx is the service number for entry to programming and if O.K., the registration tone to programming will sound and afterwards the programming tone is heard (see Table on page 31). Default settings is password xxxx=**0000**
2. **by "SERVICE" jumper** – only incoming call! – you will realize the connection with RUKRA ElevatorPhone in the same way as in point. 1, but when the SERVICE jumper is connected, then the RUKRA ElevatorPhone after answering directly comes to programming mode – you hear tone for answering, registration tone to programming and afterwards the programming tone is heard. (see table on page 31).

3.1.2 Programming of parametres

The initial state for programming is signaled by programming tone and the RUKRA ElevatorPhone will come back to this state always after time expiration (5 seconds) even you started to program anything.

When programming two types of parameters will occur. Partly they are parameters with **fixed length** – the majority of them they are, then the programming is affirmed and the parameter is always recorded immediately after mandatory length fulfillment by acknowledge tone and partly the parameters **with variable length** (*parameter 1,2,47-40*), followed with **confirmation** and the recording of the parameter after inactivity period expires (5 sec). The only case with immediate recording of parameters is the fulfillment of max. number of recorded signs (numbers) – by parameters 1,2 it is 16, by parameter 47-40 it is 4.

If during programming you enter number (sign) not allowable by its extent then the RUKRA ElevatorPhone immediately emits an **error tone**, the parameter will not be

recorded nor changed, the RUKRA ElevatorPhone will come to initial state and it is possible to repeat the parameter setting or program another parameter.

The RUKRA ElevatorPhone stays inactive in programming mode for 30 seconds, then he will automatically hang up. By every dialing of DTMF tone this period is set up repeatedly. The selection of parameter 9 can also end the programming mode.

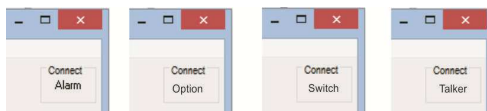
Note 1. *if you wish to keep the connection (extend the 30 seconds period) than the customer will think over the other setting, so pressing e.g.. * or # form time to time will be sufficient and the RUKRA ElevatorPhone immediately responds by error tone, but he will extend the period to hanging up..*

3.2 PC programming– programm RUKRAelevatorphoneSetting

For setting of **RUKRA ElevatorPhone** by PC you need special USB cable KAB with galvanic isolation included and Programm RUKRAelevatorphoneSetting. The RUKRA ElevatorPhone must be connected to telephone line – powering.

Procedure:

- Connect the RUKRA ElevatorPhone to the line
- Connect the RUKRA ElevatorPhone with PC by USB cable. The RUKRA ElevatorPhone will answer and LED indication light.
- Run the RUKRAelevatorphoneSetting program – the RUKRA ElevatorPhone will report the his conversion to PC programming mode. After RUKRAelevatorphoneSetting program being run the RUKRA ElevatorPhone is in this mode – this status is indicated by LED light on panel by 1 second flashing. By loss of connection it is necessary to disconnect the cable from RUKRA ElevatorPhone connect it again – the RUKRA ElevatorPhone will answer and if RUKRAelevatorphoneSetting program runs he will report his conversion to programming mode. In RUKRAelevatorphoneSetting program is this connection indicated in upper riht corner.



For setting **Monitoring module** by PC you need special USB cable KAB with galvanic isolation included and Programm RUKRAelevatorphoneSetting. The Monitoring must be connected to 12V.

Procedure:

- Connect the Monitoring with PC by USB cable. The Monitoring will answer and yellow LED indication light.
- Run the RUKRAelevatorphoneSetting program – the Monitoring will report the his conversion to PC programming mode. After RUKRAelevatorphoneSetting program being run the Monitoring is in this

mode – this status is indicated by yellow LED - 1 second flashing. By loss of connection it is necessary to disconnect the cable from Monitoring connect it again – the Monitoring will answer and if RUKRAelevatorphoneSetting program runs he will report his conversion to programming mode. In RUKRAelevatorphoneSetting program is this connection indicated in upper riht corner.

3.2.1 Install program RUKRAelevatorphoneSetting

Program RUKRAelevatorphoneSetting instal to platform Windows only and supported system W98SE-W7-W8 /32-64bits

Procedure:

- if you download program from WEB sites, so need is unpack from archive package ZIP
- click on setup.exe
- select your language and follow the instructions of the installer
- on your desktop is icon of RUKRAelevatorphoneSetting, click of this and use program.

. For USB cable is necessary instal driver for USB cable. Install is standard driver installation - plug in cable, system Windows ask on driver, you select path to the driver and klik OK/YES.



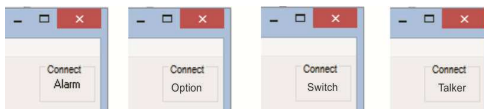
Driver is not signed electronically, it must agree with the installation
In Windows 8 is need allow the installation of unsigned drivers.

Program RUKRAelevatorphoneSetting with USB cable is also used for firmware upgrade

Program and driver is on CD or on WEBSites your seller.

In RUKRAelevatorphoneSetting program is indicated connection in upper riht corner:

- Alarm
- Monitoring
- Switch
- Talker



Numbers before the names of the parameters in the program RUKRAelevatorphoneSetting when programming parameter codes from phone using DTMF. This is immediatly clear which the parameter they are and easily find his explanation in the next chapter Parameters description.

3.3 Remote programming from PC

Program for settings parameters of Elevator Phone from Version V3.0 and from version of firmware in Elevator Phone allows remote programming by using DTMF modem BlackBox.



DTMF transfer is not 100% reliable, so it is recommended that changes in Elevator Phone check by reloading the values.

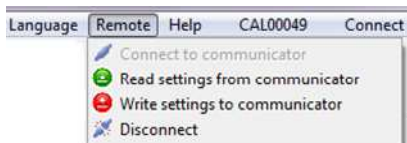
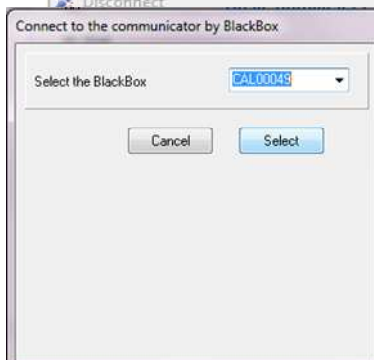
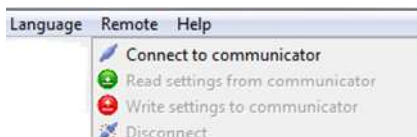
3.3.1 Procedure remote connection

Click in the main menu on Remote and next click on the Connect to Elevator Phone.

Firstly select the BalckBox, which you need use for remote communication with Elevator Phone. The BlackBox is can not be used in same time for CallCentrum.

For next step you must fill the telephone number of Elevator Phone and password in Elevator Phone for programming. Number of Elevator Phone fill only if you call to parallel connected Elevator Phones. If you firstly read file with settings for the Elevator Phone, password will be prepared automaticly. Long time for GSM use if in communication trace is include GSM gate.

in the main menu are added two new items - number of BlackBox (CALxxxxx) and info, that Elevator Phone is connected (Connect). Information value of connection - click on the number BlackBox to display the time connection with the Elevator Phone and click on Connect displays the number of prolongation connection (counter).

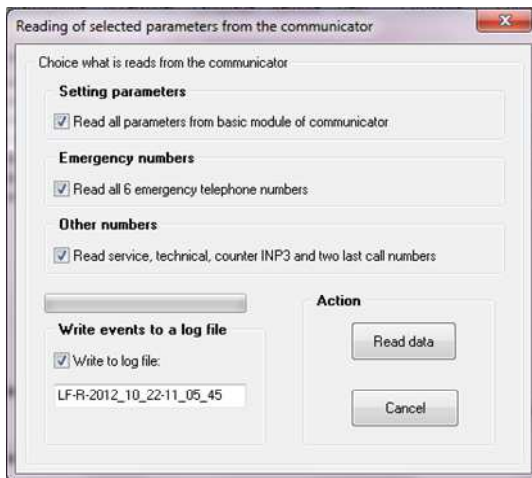


Now is possible read or write settings from Elevator Phone.

3.3.2 Read settings remotely

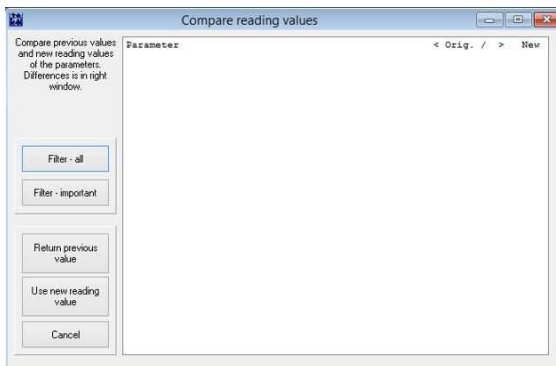
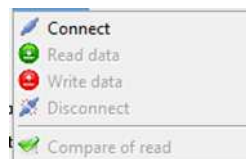
Communication is by DTMF and for one byte of data it uses two DTMF tones. This communication is slow and therefore you can choose which part of the Elevator Phone data to read. The whole process of reading the data it is possible to log to a log file, and when any problem occurs send the file by e-mail.

From version V3.3 it is possible to transfer use checksum for security. By the following is the transfer slightly slowed down at high disturbance on the line can be for large repetition also interrupted.



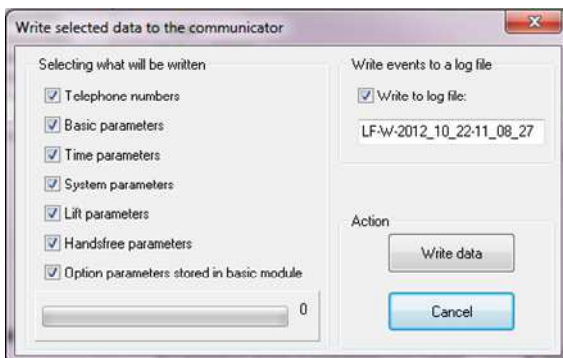
3.3.3 Compare reading value

To ensure the secure transmission of the remote setting it is recommended for this procedure: First original data of the specified Elevator Phone should be stored on the PC. Second make a change the parameter value. Third save it back to the PC. 4th remote write in the Elevator Phone. 5th read remotely from the Elevator Phone. 6th use the service to compare and see if the parameters are all right write in the Elevator Phone. Compare in PC program compares the read data remotely from the Elevator Phone to the data which are currently in the PC program. Filtering allows invisible data which are systemic (which may vary). On the right side displays only those parameters that are different.



3.3.4 Write settings remotely

Communication is by DTMF and use normal directive for programming same as programming from Phone. This communication is slow and therefore you can choose which part of the Elevator Phone data to write. Other data do not replace and remain original. Unable to remotely delete the number of resets, time service call and last dialed numbers. The whole process of reading the data it is possible to log to a log file, and when any problem send the file by e-mail.



4. Parameters description

4.1 Phone numbers memory

Emergency numbers (button activation)

Parameter	Value	Description	default
1	tp nn...	number nn in order t with confirmation p	110 0337113941

t – memory order of number, programm [1-6] digits only

p – call confirmation, programm [0-1] only, 0-confirmation OFF, 1-confirmation ON

nn – telephone number up 16 digits. To programm other characters look on table.

Basic setting as same as examples setting not change or erase those saved numbers.

note	dial
0 - 9	0 – 9
#	#
*	* *
Flash	* #
Pause	* 0

Example: You want on the first place dialing a phone number **0P213658 without confirm** and on second place **54*23#78P91F4 with confirm** so programming sequence: 110 0*0213658, waiting tone, 121 54**23#78*091*#4 and waiting tone

Example: Erase the telephone number on second position - so programming sequence is 12 and waiting tone

Technical number (Monitoring module inputs activation)

Parameter	Value	Description	Default
21	p nn...	Number nn with confirmation p	211 0337113949

p – call confirmation, programm [0-1] only, 0-confirmation OFF, 1-confirmation ON

nn – telephone number up 16 digits. To programm other characters look on table.

Basic setting as same as examples setting not change or erase those saved numbers.

note	dial
0 - 9	0 – 9
#	#
*	* *
Flash	* #
Pause	* 0

Example: You want dialing a phone number **0P123456789 without confirm** so programming sequence: 210 0*0123456789 and waiting tone

Example: Erase the telephone number - so programming sequence is 21 and waiting tone

Service number (system timer activation)

Parameter	Value	Description	Default
22	p nn...	Number nn with confirmation p	221 0337113942

p – call confirmation, programm [0-1] only, 0-confirmation OFF, 1-confirmation ON

nn – telephone number up 16 digits. To programm other characters look on table.

Basic setting as same as examples setting not change or erase those saved numbers.

note	dial
0 - 9	0 – 9
#	#
*	* *
Flash	* #
Pause	* 0

Example: You want dialing a phone number **F789 with confirm** so programming sequence: 221 *#789 and waiting tone

Example: **Erase** the telephone number - so programming sequence is 22 and waiting tone

Counter is full number (max. starts from input INP3 - Monitoring m.)

Parameter	Value	Description	Default
23	p nn...	Number nn with confirmation p	-

p – call confirmation, programm [0-1] only, 0-confirmation OFF, 1-confirmation ON

nn – telephone number up 16 digits. To programm other characters look on table.

Basic setting as same as examples setting not change or erase those saved numbers.

note	dial
0 - 9	0 – 9
#	#
*	* *
Flash	* #
Pause	* 0

Example: You want dialing a phone number ***22 without confirm** so programming sequence: 230 **22 and waiting tone

Example: **Erase** the telephone number - so programming sequence is 23 and waiting tone

4.2 Lift operation

Parameter	Value	Description	Default
31	a	Service calling is in status ON / OFF (0/1/2)	0

- a**
- **0** service calling OFF
 - **1** service calling ON after time set in parameter **59**
 - **2** service calling ON after time set in parameter **59** and moreover is activated during first telephone line connection

service calling is activated after time set in parameter **59** and is repeated after time period set in parameter **32**. Repeat the service call is in parameter **38**

Parameter	Value	Description	Default
32	h	Period of waiting in service call [min]	3

- h**
- **0** service call repeat immediately
 - **1 ÷ 9** service call repeat after 1-9 min

Parameter	Value	Description	Default
33	i	Polarity of buttons BTN2 (0/1)	0

- i**
- **0** buttons connected is type NO - normally open (parallel connection)
 - **1** buttons connected is type NC - normally close (serial connection)

Use only contact without voltage potential, can be used NO or NC contacts.

Parameter	Value	Description	Default
34	z	Polarity of BLOCK input (0/1)	0 / 1 / 2

- z**
- **0** blocking activate by shorting input (NO contact)
 - **1** blocking activate by opening input (NC contact)
 - **2** Function active Engineer Arrived / left the Elevator

Use only contact without voltage potential, can be used NO or NC contacts.

Parameter	Value	Description	Default
35	b	Number of repeat sequence emergency call (1-9)	3

- b**
- **1 ÷ 9** times is repeated dial of emergency numbers (button pressing). Emergency numbers are dialled from first position until empty or 6th position. This is 1 sequence. It might be repeated max 5 times.

Parameter	Value	Description	Default
36	c	Number of repeat technical call (1-9)	3

c – 1 ÷ 9 times is repeated dial of technical numbers (Monitoring module - inputs state is change)

Parameter	Value	Description	Default
37	d	Number of repeat call from counter of moving lift cabin - Monitoring INP3 (1-9)	3

d – 1 ÷ 9 times is repeated dial of INP3 numbers (Monitoring module - input INP3 - state of counter is higher then preset value - parameter **097**)

Parameter	Value	Description	Default
38	ee	Number of repeat service call (00-99)	03

ee – **00** - unlimited, service call is repeated until the call is confirmed [2 digits]
 – **01 ÷ 99** times is repeated dial service numbers (Service call is from internal timer and begin ones on 1 - 59 days - parameter 59)

Parameter	Value	Description	Default
39	i	Polarity of buttons BTN1 (0/1)	0

i – **0** buttons connected is type NO - normaly open (paralell connection)
 – **1** buttons connected is type NC - normaly close (serial connection)
 Use only contact without voltage potential, can be used NO or NC contacts.

4.3 Basic parametres

Parametr	Value	Description	Default
41	v	Dial type v – tone / pulse (0/1)	0

v – dial type **v=0** is DTMF tone dial, **v=1** pulse dial

Parametr	Value	Description	Default
42	z	Character to prolong the call (* / #)	*

z – character to prolong the call * or # (10sec before call termination door intercom sends notification then you can prolong the call)

Parametr	Value	Description	Default
43	bb	Command to hang up door intercom by phone (00-99,*0-*9)	44

bb – command to hang up door intercom by phone [2 digits] /¹
 /¹ – command has always 2 digits but if you want use **1 digit** then you have possibility insert " *a " where **a** is just one number which hang up line (star represents empty character and must be on first position).

Parametr	Value	Description	Default
44	xxxx	Service password (0000-9999)	0000

xxxx – service password to enter programming by phone (DTMF) [4 digits]

Parameter	Value	Description	Default
45	p	Activation parallel mode of Elevator Phones (0/1)	0

p – 0 parallel mode is disabled
 – 1 parallel mode is enabled, it's possible connection up to 5 Elevator Phones parallel on the telephone line

Parameter	Value	Description	Default
46	n	Number of rings before pickup or number of Elevator Phone in parallel mode (1-5)	2

n – 1 ÷ 5 in normal mode is number of rings before RUKRA ElevatorPhone pickup line, in parallel mode is **n** representation number of Elevator Phone.

Parameter	Value	Description	Default
47	eeee	Confirm code, RUKRA ElevatorPhone return serial number (0-9999)	66

eeee – Confirm code - confirmed call, RUKRA ElevatorPhone return DTMF serial number after receive this code. [1-4digits]

This code is dialed to the call from telephone or from Call centrum, this confirmation authorize call, LED yellow is light off and LED green is light on. You can use 1 - 4 digits long code, but before code you must dial common character **k** (parameter 4#)

Parameter	Value	Description	Default
48	cccc	Confirm code, RUKRA ElevatorPhone return state of counter INP3 on Monitoring module (0-9999)	67

cccc – Confirm code - confirmed call, RUKRA ElevatorPhone return DTMF state of counter INP3 on Monitoring module, after receive this code. [1-4digits]

This code is dialed to the call from telephone or from Call centrum, this confirmation authorize call, LED yellow is light off and LED green is light on. You can use 1 - 4 digits long code, but before code you must dial common character **k** (parameter 4#)

Parameter	Value	Description	Default
49	oooo	Confirm code, RUKRA ElevatorPhone answer redial emergency telephone numbers (0-9999)	68

oooo – Confirm code - confirmed call, RUKRA ElevatorPhone hangup and dial emergency number(s) like as press BTN1 (without blocking). [1-4digits]

This code is dialed to the call from telephone or from Call centrum, this confirmation authorize call, LED yellow is light off and LED green is light on. You can use 1 - 4 digits long code, but before code you must dial common character **k** (parameter 4#)

Parameter	Value	Description	Default
40	ssss	Confirm code, RUKRA ElevatorPhone return last two dialled telephone numbers (0-9999)	69

ssss – Confirm code - confirmed call, RUKRA ElevatorPhone return DTMF last two dialled telephone numbers (separated by "D" DTMF) after receive this code. [1-4digits]

This code is dialed to the call from telephone or Call centrum, this confirmatiomn authorize call, LED yellow is light off and LED green is light on. You can use 1 - 4 digits long code, but befor code you must dial common character **k** (parameter 4#)

Parameter	Value	Description	Default
4*	kk	Constant for parallel mode - time for receive DTMF address of Elevator Phone (10-49)	25

kk – 10 ÷ 49 this time is need for answer DTMF address in parallel mode [1-4digits]
Time is in 0.1 sec, 10 is 1sec, 25 is 2.5sec. Explain of this constant is on page 37.

Parametr	Value	Description	Default
4#	k	First character of confirm code (0-9 /* / #)	*

z – first common character of begin confirm code

4.4 Time parametres

Parametr	Value	Description	Default
51	d	Maximal call duration (0-9,*,#)	*

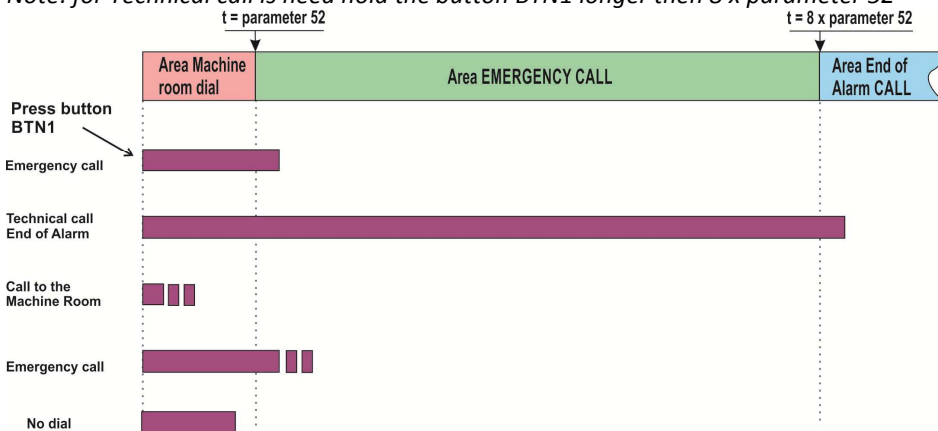
d – maximal time for which door intercom is OFF HOOK. This time you can prolong by dial character during a call by phone (* or # - parametr 42). Setting of time is up table.

time[min]	Dial
0,5	0
1 - 9	1 - 9
15	*
UNLIMITED	#

Parametr	Value	Description	Default
52	w	Time of button BTN1 pressing (holding) for emergency call activation (00-39)	02

w – 00 time 0.5sec for emergency call activation
 – 01 ÷ 39 minimal [in sec] time for which must be button BTN1 hold pressed to start emergency call procedure.

Note: for Technical call is need hold the button BTN1 longer then 8 x parameter 52



Parametr	Value	Description	Default
53	z	Time of button BTN2 pressing (holding) for emergency call activation (0/1)	05

z – 00 time 0.5sec for emergency call activation
 – 01 ÷ 39 minimal [in sec] time for which must be button BTN2 hold pressed to start emergency call procedure.

Parametr	Value	Description	Default
54	r	Hanging up time during REDIAL (1-5)	1

z – time [sec] for which door intercom hangs up before pick up for REDIAL (button push during call, busy tone detection) [range 1-5]

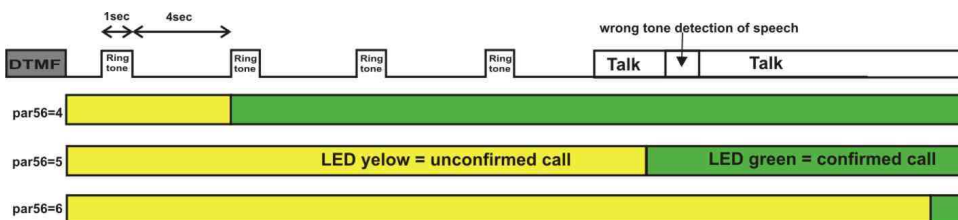
Parametr	Value	Description	Default
55	s	Time before start dialling (1-5)	1

z – time [sec] after door intercom picks up and before start dialling [range 1-5]. This time is different for every PBX but usually all PBXs accepts dial within 2 seconds after line is picked up.

Parameter	Value	Description	Default
56	e	Time without ringing tone – call detection (1-0)	5

e – $1 \div 10$ sec (0 = 10 sec) is time for which is not detected ringing tone after dialling of number. If is set at number dial without confirmation then is set that call started. This parameter significantly determines the correct auto confirmation call. The aim should be to set the smallest possible value.

Example:



Parameter	Value	Description	Default
57	cc	Time waiting for confirmation [sec] (10-99)	60

cc – $10 \div 99$ sec is time which after number dialling the RUKRA ElevatorPhone waiting for call confirmation. If to this time call not confirmed (parameters 47-40), so RUKRA ElevatorPhone hangup and pickup and dial next telephone number.

Parametr	Value	Description	Default
58	hh	Number of rings before hang up (04-99)	60

hh – after dial termination calculate number of CRT (control ring tones). When number is higher than **hh** then hang up [range 04-99]. Dial is repeat and dial next number.

Parameter	Value	Description	Default
59	g	Number of days after which is perform service call (1-59)	3

h – [1 ÷ 59 days] after programmed time the RUKRA ElevatorPhone call to service department to notify its full operation (functionality). The time from last call is display in Lift set programm.

Parametr	Value	Description	Default
500	x	Middle frequency of tones detector (1-0)	3 (375-475Hz)
501	y	Number of busy tones (2-0)	4
502	z	Time of permanent tone duration (1-5)	3 (3s)

x – middle frequency of tones detector – is suitable when PBX signalling is unusual:

frequency [Hz]	x - dial
275-375	1
325-425	2
375-475	3
425-525	4
475-575	5
525-625	6
575-675	7
625-725	8
675-775	9
725-825	0

y – minimal number of busy tones necessary detection [2-0], where 0 means 10 busy

z – minimal time of permanent tone duration tone detection on PBX [1-5 sec]

for tones (for dial)

Parametr	Value	Description	Default
503	tt	Time of tone duration DTMF (tone) dial (04-16)	10 (100ms)
504	mm	Time of space duration between DTMF tones (04-16)	10 (100ms)

505	f	Time of Flash duration (1-6)	1 (100ms)
506	p	Time of pause duration / pause between numbers (1-0)	4 (800ms)

tt – Time of tone duration DTMF (tone) dial is calculated up:

(inserted number) x 10 = tone duration time [ms]

[range 04-16 tj. 40-160ms]

m – Time of space duration between DTMF tones is calculated up:

(inserted number) x 10 = pause duration time [ms]

[range 04-16 tj. 40-160ms]

f – Time of Flash duration is calculated:

inserted number x 100 = Flash duration time [ms]

[range 1-6 tj. 100-600ms]

p – Time of pause duration is calculated:

inserted number x 100 + 400 = pause duration time [ms]

[range 1-0 tj. 500-1400ms]

– time **p** is also time of pause between numbers at pulse dialling

Parametr	Value	Description	Default
507	uu	Level of sending tone DTMF dial in [- dBm] (04-16)	10

uu – level of sending tone (DTMF) dial into line, range is -4 to -16dBm. You insert desired level, uu=04 is -4dBm, uu=10 is -10dBm

Parametr	Value	Description	Default
508	p	preemphase DTMF (0/1)	0
509	S	Listening –in DTMF - level (1-4)	2

p – preemphase is rate between upper and lower groups of DTMF frequency. You can select rate 2,2 dB - p=0 (Europe) or rate 3,2dB - p=1 (Australia)

s – listening –in DTMF level you can select in four levels:

Level of listening in DTMF [dB]	s - dial
-15	1
-9	2
-3	3
+3	4

4.5 Systemparameters

Parametr	Value	Description	Default
61	z	Acoustic signalling (confirmation, error, empty memory, call termination...) (0/1)	1

In default the stages of door intercom are acoustically signalling. By parametr „z“ you can switch off this signalling. Possible values are

z=0 – signalling is off

z=1 – signalling is on

Parametr	Value	Description	Default
62	v	Acoustic signalling off hook/on hook (0/1/2)	1

In default is signalling pick up and hang up of the line. If you identify some problems at certain PBXs you can switch it off by parametr „v“. The possible values are:

v=0 – signalling OFF HOOK / ON HOOK is off

v=1 – signalling OFF HOOK / ON HOOK is on (type 1)

v=1 – signalling OFF HOOK / ON HOOK is on (type 2)

Parametr	Value	Description	Default
63	u	Acoustic signalling knocking to call (0/1)	0

In default it is switch off. By activation of this feature you can identify at PBX calling from door intercom just up knocking into call. Possible values are:

u=0 – knocking to call is off

u=1 – knocking to call is on

Parametr	Value	Description	Default
64	i	Suppression of DTMF reception from microphone, mute for special call, mute microphone before confirm call (0 - 7)	0

In default the **suppression of DTMF reception from MIC** is off - **i=0** and **mute for special call** is off **i=0**.

To increase security you can activate **suppression of DTMF** reception from microphone **i=1**, **i=3**, **i=5** or **i=7** and due this protect possibility use Elevator Phone commands by unauthorized person (which provided record of DTMF code from speaker and next use for Elevator Phone services.

Next function is **MUTE speaker and microphone** for special call - it's meaning service call, technical call and counter call - (**i=2, i=3, i=6 or i=7**).

If use the mute for special call, so for all time of call is supress tone sinalization for pickup / hangup line and confirm tone. Next is mute of microphone and speaker for talk and dial DTMF is decrease the volume of speaker to minimum.

Technical call is 5 kinds and only 4 is muted:

1. call „service call“
2. call if not OK test audio
3. call if push button is permanent activate
4. call if lift cabin not move (Monitoring module)
5. call if counter of maximum set move of cabin is overflow (Monitoring module)

Another function of this parameter is **mute, until the call confirmation** (simplified if the green LED and the microphone is active or not - see. Features a green LED and confirmation call). This feature will facilitate communication with the call center Elevator Phones in a noisy environment. This function is active when the value of **i = 4, i = 5, i = i = 6 or 7**.

Table value of **i**:

value of i	mute for special call off		mute for special call off	
	The microphone is still active	The microphone is active after confirmation call	The microphone is still active	The microphone is active after confirmation call
DTMF reception from MIC off	0	4	2	6
DTMF reception from MIC on	1	5	3	7

Parametr	Value	Description	Default
65	b	Hotline – call without necessity programm phone number (0/1)	0

In default is switch off **b=0**. By activation this feature **b=1** is cancelled acoustic signalling of empty memory. After pushing of button with empty memory you get just beep (confirmation) and call is established as normal dialled number

Caution: first 10sec of call is not active tone detector (it waits on reaction of PBX and number dialling by PBX)

Parametr	Value	Description	Default
6*	t	delay start for PBx's with line testing (Siemens) (0/1)	0

In default is switch off **t=0**. By activation this feature **t=1** is processor going to „sleep mode“ after line connection and after 3sec the door intercom makes initialization. It delays line picks up after line (voltage) connection – activation status / PBX restart. When this feature is not efficient and PBX still evaluate the line into „failure“ mode“ then you have to use external power supply – put **DIP switch 3 and 4** to position "on" – possible at version /C (C) only. It is the same like using **Best Box Monitoring**.

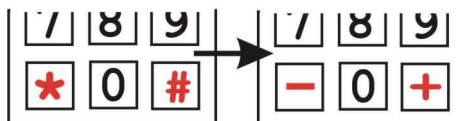
4.6 HandsFree parametres setting

Parametr	Value	Description	Default
71	gg	Reception loudness 01-16 (16 is highest) (SPK)	05
72	ff	Transmission loudness 01-16 (16 is highest) (MIC)	02
73	rr	Speaker loudness 01-16 (16 is highest) (TRH)	12

gg / ff / rr – numbers are inserted always by 2 digits in range [01-16]

After reception of confirmation 🎵 is new value immediatelly active and you can test it. Help: except inserting of direct values 01-16 you can add/ decrease amplification +/- by buttons on phone * = - and # = +

Limits of maximal and minimal loudness are acoustically signalling (3 tones as call termination signalling. When you dont press any digit within 5sec then setup value is saved and you hear confirmation tone 🎵.



CAUTION !! We dont recommend factory setting change if is necessary.

Principle of setting this parameters is on page: 30.

Parametr	Value	Description	Default
74	c	Soft pass of switching (0/1)	0

In default this feature is off **c=0**. It is going about character of on line operation semiduplex switching. In case where character of depresser is too steep you can make it softer by **c=1**.

Parametr	Value	Description	Default
75	n	Depression of background sound (0/1)	0



In default it is off **n=0**. When door intercom is installed in noisy environment (noisy streets, subway stations, parkings...) then by activation of this circuit **n=1** is setup level of noise as start level for microphone activation. Then the call connection is not one way opened. It relates with setup of parametres 71, 76, 77.

Parametr	Value	Description	Default
76	b	Level of microphone start 1-4 (4 is highest)	3

On the line is simultaneously signal from microphone and speaker. In handsfree circuit is a few functional blocks to suppress acoustic shock. The basic one is circuit of semiduplex operation when incoming signal decrease microphone amplification as same as signal from microphone decrease incoming signal. The level of microphone start is setup by this parametr. As lower value as higher microphone sensitivity is. In noisy environment we recommend higher value with combination of parameters 71,75, 77.

Parametr	Value	Description	Default
77	s	Fast switching voice automatic 1-4 (4 is slowest)	2

At parameters 75, 76 is described principal of acoustic shock suppression. Speed of circuit switching between incoming and outgoing sound is setup by parameter 77.

Switching time [ms]	S - dial
1	1
2	2
4	3
8	4

Parametr	Value	Description	Default
78	l	VoltAmper (VA) characteristic of line connection (0/1)	1

Almost every country around the world has different telephone directives and this parametr allows decrease voltage at Elevator Phone line interface about 1V during OFF HOOK. Where directive requires decrease of line voltage $l=0$ decrease voltage about 1V. In default $l=1$.

Parametr	Value	Description	Default
79	k	Compensation of wires losses depends on line current (0/1/2)	0

Door intercom Brave includes circuit which during long distance installations (100m and more from PBX) can compensate losses on wiring. In default the feature is off $k=0$. You can setup in two levels depending on line current of PBX (short circuit current I_0).

PBX current I_0	k - dial
Feature is off	0
20mA-50mA	1
45mA-75mA	2

Parametr	Value	Description	Default
70	uu	Transmission signalling level in [-dBm] (04-16)	04

uu – transmission signalling level to the line, range -4 to -16dBm. You insert desired level, uu=04 is -4dBm, uu=10 is -10dBm ...

Parametr	Value	Description	Default
7*	a	Time constant after pickup before initiati HF (0/1)	1

In default this feature is long time a=1. Long time is 500ms a=1, short time is 50ms a=0. If you pick up lines you not hear pickup tone, alternatively call begins dialing, so constant switch. Long time spans any flicker on the line after picking.

4.7 Monitoring module parameters

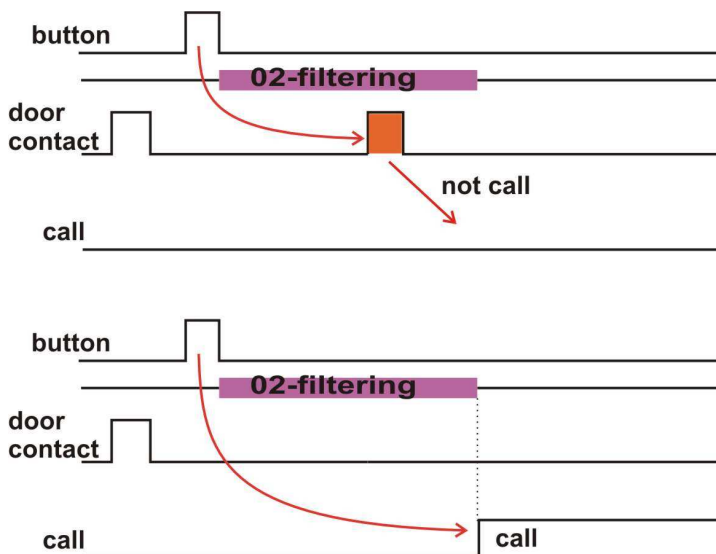
This parameters are only for installed Talker module, but some are stored in the RUKRA ElevatorPhone Basic board. Second possibilities is use Monitoring module with FloorTalker connection

Parametr	Value	Description	Default
01	f	Connection Talker module or FloorTalker to the Monitoring module (0/1/2/3/4/5/6/7)	0

- f** – 0 disable
- 1 enable message H1 H1 is message to cabin (waiting)
 - 2 enable message H2 H2 is message to the line (place)
 - 3 enable message H1 + H2
 - 4 enable message H3 H3 is message end of call
 - 5 enable message H1 + H3
 - 6 enable message H2 + H3
 - 7 enable message H1 + H2 + H3

Parametr	Value	Description	Default
02	tt	Time delay befor dial emergency call (00-99)	0

tt – this time RUKRA ElevatorPhone waiting on BLOCK input, when BLOCK is active before the expiry of tt, so the call will not go anywhere. Otherwise, the call occurs after time tt. (00 - disable, 01-99 is time in sec of delay of call)



Time **tt** is recommended set to time of move cabin between lower to upper floor

Parametr	Value	Description	Default
03	s uu	Switch on by code ss otput OUT s [s=1-4] (uu=00-99,*0-*9)	151,252, 353,454

uu – command to switch on output OUT 1-4 by phone [2 digits] /¹

/¹ – command has always 2 digits but if you want use **1 digit** then you have possibility insert " *u " where **u** is just one number which activate the output (star represents empty character and must be on first position).

Parametr	Value	Description	Default
04	s vv	Switch off by code ss otput OUT s [s=1-4] (vv=00-99,*0-*9)	161,262, 363,464

vv – command to switch off output OUT 1-4 by phone [2 digits] /¹

/¹ – command has always 2 digits but if you want use **1 digit** then you have possibility insert " *v " where **v** is just one number which deactivate the otput (star represents empty character and must be on first position).

Parametr	Value	Description	Default
----------	-------	-------------	---------

05	a	Enable test of acoustic path (0/1)	0
-----------	----------	------------------------------------	----------

a – 0 disable

- 1 enable test of acoustic path. This test is automatic activate service call (par. 31) with interval (par. 59). If use confirm code (par. 07), so test of acoustic path is activate even if the service call is not allowed.

If the evaluated fault in the acoustic path, so before the service call is made cycle technical call with code "0".

Note: - if when using multiple microphones and speakers, so do not test all the paths but at least one functional.

- further acoustic test is dependent on environmental conditions (noise, shading, etc.), so they may not be meaningful and may occur technical call announcing the error and yet everything is fine (just for the test when someone is talking in the cabin, or the fan runs ...)

Parametr	Value	Description	Default
06	t	Enable test of permanent activate buttons (0/1)	1

t – 0 disable

- 1 enable - the test of permanent activate button is checked if any call is ended. When conditions are fulfilled end of call and some button is still active so is invoked technical call with the code "7" and notify faulty button.

When the evaluated permanently pressed button, so begins the cycle of technical calls after technicalcall Elevator Phone remains in a state of waiting for the deactivation button, ie after the repair button Elevator Phone automatically put into normal operation.

Parametr	Value	Description	Default
07	ssss	Confirm code, RUKRA ElevatorPhone answer redial emergency telephone numbers and begin acoustic test (0-9999)	65

ssss – Confirm code - confirmed call, after receive this code RUKRA ElevatorPhone hangup, and after timeout (parameter 32) make service call. [1-4digits]

This code is dialed to the call from telephone or Call centrum, this confirmation authorize call, LED yellow is light off and LED green is light on. You can use 1 - 4 digits long code, but before code you must dial common character **k** (parameter 4#)

Service call is make if is service call switch on (par. 31), acoustic test is make if is the test enabled (par. 05)

Parametr	Value	Description	Default
08	dd	Code for ask on status of inputs (00-99,*0-*9)	70

dd – command on state of inputs [2 digits] /¹

After receive this code RUKRA ElevatorPhone answer by tone on state inputs INP1- INP3, RUKRA ElevatorPhone transmit tones in line INP1 - INP2 -...- INP7 - INP8 and tones 🎵🎵🎵 (long tone) = close (L), 🎵-🎵 (two short tones) = open (H), also unconnected.

/¹ – command has always 2 digits but if you want use **1 digit** then you have possibility insert " *d " where **d** is just one number which deactivate the output (star represents empty character and must be on first position).

Parametr	Value	Description	Default
091	oo	Time oo [sec] activation output OUT1 (00-99)	00

oo - time t1 for which is OUT1 closed [2 digits 00-99], where time 00 means 0,5sec
This parameter is saved in Monitoring module memory

Parametr	Value	Description	Default
092	pp	Time pp [sec] activation output OUT2 (00-99)	00

pp - time t2 for which is OUT2 closed [2 digits 00-99], where time 00 means 0,5sec
This parameter is saved in Monitoring module memory

Parametr	Value	Description	Default
093	rr	Time rr [sec] activation output OUT3 (00-99)	00

rr - time t3 for which is OUT3 closed [2 digits 00-99], where time 00 means 0,5sec
This parameter is saved in Monitoring module memory

Parametr	Value	Description	Default
094	ii	Time ii [sec] activation output OUT4 (00-99)	00

ii - time t3 for which is OUT3 closed [2 digits 00-99], where time 00 means 0,5sec
This parameter is saved in Monitoring module memory

Parametr	Value	Description	Default
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095	-	not use	
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Parametr	Value	Description	Default
096	v m tt	Filter for input INP v=1 - 8, this time in tt is in sec (m=0) or in min (m=1) (tt=00-99)	(v=1-8) 0 10

tt - in this time is ignored change on INP **v=1-8**, for activate or deactivate this input is need change state longer then this set time. Action of change state any input is make technical call.

This parameter is saved in Monitoring module memory

Parametr	Value	Description	Default
097	aa	Number of starts move cabine - counter for call INP3 - aa x 10000 (01-99)	10

aa - is limit aa x 10000 for move cabin. After this maximum limited starts of lift cabin is RUKRA ElevatorPhone make call from INP3. Actual state of counter is possible check by confirm code (parameter 48 on page 50).

This parameter is saved in Monitoring module memory

Parametr	Value	Description	Default
098	bb	Code for reset counter for call INP3 (00-##)	# #

bb - command to reset counter of INP3 call [2 digits]

Parametr	Value	Description	Default
099	hh	Time limit for cabin without moving [hours] (01-99)	04

hh - If the cabin is not moving for more than timeout hh [hours], so will activate the motion simulated by pressing (OUT3 relay is connected in parallel to the elevator button)

This parameter is saved in Monitoring module memory

Parametr	Value	Description	Default
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090	vv	Time in which to start the move of lift cabine (01-99)	4
------------	-----------	---	---

v - after cabine movement activation (relay contacts - OUT3 are parallel to the elevator button), the cabin has to start to the time v [min]. If no started (not change INP3), so RUKRA ElevatorPhone dial Technical call - as error call.

This parameter is saved in Monitoring module memory

4.8 Presetting and erasing

Parameter	Value	Description	Default
8#	#	default	perform

This setting not influence parametres **1** and **2** (numbers saved in memory)

Parameter	Value	Description	Default
81		Erase all emergency phone numbers	1... only
82		Erase all another phone numbers	2... only
83		Default setting for parametres 3x only	3... only
84		Default setting for parametres 4x only	4... only
85		Default setting for parametres 5x only	5... only
86		Default setting for parametres 6x only	6... only
87		Default setting for parametres 7x only	7... only
80		Default setting for parametres 0x only	0... only

Parameter 81, 82 perform erasing of all numbers saved in memories of emergency, service and failure call.

Parametres 83 – 80 perform selected default for parametres 3.. – 0.. only

CAUTION !!! erasing is unreturnable !!! It is necessary programm again.

4.9 Ending of programming

Parameter	Value	Description	Default
9		END	

After **9** dial into programming tone the RUKRA ElevatorPhone hangs up. When programming is via PREPOJ box from machine room it is not hangs but returns back to standard communication lift cabin-machine room.

4.10 Parameters overview

Parameter	Value	Description	Default
1	tp nn...	number nn in order t with confirmation p	110 0337113941
21	p nn...	Number nn with confirmation p	211 0337113949
22	p nn...	Number nn with confirmation p	221 0337113942
23	p nn...	Number nn with confirmation p	-
31	a	Service calling is in status ON / OFF (0/1/2)	0
32	h	Period of waiting in service call [min] (0-9)	3
33	i	Polarity of buttons BTN2 (0/1)	0
34	z	Polarity of BLOCK input or function active: Engineer arrived / left the Elevator (0/1/2)	0
35	b	Number of repeat sequence emergency call (1-9)	3
36	c	Number of repeat technical call (1-9)	3
37	d	Number of repeat call from counter of moving lift cabin - Monitoring INP3 (1-9)	3
38	ee	Number of repeat service call (00-99)	03
39	i	Polarity of buttons BTN1 (0/1)	0
41	v	Dial type v – tone / pulse (0/1)	0
42	z	Character to prolong the call (* / #)	*
43	bb	Command to hang up door intercom by phone (00-99,*0-*9)	44
44	xxxx	Service password (0000-9999)	0000
45	p	Activation parallel mode of Elevator Phones (0/1)	0
46	n	Number of rings before pickup or number of Elevator Phone in parallel mode (1-5)	2
47	eeee	Confirm code, Elevator Phone return serial number (0-9999)	66
48	cccc	Confirm code, Elevator Phone return state of counter INP3 on Monitoring module (0-9999)	67
49	oooo	Confirm code, Elevator Phone answer redial emergency telephone numbers (0-9999)	68
40	ssss	Confirm code, Elevator Phone return last two	69

		dialled telephone numbers (0-9999)	
4*	kk	Constant for parallel mode - time for receive DTMF address of Elevator Phone (10-49)	3.5
4#	k	First character of confirm code (0-9/ * / #)	*
51	d	Maximal call duration (0-9,*,#)	*
52	w	Time of button BTN1 pressing (holding) for emergency call activation (00-39)	02
53	z	Time of button BTN2 pressing (holding) for emergency call activation (0/1)	05
54	r	Hanging up time during REDIAL (1-5)	1
55	s	Time before start dialling (1-5)	1
56	e	Time without ringing tone – call detection (1-0)	5
57	cc	Time waiting for confirmation [sec] (10-99)	60
58	hh	Number of rings before hang up (04-99)	60
59	g	Number of days after which is perform service call (1-59)	3
500	x	Middle frequency of tones detector (1-0)	3 (375-475Hz)
501	y	Number of busy tones (2-0)	4
502	z	Time of permanent tone duration (1-5)	3 (3s)
503	tt	Time of tone duration DTMF (tone) dial (04-16)	10 (100ms)
504	mm	Time of space duration between DTMF tones (04-16)	10 (100ms)
505	f	Time of Flash duration (1-6)	1 (100ms)
506	p	Time of pause duration / pause between numbers (1-0)	4 (800ms)
507	uu	Level of sending tone DTMF dial in [-dBm] (04-16)	10
508	p	preemphase DTMF (0/1)	0
509	S	Listening –in DTMF - level (1-4)	2
61	z	Acoustic signalling (confirmation, error, empty memory, call termination...) (0/1)	1
62	v	Acoustic signalling off hook/on hook (0/1/2)	1
63	u	Acoustic signalling knocking to call (0/1)	0

64	i	Suppression of DTMF reception from microphone, mute for special call (0/1/2/3)	2
65	b	Hotline – call without necessity programm phone number (0/1)	0
6*	t	delay start for PBx's with line testing (Siemens) (0/1)	0
71	gg	Reception loudness 01-16 (16 is highest) (SPK)	05
72	ff	Transmission loudness 01-16 (16 is highest) (MIC)	02
73	rr	Speaker loudness 01-16 (16 is highest) (TRH)	12
74	c	Soft pass of switching (0/1)	0
75	n	Depression of background sound (0/1)	0
76	b	Level of microphone start 1-4 (4 is highest)	3
77	s	Fast switching voice automatic 1-4 (4 is slowest)	2
78	l	VoltAmper (VA) characteristic of line connection (0/1)	1
79	k	Compensation of wires losses depends on line current (0/1/2)	0
70	uu	Transmission signalling level in [-dBm] (04-16)	04
7*	a	Time constant after pickup before initiati HF (0/1)	1
01	f	Connection Talker module or FloorTalker to the Monitoring module (0/1/2/3/4/5/6/7)	0
02	tt	Time delay befor dial emergency call (00-99)	00
03	s uu	Switch on by code ss output OUT s [s=1-4] (uu=00-99,*0-*9)	151,252, 353,454
04	s vv	Switch off by code ss output OUT s [s=1-4] (vv=00-99,*0-*9)	161,262, 363,464
05	a	Enable test of acoustic path (0/1)	0
06	t	Enable test of permanent activate buttons (0/1)	1
07	ssss	Confirm code, Elevator Phone answer redial emergency telephone numbers (0-9999)	65
08	dd	Code for ask on status of inputs (00-99,*0-*9)	70
091	oo	Time oo [sec] activation output OUT1 (00-99)	00

092	pp	Time pp [sec] activation output OUT2 (00-99)	00
093	rr	Time rr [sec] activation output OUT3 (00-99)	00
094	ii	Time ii [sec] activation output OUT4 (00-99)	00
095	-	not use	
096	v m tt	Filter for input INP v=1 - 8, this time in tt is in sec (m=0) or in min (m=1) (tt=00-99)	(v=1-8) 0 10
097	aa	Number of starts move cabine - counter for call INP3 - aa x 10000 (01-99)	10
098	bb	Code for reset counter for call INP3 (00-##)	# #
099	hh	Time limit for cabin without moving [hours] (01-99)	04
090	v	Time in which to start the move of lift cabine (1-9)	4
8#	#	Default	perform
82		Erase all another phone numbers	2... only
83		Default setting for parametres 3x only	3... only
84		Default setting for parametres 4x only	4... only
85		Default setting for parametres 5x only	5... only
86		Default setting for parametres 6x only	6... only
87		Default setting for parametres 7x only	7... only
80		Default setting for parametres 0x only	0... only
9		E N D	

5. Technical parametres

5.1 Elektrical parametres

Parameter	Value	Conditions
Min line current	18mA	Line OFF HOOK
Min line voltage	18V	Line ON HOOK
Line voltage when is Elevator Phone OFF HOOK (VA diagram)	< 8V < 12V	I = 20mA I = 60 mA
Maximum current in ON HOOK status	< 50uA	U = 60V
Impedance line ending	130R + 820R paral. 220n	Line OFF HOOK
Frequency range	300Hz – 3400 Hz	20 - 60mA
Ringing impedance	> 2Kohm	25 – 60 Hz
Sensitivity of ringing detection	min. 10 – 25 V	
Pulse dial	40 / 60 ms	
Tone dial level	-16 to -4 dBm	20 – 60 mA
Tone dial sensitivity	40 dB	20 – 60 mA
Tone detection sensitivity	30 dB	20 – 60 mA
Powering for Monitoring module	12V- 24V DC, maximum 26V	
Max consumption for Monitoring module	65mA	12Vss
Max. resistance for activate inputs INP1 - INP8	1 Kohm	20°C
Min. resistance for deactivate inputs INP1 - INP8	100 Kohm	20°C
Max. voltage of OUT1/OUT2/OUT4 open collector	48V	when I < 0.1A
Max. current of OUT1/OUT2/OUT4	0.5A	when U < 24 V
Max. voltage of relay OUT3	48V	when I < 1A
Max. current of relay OUT3	2A	when U < 30 V
Operation temperature	- 20 to + 50 st	



Notes:

Produced by:

Distributed by:

Date of sales:

