



ANEP S-BOX



EMERGENCY TELEPHONE FOR ELEVATORS

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1 - TECHNICAL CHARACTERISTICS

1.1 - Technical characteristics

- Conforms to standards EN 81-28 and ASME 17.1
- Powered by analogue phone line.
- DTMF dialling.
- Automatic answer.
- Automatic or manual calibration of volume of gains.
- Installation identification.
- Installation identification sent to ANEPCenter® or website anepanywhere.com
- Programmable by keypad.
- Possibility to trigger alarm with dry or voltage contacts technician presence acknowledgement on alarm.
- Can store up to six phone numbers.
- Automatically calls a 2nd number if the first number called is busy or doesn't answer.
- All parameters are stored in non volatile memory (no battery required)..
- Periodic call (1,2, or 3 days).
- Programmable remotely via ANEPCenter®

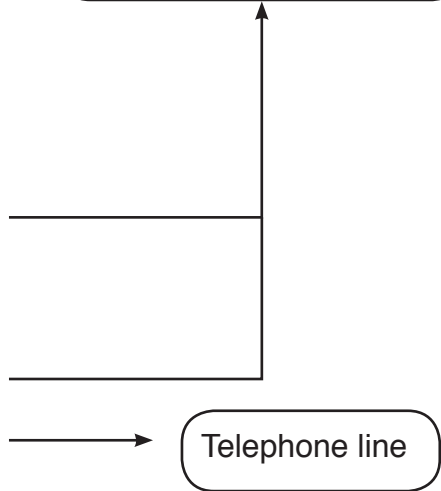
1.2 - Factory settings

• Access code :	* 1 2 3
• Call timeout:	3 minutes
• Hang up :	Automatic
• Periodic calls :	3 days

* Specification EN81-28 Emergency alarm for new lifts since october 2003.
Specification EN 81-70 security rules for the constructions and installation of lifts
Part 70 ; accessibility to lifts for all people including the handicapped



- Emergency elevator telephone Button
- Call Filtering



- S-BOX inside the cabin :
- BOX-SC on car roof
 - BOX-SC under the car
- S-BOX on car roof :
- BOX BA-MINI GHP
 - BOX BA MAX
 - Remote microphone

2 - RECOMMENDATIONS



before handling any ANEP products, ensure the equipment has been disconnected from all power supplies.

2.1 - Installation / Powering up

The performance of telephone line equipment depends largely upon the characteristics of the telephone line.

Particular care must be taken when cabling the phone line to avoid damaging the standard line characteristics.

Check cabling (especially if they link several motor rooms).

- Type of cable,
- cable passage (High / Low voltage),
- Parasites (Ventilators, generators),
- Etc ...

it is essential to connect all peripheral units **BEFORE** connecting the phone line :

- Emergency elevator telephone call button.
- emergency elevator telephone panel.
- Under car audio unit

2.2 - Traveling cables

We advise the use of a shielded traveling cable to ensure excellent audio quality and thus avoid disturbances with may lead to undesired effects.

3 - EMERGENCY ELEVATOR TELEPHONE CALL FILTERING

- Call filtering is used to avoid false alarms caused by misuse or by accidental use.
- A voltage between 5 V & 230 V ac applied to the alarm filtering input inhibits calls.

3.1 - Full alarm filtering EN81-28.

When using either **BOX DISCRI** module the alarm filtering is compliant with the specification EN81-28.

The output of **BOX DISCRI** module simply needs to be connected to the input alarm filtering.

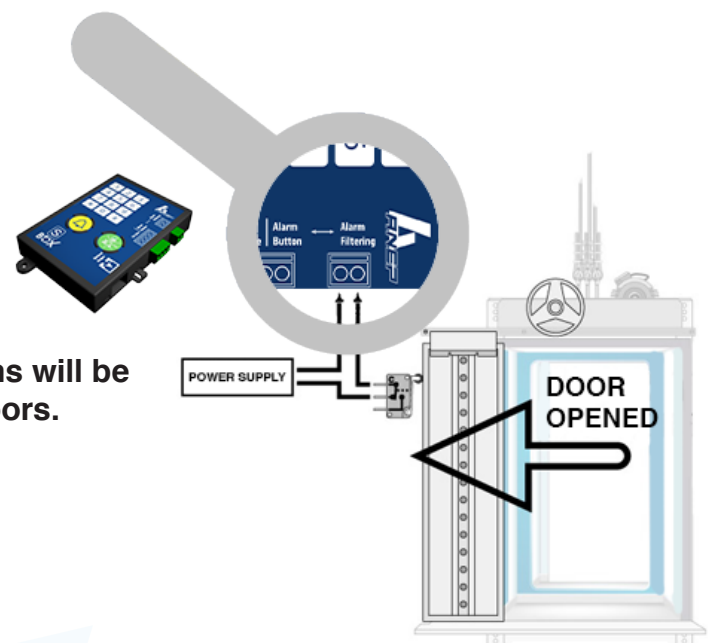


(see BOX DISCRI manual)

3.2 - Simple filtering

A simplified filtering system may be created by using interdependent information for the car door open.

Note : Ensure that the car door cannot be opened between floors alarms will be filtered if the car is blocked between floors.



3.3 - Forced call

If call filtering is enabled, an alarm may still be forced by pressing the alarm button four times in a 15 minute period.

To force alarm, there must be at least three seconds between each press. The button must also be held for an amount of time that is longer than the programmed "time-out."

4 - ADDRESSING

Several **S-BOX / C** modules may be installed on the same telephone line (max 8).
The address of EVERY module must be configured.

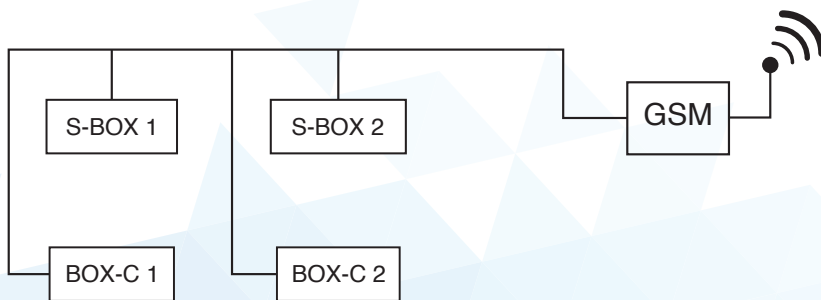
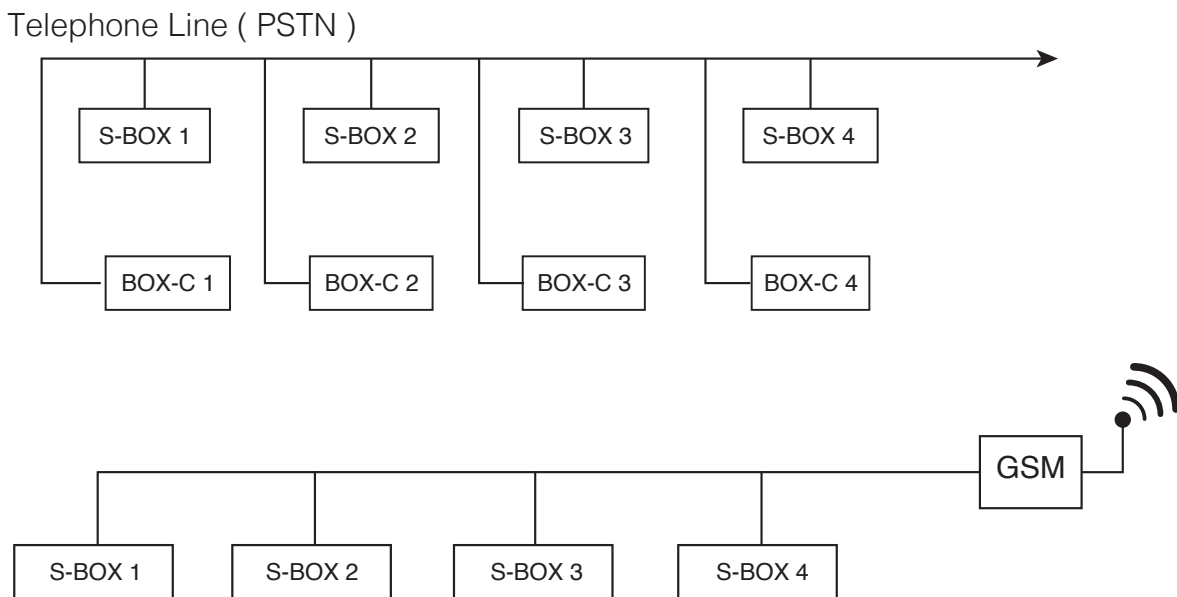
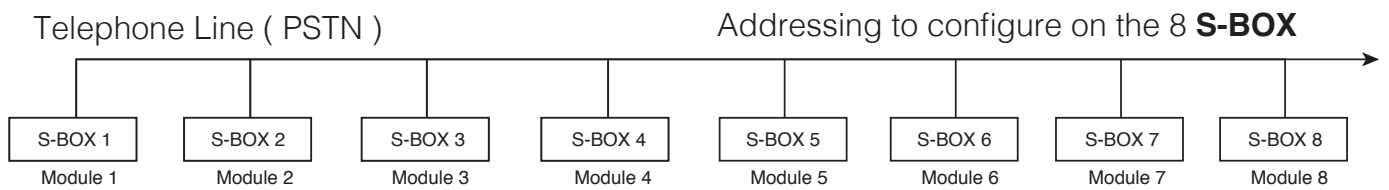
After entering the acces code to enter programming mode, enter the following sequences :

303 then 1 # if module 1 (lift 1) or # 303 then 2 # if module 2 (lift 2) or ...

303 then 8 # if module 8 (lift 8) or

Note : Module = ANEP S-BOX or ANEP BOX C

Configuration - S-BOX (8 maximum)



5 - PROGRAMMING MODE

1	2	3
4	5	6
7	8	9
*	0	#



Important :

- Access to the programming mode is only possible if the phone line is hung up.
(Beware if several modules share the same line)
- The **S-BOX** keypad is used to program all the parameters.
- To avoid unwanted modifications, the programming mode is protected by an access code : *** 1 2 3**
- This code may be modified by the technician (1 to 7 digits)(see page 15)

5.1 - Enter programming mode

Enter * followed by the access code to enter programming mode

Example : using the factory default code

 * 1 2 3

The unit plays a melody



... Then 2 beeps are made every 20 seconds



5.1.1 - Exit programming mode

when the unit has been programmed

 Press the key « * »

Finish programming, the unit plays a melody



Note : If no key is pressed for over 3 minutes, the unit will automatically exit the programming mode.

The unit play's a melody

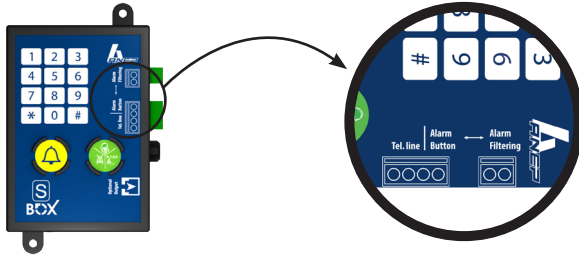


5.1.2 - Simplified programming

1	2	3
4	5	6
7	8	9
*	0	#



S-BOX automatically detects whether the call button is NO or NC. It is therefore necessary to connect the call button BEFORE connecting inputs and the telephone line.



KEYS	SEQUENCE	COMMENTS
*	Access code to enter programming mode	(Factory default : * 123)
#001#		Erasing of configuration and telephone numbers
#101	Telephone number + #	1 st Call center phone number
#102	Telephone number + #	2 nd Call center phone number
#103	Telephone number + #	3 rd Call center phone number
#104	Telephone number + #	Data + alarm acknowledgement
#105	Telephone number + #	Periodics calls
#303	Module number + #	n° module from 1 to 8
*	Exit programming mode	

FACTORY SETTINGS

- Access code to programming mode : * 1 2 3
- Call timeout : 3 minutes
- Hang up : Automatic
- Periodic test call : 3 days

1	2	3
4	5	6
7	8	9
*	0	#

5.2 - GSM mode

The GSM mode should be activated when **S-BOX** is connected to a GSM gateway.
To activate this mode:

In programming mode:

 Enter #405# To come back to normal mode (PSTN)

In programming mode:

 Enter #406#

5.2.1 - Managing Battery default on GSM PG1 gateway

PG1 gateway constantly supervises its battery. In case of default, PG1 gateway sends the info to the **S-BOX** module. Accordingly, when GSM mode is activated, the master **S-BOX** module controls the battery default of the gateway. After detection of this default, ANEP BOX generates a data call "GSM battery default start. After recharging or replacement of the battery, the Gateway sends information to **S-BOX** module, that generates a call "GSM Battery default end".

5.3 - Programming numbers

Note : 101 = Principal emergency call number

102 = Secondary emergency call number

103 = Third emergency call number

5.3.1 - Programmaming memories 101/102/103

After entering the programming mode access code : (example for the principle call number)

 Enter the sequence « # 1 0 1 » 

 Enter the telephone number followed by the key « # » 



5.3.2 - Programming a pause

When installed behind a PABX, a prefix and a pause may be necessary before getting a external line

To program a PAUSE (2 seconds), press the key « * »

Example : **Pause** after a prefix 0 (for memory 102)

 # 102 0 * 0 1 4 5 6 9 2 8 0 0

 press the « # » key to validate the number 

5.3.3 - Erase a number

 Enter the sequence : « # » then, the memory number, then « # »

Example : Erase the number and memory **101**

 # 101 #

Note :

If no key is pressed for over 20 seconds, the unit plays a BEEP and returns to the start of the memory selection part of the programming mode.

5.4 - Memory attribution

5.4.1 - Transfer method

The S-BOX may be programmed to interface with the call center, utilizing the available software and specifications.

To communicate with call centers, ANEP unit can transfer its ID information and establish a two-way voice communication either :

- In a single calls,
- or two separate call.

The recommended method (with respect to European specifications), is to make a single call (the delay time is optimized).

5.4.2 The table below shows the programming possibilities for a single call.

Telephone N°	Type of data	Type of communication	Call center
Memory # 101	Passenger and tech alarm	Data & audio	Main call center
Memory # 102	Passenger and tech alarm	Data & audio	Backup call center
Memory # 103	Passenger and tech alarm	Data & audio	Backup call center
Memory # 104	Remote end of alarm	Data	Main call center
Memory # 105	Periodic call	Data	Call center for periodics calls
Memory # 106	Alarm data	Data	ANEPanywhere or client call center

5.5 - Enabling and adjustment of parameters

5.5.1 - Emergency elevator telephone button validation time (default = 0,5 second)

In programming mode :

 Enter sequence **# 3 0 2 #** and the time **10ths of a** second.

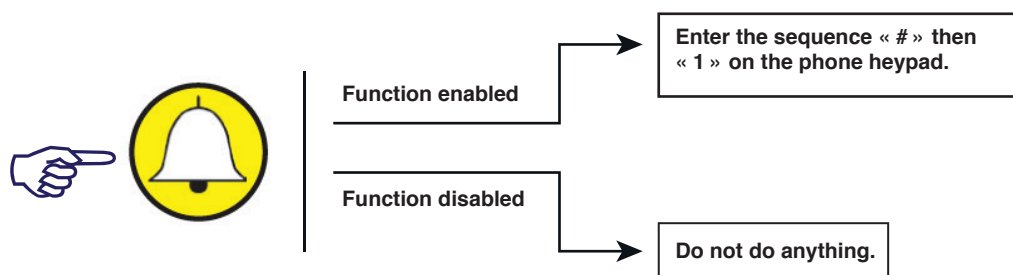
 Followed by key « # »

Example : 4.5 second timeout

 Enter the sequence **# 302 45 #** 

5.5.2 - Acknowledgement of a trapped passenger (EN81-28)



When this function is enabled, a call dialed by **S-BOX** must be acknowledged by the operator by entering the sequence " # " then " 1 " on his telephone keypad during the conversation.



If the acknowledgement is not made, then **S-BOX** will call back the center up to 6 times.

To enable this function,

In programming mode

 Enter the sequence **# 2 0 2 #** 

The acknowledge function is enabled (default value = disable)

To disable the call acknowledgement

 Enter the sequence **# 2 0 3 #** 

The acknowledge function is disabled.

5.5.3 - Conversation timeout

Conversation timeout from **1** to **99** minutes (factory default= **3** minutes)

In programming mode :


 Enter the sequence : **# 2 0 1 #** 

Then enter conversation timeout (from **1** to **99**) followed by " # "

5.5.4 - Adjusting speaker volume in car

Method 1 : During a call

The following adjustments may be made in order to adapt to local conditions , and to improve audio quality in the lift car.

After programming the necessary telephone numbers, make a call by pressing the emergency elevator telephone button in the car "  ".

During the voice call :

 Key " 6 " = + Key " 9 " = - Speaker volume

 Key " 5 " = + Key " 8 " = - Microphone Gain

1	2	3
4	5	6
7	8	9
*	0	#

Pressing " 0 " forces the unit to hang up.

Pressing " 1 " will program the default volume and gain.



Modifications made manually, replace those previously made automatically

Method 2 : Not during call

In programming mode :


 Enter the sequence #410xx# to adjust loudspeaker volume (between 0 and 15)



 Enter the sequence #411xx# to adjust microphone gain (between 0 and 15)

5.5.5 - Enabling a periodic call

In programming mode :

 Enter the sequence # 105 

 Enter the phone number of the call center that is to receive the data, the call center must be equipped with a modem (**type FT2008, FT1010 or FT4004**) and the software **ANEPCENTER®**, or any compatible service.

 Press the key « # » 

A site file should have been created previously in the **ANEPCENTER®** (refer to **ANEPCENTER®** instructions for details.)

NOTE : During a periodic call, the real time clock in **S-BOX** is updated.

5.5.6 - Test call period

In programming mode:

☞ Enter the sequence **# 301** 

☞ Enter the number of days corresponding to the test call period **1, 2 or 3**.

default value : 3 days example : 2 days = **# 301 2 #** 

NOTE: A periodic call will be made immediately upon exiting programming mode, once the periodic call number has been programmed.

The speaker is activated during the call, so the technician is aware of the communication.


5.5.7 - Transmission of call identification code during a call

During dialing and call identification, it is possible to listen to the tone sequences sent by **S-BOX** in order to inform the technician present that **S-BOX** is transmitting information.


Note : Programming is disabled during a call.

5.5.8 - Modification of access code

In programming mode :

☞ Enter the sequence **# 0 0 2** 

☞ Enter the new access code (from 1 to 7 digits) then « # » 

☞ Confirm the new access code (from 1 to 7 digits) then « # » 



It is very important to remember the new code.
If lost, the unit **must be returned to the manufacturer.**

5.5.9 - Configuration of the dual call mode

The dual call mode allows a call to a caretaker post (voice only), before making a call to the call center(data and voice). In addition, if the function " Acknowledgement of a trapped passenger call " is enabled, the caretaker will have to acknowledge the call by entering the sequence " #1 " on his phone keypad. Without this acknowledgment, **S-BOX** will call back to the call center up to 6 times.

Configuration of the dual call mode :

To configure the dual call mode, enter in programming mode and dial the sequence #206#

The " telephone " memories should be programmed as follows :

memory 101 : phone number of the caretaker
memory 102 : phone number of the call center

Sequence of an alarm call :

When the emergency elevator telephone button is pushed, **S-BOX** calls the number in memory 101 (caretaker).

Then it calls the number in memory 102 (call center).

If the number called by memory 101 (caretaker) or 102 (call center) is (are) busy, the corresponding numbers are called back up to 6 times.

Disabling dual call mode :

To disable the dual call mode, enter in programming mode and dial the sequence " #207# "

5.6 - Selection of communication protocol

5.6.1 - ANEP Protocol

Default protocol, or set by the following key sequence :

After entering the access code programming, press # 200 then 0, then #.

5.6.2 - P100 Protocol

P100 protocol is set by the following key sequence :

After entering the access code programming, press # 200 then 1, then #.

5.7 - Adjusting the level of emissions of DTMF codes

Ability to adjust the transmission power DTMF codes to avoid echo phenomena when the S-BOX is connected to a GSM gateway.


By default power is set to -8 dBm.

After entering the access code programming
Press # 409 then a value of N 0-12 then #

Power (dBm).

6 - OPERATION

6.1 - Emergency elevator telephone call

 press the emergency elevator telephone button in the car, **S-BOX** call the call center. If call filtering is not enabled the network tones and dialling are audible.

Beeps are plays every **6** seconds during silence to indicate that the unit is still on-line



ATTENTION ! If the filtering import is used (See page 7)

6.2 - Automatic hanging up (audio mode)

Hang up occurs **automatically** when the busy signal is detected or if the call timeout is reached.

S-BOX plays a melody **10 seconds** before the end of the timeout period (see page 13).

6.3 - Call sequence

If the called number is busy or doesn't answer after 10 rings, **S-BOX** calls the secondary phone number. Each phone number is called alternately a maximum of six times.

Direct call to an ordinary phone :

The microphone is enabled 6 seconds after the telephone answers.
To disable this function insert a pause (*****) in the programmed telephone number.

6.4 Car speaker and microphone test:

For testing purposes, the functionality of the speaker and microphone in the lift may be tested remotely, via a request by the operator. This allows testing of both the speaker and microphone together.

During the test, a tone (frequency of 1 khz), is emitted by the speaker for four seconds. The microphone will detect the sound, and transmit it back to the operator for confirmation.

The test sequence is:

- When only one **S-BOX** is connected to the telephone line
- Dial the number of the line where the **S-BOX** is connected
- Wait for the box to answer
- Wait 3 seconds until a beep is heard

☞ Press the “6” key on the telephone keypad, the 1khz frequency should be audible.
(note: the operator’s telephone must be capable of sending DTMF tones)

- When several **S-BOX** are connected to one telephone line
- Dial the number
- Wait for the master BOX to answer
- Wait an additional 3 seconds until a beep is heard
- If the test is for the master BOX, press the “6” key. The 1khz frequency should be heard by the operator.
- If the test is for a secondary BOX, enter a 2 digit sequence to select the desired BOX after the beep. The first digit will be the BOX Module number (2 to 8), and the second digit will always be “1” for this test. (Example: 21, 31, 41, etc.)
- After about 5 seconds, another beep should be heard.

☞ Press the “6” key and the 1khz frequency should be heard.

6.5 - "alarm in progress" Reset

The cabin alarm must be reinitiated by an end of alarm which can be triggered either locally or remotely.

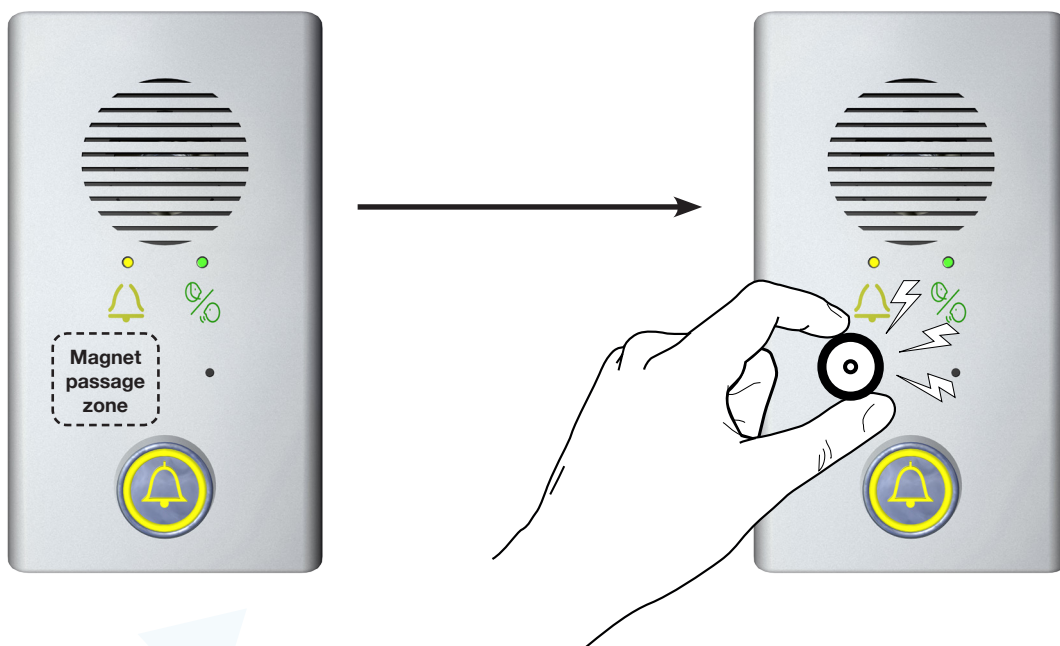
Until the cabin alarm is not reset (closed), the filtering function is shorted.

6.5.1 - Locally

- A) By pressing the green button



- B) Passage of a magnet close to the S-BOX



6.6 Remote call end

S-BOX integrates the possibility to end a call remotely (EN81-28).

This function is requested by an operator in the call center using ANEPCENTER when passenger call is not followed by an “end of call” provoked by a technician on site.

The call center calls the BOX with an order to end the call. The BOX calls back the call center to confirm the end of call.

This function is not possible if the telephone line of the BOX is outgoing only.

After receiving the order to end the call, **S-BOX** generates a new call, the event label is “call end requested remotely”.

The call is sent to the call center module (memory 104).

Recap of the alarm cycles:

- Emergency elevator telephone call > start : call renewed
- End of call by action on BOX keypad > end : call
- End of call requested remotely > start : end of call requested remotely.

7 - KEYPAD PROGRAMMING

7.1 - Recap of programming sequences

Enter & exit programming mode

- * + <Access code > Enter programming mode
- * Exit programming mode

Programming of parameters

#0...

- #001# Erasing parameters and phone numbers
- #002...# New access code

Telephone numbers.

#1...

- #101...# Main telephone number for Emergency elevator telephone calls
- #102...# Secondary telephone number for Emergency elevator telephone calls
- #103...# Third telephone number for Emergency elevator telephone calls
- #104...# Call center telephone number to transfer data after voice
- #105...# Telephone number for periodic calls
- #106...# Telephone number for internet server

Communication

#2...

- #200...# Selection of communication protocol
- #201...# Voice call timeout (1 to 99 minutes)
- #202# Call acknowledge by operator function enabled
- #203# Call acknowledge by operator function disabled
- #204# Enabling full duplex mode in car
- #205# Enabling full duplex with voice control
- #206# Dual calling mode (call to a caretaker) enabled
- #207# Dual calling mode (call to a caretaker) disabled

Configuration

#3...

- #301...# Test call period (1,2 or 3 days)
- #302...# Alarm button recognition time (10 to 64 in 1/10 s)
- #303...# Module address (1 to 8)

Configuration

#4...

- #403...# Line voltage low ($\geq 20V$)
- #404...# Line voltage normal ($\geq 28V$)
- #405...# GSM enabled
- #405...# GSM disabled
- #409...# Adjusting the level of emissions of DTMF codes
- #410...# Loudspeaker volume adjustment
- #411...# Microphone volume adjustment

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