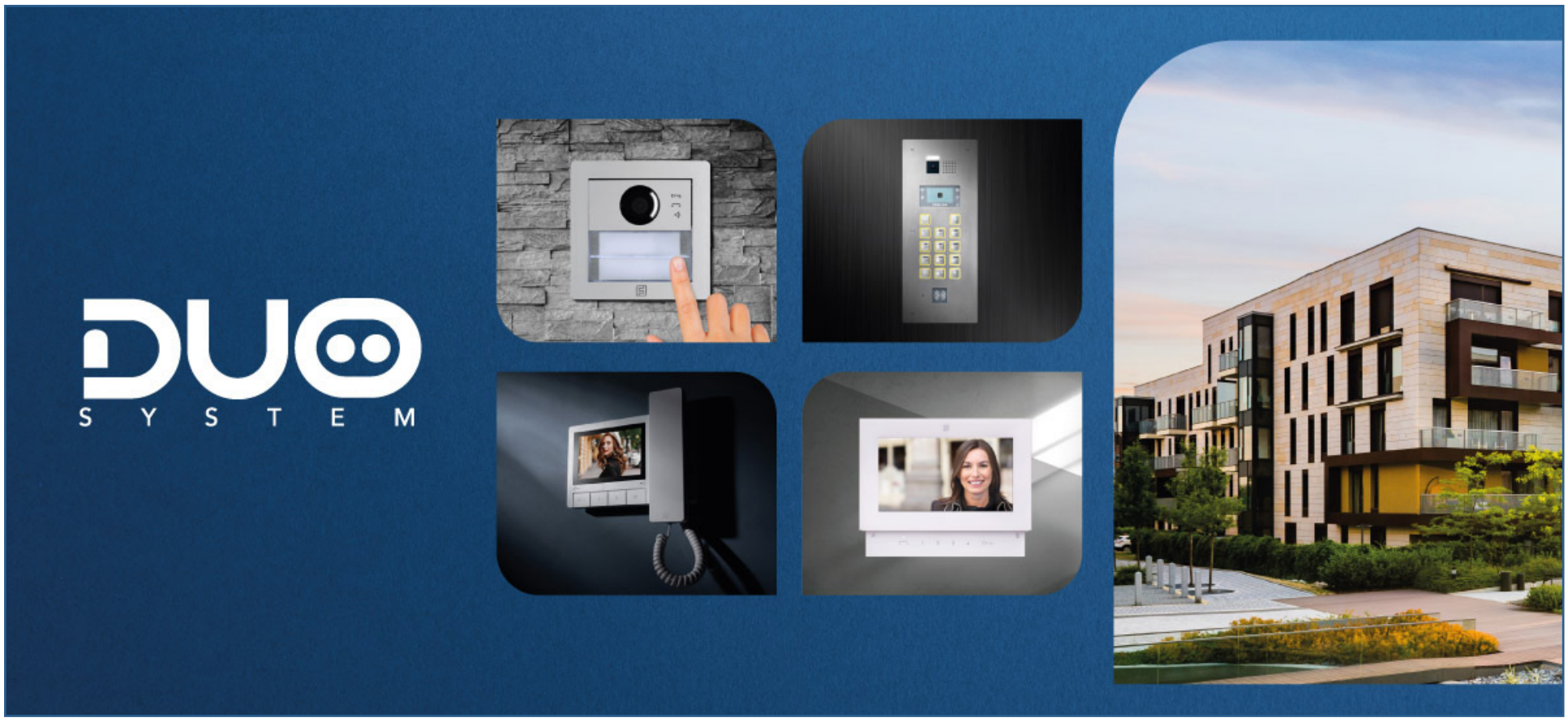
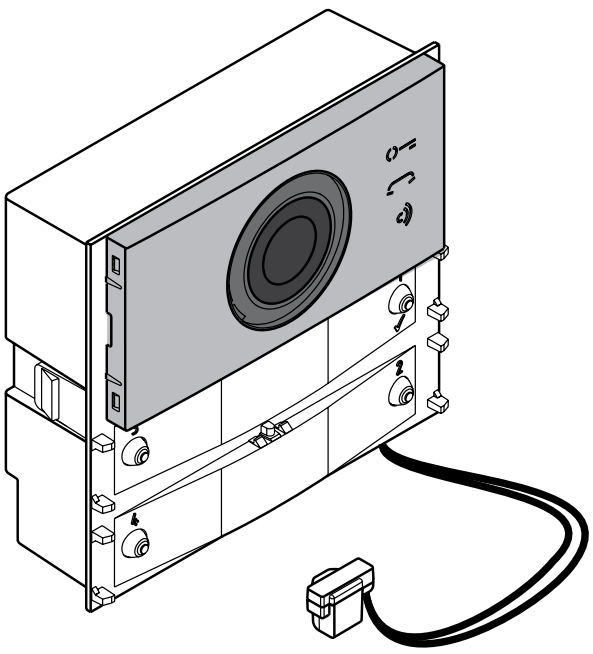


Chapter 3

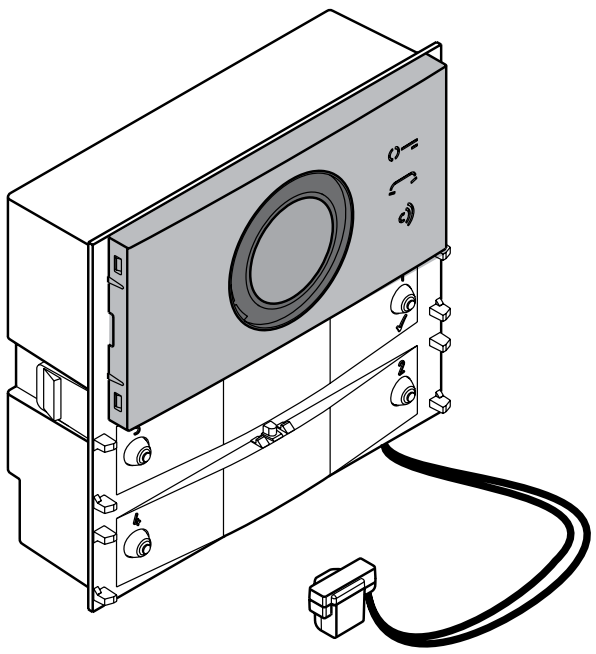
EXTERNAL DOOR STATIONS

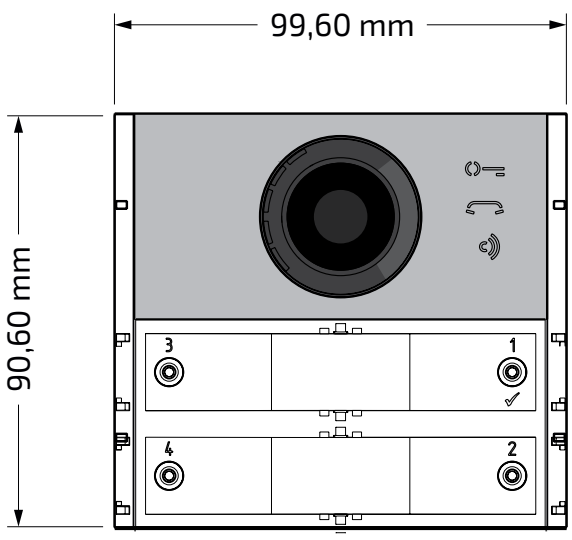
FARFISA

Art. CV2144AB



Art. CA2144AB





Programming via DUO System app

Modulators management

ALBA

Audio/video or only audio modules for DUO sistem

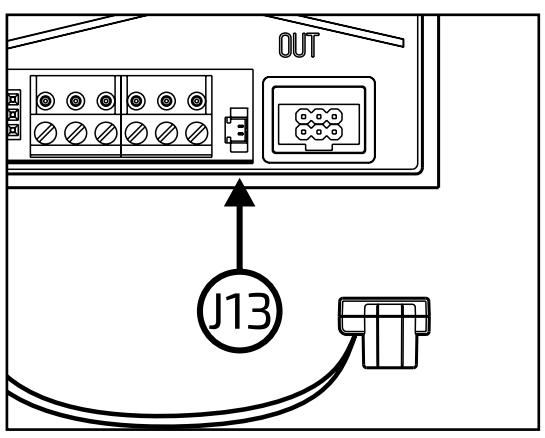
The modules are equipped with:
- voice messages;;
- 2 Single-Button or 4 Double-Buttons configuration;
- programming via Bluetooth;
- auxiliary relay (contacts C and NA);

Technical data

Power supply:		from the DUO line
Consumption	stand-by:	0.02A
	in operation:	0.25A
Max current delivered to other modules:		0.1A
Lock activation current		
	releasing:	> 1A (10msec.)
	holding:	180mA
Operating temperature:		-25 ÷ 50°C
Maximum permissible humidity:		90% RH

Terminals and Connectors

LP/LP	DUO line
S+/S-	Electric lock
PB/GN	Lock opening button
J4	Connector connecting other modules
J13	Auxiliary relay (30Vdc-1A)1A)



LED signals under normal operation

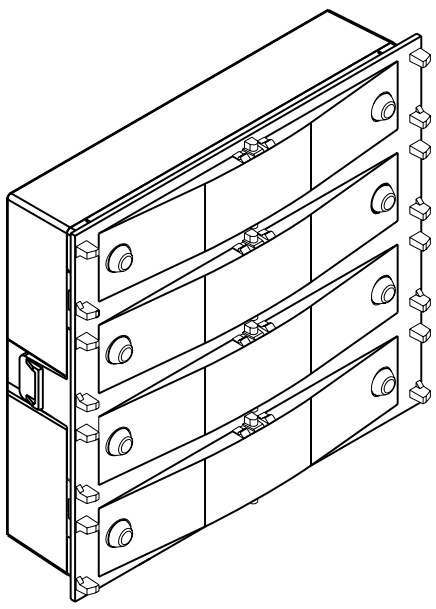
ON: lock released

ON: call in progress

ON: conversation in progress

Quickly flashing: user or system busy

Art. CT2138AB

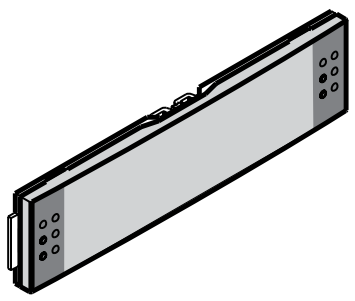


Additional button module.

Technical data

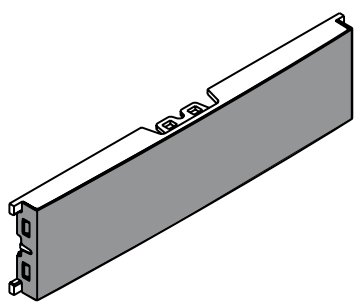
Power supply:	from DUO line
Absorption:	0,01 A

Art. AB21



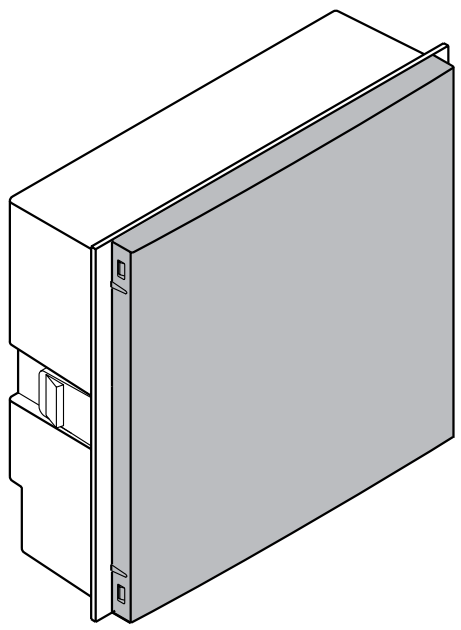
Key with Braille Reliefs

Art. AB20



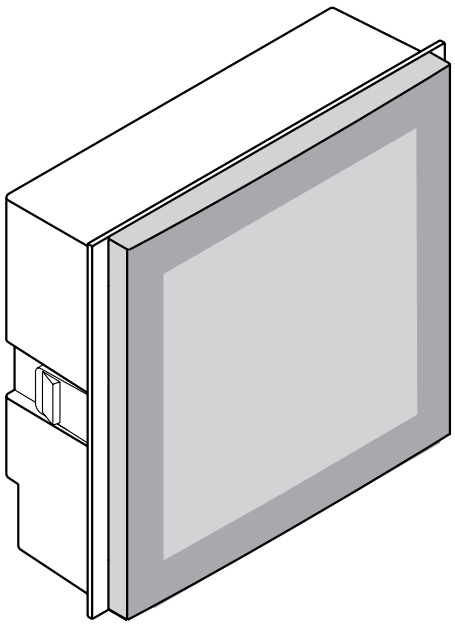
Key cover

Art. AB00



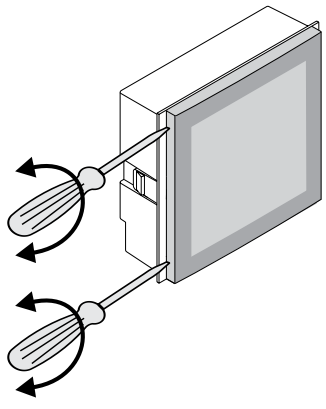
Neutral module

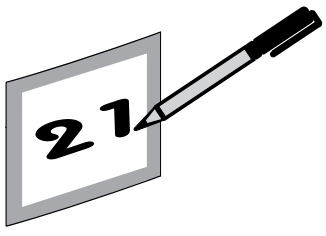
Art. AB50

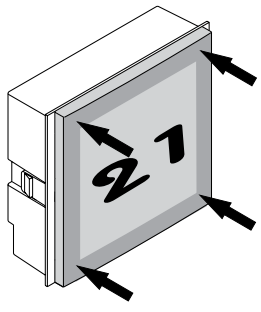


House number module.

The complete set includes 2 connection cables EC733

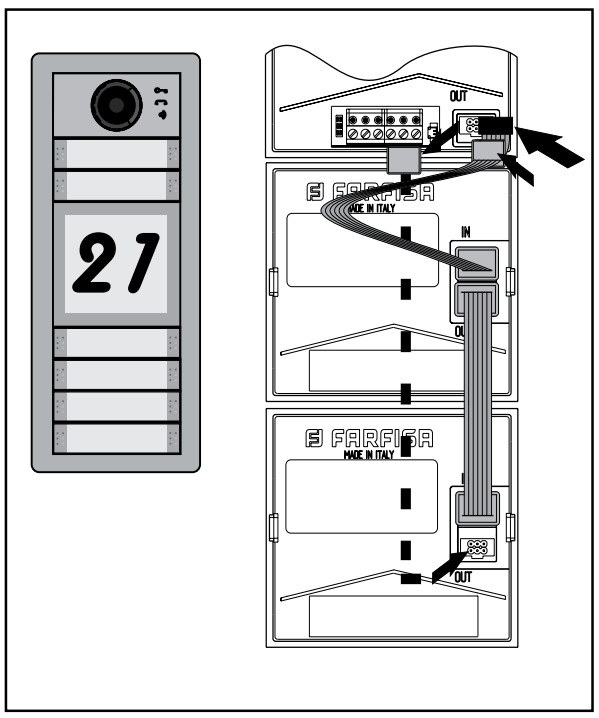


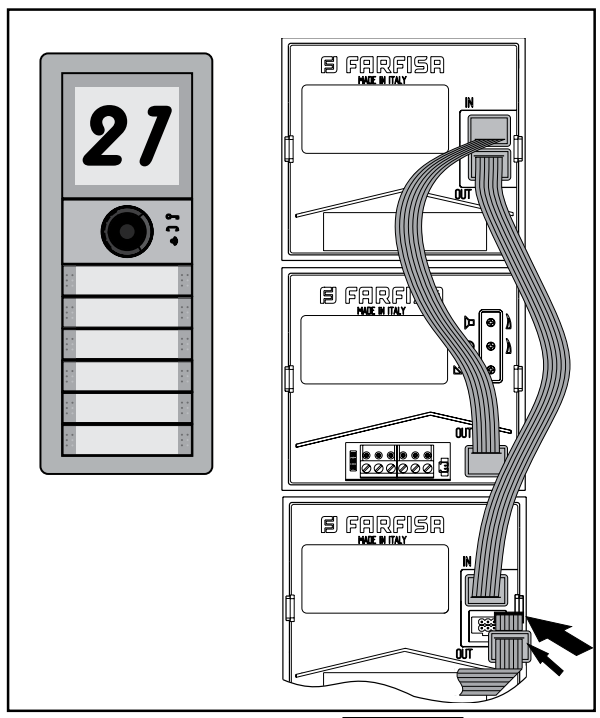


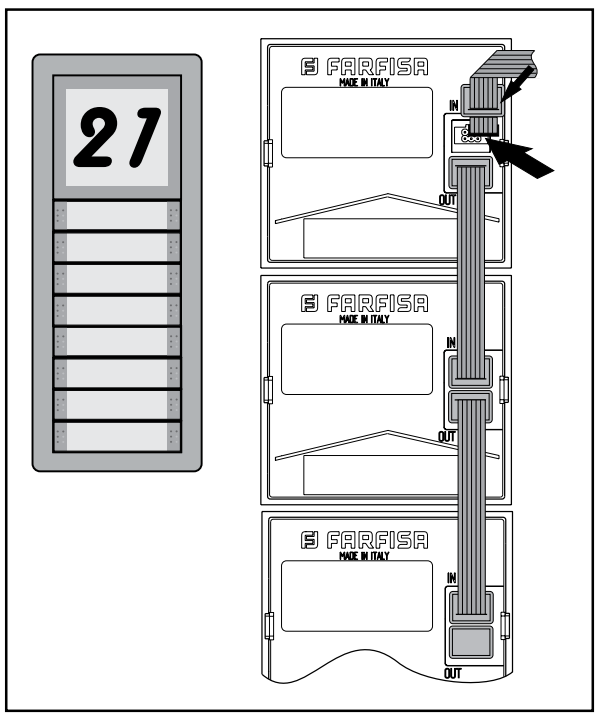


Technical data

Power supply:	from DUO line
Absorption:	0,01 A



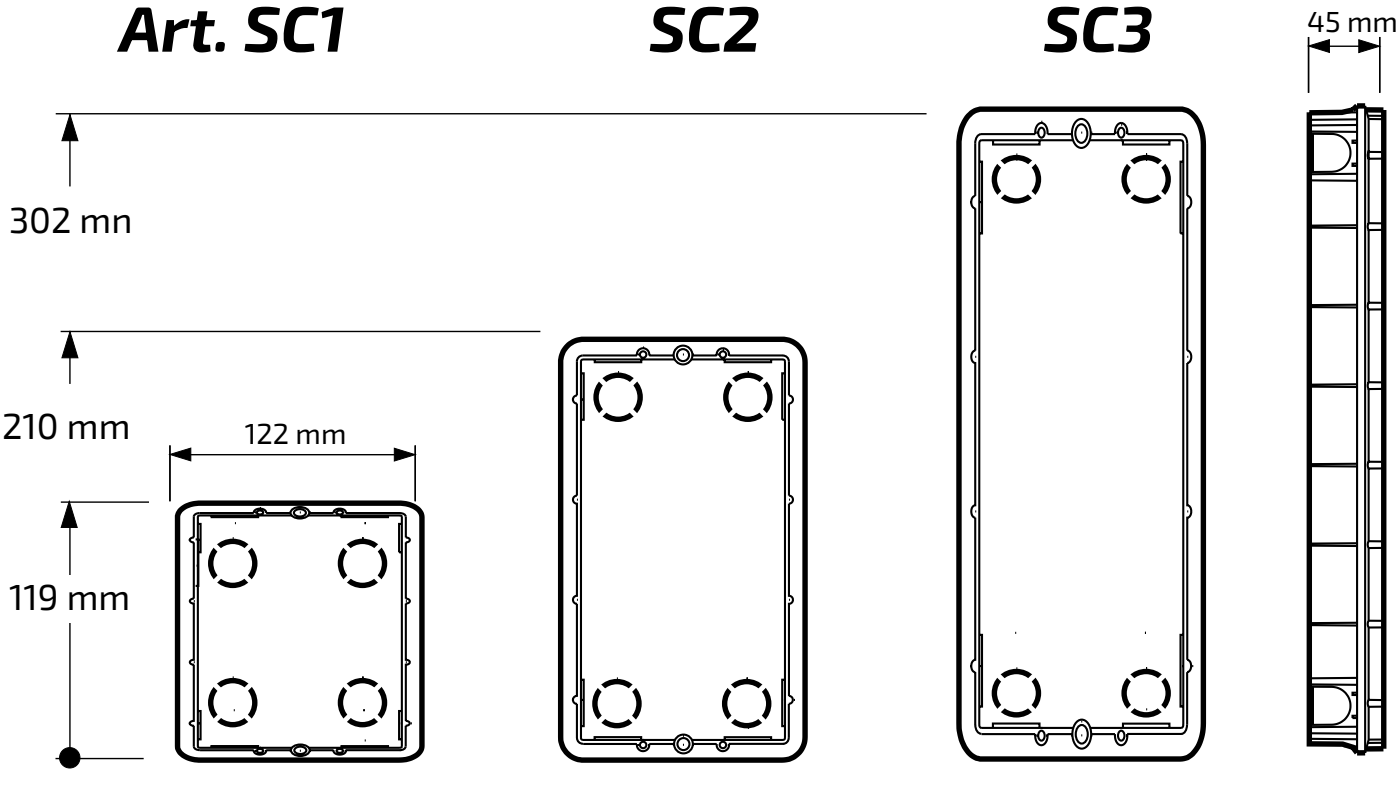




Art. SC1

SC2

SC3

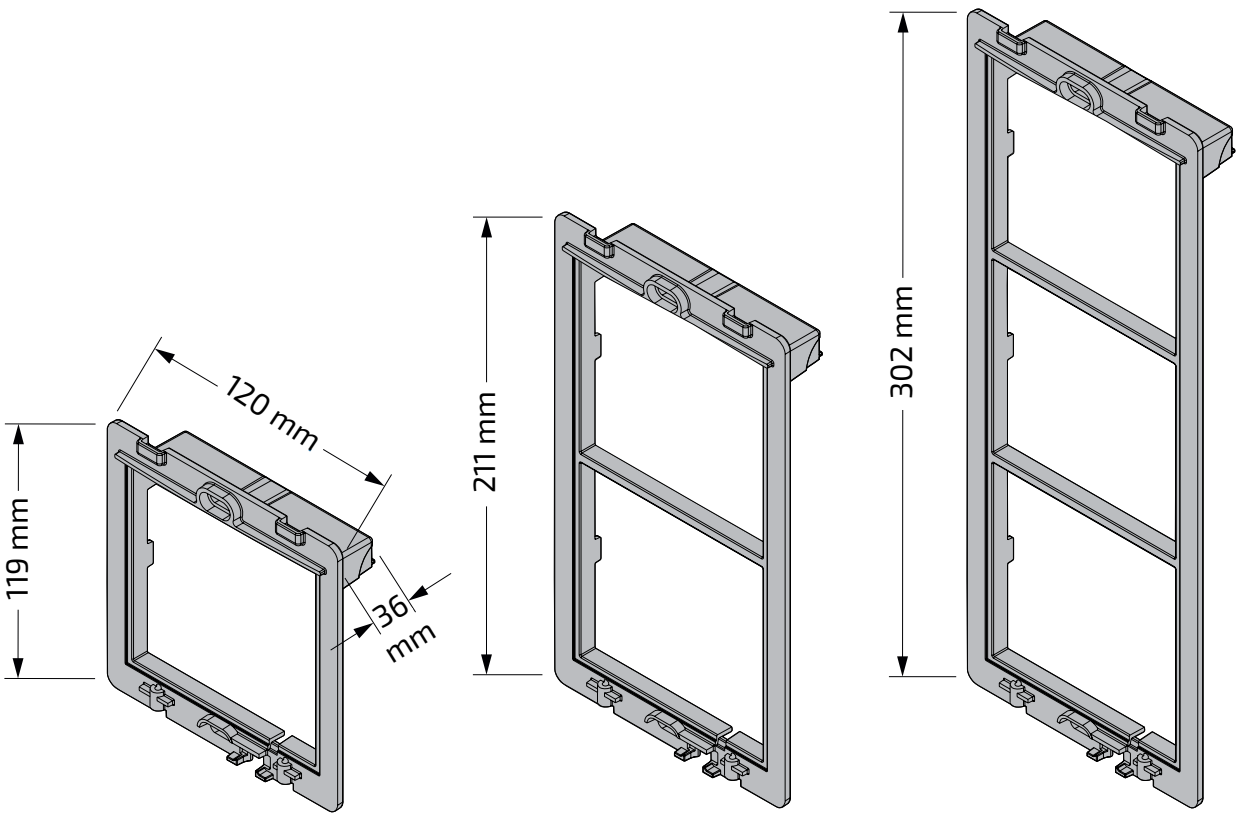


Built-in boxes

Art. AB71

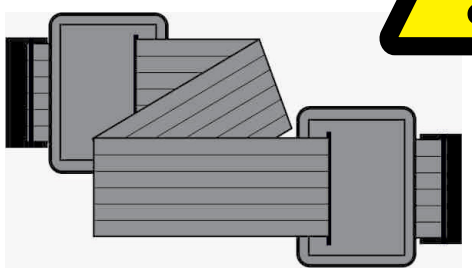
AB72

AB73



Module frames.

EC733

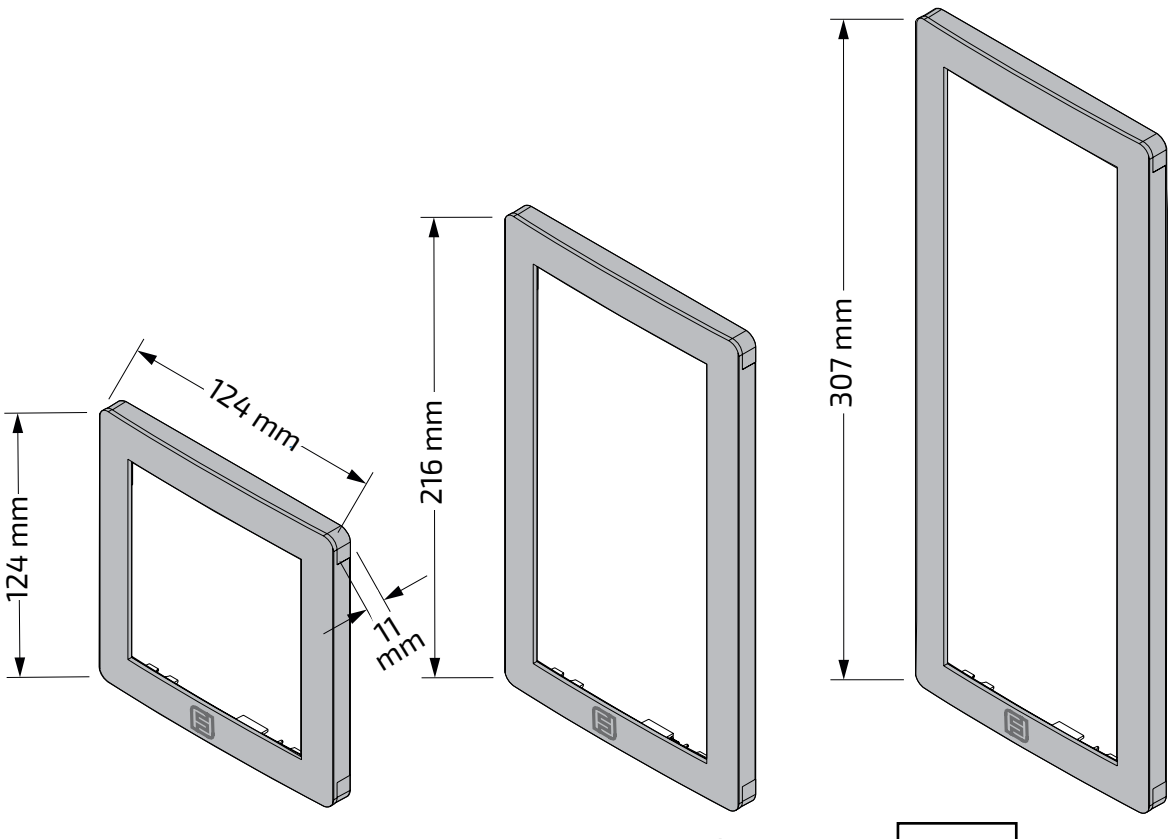


560 mm connecting cable, not included in the CT2138AB module scope of delivery, which must be purchased in case the connection from one button module to the next is made by switching from one carrier frame to the frame immediately next to it.

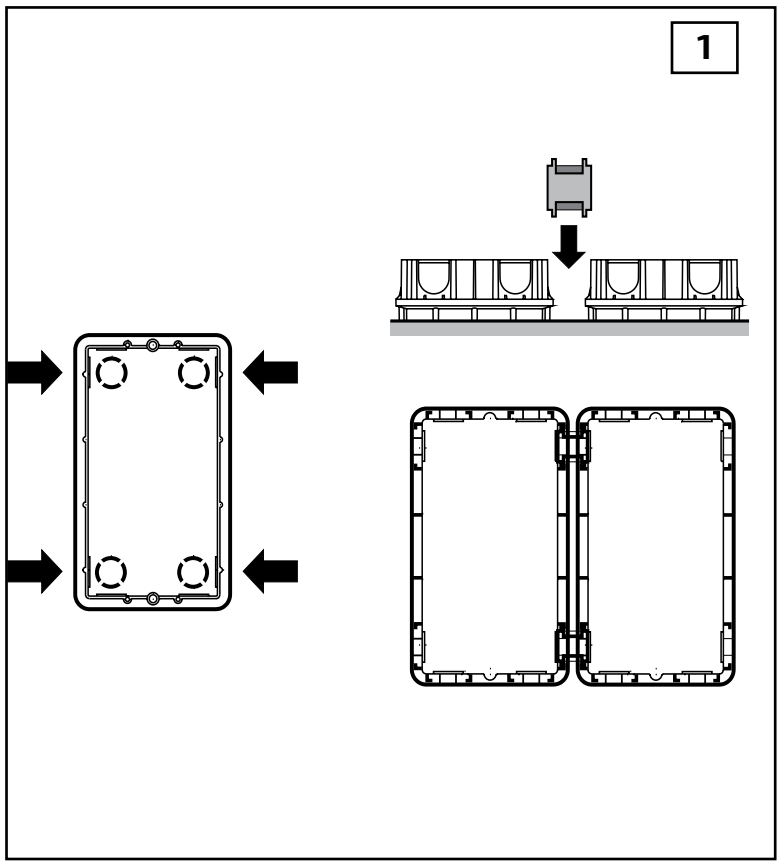
Art. AB61

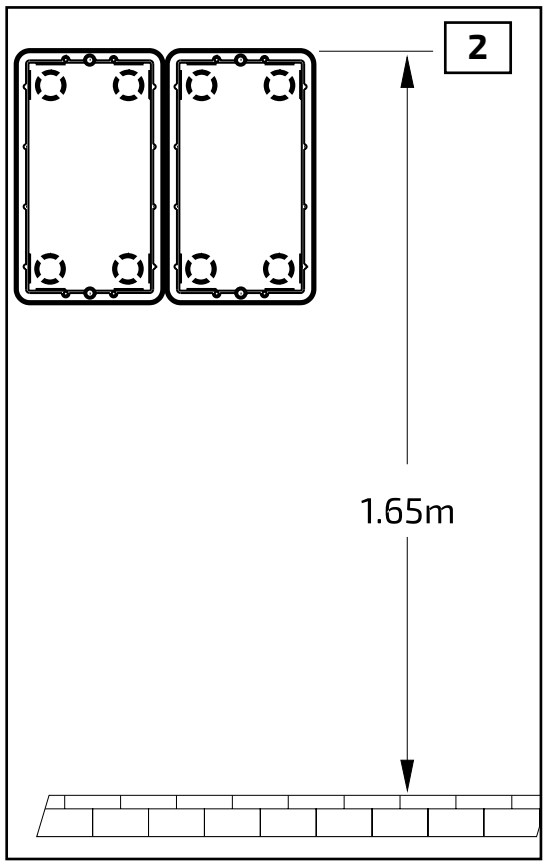
AB62

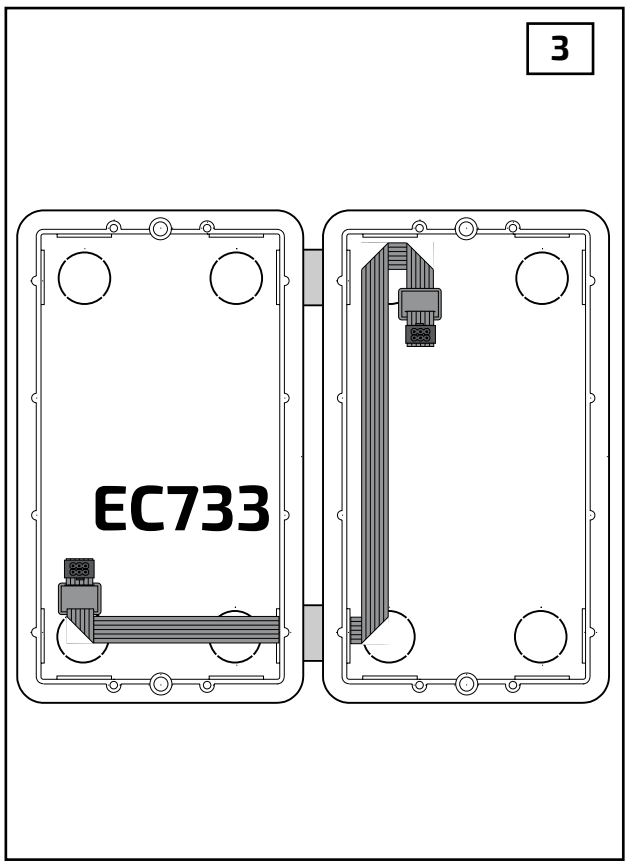
AB63



Decorative frames.


1


2
1.65m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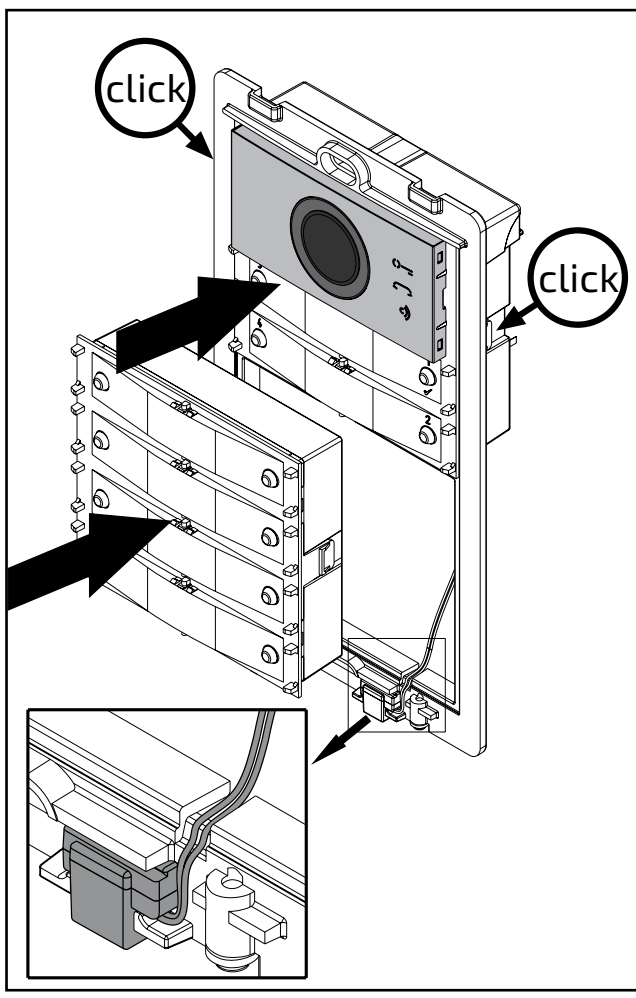
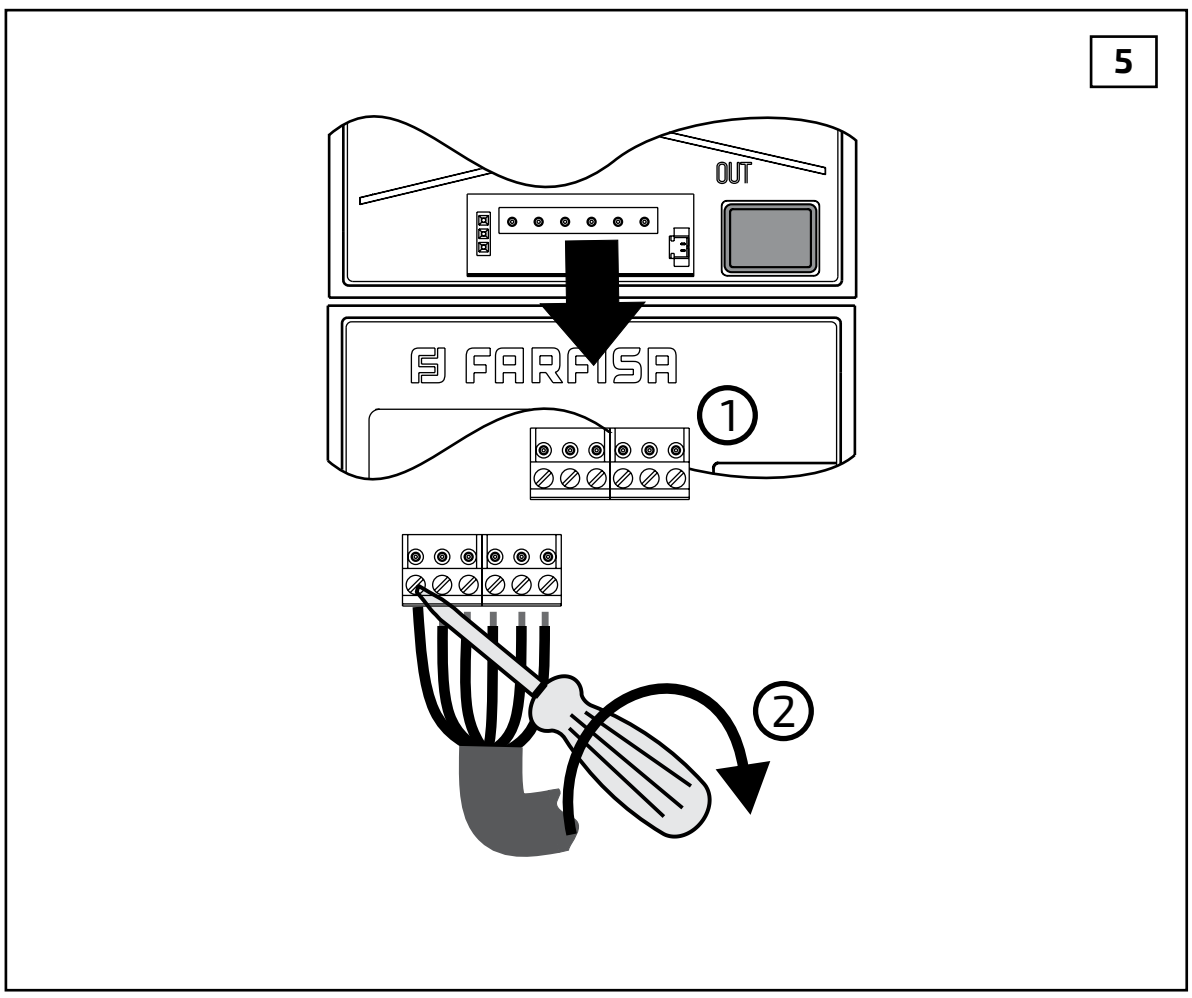
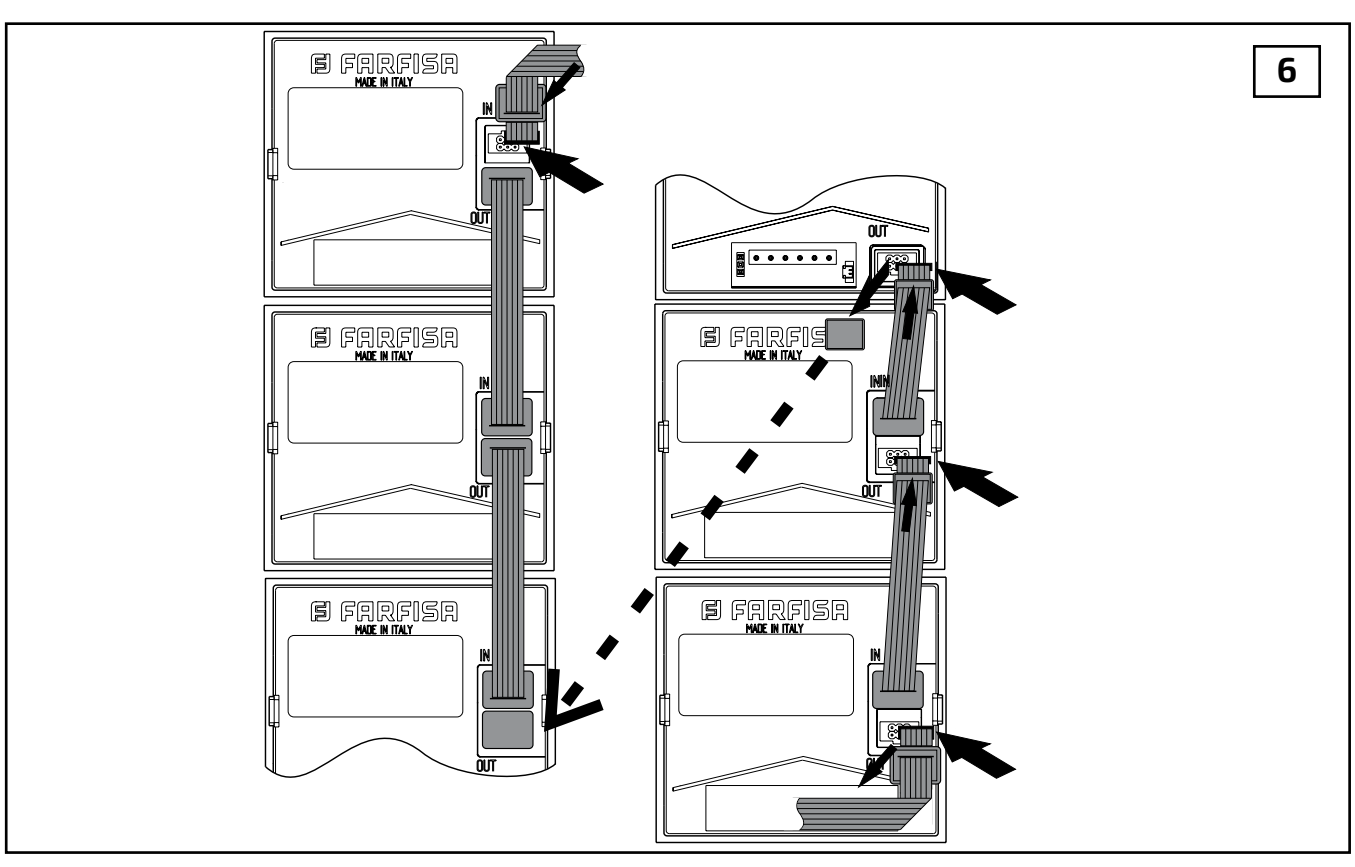
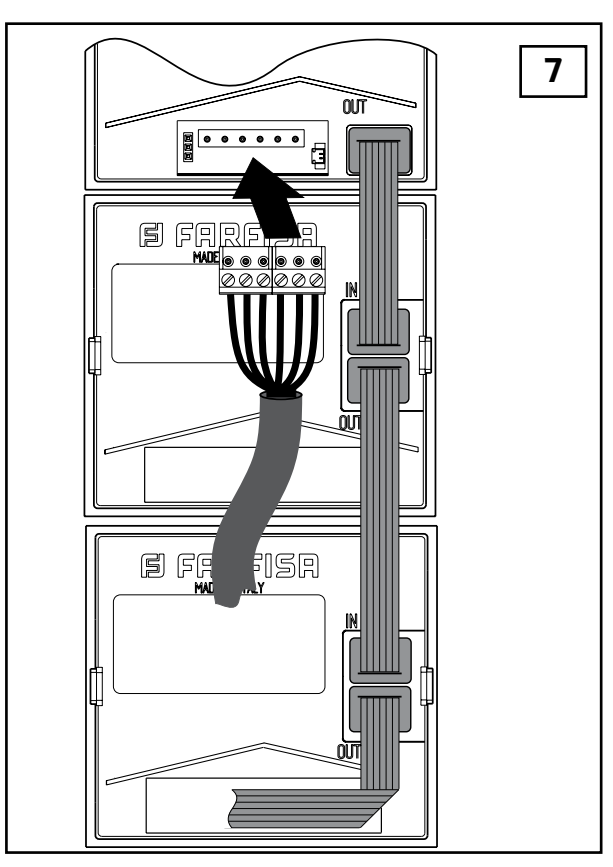
EC733


4
click
click

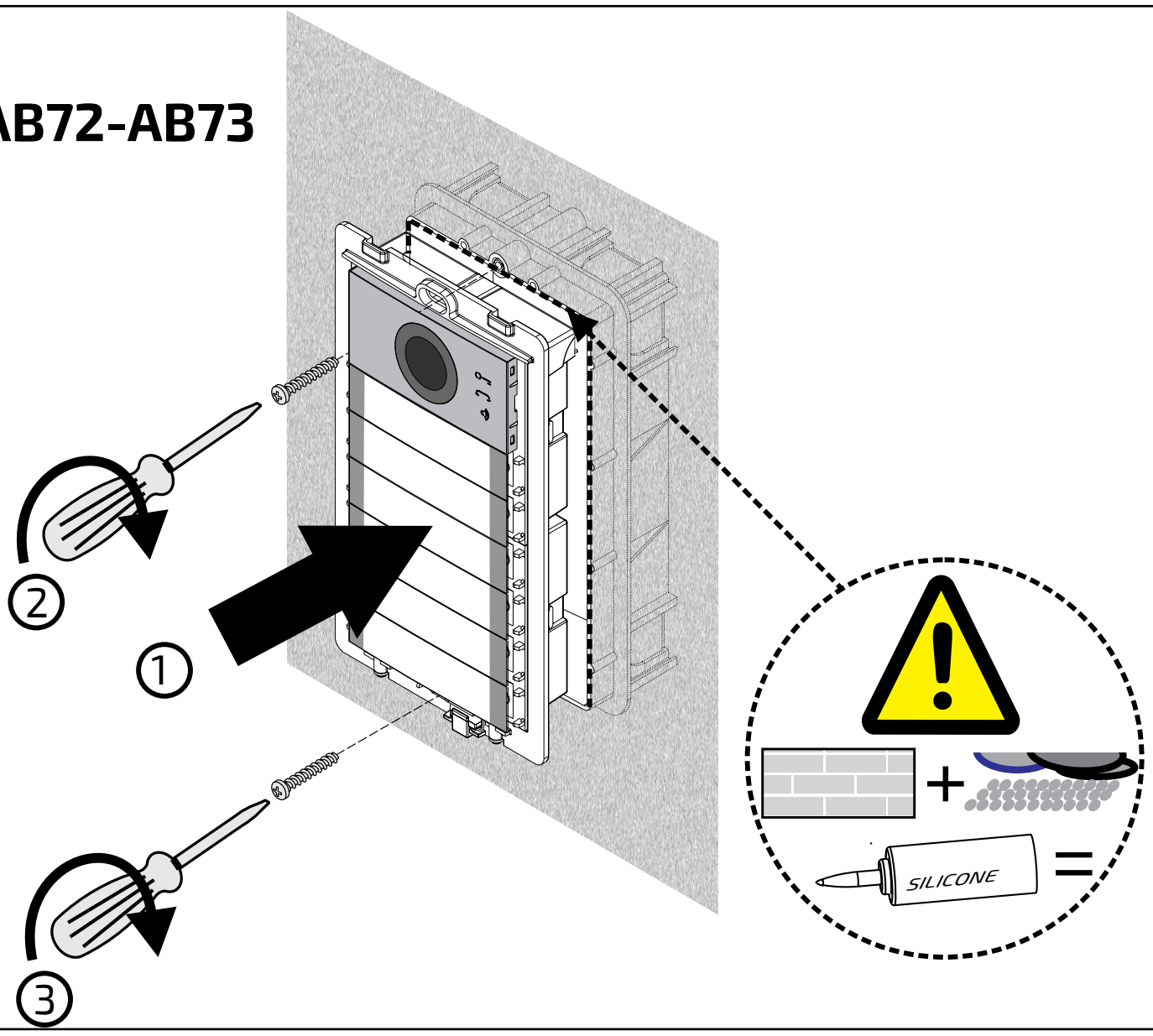

5
OUT
FARFISA
1
2


6
FARFISA
MADE IN ITALY
IN
OUT


7
OUT
IN

8

AB71-AB72-AB73



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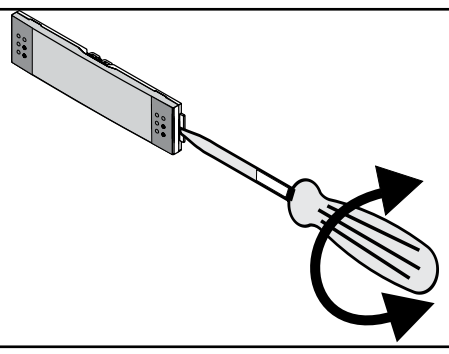

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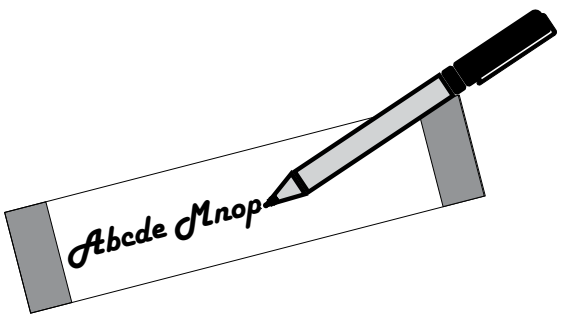

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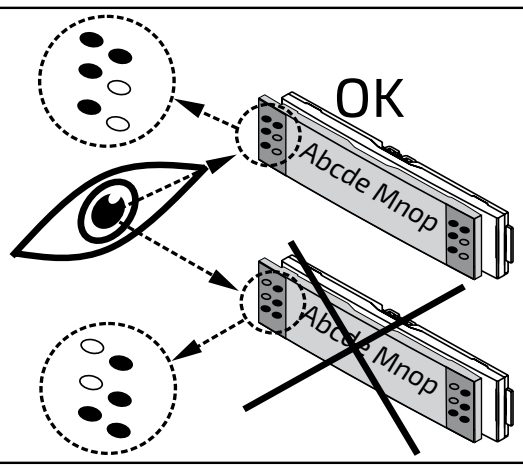
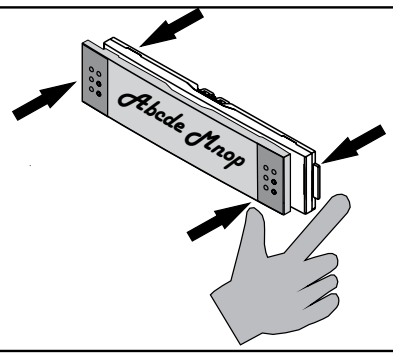
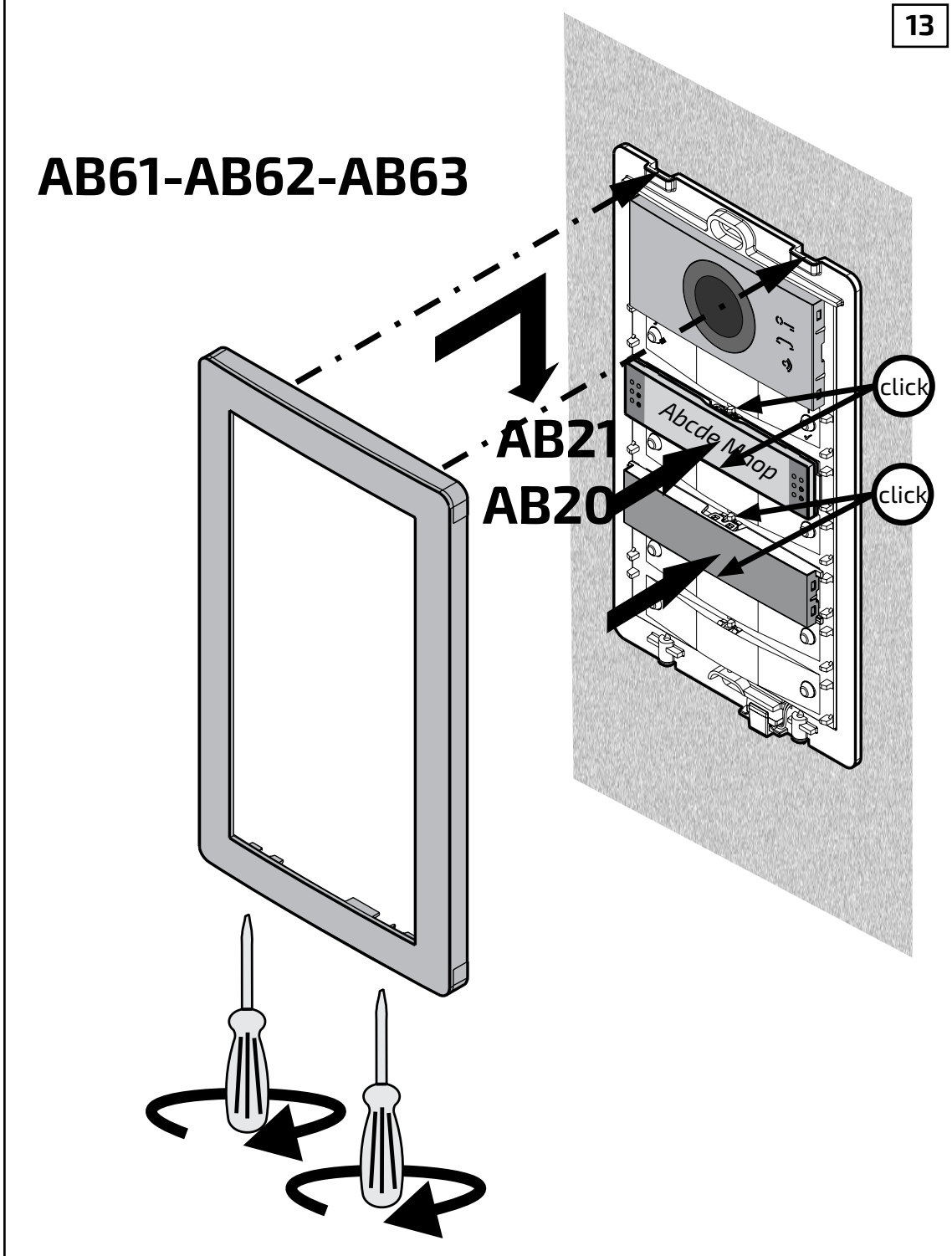


12

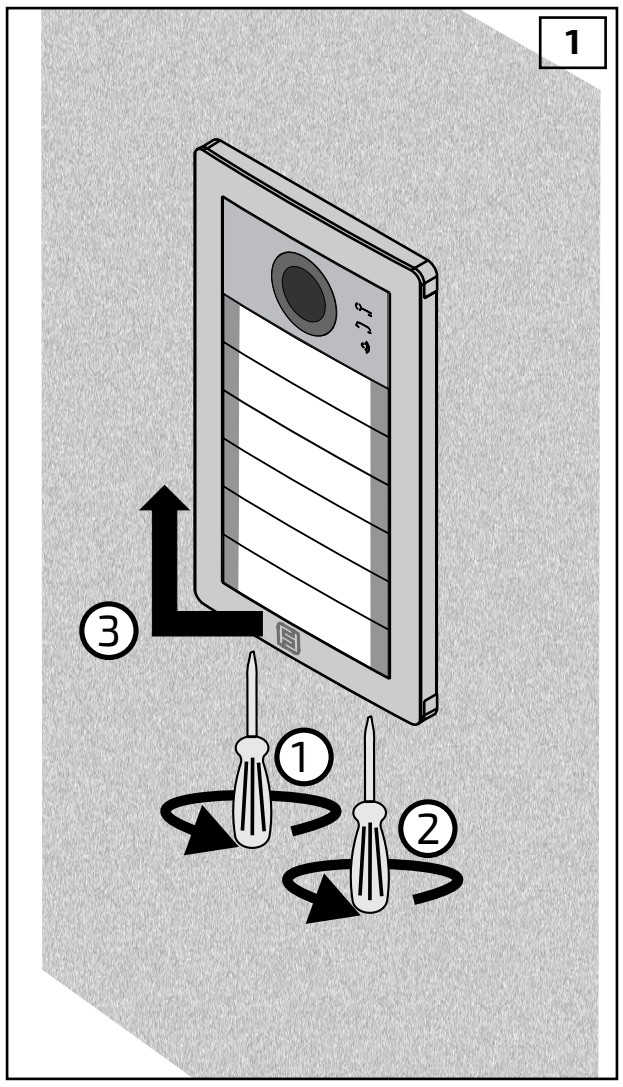


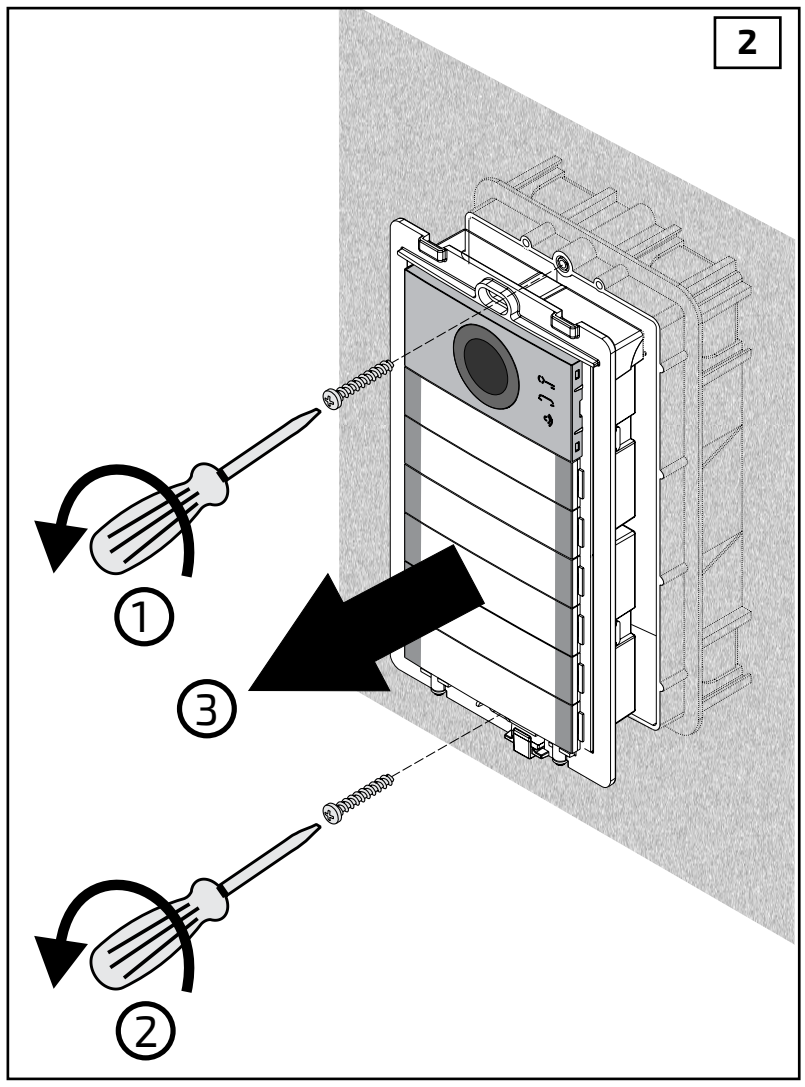
13

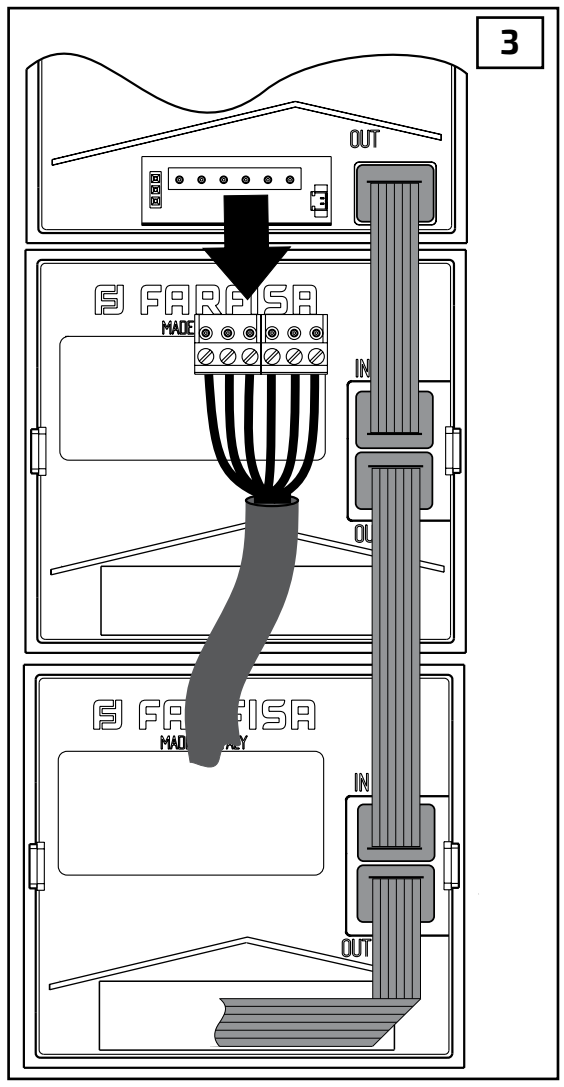
AB61-AB62-AB63

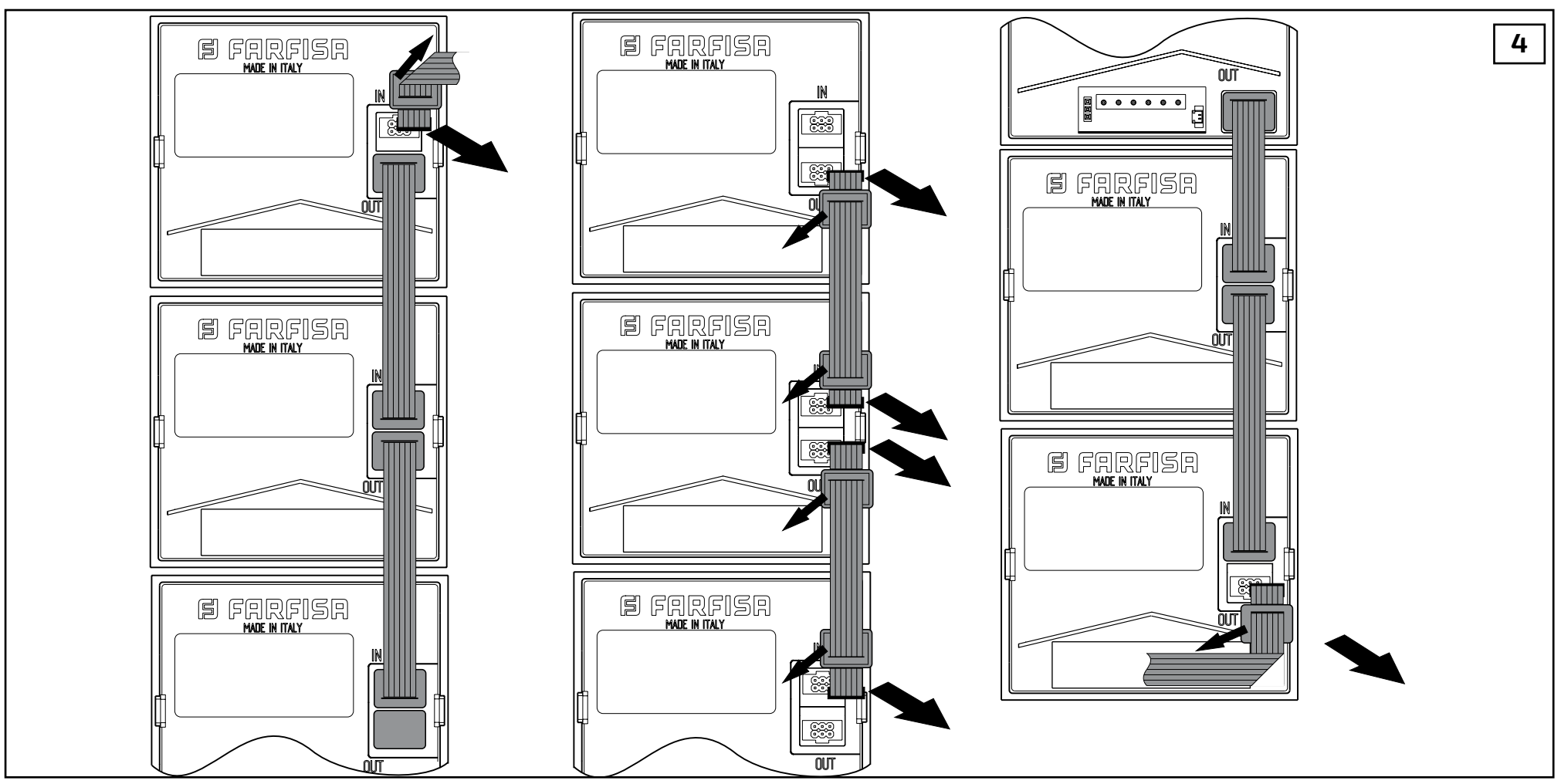


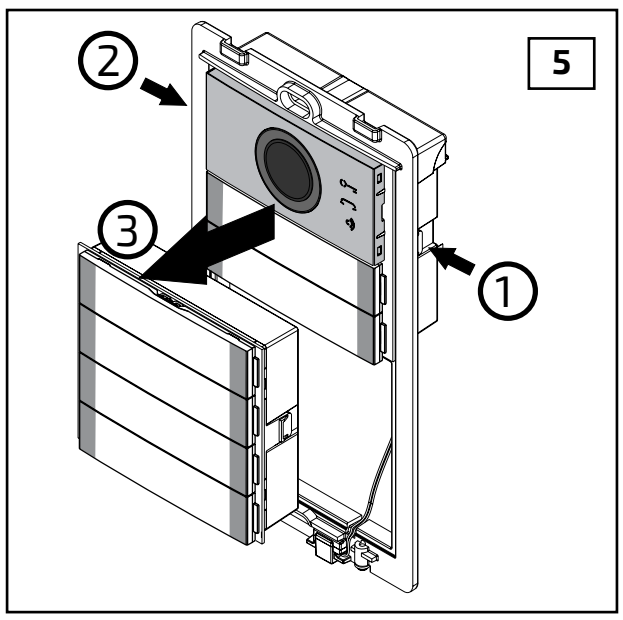
Disassembling

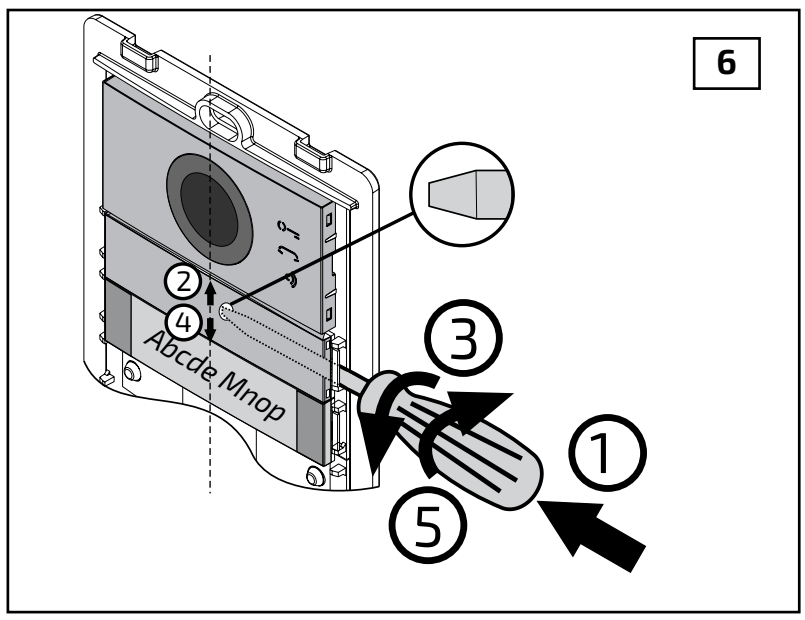


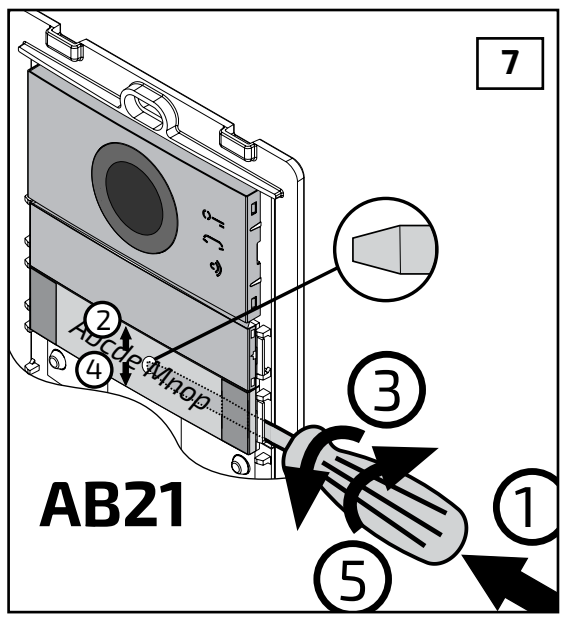




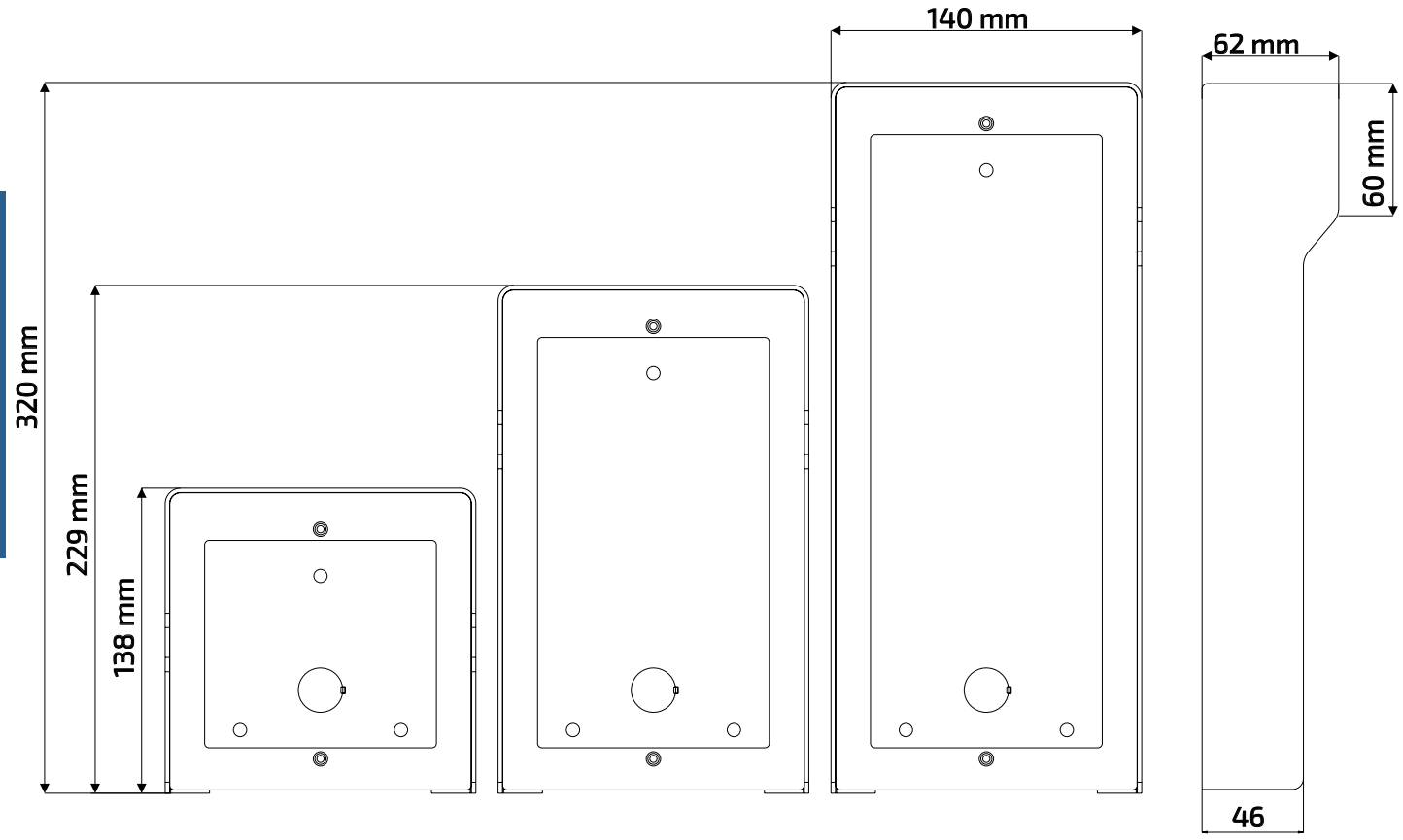




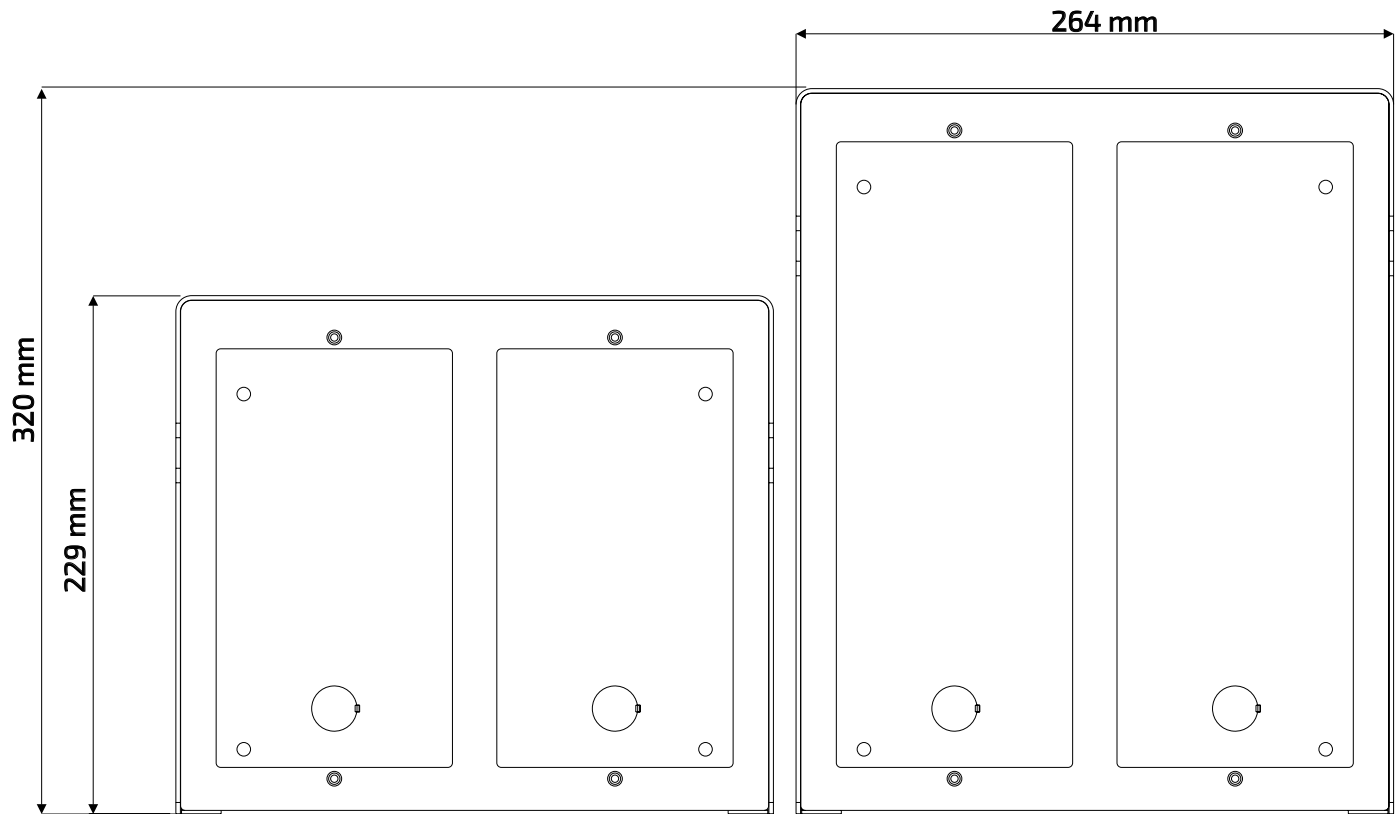




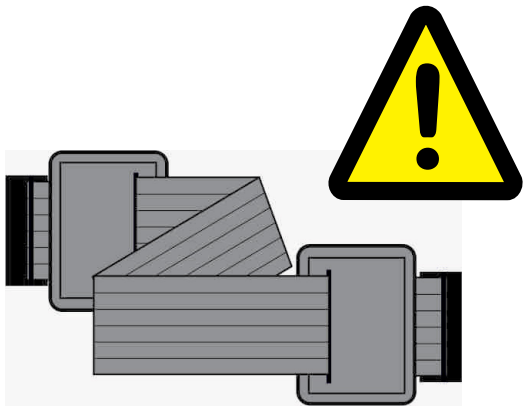
Art. AB91 AB92 AB93



Art. AB94 AB96



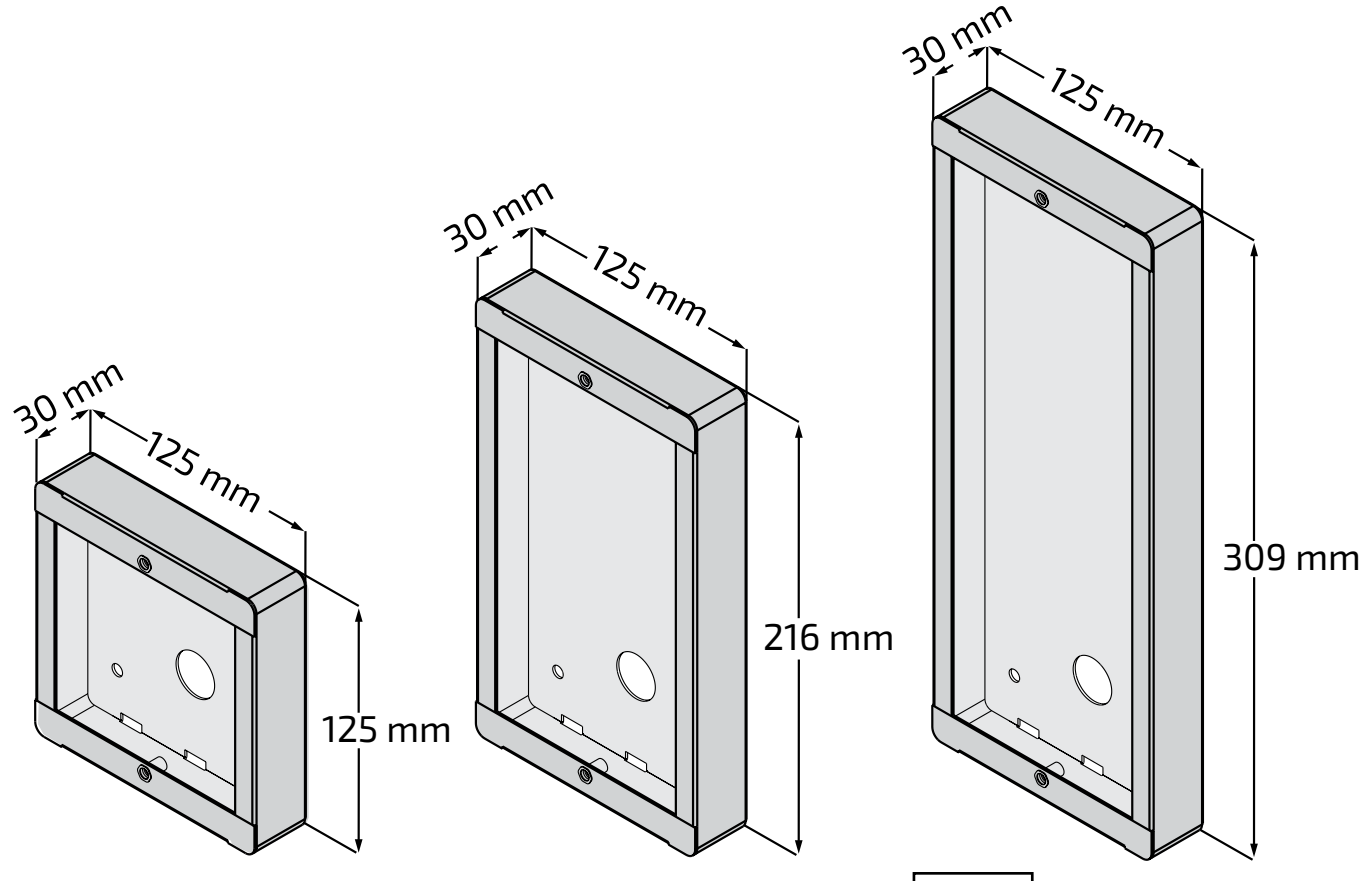
EC733

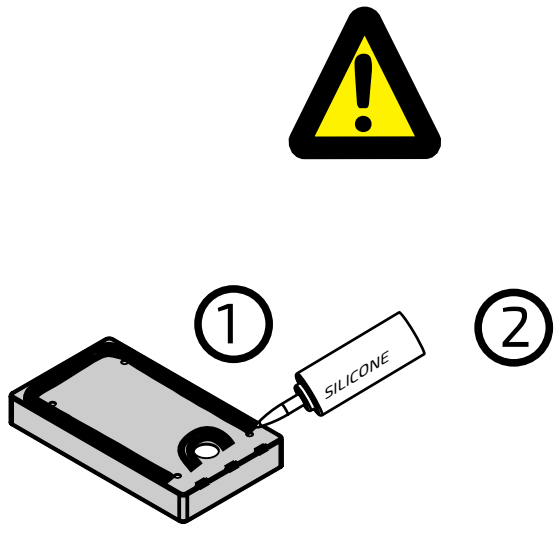


560 mm connection cable, not included with the CT2138AB module, which must always be purchased when installing the CT2138AB modules in the AB94 and AB96 canopies.

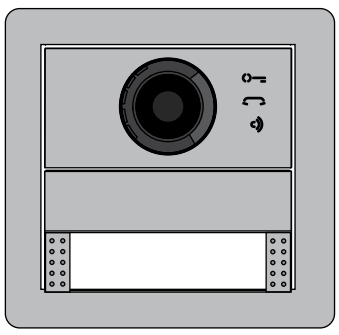
Roofs for surface mounting

Art. AB81S AB82S AB83S

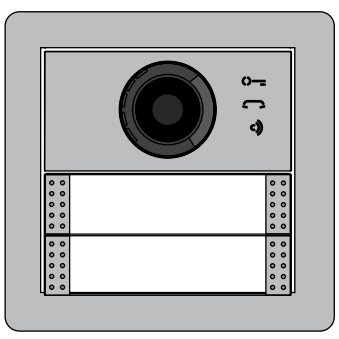




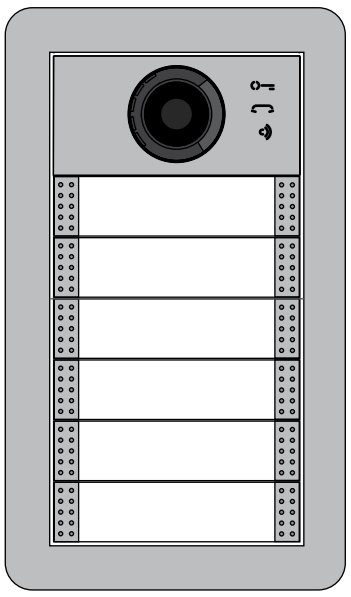
Examples of push-button panel composition



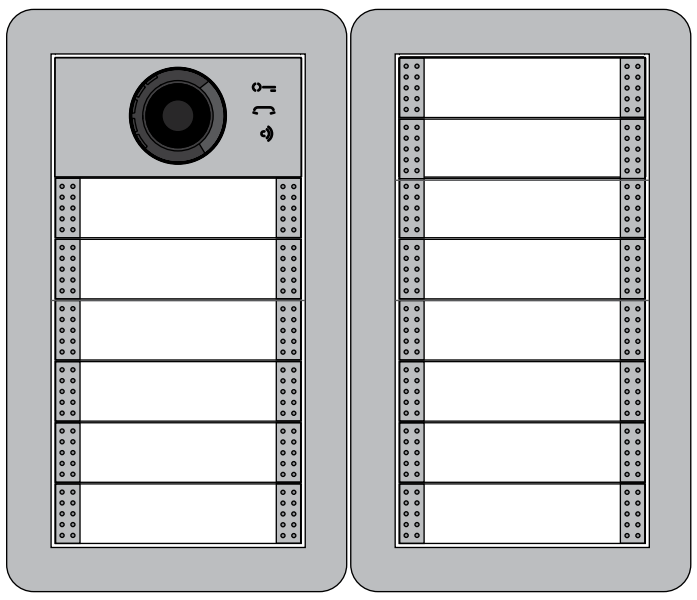
Monofamiliare



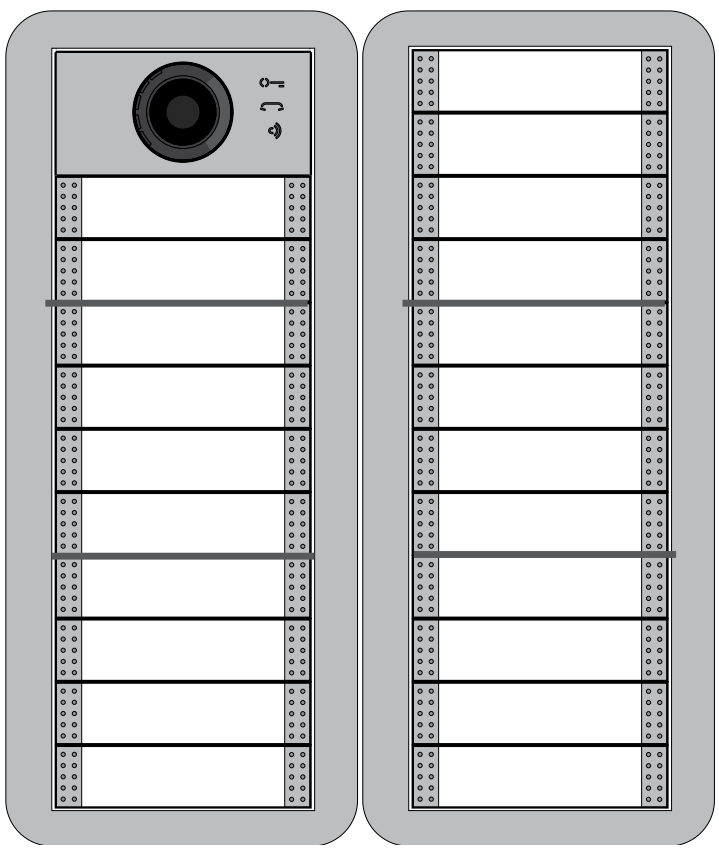
Up to 4 calls



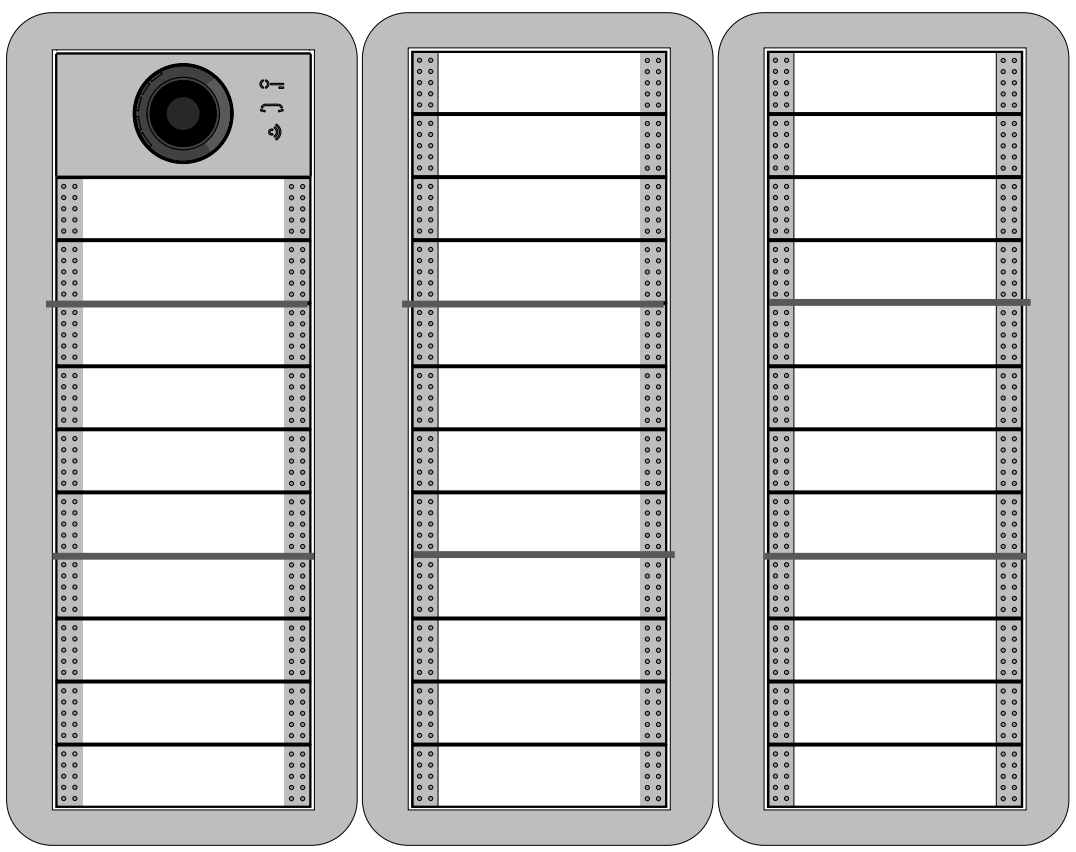
Up to 12 calls



Up to 28 calls



Up to 44 calls



Max 68 calls

The images above represent just a few examples of ALBA push button panel compositions. It is possible to install the push button panel either with a flush-mounting box in the wall, using a correct composition of boxes SC1-SC-SC3 or outside the wall (without flush-mounting the box) by choosing between the roof version AB91-AB92-AB93-AB94-AB96 or the boxes version for surface mounting AB81S-AB82S-AB83S. Bearing in mind that the buttons of the CV2144AB (or CA2144AB) module and of the CT2138AB add-on modules can be configured so that pressing the button on the left or on the right sends the call to the same user (**single row configuration**) or, on the contrary, so that pressing on the left sends the call to a different user than pressing on the right side (**double row configuration**), the maximum number of users that can be contacted by an ALBA panel is listed below:

- **flush-mounted solution: maximum 68 users (34 if configured on single row),**
- **surface mounting solution with AB91-AB96: maximum 44 users (22 if configured on single row);**
- **surface mounting solution with AB81S-AB83S: maximum 20 users (10 if configured on single row).**

Using the area of the website www.farfisa.com 'CONFIGURE YOUR SYSTEM' it is possible to obtain a complete list of all the articles required for the composition of any configuration (from among those admissible) of the entry panels in the system. If an interactive pdf version of this document is used, pressing the button below will take you directly to the configurator, otherwise the full web address is shown below.

http://configurator.farfisa.com/en

PROGRAMMING

"Extended Range" DUO Systems Block Address and Device Address

The Audio and Audio-Video Modules are compatible with Extended Range DUO Farfisa digital systems as they support the possibility to divide the system into 99 blocks with 253 devices for each, therefore more than 25,000 devices can be installed in the system. To obtain such performance, each device must be identified by a Block Address (section of the system to which the device belongs: 001 to 099) and a Device Address (address programmed in the device: 001 to 253); Block 000 (i.e. unprogrammed block) is reserved for compatibility with existing DUO products and diagrams.

External Video Modulators

The Audio and Audio-Video Modules are designed to drive external video modulators (VM2521 type or similar) to which up to 8 additional cameras can be connected.
Each additional camera is managed as an External Unit and must have its own address within the range of addresses reserved to external units (from 231 to 253); these addresses must be stored in the VM1 to VM8 parameters of the audio-video module (codes 151 to 158). Following the request of the video intercom system, the image of the camera on the module (by default=Main Camera) will be displayed first and then, cyclically, the additional cameras from VM1 to VM8 (if fewer cameras are saved, the display cycle will automatically take into account only the cameras saved); once the cycle has finished, it will start again with the display of camera on the module and so on. To change the camera with which the display sequence starts, you will need to store in the TP parameter (code159) the address of the new main camera chosen from those stored in the VM1 to VM8 parameters. To reconfigure the camera on the module as the main camera, it is necessary to store the address 255 in the TP parameter.

Factory settings

The following are the values of the default factory settings, if you need to change them follow the instructions in the following paragraphs.
- Single button operation mode
- Main Camera (TP)=255 (camera on the module)
- Audio-Video module address=231
- Additional relay address (J13)=211
- Address associated with Button 1= 99
- Address associated with the First Button of the first additional push-button module (single button configuration)=101
- Electric Lock activation time=1 Second
- Call in progress tone=enabled
- Vocal messages language=disabled

Programming via Bluetooth

It is recommended to program the device via Bluetooth by downloading the "DUO System" app (available for iOS and Android) to your smartphone or tablet. This requires
- connect a PGR2991BT or XE2921 Bluetooth programmer to the system;
- with the PGR2991BT programmer: launch the DUO System app, go to the Bus DUO section, press the "+" button and enter the address of the Cx2144AB module. With the XE2921: launch the app; once logged in, the Cx2144AB module is immediately visible in the list of devices;
- program and disconnect.

If a Bluetooth programmer cannot be used, an "emergency" programming procedure is available, described in the following paragraphs.

Entering programming mode

Entering programming is only done with the unit in standby mode. To enter programming, you need to:
- simultaneously hold pressed keys 2 and 4 for 4 seconds;
- after the 4 sec. the module emits a tone and the symbol starts flashing quickly;
- within 5 seconds press buttons 1, 2, 3 and 4 sequentially, the symbol flashes quickly and the module emits a tone every 4 sec. to indicate that you are in programming mode.

Exit programming mode

To exit programming, you need to:
- simultaneously keep pressed keys 2 and 4 for 4 sec.;
- After 4 sec. the module emits a tone and the symbol turns off.

Entering codes and values
To enter codes and values, use the keys 1/√ and 2; their use is as follows:
1/√: This button is pressed to confirm the entering of a code or to switch to another programming phase.
2: This button is pressed to increase the value of the digit to be entered. Press the button a number of times equal to the digit to be entered (digit 1=1 press, digit 9=9 presses, digit 0=10 presses of the button).
Button pressing is confirmed by a tone.

Notes on entering codes and values
- The codes and values to be entered must be always formed by three digits (hundreds, tens, and units); codes and values that are composed of tens and units or units alone must be completed by adding zeros. For example, number 96 becomes 096 and number 5 becomes 005.
- The digits must be entered one by one by pressing "n" times the "2" button, where" n "corresponds to the value of the digit to be entered, followed by a pause of about 2 seconds to switch to the next digit (a tone will indicate when switching to entering the next digit). For example, to enter number 096 you need to:
  - press the "2" button 10 times to enter the digit 0 and wait for 2 seconds until you hear a tone;
  - press the "2" button 9 times to enter digit 9 and wait for 2 seconds until you hear a tone;
  - press the "2" button 6 times to enter the digit 6 and wait for 2 seconds until you hear a tone.

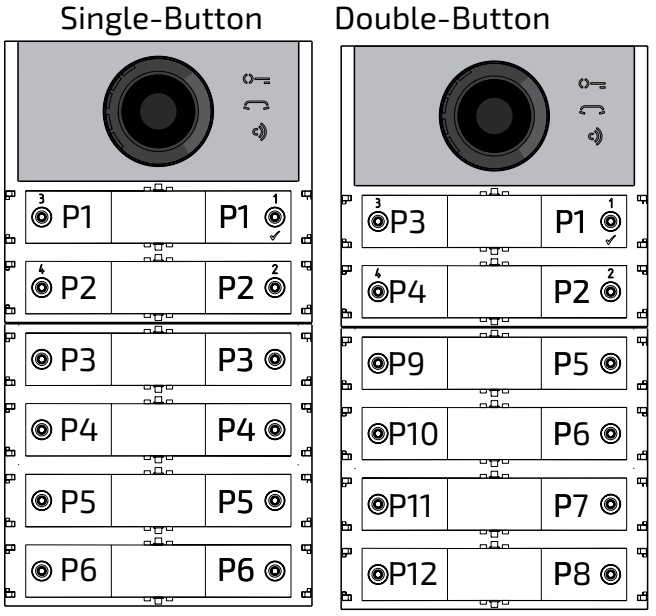
Attention: after composing the number, always remember to confirm the entry by pressing the key 1/√.

Configuring call buttons of the Door Station

With the following programming it is possible to select the configuration of the buttons of the Door Station (default setting is single-button mode).

Single-button or double-button

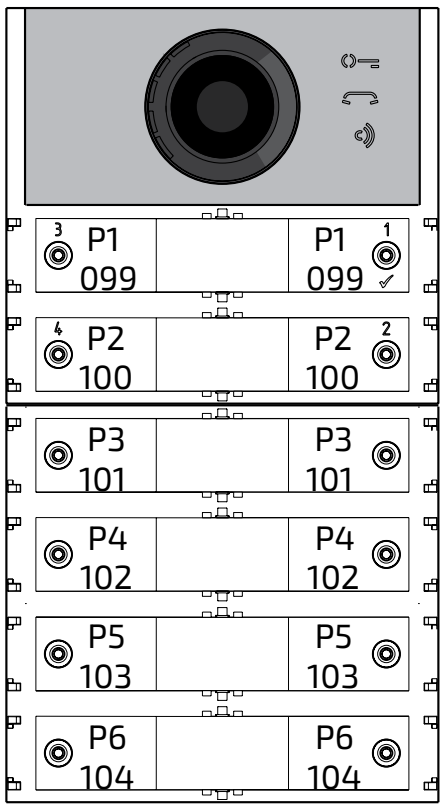
The audio-video module and the additional button modules connected to it (up to 8) can work as:



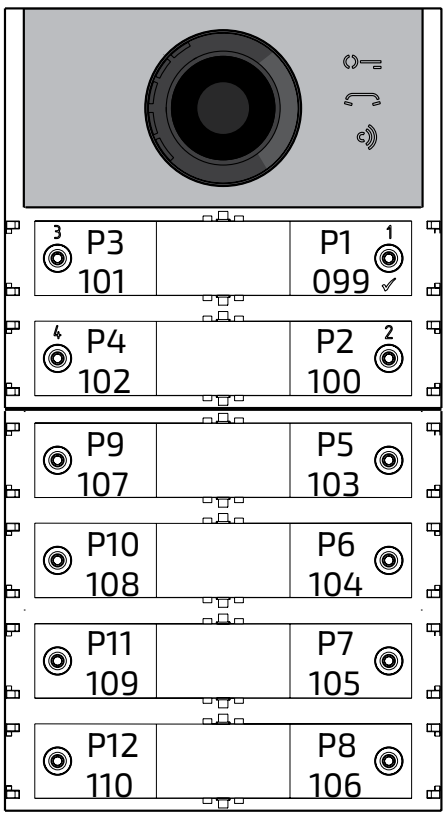
To make the selection you need to:
- Enter programming.
- For single-button operation, simultaneously press for 4 sec. keys 1 and 2, the module emits a tone and the 2 symbols and are lit simultaneously for 2 sec.
  For double-button operation, simultaneously press for 4 sec. keys 1 and 3, the module emits a tone and the 2 symbols and are lit simultaneously for 2 sec.
- Exit programming.

Attention: the programming is active both on the audio-video module and on all the additional button modules connected to it.

In the case of selecting single-button operation, by default, the buttons will call the following addresses:



In the case of selecting double-button operation, by default, the buttons will call the following addresses:



Programming of the Audio-Video Module

The programming of the Audio-Video Module is carried out by entering the programming code followed by its value; codes are shown in table 1.

Table 1
Programming codes

000	Return to factory settings with the exception of the addresses associated with the call buttons.
001	Return to factory settings of the addresses associated with the call buttons.
111	Address of the Audio-Video Module.
112	Block address valid for all call buttons.
113	Automatic sequential allocation of device address for all call buttons.
121	Enable tone while electrical lock is opening
122	Switching OFF the video signal while electrical lock is opening.
123	Activate auxiliary relay with PB-GN contact.
124	Sending door opened warning code.
128	Extend maximum talk time to 8 minutes.
131	Electrical lock activation time.
132	Auxiliary relay activation time.
142	Presence of door keeper exchangers
148	Auxiliary relay block address.
149	Auxiliary relay device address.
151	Address of the first video camera associated with the external unit (VM1).
152	Address of the second video camera associated with the external unit (VM2).
153	Address of the third video camera associated with the external unit (VM3).
154	Address of the fourth video camera associated with the external unit (VM4).
155	Address of the fifth video camera associated with the external unit (VM5).
156	Address of the sixth video camera associated with the external unit (VM6).
157	Address of the seventh video camera associated with the external unit (VM7).
158	Address of the eighth video camera associated with the external unit (VM8).
159	Selection of the main camera associated with the Audio-Video module (TP).
221	Block address for the single call button.
222	Device address for the single call button.
223	Block address for all buttons starting from the one in the programming.
224	Automatic sequential assignment of device addresses to call buttons starting from the one in the programming.
323	Muting the call in progress tone.
324	Closing the call when the door lock opening command is received.
411	Language of voice messages.
421	Volume of voice messages generated out of conversation.

Programming procedure

To carry out the programming, you need to:

- Enter the programming mode following the indications in the "Enter Programming Mode" section, the symbol will start flashing quickly notifying the operator that the device is awaiting the programming code;
- identify the programming code to use (see table 1);
- enter the three digits of the programming code you intend to use following the instructions in the "entering codes and values" section;
- press 1/√ to confirm: you will hear a tone, the symbol will stop flashing, and the symbol will start to flash quickly notifying the operator that the device is awaiting the value;
- enter the new value, following the instructions in the "Entering Codes and Values" section;
- press 1/√ to confirm: you will hear a tone and the symbol will stop flashing and the symbol will flash quickly, notifying the operator that the device is awaiting a new programming code;
- continue by entering the code of another programming or exit, following the instructions in the "Exit Programming Mode" section.

Return to factory setting of all parameters of the Audio-Video Module except for the addresses associated with the call buttons (000 code)

With this programming, all module parameters will return to their factory value (factory values are listed at the beginning of the "Programming" section). The addresses associated with the call buttons will not be changed.

- Enter code 000;
- press button1/√ to confirm;
- Enter value 123;
- press button 1/√, to confirm, the device emits a tone and the , and symbols will light up for 2 sec. indicating that the parameter values have returned to default factory settings.

⚠ **Attention: the single-button operation mode (factory default) is not restored by either this default procedure or the one described in the next paragraph.**

Return to factory settings of all the addresses associated with the call buttons of the Audio-Video Module and any Additional Push-Buttons Modules (code 001)

With this programming, all of the Block and Device addresses assigned to call buttons will return to their factory value (factory values are listed at the beginning of the "Programming" section). The other parameters programmed in the Audio-Video module will not be changed.

- Enter code 001;
- press button1/√ to confirm;
- Enter value 123;
- press button 1/√, to confirm, the device emits a tone and the , and symbols will light up for 2 sec. indicating that the addresses associated with the call buttons have returned to factory values.

Audio-Video Module Address (code 111)

It is possible to store the address of the Audio-Video module (factory setting 231, addresses allowed between 231 and 253).

- Enter code 111;
- press button1/√ to confirm;
- enter the new address of the external unit;
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Programming sequential addresses in the call buttons (codes 112-113).

In extended range DUO systems, each user must be identified by a Block Address (000 to 099) and a unique or Device Address (001 to 200), with the following programming it is possible to assign to all call buttons of the external unit (both the audio-video and any additional push-button modules) a single Block Address and, automatically, a sequential incremental Device Address starting from the button 1 of the audio-video module.

⚠ **Attention: the sequential numbering will be congruent with the previously selected configuration of call buttons for the door station (single-button or double-button), see the example at the end of the section**.

Block Address valid for all call buttons (code 112)

To program the Block Address valid for all call buttons (factory setting 000; block addresses allowed between 000 and 099).

- Enter code 112;
- press button1/√ to confirm;
- enter the new Block Address valid for all call buttons;
- press button1/√ to confirm;
- continue with the next programming or exit programming.

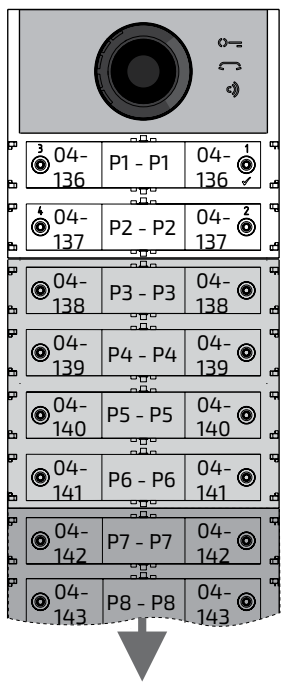
Sequential Device Addresses for all call buttons (code 113)

To program with sequential Device Addresses of all the call buttons in the external unit, you must program the Device Address from button 1 of the audio-video module (factory setting 099; addresses allowed from 001 to 200); the other buttons on the audio-video module and any additional button modules will call up sequential incremental Device Addresses depending on the order they were connected.
To carry out the programming, you need to:

- Enter code 113;
- press button1/√ to confirm;
- enter the new Device Address to be assigned to button 1 of the audio-video module;
- press button1/√ to confirm, the audio-video module buttons and all the additional button modules connected to it will automatically assume a progressive incremental address starting from the device address assigned to button 1 (see examples below);
- continue with the next programming or exit programming.

Example: Block Address 004 and Device Address of button P1 = 136, the following buttons will call the following addresses

Single-Button

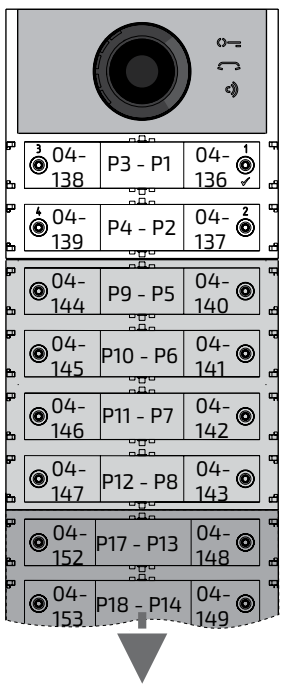


Audio-Video Module

1st button module

2nd button module

Double-Button



Audio-Video Module

1st button module

2nd button module

Enable tone while electrical lock is opening (code 121)

By enabling the function, the audio-video module emits a notification tone for the entire period for which the lock is activated.

- Enter code 121;
- press button1/√ to confirm;
- to enable the function enter the value 111; to disable the function enter the value 222;
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Turning OFF video signal while lock is opening (code 122)

By enabling the function, the audio-video module automatically turns OFF the video signal for the entire period for which the lock is activated. This function is used to optimise the use of energy during lock opening.

- Enter code 122;
- press button1/√ to confirm;
- to enable the function enter the value 111; to disable the function enter the value 222;
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Enabling the activation of the auxiliary relay with PB-GN contact (code 123)

By enabling this function when closing the PB-GN contacts, instead of activating the electrical lock (terminals S+ and S-), is activated the auxiliary relay and contacts C and NO of J13 will be closed.

- Enter code 123;
- press button1/√ to confirm;
- to enable the function enter the value 111; to disable the function enter the value 222;
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Sending warning code “door is opened” (code 124)

After enabling this function when closing the PB-GN contacts, the audio-video module, instead of activating the electric lock connected to the S+ and S- terminals, transmits on BUS DUO the “door is opened” warning code; disconnecting the contacts, the audio-video module sends the “door is closed” code.
To enable this function you need to:

- enter code 124;
- press button1/√ to confirm;
- to enable the function enter the value 111; to disable the function enter the value 222;
- press button1/√ to confirm;
- continue with the next programming or exit programming.

⚠ **Attention: If the warning code is to be displayed on EX362/EX3262C, mode 7 must be enabled on them (see the relevant instruction manuals);**

Maximum talk time 8 minutes (code 128)

By enabling this function, the maximum talk time increases from 1.5 minutes (factory value) to 8 minutes.

- Enter code 128;
- press button1/√ to confirm;
- to enable the function enter the value 111; to disable the function enter the value 222;
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Electrical Lock opening time (code 131)

The lock opening time can be varied as follows:

- enter code 131;
- press button1/√ to confirm;
- enter the new activation time (factory setting 1 sec; allowed values 001-009 sec.);
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Auxiliary relay activation time (code 132)

The activation time of the auxiliary relay can be varied as follows:

- enter code 132;
- press button1/√ to confirm;
- enter the new activation time (factory setting 3 sec; allowed values 000-099 sec.);

⚠ Attention: saving time as 000 the relay acts as a bistable;

- press button1/√ to confirm;
- continue with the next programming or exit programming.

Presence of door keeper exchangers (code 142)

The door station must be suitably programmed depending on whether it should send calls directly to the users or to a main or secondary door keeper exchanger; to carry out the programming it is necessary to store the address 201 if the door station has to call main door keeper exchangers or 210 if the door station has to call secondary door keeper exchangers. The 255 value indicates that no door keeper exchanger is present and calls are sent directly to the users. To run the programming:

- enter code 142;
- press button1/√ to confirm;
- enter the address 201, 210 or 255 (factory setting 255=no door keeper exchanger; allowed values 201 to send calls to main door keeper exchangers, 210 to send calls to secondary door keeper exchangers or 255 to send calls directly to the users);
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Auxiliary relay address (codes 148-149)

On the J13 connector there is a common contact (C) and normally open contact (NO) of the internal auxiliary relay; by factory setting, the auxiliary relay is programmed with address 211. An actuator address (211 to 230), a user address (001 to 200) o 255 address can be assigned to the auxiliary relay, depending on the address saved, the auxiliary relay behaves differently:

- Actuator address. By saving the address of an actuator, therefore a block address from 000 to 099 and device address from 211 to 230, the auxiliary relay acts as an actuator and, when called, it activates with the mode set in the programming "Auxiliary relay activation time" (code 132).
- User address. By saving an address of a user, therefore a block address from 000 to 099 and user address from 001 to 200, the auxiliary relay only activates when the lock opening command arrives from a user having an address equal to or greater than the one saved; If you store the address 000-001, the auxiliary relay will activate upon arrival of the lock opening command of any user. The activation mode is that set in the programming "Auxiliary relay activation time" (code 132).
- Same address as stored in parameter 111. If the relay is given the same address assigned, via parameter 111, also to the audio/video module, its activation will be managed by prolonged pressing of the lock opening button on door phones and video door phones where this possibility is provided for. The activation mode is that set in programming "Auxiliary relay activation time" (code 132).
- Address 255. The relay is activated simultaneously with S+/S- by the door lock release command from internal stations.

Auxiliary relay Block Address (code 148)

- Enter code 148;
- press button1/√ to confirm;
- enter the Block Address that is to be assigned to the relay (factory setting 255 which means an unprogrammed Block Address; allowed values from 000 to 099);
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Auxiliary relay Device Address (code 149)

- Enter code 149;
- press button1/√ to confirm;
- enter the Device Address that is to be assigned to the relay (factory setting 211; admissible values from 001 to 200 or 211 to 253 or 255);
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Programming additional cameras associated with the external unit (codes 151-152-153-154-155-156-157-158) and main video camera (code 159)

The only audio and audio/video modules can drive external video modulators (type VM2521) to which up to eight additional cameras can be connected, for details see "External Video Modulators" section. In the case of additional cameras, the addresses of the video modulators present in the installation and, if necessary, the address of the main video camera (TP) must be programmed.

Programming additional camera addresses VM1 ÷ VM8 (codes 151-152-153-154-155-156-157-158)

- To program the address of the first additional camera VM1 enter code 151;
- press button1/√ to confirm;
- enter the address of the first additional camera (the addresses of the additional cameras must also be stored in the video modulators to which the cameras are connected and must be selected from those reserved for external units: from 231 to 253);
- press button1/√ to confirm;
- if required, proceed in the same programming the address of other additional cameras:
  Code 152: entry address of VM2
  Code 153: entry address of VM3
  Code 154: entry address of VM4
  Code 155: entry address of VM5
  Code 156: entry address of VM6
  Code 157: entry address of VM7
  Code 158: entry address of VM8
- otherwise continue with other programming or exit.

Selecting main camera (code 159)

The main camera (TP) is the camera from which the audio-video module starts the cyclic scan of the associated cameras, for selecting the camera you need to:

- enter code 159;
- press button1/√ to confirm;
- enter the address of the main camera (the one from which the cyclic display sequence starts) chosen between the VM1÷VM8 addresses programmed earlier. If the main camera must be the one on the audio-video module (factory setting), the address to be stored is 255;
- press button1/√ to confirm;
- continue with the next programming or exit programming.

Special programming for call buttons (codes 221-222-223-224)

In order to make easier the programming of the call buttons, special procedures for storing addresses are available when a flexible numbering is required.

Programming call buttons with specific addresses (codes 221-222)

With the following procedure you can store a specific address on each call button, therefore not tied to a sequential numbering. The address must be composed of the Block Address and the Device Address.

Blockadresse (Code 221)

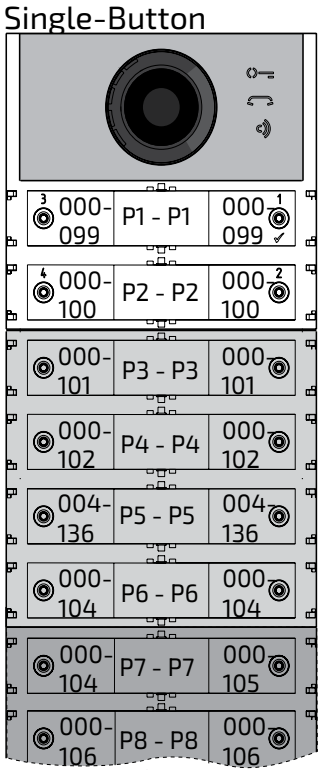
- Enter code 221;
- press button1/√ to confirm;
- enter the Block Address that is to be assigned to a specific button (values allowed from 000 to 099);
- hold pressed the button to which the address is to be assigned, after 4 sec. you will hear a tone, symbol will stop flashing while symbol will resume flashing quicly;
- continue with the programming of the Device Address.

Device Address (code 222)

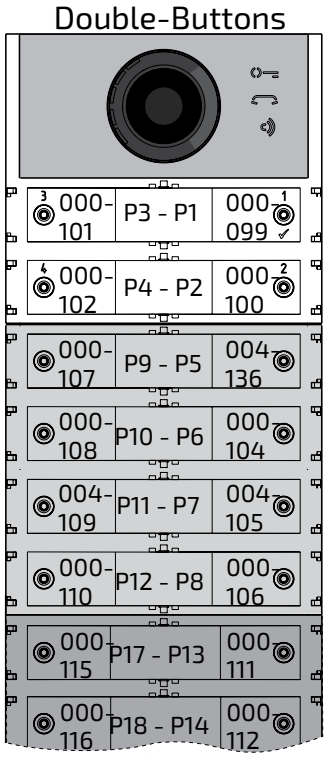
- Enter code 222;
- press button1/√ to confirm;
- enter the Device Address that is to be assigned to a specific button (values allowed from 001 to 230);
- hold pressed the button to which the address is to be assigned, after 4 sec. you will hear a tone, symbol will stop flashing while symbol will resume flashing quickly;
- continue with the next programming or exit programming.

Example: to store the Block Address 004 and the Device Address 136 in the P5 button, and keep the original numbering for all the other buttons, follow these steps:
221+P1+004+P5(>4sec.)+222+P1+136+P5(>4sec.)
After the procedure, the buttons will call the following addresses:

Single-Button



Double-Buttons



Programming of call buttons using address groups (codes 223-224).

To speed up address storage in call buttons when the system is made up of separate buildings, you can use the group programming procedure that allows to automatically and sequentially encode the call buttons starting from a specific button. The address must be composed of the Block Address and the Device Address.

⚠ **Attention: the sequential numbering will be congruent with the configuration of the external unit call buttons (single-button or double-button).**

Block Address (code 223)

- Enter code 223;
- press button1/√ to confirm;
- enter the Block Address that is to be assigned starting from a specific button, the Block Address will also apply to all subsequent buttons (values allowed from 000 to 099);
- hold pressed the button from which it is intended to start with the numbering, after 4 sec. you will hear a tone, symbol stops flashing and symbol starts flashing quickly;
- continue with the programming of the Device Address.

Device Address (code 224)

- Enter code 224;
- press button1/√ to confirm;
- enter the Device Address that is to be assigned starting from a specific button, the subsequent buttons will automatically receive a sequential Device Address (values allowed from 001 to 200);
- hold pressed the button from which it is intended to start with the numbering, after 4 sec. you will hear a tone, symbol stops flashing and symbol starts flashing quickly.

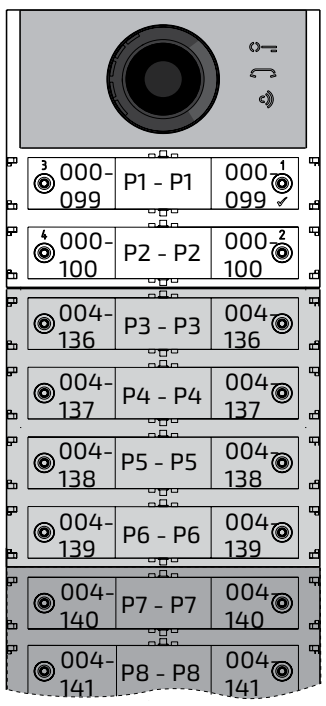
Repeat the same procedure for all the groups of buttons in which the installation is divided.

⚠ **Attention: to use the procedure correctly it is necessary to start programming the buttons from those at the top (see next example) and remember that the sequential numbering will be congruent with the configuration of the door station call buttons (single-button or double-button).**

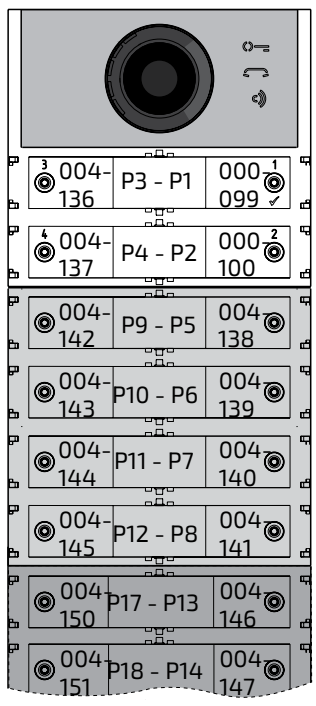
Example: to divide the pushbutton into three groups so that the P1 and P2 buttons call the addresses stored in the factory settings (Block 000 Device 099 and Block 000 Device 100), and buttons from P3 to P6 call users with Block Address 004 and Device Addresses from 136 to 139 and the buttons from P7 onward call users with Block Address 007 and Device Addresses from 150 onward, proceed as follows:
buttons P1 and P2 are already properly programmed by default so no operation is required;
button P3 must be programmed with the first address of the second group (Block 004 Device 136) by entering the following values:
223+P1+004+P3(>4sec.)+224+P1+136+P3(>4sec.)

after this phase the buttons will call the following addresses:

Single-Button



Double-Button



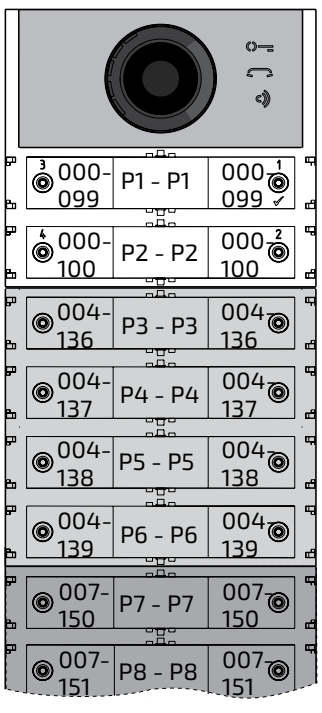
To complete the programming, you must program the button P7 with the first address of the third group (Block 007 Device 150) by entering the following values:

223+P1+007+P7(>4sec.)+224+P1+150+P7(>4sec.)

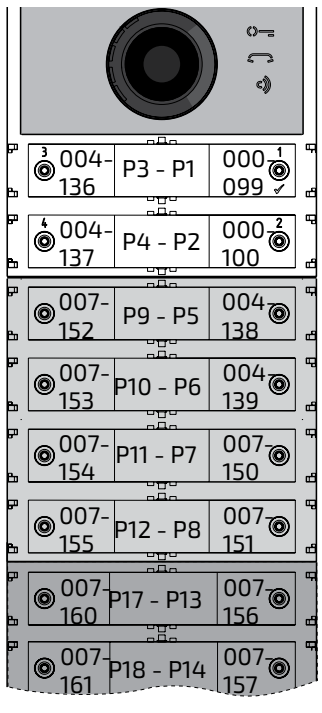
---

after this phase the buttons will call the desired addresses:

Single_Button



Double-Button



- Continue with the next programming or exit programming.

Muting the call in progress tone (code 323)

Reardless of whether voice messages are enabled or disabled, when the call is sent, the door station emits a ringing tone when the indoor station rings. This tone, if not desired, can be muted through the steps described below:

- enter code 323;
- press button 1/√ to confirm;
- to disable the tone enter the value 111; to enable the tone enter the value 222;
- press button 1/√ to confirm;
- continue with the next programming or exit programming.

Closing the call when the door lock opening command is received (code 324)

This function, if enabled, causes the conversation with the apartment station to be ended when the lock opening command is received. Proceed as described below:

- Enter code 324;
- press button 1/√ to confirm;
- to enable the function enter the value 111; to disable the function enter the value 222;
- press button 1/√ to confirm;
- continue with the next programming or exit programming.

Setting the voice message language (code 411)

The audio/video or only audio-module generates voice messages at call send, conversation entry, lock opening and end of conversation operations. It is possible to choose the language in which these messages are generated from those listed below. To set the language, once you have entered programming mode, follow the steps described below:

- enter code 411;
- press button 1/√ to confirm;
- enter the value 000 for Italian, 001 for English, 002 for Danish, 003 for Netherlands, 004 for Polish, 005 for French, 006 for German, 007 for Spanish, 008 for Portuguese, 255 to disable voice messages;
- press button 1/√ to confirm;
- continue with the next programming or exit programming.

Setting volume of voice messages out of conversation (code 421)

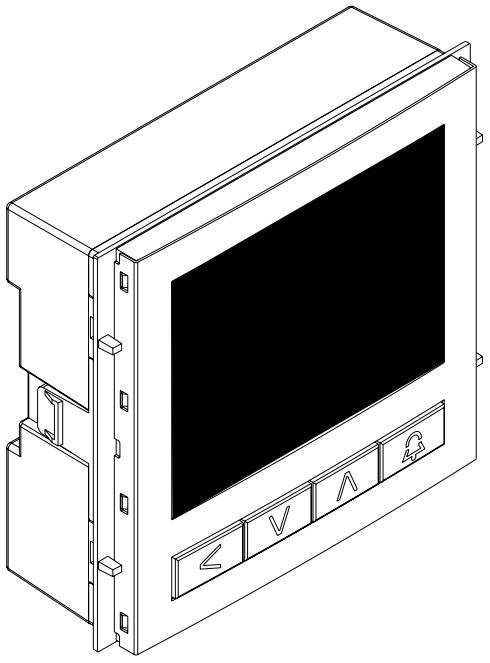
The volume of voice messages generated during the conversation is managed by means of the same trimmer that adjusts the volume of the loudspeaker of the audio/video module or audio only, while for messages generated out of conversation, the volume can be set through the steps described below Once in programming mode:

- enter code 421;
- press button 1/√ to confirm;
- enter a value between 000 (minimum) and 007 (maximum);
- press button 1/√ to confirm;
- continue with the next programming or exit programming.

OPERATION

In addition to the LEDs illuminating the three icons on the front panel, there are voice messages describing the action performed: call sending, conversation, lock opening and end of conversation.

Art. DD2140AB



Programmable with DUO System app

DUO SYSTEM

ALBA

ALBA Display module for DUO system

Allows calls to be made from the phonebook in DUO Systems: when connected to a PD2100AB keypad module, calls can also be sent by entering the number of the desired extension. The capacity of the phone book integrated in the module is 1000 users. Each user can also be assigned a password to operate one or more of the possible activations. In the presence of the XE2921 module, date and time can be shown on the display.

Technical data

Power supply:		from the DUO line
Consumption	12 Vca:	0.15A
	from the DUO line:	0.07A

Max current delivered to other modules: 0.3A (if locally powered)

Operating temperature:	-25 ÷ 50°C
Maximum permissible humidity:	90% RH

Terminals and Connectors

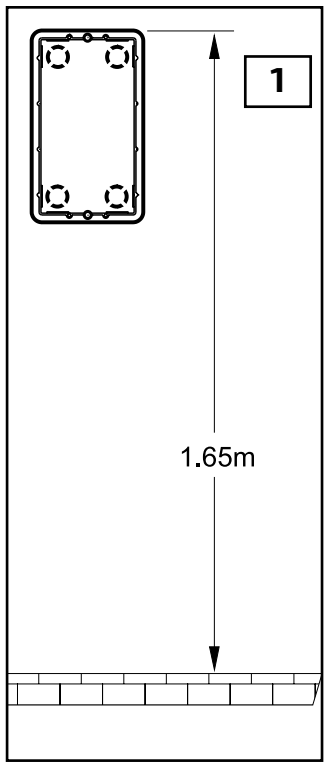
J1	Power supply selection
~/~	Local power supply input
IN	ALBA Bus input connector
OUT	ALBA Bus output connector

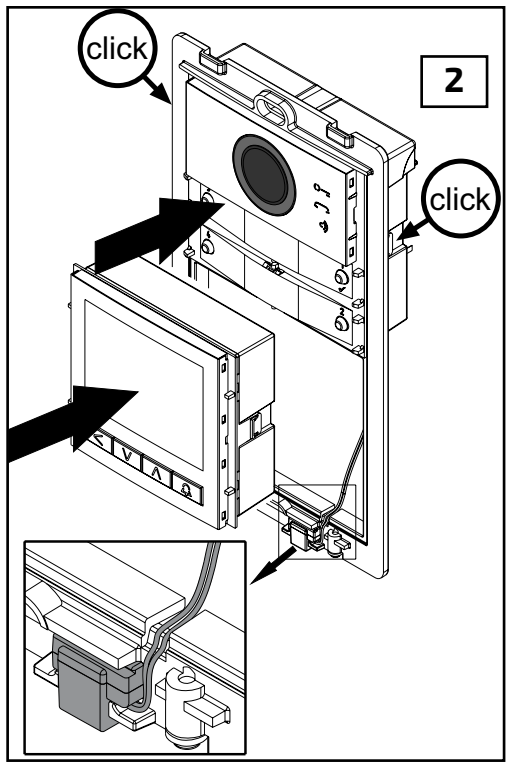
Jumper J1 function

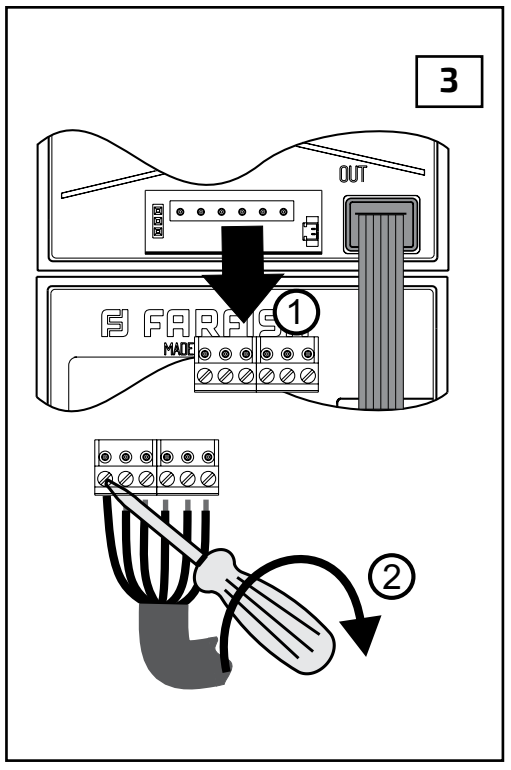
J1 (1-2): module supplied by the ALBA Bus (factory setting).

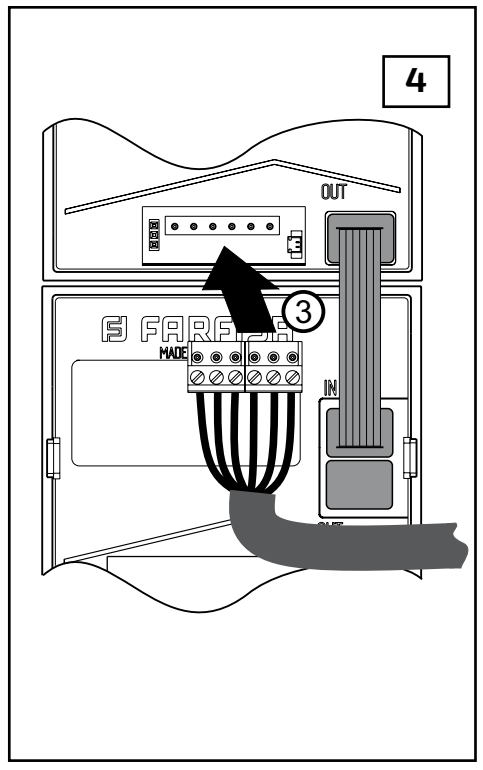
J1 (2-3): module supplied separately; the power supply connected to the module also supplies the subsequent modules.

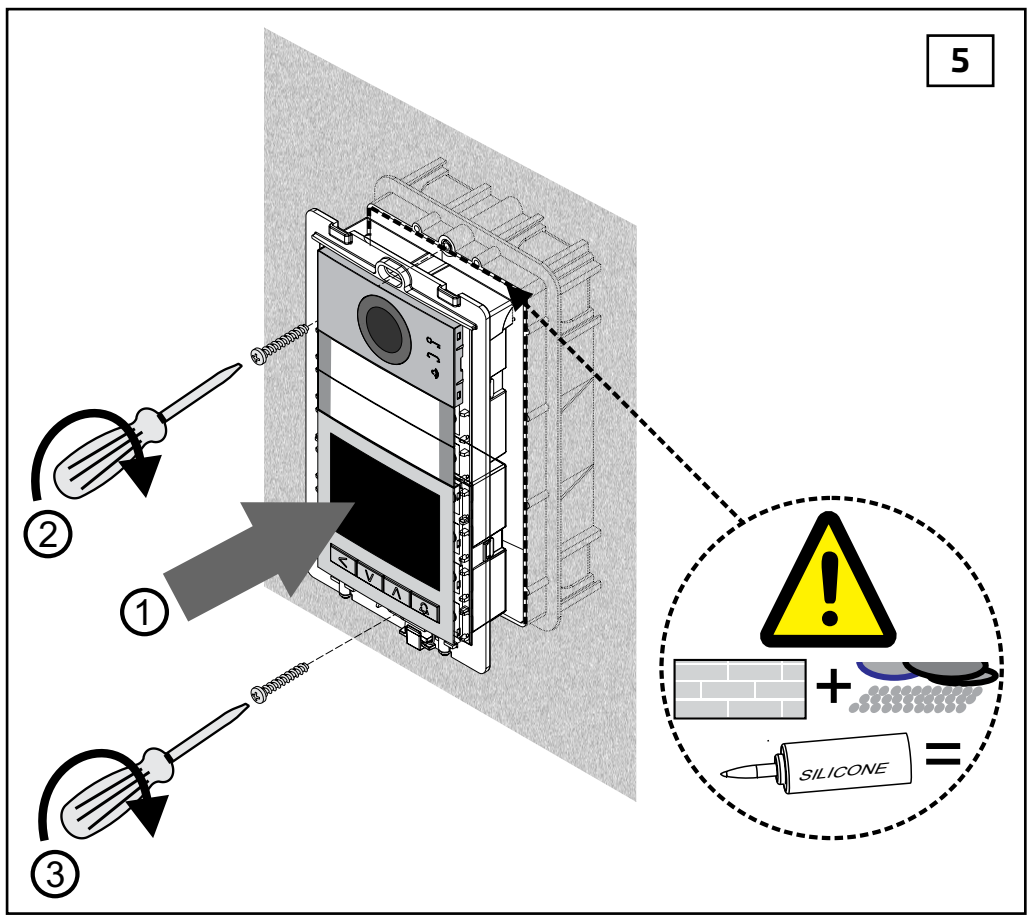
Montaggio ed installazione

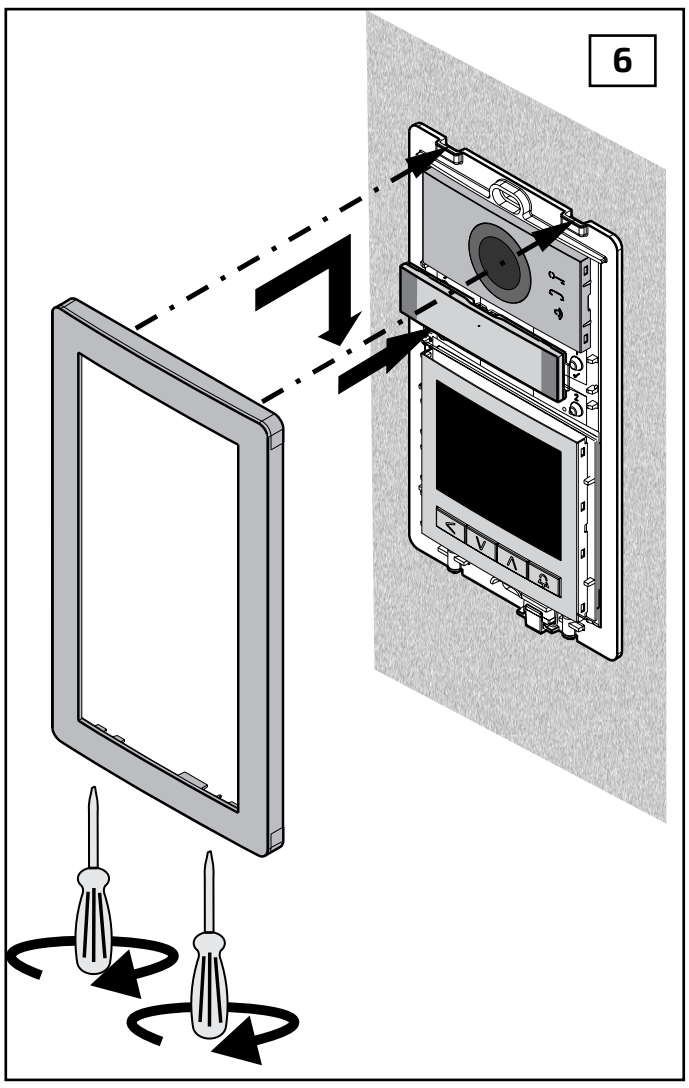










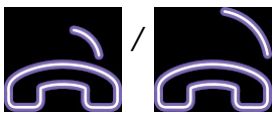


Signalling meanings

The DD2140AB module indicates the outcome of a code entered or the status of a call by displaying graphic icons whose meaning is shown below.


incorrect code/password

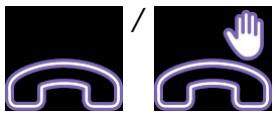

code/password acknowledged


extension number called while ringing


extension called during conversation


extension during standby by PDX2000


door opening while ringing or during conversation


extension number dialled does not exist, not available or busy

PD2100AB signals

The digital keypad PD2100AB can operate with the Display DD2140AB. I**n this case, any programming related to the PD2100AB operation must only be performed on the display module.** The Digital keypad PD2100AB indicates this operation mode by lighting orange its [X]+[⌂] keys.

FUNCTIONAL FEATURES

DD2140AB is an ALBA series display module that can be used with FARFISA DUO and MYCOM systems alone or connected to the PD2100AB Digital Keypad (the mode is indicated on the PD2100AB by the [X]+[🔔] keys that light up orange).
To enable functions related to the time and day of the week, the module can be synchronised with a system clock (type XE2921).
Based on use, the device must be configured as described in the following paragraphs.

Module connected to DUO systems

In this application the display module can be used alone, by selecting from the directory the user to call, or connected to the PD2100AB digital keypad by typing a DUO address or an Alias code to automatically send the address you typed or one associated with the Alias code.
To go to the accesses control functions of the PD2100AB, before dialling the activation code, type in sequence [0]+[0]+[🔔] button. If used with the PD2100AB, all programming must be performed on the display module.

Module connected to MyCom systems

To use the module in FARFISA MyCom systems, enable the option in the System menu.
In this application, the display module can be used alone, by selecting from the directory the user to call, or connected to the digital keypad PD2100AB, by typing an address matching the memory position of the AB4G
To go to the accesses control functions of the PD2100AB, before dialling the activation code, type the sequence [0]+[0]+[🔔] button. If used with the PD2100AB, all programming must be performed on the display module.
In this configuration, by typing a number from 5 to 200, the user calls the telephone or telephones saved in the relevant memory position of the module AB4G.

⚠ **Attention: for total compatibility with module AB4G, the latter must be programmed for double button operation (see the instruction manual of module AB4G).**

System Clock

Module DD2140AB does not have a clock therefore to manage functions linked to time and day of the week, you must synchronise it with a system clock (type XE2921).

PROGRAMMING

Module DD2140AB can be programmed both manually and via Bluetooth with a Smartphone or a Tablet using the "DUO System" application. The application is available for Android™ devices and can be downloaded from Google Play at the following link:

http://farfisa.com/qr/and-duo/

⚠ **Attention: the module DD2140AB has no Bluetooth inside, therefore to execute programs with the "DUO System" application, the door panel must have connected as last a module with Bluetooth (FP51AB) on board; otherwise, connect a Bluetooth interface type XE2921 to the back of the last module (the latter also has a system clock that allows use of module DD2140AB functions related to the time and day of the week).**

Manual programming

The following paragraphs outline the instructions for manual programming of the device.

Enter manual programming

To enter programming, press for about 4 seconds the keys < and 🔔 located below the display. The dialogue box will require the password (to enter the factory password press in sequence the keys <, V, Λ and 🔔). The password is acquired a few moments after having typed the last key and the main menu is displayed.

⚠ Attention: if for about 20 seconds no operation is executed, the device automatically exits manual programming.

Exit manual programming
Press repeatedly the key < until you have left programming.

⚠ **Attention: if for about 20 seconds no operation is executed, the device automatically exits manual programming.**

Main menu

It features the following items:

- **Language**
- **Users**
- **System**
- **Miscellaneous**
- **Default**

Language

(default Italian) Select this menu item and confirm by pressing the 🔔 key to choose one of the options available:

·Italian
·English
·……

Use the keys V/Λ to scroll through the options and confirm the choice using the 🔔 key; the item selected is highlighted in green. To return to the main menu press <.

Users

This section (a directory having maximum 1000 users storage capacity) contains the following entries:

·New
·John Smith
·……

Select New or one of the users already stored in memory and press the 🔔 key; the following list of editable parameters will be displayed:

·Name
·Block address
·Flat address
·Alias
·Password
·Actuations
·Time intervals
·Delete

-Name
(default empty) Select this menu item to enter or modify the name (maximum 20 characters: upper-case, lower-case, numbers or symbols) to be assigned to the user (e.g. John Smith) and press 🔔. Enter the name using the keys V/Λ to search for the character (hold it down for quick search) and confirm using the 🔔 key, the cursor automatically positions itself on the next box. Search for the 2nd character and confirm using the 🔔 key; finish writing the field and confirm using the 🔔 key; press the 🔔 key, the dialogue box will prompt the user to save the changes.

- Block address
(no default value) It is the block (section) address of the system to which the user belongs, the possible values range from 01 to 99. If the system is not divided into sections, all users are automatically assigned by the system the value 00, therefore it is not necessary to insert it. Select this menu item and press 🔔. Scroll using the keys V/Λ to select the address of interest and press the 🔔 key; the dialogue box will prompt the user to save the changes.

-**Flat address**
(default address 100) identifies unambiguously an apartment (or user) within a system or in its block or section; the address varies from 001 to 200. Select this menu item and press 🔔. Scroll using the keys V/Λ to select the value of interest and press the 🔔 key; the dialogue box will prompt the user to save the changes.
Warning: to call the user from the keypad PD2100AB use either the address of the block + the address of the flat or the alias.

-Alias
(no number stored by default) is a number consisting of 1 to 5 digits, other than the extension number address, used to make calls. Normally, it is a number which, in the most flexible and easiest way to remember, identifies the user in a system (for example, the apartment in the second building, third floor and apartment 4 can be identified by the number: 20304).Select this menu item and press 🔔. Use the keys V/Λ to choose the first digit and confirm using the 🔔 key; the cursor automatically positions itself on the next box. Look for the 2nd number and confirm using the 🔔 key, finish writing the field and confirm using the 🔔 key; press the 🔔 key again, the dialogue box will prompt the user to save the changes.

-**Password**
(no value stored by default) Is an access code number consisting of 1 to 8 digits that can be typed on the keypad PD2100AB and attributed to each user; makes it possible to enable one or more actions among those defined in the next paragraph. Select this menu item and press 🔔. Use the keys V/Λ to choose

the first digit and confirm using the 🔔 key; the cursor automatically positions itself on the next box. Look for the 2nd number and confirm using the 🔔 key, finish writing the field and confirm using the 🔔 key; press the 🔔 key again, the dialogue box will prompt the user to save the changes.
Warning: to assign multiple access codes to the same user, create multiple users with the same name, one for each code (for instance John Smith1, John Smith2, etc.). Each access code can be associated up to 8 different actions. One of the fields address of the apartment or password must be assigned a value for each user.

-Actuations
(no actuation enabled by default). To the dialling of the access codes numbers referred to in the previous paragraph it is possible to associate the activation of a series of actions (maximum 8) chosen from among those included in the list consisting of relay 1 and relay 2 of the PD2100AB, S+/S- contact and auxiliary relay of the CV2124AB or CA2124AB module and other 4 remote actuators, if provided, whose addresses will be defined later in the system parameters. By selecting this menu item and pressing the 🔔 key, the list of actions that can be activated will be displayed. Use the keys ∨/∧ to move the cursor on the choice of interest and press 🔔. The item is highlighted in green. Select your next choice (up to maximum 8 actions) or exit by pressing <.

-Time intervals
(no time-slot set by default) each access code number can be associated with up to 8 time-slots, expressed in hours and day of the week, during which the access code stays valid; outside these ranges, the code is invalid (take, for instance, the permission to entry ensured to the cleaning company through an access code valid on Monday, from 8 to 10). If the code has no time-slot associated, the code is always valid. The 8 time-slots are programmable only through Bluetooth Connection. In this menu item of the programming is only possible to assign them to the various users. For the correct operation of the device according to the time-slots set, the system must be equipped with a system clock (type XE2921). Select this menu item and press the 🔔 key to display the list of time-slots. Use the keys ∨/∧ to move the cursor on the choice of interest and press 🔔. The item is highlighted in green. Select your next choice (up to maximum 8 actions) or exit by pressing <.
Warning: if an access code is associated one or more time-slots, but the device is not synchronised to the system clock or loses synchronisation with it, the code will no longer be valid until it gets synchronised again.

-Delete
Select this menu item to delete the user and press the 🔔 key, the dialogue box will prompt the user to save the changes. Confirm it or return to the previous menu.

System
It features the following items

·AB4G mode
·Actuators parameters
·PD2100 parameters
·Admin. password

-AB4G mode
(disabled by default). Enable this function if the display module is used along with the AB4G (MyCom ALBA module). In this configuration, the users apartment addresses (from 5 to 200), refer and call the phone or the phones stored in the corresponding memory position of the AB4G module while the block address must not be programmed. Select this menu item and press 🔔. Use the keys ∨/∧ to enable or disable the function and confirm using the 🔔 key. The chosen item turns green. Tap the key < to go back to the previous menu.
Warning: for full compatibility with the AB4G module, the latter must be programmed for double button operation (see the instruction manual of the module AB4G).

-Actuators parameters
(no value programmed by default). You can store up to 4 addresses (between 211 and 220) of 4 DUO actuators possibly present in the system that can be activated by dialling the access code number of the user previously stored. Select this menu item and press the 🔔 key to display the following items:

·Actuator1 address
·Actuator2 address
·Actuator3 address
·Actuator4 address

-Actuator1-2-3-4 address
Select one of the 4 items above using the keys ∨/∧ and press 🔔. Select the value of interest by scrolling with the keys ∨/∧, confirm using the 🔔 key; the dialogue box will prompt the user to save the changes. Select another item or return to the previous menu.

-PD2100 parameters
Use this menu to set the main parameters of the keypad PD2100AB connected to the display. The programmable items are listed below:

·Relais 1
·Relais 2
·P1
·P2
·Direct activation

-Relais 1
(default 1 s) Allows setting the activation time (from 0 to 99 s, where 0 indicates the operation in bistable mode) of the first relay of the module PD2100AB (terminals C1/NA1/NC1). Use the keys ∨/∧ to position the cursor over this menu item and press 🔔. Select the value of interest by scrolling with the keys ∨/∧, confirm using the 🔔 key; the dialogue box will prompt the user to save the changes.

-Relais 2
(default 1 s) Allows setting the activation time (from 0 to 99 s, where 0 indicates the operation in bistable mode) of the second relay of the module PD2100AB (C/NA connector J7). Use the keys ∨/∧ to position the cursor over this menu item and press 🔔. Select the value of interest by scrolling with the keys ∨/∧, confirm using the 🔔 key; the dialogue box will prompt the user to save the changes.

-P1
(associated with the first relay of PD2100AB by default) pressing the key possibly connected between terminals P1 and PC of the module PD2100AB makes it possible to associate the immediate activation of one or more actions (options available in the list: consisting of the first and second relay of PD2100AB, S+/S- contacts and auxiliary relay of the module CV2124AB or CA2124AB, 4 actuators whose addresses have been programmed in the system parameters) and any validity time slots. Enter the menu "P1" to displays the item listed below:

·Actuations
·Time intervals

-Actuations
(by default is associated the action 1) Select this menu item and press the 🔔 key to display the list of actions available. Use the keys ∨/∧ to move the cursor on the choice of interest and press 🔔. The item is highlighted in green. Select your next choice (up to maximum 8 actions) or exit by pressing <.

-Time intervals
(no time-slot associated by default) it is possible to associate up to 8 time-slots, set by hours and days of the week, during which the actions selected above are to be performed. If P1 is not associated to any time slot, the actions selected are always performed upon closing of the contact P1-PC of the PD2100AB module. The 8 time-slots can be set only through Bluetooth connection. This programming menu item allows assigning an action to P1 only. For correct operation of the device with the time slots, a system clock (type XE2921) is necessary in the installation. Select this menu item and press the 🔔 key to display the list of time-slots. Use the keys ∨/∧ to move the cursor on the choice of interest and press 🔔. The item is highlighted in green. Select your next choice (up to maximum 8 actions) or exit by pressing <.
Warning: if P1 is associated one or more time-slots, but the device is not synchronised to the system clock or loses synchronisation with it, the actions will no longer be performed until it gets synchronised again.

-P2
(associated to the second relay of PD2100AB by default) Same programming is possible for the P1 key but referred to the use of the key possibly connected between terminals P2 and PC of the PD2100AB module.

-Direct Activation
(no default association) Press only the key of the PD2100AB module to associate timeslots similar to the P1 and P2 keys.

Warning: the timings and operating modes of the actuators are those programmed for each device; the P1, P2 inputs and pressing of the key of PD2100AB module only enable their activation, therefore, check to make sure the operating modes programmed for the actuators match the functions required to the system.

-Admini. password
(consists, by default, of pressing in sequence from left to right the four soft keys below the display). Select this menu item and press Enter the new code (maximum 8 characters selected between the keys <, V, Λ and) and wait for the dialogue box to prompt the user to confirm the settings.

Miscellaneous

It features the following items:

- **Welcome Messages**
- **Date Format**
- **Reset user memory**
- **Release**

-Welcome Messages
In standby, the display shows the Farfisa factory logo, which can be alternated with maximum two custom messages of 4 rows each, and/or with the time and date (this last feature is only available if a type XE2921 system clock is provided). Select this menu item and confirm using the key to display the entries below:

- **Farfisa Logo**
- **Date and time**
- **Personal messages**

-Farfisa Logo
(enabled by default) Use this menu to enable/disable the Farfisa logo shown on the display; make your choice using the keys V/Λ, the option selected becomes green once confirmed with the key . Press < to return to the previous menu.

-Date and time
(enabled by default) Use this menu to enable/disable the date and time on the display; make your choice using the keys V/Λ, the option selected becomes green once confirmed with the key . Press < to return to the previous menu.
-Personal messages
This menu contains the following entries:

- **Message 1**
- **Message 2**
- **Font size**

-Message 1
(empty by default) Select this menu item and press the key to enable/disable/change the first customised message. Select the option that enables you to change the message, confirm with key ; 4 empty lines (empty by default) are displayed. Select the row of interest, press the key and use the keys V/Λ to choose the first character to be entered, press the key to confirm and continue with the next character. After having written down the message and having confirmed it using the key, press again ; the dialogue box will prompt the user to save the changes. Continue with the remaining text lines or return to the previous menu by pressing the key <. After having returned to the previous menu, select the option that enables displaying of the text edited and confirm with the key . Press < to return to the previous menu.

-Message 2
(empty by default) if necessary, proceed as described above.

-Font size
(small by default) Select this menu item and press . Three strings showing the small, medium and large font size will be displayed. Use the keys V/Λ to select the string with the size of interest and confirm using the key (the string selected becomes green). Tap the key < to go back to the previous menu.

-Date Format
(year/month/day by default). Select this menu item and press the key to enter the menu that allows selecting one of the three date formats available. Once in the menu, select the mode using the keys V/Λ, then confirm using the key . Press < to return to the previous menu.

-Reset user memory
Select this menu item and press the key; a dialogue box will prompt the user to confirm the operation. Press the key to continue or press < to cancel. If the operation is confirmed, all users stored in the address book will be deleted.

-Release
Select this menu item and press the key to display the firmware version currently installed in the display module. Tap the key to go back to the previous menu.

Default

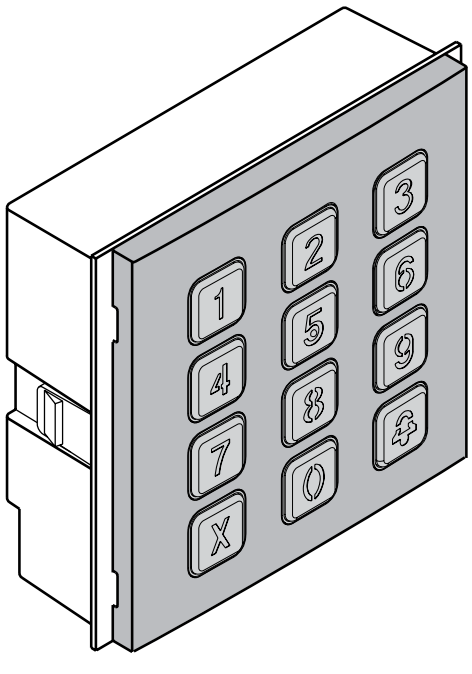
Select this menu item and press the key; a dialogue box will prompt the user to confirm the operation. Press the key to confirm or press key < to cancel. If the operation is confirmed, all parameters will be reset to the factory settings.

PROGRAMMING VIA BLUETOOTH

For complete programming of module PD-2100AB, the installation must have a Bluetooth module (type XE2920, XE2921 or FP51AB) and on your Smartphone or Tablet you have downloaded the "DUO System" application.
With "DUO System" application, you can also program the other system devices connected to the ALBA bus or DUO bus.
The application is available for Android™ devices and can be downloaded from Google Play at the following link:

http://farfisa.com/qr/and-duo/

Art. PD2100AB



Programmable with DUO System app

Access control with Smart Access app

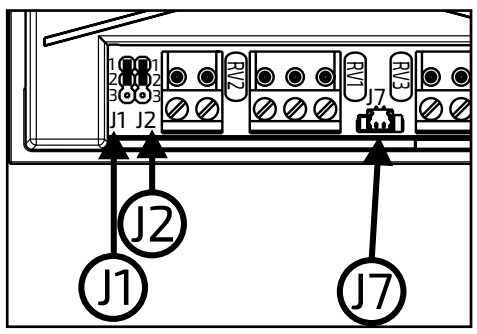
3

DUO SYSTEM

ALBA

ALBA Keypad Module for DUO system

Consente di effettuare chiamate in impianti DUO SYSTEM ed eseguire funzioni di controllo accessi. Può essere collegato all'interfaccia XE2921/XE2922 per sfruttare le potenzialità di un orologio di sistema e per la programmazione via Bluetooth. Se collegato ad un sistema DUO il dispositivo può attivare la serratura ed il relè ausiliario dei moduli CA2144AB o CV2144AB e comandare fino a 4 attuatori tipo 2281Q.
Il modulo PD2100AB può essere alimentato dal bus ALBA o separatamente con un alimentatore locale.



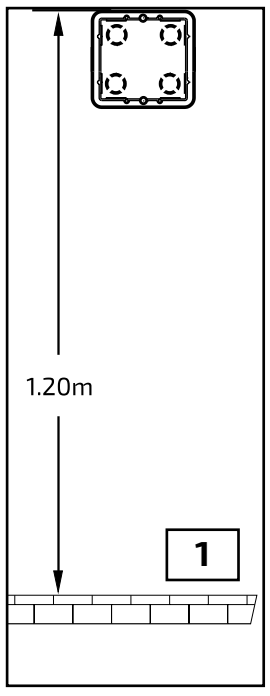
Dati tecnici

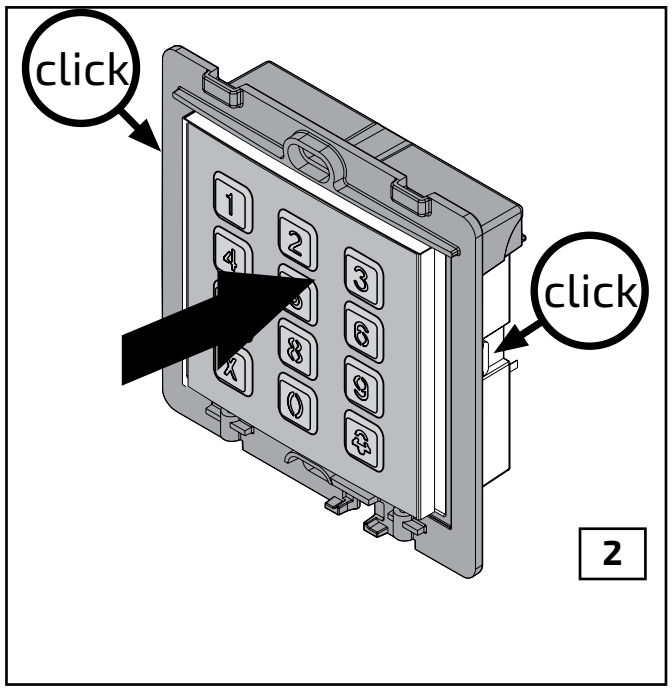
Alimentazione:	dal Bus ALBA
Alimentazione separata:	12Vca÷24Vca/cc
Assorbimento a riposo:	0,05A
in funzionamento:	0,07Amax
Max corrente erogata a altri moduli: (se alimentato separatamente)	0,3A
Temperatura funzionamento:	-25 ÷ +50°C
Massima umidità ammissibile:	90%RH
Numero utenti/codici:	250 (max 1000)
Numero relè:	2
Temporizzazione relè:	0-99 sec

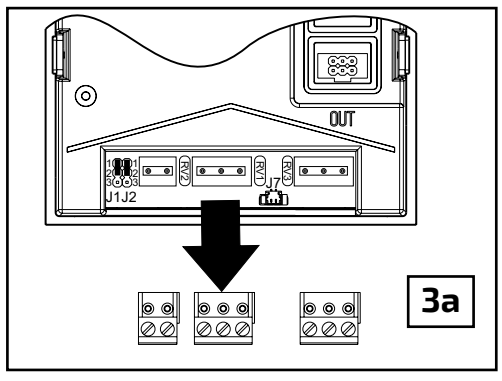
Morsetti e Connettori

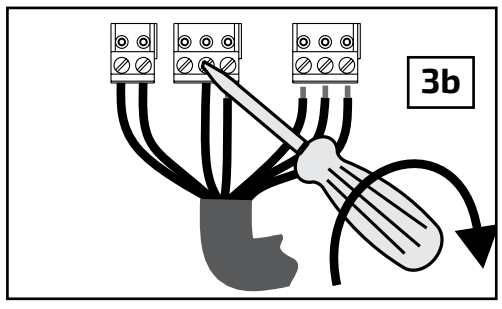
J1	Selezione alimentazione
J2	Selezione modalità funzionamento
~/~	Ingresso alimentazione separata
NC1	Contatto normalmente chiuso del relè 1
C1	Contatto comune del relè 1 **(24Vca-2A)**
NA1	Contatto normalmente aperto del relè 1
J7	Contatto comune **(C2)** e normalmente aperto **(NA2)** del relè 2 **(24Vca-2A)**
PC	Comune ingressi per attivazione manuale degli attuatori
P1	Ingresso 1 attivazione manuale attuatori
P2	Ingresso 2 attivazione manuale attuatori
IN	Ingresso connettore Bus ALBA
OUT	Uscita connettore Bus ALBA

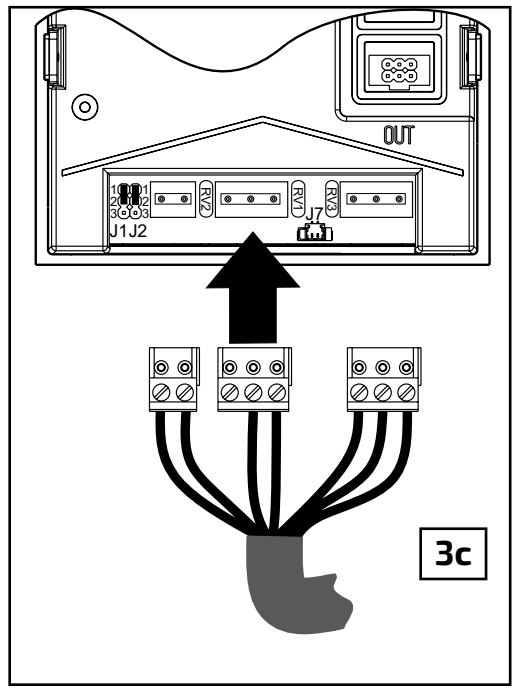
Installation and assembly example in stand-alone configuration (used as access control)

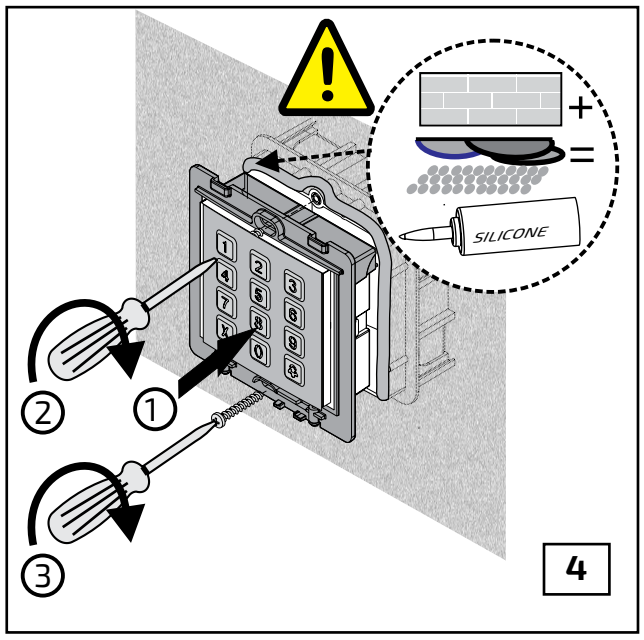


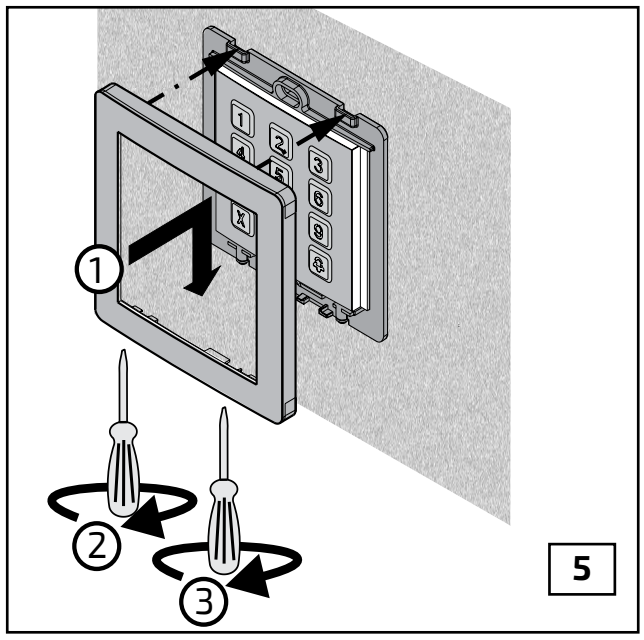












Signalling

Green: valid code, actuators enabled.
Red: invalid code.

If the access code entered is valid, the keypad gives a confirmation tone. While, if the access code entered is invalid, the keypad gives a dissuasion tone and disables for 1 second; by entering further wrong code, the disabling time increases by another second and so on up to a maximum of 30 seconds. Entering a valid code resets the disabling time to zero.

Blue: module not synchronised with system clock.

Timed access codes that depend on the system clock (time schedules) are automatically disabled.

Cyan: module synchronised with system clock.

Timed access codes that depend on the system clock (time schedules) are enabled.

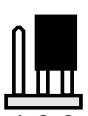
Orange: module correctly connected to the DD2140AB display.

All the programming must be done on the display module.

Flashing: module is in programming mode.

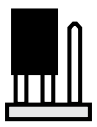
Functions of jumper J1

J1 (1-2): module powered by Bus ALBA (default setting).



J1 (2-3): module powered locally; the power supply unit connected to the module also powers subsequent modules.

Functions of jumper J2



J2 (1-2): module connected to Digital Systems DUO or mycom

For MyCom: both module AB4G and module PD2100AB must be programmed with double button operation (BMOD=1).

J2 (2-3): module used as Access Control only (default setting).

WAYS OF USE AND PROGRAMMING

The PD2100AB Digital Keyboard is an ALBA series module equipped with 12 keys that can be used:
- for access control (factory setting);
- in DUO systems (with or without the DD2140AB display) for calls and access control;
- in MyCom external stations where there is AB4G (with or without the DD2140AB display).

It is also recommended to use a Bluetooth module XE2921/XE2922 in order to activate all the time-based access control functions and to enable programming of all the options offered by the product.

Attention: in the case the module XE2921/XE2922 is left permanently connected to the ALBA push button panel, SC1, SC2 or SC3 box is required for flush mountig or, in case of surface mounting, box MD91, MD92, MD93, MD94, MD96.

Depending on the use, the device must be configured as described in the following paragraphs.

Module used for Access Control

To use the module for Access Control only, the J2 jumper must be in position 2-3 (factory setting).
In this configuration, access codes can be typed directly on the device's keypad.

Warning: when used as a single module, remember that to power the device it is necessary to move the jumper J1 in position 2-3 and connect to the terminals ~ / ~ a power supply 12Vac÷24Vac/dc - 1A, type FARFISA PRS210.

Module connected to DUO systems

To use the module in FARFISA DUO digital systems, the jumper J2 must be in position 1-2 and the value of parameter BMOD must be equal to 255 (default value).
In this configuration, by dialing a DUO address or an Alias code, the device automatically sends the typed address or the address associated with the Alias code to the bus.
For access control functions, you must enter the sequence [0]+[0]+[🔒] before dialing the PIN code.

Module connected to AB4G

To use the module in FARFISA MyCom systems, jumper J2 must be in position 1-2 and the value of parameter BMOD must be configured to 1 (BMOD=1, operation as a double button).
In this configuration, dialing a number from 5 to 200 calls the phone(s) stored in the relevant memory location on the AB4G module.

Attention: for full compatibility with the AB4G module, the latter must also be programmed in double button mode (see the AB4G module installation manual for this setting).

For access control functions, before entering the PIN code, you must enter the sequence [0]+[0]+[🔒].

System Clock

The PD2100AB module does not have an internal clock so to manage functions linked to the time and date, it must be synchronised by a system clock (type XE2921/XE2922). The avalability of a clock in the system is automatically detected and it is indicated by the colour of the buttons [X] and [🔒]:

- keys [X] and [🔒] blue: system clock not available or not synchronized, all access control functions linked to the time or day are disabled even if previously activated.
- keys [X] and [🔒] cyan: device synchronized with a system clock, functions related to the time or day are operational, if previously activated.

Programming via Bluetooth

The PD2100AB module must be programmed completely via Bluetooth with a Smartphone or Tablet using the "DUO System" Application, available for iOS and Android and connecting the XE2921/XE2922 module to the panel.
In particular, the following programming are possible only via Bluetooth:

Time schedules for access codes

(By default no schedules are programmed).
It is possible to define up to 8 time schedules (identified by day of the week, hour and minute) within which the access codes are operational.
The time bands are common to all the access codes, but different time bands can be assigned to each code (for example, having defined eight schedules F1÷F8, it is possible to establish that access code #1 is active in schedules F1, F2 and F3, access code #2 only in schedule F2 while access code #3 is always active and therefore not linked to any schedule).

Attention: if during the programming phase some access codes are linked to one or more time slots, but the device is not synchronized or loses synchronization with the system clock (keys [X] and [🔒] are blue), these codes will not be operative until a new synchronization of the device (keys [X] and [🔒] cyan).

Programming user parameters

The device can manage up to 1000 users. Each user is characterized by the following parameters:
- **Name (no name stored by factory default).** It is used to identify the apartment (or the user) to which the following parameters are related; the name can be entered only if programming is carried out via Bluetooth connection, in case of manual programming, the user name field will remain empty.
- **Alias (no number stored by factory).** This is a 1 to 5-digit number, different from the physical address of the video door phone, with which an apartment (or user) can be called. Normally it is a number that is composed in a more flexible and easy to remember way, identifies the apartment (or user) within an installation (for example the apartment of the second building, third floor and internal 4 can be identified by the alias: 20304). The alias can be entered only if programming is carried out via Bluetooth connection; in case of manual programming, the alias field will remain empty.
- **Block address (no address stored by factory),** only for DUO System.
  This is the address of the block (section) of the system to which the user belongs, possible values are from 01 to 99. If the system is not divided into sections (blocks), the block address of all users is 00, this value is automatically assigned by the system and does not need to be entered. The block address can be entered only if programming is carried out via Bluetooth connection; in case of manual programming, the block address field will remain empty.
- **Apartment address (no address stored by default).**
  It uniquely identifies an apartment (or user) within a system or within a block or section. The values allowed are between 001 and 200. The apartment address can only be entered if programming is carried out via Bluetooth connection; in case of manual programming, the apartment address field will remain empty.

Warning: the block and apartment addresses are univocally linked to the alias of the user, so the apartment address (or, if the system is divided into sections, the block address + apartment) or its alias can be used both to call the same user.

Manual programming

Only for some parameters it is possible to perform manual programming, to be considered as an "emergency" choice and to be implemented in the the case there isn't XE2921/XE2922 module. The following paragraphs contain the instructions for performing manual programming of the device.

Enter manual programming

To enter manual programming you must:
- Enter the code "00" and press [🔒];
- Enter the administrator password (factory default 0039) and press [🔒];

when the device is in manual programming mode the keypad backlight flashes.

Attention: if no operation is performed for 20 seconds, the device automatically exits manual programming.

Manual programming

After entering the programming mode, enter the code that identifies the parameter to be programmed (Table 1), confirm it with the key [🔒] and then continue as indicated in the following paragraphs. The backlight of the keys [X] and [🔒] lights up green and a confirmation tone indicates the correct memorization of the entered code. While the keys [X] and [🔒] will light up red and a dissuasing tone if the entered code is incorrect.
In any programming phase, enter the code "00" followed by the key [🔒] to return at the begin-

ning of the programming phase, i.e. to insert the code of the parameter to be programmed.

Table 1.
Programming codes.

10	Administrator password.
11	Access codes (PIN) storing.
12	Change services associated with access codes.
13	Delete access codes.
21	Relay 1 (C1/NA1/NC1) timing.
22	Relay 2 (J7) timing.
31	First system actuator address.
32	Second system actuator address.
33	Third system actuator address.
34	Fourth system actuator .
38	BMOD parameter programming.
41	Services associated with the P1 button.
42	Services associated with the P2 button.
51	Working modes.
68	Clear user memory.
90	Return to factory configuration.

Exit manual programming

To exit the manual programming it is necessary to enter the code "00", press , then press ; when the device exits the programming mode the keypad stops flashing.

Warning: if no operation is performed for 20 seconds, the device automatically exits manual programming.

Administrator password (code 10)

(Factory default 0039) Used to enter manual programming and modify some system parameters; the password must be composed by 1 to 8 digits.
To change the parameter proceed as shown below:
- after entering the programming mode, enter the code "10" and press ;
- enter the new administrator password and press ;
- to confirm, enter the administrator password again and press ;
- press "00" followed by the key to execute another programming or exit the programming.

Warning: if you forget the new administrator password, please contact technical support.

Access code storing (code 11).

The access code (PIN) is a number composed by 1 to 8 digits assigned to each apartment (or user) to which one or more services can be associated.

Warning: to assign more than one access code to the same user (or apartment) it is necessary to create several users with the same name followed by a progressive number (for example John Brown1, John Brown2, etc.).

Depending on the type of system, each access code can be associated to up to 8 different services to be selected from the followings:

System	Service	Code
DUO/AB4G	Relay 1 of PD2100AB	101
DUO/AB4G	Relay 2 of PD2100AB	102
DUO	C.2124AB S+/S- contacts	103
DUO	C.2124AB auxiliary relay	104
DUO	System actuator 1	105
DUO	System actuator 2	106
DUO	System actuator 3	107
DUO	System actuator 4	108

where the last four items refer to those stored in the device.

Warning: in order the 2281Q to be activated by the access codes, it must be configured for activation from door station. In this mode, the actuator can also be activated by directly dialling its address (if known), followed by pressing the button . In order to prevent this possibility from being used improperly and reducing the security level of the system, it is necessary to create a user in the address book whose alias is the same as the address of the 2281Q (e.g. 211) and with the other fields empty (255). In addition, the timings and operating modes of the actuators are valid as programmed in the individual devices. The access codes only enable their activation, so check that the operating modes programmed in the actuators are compatible with the functions required by the system.

To store an access code, proceed as shown below:
- after entering the programming mode, enter the code "11" and press ;
- enter the new access code and press ;
- re-enter the same access code again to confirm and press ,
- when the access code is stored, it is automatically associated with service 101. If you do not like this association, dial "000" followed by the key . If, on the contrary, this association satisfies the user's requests, it is possible to proceed by entering any code for a new service to be associated and press , continue in the same way if it is necessary to associate further services (up to a maximum of 8);
- press "00" followed by the key to execute another programming or exit the programming.

Change services associated with an access code (code 12).

If you need to change the services associated with an access code, you must perform the following programming:
- after entering the programming mode, enter the code "12" and press ;
- enter the access code for which you want to modify the actuations and press ;
- for confirmation, enter again the access code related to the actuations to be modified and press ;
- enter the number 000 to remove all previously associated services and press ,
- enter the three-digit number of the first service to be associated (see previous table) and press , enter the number related to a second service to be associated and press , continue in the same way if further services are required to be associated (up to a maximum of 8);
- press "00" followed by the key to execute another programming or exit the programming.

Delete access codes (code 13).

If it is necessary to delete a previously stored access code from the device memory, the following programming must be carried out:
- after entering the programming mode, enter the code "13" and press ;
- enter the access code to be deleted and press ;
- enter for confirmation the access code to be deleted again and press ;
- press "00" followed by the key to execute another programming or exit the programming.

Relay 1 (terminals C1/NA1) timing (code 21).

(Factory setting: 1 s.) Activation time of relay 1 (allowed values from 1 to 99 seconds); by entering the value 0 the relay operates in bistable mode (ON-OFF).
To change the parameter, proceed as shown below:
- after entering the programming mode, enter the code "21" and press ;
- enter the new activation time and press
- press "00" followed by the key to perform another programming or exit the programming.

Relay 2 (connector J7) timing (code 22).

(Factory setting: 1 s.) Activation time of relay 2 (allowed values from 1 to 99 seconds); by entering the value 0 the relay operates in bistable mode (ON-OFF).
To change the parameter, proceed as shown below:
- after entering the programming mode, enter the code "22" and press ;
- enter the new activation time and press
- press "00" followed by the key to perform another programming or exit the programming.

First system actuator address (code 31).

(Empty by default) If the PD2100AB module is installed in an external door station connected to a DUO system, it is possible to store the addresses of a maximum of four actuators art.2281Q, that it is possible to activate either by using push-buttons connected between P1 and PC or between P2 and PC or by typing one or more access codes stored in the PD2100AB module. With this programming it is possible to configure the address of the first DUO actuator in the system which must also be activated by the PD2100AB module (allowed values: from 211 to 230).
To change the parameter, proceed as shown below:
- after entering the programming mode, enter the code "31" and press ;
- enter the address of the first actuator and press ;

- press "00" followed by the key to perform another programming or exit the programming.

Second system actuator address (code 32).

(Empty by default) Address of the second DUO actuator in the system which must also be activated by the PD2100AB module (allowed values: from 211 to 230).
To change the parameter, proceed as shown below:
- after entering the programming mode, enter the code "32" and press ;
- enter the address of the second actuator and press ;
- press "00" followed by the key to perform another programming or exit from the programming.

Third system actuator address (code 33).

(Empty by default) Address of the third DUO actuator in the system which must also be activated by the PD2100AB module (allowed values: from 211 to 230).
To change the parameter, proceed as shown below:
- after entering the programming mode, enter the code "33" and press ;
- enter the address of the third actuator and press ;
- press "00" followed by the key to perform another programming or exit from the programming.

Fourth system actuator address (code 34)

(Empty by default) Address of the fourth DUO actuator in the system which must also be activated by the PD2100AB module (allowed values: from 211 to 230).
To change the parameter, proceed as shown below:
- after entering the programming mode, enter the code "34" and press ;
- enter the address of the fourth actuator and press ;
- press "00" followed by the key to perform another programming or exit from the programming.

Programming the BMOD parameter (code 38)

(Factory default 255) Parameter BMOD specifies the operating mode of the keypad and should only be changed if the PD2100AB module is installed in an e MyCom station (with AB4G). Allowed values are 1 (1 for use in combination with AB4G module) and 255 (for use in DUO System).
To change the parameter, proceed as shown below:
- after entering the programming mode, enter the code "38" and press ;
- dial 1 or 255 according to the value you want to assign to the BMOD parameter and press ;
- press "00" followed by the key to perform another programming or exit from the programming.

Services associated with the P1 and P2 buttons (codes 41 and 42).

(By default P1 is associated with 101 and P2 with 102) If buttons are connected to inputs P1/PC and P2/PC, it is possible to associate immediate activation of the services indicated in the following table, when they are closed.

Warning: P1 and P2 inputs are located on the back of the PD2100AB module. When the door unit is removed, they are accessible and it is therefore possible to activate the services associated with them. This possibility must be taken into account in applications where high security is required.

System	Service	Code
DUO/AB4G	Relay 1 of PD2100AB	101
DUO/AB4G	Relay 2 of PD2100AB	102
DUO	C.2124AB S+/S- contacts	103
DUO	C.2124AB auxiliary relay	104
DUO	System actuator 1	105
DUO	System actuator 2	106
DUO	System actuator 3	107
DUO	System actuator 4	108

where the last four items refer to one or more actuators among those stored in the device.

Warning: In order for the 2281Q to be activated from P1 and P2, it must be previously configured to be activated from door unit. In this mode, the actuator can also be activated by directly dialling its address (if known), followed by pressing the button . In order to prevent this possibility from being used improperly and reducing the security level of the system, it is necessary to create a user in the PD2100AB's directory whose alias is the same as the address of the 2281Q (e.g. 211) and with the other fields empty (255). In addition, the timings and operating modes of the actuators are those programmed in the individual devices; buttons P1 and P2 only enable their activation, so check that the operating modes programmed in the actuators are compatible with the functions required by the system.

To set the services associated with the P1/PC input, proceed as shown below:
- after entering the programming mode, enter the code "41" and press ;
- enter the code for the desired service, according to the table above, and press
- if you want to associate other services, enter further numbers (max. 7 more), each followed by the key ,
- press "00" followed by the key to execute another programming or to exit the programming.

For example, if pressing the P1 button you wish to enable both relay1 on board the device and the lock connected to terminals S+ and S- of the CV2124AB module, you must associate service 103 (on board relay1 is already associated by default with the P1 button).

Warning: if, later, you want to modify the associated services, enter programming code 41 and enter the number 000 and confirm to remove all the previously associated services. At this point, you can make the new association again.

To associate services with the P2/PC input, proceed as shown in the following:
- after entering the programming mode, enter the code "42" and press ;
- enter the code for the desired service, according to the table above, and press
- if you want to associate other services, enter further numbers (max. 7 more), each followed by the key ,
- press "00" followed by the key to execute another programming or exit the programming.

Operating modes (code 51).

Code 51 can be used to configure some special operating modes of the PD2100AB. Then use the following codes for the functions described:
- 001 disable signalling tone at device restart (factory setting).
- 101 Enabling signalling tone on device restart.
- 002 Addresses or codes typed on the device keypad are automatically acquired 2 seconds after their entry (bell pressing is not required).
- 102 Addresses or codes typed on the device keypad are captured only after pressing the button (factory setting).
- 003 In FARFISA DUO or MyCom systems, press the keys + + to enter access control mode (factory setting).
- 103 In FARFISA DUO or MyCom systems, press the key to enter the access control mode.
- 004 The device manages up to 250 users (factory setting)
- 104 The device manages up to 1000 users.

Warning: selecting the maximum number of users (1000) slows down the process of validation of access codes and increases the time for "uploading" and "downloading" data from the Smartphone or Tablet, it is therefore suggested to select the maximum number of users (1000) only if necessary.

To change one of the operating modes, proceed as shown below:
- after entering the programming mode, enter the code "51" and press ;
- enter the programming code identified in the table above and press
- press "00" followed by the key to carry out another programming operation (reinput code "51" if you want to change another operating mode) or exit the programming.

Erase user memory (code 68).

In order to delete the memory related to the users' data (name, addresses, aliases, access code, time schedule of the code, enabling actuators associated with the code, etc..) it is necessary to
- after entering the programming mode, enter the code "68" and press ;
- enter the administrator password and press ;

- press "00" followed by the key to perform another programming operation or exit the programming.

Warning: the previous operation deletes definitively the data of all users (name, addresses, aliases, access code, time schedules of the code, actuator associated with the code, etc.) inside the memory of the device and they will be no longer recoverable. The parameters related to the device (relay timing, actuator addresses, time schedules, etc.) will not be deleted by this code.

Return to factory configuration (code 90).

In order to reset all device parameters to their factory settings, the following programming must be carried out:
- After entering the programming mode, enter the code "90" and press ;
- Enter the administrator password and press ;
- press "00" followed by the key to execute another programming or exit the programming.

Warning: the previous operation restores the device parameters (relay timing, actuator addresses, time schedules, etc.) to the factory settings. The user data (name, addresses, aliases, access code, time schedules of the code, actuators associated with the code, etc.) contained in the memory of the device will not be modified.

OPERATION

Attention: before powering ON the system, check the connections of the devices are correct.
Digital Keuypad PD2100AB behaviour depends on the programs executed and the type of system to which it is connected, as described in the paragraphs below.

Access Control systems

If the keypad is configured for the access control function only, to open the lock and enable the actuators, simply enter the code and press .
If the access code is correct, the device emits a confirmation tone, keys and turn green and the door lock and/or the commands associated with the access code entered are operated.
If the access code is wrong, the device emits a dissuasion tone, keys and turn red and the keypad freezes for 1 second, if you continue to enter wrong codes, the freezing time of the keypad increases to a maximum of 30 seconds; entering a valid access code resets the incremental freezing time of the keypad to zero.
When the module is used as Access Control, it is particularly useful to synchronise the device with a system clock (installation of the XE2921 or XE2922 module is required) to associate the PIN codes with one or more schedule; when the module is synchronised with a system clock, keys and are cyan.

FARFISA DUO systems

To make a call on DUO digital systems enter the desired address or alias of the apartment (or user) and press . If you make a mistake, press to delete.
If the line is free and the called number exists, the device emits a confirmation tone and on module CV2124AB or CA2124AB the symbol switches ON, otherwise you will hear a busy tone and the and symbols blink.

Pressing the key ends the call in progress, symbol switches off and the system is ready for a new call.
From the keypad, even if the system is busy (on module CV2124AB or CA2124AB, the symbols and are blinking) you can, by composing one of the previously saved access codes, activate opening of the lock or execute other commands.
To enter the access code, you must:
- type 00 and press ;
- within 10 seconds, type the access code;
- press .

If the access code is correct, the device emits a confirmation tone, keys and turn green and the door lock release as well as all the actuators associated with the access code are activated (in case of door connected to CV2124AB or CA 2124AB module operation, symbol blinks for the activation time of the output); once ended the actuations, the keypad returns to current system operating mode (free or busy).
If the access code is wrong, the device emits a dissuasion tone, keys and turn to red and the keypad freezes for 1 second, if you continue to enter wrong access codes, the freezing time of the keypad increases to a maximum of 30 seconds; entering a valid access code resets the incremental freezing time of the keypad to zero.

FARFISA MyCom systems

When the PD2100AB keypad is connected to a MyCom AB4G module, dialling a number (or an Alias) will start the sequence of phone calls to the group of numbers associated with the user.

Attention: in this mode, it is important to program the parameter BMOD=1 (operating as a double button), the same programming must be carried out on module AB4G.

To make a call, you must type a number from 5 to 200 and press key . Module AB4G sends a call to the telephone numbers saved in the contacts list corresponding to the number typed. Numbers 1, 2, 3 and 4 cannot be dialed by PD2100AB because they are reserved for the physical buttons on the module AB4G.
To stop a call and call another user, if communication has not started yet, enter a new address and press , the call in progress is stopped and you pass to call the user related to the last address entered.
Communication in progress finihes when the time set in the LOT parameter of module AB4G is expired, when the user ends the conversation or by pressing key on keypad PD2100AB after entered any address.
When used in a FARFISA MyCom system, keypad PD2100AB can be used also for access control to enable only the two built-in relays.
To enter the access code, you must:
- type 00 and press ;
- within 10 seconds, type the access code;
- press .

Smart Access.

Thanks to Bluetooth technology, if the XE2922 module is permanently connected to the PD2100AB keypad, by downloading the "Smart Access" APP available for iOS and Android, it is possible to use the smartphone to activate the access control functions without touching the surface of the keyboard.
- iOS
- Android

ALBA video flush-mounted push-button panel dialling table with double row call (*).

Calls No.	Dimensios LxHxP mm	A/V module (**)		Key module		Key		Key cover		Module neutral (***)		Built-in box		Connecting cable		Mounting frame		External frame	
2	124x124x11	CV2144AB	1			AB21	1	AB20	1			SC1	1			AB71	1	AB61	1
4		CV2144AB	1			AB21	2					SC1	1			AB71	1	AB61	1
6	124x216x11	CV2144AB	1	CT2138AB	1	AB21	3	AB20	3			SC2	1			AB72	1	AB62	1
8		CV2144AB	1	CT2138AB	1	AB21	4	AB20	2			SC2	1			AB72	1	AB62	1
10		CV2144AB	1	CT2138AB	1	AB21	5	AB20	1			SC2	1			AB72	1	AB62	1
12		CV2144AB	1	CT2138AB	1	AB21	6					SC2	1			AB72	1	AB62	1
14	124x307x11	CV2144AB	1	CT2138AB	2	AB21	7	AB20	3			SC3	1			AB73	1	AB63	1
16		CV2144AB	1	CT2138AB	2	AB21	8	AB20	2			SC3	1			AB73	1	AB63	1
18		CV2144AB	1	CT2138AB	2	AB21	9	AB20	1			SC3	1			AB73	1	AB63	1
20		CV2144AB	1	CT2138AB	2	AB21	10					SC3	1			AB73	1	AB63	1
22	248x216x11	CV2144AB	1	CT2138AB	3	AB21	11	AB20	3			SC2	2			AB72	2	AB62	2
24		CV2144AB	1	CT2138AB	3	AB21	12	AB20	2			SC2	2			AB72	2	AB62	2
26		CV2144AB	1	CT2138AB	3	AB21	13	AB20	1			SC2	2			AB72	2	AB62	2
28		CV2144AB	1	CT2138AB	3	AB21	14					SC2	2			AB72	2	AB62	2
30	248x307x11	CV2144AB	1	CT2138AB	4	AB21	15	AB20	3	AB00	1	SC3	2	EC733	1	AB73	2	AB63	2
32		CV2144AB	1	CT2138AB	4	AB21	16	AB20	2	AB00	1	SC3	2	EC733	1	AB73	2	AB63	2
34		CV2144AB	1	CT2138AB	4	AB21	17	AB20	1	AB00	1	SC3	2	EC733	1	AB73	2	AB63	2
36		CV2144AB	1	CT2138AB	4	AB21	18			AB00	1	SC3	2	EC733	1	AB73	2	AB63	2
38		CV2144AB	1	CT2138AB	5	AB21	19	AB20	3			SC3	2	EC733	1	AB73	2	AB63	2
40		CV2144AB	1	CT2138AB	5	AB21	20	AB20	2			SC3	2	EC733	1	AB73	2	AB63	2
42		CV2144AB	1	CT2138AB	5	AB21	21	AB20	1			SC3	2	EC733	1	AB73	2	AB63	2
44		CV2144AB	1	CT2138AB	5	AB21	22					SC3	2	EC733	1	AB73	2	AB63	2
46	372x307x11	CV2144AB	1	CT2138AB	6	AB21	23	AB20	3	AB00	2	SC3	3	EC733	2	AB73	3	AB63	3
48		CV2144AB	1	CT2138AB	6	AB21	24	AB20	2	AB00	2	SC3	3	EC733	2	AB73	3	AB63	3
50		CV2144AB	1	CT2138AB	6	AB21	25	AB20	1	AB00	2	SC3	3	EC733	2	AB73	3	AB63	3
52		CV2144AB	1	CT2138AB	6	AB21	26			AB00	2	SC3	3	EC733	2	AB73	3	AB63	3
54		CV2144AB	1	CT2138AB	7	AB21	27	AB20	3	AB00	1	SC3	3	EC733	2	AB73	3	AB63	3
56		CV2144AB	1	CT2138AB	7	AB21	28	AB20	2	AB00	1	SC3	3	EC733	2	AB73	3	AB63	3
58		CV2144AB	1	CT2138AB	7	AB21	29	AB20	1	AB00	1	SC3	3	EC733	2	AB73	3	AB63	3
60		CV2144AB	1	CT2138AB	7	AB21	30			AB00	1	SC3	3	EC733	2	AB73	3	AB63	3
62		CV2144AB	1	CT2138AB	8	AB21	31	AB20	3			SC3	3	EC733	2	AB73	3	AB63	3
64		CV2144AB	1	CT2138AB	8	AB21	32	AB20	2			SC3	3	EC733	2	AB73	3	AB63	3
66		CV2144AB	1	CT2138AB	8	AB21	33	AB20	1			SC3	3	EC733	2	AB73	3	AB63	3
68		CV2144AB	1	CT2138AB	8	AB21	34					SC3	3	EC733	2	AB73	3	AB63	3
Display and keypad																			
>68	124x307x11	CV2144AB	1	DD2140AB	1	PD2100AB	1	AB20	2	XE2921	1	SC3	1			AB73	1	AB63	1

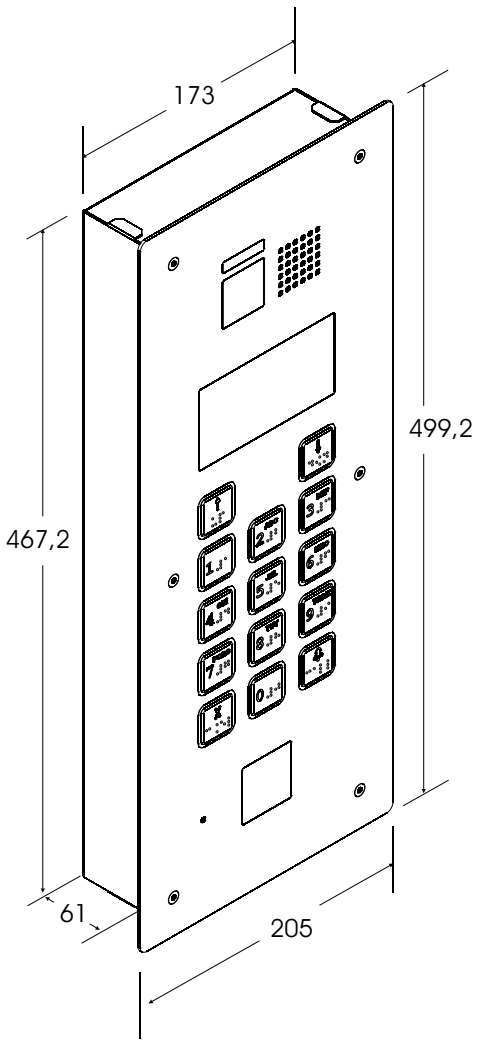
(*) By double-row call is meant that programming which associates different addresses to each side of the AB21 button, pressing to make the call from the right side causes a different user to ring than pressing from the left side. If programmed for single row call, the maximum number of calls generated by the button panel is halved.
(**) By replacing the audio-video module CV2144AB with the audio-only module CA2144AB, the audio system table is obtained.
(***) Instead of AB00, the house number module AB50 or the display module DD2140AB can be installed.

ALBA video surface-mounted push-button panel dialling table with double row call (*).

Calls No.	Dimensios LxHxP mm	A/V module (**)		Key module		Key		Key cover		Module neutral (***)		Surface mounting box		Connecting cable		Mounting frame		External frame	
2	140x138x62	CV2144AB	1			AB21	1	AB20	1			AB91	1			AB71	1	AB61	1
4		CV2144AB	1			AB21	2					AB91	1			AB71	1	AB61	1
6	140x229x62	CV2144AB	1	CT2138AB	1	AB21	3	AB20	3			AB92	1			AB72	1	AB62	1
8		CV2144AB	1	CT2138AB	1	AB21	4	AB20	2			AB92	1			AB72	1	AB62	1
10		CV2144AB	1	CT2138AB	1	AB21	5	AB20	1			AB92	1			AB72	1	AB62	1
12		CV2144AB	1	CT2138AB	1	AB21	6					AB92	1			AB72	1	AB62	1
14	140x320x62	CV2144AB	1	CT2138AB	2	AB21	7	AB20	3			AB93	1			AB73	1	AB63	1
16		CV2144AB	1	CT2138AB	2	AB21	8	AB20	2			AB93	1			AB73	1	AB63	1
18		CV2144AB	1	CT2138AB	2	AB21	9	AB20	1			AB93	1			AB73	1	AB63	1
20		CV2144AB	1	CT2138AB	2	AB21	10					AB93	1			AB73	1	AB63	1
22	264x229x62	CV2144AB	1	CT2138AB	3	AB21	11	AB20	3			AB94	1			AB72	2	AB62	2
24		CV2144AB	1	CT2138AB	3	AB21	12	AB20	2			AB94	1			AB72	2	AB62	2
26		CV2144AB	1	CT2138AB	3	AB21	13	AB20	1			AB94	1			AB72	2	AB62	2
28		CV2144AB	1	CT2138AB	3	AB21	14					AB94	1			AB72	2	AB62	2
30	264x320x62	CV2144AB	1	CT2138AB	4	AB21	15	AB20	3	AB00	1	AB96	1	EC733	1	AB73	2	AB63	2
32		CV2144AB	1	CT2138AB	4	AB21	16	AB20	2	AB00	1	AB96	1	EC733	1	AB73	2	AB63	2
34		CV2144AB	1	CT2138AB	4	AB21	17	AB20	1	AB00	1	AB96	1	EC733	1	AB73	2	AB63	2
36		CV2144AB	1	CT2138AB	4	AB21	18			AB00	1	AB96	1	EC733	1	AB73	2	AB63	2
38		CV2144AB	1	CT2138AB	5	AB21	19	AB20	3			AB96	1	EC733	1	AB73	2	AB63	2
40		CV2144AB	1	CT2138AB	5	AB21	20	AB20	2			AB96	1	EC733	1	AB73	2	AB63	2
42		CV2144AB	1	CT2138AB	5	AB21	21	AB20	1			AB96	1	EC733	1	AB73	2	AB63	2
44		CV2144AB	1	CT2138AB	5	AB21	22					AB96	1	EC733	1	AB73	2	AB63	2
Display and keypad																			
>44	140x320x62	CV2144AB	1	DD2140AB	1	PD2100AB	1	AB20	2			AB93	1			AB73	1	AB63	1

(*) By double-row call is meant that programming which associates different addresses to each side of the AB21 button, pressing to make the call from the right side causes a different user to ring than pressing from the left side. If programmed for single row call, the maximum number of calls generated by the button panel is halved.
(**) By replacing the audio-video module CV2144AB with the audio-only module CA2144AB, the audio system table is obtained.
(***) Instead of AB00, the house number module AB50 or the display module DD2140AB can be installed.

Art. TD2000HE



Programmable via DUO System app

Access control via Smart Access app

Managing modulators

HERO

Vandal proof door station with Braille and speech synthesis for DUO system

AISI 316L steel push-button panel with 14 large (25x25mm) backlit buttons with Braille embossing, 4 symbols for system status and 3' graphic display, allows dialling and sending calls on the DUO digital bus.

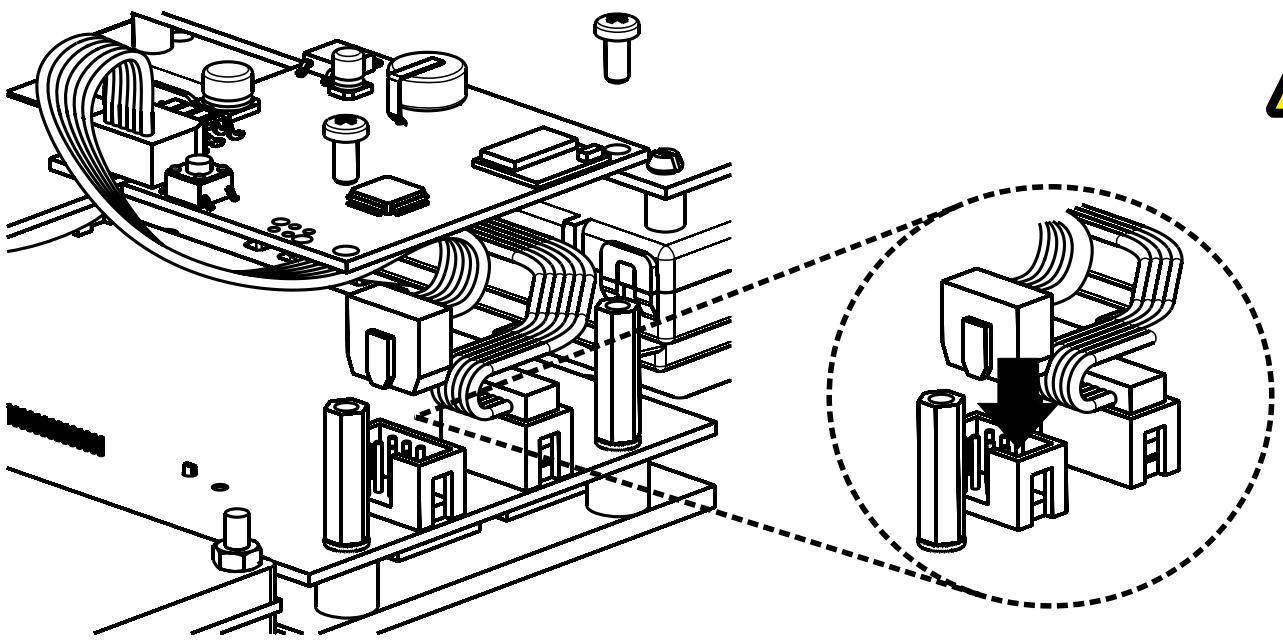
Technical Data

Power supply	from DUO line
Stand-by consumption	90 mA
Operating absorption	260 mA
Abs. with lock activation	430 mA
Lock activation time	max. 9 sec.
Camera LEDs	3 (white)
Operating temperature	-25 to +50 °C
Max. permissible humidity	90% RH
Maximum number of users in directory	500

Terminals and connectors

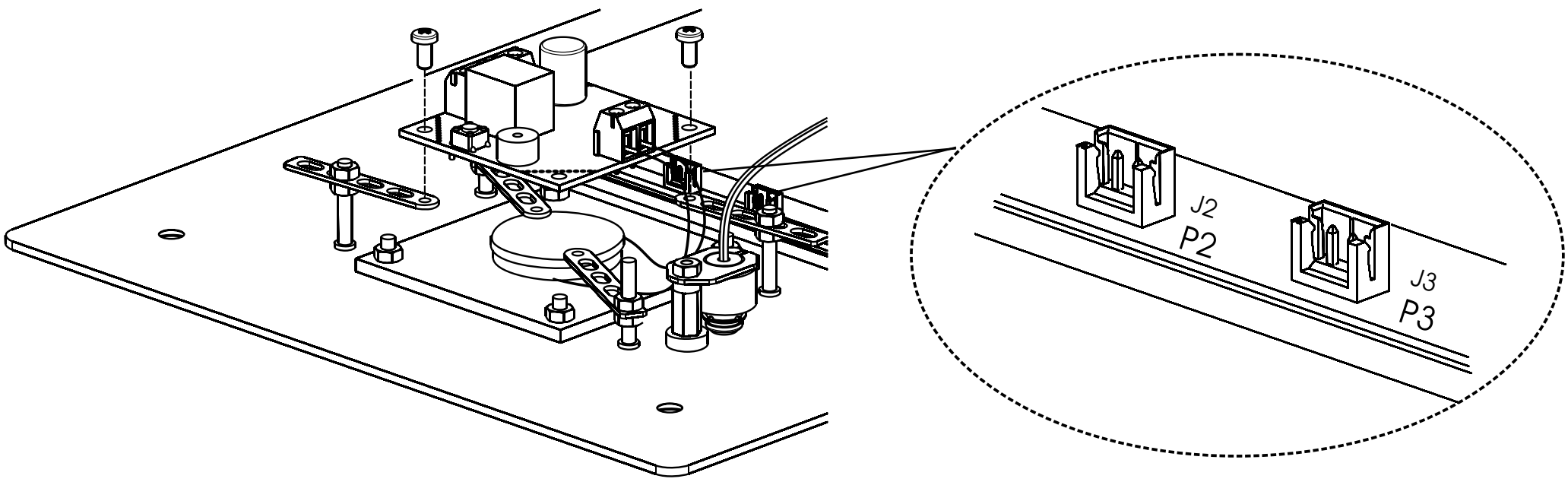
LP/LP	DUO line
PB/PB	Door lock release push-button
V/M	Auxiliary TVCC camera input (PAL)
S+/S-	Door lock release main output
C/NO/NC	Auxiliary relay contacts
J2	P2 input for actuators manual activation
J3	P3 input for actuators manual activation

Bluetooth module mounting



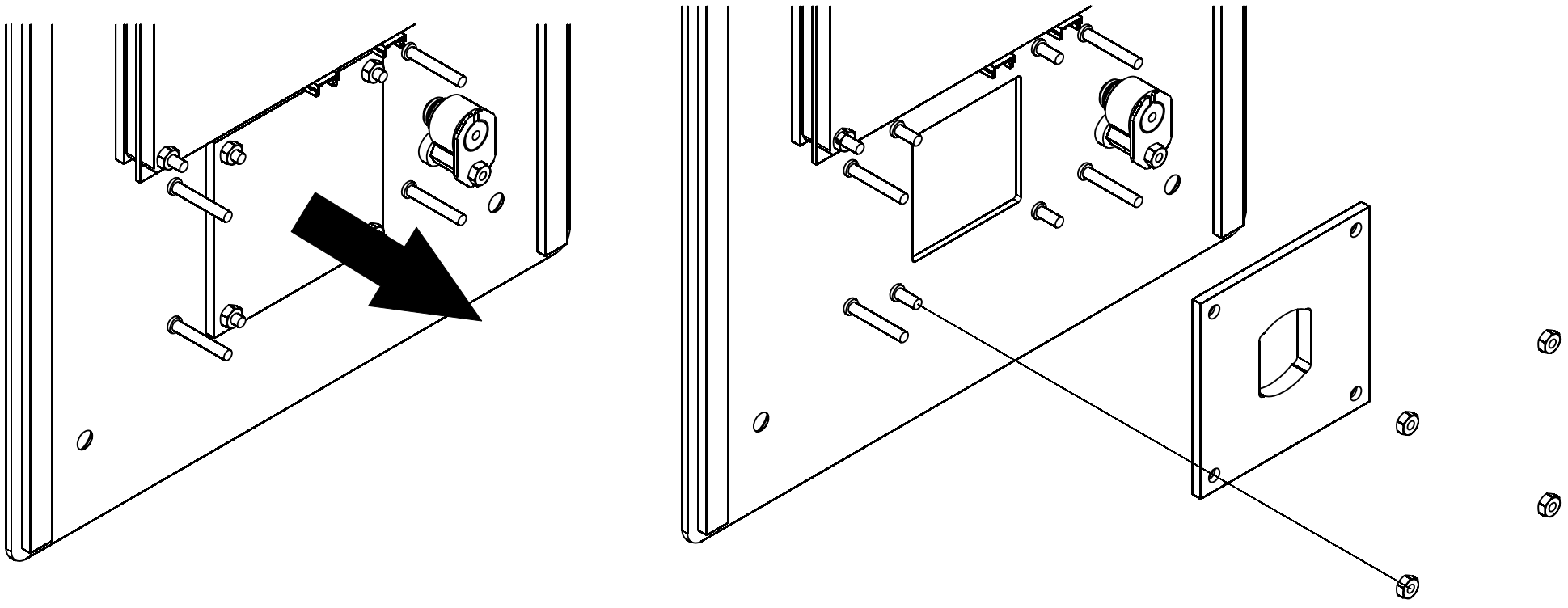
For fixing the XE2921/XE2922 module, do not use the screws supplied with the product but those supplied with TD2000HE.

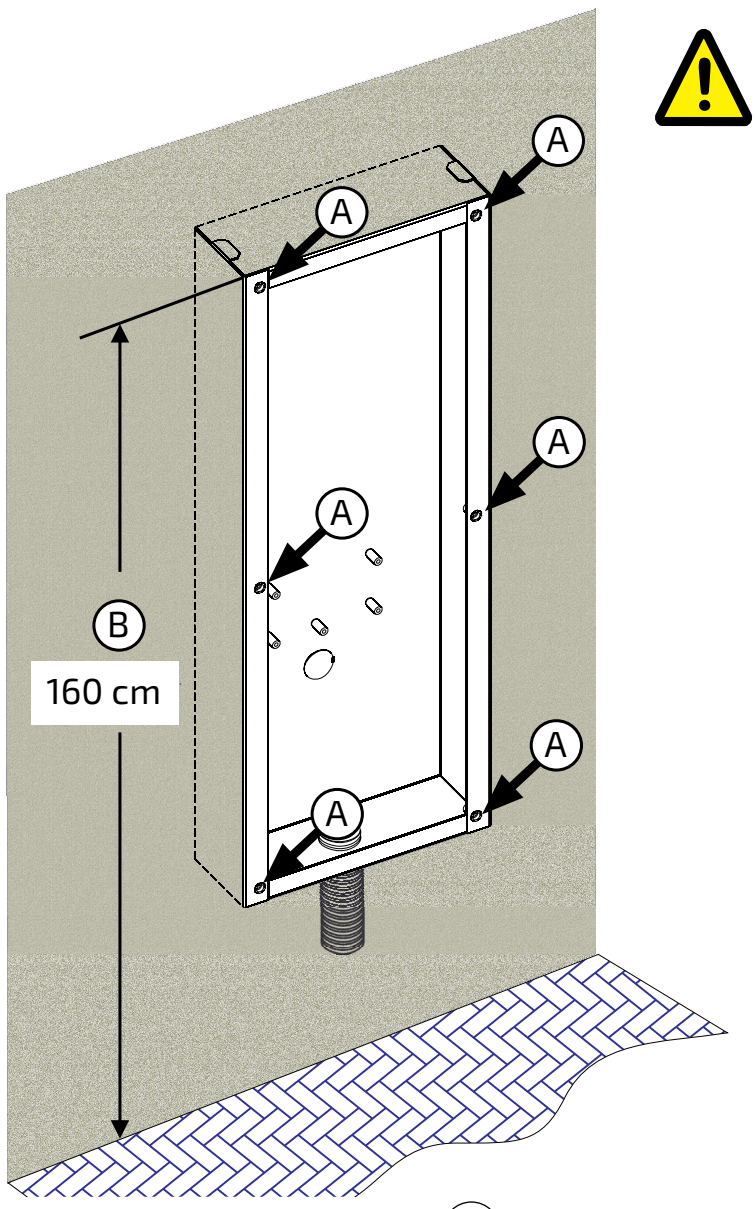
RFID mounting



For inputs P2, P3 use the supplied connectors.

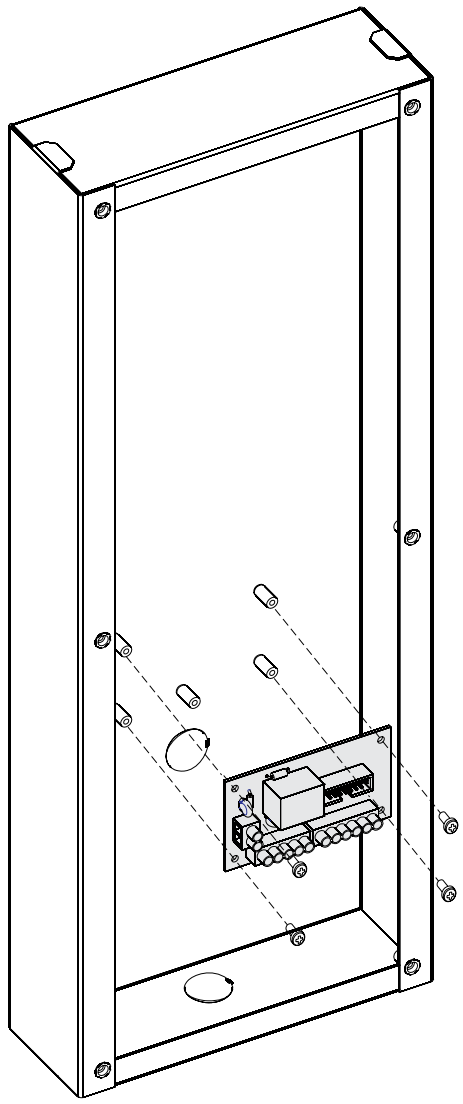
Mounting adapter for Vigik



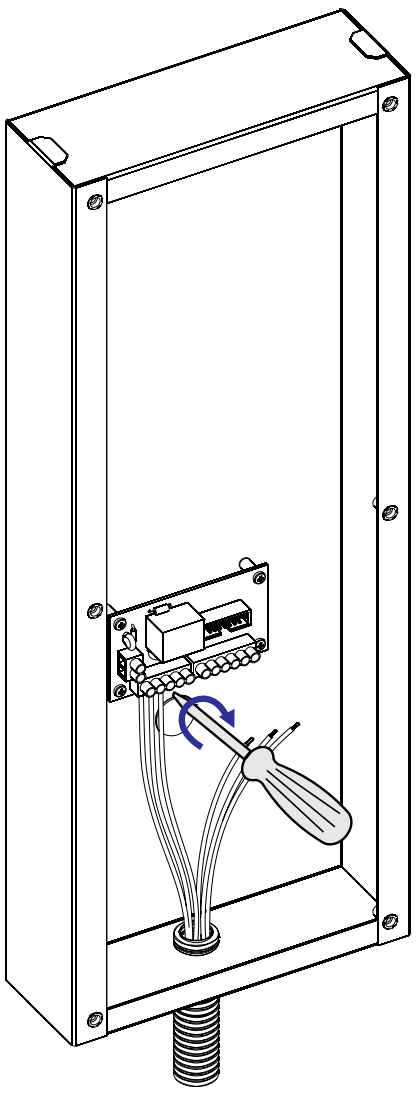


1

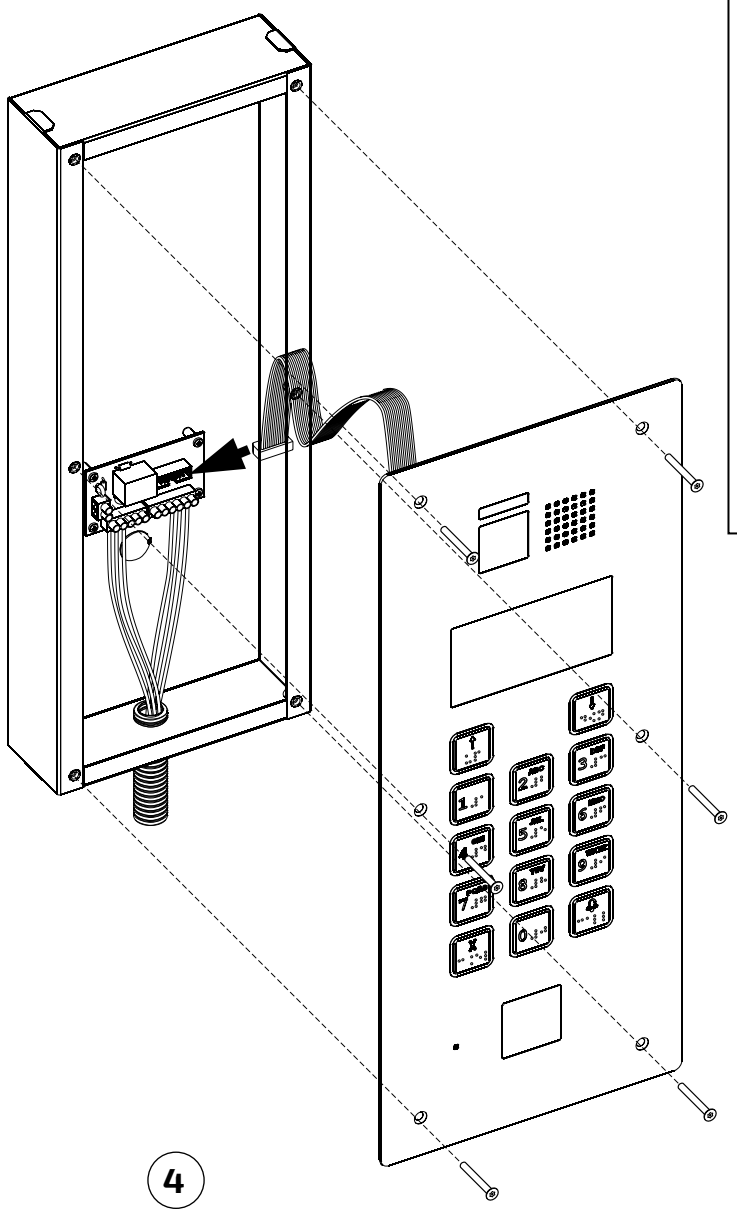
A - Before mounting the flush-mounting box, protect the fixing holes in the plate.
B - Position the push-button panel so that sunlight or other direct or reflected light sources of strong intensity do not strike the camera lens.



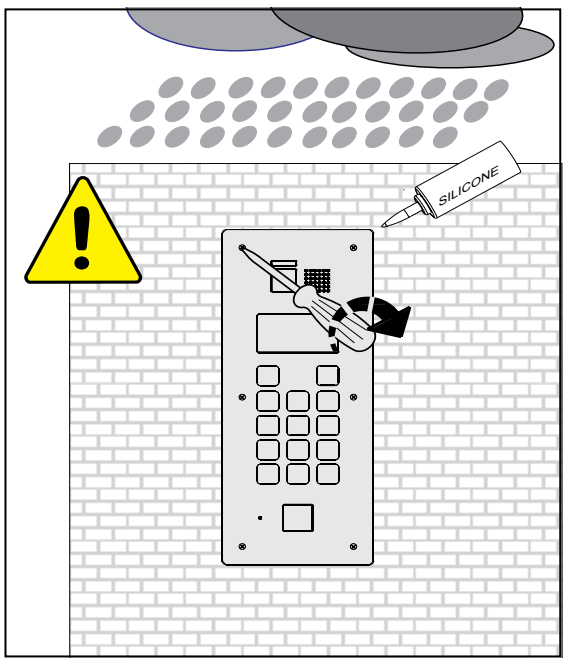
2



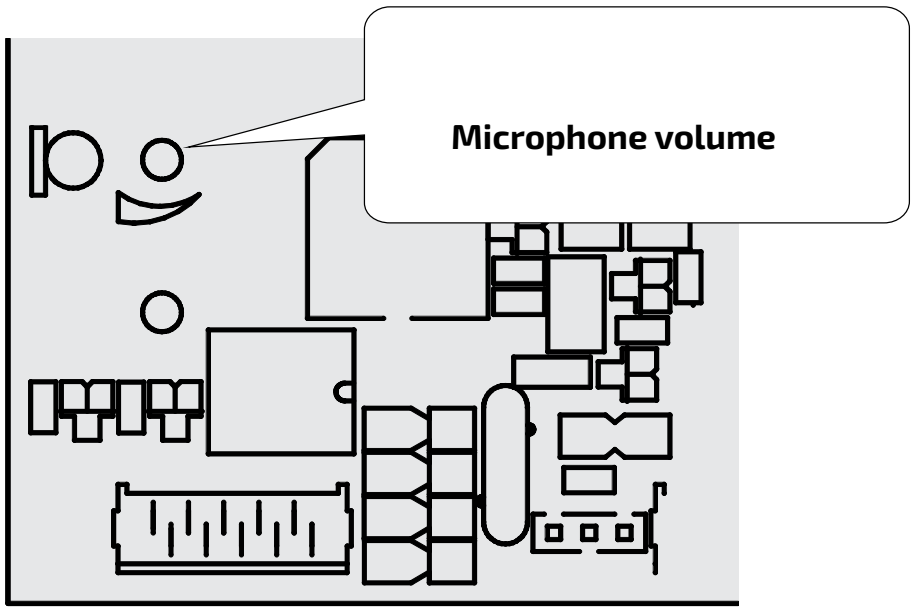
3



4



Adjustments

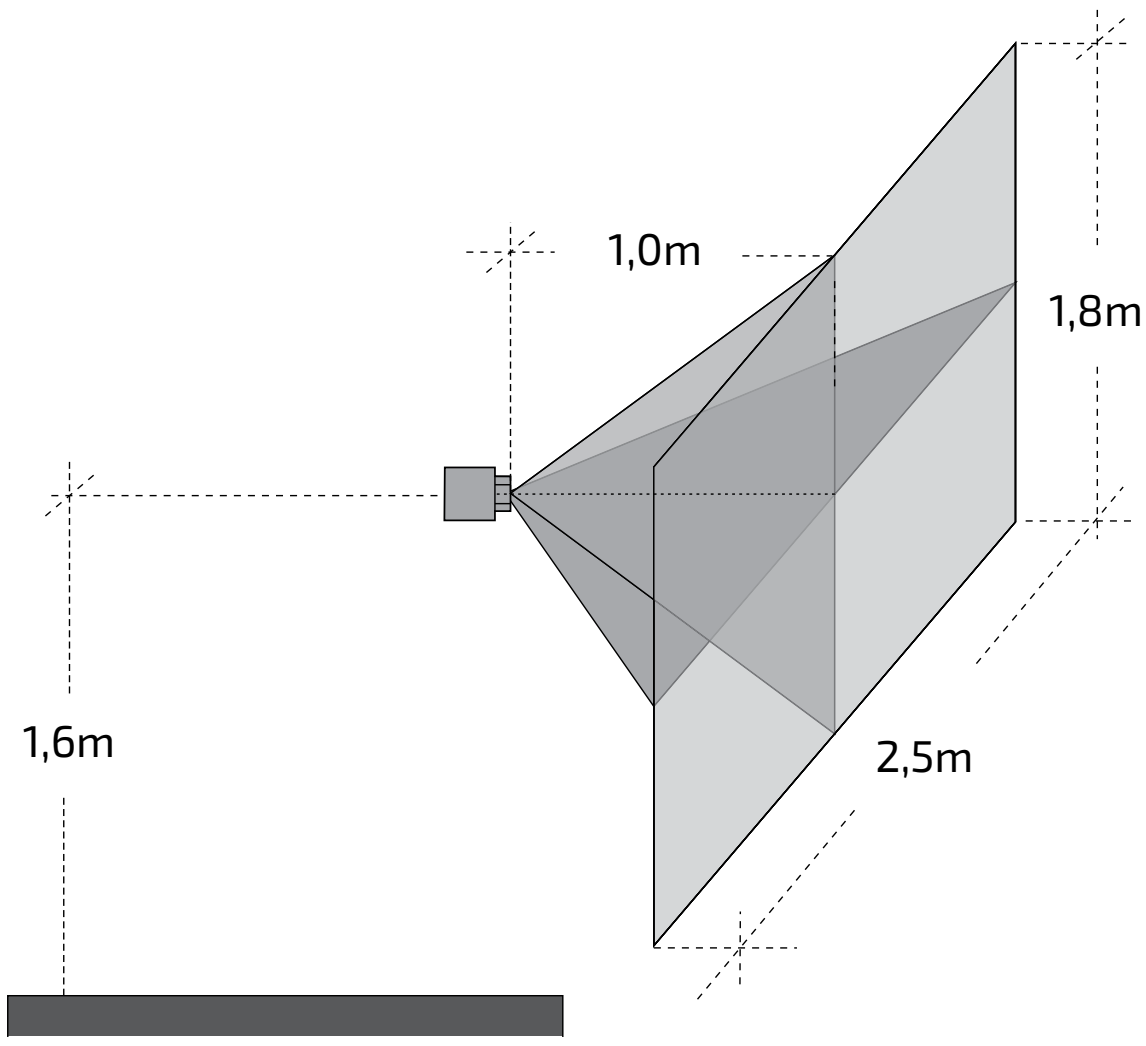


Adjusting the Microphone Volume
To adjust the microphone volume, use the trimmer .

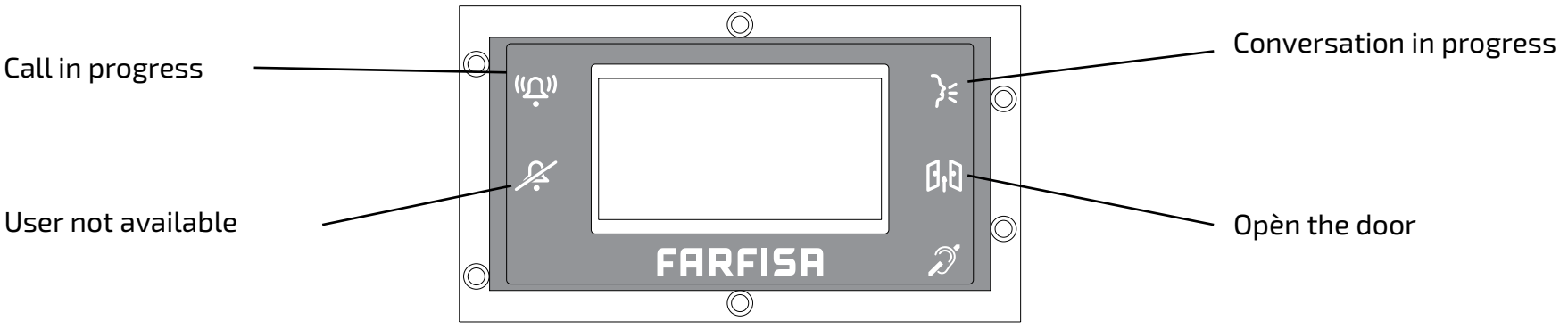
Adjusting loudspeaker volume
To adjust the loudspeaker volume, proceed as follows:
- with the system in stand-by, access programming for TD2000HE: dial 00 + then 0039 (factory setting) + ;
- from one of the monitors connected to TD2000HE perform auto power on and enter conversation;
- use the arrows ⇧ or ⇩ to adjust the volume. A bar shows the level set and which will remain stored (factory setting 42%). .

Camera feature

Sensor:	1/3" CMOS
Lens:	2.3mm
Focusing:	0,3m ÷ ∞
Minimum illumination:	1,0 Lux



Lit icons



PROGRAMMING

The main factory settings are reported in the following.

Factory settings

- Admin password = 0039
- Door station address = 231
- Door lock operation time = 1 sec.
- Auxiliary relay address / operating time = 211 / 1 sec.

Bluetooth programming

To change these settings or to make others, you can download and use the corresponding DUO System App after having connected the push-button panel via Bluetooth.

For the Bluetooth connection, you need to install the XE2921 or XE2922 card on TD2000HE.
Alternatively, you can operate TD2000HE manually, as instructed in the following paragraphs.

Enter programming mode

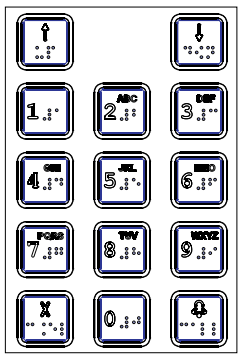
To enter the programming mode type "00" + , the screen will display "Enter code". Enter the administrator password (default password: 0039) + , and the programming menu will be displayed.

Exit the programming mode

To exit programming, press key several times until the main screen is displayed.

Using the keypad

For manual programming, use the panel keypad.



Entering a text string: When the parameter to be set is a text string (names, aliases, and welcome messages), keys 1 to 9 allow you to enter, if pressed several times, digits, uppercase or lowercase letters (in addition to any special symbols) written on them. For example, pressing key 2 repeatedly gives the following sequence of characters: 2, A, B, C, a, b, c. Key 0 allows you to enter 0 or an empty space. With the arrow, the cursor moves to the right to insert the next character, while the arrow moves the cursor to the left, allowing you to make any corrections. Once finished, press key and a window will be displayed prompting you to save the changes. Press key again to save the changes and go to the next programming.

Entering a numeric value: When the parameter to be set is a number (block, address...), once you enter the menu item, press key to delete the data inserted, if any, and type in the new value by pressing keys 0 - 9; press key and a window will be displayed prompting you to save the changes. Press key again to save the changes and go to the next programming.

PROGRAMMING MENU

In the manual programming mode, the main menu has the following items:

- **Language**
- **Users**
- **System**
- **Miscellaneous**
- **Default**

Use the and arrows to scroll through functions, use key to enter a selected function. Use key to exit programming.

Language

Available languages listed:

- **Italiano**
- **English**
- **French**
- **Spanish**
- **Polish**
- **Danish**
- **Dutch**
- **.....**

Use the and arrows to select the language, use key to confirm your selecion. Use key to return to the main menu.

Users

Sorted list of user names; the list can have two different formats:
- **in normal mode**, only users who have an associated apartment name and address will be displayed;
- **in programming mode**, users who do not have an associated apartment name and address (such as those who only have a password) will also be displayed, sorted after the list of those who have an associated name and address;

⚠ **Attention**: Users must always have one of the fields: apartment address or password.

Use key to enter this menu, and key to return to the main menu.
Items of the menù:

- **New**
- **Lauren Jonathan**
- **Smith Mary**
- **.....**

Use the or arrows to select New or one of the previously stored contacts and press key to access the selected item.

New

Storing the data of a new system user (max 500). If there are already 500 users in the list, the system will not allow the addition of a new one. The following data can be entered for each user:

- **Name**
  (Empty by default.) User name, there are 20 characters available, that can be letters, digits and special characters; see paragraph Entering a text string to learn how to enter names.
- **Block address**
  (255 by default, not programmed.) System block to which the user belongs, from 01 to 99; see paragraph Entering a numeric value to learn how to enter addresses. Leave it on 255 or enter 0 if the system is not to be used with block splitting.
- **Flat address**
  (100 by default.) Users must be identified by a unique address from 001 to 200 (allowed addresses are from 211 to 220 and they can be used to send an enabling command to an actuator, for example, to turn on lights on the staircase. For this service, you need to program the corresponding actuators so that they can be enabled from the external station). See paragraph Entering a numeric value to learn how to enter addresses. Set this parameter on 255 if you do not want to associate any apartment with this contact.
- **Alias**
  (Empty by default.) Each user can have an associated "Alias" that is, a string of 1 to 5 characters (letters, digits and special symbols) to make calls independently from the device address. See paragraph Entering a text string to learn how to enter aliases.
  ⚠ Attention: the user can still be called using the physical address of their device (block + apartment).
- **Password**
  (Empty by default.) Each user can only have one password, of 1 to 8 digits long, for access control; if several passwords are required for the same user, the address book allows creating multiple users with the same name but different passwords and associating the address only to the first such user. For special users, such as maintenance technicians, postmen, etc. you must create users that only have a name and a password, but no address.
  ⚠ Attention: There can be no user passwords that are the same as the administrator password.
  See paragraph Entering a numeric value to learn how to enter passwords.
- **Actuations**
  (No associated function by default.) This menu allows you to associate one or more functions (maximum 9) to be activated by entering a password. Functions that can be associated:
  - S+/S-: lock opening;
  - Relay: auxiliary relay enabling;
  - Actuator1, Actuator2, Actuator3, Actuator4: enabling of up to 4 remote DUO actuators, if any, the addresses of which have been set in the System/Addresses submenu;
  - Ring-me: when the password is entered

correctly, the user whose address is associated with the password will ring one time;
- Call: when the password is entered correctly, the user address to which the password is associated will receive a call;
- Gate-info: not available.

Enter the menu, use the ⇧ and ⇩ arrows tto select the function you want to associate and then press key 🔔. The item will be highlighted in bold text. Continue with the next selection (until you associate all the required functions) or press key ✕ to exit and move to the next programming.

-Time intervals

(No time interval associated by default.) Each password can be associated with up to 8 time slots, set up for certain times and week days, when the password will be valid; outside these times slots, the password will be invalid (for example, it may be useful to create a password for the cleaning company, valid from 8am to 10am on Mondays). If no time slot is associated with the password, the code will be always valid. The 8 time slots can only be programmed using a Bluetooth connection and the XE2921 or XE2922 module. In this programming item, they can only be assigned to the various users. For a correct operation of the device with time slots, you need to install the XE2921 or XE2922 accessory for the system clock. Enter the menu, use the ⇧ and ⇩ arrows to select the time slot you want to associate and then press key 🔔. The item will be highlighted in bold text. Continue with the next selection (until you associate all 8 time slots) or press key ✕ to exit and move to the next programming.

⚠ **Attention**: If an access code has one or more validity time slots associated, but the device is not synchronised with the system clock or password synchronisation is lost, it will no longer be valid until the next synchronisation.

- Delete

To delete the contact, select this item and press key 🔔 and a window will be displayed to confirm the action. Press key 🔔 to confirm or press key ✕ to return to the previous menu.

System

In this menu section, you can program specific functions of the external station. Press key 🔔 to enter the menu or press key ✕ to return to the previous menu. Programming options are:

- **Addresses**
- **Timings**
- **PN parameters**
- **Admin. password**

Use the ⇧ or ⇩ arrows to select the item of interest and press key 🔔 to confirm your selection.

Addresses

Addresses of devices managed from the external station, except for user addresses that must be programmed in the “User” section. Press key 🔔 to enter the menu.

You will see the following items:

- **External Station**
- **PDX**
- **AUX CAM**
- **Video OFF**
- **Relay**
- **Actuator1**
- **Actuator2**
- **Actuator3**
- **Actuator4**

Use the ⇧ or ⇩ arrows to select the item of interest and press key 🔔 to confirm your selection. Press key ✕ to return to the previous menu.

External Station

Press key 🔔 to display the items listed below and press key ✕ to return to the previous menu.

- Block

(0 by default.) System block to which the device belongs, from 01 to 99; see paragraph Entering a numeric value to learn how to enter addresses.
If the video intercom system is not to be used with block splitting, leave it on 0 or enter 255.

- Address

(231 by default.) Values allowed for the address of the keypad included in the system are from 231 to 253. See paragraph Entering a numeric value to learn how to enter addresses.

PDX

(255 by default, but not programmed.) Use key 🔔 to enter the programming menu and set the address of the doorkeeper exchange included in the system and key ✕ to return to the previous menu. Once you are in this menu item, enter 201 if the keypad needs to call a main station or 210 if it needs to call a secondary station; see paragraph Entering a numeric value to learn how to enter addresses.

AUX CAM

This section is dedicated to the management of external video modulators (type VM2521), to which additional cameras can be connected, for example, video surveillance cameras and cameras associated with an address (231-253). Up to 8 video cameras can be managed from the keypad. Use this menu to program the addresses of the cameras connected to the video modulators of the system and the address of the priority camera (**Main AUX CAM**). Press key 🔔 to display the items listed below and press key ✕ to return to the previous menu.

- AUX CAM1...AUX CAM8

(255 by default.) To program the address of the first additional video camera, select AUX CAM1 in the menu and press key 🔔. See paragraph Entering a numeric value to learn how to enter addresses. If needed, proceed in the same manner and program the addresses of other additional cameras, from AUX CAM2 to AUX CAM8; otherwise, go to other programming options.

- Main AUX CAM

(255 by default, external station camera.) When a call arrives or when you power on the external station, the main camera is the one actually displayed (except when set on 255, you can decide to give priority to viewing a camera whose address is in one of the AUX CAM1 - AUX CAM8 locations above). To program the priority camera address, select this item and press key 🔔; see paragraph Entering a numeric value to learn how to enter addresses.

Video OFF

In this section you can program the first and last addresses of two user groups that must not receive the video signal (for example, only intercom users and any actuators that can be enabled directly from the external station).
Press key 🔔 to display the items listed below and press key ✕ to return to the previous menu.

- **Video OFF-1-Start**
- **Video OFF-1-End**
- **Video OFF-2-Start**
- **Video OFF-2-End**

Select the desired option from the four available ones and press key 🔔 to set the block and the address, respectively, for the first and last users in the first group and the first and last users in the second group. The following items will be displayed:

- Block

(255 by default.) System block to which the user belongs, from 01 to 99; see paragraph Entering a numeric value to learn how to enter addresses.
If the video intercom system is not to be used with block splitting, leave it set on the default value.

- Address

(255 by default.) Allowed addresses: from 001 to 220. See paragraph Entering a numeric value to learn how to enter addresses.

Relay

The auxiliary relay can be assigned an actuator address (211-220) or a user address (001-200) or set on address 255; depending on the address stored, the auxiliary relay will behave differently.

- **Actuator address**. By storing the address of an actuator, that is a blocking address between 00 and 99 or address 255 and a device address between 211 and 220, the auxiliary relay will behave like an actuator and, when called, it will

be enabled with the mode set in the menu “System” □ “Timings” □ “Activate relay”.

- **User address**. By storing a user’s address, that is a blocking address between 00 and 99 or address 255 and a user address between 001 and 200, the auxiliary relay will be enabled only when a lock opening command arrives from a user who has an address equal to or greater than the one stored, instead of the S+/S- contact; if you store the address 00-000, the auxiliary relay will be enabled when a lock opening command arrives from any user instead of the S+/S- contact, which will no longer be reachable from the internal stations. The activation mode is the one set in the menu “System” □ “Timings” □ “Activate relay”.

- **Address 255**. By storing this address, the auxiliary relay will be enabled when a lock opening command arrives at the same time as an S+/S- activation. The activation mode is the one set in the menu “System” □ “Timings” □ “Activate relay”

For programming, press key to display the items below and press key to return to the previous menu.

- Block
(255 by default.) System block to which the user belongs, from 01 to 99; see paragraph Entering a numeric value to learn how to enter addresses.
If the video intercom system is not to be used with block splitting, keep the default setting or enter 0.

- Address
(211 by default.) Allowed addresses are from 0 to 200, from 211 to 220 and 255. See paragraph Entering a numeric value to learn how to enter addresses.

⚠ **Attention**: To find users with addresses higher than the one stored, the locking address must also be taken into account (for example, user 03-123 has an address above user 02-200).

Actuator1..Actuator4

(255 by default, not programmed.) You can store up to 4 addresses for DUO actuators in the system and can be enabled by dialling one of the passwords stored in Users (address from 211 to 220). Actuators must be also programmed so that they can be enabled from the external station. Press key to enter programming and press key to return to the previous menu. See paragraph Entering a numeric value to learn how to enter addresses.

Timings

In this section you can program the timing of system actuations. Press key to enter programming and press key to return to the previous menu. Programming options:

- **Activate S+S-**: activation time of the lock opening circuit on the external station (terminals S+ and S-).

- **Activate relay:** activation time of the auxiliary relay on the external station (terminals C, NC and NO).

Use the and arrows to select the function you want to program and press key to confirm your selection.

Activate S+S-

(1 sec. by default) Press key to enter programming. Allowed values: 0 - 9 (0 contact disabled). See paragraph Entering a numeric value to learn how to enter the time.

Activate relay

(1 sec. by default) Press key to enter programming. Allowed values: 0 - 99 (0 bistable contact). See paragraph Entering a numeric value to learn how to enter the time.

PN parameters

When pressing any key connected to the PB/PB, P2 (J2) and P3 (J3) inputs, you can associate the execution of one or more actions. Press key to enter the menu and the following items will be displayed:

- **PB**
- **P2**
- **P3**

Use the and arrows to select the function you want to program and press key to confirm your selection. Press key to return to the previous menu.

PB, P2, P3

In the PB or P2 or P3 menu, the following items will be listed:

- **Actuations**
- **Time intervals**
- **Block**
- **Address**

Use the and arrows to select the function you want to program and press key to confirm your selection.

- Actuations
(S+/S- for PB and P2; Relay for P3 by default.) This menu allows you to associate one or more functions (maximum 9) to be enabled when PB, P2 or P3 contacts are enabled. Functions that can be associated:
- S+/S-: lock opening;
- Relay: auxiliary relay enabling;
- Actuator1, Actuator2, Actuator3, Actuator4: enabling of up to 4 remote DUO actuators, if any, the addresses of which have been set in the System/Addresses submenu;
- Ring-me: when the password is entered correctly, the user whose address is stated in the subsequent Block and Address fields will ring one time;
- Call: a call is made to the user stated in the subsequent Block and Address fields;
- Gate-info: two alerts are sent to the user: one when the associated key is pressed and one when it is released. It is typically used to notify the gate opened/gate closed states: these alerts are handled by all the internal stations in the system, by flashing a special Led (if on the device); for the EX362 or EX3262 internal stations, this alert will be displayed only from the user stated in the subsequent Block and Address fields).

Enter the menu, use the and arrows tto select the function you want to associate and then press key . The item will be highlighted in bold text. Continue with the next selection (until you associate all the required functions) or press key to exit and move to the next programming.

-Time intervals
(No time slot associated by default.) Inputs PB, P2 and P3 can be associated with up to 8 time slots in which input enabling will determine the execution of the actions you set (for example, the Trade function for the postman). If no time slot is associated, input enabling will always trigger the set actions. In this programming item, you can only assign time slots to various inputs. The 8 time slots can only be programmed via Bluetooth. For a correct operation of the device with time slots, you need to install the XE2921 or XE2922 for the system clock. Enter the menu, use the and arrows to select the time slot you want to associate and then press key . The item will be highlighted in bold text. Continue with the next selection (until you associate all 8 time slots) or press key to exit and move to the next programming.

⚠ **Attention**: If an input has one or more time intervals associated, but the device is not synchronised with the system clock or synchronisation is lost, the actions will no longer be executed until the next synchronisation.

- Block
(255 by default, not programmed.) System block to send Call and Ring-me actions (or any Gate-info), from 01 to 99. See paragraph Entering a numeric value to learn how to enter addresses. If the video intercom system is not to be used with block splitting, do not change the default value or enter 0

- Address
(255 by default, not programmed.) System address to send Call and Ring-me actions (or any Gate-info), from 001 to 200 (addresses 211 to 220 are also allowed and they are for sending an enabling command directly to an actuator. Think about turning on lights on the staircase. For this service, you must program the corresponding actuators so that they can be enabled from the external station). See paragraph Entering a numeric value to learn how to enter addresses.

Admin. password

(0039 by default.) It can be changed with a new one, at the choice of the installer or the system manager. Press key to enter programming. To enter the password (1 to 8 digits) see section Entering a numeric value.

⚠ **Attention**: Write down and keep the password in a secure place; you cannot log in and program the device without it.

Miscellaneous

In this menu section, you can program the general functions of the system, which are:
- **Welcome messages**
- **Date format**
- **External CAM**
- **key to call**
- **key for PWD**
- **LCD contrast**
- **Reset user memory**
- **Release**

Use the and arrows to select the function, use key to confirm your selection. Press key. to return to the previous menu.

Welcome messages

During normal operation, a message will be displayed on the keyboard screen, with essential instructions for making a call. This message can be disabled or alternated with the date/time display and/or two custom messages of 4 lines and 20 characters each. Press key to enter this menu. Press key to return to the previous menu. The following items will be displayed:
- **Instruction**
- **Date and time**
- **Personal messages**

Use the and arrows to select the item you want to modify and press key to confirm.

Instruction
(Enabled by default) Press key to enter programming. The following items will be displayed:
- Disable
- Enable
Inside the menu, use the and arrows to choose the desired item, then press key to confirm. Press key to exit.

Date and time
(Enabled by default) Press key to enter programming. The following items will be displayed:
- Disable
- Enable
Inside the menu, use the and arrows to choose the desired item, then press key to confirm. Press key to exiit. The XE2921/XE2922 card must be installed to display the date and time.

Personal messages
(Disabled by default.) Press key to enter programming, use the and arrows to choose Message 1 or Message 2, then press key to confirm. The following items will be displayed:
- Disable
- Enable
- Edit
Inside the menu, use the and arrows to choose the desired item, then press key to confirm. If you select and confirm the edited entry, you can insert or edit the 4 lines of text for each message. Use the and arrows to choose the line you want, then press key to enter or edit the text. 20 characters (letters, digits and special characters) are available; see paragraph Entering a text string to learn how to make text entries. You can edit other lines or press key to return to the previous menu. At this point, you must select and confirm the entry for enabling the message you have just entered. Press key to exit. Characters are automatically aligned at the centre on each line.

Date format

(YY.MM.DD. by default) If the date display is enabled, you can use this menu to choose the date format. Press key to enter this menu. The following options will be displayed:
- **YY.MM.DD**
- **MM.DD.YY**
- **DD.MM.YY**

Use the and arrows to select the desired option and press key to confirm. Press key to return to the previous menù.

External CAM

(Disabled by default) If you enable this function, the external station will handle an external video camera that is directly connected to it, in addition to the camera on the device. When a command to enable the second video camera arrives from the video intercom, the external station will switch to the auxiliary camera and then, if any in the corresponding address section, to the cameras connected to the external modulators, and then it will return to the main camera. If the function is disabled, any switching will place only to cameras connected to modulators. Press key to display the following items:
- **Disable**
- **Enable**

Use the and arrows to select function and press key to confirm. Press key to return to the previous menù.

key to call

(enabled by default.) This function can be used to set how calls are made; you have the following options:
- **manual**: after you dial the address, press key to send the call;
- **automatic**: the call is sent automatically 3 sec. after you dial the address; there is no need to press key .

This setting will also affect how passwords are entered. Press key to display the following items:
- **Disable**
- **Enable**

Use the and arrows to select the desidered option and press key to confirm. Press key to return to the previous menù.

key for PWD

(disabled by default.) If this function is enabled, it will be sufficient to press key before entering a password (including the administrator password) instead of dialling code “00” (followed, possibly, by pressing key). Press key to display the following items:
- **Disable**
- **Enable**

Use the and arrows to select the desidered option and press key to confirm. Press key to return to the previous menù.

LCD contrast

(42% by default.) With this function, you can adjust the contrast of the LCD screen. Press key to display a bar with the percentage contrast indicator. Use the and arrows to increase or decrease the contrast. When you get to the desired level, press key to confirm and return to the previous menu.

Reset user memory

Press key . A dialog box will be displayed prompting you to confirm the changes. Press key again to confirm deletion. Press key to exit without deleting the contacts.

Release

Press key to display the current FW version on the device. Press key or key to return to the previous menu.

Default

With this command, all system settings will be restored to factory settings, except for the address book and personal messages. Press key and a dialog box will be displayed prompting you to confirm the changes. Press key again to confirm deletion. Press key to exit without making any changes.

Attention: the admin password will also be restored to factory settings (0039).

Special programming: vocal synthesis deactivation

(Active by default.) For special programming such as disabling the voice synthesis or the free tone it is necessary to access programming via Bluetooth.

OPERATION

To make a call, dial the address of the desired user and press key; for errors, press key to cancel. A call can also be made by selecting the user's name from the address book, see "Using the address book". Unsent numbers or names are automatically deleted after 30 seconds. If the line is free and the called number exists, the voice synthesiser will announce the call is being made, the three icons will alternate on the display and, at the same time, the symbol will blink. Otherwise, the voice synthesiser will inform the user is unavailable, the icons will alternate on the display and the symbol will blink.
If key is pressed, the ongoing call will be terminated, the symbol will go off and the system will be ready for another call.
The user called, lifting the handset, enables the conversation with outside for 90 seconds. The voice synthesiser will announce a conversation can be started, icon will appear on the keyboard display and the symbol will light up. 10 seconds before communication time expires, a beep will be heard and the symbol will start flashing; to continue the conversation for another 90 seconds, press . Press key on the video intercom to release the lock. The voice synthesiser will announce the door is opening (only if the door opening command acts on S+/S-) throughout the time when the lock is enabled, the icon will be shown on the push-button panel screen and the symbol will remain on.
When the handset is placed back on the video intercom or key is pressed on push-button panel, the system will go back in standby, the voice synthesiser on the external station will announce the end of the call and the symbol will turn off.

Using the address book

With the push-button panel in standby, press the or arrow to display the address book. The first item, if selected, allows you to make a call by dialling an alias. To enter an alias, use keys 1 to 9 that allow you to enter digits, uppercase or lowercase letters (in addition to any special symbols) written on them. For example, pressing key 2 repeatedly gives the following sequence of characters: 2, A, B, C, a, b, c. Key 0 allows you to enter 0 or an empty space. Use the arrow to move the cursor to the right to insert the next character and use the arrow to move the cursor to the left for any corrections. When finished, press key . If the number of stored contacts is higher than 10, the second item of the address book, if selected, allows you to make an alphabetical search, i.e. to select, using the alphanumeric keys 0-9, the letter of the alphabet from which to start scanning the contact list. Once you select the letter, press key . Alternatively, the system users are listed in alphabetical order in the address book and you can use the and arrows to scroll through. To make a call after you have selected a user, press key . To facilitate name searching by using keys 0-9, possibly pressed several times to select one of their corresponding letters, you can select the letter of the alphabet from which to start viewing the address book.

Note: in the address book, names with lowercase initials are listed after the names with uppercase initials

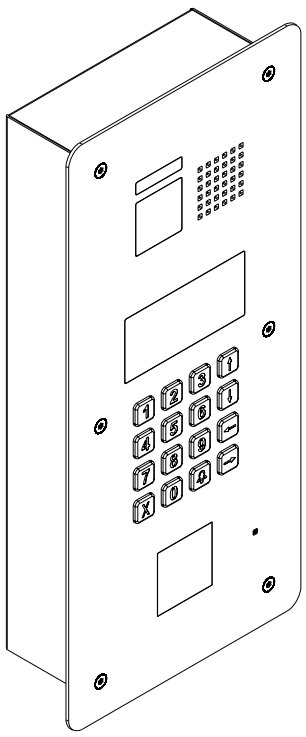
Lock opening or enabling other commands using an access code (password)

On the push-button panel, even if the system is in "busy" operating mode (icon ON), you can open the lock or execute other commands (depending on what actuations are associated with the password entered), by dialling one of the previously stored passwords (max. 500). To perform this operation, you need to:
- dial 00;
- press ;
- a message is displayed prompting you to dial in the password;
- dial the password within 30 seconds; each digit inserted is displayed as a dot;
- press and, if the password is correct, you will hear a confirmation beep, a ✓ icon will be displayed on the screen and the lock opening and/or the commands associated with the password (for S+/S- enabling, for the actuation time, the symbol will also turn on) will be executed; after this actuation, the push-button panel will return to the previous operating mode.

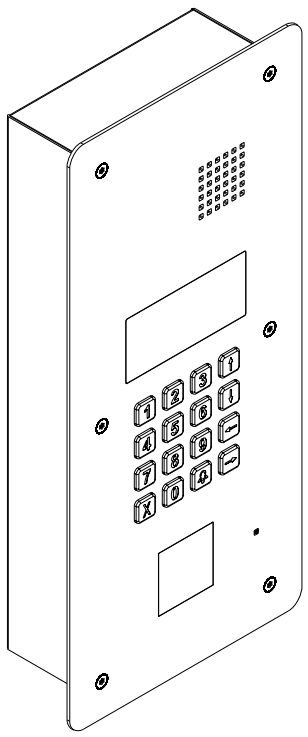
Access via smartphone

The TD2000HE panel with the addition of item XE2922 can offer an alternative to proximity readers. Thanks to the new FARFISA SMART ACCESS app, available for iOS and Android, access via Bluetooth technology is possible. From the smartphone, the lock can be opened either by means of a virtual keypad and personal numeric code or with a simple touch of the screen (if the smartphone has been previously paired with the device).

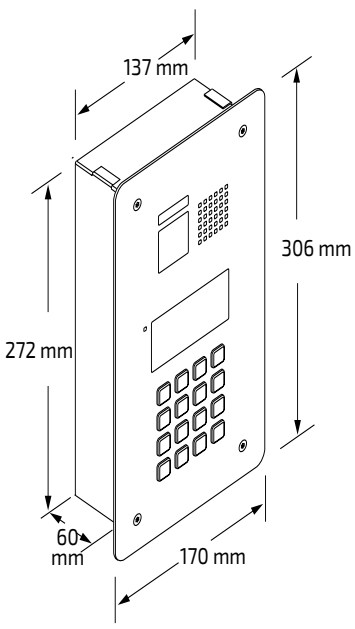
Art. TD2000RL



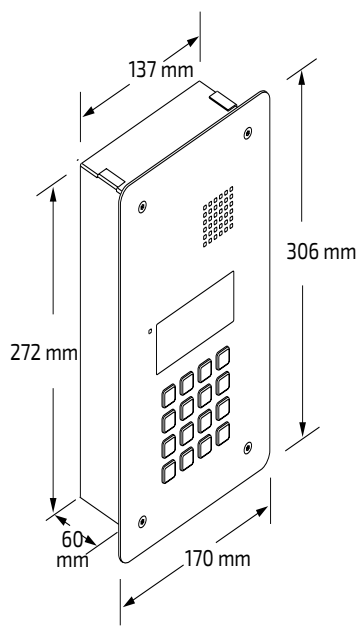
TD2000RAL



TD2000

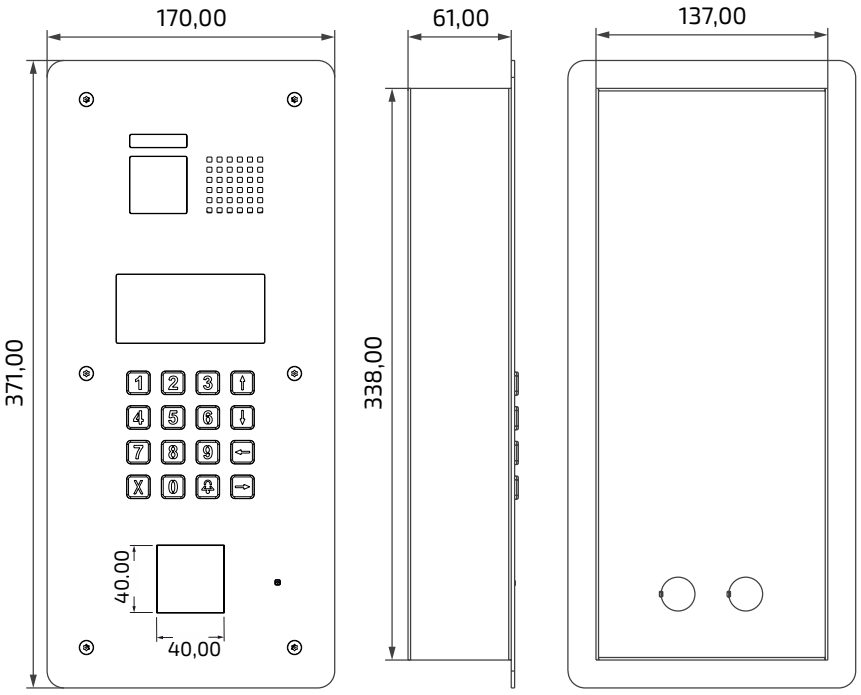


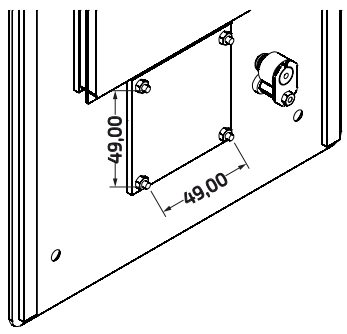
TD2000A



Programmable via DUO System app

Managing modulators





SOLVO

Vandal proof door station for DUO system

Push-button panel with 16 keys, 4 symbols for system status and alphanumeric LCD, allows dialling and sending calls on the DUO digital bus.

Technical data

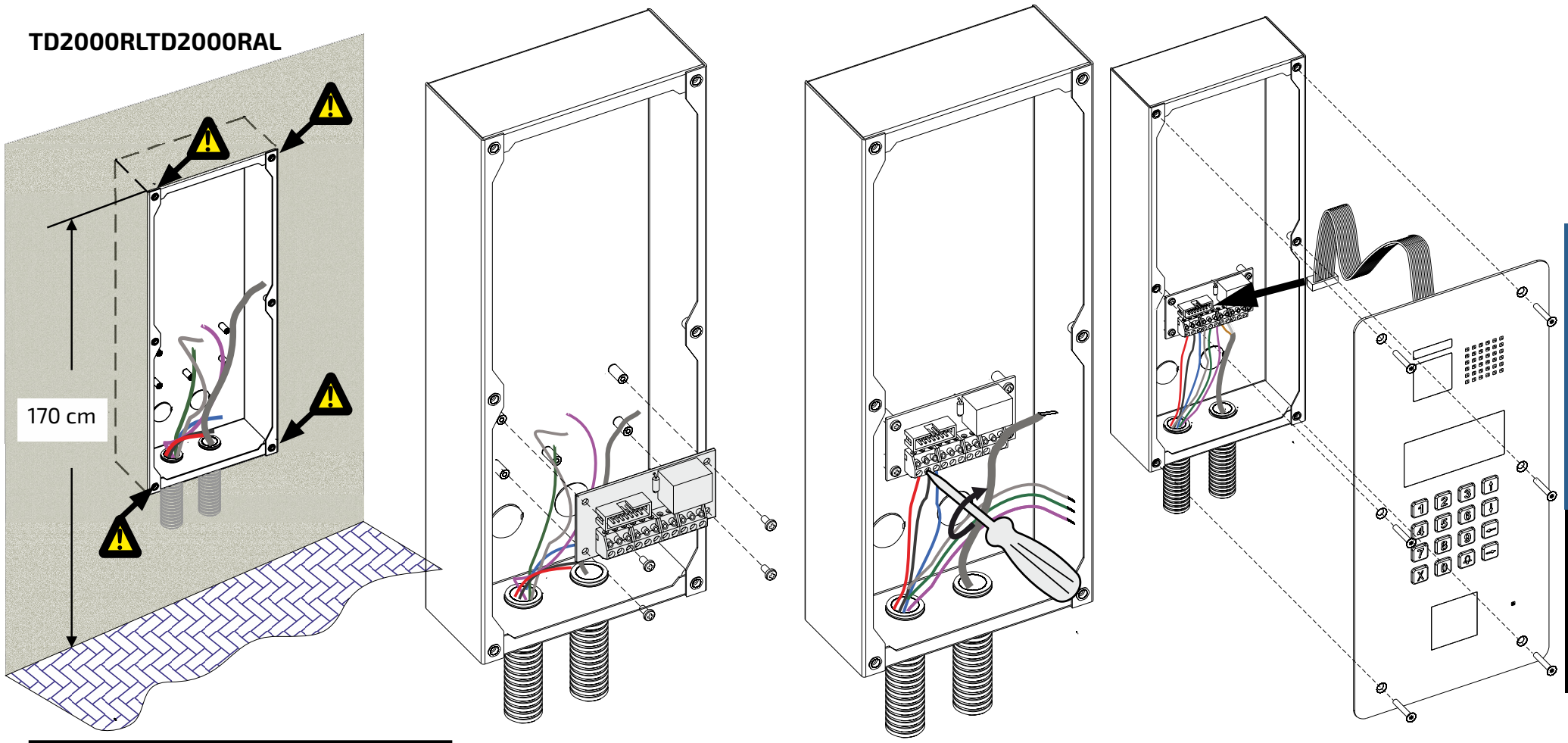
	TD2000-TD2000RL
Power supply	from DUO line
Lock activation time	max. 10 sec.
Camera LEDs	3 (white)
Minimum illumination	1.0 Lux
Lens	2,3 mm
Maximum number of users in directory	800
Operating temperature	-25 to +50 °C
Max. permissible humidity	90% RH
Degree of protection	IP45

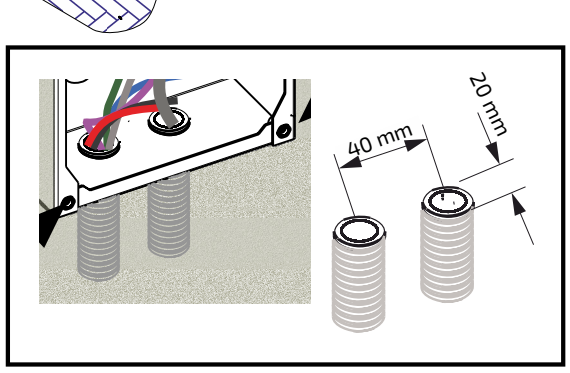
	TD2000A-TD2000RAL
Power supply	from DUO line
Lock activation time	max. 10 sec.
Maximum number of users in directory	800
Operating temperature	-25 to +50 °C
Max. permissible humidity	90% RH
Degree of protection	IP45

Terminals

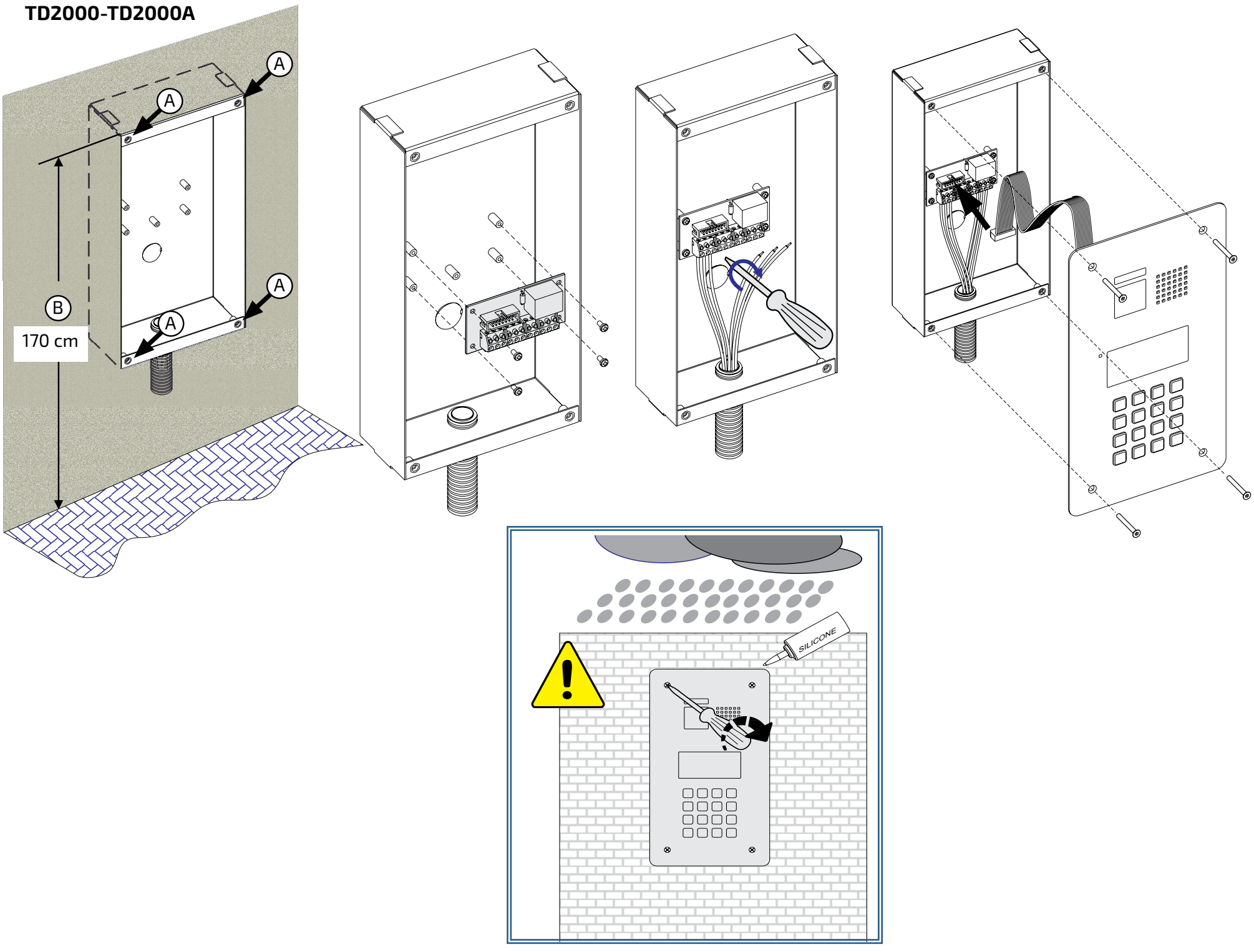
LP/LP	DUO line
PB/PB	Door lock release push-button
V/M	Auxiliary TVCC Camera input (PAL)
S+/S-	Door lock release output
C/NO/NC	Auxiliary relay contacts

TD2000RLTD2000RAL

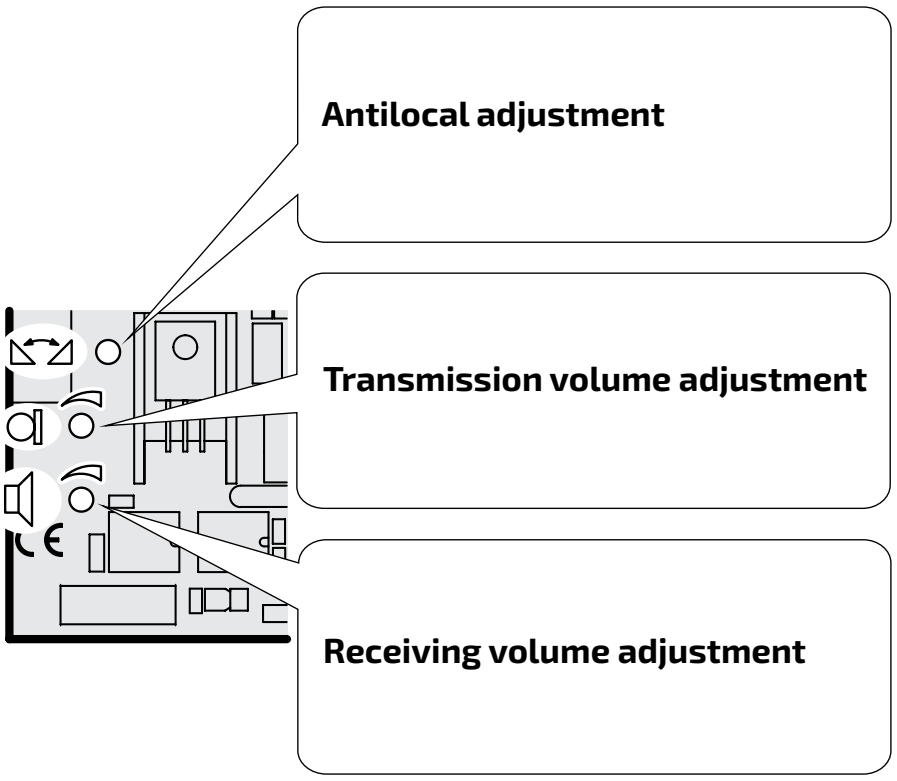




TD2000-TD2000A



Adjustments

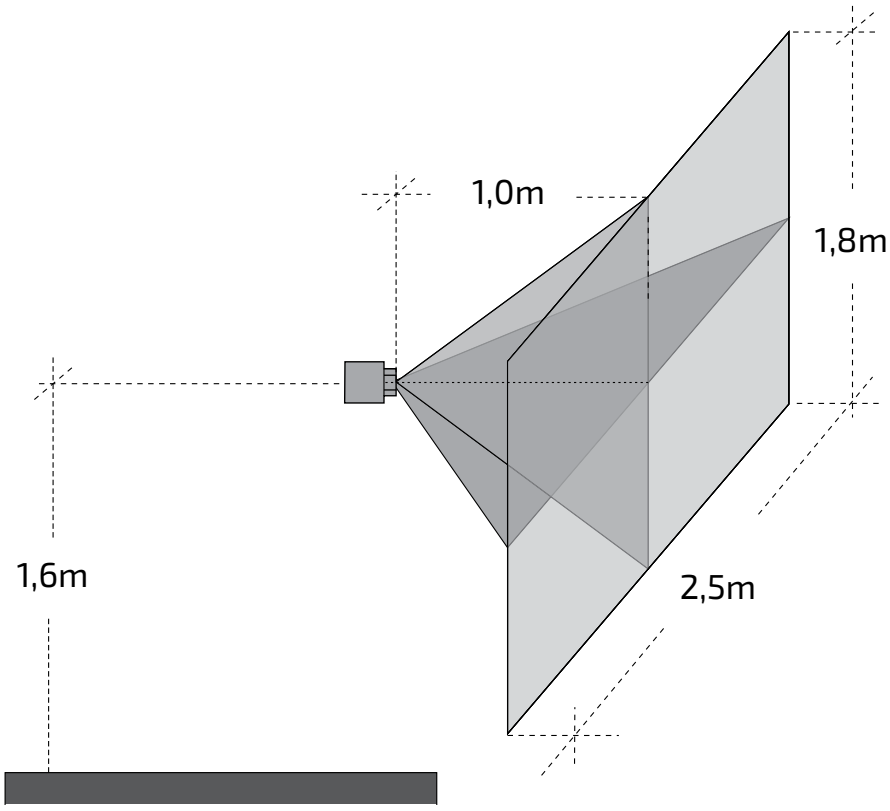


Volume adjustment
To adjust the microphone and speaker volumes, use the trimmers and .

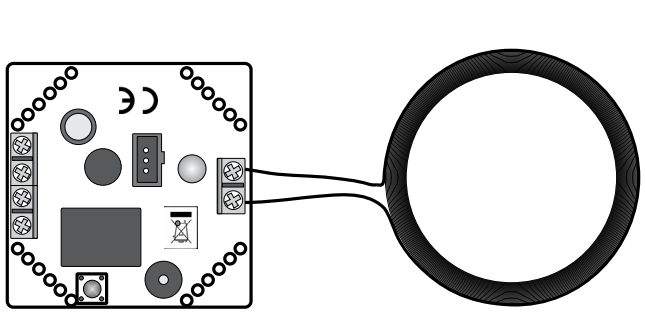
Antilocal adjustment
To eliminate a possible trigger (Larsen effect), proceed as follows:
- make the call from the door unit and lift the handset of the called party;
- in the push-button panel, remove the microphone from its housing, place it over the loudspeaker of the speech unit and adjust the trimmer until the whistling is cancelled;;
- replace the microphone in its place.

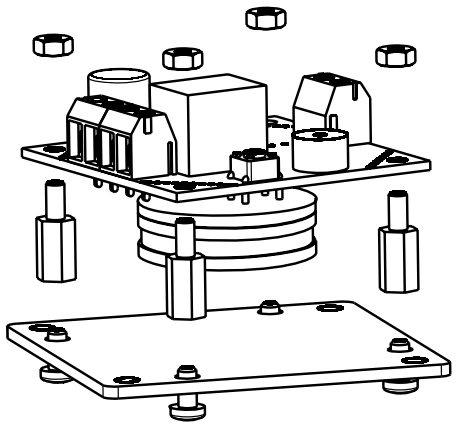
Camera features (TD2000-TD2000RL)

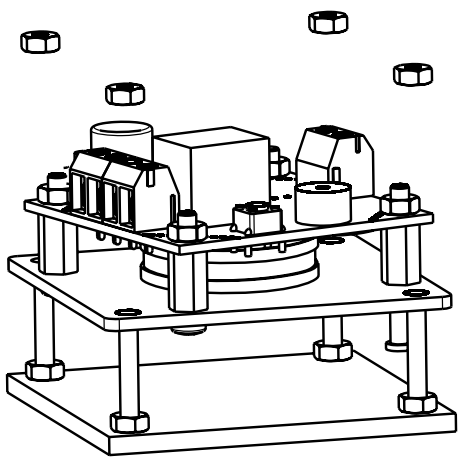
Sensor:	1/3" CMOS
Lens:	2.3mm
Focusing:	0,3m ÷ ∞
Minimum illumination:	1,0 Lux



Art. FP2000







Proximity reader

Proximity reader that can be installed in TD2000RL and TD2000RAL.

Technical specifications:

Power supply:	12 Vac/dc - 160 mA maximum
number of user's cards:	400 (1600 optional)
Programming	by master card or from PC
Relay mode:	monostable or bistabe
Max relay contacts load	24Vac/2 A
RFID technology:	125 KHz
Dimensions:	49x49x18 mm,

compatible for mounting on panels TD2000RL and TD2000RAL.

PROGRAMMING

Default settings

- System password = 0039
- Address of Door Station = 231
- Door lock operation time = 1 sec.
- Auxiliary relays operating time = 1 sec.

Programming via Bluetooth.

Download the "DUO System" app to your smartphone or tablet (iOS and Android).
Then:

- 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 (by factory setting 231);
- programm and disconnect.

⚠ **If a Bluetooth programmer cannot be used, an "emergency" programming procedure is available, which is described in the following sections.**

Enter programming mode

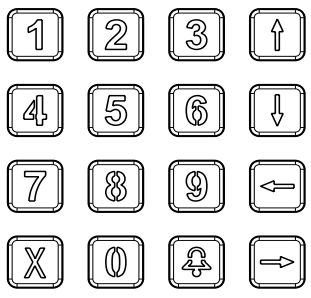
To enter the programming mode dial "00" + 🔔, LCD shows "PASSWORD", enter the System Password (default 0039) + 🔔, the first line of LCD shows "PROGRAMMING", while the second line shows the first function of the Programming Menu. With arrows ↑ or ↓ it is possible to browse the menu, while 🔔 confirms the selection.

Exit the programming mode

To exit the programming mode it is necessary to press several times X (it depends from where you are in the menu) until on LCD appears "Enter a number... or select an user...".

How to use the keypad

To program the device use the keypad of the push-button panel



During the programming phase keys, besides the function reported on them, assume also other meanings as described in the following:

🔔 confirms the selection and forwards you to the next function;

X cancels the selection and backwards you to the previous function, pressed several times (it depends on where you are in the menu) exits the programming mode. While entering characters moves backward the cursor and cancel the character entered.

↑ Browses upward the programming menu. Scrolls the alphabet backward while entering characters;

↓ Browses downward the programming menu. Scrolls the alphabet forward while entering characters;

→ Browses rightward the programming menu. Moves the cursor to the right while entering characters;

← Browses leftward the programming menu. Moves the cursor to the left while entering characters;

0 Switches from upper case to lower case while entering characters.

PROGRAMMING MENU

In programming mode, the first line of LCD shows the name of the programming we are going to execute, while the second line shows the functions that can be programmed; entering the programming mode, functions that can be selected are:

- **Language**
- **Directory**
- **System**
- **Miscellaneous**
- **Default**

With ↑ or ↓ arrows it is possible to scroll the functions, while 🔔 key confirms the selection. X key backwards you and exits the programming mode.

Language

Available languages are:

- **Italian**
- **English**
- **French**
- **Spanish**
- **Polish**

Select language with ↑ or ↓ arrows and press 🔔 to confirm. X key backwards you to the previous menu.

Directory

Alphabetical list of users; directory has two different formats:

- during normal operations of the system (in the list are reported only users who have the flat address);
- in programming phase (in the list are reported all the users including those who have a password, but not the flat address);

⚠ **Attention**: users must always have a name and at least one of the two following fields: flat address or password.
🔔 key forwards you to programming; X key backwards you to the previous menu.
In the directory menu the following functions are available:

- **New user**
- **Modify a user**
- **Delete a utente**
- **Delete all users**
- **Recovery users**
- **Download**
- **Upload**
- **Format memory**

With ↑ or ↓ arrows it is possible to scroll the functions, while 🔔 key confirms the selection. X key backwards you and exits the programming mode.

New User

Each new user (max 800) must be stored in the directory. 🔔 button forwards you to programming (if 800 users are already stored, the system doesn't allow you to enter the menu " New User"); X button backwards you to the previous menu. The following parameters must be programmed for each user:

- **Enter Name**
  Name of the user, 20 characters are available that can be either letters or numbers; to enter the name refer to "How to use the keypad", then press 🔔 to move to the next programming. ⚠ Attention: the name of the user must be always programmed.

- **Enter Address**
  In "a wide range" DUO system, the user address is composed of two parts:
  - Block address: block of the system to which the user belongs, from 01 to 99; enter the block address and then press 🔔 to move to the next programming; block 00 is reserved for the compatibility with the traditional DUO devices.
  - Flat address: in each block of the system, the users must be identified by an univocal address from 001 to 200; enter the flat address and then press 🔔 to move to the next programming.

- **Enter Alias**
  An "Alias" can be linked to each user, that is a number, from 1 to 5 digit, with which the user can be called independently from the flat address of his device; enter the alias and then press 🔔 to move to the next programming.
  ⚠ Attention: whether the alias has been programmed or not, user can be always called by dialing his flat address.

- **Enter Password**
  For each user only one password, of 1 to 8 digit, can be stored; if a user requires more than one password, it is necessary to store more users with the same name, but progressively numbered, they can have different passwords and only the first of them has also the address. For example user Mr. Brown has address and password, user Mr. Brown1 has only the password and so on with Mr. Brown2, etc. For special users, such as postman, maintenance personnel, cleaning staff, etc., users with only name and password, but without address, must be created. ⚠ Attention: in the system can't be stored two users who have the same password.
  Enter the password and press 🔔 to move into next phase where one or more operating functions must be linked to the password. Operating functions which can be linked are:

- **Activate S+S-:** releases the door lock connected to the terminals S+ and S-; with the arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔 to confirm and move to the next programming

- **Activate Auxiliary Relay:** enables the auxiliary relays (contacts C, NC and NO are available on the terminal board); with the arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔 to confirm and move to the next programming.

- **Activate Ring-me**: enabling this function, as soon as a password is recognized, a single ring is sent to the user linked to that password. This function is normally enabled together with one o both the functions previously described, and it is useful to inform you that someone has successfully used the password linked to your name; with the arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔 to confirm and move to the next programming, LCD shows briefly "saved" and the system returns to "Programming the directory".

⚠ **Attention:** when programming a new user, always must be entered his name and at least one of the two following parameters: address of the flat or password. Password must be unique consequently can't exist a duplicated passwords.

Modify a User

In this section it is possible to modify the parameters previously stored for a user. 🔔 button forwards you in "modify a User" (if there aren't users stored in the directory, the system doesn't allow you to access this menu); ✕ button backwards you to the previous menu.
To simplify the search of a user, user's directory can be sorted by:

- **Sort by Name**; all the users are listed by their name. Before the name, between <>, is reported a number representing the order with which the user has been stored. Press 🔔 to get the directory sorted by name.

- **Sort by Alias**; all the users are listed by their alias. Before the alias, between <>, is reported a number representing the order with which the user has been stored; users without alias are listed for the last as "---", but following their storing order (reported between <>). Press 🔔 to get the directory sorted by alias.

- **Sort by Password**; all the users are listed by their password. Before the password, between <>, is reported a number representing the order with which the user has been stored; users without password are listed for the last as "---", but following their storing order (reported between <>). Press 🔔 to get the directory sorted by password.

- **Sort by Address;** all the users are listed by their address. Before the address, between symbols <>, is reported a number representing the order with which the user has been stored; users without password are listed for the last as "---", but following their storing order (reported between <>). Press 🔔 to get the directory sorted by name.

After sorting the directory in your preferred way, with ⇧ or ⇩ arrows it is possible to scroll the users, with 🔔 key confirm the selection. The first line of LCD shows:

- **Modify name**; on the second line of LCD, the user to be modified is displayed; to modify the name see "How to use the keypad", then press 🔔 to confirm and move to the next parameter. If the name of the user should not be modified press directly 🔔 to move to the next parameter.

- **Modify block address**; on the second line of LCD, the block address of the user to be modified is displayed (if the user hasn't the block address, no number is displayed); press ✕ button to erase the previous block address, if any, and then enter the new address. Press 🔔 key to confirm and to move to the next parameter. If the block address of the user should not be modified press directly 🔔 to move to the next parameter.

- **Modify flat address**; on the second line of LCD, the flat address of the user to be modified is displayed (if the user hasn't the flat address, no number is displayed); press ✕ to erase the previous flat address, if any, and then enter the new address. Press 🔔 to confirm and to move to the next parameter. If the flat address of the user should not be modified press directly 🔔 to move to the next parameter.

- **Modify alias;** on the second line of LCD, alias to be modified is displayed (if the user hasn't an alias, no number is displayed); press ✕ to erase the existing alias, if any, and then enter the new alias, press 🔔 button to confirm and to move to the next parameter. If the alias should not be modified press directly 🔔 button to move to the next parameter.

- **Modify password**; on the second line of LCD, the password linked to the user is displayed (if the user hasn't a linked password, no number is displayed); press ✕ to erase the previous password, if any, and then enter the new password. Press 🔔 button to confirm and to move to the next parameter.

⚠ **Attention**: system doesn't allow to have two users with the same password.
If the password of the user shouldn't be modified press directly 🔔 to move to the next parameter.

- **Activate S+S-**: release the door lock connected to terminals S+ ed S-; with the arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔 to confirm and move to the next programming.

- **Activate Relay**: activate the auxiliary relais; with the arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔 to confirm and move to the next programming.

- **Activate Ring-me**: send a single ring to the user to which the password is linked; with the arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔 to confirm.

All the parameters of the user have been modified, LCD displays for a while "saved" and then again the name of the modified user. With ⇧ or ⇩ arrows select another user or press ✕ to return to the previous menu; press ✕ several times, to exit the programming.

Delete a User

It is possible to delete a user from the directory. Pressing 🔔 you access the menu "delete a user" (if there aren't users stored in the directory, the system doesn't allow you to access this menu); ✕ button backwards you to the previous menu.
To simplify searching of the user to be deleted, user's list can be sorted for:

- **Sort by Name**; see paragraph "Modify a user".

- **Sort by Alias**; see paragraph "Modify a user".

- **Sort by Password**; see paragraph "Modify a user".

- **Sort by Address**; see paragraph "Modify a user".

After sorting the directory in your preferred way, with ⇧ or ⇩ arrows it is possible to scroll the users, while 🔔 key confirm the selection. The first line of LCD shows:

- **Delete <n°> "user name"?** With arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔; choosing <NO> you will return to the selection of the user to be deleted, choosing <YES> LCD will briefly show "saved" to indicate that the operation has been done and the system moves back to the list of the users to be deleted. Press ✕ to return to the previous menu.

Delete all

It is possible to delete, with a single operation, all the users from the directory; the command doesn't affect the other settings of the system. Pressing 🔔 button you access the menu "Delete all" (if no user is stored in the directory, the system doesn't allow you to access this menu), whilst pressing ✕ you will return to the previous menu.

Accessing the menu “Delete all”, the first line of LCD shows:

- **Delete all?** With arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔; choosing <NO> you will return to the menu “Delete all”, choosing <YES> all the users will be erased, the directory will be blanked and then the system returns to the menu “Delete all”. Press X button to return to the previous menu.

⚠ **Warning:** this operation will erase all the users from the directory. In case of unwanted action it is possible to recovery erased data, if meanwhile no new users have been stored, with the function “Recovery all” described in the next paragraph.

Recovery all

It is possible to recovery all the users just erased from the directory; pressing 🔔 button you access the menu “Recovery all”, whilst pressing X button you will return to the previous menu.
Accessing the menu “Recovery all”, the first line of LCD shows:

- **Recovery all?** With arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔; choosing <NO> you will return to the menu “Recovery all”, choosing <YES> all the users, just erased from the directory, will be recovered, directory will be restored and then the system returns to the menu “Recovery all”. Press to return to the previous menu.

⚠ **Warning**: this function can be executed at any time, but it is necessary to pay attention that, if some new users have been stored, from the time the directory has been erased and when the function “recovery all” is executed, old data will not be recovered completely.

Download

By pressing 🔔 button the first line of LCD will show: “Download” and the device is ready to receive a configuration file from the USB port. For details see paragraph “USB Connection”.

Upload

By pressing 🔔 button the first line of LCD will show: “Upload” and the device is ready to send a configuration file to the USB port. For details see paragraph “USB Connection”.

Format memory

By launching this function the device memory will be completely blanked.

⚠ **Warning:** device memory will be completely blanked and, after this operation, no data will be recoverable. Before launching “Format memory” evaluate carefully if really this is the action you need.

Pressing 🔔 key you access the menu “Format memory” whilst with X key you return to the previous menu. Accessing the function “Format memory” the first line of LCD will shows:

Format memory? With arrows ⇦ or ⇨ select <YES> or <NO> and then press 🔔; choosing <NO> you will return to the menu “Format memory”, choosing <YES> a memory blanking procedure will start, at the end the system returns to the menu “Format memory”. Press X to return to the previous menu.

System

In this section, system parameters can be programmed, pressing the 🔔 button you access the parameter to be programmed, while pressing the X button you return to the previous menu. Parameters that can be programmed are:

- **Addresses**
- **Timings**
- **Administrator Password**

With ⇧ or ⇩ arrows you can select the parameter to be set, while the X button backwards you to the previous menu.

Addresses

Addresses of the devices driven by the external door station, except the addresses of the users which must be programmed in the proper section of the menu. Pressing 🔔 you enter the menu “Programming of addresses”, while pressing X you return to the previous menu. Addresses to be set are:

- **Door station address**
- **Digital exchanger address (PDX)**
- **Address of PB key, (PB-PB)**
- **Address of the auxiliary relay**
- **Video OFF -1- Start**
- **Video OFF -1- End**
- **Video OFF -2- Start**
- **Video OFF -2- End**
- **AUX TLC 1÷8**
- **Main AUX TLC**

With ⇧ or ⇩ arrows select the requested parameter and confirm with the 🔔 button. X button will backwards you to the previous menu.

Door station address

By pressing 🔔 you enter the programming of the door station address, whilst with X button you return to the previous menu. Entering the menu, the first line of LCD shows “Enter address”, whilst at the end of the second line the currently stored value is reported (231 from factory). With X erase the old number, and with the keypad, enter the new one (from 231 to 253), then confirm by pressing 🔔, system returns to the previous menu.

Digital exchanger address (PDX)

By pressing 🔔 you enter the programming of the digital exchanger address, whilst with X button you return to the previous menu. Entering the menu, the first line of LCD shows “Enter address”, whilst at the end of the second line the currently stored value is reported (no address from factory). With X button erase the old address, if present, and, with the keypad, enter 201, if the door station has to call a main digital exchanger, or 210, if it has to call a secondary digital exchanger, then confirm by pressing 🔔, system returns to the previous menu.

Address of PB key (PB-PB)

Push-button PB (terminals PB-PB) can be used to call directly a user of the system, instead of operate as “door lock release”. In this case it is necessary to program the address of the user to be called. Assigning the button the same address as the door station address it activates the auxiliary relay. By pressing 🔔 you enter the programming, whilst with X key you return to the previous menu. LCD shows “Enter block address” and on the bottom of the second line, the address currently stored is reported (no address from factory). With X key erase the old address, if present, and enter the new one, then confirm by pressing 🔔, display will show “Enter flat address” and on the bottom of the second line, the currently stored value is reported (no address from factory). With X key erase the old flat address, if present, and enter the new one, then confirm by pressing 🔔, system returns to the previous menu.

⚠ **Attention**: if button PB-PB is programmed to send a call, it can’t be used to release the door lock. Saving any user number sets the PB-PB button to send a call, consequently, if you wish to use PB-PB button to release the door lock, do not program any value in it.

Address of the auxiliary relay

An actuator address (211-230) or a user address (001-200) can be linked to the auxiliary relay. Depending on the linked address, the auxiliary relay operates in a different ways.

- **Actuator address**. Storing an actuator address, that is a block address between 00 e 99 and a device address between 211 e 230, the auxiliary relay operates as an actuator and, when called, it moves its contacts (C-NC-NO) according to the operating mode set in “System” --> “timings” --> “relay”.

- **User address**. Storing a user address, that is a block address between 00 e 99 and a device address between 001 e 200, the auxiliary relays operates its contacts (C-NC-NO) only when a “lock release” command arrives from a user with address equal or higher to that stored in the device; if address 00-000 is stored, the auxiliary relay will be activated by the “door release” command sent by any user. Operating mode of its contacts is set in “System” --> “timings” --> “relay”.

To program the address select “Relay address” and press . LCD shows “Enter block address”, while on the bottom of the second line the address currently stored is reported (no address from factory). With the button erase the old address, if present, and enter the new one, then confirm by pressing , display will show “Enter flat address” whilst, on the bottom of the second line, the currently stored value is reported (no address from factory). With the button erase the old flat address, if present, and enter the new one, then confirm by pressing the button, system returns to the previous menu.

Attention: to identify the users with address equal or higher to that stored, both block and flat address must be considered (for example user 03-123, has an higher address with respect to the user 02-200).
Storing 00-000, all the users of the system, by pressing the “open door” button, will activate the auxiliary relay instead of operating the door release circuit.

Video OFF -1- Start (TD2000RL)

In this parameter has to be stored the starting (lower) address of the first group of users which do not have to receive the video signal (for example users with only audio intercom).
By pressing the button you enter the programming mode. LCD shows “Enter block address”, while on the bottom of the second line the address currently stored is reported (no address from factory). With the button erase the old address, if present, and enter the new one, then confirm by pressing the button, display will show “Enter flat address” whilst, on the bottom of the second line, the currently stored value is reported (no address from factory). With the button erase the old flat address, if present, and enter the new one, then confirm by pressing , system returns to the previous menu.

Video OFF -1- End (TD2000RL)

In this parameter has to be stored the ending (higher) address of the first group of users which do not have to receive the video signal (for example users with only audio intercom).
By pressing the button you enter the programming mode. LCD shows “Enter block address”, while on the bottom of the second line the address currently stored is reported (no address from factory). With the button erase the old address, if present, and enter the new one, then confirm by pressing the button, display will show “Enter flat address” whilst, on the bottom of the second line, the currently stored value is reported (no address from factory). With the button erase the old flat address, if present, and enter the new one, then confirm by pressing , system returns to the previous menu.

Video OFF -2- Start / Video OFF-2-End (TD2000RL)

The operation and programming mode are entirely similar to those exemplified in the paragraph Video OFF-1-Start / Video OFF-1-End.

AUX TLC 1÷8

Push-button panels TD2000 can drive external video modulators (by VM2521) to which up to eight additional cameras can be connected. In the case of additional cameras, the addresses of the additional cameras present in the installation and, if necessary, the address of the main video camera (Main AUX TLC) must be programmed.
To program the address of the first additional camera select from the menu “AUX TLC1” and press button to confirm, display will show “Enter address” and on the bottom of the second line, the currently stored value is reported (no address from factory). With button erase the old address, if present, and enter the new one, then confirm by pressing , system returns to the previous menu.
If required, proceed in the same way programming the addresses of the other additional cameras from AUX TLC 2 to AUX TLC 8 otherwise continue with other programmings.

Main AUX TLC

The main camera is the camera from which the audio-video module starts the cyclic scan of the additional cameras.
To program the address of the first main camera select from the menu “Main AUX TLC” and press button to confirm, display will show “Enter address” and on the bottom of the second line, the currently stored value is reported (no address from factory). With button erase the old address, if present, and enter the new one, then confirm by pressing , system returns to the previous menu.

Timings

In this section it is possible to program the timings of all the actuations of the system. By pressing you enter the programming procedure, whilst pressing button you return to the previous menu. Parameters that can be programmed are:

- **Activation time for S+S-:** activation time for the “open door” circuit (terminals S+ ed S-).

- **Activation time for auxiliary relay:** activation time for the auxiliary relay (terminals C, NC ed NO).

With arrows or select the parameter to be programmed and confirm with the button. button backwards you to the previous menu.

Activation time for S+S-

By pressing you enter the programming mode, while button backwards you to the previous menu. Entering the menu, the first line of LCD shows “Enter time”, while on the bottom of the second line the activation time currently stored is reported (1 sec. from factory). With erase the old value and then, enter the new one (max. 9 sec.) and then confirm by pressing , display will show briefly “saved” after that the system returns to the previous menu.

Attivation time for the auxiliary relay

By pressing you enter the programming mode, while button backwards you to the previous menu. Entering the menu, the first line of LCD shows “Enter time”, while on the bottom of the second line the activation time currently stored is reported (1 sec. from factory). With button erase the old value and then, enter the new one (max. 98 sec.; entering the value 99 the auxiliary relay will act as bistable device) and then confirm by pressing , display will briefly show “saved” after which the system returns to the previous menu.

Administrator Password

From the factory the administrator password is 0039, but it can be changed with a new one chosen by the installer or the installation manager. Pressing button enter the programming mode and at the end of the second line of the LCD the current administrator password is reported (0039 from factory), erase the old one using the key and then enter the new password, press to confirm, display will briefly show “saved” after which the system returns to the previous menu.

Attention: write down and keep the administrator password in a safety place, without the administrator password it is impossibile to program the device.

Miscellaneous

In this section of the menu it is possible to program the general parameters of the system which are:

- **key to send a call**
- **Conversation time**
- **External camera (TLC)**
- **Welcome message**
- **LCD contrast**
- **FW version**

With or arrows select the parameter to be set and confirm with . button backwards you to the previous menu.

key to send a call

It is possible to chose the operating mode

for sending a call which can be:

- **manual**: after dialing the user address, its alias or after selecting the user name from the directory, it is necessary to press to send the call;

- **automatic**: call is automatically sent 3 sec. from when you have dialed the user address, its alias or you have selected the user name from the directory, therefore it is not necessary to press to send a call.

By pressing the button you enter the programming mode " key to send a call" and the first line of LCD shows:

- **key to send call?** With arrows or select <YES> or <NO> and then press ; the system stores your selection and returns to the previous menu.

Conversation time

This function extends the conversation time from 90 sec. (factory value) to 4 min. Pressing you enter the programming mode "Conversation time 4 min.", while button backwards you to the previous menu. Entering the programming mode, the first line of LCD shows:

- **Conv. time 4 min?** With arrows or select <YES> or <NO> and then press to confirm. Choosing <YES> conversation time will be extended up to 4 min; it is always possible to close the conversation at any time by pressing on the door station or hanging-up the handset on the videointercom. Choosing <NO> the conversation time remains set to 90 sec., but it is always possible to double the conversation time pressing, on the door station keypad, the button when a tone will warn you that the conversation time is going to expire.

External camera

Enabling this function the door station will manage an external additional camera besides the one present on the device. When a video door phone sends the "monitoring" commands, the door station switches from the two cameras and on the video door phone you get alternatively the two related images. By pressing you enter the programming mode "External camera" and the first line of LCD shows:

- **External TLC?** With arrows or select <YES> or <NO> and then press to confirm; the system stores your selection and returns to the previous menu.

Welcome message

During standard operations, on the LCD of the door station a welcome message, reporting short info on how to call a user, is displayed. It is composed of two pages (2 lines for 20 characters each) that can be customized and which would alternate each 6 seconds. Pressing you enter the programming mode "Message programming", whilst button backwards you to the previous menu. The programming section is composed of two parts:

- **Message 1**
- **Message 2**

With arrows or select which of the two massages you wish to modify, then press to confirm. LCD shows a blanked display on which it is possible to write a message using the keypad of the door station as described in the paragraph "How to use the keypad". After entering the new message, press to store. Proceed in the same way, if required, to enter the second message.

Attention: it is sufficient to program only one of the two messages so that the system considers it as a welcome message, in this case the LCD will remain fix on it.

LCD Contrast

It is possible to adjust the LCD contrast; pressing you enter the "LCD contrast" menu and the first line of LCD shows:

- **LCD contrast**: with or arrows, increase or decrease the contrast value, as indicated on the display, and press to confirm, system stores the entered value and returns to the previous menu.

Firmware version

Pressing LCD will show the firmware version currently programmed in the device. Pressing the the system returns to the previous menu.

Default

Selecting this command all the system parameters will be restored to their factory values with the exception of the user directory which remains programmed at it is.

Attention: administrator password will be restored to its factory value (0039).

Pressing you enter the "Default" mode and the first line of LCD shows:

- **Default?** With arrows or select <YES> or <NO> and then press to confirm, system restores all the parameters to the factory values and then returns to the previous menu.

USB connection

TD2000R.. has an USB port that can be used to download or upload a file from/to a PC with the users to be stored in the repertory. To download or upload a file it is necessary to have installed on the PC the program "Contact Manager", last version can be downloaded from the download area of the web site of FARFISA (www.farfisa.com).
To exchange data it is necessary to operate as in the following:

1. On your PC install and run the program "Contact Manager".
2. Connect, as a first, USB cable to the USB port of TD2000 (see figure);
3. Connect the other side of the USB cable to your PC; TD2000 will be powered by the USB port and the red LED starts blinking quickly. **Attention**: for powering reasons display of push-button panel TD2000 powers ON without backlighting.
4. On the TD2000 access the programming menu and under the voice "Directory" select "Download" or "Upload" according to the required function.

"Download"

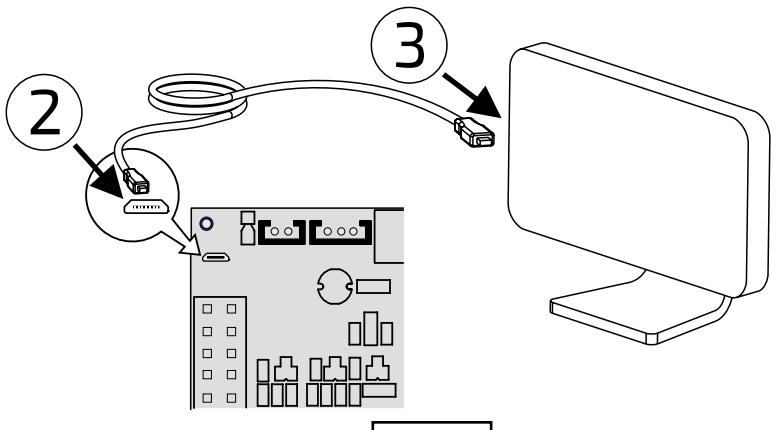
5a. On the TD2000 access the menu and select "Download" under the voice "Directory", then press key , the display will show "Download". Push-button is waiting to download from your PC a file containing the users and the data to be stored in the repertory

6a. In the Contact Manager program, import the file you intend to send to the TD2000, and select the voice "Download to USB device".

7a. Data transfer starts, the display of TD2000 will show in sequence the transferred data.

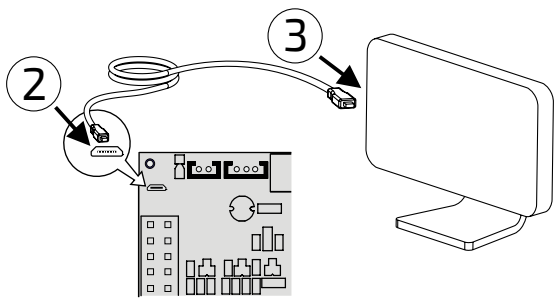
"Upload"

5b. On the TD2000 access the menu and select "Upload" under the voice "Directory", then press , display will show "Upload". Push-button is waiting to send to your PC a file containing the users and data already stored in its repertory.



6b. In the “Contact Manager” program, select the voice “Upload from USB device”.
7b. Data transfer starts and at the end, the display of TD2000 and the monitor of your PC will show the number of transferred bytes.

8. Disconnect, as a first, USB cable from your PC and then from TD2000R..



Operation

Check first that connections of the system have been done correctly. Power ON the system.

To make a call dial the code (address or alias) of the desired user, in case of a mistake press [X] to erase, or press [🔔] to confirm (call is automatically sent after 3 seconds, therefore without pressing button [🔔], if <NO> has been selected in the programming function “[🔔] key to send a call”). Call can be sent also selecting the name of the user from the building directory, see “How to use the building directory”. Not confirmed numbers or names are automatically erased after 25 seconds.

If the intercom line is free and the called number exists, a confirmation tone will be emitted and the display shows writing “Call/---“, at the same time icon 🔔 lights up, otherwise a busy tone will be emitted, the display shows the writing “Busy” and icon lights up.

By pressing [X] button,running call will be stopped, icon 🔔 turns OFF and the system is ready again for a new call. Called user, picking up the handset, enables communication with the door station for 90 seconds (that time can be extended as described in “Conversation time”). The display of the push-button panel shows “talk with ---) and the icon lights up.

10 seconds before communication time expires, push-button panel emits a reminding tone and its display and icon starts blinking; to continue the conversation for other 90 seconds, press [🔔] button. To operate the door lock release from the videointercom, press button 🔑; operating time for door lock release is 1 second (up to 10 seconds, if differently programmed), on the push-button panel, for all the door lock release operating time, icon will lights up.

Hanging up the handset on the videointercom or pressing the [X] button on the push-button panel, the system comes back to the stand-by operating mode and icon turns OFF.

How to use the building directory

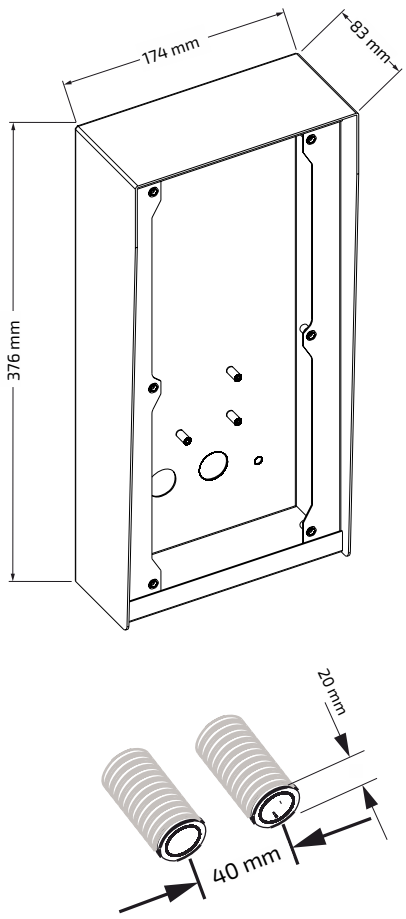
Directory stores, in alphabetical order, all the users of the building and it is possible to scroll them with [↑] e [↓] arrows. To send a call, after selecting the name, press the [🔔] key (call is automatically sent after 3 seconds, therefore without pressing [🔔] button, if <NO> has been selected in the programming function “[🔔] key to send a call”). To make easier to find a users, with [←] e [→] arrows, it is possible to chose the letter (uppercase or lowercase) with which starting to display the directory.

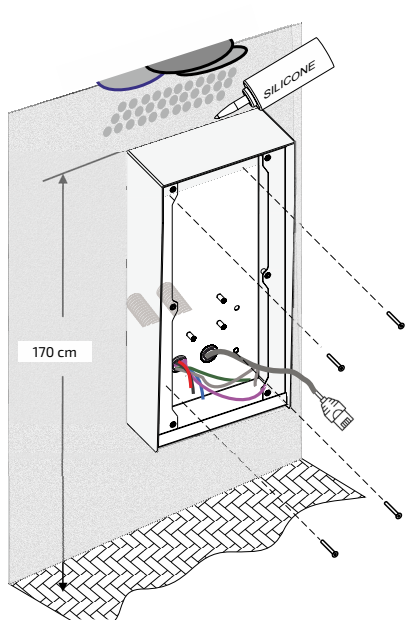
Releasing the door lock or actuating additional commands, by entering a password

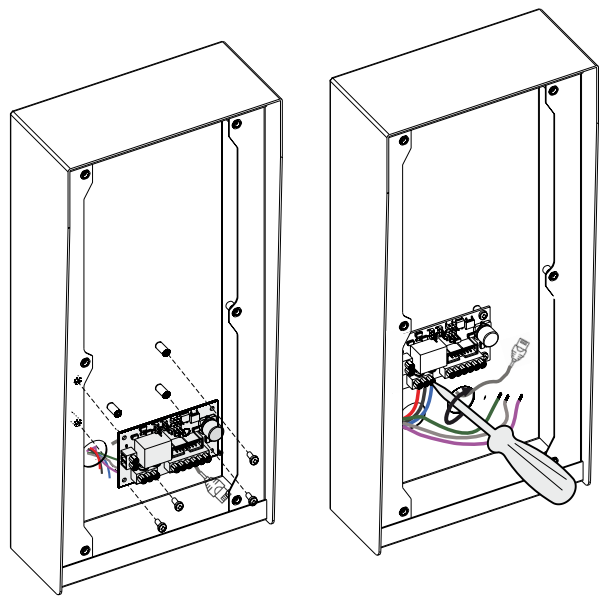
From push-button panel, even if the system is in “busy” operating mode (icon ON), it is possible, by entering one of the passwords previously stored (max 800), to unlock the door, or actuating additional commands (depending on the commands linked to the “Password” when storing a “New user”),
To operate it is necessary:
- dial 00;
- press [🔔] (the entered code 00 is automatically acquired after 3 seconds, therefore without pressing button [🔔], if <NO> has been selected in the programming function “[🔔] key to send a call”);
- display shows “Password”;
- enter, within 10 seconds, the password; each entered digit is displayed as an asterisk;
- press [🔔], if the entered password is correct, the push-button panel emits a confirmation tone and door lock, or the other commands associated to the password, are activated (in the case of lock release, for all the activation time, the icon lights up), when the operation ends push-button panel comes back to the current operating mode of the system (free or busy).

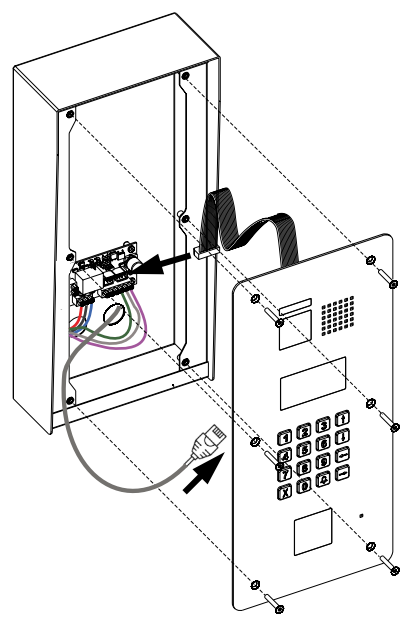
For TD2000RL-TD2000RAL - TD1000CN (IP EVO)

Art. 290C/0 (AISI 316L steel)



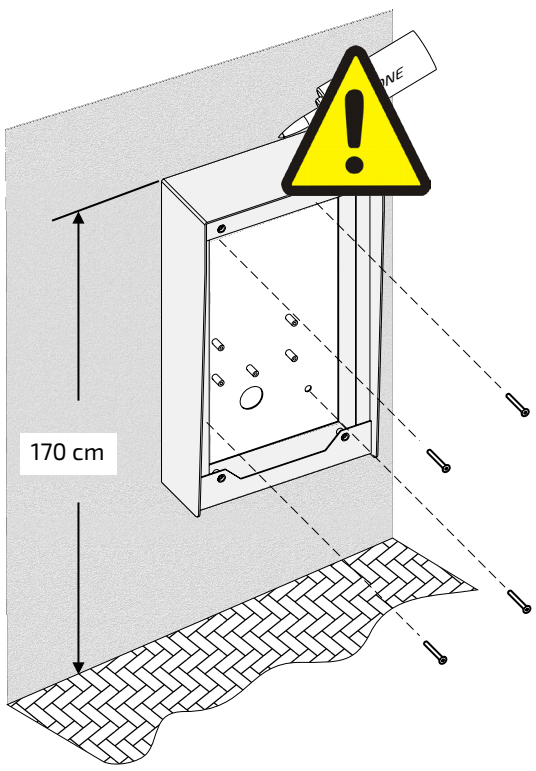


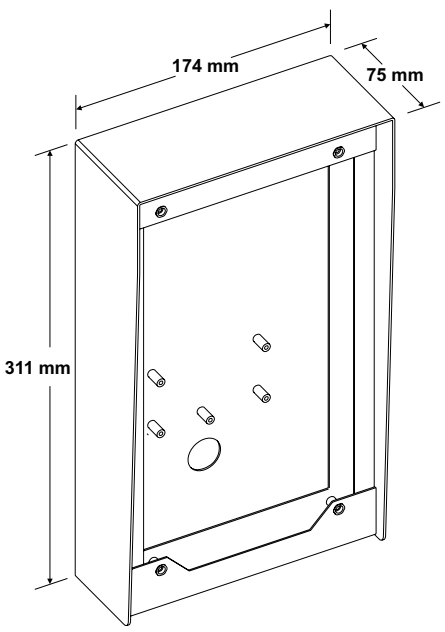


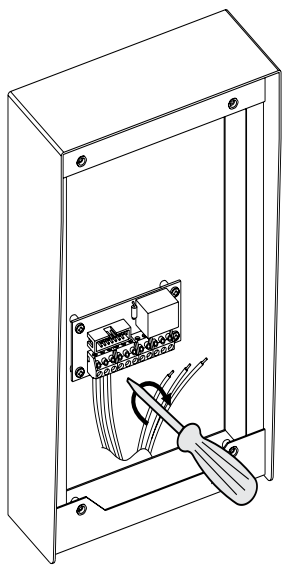


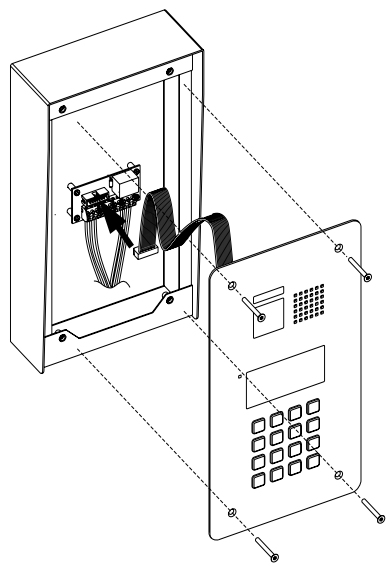
For TD2000-TD2000A

Art. 290S/0

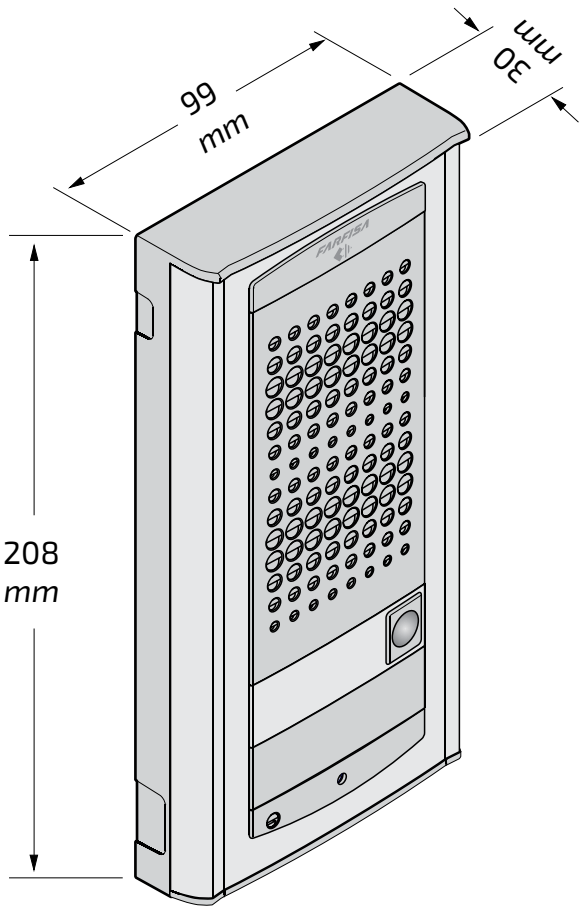




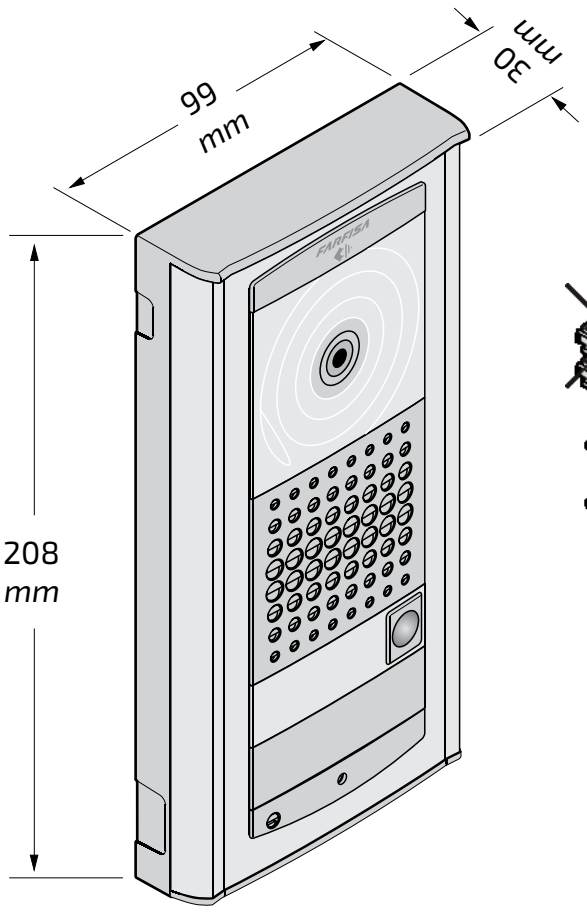




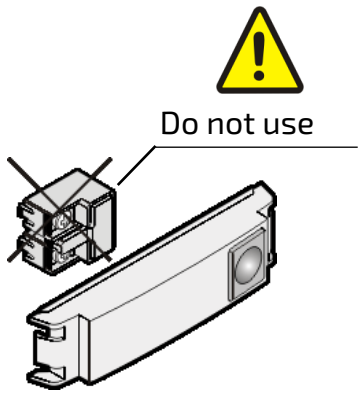
Art. AD2101AGL



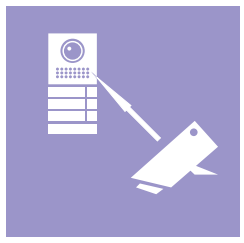
VD2101AGL



AGL21



Programmable via DUO System app



Modulators managing

EXTERNAL STATIONS FOR KIT

AGORÀ

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

Agora series external door stations with 1 or maximum 2 buttons. Allows calls to be sent on the DUO digital line.

Technical data

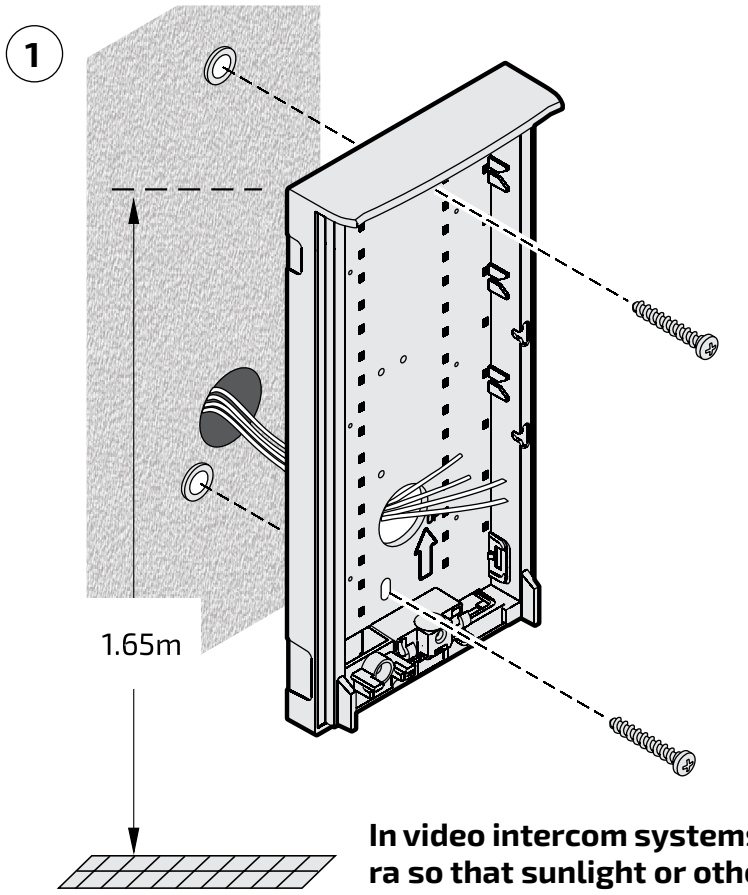
	AD2101AGL
Power supply	from DUO line
Stand-by consumption	16 mA
Operating absorption	260 mA
Lock absorption	12Vac/1A max
Lock activation time	max. 10 sec.

	VD2101AGL
Power supply	from DUO line
Stand-by consumption	16 mA
Operating absorption	350 mA
Lock absorption	12Vac/1A max
Lock activation time	max. 10 sec.
Minimum illumination	0,5 Lux
Camera LEDs	4 (white)
Signalling LED	1 (red)
Sensor	1/3" CMOS
Lens	3,7 mm
Focusing	0,6m ÷ ∞
Horizontal/vertical panning	±10°

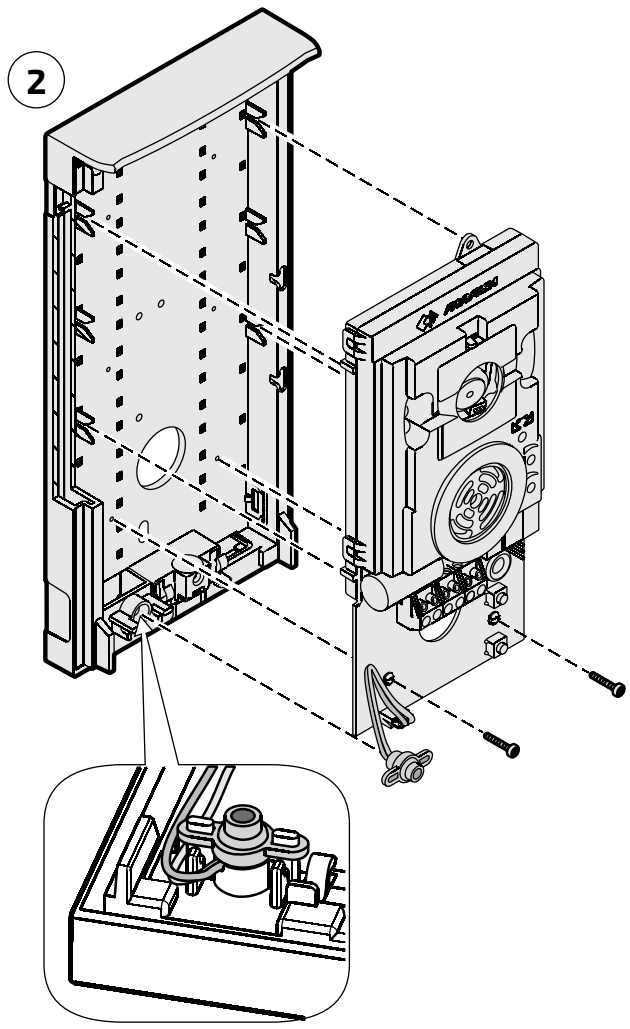
Terminals

S+/S-	Electric door lock
LP/LP	DUO line
PB/GN	Door lock release push-button

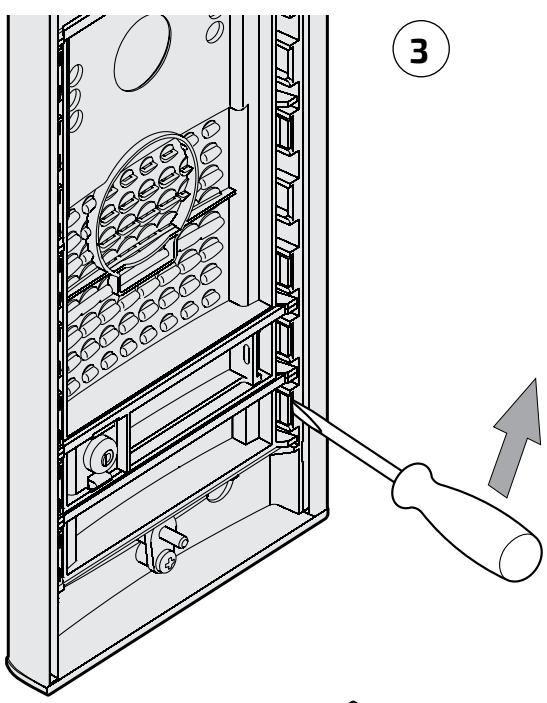
Installation of VD2101AGL and AD2101AGL door stations

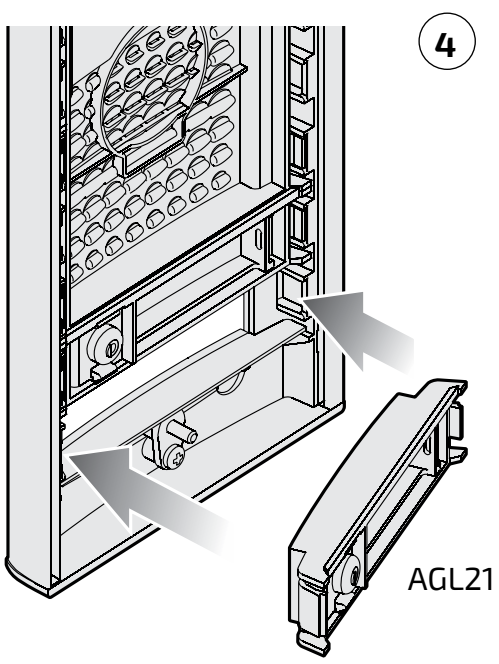


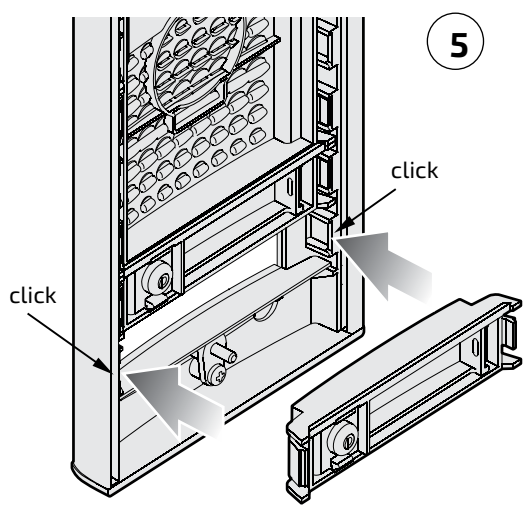
In video intercom systems, position the camera so that sunlight or other direct or reflected light sources of strong intensity do not hit the camera lens.

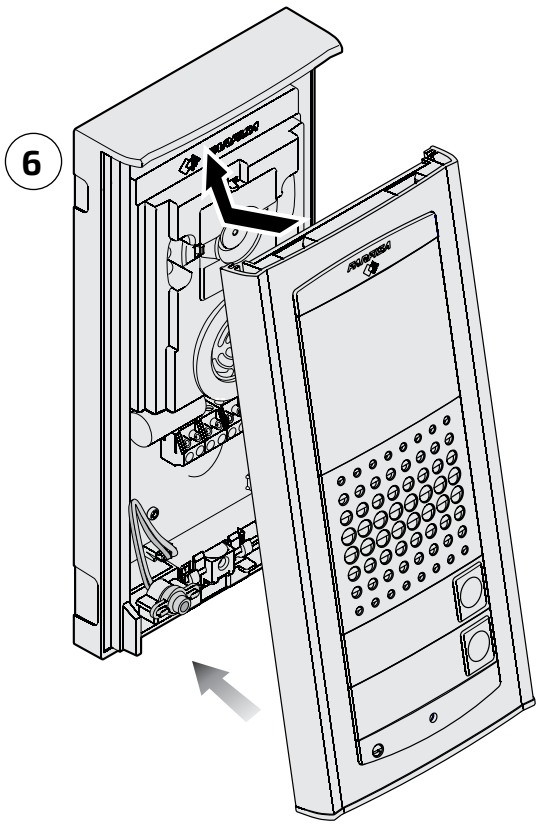


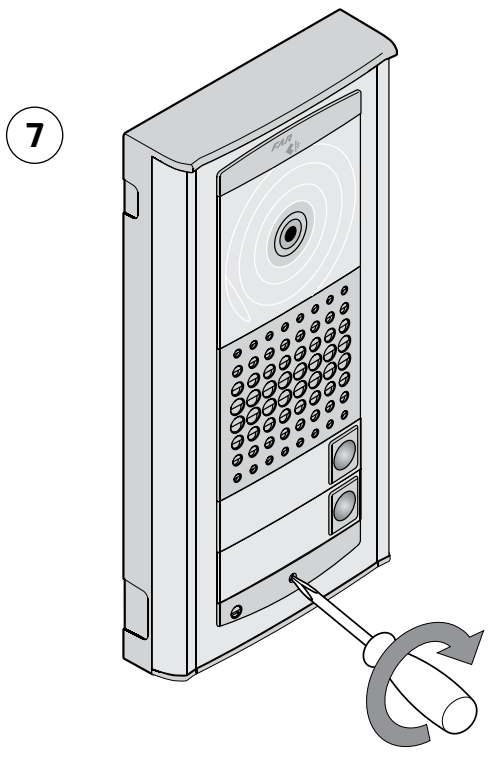
Application of the second button on the door station faceplate



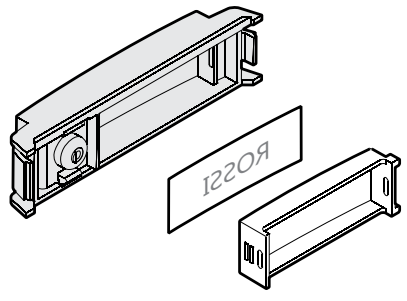








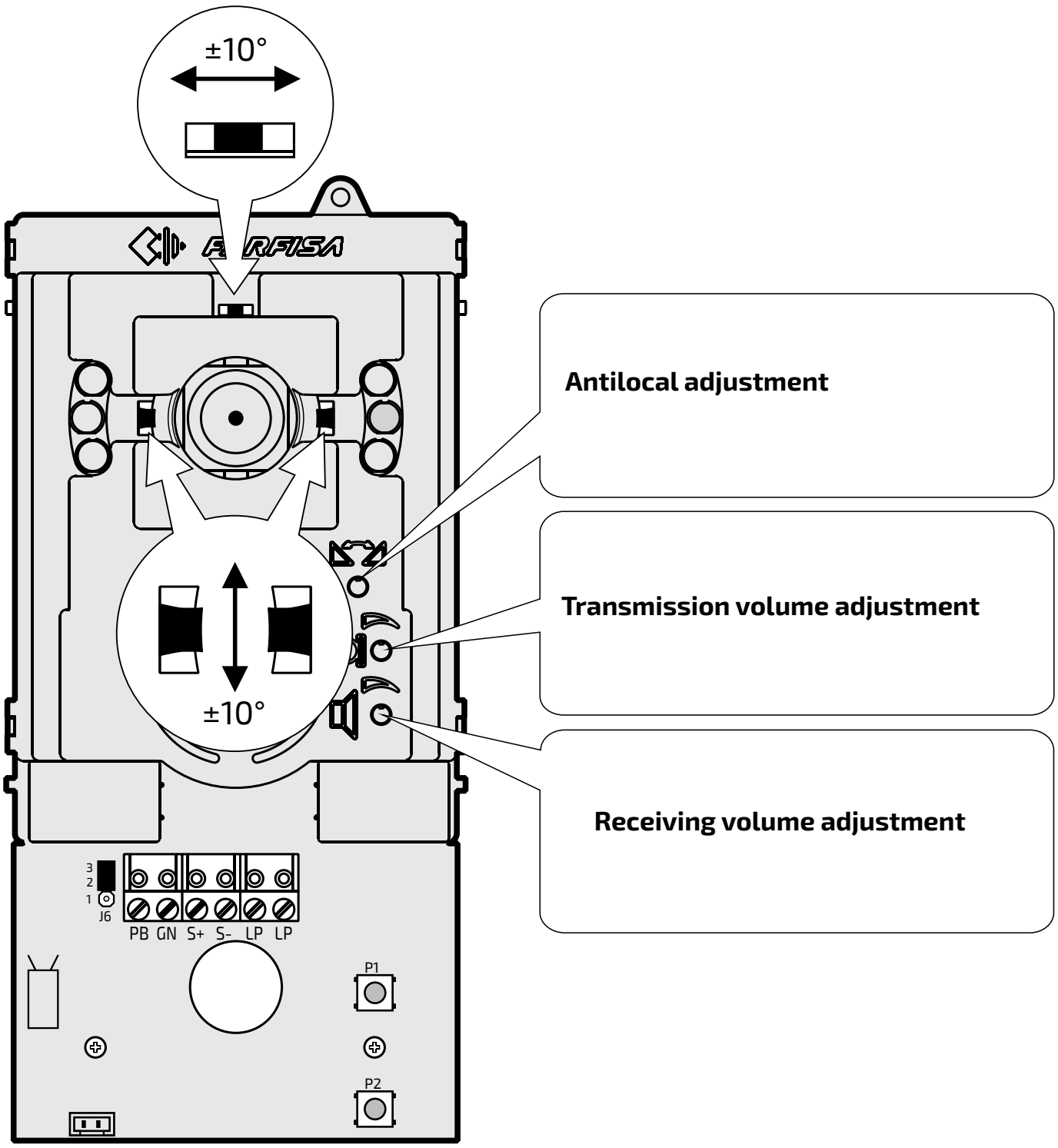
Name tag insertion



Adjustments

Volume adjustment
Per regolare i volumi del microfono e dell'altoparlante, agire sui trimmer e .

Antilocal adjustment
To eliminate a possible trigger (Larsen effect), proceed as follows:
- make the call from the door unit and lift the handset of the called party;
- in the push-button panel, remove the microphone from its housing, place it over the loudspeaker of the speech unit and adjust the trimmer until the whistling is cancelled;;
- replace the microphone in its place.



Panning
If necessary, the framing of the camera can be changed manually by moving the levers shown in the figure in the desired direction (horizontal and vertical).

PROGRAMMING

To program the device it is necessary to download the "DUO System" app (available for iOS and Android) from the respective stores, connect the PGR2991BT programmer to the system and connect your smartphone or tablet via Bluetooth. Alternatively, you can proceed by manually acting on the VD2101AGL according the steps listed below:

Factory setting

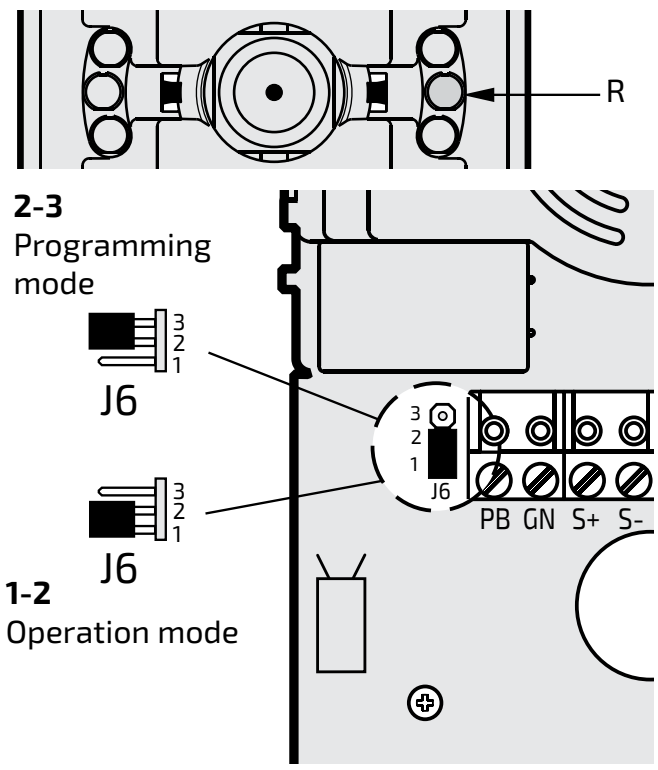
- External Door Station Address = 231
- Address associated with P1 button = 100
- Address associated with P2 button = 101
- Lock actuation time = 1 second
- Free tone = enabled

Entering the programming mode

- Remove the front plate.
- Move the jumper J6 from position 1-2 to 2-3; you hear the programming tone and the red LED turn ON (R).

Exit the programming mode

To exit the programming mode, you must move the jumper J6 from position 2-3 back to position 1-2.



Using the push-buttons for programming

Press button "P1" and "P2" to enter addresses or codes.

P1: Press this button to confirm code programming or go to the next programming step.

P2: 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 "P2" 10 times).

The pressure of the "P2" button is confirmed by an acoustic tone on the loudspeaker.

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 "P2" 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 "P2" button 10 times to enter digit 0 and wait for 2 seconds until you hear a tone on the loudspeaker.
  - press the "P2" button 9 times to enter digit 9 and wait for 2 seconds until you hear a tone on the loudspeaker.
  - press the "P2" 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 1.
Programming codes

111	external Door Station address
112	P1 button address
113	P2 button address
114	unlocking time
121	enable/disable calling tone
142	operation with door keeper exchangers
151-158	additional associated cameras
159	main camera
000	back to factory settings

Programming procedure

To make the programming it necessary to:

a) enter the programming mode following the instructions described in "Entering the programming mode";
b) enter the three digits of the programming code you want to change following the instructions contained in "Entering codes or address"; press P1 to confirm: you hear the confirmation tone and the red LED start flashing.
c) make the operations described in the specific programming chapter.
d) continue with another programming operation or exit moving the jumper J6 from 2-3 to 1-2.

111. Entering the External Door Station address.

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

- Enter the programming mode following the instructions described in "Entering the programming mode";
- Enter code 111 and press P1; you hear a confirmation tone and the red LED start flashing.
- Dial the code number you have chosen for the external door station and press P1 to confirm; you hear the confirmation tone and the red LED go back ON without flashing.
- Continue by entering the code of a new programming or exit the programming mode by moving the jumper J6 to position 1-2.

112. Entering the P1 Button address.

The P1 button 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 P1; you hear a confirmation tone and the red LED start flashing;
- dial the address you want to assign to P1. Extensions must be coded with numbers from 001 to 200;
- press P1; you hear a confirmation tone and the red LED go back ON without flashing;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper J6 to position 1-2.

113. Entering the P2 Button address.

The P2 button is coded by default with address 101; 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 P1; you hear a confirmation tone and the red LED start flashing;
- dial the address you want to assign to P2. Extensions must be coded with numbers from 001 to 200;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper J6 to position 1-2.

114. Unlocking time.

To change the lock release time (max. 10 seconds), you must:

- enter the programming mode following the instructions described in "Entering the programming mode";
- enter code 114 and press P1; you hear a confirmation tone and the red LED start flashing;
- dial the number of seconds you want the door lock is released (3 digits from 001 to 010);
- press P1; you hear a confirmation tone and the red LED go back ON without flashing;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper J6 to position 1-2.

121. Enable/disable the calling tone.

To enable or disable the calling tone on the VD2101AGL, you must:

- enter the programming mode following the instructions described in "Entering the programming mode";
- enter code 121 and press P1; you hear a confirmation tone and the red LED start flashing;
- enter code 004 to disable the tone or 000 to enable the tone;
- press P1; you hear a confirmation tone and the red LED go back ON without flashing;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper J6 to position 1-2.

142. Operations with main or secondary door keeper exchangers.

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 142 and press P1; you hear a confirmation tone and the red LED 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 P1; you hear a confirmation tone and the red LED go back ON without flashing;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper J6 to position 1-2.

151-158. Additional cameras addrresses.

During the conversation it is possible to switch the image to up to 8 additional auxiliary cameras connected to VM2521 modulators. The addresses (231-253) that the modulators associate with the cameras must be stored in VD2101AGL, the procedure below must be repeated for all the 8 cameras:

- enter the programming mode following the instructions described in “Entering the programming mode”;
- enter code from 151 (first camera) to 158 (last camera) and press P1; you hear a confirmation tone and the red LED start flashing
- enter the address with codes from 231 to 253
- press P1; you hear a confirmation tone and the red LED go back ON without flashing;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper J6 to position 1-2.

159. Main camera.

It is possible to choose the camera from which the VD2101AGL starts scanning from one of those previously stored:

- enter the programming mode following the instructions described in “Entering the programming mode”;
- enter code 159 and press P1; you hear a confirmation tone and the red LED start flashing;
- dial the 3 digits of the address (digits 231 to 253) of one of the 8 cameras previously stored. If 255 is entered, scanning starts from the camera on board the VD2101AGL.
- press P1; you hear a confirmation tone and the red LED go back ON without flashing;
- continue by entering the code of a new programming or exit the programming mode by moving the jumper J6 to position 1-2.

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000. Restore default settings.

Once entered in the programming mode, you must:

- dial 000 following the instructions contained in “entering codes or addresses”;
- press P1; you hear a confirmation tone and the red LED start flashing;
- dial 123 following the instructions in “entering codes or addresses”;
- press P1; you hear a confirmation tone and the white LEDs of the camera start flashing;
- exit the programming mode moving the jumper J6 from 2-3 to position 1-2.

OPERATION ù

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 programming time (code 114) set.
Replace the handset to end the conversation.