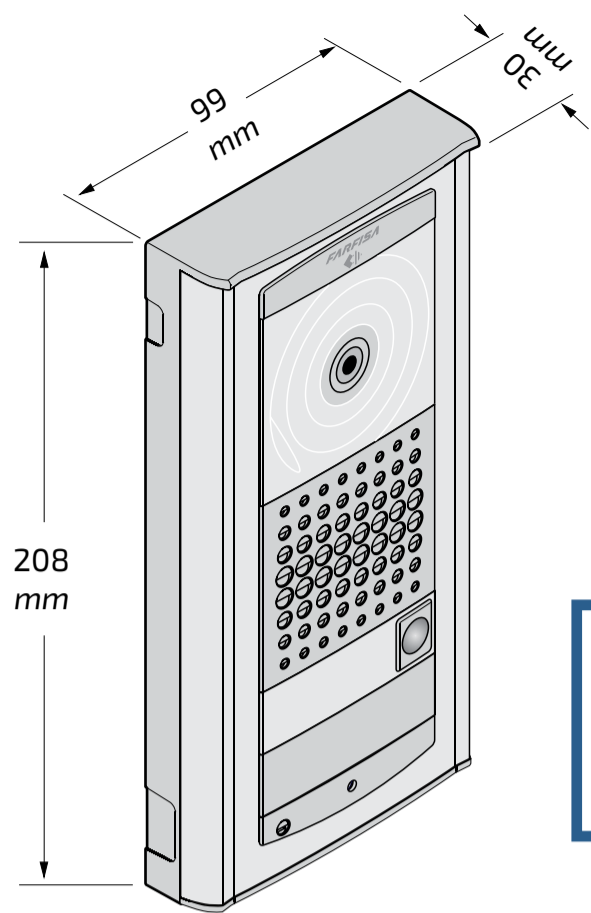


# *Appendix*

## **EXTERNAL DOOR STATIONS WITH 2220S**

<b>AGORÀ SERIES</b>	<b>page A.2</b>
<b>PROFILO SERIES</b>	<b>A.11</b>
<b>DIGITAL KEYPAD</b>	<b>A.14</b>
<b>DIGITAL ENCODERS</b>	<b>A.19</b>
<b>MATRIX SERIES</b>	<b>A.27</b>
<b>DIGITAL KEYPAD</b>	<b>A.31</b>
<b>DIGITAL ENCODERS</b>	<b>A.35</b>

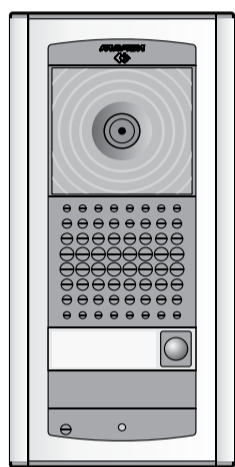


Only audio or audio/video external door station for DUO system



Programmable via DUO System app

# AGORA



**VD2121CAG. Video door station** composed of an ABS box for surface mounting, front plate in aluminium with 1 call button and electronic board with colour camera, amplified door speaker and LED's for lighting the nameplates. You can add an additional **AG21** call button.

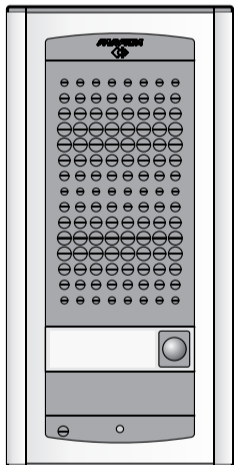
**VD2121CAGL.** Light grey version. You can add an additional **AGL21** call button. Pulsante aggiuntivo art. **AGL21**.

#### Technical data

Power supply	13Vac±1
Absorption	0.8A
Video signal standard	PAL
Minimum illumination	2.5 Lux
LED's	4 (white) + 2 (red)
Sensor	CCD 1/3" colour
Lens	3.6mm
Focus	0.6m ÷ ∞
Horizontal/vertical adjustment	±10°
Operating temperature	-10°÷+40°C
Max. permissible humidity	80%RH

#### Terminals

~ / ~	13VAC voltage input
V	Video signal input of a supplementary external camera (coaxial cable)
M	Video ground (coaxial shield)
S1/S2	Door opening contacts



**AD2121CAG. Audio door station** composed of an ABS box for surface mounting, front plate in aluminium with 1 call button and electronic board with amplified door speaker and LED's for lighting the nameplates. You can add an additional **AG21** call button.

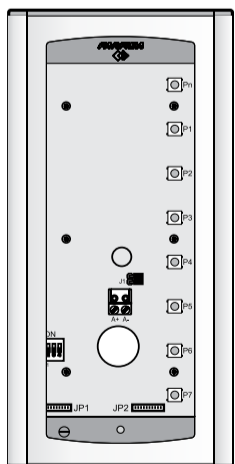
**AD2121CAGL.** Light grey version. You can add an additional **AGL21** call button.

#### Technical data

Power supply	13Vac±1
Absorption	0.7A
LED's	2 (red)
Operating temperature	-10°÷+40°C
Max. permissible humidity	80%RH

#### Terminals

~ / ~	13VAC voltage input
V	Video signal input of a supplementary external camera (coaxial cable)
M	Video ground (coaxial shield)
S1/S2	Door opening contacts



**AG100TS. Push-buttons door station** composed of an ABS box for surface mounting, front plate in aluminium and electronic board with diodes and LED's for lighting the nameplates. You can add 8 additional **AG21** call buttons.

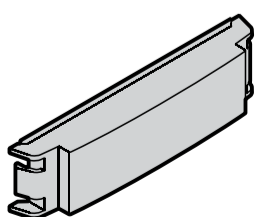
**AGL100TS.** Light grey version. You can add 8 additional **AGL21** call buttons.

#### Technical data

Power supply	13Vac±1
Absorption	0.7A
LED's	2 (red)
Operating temperature	-10°÷+40°C
Max. permissible humidity	80%RH

#### Terminals

A+ / A-	13VAC voltage input
---------	---------------------

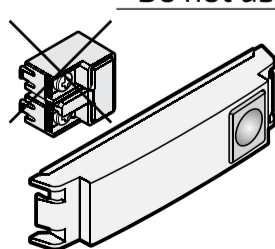


**AG20.** Blank module.

**AGL20.** Light grey version.



Do not use!



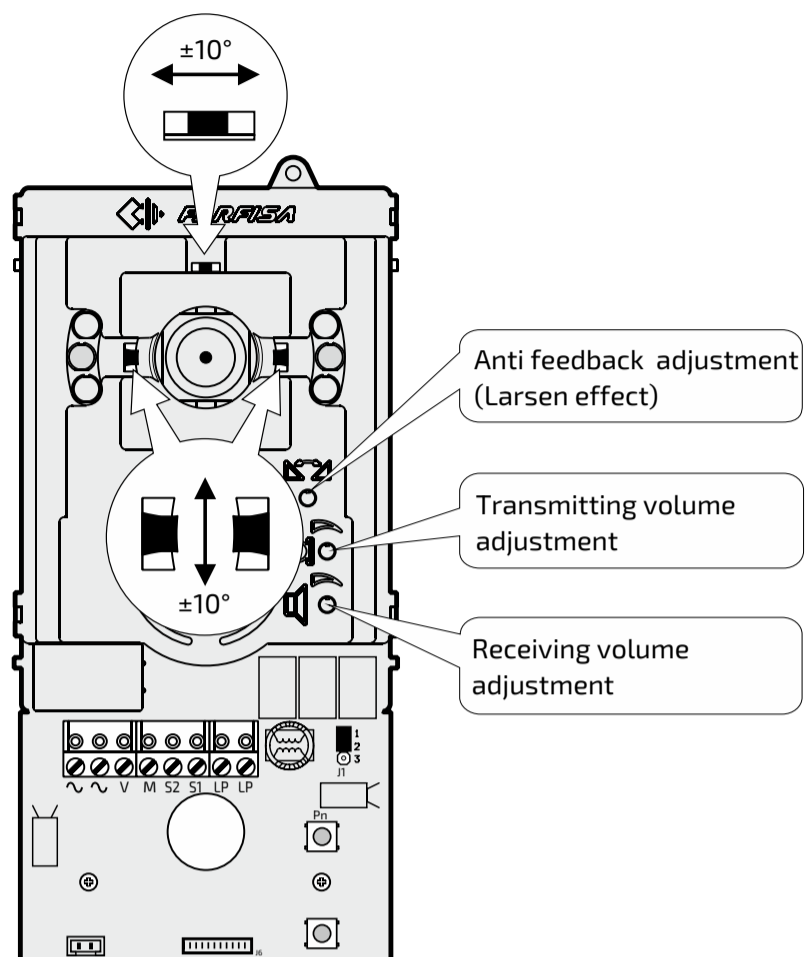
**AG21.** Single button module with name plate holder.

**AGL21.** Light grey version.

## Adjustments

### Sweeps (only VD2121CAG)

If necessary, you can manually change the camera framing by adjusting the horizontal and vertical levers in the desired direction (see figure).



### Volumes adjustment

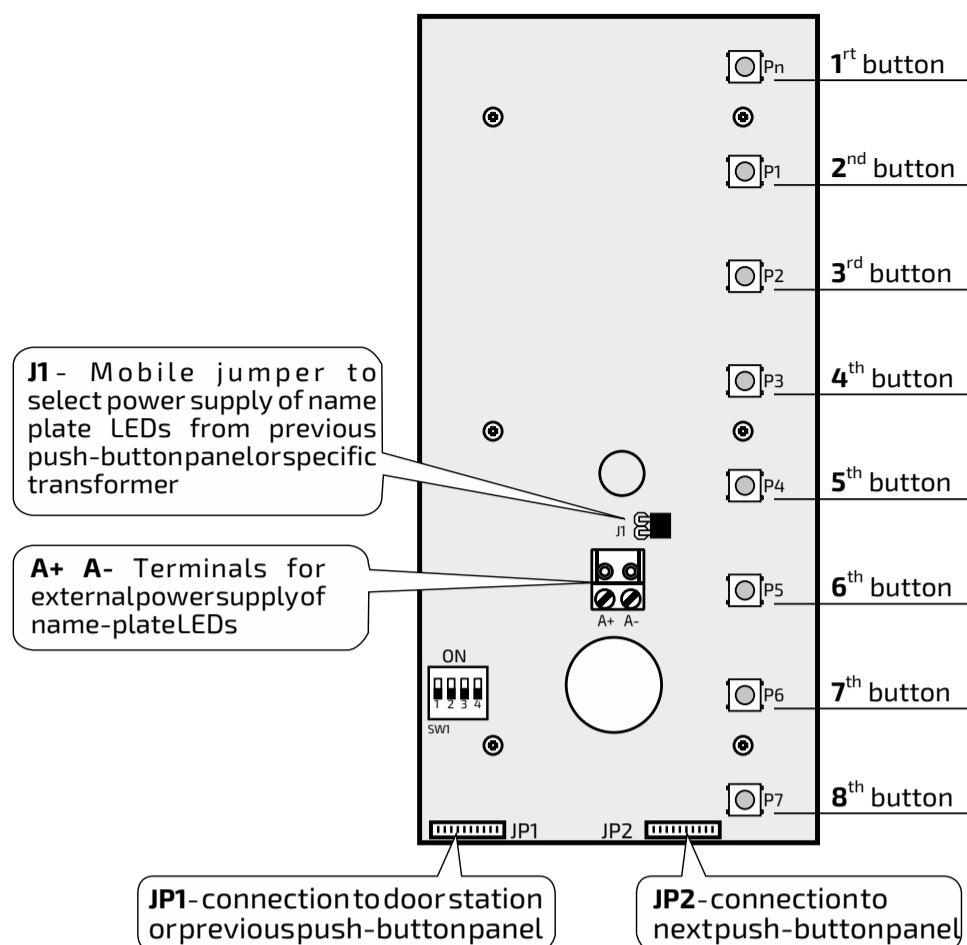
To adjust the volume of microphone and loudspeaker, turn the trimmers and .

### Anti-feedback adjustment (Antilocale)

In case of "feedback" (Larsen effect) in the external unit it is necessary to operate as follow:

- make the call from the door station and lift the handset of the called user;
- remove the microphone from its housing inside the push-button panel, place it on the loudspeaker of the electric door answering system and adjust the trimmer until the feedback stops;
- replace the microphone in its housing.

## AG100TS/AGL100TS. Push-buttons door stations.

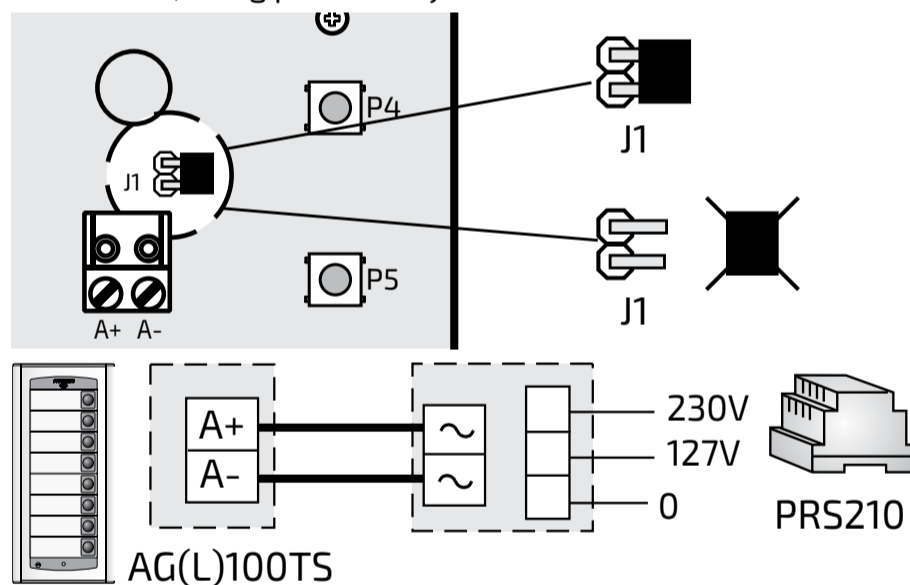


### Name-plate lighting

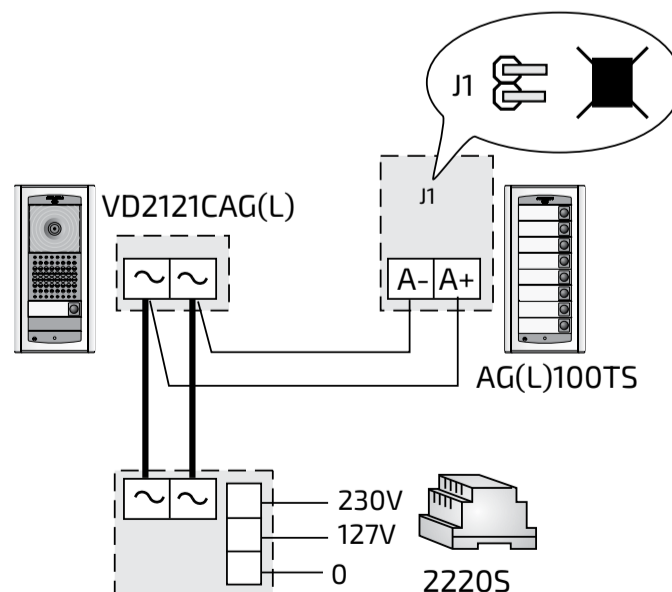
The power supply of the name-plate LEDs must be provided by a specific transformer. The PRS210 can power 6 push-button panels.

To make the connection, you must:

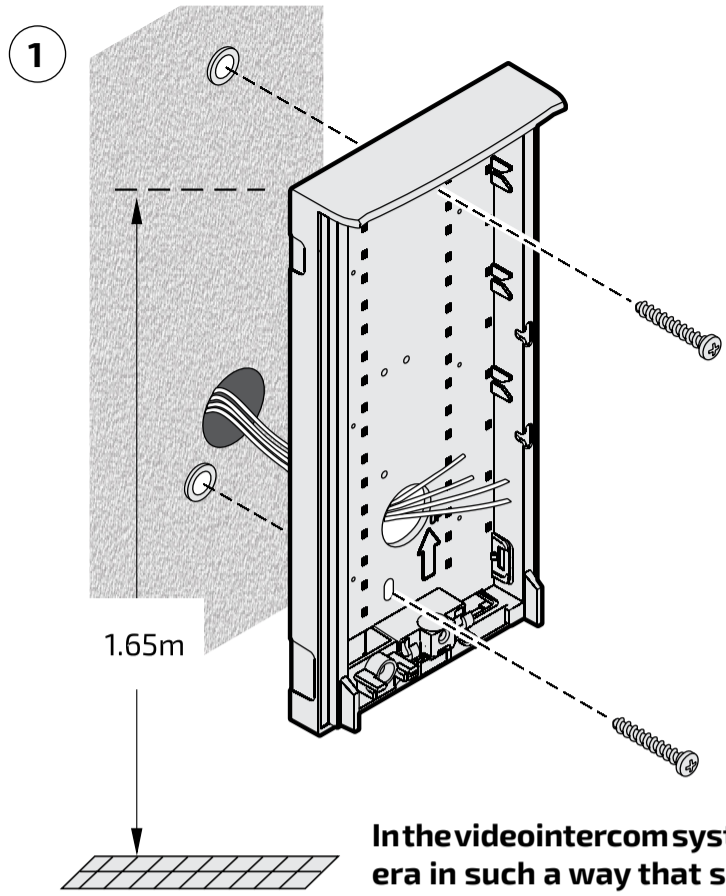
- **remove** the jumper that connects the two poles of **J1** of the **first** push-button panel you want to power externally;
- connect the two power cables to terminals **A+/A-**;
- the next push-button panels must have the jumper inserted and the free terminals, being powered by the connection cables.



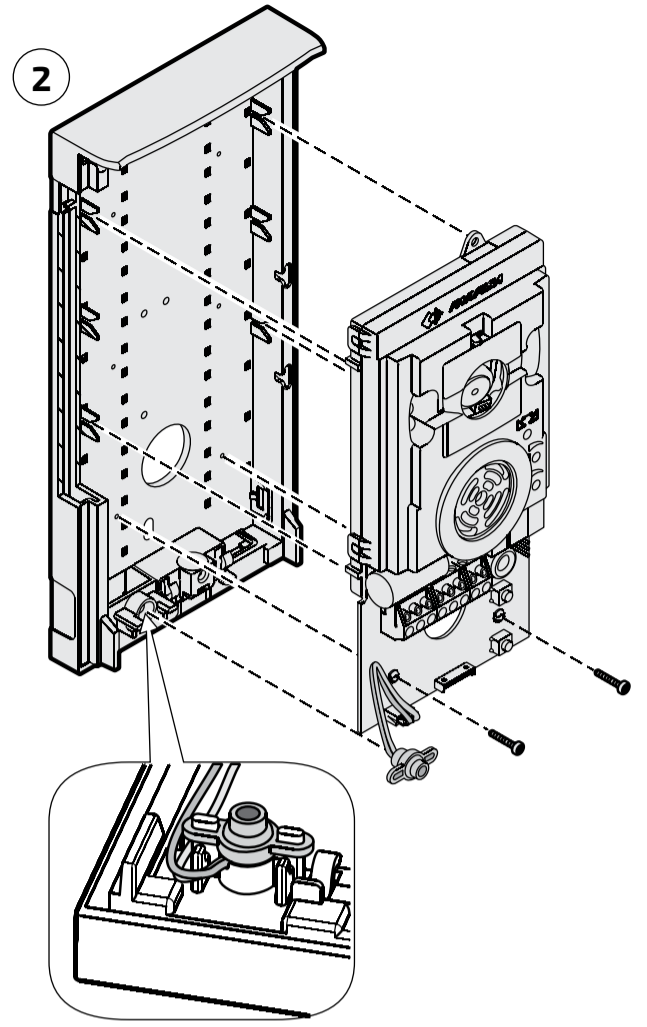
**Note:** in case of a single additional AG100TS push-button panel the power supply of the name-plate LEDs can be provided by the transformer art. 2220S that powers the VD2121CAG external door station, as shown in the figure.



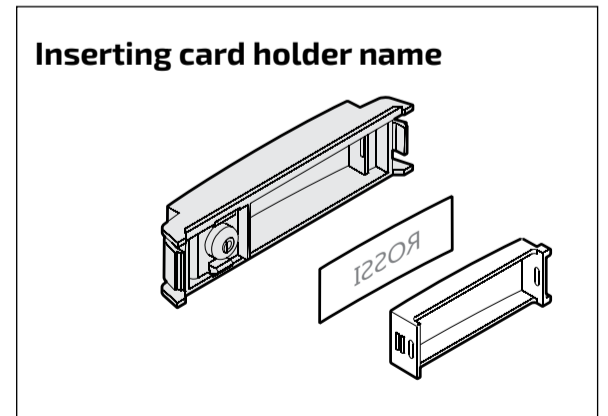
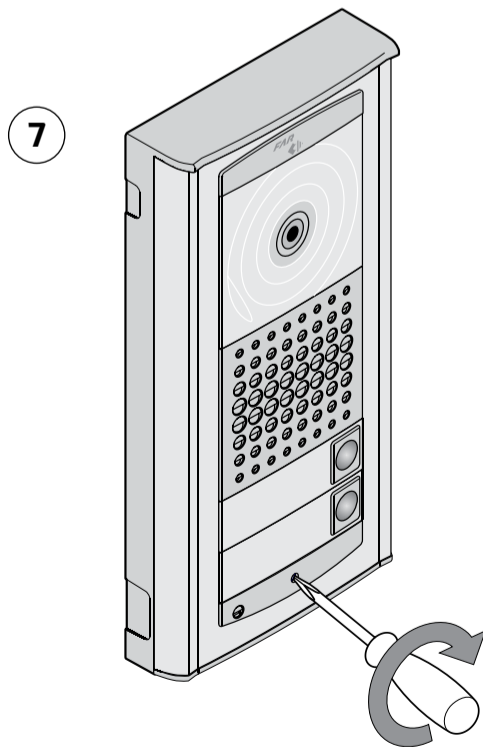
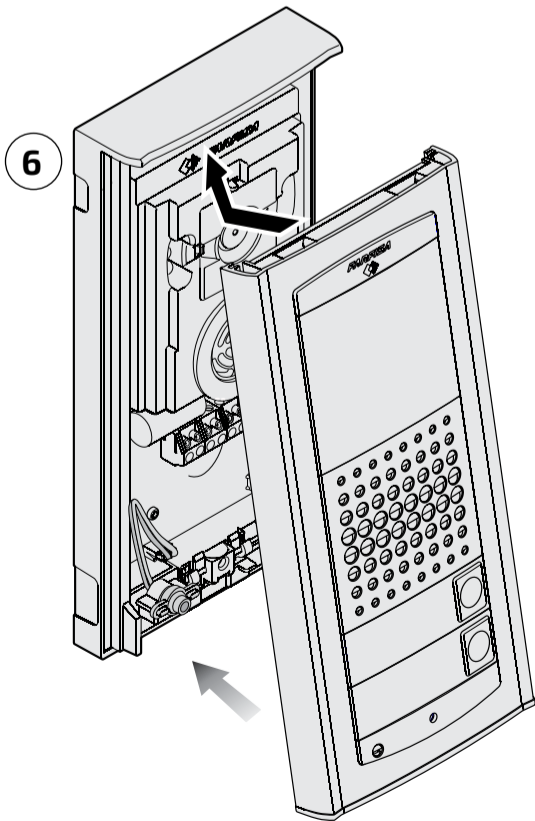
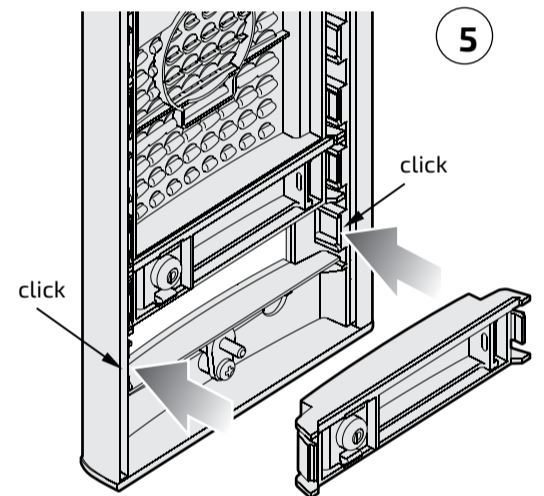
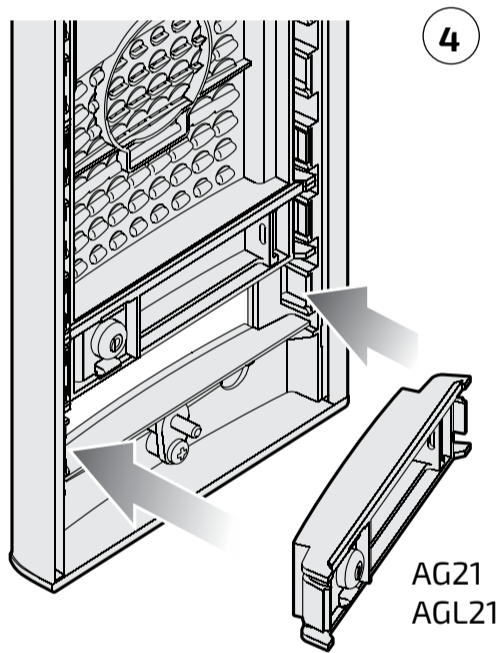
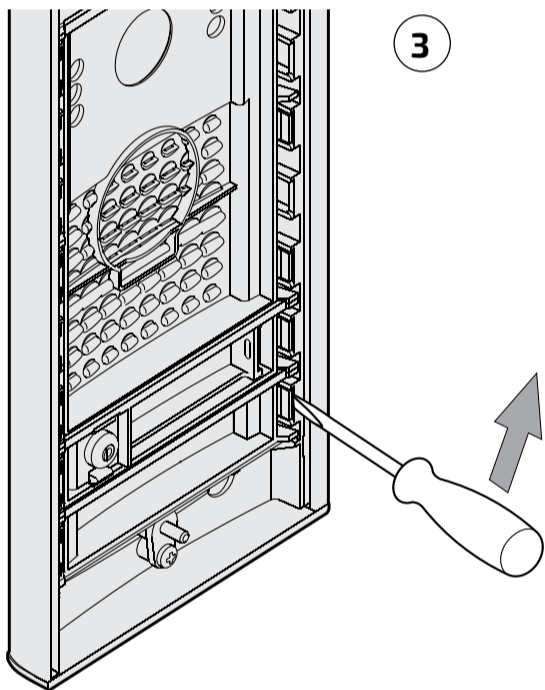
Assembling door stations VD2121CAG(L) and AD2121CAG(L)



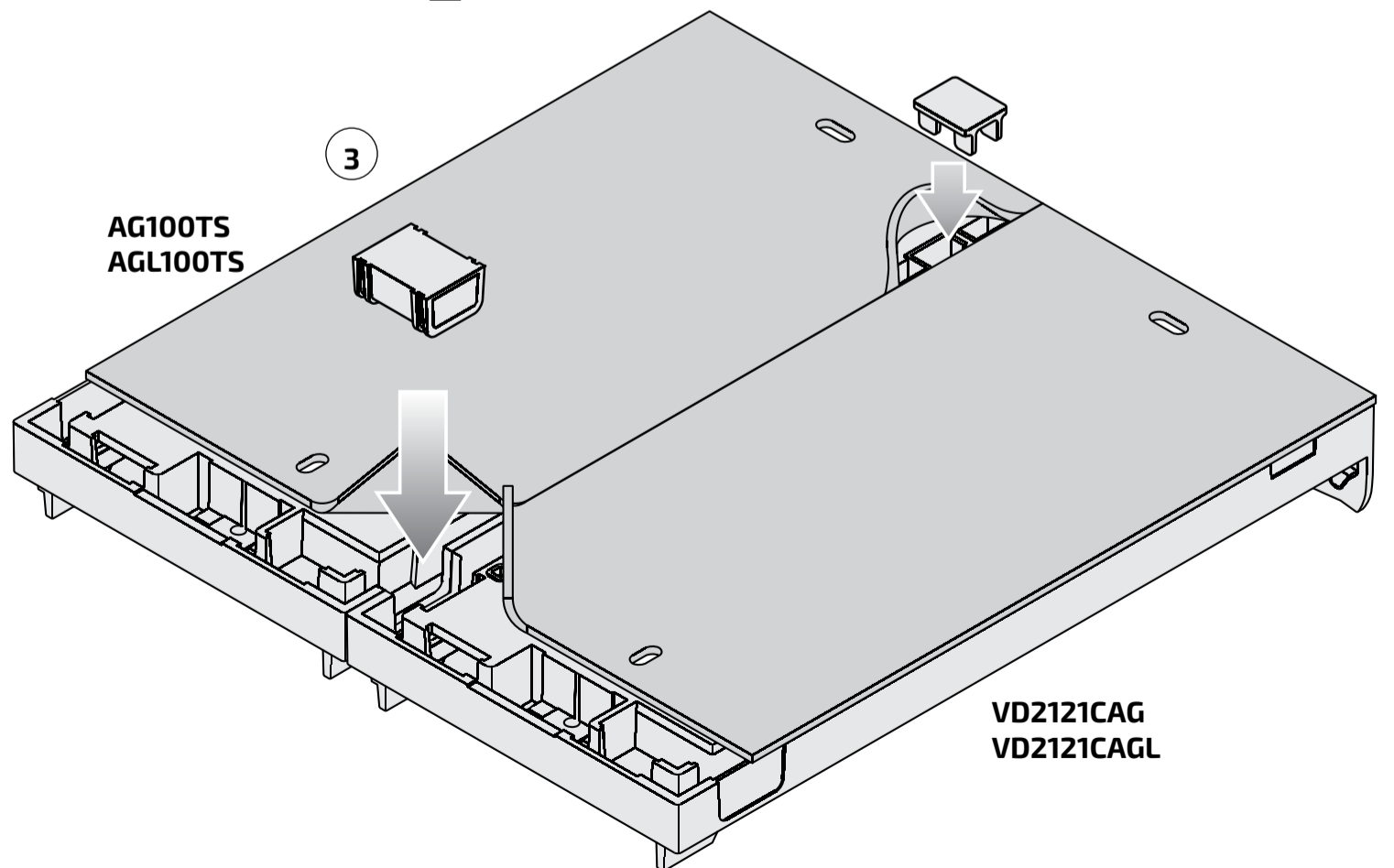
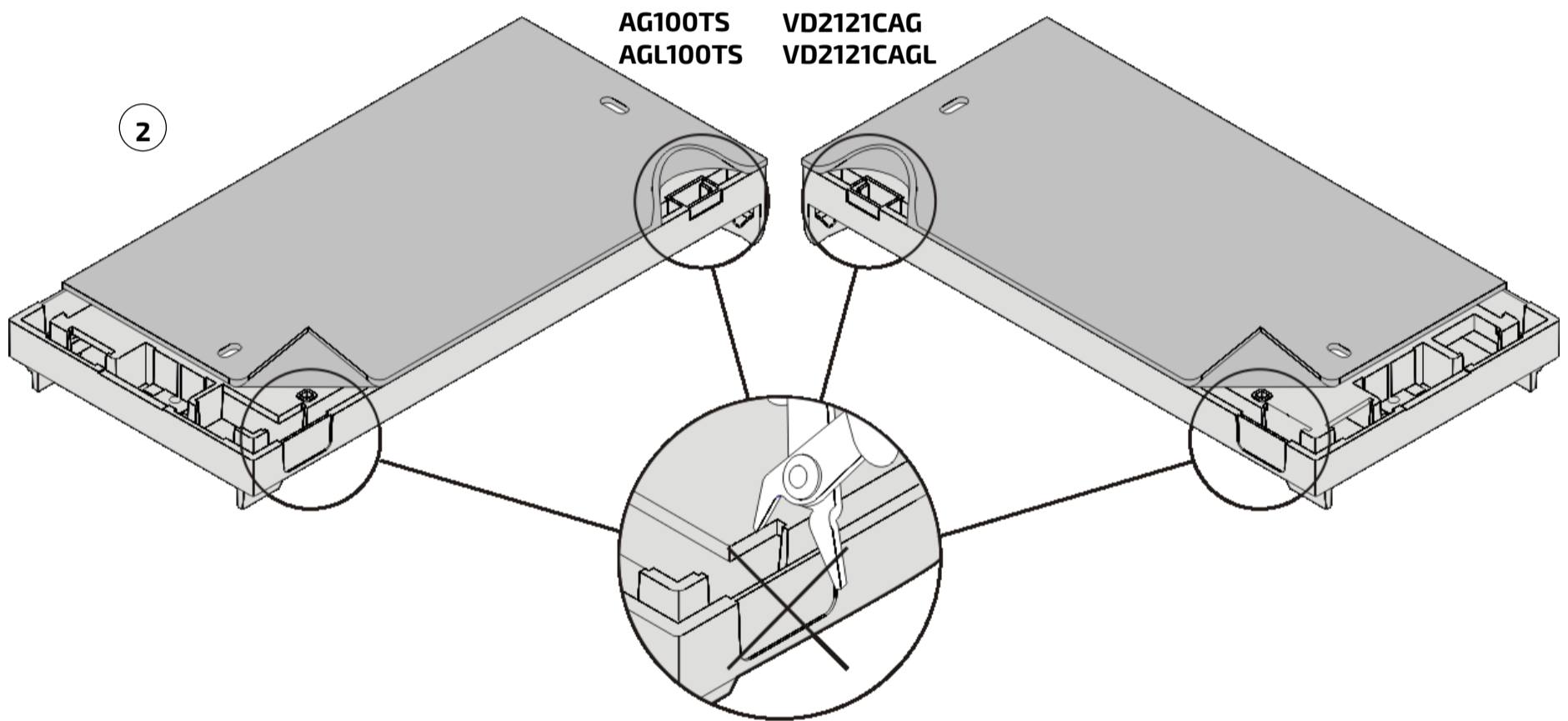
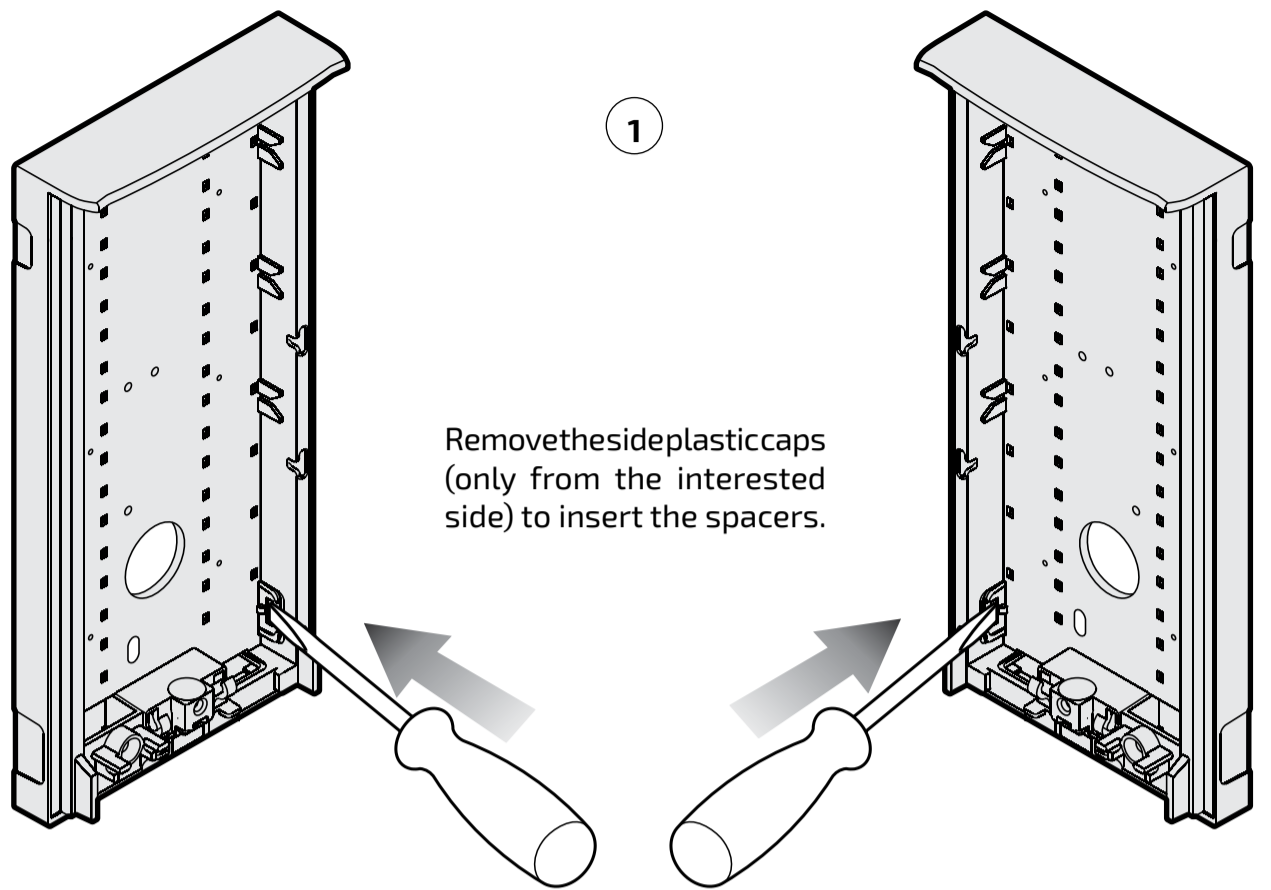
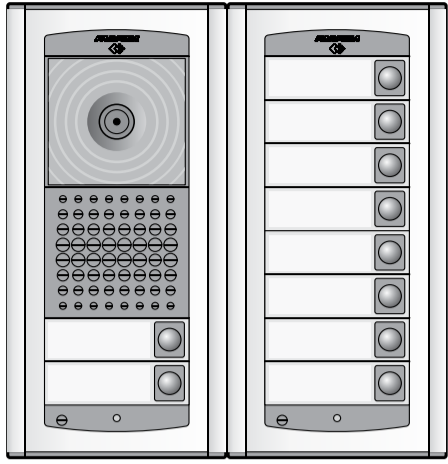
In the video intercom systems, position the camera in such a way that sunlight or other direct or reflected light sources with high intensity do not hit the camera lens.



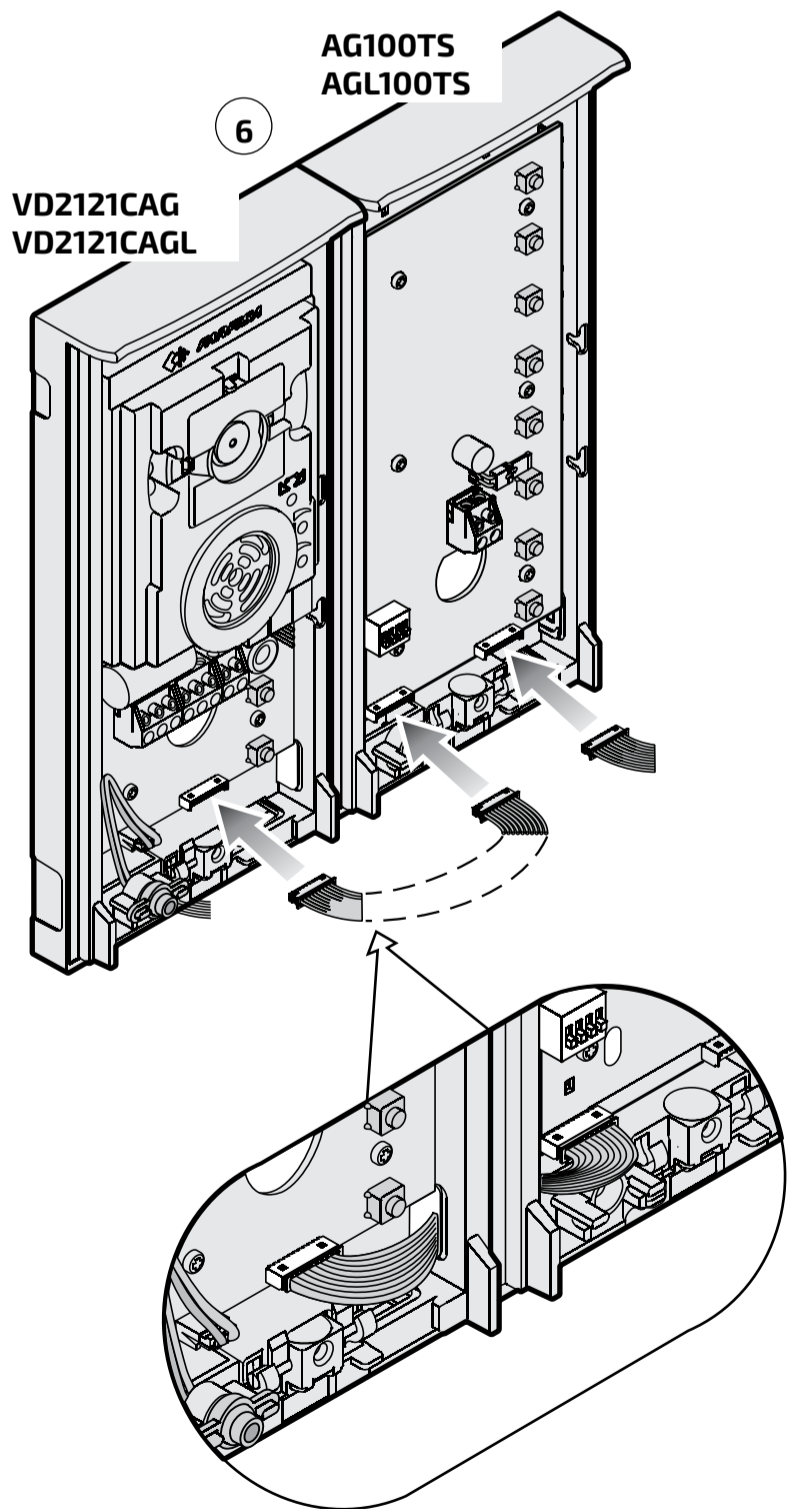
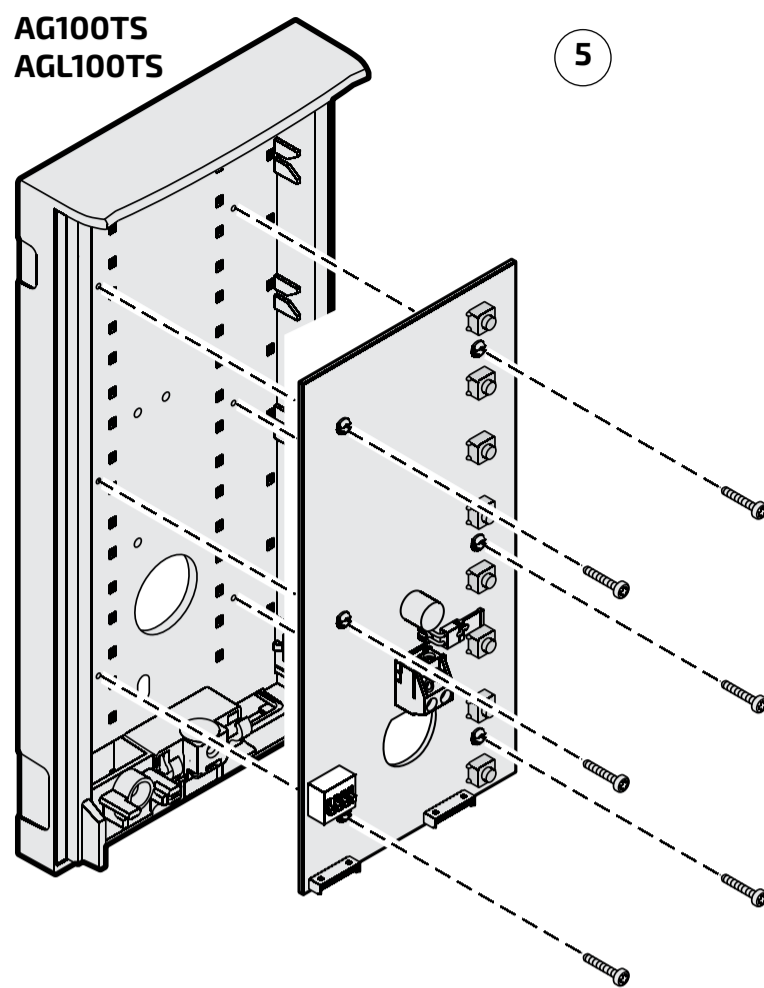
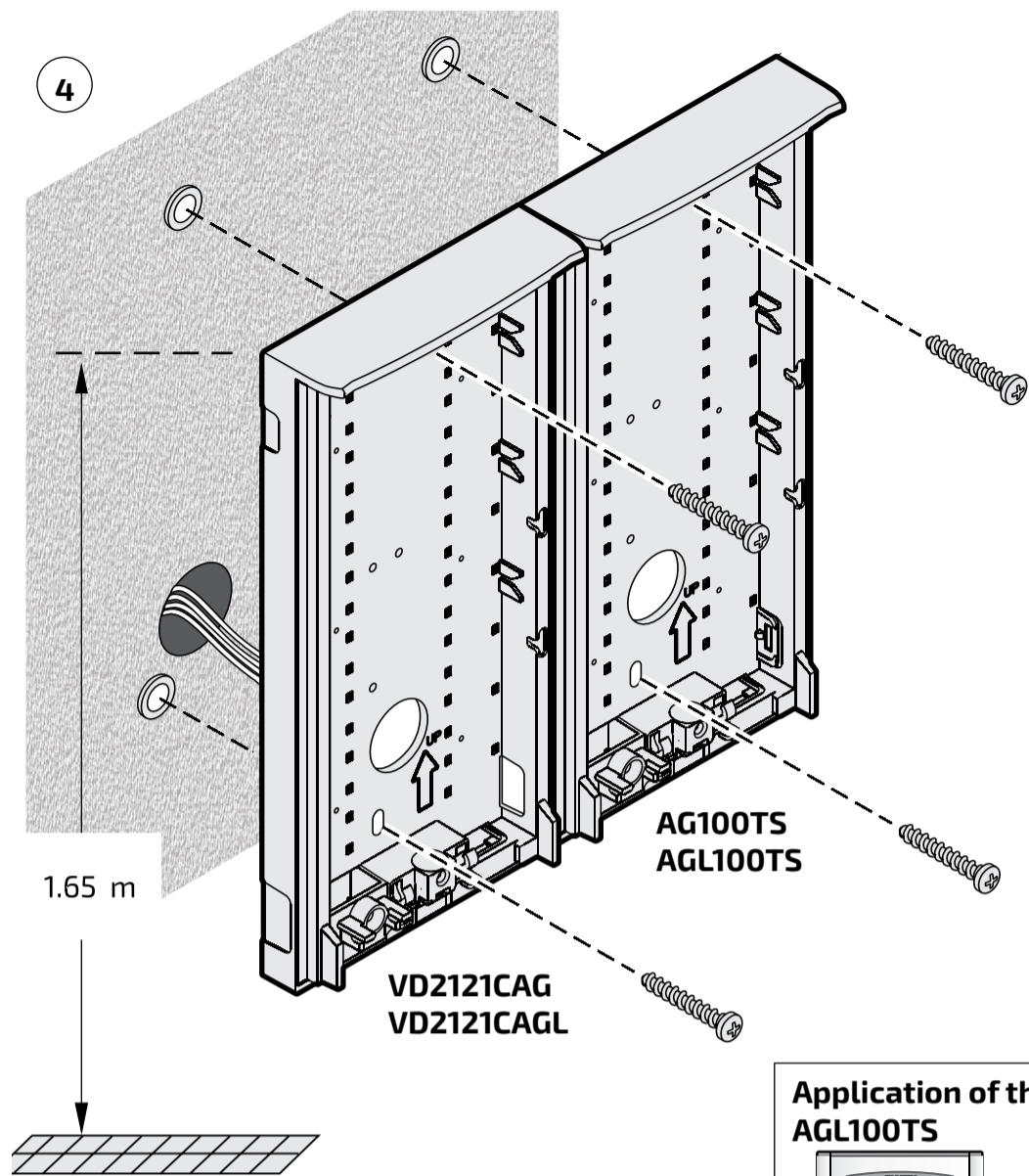
Application of second additional button on external plate



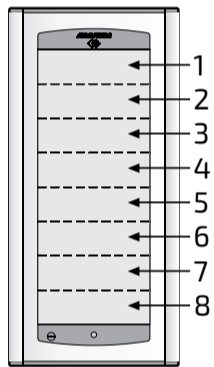
ASSEMBLING DOOR STATIONS SIDE BY SIDE



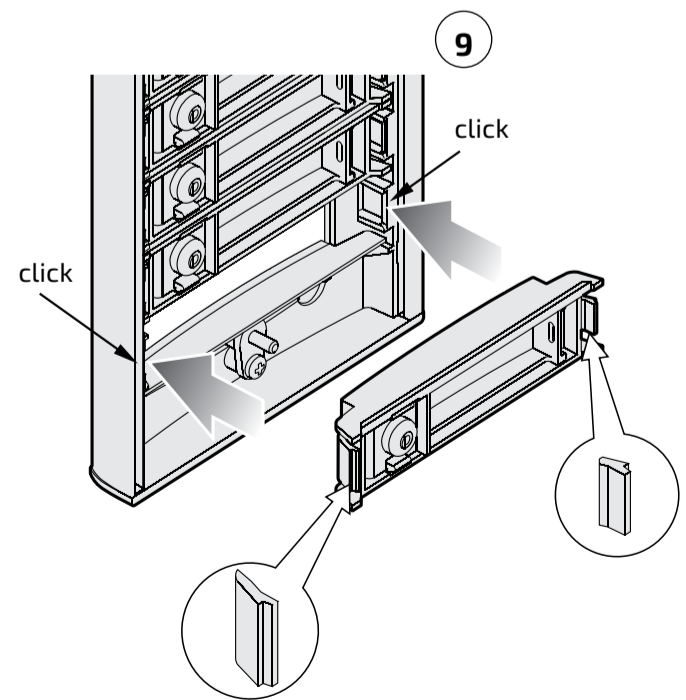
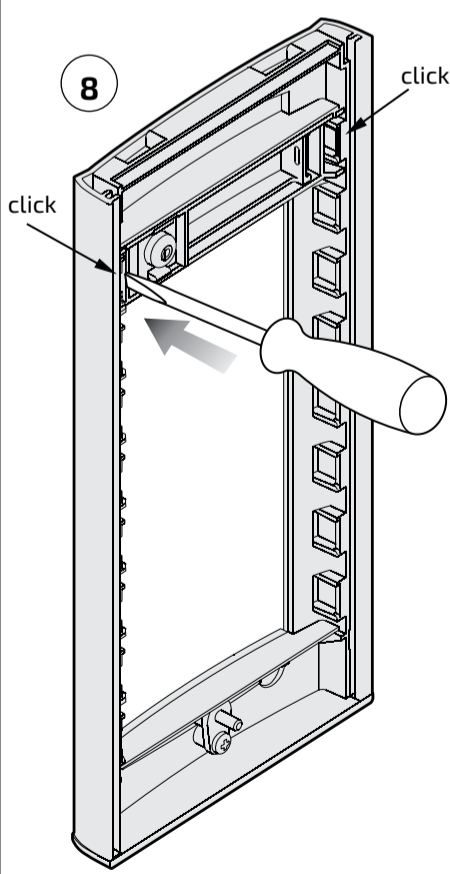
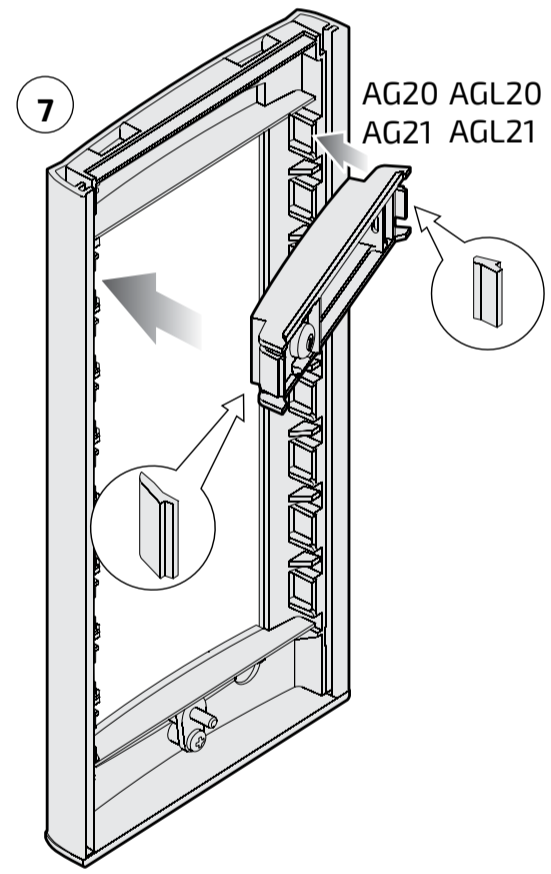
AG( )RÀ

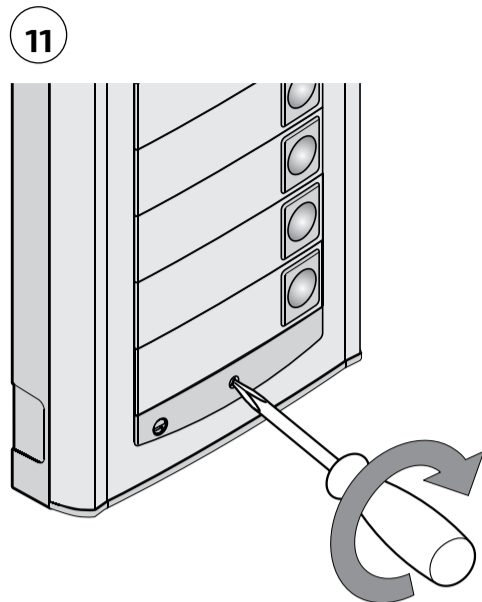
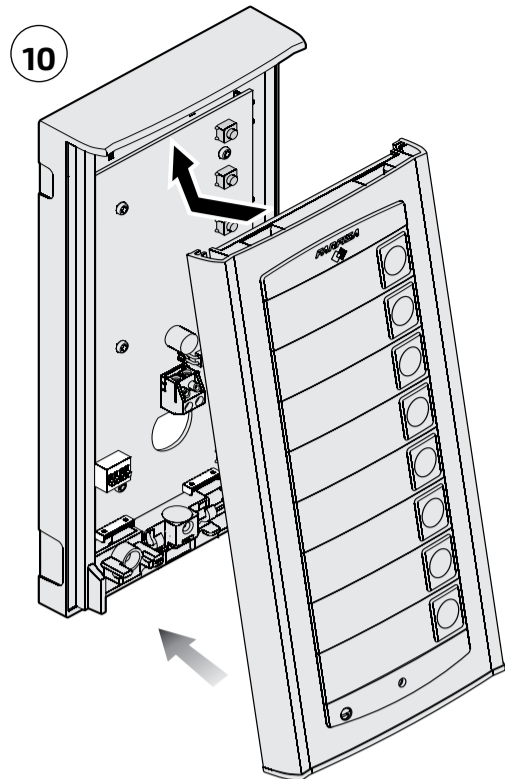


**Application of the buttons on frontal plate of the door stations AG100TS and AGL100TS**



Insert the push-buttons or blank modules starting from the top of the frontal plate





**Composition door stations and requested quantities of modules**

	N°	AD2121CAG VD2121CAG	AG100TS	AG20	AG21
	1	1	-	-	-
	2	1	-	-	1
	3	1	1	7	2
	4	1	1	6	3
	5	1	1	5	4
	6	1	1	4	5
	7	1	1	3	6
	8	1	1	2	7
	9	1	1	1	8
	10	1	1	-	9
	11	1	2	7	10
	12	1	2	6	11
	13	1	2	5	12
	14	1	2	4	13
	15	1	2	3	14
	16	1	2	2	15
	17	1	2	1	16
	18	1	2	-	17
	19	1	3	7	18
	20	1	3	6	19
	21	1	3	5	20
	22	1	3	4	21
	23	1	3	3	22
	24	1	3	2	23
	25	1	3	1	24
	26	1	3	-	25
	27	1	4	7	26
	28	1	4	6	27
	29	1	4	5	28
	30	1	4	4	29
	31	1	4	3	30
	32	1	4	2	31
	33	1	4	1	32
	34	1	4	-	33

**Note.** For intercom installations replace art. **VD2121CAG** (or **VD2121CAGL**) with **AD2121CAG** (or **AD2121CAGL**)

**PROGRAMMING**

Following is a list of default settings. If necessary, follow the instructions contained in the next chapters to change them.

**Factory setting**

- External Door Station Address = **231**
- Address associated with First Button = **100**
- Address associated with First Button of first additional push-button panel = **102**
- Lock actuation time = **3 seconds**
- Buttons with special functions = **none**
- Programming system = see table 3.2 on page 3.9

**Programmazioni via Bluetooth.**

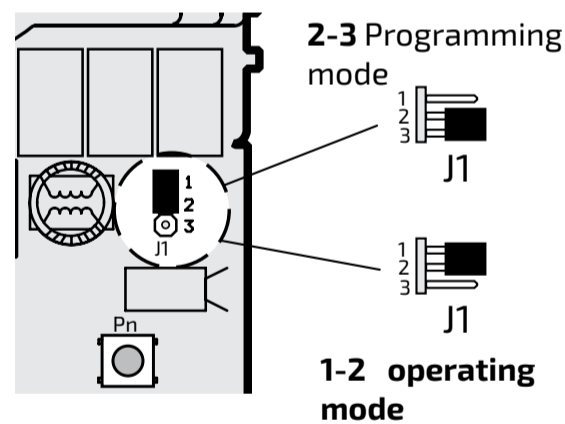
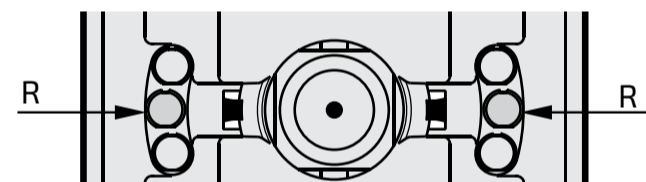
It is recommended to programme the device via Bluetooth by downloading the 'DUOSystem' app (available for iOS and Android) to your smartphone or tablet. It is necessary to:

- connect a Bluetooth programmer article PGR2991BT to the system;
- launch the DUO System app, go to the DUO Bus section, press the '+' button, enter the handset address (factory setting 231);
- program and disconnect.

**⚠ In case a Bluetooth programming device cannot be used, an 'emergency' programming procedure, described in the following paragraphs, is available.**

**Entering the programming mode**

- Remove the plate.
- Move the jumper **J1** from position **1-2** to **2-3**; you hear the programming tone and the red LEDs turn ON (R).



**Exit the programming mode**

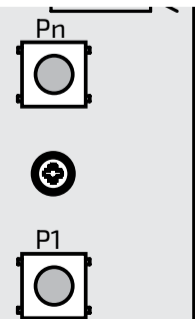
To exit the programming mode, you must bring the jumper **J1** from position **2-3** back to position **1-2**.

**Using the push-buttons for programming**

Press button "**Pn**" and "**P1**" to enter addresses or codes.

**Pn:** Press this button to confirm code programming or go to the next programming step.

**P1:** Press this button to increase the value you want to enter. Press the button for a number of times equal to the digit you want to enter (digit 1 = 1 time; digit 9 = 9 times; digit 0 = press "**P1**" 10 times).



**A**

**DUO**  
SYSTEM

### Entering codes or addresses

- Codes and/or addresses must have three digits (hundreds, tens, units); codes and/or addresses with tens and units or units only must be completed by adding zeros. For example, address 96 becomes 096 and address 5 becomes 005.
- Enter one digit at a time by pressing the "P1" button for a number of times "n", where "n" is the value of the digit you want to enter, followed by a pause of about 2 seconds before you go to the next digit (a tone on the loudspeaker will tell you when to go to the next digit). The maximum value you can enter is 255. For example, to enter code 096 you must:
  - press the "P1" button 10 times to enter digit 0 and wait for 2 seconds until you hear a tone in the loudspeaker.
  - press the "P1" button 9 times to enter digit 9 and wait for 2 seconds until you hear a tone on the loudspeaker.
  - press the "P1" button 6 times to enter digit 6 and wait for 2 seconds until you hear a tone on the loudspeaker.

**Note:** -remember to confirm the codes you have entered as explained in the programming chapters.

### Table A.1. Programming codes

<b>111</b>	external door station address
<b>112</b>	first button address (Pn of VD2121CAG or AD2121CAG door station)
<b>113</b>	address of first button of first Additional Push-button Panel (Pn of the first AG100TS)
<b>114</b>	door lock activation time
<b>116</b>	operation with door keeper exchangers
<b>121</b>	system programming (see table 3.2)
<b>210</b>	programming of call button with camera deactivation during the call
<b>211</b>	button reset with camera deactivation during the call
<b>233</b>	programming the buttons with special functions
<b>000</b>	back to factory settings

### Programming procedure

To make the programming it necessary to:

- enter the programming mode** following the instructions described in "Entering the programming mode";
- enter the three digits of the programming code you want to change** following the instructions contained in "Entering codes or address"; **press PN to confirm:** you hear the confirmation tone and the red LEDs start flashing.
- make the operations described in the specific programming chapter.**
- continue** with another programming operation or exit moving the jumper **J1** from 2-3 to 1-2.

### Entering the External Door Station address (code 111)

In this mode you can code the external door station address with codes from 231 to 250.

- **Enter the programming mode** following the instructions described in "Entering the programming mode";
- Enter code **111** and press **Pn**; you hear a

confirmation tone and the red LEDs start flashing.

- Dial the code number you have chosen for the external door station and press **Pn** to confirm; you hear the confirmation tone and the red LEDs go back ON without flashing.
- Continue by entering the code of a new programming or exit the programming mode by moving the jumper **J1** to position **1-2**.

### Entering the First Button address (code 112)

The **VD2121CAG** (or **AD2121CAG**) board has 2 buttons: **PN** and **P1**. **PN** is the first button and **P1** takes the next value (i.e.: Pn = 001, P1 = 002; Pn = 058, P1 = 059).

The first button (**Pn**) is coded by default with address 100; if you want to change it, you must:

- **enter the programming mode** following the instructions described in "Entering the programming mode";
- enter code **112** and press **Pn**; you hear a confirmation tone and the red LEDs start flashing;
- dial the address you want to assign to **Pn**. Extensions must be coded with numbers from 001 to 200;
- press **Pn**; you hear a confirmation tone and the red LEDs go back ON without flashing;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper **J1** to position **1-2**.

### Entering the address of the First Button of the first additional push-button panel (code 113).

To increase the number of calls, you must integrate the **VD2121CAG** (or **AD2121CAG**) external station with one or more additional **AG100TS** push-button panels (max. 16). Each additional push-button panel must be coded with the 4 microswitches provided on the board (see instructions attached to the product). Moreover, an address must be assigned to the first button of the first additional push-button panel. The next buttons of all the additional push-button panels will automatically take progressive numbers. This address must be higher than the address of the P1 button of the **VD2121CAG** (or **AD2121CAG**) external door station.

The first button (**Pn**) of the first additional **AG100TS** push-button panel is coded by default with address 102; if you want to change it, you must:

- **enter the programming mode** following the instructions described in "Entering the programming mode";
- enter code **113** and press **Pn**; you hear a confirmation tone and the red LEDs start flashing;
- dial the address you want to assign to the **Pn** button of the first additional push-button panel. Addresses must be numbers from 001 and 200; remember that addresses 100 and 101 are assigned to the 2 **VD2121CAG** (or **AD2121CAG**) buttons by default;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper **J1** to position **1-2**.

### Lock actuation time (code 114)

To change the lock actuation time, you must:

- **enter the programming mode** following the instructions described in "Entering the programming mode";
- enter code **114** and press **Pn**; you hear a confirmation tone and the red LEDs start flashing;
- dial the number of seconds you want the door lock to stay ON (3 digits from 000 to 120);
- press **Pn**; you hear a confirmation tone and the red LEDs go back ON without flashing;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper **J1** to position **1-2**.

### Operations with main or secondary door keeper exchangers (code 116).

The following settings are necessary if in the system are installed main and/or secondary door keeper exchangers.

To make the programming you must:

- **enter the programming mode** following the instructions described in "Entering the programming mode";
- enter code **116** and press **Pn**; you hear a confirmation tone and the red LEDs start flashing;
- enter address **201** if the door station operates with 1 or more main door keeper exchangers or address **210** if the door station operates with 1 or more secondary door keeper exchangers;
- press **Pn**; you hear a confirmation tone and the red LEDs go back ON without flashing;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper **J1** to position **1-2**.

### System programming (code 121)

This programming is used to activate or deactivate the functions listed in table A.2.

To make the programming you must:

- **enter the programming mode** following the instructions described in "Entering the programming mode";
- enter code **121** and press **Pn**; you hear the confirmation tone and the red LEDs flash once every second to indicate that you are programming mode 1;
- **a** - press "P1" to activate/deactivate mode 1; a low tone indicates deactivation, and a high tone indicates activation;
- **b** - press "Pn" to confirm and go to the next programming; you hear a confirmation tone and the red LEDs generate a series of flashings to indicate the number of the next mode; if you do not need to change one or more operation modes, press "Pn" to go to the next modes;
- repeat actions **a** and **b** to programme all modes 2, 3 and 4;
- after programming and confirming mode 5 with "Pn", press "Pn" three more times to exit the system programming mode; you hear a confirmation tone and the red LEDs go back on without flashing.

**Note.** The programming is not saved until all operation modes are confirmed.

- continue by entering the code of a new programming or exit the programming mode by moving the jumper **J1** to position **1-2**.

### Programming the buttons with camera deactivation during the call (code 210).

Using the AD2121CAG external station any additional external camera is not activated. This programming is used to set the buttons for which the camera must not be activated upon pressing (first operation mode 5 must be enabled in the system programming - code 121).

To make the programming you must:

- enter the programming mode following the instructions described in "Entering the programming mode";
- enter code 210 and press Pn; you hear a confirmation tone and the red LEDs start flashing;
- press, one at a time, all the buttons for which the camera must not be activated upon pressing;
- exit the programming mode moving the jumper J1 to position 1-2.

### Resetting the buttons with camera deactivation during the call (code 211).

To reset the camera activation function during the call for the buttons for which this function was deactivated with the previous programming operation (code 210), you must:

- enter the programming mode following the instructions described in "Entering the programming mode";
- enter code 211 and press Pn; you hear a confirmation tone and the red LEDs start flashing;
- press, one at a time, the buttons for which you want to restore the camera activation function during the call; you hear a confirmation tone;
- exit the programming mode moving the jumper J1 to position 1-2.

### Managing the Special Buttons (code 233)

You can change the address that has been automatically assigned during the programming of the external door stations (see codes 112 and 113) for a maximum number of 20 buttons. This function is useful if you want to change the progressive sequence of some calls and/or if you want to activate actuators for special functions.

To make the programming you must:

- enter the programming mode following the instructions described in "Entering the programming mode";
- enter code 233 and press Pn; you hear a

confirmation tone and the red LEDs start flashing;

- a - dial the address of the extension (codes from 001 to 200) or the address actuator (codes from 211 to 220) following the instructions contained in "entering codes or addresses";
- b - keep pressed the button to which you want to assign the address that has been entered previously until you hear the confirmation tone;
- repeat operations a and b to programme other buttons or exit moving the jumper J1 to position 1-2.

### Resetting Special Buttons (code 233)

To reset one or more special buttons with the address that has been automatically assigned during the programming of the external door stations (see codes 112 and 113), you must:

- enter the programming mode following the instructions described in "Entering the programming mode";
- enter code 233 and press Pn; you hear a confirmation tone and the red LEDs start flashing;
- a - keep pressed the button you want to reset until you hear the confirmation tone;
- repeat operation a to reset other buttons or exit moving the jumper J1 to position 1-2.

### Restoring default settings

After you have entered the programming mode as described in the corresponding chapter, you must:

- dial 000 following the instructions contained in "entering codes or addresses";
- press Pn; you hear a confirmation tone and the red LEDs start flashing;
- dial 123 following the instructions contained in "entering codes or addresses";
- press Pn; you hear a confirmation tone and the white LEDs of the camera start flashing;
- exit the programming mode moving the jumper J1 from 2-3 to position 1-2.

**Warning.** After you have carried out this procedure all programming settings will be reset to the default values.

### CODING THE AG(L)100TS PUSH-BUTTON PANEL

The AG100TS and AGL100TS push-button panels must be coded to assign a progressive numbering to the buttons, therefore it is necessary to assign to each push-button panel its own row number setting correctly the microswitches SW1.

By default the push-button panels are coded with row number 1 (code recommended for the first additional push-button panel); change the row number of the next push-button panels by setting the microswitches SW1 as indicated in the next page table.

To assign the address of the first button of the first additional push-button panel you must follow the programming instructions of the VD2121CAG or AD2121CAG encoder (programming code 113).

#### Notes:

- Do not use row number 0 (zero) since it is reserved for the VD2121CAG or AD2121CAG external door station.
- Each additional push-button panel must have a different row number.
- To have a progressive numbering of the buttons you must assign progressive row numbers (1, 2, 3, etc.).
- The numbers of any buttons not installed in the plate will not be used.

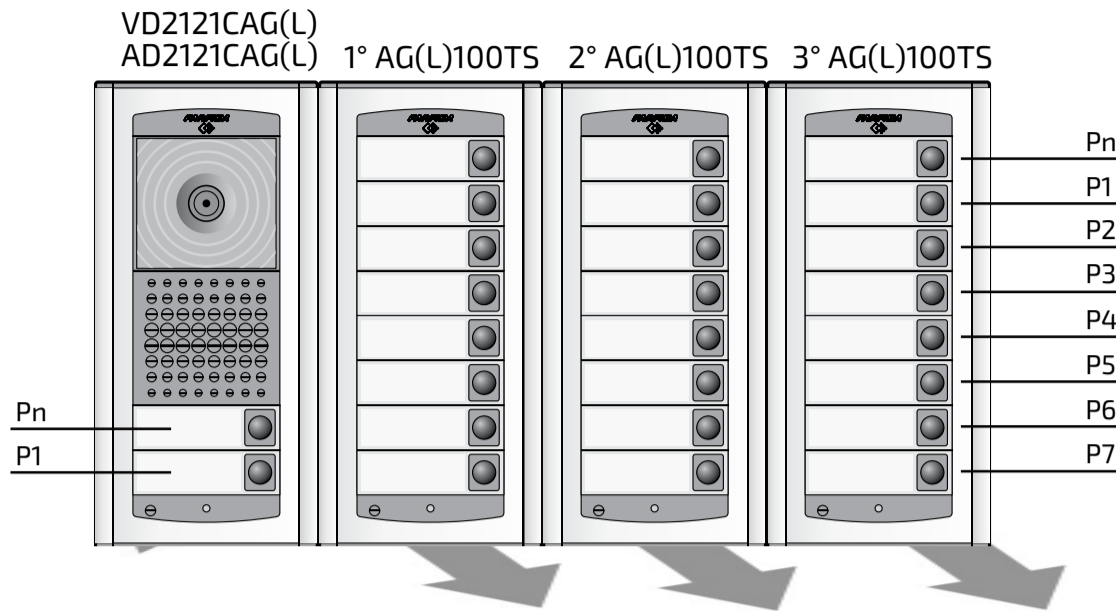
Table A.2 - System programming (code 121)

Operation modes		Default settings	Press button "P1"	
			high tone	low tone
mode 1	activate conversation upon call	enabled	enabled <input type="checkbox"/>	disabled <input type="checkbox"/>
mode 2	tone activation	enabled	enabled <input type="checkbox"/>	disabled <input type="checkbox"/>
mode 3	video switch-on activation (*)	enabled (**)	enabled <input type="checkbox"/>	disabled <input type="checkbox"/>
mode 4	presence of second camera (**)	disabled	enabled <input type="checkbox"/>	disabled <input type="checkbox"/>
mode 5	activation / management of buttons with camera deactivation	disabled	enabled <input type="checkbox"/>	disabled <input type="checkbox"/>
mode 6	reserved; leave deactivated	disabled	-	disabled <input type="checkbox"/>
mode 7	reserved; leave deactivated	disabled	-	disabled <input type="checkbox"/>
mode 8	reserved; leave deactivated	disabled	-	disabled <input type="checkbox"/>

(\*) If the installation is only intercom system (without the presence of video intercoms) the function must be disabled.

(\*\*) With AD2121CAG leave disabled - factory mode 3 is disabled.

**Example. Door stations composition**



**Coding the push-button panels**

Row number	Dip-switches position
0 (*)	<del>ON</del> 1 2 3 4
1	ON 1 2 3 4
2	ON 1 2 3 4
3	ON 1 2 3 4
4	ON 1 2 3 4
5	ON 1 2 3 4
6	ON 1 2 3 4
7	ON 1 2 3 4
8	ON 1 2 3 4
9	ON 1 2 3 4
10	ON 1 2 3 4
11	ON 1 2 3 4
12	ON 1 2 3 4
13	ON 1 2 3 4
14	ON 1 2 3 4
15	ON 1 2 3 4

**Address examples**

VD2121CAG - VD2121CAGL AD2121CAG - AD2121CAGL		1° AG100TS AGL100TS	2° AG100TS AGL100TS	3° AG100TS AGL100TS
Programming (code 112)	(Pn-P1)	1 (Pn÷P7)	2 (Pn÷P7)	3 (Pn÷P7)
001	1-2	3 ÷ 10	11 ÷ 18	19 ÷ 26
050	50-51	52 ÷ 59	60 ÷ 67	68 ÷ 75
100	100-101	102 ÷ 109	110 ÷ 117	118 ÷ 125
100	100-101	110 ÷ 117	118 ÷ 125	126 ÷ 133
125	125-126	127 ÷ 134	135 ÷ 142	143 ÷ 150

**Codes 112 and 113.** Access codes to programme the first button (Pn) of the external door stations. This setting is made from the VD2121CAG(L) videointercom door station or AD2121CAG(L) intercom door station.

**Pn-P1 and Pn÷P7.** Addresses of internal users called from these buttons.

**OPERATION**

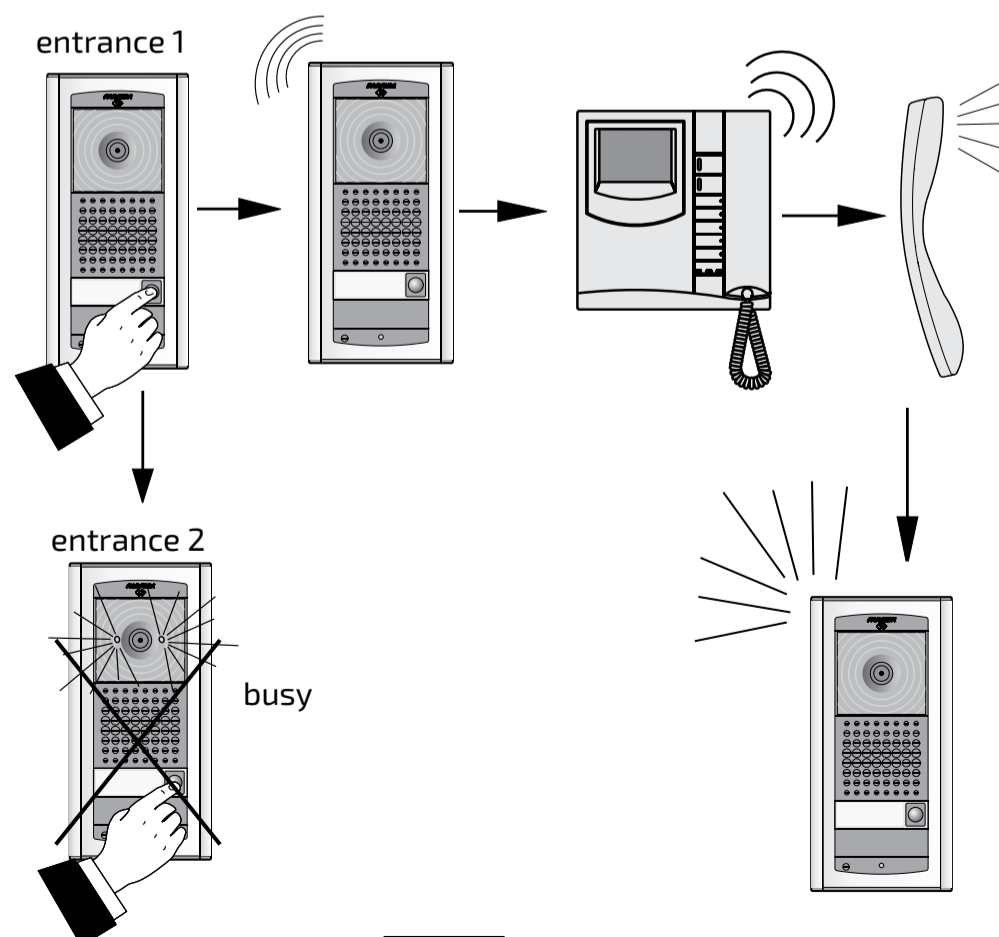
Check that all the connections of the system are correct. Connect the power supply unit to the mains.

To make a call press the button corresponding to the desired user. Call is confirmed by an acknowledge tone, if the communication line is available, or denied by a busy tone and flashing red LEDs if the communication line is not available.

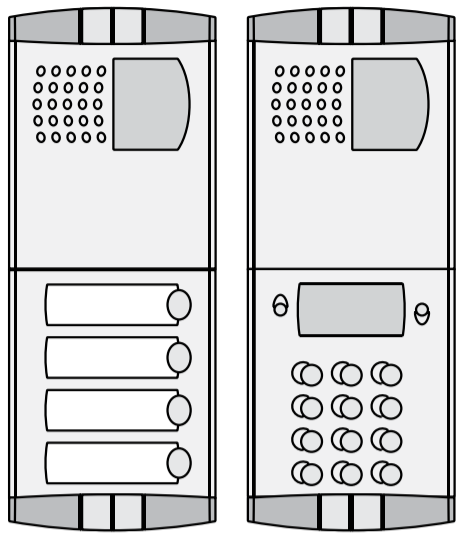
Called equipment rings only once, but if in this phase the same calling button on the external station is pressed again the equipment will ring another time. The called user picks up the handset and enables the conversation with the external station for 90 seconds.

A tone will advise the user 10 seconds before the conversation ends. To continue conversation for additional 90 seconds on the external station the calling button must be pressed again.

Press the button to release the door lock. Door lock activation time depends to the choosing programming time (code 114). Replace the handset (or presso for Sette and for ZheroS) to end the conversation.



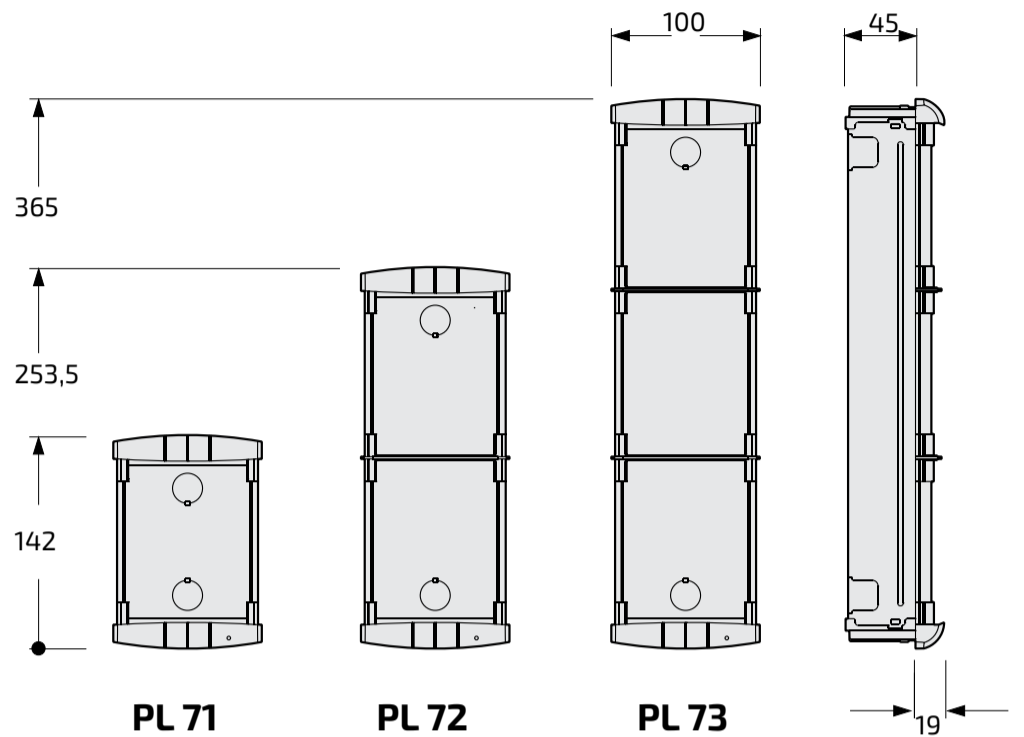
(\*) DO NOT USE. RESERVED FOR VD2121CAG, VD2121CAGL, AD2121CAG AND AD2121CAGL



*Only audio or audio/video external door station for DUO System*

**Profilo**

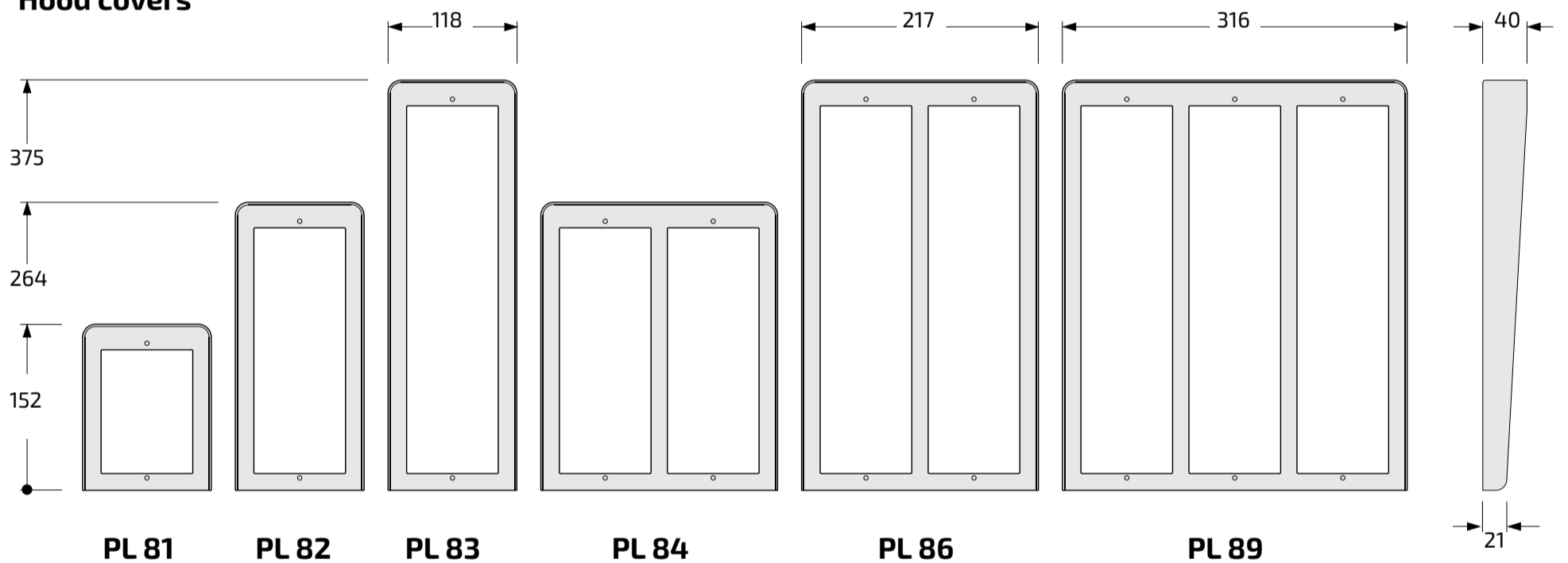
Module frames complete with back box



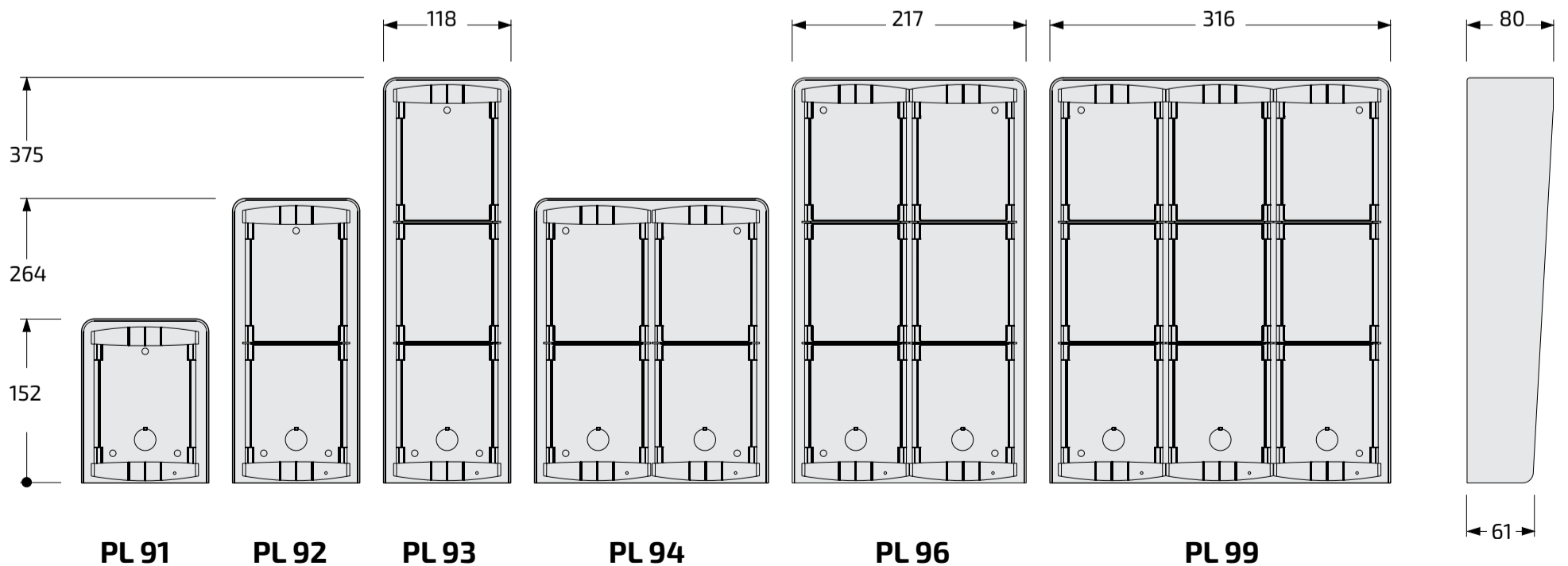
**A**

**DUO**  
S Y S T E M

**Hood covers**



**Rain shelters with module frames**

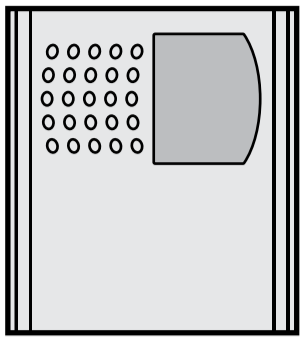


**Profilo**

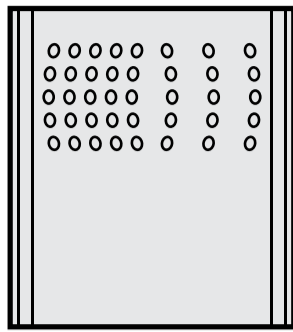
A.11

**FARFISA**

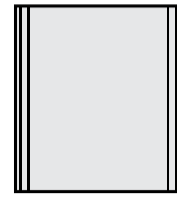
## Art. VD2120CPL



## AD2120CPL

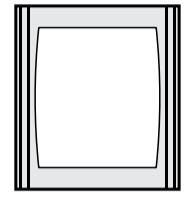


### Art. PL20



Blank module

### PL50



House number module

### VD2120CPL. Module complete with:

- CCD camera with autoiris, fixed 3.6mm lens and 6 white LED's
- amplified doorspeaker with reception and transmission volume and anti-feedback adjustments
- front plate with breakproof transparent screen
- horizontal and vertical adjustments
- red operation LED
- connection to the digital encoding modules (CD2131PL÷CD2138PL) and digital door station (TD2100PL) through the cable complete with connectors supplied together with the items listed here above.

### Technical data

Power supply	13Vac±1
Absorption with connection to encoder CD2131÷CD2138PL	0.8A
Video signal standard	PAL
Minimum illumination	2.5 Lux
Illumination system	6 (white)
Sensor	CCD 1/3"
Lens	3.6mm
Focus	0.6m ÷ ∞
Horizontal/vertical adjustment	±15°
Operating temperature	-10°÷+40°C
Max. permissible humidity	80%RH

### Terminals

~/~	13VAC voltage input
V	Video signal input of a supplementary external camera (coaxial cable)
M	Video ground (coaxial shield)
EC	Positive signal for supplementary camera
EM	Negative signal for supplementary camera

### AD2120CPL. Integrated door speaker module and input for external camera

Same terminals and features as model **VD2120CPL**, but without on-board camera. In this module the **EM** and **EC** terminals are bridged by default.

### VD2120CPL and AD2120CPL audio adjustments

If necessary, you can adjust the volume of the 2 audio channels and the Larsen effect (feedback) with the relevant potentiometers.

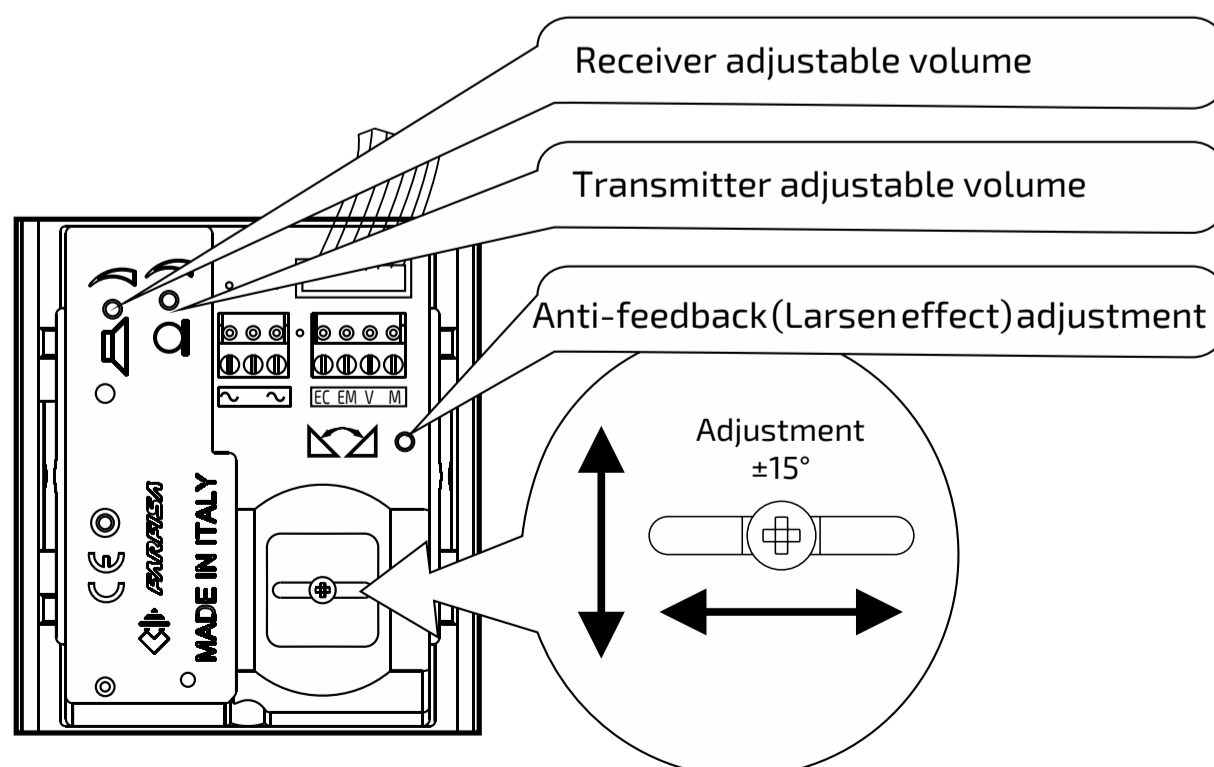
### Anti-feedback adjustment

In case of "feedback" (Larsen effect) in the external unit it is necessary to operate as follow:

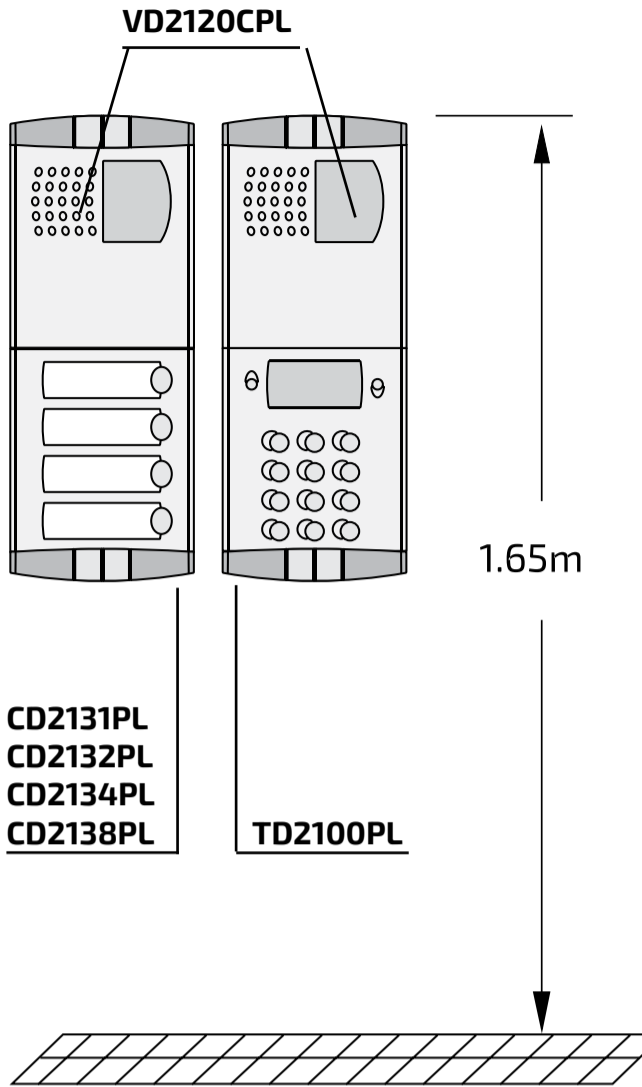
- make the call from the door station and lift the handset (press for Sette or for ZheroS) of the called user;
- adjust the trimmer until the whistling stops (Larsen effect).

### Adjustments

You can manually change the camera framing by unloosening and adjusting the horizontal and vertical screws in the desired direction.

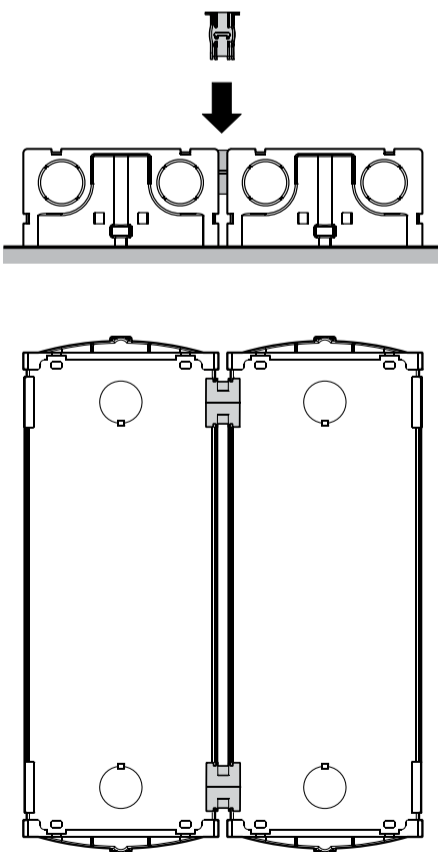


INSTALLATION

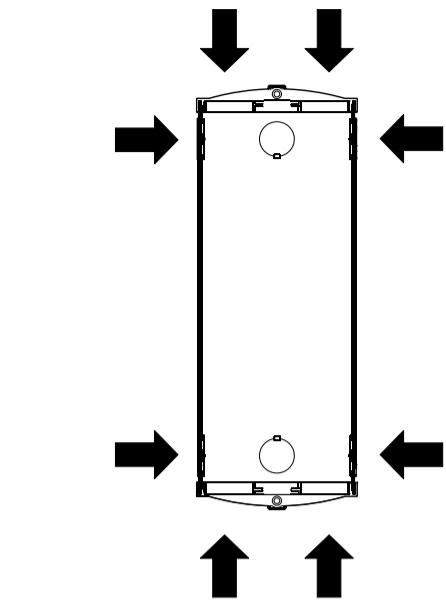


Place the push-button panel back box at a height of about 1.65m (5' 5") from the floor keeping the front edges flush-mounted and vertical to the finished plaster.  
**Position the camera in such a way that sunlight or other direct or reflected light sources with high intensity do not hit the camera lens.**

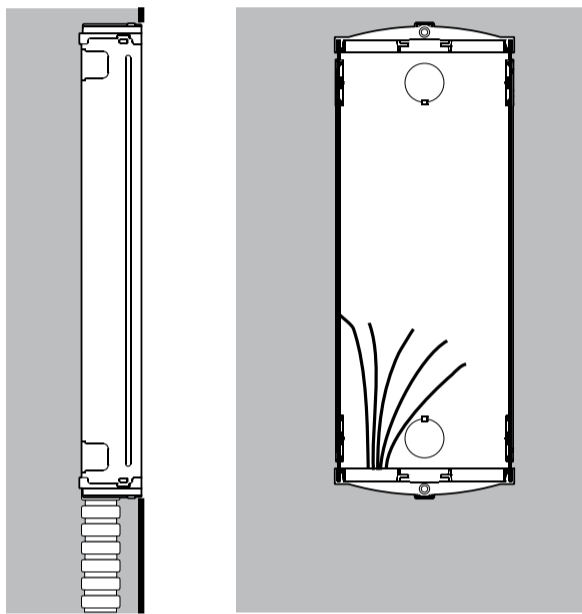
Assembling modules side by side



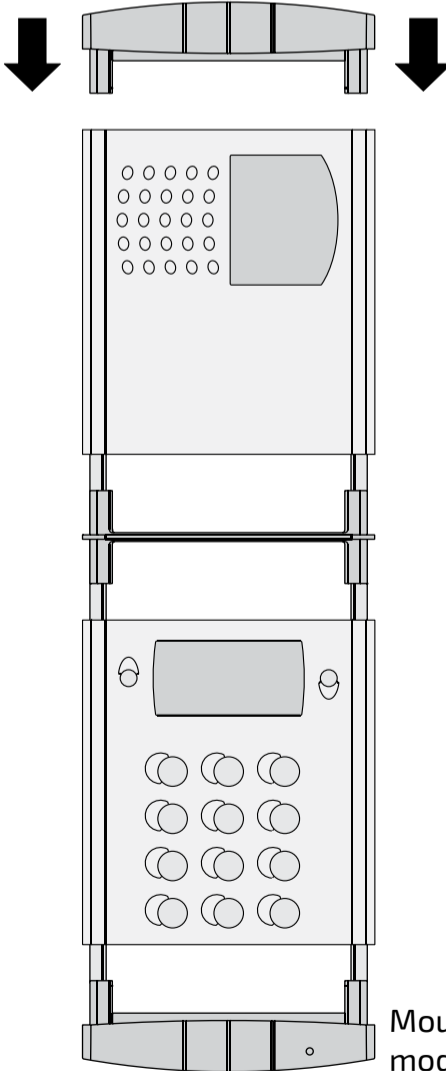
Insertion of spacers between back boxes. Spacers and cable bushing must be inserted before brick work.



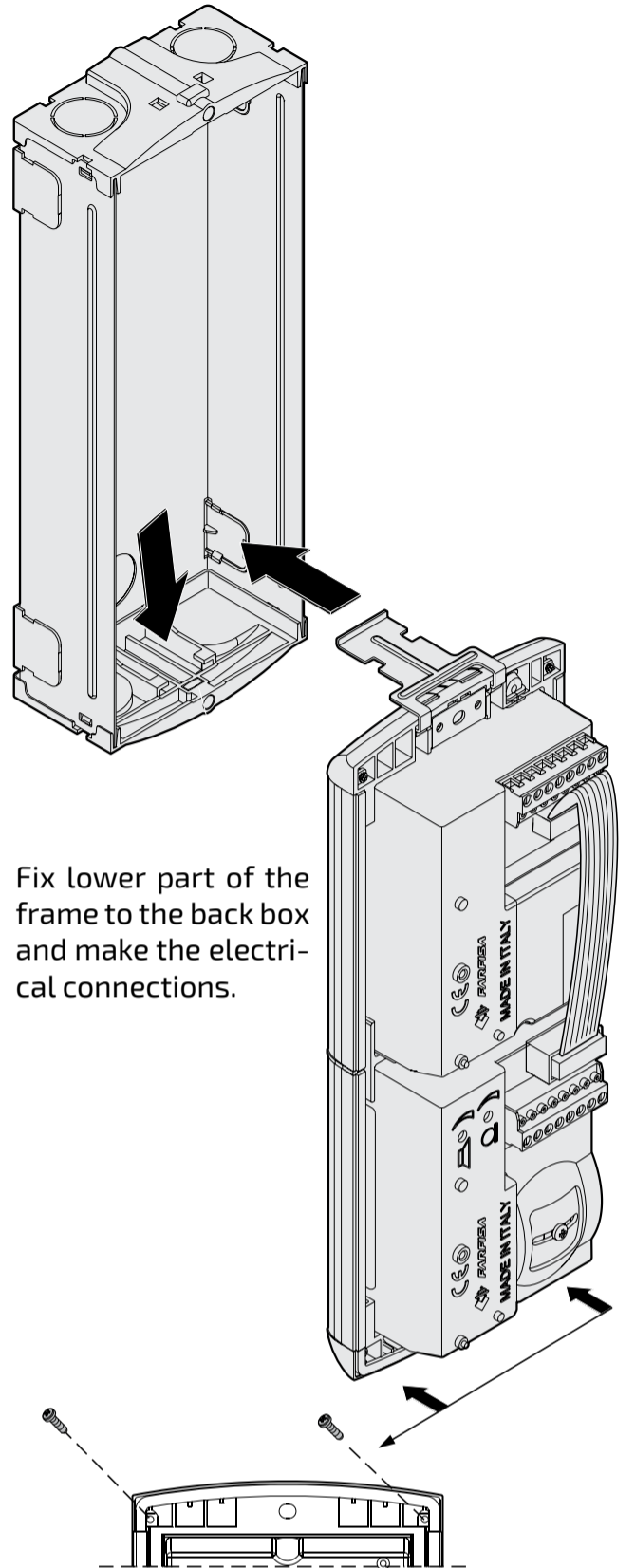
Openings for cables.



Flush mounting and cables placing.

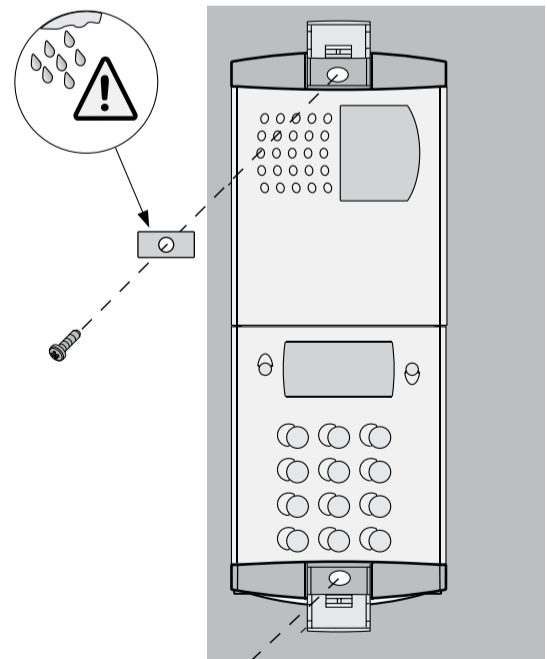


Mounting modules.



Fix lower part of the frame to the back box and make the electrical connections.

Fixing of the module frames on the upper side by the 2 small screws included in the back boxes.

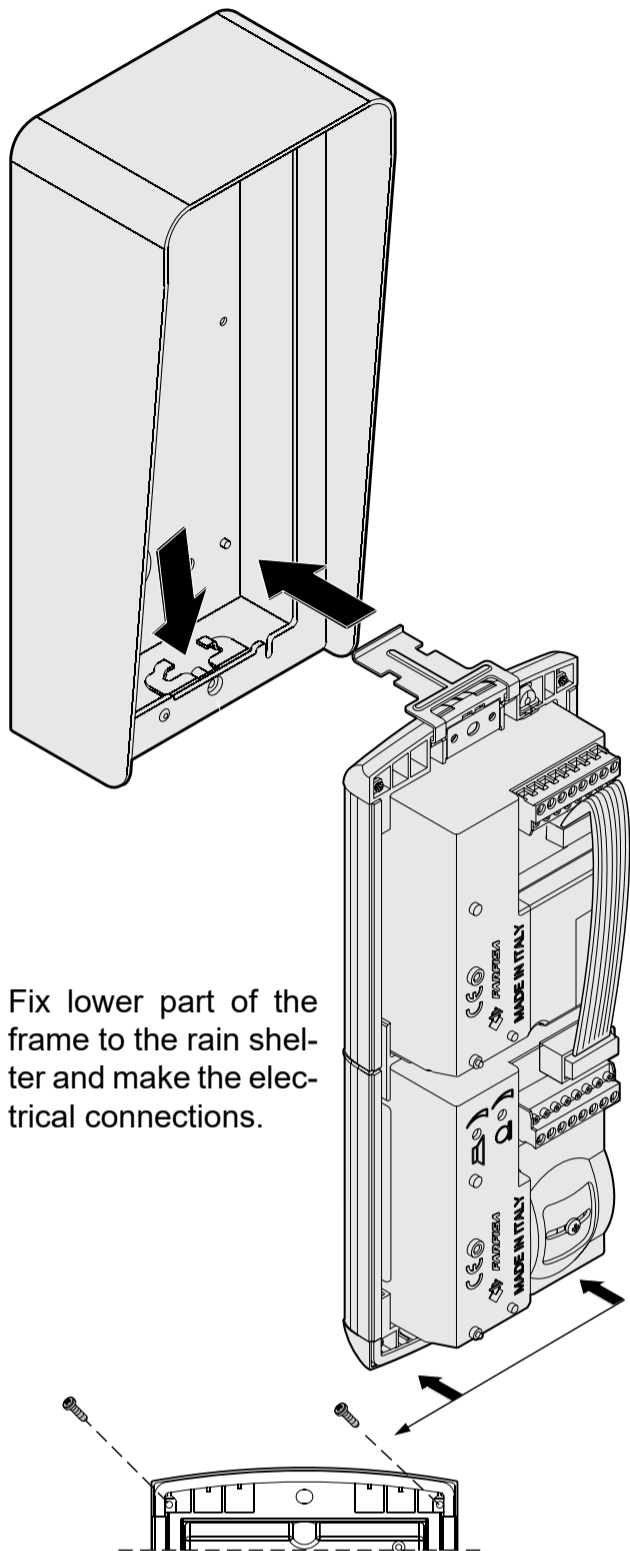


Fixing of frame to back box. Align the frame before tightening the screws.

A

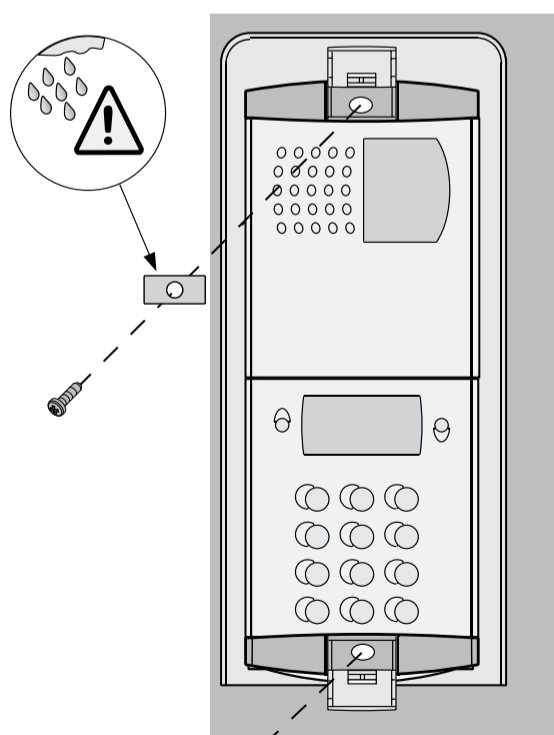
DUO SYSTEM

Rain shelters



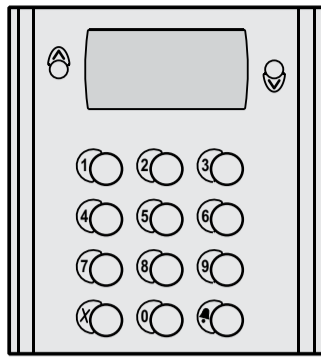
Fix lower part of the frame to the rain shelter and make the electrical connections.

Fixing of the module frames on the upper side by the 2 small screws included in the rain shelter.



Fixing of frame to rain shelter. Align the frame before tightening the screws.

Art. TD2100PL



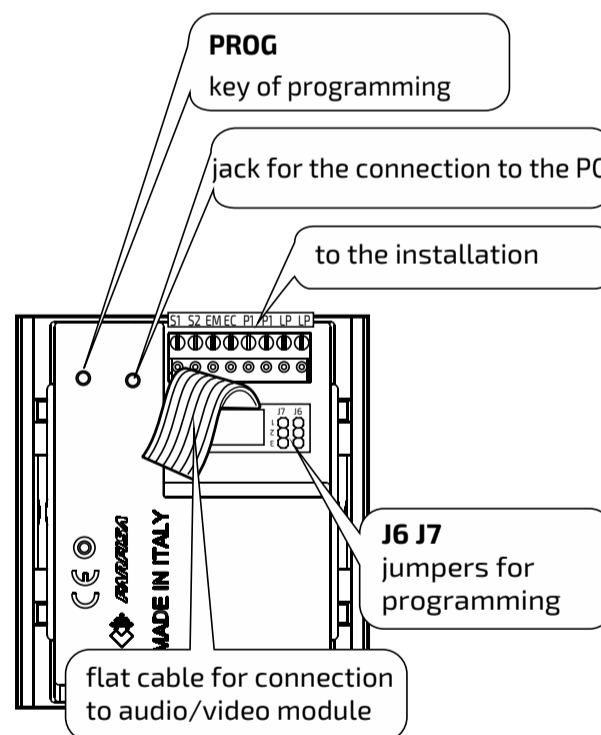
Profilo series steel push-button panel with 14 buttons and alphanumeric LCD. Used to dial and send calls over DUO digital line.

**Technical features**

Power supply from audio/video module  
 Door-opening time 3/6 seconds  
 LCD 2 lines x 16 characters  
 Number of calls 200  
 Memory 250 names  
 Dimensions 1 module  
 Operating temperature 0°÷+40°C  
 Maximum humidity acceptable 90% RH

**Terminals**

**LP/LP** audio-data-video to and from internal users  
**P1/P1** direct call button inputs  
**EC** positive signal for auxiliary service  
**EM** negative signal for auxiliary service  
**S1/S2** door opening contacts



## PROGRAMMING

Before programming you must:

- Press the button **PROG** on the back of the push-button panel using a small screwdriver; the display shows "Programming / type: ".
- Dial the programming code (see table 3.3) and press to confirm.
- Once you have programmed each code, press the button **PROG** again; the display shows "FARFISA / dial the number or press ^v" or the text set during the programming phase (see "Personalisation of display initial text").

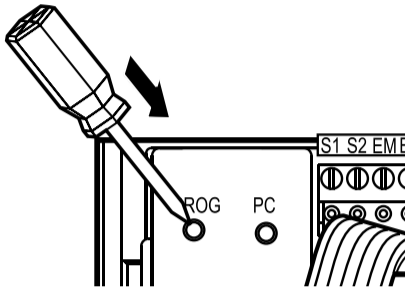


Table A.3

### Programming codes

- 00 Entry of codes for door lock
- 01 Entry-modification-deletion of names
- 02 Language selection
- 03 System programming
- 04 Entry of display initial text
- 05 Loading names from PC
- 06 Ordering names
- 10 Address door station (PE)
- 11 Address button P1
- 12 Address associated with EC-EM terminals
- 30 Settings for operations with a doorkeeper exchanger

### Codes to deactivate the camera upon call of 2 user groups

- 20 First address in group 1
- 21 Last address in group 1
- 22 First address in group 2
- 23 Last address in group 2

### Entry of codes for door lock (code 00)

Enter the programming mode and insert code

**00** to access the "entry of codes for door lock" mode; the display shows "PASSWORD 0 / ".

- Dial the first opening code on the keypad, for example 7890; the display shows "PASSWORD 0 / 7890".
- Press ; the display shows "PASSWORD 1 / ".
- Dial the second opening code on the keypad, for example 1234; the display shows "PASSWORD 1 / 1234".
- Press ; the display shows "PASSWORD 2 / ".
- Repeat the operations to insert max. 16 codes; when you press the button to confirm the sixteenth code (PASSWORD 15) the display shows "Programming / type: ".
- Continue by entering the code of a new programming function or press the button **PROG** to exit.

### Modifying a code

To change the previously saved code you must enter the programming mode and then:

- select the programming code **00**;
- press the button until the code you want

to modify is displayed;

- press to go to the code you want to modify;
- enter the new code on the keyboard and then press the button ;
- repeat the operation for all the codes you want to modify;
- press the button **PROG** to exit the programming mode.

### Deleting a code

To delete the previously saved code you must enter the programming mode and then:

- select the programming code **00**;
- press the button until the code you want to delete is displayed;
- press the button and then ;
- repeat the operation for all the codes you want to modify;
- press the button **PROG** to exit the programming mode.

### Entry / modification / deletion of names (code 01)

The digital keyboard TD2100PL has an alphanumerical display with 32 characters that displays the user name and extension number (28 characters are used for user name and the last 4 characters on bottom right are used for extension number). To save them, you must follow the procedure illustrated below. The name must be entered starting from the first character on top left and the last digit of the extension number must be entered in the last position on bottom right, otherwise the number will not be saved (see "deletion of names").

After you have entered all the names, the system will automatically arrange them in alphabetical order.

### Function of buttons when entering or modifying a name

- Hold this button pressed to scroll the list of existing names
- Hold this button pressed to move the cursor to the name characters
- Hold this button pressed to scroll down the list of characters
- Hold this button pressed to scroll up the list of characters

When searching for characters, the display shows uppercase letters, low-case letters, numbers, special characters and space in a sequence.

### Entry of names

- Press the button **PROG** to enter the programming mode.
- Enter the code **01** and press the button ; the display shows the first name. The display is empty if no codes are programmed.
- Press or to select the character for the first cell; press to go to the second cell; press or to select the character for the second cell; continue until you have entered the complete name with code. Press after you have entered the number in the last cell on bottom right; the display shows "STORE USER / YES ^v NO"; press to confirm; press to modify the name.
- If confirmed, the display shows the second name. The display is empty if no names are programmed.

- Press the button **PROG** again to confirm the last name to insert. The display shows "waiting" and an automatic status bar. Normal operation is restored after a few seconds and the display shows the initial text.

**Notes.** Once you have entered 250 names the display shows "waiting" and an automatic status bar. After a few seconds the display shows "Programming / type: " and you can continue with programming or press the button **PROG** to exit.

You can enter 2 or more names with the same call number (i.e. different family names in the same apartment).

### Modification or correction of names

- Press the button **PROG** to enter the programming mode.
- Enter the code **01** and press the button ; the display shows the first name.
- Press to search for the name you want to modify (hold the button pressed for quick searching).
- Press to go to the character you want to modify.
- Select the character with (forward) (backward).
- Repeat the operation until you have completed the name modification.
- Once you have completed the modification, hold pressed until the display shows "STORE USER / YES ^v NO". Press to confirm or to modify the name again. Enter a space to delete a letter.

### Addition of 1 or more names to the list

To add a new name to the existing list you must:

- press the button **PROG** to enter the programming mode;
- enter the code **01** and press the button ; the display shows the first name;
- press to scroll the list (hold the button pressed for quick searching); the display is empty after the last name;
- to enter a new name follow the operations described in "Entry of names". If confirmed, the name is placed in the list in alphabetical order.

### Deletion of names

- Press the button **PROG** to enter the programming mode.
- Enter the code **01** and press the button ; the display shows the first name.
- Press to search for the name you want to delete (hold the button pressed for quick searching).
- Press to go to the last cell (bottom right); enter a space to delete the existing number.
- Press again; the display shows "DELETE USER / YES ^v NO". Press to confirm or to go back to the name. The next name is displayed after you have deleted the name.

### Language selection (code 02)

You can choose the language from 8 different options (Italian, English, French, German, Spanish, Portuguese, Turkish and Polish) in operation mode.

To select the language:

**Table A.4 - System programming codes (code 03)**

Programming code	Function description	Default settings	Value entered with buttons	
			▲ = 0	● = 1
<b>bit 0</b>	door lock activation time	3 sec.	3 seconds	6 seconds
<b>bit 1</b>	activation upon call from internal station (1)	YES	NO	YES
<b>bit 2</b>	door lock activation with X (2)	NO	NO	YES
<b>bit 3</b>	deactivation of tone generator on the external door station	NO	NO	YES
<b>bit 4</b>	activation of personalised initial screen (3)	NO	NO	YES
<b>bit 5</b>	deactivation of FARFISA and activation of personalised text	NO	NO	YES
<b>bit 6</b>	EC-EM terminals for additional camera switching	NO	NO	YES
<b>bit 7</b>	activation time of the EC-EM terminals for supplementary lock	3 sec.	3 seconds	6 seconds

- 1) With this function, by pressing the button and lifting the handset up (or pressing for Sette or for ZheroS models), you can start a conversation with an external door station from any internal station (in case of multiple external door stations in parallel a conversation can be started with the last external door station that has made the call) and activate the door lock by pressing the key .
- (2) This functions allows for quicker door lock activation by pressing X rather than dialling the code 00+ . For example: press X + password + .
- (3) You can alternate "FARFISA" with the personalised text (see "personalisation of display initial text")

- press the button **PROG** to enter the programming mode;
- enter the code **02** and press the button ; the display shows "Italiano" in case of first programming or the programmed language;
- press or to select the language.
- press to confirm; the display shows "Programming / type: ";
- continue by entering the code of a new programming function or press the button **PROG** to exit.

### System programming (code 03)

You can change or activate the functions of the push-button panel (see table A.4).

For programming you must:

- press the button **PROG** to enter the programming mode;
- enter the code **03** and press the button ; the display shows "bit 0 = 0 / 0 ▲▼ 1" in case of first programming or "bit 0 = 1 / 0 ▲▼ 1" if changed in the previous programming;
- press to select 0 or to select 1;
- press to confirm and go to the next code (see code table with descriptions);
- once you have confirmed the value of the last code (bit 7), the display shows "Programming / type: ";
- continue by entering the code of a new programming function or press the button **PROG** to exit.

### Personalisation of display initial text (code 04)

You can modify the text shown on the display during normal operation or idle state. For visualization you must set bit 4 or bit 5 with value "1" (see "system programming").

To insert a personalized text:

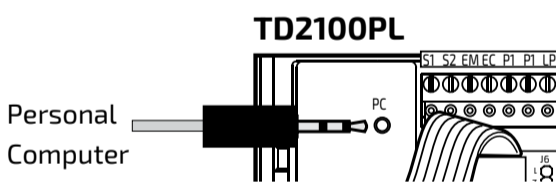
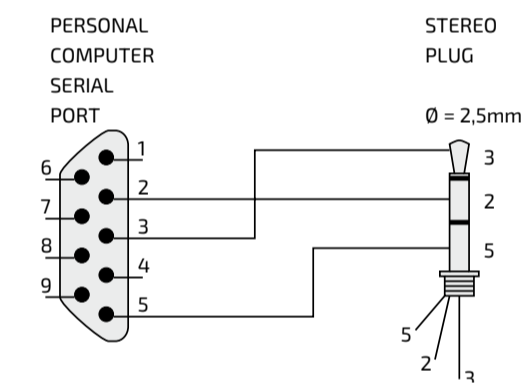
- press the button **PROG** to enter the programming mode;
- enter the code **04** and press the button ; the display shows "DUO System", in case of first programming, or the text you want to replace;
- for information on how to enter the characters see "entry of names";
- press to confirm; the display shows "Programming / type: ";
- continue by entering the code of a new programming function or press the button

**PROG** to exit.

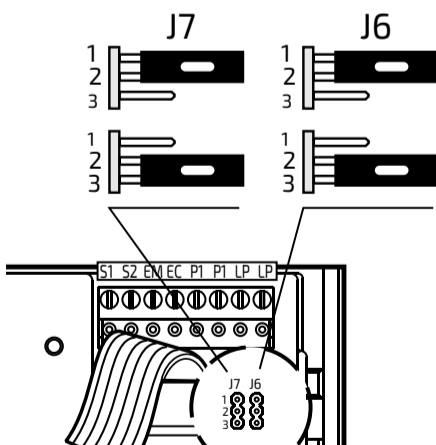
### Loading names from PC (code 05)

You can load names directly from your PC.

- Load the names on the PC using a dedicated software application (software supplied on demand).
- Turn off the push-button panel and the PC.
- Connect the PC serial port to the stereo jack on the back of the push-button panel with a cable as shown in the figure.



- Move the jumpers **J6** and **J7** on the back of the push-button panel from 1-2 to 2-3.



- Turn on the PC and then the push-button panel.
- Press the button **PROG** to enter the programming mode.
- Enter the code **05** and press the button the display shows "TD2100PL ---- PC / in progress....0".
- Download the names from the PC within

15 seconds; the display shows "TD2100PL ---- PC / in progress....1", "TD2100PL ---- PC / in progress....2" and then the downloaded names. At the end of download the push-button deletes the existing names. The first line of the display shows "waiting" and the second line shows a status bar to show the progress of the deletion operation. At the end the display shows "Programming / type: ".

- Turn off the push-button panel and then the PC.
- Disconnect the cable from the PC and the push-button panel.
- Bring the jumpers **J6** and **J7** back to 1-2.

### Ordering names (code 06)

You can list the names in alphabetical order (from A to Z).

- Press the button **PROG** to enter the programming mode.
- Enter the code **06** and press the button ; the first line of the display shows "waiting" and the second line shows a status bar; at the end of the operation the push-button panel returns automatically to the programming mode (the display shows "Programming / type: ").
- Continue by entering the code of a new programming function or press the button **PROG** to exit.

### Inserting the external door station address PE (code 10)

You can code the external door station address with codes from 231 to 250.

- Press the button **PROG** to enter the programming mode.
- Enter the code **10** and press the button ; the display shows "ADDRESS PE".
- Dial the coding number for the door station and press the button to confirm.
- Continue by entering the code of a new programming function or press the button **PROG** to exit.

### Inserting the button address P1 (code 11)

To save an extension number and call it directly from a button connected between terminals **P1/P1**:

- press the button **PROG** to enter the programming mode;
- enter the code **11** and press the button ; the display shows "ADDRESS P1";
- dial the extension number. Extensions must be

- coded with numbers from 001 to 200;
- press the button to confirm;
- continue by entering the code of a new programming function or press the button **PROG** to exit.

### How to enter the address of EC-EM terminals (code 12)

- press the button **PROG** to enter the programming mode;
- enter code **12** and press the button ; the display shows "ADDRESS EC";
- dial the number of the desired address (255 for relay or camera activation mode; 250 for door lock mode; number of internal station before the first user of the supplementary door lock service);
- press the button to confirm programming;
- press the button **PROG** to exit the programming mode.

### Operations with doorkeeper exchangers (code 30)

Following settings are necessary if in the system are installed main and/or secondary door keeper exchangers.

- Press the button **PROG** to enter the programming mode.
- Enter the code **30** and press the button ; the display shows "ADDRESS PDX".
- Enter address **201** if the door station operates with 1 or more main door keeper exchangers or address **210** if the door station operates with 1 or more secondary door keeper exchangers.
- Press the button to confirm.
- Press the button **PROG** to exit the programming mode.

### Return to operation mode

Press the button **PROG** at the end of programming; the display shows "FARFISA / dial the number or press  $\wedge \vee$ " or the text you have entered during programming (see "Personalisation of display initial text").

### EC-EM TERMINALS

The EC-EM terminals can be used to connect:

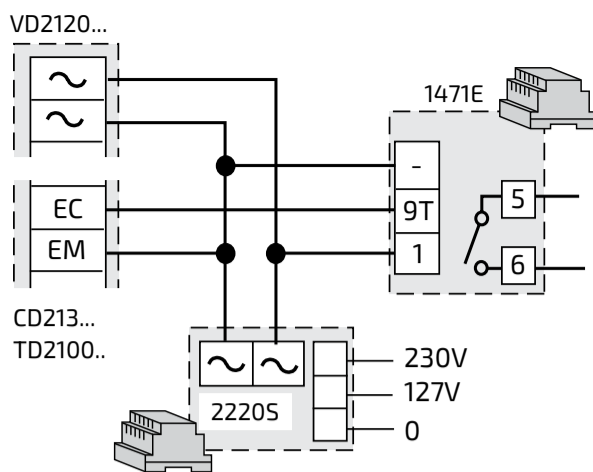
- one active relay during the call and for the entire conversation (default)
- one additional camera
- one additional door lock

To have these functions you must connect the terminals correctly and make some programming operations on the TD2100PL push-button panel.

#### - Connection of one relay

Programming operations to be made:

- code **03** = set **bit 6** at **0**
- code **03** = set **bit 7** at **0**
- code **12** = enter address **255**

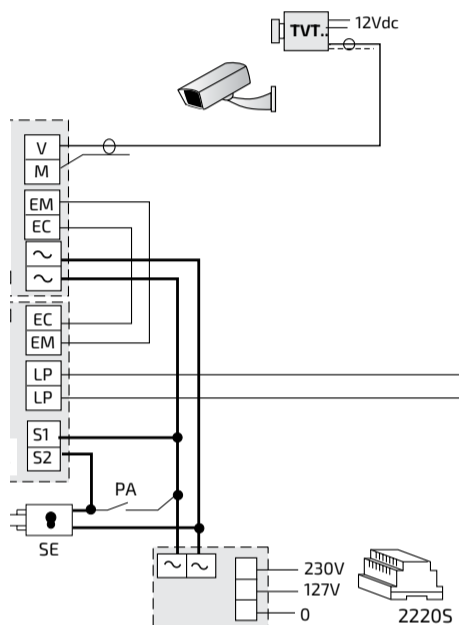


#### - Connection of one additional camera

For this use you must connect the EC and EM terminals to the corresponding terminals of the audio/video module.

Programming operations to be made:

- code **03** = set **bit 6** at **1**
- code **03** = set **bit 7** at **0**
- code **12** = enter address **255**



#### - Connection of one additional door lock.

For this use you must connect a relay as shown in the first figure above and program the push-button panel according to the desired service. The presence of the additional door lock requires to change the password (code 00). The first 8 passwords will activate the door lock connected to terminals S1 and S2, and the remaining 8 passwords will activate the door lock connected to terminals EC and EM.

- 1) - activation of the door lock release from the button set up for this purpose in the chosen video intercom or intercom** (e.g. with AT962 the button must be held down for > 3 seconds ). This function can be activated only during a conversation with the external door station.

Programming operations to be made:

- code **03** = set **bit 6** at **0**
- code **03** = set **bit 7** at **0** (3 seconds) or **1** (6 seconds)
- code **12** = enter address **250**

- 2) - activation of door lock from button of internal stations**

This programming allows for having two groups of users connected to a single external door station, each of them with its own door lock. The division between the two groups is indicated by the number that is inserted in the programming of code **12**. You must insert the first user number of the 2nd

group that will activate the lock connected to terminals EC and EM; automatically all lower numbers will be part of the 1st group which will activate the lock connected to terminals S1 and S2.

Programming operations to be made:

- code **03** = set **bit 6** at **0**
- code **03** = set **bit 7** at **0** (3 seconds) or **1** (6 seconds)
- code **12** = enter the address of **the first user of the 2nd group** (example: entering 100 will result in: 1st group with codes 1 to 99; 2nd group 100 to 200)

#### How to deactivate the camera upon call

You can create 2 groups of user addresses that will not activate the camera during the call from the external door station. This function is used to avoid the temporary turn-on of white LEDs in the colour camera module during calls to intercoms or actuators 2281Q.

#### How to set address groups (codes 20, 21, 22 and 23)

- press the button **PROG** to enter the programming mode;
- enter code **20** and press the button ; the display shows "ADDRESS 1S";
- dial the address number of first user in group 1;
- press the button to confirm programming;
- enter code **21** and press the button ; the display shows "ADDRESS 1E";
- dial the address number of the last user in group 1;
- press the button to confirm programming;
- repeat the operations above to enter the address of the first and last user in group 2 (codes **22** and **23**, respectively);
- press the button **PROG** to exit the programming mode.

### DISPLAY SETTINGS

You can adjust the display contrast and background colour with the buttons of the push-button panel.

#### Contrast

- dial **0090**; the display shows "press  $\wedge$  or  $\vee$ " with a state bar;
- within 5 seconds press the buttons and to increase or decrease the display contrast;
- press the button to save.



#### Background colour

- dial **0091**; the display shows "press  $\wedge$  or  $\vee$ " with a state bar;
- press the buttons and to select the colour;
- press the button to save.

### OPERATION

Check that all connections are correct. Connect the power supply unit to the mains; the display shows for 3 seconds "FARFISA", followed by the software version of the push-button panel and "Dial the number or press  $\wedge \vee$  ( $\wedge \vee$  in alternate mode).



Dial the user number or select the internal station from the names in the list (press


or  to search), to verify its exactness on the display and press  to make the call.


In case of error press **X** (only before sending the call) and dial the correct to number.



If the line is free and the called number exists you hear the confirmation tone and the display shows "Calling / ----" otherwise you hear the busy tone and the display shows "Busy /".

If press **X** the call is terminated and the system is ready for a new call.

The called user picks up the handset (or press  for Sette and  for ZheroS) enables the conversation with the external station for 90 seconds. The display shows "Connection / ----".

The text on the display starts flashing 10 seconds before conversation ends. To continue conversation for additional 90 seconds press  again.

Press the  button to release the door lock. Door lock activation time is 3 seconds (or 6 seconds).



Replace the handset (or press  for Sette and  for ZheroS) or press **X** on the door station to restore the idle state.

Numbers that are not sent or deleted go off after 25 seconds.

#### Door lock opening

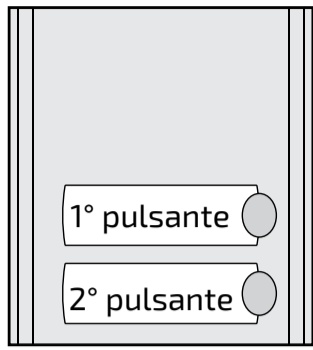
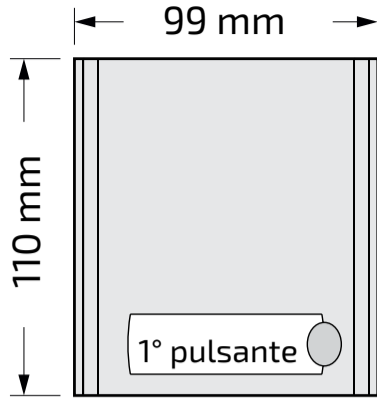
The door lock can be opened from the push-button panel, including in "busy" mode, by dialling one of the 16 4-digit codes you have entered.

#### Door lock activation

- Dial **00**
- Press ; the display shows "Password / ■■■■"
- Dial the personal access code within 10 seconds; each digit is visualised with \* instead of ■
- Press  to release the door lock; you hear the confirmation tone and the push-button panel returns to the current system operation mode (free or busy).

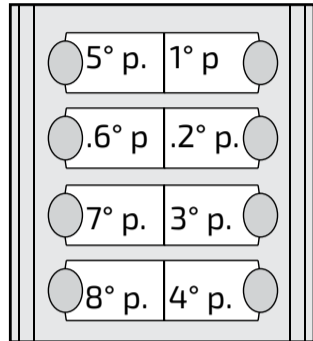
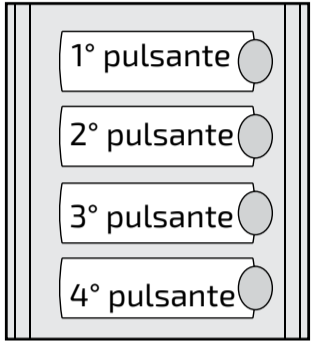
Art. **CD2131PL**

**CD2132PL**



**CD2134PL**

**CD2138PL**



Programmable via  
DUO System app

1-, 2-, 4- and  
8-call encoder  
Profilo series for  
DUO system

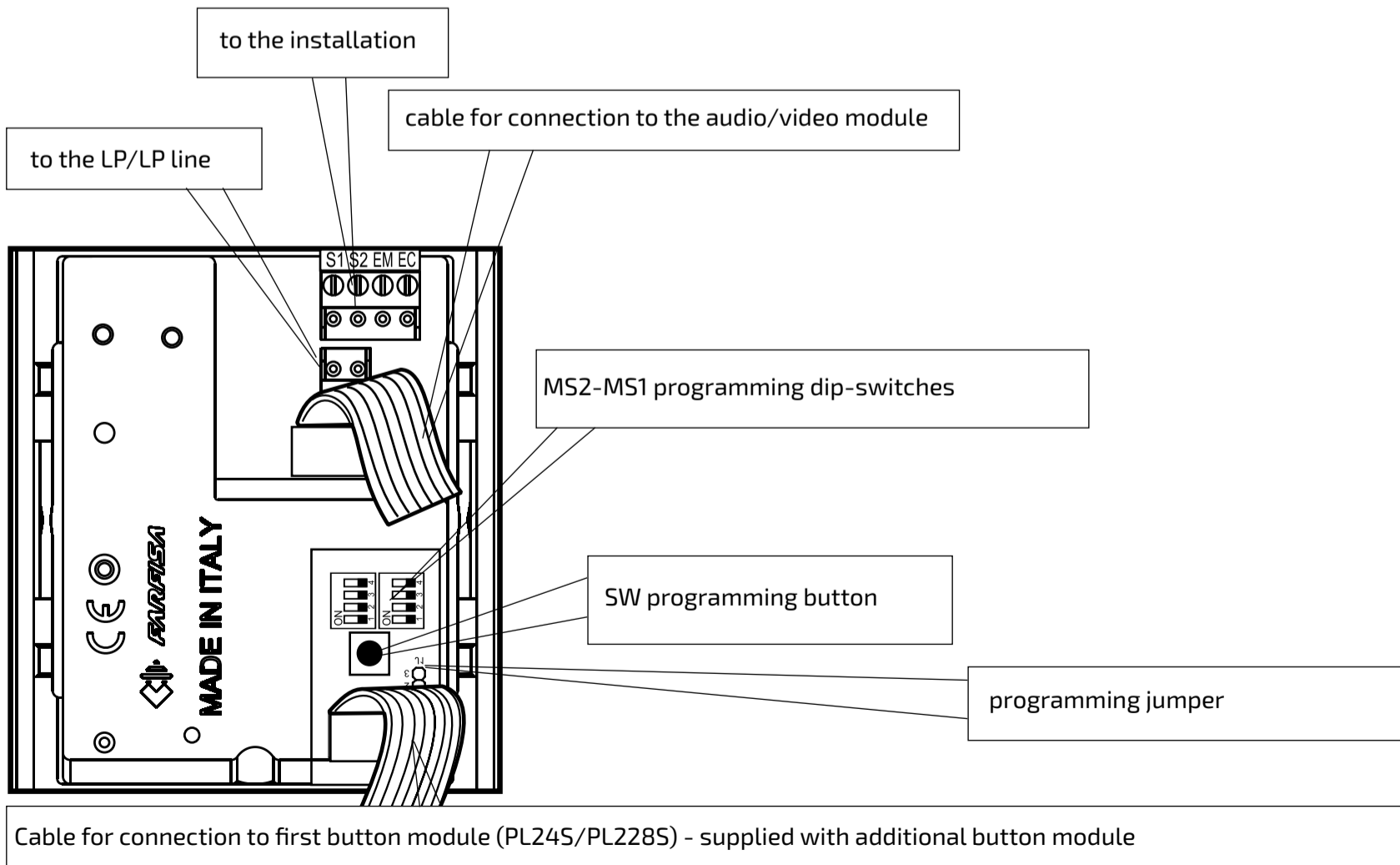
Allows calls to be sent over the DUO digital line.

**Technical features**

Power supply	from audio/video module
Door-opening time	3/6 sec.
Number of calls	128
Default address	231
Address 1 <sup>st</sup> push-button (default)	100
Dimensions	1 module
Operating temperature	0°÷+40°C
Maximum humidity acceptable	90% RH

**Terminals**

<b>LP/LP</b>	audio-data-video to and from internal users
<b>EC</b>	positive signal for auxiliary service
<b>EM</b>	negative signal for auxiliary service



## PROGRAMMING

### Factory programming.

The values of the factory settings are listed below. If you need to change them, follow the instructions in the following paragraphs.

- Door station address=231
- First button address=100
- Last button address (whole button panel)=200
- Concierge address=empty
- Lock activation time=3 sec
- Operating mode EC/EM=activation on call and during conversation
- Line free tone=enabled

### Programming via Bluetooth.

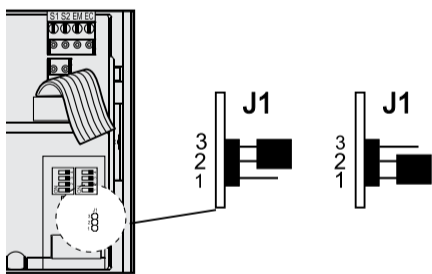
If it is necessary to change the factory configuration, it is suggested to use the Bluetooth programming by downloading the "DUO System" app (available for iOS and Android) to your smartphone or tablet. Then:

- connect a Bluetooth programmer PGR-2991BT to the system;
- launch the DUO System app, go to the DUO Bus section, press the "+" button, enter the door address (factory setting 231);
- program and disconnect.

**! In the event that a Bluetooth programmer cannot be used, an 'emergency' programming procedure, described later, is available but only a limited number of parameters can be programmed.**

### Enter into manual programming mode.

Move jumper J1, located on the back of the panel, from position 2-3 to 1-2; the programming tone will be heard.



Jumper positions J1  
1-2 = programming mode  
2-3 = operation mode

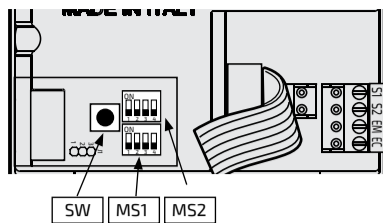
### Exit manual programming mode.

Set all dip-switches of MS1 and MS2 to OFF position and move jumper J1, located on the back of the control panel, from position 1-2 to 2-3.

### Manual programming.

Once in programming, it is necessary:

- set the code related to the function by the dip-switches MS1 and MS2;
- press the SW confirmation button;
- use the dip-switches MS1 and MS2 to set the value of the selected function;
- press the SW confirmation button.

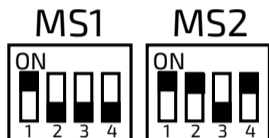


Each time the SW button is pressed, a confirmation or error tone will indicate whether a correct or incorrect code has been entered; in the latter case, the correct code must be re-entered.

### Door station address programming (code 177).

(Factory setting 231). Once in programming:

- by the dip-switches MS1 and MS2, set the function code:



- press the SW confirmation button;
- by the dip-switches MS1 and MS2, set the address (allowed values 231 to 250 - see Table A.5); on the picture below the dip-switches MS1 and MS2 are configured for address 231:



- press the SW confirmation button. If no further settings are required, exit programming or continue with the following paragraphs.

### Programming the first button address (code 161).

(Factory setting 100). Once in programming:

- by the dip-switches MS1 and MS2, set the function code:



- press the SW confirmation button;
- by the dip-switches MS1 and MS2, set the address (allowed values 001 to 200 - see Table A.5); on the picture below the dip-switches MS1 and MS2 are configured for address 100:



- press the SW confirmation button. If no further settings are required, exit programming or continue with the following paragraphs.

### Programming the last button address (code 162).

(Factory setting 200). Once in programming:

- by the dip-switches MS1 and MS2, set the function code:



- press the SW confirmation button;
- by the dip-switches MS1 and MS2, set the address (allowed values from 001 to 200 - see Table A.5). The address of the last button must be higher than that of the first button and refers to the whole external door station (including additional PL2..S); on the picture below the dip-switches MS1 and MS2 are configured for address 200:



- press the SW confirmation button. If no further settings are required, exit programming or continue with the following paragraphs.

### Concierge address programming (code 193).

(Factory empty). Once in programming:

- by the dip-switches MS1 and MS2, set the function code:



- press the SW confirmation button;
- by the dip-switches MS1 and MS2, set the address (allowed values: 201 if the call is sent to a main concierge or 210 if it is sent to a secondary concierge. To delete the previously saved value, enter 255 - see Table A.5); on the picture below the dip-switches MS1 and MS2 are configured for address assignment 201:



- press the SW confirmation button. If no further settings are required, exit programming or continue with the following paragraphs.

### EC/EM programming for second camera control (codes 178 and 225).

(Factory default not set for second camera). Please refer to the application diagram on page 5 for connections.

Once in programming:

- by the dip-switches MS1 and MS2, set the code 178 for the first function:



- press the SW confirmation button;
- by the dip-switches MS1 and MS2, set the value 066:



- press the SW confirmation button.
- by the dip-switches MS1 and MS2, set the code 225 for the second function:



- press the SW confirmation button;
- by the dip-switches MS1 and MS2, set the value 255:



- press the SW confirmation button.
- If no further settings are required, exit programming or continue with the following paragraphs.

#### Disabling line free tone (code 178).

(Factory enabled). Once in programming:

- by the dip-switches MS1 and MS2, set the function code 178:



- press the SW confirmation button;
- by the dip-switches MS1 and MS2, set the value 074 (in case EC/EM are used to control the second camera):



or the value 010 (in case EC/EM are not used to manage the second camera):

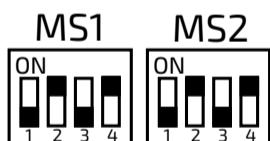


- press the SW confirmation button.
- If no further settings are required, exit programming or continue with the following paragraphs.

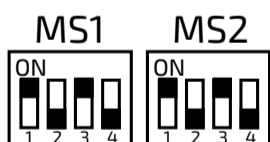
#### Restore factory settings (code 170).

Restoring the factory settings can be performed via Bluetooth or manually as indicated below, once programming has been entered:

- by the dip-switches MS1 and MS2, set the function code 170:



- press the SW confirmation button;
- by the dip-switches MS1 and MS2, set the value 085:



- press the SW confirmation button.

**⚠ Restoring factory default in the CD2131PL, CD2132PL and CD2138PL will bring them to the behaviour of a CD2134PL. This should be taken into account and, if necessary, access via Bluetooth and configure the "Digital Encoder operating mode" option correctly.**

#### OPERATION

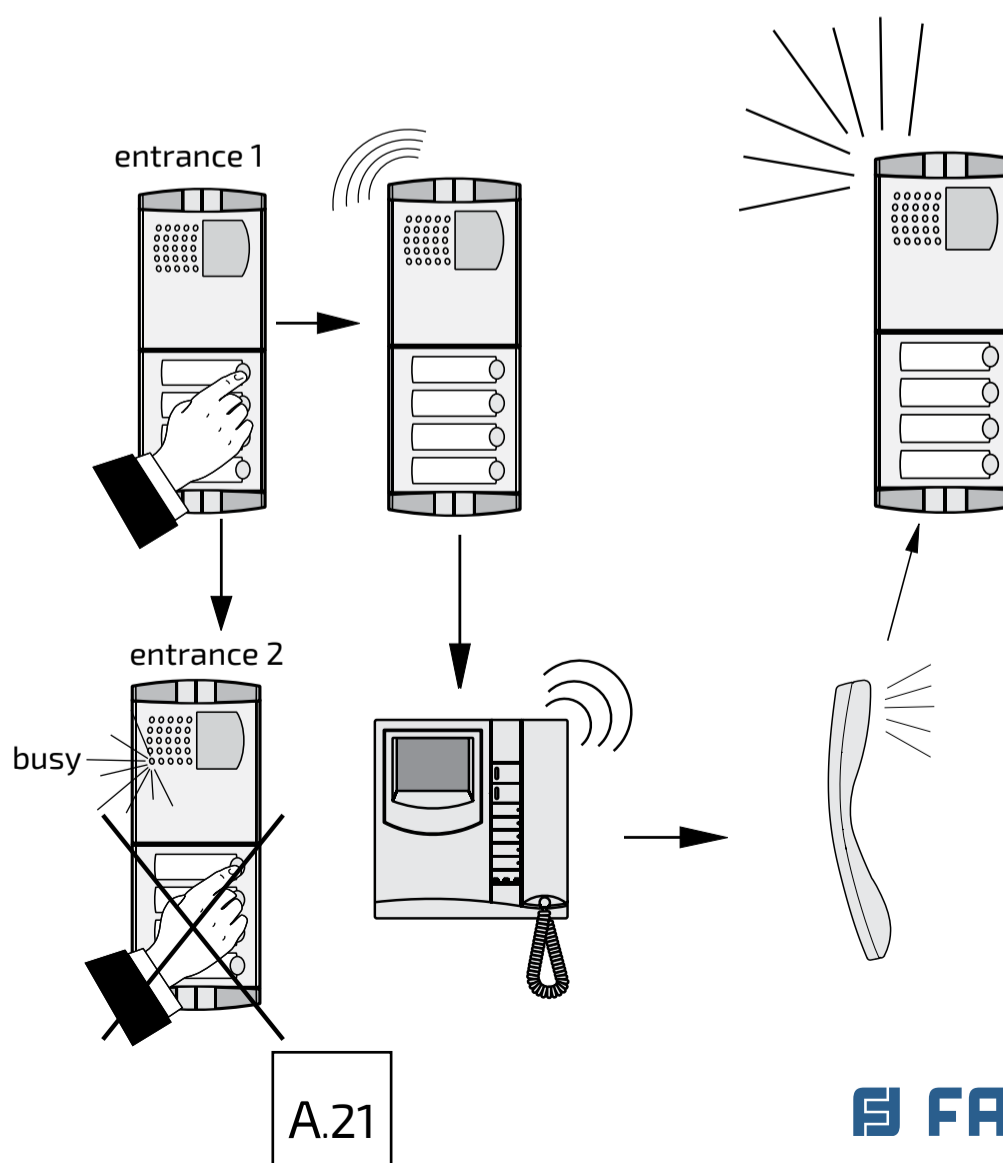
To make a call press the button corresponding to the desired user. Call is confirmed by an acknowledge tone, if the line is free, or denied by a busy tone if the line is busy. Called equipment rings only once, but if in this phase the same button on the external station is pressed again the equipment will ring again.

As soon as the called user picks up the handset enables the conversation with the external station for 90 seconds.

A tone will notify the user 10 seconds before the conversation ends. To continue conversation for additional 90 seconds the calling button must be pressed again on the external station.

On the internal station, press the button to release the door lock. Door lock activation time is 3 seconds (or 6 seconds according to the system programming, only via Bluetooth).

Replace the handset at the end of the conversation to restore the idle state.





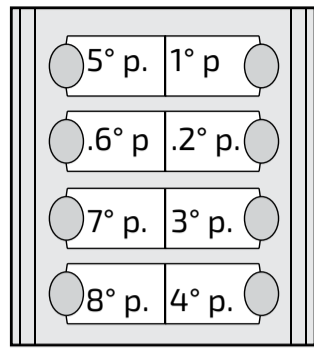
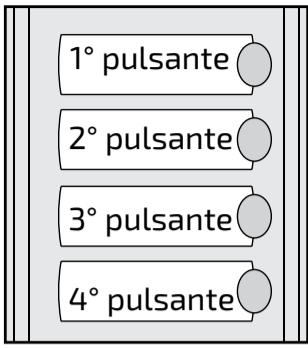
124		147		170		193		216		237	
125		148		171		194		217		238	
126		149		172		195		218		239	
127		150		173		196		219		240	
128		151		174		197		220		241	
129		152		175		198		221		242	
130		153		176		199		222		243	
131		154		177		200		223		244	
132		155		178		201		224		245	
133		156		179		202		225		246	
134		157		180		203		226		247	
135		158		181		204		227		248	
136		159		182		205		228		249	
137		160		183		206		229		250	
138		161		184		207		230		251	
139		162		185		208		231		252	
140		163		186		209		232		253	
141		164		187		210		233		254	
142		165		188		211		234		255	
143		166		189		212					
144		167		190		213					
145		168		191		214					
146		169		192		215					

A

S Y S T E M

# Art. PL24S

# PL228S



## 4 and 8 call button modules Pro-filo series with decoding for DUO system

Through connection with a suitable digital encoder, it allows calls to be sent in Farfisa digital systems.

### Terminals

- A+** AC or DC power supply input for name-plate Led (13Vac/ dc-80mA)
- A-** AC power supply or ground input for name-plate Led

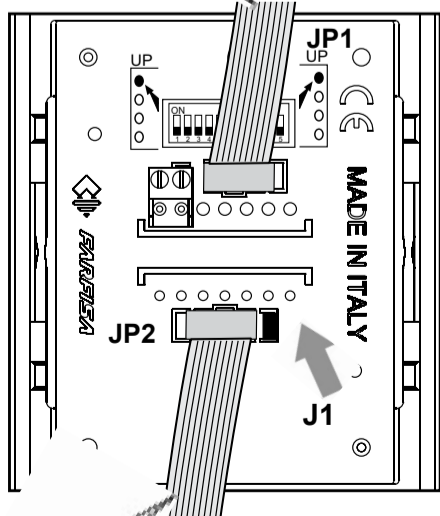
### Installation and connections

- Connect the first push-button panel to the digital encoder module with the cable supplied.
- Connect the second push-button module to the first one with the cable supplied with the second module.
- Connect all modules in a sequence.
- Connect the two power supply wires of the name plate LED's (13Vac) to terminals **A+ / A-** of the first push-button panel.

### Note

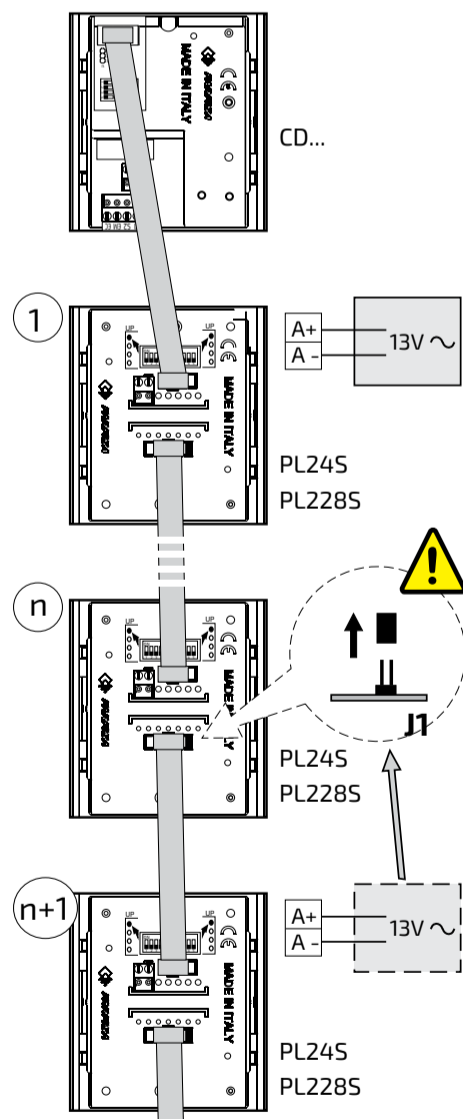
Do not set the code 0 (numerical interval 0-3) on the DIP-switches because in this case the first button, starting from the top of the module PL24S or PL228S will call no users. The digital system does not recognize the address **0 (zero)**.

To the previous button module or encoder module



To the next button module

### Power supply of the modules PL24S and PL228S with additional transformers



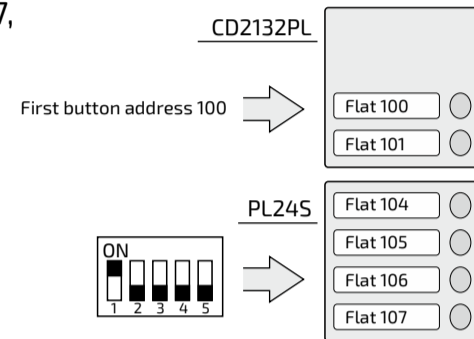
Using 2 transformers to power the LED's of name plates, the 2 power supply units must be isolated by removing the jumper **J1** on the last module of the first group.

## PROGRAMMING

### PL24S

All PL24Ss have by factory default settings dip-switch 1 of SW1 in the ON position and all others in the OFF position which corresponds to adding a step of 4 units to the address associated with the first button of the CD2131PL/CD2132PL/CD2134PL encoders. In other words, if the address programmed as first button is 100 (factory setting) for the CD2131PL (addresses 101, 102 and 103 are lost) or for the CD2132PL (in which case 102 and 103 are lost) or for the CD2134PL (in which case no address is lost), the extensions called by PL24S are:

- the first button calls 104,
- the second button the 105,
- the third the 106,
- the fourth one 107,

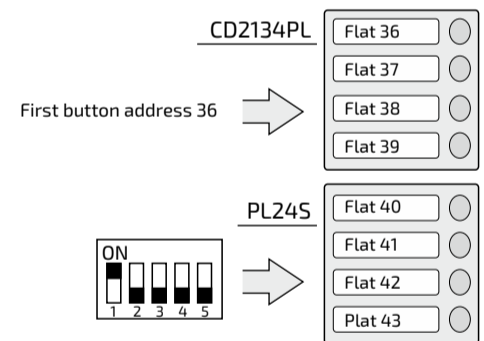


If the second dip-switch of SW1 is set to ON and all others to OFF the step that will be imposed on the call addresses of PL24S will be 8:

- the first switch of PL24S calls address 108,
- the second one the 109,
- the third one the 110,
- the fourth the 111.

Obviously if the address of the first button of the encoder is changed, all addresses called by the downstream PL24S will be changed. If the address of the first button of CD2134PL is configured to the value 36, leaving SW1 of PL24S with only dip-switch 1 set to ON the calls generated by PL24S will be as follows

- the first button calls 40,
- the second one 41,
- the third one 42,
- the fourth one 43.

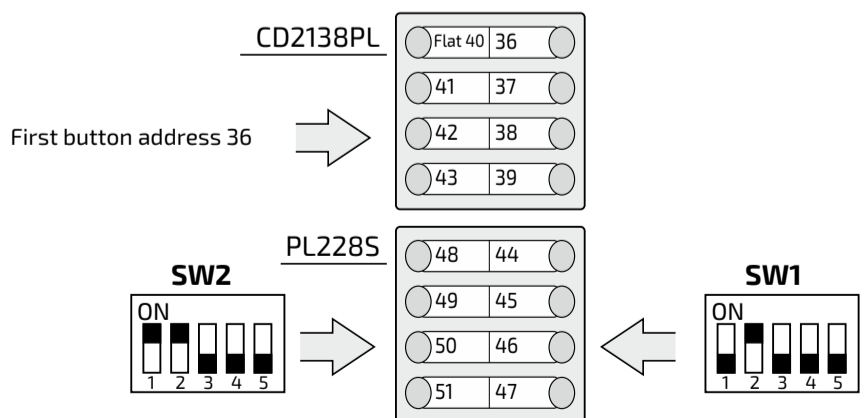


### PL228S

When using the CD2138PL digital encoder the first 8 addresses are exclusive to the encoder itself; therefore on the first button module art.PL228S set SW1 (relative to the right row of buttons) and SW2 (relative to the left row of buttons) to have a minimum step

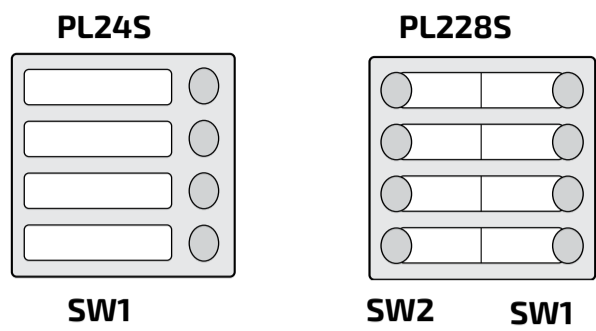
- of 8 units for the buttons of the right row of PL228S,
- by 12 units for the buttons of the left row of PL228S.

These settings are the same as the factory settings for PL228S.



**Table A.6.**

**Order in which numbers are associated to buttons**



**Step to set (in units)**

**SW dip-switch position**

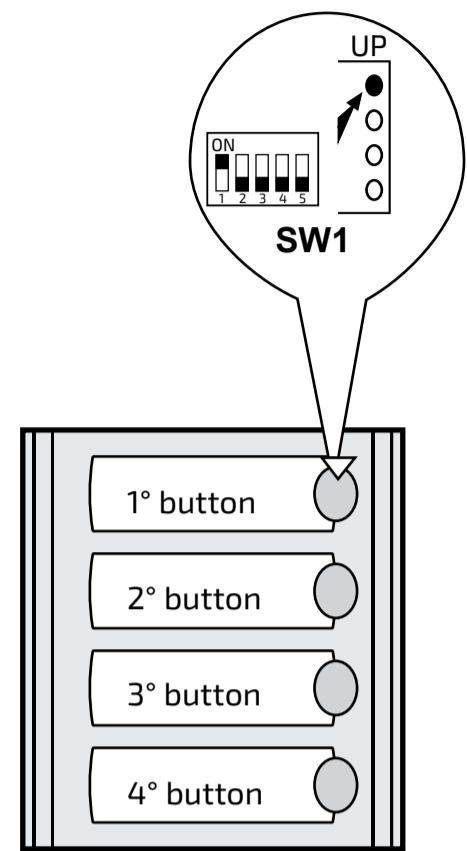
4	
8	
12	
16	
20	
24	
28	
32	
36	
40	
44	
48	
52	
56	

**Step to set (in units)**

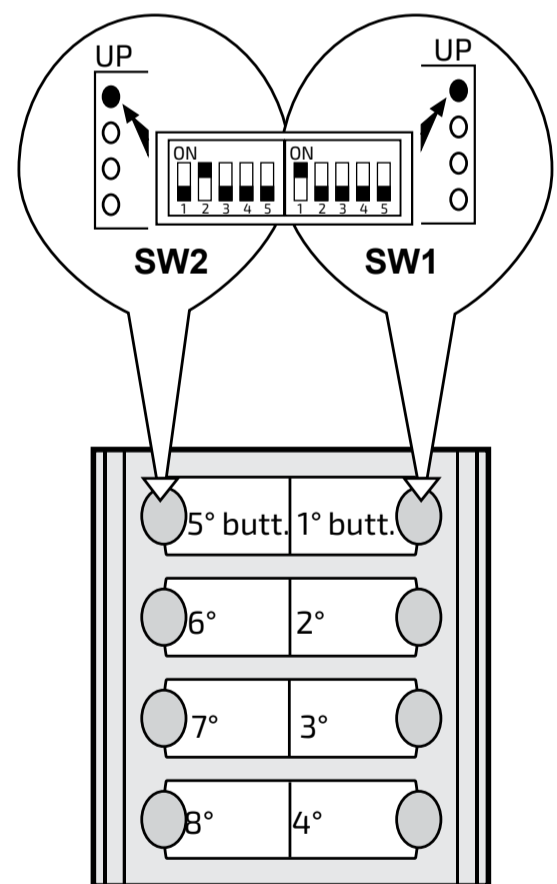
**SW dip-switch position**

60	
64	
68	
72	
76	
80	
84	
88	
92	
96	
100	
104	
108	
112	
116	
120	
124	

**First button indication and related dip-switch for coding**



**PL24S**

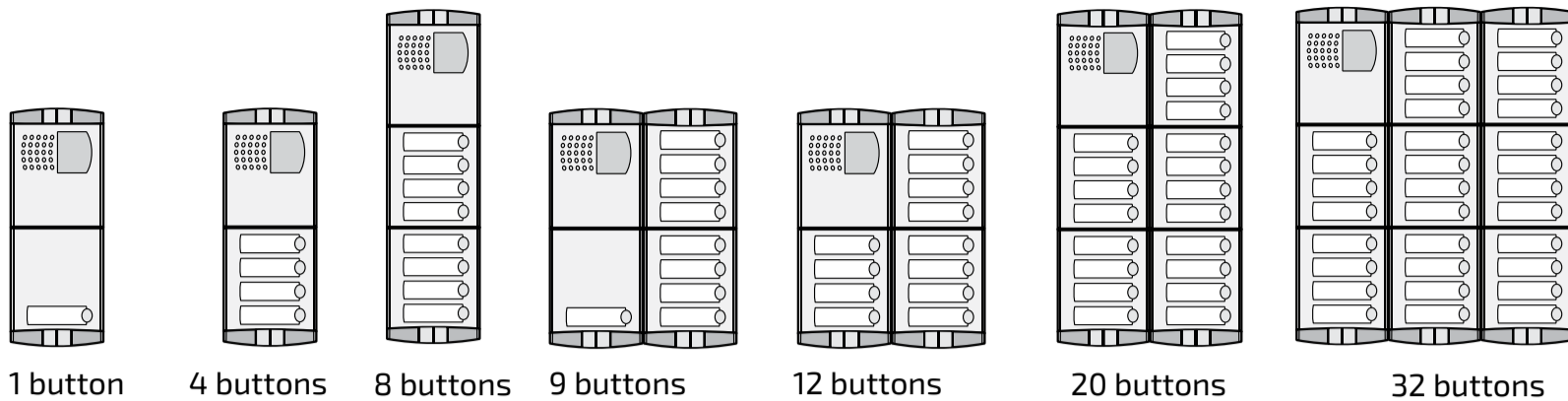


**PL228S**

**A**



## Examples of door stations with single row buttons in videointercom systems



### Items required for single row push button panels.

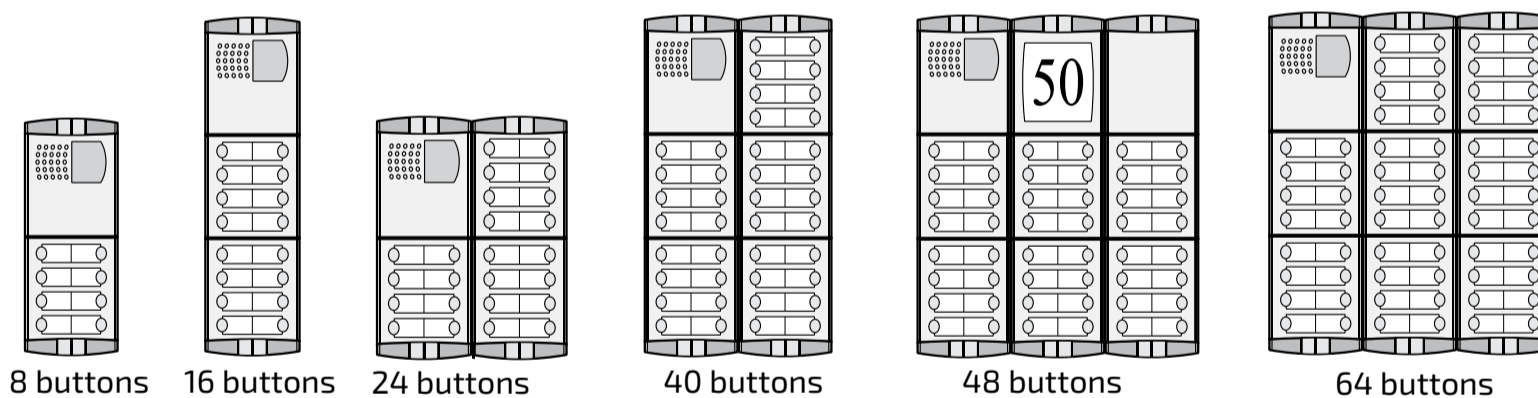
N° butt.	Dimensions	Encoder module	audio/video module	Button modules, neutral or house number (*)		Built-in boxes and frames (**)	Rain shelters
1	100x253,5x19 (L x H x P)	1 CD2131PL	1 VD2120CPL	-	-	1 PL72	1 PL92
4		1 CD2134PL	1 VD2120CPL	-	-	1 PL72	1 PL92
6	100x365x19 (L x H x P)	1 CD2132PL	1 VD2120CPL	1 PL24S	-	1 PL73	1 PL93
8		1 CD2134PL	1 VD2120CPL	1 PL24S	-	1 PL73	1 PL93
9	200x253,5x19 (L x H x P)	1 CD2131PL	1 VD2120CPL	2 PL24S	-	2 PL72	1 PL94
12		1 CD2134PL	1 VD2120CPL	2 PL24S	-	2 PL72	1 PL94
14	200x365x19 (L x H x P)	1 CD2132PL	1 VD2120CPL	3 PL24S	1 PL20	2 PL73	1 PL96
17		1 CD2131PL	1 VD2120CPL	4 PL24S	-	2 PL73	1 PL96
20		1 CD2134PL	1 VD2120CPL	4 PL24S	-	2 PL73	1 PL96
22	400x253,5x19 (L x H x P)	1 CD2132PL	1 VD2120CPL	5 PL24S	1 PL20	4 PL72	-
25		1 CD2131PL	1 VD2120CPL	6 PL24S	-	4 PL72	-
28		1 CD2134PL	1 VD2120CPL	6 PL24S	-	4 PL72	-
29	300x365x19 (L x H x P)	1 CD2131PL	1 VD2120CPL	7 PL24S	-	3 PL73	1 PL99
30		1 CD2132PL	1 VD2120CPL	7 PL24S	-	3 PL73	1 PL99
32		1 CD2134PL	1 VD2120CPL	7 PL24S	-	3 PL73	1 PL99

For intercom systems replace item VD2120CPL with AD2120CPL

(\*) PL50

Instead of PL72 or PL73

## Examples of door stations with double row buttons in videointercom systems



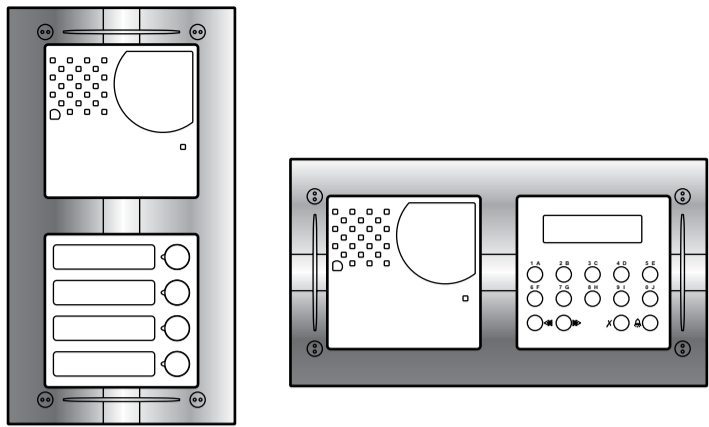
### Items required for the composition of push-button panels with double-row buttons.

N° butt.	Dimensions	Encoder module	audio/video module	Button modules, neutral or house number (*)		Built-in boxes and frames (**)	Rain shelters
8	100x253,5x19 (L x H x P)	1 CD2138PL	1 VD2120CPL	-	-	1 PL72	1 PL92
16	100x365x19 (L x H x P)	1 CD2138PL	1 VD2120CPL	1 PL228S	-	1 PL73	1 PL93
24	200x253,5x19 (L x H x P)	1 CD2138PL	1 VD2120CPL	2 PL228S	-	2 PL72	1 PL94
32	200x365x19 (L x H x P)	1 CD2138PL	1 VD2120CPL	3 PL228S	1 PL20	2 PL73	1 PL96
40	200x365x19 (L x H x P)	1 CD2138PL	1 VD2120CPL	4 PL228S	-	2 PL73	1 PL96
48	300x365x19 (L x H x P)	1 CD2138PL	1 VD2120CPL	5 PL228S	2 PL20	3 PL73	1 PL99
56	300x365x19 (L x H x P)	1 CD2138PL	1 VD2120CPL	6 PL228S	1 PL20	3 PL73	1 PL99
64	300x365x19 (L x H x P)	1 CD2138PL	1 VD2120CPL	7 PL228S	-	3 PL73	1 PL99

For intercom systems replace item VD2120CPL with AD2120CPL

(\*) PL50

Instead of PL72 or PL73



*Vandalproof door station or video door station for DUO system*

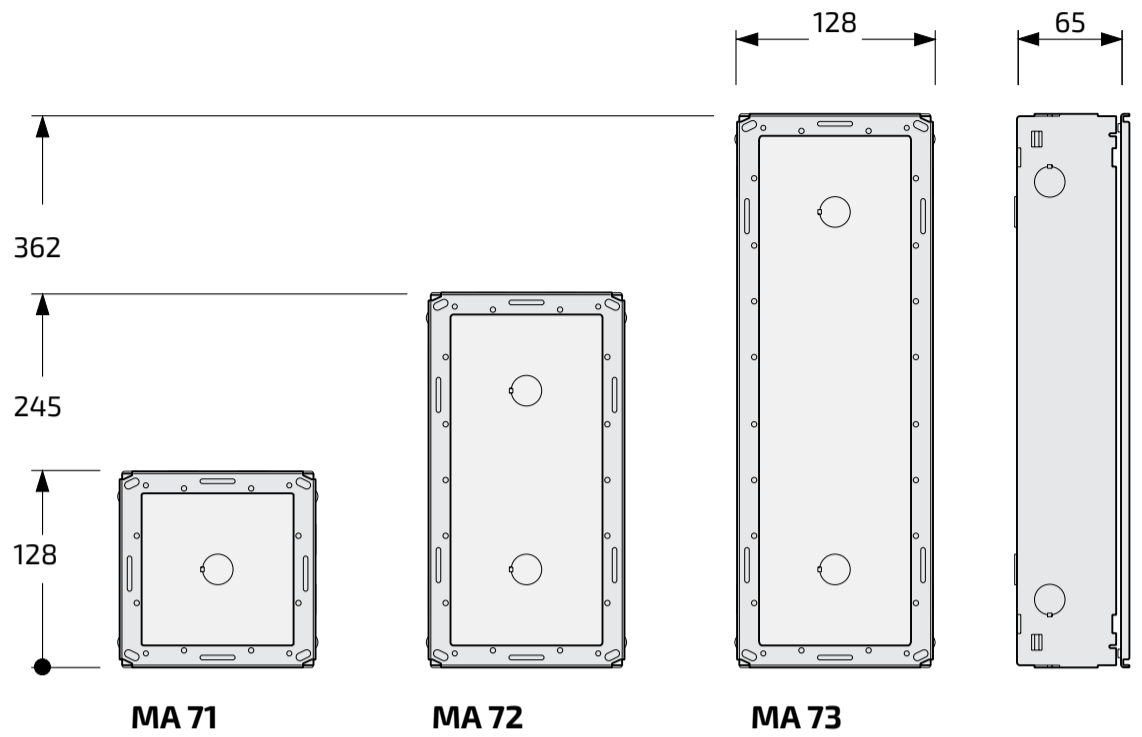
# MATRIX

- Vandal- proof push button panels in stainless steel (AISI 316L)
- IP45 degree of protection
- IK09 against impact;
- decorative die-cast aluminium frames
- module alignment allowed in vertical and horizontal configuration.

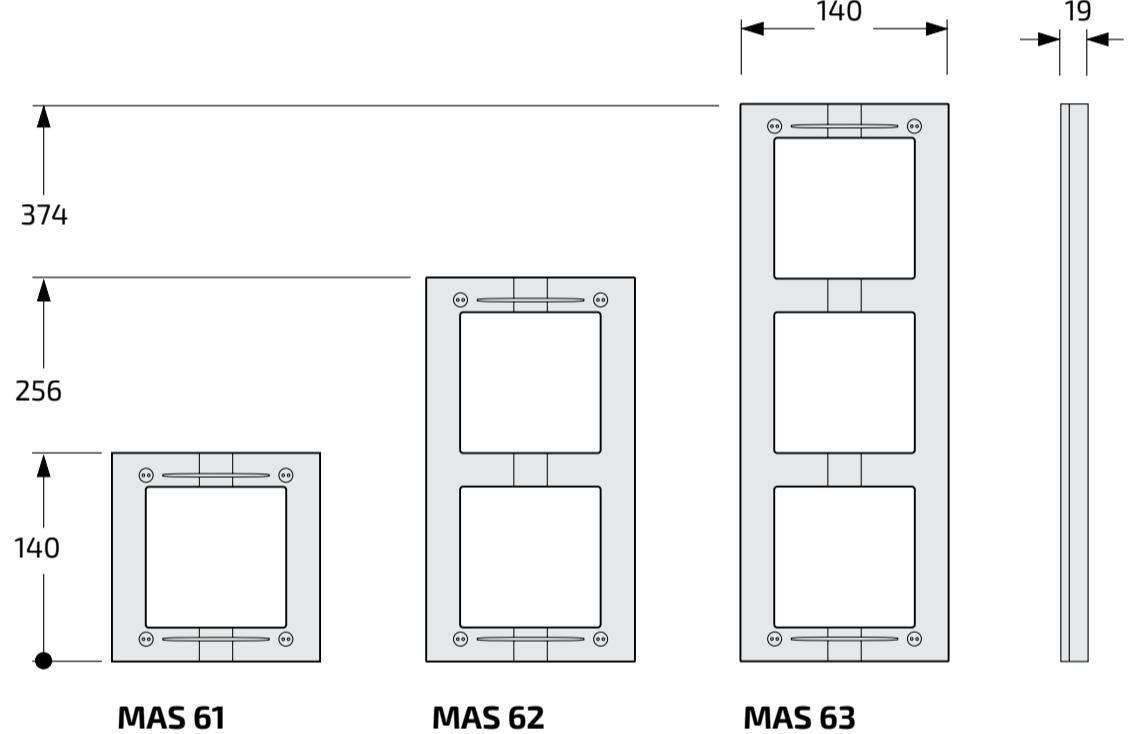


**Caution.** In order to maintain the brilliance of the plates over time, periodic cleaning of the plates with specific products for stainless steel is necessary.

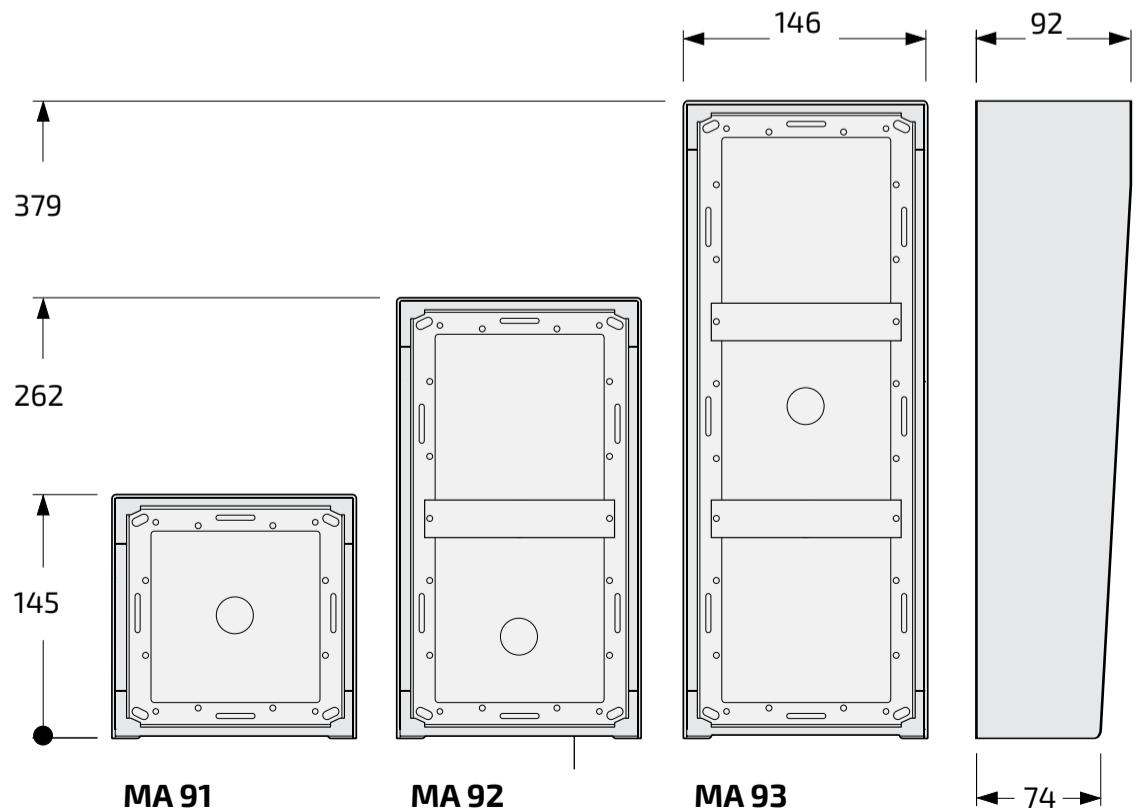
### Module frames complete with back box (dimensions in mm)



### Front frames (dimensions in mm)



### Rain shelters with module frames (dimensions in mm)



A

DUO SYSTEM

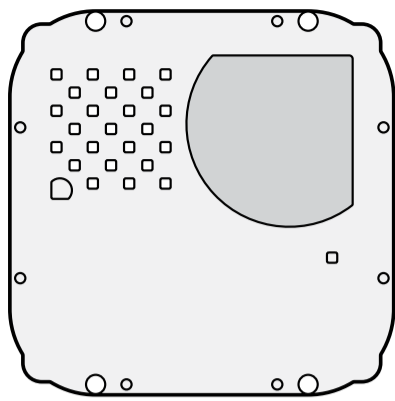
MATRIX

MATRIX

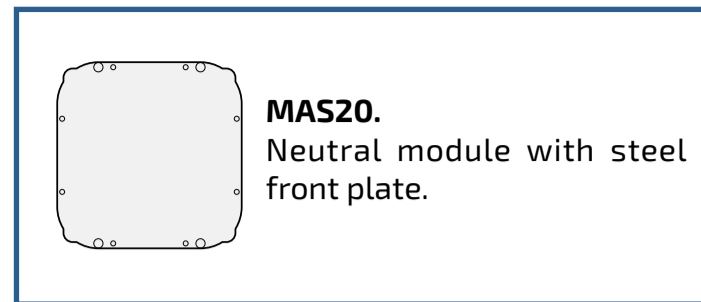
A.27

FARFISA

## Art. VD2120CMAS



Audio/video module



**MAS20.**  
Neutral module with steel front plate.

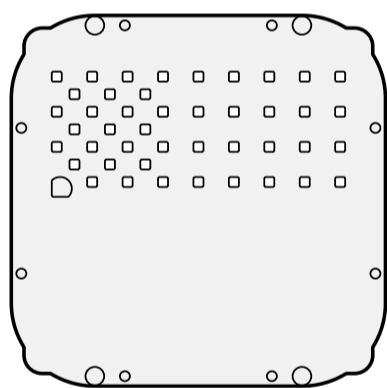
### Technical data

Power supply	13Vac±1
Absorption with connection to encoder	0.8A
Video signal standar	PAL
Minimum illumination	2.5 Lux
Led	6 white
Sensor	CCD 1/3" colour
Lens	3.6mm
Focus	0.6m ÷ ∞
Horizontal adjustment	± 15°
Vertical adjustment	± 15°
Operating temperature	-10° ÷ +40°C
Max. permissible humidity	80%RH

### Terminals

~ / ~	13VAC voltage input
V	Video signal input of a supplementary external camera (coaxial cable)
M	Video ground (coaxial shield)
EC	Positive signal for supplementary camera
EM	Negative signal for supplementary camera

## AD2110MAS



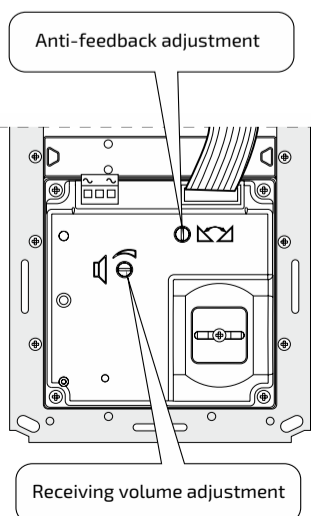
Only audio module

### Technical data

Power supply	13Vac±1
Absorption with connection to encoder	0.6A
Operating temperature	-10° ÷ +40°C
Max. permissible humidity	80%RH

### Terminals

~ / ~	13VAC voltage input
-------	---------------------

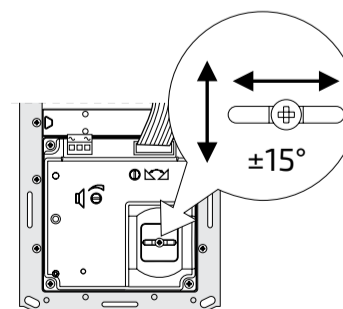


If necessary, you can adjust the volume of the audio channels and the Larsen effect (feedback) with the relevant potentiometers.

### Anti-feedback adjustment

In case of "feedback" (Larsen effect) in the external unit it is necessary to operate as follow:

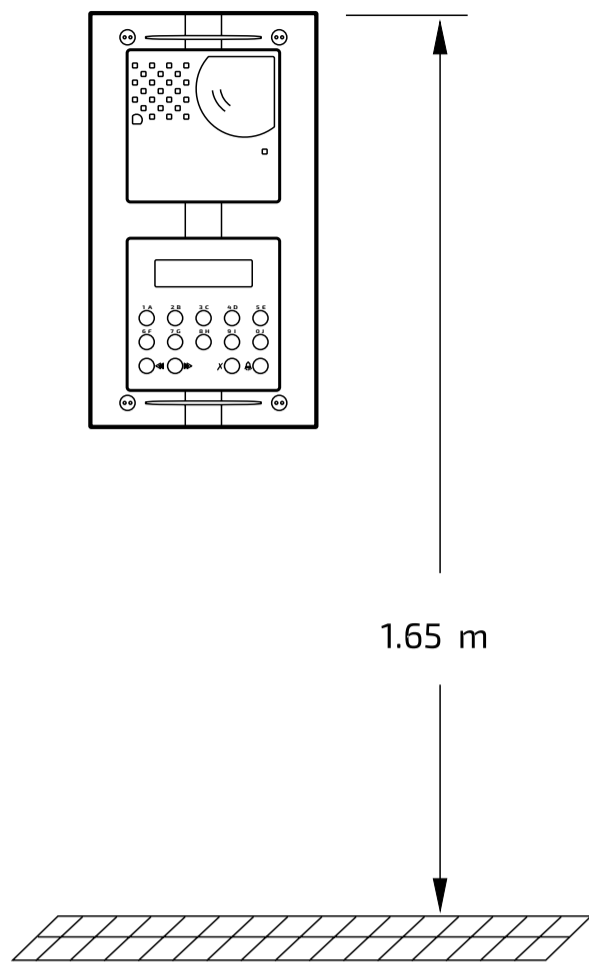
- make the call from the door station and lift the handset (press on Sette or on ZheroS) of the called user;
- adjust the trimmer until the whistling stops (Larsen effect).



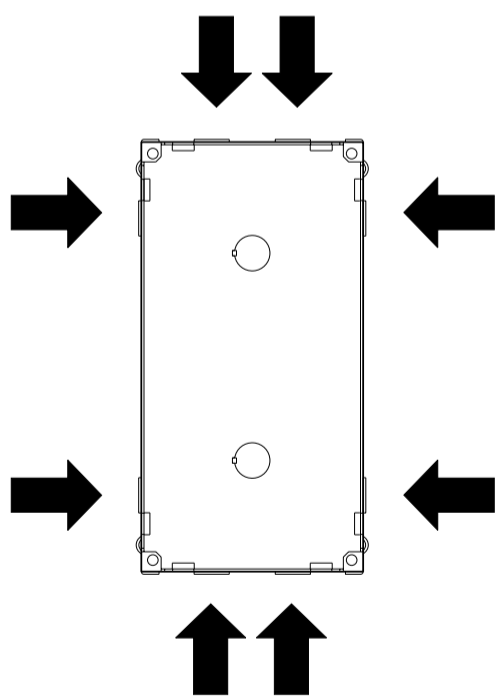
### Adjustments (only VD2120CMAS)

You can manually change the camera framing by unloosening and adjusting the horizontal and vertical screws in the desired direction.

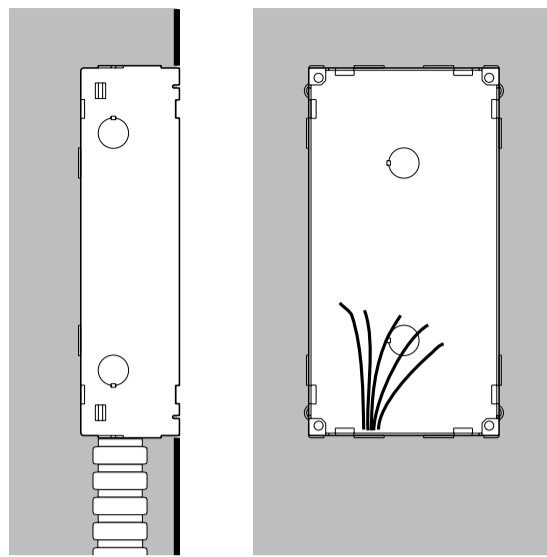
# INSTALLATION



Place the push-button panel back box at a height of about 1.65m (5'5") from the floor keeping the front edges flush-mounted and vertical to the finished plaster.  
**Position the camera in such a way that sunlight or other direct or reflected light sources with high intensity do not hit the camera lens.**

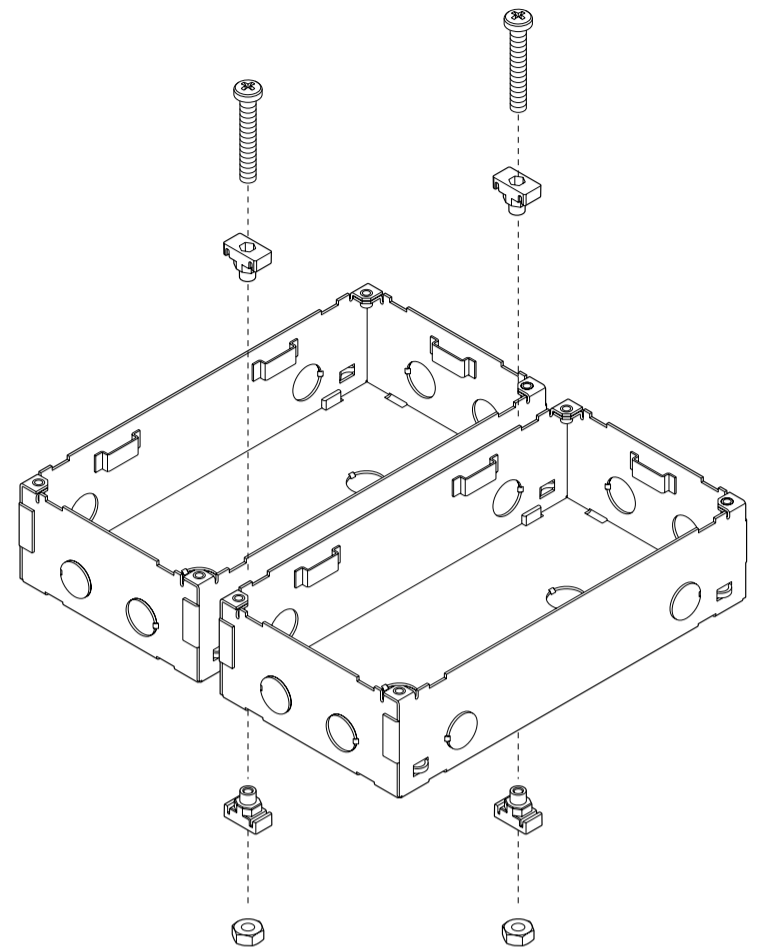


Openings for cables.

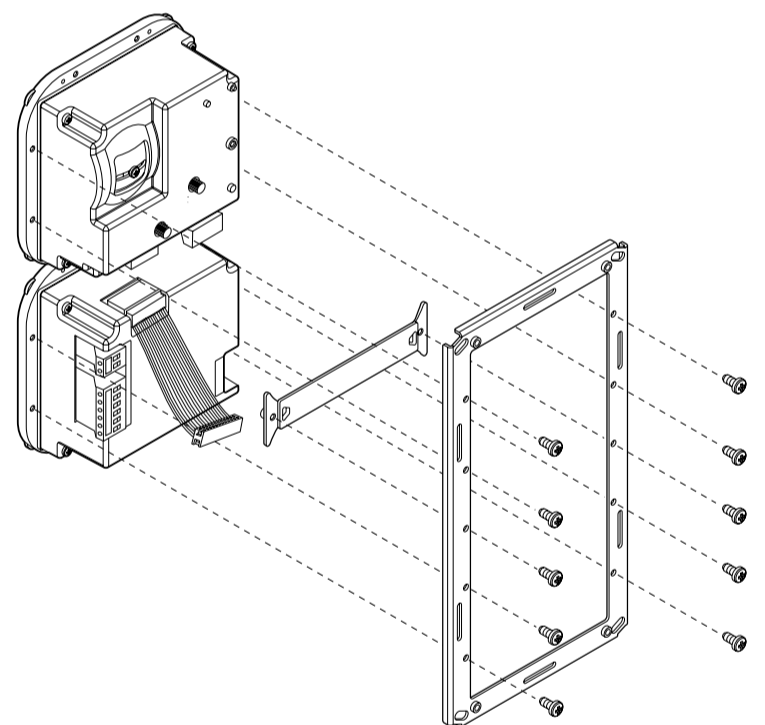


Flush mounting and cables placing.

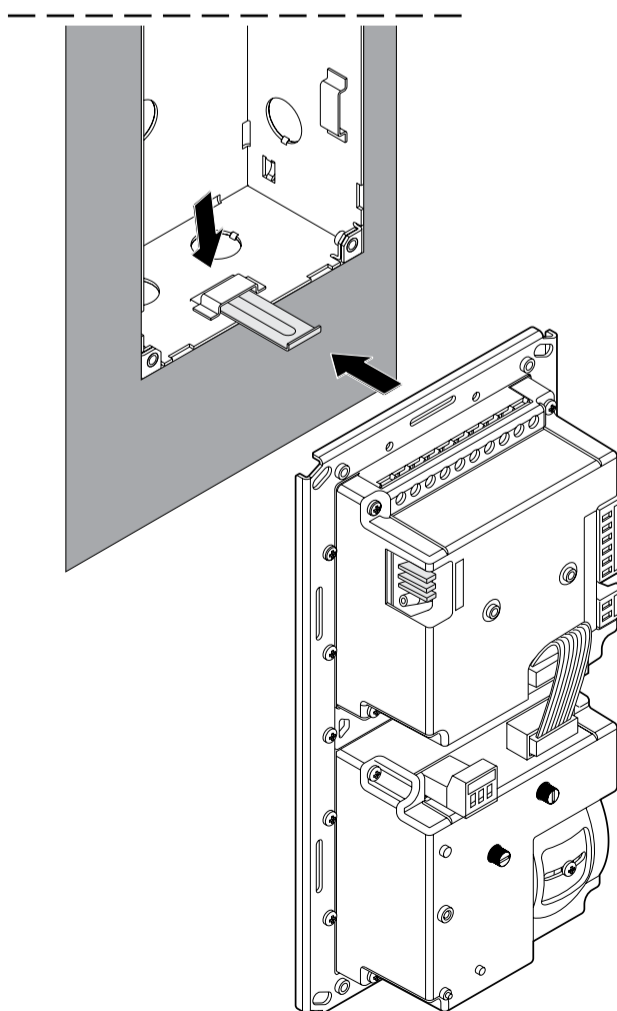
## Assembling modules side by side



Insertion of spacers between back boxes. Spacers and cable bushing must be inserted before brickwork



Mounting modules.

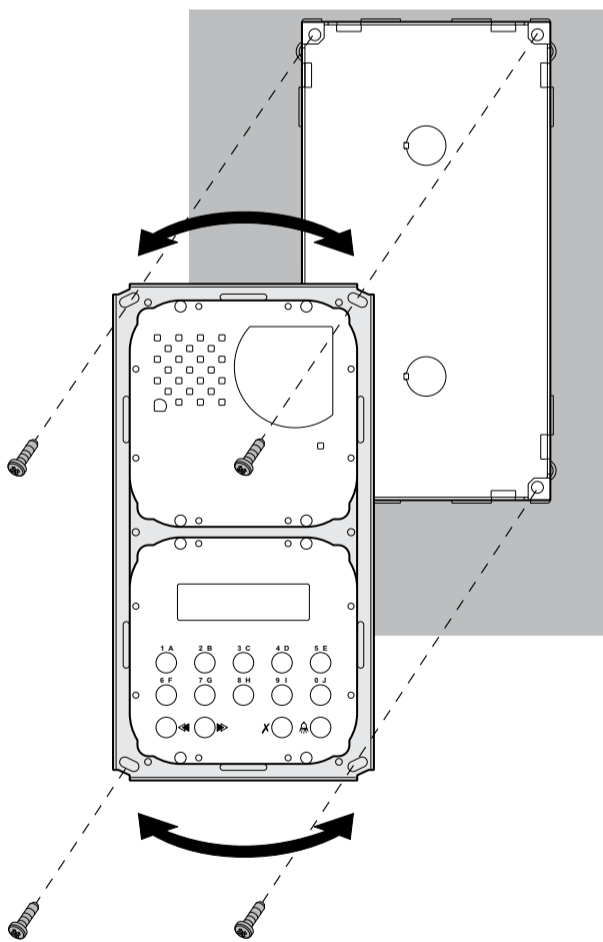
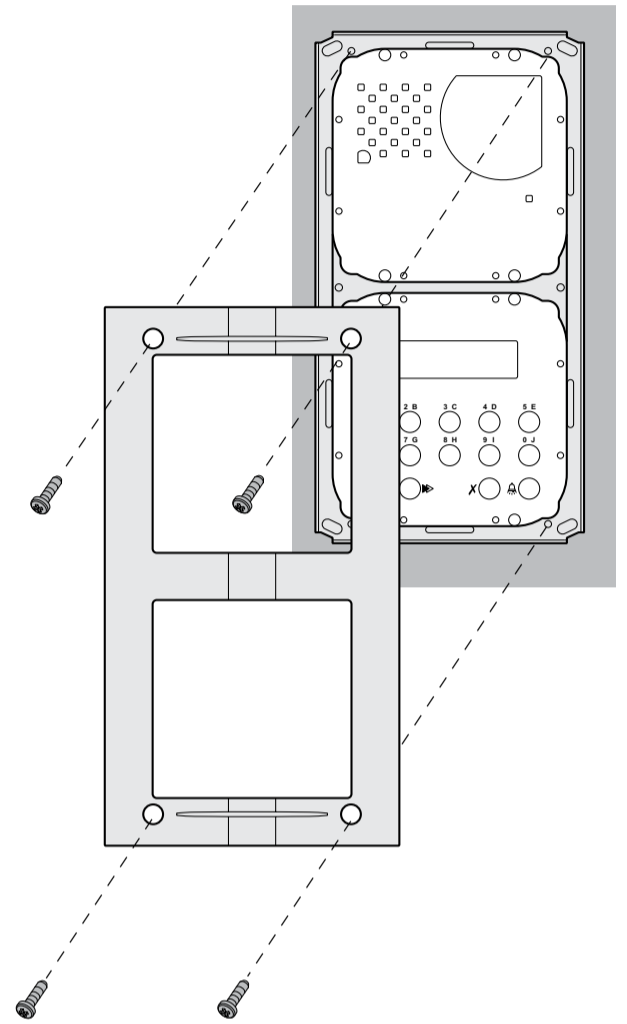
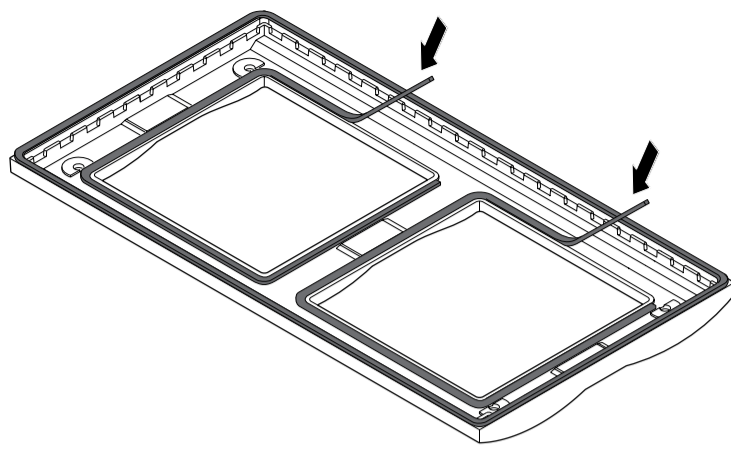
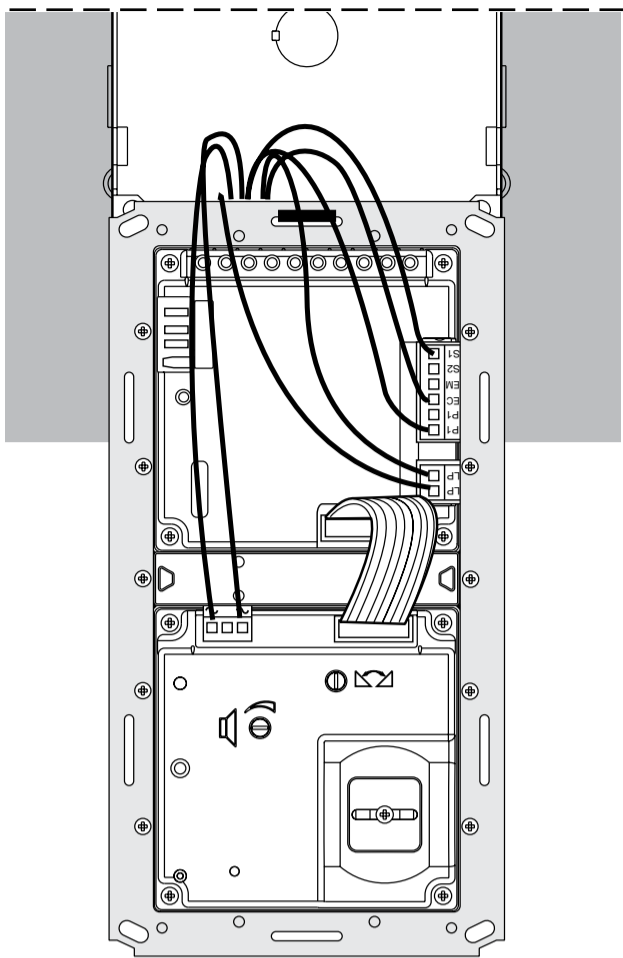


For easier connection to the electrical system, it is recommended to insert the metal plate supplied with the product in the back box opening, as shown in the figure. The plate is used to hook the frame with pre-assembled modules.

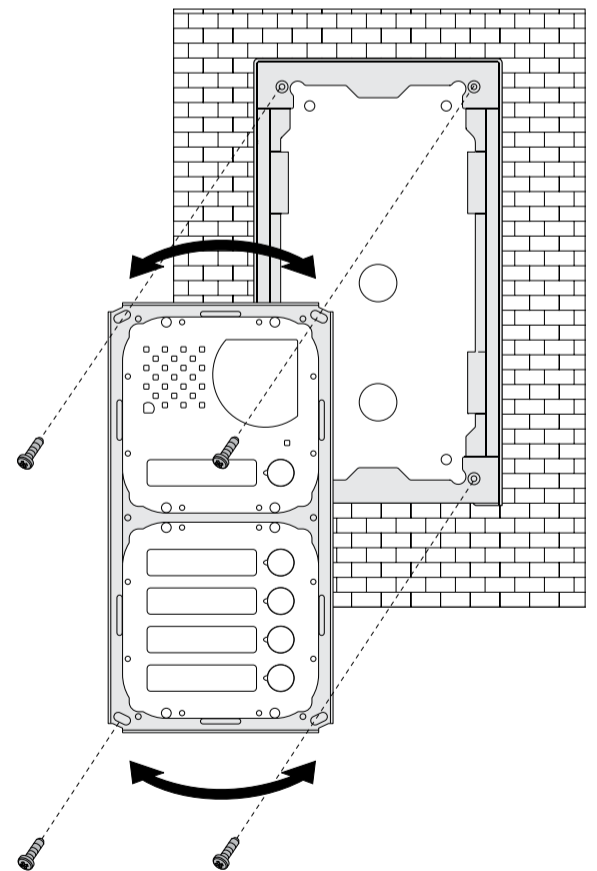
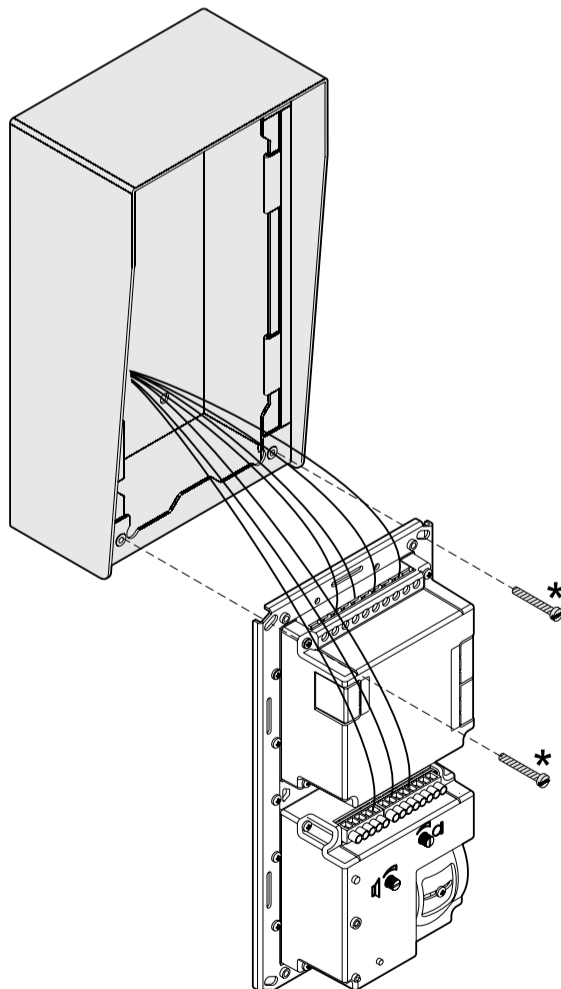
Leave the plate in the box to reuse it for maintenance operations.

A

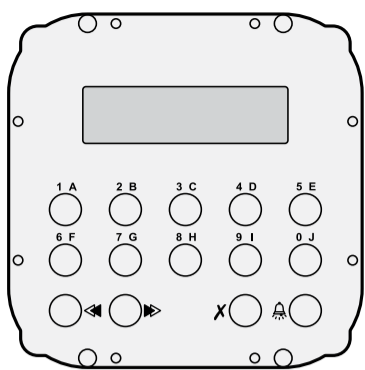
DUO SYSTEM



**Rain shelters**



## Art. TD2100MAS



Matrix series vandal-proof steel push-button panel with 14 steel buttons and alphanumeric LCD. Used to dial and send calls over DUO digital line.

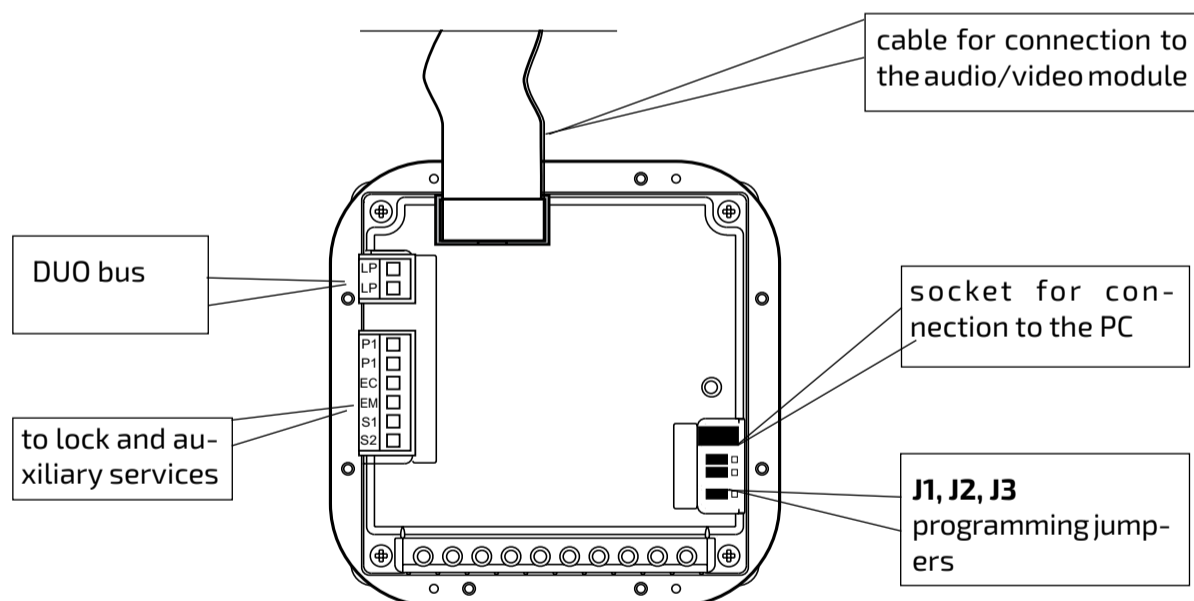
### Technical features

Power supply	from audio/video module
Door-opening time	3/6 seconds
LCD	2 lines x 16 characters
Number of calls	200
Memory	250 names
Dimensions	1 module
Operating temperature	0°÷+40°C
Maximum humidity acceptable	90% RH

### Terminals

<b>LP/LP</b>	DUO line
<b>P1/P1</b>	direct call button inputs
<b>EC</b>	positive signal for auxiliary service
<b>EM</b>	negative signal for auxiliary service
<b>S1/S2</b>	door opening contacts

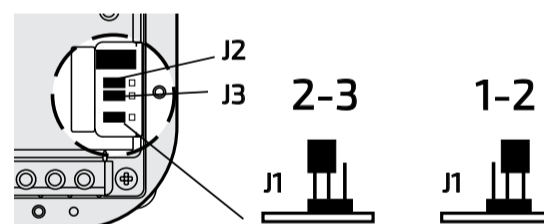
### Connection terminals




### PROGRAMMING

Before programming you must:

- Move the jumper **J1** on the back of the push-button panel from **2-3** to **1-2**; the display shows "Programming / type: ".



- Dial the programming code (see table A.7) and press  to confirm.
- After you program each single code, bring the jumper **J1** back to **2-3**.

**Table A.7**  
Programming codes

<b>00</b>	Entry of codes for door lock / address P1 / address PE
<b>01</b>	Entry-modification-deletion of names
<b>02</b>	Language selection
<b>03</b>	System programming
<b>04</b>	Entry of display initial text
<b>05</b>	Loading names from PC
<b>06</b>	Ordering names
<b>10</b>	Address associated with EC-EM terminals
<b>20</b>	Settings for operations with a door-keeper exchanger

### Entry of codes for door lock / address P1 / address PE (code 00)

Enter the code **00** to access the "entry of door lock codes" mode. The display shows "PASSWORD 0 / ".

- Dial the first opening code on the keypad, for example 7890; the display shows "PASSWORD 0 / 7890".
- Press ; the display shows "PASSWORD 1 / ".
- Dial the second opening code on the keypad, for example 1234; the display shows "PASSWORD 1 / 1234".
- Press the display shows "PASSWORD 2 / ".
- Repeat the operation to enter a maximum of 16 codes. When you press to confirm the last code (PASSWORD 15) you enter the "entry of address P1 code" mode automatically. You can memorise the number of the internal station that can be called directly by pushing a button connected between terminals **P1 / P1**.
- Press ; the display shows "P1 / 0100".
- Press **X** to delete the code shown on the display and enter the number of the internal station you want to enable for the direct call function. The internal stations can be coded with numbers from 1 to 200.
- Press to confirm and go to the "entry of address PE code"; the display shows "PE / 0231". You can enter the code for the external station address. The push-button panels can be coded with numbers from 231 to 250.
- Dial the code and press to confirm. You go back to the "entry of door lock codes" mode. The display shows the PASSWORD 0 code (PASSWORD 0 / internal station)".
- To exit programming bring the jumper **J1** back to the original position (from 1-2 to 2-3).

#### Modifying a code or address

To change a code or address, you must enter the programming mode by moving the jumper **J1** from 2-3 to 1-2 and then:

- select the programming code **00**;
- press the button until the code you want to modify is displayed;
- press **X** to go to the code you want to modify.
- enter the new code on the keyboard and then press the button
- repeat the operation for all the codes you want to modify;

- move the jumper **J1** from 1-2 to 2-3 to exit the programming mode.

#### Deleting a code or address

To delete a code or address, you must enter the programming mode by moving the jumper **J1** from 2-3 to 1-2 and then:

- select the programming code **00**;
- press the button until the code you want to delete is displayed;
- press **X** and then
- repeat the operation for all the codes you want to delete;
- move the jumper **J1** from 1-2 to 2-3 to exit the programming mode.

### Entry / modification / deletion of names (code 01)

The digital keyboard TD2100MAS has an alphanumeric display with 32 characters that displays the user name and extension number (28 characters are used for the user name and the last 4 characters on bottom right are used for the extension number). To save them, you must follow the procedure illustrated below. The name must be entered starting from the first character on top left and the last digit of the extension number must be entered in the last position on bottom right, otherwise the number will not be saved (see "procedure to delete a name").

After you have entered all the names, the system will automatically order them alphabetically.

#### Function of buttons when entering or modifying a name

- Hold this button pressed to scroll the list of existing names
- X** Hold this button pressed to move the cursor to the name characters
- Hold this button pressed to scroll down the list of characters
- Hold this button pressed to scroll up the list of characters

When searching for characters, the display shows uppercase letters, low-case letters, numbers, characters . <> and space in a sequence.

#### Entry of names

- Move the jumper **J1** from 2-3 to 1-2.
- Enter the code **01** and press ; the display

shows the first name. The display is empty if no codes are programmed.

- Press or to select the character for the first cell; press **X** to go to the second cell; press or to select the character for the second cell; continue until you have entered the complete name with code. Press **X** after you have entered the number in the last cell on bottom right; the display shows "STORE USER / YES <> NO"; press to confirm; press to modify the name.
- If confirmed, the display shows the second name. The display is empty if no names are programmed.
- Once you have confirmed the last name, bring the jumper **J1** back to the original position (from 1-2 to 2-3). The display shows "waiting" and an automatic status bar. Normal operation is restored after a few seconds and the display shows the initial text.

**Notes.** Once you have entered 250 names the display shows "waiting" and an automatic status bar. After a few seconds the display shows "Programming / type: " and you can continue with programming or exit by moving the jumper **J1** back to 2-3.

You can enter 2 or more names with the same call number (i.e. different family names in the same apartment).

#### Modification or correction of names

- Move the jumper **J1** from 2-3 to 1-2.
- Enter the code **01** and press ; the display shows the first name.
- Press to search for the name you want to modify; (hold the button pressed for quick searching).
- Press **X** to go to the character you want to modify.
- Select the character with (forward) (backward).
- Repeat the operation until you have completed the name modification.
- Once you have completed the modification, hold **X** pressed until the display shows "STORE USER / YES <> NO". Press to confirm or to modify the name again. Enter a space to delete a letter.

#### Addition of 1 or more names to the list

- To add a new name to existing list you must:
- move the jumper **J1** from 2-3 to 1-2.

**Table A.8 - Table of system programming codes (code 03)**

Programming code	Function description	Default value	Value entered with buttons	
			= 0	= 1
<b>bit 0</b>	door lock activation time	3 sec.	3 seconds	6 seconds
<b>bit 1</b>	activation upon call from internal station (1)	YES	NO	YES
<b>bit 2</b>	door lock activation with <b>X</b> (2)	NO	NO	YES
<b>bit 3</b>	deactivation of tone generator on the external door station	NO	NO	YES
<b>bit 4</b>	activation of personalised initial screen (3)	NO	NO	YES
<b>bit 5</b>	deactivation of ACI FARFISA and activation of personalised text	NO	NO	YES
<b>bit 6</b>	EC-EM terminals for additional camera switching	NO	NO	YES
<b>bit 7</b>	activation time of the EC-EM terminals for supplementary lock	3 sec.	3 seconds	6 seconds

- (1) This function allows the internal stations to press the button and pick up the handset (or pressing on Sette and on Zhe-roS models), start a conversation with the external station (in case of more external stations in parallel the connection is established with the last calling door station) and activate the door lock by pressing the button .
- (2) This functions allows for quicker door lock activation by pressing **X** rather than dialling the code 00+ . For example: press **X** + password +
- (3) You can alternate "ACI FARFISA" with the personalised text (see "personalisation of display initial text").

- enter the code **01** and press ; the display shows the first name.
- press to scroll the list; the display is empty after the last name (hold the button pressed for quick searching).
- to enter a new name follow the operations described in "Entry of names". If confirmed, the name is placed in the list in alphabetical order.

#### Deletion of name

- Move the jumper **J1** from **2-3** to **1-2**.
  - Enter the code **01** and press the display shows the first name.
  - Press to search for the name you want to delete; (hold the button pressed for quick searching).
  - Press **X** to go to the last cell (bottom right); enter a space to delete the existing number.
  - Press **X** again; the display shows "DELETE USER / YES < > NO". Press to confirm or to go back to the name.
  - Press to confirm or to go back to the name.
- The next name is displayed after you have deleted the name.

#### Language selection (code 02)

You can choose the language from 6 different options (Italian, English, French, German, Spanish and Portuguese) in operation mode:

- Move the jumper **J1** from **2-3** to **1-2**.
- Enter the code **02** and press ; the display shows "Italiano" in case of first programming or the programmed language.
- Press or to select the language.
- Press to confirm; the display shows "Programming / type: " .
- Continue by entering the code of a new programming or exit by moving the jumper **J1** back to **2-3**.

#### System programming (code 03)

You can change or activate the functions of the push-button panel (see table 3.10).

Before programming you must:

- Move the jumper **J1** from **2-3** to **1-2**.
- Enter the code **03** and press ; the display shows "bit 0 = 0 / 0 < > 1" in case of first programming or "bit 0 = 1 / 0 < > 1" if changed in the previous programming.
- Press to select 1 or to select 0.
- Press to confirm and go to the next code (see code table with descriptions).
- Once you have confirmed the value of the last code (bit 7), the display shows "Programming / type: " .
- Continue by entering the code of a new programming or exit by moving the jumper **J1** back to **2-3**.

#### Personalisation of display initial text (code 04)

You can modify the text shown on the display during normal operation or idle state. You must program bit 5 to display the text (see "system programming").

To insert the personalized text you must:

- Move the jumper **J1** from **2-3** to **1-2**.
- Enter the code **04** and press ; the display shows "DUO System", in case of first programming, or the text you want to replace.
- For information on how to enter the characters see "entry of names".

- Press to confirm; the display shows "Programming / type: " .
- Continue by entering the code of a new programming or exit by moving the jumper **J1** back to **2-3**.

#### Loading names from PC (code 05)

You can load names directly from your PC.

- Load the names on the PC using a dedicated software application (software supplied on demand).
- Turn OFF the push-button panel and the PC.
- Connect the PC serial port to the stereo jack on the back of the push-button panel with a cable as shown in the figure.

- Move the jumpers **J1**, **J2** and **J3** on the back of the push-button panel from **2-3** to **1-2**.
- Turn on the PC and then the push-button panel.
- Enter the code **05**; the display shows "TD2100MA > PC / in progress 0".
- Download the names from the PC within 15 seconds; the display shows "TD2100MA < -> PC / in progress 1", "TD2100MA < -> PC / in progress 2" and then the downloaded names.

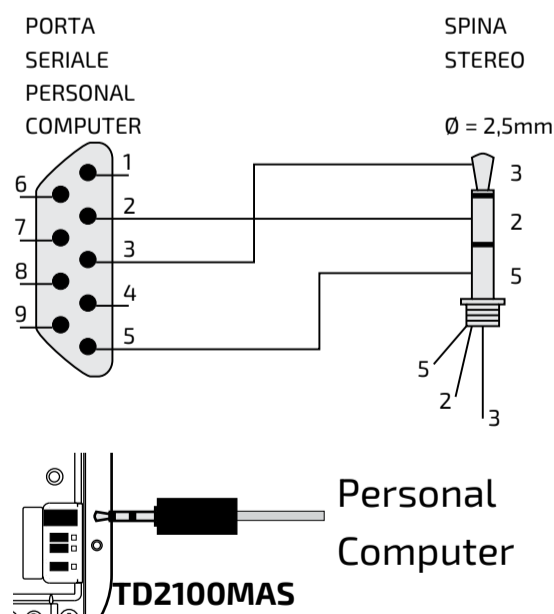
At the end of download the push-button deletes the existing names. The first line of the display shows "waiting" and the second line shows a status bar to show the progress of the deletion operation. At the end the display shows "Programming / type: " .

- Turn off the push-button panel and then the PC.
- Disconnect the cable from the PC and the push-button panel.
- Bring the jumpers **J1**, **J2** and **J3** back to **2-3**.

#### Ordering names (code 06)

You can list the names in alphabetical order (from A to Z).

- Move the jumper **J1** from **2-3** to **1-2**.
- Enter the code **06**; the first line of the display shows "waiting" and the second line shows a status bar; at the end of the operation the push-button panel returns automatically to the programming mode (the display shows "Programming / type: " .).



- Exit the programming mode by bringing the jumper **J1** back to **2-3**.

#### How to enter the address of EC-EM terminals (code 10)

- Move the jumper **J1** from **2-3** to **1-2**.
- Enter the code **10** and press ; the display shows "ADDRESS EC".
- Dial the number of the desired address (255 for relay or camera activation mode; 250 for door lock mode; number of internal station before the first user of the supplementary door lock service).
- Press to confirm.
- Exit the programming mode by bringing the jumper **J1** back to **2-3**.

#### Operations whit doorkeeper exchangers (code 20)

Following settings are necessary if in the system are installed main and/or secondary door keeper exchangers.

For programming you must:

- enter the code **20** and press the button ; on the first line of the display appears the writing "Address PDX", on the second line is displayed the address saved previously or empty spaces if no address was stored previously;
- delete all the addresses saved previously by pressing the button **X** and/or enter the address **201** if the push-button panel sends calls to 1 or more main stations or the address **210** if the push-button panel sends calls to 1 or more secondary stations;
- press the button to confirm the setting;
- to exit the programming mode, bring the jumper **J1** to position **A**.

#### Return to operation mode

Once you have completed programming, bring the jumper **J1** back to **2-3**; the display shows "ACI FARFISA / press < >" or the text you have entered during programming (see "Personalisation of display initial text").

#### EC-EM TERMINALS

The EC-EM terminals can be used to connect:

- **one active relay during the call and for the entire conversation (default)**
- **one additional camera**
- **one additional door lock**

To have these functions you must connect the terminals correctly and make some programming operations on the TD2100MAS push-button panel.

- **Connection of one relay (see fig. 1)**  
Programming operations to be made:  
- code **03** = set **bit 6** at **0**  
- code **03** = set **bit 7** at **0**  
- code **10** = enter address **255**

- **Connection of one additional camera**  
For this use you must connect the EC and EM terminals to the corresponding terminals of the audio/video module (see diagrams si51VM/32 and si51VM/169 on chapter 5).

- Programming operations to be made:  
- code **03** = set **bit 6** at **1**  
- code **03** = set **bit 7** at **0**  
- code **10** = enter address **255**

- **Connection of one additional door lock.** For this use you must connect a relay as shown in the figure and program the push-button panel

according to the desired service. The presence of the additional door lock requires to change the password (code 00). The first 8 passwords will activate the door lock connected to terminals S1 and S2, and the remaining 8 passwords will activate the door lock connected to terminals EC and EM.

**1) - activation of door lock from turn-ON button of internal stations** This function can be activated only during a conversation with the external door station. In idle state the buttons will activate the external door station. Programming operations to be made:

- code **03** = set **bit 6** at **0**
- code **03** = set **bit 7** at **0** (3 seconds) or **1** (6 seconds)
- code **10** = enter address **250**

**2) - activation of door lock from button of internal stations**


This programming allows for having two groups of users connected to a single external door station, each of them with its own door lock. The division between the two groups is indicated by the number that is inserted in the programming of code 10 (see page 3.37). You must insert the last user number recognised by group 1 that will activate the door lock connected to terminals S1 and S2; all higher numbers will automatically be in group 2 and will activate the door lock connected to terminals EC and EM.

Programming operations to be made:

- code **03** = set **bit 6** at **0**
- code **03** = set **bit 7** at **0** (3 seconds) or **1** (6 seconds)
- code **10** = insert address of **last user in group 1** (example: if you enter 99 you will have: group 1 with codes from 1 to 99; group 2 from 100 to 200).





## OPERATION



Check that all connections are correct. Connect the power supply unit to the mains; the displays shows the software version of the push-button panel for 3 seconds followed by "ACI FARFISA / press <> (<> in alternate mode).


Dial the user number, check that the number is correct on the display "dialling / ----" and press  to make the call. The tone and the text "calling / ----" confirm that the call has been made.


In case of error press **X** (only before sending the call) and dial the correct to number.

If the number exists you will hear the confirmation tone; if not, you will hear the busy tone and the display will show "busy / ". You can select the internal station from the

names in the list. Press  or  to search for the internal station and press  to send the call. The called station will ring only once; but, if in this phase, press  another time the station rings again. If press **X** the call is terminated and the system is ready for a new call.

The called user picks up the handset (or press  for Zhero, myLogic and Echos series) enables the conversation with the external station for 90 seconds. The display shows "connection / ---". The text on the display starts flashing 10 seconds before conversation ends. To continue conversation for additional 90 seconds press  again.

Press the  button to release the door lock. Door lock activation time is 3 seconds (or 6 seconds).

Replace the handset (or press  for Zhero, myLogic and Echos series) or press **X** on the door station to restore the idle state.



Numbers that are not sent or deleted go off after 25 seconds.

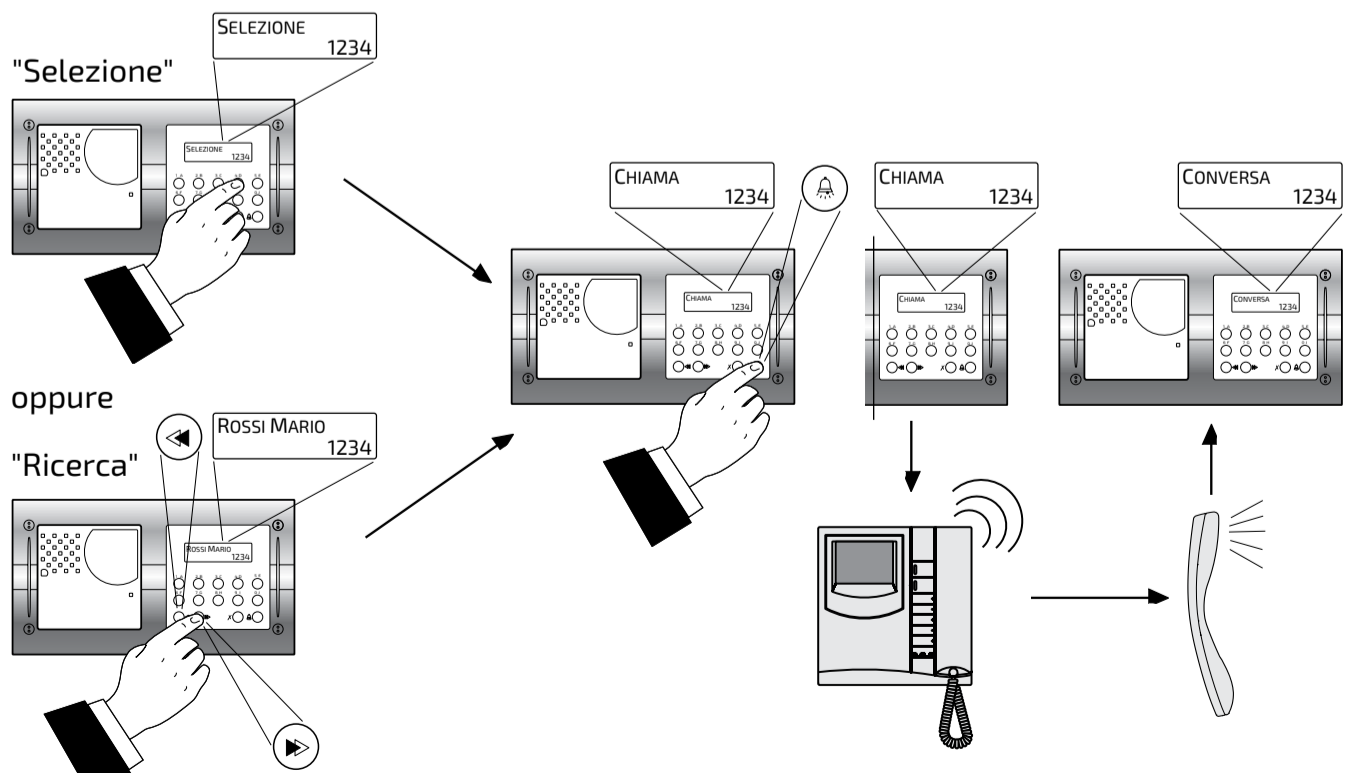
In installations with **2 or more digital push-button panels**, when a call is made from one push-button panel, the other push-button panels are deactivated and their display shows "busy / ". Wait until the line is free to make the call.

### Door lock opening

The door lock can be opened from the push-button panel, including in "busy" mode, by dialling one of the 16 4-digit codes you have entered.

### Door lock activation

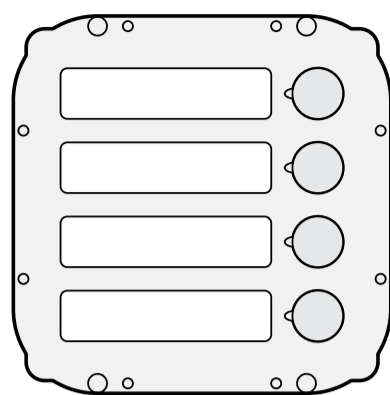
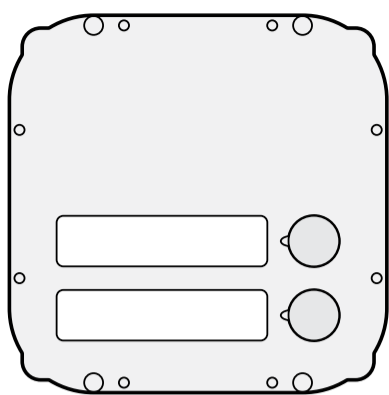
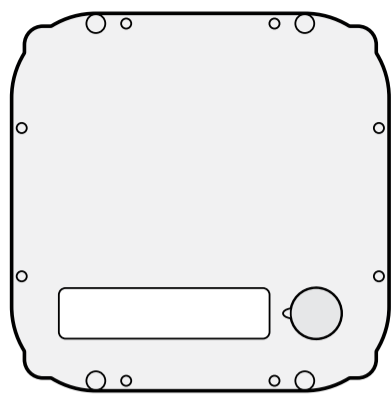
- Dial **00**
- Press ; the display shows "Password / ■■■■"
- Dial the personal access code within 10 seconds; each digit is visualised with \* instead of ■.
- Press  to release the door lock; you hear the confirmation tone and the push-button panel returns to the current system operation mode (free or busy).



Art. **CD2131MAS**

**CD2132MAS**

**CD2134MAS**



Programmable via  
DUO System app

## Codificatore a 1, 2 e 4 chiamate Ma- trix per sistema digitale DUO

Moduli codificatore con retro illuminazione a LED di colore verde. Forniti di cavetto per il collegamento al modulo successivo. Permettono di inviare chiamate su linea digitale DUO.

### Dati tecnici

Alimentazione	dal modulo audio/video
Tempo azionamento serratura	3/6 secondi
Numero di chiamate	128
Dimensioni (mm)	115x115
Grado di protezione	IP45, IK09
Serratura elettrica	13 Vca/1 A max
Temperatura di funzionamento	0°÷+40°C
Massima umidità ammissibile	90% RH

### Morsetti

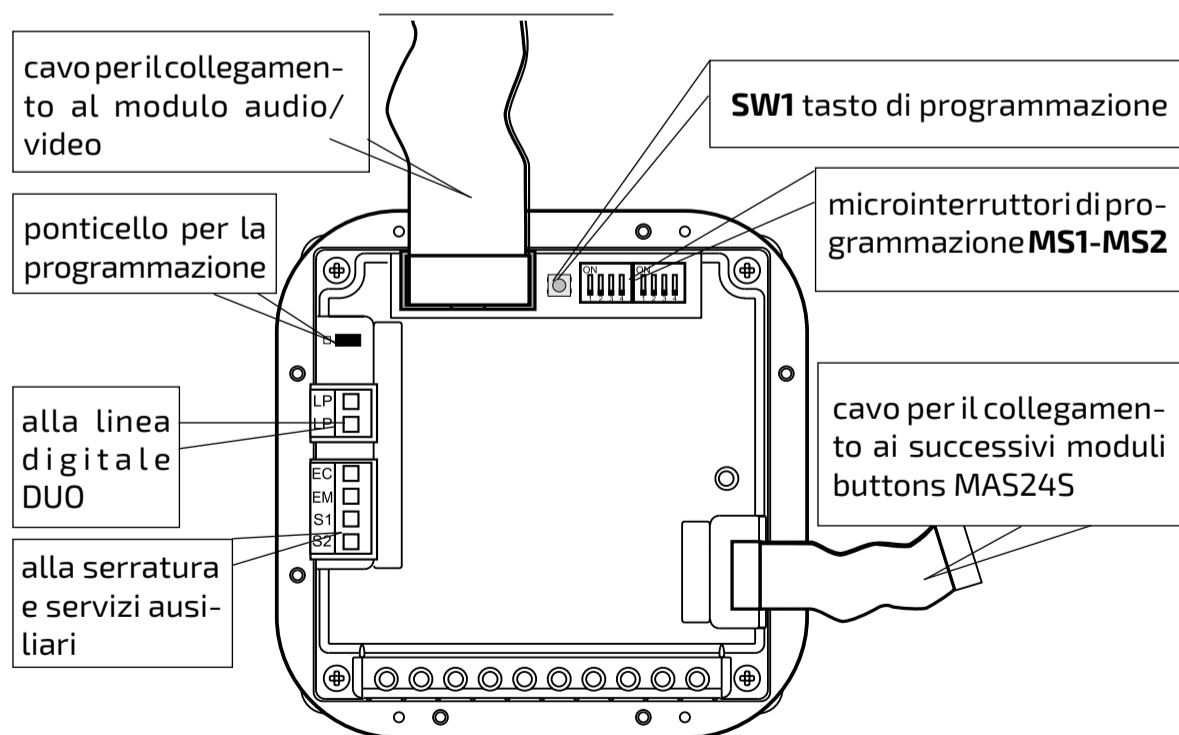
LP/LP bus DUO

EC comando positivo per servizi ausiliari

EM comando negativo per servizi ausiliari

S1/S2 contatti puliti apertura serratura

### Morsettiere di connessione



### PROGRAMMAZIONI

#### Programmazioni di fabbrica.

Di seguito sono elencati i valori delle programmazioni effettuate in fabbrica, se occorre modificarle seguire le indicazioni dei paragrafi successivi.

- Indirizzo posto esterno=**231**
- Indirizzo primo pulsante=**100**
- Indirizzo ultimo pulsante (intera buttons era)=**200**
- Indirizzo centralino di portineria=**vuoto**
- Tempo attivazione serratura=**3 sec**
- Modalità operativa EC/EM=**attivazione alla chiamata e durante la conversazione**
- Tono di libero=**abilitato**

#### Programmazioni via Bluetooth.

Se è necessario modificare la configurazione di fabbrica, si suggerisce di utilizzare la programmazione Bluetooth, scaricando sul proprio smartphone o tablet la app "**DUO System**" (disponibile per iOS e Android). Successivamente:

- connettere all'impianto un programmatore Bluetooth articolo PGR2991BT;
- lanciare l'esecuzione della app DUO System, posizionarsi nella sezione Bus DUO, premere il pulsante "+", inserire l'indirizzo del posto esterno (di fabbrica 231);

- programmare e disconnettersi.

**!** Nel caso non possa essere utilizzato un programmatore Bluetooth, è disponibile una procedura di programmazione "di emergenza", descritta successivamente, con cui è possibile programmare solo un numero limitato di parametri.

### Programmazione manuale

Per effettuare le programmazioni, agendo direttamente sul dispositivo (correttamente connesso all'art.VD2120CMAS o all'art. AD2110MAS con questi ultimi correttamente alimentati tramite trasformatore art.2220S) occorre eseguire le seguenti fasi:

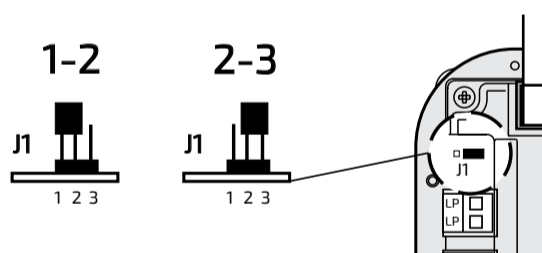
- 1) entrare in modalità programmazione;
- 2) scegliere la funzione che si desidera programmare (indirizzo del primo pulsante/ indirizzo del posto esterno/programmazioni di sistema secondo quanto indicato nella successiva tabella A.8). Una volta impostato su MS1 e MS2 il valore numerico corrispondente alla relativa funzione, premere SW1 per confermare;
- 3) inserire l'indirizzo da associare alla funzione (100/231.....) e premere SW1 per confermare;
- 4) uscire dalla programmazione

### Note

- In qualunque momento è possibile uscire dalla fase di programmazione riportando il ponticello J1 dalla posizione 1-2 alla posizione 2-3.
- Per eseguire altre programmazioni è sufficiente ripetere più volte le fasi 2 e 3.

### Ingresso in programmazione

Spostare il ponticello J1, posto sul retro della buttonsera, dalla posizione 2-3 alla 1-2; si udirà il tono di programmazione.

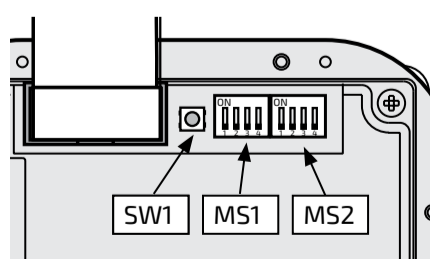


### Posizioni ponticello J1:

- 1-2 = modalità programmazione
- 2-3 = modalità funzionamento

### Scelta della funzione da programmare

- Sui microinterruttori MS1 e MS2, impostare il valore numerico relativo alla funzione che s'intende eseguire come riportato nella tabella A.8.
- Premere il tasto di conferma SW1.



Associa-

**Tabella A.8**

Utente primo pulsante	MS1 ON 1 2 3 4	MS2 ON 1 2 3 4	161
Utente ultimo pulsante	MS1 ON 1 2 3 4	MS2 ON 1 2 3 4	162
Indirizzo posto esterno	MS1 ON 1 2 3 4	MS2 ON 1 2 3 4	177
Parametri di sistema	MS1 ON 1 2 3 4	MS2 ON 1 2 3 4	178
Impostazione indirizzo di EC-EM	MS1 ON 1 2 3 4	MS2 ON 1 2 3 4	225

### zione dell'indirizzo alla funzione

- Sui microinterruttori MS1 e MS2, impostare l'indirizzo desiderato, usando la corrispondenza riportata nella tabella A.5 delle pagine A.22 e A.23. Nel caso in cui si sia scelto di modificare i parametri di sistema (**tempo di azionamento dei contatti S1/S2 alla ricezione del comando di apertura serratura, abilitazione/disabilitazione della possibilità di aprire il collegamento fonico con il posto esterno durante la fase di autoaccensione, abilitazione/disabilitazione del tono di libero all'invio della chiamata sul posto esterno, impostazione dei contatti EC/EM per gestire la commutazione tra la telecamera del modulo VD2120CMAS ed una telecamera con uscita analogica in PAL, collegata ai suoi morsetti V/M**) è necessario comporre sui microinterruttori di MS1 e MS2 un indirizzo in cui la posizione di ogni singolo microinterruttore (1, 2, 3 e 4 di MS1 e 1, 2, 3 e 4 di MS2) è stabilita in seguito all'impostazione che si vuole configurare per il parametro che lo stesso microinterruttore rappresenta secondo le corrispondenze ricavate dalla tabella A.9.

- Premere il tasto di conferma SW1.

- Ripetere più volte le fasi di scelta della funzione e successivamente di associazione dell'indirizzo fino alla completa programmazione del codificatore.

**!** Ad ogni pressione del tasto SW1 un tono di conferma o di errore indicherà l'immissione di un codice corretto o sbagliato; nel secondo caso sarà necessario reinserire il codice esatto.

### Programmazione indirizzo centralino di portineria (funzione 193).

(Di fabbrica vuoto). Una volta entrati in programmazione:

A.36

**Tabella A.9**

Contatti S1/S2 azionati per 3 secondi (impostazione di fabbrica);	MS1 ON 1
contatti S1/S2 azionati per 6 secondi;	MS1 ON 1
disabilitazione dell'attivazione della fonia con il posto esterno in autoaccensione	MS1 2
abilitazione dell'attivazione della fonia con il posto esterno in autoaccensione (impostazione di fabbrica);	MS1 2
solo posizione OFF;	MS1 4
abilitazione alla generazione del tono di libero sul posto esterno (impostazione di fabbrica);	MS1 4
disabilitazione della generazione del tono di libero sul posto esterno;	MS1 4
solo posizione OFF;	MS2 ON 1 2
contatti EC/EM usati per pilotare un relè (comportamento monostabile: impostazione di fabbrica);	MS2 3
contatti EC/EM usati per commutazione su telecamera ausiliaria (comportamento bistabile);	MS2 3
contatti EC/EM azionati per 3 secondi (impostazione di fabbrica);	MS2 4
contatti EC/EM azionati per 6 secondi.	MS2 4

- tramite i microinterruttori MS1 e MS2, impostare il codice della funzione:



- premere il tasto di conferma SW1;
- tramite i microinterruttori MS1 e MS2, impostare l'indirizzo. I microinterruttori MS1 e MS2 della figura sotto sono configurati

per l'assegnazione dell'indirizzo 201 (valori ammessi: 201 se la chiamata viene inviata ad un centralino principale o 210 se viene inviata ad un centralino secondario. Per cancellare il valore precedentemente salvato, inserire 255 - vedere Tabella A.5):



- premere il tasto di conferma **SW1**.

### Ritorno alle impostazioni di fabbrica (funzione 170).

Il ritorno alle impostazioni di fabbrica può essere eseguito via Bluetooth o manualmente come indicato di seguito, una volta entrati in programmazione:

- tramite i microinterruttori **MS1** e **MS2**, impostare il codice della funzione:



- premere il tasto di conferma **SW1**;
- tramite i microinterruttori **MS1** e **MS2**, impostare il valore 085:

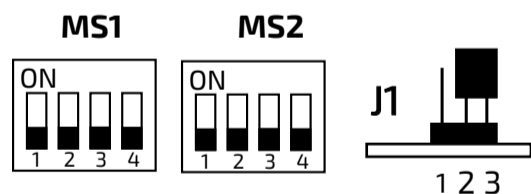


- premere il tasto di conferma **SW1**.

**⚠ Il ripristino delle impostazioni di fabbrica riporta i CD2131MAS e CD2132MAS al comportamento di un CD2134MAS. E' necessario tenere nella giusta considerazione tale evenienza e, se necessario, accedere via Bluetooth e configurare il dispositivo nella sezione "Modalità codificatore".**

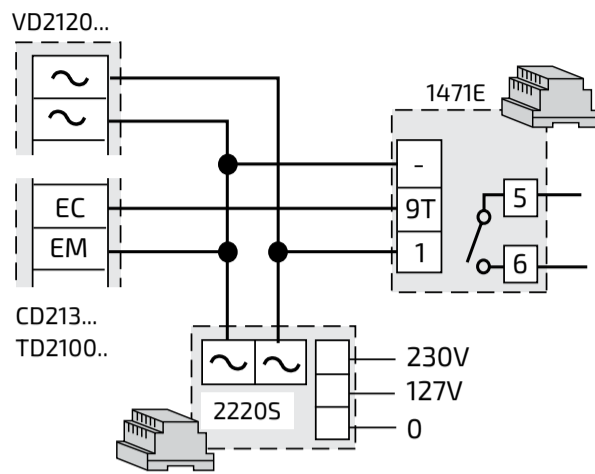
### Uscita dalla programmazione

Per uscire dalla programmazione è necessario posizionare tutti i microinterruttori di **MS1** e **MS2** su **OFF** e riportare il ponticello **J1** dalla posizione **1-2** alla **2-3**.



### MORSETTI EC-EM

Per impostazione di fabbrica i contatti EC/EM sono predisposti per la gestione di un'eventuale luce o faretto da aggiungere (se necessario) per incrementare il livello di illuminazione offerto dai LED bianchi a bordo di VD2120CMAS:



### - Gestione della commutazione del segnale video tra la telecamera a bordo di VD2120CMAS ed una telecamera supplementare

Per questo utilizzo è sufficiente collegare i morsetti EC ed EM ai rispettivi morsetti del modulo audio/video.

Programmazioni da effettuare:

- nell'ambito della programmazione che configura i parametri di sistema, il microinterruttore **3** di **MS2** deve essere posizionato su **ON**;
- nell'ambito della programmazione che imposta l'indirizzo di EC-EM, inserire indirizzo **255** (impostazione di fabbrica).

### - Collegamento di una serratura supplementare.

Per questo utilizzo occorre collegare un relè come mostrato dalla figura sopra e programmare la buttonsera secondo il servizio richiesto.

**1) attivazione della serratura dal pulsante di autoaccensione dei posti interni.** Questa funzione può avvenire solo durante una conversazione in corso con il posto esterno. A riposo i buttons abilitano il posto esterno.

Programmazioni da effettuare:

- nell'ambito della programmazione che configura i parametri di sistema, il microinterruttore **3** di **MS2** deve essere posizionato su **OFF** mentre il microinterruttore **4** di **MS2** deve essere posizionato su **OFF** se si desidera un tempo di attivazione di **3 secondi** o su **ON (6 secondi)**;

- nell'ambito della programmazione che imposta l'indirizzo di EC-EM, inserire indirizzo **250**

### 2) attivazione della serratura dal pulsante dei posti interni

Questa programmazione permette di avere due gruppi di utenti collegati ad un unico posto esterno ma aventi ognuno una propria serratura. La ripartizione tra un gruppo e l'altro è indicata dal numero che si inserisce nella programmazione dell'indirizzo dei contatti EC-EM. In questa programmazione occorre inserire il primo numero utente del 2° gruppo che attiverà la serratura collegata ai morsetti EC ed EM; automaticamente tutti i numeri inferiori faranno parte del 1° gruppo che attiveranno la serratura collegata ai morsetti S1 ed S2.

Programmazioni da effettuare:

- nell'ambito della programmazione che configura i parametri di sistema, il microinterruttore **3** di **MS2** deve essere posizionato su **OFF** mentre il microinterruttore **4** di **MS2** deve essere posizionato su **OFF** se si desidera un tempo di attivazione di **3 secondi** o su **ON (6 secondi)**;
- nell'ambito della programmazione che imposta l'indirizzo di EC-EM, inserire l'indirizzo **del primo utente del 2° gruppo** (esempio: inserendo 100 si avrà: 1° gruppo con codici da 1 a 99; 2° gruppo da 100 a 200).

**Esempio: programmazione per l'utilizzo dei contatti EC-EM per la commutazione del segnale video tra la telecamera a bordo di VD2120CMAS ed una ausiliaria collegata all'ingresso V-M.**

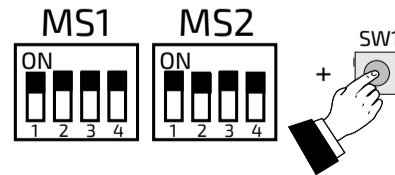
#### Primo passo

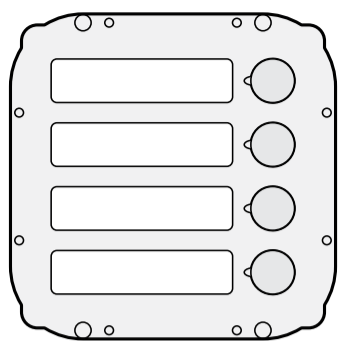


#### Secondo passo

Facendo ricorso alla tabella A.9, impostare i microinterruttori di MS1 e MS2 in modo da configurare i parametri di sistema come desiderato (es: S1/S2 3 secondi, abilitazione fonia in autoaccensione, tono di libero abilitato, utilizzo di EC-EM per commutazione telecamera)

Associare l'indirizzo 255.





## Modulo buttons a 4 chiamate Matrix con decodifica per sistema digitale DUO

Tramite il collegamento con un opportuno codificatore digitale permette di inviare chiamate nei sistemi digitali Farfisa.

### Morsetti

**A+** ingresso tensione alternata o continua per Led illumina-cartellini (13Vca/cc-80mA)

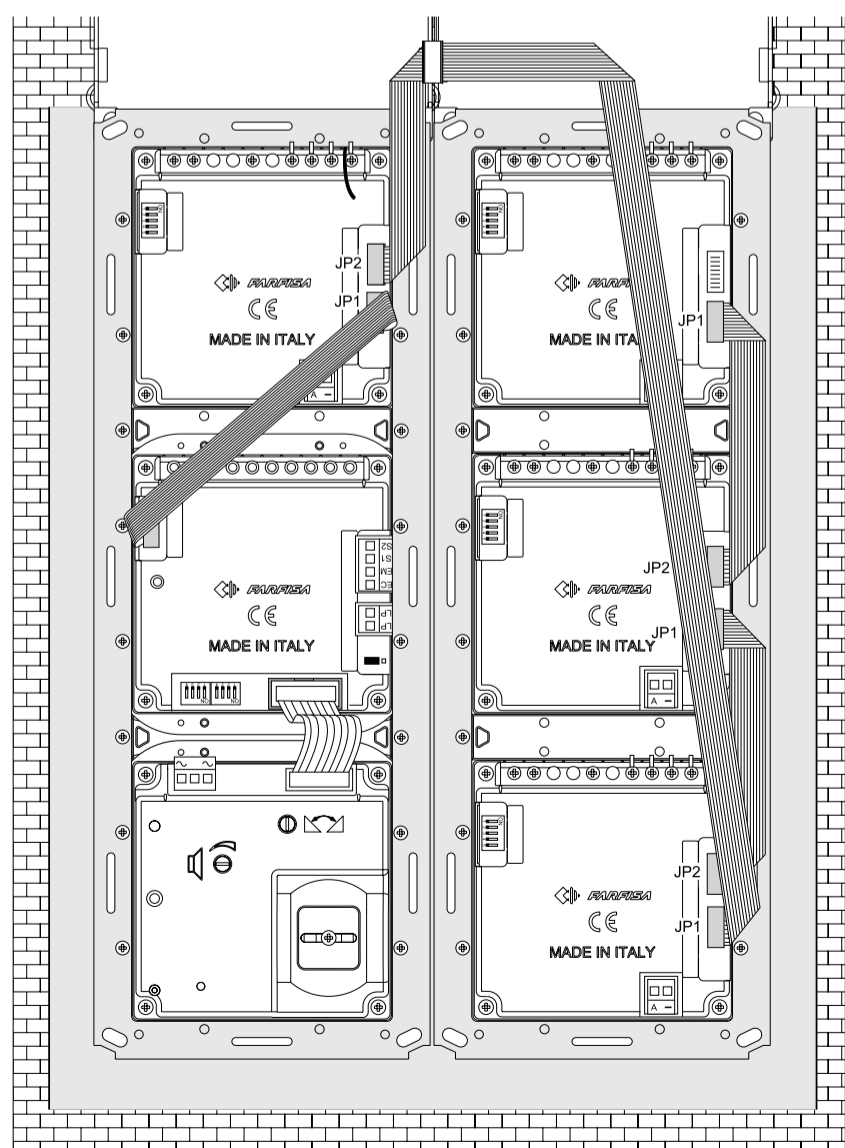
**A-** ingresso tensione alternata o massa per Led illumina-cartellini

### Installazione e collegamenti

- Collegare il modulo codificatore digitale al connettore JP1 del primo modulo MAS24S tramite il cavetto fornito a corredo del codificatore.
- Collegare il connettore JP2 del primo


modulo al JP1 del secondo modulo MAS24S utilizzando i cavetti forniti a corredo.

- Collegare di seguito tutti i moduli.
- Non collegare il connettore JP2 dell'ultimo modulo perché inutilizzato.

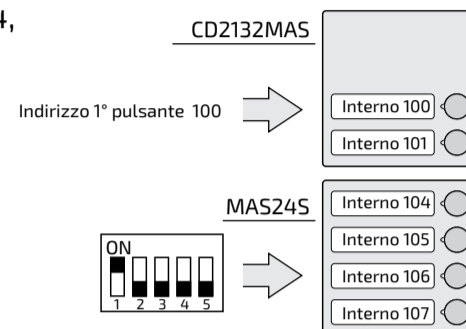



## PROGRAMMAZIONI

### MAS24S


Tutti i MAS24S hanno di fabbrica il microinterruttore 1 di SW1 in posizione ON e tutti gli altri in OFF  il che corrisponde ad aggiungere **un gradino di 4 unità** rispetto all'indirizzo associato al primo pulsante dei codificatori CD2131MAS/CD2132MAS/CD2134MAS. In altre parole, se l'indirizzo programmato come primo pulsante è 100 (impostazione di fabbrica) per il CD2131MAS (gli indirizzi 101, 102 e 103 vanno perduti) o per il CD2132MAS (in questo caso vanno perduti 102 e 103) o per il CD2134MAS (in quest'ultimo caso nessun indirizzo viene perduto), gli interni chiamati da MAS24S sono:

- il primo pulsante chiama 104,
- il secondo pulsante il 105,
- il terzo il 106,
- il quarto il 107.



Se viene portato in ON il secondo microinterruttore di SW1 e tutti gli altri in OFF , il gradino che verrà imposto agli indirizzi di chiamata di MAS24S sarà di 8 unità:

- il primo pulsante di MAS24S chiama l'indirizzo 108,
- il secondo il 109,
- il terzo il 110,
- il quarto il 111.

Ovviamente se viene modificato l'indirizzo del primo pulsante del codificatore a monte, verranno modificati tutti gli indirizzi chiamati dai MAS24S a valle. Se l'indirizzo del primo pulsante di CD2134MAS viene configurato sul valore 36, lasciando SW1 di MAS24S con il solo microinterruttore 1 su ON , le chiamate generate da MAS24S saranno le seguenti:

- il primo pulsante chiama 40,
- il secondo il 41,
- il terzo il 42,
- il quarto il 43.

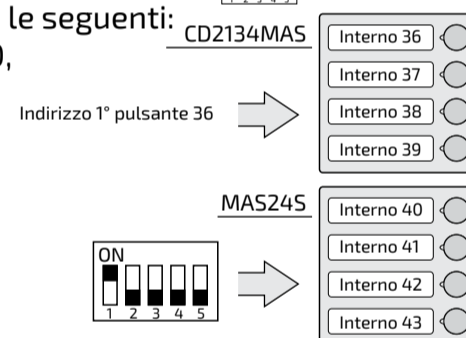
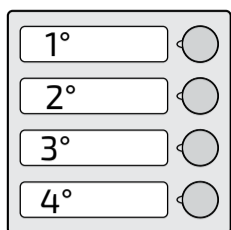


Tabella A.10.

Ordine con cui vengono associati i numeri ai buttons

MAS24S



Gradino da impostare (in unità)

Posizione microinterruttori SW1

Gradino da impostare (in unità)	Posizione microinterruttori SW1
4	
8	
12	
16	
20	
24	
28	
32	
36	
40	
44	
48	
52	
56	

Gradino da impostare (in unità)

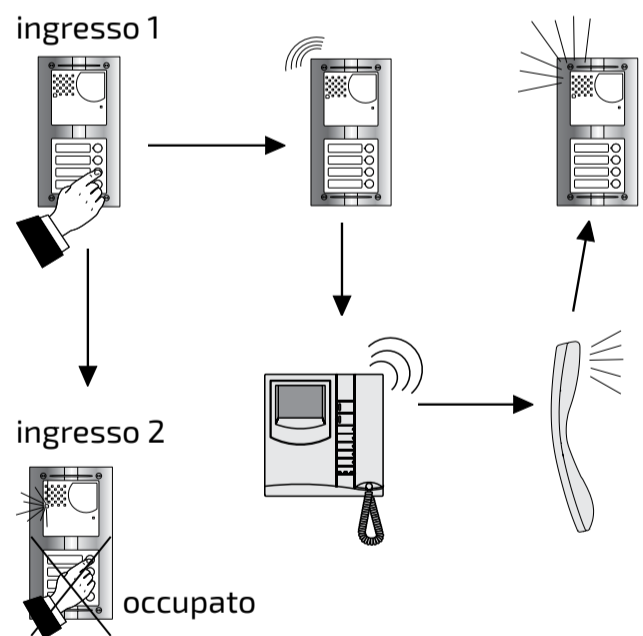
Posizione microinterruttori SW1

60	
64	
68	
72	
76	
80	
84	
88	
92	
96	
100	
104	
108	
112	
116	
120	
124	

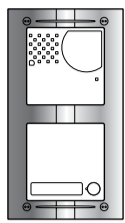
FUNZIONAMENTO

Controllare che i collegamenti dell'impianto siano effettuati correttamente. Mettere in funzione l'impianto collegando a rete gli alimentatori. Per eseguire la chiamata premere il pulsante dell'utente desiderato. L'avvenuto invio è confermato da un tono di libero se la linea è disponibile o di occupato se la linea non è disponibile (vedere tabella dei toni). L'apparecchio chiamato suona una sola volta; se in questa fase si preme ancora lo stesso pulsante l'apparecchio suona nuovamente. L'utente chiamato, sollevando il microtelefono (o premendo nel Sette e nello ZheroS), abilita la conversazione con l'esterno per un tempo di 90 secondi. A 10 secondi dalla fine della conversazione, si udirà un tono di fine conversazione; premere nuovamente il pulsante dell'utente chiamato per continuare la conversazione per altri 90 secondi. Per azionare l'apertura della serratura, premere il pulsante . La durata dell'abilitazione è di 3 secondi (o 6 secondi se diversamente programmato). L'impianto ritorna a riposo riponendo il microtelefono (o premendo nel Sette e nello ZheroS.

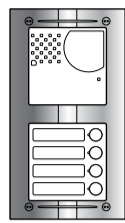
In impianti con **2 o più posti esterni**, effettuando la chiamata da una postazione, si disabilitano le altre con la segnalazione di occupato (led rosso lampeggiante sul modulo audio o audio-video). Attendere che si liberi la linea per effettuare la chiamata.



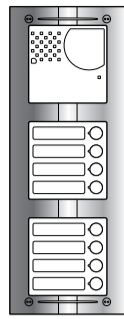
## Esempi di composizione in impianti videocitofonici



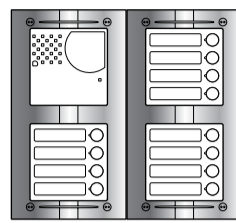
1 pulsante



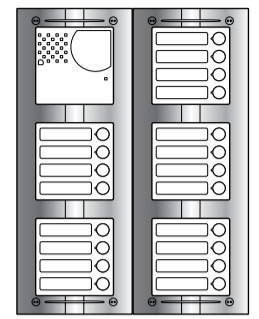
4 buttons



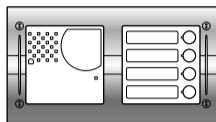
8 buttons



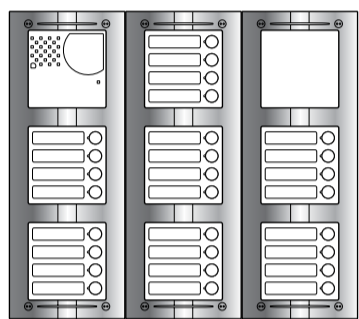
12 buttons



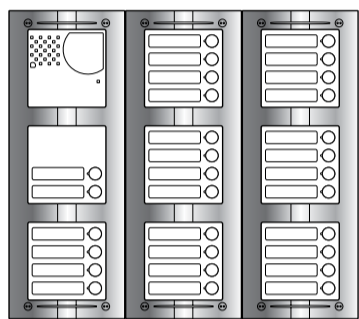
20 buttons



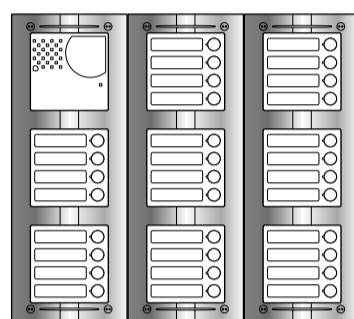
4 buttons (orizzontale)



28 buttons



30 buttons



32 buttons

### Articoli occorrenti per la composizione delle buttonsere.

N° puls.	Dimensioni	Modulo codificatore	Modulo telecamera con fonia	Moduli buttons e neutro		Cornici decorative	Scatole incasso e telai	Tettucci parapioggia
2	140x256x19 (L x H x P)	1 CD2132MAS	1 VD2120CMAS	-	-	1 MAS62	1 MA72	1 MA92
4		1 CD2134MAS	1 VD2120CMAS	-	-	1 MAS62	1 MA72	1 MA92
6	140x374x19 (L x H x P)	1 CD2132MAS	1 VD2120CMAS	1 MAS24S	-	1 MAS63	1 MA73	1 MA93
8		1 CD2134MAS	1 VD2120CMAS	1 MAS24S	-	1 MAS63	1 MA73	1 MA93
9	280x256x19 (L x H x P)	1 CD2131MAS	1 VD2120CMAS	2 MAS24S	-	2 MAS62	2 MA72	-
12		1 CD2134MAS	1 VD2120CMAS	2 MAS24S	-	2 MAS62	2 MA72	-
14	280x374x19 (L x H x P)	1 CD2132MAS	1 VD2120CMAS	3 MAS24S	1 MAS20	2 MAS63	2 MA73	-
17		1 CD2131MAS	1 VD2120CMAS	4 MAS24S	-	2 MAS63	2 MA73	-
20		1 CD2134MAS	1 VD2120CMAS	4 MAS24S	-	2 MAS63	2 MA73	-
22	560x256x19 (L x H x P)	1 CD2132MAS	1 VD2120CMAS	5 MAS24S	1	4 MAS62	4 MA72	-
25		1 CD2131MAS	1 VD2120CMAS	6 MAS24S	MAS20	4 MAS62	4 MA72	-
28		1 CD2134MAS	1 VD2120CMAS	6 MAS24S	-	4 MAS62	4 MA72	-
29	420x374x19 (L x H x P)	1 CD2131MAS	1 VD2120CMAS	7 MAS24S	-	3 MAS63	3 MA73	-
30		1 CD2132MAS	1 VD2120CMAS	7 MAS24S	-	3 MAS63	3 MA73	-
32		1 CD2134MAS	1 VD2120CMAS	7 MAS24S	-	3 MAS63	3 MA73	-

- Per impianti citofonici sostituire l'articolo VD2120CMAS con AD2110MAS

Al posto delle MA72 o MA73

*Causa la continua evoluzione tecnologica, le specifiche degli apparati, la composizione delle gamme e le immagini possono essere soggette a modifiche senza preavviso da parte del produttore.*

→ **progetto grafico:**  
**Ing. Luca Carini**

→ **contenuti:**  
**Ing. Luca Carini**

**Copyright © 2024**  
**ACI Srl**  
**Via E. Vanoni, 3**  
**60027 Osimo (AN)**  
**ITALY**  
**tel. (+39) 0717202038**  
**info@farfisa.com**  
**www.farfisa.com**



**Sistema per la gestione della qualità aziendale certificato.**



**Marchio europeo di conformità ai requisiti delle direttive CEE.**



**ACI srl**

Via E. Vanoni, 3  
60027 Osimo AN - ITALY  
Tel. (+39) 071.7202038  
Fax (+39) 071.7202037  
**[info@farfisa.com](mailto:info@farfisa.com)**

