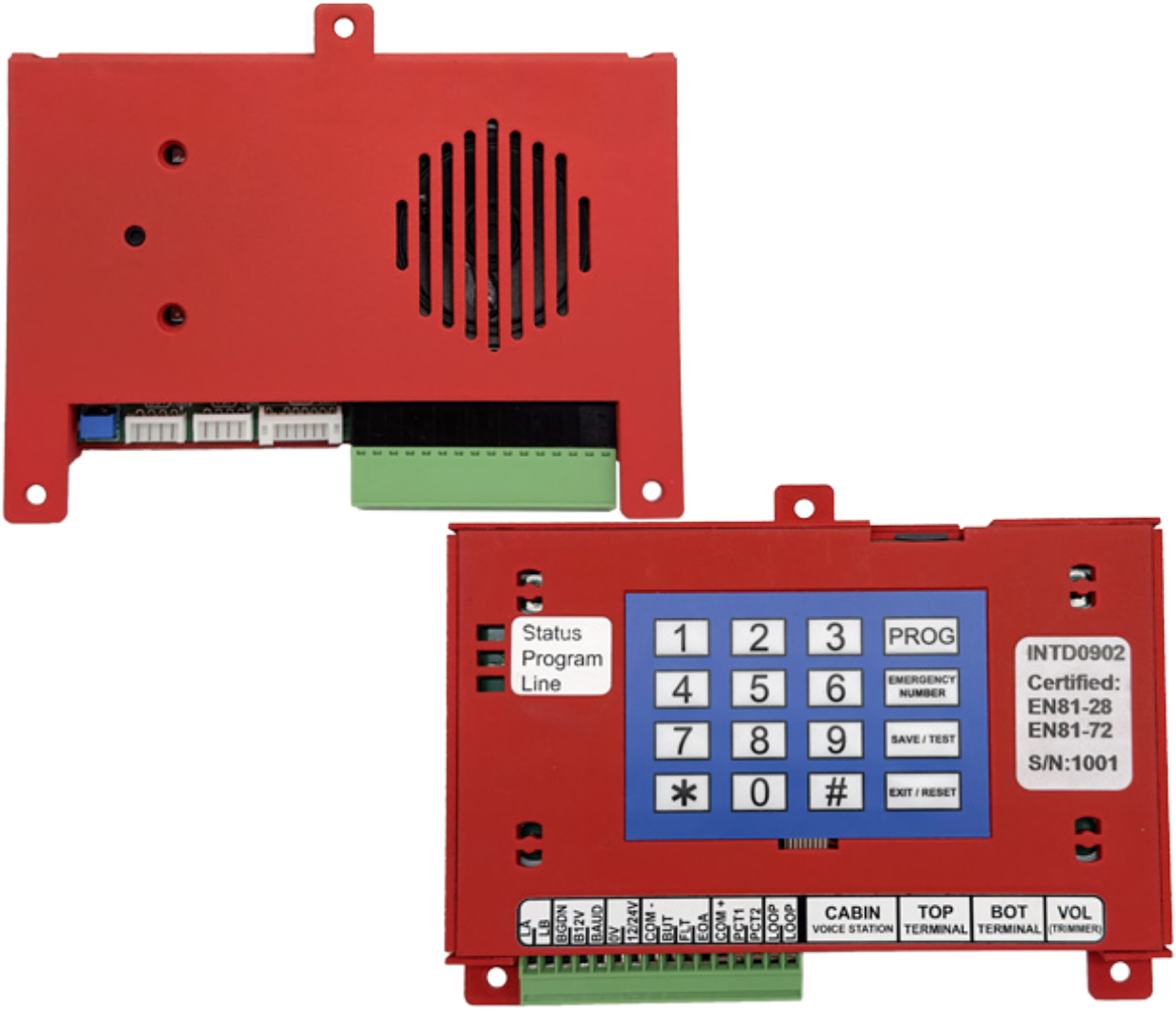
RedPhone ULTRA Lift Emergency Telephone

INTD0902

EN81-28



PELEKIS

Electronic Products

Contents

Contents

GENERAL WARNINGS

GENERAL REMARKS

Please pay close attention to the warnings in this section, as they provide important guidelines for safe installation, proper use, and maintenance of the product.

The appliance must be used exclusively for its intended purpose. Pelekis Electronics cannot be held responsible for any damage resulting from improper use.

The product has been designed in compliance with relevant standards. Installation must be carried out in accordance with these standards and within compliant installations.

Before performing any interventions (cleaning, maintenance, connection, etc.), disconnect the appliance from the main power supply and the battery.

For any repair work, please contact our after-sales service, in Pelekis Electronics or your Local Distributor, exclusively.

Ensure that the product is installed according to the prescribed instructions.

Do not introduce objects, liquids, or dust into the product, and do not use sprays inside the product.

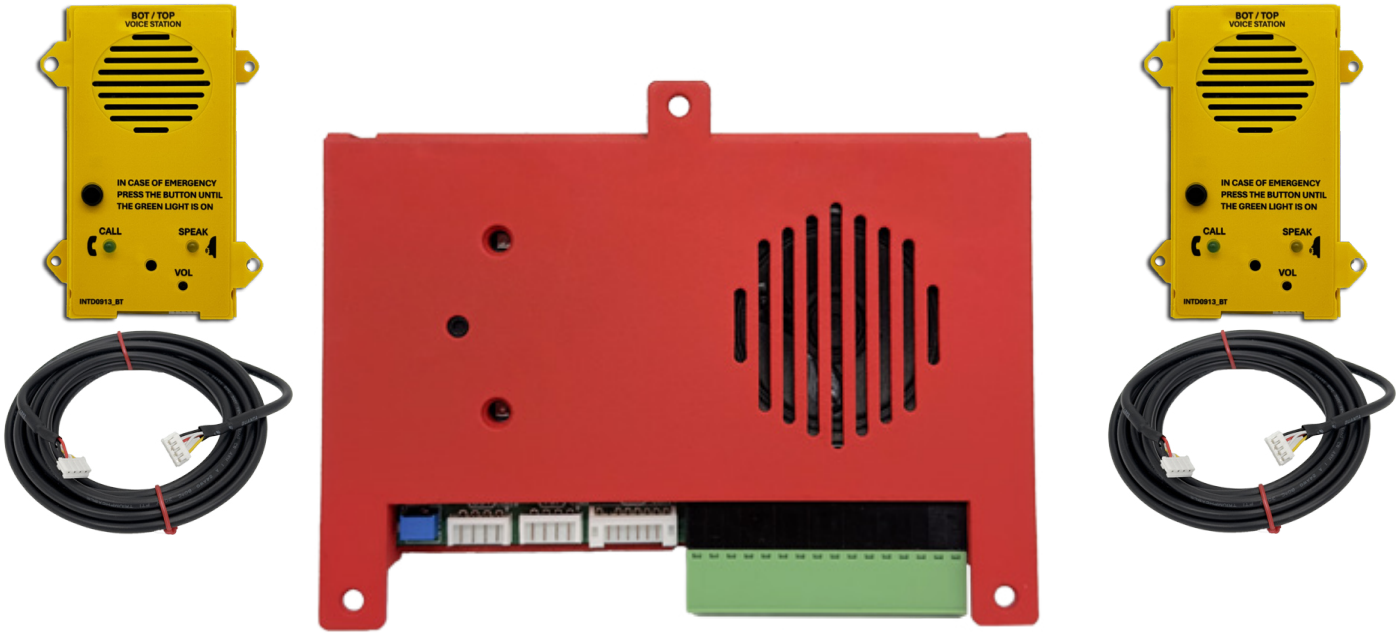
Electrical equipment must be compulsorily recycled according to Directive n°2012/19/EU relating to waste electrical equipment and Electronic (WEEE).

DESCRIPTION

The Lift Emergency Telephone ULTRA Unit (INTD0902) consist of a industrial grade rubust Autodialler device for Lifts.

With prewired cabin top and cabins bottom terminal and 4-Wire Audio bus for intercommunication between machine room and cabin, the unit fullfils the EN81-28.

The unit also comes with extended programming parameter table that can adjust the device in every possible enviroment.



SPECIFICATION

Power Supply	12-24V DC
Power Consumption	3.5W Continues
Inputs	• 1 x Call Switch • 2x Programmable Digital Inputs • 2x 4-wire sockets for Bottom/Top • 1x 10-wire Socket for Cabins Voice Station • 1x Battery monitoring terminal • 1x Micro SD Socket
Outputs	• 2x Pictograms LED • 2x Programmable Digital Outputs • 1x Induction loop analoge signal
Telephone Lines	• 1x Normal Land line telephone input • 1x Virtual Telephone line for Intercommunication
Operation temperature	0-80°C
Operation humidity	10-80% (non condensing)
Weight (Total/w Battery)	<1Kg
Dimensions (External)	17 x 143 x 111 mm (H x W x D)

MAIN FEATURES

Compliance & Safety

- Fully compliant with EN81-28:2022 for emergency elevator communication.

Communication & Network Support

- Support for Voice , Guided Voice and P100 Protocol.
- Voice Activity Detection (VAD).
- Real-time telephone line detection and compatibility check.
- Compatible with PSTN and GSM networks, ensuring flexible installation options.

System Configurations & Operation Modes

- The device can be configured and set up in various configuration modes to suit different installation requirements: Standalone Operation, Bottom-Top Configuration, Intercom Mode.
- Automatic periodic self-tests to ensure continuous functionality.
- Low battery and power failure alarms to notify maintenance teams.
- Real-time hardware check and call in case of malfunctions.
- Periodic service call configurable between 1 to 9 days.
- Maintenance call functionality for scheduled system status verification.

Remote Management & Programming

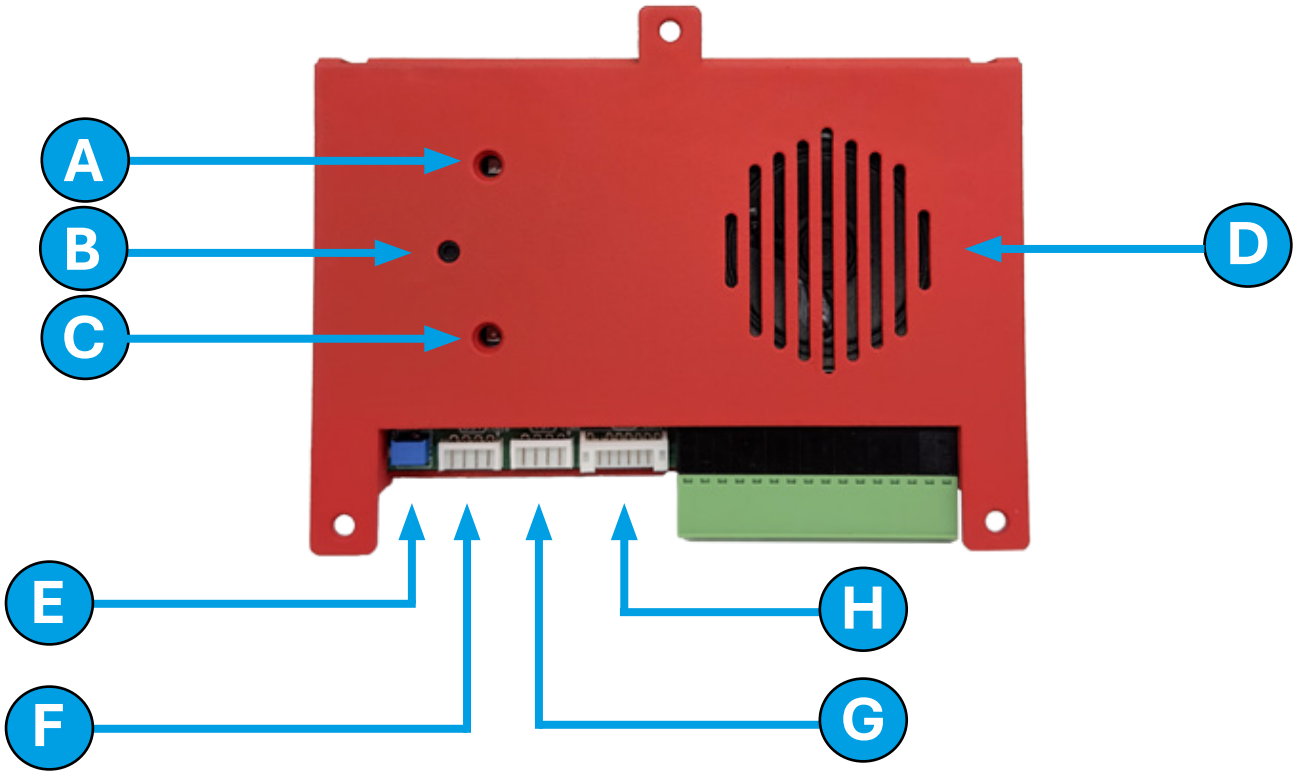
- Remote configuration via DTMF.
- Secure programming access with PIN authentication.
- Firmware updates to ensure up-to-date security and features.

General Purpose Inputs & Outputs

- 2 General Purpose Inputs (GPI) can be configured for various trigger functions based on the selected programming mode: Filter, Maintenance Test, (Force) Service Call, Intercom, End of Alarm
- 2 General Purpose Outputs (GPO) can be programmed to change their state based on various operational conditions defined by the programming mode: Call/Speak Picto, Activate on Alarm, Activate on Emergency Call Switch, Activate with DTMF, Activate on Battery Failure.

Device Overview

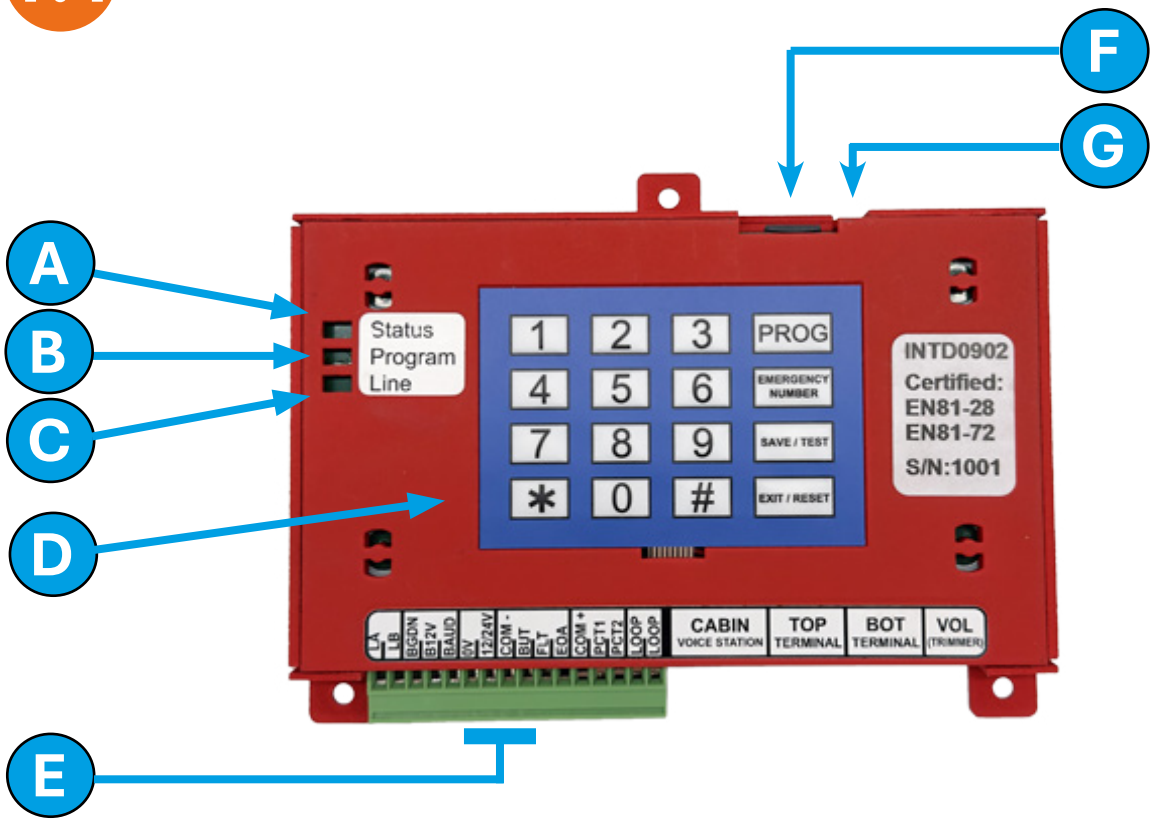
1 Front View



- **A** LED for Speak (Green)
- **B** Microphone
- **C** LED for Call (Yellow)
- **D** Speaker 8Ohm 1W
- **E** Trimmer to adjust the volume.
- **F** Top of Cabin Voice Station
- **G** Bottom of Cabin Voice Station
- **H** Cabin Voice Station Connector (Optional)

Device Overview

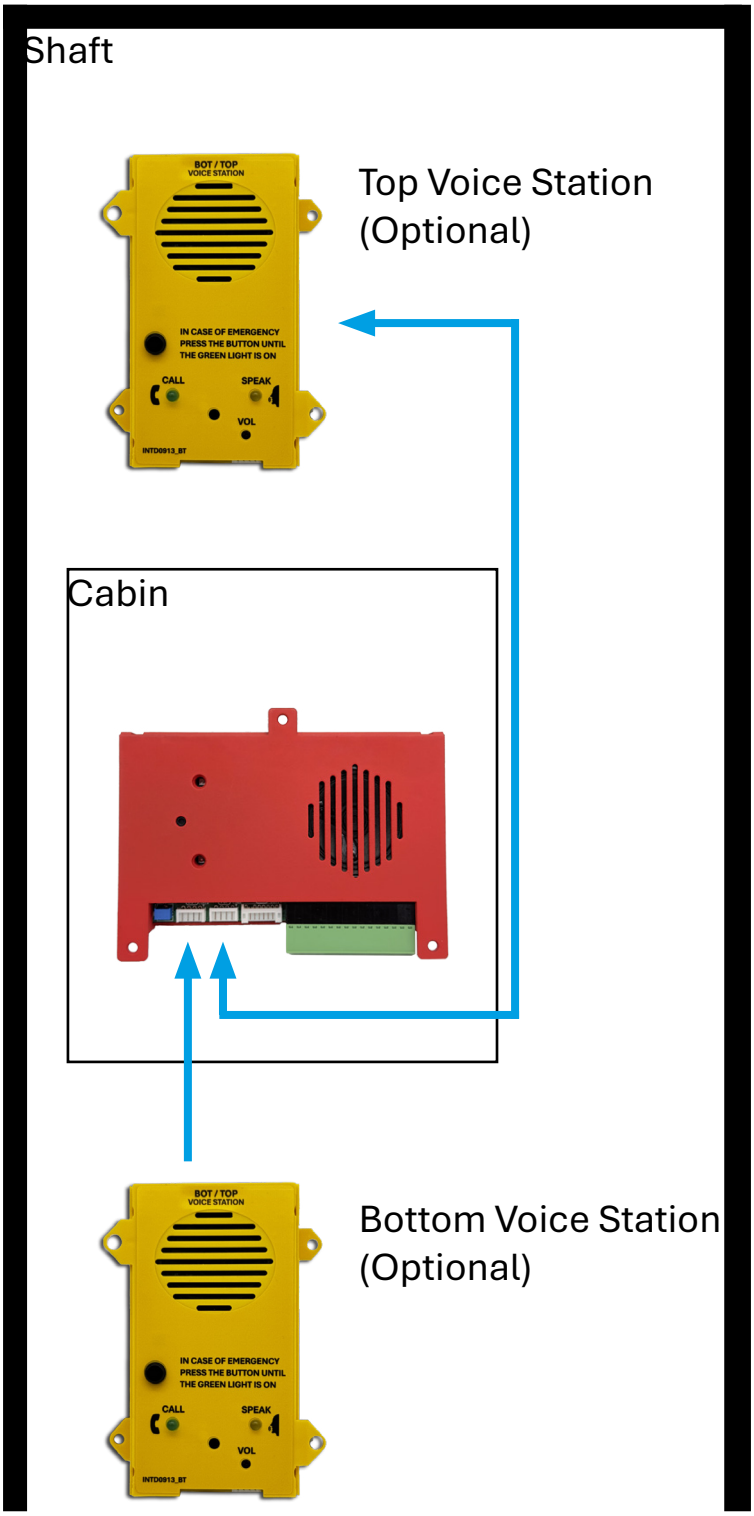
1.1 Back View



- **A** Status LED
- **B** Program Identification LED
- **C** Telephone Line LED
- **D** Programming Keypad
- **E** Connection Terminal Block
- **F** Micro SD Card
- **G** Device Reset Button

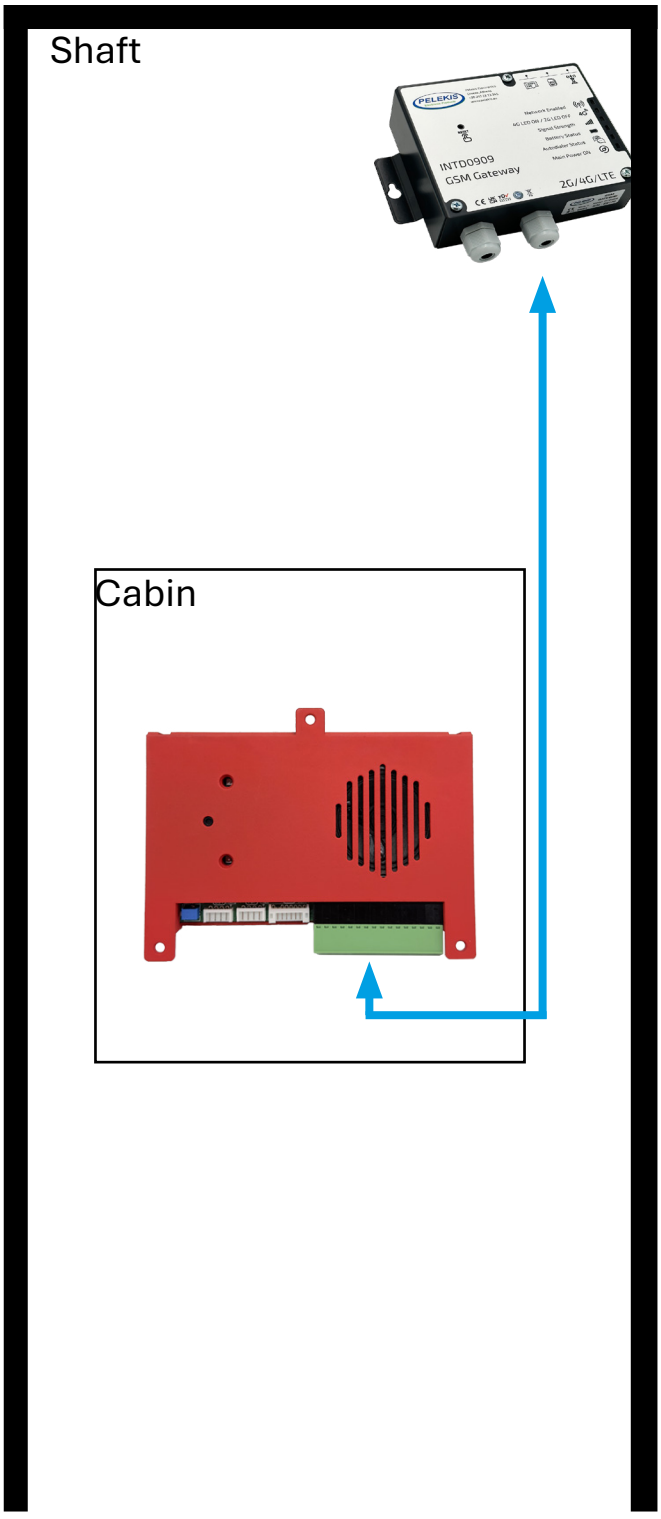
System Setup

2 Stand Alone



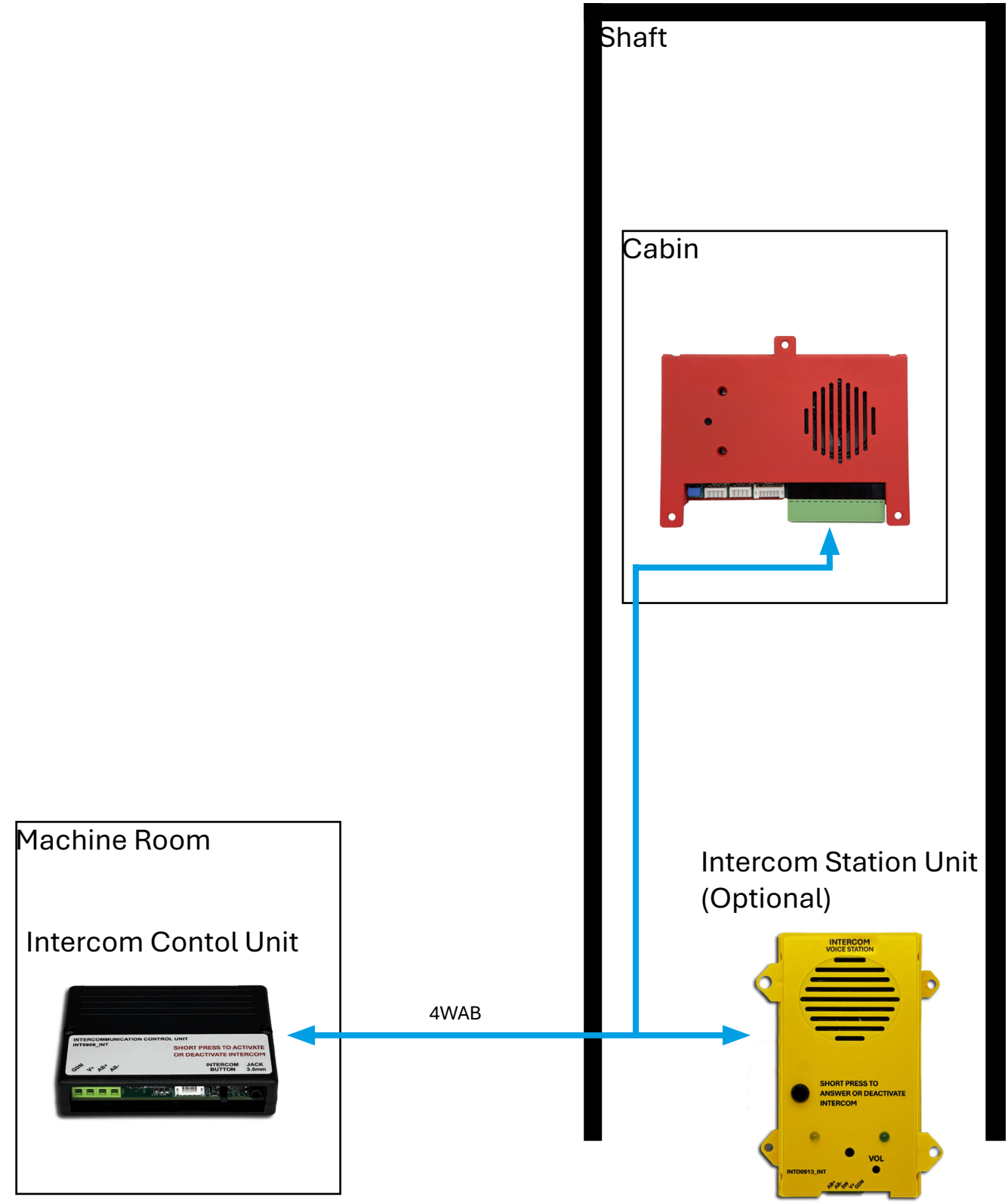
System Setup

2.1 With GSM VoLTE



System Setup

2.2 With Intercom

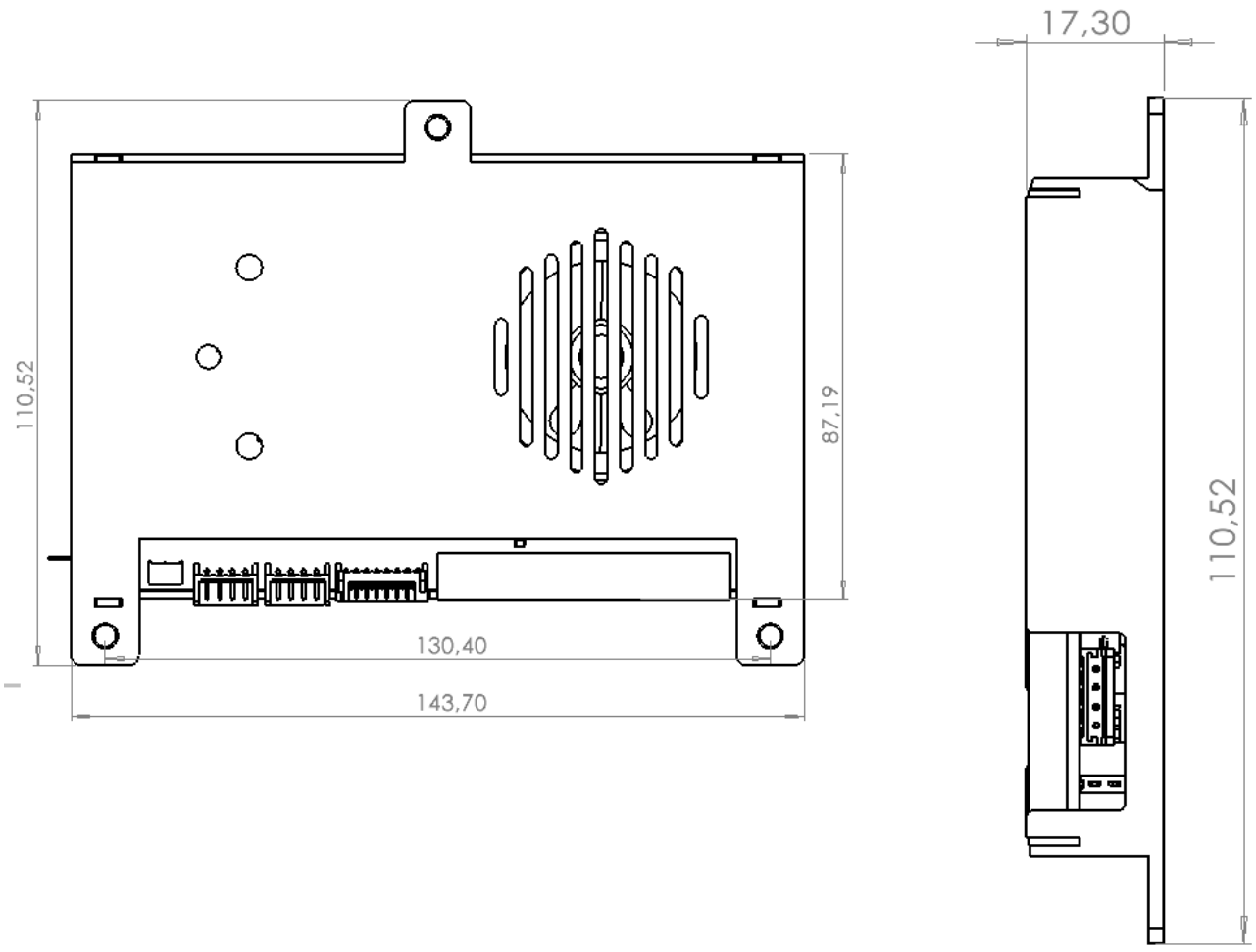


Installation

3 Mount

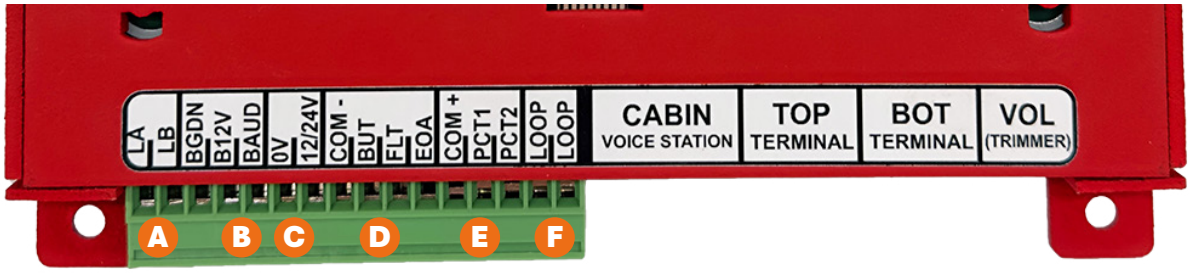
Place the Firecom Contol Unit / Entrance Station on the Firefighters Entrance point and according the local authorities instructions and regulations.

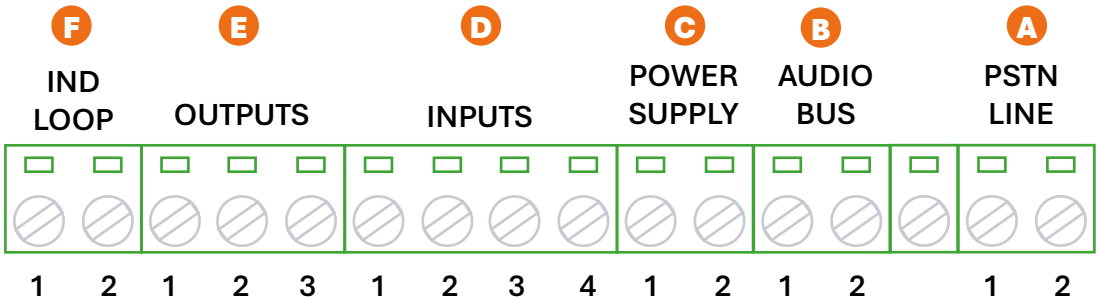
- Create wall space in order to fit the Firecom Contol Unit in the wall.
- Drill 3 holes of 5mm in diameter on the wall, after you have marked with the device.
- Insert 3 dowels in the holes and tighten 3 screws, 1 on each dowel.
- Place the Firecom Contol Unit, through the holes, on the screws.



Installation

3.1 Connection Diagram





A
1: LA (PSTN LINE)
2: LB (PSTN LINE)

B
1: AB+ (Audio Bus)
2: AB- (Audio Bus)

C
1: 12/24V DC
2: GND / 0V DC

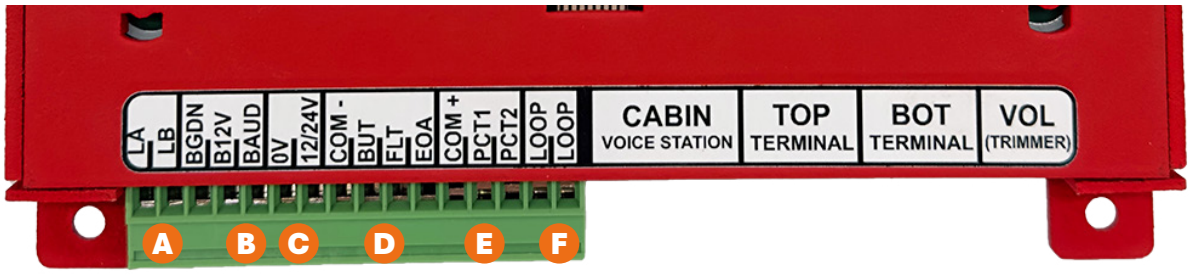
D
1: INPUT 1 (RET -)
2: INPUT 2 (RET -)
3: CALL Switch
4: COMMON -

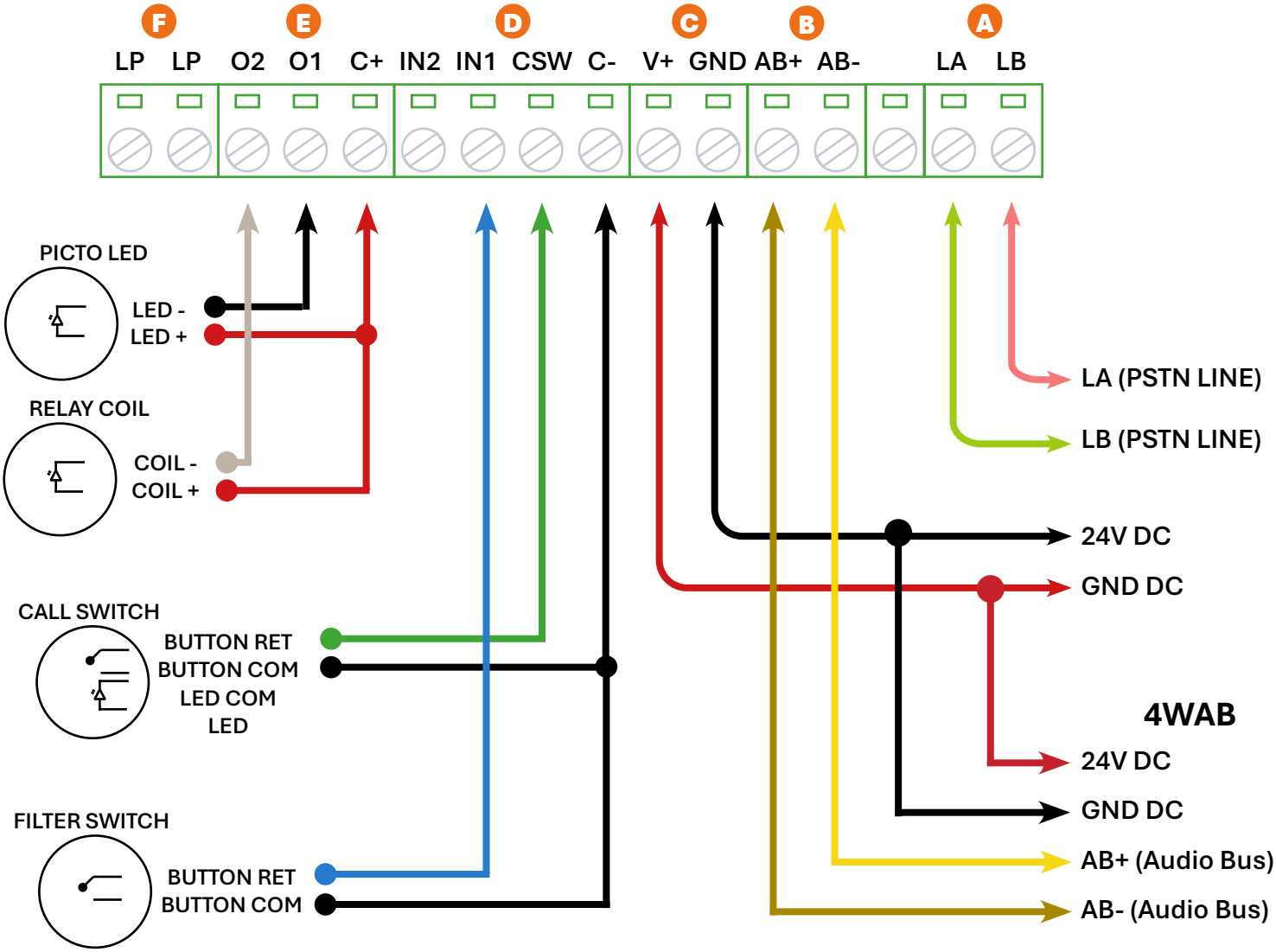
E
1: OUTPUT 1 (-)
2: OUTPUT 2 (-)
3: COMMON +

F
1: INDUCTIVE LOOP
2: INDUCTIVE LOOP

Installation

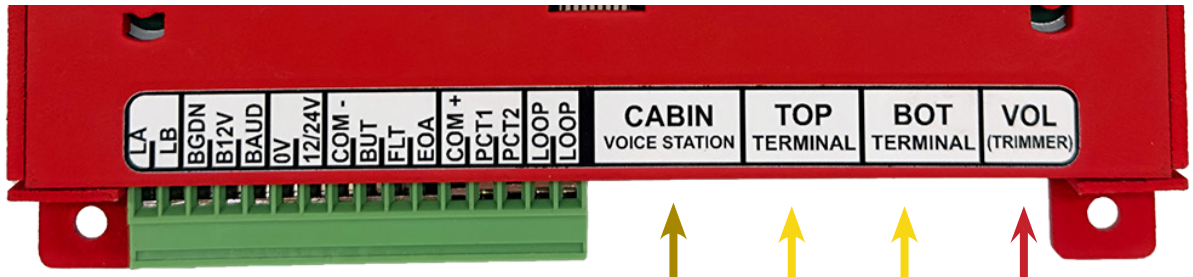
3.2 Connection Diagram (Continued)





Installation

3.3 Connection Diagram (Continued)



Volume Control

Cabins' Voice Station Unit

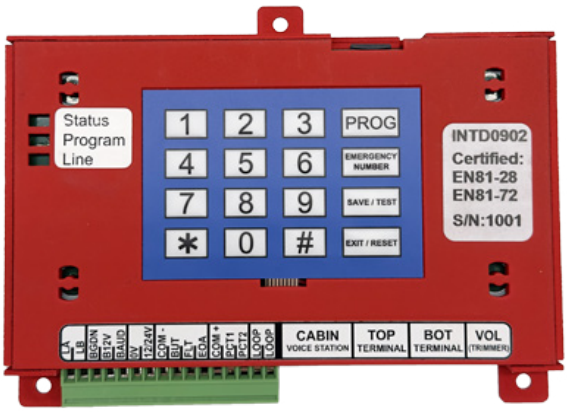
Cabins' Top Voice Station

Cabins' Bot Voice Station

Installation

3.4 Hardware Test Procedure

After all connections have been safely completed and the installer has verified them according to the device manual, the following procedure must be followed to ensure that the user has correctly installed the device and the telephone line.



1. Short press and release the Device Reset button.
   Wait for the device to respond with a BEEP sound
2. Check the Status LEDs for any error indications according to the Device LED Signaling Table.
3. Press the SAVE/TEST button on the keypad and verify that a side tone of the telephone line can be heard.
4. Dial your personal telephone number to perform a test call and verify outgoing call operation.
5. Press the EXIT/RESET button to terminate the outgoing call.
6. From your personal telephone device, call the INTD0902 telephone number and verify incoming call operation.

Programming

4 Programming Philosophy

The INTD0902 Programming Philosophy defines a clear framework for configuring the device accurately and efficiently. It provides users with the fundamental principles and methods required to ensure reliable programming and consistent performance.

The programming structure is organized into four distinct categories of parameters, each requiring specific handling:

1. Emergency Call Parameters
2. Single-Digit Parameters
3. Multi-Digit Parameters
4. Special Parameters

General Programming Principles

- **Entering Programming Mode**
  Access the user keypad and press “PROG”. The device will emit an audible confirmation indicating that programming mode is active.

- **Exiting Programming Mode**
  Press “EXIT/RESET” to leave the programming mode. The device will emit an audible confirmation indicating that programming mode **has been deactivated.**

- **Sequential Programming Workflow**
  Programming follows a structured, step-by-step process. Each step must be completed successfully before proceeding to ensure all parameters are correctly stored and applied.

- **Audible Feedback and Validation**
  A **“Correct”** tone confirms successful entry or modification.
  A **“Wrong”** tone indicates an invalid input or rejected command.

- **Parameter Value Recall**
  After entering a valid parameter code, pressing the “TEST/SAVE” key will cause the device to announce the currently stored value for that parameter.

Programming

4.1 Parammeters Categories

Category	Description	Typical Use
Emergency Call Parameters	Define telephone numbers for emergency, maintenance, self-test, and low-battery calls.	EMERGENCY NUMBER 1 to 7
Single-Digit Parameters	Adjust call handling, DTMF tones, and input/output configuration.	e.g. Operation Mode (#100)
Multi-Digit Parameters	Configure system IDs, passwords, and protocols.	e.g. Device ID (#31)
Special Parameters	Apply advanced or maintenance functions.	e.g. Factory Reset (#00)

4.2 Programming Workflow Overview

Step	Action	Description
1	Enter Programming Mode	Press PROG on the keypad. The device will announce that programming mode is active.
2	Enter Parameter Code	Type the desired parameter code (e.g., #100).
3	Check Current Value	Press SAVE/TEST to hear the stored value.
4	Enter New Value	Input the new setting (e.g., 2). The device responds audibly: “Correct” or “Wrong.”
5	Exit Programming Mode	Press EXIT/RESET to save and return to standby.

In order to program emergency numbers EMERGENCY NUMBERS button should be pressed and then the numbers memory (1-7) before desired number is dialed. Pressing the SAVE/EXIT will save the dialed number on this memory

Programming

4.3 Quick Programming Examples

EXAMPLE 1 - Setting an Emergency Call Number

1. Press **PROG**.
2. Press **EMERGENCY NUMBER**.
3. Enter 1 → (Emergency Number 1).
4. Enter new number, e.g. 2102323345.
5. Press **SAVE/TEST** → device says “Correct.”
6. Press **EXIT/RESET**.

EXAMPLE 2 - Setting a Signle-Digit Parameter

1. Press **PROG**.
2. Enter Parameter Code → (#101).
3. Press **SAVE/TEST** → device announces stored value. (OPTIONAL)
4. Enter new value →(ex. 1) .
5. Press **SAVE/TEST** → device says “Correct.”
6. Press **EXIT/RESET**.

EXAMPLE 3 - Setting a Multi-Digit Parameter

1. Press **PROG**.
2. Enter Parameter Code → (#32).
3. Press **SAVE/TEST** → device announces stored value. (OPTIONAL)
4. Enter new value →(ex. 32154685) .
5. Press **SAVE/TEST** → device says “Correct.”
6. Press **EXIT/RESET**.

EXAMPLE 4 - Device Factory Reset

1. Press **PROG**.
2. Enter Parameter Code → (#00).
3. Press **SAVE/TEST** → device says “Correct.”
4. Press **EXIT/RESET**.

Programming

4.4 Device Parameter Tables

Programing access	Code	Data	Comments
Enter Programing			"**PROG**" key from device Keypad
Programing Password	#320	4 digits	0000 (Default) = No Password need to Entered Anything else = Password need to Entered
Factory Reset	#00	'SAVE/EXIT'	Press "**SAVE/TEST**" after Factory Reset Code to Reset the Device internal memmory to Default values
Variable Acknowledge			Press "**SAVE/TEST**" after Programming code has been passed and before variable is set. Ex. "**PROG**" -> # 106 -> "**SAVE/TEST**"
Exit Programing			**"EXIT / RESET"** key from device Keypad

Emergency Call Number	Code	Data	Comments
1st Phone number	1	1–20 digits	***Example:*** EMERGENCY NUMBER → **1** → 095647558214 →**SAVE/TEST**
2nd Phone number	2	1–20 digits	***Example:*** EMERGENCY NUMBER → **2** → 095647558214 →**SAVE/TEST**
3rd Phone number	3	1–20 digits	***Example:*** EMERGENCY NUMBER → **3** → 095647558214 →**SAVE/TEST**
4th Phone number	4	1–20 digits	***Example:*** EMERGENCY NUMBER → **4** → 095647558214 →**SAVE/TEST**
Self-Test Phone number	5	1–20 digits	***Example:*** EMERGENCY NUMBER → **5** → 095647558214 →**SAVE/TEST**
Low-Battery Phone number	6	1–20 digits	***Example:*** EMERGENCY NUMBER → **6** → 095647558214 →**SAVE/TEST**
Maintenance Phone number	7	1–20 digits	***Example:*** EMERGENCY NUMBER → **7** → 095647558214 →**SAVE/TEST**

Programming

Emergenry Number Protocol	Code	Data	Comments
1st Number Call Type	#011	1 Digit	“0” : Voice Call Type “1” : P100 Call Type
2nd Number Call Type	#012	1 Digit	“0” : Voice Call Type “1” : P100 Call Type
3rd Number Call Type	#013	1 Digit	“0” : Voice Call Type “1” : P100 Call Type
4th Number Call Type	#014	1 Digit	“0” : Voice Call Type “1” : P100 Call Type
Self-Test Number Call Type	#015	1 Digit	“0” : Voice Call Type “1” : P100 Call Type
Low-Battery Number Call Type	#016	1 Digit	“0” : Voice Call Type “1” : P100 Call Type
Maintenance Number Call Type	#017	1 Digit	“0” : Voice Call Type “1” : P100 Call Type

Destination Number PBX Code	Code	Data	Comments
1st Phone number NOTE: Save with “SAVE/TEST”	#021	1 - 4 Digits	PBX Internal code is useful when rescue service is behind specific terminal device on remote PBX Call Center.
2nd Phone number NOTE: Save with “SAVE/TEST”	#022	1 - 4 Digits	PBX Internal code is useful when rescue service is behind specific terminal device on remote PBX Call Center.
3rd Phone number NOTE: Save with “SAVE/TEST”	#023	1 - 4 Digits	PBX Internal code is useful when rescue service is behind specific terminal device on remote PBX Call Center.
4th Phone number NOTE: Save with “SAVE/TEST”	#024	1 - 4 Digits	PBX Internal code is useful when rescue service is behind specific terminal device on remote PBX Call Center.
Self-Test Phone number NOTE: Save with “SAVE/TEST”	#025	1 - 4 Digits	PBX Internal code is useful when rescue service is behind specific terminal device on remote PBX Call Center.
Low-Battery Phone number NOTE: Save with “SAVE/TEST”	#026	1 - 4 Digits	PBX Internal code is useful when rescue service is behind specific terminal device on remote PBX Call Center.
Maintenance Phone number NOTE: Save with “SAVE/TEST”	#027	1 - 4 Digits	PBX Internal code is useful when rescue service is behind specific terminal device on remote PBX Call Center.

Alarm Call ID	Code	Data	Comments
ID for VOICE Protocol Calls Type	#031	4 Digits	Voice ID is transmitted during outgoing call when Call Type is selected as VOICE Call Type
ID for P100 Protocol Call Type	#032	8 Digits	P100 ID is transmitted during outgoing call when Call Type is selected as P100 Call Type

Programming

Emergency Call Operation	Code	Data	Comments
Emergency Call Operation Mode	**#100**	1 Digit	'0' : Normal Call (Default) '1' : Hot-Line (Device do not dials number) '2' : External Telephone Keypad (User Dial Number form the external keypad if attached)
Call Progress operation mode	**#101**	1 Digit	'0' : Guided Call Progress Detect (Default) Call operation is guided via recorded audio messages '1' : Automatic Call Progress Detect Call Operation is automatically detects the several call states during and emergency call
Call Progress Accept DTMF (Guided Call Progress Detect)	**#102**	1 Digit	DTMF Select for Accepting the Emergency call from receiving side when Connection established "0" – "9" , "*" , "#" : DTMF
Call Progress Terminate DTMF (Guided Call Progress Detect)	**#103**	1 Digit	DTMF Select for Rejecting or Terminating the Emergency call from receiving side when Connection established. "0" – "9" , "*" , "#" : DTMF
Call Progress End-Of-Alarm DTMF (Guided Call Progress Detect)	**#104**	1 Digit	DTMF Select for the End-Of-Alarm when "End-of-Alarm with remote DTMF" have been selected. "0" – "9" , "*" , "#" : DTMF
Call Progress-Telephone Signal Tone check before Dial Any number on the LINE (Guided Call Progress Detect)	**#105**	1 Digit	Device will Check Telephone Signal Tone during Emergency Call and before Dial any telephone number. '0' : No check for Signal Tone '1' : Check for Signal Tone (default)
Call Progress-Check for Ring Signal after Call Initiation	**#106**	1 Digit	Voice Activity Detection delay timeout after connection is established. '0' : Disabled (default) '1' : Enabled
Call Progress-VAD Timeout (Guided Call Progress Detect)	**#107**	1 Digit	Voice Activity Detection delay timeout after connection is established. '0' : 30 Seconds '1' : 60 Seconds '2' : 80 Seconds (default)
Call Progress-Accept/Reject DTMF Receiving Timeout (Guided Call Progress Detect)	**#108**	1 Digit	Timeout window for remote side Accept/Reject DTMF after VAD has been detected. '0' : 10 Seconds (default) '1' : 20 Seconds '2' : 30 Seconds
Call Progress-Silence Detect during Call Operation (Guided Call Progress Detect)	**#109**	1 Digit	Continues silence detection period during call operation before device automatically terminate the call. '0' : Disabled (default) '1' : 30 Seconds '2' : 60 Seconds '3' : 90 Seconds

Programming

Emergency Call Operation	Code	Data	Comments
Call Progress-Continues Tone Detect during Call Operation (Guided Call Progress Detect)	#110	1 Digit	Continues Tone detection period during call operation before device automatically terminate the call. '0' : Disabled (default) '1' : 30 Seconds '2' : 60 Seconds '3' : 90 Seconds
Call Progress-Auto Filter Select (Automatic Call Progress Detect)	#111	1 Digit	Filter Select when Emergency Call operation has been set to Automatic mode. '0' : DialTone,NoCarrier,Voice,RecTape,QuickHang (default) '1' : DialTone,NoCarrier,Voice
Call Progress-Auto Dial Tone (Automatic Call Progress Detect)	#112	1 Digit	DialTone Count threashold. Number of calling tones before flash for the next call. 0' – '9' : DialTones ('5': Default)
Call Progress-Flash Time Select	#113	1 Digit	Flash Time Select between the previous calling number operation and the following call number operation. This parameter should apply when known Flash Time Delay must be set according Telephone provider specifications. '0' : 1 Second '1' : 3 Seconds ('2' : 5 Seconds '3' : 10 Seconds
Call Progress-Telephone Line Disconnects	#114	1 Digit	Device check the Telephone line for disconnects during call operation and automatically disconnect the call after defined time of telephone line missing report. '0' : Instant Disconnect (Default) '1' : 1 Second '2' : 3 Seconds
Call Progress-Call Operation Timeout	#115	1 Digit	Call Operation timeout will terminate any Call exceeds the defined period. '0' : 3 Minutes (Default) '1' : 5 Minutes '2' : 10 Minutes
Call Progress-End-of-Alarm Operation Select (Guided Call Progress Detect)	#116	1 Digit	Any Emergency Call Alarm that have been previously initiated will be cleared only if End-of-Alarm process have been successfully took place. In case End-of-Alarm process has not been applied the system we re-initiate and Emergency Call Operation after 20 Minutes '0' : Automatic on Call Acceptance (Default) '1' : End-of-Alarm DTMF pressed during Call '2' : End-of-Alarm Local Switch have been activated
Call Progress-ID Transmit Delay	#117	1 Digit	If set the Device will transmit its ID Code(VOICE ID) after Call have been accepted and after specific delay time have been also elapsed. '0' : 3 Seconds (Default) '1' : 10 Seconds '2' : 20 Seconds

Programming

Emergency Call Operation	Code	Data	Comments
Call Progress-PBX Call Center External DTMF Delay	#118	1 Digit	If the device is set behind a PBX Telephone center and special character is required to established external call, you can select the required delay between the selected code and the actual telephone number. '0' : 500 ms (Default) '1' : 1 Seconds '2' : 2 Seconds
Call Progress-PBX Call Center Internal Terminal Code Delay	#119	1 Digit	If the outgoing calling number is set behind a PBX telephone center and if the user should call specific internal terminal, user should set a constant delay that need to be passed before device press the 3 or 4 digit code for the specific terminal in the PBX. '0' : 500 ms (Default) '1' : 1 Seconds '2' : 2 Seconds

Incoming Call Operation	Code	Data	Comments
Incoming Call Auto Answer function select	#130	1 Digit	Device monitor the Connected line for Incomings call and Auto Answer any incoming Call according the current parameter. '0' : Incoming Call Rejected (Default) '1' – '9 ': Incoming Rings count to Answer
Answer ID on Incoming Call	#131	1 Digit	In case more that one unit is using the same telephone line installer should apply 2 separate IDs in the devices. Devices and remote side then, during incoming call, can Select the desired unit that want to actually answer the call.

Hardware Inputs Outputs	Code	Data	Comments
Emergency Call Switch delay	#200	1 Digit	Period to be passed while pressing the Emergency Call Switch before it is considered as Alarm and the Emergency Call Operation shall initiated. '0' – '9' : Time in Seconds ('3': Default)
Emergency Call Switch Enabled during Call Operation	#201	1 Digit	Activate Emergency Button during Call Progress '0' : Disabled (default) '1' : Enabled
Emergency Call Switch Polarity	#202	1 Digit	Select Polarity of the Emergency Call Switch '0' : Normally Open (default) '1' : Normally Close
General Purpose Input 1 Function Select	#203	1 Digit	Select functionality of the General-Purpose Input 1. '0' : Disabled (default) '1' : Filter Switch '2' : Maintenance Call Switch '3' : (Force) Self-Test Periodic Call Switch '4' : End-of-Alarm Switch

Programming

Hardware Inputs Outputs	Code	Data	Comments
General Purpose Input 2 Function Select	**#204**	1 Digit	Select functionality of the General-Purpose Input 2. '0' : Disabled (default) '1' : Filter Switch '2' : Maintenance Call Switch '3' : (Force) Self-Test Periodic Call Switch '4' : End-of-Alarm Switch
General Purpose Input 1 Polarity Select	**#205**	1 Digit	Select Polarity of the General-Purpose Input 1 '0' : Normally Open (default) '1' : Normally Close
General Purpose Input 2 Polarity Select	**#206**	1 Digit	Select Polarity of the General-Purpose Input 2 '0' : Normally Open (default) '1' : Normally Close
General Purpose Output 1 Function Select	#207	1 Digit	Select functionality of the General-Purpose Input 1. '0' : Disabled (default) '1' : Active while CALL Pictogram '2' : Activate on Alarm '3' : Activate on Emergency Call Switch '4' : Activate with DTMF "1" during Call '5' : Activate while Battery Failure '6' : Activate while System Failure
General Purpose Output 2 Function Select	#208	1 Digit	Select functionality of the General-Purpose Input 2. '0' : Disabled (default) '1' : Active while SPEAK Pictogram '2' : Activate on Alarm '3' : Activate on Emergency Call Switch '4' : Activate with DTMF "2" during Call '5' : Activate while Battery Failure '6' : Activate while System Failure
FORCE Emergency Call Operation with Filter Switch Active	#209	1 Digit	Time needs the Emergency Call Switch to be pressed in order to force the Emergency Call Operation to start in case Filter or other Hardware and Software Restriction have been applied. '0' : 10 Seconds '1' : 20 Seconds '2' : 30 Seconds (default)

Self-Test Call	Code	Data	Comments
Self-Test Call Period (Days)	**#220**	1 Digit	Set the number of days that the device will perform a new Self-Test Call to the desired number '0' – '9' : Period In Days ('0': Default/Disabled)

Programming

Audio Parameters	Code	Data	Comments
Local Speaker Operation during Call Operation	**#250**	1 Digit	System will enable or disable the local speaker while Emergency Call Operation have been initiated. This parameters is only take effect during the initiation of the Emergency Call Operation and not after Emergency Call has been accepted from the remote side. '0' : Disabled '1' : Enabled (default)
Programing Mode Audio from Line Select	**#251**	1 Digit	Select the Line switch state during programing mode. Enabling this parameter will open the line switch during the programing mode so installer should be able to hear the providers telephone line tone. '0' : Disabled (default) '1' : Enabled
DTMF Transmit Level	**#252**	1 Digit	Select the desired Transmit Level of DTMFs. '0' : -10.5dB '1' : -7.5dB '2' : -3.0dB (default) '3' : 0dB
DTMF Receive Level	#253	1 Digit	Select the desired Receive Sensitivity Level of DTMFs. '0' : -10.5dB '1' : -7.5dB '2' : -3.0dB (default) '3' : 0dB
DTMF Transmit ON Period	#254	1 Digit	Adjust the DTMFs OFF period when DTMF generation is requested from the device. '0' : 150 milliseconds '1' : 250 milliseconds (default) '2' : 500 milliseconds '3' : 750 milliseconds
DTMF Transmit OFF Period	#255	1 Digit	Adjust the DTMFs OFF period when DTMF generation is requested from the device. '0' : 150 milliseconds '1' : 250 milliseconds (default) '2' : 500 milliseconds '3' : 750 milliseconds

Programming

Real Time Hardware Check	Code	Data	Comments
Battery Voltage Check	**#230**	1 Digit	System will monitor battery voltage and if voltage is less than 10V DC will initiate a Low-Battery Call. '0' : Disabled (default) '1' : Enabled
Emergency Call Switch Stuck	**#231**	1 Digit	System will monitor the Emergency Call switch for faulty behavior. Status will be reported during Self-Test Call '0' : Disabled (default) '1' : Enabled
General-Purpose Input Switch 1 Stuck	**#232**	1 Digit	System will monitor the General-Purpose Input Switch 1 for faulty behavior. Status will be reported during Self-Test Call. '0' : Disabled (default) '1' : Enabled
General-Purpose Input Switch 2 Stuck	#233	1 Digit	System will monitor the General-Purpose Input Switch 2 for faulty behavior. Status will be reported during Self-Test Call. '0' : Disabled (default) '1' : Enabled

Recorder Messages and File System Parameters	Code	Data	Comments
Update Internal File System Memory via the SD Card	**#300**	1 Digit	Uploads the Files and the folders form the SD Card to device's internal memory filesystem. NOTE! Folder and File names should be verry carefully inspected since wrong names will destroy the recorder message operation. Please read carefully the Reference Manual for "Recorder Messages Default Structure" '0' : Nothing does (default) '1' : Uploads SD Card files to Internal Memory
Select Device File System	**#301**	1 Digit	Select the Default File System that Device will check for the Recorded messages '0' : Internal Memory (default) '1' : External MicroSD Memory
User Speacial Messages	**#302**	1 Digit	Select if Users Speacial Messages will be announced during Emergency Call '0' : Disabled (default) '1' : Enabled

Other System Parameters	Code	Data	Comments
Device Firmware Information	**#310**	1 Digit	Device Anounce its Firmware Version. '0' : Doing Nothing (default) '1' : Announce the Firmware Version

Operation

5 Device Operation Modes

The INTD0902 is designed to maintain continuous, safe, and reliable emergency communication within the elevator environment.
To achieve this, the device operates through a series of dedicated modes, each serving a specific purpose in system functionality and compliance with EN 81-28 standards.
Every mode focuses on a distinct operational task—such as emergency calling, periodic self-testing, or maintenance communication—ensuring the system remains responsive, monitored, and ready for use at all times.

5.1 Alarm Outgoing Call Operation

Function	Description
Purpose	Handles emergency calls initiated by trapped personnel during elevator emergencies. This operation ensures immediate communication with designated responders.
Activation	Press and hold the Alarm Button or Emergency Call Switch for more than the pre-configured delay time (default: 3 seconds).
Sequence	1. Device detects the alarm trigger. 2. Automatically dials the preconfigured emergency numbers in sequence. 3. Upon connection, plays a voice identification message. 4. Establishes two-way handsfree audio communication. 5. If the call is rejected, device automatically retries the next number.
Audible / Visual Feedback	- Audible message: “Emergency call started.” - Call LED remains ON during active communication. - “Correct” tone confirms successful call initiation.
Termination	Call ends when: • The responder terminates via DTMF, • The line disconnects, • Or the configured timeout expires. After termination, device waits for Alarm Reset to restore standby mode.

Operation

5.2 Incoming Call Operation

Function	Description
Purpose	Enables authorized personnel to contact the elevator cabin device directly for service or maintenance.
Activation	The device automatically answers incoming calls when the Auto Answer feature is enabled (parameter #130).
Sequence	1. Device detects an incoming ring signal. 2. After the configured number of rings, it auto-answers. 3. Establishes two-way handsfree communication. 4. Provides an optional greeting or identification message. 5. Maintains the connection until terminated.
Audible / Visual Feedback	- LED indication: Call LED ON during the active call. - Optional voice message: “Communication established.”
Termination	The call ends when the external caller hangs up, DTMF termination is received, or the call timeout period expires.
Notes	- When multiple devices share a line, the system uses Device IDs (#131) to identify which unit answers. - If the feature is disabled, incoming calls are ignored.

5.3 Periodic Self-Test Call Operation

Function	Description
Purpose	Automatically verifies the operational status of key components (battery, inputs, audio path, etc.) to ensure EN81-28 compliance.
Activation	Triggered automatically at user-defined intervals (parameter #220).
Sequence	1. Device initiates self-test based on configured schedule. 2. Performs internal hardware checks (battery, microphone, speaker, and inputs). 3. Optionally dials the Self-Test Number (#5) and reports results. 4. Announces test result to remote maintenance line. 5. Logs the test outcome internally.
Audible / Visual Feedback	- Audible message: “Self-Test in progress.” - Error tones or message codes indicate detected faults. - Example error codes: 1=Battery, 2=Emergency Button, 3=Input 1, 4=Input 2, 5=Audio Fault.
Termination	Automatically ends after results are reported or when the timeout expires.
Notes	- If the test call is rejected, it is retried every 20 minutes. - Disabled if the self-test period (#220) is set to “0.”

Operation

5.4 Maintenance Call Operation

Function	Description
Purpose	Allows maintenance personnel to verify device operation, audio clarity, and hardware function remotely or locally.
Activation	Initiated by pressing the Maintenance Call Switch (if configured via Input 1 or 2).
Sequence	1. Device places a call to the pre-set Maintenance Number (#7). 2. Announces “Maintenance call in progress.” 3. After connection, remote user can test hardware via DTMF commands. 4. Device responds in real time to received DTMF control signals.
Audible / Visual Feedback	- Audible confirmation of connection. - LEDs indicate active communication. - Optional tone feedback during remote hardware control.
Termination	Ends when the remote user presses “#” (DTMF), when the timeout elapses, or when the line disconnects.
Notes	• “1” - while pressed activates Hardware Output 1 • “2” - while pressed activates Hardware Output 2 • “3” - while pressed deactivates the INTD0902 Speaker • “4” - while pressed activates the INTD0902 Speaker • “5” - while pressed deactivates the INTD0902 Microphone • “6” - while pressed activates the INTD0902 Microphone • “7” - while pressed deactivates the INTD0902 Speak Pictogram • “8” - while pressed activates the INTD0902 Speak Pictogram • “9” - while pressed deactivates the INTD0902 Call Pictogram • “*” - while pressed activates the INTD0902 Call Pictogram • “#” - if pressed will terminate the Maintenance operation

5.5 Intercomunication Operation

Function	Description
Purpose	Enables local communication between multiple INTD0902 units installed in the same system (e.g., cabin, pit, or machine room).
Activation	Automatic when requested
Termination	Automatic when terminated from external equipment

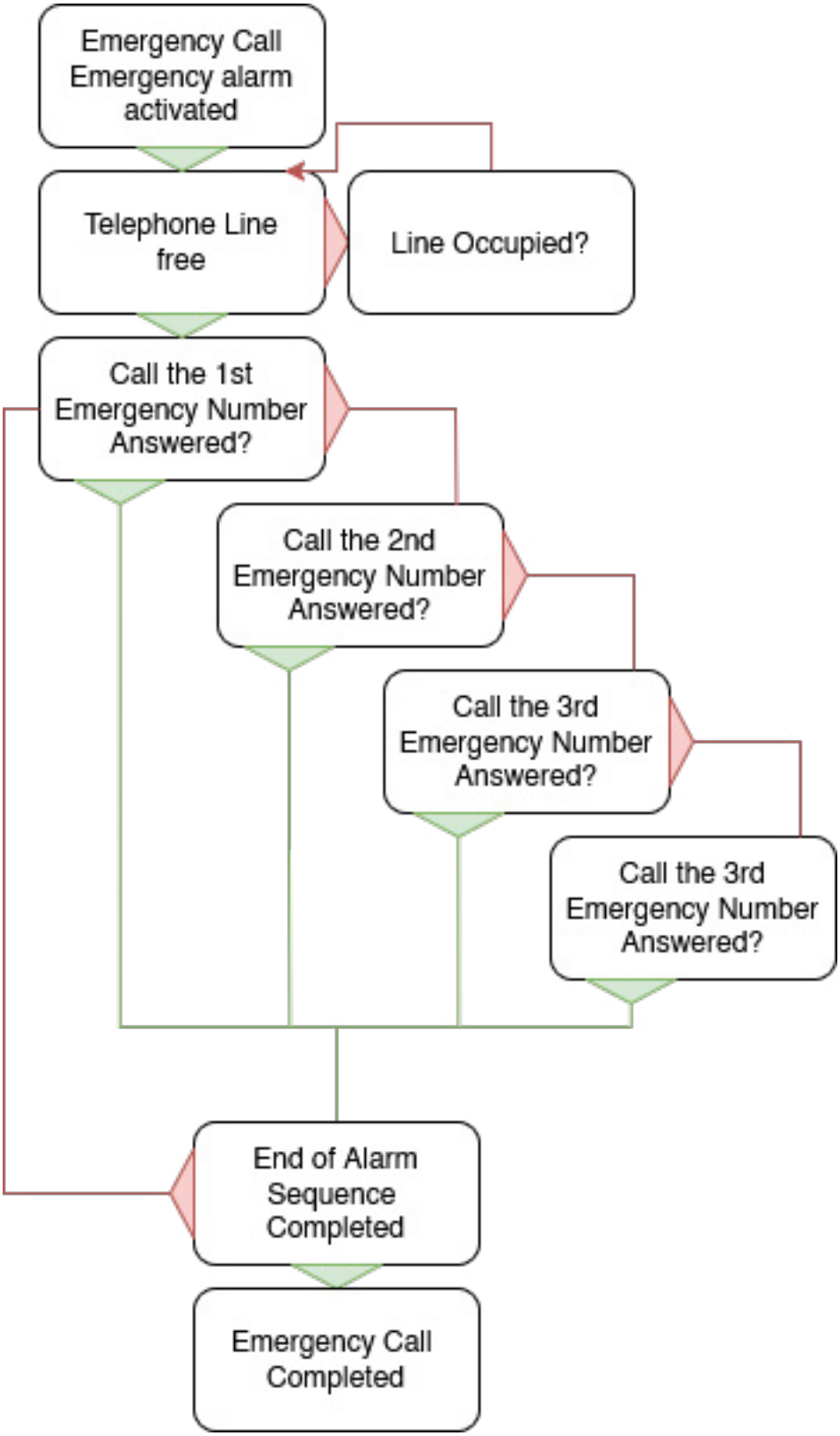
Operation

5.6 Low Battery Call Operation

Function	Description
Purpose	Automatically informs maintenance personnel when the backup battery voltage drops below a safe threshold.
Activation	Triggered automatically when Battery Voltage Check (#230) detects voltage below 10 VDC.
Sequence	1. Device detects low battery condition. 2. Dials the configured Low Battery Number (#6). 3. Announces “Low Battery Call” message to the receiver. 4. Waits for remote acceptance or rejection.
Audible / Visual Feedback	- Voice message: “Low Battery Detected.” - Fault LED may flash during the event. - Audible tones accompany the alert.
Termination	- Ends upon remote DTMF acceptance, timeout, or line disconnect. - If rejected, call is retried after 30 minutes.
Notes	- Once accepted, the alarm flag is cleared. - Ensures timely maintenance intervention and device reliability.

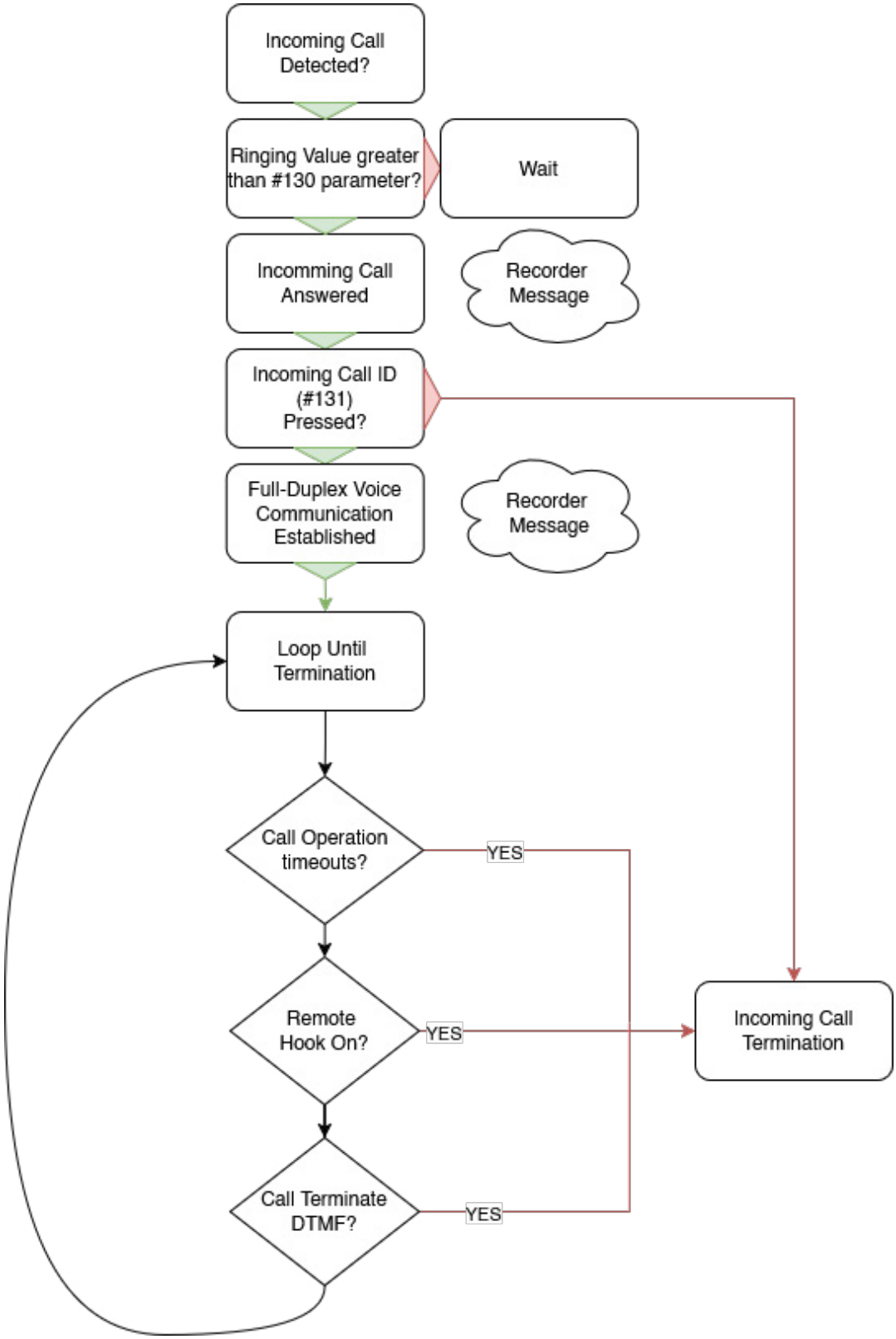
Operation Diagrams

6 Emergency Calling Process



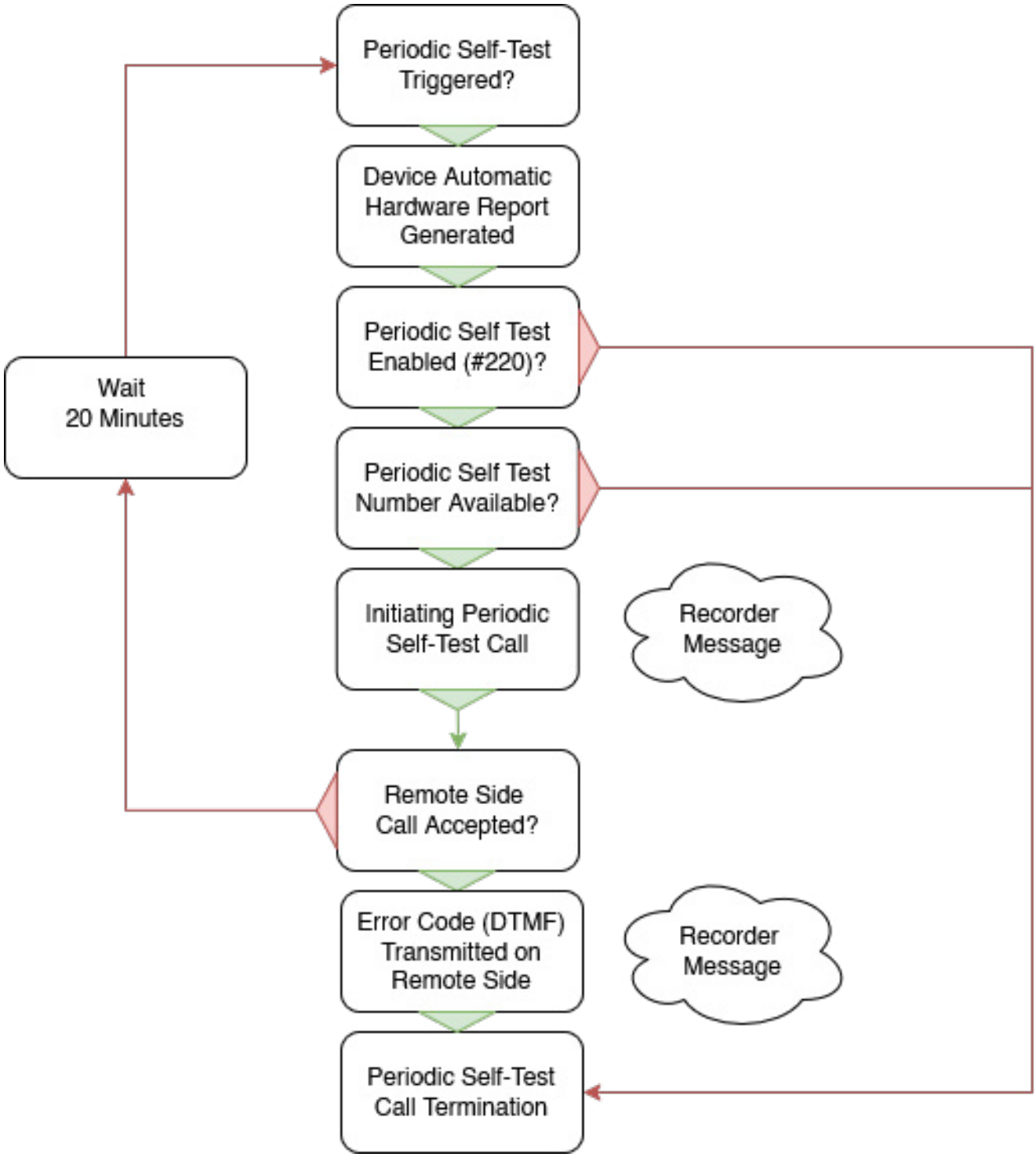
Operation

6.1 Incomming Call Process



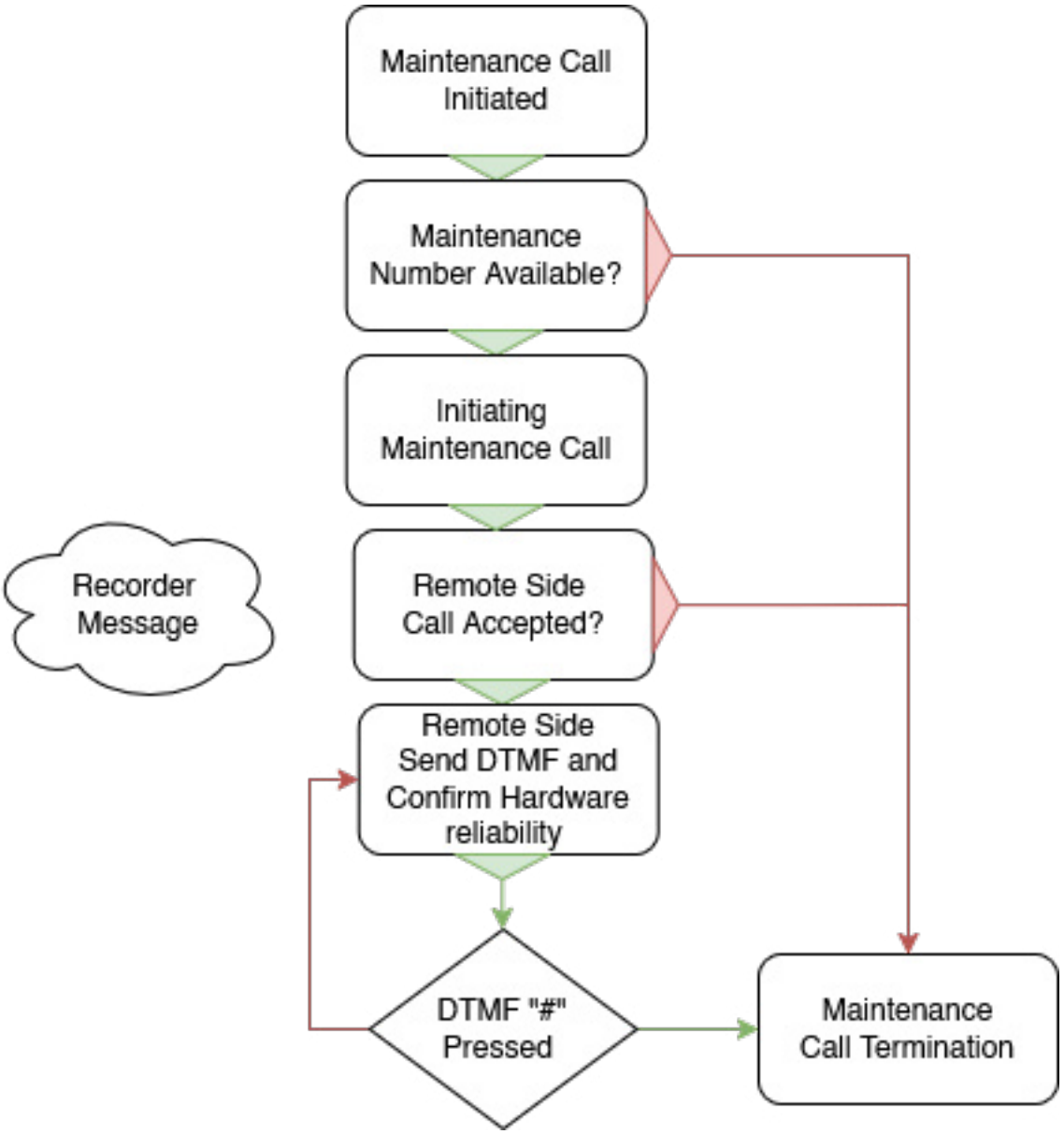
Operation

6.2 Periodic Self-Test Call Process



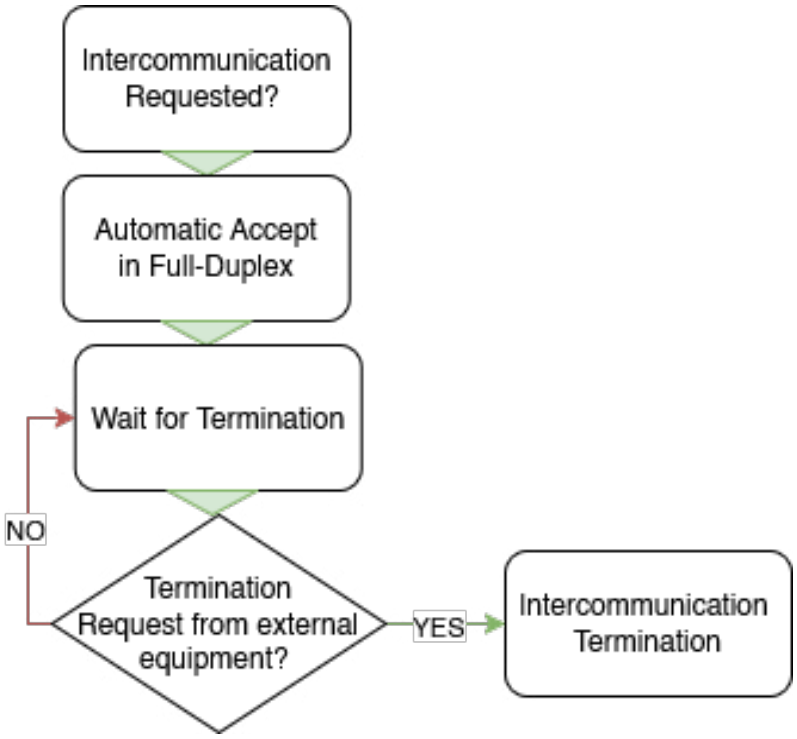
Operation

6.3 Maintenance Call Process

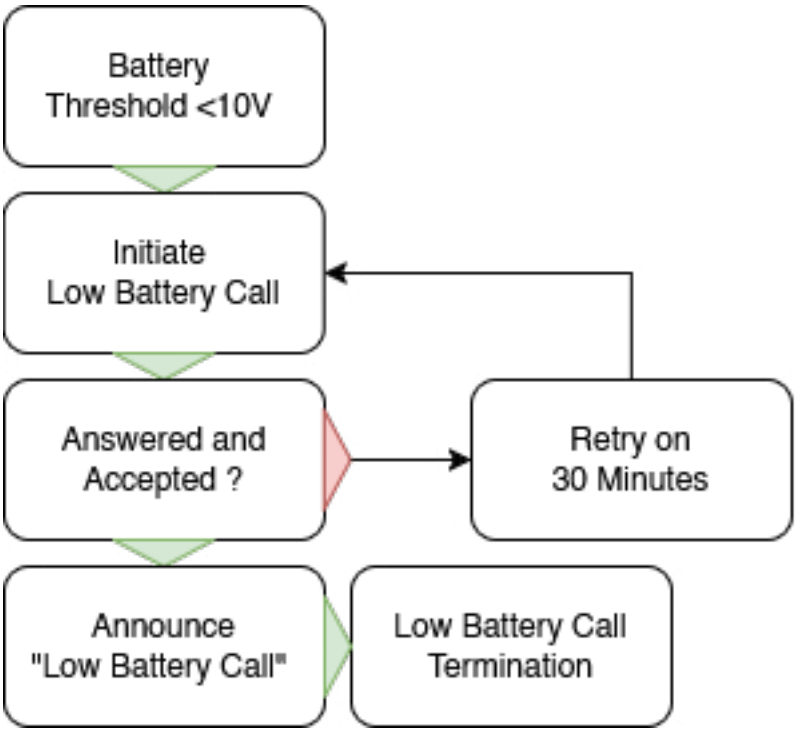


Operation

6.4 Intercommunication Process



6.5 Low Battery Call Process



Remote Programming

7 Incomming Call Programming Method

The device can be remotely programmed through a connected telephone line during an incoming call.
To enable remote programming, ensure that the device wiring and complete system setup have been properly established and tested beforehand.

How to Activate Remote programming

After an incoming call has been established with the device, the remote side can enter Remote Programming Mode by pressing the key “*” three times.

When remote programming is successfully enabled, the remote side will hear a recorded confirmation message from the device.

How to Edit values in Remote programming

While in Remote Programming Mode, the remote user should use the same parameter codes and logic described in the “**Device Parameter Tables**” section to modify the desired values.

How to De-activate Remote programming

To exit Remote Programming Mode, the remote user should press the key “#” three times.
The device will then return to normal operation while maintaining the ongoing call.

**Remote Programming is intended only for technical service personnel.
It should not be used by installers or lift contractors.
Incorrect handling or parameter modification may irreversibly damage the device.**

LED Signaling

8 LED Signaling Overview

This section describes the visual indication patterns of the device's LEDs, which provide quick and reliable feedback about the system's operating status, communication activity, and possible fault conditions.
Each LED conveys a specific function or state through a combination of steady illumination, blinking frequency, and color coding.

The tables below define the meaning of each LED indication, helping the installer or technician easily interpret the device's behavior during operation, testing, and maintenance.

- **Red LED** indicates the overall device operational status, such as programming mode, emergency call, or intercom operation.
- **Blue LED** functions as a heartbeat indicator, showing whether the device is working correctly.
- **Green LED** represents the telephone line state, indicating whether the line is free or occupied.
- **Yellow and Green pictograms** are used for additional communication and self-test status feedback.
- Understanding these signals ensures proper monitoring of the system's condition and facilitates faster troubleshooting and diagnostics.

8.1 PictoGram LED Indications

YELLOW PICTO	GREEN PICTO	STATUS Description
TOGGLE ever 1 Sec	**TOGGLE ever 1 Sec**	Periodic Self-Test Call Error
ON	**OFF**	Programing Mode Emergency Call Activated
ON	**ON**	Handsfree Comunication Established
1 BLINK every 5 Sec	**OFF**	End Of Allam is pending from the last Emergency Call Operation

LED Signaling

8.2 Engineering LED Indications

Device Operation Status RED LED	STATUS Description
OFF	Standby
1 BLINK every 5 Seconds	Programming Mode Activated
2 BLINK every 5 Seconds	Emergency Call Operation
3 BLINK every 5 Seconds	Incomming Call Operation
4 BLINK every 5 Seconds	Test Call Operation
5 BLINK every 5 Seconds	Periodic Self-Test Call Operation
6 BLINK every 5 Seconds	Intercom Call Operation

Device HeartBeat BLUE LED	STATUS Description
OFF or ON	Not Working
Working on 20%	Working OK

Device Telephone LINE GREEN LED	STATUS Description
OFF	Device ON HOOK (LINE is FREE)
ON	Device OFF HOOK (LINE is OCCUPIED)

Troubleshooting

Problem	Possible Cause(s)	Solution
Program mode is deactivating automatically	Programming password have been set, and not inserted by the user during Programming mode init.	Check Programmin Mode Password Code = **#320**
The unit can not make an Alarm Call	• Telephone line is not connected • Alarm Call number list is empty • Alarm Call Switch misconfiguration • Alarm Call Switch Desconnected • Telephone line is connected but no Audio Signal on the line during Hook Off	• Check Wiring • Measure Telephone Line Hook On(32-48VDC) • Check Programming Parameters • Confirm Alarm Telephone number list is not empty.
The unit transmit 3 Beeps during Alarm Call initiated	• Telephone line broken	• Check conection of telephone line
Unit is calling different number from Alarm Call Numbers Memory	• DTMF Transmition and Level	• Check Programming Table to fix DTMF Signal power and period
The pictogram LEDs are flashing alternately.	• Periodic Self-Test Call is not established or rejected	• Periodic Self-Test Call will be re-initiated afteer 20 Minutes • Periodic Self-Test Call Number is empty.
The YELLOW pictogram LED is lashing every 5 seconds.	• End Of Allam is not performed during the Alarm Call Operation	• Check Programming talble to ensure misconfiguration on the End-Of-Alarm Operation
Audio feedback or Suppresion during Call	• Device Instalation not folowing the instuctions • Speaker Volume is Too High	• Device's Microphone and Speaker is blocked behind some kind of metal shield of the COP • Microphone is not facing directly on the COP Surface Hole • Check Speaker volume from the Vol Trimmer in order to elliminate High volume audio geting captured from the microphone

Initial Setup Test Procedure

Telephone line check:

1. Mount and Power up the unit.
2. Wait about 5 Seconds to let the device self checked and start operation
3. Press the “SAVE/TEST” button on the keypad
4. Wait for Dial Tone
5. Dial one Telephone number that the device will call in order to test the Telephone line and the Audio Paths
6. Wait till the dialled numbered respond the call.
7. Confirm that full-dublex communication is performed and audio channels and levels is well configured.

Alarm Call Operation Check:

1. Mount and Power up the unit.
2. Wait about 5 Seconds to let the device self checked and start operation
3. Press the “PROG” button on the keypad
4. Wait device to enter Programming Mode
5. Save at least one Alarm Call Emergency number.
6. Press “EXIT/RESET” button on the keypad to leave programming mode
7. Press the Alam Switch until YELLOW Picto is turning ON
8. Wait for device to connect the call.
9. Confirm that full-dublex communication is performed.

Incomming Call Operation Check:

1. Mount and Power up the unit.
2. Wait about 5 Seconds to let the device self checked and start operation
3. From a Telephone device perform a call to the Unit and wait the unit to answer the call.
4. Confirm that full-dublex communication is performed.

Warranty and Technical Support

The Lift Emergency Telephone ULTRA (INTD0902) comes with a comprehensive 5-year warranty, ensuring peace of mind and reliable performance.

We are committed to providing lifetime technical support for our customers. For assistance, you can contact your local distributor or reach out directly to Pelekis Electronics.

For technical support or any inquiries, please contact us at:

Pelekis Electronics
Email: info@pelekis.eu
Phone: +30 210 23 23 345
Website: www.pelekis.tech

We are dedicated to helping you with any questions or issues you may have regarding your Emergency Telephone ULTRA (INTD0902).

Thank you for choosing Pelekis Electronics.

Notes