# Autodialler
# PTU 8028 V2 and PTU 8028 D06
# Installation manual

| PTU 8028 O01 | PTU 8028 F01 | PTU 8128 F01 |
| --- | --- | --- |

| PTU 8028 D01 | PTU 8028 D02 - PTU 8028 V06 |
| --- | --- |

## Please read this manual carefully before installing the Lift Alarm!

**Lift Alarms are more and more sophisticated devices and it is of paramount importance that they are installed in accordance with this installation manual. Simple precautions will avoid problems and waste of time.**

# C O N T E N T S

# 1. PRESENTATION

The PTU 8028 V2 is a hands-free Lift Alarm complying with the European standards EN 81.28 and EN 81.70.
Three versions :
1.  Can be installed inside the COP
2.  Can be installed flush mounted into the lift wall / COP (with stainless steel faceplate).
3.  Can be installed on top of the lift car.

# 2. MAIN CHARACTERISTICS

- ❑ Can be connected to the public telephone network or PABX.
- ❑ Multi frequency dialling (DTMF).
- ❑ Can phone up 1 to 4 pre-programmed telephone numbers.
- ❑ Emergency calls can be activated from the Lift Car, Top of Car, Under the Car.
- ❑ Up to 5 Lift Alarms PTU 8028 V2 can share one and the same analogue, public telephone line (please check with the provider)**.**
- ❑ Input which can be used either for call filtering with voltage or for an alarm push with voltage over the contacts, 5 V to 120 V AC or DC.
- ❑ 2 outputs controlling the pictograms in the lift car.
- ❑ Compatible with our range of acoustic inductive loop modules **without** microphone and **without** loudspeaker.
- ❑ Automatic test call facility (lift alarm $\Rightarrow$ call centre).
- ❑ Power supply supervision for the 81-28 functions.
- ❑ Local or remote programming. Initialization must be done locally.
- ❑ Hangs up and re-dials automatically upon recognition of a busy tone or after time-out.
- ❑ Automatically open up and establish 2-way speech for incoming calls.
- ❑ Hands-free 2-way communication.
- ❑ NO or NC configuration of the alarm button, with or without voltage over the contacts and adjustable activation time.
- ❑ Line seizure information relay setting in NO or NC or 40 VA/48 V remote control receiver.
- ❑ Loudspeaker volume and microphone sensitivity adjustable by help of built-in keypad.

# 3. MECHANICAL FIXING

There are three different mechanical versions of PTU 8028 V2
See diagram page 15 and template for hole positions.

**The audio quality of the Lift Alarm depends mainly on how it is mechanically installed.**

1.  **Installation inside the COP**
    - The number of holes in front of the loudspeaker must be sufficient to let the sound through.
    - The hole for the microphone in the COP must be lined up with the hole in front of the microphone to obtain
      maximum sound quality.

    There must not be an air gap between the Lift Alarm and the COP faceplate (see page 14).
    Amphitech provides a microphone gasket in order to avoid acoustic feedback (howling).

2.  **Installed flush mounted in the lift wall / COP**
    The PTU 8028 V2 with facplate requires less precautions. Simply make a cut out according to the enclosed template, page 15.

3.  **Installation on top of the car**
    This solution ensures the best sound quality, provided that it is correctly installed :
    The PTU 8028 V2 must be positioned flat onto the car roof.
    The box must be screwed or fixed by any other means onto the car roof with the help of the enclosed template.
    The number of holes in front of the loudspeaker must be sufficient enough to let the sound through.
    If the top of car model is equipped with a second microphone directed towards inside the lift car (PTU80 V2 D02), remember to drill a sufficient sized hole.
    NOTE : If the ceiling is thicker than 20 mm, the diameter of the hole must be in proportion with the thickness.
    If the lift car is equipped with a double ceiling / false ceiling and if the latter is too close to the roof (less than
    10 – 15 cm) there is a risk of acoustic feedback.
    The Amphitech Lift Alarms correct the feedback, but to the detriment of the volume ! The alternative is using the microphone ADT MB / LC which is meant to be installed away from the unit, i.e. in the COP. This unit is equipped with a cable to be connected to the alarm button in the lift car.

4. **Installation of the ADT MB / LC microphone to be connected to the  PTU 80 V2 roof box version and the alarm button in the lift car**
    See diagram central page and template.

5. **Installation of the ADT TA04, top-of-car / underneath the car communication unit**
    See diagram central page and template.

Once all the modules fixed mechanically, i.e.:
- PTU 8028 V2
- top of car or underneath the car station ADT TA04 (optional)
- microphone ADT MB/LC (optional)

install the necessary cables, avoiding all possible sources of inductions, like NEON lights, fans and 220 V / 400 V power cables.

Connect the telephone line to the PTU 8028 V2. Up to 5 Lift Alarms can be connected in parallel to one and the same public telephone line.

## Basic precautions :

### Telephone line :
   If it is necessary to install 1 pair for the telephone line in the shaft, use preferably :
   ■ a shielded cable ; the shield must be connected to 0 V in one end, and must be open in the other end and must not touch ground anywhere in the installation,
   ■ but at least a twisted pair,  0.7 mm².
   ■ If you use 2 wires in the trailing cable, make sure that they are separated from high voltage cables (220 V / 400 V)
   The cable between the trailing cable and the telephone point must be run separately from high voltage cables, like mains power, motor cables…

### Line sharing (only on analogue PSTN-lines)

PTU n°3    PTU n°2    PTU n°1 Master    PTU n°4    PTU n°5
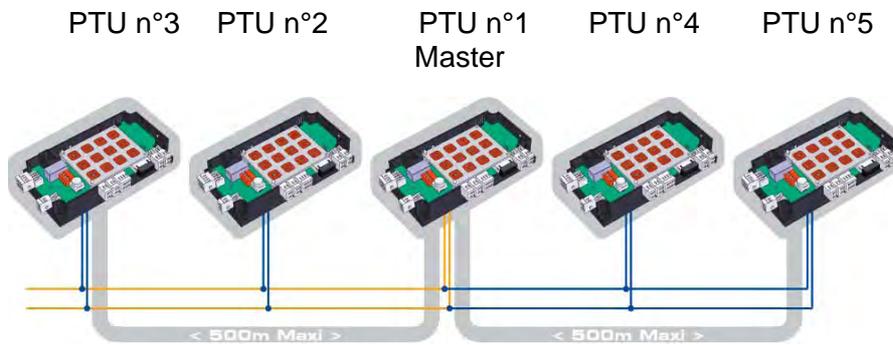
Telephone line

### Star mounting :

PTU n°5    PTU n°1 Master    PTU n°2

Telephone line

PTU n°4    PTU n°3

## 4. CONNECTIONS



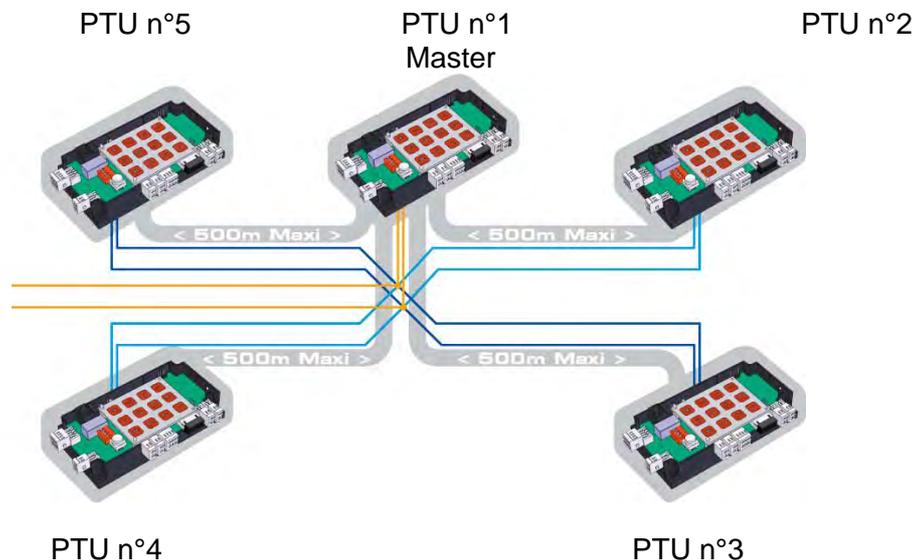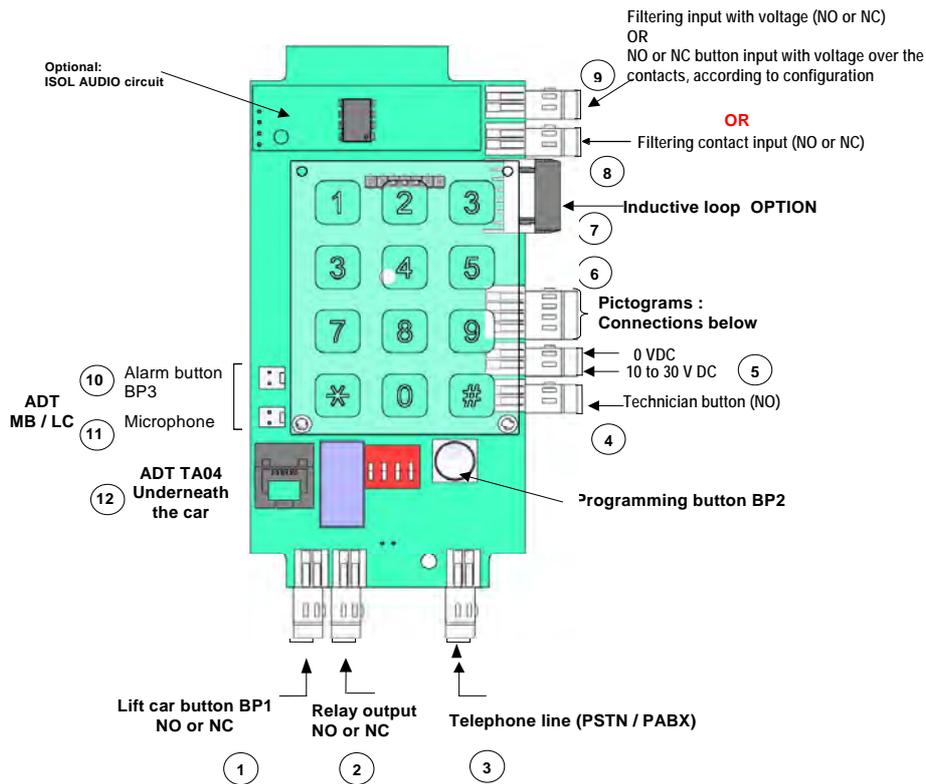| | |
|---|---|
| ① | Connect BP1- alarm push in the lift car, potential free contact, NO or NC |
| ② | NO or NC relay output for line seizure information or remote control receiver |
| ③ | Telephone line |
| ④ | Connect end of alarm / technician button : NO contact |
| ⑤ | Connect 10 to 30 V DC power supply for the EN81.28 and EN 81.70 functions |
| ⑥ | Connect the pictograms |
| ⑦ | Connect the acoustic inductive loop amplifier. AMPHITECH make only. |
| ⑧ | Connect filtering contact input (NO or NC) |
| ⑨ | Voltage controlled filtering input, NO or NC **OR** input for a button with voltage over the contacts : 5 to 120 V AC / DC |
| ⑩ ⑪ | Connector for optional ADT MB / LC – additional microphone with cable to be connected to the alarm push in the lift car (code 19 0) NO or NC. |
| ⑫ | Connector for optional ADT TA04 – additional call station with microphone/loudspeaker and call button for top of car or under the car |

⚠ **It is imperative to connect voltage free contacts to the Alarm Push's input terminals. External voltage on inputs BP1 and BP3 will damage the PCB.**

### 4.1 Connecting the alarm button in the lift car :

Connecting the alarm button in the lift car to the PTU 8028 V2 requires some precautions :

#### 4.1.1 If the cable length is less than 3 meters,

use button input BP1 **with voltage free contacts only,** configured NO (normally open) or NC (normally closed) see representation below.
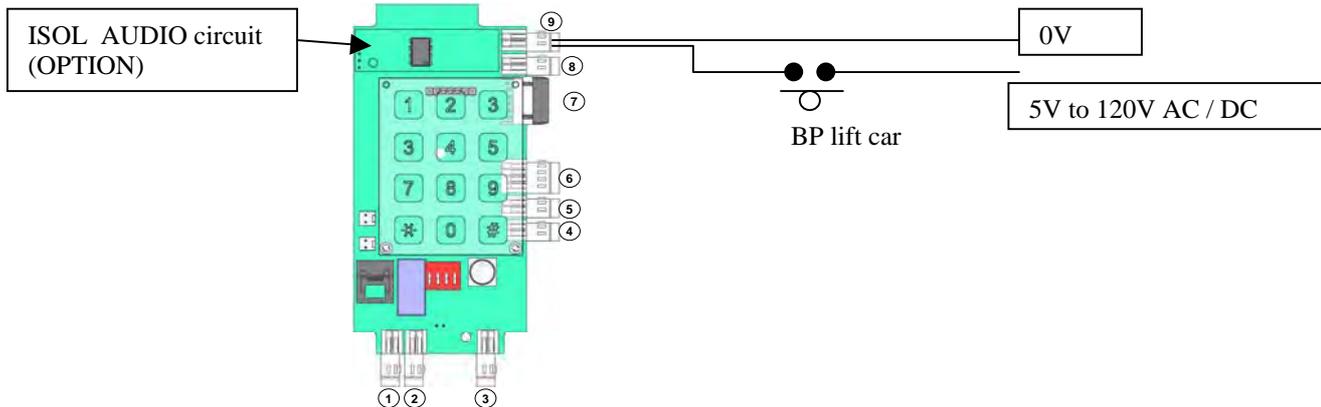
Button NO



Dipswitch n°4

Button NC



Dipswitch n°4

### 4.1.2 If the cable is **longer than 3 meters, please be careful !**

Problems may occur due to an unsettled environment.

If the button has voltage over the contacts and if no call filtering is required, use this input and connect the alarm button to connector n°9, as shown hereinafter.



> **In this case, it is imperative to configure this input as button input, see « on site programming chart », code 31.**

If the filtering input is used and if the cable from the alarm button is longer than 3 meters or if the button has voltage over the contacts, please use the optional connector unit UCI 80 R.

## 4.2 Connecting the optional accessories

### 4.2.1 ADT MB / LC installed in lift car

Connect the cable to connector n°10 for the button and to n° 11 for the microphone (see page n°5).

> **In this case, set BP3 to lift car button, code 19, value 0, see programming chart.**

### 4.2.2 ADT MB / LC installed on top of the car

Connect as described above without changing the factory default setting.

### 4.2.3 ADT TA04

Connect the cable to terminal block n° 12 (see page n°5).

### 4.2.3 Optional UCI 80

The UCI 80 is a connection interface allowing to use all the **standard Amphitech lift car stations** which exist :
- ADT CF TRI
- ADT FA…. TRI
- ADT HPM TRI
- ADT HSN TRI
- ADT MIC TRI
- ADT M TRI
- ADT SERE TRI

Optional UCI 80R (**SYSTEMATICALLY INCLUDED IN VERSION PTU 8028 D06**)
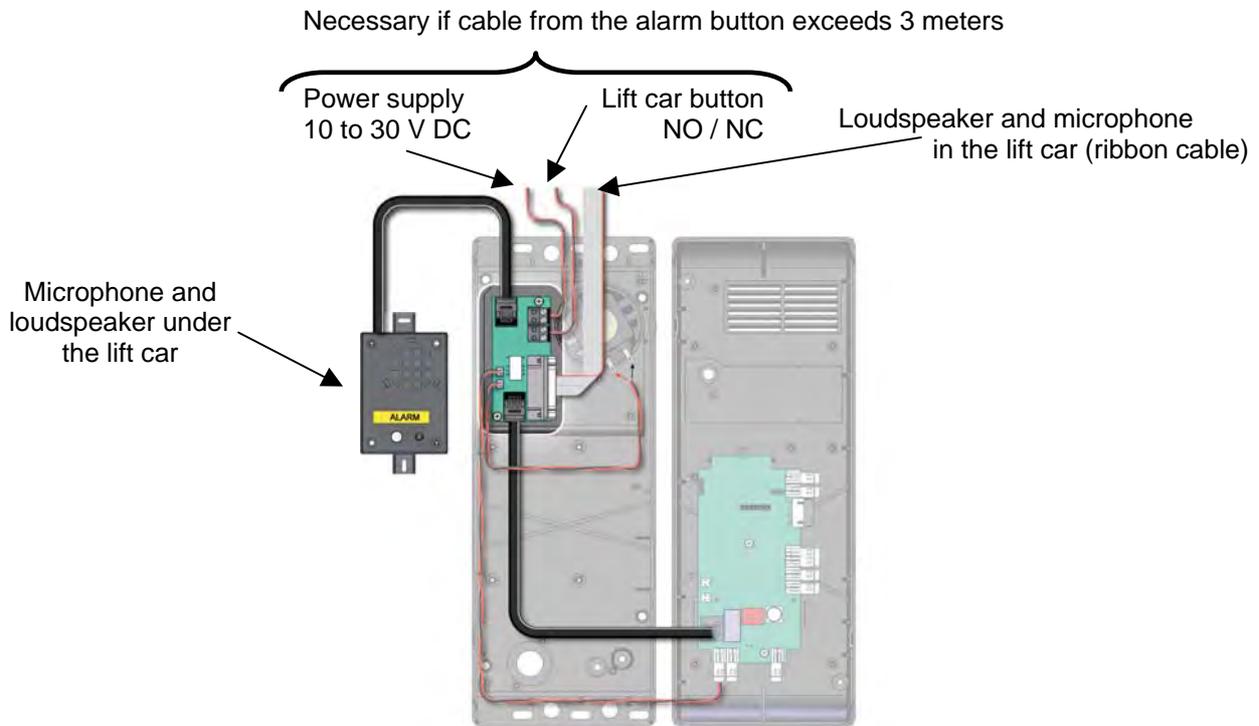Same characteristics as the model above but equipped with a relay for the following eventualities:
- if the lift car button does not deliver a potential free contact (10 to 30 V DC),
- if the cable between lift car button and the PTU 8028 V2 brings in inductions,
- if the alarm button cable is longer than 3 meters,
we recommend to use the UCI 80R
ATTENTION !
**The UCI 80 R requires a 10 to 30 V DC power supply.**

Necessary if cable from the alarm button exceeds 3 meters

Power supply
10 to 30 V DC

Lift car button
NO / NC

Loudspeaker and microphone
in the lift car (ribbon cable)

Microphone and
loudspeaker under
the lift car

ALARM

## 4.3  Connecting the end of alarm / technician button

Connect the button cable  (potentialfree contact) to terminal block n°4 (see page n°5).

## 4.4  Connecting the external power supply

Connect the power supply cable (10 to 30 V DC) to terminal block n°5, imperatively respecting the polarities (see page n°5).

|  |  | Voltage | Current |
|---|---|---|---|
| **Power supply** | ❑   Without  inductive loop : | 10V to 30VDC | 26 mA (12V) |
|  | ❑   With inductive loop : | 12V DC | 2 A max. |

## 4.5  Connecting the pictograms for EN8128-EN 8170 compliance

The pictograms can be powered by the same power supply unit as the PTU 8028 or by a separate power source.

| **Pictogram output** | 12 V DC max. | 100 mA max. |
|---|---|---|
|  | 24 V DC max. | 50 mA max. |

4.3.1 Powering the pictograms by 12 V DC  from the PTU 8028 V2; 100 mA max.

Connector n°    6
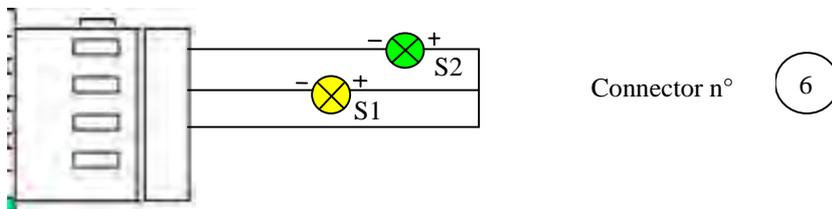
4.3.2 Powering the pictograms by an external 24 V DC max. power supply unit; 50 mA max.

S2

S1

+ DC Power supply

Connector n°    6

- DC Power supply
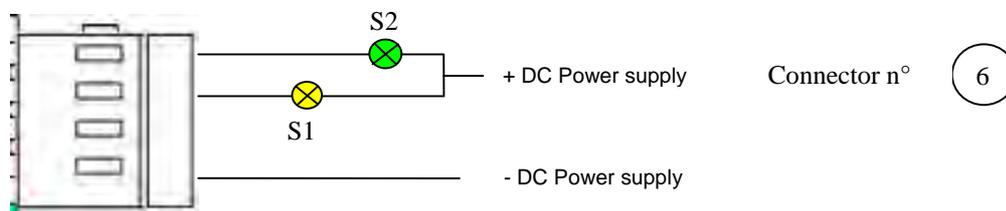
## 4.6 Connecting the AMPHITECH acoustic inductive loop amplifier Series AD28 XX (OPTIONAL)

When connecting an acoustic inductive loop amplifier, it is imperative to connect the "ISOL AUDIO" circuit, delivered with the inductive loop amplifier AMPHIITECH Series AD 28 XX.

ISOL AUDIO circuit to be connected to the PTU 80  (see page 5)

Built-in antenna

Position high

PTU 80-28

Output for an external antenna

Setting :
Built-in / External antenna

LOOP = external antenna
COIL = built-in antenna

Select the appropriate operation mode
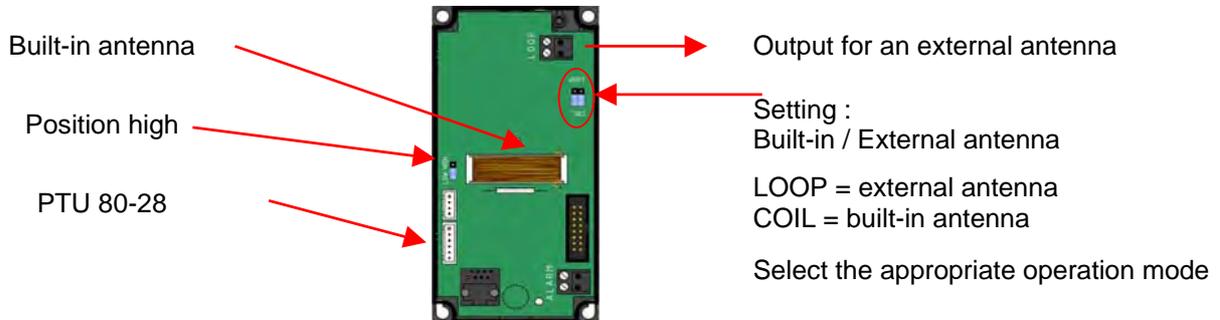
Inductive loop coverage



80cm

80cm
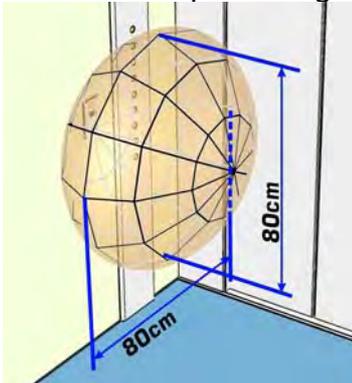
Covered area with external antenna



**Built-in antenna** : module with a built-in antenna for easy installation in the COP.

**External antenna** : External loop installed on top of the lift car.

## 4.7 Connecting the call filter

4.6.1 Filtering with voltage free contacts
Connect the filtering contact to connector n°8 (see page 5).
**It is necessary to program the alarm button status in stand-by mode (code 30 _ see programming chart).**

4.6.2 Filtering with voltage over the contacts
Connect the 5 to 120 V AC / DC filtering voltage to connector n°9 (see page 5).
**It is necessary to program the alarm button status in stand-by mode (code 31 _ see programming chart).**

## 4.8 Connecting the telephone line

If an intercom facility is required :

Intercom mode : (OPTION)

**Motor Room Station
MACH 80**

Power supply 10 to 30 VDC

Analogue telephone line

**Fire Fighter station
POMP 40**
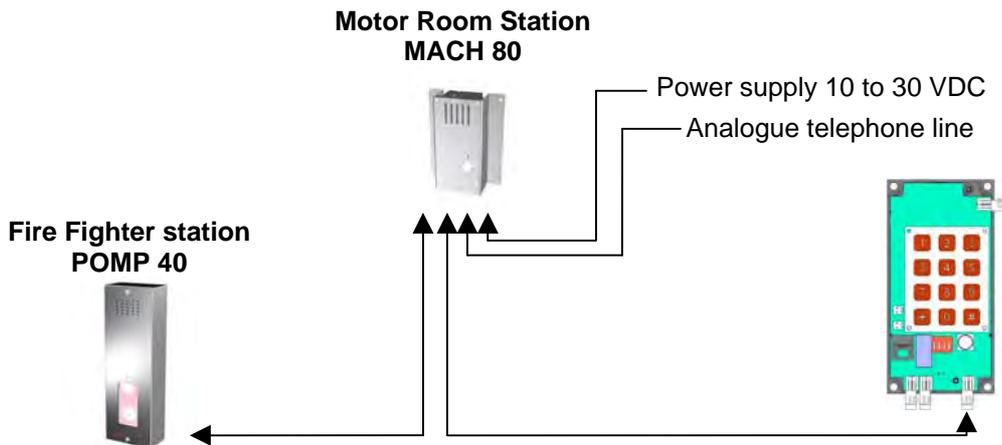
In combination with the 2-wire intercom stations, it is possible to connect up to 5 x PTU 8028 V2 onto the same public telephone line, a motor room station and a fire-fighter station associated with each unit.

**Step 1.** Initialization of the PTU 8028 V2
Set the DIP switches as follows :
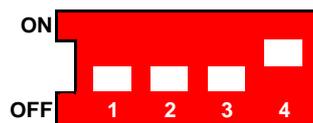
⚠ When putting the PTU 8028 V2 into service for the first time, it is indispensable to measure and store the line threshold (stored in a non volatile memory).

**Step 2.** Connecting the telephone line
Connect the telephone line to connector n°3 (see page n°5).

**As soon as a long bleep is heard in the loudspeaker, the line threshold is memorized.**

**Step 3.** Set the address
NOTE: Only one "MASTER" on the same analogue telephone line.

Address n°1
(Master)
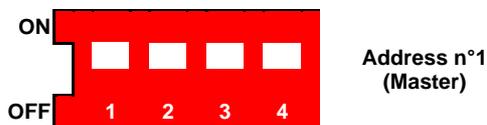
**Step 4.** Programming the PTU 8028 V2
Carry out programming according to the "On Site Programming Chart".

**Step 5.** Repeat steps 1,2,3,4 on each slave unit.

Address n°2
Slave

Address n°4
Slave

Address n°3
Slave

Address n°5
Slave
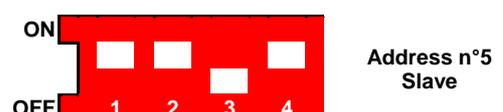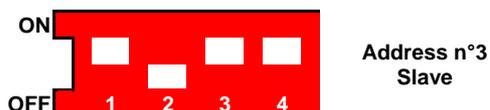
## 5.  PROGRAMMING

### 5.1 On site : (see appendix 1)
On site programming must be done by using the keypad for all functions.

Example of on site programming

Storing :
❑ The lift alarm will phone up: **01 43 67 93 77**
❑ The lift alarm's identification code: **1 2 3 4 5**

| Functions | | Actions | Keys | Confirmation |
|---|---|---|---|---|
| Access to programming mode | 1 | Press programming access button BP2 to take the line. A bleep is heard in the loudspeaker, you have 2 seconds to press the "∗" key to get into programming mode | ∗ | 3 bleeps |
| Store the first telephone number | 2 | Key input code | **2 1** | 2 bleeps |
| | 3 | Key telephone number to be stored | **0 1 4 3 6 7 9 3 7 7** | |
| | 4 | Validate and store the number | **#** | 3 bleeps |
| Store the identification code | 5 | Key input code | **0 5** | 2 bleeps |
| | 6 | Key the identification code | **1 2 3 4 5** | |
| | 7 | Validate and store the number | **#** | 3 bleeps |
| Exit programming | 8 | | ∗ | 1 bleep |

### 5.2 Remotely : (see appendix 2)
Remote programming can be done by using DTMF codes and the confidential programming access code.
Remote programming can be done in two different ways :

❑ **AMPHITECH central station receiving equipment**
Central station equipment for complete handling; emergency calls and programming. Initialization has to be done on site due to variation in telephone line quality / type.

❑ **DTMF telephone**
A DTMF telephone is useful for simple modifications such as change of code or telephone numbers. However, it is not suitable for complete programming of the unit because it does not provide the possibility to confirm that the programming has been done correctly.

## 6.  OPERATION
∗-
### 6.1 Adjusting the loudspeaker volume :

The factory setting for the volume is level 46. To increase or decrease the volume :
- set up a call and
- adjust it, using keys 41 to 48 on the local programming keypad.
**Do not seek the highest volume, but try to obtain the clearest sound.**

## 6.2 Call from the lift car :

If the "81-28" function is activated (code 70, see programming chart), the system will filter the call when the alarm push is pressed (bleep). After automatically checking the filtering status, the call will be made or cancelled (see chapter 6.5 Filtering the Call).
If the "81-28" filtering function is deactivated, the PTU 8028 V2 autodialler will release the call immediately when pressing the alarm push (bleep).
Once the call is made, the PTU 8028 V2 will dial out the first number. If the first number does not answer or if it is engaged, it dials up the second number and likewise for the third and the fourth (pre-recorded) number. The call cycle can be repeated up to 4 times in a row (see programming chart).

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**NOTE : If the PTU 8028 V2 is used in accordance with EN 81-28:**
**After a call from the lift car to a call centre where it has been registered and acknowledged as received (green pictogram is ON in the lift car), it is necessary to do an "end of alarm" or "technician call" (technician button input on the PCB ) in order to re-activate the call filter and to switch off the pictogram (see diagram p. 5 / Operation chapter 6.4 p.11).**
**As long as the "end of alarm" or "technician call" is not done, the call filter will remain inactive. Every time the alarm push is pressed a new call will be set off without filtering.**

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## 6.3 Calling from car top and underneath the car :

Pressing any of the call buttons would work in the same way as if it was a call from the lift car, but would not take into account the call filter.

## 6.4 End of alarm or technician call :

To do an *end of alarm or a technician call*, the "EN 81-28" OPTION   must be selected by the code 70 801

Activating the END OF ALARM or TECHNICIAN CALL input (voltage free contact, see § 4.3) on the PCB or in the lift car face plate AD 28 IL/PL (by using a magnet) will set off a voice call without filtering the alarm and turn off the pictogram at the end of the communication.



Place the magnet in front of the pictogram on the face plate and wait for the call to be made.
Alternatively activate the « end of alarm » switch.

## 6.5 Filtering the call :

Filtering the call is done by using the filtering input. According to the status and the configuration of this input, the call will be made or cancelled. Call filtering is done by using a voltage **OR** voltage free contact.
(See programming chart, Code 30, Code 31).

|  | Filtering input  NO | Filtering input NC |
|---|---|---|
| *Voltage or closed contact* | Call released | Call cancelled |
| *Voltage free or open contact* | Call cancelled | Call released |

To use *filtering contact input,* "OPTION 81-28" must be selected by the code 70 801.
The *voltage filtering input* can be used in the "EN 81-28 OPTION " and "WITHOUT EN 81-28 OPTION ".

In mode "81-28 OPTION " filtering voltage can be used only if the filtering contact input has been activated by the code 30 1.

## 6.6 Pictogram operation :

To use the pictogram command functions, mode "EN 81-28 OPTION " must be selected by the code 70 801.

### 6.6.1.  Without protocol (see programming chart) :

The pictograms are controlled and operated by using an analogue DTMF telephone. The pictograms mirror the following actions :

| Actions | S1 yellow | S2 green | LS | Micro |
|---|---|---|---|---|
| ⇒ **Press the call button in the lift car** | OFF | OFF | Bleep | OFF |
| ❑ Filtering test | OFF | OFF | | OFF |
| ❑ Taking the line and call out | ON | OFF | Bleep | ON |
| ❑ Pause during the cycle | ON | OFF | OFF | OFF |
| ❑ Recipient has acknowledged the call by pressing the "*" key or customized acknowledgement code, confirmed by bleeps | OFF | ON | ON | ON |
| ❑ Recipient has reset the call by pressing ∗39∗, confirmed by bleeps | OFF | OFF | ON | ON |
| ❑ Hanging up after end preset communication (without end of alarm code) | OFF | ON | OFF | OFF |
| ❑ Hanging up after end preset communication (with end of alarm code) | OFF | OFF | OFF | OFF |
| ⇒ **Lift engineer activates end of alarm function (bleep)** | OFF | OFF | | OFF |
| ❑ Taking the line and call out | ON | OFF | Bleep | ON |
| ❑ Pause during the cycle | ON | OFF | OFF | OFF |
| ❑ Recipient has acknowledged the call by pressing the "*" key or customized acknowledgement code, confirmed by bleeps | OFF | ON | ON | OFF |
| ❑ Recipient has reset the call by pressing ∗39∗, confirmed by bleeps | OFF | OFF | ON | ON |
| ❑ Hanging up after end preset communication (without end of alarm code) | OFF | OFF | OFF | OFF |
| ❑ Hanging up after end preset communication (with end of alarm code) | OFF | OFF | OFF | OFF |

### 6.6.2.  With AMPHITECH DTMF protocol :

The pictogram controls are achieved by using an analogue telephone line and AMPHITECH central station equipment. Hereinafter the status of the pictograms according to the following actions :

| Actions | S1 yellow | S2 green | LS | Micro |
|---|---|---|---|---|
| ⇒ **Pressing the call button in the lift car** | OFF | OFF | Bleep | OFF |
| ❑ Filtering test | OFF | OFF | | OFF |
| ❑ Taking the line and call out | Flash | OFF | Bleeps | ON |
| ❑ Pause during the cycle | Flash | OFF | OFF | OFF |
| ❑ Identification at the central station and acknowledgement | ON | OFF | ON | OFF |
| ❑ Voice mode | OFF | ON | ON | ON |
| ❑ Hanging up after end of preset communication period, TO | OFF | ON | OFF | OFF |
| | | | | |
| ⇒ **Activating End of Alarm or Technician Call Input (bleep)** | Flash | OFF | Bleeps | OFF |
| ❑ Taking the line and call out | Flash | OFF | ON | OFF |
| ❑ Pause during the cycle | Flash | OFF | OFF | OFF |
| ❑ Identification at the central station and acknowledgement | ON | OFF | ON | OFF |
| ❑ Voice mode | OFF | ON | ON | ON |
| ❑ Hanging up after end of preset communication period, TO | OFF | OFF | OFF | OFF |

## 6.7 The automatic test :

For the **automatic test function** it is necessary to select "EN 81-28 OPTION " in the menu (see programming chart, code 70 801).

In accordance with the European standard EN 81-28, the PTU 8028 V2 can be programmed to make an automatic test call to a Central Station.
This function could be activated on site by following the instructions in the programming chart or remotely from a Central Station. It is possible to select a calling schedule (from 1 to 7 days) as well as the telephone number for the test call. This number can be a separate number or the same as for the emergency calls.

- **On site programming** *(see appendix 1)* : In order to activate this function, you select the schedule for the test call (from 1 to 7 days) by using input code "62 x" and designate a telephone number for the test call by using the function "61 xxx…". **Once you leave the programming mode, the PTU 8028 V2 will make a synchronizing call by phoning up the telephone number programmed for the test call.**

- **Remote programming** : The actual programming is done by using the AMPHITECH DTMF protocol.

⚠ **NOTE: For this function, it is imperative to call up and carry out the programming of PTU 8028 V2 from a location having AMPHITECH hardware and software installed.**

## 6.8 Remotely switching communication between up to 5 PTU 8028 V2

During a call from the lift car, top of car or underneath the car, or for an incoming call, the recipient can switch from one station to the other by keying in codes on the telephone's keypad. The codes are as follows :

**\* 35 2 \* :  Phone n° 2      Slave n°1**
**\* 35 3 \* :  Phone n° 3      Slave n°2**
**\* 35 4 \* :  Phone n° 4      Slave n°3**
**\* 35 5 \* :  Phone n° 5      Slave n°4**

**switch back to the master :**

**\* 35 1 \* :  Phone n° 1      Master**

## 6.9 Power supply monitoring

For the *power supply monitoring*, it is necessary to select "EN 81-28 OPTION " in the menu (see programming chart, code 70 801)

The power supply of the EN 81-28 functions is supervised permanently. If the voltage goes below 10 V DC, the PTU 8028 V2 automatically calls the number programmed for technical alarms (see programming chart, input code 26). If the power supply comes back to the initial value, the PTU 8028 V2 makes another call to signalize voltage back to normal.
If the telephone number in the input code 26 is empty, the PTU 8028 V2 make a call to the telephone number programmed in the input code 61. (type of call : technical).

⚠ **Note: The call for the power supply default is a technical call. It is imperative to have an AMPHITECH call/programming centre or use the AMPHITECH DTMF protocol.**

# 7. DIMENSIONS
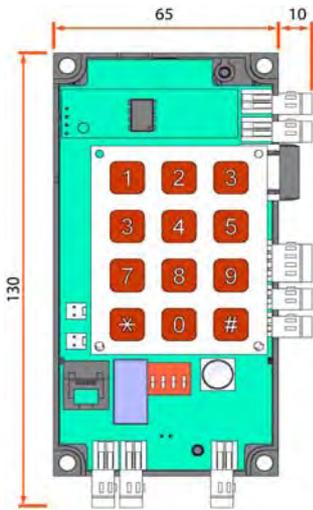
## PTU 8028 V2
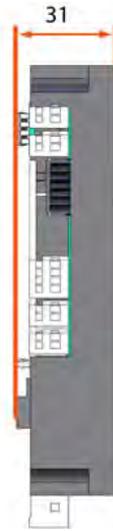
### COP Version
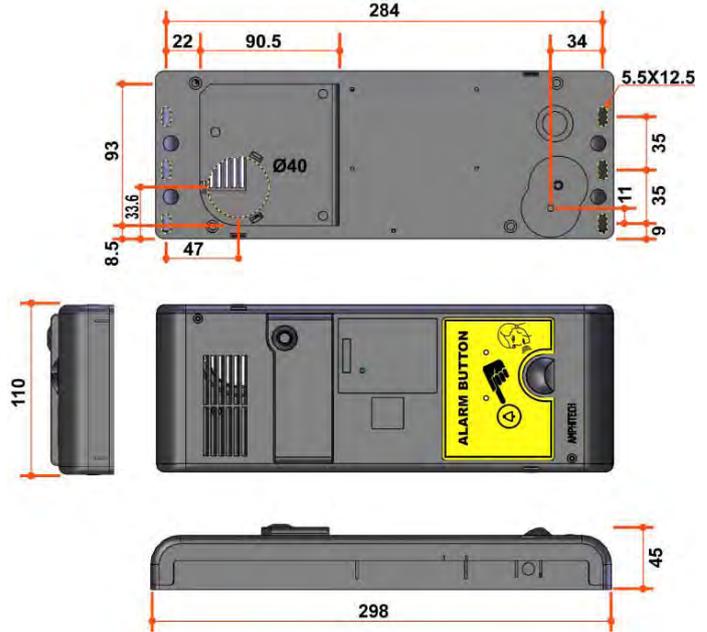


### Roof Box Version



### AD28 FIL/PL
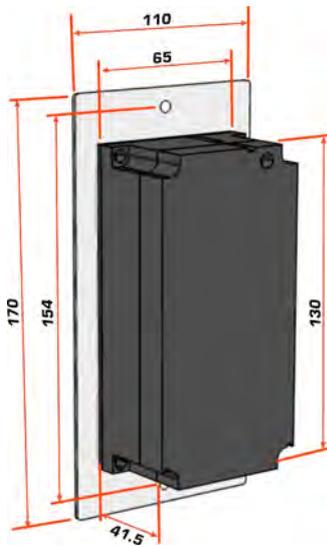


### AD28 FDIL/PL
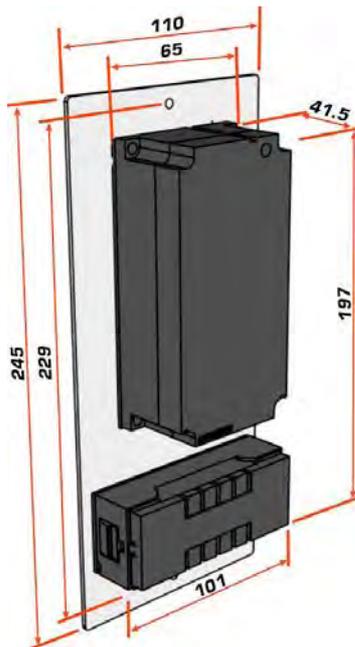


### AD28 IL

# 8. DRILLING DIAGRAM

## Roof Box Version



Trou microphone Ø 6 mm minimum

Zone HP : trous Ø6mm mini ou découpe à la scie.

VUE DE DESSUS

## COP Version



575 mm

Zones HP
Ø 14 mm
Ø 22 mm
Ø 28 mm
Ø 32 min
Ø 38 mm
Ø 45.5 mm
Ø 51.5 mm

Trou microphone Ø3 minimum

4 goujons M3X6

VUE DE DESSUS

## ADT TA04



## ADT MB / LC



2 goujons M3X8

Zone microphone
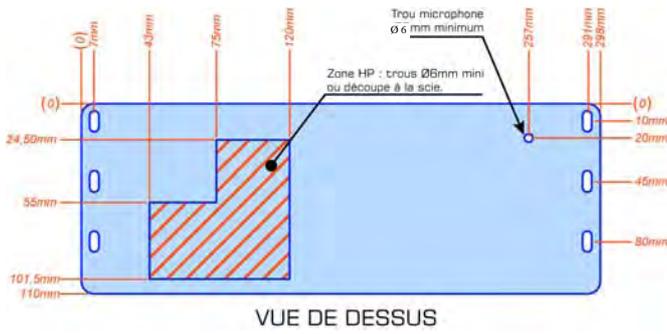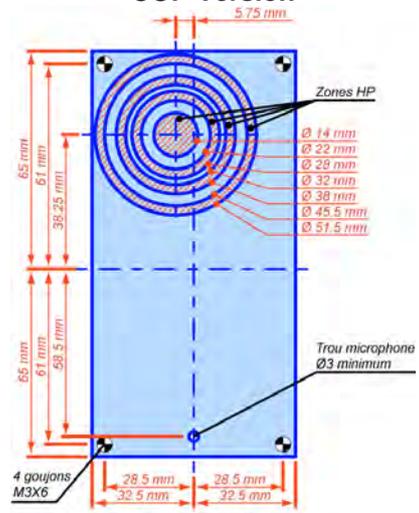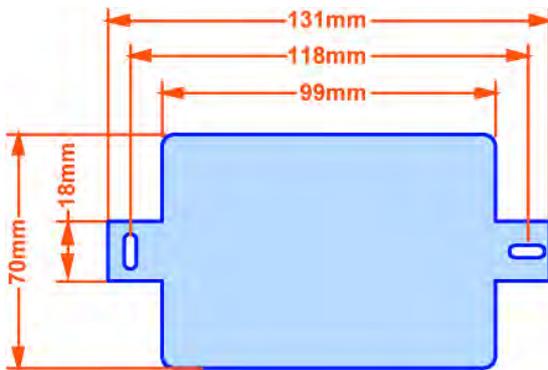
VUE DE DESSUS
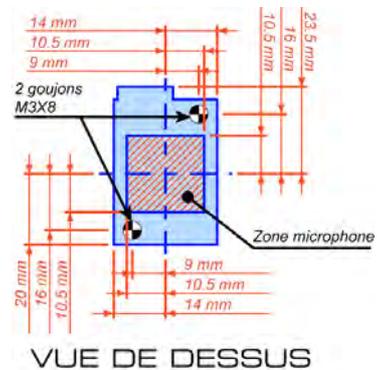
# 9. INSTALLATION PRECAUTIONS

## Roof Box Version



Top of the car

Lift car

Top of the car

Lift car

Top of the car

x<10 à 15cm, utiliser ADT MBLC

**DOUBLE CEILLING**

Lift car

## COP Version



Lift car    Boîte à boutons

Lift car    Boîte à boutons
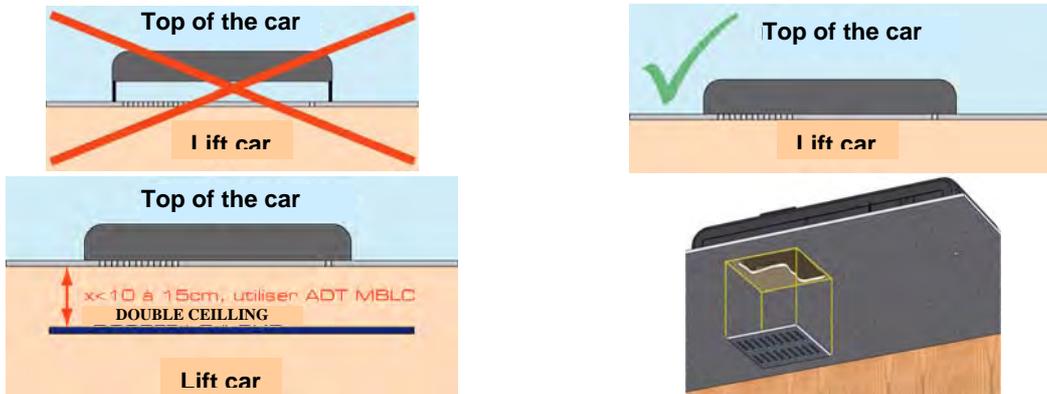
## ADT MB / LC

# 9. APPENDIX 1- PROGRAMMING CHART FOR ON SITE PROGRAMMING

To enter programming mode, press the programming access button and the "*" key on the keypad simultaneously and keep pressing until you hear 3 bleeps that will confirm the beginning of the programming sequence. You will hear 5 bleeps if there is an error in the process.

| Programming type | | Code | Confir. | Description | Validation | Confir. | Note | Factory |
|---|---|---|---|---|---|---|---|---|
| Length of conversation period | | 0 4 | 2 bleeps | 0 = 30 minutes<br>From 1 to 9 minutes Key 1 to 9 | "#" Key | 3 bleeps | | **3 mn** |
| Identification | | 0 5 | 2 bleeps | Key 0 to 9 = identification code 9 digits | "#" Key | 3 bleeps | | **000000000** |
| Start and stop the acoustic coupler | | 06 | 2 bleeps | 0 = stop the test | "#" Key | 3 bleeps | | |
| | | | | 1 = star the test | | | | |
| Configuration | the test time | 07 | 2 bleeps | a = 0 (1 min.) to 9 (45 min.) | "#" Key | 3 bleeps | | **2** |
| | signal time | | | b = 0 (5 sec.) to 9 (45 sec.) | | | | **2** |
| reset configuration | | 0 9 | 2 bleeps | | "#" Key | 3 bleeps | Factory Config. | |
| Select the type of line Single or multi unit | | 1 0 | 2 bleeps | 0 = Multi unit | "#" Key | 3 bleeps | | **MULTI** |
| | | | | 1 = single unit | | | | |
| 11 F line detection | | 1 2 | 2 bleeps | 0 = invalid | "#" Key | 3 bleeps | | **valid** |
| | | | | 1 = valid | | | | |
| Car button delay | | 13 | 2 bleeps | Touches de 0 à 8 seconds = de 0 à 8 seconds | "#" Key | 3 bleeps | | **2 sec.** |
| Time of ringing tones before opening for 2 ways speech | | 1 5 | 2 bleeps | Key 0 = immediately<br>Key 5 = 5 seconds<br>Key 10 = 10 seconds<br>Key 15 = 15 seconds<br>Key 20 = 20 seconds | "#" Key | 3 bleeps | | **0** |
| Microphone administration on incoming call | | 1 6 | 2 bleeps | 0 = closed | "#" Key | 3 bleeps | | **1** |
| | | | | 1 = opened | | | | |
| Alarm types With acknowledgement it's necessary to select the mode 66 0 | | 1 7 | 2 bleeps | 0 = alarm without acknowledgement | "#" Key | 3 bleeps | 5 digits maximum | **0** |
| | | | | 1 = alarm with acknowledgement | | | | |
| | | | | 2 = alarm with personalised acknowledgement (enter the digits) | | | | |
| Hanging up with the alarm push button | | 1 8 | 2 bleeps | 0 = unable to hang up | "#" Key | 3 bleeps | | **0** |
| | | | | 1 = enables to hang up | | | | |
| Button configuration BP3 (ADT MB/LC) | | 19 | 2 bleeps | 0 = lift car button | "#" Key | 3 bleeps | | **1** |
| | | | | 1 = top of the car button | | | | |
| First telephone n° | | 2 1 | 2 bleeps | Prefix + telephone number 1 | "#" Key | 3 bleeps | 20 digits max. | |
| Second telephone n° | | 2 2 | 2 bleeps | Prefix + telephone number 2 | "#" Key | 3 bleeps | 20 digits max. | **Empty** |
| Third telephone n° | | 2 3 | 2 bleeps | Prefix + telephone number 3 | "#" Key | 3 bleeps | 20 digits max. | |
| Fourth telephone n° | | 2 4 | 2 bleeps | Prefix + telephone number 4 | "#" Key | 3 bleeps | 20 digits max. | |
| Prefix for PABX connection (select code 10) | | 2 5 | 2 bleeps | *2 = pause 2 sec.<br>*3 = "*"  *4 = "#"<br>*5 = "A"  *6 = "B"<br>*7 = "C"  *8 = "D" | "#" Key | 3 bleeps | 5 digits max. | **Empty** |
| Technical call number (power supply default) | | 26 | 2 bleeps | Prefix + telephone number | "#" Key | 3 bleeps | 20 digits max. | **Empty** |
| The loudspeaker and the microphone levels | | 27 | 2 bleeps | a = 1 to 4 (microphone level) | "#" Key | 3 bleeps | | **1** |
| | | | | b = 1 to 8 (loudspeaker level) | | | | **5** |
| Filtering contact input (in 81.28 mode only) | | 3 0 | 2 bleeps | 0 = Invalid | "#" Key | 3 bleeps | | **0** |
| | | | | 1 = filtering contact input NO | | | | |
| | | | | 2 = filtering contact input NC | | | | |
| Filtering voltage input (in 81.28 mode or without 81.28 mode). OR Selection lift car button driving by voltage | | 3 1 | 2 bleeps | 0 = Invalid | "#" Key | 3 bleeps | | **0** |
| | | | | 1 = Filtering voltage NO | | | | |
| | | | | 2 = Filtering voltage NC | | | | |
| | | | | 3 = lift car button NO | | | | |
| | | | | 4 = lift car button NC | | | | |
| Selection of the machine room used | | 34 | 2 bleeps | 0 = no machine room | "#" Key | 3 bleeps | | **0** |
| | | | | 1 = machine room V1 (MACH80) | | | | |
| | | | | 2 = machine room V2 | | | | |
| Reset the recorded alarm by disconnecting telephone line | | 35 | 2 bleeps | 0 = reset the alarm | "#" Key | 3 bleeps | | **0** |
| | | | | 1 = no reset the alarm | | | | |
| Pictograms commands ON | | 36 | 2 bleeps | 0 = relay switch ON | "#" Key | 3 bleeps | | |
| | | | | 1 = yellow pictogram switch ON | | | | |
| | | | | 2 = green pictogram switch ON | | | | |
| Pictograms commands OFF | | 37 | 2 bleeps | 0 = relay switch OFF | "#" Key | 3 bleeps | | |
| | | | | 1 = yellow pictogram switch OFF | | | | |
| | | | | 2 = green pictogram switch OFF | | | | |
| Test call 15 minutes after a telephone line reconnection | | 38 | 2 bleeps | 0 = no test call | "#" Key | 3 bleeps | | **0** |
| | | | | 1 = test call | | | | |
| | | | | 1 = test call | | | | |
| Secret code to access to the local programming mode | | 39 | 2 bleeps | 0 = no secret code | "#" Key | 3 bleeps | | **0** |
| | | | | 1 = secret code | | | | |
| Secret code | | 4 0 | 2 bleeps | Old code + new code | "#" Key | 3 bleeps | 4 digits max. | **0 0 0 0** |
| Relay PDL | | 4 1 | 2 bleeps | 1 to 9 seconds        0 = permanent | "#" Key | 3 bleeps | | **permanent** |

| Programming type | Code | Confir. | Description | Validation | Confir. | Note | Factory |
|---|---|---|---|---|---|---|---|
| Output relay or latch relay | 4 2 | 2 bleeps | 0 = invalid<br>1 = valid<br>2 = latch relay | "#" Key | 3 bleeps | | **1** |
| Relay configuration | 43 | 2 bleeps | 0 = line Seizure Information Relay NO<br>1 = LSI Relay  NC | "#" Key | 3 bleeps | | **0** |
| Code to command the relay | 44 | 2 bleeps | Key 0 to 9 | "#" Key | 3 bleeps | 2 digits | **00** |

Code to command the relay : send by telephone * recorded code *

| Programming type | Code | Confir. | Description | Validation | Confir. | Note | Factory |
|---|---|---|---|---|---|---|---|
| Busy tone | 49 | 2 bleeps | 0 0 = 500 / 500 ms<br>0 1 = 180 / 450 ms<br>0 2 = 200 / 200 ms<br>0 3 = 300 / 300 ms<br>0 4 = 400 / 400 ms<br>0 5 = 160 / 480 ms<br>0 6 = 200 / 600 ms<br>0 7 = 200/200/200/200/200/200/600 ms<br>0 8 = 375 / 375 ms<br>0 9 = 250 / 250 ms<br>10 = 100 / 100 ms<br>11 = 400 / 350 / 225 / 525 ms<br>12 = 250 / 500 ms (GSM)<br>13 = universal busy tone | "#" Key | 3 bleeps | | **Universal Busy tone** |
| Busy tone | 5 0 | 2 bleeps | 0 0 = 500 / 500 ms<br>0 1 = 180 / 450 ms<br>0 2 = 200 / 200 ms<br>0 3 = 300 / 300 ms<br>0 4 = 400 / 400 ms<br>0 5 = 160 / 480 ms<br>0 6 = 200 / 600 ms<br>0 7 = 200/200/200/200/200/200/600 ms<br>0 8 = 375 / 375 ms<br>0 9 = 250 / 250 ms<br>10 = 100 / 100 ms<br>11 = 400 / 350 / 225 / 525 ms<br>12 = 250 / 500 ms (GSM)<br>13 = universal busy tone | "#" Key | 3 bleeps | | **100/100** |
| Detecting silence during communication | 51 | 2 bleeps | 0 = inactive<br>1 to 20 seconds | "#" Key | 3 bleeps | | **0** |
| Detecting silence on the telephone line | 52 | 2 bleeps | 0 to 20 seconds | "#" Key | 3 bleeps | | **2** |
| Number lt deton in 100 ms | 53 | 2 bleeps | 0 to 40 seconds (for Italy only) | | | | **10** |
| Delay before detecting silence on the line | 54 | 2 bleeps | 10 to 25 seconds | "#" Key | 3 bleeps | | **20** |
| Anti-bounce after closing microphone | 55 | 2 bleeps | **0 to 9 = 0 to 9/10$^{th}$ seconds** | "#" Key | 3 bleeps | | **3** |
| | | | | | | | |
| Automatic test calling number | 61 | 2 bleeps | Key 0 to 9 + prefix | "#" Key | 3 bleeps | 20 digits  max. | |
| Cycle test timing | 62 | 2 bleeps | 0 = inactiv<br>1= 1 day<br>2 = 2 days<br>3 = 3 days<br>4 = 4 days<br>5 = 5 days<br>6 = 6 days<br>7 = 7 days | "#" Key | 3 bleeps | | **inactive** |
| Test line frequency | 63 | 2 bleeps | 0 = Inactiv<br>1 = every day<br>2 = every week<br>3 = every month | "#" Key | 3 bleeps | | **inactive** |
| Protocol mode | 66 | 2 bleeps | 0 = code DTMF and DTMF AMPHITECH protocol<br>1 = with DTMF AMPHITECH protocol<br>2 = code DTMF only | "#" Key | 3 bleeps | | **1** |
| Technician call | 67 | 2 bleeps | 0 = technician button with dialling<br>1 = technician button without dialling | "#" Key | 3 bleeps | | **0** |
| 81-28 Option | 70 | 2 bleeps | 800 = without 81-28 functions<br>801 = with 81-28 functions | "#" Key | 3 bleeps | | **800** |
| Software version | 71 | 2 bleeps | 0 1 = Base<br>0 2 =  car button delay =  3sec<br>0 3 = mode without acknowledge , 4 cycles<br>04 = multi alarm<br>06 = GSM mode | "#" Key | 3 bleeps | | **0 1** |
| Voice mode | 9 8 | 2 bleeps | 0 = hands-free mode<br>1 = switch mode | "#" Key | 3 bleeps | | **1** |
| Exit programming. | | * | | | | | |
| Hang up | | * * | | | | | |

# 10. APPENDIX 2- PROGRAMMING CHART FOR REMOTE PROGRAMMING

To entre the programming mode, phone up the unit and wait for the tone (2100 Hz). Immediately after the tone stops, press the "*" key on the keypad. After hearing two bleeps you must enter the confidential programming access code (factory default 0000). If your programming access code is correct, three bleeps will confirm you have entered the programming menue. You will hear 5 bleeps if there is an error in the process.

| Programming type | Code | Confir. | Description | Validation | Confir. | Note | Factory |
|---|---|---|---|---|---|---|---|
| Length of conversation period | 0 4 | 2 bleeps | 0 = 30 minutes<br>From 1 to 9 minutes Key 1 to 9 | "#" Key | 3 bleeps | | **3 mn** |
| Identification | 0 5 | 2 bleeps | Key 0 to 9 = identification code 9 digits | "#" Key | 3 bleeps | | **000000000** |
| Start and stop the acoustic coupler | 06 | 2 bleeps | 0 = stop the test<br>1 = star the test | "#" Key | 3 bleeps | | |
| Configuration / the test time / signal time | 07 | 2 bleeps | a = 0 (1 min.) to 9 (45 min.)<br>b = 0 (5 sec.) to 9 (45 sec.) | "#" Key | 3 bleeps | | **2**<br>**2** |
| Select the type of line Single or multi unit | 1 0 | 2 bleeps | 0 = Multi unit<br>1 = single unit | "#" Key | 3 bleeps | | **MULTI** |
| 11 F line detection | 1 2 | 2 bleeps | 0 = invalid<br>1 = valid | "#" Key | 3 bleeps | | **valid** |
| Car button delay | 13 | 2 bleeps | Touches de 0 à 8 seconds = de 0 à 8 seconds | "#" Key | 3 bleeps | | **2 sec.** |
| Time of ringing tones before opening for 2 ways speech | 1 5 | 2 bleeps | Key 0 = immediately<br>Key 5 = 5 seconds<br>Key 10 = 10 seconds<br>Key 15 = 15 seconds<br>Key 20 = 20 seconds | "#" Key | 3 bleeps | | **0** |
| Microphone administration on incoming call | 1 6 | 2 bleeps | 0 = closed<br>1 = opened | "#" Key | 3 bleeps | | **1** |
| Alarm types With acknowledgement it's necessary to select the mode **66 0** | 1 7 | 2 bleeps | 0 = alarm without acknowledgement<br>1 = alarm with acknowledgement<br>2 = alarm with personalised acknowledgement (enter the digits) | "#" Key | 3 bleeps | 5 digits maximum | **0** |
| Hanging up with the alarm push button | 1 8 | 2 bleeps | 0 = unable to hang up<br>1 = enables to hang up | "#" Key | 3 bleeps | | **0** |
| Button configuration BP3 (ADT MB/LC) | 19 | 2 bleeps | 0 = lift car button<br>1 = top of the car button | "#" Key | 3 bleeps | | **1** |
| First telephone n° | 2 1 | 2 bleeps | Prefix + telephone number 1 | "#" Key | 3 bleeps | 20 digits max. | |
| Second telephone n° | 2 2 | 2 bleeps | Prefix + telephone number 2 | "#" Key | 3 bleeps | 20 digits max. | **Empty** |
| Third telephone n° | 2 3 | 2 bleeps | Prefix + telephone number 3 | "#" Key | 3 bleeps | 20 digits max. | |
| Fourth telephone n° | 2 4 | 2 bleeps | Prefix + telephone number 4 | "#" Key | 3 bleeps | 20 digits max. | |
| Prefix for PABX connection (select code 10) | 2 5 | 2 bleeps | *2 = pause 2 sec.<br>*3 = "*"    *4 = "#"<br>*5 = "A"    *6 = "B"<br>*7 = "C"    *8 = "D" | "#" Key | 3 bleeps | 5 digits max. | **Empty** |
| Technical call number (power supply default) | 26 | 2 bleeps | Prefix + telephone number | "#" Key | 3 bleeps | 20 digits max. | **Empty** |
| The loudspeaker and the microphone levels | 27 | 2 bleeps | a = 1 to 4 (microphone level)<br>b = 1 to 8 (loudspeaker level) | "#" Key | 3 bleeps | | **1**<br>**5** |
| Filtering contact input (in 81.28 mode only) | 3 0 | 2 bleeps | 0 = Invalid<br>1 = filtering contact input NO<br>2 = filtering contact input NC | "#" Key | 3 bleeps | | **0** |
| Filtering voltage input (in 81.28 mode or without 81.28 mode).<br>OR<br>Selection lift car button driving by voltage | 3 1 | 2 bleeps | 0 = Invalid<br>1 = Filtering voltage NO<br>2 = Filtering voltage NC<br>3 = lift car button NO<br>4 = lift car button NC | "#" Key | 3 bleeps | | **0** |
| Selection of the machine room used | 34 | 2 bleeps | 0 = no machine room<br>1 = machine room V1 (MACH80)<br>2 = machine room V2 | "#" Key | 3 bleeps | | **0** |
| Reset the recorded alarm by disconnecting telephone line | 35 | 2 bleeps | 0 = reset the alarm<br>1 = no reset the alarm | "#" Key | 3 bleeps | | **0** |
| Pictograms commands ON | 36 | 2 bleeps | 0 = relay switch ON<br>1 = yellow pictogram switch ON<br>2 = green pictogram switch ON | "#" Key | 3 bleeps | | |
| Pictograms commands OFF | 37 | 2 bleeps | 0 = relay switch OFF<br>1 = yellow pictogram switch OFF<br>2 = green pictogram switch OFF | "#" Key | 3 bleeps | | |
| Test call 15 minutes after a telephone line reconnection | 38 | 2 bleeps | 0 = no test call<br>1 = test call | "#" Key | 3 bleeps | | **0** |
| Secret code to access to the local programming mode | 39 | 2 bleeps | 0 = no secret code<br>1 = secret code | "#" Key | 3 bleeps | | **0** |
| Secret code | 4 0 | 2 bleeps | Old code + new code | "#" Key | 3 bleeps | 4 digits max. | **0 0 0 0** |
| Relay PDL | 4 1 | 2 bleeps | 0 = permanent<br>1 to 9 seconds | "#" Key | 3 bleeps | | **permanent** |
| Output relay or latch relay | 4 2 | 2 bleeps | 0 = invalid<br>1 = valid<br>2 = latch relay | "#" Key | 3 bleeps | | **1** |

| Programming type | Code | Confir. | Description | Validation | Confir. | Note | Factory |
|---|---|---|---|---|---|---|---|
| Relay configuration | 43 | 2 bleeps | 0 = line Seizure Information Relay NO<br>1 = LSI Relay NC | "#" Key | 3 bleeps | | **0** |
| Code to command the relay | 44 | 2 bleeps | Key 0 to 9 | "#" Key | 3 bleeps | 2 digits | **00** |

Code to command the relay : send by telephone * recorded code *

| Programming type | Code | Confir. | Description | Validation | Confir. | Note | Factory |
|---|---|---|---|---|---|---|---|
| Busy tone | 49 | 2 bleeps | 0 0 = 500 / 500 ms<br>0 1 = 180 / 450 ms<br>0 2 = 200 / 200 ms<br>0 3 = 300 / 300 ms<br>0 4 = 400 / 400 ms<br>0 5 = 160 / 480 ms<br>0 6 = 200 / 600 ms<br>0 7 = 200/200/200/200/200/600 ms<br>0 8 = 375 / 375 ms<br>0 9 = 250 / 250 ms<br>10 = 100 / 100 ms<br>11 = 400 / 350 / 225 / 525 ms<br>12 = 250 / 500 ms (GSM)<br>13 = universal busy tone | "#" Key | 3 bleeps | | **universal busy tone** |
| Busy tone | 5 0 | 2 bleeps | 0 0 = 500 / 500 ms<br>0 1 = 180 / 450 ms<br>0 2 = 200 / 200 ms<br>0 3 = 300 / 300 ms<br>0 4 = 400 / 400 ms<br>0 5 = 160 / 480 ms<br>0 6 = 200 / 600 ms<br>0 7 = 200/200/200/200/200/600 ms<br>0 8 = 375 / 375 ms<br>0 9 = 250 / 250 ms<br>10 = 100 / 100 ms<br>11 = 400 / 350 / 225 / 525 ms<br>12 = 250 / 500 ms (GSM)<br>13 = universal busy tone | "#" Key | 3 bleeps | | **100/100** |
| Detecting silence during communication | 51 | 2 bleeps | 0 = inactive<br>1 to 20 seconds | "#" Key | 3 bleeps | | **0** |
| Detecting silence on the telephone line | 52 | 2 bleeps | 0 to 20 seconds | "#" Key | 3 bleeps | | **2** |
| Number lt deton in 100 ms | 53 | 2 bleeps | 0 to 40 seconds (for Italy only) | | | | **10** |
| Delay before detecting silence on the line | 54 | 2 bleeps | 10 to 25 seconds | "#" Key | 3 bleeps | | **20** |
| Anti-bounce after closing microphone | 55 | 2 bleeps | **0 to 9 = 0 to 9/10$^{th}$ seconds** | "#" Key | 3 bleeps | | **3** |
| Automatic test calling number | 61 | 2 bleeps | Key 0 to 9 + prefix | "#" Key | 3 bleeps | 20 digits max. | |
| Cycle test timing | 62 | 2 bleeps | 0 = inactive<br>1= 1 day<br>2 = 2 days<br>3 = 3 days<br>4 = 4 days<br>5 = 5 days<br>6 = 6 days<br>7 = 7 days | "#" Key | 3 bleeps | | **Inactive** |
| Test line frequency | 63 | 2 bleeps | 0 = Inactive<br>1 = every day<br>2 = every week<br>3 = every month | "#" Key | 3 bleeps | | **inactive** |
| Protocol mode | 66 | 2 bleeps | 0 = code DTMF and DTMF AMPHITECH protocol<br>1 = with DTMF AMPHITECH protocol<br>2 = code DTMF only | "#" Key | 3 bleeps | | **1** |
| Technician call | 67 | 2 bleeps | 0 = technician button with dialling<br>1 = technician button without dialling | "#" Key | 3 bleeps | | **0** |
| 81-28 Option | 70 | 2 bleeps | 800 = without 81-28 functions<br>801 = with 81-28 functions | "#" Key | 3 bleeps | | **800** |
| Software version | 71 | 2 bleeps | 0 1 = Base<br>0 2 = car button delay = 3sec<br>0 3 = mode without acknowledge , 4 cycles<br>04 = multi alarm<br>06 = GSM mode | "#" Key | 3 bleeps | | **0 1** |
| Voice mode | 9 8 | 2 bleeps | 0 = hands-free mode<br>1 = switch mode | "#" Key | 3 bleeps | | **1** |
| Exit programming. | | * | | | | | |
| Hang up | | * * | | | | | |