



An Axis company

# 2N<sup>®</sup> Lift1 Compact

Communicator for Lifts



## Brief Manual

Issue 2, Version 1.2

[www.2n.cz](http://www.2n.cz)

## Sortiment

Part No.	Description
919645XX	Basic button version
919645WBXX	Buttonless version

## Extending modules

Part No.	Description
913646	<b>Lift blocking module</b> – blocks the lift function during telephone line failures.
919680E	<b>Programming tool</b> – interconnects Lift1 with the 2N <sup>®</sup> Service Tool on the PC for programming.

## Description

2N<sup>®</sup> Lift1 Compact (hereinafter referred to as Lift1) is a robust, metal-encased audio unit equipped with an ALARM button of the prescribed size by default. In buttonless versions, an external button is connected as necessary. The audio unit is equipped with illuminated pictograms to signal the connection state and an induction loop for deaf people. It can easily be wall mounted without requiring precise wall cut-outs. It combines all the required lift communicator functions in the basic version. A PSTN or alternative (PBX, GSM gateway) line is used for connection with the control centre.

## Operation

Press the ALARM button to activate connection. The "Wait" pictogram goes on immediately and the "Connection established" symbol goes out when communication has been set up. You can use automatic dialling of up to six pre-programmed numbers. Communication is accompanied by factory announcements and/or user recorded lift ID messages.

## Service and Operating Staff Instructions

In the Automatic Dialling with Confirmation mode – default settings:

DTMF charter:	Function
1	<b>Confirm</b> to Lift1 that the call was successful. Lift1 mutes the currently played announcement and sends its confirmation signal. The call goes on until the call time limit is exhausted and any of the following commands can be used.
2	<b>Mute</b> the voice module to avoid disturbance of the operating staff and persons in the lift.
3	<b>Play</b> the user message if stored in Lift1.
4 or *	<b>Extend the call</b> by 30 seconds. Can be used repeatedly.
5 or #	<b>Terminate</b> the call.

## Before you start

### Installation Conditions

- Lift1 is not intended for outdoor applications.
- As the product is connected to a telephone line and may thus produce life-endangering voltage, follow the safety precautions – refer to **Safety Precautions**.
- Never connect Lift1 to a line in parallel with another terminal device.
- Make sure that the lift wall is perfectly flat.
- Make sure that the lift cabin installation is in compliance with the applicable lift standards.



### Tips

- Use a portable phone to make sure that the telephone line works.
- Make sure that you know the telephone line number to make a test call.

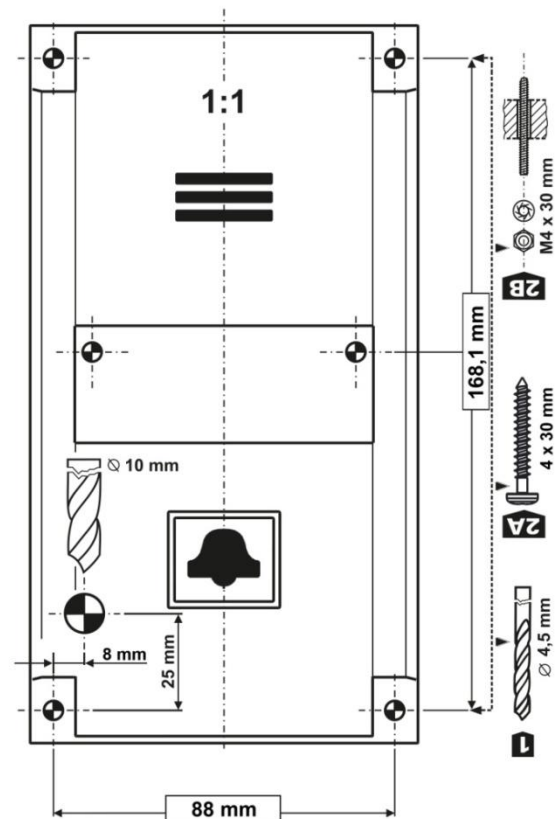
## Mounting

### Mounting preparation

Drill holes into the lift cabin wall according to the selected mounting type. If the cabin wall is accessible from the outside, you can use the corner holes for the M4 screws. If not, use the two holes in the middle for the bolts or make M4 threaded holes. See the 1:1 printing on the product package. The larger hole is intended for cable passage. Round the hole edges to avoid cable damage!

### Mounting

The product mounting procedure may not be commenced until all electrical installations have been completed. Remove the connectors, screw the wires and replace the connectors for facilitation. Refer to **Mounting Completion** for further steps.



### Safety

- The Cancel, Alarm1, Alarm2 and Phone terminals and the electronics board are connected to a telephone line where life-endangering voltage may occur. Where switches are connected to the audio unit, make sure while mounting that the minimum isolation distance (from the telephone line connected parts) is 1.5 mm and/or the minimum breakdown voltage is 1,500 V. This applies to the switches too!
- The DC controlled terminals are separated from the telephone line and do not have to meet the isolation requirements mentioned above.
- Make sure that the cables cannot get in contact with sharp edges during installation to avoid insulation damage. Check the minimum isolation distance of 1.5 mm after installation using an isolation meter if possible.
- The manufacturer shall not be held liable for any installations made in conflict with these instructions.

# Electrical Installation

## Terminals

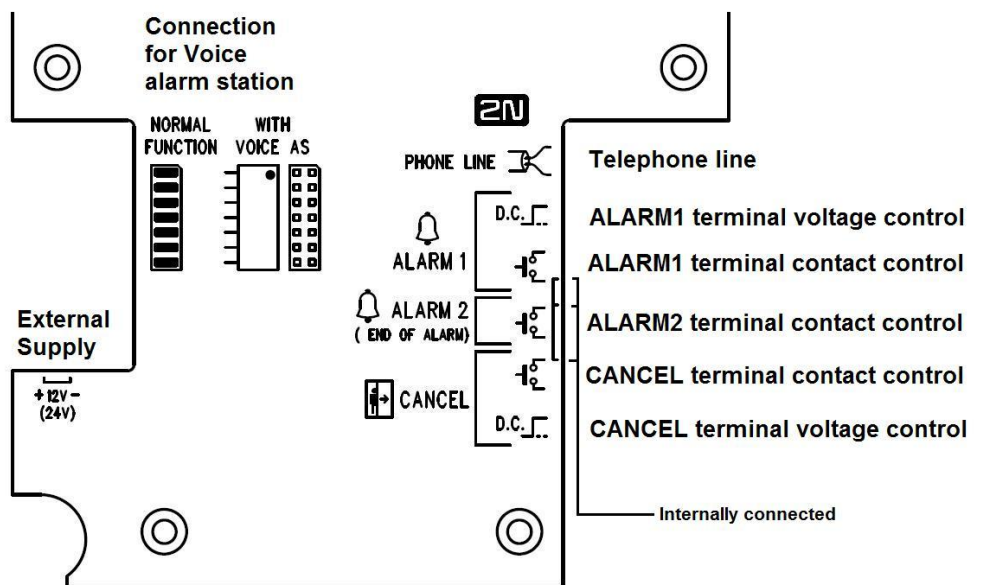
The ALARM1 terminal block helps activate alarm calls. The alarm button on the cover of button versions remains active even if an external button is connected or voltage control is used for activation.

The ALARM2 terminal block can be used for alarm to different set of numbers, especially with Voice alarm station, or for end of alarm setting. The magnetic contact connected in parallel to the Alarm 2 terminal is placed on the front side behind the front glass window, use permanent magnet to activate it. It is not necessary to replace the glass.

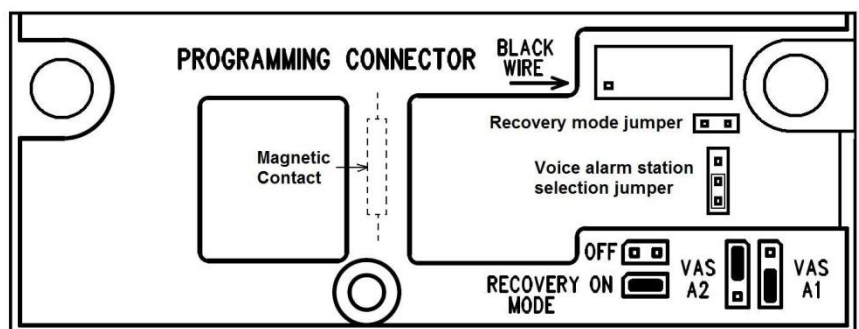
The CANCEL terminal block helps deactivate an active alarm when the door opens. Therefore, set parameter 914 to a value higher than the maximum lift travelling time.

For the Alarm 1 and Cancel input can be used switch button both with normally opened or normally closed contacts, isolated. The isolated voltage inputs can be activated by any voltage from 12 to 24 V. The logic of inputs is to be set by parameters (920 for Alarm 1, 916 for Cancel)

Terminals on the rear side



Connectors behind front glass window



Connector / NAME		Description	
<b>ALARM1</b> terminal	DC = voltage control	12–24 V DC, any polarity, activation by signal or no signal state possible	Alarm call activation – for buttonless version or for additional button
	Contact control	normally open or normally closed contact	
<b>ALARM2</b> terminal	Contact control	Normally open contact only	Alarm 2 call or end of rescue mode
<b>CANCEL</b> terminal	DC = voltage control	12–24 V DC, any polarity, activation by signal or no signal state possible	Alarm call deactivation upon door opening
	Contact control	normally open or normally closed contact	

<b>connector WITH VOICE AS</b>	Short-circuit connector used	Standard functionality of Lift1	2N <sup>®</sup> Voice Alarm Station connector
	Interconnection with Voice Alarm Station switch	Used for connection of audio units under and above the lift cabin	
<b>jumper RECOVERY MODE</b>	recovery mode	Set the jumper to ON to activate the recovery mode for FW upgrade whenever a problem occurs with the Lift1 – 2N <sup>®</sup> Service Tool connection.	
<b>PROGRAMMING CONNECTOR</b>	for 2N <sup>®</sup> Programming Tool	USB programming tool for 2N <sup>®</sup> Service Tool via PC	configuration, firmware, voice menu
<b>12 V (24 V)</b>	DC voltage	After power connection is backlighted the Alarm button. If the rescue feature is activated, then the yellow LED is shining.	



## Note

- Use 12–24 V DC of any polarity for voltage control. However, make sure that the source is backed up against power outage. You can also connect a buzzer or horn in parallel with the ALARM terminal if voltage control is used.
- You can also use the NO contact or voltage presence for Alarm 1 and Cancel activation and invert the function using parameters 920 or 916 if necessary – NC contact or voltage absence for activation. The logic of the Alarm 1 functionality can be set automatically when the device is first time switched on, the input has to be in not active alarm state.
- Make sure that the DoorOpen signal is only activated when both the internal and external lift doors are open and the people can leave the cabin safely.

## Telephone Line Connection

Lift1 works regardless of polarity and/or line parameters in a wide range (see the Technical Parameters section). It is connected via the LINE terminals. A great advantage is that Lift1 requires no additional power supply for operation. For details on Lift1 connection to PSTN, PBX and GSM gateway lines refer to the Lift1 Connecting Options section.

## Mounting completion

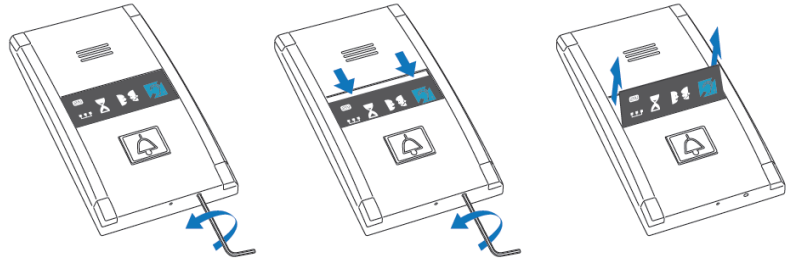
Having connected the wires, you can complete the Lift1 wall mounting. If you can access the cabin wall from the outside, use the mounting type that prevents dismantling and unauthorised tampering from the cabin. Mounting procedure:

- Where access from the outside is possible, use the four pre-drilled M4 holes in the corners.
- Remove the corner covers fitted with four M4 screws from behind.
- Screw the 30 mm long M4 headless grub screws included in the audio unit package in place of the corner cover screws removed. Tighten the screws with an internal hexagon key wrench.
- Put the audio unit on the holes, apply the serrated lock washers from the outside and screw the M4 nuts (both included in the delivery).
- This type of mounting is suitable for lift cabin wall thickness of up to 20 mm.

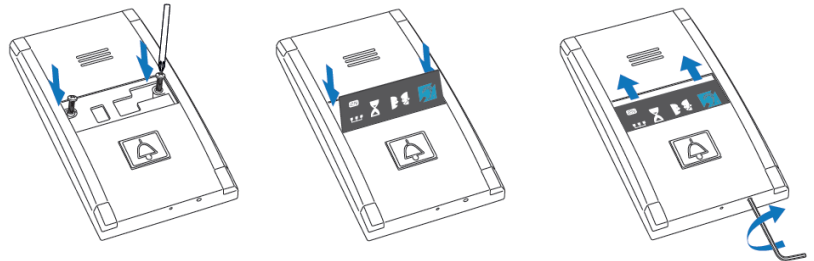


If you cannot access the cabin wall from the outside, use the screws under the pictogram glass:

- Insert the hex key wrench (included in the package) in the hole on the product bottom edge and turn it left (about 10 times) until it puts up resistance.
- The window slides down by itself or with little assistance, showing its upper brim.
- Tilt the window forwards and remove it.
- Now you have access to two holes in the window corners. Put Lift1 on the pre-drilled lift cabin wall holes and fit it with the included screws, which are suitable for plywood, chipboard, laminated plastic etc. walls. For other materials, use appropriate screws or M4 screws in the pre-drilled M4 threaded holes.



- Replace the window and insert the hex key wrench in the bottom edge hole turning it right about 10 times until the window slides under the panel edge. Tighten the window applying a moderate force.



# Lift1 Programming

## Before you start

- Make sure that your phone supports tone dialing.
- Complete all the values to be modified into a pre-prepared form, which provides a clear table of basic functions.
- If your Lift1 is not brand new, make sure that you have the correct service password and, if you are not completely sure of your Lift1 configuration, execute full initialisation (Warning: The service password will also be initialised!).

## Access to Programming Mode

You can only enter the programming mode during an incoming call (from a phone to Lift1). Enter the access password:

**[\*] service password [\*]** (remember to enter an asterisk in front of and behind the password!)

If the password is correct and programming is enabled (jumper), Lift1 announces:

**„You have entered the programming mode“**

and displays a Help according to the context. The default password is 12345 and you are recommended to enter a different password to protect your device against unauthorised persons.



### Tips

- If you forget your service password, use the programming tool and PC with 2N® Service Tool.
- While entering the password, keep a timeout of 5 seconds (or any other value in the range between 1 and 9) for each character to avoid Lift1 hang-up and password/parameter re-entering.

## Programming Procedure

Having entered the programming mode, you can change any programmable value(s) in any order. Proceed as follows: enter the parameter number and value. Use an asterisk as a separator or Enter. In general, the function has the following format:

**Parameter number [\*] value [\*]**

The parameter number has three digits (see the table). After you enter the number and an asterisk, Lift1 shall report the number/name, current value and potential range of the parameter to be programmed. After you enter the value and another asterisk, Lift1 shall announce "New value stored", or "Invalid value" if the value is beyond the allowed range.

## Programming Error

- If you make a mistake while entering a number (function or value) and find it before clicking the asterisk, press **[#]** to cancel the whole number and enter a new one.
- If Lift1 rejects a parameter number or value, you can go on programming – enter the function number although you typed a wrong value.
- If you have programmed and saved a wrong value, re-enter a correct value.

## Programming End

- Having saved all the values to be modified, press **[#]** to make Lift1 send an on-hook signal and hang up.

- If you do not press **#**, Lift1 will hang up later without affecting the value saving process (the values are stored immediately in the memory).
- If you are not quite sure of how Lift1 will behave after programming, check the functionality.
- Save the filled-in form for later check.



### • Tip

- Refer to the full User Manual for message recording, acoustic parameter setting, switch programming and Lift1 Programming Tool details.

### Lift1 – Brief Programming Form

Parameter number and name	Range of values	Default value	Notes, explanations	Your value
<b>011</b> – ALARM button memory 1	up to 16 digits	empty	Enter <b>*</b> , <b>#</b> and 'p' for a 3-second pause while programming via the 2N <sup>®</sup> Lift1 Service Tool or using parameter 017. (Refer to the full User Manual).	
<b>012–016</b> - ALARM button memories 2-6	up to 16 digits	empty		
<b>071</b> – Check call memory 1	up to 16 digits	empty		
<b>072–076</b> – Check call memories 2–6	up to 16 digits	empty		
<b>018</b> – Count of automatic dialling cycles for ALARM	0–9	3 cycles		
<b>078</b> – Count of automatic dialling cycles for check call	0–9	3 cycles		
<b>111</b> – Automatic dialling type for ALARM button memory 1	1–6	1	1 = loud with confirmation 2 = silent with confirmation 3 = loud without confirmation 4 = CPC Antenna support 5 = CPC Kone support 6 = P100 support	
<b>112–116</b> – Automatic dialling type for ALARM button memories 2–6	1–6	1		
<b>171</b> – Automatic dialling type for check call memory 1	1–6	1	1 = loud with confirmation 2 = silent with confirmation 3 = loud without confirmation 4 = CPC Antenna support 5 = CPC Kone support 6 = P100 support	
<b>172–176</b> – Automatic dialling type for ALARM button memories 2–6	1–6	1		
<b>871</b> – Message repeating count	0–9	3	There is a 5-second space between two announcements.	



<b>872</b> – Message recording	0–30 s	empty	User announcement recording function, can be used for lift identification.
<b>875</b> – Message options	2 digits	55	<p><b>1st digit</b> = message that is repeated after number dialing</p> <p><b>2nd digit</b> = message that is played after connection confirmation and call end</p> <p>The meanings of the digits are as follows:</p> <p>1 = play user message recorded via parameter 972</p> <p>2 = read identification – parameter 974</p> <p>3 = combine options 1 + 2</p> <p>4 = send identification by DTMF</p> <p>5 = message as specified in parameter 977 (after confirmation according to parameter 976)</p> <p>6 = combine options 5 + 2</p> <p>7 = confirmation tone (after confirmation only)</p>
<b>876</b> – End-of call message language selection	0–9	1	<p><b>0,3,5,7</b> = 🎵</p> <p><b>1</b> = English (or other main language depending on Lift1 version)</p> <p><b>2</b> = English (or tones for English version)</p> <p><b>4</b> = German</p> <p><b>6</b> = Polish</p> <p><b>8</b> = Portugese</p> <p><b>9</b> = Dutch</p> <p><b>10 to 99</b> = silence</p>
<b>877</b> – Outgoing call message language selection	0–99	1	<p><b>4</b> = German</p> <p><b>6</b> = Polish</p> <p><b>8</b> = Portugese</p> <p><b>9</b> = Dutch</p> <p><b>10 to 99</b> = silence</p>
<b>912</b> – Maximum call time	15–990 s	120 s	Use the call-extending command to extend the call (DTMF 4 or *).
<b>913</b> – Login time limit (for automatic dialling)	10–990 s	60 s	Set the maximum period of time for the control centre staff to answer the call and send confirmation, otherwise Lift1 hangs up and dials the next number. Counted from the end of dialling.
<b>914</b> – Delayed call	0–1000 s	0 s	Applied only if the CANCEL input is connected.
<b>916</b> – Cancel input inversion	0-1	0	<p>0 = contact closed or voltage present at opened door</p> <p>1 = contact opened or voltage not present at opened door</p>
<b>920</b> – Alarm button mode	0-2	0	<p>0 = normally open contact or voltage present to activate</p> <p>1 = normally closed contact or voltage not present to activate</p> <p>2 = autodetection, during the next boot of the device the state of the input will be set as not active state.</p>
<b>962</b> – Minimum button pressing time	100–9999 ms	100 ms	Applies to the ALARM button.

<b>965</b> – Private mode	0–25	0	Incoming call permitted always during rescue process. Parameter specifies functionality when the rescue process is not active: 0 – incoming call permitted during rescue process only. 1 – 24 – time after alarm, when incoming call is permitted (hours) 25 – incoming call is always enabled
<b>966</b> – Rescue process	0–4	0	0 = disabled 1 = End of rescue process by Alarm 2 2 = End the rescue process by rescue password 3 = End the rescue process by Alarm 2 or the rescue password 4 = Special customer modification
<b>974</b> – Lift identification	16 digits	empty	Numerical lift identification
<b>981</b> – Check call	0–6	0	Setting options for parameter 981: 0 = disabled 1 = enabled, first call in 3 minutes and then as set in parameter 983 2 = enabled, first call in 2 hours and then as set in parameter 983 3 = enabled, call as set in parameter 983 4 = enabled, call on the nearest day set in parameter 986 5 = enabled, first call in 3 minutes and then as set in parameter 986 6 = as set by the server
<b>982</b> - Check call interval	00:00:00 – 23:59:59 beginning and end	beg.: 00:00:00 end: 23:59:59	Set announcements for the lower traffic (lower tariff) time, generated at random in the set time interval.
<b>983</b> – Check call period	0–100 days	3	Count of days for check call repetitions
<b>984</b> – Time setting	hhmm	NA	Read the current value and set a new one. The audio unit may not be disconnected from the telephone line after setting.
<b>985</b> – Data setting	yymmdd	NA	Values for Mon, Tue, Wed, Thu, Fri, Sat, Sun: 0 = do not call 1 = call
<b>986</b> – Days of week for check call	0000000 – 1111111	0000000	
<b>991</b> – Service password	up to 16 digits	12345	Change the default programming password for access to the programming mode via a voice menu and for full initialisation.

<b>992 – Rescue password</b>	up to 16 digits: 0–9	empty	Set the rescue terminating password.	
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# Technical parameters

## Electric Parameters

Parameter	Value	Condition
Minimum line current	15 mA	off-hook
Minimum line voltage	22 V	on-hook
Off-hook DC voltage drop	< 8 V < 16 V	I = 25 mA I = 50 mA
On-hook resistance	>1 M $\Omega$	U = 25..100 V
Off-hook impedance	220 $\Omega$ + 820 $\Omega$ paral. 115 nF	15 to 60 mA
Return loss	> 14 dB	15 to 60 mA
Bandwidth	300 až 3500 Hz	15 to 60 mA
Ringing impedance	> 2 k $\Omega$ C = 0,47 $\mu$ F	25 to 50 Hz
Ringing detector sensitivity	10 až 20 V	25 to 50 Hz
Pulse dialling	40 / 60 ms	
DTMF dialling level	-9,0 +2,0/-2,5 dB and -11,0 dB +2,5/-2,0 dB	15 to 60 mA
Overvoltage protection – between A, B	1000 V	8 / 20 $\mu$ s

## Other Parameters

Compact model dimensions	100 x 185 x 23 mm
Working temperature range	-20 to +70 °C



### Note

- Lift1 is certified for connection to a wired PSTN line according to the ES 023 021 standard requirements.
- The product does not contain components harmful to the environment. When the product's service life is exhausted, dispose of it in accordance with the applicable legal regulations.

## EC Declaration of Conformity

Hereby, 2N TELEKOMUNIKACE a.s., declares that the product 2N<sup>®</sup> Lift1 is in compliance with the essential requirements and other relevant provisions of Directive Radio Equipment and Telecommunications Terminal Equipment Directive (R&TTE) 1999/5/EC. Declaration of conformity you can find on our website [www.2n.cz](http://www.2n.cz).



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