ELECTRONIC CALL SYSTEM

ACIFARFISA INTERCOMS

TECHNICAL MANUAL 2012

ECHOS
EXHITO
COMPACT

INTRODUCTION

This edition contains helpful information on the operation and installation of Farfisa video intercoms systems.

In order to make the systems work properly it is necessary to install only Farfisa equipment, keeping strictly to the items referred to in each diagram.

Read all the notes carefully, (even the small ones) in each installation scheme and the working instructions of the system given in the following pages.

For the sake of clarity, please notice that the sequence of the terminals of each article has not been followed. Only the terminal code (letter and/or number) is valid not the graphic sequence.

The items may have more terminals than the ones in the installation diagrams. The excess terminals must not be used.

Notice to the installer and user

Check the integrity of the product after removing it from the packing.

Packing materials (such as plastic bags, cardboard, polystyrene foam, etc.) must be kept out of the reach of children.

The manufacturer cannot be held responsible for possible damages caused by improper, erroneous and unreasonable use.

The cable runs of any intercom and video-intercom system must be kept separate from the mains or any other electrical installation as required by **International Safety Standards**.

WARNINGS

An all-pole mains switch with a contact separation of at least 3mm in each pole shall be incorporated in the electrical installation of the building.

Before connecting the unit, make sure its data correspond to those of the mains.

The apparatus shall not be exposed to dripping or splashing.

For correct operation make sure that ventilation or heat dissipation openings are not obstructed.

Do not open or tamper with power supply or video intercom apparatus when they are ON. There is high voltage inside.

Avoid bumping and hitting the video intercom apparatus, it could break of the CRT with consequent projections of fragmented glass.

For installation or maintenance refer only to qualified personnel.

CE European Mark of conformity to the EEC Directives.

CE MARK

The CE mark ensures that the product complies with the requirements of the European Community Directives in force; in particular, Electrical Safety LVD73/23, Electromagnetic Compatibility EMC89/336 and Telecommunication Terminals R&TTE99/5 Directives.
As set forth by the Directives, the technical documentation and Conformity Declarations are available in the Company's offices for verifications and controls by competent Authorities.

VDE Mark of VDE a German Testing and Certification Institute.

SYSTEM CERTIFICATION ISO 9001:2000 SGS Quality assured firm.

ANIE Italian Association of Electrotechnical and Electronic Industries

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2012 edition

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The Farfisa electronic call system with reduced wires technology allows for the realisation of intercom, video intercom and intercommunicating systems.
The modularity of Farfisa indoor and outdoor devices allows for system extension to satisfy the most diverse user's requirements, from individual houses to apartment buildings, from simple intercoms to complete videointercoms.

Selecting the system

The first choice to be made is the preferred type of system.

- **Analog system with reduced number of conductors** *(**1+1** intercoms: 1 common wire +1 wire for each user; **4+1** videointercoms: 4 common wires +1 wire for each user).*
- **traditional analog system** *(**4+1** intercoms: 4 common wires +1 wire for each user; **7+1** videointercoms: 7 common wires +1 wire for each user + coaxial cable).*

The Farfisa electronic call system allows for the realisation of different types of installation.

- **Intercom systems** with 1 or more main entrances and with or without secondary entrances
- **Videointercom systems** with 1 or more main entrances and with or without secondary entrances
- **Intercommunicating systems**
- **Mixed systems (intercoms/videointercoms/intercommunicating systems)**

• Intercom systems
It is the simplest of the installations. It provides bidirectional audio communication between intercoms and external door stations with door-opening function.

The following variants of the basic installation are possible:

- **intercommunicating service**. It allows for communication between different intercoms of the same apartment or between different apartments with private conversation to other users and to external stations
- **private conversation**. By adding a board to each intercom you can restrict the communication between internal and external user to the called user. The other users do not hear the conversation in progress when they lift the handset.

• Videointercom systems
Apart from audio communication and door-opening function, video intercom systems provide visual control of the entrance.

The typical characteristics of video intercom systems are:

- **Timed operation**. The video intercom of the called user is enabled for about 100 seconds. Picking-up the handset the enabling time will be doubled; hanging up the handset the system switches back to the stand-by mode. Systems which are using the power supply-timer art.1181E and 1281E switch back to the stand-by mode only when the enabling time expires.
- **Private conversation**. Video intercom systems allow for audio communication only for the called user. The other users do not hear the conversation in progress when they lift the handset.
- **Intercommunicating service**. This service allows for audio communication between different intercoms or video intercoms of the same apartment or between different apartments with private conversation to other users or external stations.
- **Control switching ON**. The user can enable the system, switch ON his/her own video intercom and monitor the area framed by the camera. Additional wires and activation buttons are needed in case of multiple entrances.

• Mixed systems (intercoms/videointercoms/intercommunicating systems)
All intercom and video intercom systems can be combined according to the user's requirements.

Selecting the articles

When choosing the article and type of installation, you should consider:

- **user's requirements**
- **number of users**
- **installation possibilities**
- **possible location of articles**

The following options are possible for **external door stations** and **internal stations**:

• External door stations:
- **Agorà** series
- **Profilo** series
- **Matrix** series (steel push-button panels)
- **Mody** series
- **UP** series

• Internal stations:
- **Echos** series
- **Exhito** series
- **Compact** series
- **Studio** series
- **Project** series

Graphic symbols

The following symbols are used in the installation diagrams:

Speaker

Microphone

Button

Resistance

Lamp

Diode

SR41 Electronic buzzer

AP Additional speaker

Electric door lock

Coaxial cable

Optional wire (usually control switching ON, door release button or intercommunicating calls)

Dashed line (for schematic purposes the first and last monitors are shown in the multi-family systems. Required additional monitors can be inserted in such dashed line to complete the installation).

Call wires (second and last)

Table for the selection of house's devices and door stations according to the performances of the system *(see paragraph "Selecting the system")*

	INTERCOMS		VIDEO-INTERCOMS	
***Serie*s**	**1+1**	**4+1**	**4+1**	**7+1**
Internal stations				
Echos *			✔	✔
Exhito	✔	✔	✔	✔
Compact	✔	✔	✔	✔
Studio		✔		✔
Project	✔	✔		✔
External door stations				
Agorà	✔		✔	
Profilo	✔	✔	✔	✔
Matrix	✔	✔	✔	✔
Mody *	✔	✔	✔	✔
UP **	✔	✔		

* For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
** Series for up to 2 calls

INTERCOMS AND VIDEOINTERCOMS SYSTEMS

REDUCED WIRES TECHNOLOGY

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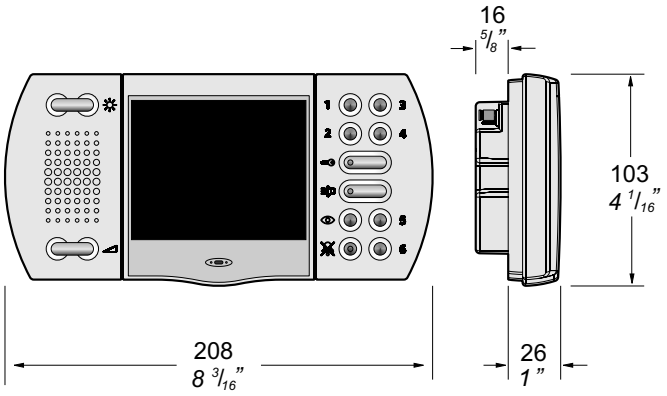
VIDEOINTERCOMS



EH9161CT. **Hands Free Colour Videointercom** with audio-video privacy, 3 types of calls, 5 differentiated programmable ring tones, audio, contrast, and brightness adjustment. Metallized grey colour. Complete with 10 keys for monitor control switching-on, door lock opening, intercom calls and supplementary services. It can be installed on the wall by using the back box art.**9083** or wall adaptor **WA9100T**.

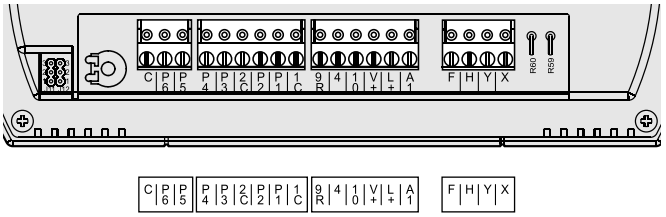
EH9161CW. **Hands-free videointercom** with same features as above, in white colour finish. It can be installed on the wall by using the back box art.**9083** or wall adaptor **WA9100W**.

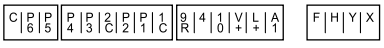
Technical characteristics

Power supply:	18÷24Vdc
Operating current:	0.4A
Screen:	3.5" LCD
Television standard:	PAL
Horizontal frequency:	15625Hz
Vertical frequency:	50Hz
Band width:	>5MHz
Video signal:	balanced
Starting up time:	1 second
Number of bell rings:	2 (programmable)
Operating temperature:	0°÷+50°C
Maximum admissible humidity:	90%RH

Terminals

X Balanced negative video signal input
Y Balanced positive video signal input
F Ground
H Positive voltage input (18-24Vdc)
10 Call, audio reception/transmission, door releasing
4 Control switching ON (button)
9R Electronic call input from other intercommunicating devices
A1 Electronic floor call input
L+ LED for open-door signalling or other functions
V+ Positive voltage input for intercommunicating devices (15÷18Vdc)
1C Common contact for buttons P1 and P2
P1 - P2 Service buttons (max 50mA)
2C Common contact for buttons P3, P4, P5 and P6
P3 ÷ P6 Service buttons (max 50mA)
C Electronic call input for intercommunicating calls (common contact for buttons P1÷P6 determined by the position of the jumpers J11 and J12)





How to select the function for buttons from 1 to 6

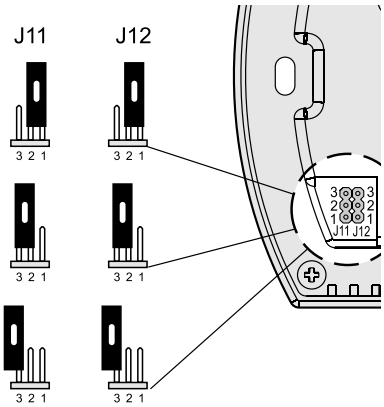
Buttons from 1 to 6 can be used for several functions, that is:
- **intercommunicating calls;**
- **control switching ON** of the video intercom when more than one external door station or extra surveillance cameras are present on the system;
- **free voltage contacts** for supplementary functions.

ATTENTION. The common contacts of the buttons are only two: one for the buttons 1 and 2, the other for the buttons 3,4,5 and 6, so at least only two of the three possible different operations described before can be achieved at the same time. When the buttons are used for intercommunicating calls or videointercom control switching ON the terminals 1C and 2C must remain unconnected.

Functions of buttons according to the position of jumpers J11 and J12

Push-buttons	*Jumpers*	*Position*	*Function*
1, 2	**J12**	**1-2** **2-3** (*) **free**	intercommunicating calls control switching ON free contacts (common 1C)
3, **4**, **5**, **6**	**J11**	**1-2** **2-3** (*) **free**	intercommunicating calls control switching ON free contacts (common 2C)

(*) *Factory setting*



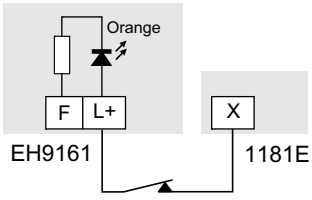
Supplementary functions

Floor call

For floor call feature make the connection as reported on page 87.

Door-open's warning and other functions

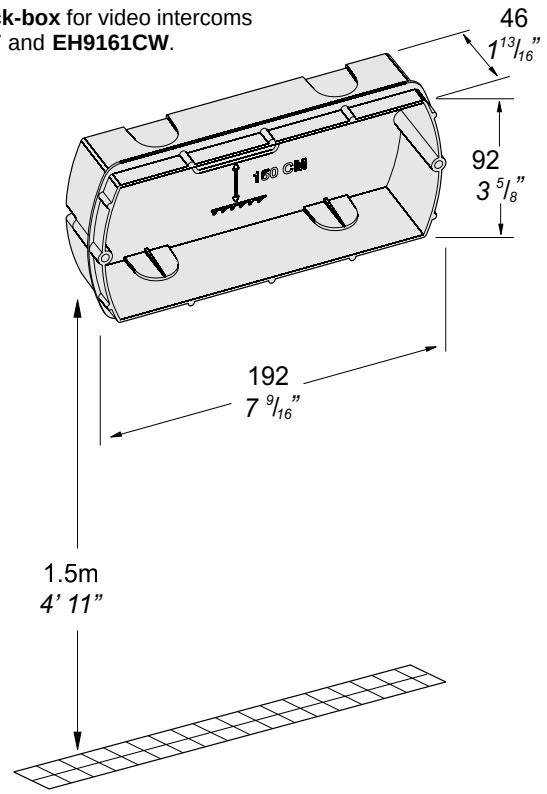
For door-open's warning or other similar functions connect a normally closed contact (NC) of a sensor or a relay between the terminal **L+** of the videointercom and terminal **X** of power supply **1181E** .



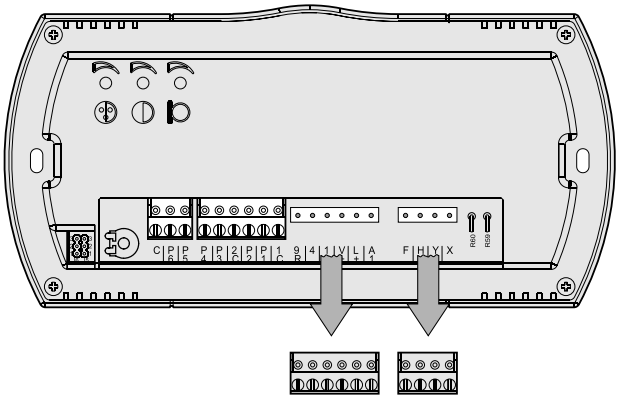
Closed contact the orange LED is ON.
Open contact the orange LED is OFF.

Flush mounted version

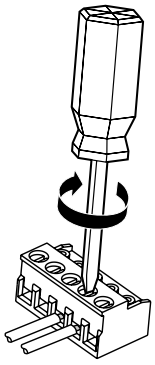
9083. Back-box for video intercoms **EH9161CT** and **EH9161CW**.



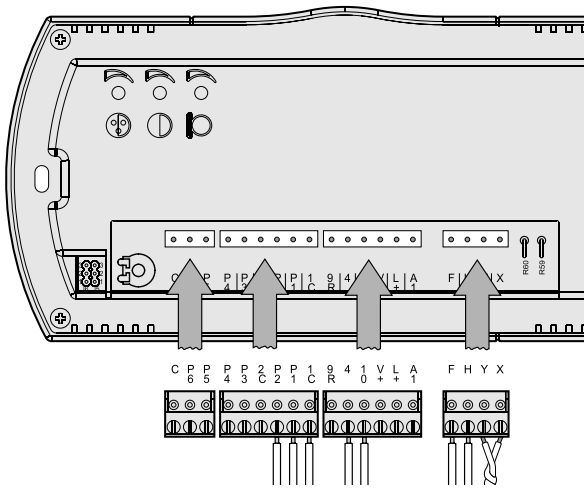
1 - Wall-up the back box art.**9083** at an height of about 1.5 meters above the floor.



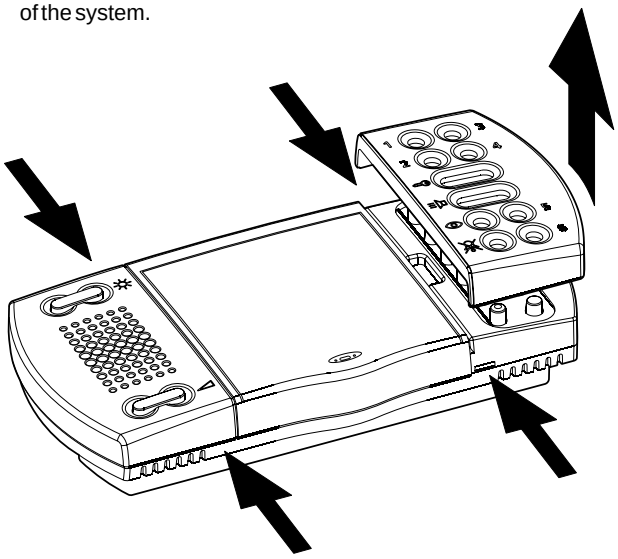
2 - Unplug the terminal block from the video intercom.



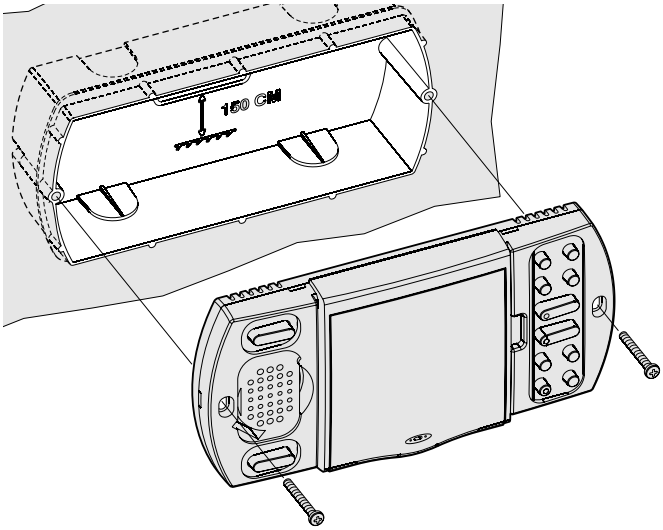
3 - Make the connections as required by the electric diagram to wire. *If the system provides for the use of the buttons from **1** to **6**, move the jumpers **J11** and **J12**, located on the back of the video intercom, according to the required function (see table on page 4).*



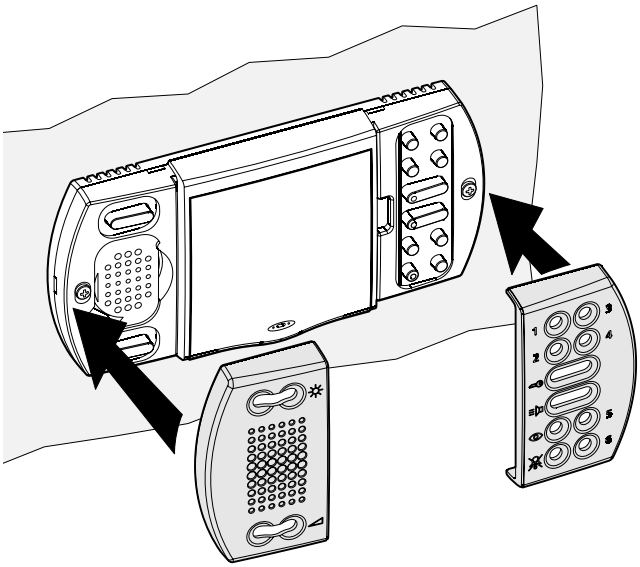
4 - Plug-in back the terminal blocks on the video intercom paying attention to their position and direction in order to avoid degradation of the system.



5 - Remove the two frontal plastic frames to approach the two fixing points of the video intercom.



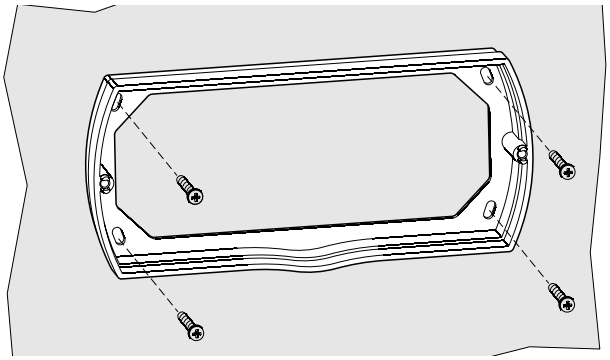
6 - Fix the video intercom to the back box using the two screws supplied with the product.



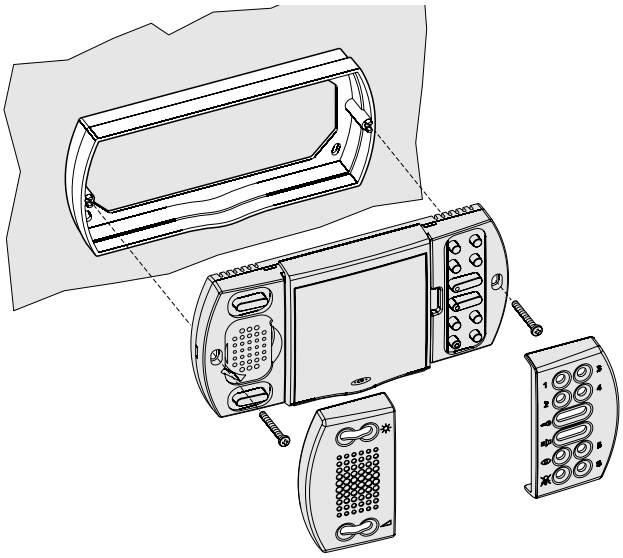
7 - Re-insert the two frontal plastic frames to the video intercom.

Surface mounted version

WA9100T. Wall adaptor for the **EH9161CT** videointercom.
WA9100W. Wall adaptor for the **EH9161CW** videointercom.



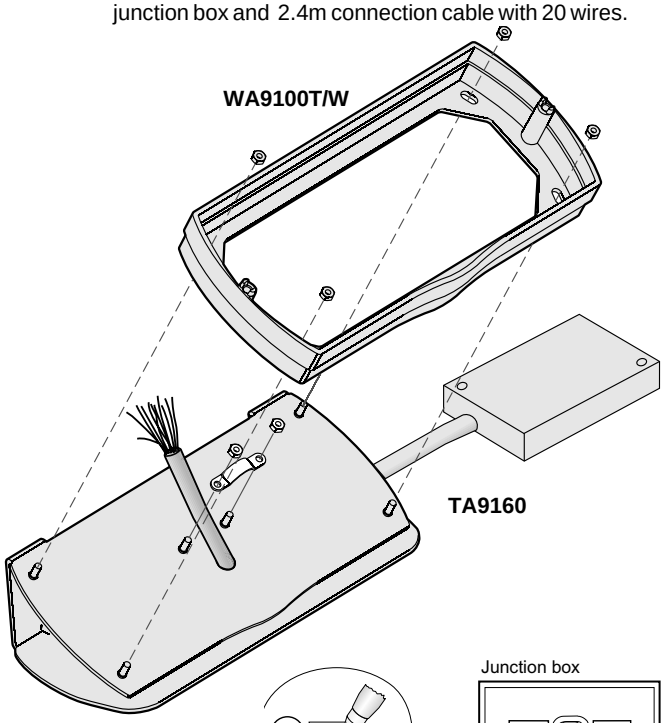
1 - Fix the adapter to the wall with 4 expansion plugs at approx. 1.5m from the floor.

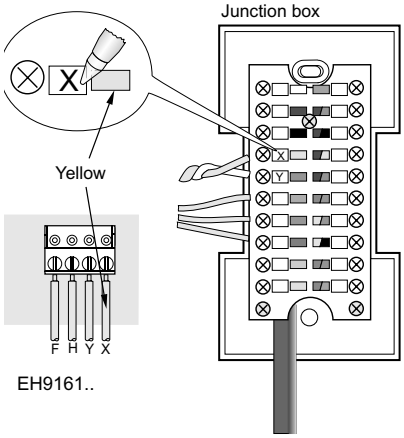


2 - Fix the video intercom to the wall adaptor using the two screws supplied with the product.

Table version

TA9160. Table adapter for **Echos** videointercoms. Complete with junction box and 2.4m connection cable with 20 wires.

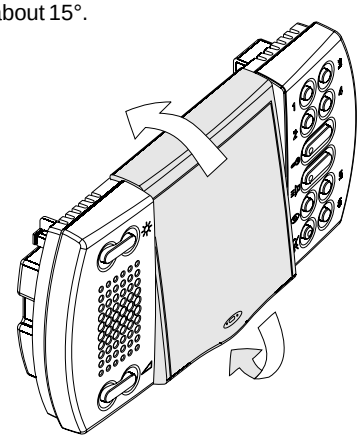


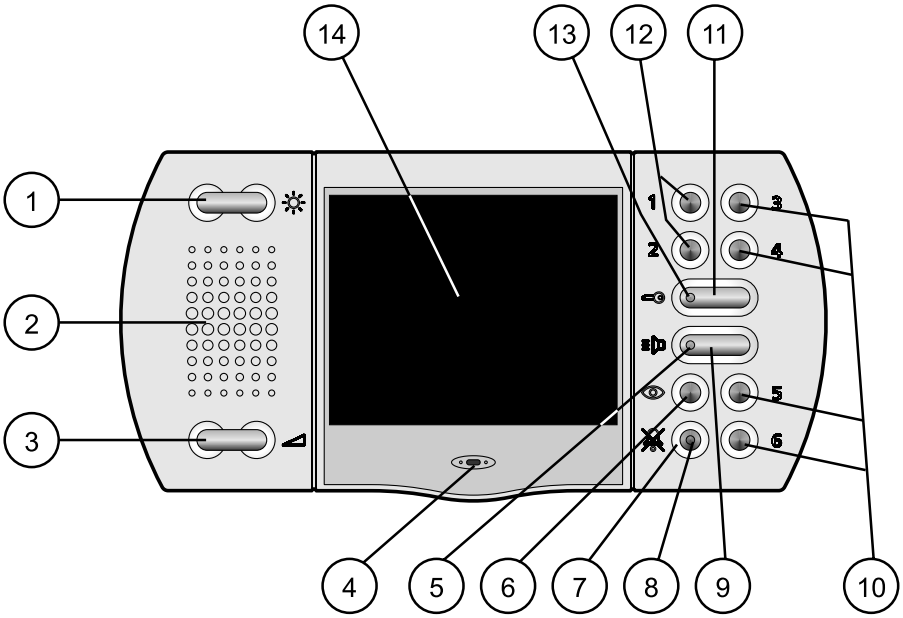


- Fix the wall adaptor **WA9100T** or **WA9100W** to the table adaptor using the supplied nuts.
- Insert the cable in the proper hole of the adaptor and fix it.
- Make the connection on the videointercoms terminal boards and write down the correspondence between terminals and wire's colour on the label on the junction box.
- Fix the videointercom as shown in the figure 2 of this page.

Display adjustment

To optimize the angle of view of the display it can be adjusted up and down for about 15°.





Characteristics

① Image **brightness** adjustment.

② **Loudspeaker**. It allows to hear the conversation and to receive the calls from the external door station, from other intercommunicating equipments or from local door station.

③ Call and communication **volume** adjustment.

④ **Microphone**. It allows to talk with the door station or with other intercommunicating equipments

⑤ **Green LED**. The LED shows:
- a communication in progress when it lights up continuously;
- an intercommunicating call when it flashes.

⑥ **Control switching ON** button. It allows to power ON the video intercom and monitoring the entrance.

⑦ **Mute** button. It allows to:
- **enable/disable the audio** (microphone) to the door station during a conversation;
- **enable/disable the bell rings** if pressed for less then 2 seconds after receiving a call or making a control switching ON function;
- **enter/exit the programming mode** if pressed for more than 2 seconds.

⑧ **Red LED**. The LED shows:
- temporary disabling of audio when it continuously lights-up. If audio is enabled again the LED recover the previous operating mode;
- bell rings disabling. The LED flashes when a call is received and during the conversation with an external door station or another intercommunicating equipment;
- the videointercom is in programming operation mode when it is continuously lit-up.

⑨ **Audio communication** button. It allows to enable the audio communication with the door station or another intercom after receiving a call or a *control switching ON operation* (). The audio communication is end pressing again the button or if the communication time expires.

⑩ Buttons **3**,**4**,**5** and **6** are available for supplementary services. After positioning properly the **jumper J11** they can be used for:
- intercommunicating calls;
- control switching ON function for multiple entrance systems;
- as free voltage contacts (max 50mA).
These four buttons, having a shared common contact (terminal 2C), can be only used for one of the functions listed above at time.

⑪ **Lock release** button. It allows to operate the electric lock release either with the video intercom in ON or OFF state.

⑫ Buttons **1** and **2** are available for supplementary services. After positioning properly the **jumper J12** they can be used for:
- intercommunicating calls;
- control switching ON function for multiple entrance systems;
- as free voltage contacts (max 50mA).
These four buttons, having a shared common contact (terminal 1C), can be only used for one of the functions listed above at time.

⑬ **Orange LED**. The LED lights-up when at the terminal **L+** is connected a positive voltage (8÷12Vdc). To signal an open-door state it is necessary to install to the door a proper sensor whose contacts must be a normally closed type *(see page 4)*.

⑭ **3.5" Colour LCD Display.**

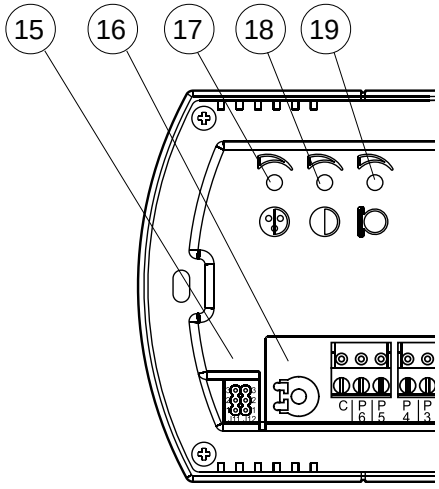
⑮ **Jumpers** for **programming buttons** 1 to 6.

⑯ **Microphone sensitivity adjustment MIC.SENS.**

⑰ **Colour adjustment .**

⑱ **Contrast adjustment .**

⑲ **Adjustment of the microphone amplifier .**



ADJUSTMENTS

Brightness adjustment.
With the video intercom switched ON, press left and right the button to adjust the brightness of the image. To store the current setting press the button. The pressure of this button switches OFF the video intercom.

Colour and Contrast adjustment.
The trimmers are located on the back of the video intercom and can be operated by means of a small screwdriver. To adjust the trimmers is required:
- dismount the video intercom from the wall to accede to the adjustment points;
- power ON the video intercom;
- insert the screwdriver in the hole marked with the symbol of the adjustment required;
- rotate the screwdriver clock or anti-clock wise to find the desired image quality;
- fix again the video intercom to the wall.

Enabling, disabling and volume of the ringing sound.
When you receive a call from the door station or from another intercommunicating equipment it is possible to adjust the level of the ringing sound pressing left and right the button. To store the current setting press the button.
To disable the ringing sound it is necessary, during a receiving call, to press momentarily the button; the red LED flashes during the call and the conversation.
The status (enabled or disabled) and the level of the ringing sound are stored and they are used for next calls. If the ringing sound is disabled during a receiving call or during a communication the red LED will flash to indicate this status, but no LED indication will be present in stand-by mode. After connecting a positive 15÷18Vdc to the terminal V+ it will be possible to have the LED indication of the disabled ringing sound also with the video intercom in stand-by mode.

Setting of the audio volume
- With the video intercom switched ON, press the button to enable the communication. To set the receiving audio level (loudspeaker) press left and right the button. To store the selected level press the button. The pressure of this button switches OFF the video intercom.
- To set the amplifier's level of the microphone it is necessary to adjust the trimmer on the back of the videointercom.
- In case of incorrect automatic switching of the video intercom between talk and listening function decrease the level of the preferred function and increase the other one by acting on the button or on the trimmer of the videointercom.
- If required the communication the audio is intermittent or distorted it is advisable to adjust the microphone sensitivity by acting on the trimmer **MIC.SENS.** located on the back of the video intercom.
- **Attention**. For a better setting of the audio levels on the video intercom adjust the microphone sensitivity of the door station to the minimum value and the loudspeakers volume to an intermediate value.
- If there are intercommunicating devices adjust also their audio levels.

PROGRAMMING

In programming mode it is possible to select the duration and the ringer tone among 5 different possibilities.
To enter the programming mode it is required:
- to switch ON the video intercom pressing the button.
- to keep pressed for more than 2 seconds the buttons; a beep will confirm the correct operation and the red LED lights up.

Number of rings of the bell (external and intercommunicating calls)
After entering the programming mode it is necessary:
- to press the button to verify the number of the rings currently programmed;
- to press left and right the button to respectively increase or decrease the number of rings. After each pressure of the button the selected number of rings will be heard;
- please keep the button pushed for more than 2 seconds or wait for the end of the programming time in order to make the changes confirmed and exit from the operation.

Ringer tone selection (call from door station)
Once entering into programming mode, it is necessary:
- to push the button in order to check the ringer tone now programmed;
- to push laterally (left or right side) the button to select the previous or next ringer tone;
- after having selected the favorite ringer tone, keep the button pushed for more than 2 seconds or wait for the end of the programming time to make the changes confirmed and exit from the operation.

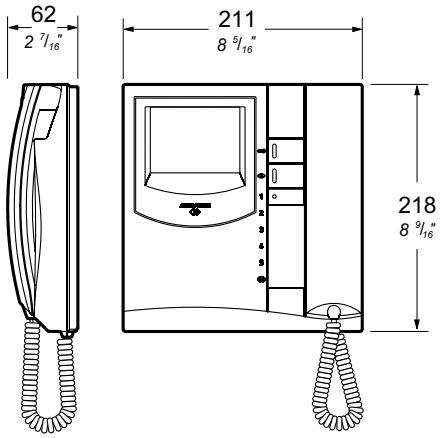
OPERATIONS

Call from the door station
Making a call from the door station the video intercom will ring (according to the programming) or the red LED starts flashing if the bell rings has been disabled; on the display appears the image of the calling station. To start the communication press the button. If it is desired to disable the audio to the door station, but continuing hearing the audio from the door station press shortly the button; in this status the red LED will light up continuously. To restore the audio to the door station press again the button; the red LED will recover the previous status. To end the communication and switch OFF the video intercom press the button. The video intercom switches OFF automatically when the communication time expires or if from the door station a call to another user is made.

Control switching ON
The button and the buttons numbered from 1 to 6, if present and correctly programmed *(see table on the page 4)*, allow to display the images (without audio) of the entrances presents in the system. To get also the audio it is sufficient to press the button. Press it again to switch OFF the video intercom.
Control switching ON is allowed only when the system is in stand-by mode (no running communications); if, pressing the control switching ON buttons, the video intercom doesn't switch ON a communication between another user and the door station could be active.

Door lock release
To operate the electric door lock release press the button independently if the video intercom is switched ON or OFF.
If the system has more door stations the electric door lock release of the door station from which the last call has been made or to which a control switching ON has been directed will be activated.

VIDEOINTERCOMS



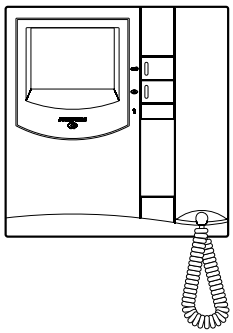
EX3160. White Flat videointercom with private audio-video function, electronic microphone, differentiated double electronic ringing sounds (modulated and continuous) and terminal board for the connection to the wall bracket. Equipped with led's and 2 buttons for camera control switch ON and door-open. Together with the videointercom there are 5 extra buttons which can be assembled in the proper slots *(see page 10)*.
The videointercom can be fixed to the wall (flush-mounted) with the **WB3161** bracket.

Technical data

Power supply	12÷15Vdc
Operating current	0.4A
Monitor	4" FLAT CRT
TV standard	CCIR-625 lines
Line frequency	15625Hz
Frame frequency	50Hz
Bandwidth	>5MHz
Video signal on 75Ω	0.8÷1.5Vpp
Switching ON time	2 seconds
Operating temperature	0°÷+50°C
Maximum permissible humidity	90%RH

EX3160C. Version of **EX3160** videointercom with colour LCD.

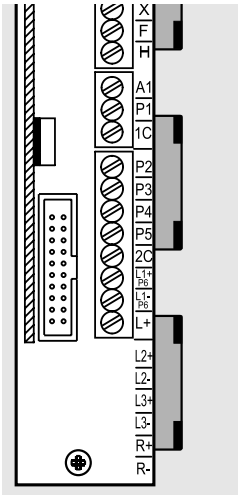
EX3100C. It is different from the model EX3160C because of the lack of LED's and for the reduced number of buttons (only 3 for electrical lock release, monitoring and supplementary functions).



Technical data

Power supply 12÷15Vdc	
Operating current	0.4A
Screen	4" LCD
TV standard	PAL
Line frequency	15625Hz
Frame frequency	50Hz
Bandwidth	>5MHz
Video signal on 75Ω	0.8÷1.5Vpp
Switching ON time	1 second
Operating temperature	0°÷+50°C
Maximum permissible humidity	90%RH

WB3161. Wall bracket for **EX3100C**, **EX3160** and **EX3160C** video intercoms with terminal boards for connection to the system and an electronic circuit to convert the video signal from coax cable to a balanced twisted pair.

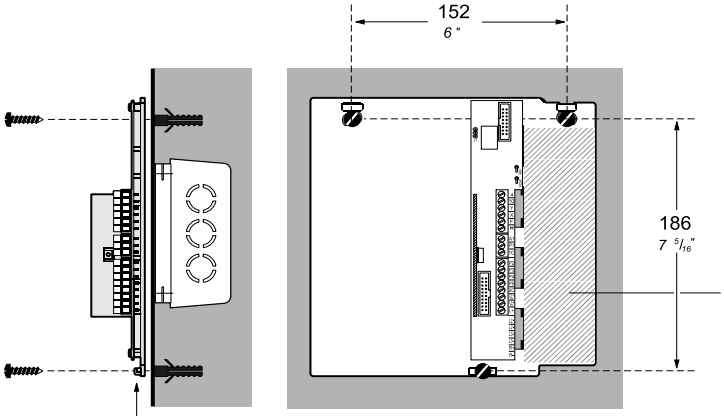


Terminals

X Balanced negative video signal input
Y Balanced positive video signal input
F Ground
H Positive voltage input (+18-24Vdc)
10 Call, audio reception/transmission, door releasing
4 Control switching ON (button ◉)
A1 Electronic call input from other intercommunicating devices
1C Common contact for P1, P2, P3 (P2-P3 only for EX3160, EX3160C)
P1 Service button (max 0.3A)
P2 ÷ P5 (*) Service buttons (max 0.3A)
2C (*) Common contact for buttons P4 and P5
L1+ (*) Positive power supply input for red Led (+12Vdc)
L1- (*) Negative power supply input for red Led
L+ Not connected

(*) Not connected in **EX3100C videointercom.**

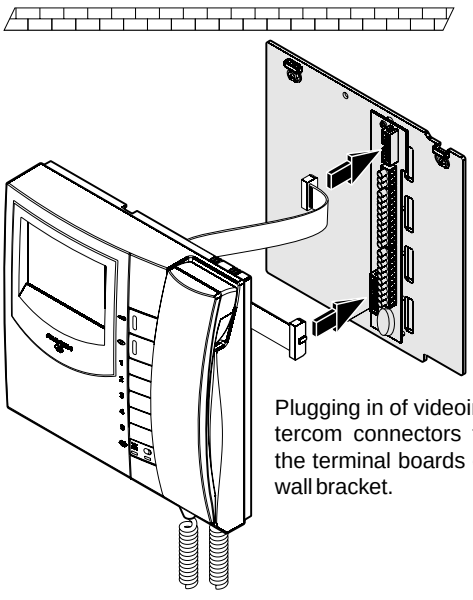
Wall version



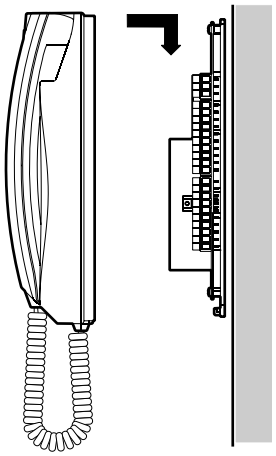
- This area has to be free; remove possible present cables.

140 ÷ 150 cm
4' 7" ÷ 4' 11"

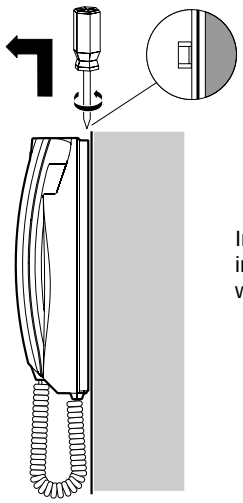
Fix the wall bracket by using 3 expansion plugs.
Don't shut the 3 screws of fixing if the wall is irregular.
It is suggested to use a wall box to contain the extra wires.



Plugging in of videointercom connectors to the terminal boards of wall bracket.



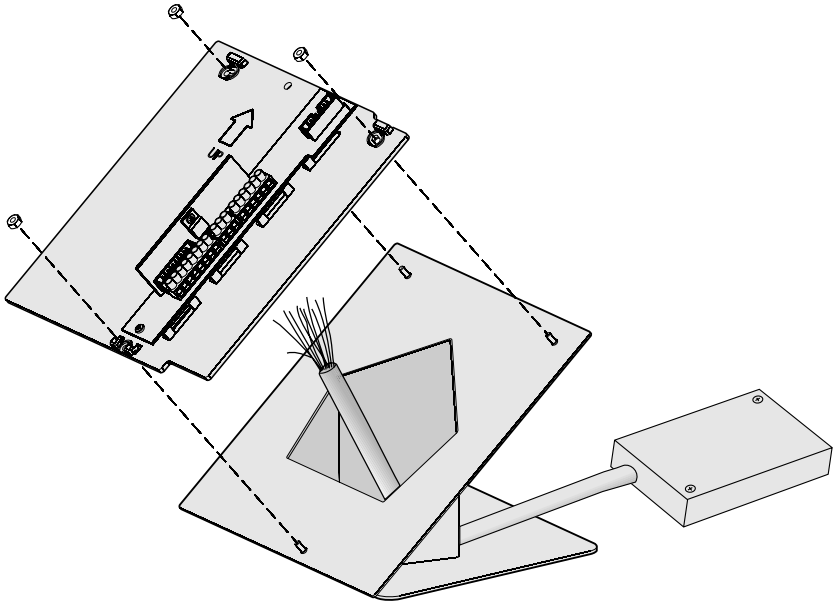
Installation of videointercom onto the wall bracket.



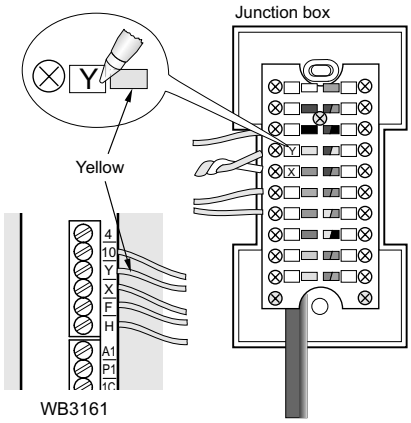
Installation of video-intercom onto the wall bracket.

Table version

TA3160. Table adaptor with weighted base, junction box and 2.4m connection cable with 20 wires.

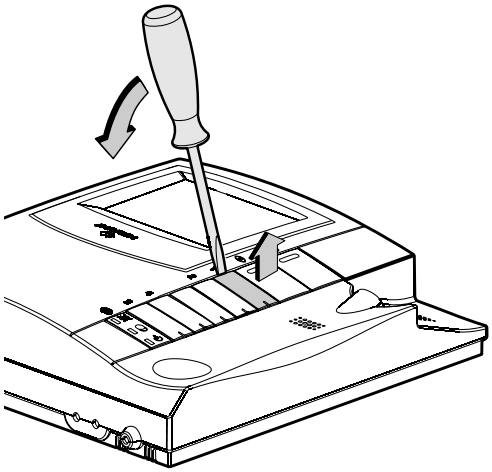


Remove the cover to the junction box and connect wires to the terminals matching the colour of wire with that of the label. Write in the proper space the code of the connection.

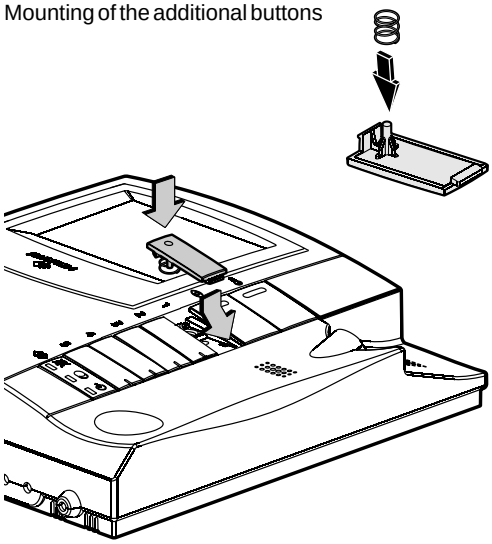


Assembling of extra buttons to the videointercom EX3160 and EX3160C

Taking out of button caps



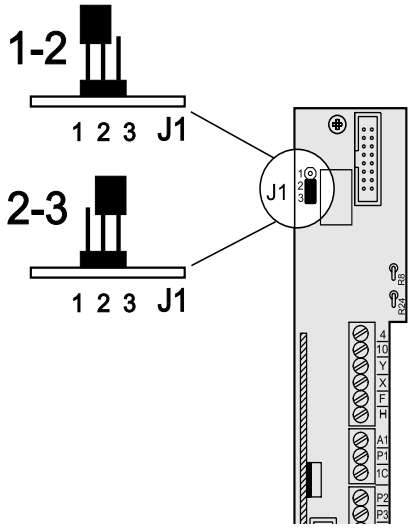
Mounting of the additional buttons



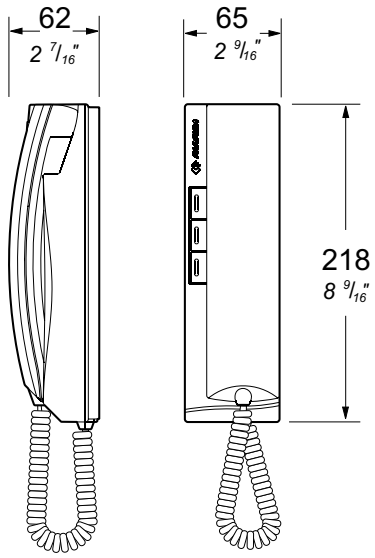
Choosing the private conversation or intercommunicating service

1-2 = Video intercom without audio privacy

2-3 = Video intercom with audio privacy



INTERCOMS



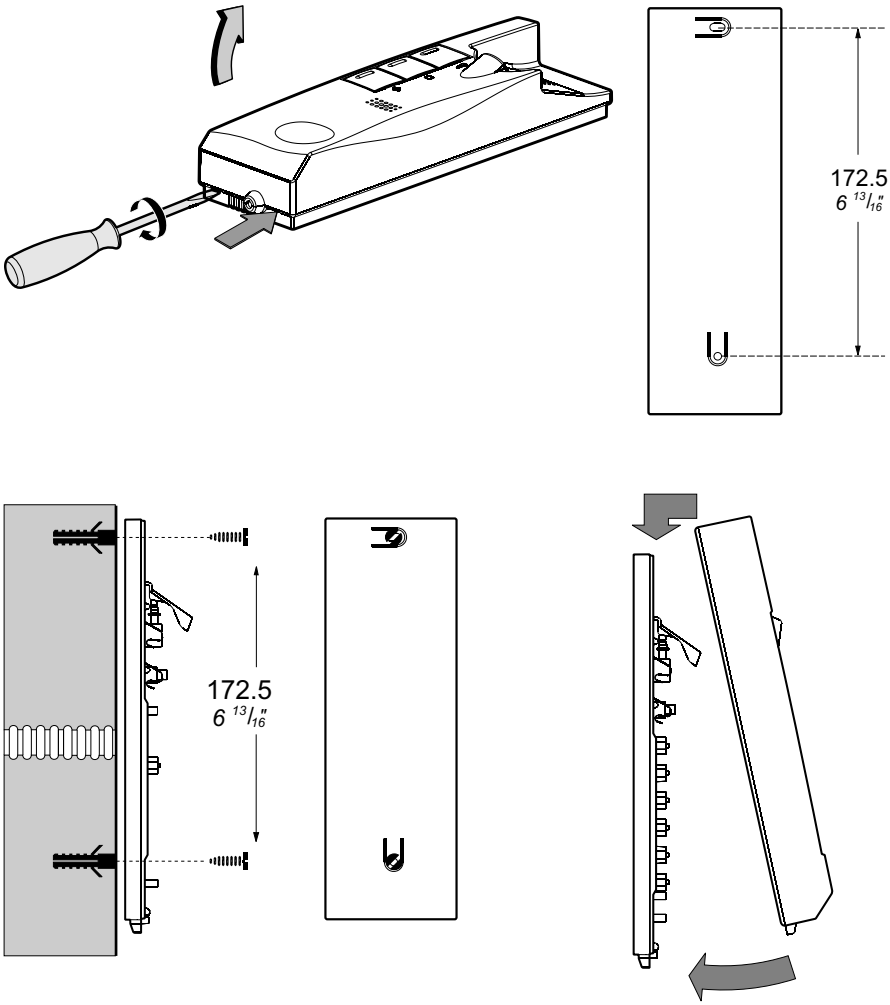
EX311. White electronic intercom with two push-buttons, spiral cord, electronic microphone and possibility to insert an additional **EX301** push-button and a **SR41 or SM50** module. Wall-mountable with expansion plugs or wall box.

Terminals

- **1** audio line, bell and door release control
- **3** ground
- **6** output electronic bell *
- **7** ground. Connected to terminal **3** with jumper **W1** *
- **A1** floor call or intercommunicating call input
- **P** service push-button
- **C** common contact for **P** push-button

* terminals to be used when installing the private conversation module **SM50** in the intercom.

Wall version



Accessories

EX301. Single button module for **Exhito** intercoms. Maximum contact current is 0.1A. For higher currents use a relay.
Note. For easier reference the 2 terminals of the module are defined as C and P, but they have no polarity and can be inverted.

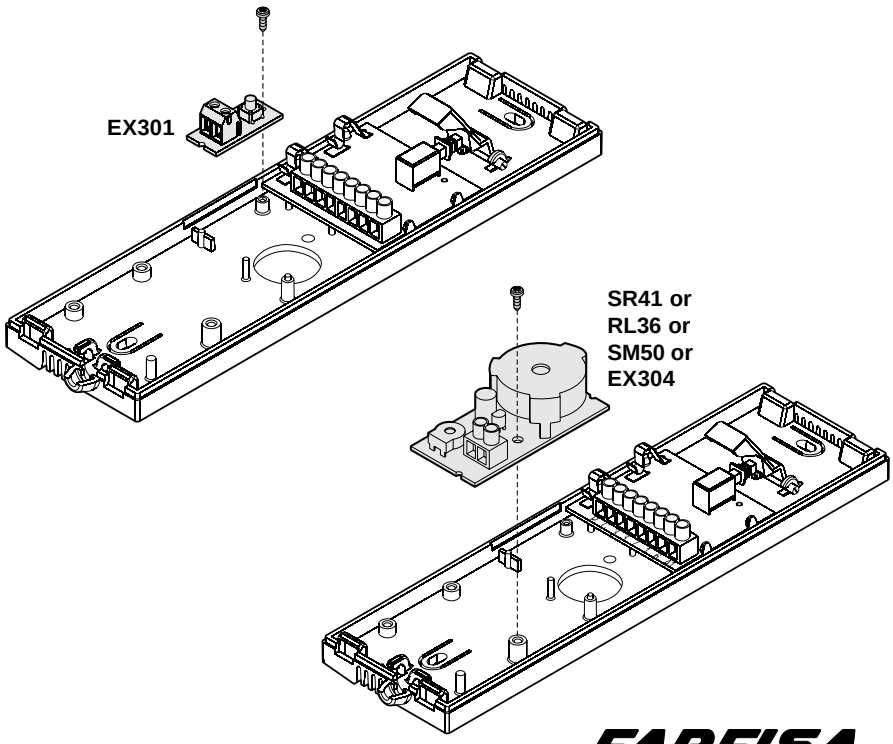
EX304. Additional loudspeaker module (*).

RL 36. Relay module (*).

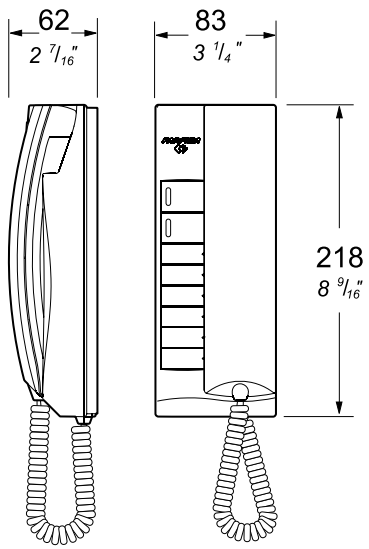
SM50. Private conversation module (*).

SR41. Electronic buzzer module (*).

(*) for the connections and the characteristics of the modules refer to page 13.



INTERCOMS



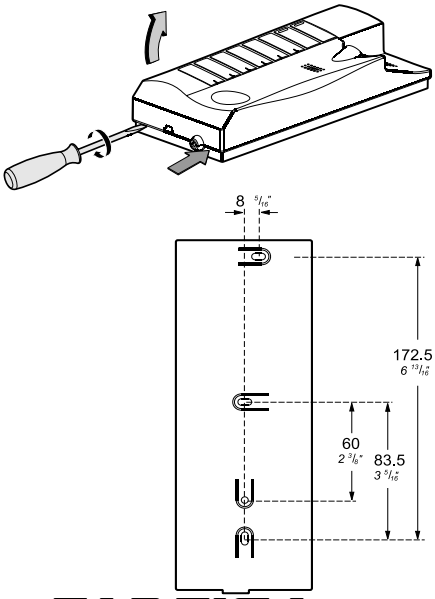
EX321. White colour intercom for 1+1 intercom systems and intercommunicating systems connected to 1 or more external door stations. Complete with spiral cord, electronic microphone and 2 buttons extendable to 8 by adding the **EX301** single button module.
Possibility of inserting modules **EX304**, **EX332**, **SR41**, **RL36** and **SM50**.
Wall-mountable with expansion plugs or wall box or on the desk using the table adaptor **TA320**.

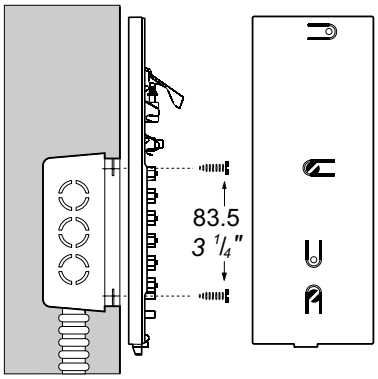
Terminals

1 audio line, bell and door release control
3 ground
6 output electronic bell *
7 ground. Connected to terminal **3** with jumper **W1** *
A1 floor call or intercommunicating call input
P service push-button
C common contact for **P** push-button

* terminals to be used when installing the private conversation module **SM50** in the intercom.

Wall version





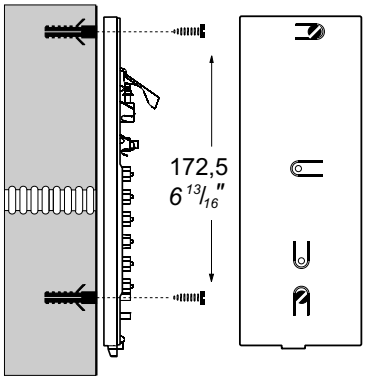
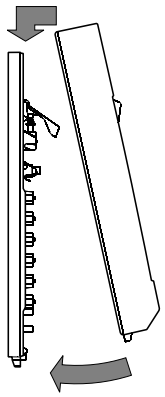
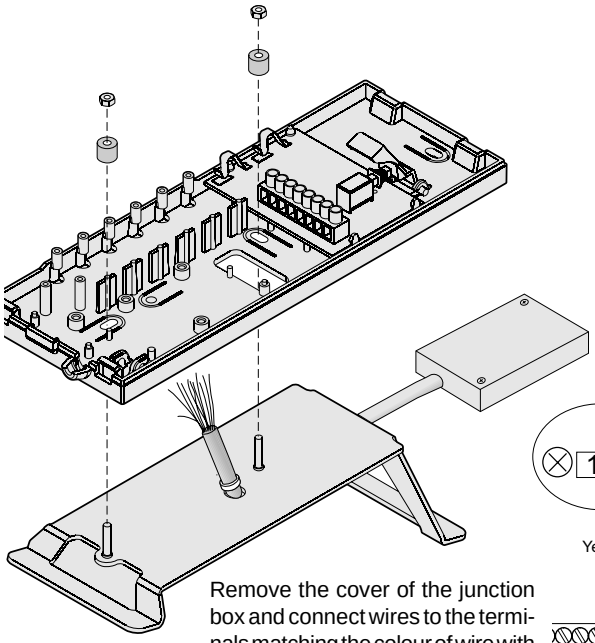
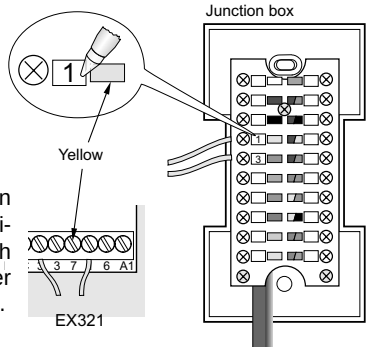


Table version

TA320. Table adaptor with weighted base, junction box and 2.4m connection cable with 20 wires.



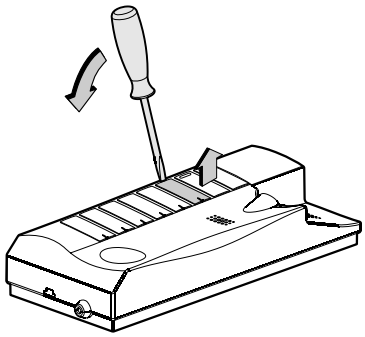


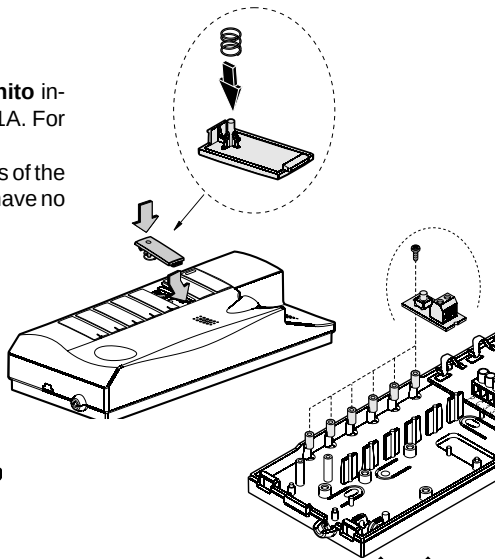


Remove the cover of the junction box and connect wires to the terminals matching the colour of wire with that of the label. Write in the proper space the code of the connection.

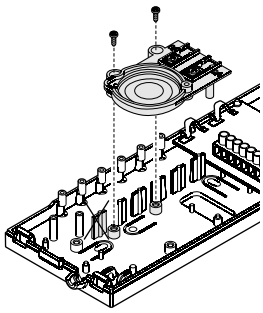
Accessories

EX301. Single button module for **Exhito** intercoms. Maximum contact current is 0.1A. For higher currents use a relay.
Note. For easier reference the 2 terminals of the module are defined as C and P, but they have no polarity and can be inverted.

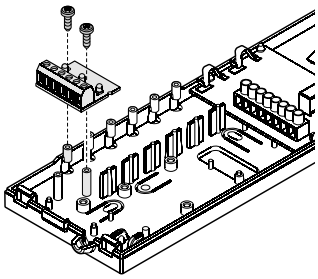


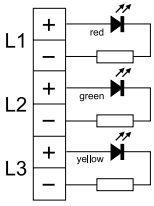


EX304. Additional loudspeaker. It allows to receive calls with off-hook handset, or in systems with 2 calls, with 1 single call and 1 call in common to other intercoms.
To install the module the last module holder on the intercom base must be removed (see drawing). The article takes the space of 2 modules and therefore reduces the number of additional buttons to 4.



EX332. Module with 3 LED.

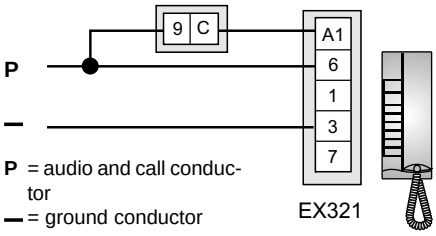




L1, L2, L3

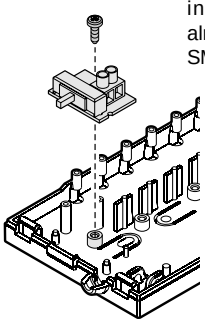
terminals input **+ / - :** max 13Vac / 24Vdc

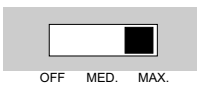
ST703. Ringing volume adjustment switch.



P = audio and call conductor
— = ground conductor

Note
Do not use this connection in intercoms where is already installed the module SM50.



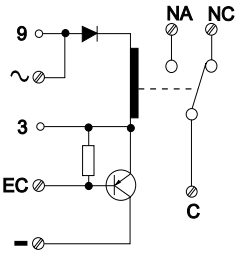


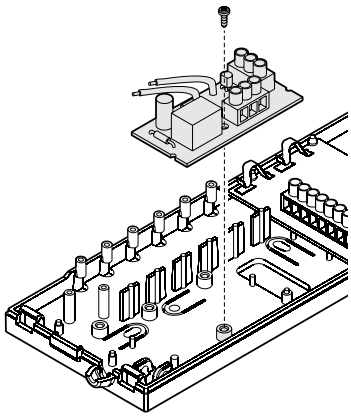
3 levels to adjust ringing volume (off, medium and maximum)

RL 36. Relay module. When installed inside intercoms it allows to activate additional bells. Maximum switching current is 1A (24V).

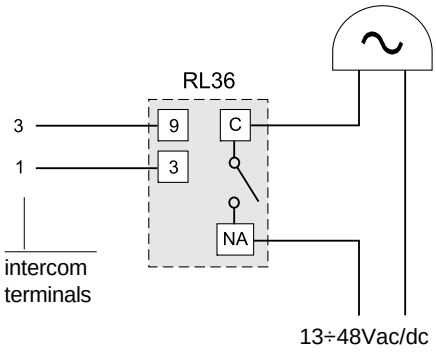
Terminals
C common terminal of relay
NA normally open contact of relay
NC normally closed contact of relay
- ground
~ 13Vac/dc voltage input
EC relay activation input (ground command)

Wires
9 electronic call input without resistive load
3 ground



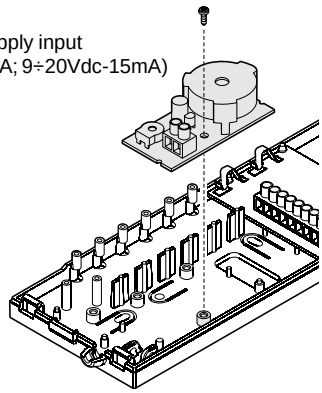


Additional bell connection
If the ringing volume is not sufficient or if you need to chime the call in a different place, you can add an additional bell enabled by a relay.



SR41. Electronic buzzer module. In the intercoms can be added for having a further call signal.

Terminals
4 power supply input (13Vac-70mA; 9÷20Vdc-15mA)
3 ground

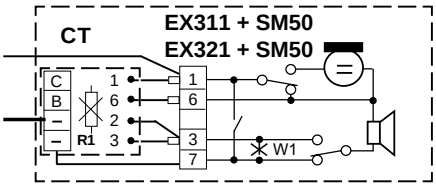


SM50. Private conversation module.

To have complete audio privacy between users it is necessary to add to each intercom the private conversation module.
The intercom can communicate with the outside (for an unlimited period) only after having received the call. The intercom becomes disactived when there is a call from another intercom or the door release push-button is pressed.

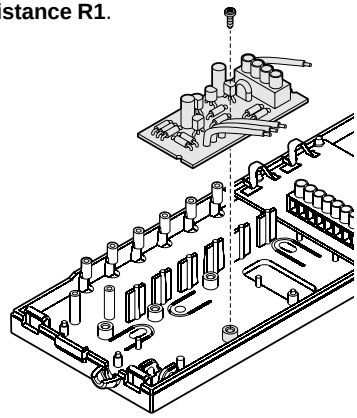
Terminals
C audio line receiver
B audio line transmitter
- ground

Note
B and **C** terminals are unused in an 1+1 intercom system.

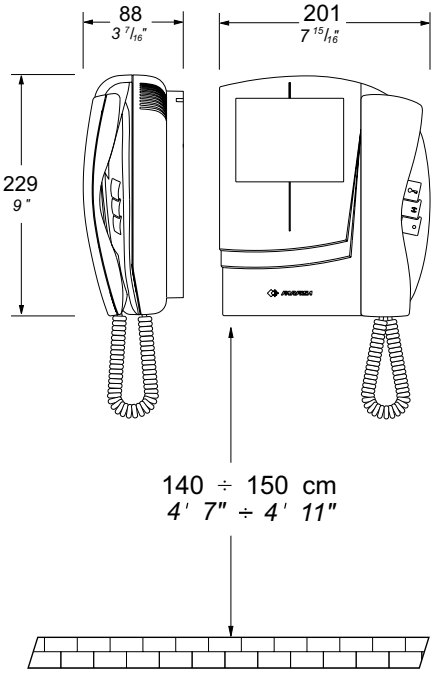


Notes
In each intercom **EX311** or **EX321** it is necessary:
- **to cut the jumper (W1)** that links the terminals 3 and 7;
- to make the connection between terminal 7 of the intercom and the - (minus) of the private conversation module.

In all **SM50** private conversation modules **cut the resistance R1**.



VIDEOINTERCOMS



KM8111W. White flat video intercom with two buttons, one for control switch ON and one for door lock release, audio-video privacy, electronic microphone, electronic modulated call note, terminal board for the connection to the wall-bracket. It can be installed on the wall (with no built-in) by using the art.**WB8111**.

KM8111CW. Version with colour LCD.

WB8111. Wall-bracket for the **KM8111W** and **KM8111CW** video intercoms. It includes a terminal board for connection to the system.

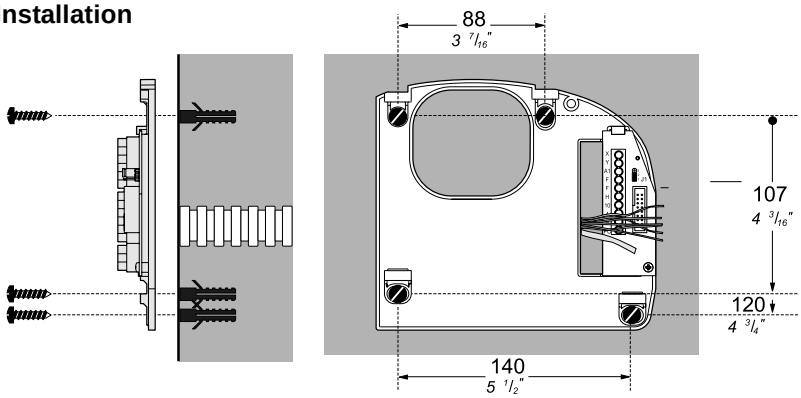
Technical data

Power Supply	18÷24Vdc
Operating current	0.5A
Video tube (KM8111W)	4" FLAT CRT
Screen (KM8111CW)	4" LCD
Television standard (KM8111W)	CCIR-625 lines
Television standard (KM8111CW)	PAL
Horizontal frequency	15625Hz
Vertical frequency	50Hz
Bandwidth	>5MHz
Video signal	balanced
Starting up time (KM8111W)	2÷4 seconds
Starting up time (KM8111CW)	1 second
Operating temperature	0°÷+50°C
Max. permissible humidity	90%RH

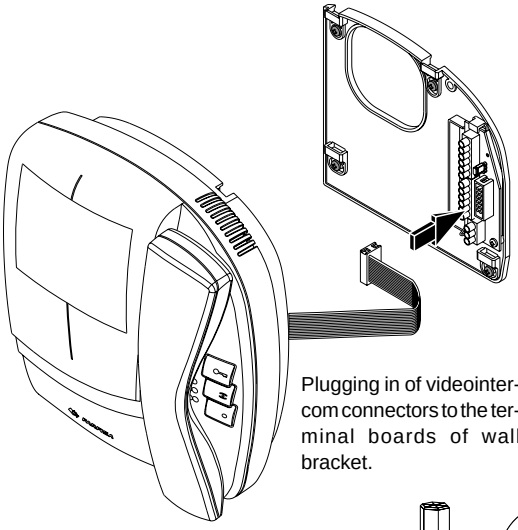
Terminals

H Positive power supply input 18÷24Vdc-0.5A
F Ground
X and **Y** Video signal input
10 Call, audio reception/transmission, door releasing
4 Control switch ON - button
A1 Floor call input
PC - P Service push-buttons ● (max 0.3A)

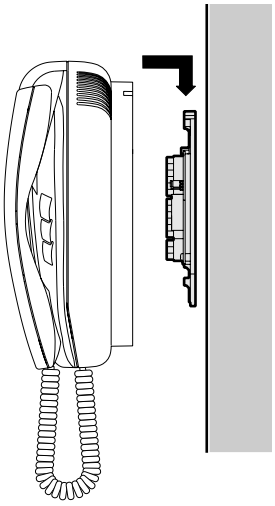
Installation



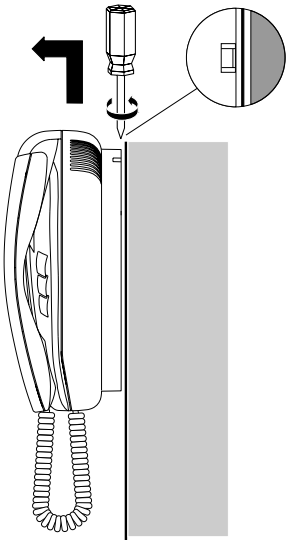
Fix the wall bracket by using 4 expansion plugs



Plugging in of videointercom connectors to the terminal boards of wall bracket.

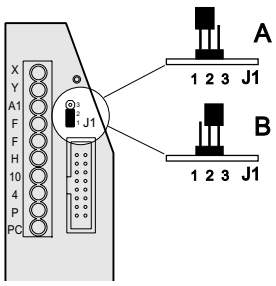


Installation of videointercom onto the wall bracket.



Dismounting of videointercom from the wall bracket.

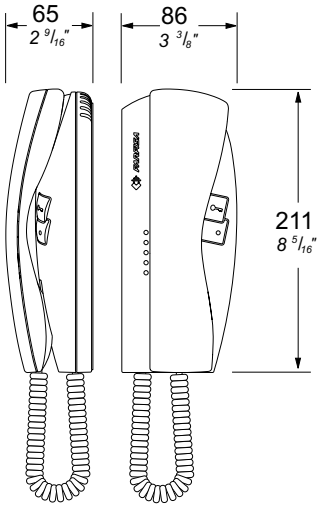
Choosing the private conversation



1-2 = Videointercom without audio privacy

2-3 = Videointercom with audio privacy

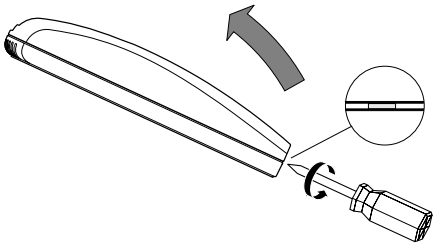
INTERCOMS

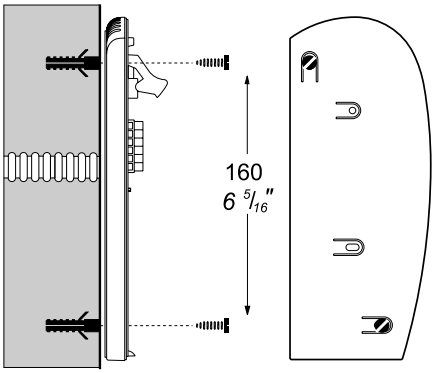


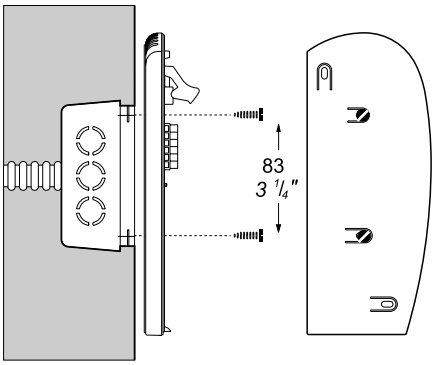
KM811W. White electronic intercom with 1 push-button, spiral cord, electronic microphone and possibility to insert an additional **ST701** push-button and a **SR41 or SM50** module *(description and characteristics of the modules on page 13)*. Wall-mountable with expansion plugs or wall box.

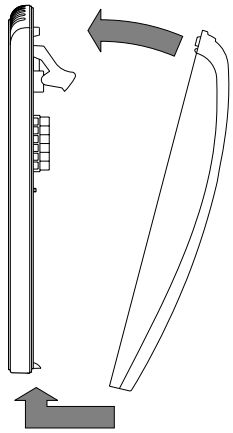
Terminals
- **1** audio line, bell and door release control
- **3** ground
- **6** output electronic bell *
- **7** ground. Connected to terminal **3** with jumper **W1** *
- **A1** floor call input

* terminals to be used when installing the private conversation module **SM50** in the intercom.

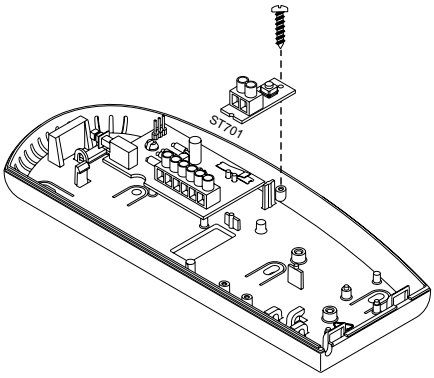


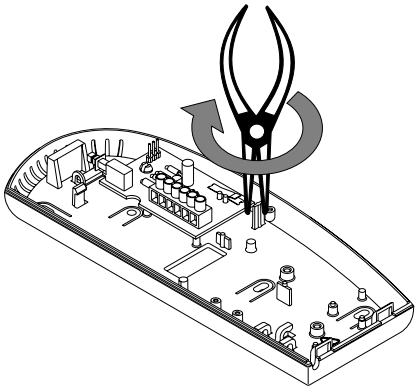




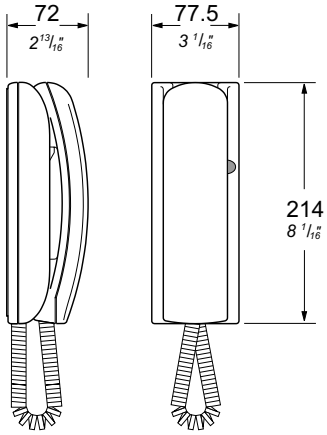


Mounting of the additional button **ST701.**





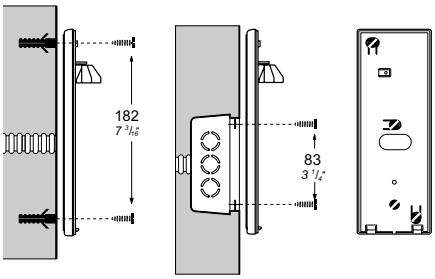
INTERCOMS

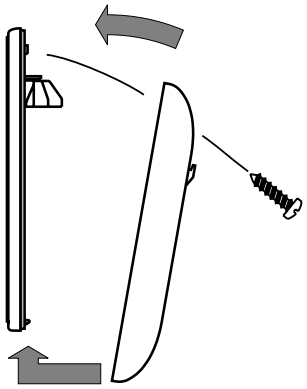


PT511EW. White electronic intercom with 1 push-button, spiral cord, electronic microphone and possibility to insert **SR41 or SM50** module *(description and characteristics of the modules on page 13)*. Wall-mountable with expansion plugs or wall box.

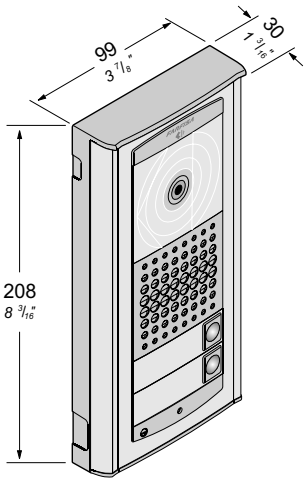
Terminals
- **1** audio line, bell and door release control
- **3** ground
- **6** output electronic bell *
- **7** ground. Connected to terminal **3** with jumper **W1** *
- **A1** floor call input

* terminals to be used when installing the private conversation module **SM50** in the intercom.

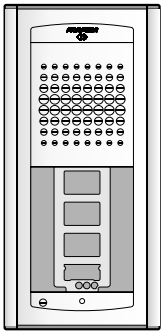




External door station

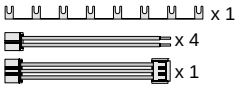


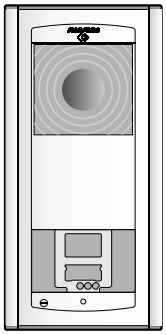
Surface mounting Door Stations with reduced width and thickness. Installation is easy and quick because no recessed box is required. Front plate is in extruded anodized aluminium. Name plates are backlighted with blue LED's for a better reading even in dark places. Reduced dimensions and surface mounting features make the product particularly suitable for the installations on the entry gate's post.



AG100A. Audio Door Station composed of an ABS box for surface mounting, front plate in aluminium and electronic board with diodes and LED's for lighting the nameplates. Suitable for the **AG30ED** door speaker and maximum 4 **AG21** single push-buttons or 4 **AG222** double push-buttons.

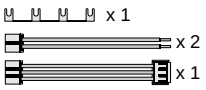
AGL100A. Light grey version.

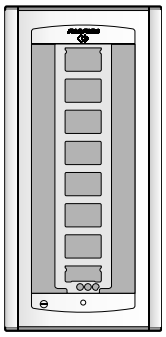




AG100V. Video Door Station composed of an ABS box for surface mounting, front plate in aluminium and electronic board with diodes and LED's for lighting the nameplates. Suitable for **AG40CED** colour camera with door speaker and maximum 2 **AG21** single push-button or 2 **AG222** double push-buttons.

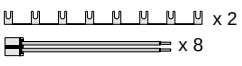
AGL100V. Light grey version.

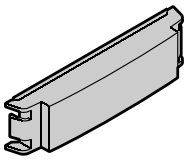




AG100T. Push-buttons Door Station composed of an ABS box for surface mounting, front plate in aluminium and electronic board with diodes and LED's for lighting the nameplates. Suitable for 8 **AG21** single push-button or 8 **AG222** double Push-buttons.

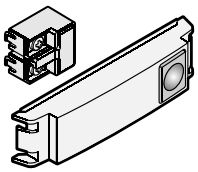
AGL100T. Light grey version.





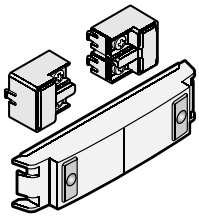
AG20. Blank module

AGL20. Light grey version.



AG21. Single button module with name plate holder.

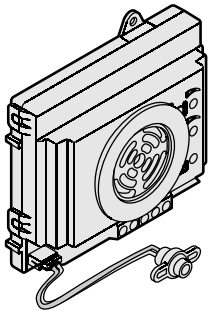
AGL21. Light grey version.



AG222. Double button unit with name plate holder.

AGL222. Light grey version.

AG30ED. Audio Door Speaker to fit inside the Door Stations **AG100A** and **AGL100A**.

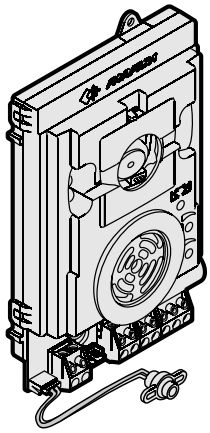


Terminals
- **A** Alternated power supply input for audio and name-plate Led (13Vac-0.1A)
- **-** Ground
- **1** Reception-transmission / door releasing / call
- **S** Electric lock

AG40CED. Colour camera with integrated door speaker to fit inside the Door Stations **AG100V** and **AGL100V**.

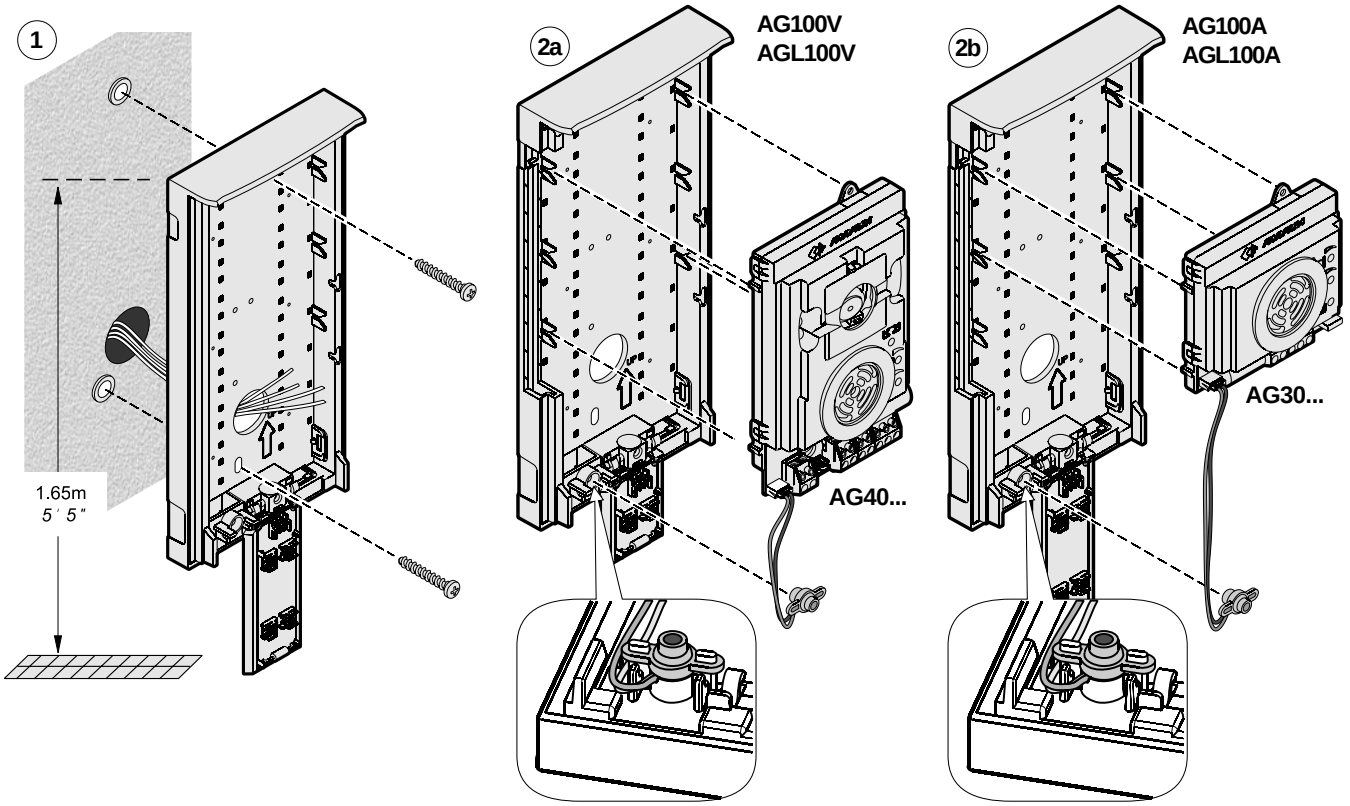
Technical data

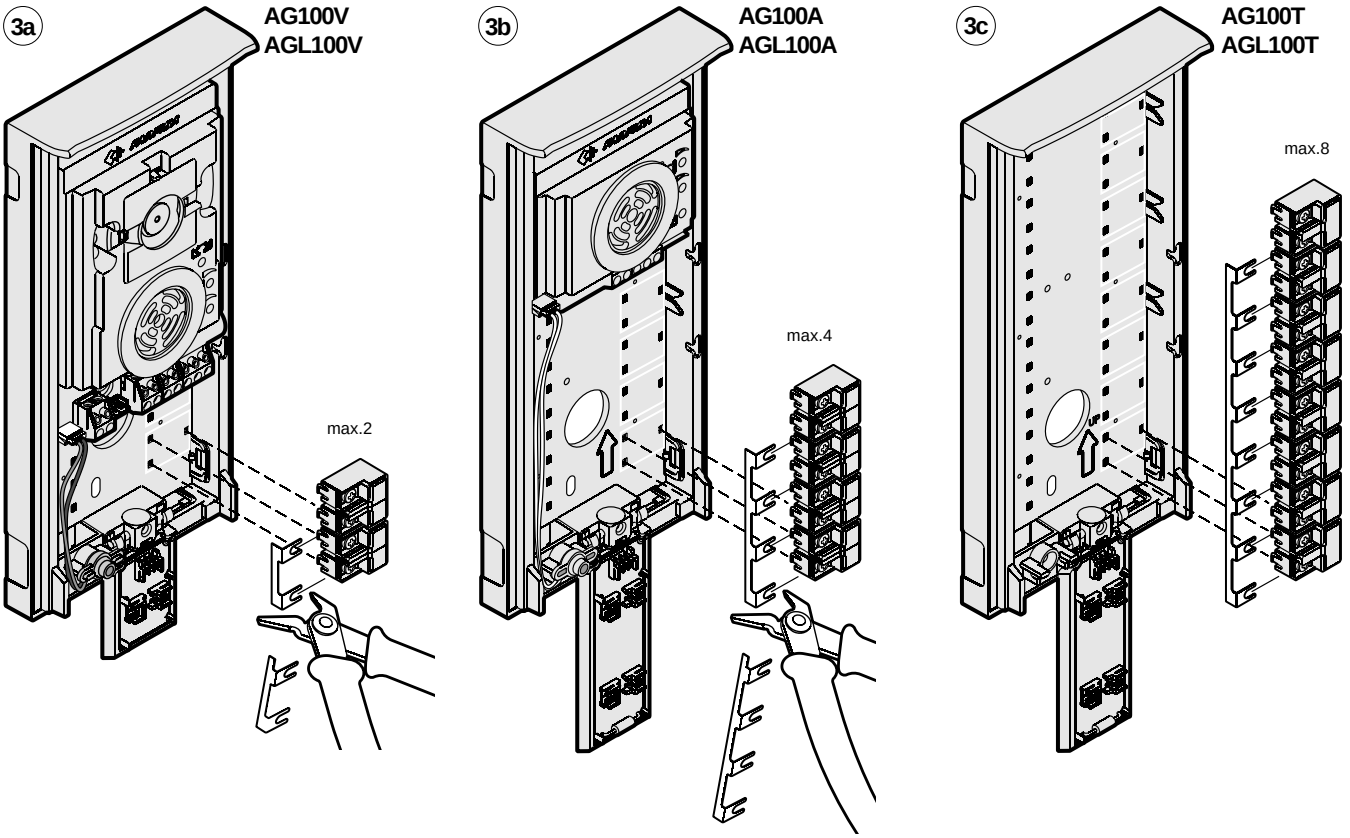
Video power supply	18÷24VDC-0.21A
Audio power supply	13VAC-0,15A
Video signal output	balanced
Video signal standard	PAL
Minimum lighting	2.5 Lux
LED's	4 white
Sensor	CCD 1/3"
Number of pixel	291,000
Lens	3.6mm
Focusing	0.6m ÷ ∞
Horizontal/vertical sweep	±10°
Operating temperature	-10° ÷ +40°C
Maximum permitted humidity	80% RH

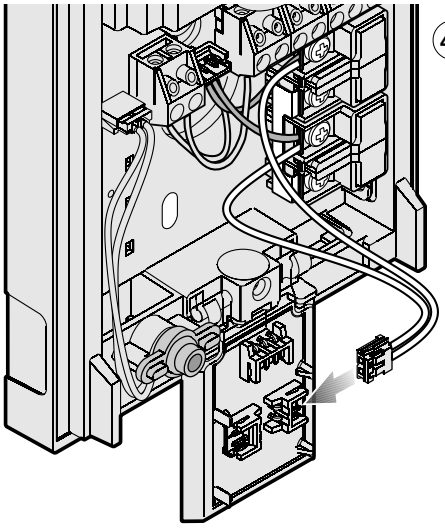


Terminals
- **H** Positive voltage input for camera (18÷24Vdc)
- **F** Ground
- **X** Balanced negative video signal output
- **Y** Balanced positive video signal output
- **A** Alternated power supply input for audio and name-plate Led (13Vac)
- **-** Ground
- **1** Reception-transmission / door releasing / call
- **S** Electric lock

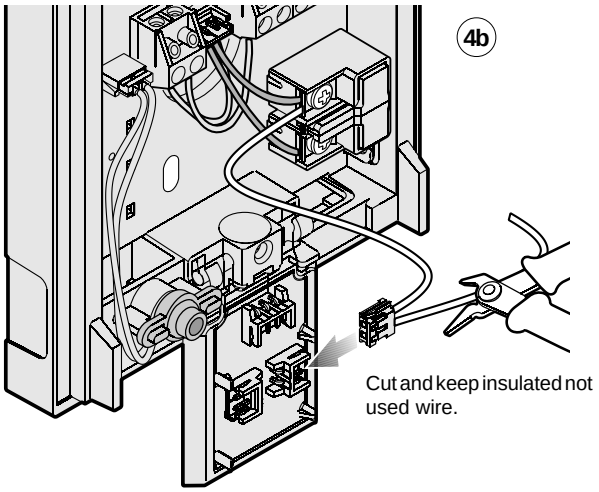
Installation and Assembly of AGORA' door stations.



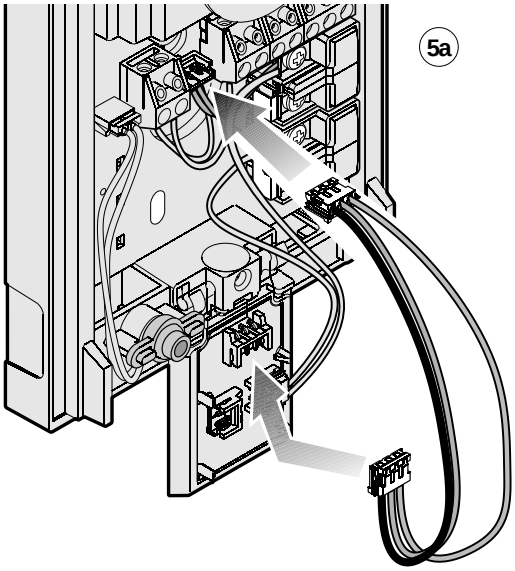


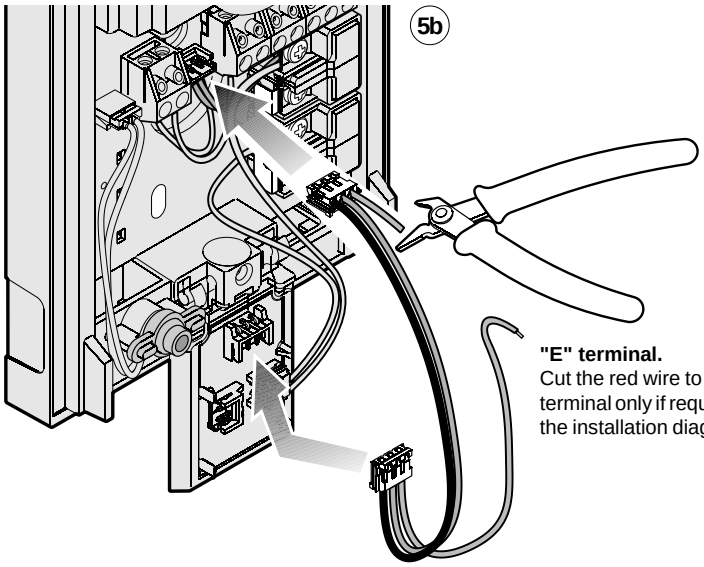


The wires of connection cable must be connected to the calling terminal (not to the common terminal).



Cut and keep insulated not used wire.





"E" terminal.
Cut the red wire to get "**E**" terminal only if required by the installation diagram.

Adjustments AG30ED and AG40CED

Adjustments are carried out in the factory; should any be necessary they can be re-adjusted from the outside with a screwdriver with the trimmers identified by the symbols "◜" and ◹◺.

Adjustment of volume

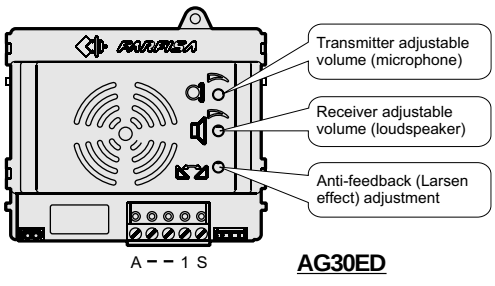
Rotate trimmer 🔊◜ to change the volume of the receiving channel (loudspeaker).
Rotate trimmer ◯◜ to change the amplification of transmitting channel (microphone).

Anti-feedback adjustment

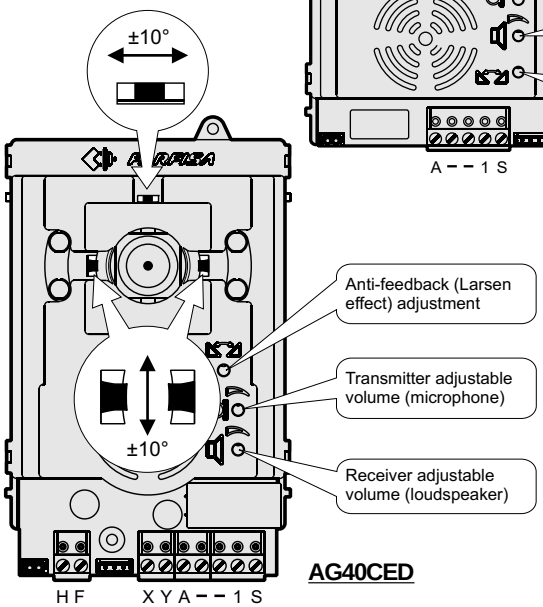
- Make a call from the door station and pick up the handset of one of the videointercoms.
- Remove the microphone from its housing inside the push-button panel, place it on the loudspeaker of the electric door answering system and adjust the ◹◺ trimmer until the feedback stops (Larsen effect).
- Replace the microphone in its housing.

Sweeps

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

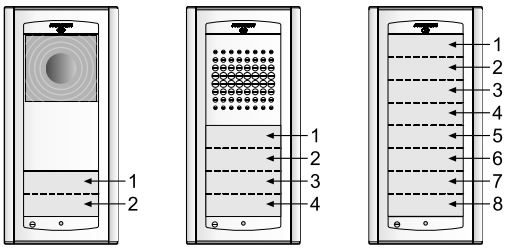


AG30ED

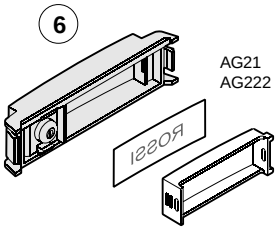


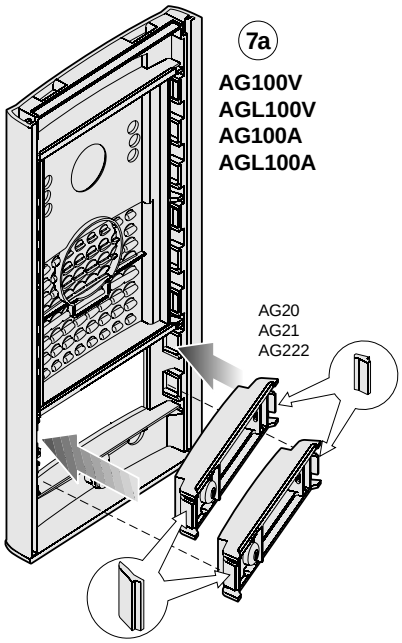
AG40CED

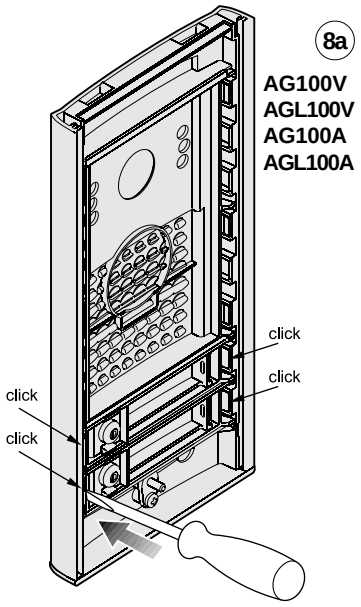
ASSEMBLY MODULE SEQUENCE

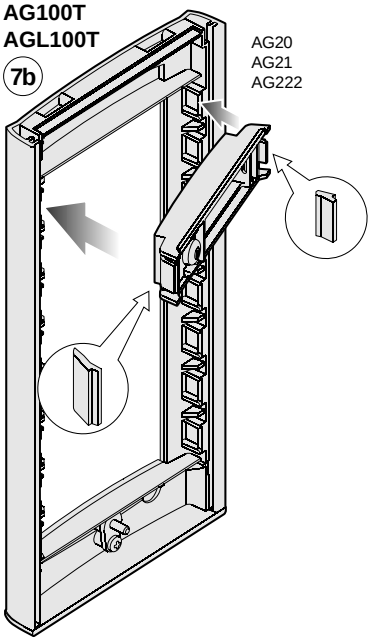


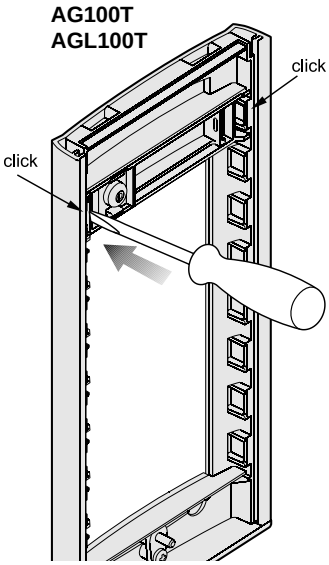
Insert the Push-buttons or blank modules starting from the top of the frontal plate

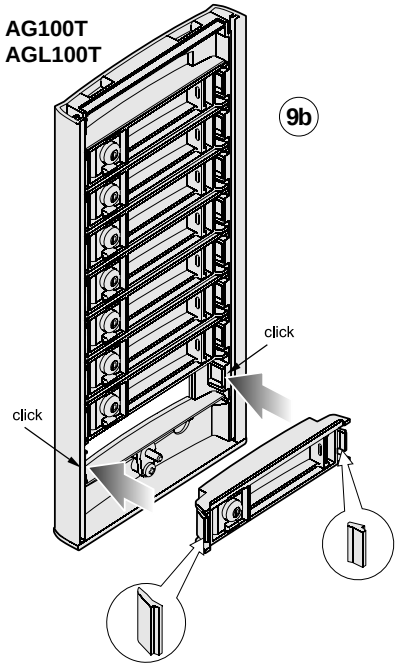


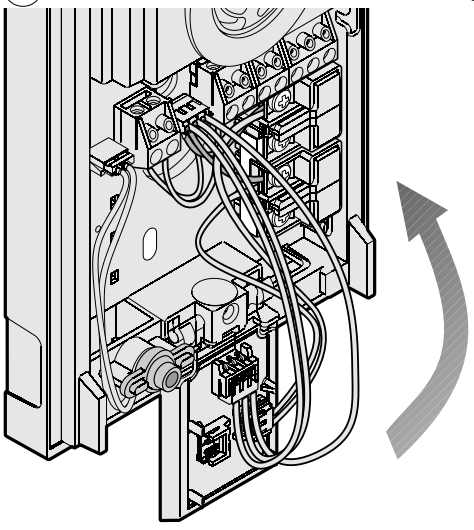


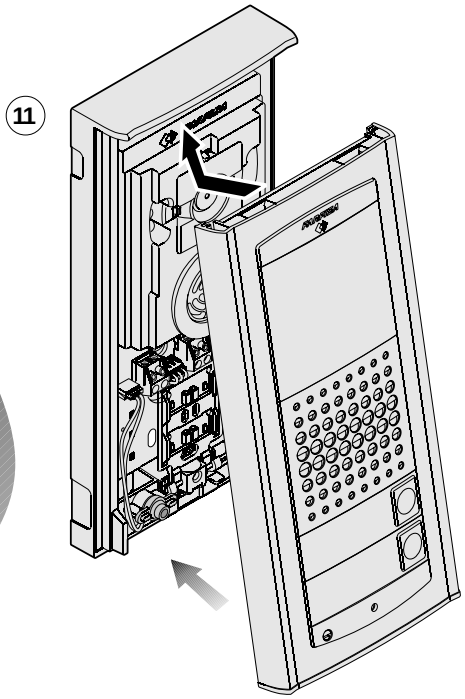


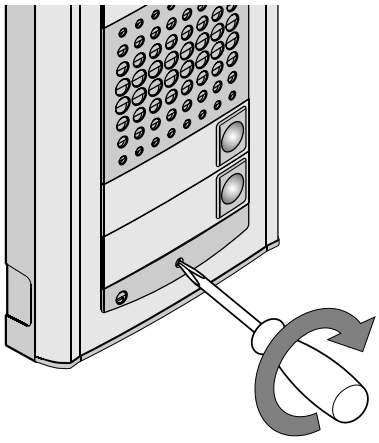




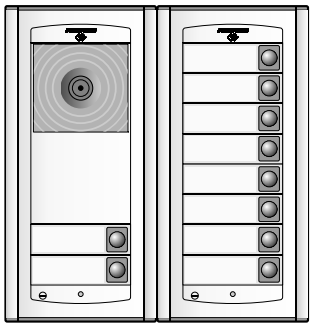


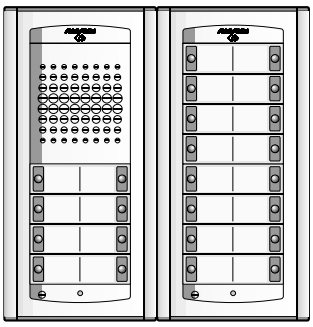


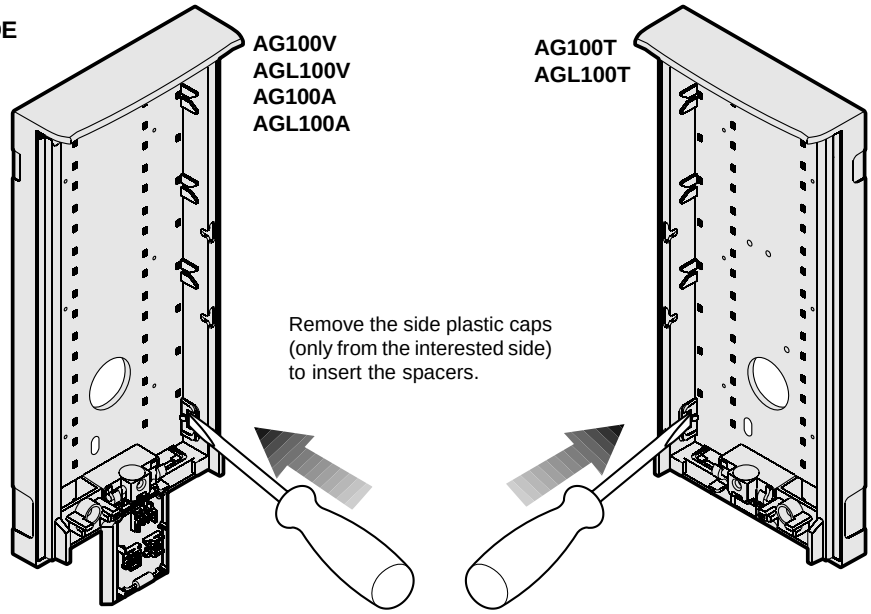


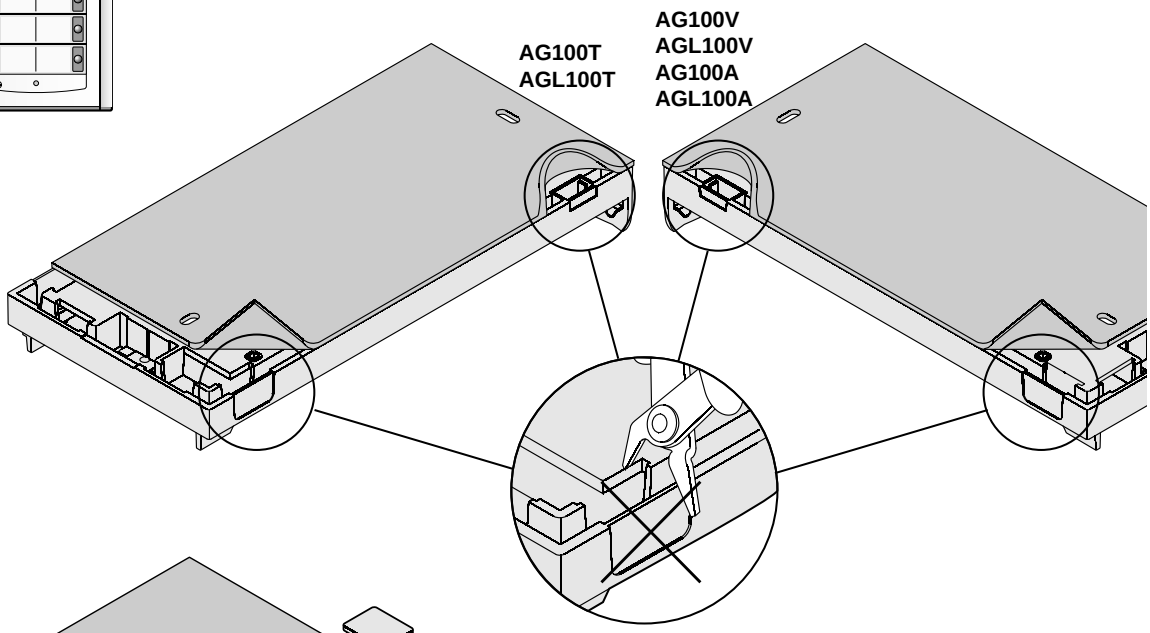


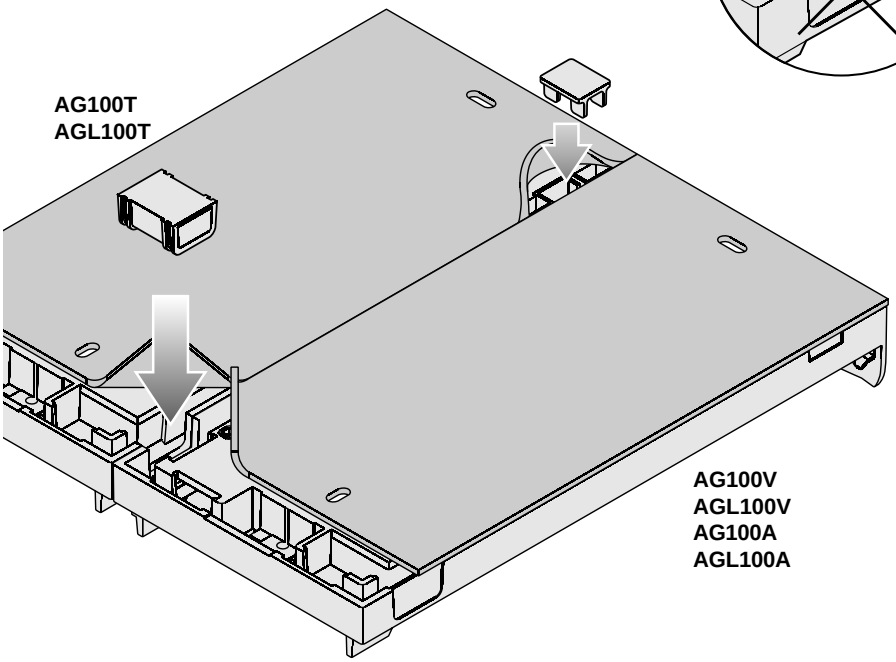
ASSEMBLING DOOR STATIONS SIDE BY SIDE





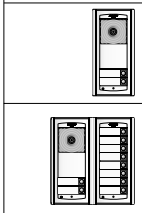






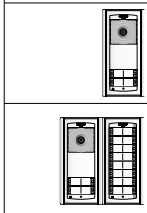
Composition of door stations and requested quantities of modules

1 ROW VIDEOINTERCOM push-button panels



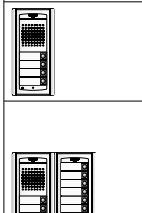
N. buttons	AG100V	AG40CED	AG100T	AG20	AG21
1	1	1	-	1	1
2	1	1	-	-	2
3	1	1	1	7	3
4	1	1	1	6	4
5	1	1	1	5	5
6	1	1	1	4	6
7	1	1	1	3	7
8	1	1	1	2	8
9	1	1	1	1	9
10	1	1	1	-	10
11	1	1	2	7	11
12	1	1	2	6	12
13	1	1	2	5	13
14	1	1	2	4	14
15	1	1	2	3	15
16	1	1	2	2	16
17	1	1	2	1	17
18	1	1	2	-	18
19	1	1	3	7	19
20	1	1	3	6	20
21	1	1	3	5	21
22	1	1	3	4	22
23	1	1	3	3	23
24	1	1	3	2	24
25	1	1	3	1	25
26	1	1	3	-	26
27	1	1	4	7	27
28	1	1	4	6	28
29	1	1	4	5	29
30	1	1	4	4	30
31	1	1	4	3	31
32	1	1	4	2	32
33	1	1	4	1	33
34	1	1	4	-	34

2 ROW VIDEOINTERCOM push-button panels



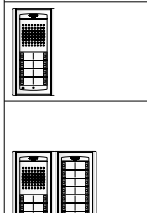
N. buttons	AG100V	AG40CED	AG100T	AG20	AG222
2	1	1	-	1	1
4	1	1	-	-	2
6	1	1	1	7	3
8	1	1	1	6	4
10	1	1	1	5	5
12	1	1	1	4	6
14	1	1	1	3	7
16	1	1	1	2	8
18	1	1	1	1	9
20	1	1	1	-	10
22	1	1	2	7	11
24	1	1	2	6	12
26	1	1	2	5	13
28	1	1	2	4	14
30	1	1	2	3	15
32	1	1	2	2	16
34	1	1	2	1	17
36	1	1	2	-	18
38	1	1	3	7	19
40	1	1	3	6	20
42	1	1	3	5	21
44	1	1	3	4	22
46	1	1	3	3	23
48	1	1	3	2	24
50	1	1	3	1	25
52	1	1	3	-	26
54	1	1	4	7	27
56	1	1	4	6	28
58	1	1	4	5	29
60	1	1	4	4	30
62	1	1	4	3	31
64	1	1	4	2	32
66	1	1	4	1	33
68	1	1	4	-	34

1 ROW INTERCOM push-button panels



N. buttons	AG100A	AG30ED	AG100T	AG20	AG21
1	1	1	-	3	1
2	1	1	-	2	2
3	1	1	-	1	3
4	1	1	-	-	4
5	1	1	1	7	5
6	1	1	1	6	6
7	1	1	1	5	7
8	1	1	1	4	8
9	1	1	1	3	9
10	1	1	1	2	10
11	1	1	1	1	11
12	1	1	1	-	12
13	1	1	2	7	13
14	1	1	2	6	14
15	1	1	2	5	15
16	1	1	2	4	16
17	1	1	2	3	17
18	1	1	2	2	18
19	1	1	2	1	19
20	1	1	2	-	20
21	1	1	3	7	21
22	1	1	3	6	22
23	1	1	3	5	23
24	1	1	3	4	24
25	1	1	3	3	25
26	1	1	3	2	26
27	1	1	3	1	27
28	1	1	3	-	28
29	1	1	4	7	29
30	1	1	4	6	30
31	1	1	4	5	31
32	1	1	4	4	32
33	1	1	4	3	33
34	1	1	4	2	34
35	1	1	4	1	35
36	1	1	4	-	36

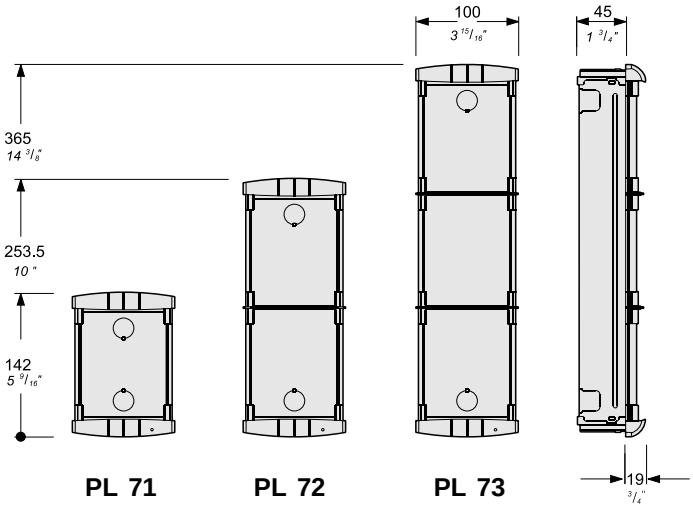
2 ROW INTERCOM push-button panels



N. buttons	AG100A	AG30ED	AG100T	AG20	AG222
2	1	1	-	3	1
4	1	1	-	2	2
6	1	1	-	1	3
8	1	1	-	-	4
10	1	1	1	7	5
12	1	1	1	6	6
14	1	1	1	5	7
16	1	1	1	4	8
18	1	1	1	3	9
20	1	1	1	2	10
22	1	1	1	1	11
24	1	1	1	-	12
26	1	1	2	7	13
28	1	1	2	6	14
30	1	1	2	5	15
32	1	1	2	4	16
34	1	1	2	3	17
36	1	1	2	2	18
38	1	1	2	1	19
40	1	1	2	-	20
42	1	1	3	7	21
44	1	1	3	6	22
46	1	1	3	5	23
48	1	1	3	4	24
50	1	1	3	3	25
52	1	1	3	2	26
54	1	1	3	1	27
56	1	1	3	-	28
58	1	1	4	7	29
60	1	1	4	6	30
62	1	1	4	5	31
64	1	1	4	4	32
66	1	1	4	3	33
68	1	1	4	2	34
70	1	1	4	1	35
72	1	1	4	-	36

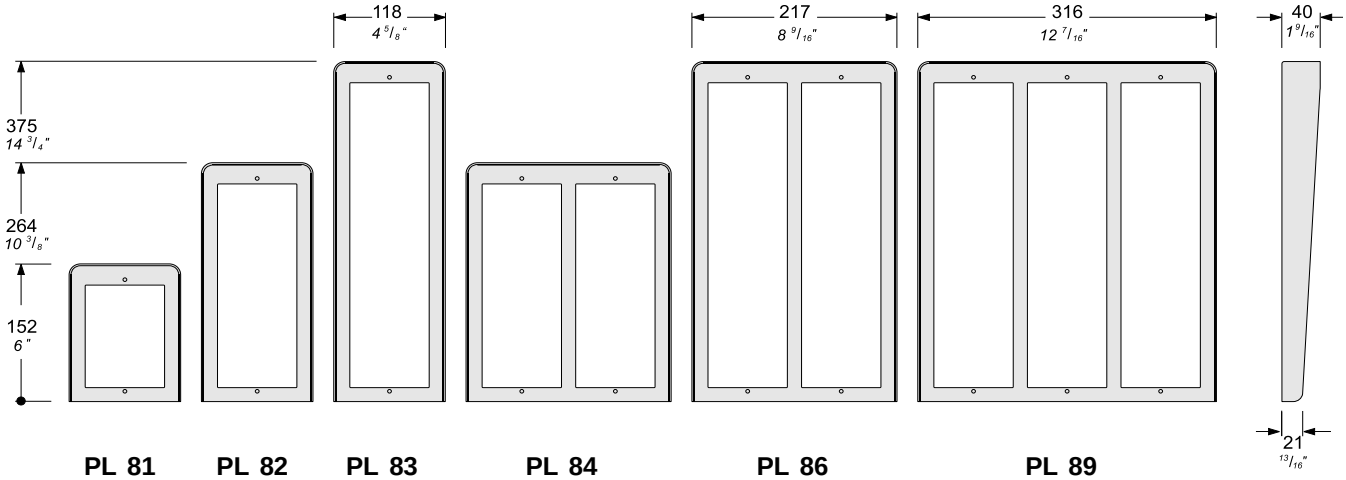
Push-button panels in extruded aluminium and steel push-buttons made up of modular elements. Suitable for the most diverse installation requirements. The careful selection of modules allows for multiple application opportunities; from one-way installations to blocks of flats; from intercom to video intercom installations.
The optimized size of modules allows for easy installation on the gage jamb.

Module frames complete with back box



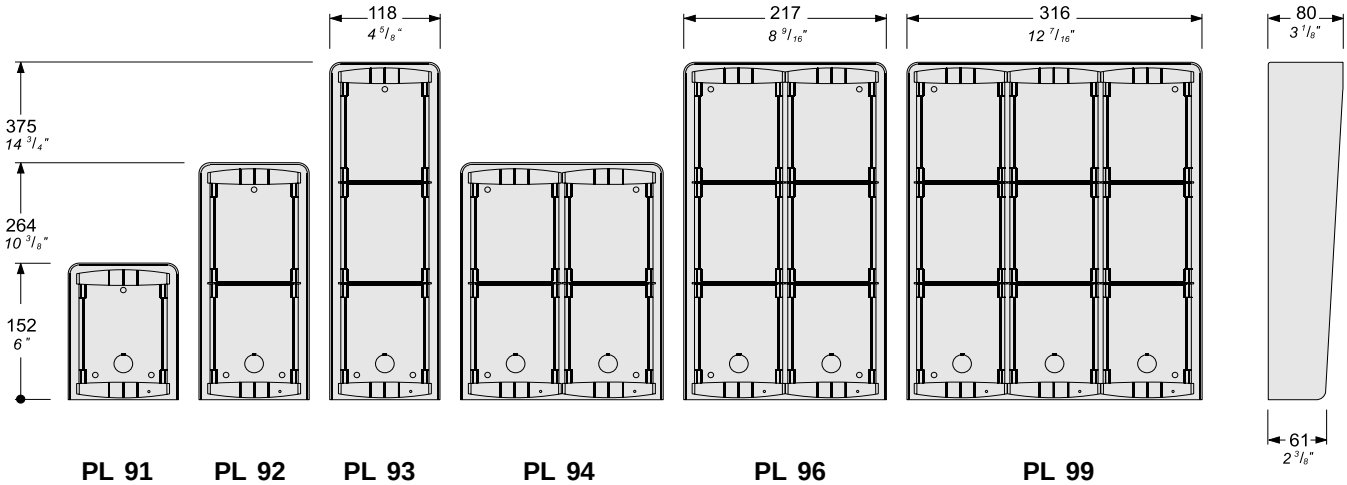
PL 71 PL 72 PL 73

Hood covers



PL 81 PL 82 PL 83 PL 84 PL 86 PL 89

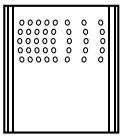
Rain shelters with module frames



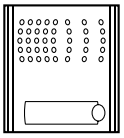
PL 91 PL 92 PL 93 PL 94 PL 96 PL 99

PROFILO push-button panel

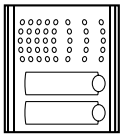
Modules with integrated door speaker



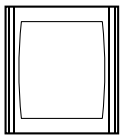
PL10PED
without call buttons



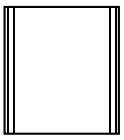
PL11PED
with 1 call button



PL12PED
with 2 call buttons

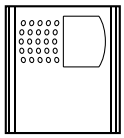


PL 50
number module



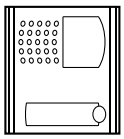
PL 20
blank module

Video modules with integrated door speaker



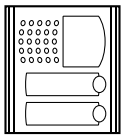
PL40PED
without call buttons and with B\W camera

PL40PCED
colour version



PL41PED
with 1 call button and B\W camera

PL41PCED
colour version

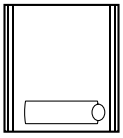


PL42PED
with 2 call buttons and B\W camera

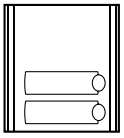
PL42PCED
colour version

For specifications see page 24.

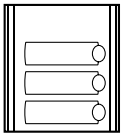
Push-button modules



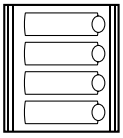
PL 21
with 1 call button



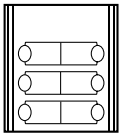
PL 22
with 2 call buttons



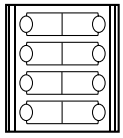
PL 23
with 3 call buttons



PL 24
with 4 call buttons

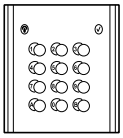


PL226
with 6 call buttons (2 row)



PL228
with 8 call buttons (2 row)

Access control modules



FC 52PL
Keypad module for access control *(see characteristics on page 25).*

FP 52PL
Proximity reader for access control *(see characteristics on page 25).*

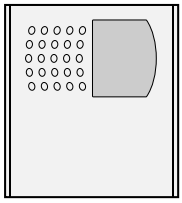
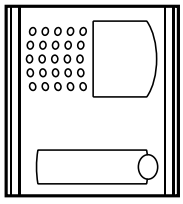
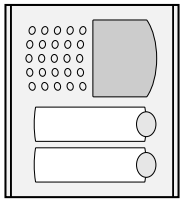
Technical characteristics and terminal boards of the button modules

PL21	PL22	PL23	PL24	PL226	PL228	PL50	
A (25mA)	A	A	A	A (50mA)	A	A (0.1A)	AC power supply input for nameplate Led (13Vac)
-	-	-	-	-	-	-	Ground
C	C	C	C	C/C2	C/C2		Call push-buttons common
P1	P1	P1	P1	P1	P1		Call push-button
	P2	P2	P2	P2	P2		Call push-button
		P3	P3	P3	P3		Call push-button
			P4		P4		Call push-button
				P5÷P7	P5÷P7		Call push-buttons (C2 common)
					P8		Call push-button (C2 common)

Technical characteristics and terminal boards of the audio-video modules

PL10PED	PL11PED	PL12PED	PL40PED PL40PCED	PL41PED PL41PCED	PL42PED PL42PCED	
1	1	1	1	1	1	Reception-transmission; electric lock release; call
E	E	E	E	E	E	Reception-transmission; electric lock release
S	S	S	S	S	S	Electric lock
A	A	A	A	A	A	DC power supply input for door speaker and name-plate Led (13Vac-70mA)
-	-	-	-	-	-	Ground
	C	C		C	C	Call push-buttons common
	P1	P1		P1	P1	Call push-button
		P2			P2	Call push-button
			X	X	X	Negative video signal output
			Y	Y	Y	Positive video signal output
			H	H	H	Positive voltage input for camera (18÷24Vdc)
			F	F	F	Video ground
L+	L+	L+	L+	L+	L+	DC power supply input for service Led (12Vdc)

Video modules with integrated door speaker

PL40PED. Modules complete with:
- CCD color camera with autoiris and fixed 3.6mm lens.
- amplified speaker unit with volume adjustment of 2 channels (reception and transmission)
- aluminium front plate with transparent screen
- horizontal and vertical adjustments
- red operation LED

PL40PCED.
Colour version of the **PL40PED** model.

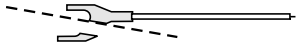
PL41PED.
Same as **PL40PED**, with 1 call button and name plate panel with transparent screen and green LED backlighting.

PL41PCED.
Colour version of the **PL41PED** model.

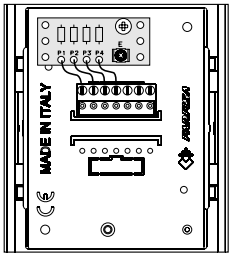
PL42PED.
Same as **PL40PED**, with 2 call buttons and name plate panel with transparent screen and green LED backlighting.

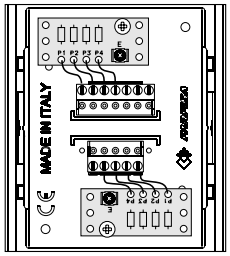
PL42PCED.
Colour version of the **PL42PED** model.

241DMA. Module with diodes for 4 users.
It allows for the use of the button modules **PL21, PL22, PL23, PL24, PL226** and **PL228** in the 1+1 intercom systems and 4+1 video intercom systems. It is fixed on the back of the button modules using the 2 supplied screws. Connect the conductors of the diode module to the corresponding terminal on button module; if modules with a reduced number of Push-buttons are used (PL21, PL22, PL23, PL226) do not connect and insulate the excess of wires.



Cut a portion of the metal terminals to connect the conductors to the terminal board of push buttons modules.





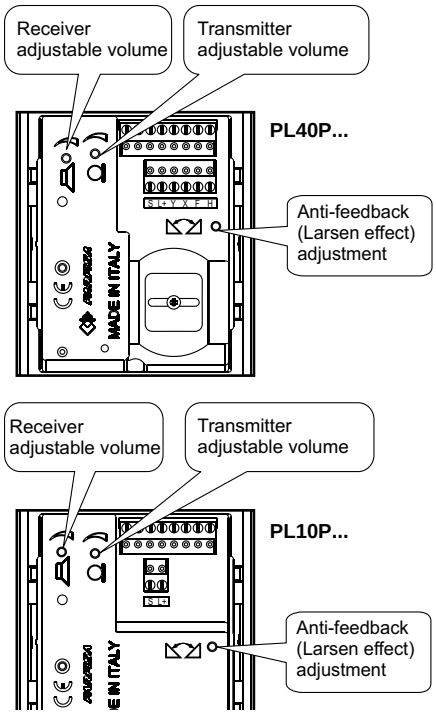
PL21 **PL23** **PL226**
PL22 **PL24** **PL228**

Technical data	PL40PED-PL41PED-PL42PED	PL40PCED-PL41PCED-PL42PCED
Camera power supply	18÷24Vdc-0.3A	18÷24Vdc-0.4A
Audio power supply	13Vac-0.07A	13Vac-0.07A
Video signal output	balanced	balanced
Video signal standard	CCIR	PAL
Minimum illumination	2 Lux	2.5 Lux
White balanced	-	auto
Led's	6 infrared	6 white
Sensor	CCD 1/4" B/W	CCD 1/3" colour
Number of pixels	291,000	291,000
Horizontal frequency	15,625Hz	15,625Hz
Vertical frequency	50Hz	50Hz
Lens	3.6mm	3.6mm
Focus	0.1m ÷ ∞	0.6m ÷ ∞
Autoiris	electronic	electronic
Horizontal adjustment	± 15°	± 15°
Vertical adjustment	± 15°	± 15°
Operating temperature	-10°÷+40°C	-10°÷+40°C
Maximum permissible humidity	80%RH	80%RH

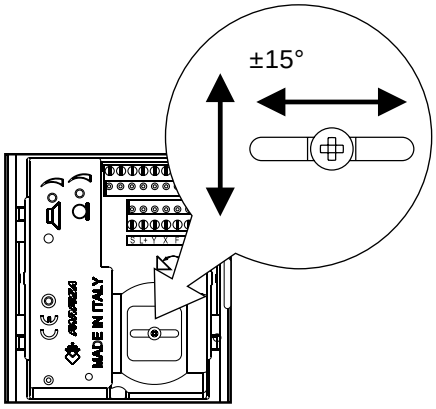
Testing and adjustments
Adjustments are carried out in the factory; should any be necessary they can be readjusted from the outside with a screwdriver with the trimmers identified by the symbols "◠" and ◹◺.

Volumes adjustment
To adjust the volume of microphone and loudspeaker, turn the trimmers ◯▮ and ◧.

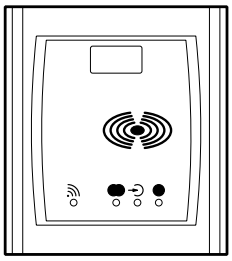
Antilocale adjustment
In case of "feedback" (Larsen effect) in the external unit it is necessary to operate as follow:
- make the call from the door station and lift the handset of an intercom or videointercom (press ≡▷ for Echos series);
- adjust the trimmer ◹◺ until the whistling stops (Larsen effect).



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



PROXIMITY READER FOR ACCESS CONTROL



FP52PL.

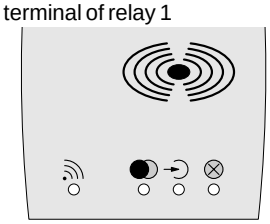
This article allows for the activation of 2 relays by means of keytags or electronic ISO cards based on transponder technology.
Programmable activation time from 1 to 63 seconds for every relay. 4 user cards and 1 master card supplied with the product. Acoustic and visual control signals and 3-digit display to view numbers and codes during set-up and operation.

Technical data

Power supply	12Vac/dc ±10%
Stand-by current	0.1A
Maximum current consumption	0.25A
Contact ratings	24Vac - 2A
Max. number of cards	490
Max. number of Master cards	10
Number of relays	2
Relay time	1 to 63 sec.
Minimum recognition distance	3 cm
Maximum recognition time	1 sec.
Operating temperature	0° ÷ +40°C
Maximum permitted humidity	85% RH

Terminals

+/A positive or alternate current input
-/A ground or alternate current input
PB door open button
NC2 normally closed contact of relay 2
NA2 normally open contact of relay 2
C2 common terminal of relay 2
NC1 normally closed contact of relay 1
NA1 normally open contact of relay 1
C1 common terminal of relay 1



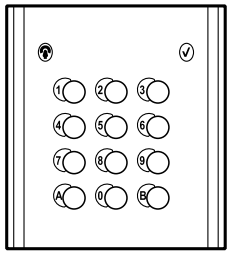
***Card recognition LED**. It turns ON during card recognition.*

***Relay activation LED.** It indicates relay deactivation (red) or activation (green).*

***Program LED.** It turns ON during system programming.*

***Card cancellation and system setup LED**. It turns ON during Master or user card cancellation and system setup.*

ACCESS CONTROL KEYPAD



FC 52PL.

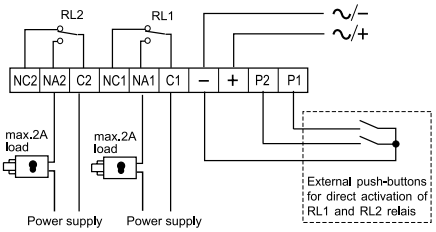
Access control keypad with 12 digits and 2 relays for lock release. 4 programmable access codes for each relay. Programmable door opening time from 1 up 99 sec. for each relay (or bistable operation of relay 1). Acoustic and visual confirmation for entered keys, accepted programming and for wrong codes.

Technical data

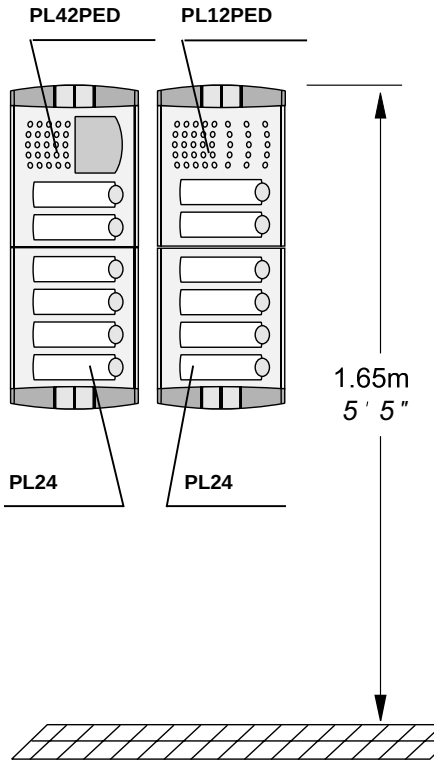
Power supply:	12Vac/dc ±10%
Stand-by current:	0.06A
Maximum current consumption:	0.15A
Contact ratings:	12Vac-2A
Numbers of codes for relays 1:	12 or direct activation
Numbers of codes for relays 2:	12 or direct activation
Activation time for each relay:	from 1 to 99 sec. (or bistable relay 1)
Operating temperature:	0° ÷ +40°C
Maximum permissible humidity:	85% RH

Terminals

NC2 normally closed contact of relay 2
NA2 normally open contact of relay 2
C2 common contact of relay 2
NC1 normally closed contact of relay 1
NA1 normally open contact of relay 1
C1 common contact of relay 1
– ground or alternate voltage input
+ positive or alternate voltage input
P2 activation of the relay 2; if momentarily connected to ground it allows the activation for the programmed time
P1 activation of the relay 1; if momentarily connected to ground it allows the activation for the programmed time

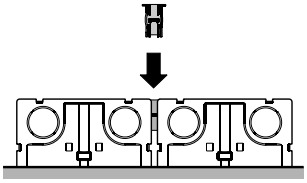


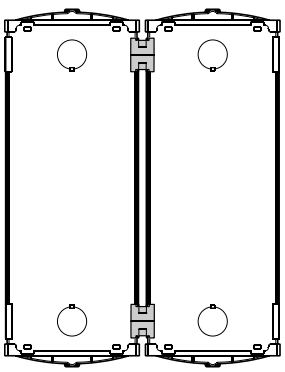
INSTALLATION



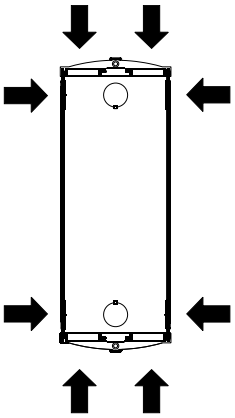
Place the push-button panel back box at a height of about 1.65m *(5' 5")* from the floor keeping the front edges flush-mounted and vertical to the finished plaster.
Position the camera in such a way that sunlight or other direct or reflected light sources with high intensity do not hit the camera lens.

Assembling modules side by side

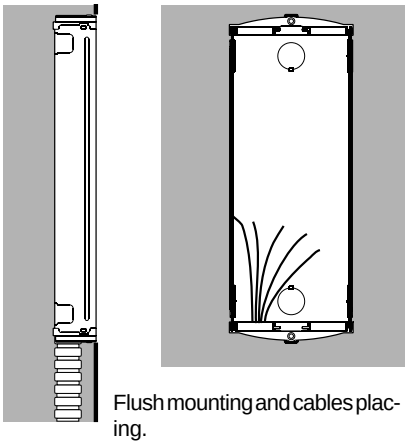




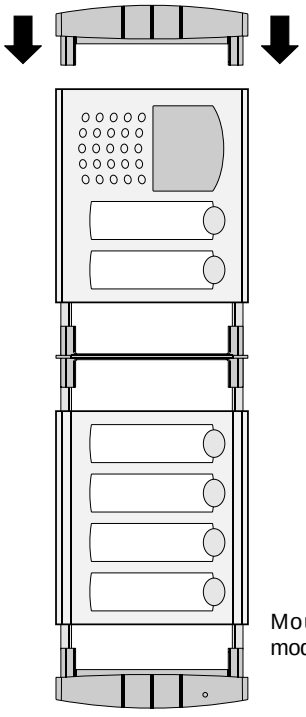
Insertion of spacers between back boxes. Spacers and cable bushing (not supplied with the products) must be inserted before brick work.



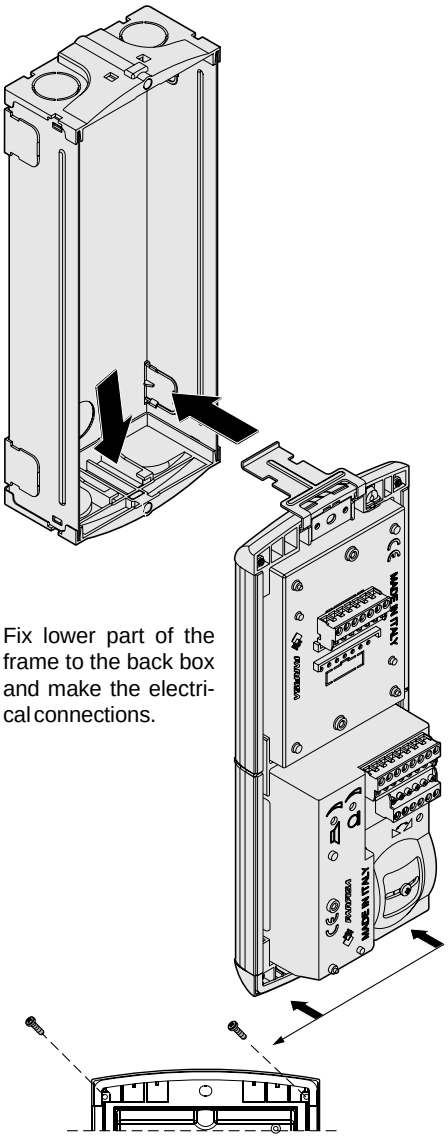
Openings for cables.



Flush mounting and cables placing.

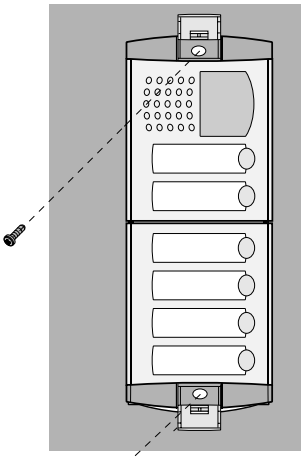


Mounting of module.



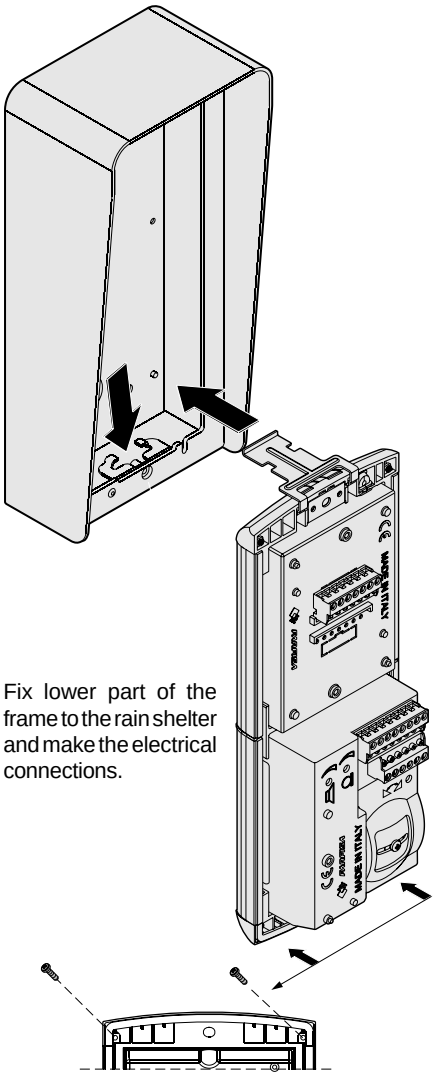
Fix lower part of the frame to the back box and make the electrical connections.

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



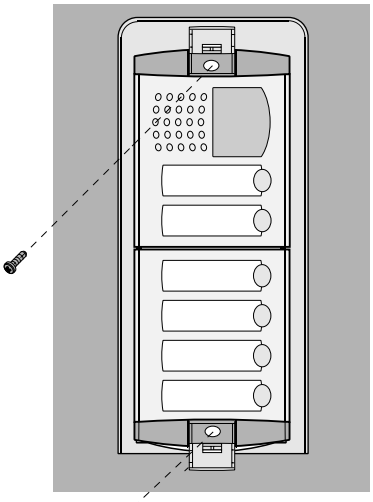
Fixing of frame to back box. Align the frame before tightening the screws.

Rain shelter



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

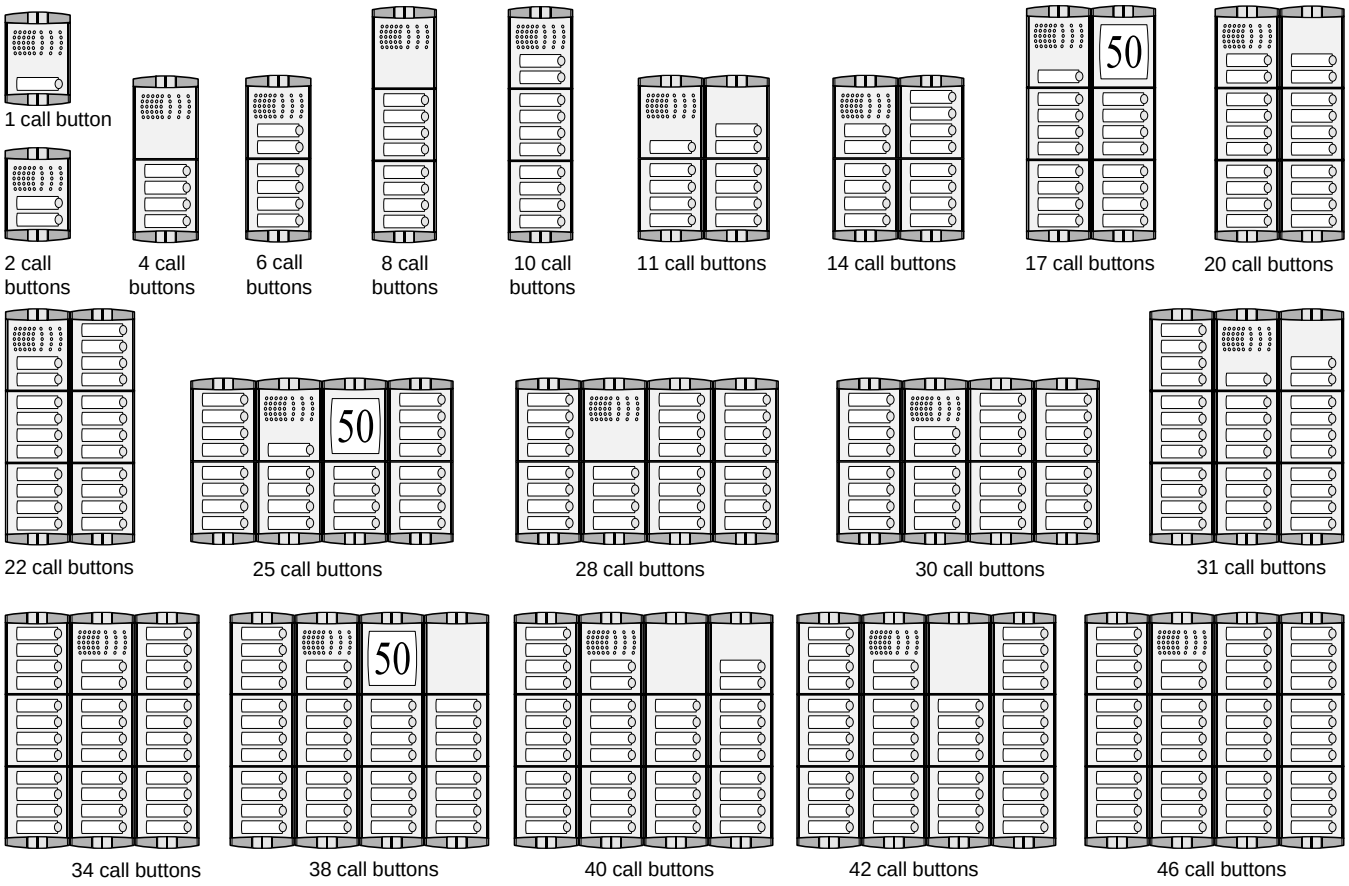
Fixing of module frames to the upper side by the 2 small screws included in the rain shelter.



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

1 ROW PUSH BUTTON PANELS

Examples of compositions in intercom systems



1 call button
2 call buttons
4 call buttons
6 call buttons
8 call buttons
10 call buttons
11 call buttons
14 call buttons
17 call buttons
20 call buttons
22 call buttons
25 call buttons
28 call buttons
30 call buttons
31 call buttons
34 call buttons
38 call buttons
40 call buttons
42 call buttons
46 call buttons

Composition board of Profilo push-button panels.

N° calls	Dimensions	Door speaker module (ampl.)	Button, blank or information modules		4 diode module	Back box and module frame	Rain shelters
1	100x142x19 (3 15/16" x 5 9/16" x 3/4")	1 PL11PED	-	-	-	1 PL71 (**)	1 PL91
2		1 PL12PED	-	-	-	1 PL71 (**)	1 PL91
4	100x253,5x19 (3 15/16" x 10" x 3/4")	1 PL10PED	1 PL24	-	1 241DMA	1 PL72 (**)	1 PL92
6		1 PL12PED	1 PL24	-	1 241DMA	1 PL72 (**)	1 PL92
8	100x365x19 (3 15/16" x 14 3/8" x 3/4")	1 PL10PED	2 PL24	-	2 241DMA	1 PL73 (**)	1 PL93
10		1 PL12PED	2 PL24	-	2 241DMA	1 PL73 (**)	1 PL93
11	200x253,5x19 (7 7/8" x 10" x 3/4")	1 PL11PED	2 PL24	1 PL22	3 241DMA	2 PL72 (**)	1 PL94
14		1 PL12PED	3 PL24	-	3 241DMA	2 PL72 (**)	1 PL94
17	200x365x19 (7 7/8" x 14 3/8" x 3/4")	1 PL11PED	4 PL24	1 PL20 (*)	4 241DMA	2 PL73 (**)	1 PL96
20		1 PL12PED	4 PL24	1 PL22	5 241DMA	2 PL73 (**)	1 PL96
22		1 PL12PED	5 PL24	-	5 241DMA	2 PL73 (**)	1 PL96
25	400x253,5x19 (15 3/4" x 10" x 3/4")	1 PL11PED	6 PL24	1 PL20 (*)	6 241DMA	4 PL72	-
28		1 PL10PED	7 PL24	-	7 241DMA	4 PL72	-
30		1 PL12PED	7 PL24	-	7 241DMA	4 PL72	-
31	300x365x19 (11 13/16" x 14 3/8" x 3/4")	1 PL11PED	7 PL24	1 PL22	8 241DMA	3 PL73 (**)	1 PL99
34		1 PL12PED	8 PL24	-	8 241DMA	3 PL73 (**)	1 PL99
38	400x365x19 (15 3/4" x 14 3/8" x 3/4")	1 PL12PED	9 PL24	2 PL20 (*)	9 241DMA	4 PL73	-
40		1 PL10PED	10 PL24	1 PL20 (*)	10 241DMA	4 PL73	-
42		1 PL12PED	10 PL24	1 PL20 (*)	10 241DMA	4 PL73	-
46		1 PL12PED	11 PL24	-	11 241DMA	4 PL73	-

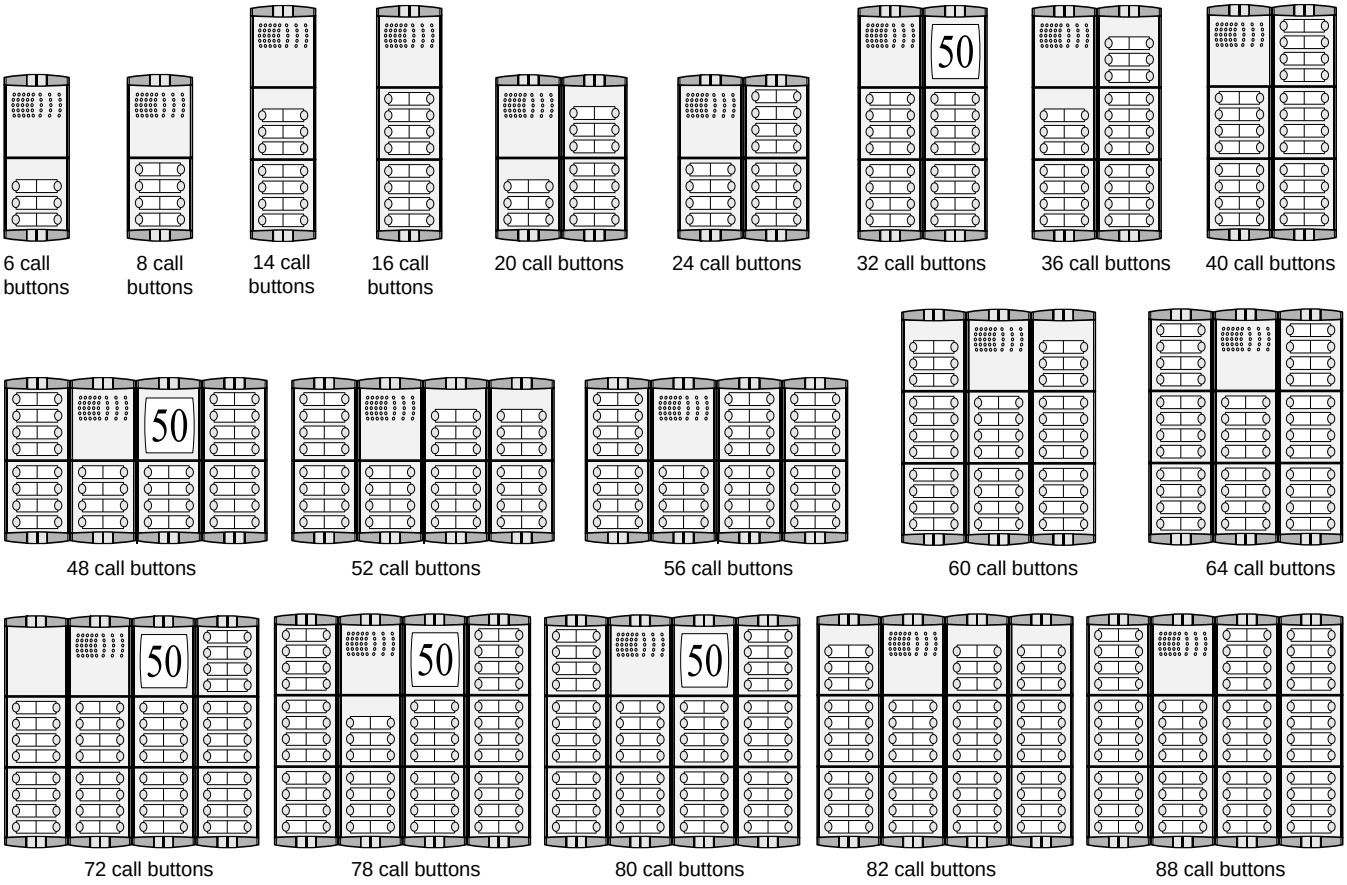
(**) If requested the hood covers can be added *(see on page 22)*

(*) or PL50

It replaces PL71, PL72 or PL73

2 ROW PUSH BUTTON PANELS

Examples of compositions in intercom systems



Composition board of Profilo push-button panels.

N° calls	Dimensions	Door speaker module (ampl.)	Button, blank or information modules	4 diode module	Back box and module frame	Rain shelters
6	100x253,5x19 *(3 15/16" x 10" x 3/4")*	1 PL10PED	1 PL226 -	2 241DMA	1 PL72 (**)	1 PL92
8		1 PL10PED	1 PL228 -	2 241DMA	1 PL72 (**)	1 PL92
14	100x365x19 *(3 15/16" x 14 3/8" x 3/4")*	1 PL10PED	1 PL228 1 PL226	4 241DMA	1 PL73 (**)	1 PL93
16		1 PL10PED	2 PL228 -	4 241DMA	1 PL73 (**)	1 PL93
20	200x253,5x19 *(7 7/8" x 10" x 3/4")*	1 PL10PED	1 PL228 2 PL226	6 241DMA	2 PL72 (**)	1 PL94
24		1 PL10PED	3 PL228 -	6 241DMA	2 PL72 (**)	1 PL94
32	200x365x19 *(7 7/8" x 14 3/8" x 3/4")*	1 PL10PED	4 PL228 1 PL20 (*)	8 241DMA	2 PL73 (**)	1 PL96
36		1 PL10PED	3 PL228 2 PL226	10 241DMA	2 PL73 (**)	1 PL96
40		1 PL10PED	5 PL228 -	10 241DMA	2 PL73 (**)	1 PL96
48	400x253,5x19 *(15 3/4" x 10" x 3/4")*	1 PL10PED	6 PL228 1 PL20 (*)	12 241DMA	4 PL72	-
52		1 PL10PED	5 PL228 2 PL226	14 241DMA	4 PL72	-
56		1 PL10PED	7 PL228 -	14 241DMA	4 PL72	-
60	300x365x19 *(11 13/16" x 14 3/8" x 3/4")*	1 PL10PED	6 PL228 2 PL226	16 241DMA	3 PL73 (**)	1 PL99
62		1 PL10PED	7 PL228 1 PL226	16 241DMA	3 PL73 (**)	1 PL99
64		1 PL10PED	8 PL228 -	16 241DMA	3 PL73 (**)	1 PL99
72	400x365x19 *(15 3/4" x 14 3/8" x 3/4")*	1 PL10PED	9 PL228 2 PL20 (*)	18 241DMA	4 PL73	-
78		1 PL10PED	9 PL228 1 PL226 1 PL20 (*)	20 241DMA	4 PL73	-
80		1 PL10PED	10 PL228 1 PL20 (*)	20 241DMA	4 PL73	-
82		1 PL10PED	8 PL228 3 PL226	22 241DMA	4 PL73	-
88		1 PL10PED	11 PL228 -	22 241DMA	4 PL73	-

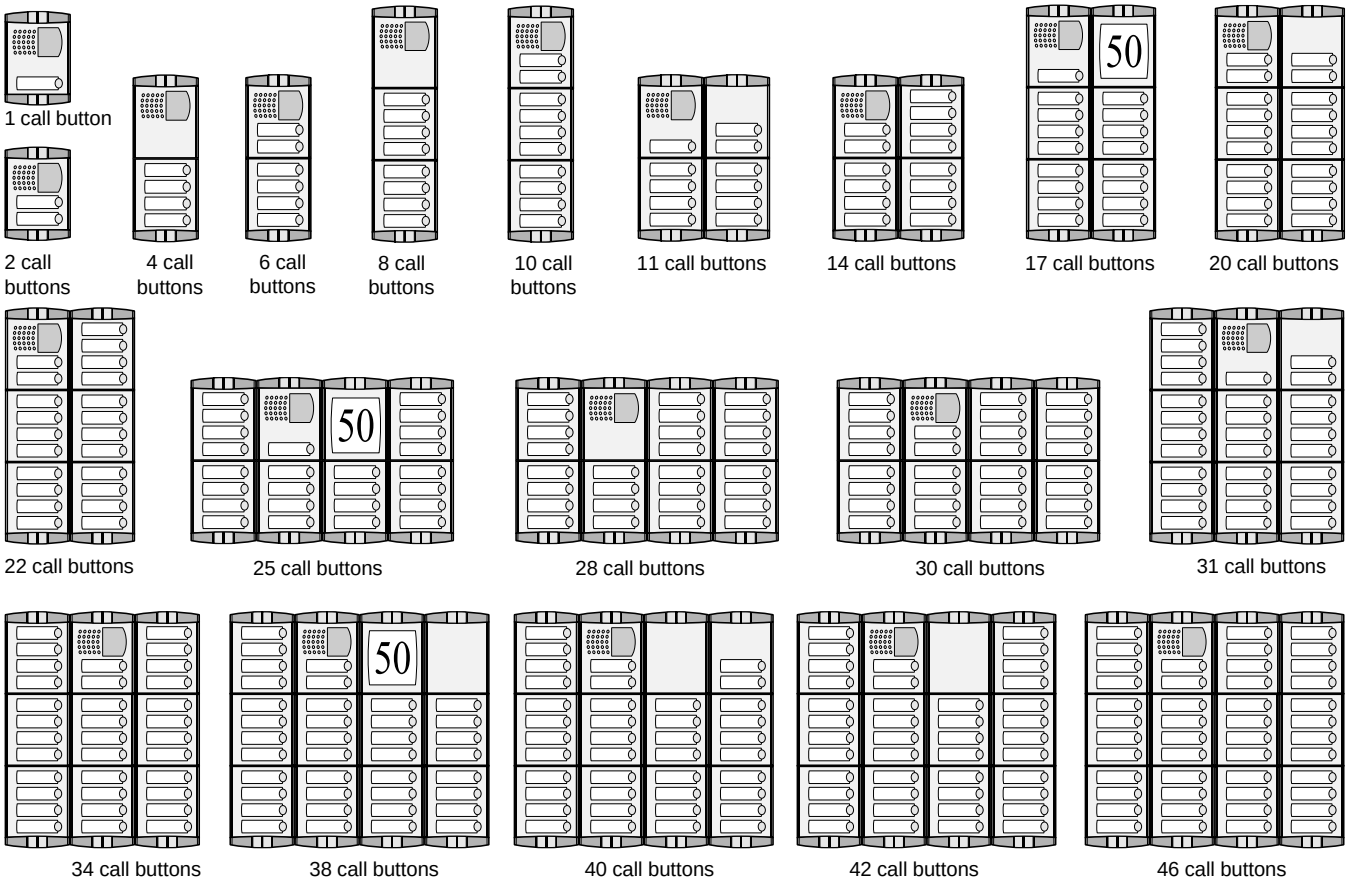
(**) If requested the hood covers can be added *(see on page 22)*

(*) or PL50

It replaces PL72 or PL73

1 ROW PUSH BUTTON PANELS

Examples of compositions in videointercom systems



Composition board of Profilo push-button panels.

N° calls	Dimensions	Camera and door speaker module	Button, blank or information modules		4 diode module	Back box and module frame	Rain shelters
1	100x142x19 *(3 15/16" x 5 9/16" x 3/4")*	1 PL41PED	-	-	-	1 PL71 (**)	1 PL91
2		1 PL42PED	-	-	-	1 PL71 (**)	1 PL91
4	100x253,5x19 *(3 15/16" x 10" x 3/4")*	1 PL40PED	1 PL24	-	1 241DMA	1 PL72 (**)	1 PL92
6		1 PL42PED	1 PL24	-	1 241DMA	1 PL72 (**)	1 PL92
8	100x365x19 *(3 15/16" x 14 3/8" x 3/4")*	1 PL40PED	2 PL24	-	2 241DMA	1 PL73 (**)	1 PL93
10		1 PL42PED	2 PL24	-	2 241DMA	1 PL73 (**)	1 PL93
11	200x253,5x19 *(7 7/8" x 10" x 3/4")*	1 PL41PED	2 PL24	1 PL22	3 241DMA	2 PL72 (**)	1 PL94
14		1 PL42PED	3 PL24	-	3 241DMA	2 PL72 (**)	1 PL94
17	200x365x19 *(7 7/8" x 14 3/8" x 3/4")*	1 PL41PED	4 PL24	1 PL20 (*)	4 241DMA	2 PL73 (**)	1 PL96
20		1 PL42PED	4 PL24	1 PL22	5 241DMA	2 PL73 (**)	1 PL96
22		1 PL42PED	5 PL24	-	5 241DMA	2 PL73 (**)	1 PL96
25	400x253,5x19 *(15 3/4" x 10" x 3/4")*	1 PL41PED	6 PL24	1 PL20 (*)	6 241DMA	4 PL72	-
28		1 PL40PED	7 PL24	-	7 241DMA	4 PL72	-
30		1 PL42PED	7 PL24	-	7 241DMA	4 PL72	-
31	300x365x19 *(11 13/16" x 14 3/8" x 3/4")*	1 PL41PED	7 PL24	1 PL22	8 241DMA	3 PL73 (**)	1 PL99
34		1 PL42PED	8 PL24	-	8 241DMA	3 PL73 (**)	1 PL99
38	400x365x19 *(15 3/4" x 14 3/8" x 3/4")*	1 PL42PED	9 PL24	2 PL20 (*)	9 241DMA	4 PL73	-
40		1 PL40PED	10 PL24	1 PL20 (*)	10 241DMA	4 PL73	-
42		1 PL42PED	10 PL24	1 PL20 (*)	10 241DMA	4 PL73	-
46		1 PL42PED	11 PL24	-	11 241DMA	4 PL73	-

(**) If requested the hood covers can be added *(see on page 22)*

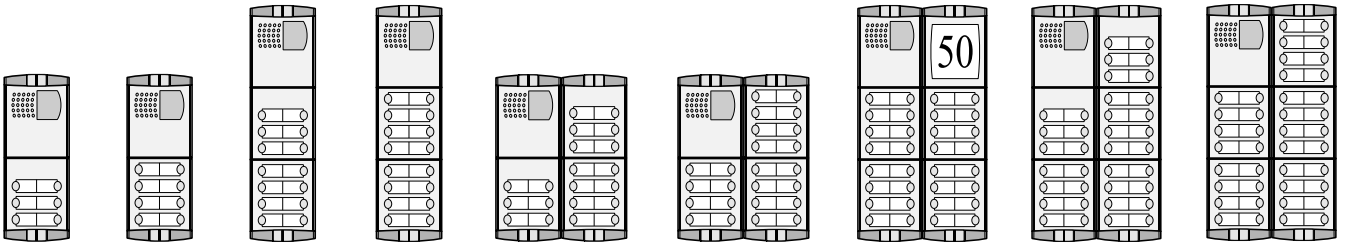
or PL40PCED, PL41PCED, PL42PCED

(*) or PL50

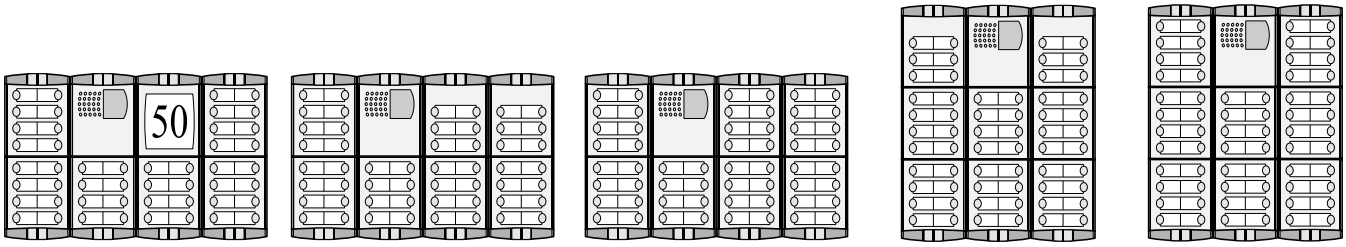
It replaces PL71, PL72 or PL73

2 ROW PUSH BUTTON PANELS

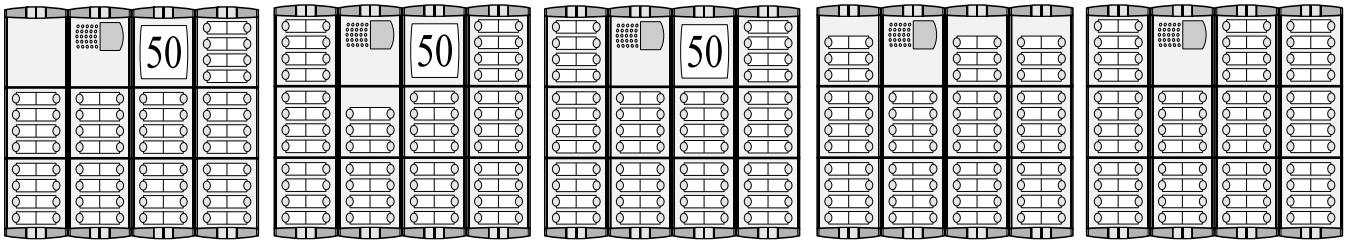
Examples of compositions in videointercom systems



6 call buttons | 8 call buttons | 14 call buttons | 16 call buttons | 20 call buttons | 24 call buttons | 32 call buttons | 36 call buttons | 40 call buttons



48 call buttons | 52 call buttons | 56 call buttons | 60 call buttons | 64 call buttons



72 call buttons | 78 call buttons | 80 call buttons | 82 call buttons | 88 call buttons

Composition board of Profilo push-button panels.

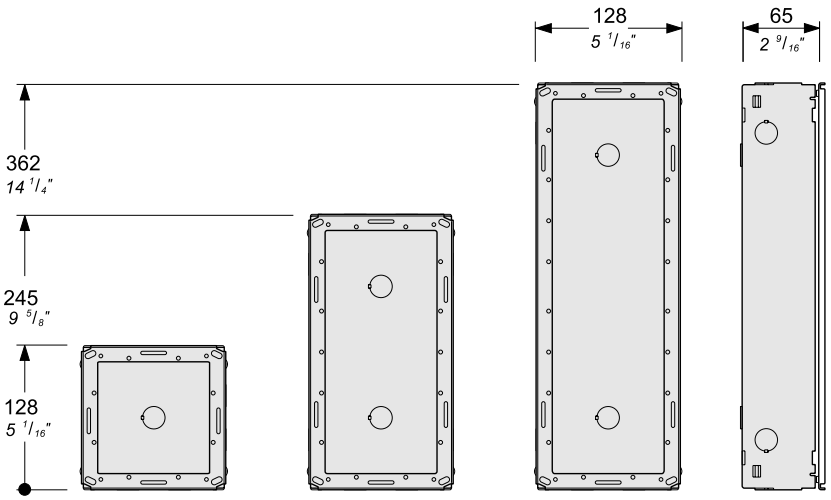
N° calls	Dimensions	Camera and door speaker module	Button, blank or information modules	4 diode module	Back box and module frame	Rain shelters
6	100x253,5x19 *(3 15/16" x 10" x 3/4")*	1 PL40PED	1 PL226 -	2 241DMA	1 PL72 (**)	1 PL92
8		1 PL40PED	1 PL228 -	2 241DMA	1 PL72 (**)	1 PL92
14	100x365x19 *(3 15/16" x 14 3/8" x 3/4")*	1 PL40PED	1 PL228 1 PL226	4 241DMA	1 PL73 (**)	1 PL93
16		1 PL40PED	2 PL228 -	4 241DMA	1 PL73 (**)	1 PL93
20	200x253,5x19 *(7 7/8" x 10" x 3/4")*	1 PL40PED	1 PL228 2 PL226	6 241DMA	2 PL72 (**)	1 PL94
24		1 PL40PED	3 PL228 -	6 241DMA	2 PL72 (**)	1 PL94
32	200x365x19 *(7 7/8" x 14 3/8" x 3/4")*	1 PL40PED	4 PL228 1 PL20 (*)	8 241DMA	2 PL73 (**)	1 PL96
36		1 PL40PED	3 PL228 2 PL226	10 241DMA	2 PL73 (**)	1 PL96
40		1 PL40PED	5 PL228 -	10 241DMA	2 PL73 (**)	1 PL96
48	400x253,5x19 *(15 3/4" x 10" x 3/4")*	1 PL40PED	6 PL228 1 PL20 (*)	12 241DMA	4 PL72	-
52		1 PL40PED	5 PL228 2 PL226	14 241DMA	4 PL72	-
56		1 PL40PED	7 PL228 -	14 241DMA	4 PL72	-
60	300x365x19 *(11 13/16" x 14 3/8" x 3/4")*	1 PL40PED	6 PL228 2 PL226	16 241DMA	3 PL73 (**)	1 PL99
62		1 PL40PED	7 PL228 1 PL226	16 241DMA	3 PL73 (**)	1 PL99
64		1 PL40PED	8 PL228 -	16 241DMA	3 PL73 (**)	1 PL99
72	400x365x19 *(15 3/4" x 14 3/8" x 3/4")*	1 PL40PED	9 PL228 2 PL20 (*)	18 241DMA	4 PL73	-
78		1 PL40PED	9 PL228 1 PL226 1 PL20(*)	20 241DMA	4 PL73	-
80		1 PL40PED	10 PL228 1 PL20 (*)	20 241DMA	4 PL73	-
82		1 PL40PED	8 PL228 3 PL226	22 241DMA	4 PL73	-
88		1 PL40PED	11 PL228 -	22 241DMA	4 PL73	-
			(*) or PL50			It replaces PL72 or PL73

(**) If requested the hood covers can be added *(see on page 22)*

Stainless steel (AISI 316L) anti-vandalism push-button panels especially studied to withstand burglary, penetration of solids and water jets (IP 45 protection degree against the penetration of external solids and water; IK09 against shocks).
The Matrix push-button panels include back boxes, module frames, die-cast aluminium decorative frames, button modules, and modules with built-in speaker unit (with or without camera).
The careful selection of modules allows for multiple application opportunities; from one-way installations to blocks of flats; from intercom to video intercom installations.
The push-button elements have been developed to allow both for horizontal and vertical configuration.

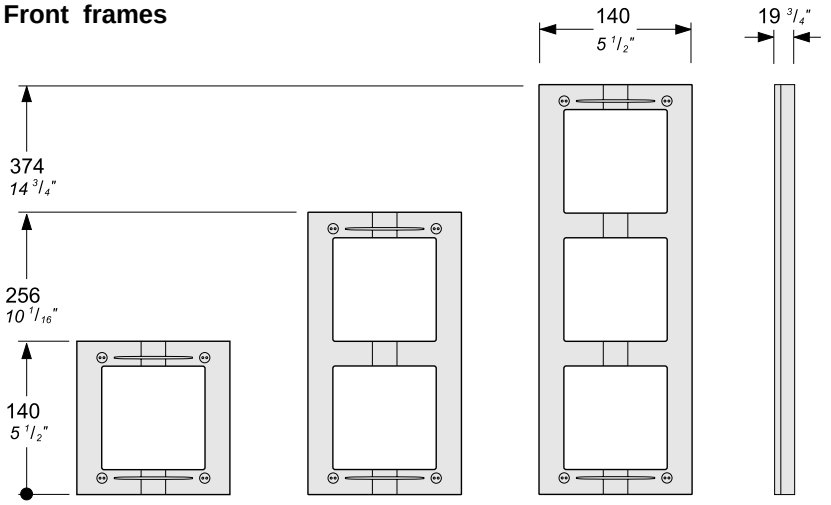
Notice! *To maintain the brilliance of door station plates, periodic cleaning with specific products for stainless steel is required.*

Module frames complete with back box



MA 71 **MA 72** **MA 73**

Front frames

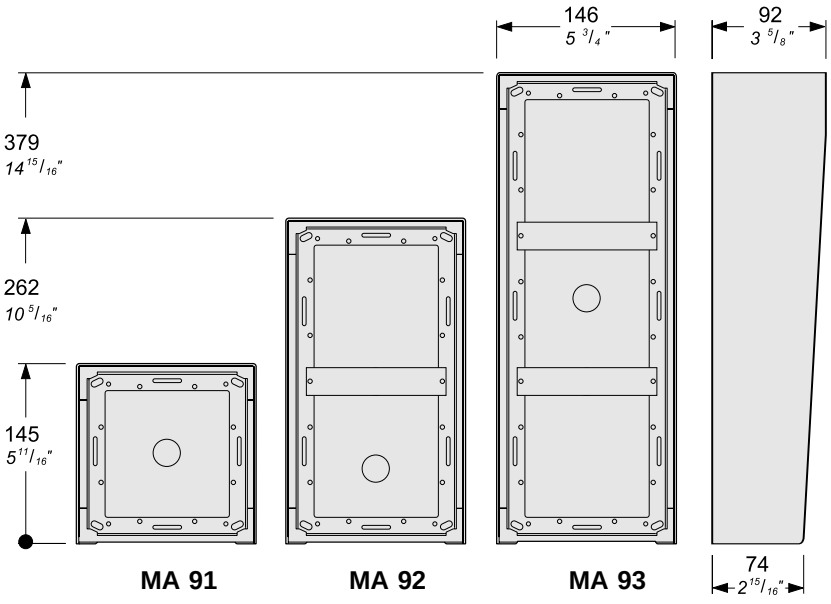


MA 61
MAS 61

MA 62
MAS 62

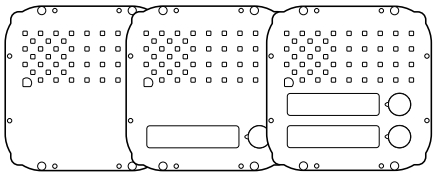
MA 63
MAS 63

Rain shelters with module frames



MA 91 **MA 92** **MA 93**

AMPLIFIED DOOR STATIONS



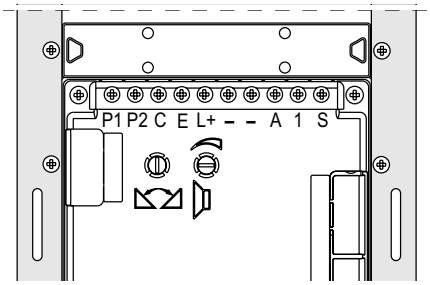
MAS10PED. Audio module without push-buttons. Complete with amplified door speaker in two channels and control of volume of "receiver", stainless steel front plate and red operation LED.

MAS11PED. They are different from the previous model for the presence of **a calling push-button** and nameplate, realized with vandal proof polycarbonate and backlighted with green LED's.

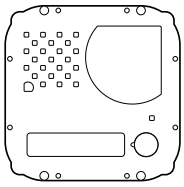
MAS12PED. Module with 2 call buttons.

Terminals

A Supply 13VAC-70mA
- Ground
1 Reception-transmission; electric lock release; call
S Electric lock
E Reception-transmission; electric lock release
P1-P2 Call push-buttons
C Call push-buttons common
L+ DC power supply input for service Led



CAMERAS



MAS43ED.

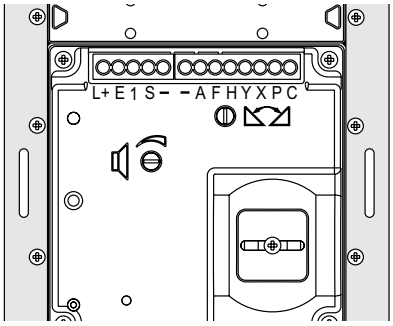
B/W camera module for 4+1 video systems without coaxial cable, including:
- solid-state CCD camera, with auto iris, 3.6mm fixed optics and 6 infrared LED's;
- stainless steel front plate complete with transparent anti-temper screen, steel call button with corresponding name plate holder;
- horizontal/vertical adjustment;
- red operation LED;
- amplified door speaker.

MAS43CED.

Colour version of the **MAS43ED** model.

Terminals

A Supply 13VAC-70mA
- Ground
1 Reception-transmission; electric lock release; call
S Electric lock
E Reception-transmission; electric lock release
P Call push-button
C Call push-button common
L+ DC power supply input for service Led
Y Positive video signal output
F Ground
X Negative video signal output
H Positive power supply input 21Vdc



Technical data	MAS43ED	MAS43CED
Power supply	18÷24Vdc	18÷24Vdc
Operating current	0.3A	0.4A
Video signal output	balanced	balanced
Video signal standard	CCIR	PAL
Minimum illumination	2 Lux	2.5 Lux
White balanced	-	auto
Sensor	CCD 1/4" B/W	CCD 1/3" colour
Number of pixels	291,000	291,000
Horizontal frequency	15,625Hz	15,625Hz
Vertical frequency	50Hz	50Hz
Lens	3.6mm	3.6mm
Focus	0,1m ÷ ∞	0,6m ÷ ∞
Autoiris	electronic	electronic
Horizontal adjustment	± 15°	± 15°
Vertical adjustment	± 15°	± 15°
Operating temperature	-10°÷+40°C	-10°÷+40°C
Maximum permissible humidity	80%RH	80%RH

Testing and adjustments

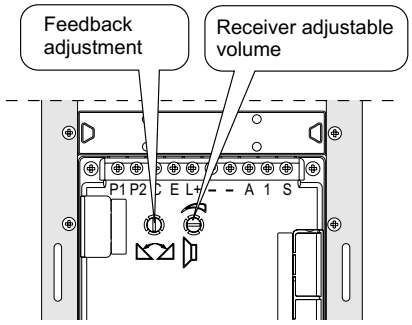
Adjustments are carried out in the factory; should any be necessary they can be re-adjusted from the outside with a screwdriver with the trimmers identified by the symbols "◜" and ◹.

Volume adjustment

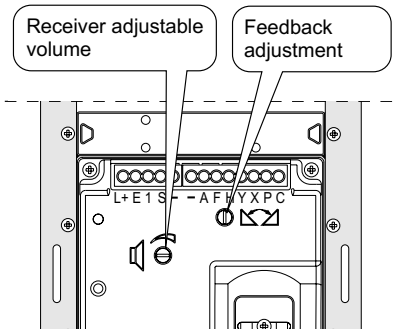
To increase the volume from the amplifier in the transmission mode, turn the trimmer "◜" in a clockwise direction.

Antilocale adjustment

In case of "feedback" (Larsen effect) in the external unit it is necessary to operate as follow:
- make the call from the door station and lift the handset of an intercom or videointercom (press ≡▯ for Echos series);
- adjust the trimmer ◹ until the whistling stops (Larsen effect).



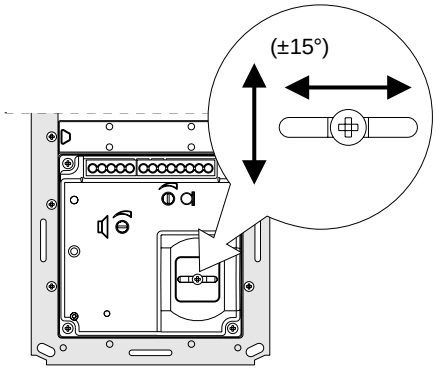
MAS10PED MAS11PED MAS12PED



MAS43ED MAS43CED

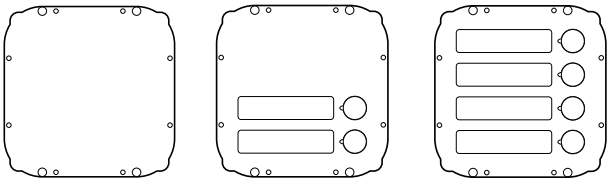
Adjustments

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



MAS43ED
MAS43CED

Push-button modules

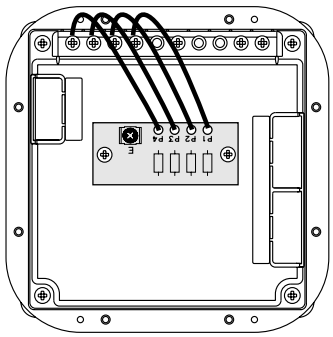


MAS20. Blank module in stainless steel.

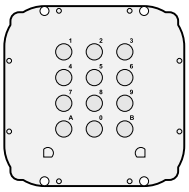
MAS22. Module with **2 call buttons** and name plate panel with breakproof transparent screen and green LED backlight.

MAS24. With **4 call buttons**.

241DMA. Module with diodes for 4 users.
It allows for the use of the button modules **MAS22** and **MAS24** in the 1+1 intercom systems and 4+1 video intercom systems. It is fixed on the back of the button modules using the 2 supplied screws. Connect the conductors of the diode module to the corresponding terminal on MAS24 module; if MAS22 module is used do not connect P3 and P4 conductors and properly insulate them.



ACCESS CONTROL KEYPAD



FC52MAS. Electronic keypad with 12 keys and 2 relays for lock release and access control of door stations. 12 programmable access codes for each relay. Programmable door opening time from 1 up 99 sec. for each relay (or bistable operation of relay). Acoustic and visual confirmation for entered keys, accepted programming and for wrong codes.

Technical data

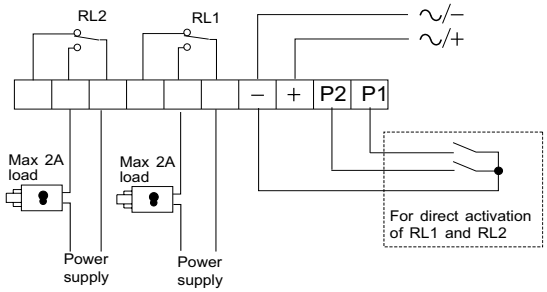
Power supply:	12Vac/dc ±10%
Stand-by current:	0.02A
Max. current consumption:	0.1A
Contact ratings:	12Vac - 2A
Numbers of codes for relay 1:	12 + direct activation
Numbers of codes for relay 2:	12 + direct activation
Activation time for each relay:	from 1 to 99 seconds (or bistable)
Operating temperature:	0° ÷ +40°C
Maximum permissible humidity:	85% RH
Degree of protection	IP 45

Terminals

2 normally closed contact of relay 2
normally open contact of relay 2
common contact of relay 2

1 normally closed contact of relay 1
normally open contact of relay 1
common contact of relay 1

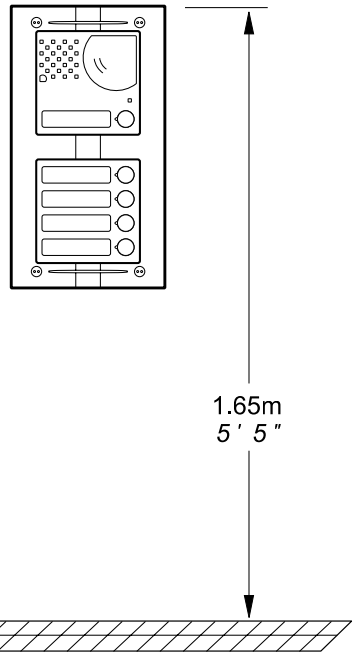
– ground or alternating voltage input
+ positive or alternating voltage input
P2 activation of the relay 2; if momentarily connected to ground it allows the activation for the programmed time
P1 activation of the relay 1; if momentarily connected to ground it allows the activation for the programmed time



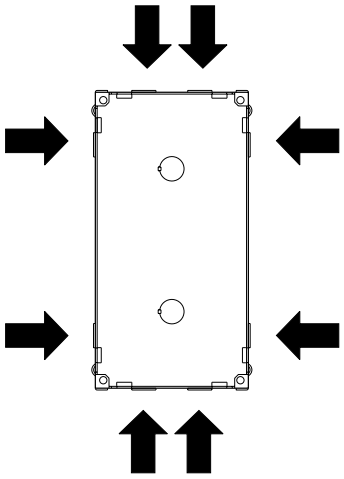
Technical characteristics of MATRIX modules terminal boards

MAS10PED	MAS11PED	MAS12PED	MAS22	MAS24	MAS43ED MAS43CED	
1	1	1			1	Reception-transmission; electric lock release; call
E	E	E			E	Reception-transmission; electric lock release
S	S	S			S	Electric lock
A	A	A	A	A	A	Alternated power supply input for door speaker and name-plate Led (13Vac-70mA)
-	-	-	-	-	-	Ground
	C	C	C	C	C	Call push-buttons common
	P1	P1	P1	P1	P	Call push-button
		P2	P2	P2		Call push-button
				P3		Call push-button
				P4		Call push-button
					X	Negative video signal output
					Y	Positive video signal output
					H	Positive voltage input for camera (18÷24Vdc)
					F	Video ground
L+	L+	L+			L+	DC power supply input for service Led (12Vdc)

INSTALLATION

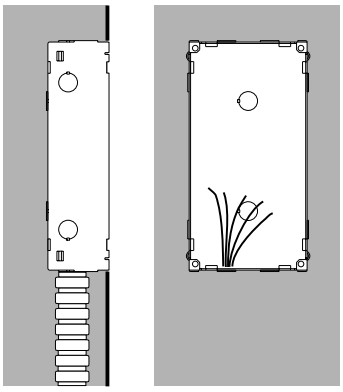


Place the push-button panel back box at a height of about 1.65m *(5' 5")* from the floor keeping the front edges flush-mounted and vertical to the finished plaster.
Position the camera in such a way that sunlight or other direct or reflected light sources with high intensity do not hit the camera lens.

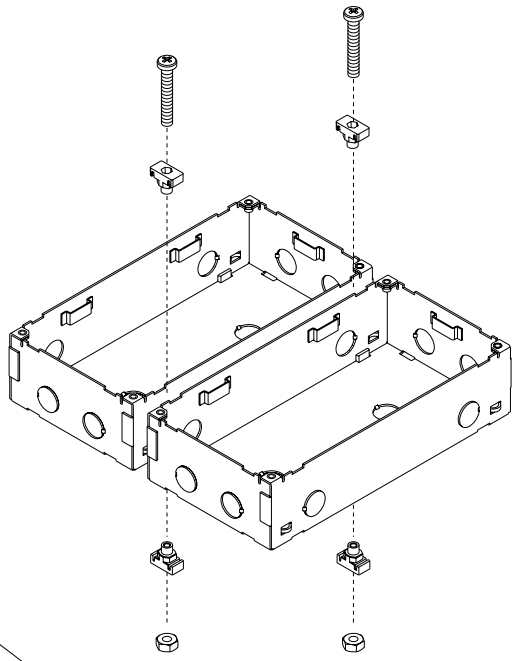


Openings for cables.

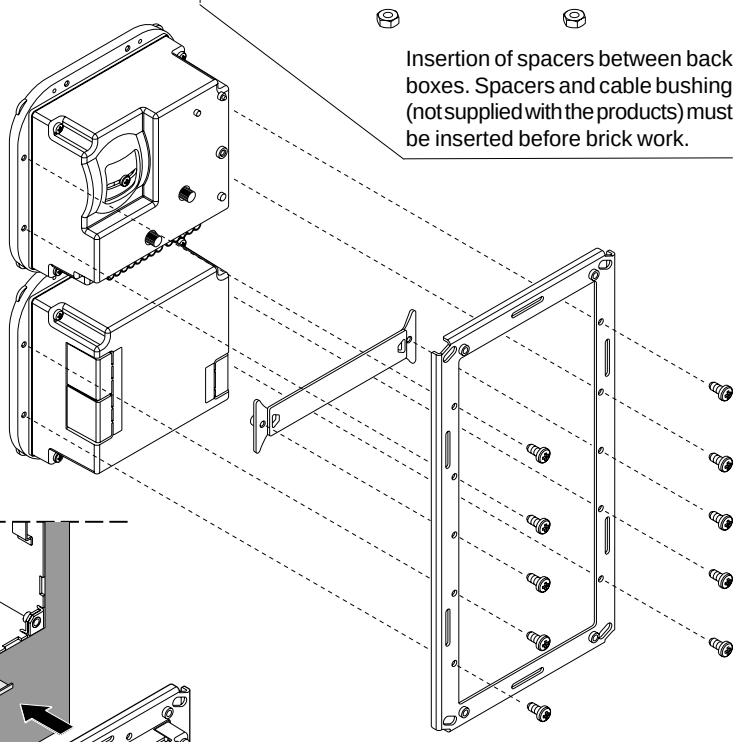
Flush mounting and cables placing.



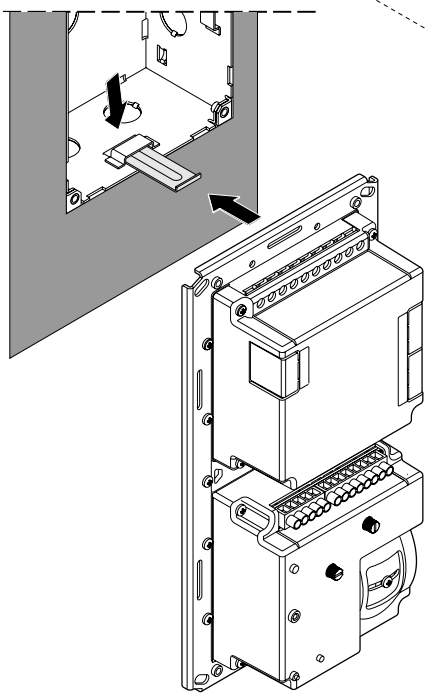
Assembling modules side by side



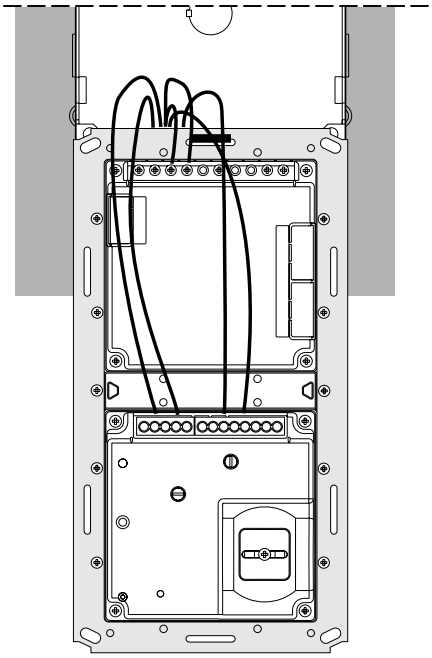
Insertion of spacers between back boxes. Spacers and cable bushing (not supplied with the products) must be inserted before brick work.



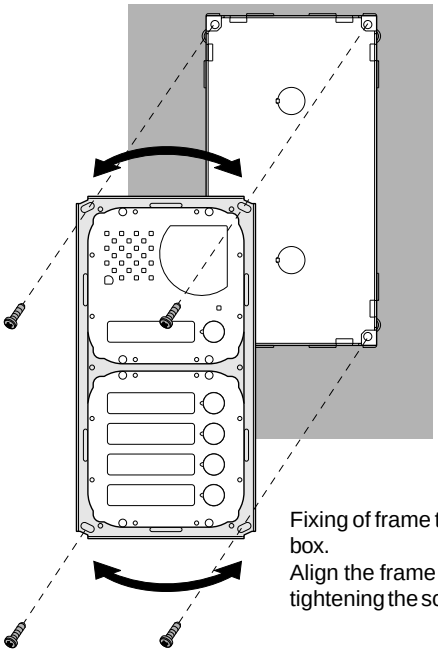
Mounting modules.



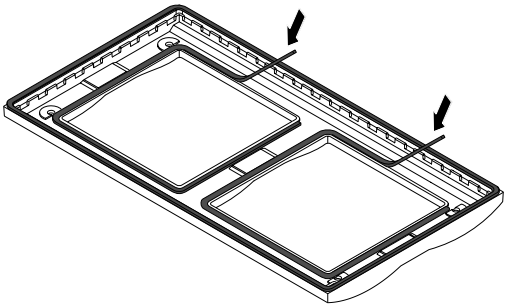
For easier connection to the electrical system, it is recommended to insert the metal plate supplied with the product in the back box opening, as shown in the figure. The plate is used to hook the frame with pre-assembled modules.
Leave the plate in the box to reuse it for maintenance operations.



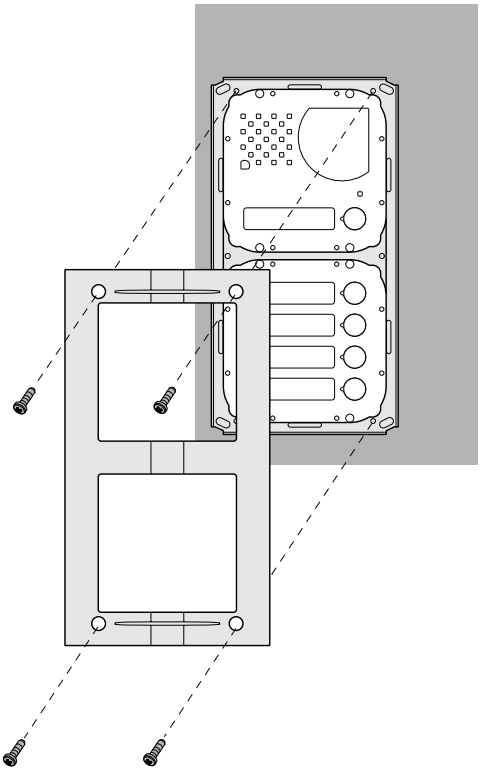
Connection of wires to module terminal boxes.



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

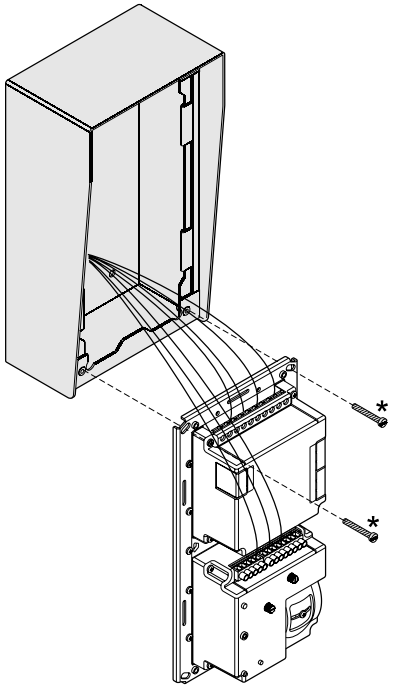


Apply the protection gaskets supplied with the product on the internal part of the frame openings.

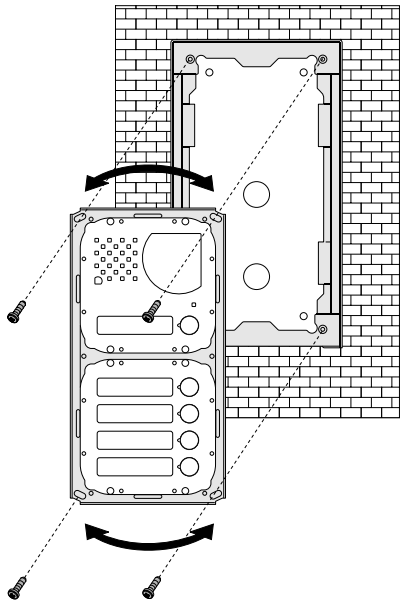


Fixing of frame to module frame.

Rain shelters

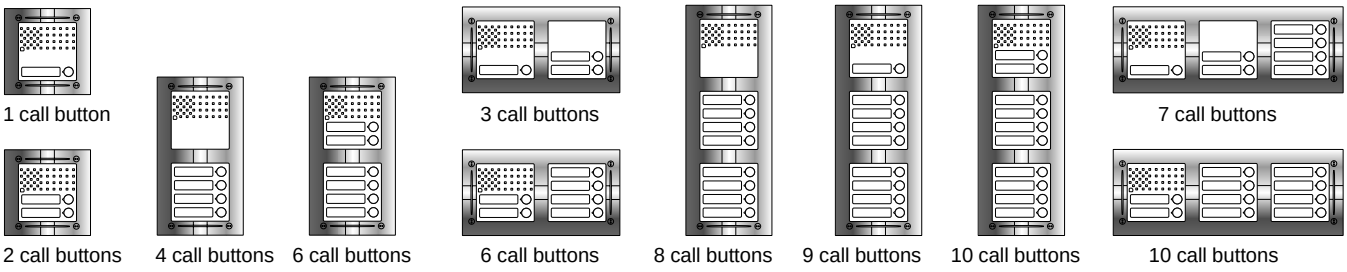


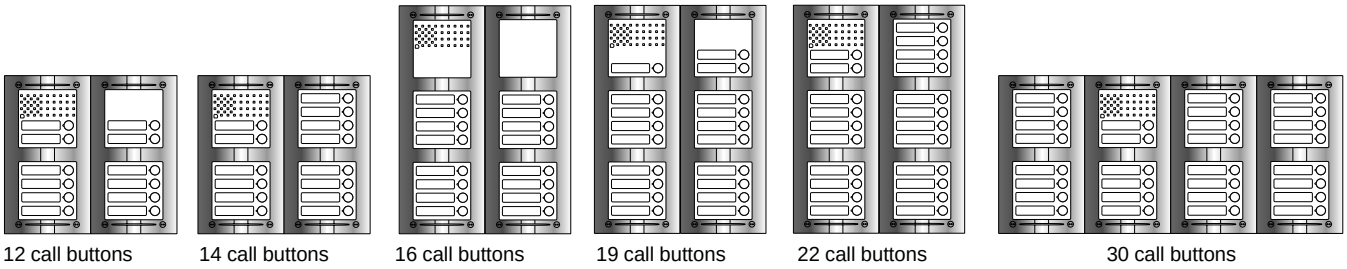
* Long screws can be used to anchor the frame during wire connection tp modules.

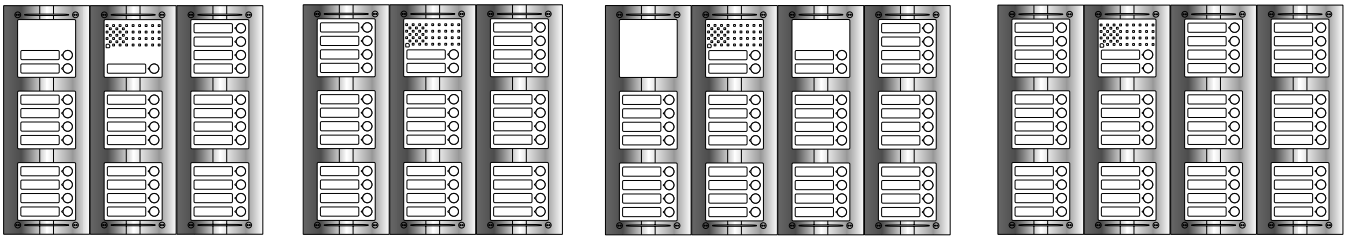


Fixing of frame to rain shelter.
Align the frame before tightening the screws.

Examples of compositions in intercom systems







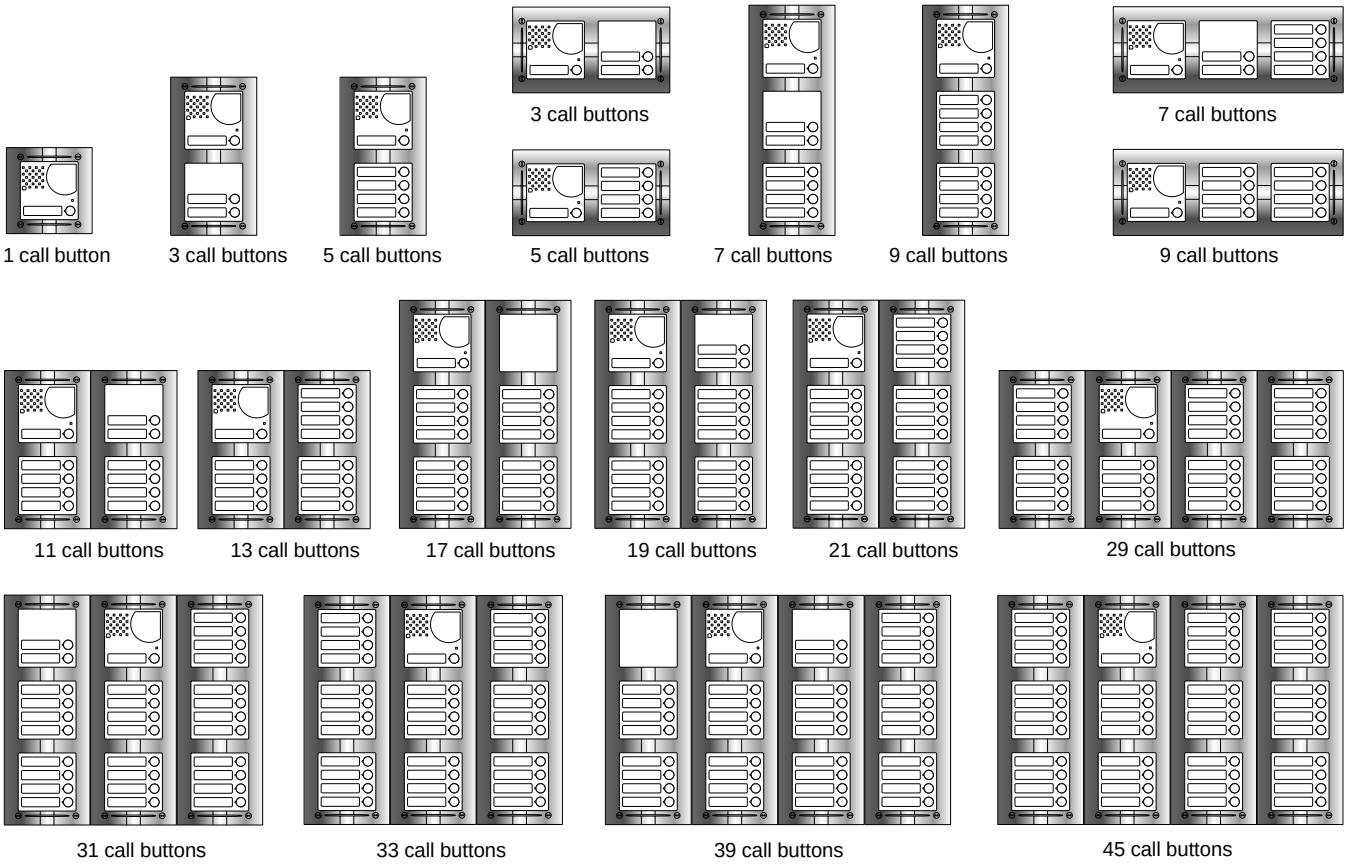
Composition board of Matrix push-button panels.

N° calls	Dimensions	Module with door speaker	4 diode module	Button and blank modules		Front frames	Back box and module frame	Rain shelters (*)
1	140x140x19 (5 1/2" x 5 1/2" x 3/4")	1 MAS11PED	-	-	-	1 MAS61	1 MA71	1 MA91
2		1 MAS12PED	-	-	-	1 MAS61	1 MA71	1 MA91
3	140x256x19 (5 1/2" x 10 1/16" x 3/4")	1 MAS11PED	1 241DMA	1 MAS22	-	1 MAS62	1 MA72	1 MA92
4		1 MAS10PED	1 241DMA	1 MAS24	-	1 MAS62	1 MA72	1 MA92
6		1 MAS12PED	1 241DMA	1 MAS24	-	1 MAS62	1 MA72	1 MA92
8	140x374x19 (5 1/2" x 14 3/4" x 3/4")	1 MAS10PED	2 241DMA	2 MAS24	-	1 MAS63	1 MA73	1 MA93
9		1 MAS11PED	2 241DMA	2 MAS24	-	1 MAS63	1 MA73	1 MA93
10		1 MAS12PED	2 241DMA	2 MAS24	-	1 MAS63	1 MA73	1 MA93
12	280x256x19 (11" x 10 1/16" x 3/4")	1 MAS12PED	3 241DMA	2 MAS24	1 MAS22	2 MAS62	2 MA72	-
14		1 MAS12PED	3 241DMA	3 MAS24	-	2 MAS62	2 MA72	-
16	280x374x19 (11" x 14 3/4" x 3/4")	1 MAS10PED	4 241DMA	4 MAS24	-	2 MAS63	2 MA73	-
19		1 MAS11PED	5 241DMA	4 MAS24	1 MAS22	2 MAS63	2 MA73	-
22		1 MAS12PED	5 241DMA	5 MAS24	-	2 MAS63	2 MA73	-
27	560x256x19 (22 1/16" x 10 1/16" x 3/4")	1 MAS11PED	7 241DMA	6 MAS24	1 MAS22	4 MAS62	4 MA72	-
30		1 MAS12PED	7 241DMA	7 MAS24	-	4 MAS62	4 MA72	-
31	420x374x19 (16 9/16" x 14 3/4" x 3/4")	1 MAS11PED	8 241DMA	7 MAS24	1 MAS22	3 MAS63	3 MA73	-
34		1 MAS12PED	8 241DMA	8 MAS24	-	3 MAS63	3 MA73	-
38	560x374x19 (22 1/16" x 14 3/4" x 3/4")	1 MAS12PED	9 241DMA	9 MAS24	2 MAS20	4 MAS63	4 MA73	-
40		1 MAS10PED	10 241DMA	10 MAS24	1 MAS20	4 MAS63	4 MA73	-
43		1 MAS11PED	11 241DMA	10 MAS24	1 MAS22	4 MAS63	4 MA73	-
46		1 MAS12PED	11 241DMA	11 MAS24	-	4 MAS63	4 MA73	-

(*) Rain shelters are used in replacementof back boxes

EXTERNAL DOOR STATIONS

Examples of compositions in video intercom systems

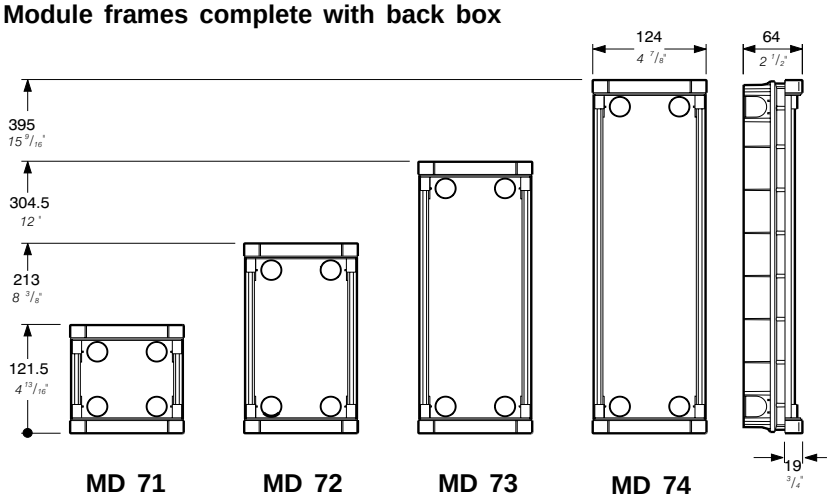


Composition board of Matrix push-button panels.

N° calls	Dimensions	Camera module	4 diode module	Button and blank modules	Front frames	Back box and module frame	Rain shelters (*)
1	140x140x19 (5 1/2" x 5 1/2" x 3/4")	1 MAS43ED	-	- - -	1 MAS61	1 MA71	1 MA91
3	140x256x19 (5 1/2" x 10 1/16" x 3/4")	1 MAS43ED	1 241DMA	1 MAS22 - -	1 MAS62	1 MA72	1 MA92
5		1 MAS43ED	1 241DMA	1 MAS24 - -	1 MAS62	1 MA72	1 MA92
7	140x374x19 (5 1/2" x 14 3/4" x 3/4")	1 MAS43ED	2 241DMA	1 MAS24 1 MAS22 -	1 MAS63	1 MA73	1 MA93
9		1 MAS43ED	2 241DMA	2 MAS24 - -	1 MAS63	1 MA73	1 MA93
11	280x256x19 (11" x 10 1/16" x 3/4")	1 MAS43ED	3 241DMA	2 MAS24 1 MAS22 -	2 MAS62	2 MA72	-
13		1 MAS43ED	3 241DMA	3 MAS24 - -	2 MAS62	2 MA72	-
15	280x374x19 (11" x 14 3/4" x 3/4")	1 MAS43ED	4 241DMA	3 MAS24 1 MAS22 1 MAS20	2 MAS63	2 MA73	-
17		1 MAS43ED	4 241DMA	4 MAS24 - 1 MAS20	2 MAS63	2 MA73	-
19		1 MAS43ED	5 241DMA	4 MAS24 1 MAS22 -	2 MAS63	2 MA73	-
21		1 MAS43ED	5 241DMA	5 MAS24 - -	2 MAS63	2 MA73	-
23	560x256x19 (22 1/16" x 10 1/16" x 3/4")	1 MAS43ED	6 241DMA	5 MAS24 1 MAS22 1 MAS20	4 MAS62	4 MA72	-
27		1 MAS43ED	7 241DMA	6 MAS24 1 MAS22 -	4 MAS62	4 MA72	-
29		1 MAS43ED	7 241DMA	7 MAS24 - -	4 MAS62	4 MA72	-
31	420x374x19 (16 9/16" x 14 3/4"x 3/4")	1 MAS43ED	8 241DMA	7 MAS24 1 MAS22 -	3 MAS63	3 MA73	-
33		1 MAS43ED	8 241DMA	8 MAS24 - -	3 MAS63	3 MA73	-
37	560x374x19 (22 1/16" x 14 3/4" x 3/4")	1 MAS43ED	9 241DMA	9 MAS24 - 2 MAS20	4 MAS63	4 MA73	-
39		1 MAS43ED	10 241DMA	9 MAS24 1 MAS22 1 MAS20	4 MAS63	4 MA73	-
41		1 MAS43ED	10 241DMA	10 MAS24 - 1 MAS20	4 MAS63	4 MA73	-
43		1 MAS43ED	11 241DMA	10 MAS24 1 MAS22 -	4 MAS63	4 MA73	
45		1 MAS43ED	11 241DMA	11 MAS24 - -	4 MAS63	4 MA73	
		or MAS43CED					

(*) Rain shelters are used in replacementof back boxes

Module frames complete with back box



MD 71 MD 72 MD 73 MD 74

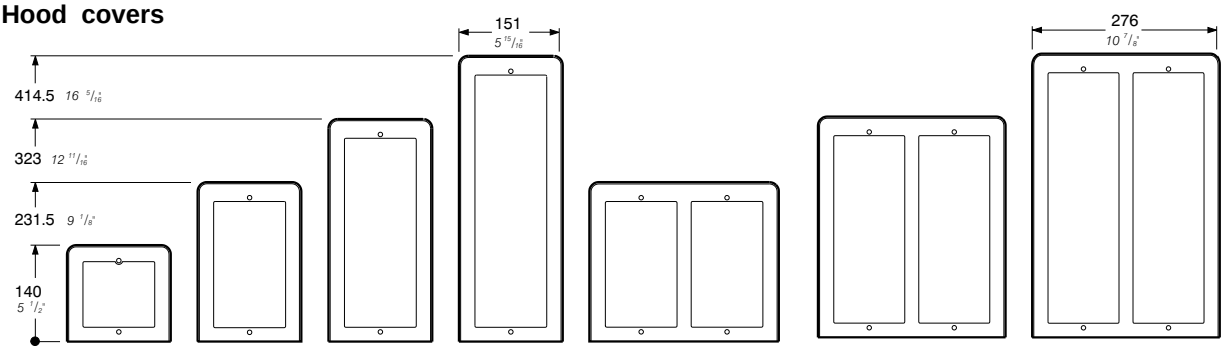
Push-button panels in extruded aluminium made up of modular elements. Suitable for the most diverse installation requirements.

MD71. 72. 73. 74. Plastic back boxes complete with module frames.

MD81.82.83.804.84.86.808.89.812. Aluminium hood covers. To be added to MD71.72.73.74 back boxes.

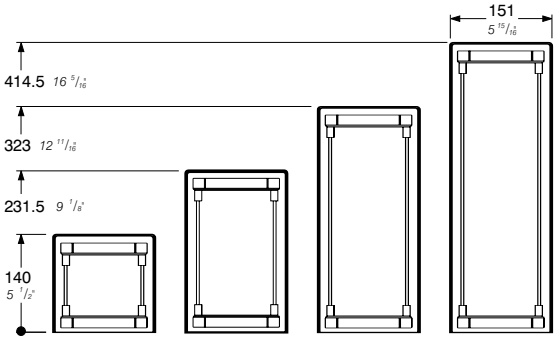
MD91.92.93.904.94.96.908.99.912. Anodized aluminium rain shelters with module frames. Used for wall mounting.

Hood covers

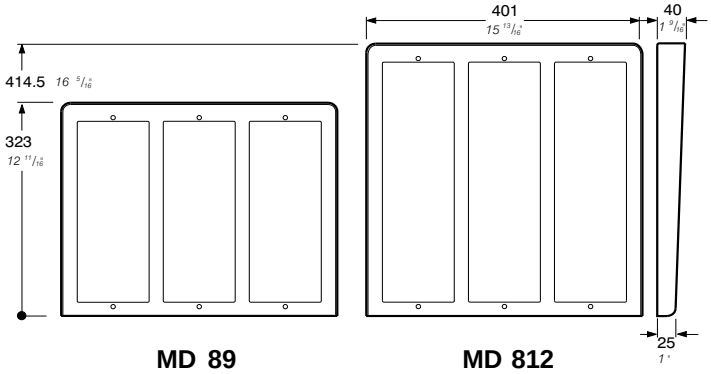


MD 81 MD 82 MD 83 MD 804 MD 84 MD 86 MD 808

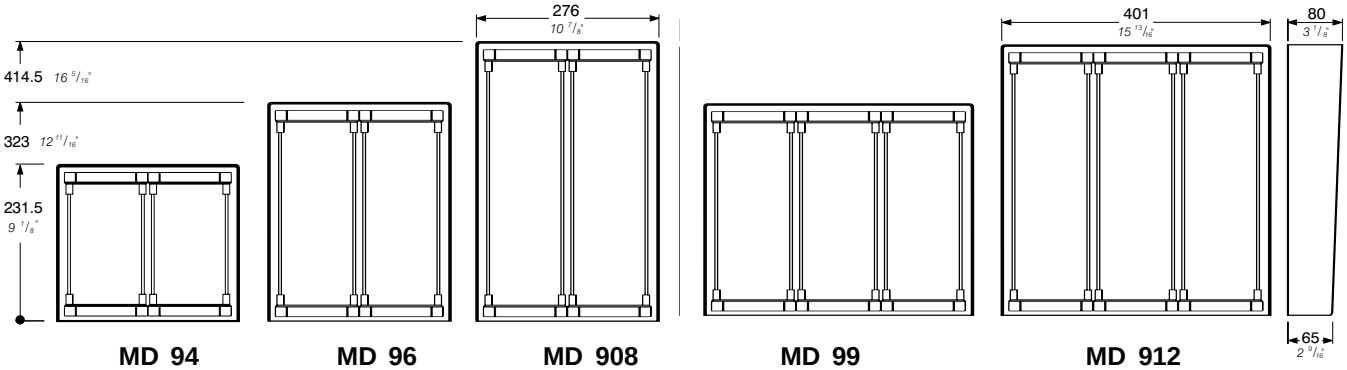
Rain shelter with module frames



MD 91 MD 92 MD 93 MD 904



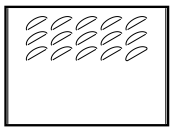
MD 89 MD 812



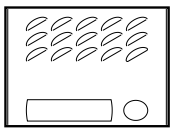
MD 94 MD 96 MD 908 MD 99 MD 912

1 row push-button modules

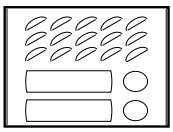
Modules for electric door speaker (amplifier)



MD10ED
without call buttons

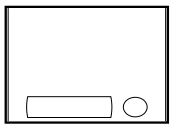


MD11ED
1 call button

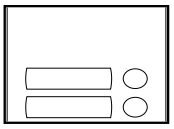


MD12ED
2 call buttons

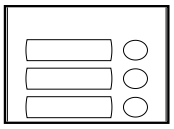
Button modules



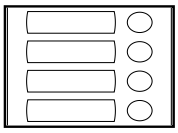
MD 21
1 call button



MD 22
2 call buttons

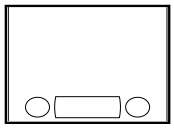


MD 23
3 call buttons

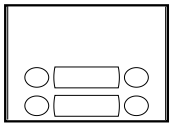


MD 24
4 call buttons

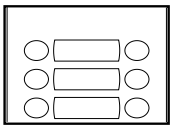
2 row push-button modules



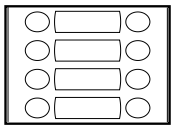
MD 222
2 call buttons



MD 224
4 call buttons

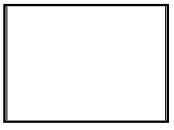


MD 226
6 call buttons

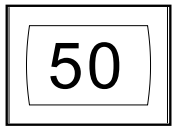


MD 228
8 call buttons

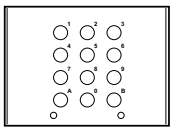
Modules: blank, number, access control and cameras



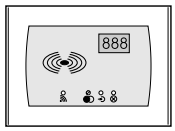
MD20
blank module



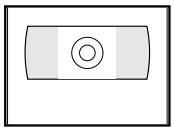
MD50
number module



FC52P. Keypad module for access control (same features of the model FC52PL - *see page 25).*

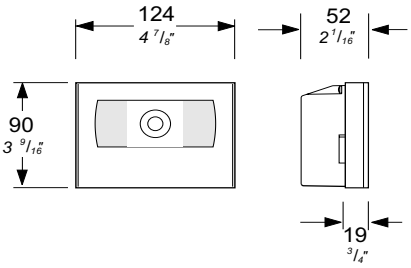


FP52. Proximity reader for access control (same features of the model FP52PL - *see page 25).*



MD41D. Black and white camera.

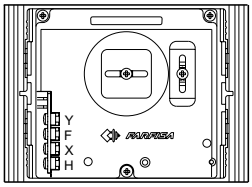
CAMERA



MD 41D.
B/W camera module for 4+1 video systems without coaxial cable, including:
- solid-state CCD camera, with auto iris, 3.6mm fixed optics and 6 infrared LED's;
- front plate in anodized aluminium with break-proof transparent screen;
- horizontal/vertical sweep.

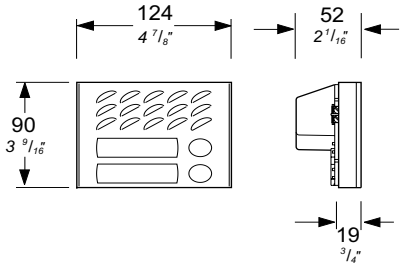
Technical data

Power supply	21±3Vdc
Operating current	0.3A
Output of balanced video signal	
Minimum illumination	2 lux
Sensor	CCD 1/4 B/W
Pixel number	291000
Horizontal frequency	15625Hz
Vertical frequency	50Hz
Lens	3.6mm; F5
Adjustable focus	0,1m ÷ ∞
Auto-iris	electronic
Horizontal adjustment	15°
Vertical adjustment	15°
Operating temperature	-10°÷+40°C
Maximum permissible humidity	80%RH



Terminals
Y positive video signal output
F ground
X negative video signal output
H positive power supply input 21Vdc

AMPLIFIED DOOR STATIONS

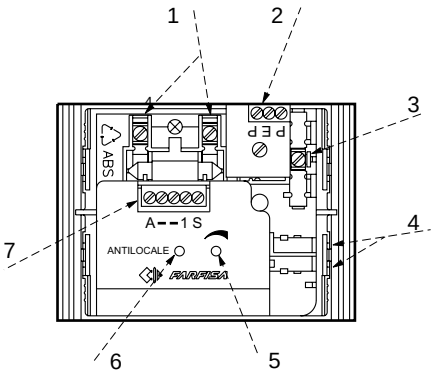


MD10ED. Module without call buttons, with front plate in anodized aluminium, amplified door speaker in two channels and control of volume of "receiver".
MD11ED. Module with 1 call button.
MD12ED. Module with 2 call buttons..

Testing and adjustments
Adjustments are carried out in the factory; should any be necessary they can be readjusted from the outside with a screwdriver with the trimmers identified by the words “antilocale” and “volume”( ).

Volume adjustment
To increase the volume from the amplifier in the transmission mode, turn the trimmer “ ” in a clockwise direction.

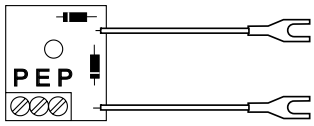
Antilocale adjustment
In case of "feedback" (Larsen effect) in the external unit it is necessary to operate as follow:
- make the call from the door station and lift the handset of an intercom;
- adjust the trimmer “antilocale” until the whistling stops (Larsen effect).

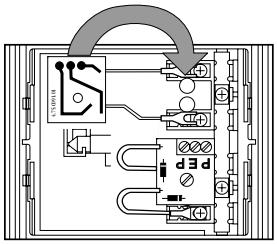


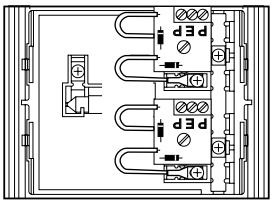
1 Lamp terminals
2 Button terminal board
3 Call buttons common (terminal C)
4 Stair light button terminals
5 External volume adjustment
6 Feedback adjustment
7 Terminal board for audio/powering/electric lock

Terminals
A Supply 13VAC-70mA
- Ground
1 Reception-transmission; electric lock release; call
S Electric lock
E Reception-transmission; electric lock release
P Call button

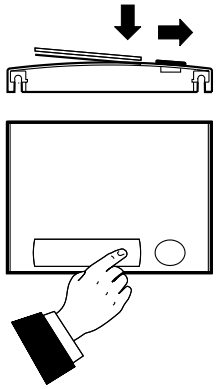
241D. Module with diodes for 2 users.
It allows for the use of the button modules **MD21**, **MD22**, **MD23**, **MD24**, **MD222**, **MD224**, **MD226**, **MD228** in the 1+1 intercom systems and 4+1 video intercom systems.
It is applied inside the button modules.



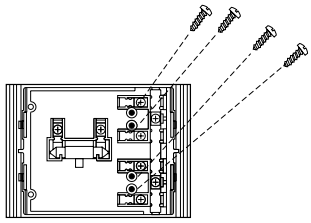




Dismounting and protection of name labels



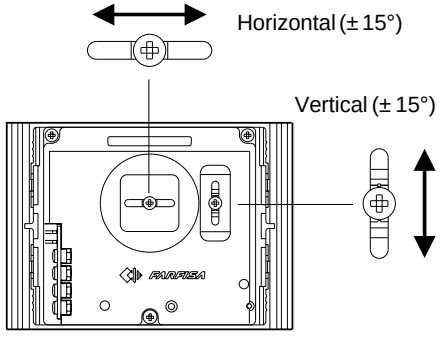
Dismounting of name holder to insert name label.

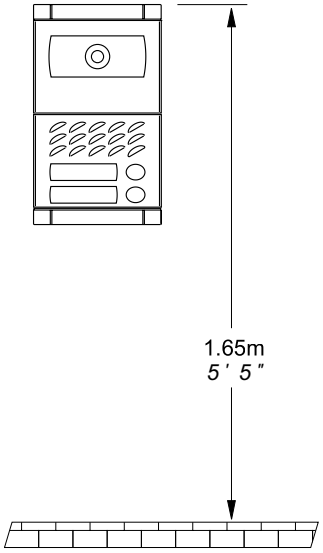


In any button module, in order to avoid the dismounting of name holder, insert a 3MAx12 screw in the holes shown in the picture for each name plate to be blocked. Screws are not supplied by the manufacturer.

Adjustments

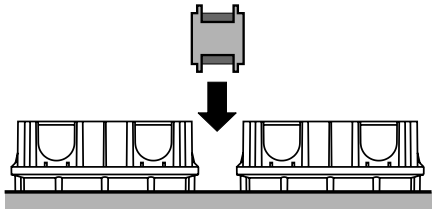
If necessary, you can manually modify the camera position by means of the horizontal and vertical adjustments located on the back of the camera.
To do this, you must:
- remove the upper screw of the push-button panel to access the back of the camera;
- loosen the screw of the horizontal or vertical adjustment (or both screws, if you want to adjust the image in all the directions);
- move the camera in the desired direction;
- tighten the screw to block the camera in the desired position;
- fix the push-button panel.

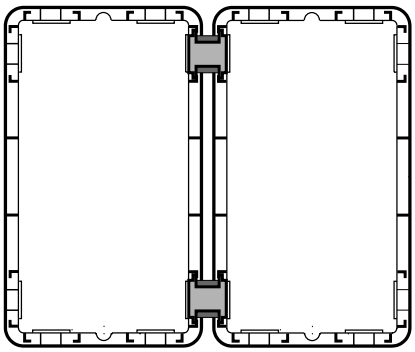




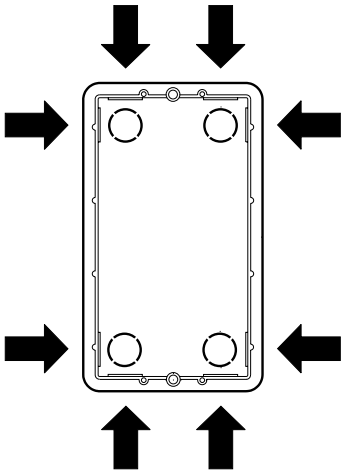
Place the push-button panel back box at a height of about 1.65m from the floor keeping the front edges flush-mounted and vertical to the finished plaster.
Position the camera in such a way that sunlight or other direct or reflected light sources with high intensity do not hit the camera lens.

Assembling modules side by side

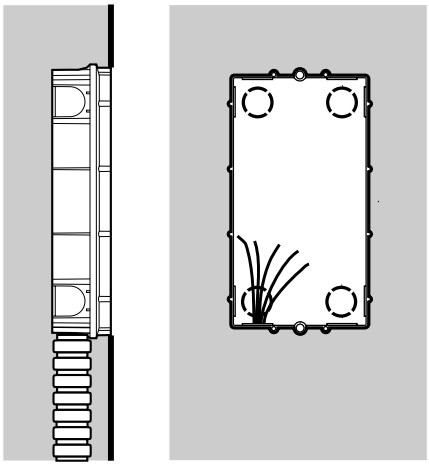




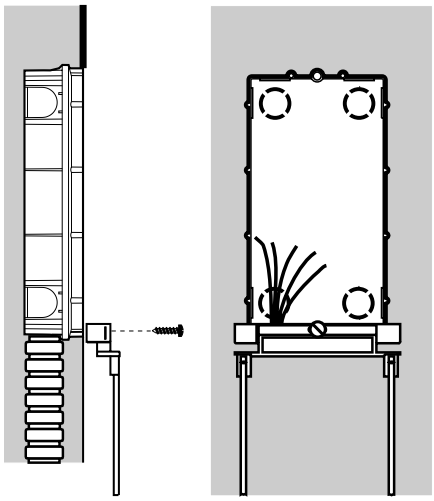
Insertion of cable bush between back boxes. The cable bushes must be inserted before brickwork.



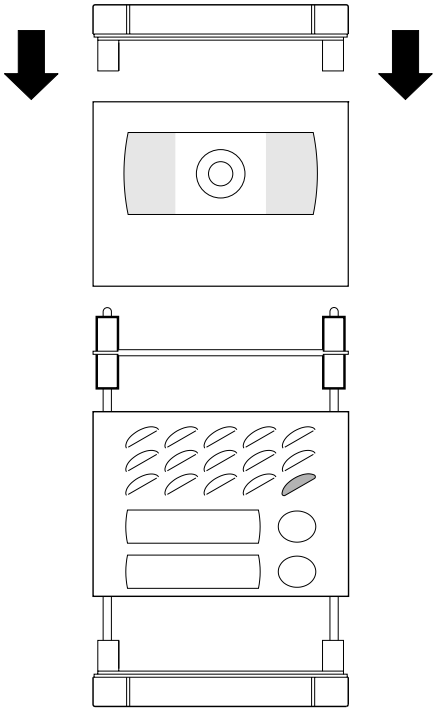
Openings for cables.



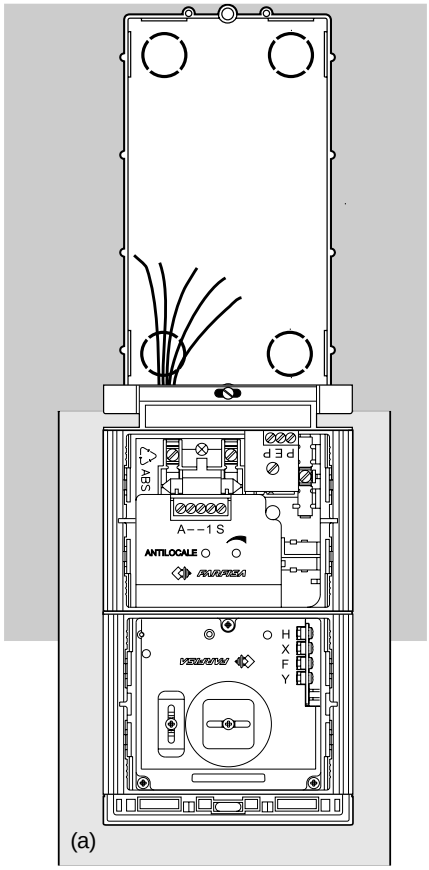
Flush mounting and cables placing.



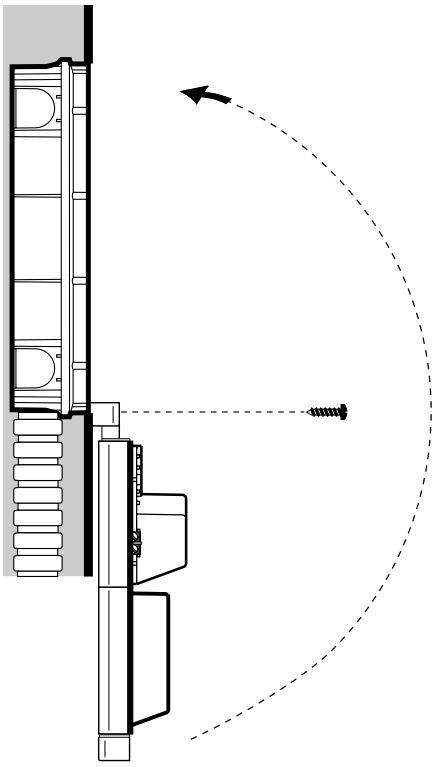
Lower fixing of the module frame.



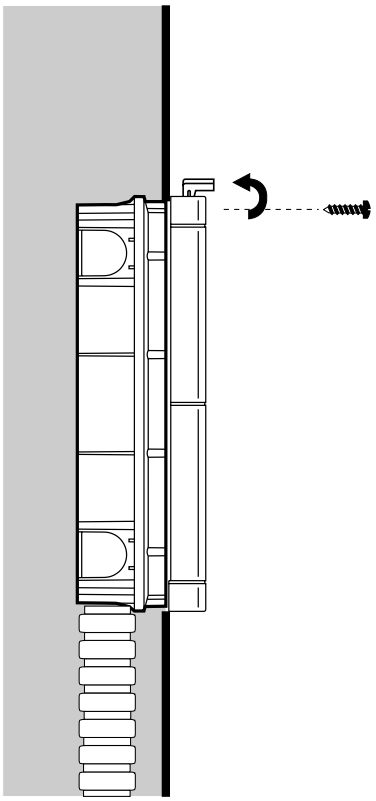
Mounting of button module.



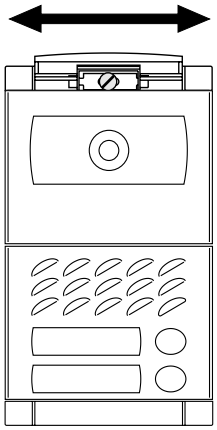
Lower fixing of the module frame on back box. It is advised to insert a protection (a) between panel and wall while fixing.



Mounting of frame bottom and door speaker (amplifier).

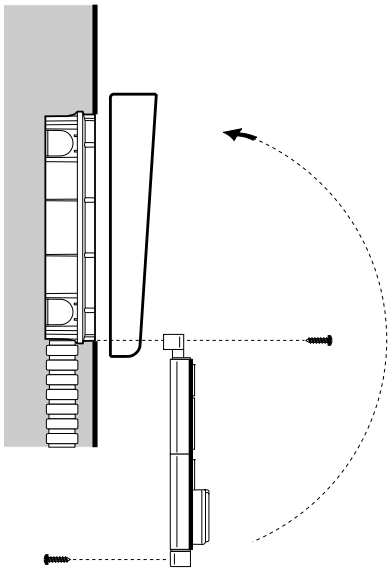


Top fixing of the panel.



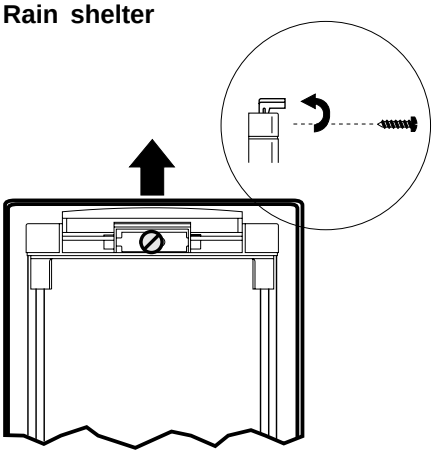
Alignment of the panel.

Hood covers

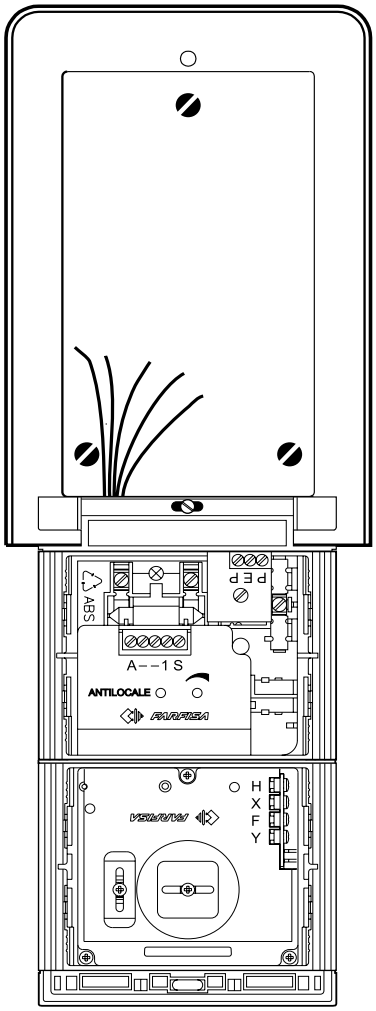


Fixing of the hood cover between the back box and the module frame.

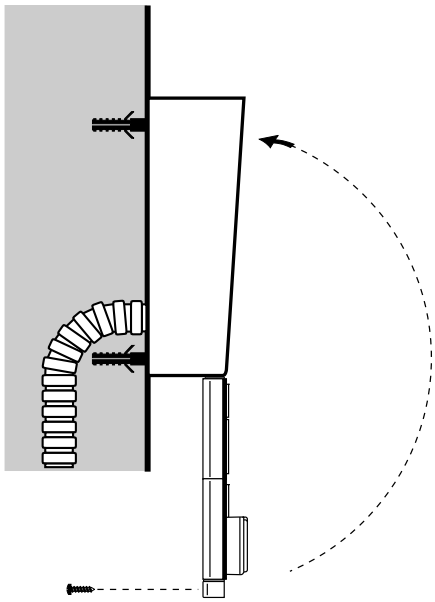
Rain shelter



Dismounting of the frame top side from the rain shelter.



Modules insertion and wall fixing of rain shelter.



Mounting of the frame top to the rain shelter.

MODY

Composition board of INTERCOM push-button panels.

N° calls	Dimensions (mm / inches)	Module with door speaker	2 diode module	Button and info or blank modules			Back box and module frame	Hood covers	Rain shelters
1	124x121.5x19 ($4^{7}/_{8}$"x$4^{13}/_{16}$"x$^{3}/_{4}$")	1 MD11ED	-	-	-	-	1 MD71	1 MD81	1 MD91
2		1 MD12ED	-	-	-	-	1 MD71	1 MD81	1 MD91
4	124x213x19 ($4^{7}/_{8}$"x$8^{3}/_{8}$"x$^{3}/_{4}$")	1 MD10ED	2 241D	1 MD24	-	-	1 MD72	1 MD82	1 MD92
6		1 MD12ED	2 241D	1 MD24	-	-	1 MD72	1 MD82	1 MD92
7	124x304.5x19 ($4^{7}/_{8}$" x 12" x$^{3}/_{4}$")	1 MD10ED	4 241D	1 MD24	1 MD23	-	1 MD73	1 MD83	1 MD93
10		1 MD12ED	4 241D	2 MD24	-	-	1 MD73	1 MD83	1 MD93
12	248x213x19 ($9^{3}/_{4}$" x $8^{3}/_{8}$" x$^{3}/_{4}$")	1 MD10ED	6 241D	3 MD24	-	-	2 MD72 ■	1 MD84 ■	1 MD94 ■
14		1 MD12ED	6 241D	3 MD24	-	-	2 MD72 ■	1 MD84 ■	1 MD94 ■
16	248x304.5x19 ($9^{3}/_{4}$" x 12" x$^{3}/_{4}$")	1 MD10ED	8 241D	4 MD24	-	1 *	2 MD73	1 MD86	1 MD96
19		1 MD11ED	9 241D	4 MD24	1 MD22	-	2 MD73	1 MD86	1 MD96
22		1 MD12ED	10 241D	5 MD24	-	-	2 MD73	1 MD86	1 MD96
24	248x395x19 ($9^{3}/_{4}$" x $15^{9}/_{16}$" x$^{3}/_{4}$")	1 MD10ED	12 241D	6 MD24	-	1 *	2 MD74	1 MD808	1 MD908
27		1 MD11ED	13 241D	6 MD24	1 MD22	-	2 MD74	1 MD808	1 MD908
30		1 MD12ED	14 241D	7 MD24	-	-	2 MD74	1 MD808	1 MD908
32	372x304.5x19 ($14^{5}/_{8}$" x 12" x$^{3}/_{4}$")	1 MD12ED	15 241D	7 MD24	1 MD22	-	3 MD73	1 MD89	1 MD99
34		1 MD12ED	16 241D	8 MD24	-	-	3 MD73	1 MD89	1 MD99
37	372x395x19 ($14^{5}/_{8}$" x $15^{9}/_{16}$" x$^{3}/_{4}$")	1 MD11ED	18 241D	9 MD24	-	2 *	3 MD74	1 MD812	1 MD912
40		1 MD12ED	19 241D	9 MD24	1 MD22	1 *	3 MD74	1 MD812	1 MD912
42		1 MD12ED	20 241D	10 MD24	-	1 *	3 MD74	1 MD812	1 MD912
46		1 MD12ED	22 241D	11 MD24	-	-	3 MD74	1 MD812	1 MD912
48	496x395x19 ($19^{1}/_{2}$" x $15^{9}/_{16}$" x$^{3}/_{4}$")	1 MD10ED	24 241D	12 MD24	-	3 *	4 MD74	-	-
52		1 MD10ED	26 241D	13 MD24	-	2 *	4 MD74	-	-
57		1 MD11ED	28 241D	14 MD24	-	1 *	4 MD74	-	-
62		1 MD12ED	30 241D	15 MD24	-	-	4 MD74	-	-

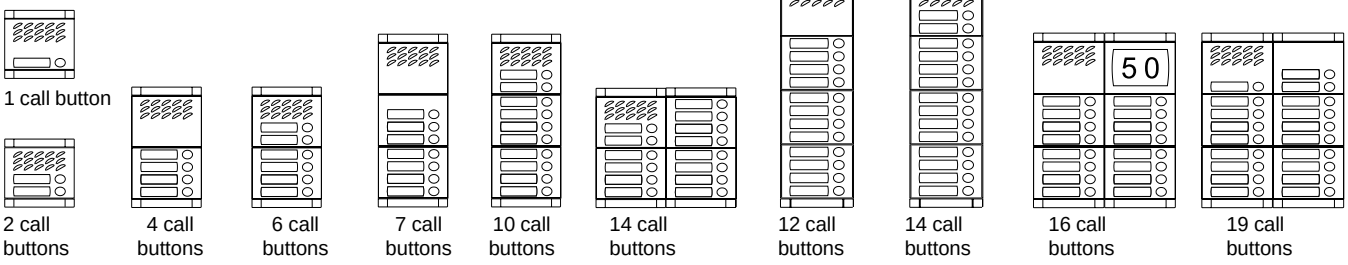
■ or MD74 or MD804 or MD904

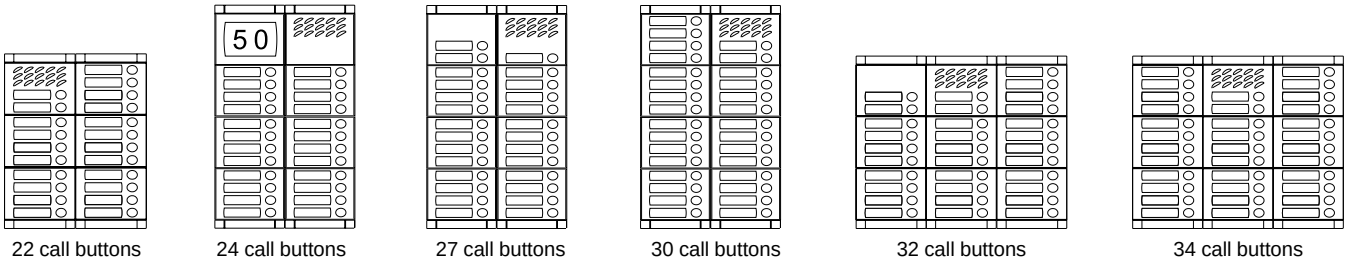
* MD20 or MD50 or FC52P

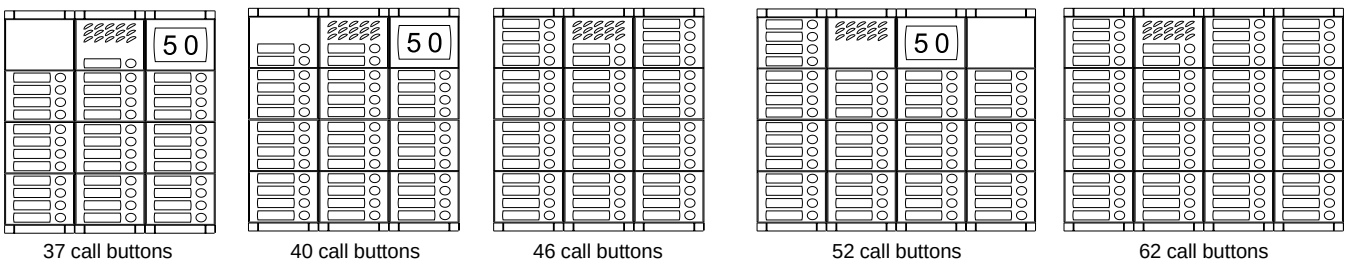
Optional

It replaces MD71, 72, 73, 74

Example of Intercom push-button panel installations.







Composition board of VIDEOINTERCOM push-button panels.

N° calls	Dimensions (mm / inches)	Camera module	Module with door speaker	2 diode module	Button and info or blank modules			Back box and module frame	Hood covers	Rain shelters
1	124x213x19 (4 7/8"x8 3/8"x 3/4")	1 MD41D	1 MD11ED	-	-	-	-	1 MD72	1 MD82	1 MD92
2		1 MD41D	1 MD12ED	-	-	-	-	1 MD72	1 MD82	1 MD92
4	124x304.5x19 (4 7/8" x 12" x 3/4")	1 MD41D	1 MD10ED	2 241D	1 MD24	-	-	1 MD73	1 MD83	1 MD93
6		1 MD41D	1 MD12ED	2 241D	1 MD24	-	-	1 MD73	1 MD83	1 MD93
7	248x213x19 (9 3/4" x 8 3/8" x 3/4")	1 MD41D	1 MD10ED	4 241D	1 MD24	1 MD23	-	2 MD72 ■	1 MD84 ■	1 MD94 ■
10		1 MD41D	1 MD12ED	4 241D	2 MD24	-	-	2 MD72 ■	1 MD84 ■	1 MD94 ■
12	248x304.5x19 (9 3/4" x 12" x 3/4")	1 MD41D	1 MD10ED	6 241D	3 MD24	-	1 *	2 MD73	1 MD86	1 MD96
15		1 MD41D	1 MD11ED	7 241D	3 MD24	1 MD22	-	2 MD73	1 MD86	1 MD96
18		1 MD41D	1 MD12ED	8 241D	4 MD24	-	-	2 MD73	1 MD86	1 MD96
20	248x395x19 (9 3/4" x 15 9/16" x 3/4")	1 MD41D	1 MD10ED	10 241D	5 MD24	-	1 *	2 MD74	1 MD808	1 MD908
23		1 MD41D	1 MD11ED	11 241D	5 MD24	1 MD22	-	2 MD74	1 MD808	1 MD908
25		1 MD41D	1 MD11ED	12 241D	6 MD24	-	-	2 MD74	1 MD808	1 MD908
26		1 MD41D	1 MD12ED	12 241D	6 MD24	-	-	2 MD74	1 MD808	1 MD908
28	372x304.5x19 (14 5/8" x 12" x 3/4")	1 MD41D	1 MD10ED	14 241D	7 MD24	-	-	3 MD73	1 MD89	1 MD99
30		1 MD41D	1 MD12ED	14 241D	7 MD24	-	-	3 MD73	1 MD89	1 MD99
33	372x395x19 (14 5/8" x 15 9/16" x 3/4")	1 MD41D	1 MD11ED	16 241D	8 MD24	-	2 *	3 MD74	1 MD812	1 MD912
36		1 MD41D	1 MD12ED	17 241D	8 MD24	1 MD22	1 *	3 MD74	1 MD812	1 MD912
38		1 MD41D	1 MD12ED	18 241D	8 MD24	2 MD22	-	3 MD74	1 MD812	1 MD912
40		1 MD41D	1 MD12ED	19 241D	9 MD24	1 MD22	-	3 MD74	1 MD812	1 MD912
42		1 MD41D	1 MD12ED	20 241D	10 MD24	-	-	3 MD74	1 MD812	1 MD912
45	496x395x19 (19 1/2" x 15 9/16" x 3/4")	1 MD41D	1 MD11ED	22 241D	10 MD24	2 MD22	2 *	4 MD74	-	-
50		1 MD41D	1 MD12ED	24 241D	11 MD24	2 MD22	1 *	4 MD74	-	-
54		1 MD41D	1 MD12ED	26 241D	13 MD24	-	1 *	4 MD74	-	-
58		1 MD41D	1 MD12ED	28 241D	14 MD24	-	-	4 MD74	-	-

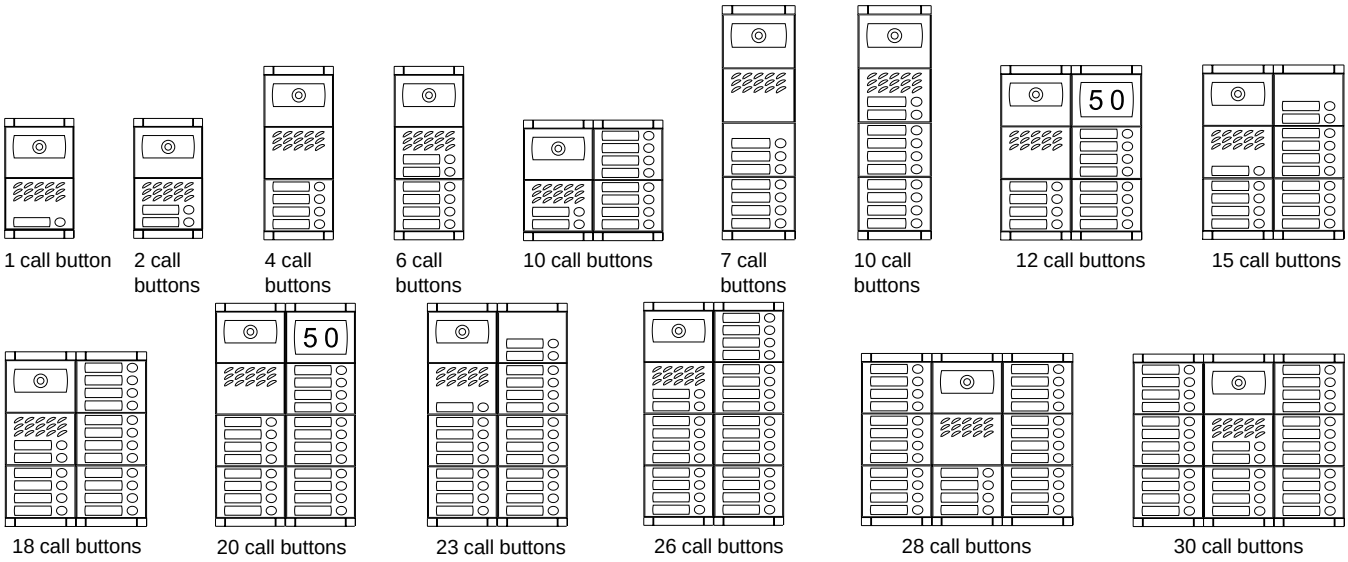
■ or MD74 or MD804 or MD904

* MD20 or MD50 or FC52P

Optional

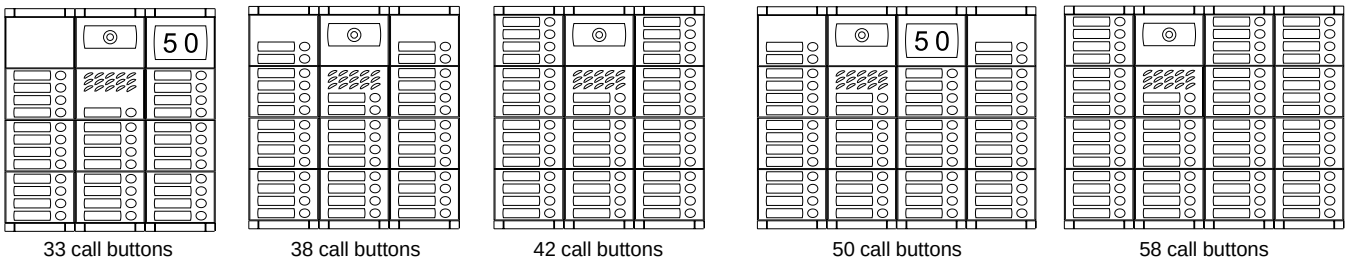
It replaces MD72, 73, 74

Example of Videointercom push-button panel installations.



1 call button | 2 call buttons | 4 call buttons | 6 call buttons | 10 call buttons | 7 call buttons | 10 call buttons | 12 call buttons | 15 call buttons

18 call buttons | 20 call buttons | 23 call buttons | 26 call buttons | 28 call buttons | 30 call buttons



33 call buttons | 38 call buttons | 42 call buttons | 50 call buttons | 58 call buttons

Composition board of INTERCOM push-button panels.

N° calls	Dimensions (mm / inches)	Module with door speaker	2 diode module	Button and info or blank modules			Back box and module frame	Hood covers	Rain shelters
8	124x213x19 (4 7/8" x 8 3/8" x 3/4")	1 MD10ED	4 241D	1 MD228	-	-	1 MD72	1 MD82	1 MD92
10	124x304.5x19 (4 7/8" x 12" x 3/4")	1 MD10ED	5 241D	1 MD228	1 MD222	-	1 MD73	1 MD83	1 MD93
12		1 MD10ED	6 241D	1 MD228	1 MD224	-	1 MD73	1 MD83	1 MD93
14		1 MD10ED	7 241D	1 MD228	1 MD226	-	1 MD73	1 MD83	1 MD93
16		1 MD10ED	8 241D	2 MD228	-	-	1 MD73	1 MD83	1 MD93
18	124x395x19 ■ (4 7/8" x 15 9/16" x 3/4")	1 MD10ED	9 241D	2 MD228	1 MD222	-	2 MD72 ■	1 MD84 ■	1 MD94 ■
20		1 MD10ED	10 241D	2 MD228	1 MD224	-	2 MD72 ■	1 MD84 ■	1 MD94 ■
24	248x213x19 (9 3/4" x 8 3/8" x 3/4")	1 MD10ED	12 241D	3 MD228	-	-	2 MD72 ■	1 MD84 ■	1 MD94 ■
26	248x304.5x19 (9 3/4" x 12" x 3/4")	1 MD10ED	13 241D	3 MD228	1 MD222	1 *	2 MD73	1 MD86	1 MD96
28		1 MD10ED	14 241D	3 MD228	1 MD224	1 *	2 MD73	1 MD86	1 MD96
30		1 MD10ED	15 241D	3 MD228	1 MD226	1 *	2 MD73	1 MD86	1 MD96
32		1 MD10ED	16 241D	4 MD228	-	1 *	2 MD73	1 MD86	1 MD96
34		1 MD10ED	17 241D	4 MD228	1 MD222	-	2 MD73	1 MD86	1 MD96
38		1 MD10ED	19 241D	4 MD228	1 MD226	-	2 MD73	1 MD86	1 MD96
40		1 MD10ED	20 241D	5 MD228	-	-	2 MD73	1 MD86	1 MD96
46	248x395x19 (9 3/4" x 15 9/16" x 3/4")	1 MD10ED	23 241D	5 MD228	1 MD226	1 *	2 MD74	1 MD808	1 MD908
50		1 MD10ED	25 241D	6 MD228	1 MD222	-	2 MD74	1 MD808	1 MD908
56		1 MD10ED	28 241D	7 MD228	-	-	2 MD74	1 MD808	1 MD908
60	372x304.5x19 (14 5/8" x 12" x 3/4")	1 MD10ED	30 241D	7 MD228	1 MD224	-	3 MD73	1 MD89	1 MD99
64		1 MD10ED	32 241D	8 MD228	-	-	3 MD73	1 MD89	1 MD99
68	372x395x19 (14 5/8" x 15 9/16" x 3/4")	1 MD10ED	34 241D	8 MD228	1 MD224	2 *	3 MD74	1 MD812	1 MD912
76		1 MD10ED	38 241D	9 MD228	1 MD224	1 *	3 MD74	1 MD812	1 MD912
82		1 MD10ED	41 241D	10 MD228	1 MD222	-	3 MD74	1 MD812	1 MD912
88		1 MD10ED	44 241D	11 MD228	-	-	3 MD74	1 MD812	1 MD912

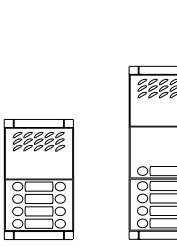
■ or MD74 or MD804 or MD904

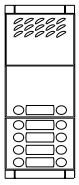
* MD20 or MD50 or FC52P

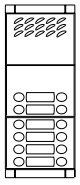
Optional

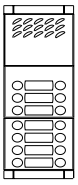
It replaces MD71, 72, 73, 74

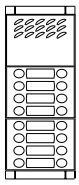
Example of Intercom push-button panel installations.

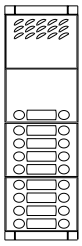

8 call buttons

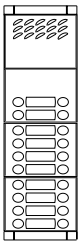

10 call buttons

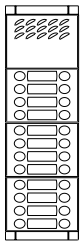

12 call buttons

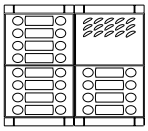

14 call button

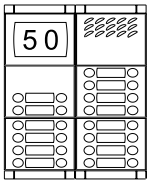

16 call buttons


18 call buttons

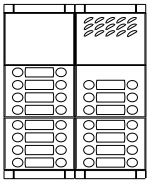

20 call buttons

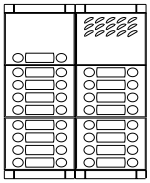

24 call buttons

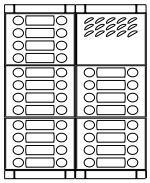

24 call buttons

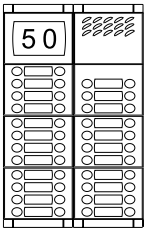


28 call buttons

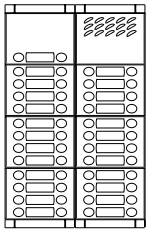

30 call buttons

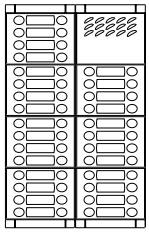

34 call buttons

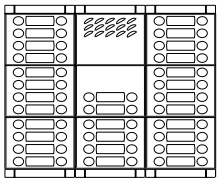

40 call buttons

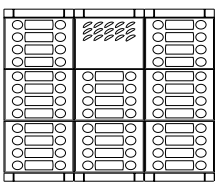


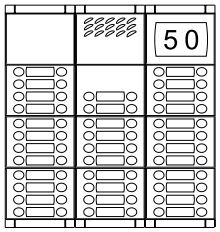
46 call buttons


50 call buttons

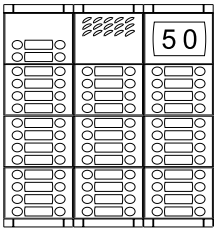

56 call buttons


60 call buttons

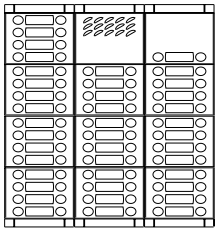

64 call buttons

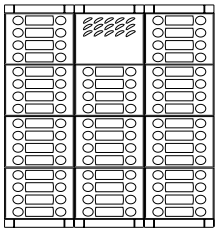


68 call buttons



76 call buttons


82 call buttons


88 call buttons

Composition board of VIDEOINTERCOM push-button panels.

N° calls	Dimensions (mm / inches)	Camera module	Module with door speaker	2 diode module	Button and info or blank modules	Back box and module frame	Hood covers	Rain shelters
8	124x304.5x19 (4 7/8" x 12" x 3/4")	1 MD41D	1 MD10ED	4 241D	1 MD228 - -	1 MD73	1 MD83	1 MD93
10	124x395x19 ■ (4 7/8" x 15 9/16" x 3/4")	1 MD41D	1 MD10ED	5 241D	1 MD228 1 MD222 -	2 MD72 ■	1 MD84 ■	1 MD94 ■
12		1 MD41D	1 MD10ED	6 241D	1 MD228 1 MD224 -	2 MD72 ■	1 MD84 ■	1 MD94 ■
14	248x213x19 (9 3/4" x 8 3/8" x 3/4")	1 MD41D	1 MD10ED	7 241D	1 MD228 1 MD226 -	2 MD72 ■	1 MD84 ■	1 MD94 ■
16		1 MD41D	1 MD10ED	8 241D	2 MD228 - -	2 MD72 ■	1 MD84 ■	1 MD94 ■
18	248x304.5x19 (9 3/4" x 12" x 3/4")	1 MD41D	1 MD10ED	9 241D	2 MD228 1 MD222 1 *	2 MD73	1 MD86	1 MD96
20		1 MD41D	1 MD10ED	10 241D	2 MD228 1 MD224 1 *	2 MD73	1 MD86	1 MD96
24		1 MD41D	1 MD10ED	12 241D	3 MD228 - 1 *	2 MD73	1 MD86	1 MD96
26		1 MD41D	1 MD10ED	13 241D	3 MD228 1 MD222 -	2 MD73	1 MD86	1 MD96
28		1 MD41D	1 MD10ED	14 241D	3 MD228 1 MD224 -	2 MD73	1 MD86	1 MD96
30		1 MD41D	1 MD10ED	15 241D	3 MD228 1 MD226 -	2 MD73	1 MD86	1 MD96
32		1 MD41D	1 MD10ED	16 241D	4 MD228 - -	2 MD73	1 MD86	1 MD96
34	248x395x19 (9 3/4" x 15 9/16" x 3/4")	1 MD41D	1 MD10ED	17 241D	4 MD228 1 MD222 1 *	2 MD74	1 MD808	1 MD908
38		1 MD41D	1 MD10ED	19 241D	4 MD228 1 MD226 1 *	2 MD74	1 MD808	1 MD908
42		1 MD41D	1 MD10ED	21 241D	5 MD228 1 MD222 -	2 MD74	1 MD808	1 MD908
48		1 MD41D	1 MD10ED	22 241D	6 MD228 - -	2 MD74	1 MD808	1 MD908
52	372x304.5x19 (14 5/8" x 12" x 3/4")	1 MD41D	1 MD10ED	26 241D	6 MD228 1 MD224 -	3 MD73	1 MD89	1 MD99
56		1 MD41D	1 MD10ED	28 241D	7 MD228 - -	3 MD73	1 MD89	1 MD99
60	372x395x19 (14 5/8" x 15 9/16" x 3/4")	1 MD41D	1 MD10ED	30 241D	7 MD228 1 MD224 2 *	3 MD74	1 MD812	1 MD912
64		1 MD41D	1 MD10ED	32 241D	8 MD228 - 2 *	3 MD74	1 MD812	1 MD912
68		1 MD41D	1 MD10ED	34 241D	8 MD228 1 MD224 1 *	3 MD74	1 MD812	1 MD912
72		1 MD41D	1 MD10ED	36 241D	9 MD228 - 1 *	3 MD74	1 MD812	1 MD912
74		1 MD41D	1 MD10ED	37 241D	9 MD228 1 MD222 -	3 MD74	1 MD812	1 MD912
80		1 MD41D	1 MD10ED	40 241D	10 MD228 - -	3 MD74	1 MD812	1 MD912

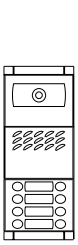
■ or MD74 or MD804 or MD904

* MD20 or MD50 or FC52P

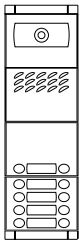
Optional

It replaces MD72, 73, 74

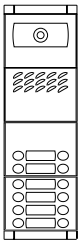
Example of Videointercom push-button panel installations.



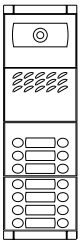
8 call buttons



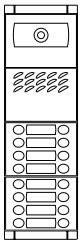
10 call buttons



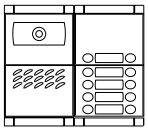
12 call buttons



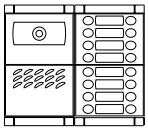
14 call buttons



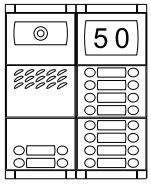
16 call buttons



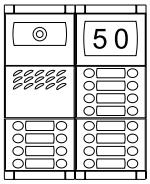
10 call buttons



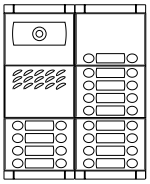
16 call buttons



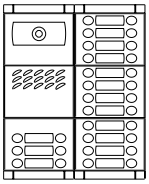
20 call buttons



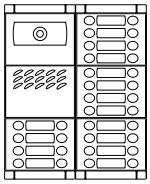
24 call buttons



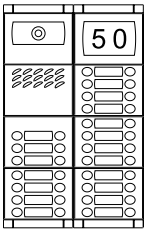
26 call buttons



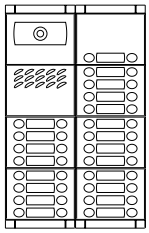
30 call buttons



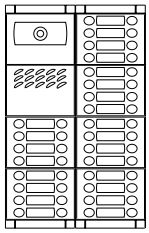
32 call buttons



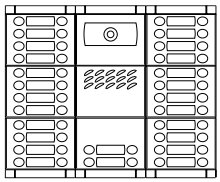
38 call buttons



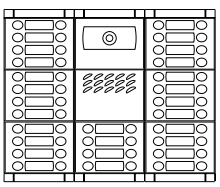
42 call buttons



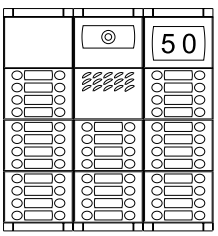
48 call buttons



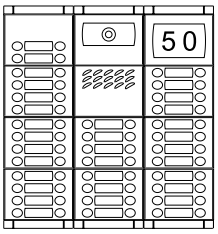
52 call buttons



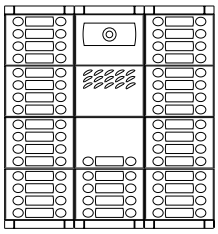
56 call buttons



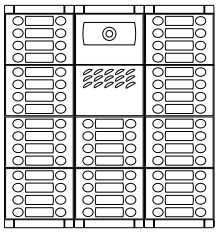
64 call buttons



68 call buttons

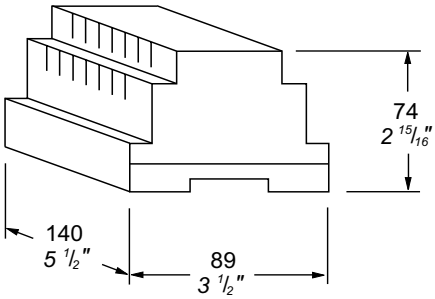


74 call buttons



80 call buttons

Timed power supply



1181E. Timed supply for videointercoms, CCD cameras, electric lock and name-plate lights, etc.

Technical data

Input voltage:	127 or 220-230Vac
Frequency:	50/60Hz
Power:	48VA
Switch-ON time:	100 sec.
Ringing frequency:	450Hz modulated
Housing:	DIN 8 modules A
Weight:	0.95Kg.
Approved by:	VDE according to the safety standard EN60065
Operating temperature:	0°÷40°C
Maximum permissible humidity:	90%RH

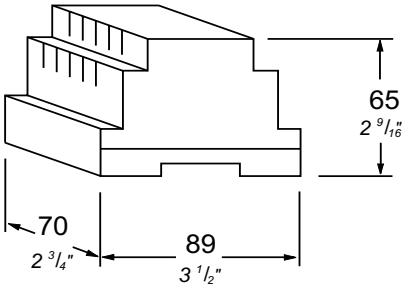
Output terminals

A Output voltage 13Vac for:
-name plate light, exchangers and climatized camera (continuous service 0.6A)
-electric door lock and bells (intermittent service 1A)
- Ground for AC power supply
F Ground for DC power supply
H Continuous output 21Vdc-1A (timed operation)
C- Electronic bell output for external calls 0.25A
4 Control switch-ON input from monitors
X Positive voltage output not stabilized 12Vdc-0.2A
3+ Stabilized positive voltage output 8Vdc-0.1A

Notes for power supplies and transformers

- The power supplies and the transformers are not provided with fuses, but all of its outputs are protected against overloading and short circuiting by temperature sensors. To reset the power supply, pow-er must be cut off for about one minute and can be restored after having eliminated the defect.
- The power supply must be installed in a dry place and can be fixed on DIN bar or on a wall by using the expansion plugs.

Transformers



PRS210ED.
Transformer with electronic bell used to power the 1+1 intercom system with electronic call.

Technical data

Input voltage	127 or 220-230Vac
Power:	15VA
Output voltage:	13Vac
Ringing frequency:	450Hz modulated
Maximum load:	0.6A
Maximum of intermittent load:	1A
Housing:	DIN 4 modules A
Weight:	0.42Kg
Operating temperature:	0°÷40°C
Maximum permissible humidity:	90%RH

Output terminals

A Output voltage 13Vac for:
-name plate light, exchangers and climatized camera (continuous service 0.6A)
-electric door lock and bells (intermittent service 1A)
- Ground
C- Negative electronic bell output 10Vpp-0.25A

PRS210.
It can replace **PRS210ED** in all the applications where the electronic call generation is not required. Used to power 13Vac devices; supplementary amplified door stations, name plate light, additional door locks, etc.

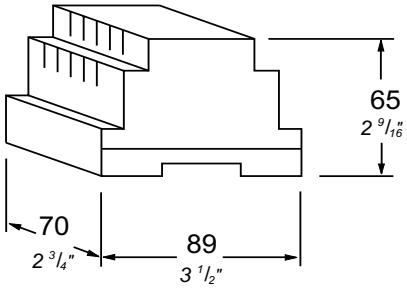
Technical data

Input voltage	127 or 220-230Vac
Power:	15VA
Output voltage:	13Vac
Maximum load:	0.7A
Maximum of intermittent load:	1A
Housing:	DIN 3 modules A
Weight:	0.42Kg
Approved by:	VDE according to the safety standard EN60065
Operating temperature:	0°÷40°C
Maximum permissible humidity:	90%RH

Output terminals

∼/∼ Output voltage 13Vac for:
-name plate light, exchangers and climatized camera (continuous service 0.6A)
-electric door lock and bells (intermittent service 1A)

Service module



RL37D.
When installed in 1+1 intercom and 4+1 video intercom systems with electronic call, it provides a supplementary input for external calls, enables supplementary video power supply and provide a second ringer for floor calls.

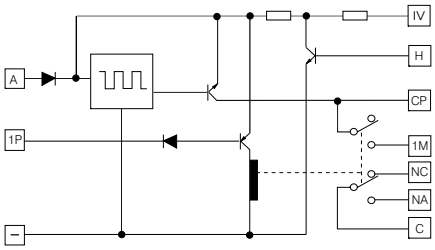
Technical data

Power supply:	13Vac
Stand-by current:	40mA
Max. switching current:	1A (24V)
Housing:	DIN 4 A modules
Operating temperature:	0° ÷ 50°C
Max. permissible humidity:	90% RH

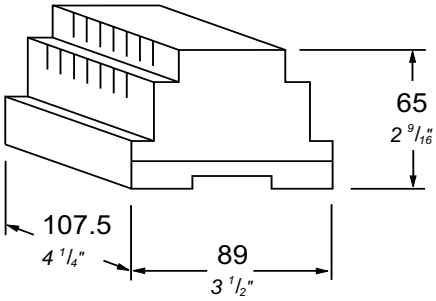
Terminals

A 13Vac alternate voltage input
- ground
H timed positive continuous voltage input 21Vdc
IV supplementary power supply enabling
C common contact of relay
NA normally open contact of relay
NC normally closed contact of relay
1P electronic call input
1M electronic call output enabled from terminal 1P
CP electronic call output

Note: Remove the cover and move jumper **J2** to change the sounds of electronic ringer.
Position **1-2**: modulated note
Position **2-3**: continuous note



Switcher module for intercommunicating systems



1443ED.

It can be mainly used in videointercom systems 4+1 or intercom systems 1+1 were the intercommunicating functions, within the same apartment or between different apartments, are required. Privacy is guaranteed while intercommunicating, no privacy during communication with door station.

Technical characteristics

Power supply:	13Vac
Stand-by current:	0.2A
Current with enabled bell:	0.4A
Housing:	DIN 6 modules A
Operating temperature:	0° ÷ +50°C
Maximum permissible humidity:	90% RH

Terminals of connection

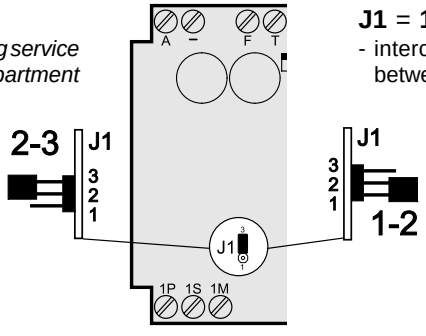
1P Call, reception-transmission, electric lock release to external door stations
1M Call, reception-transmission, electric lock release to internal stations
4P Control switching ON to external door stations or power supply
4M Control switching ON to videointercoms
HM Timed positive voltage output
HP Timed positive voltage input
A 13Vac power supply input
- Ground
F Ground
X 12Vdc-0,2A output power supply for auxiliary services
C- Modulated electronic call output
7 Continuous electronic call output for intercommunication

Operating note

The switch between door station or intercommunicating devices is automatic after receiving a call (from door station or from another intercommunicating device) or by pressing the button "⊙" from videointercoms.
By pressing the button "⊂◎" from intercoms or videointercoms electric look release is operated and automatically the system switches to the door station side.
During an intercommunicating conversation between two devices, it would be possible from the external door station to call other apartments.
During an intercommunicating conversation between two devices an incoming call from the door station to one of the two devices will automatically switch the communication to the door station.
All the devices with intercommunicating features, when they are in communication with the door station, do not have privacy between them. On the contrary, the privacy with other apartments is guaranteed.
Installing several art. 1443ED in a multi ways installations allows to have the intercommunicating service between apartments with privacy towards the door station.
At the end of a communication art.1443ED remains switched to the side from which the last call has been originated.
Red LED shows that the switching module:
- is switched to the side of door station when it lights-ON
- is switched to the intercommunicating side or there is no power when it lights-OFF.

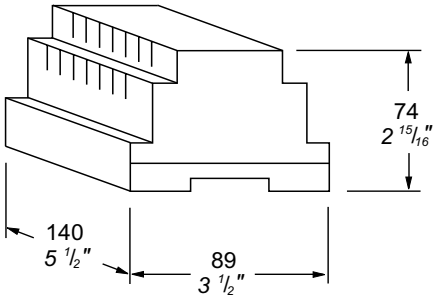
Position of J1 jumper (inside the article)

J1= 2-3
- *intercommunicating service inside the same apartment* (from factory)



J1 = 1-2
- intercommunicating service between different apartments

4-contact analog exchanger



1473.

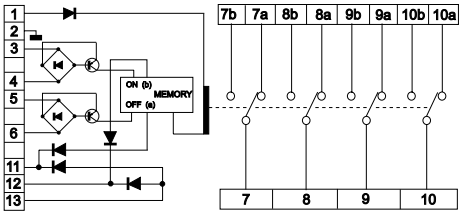
Used in systems with 2 or more door stations to automatically switch audio lines and door lock release on the calling station.
Both 3-4 terminals and 11 (side b) or 5-6 terminals and 12 (side a) can be used to activate switching.
Can be fixed on DIN bar or screwed to the wall with 2 expansion plugs.

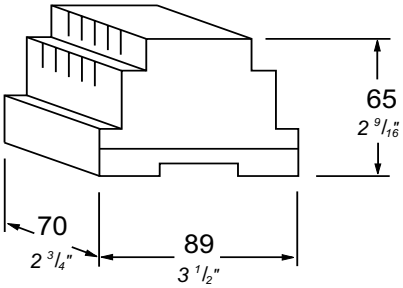
Technical data

Power supply:	13Vac; 15÷21Vdc
Current consumption:	0.1A
Number of exchanges:	4
Max. switching current:	5A (50V)
Housing:	DIN 8 modules A
Operating temperature:	0° ÷ 50°C
Maximum permissible humidity:	90% RH

Terminals

1 Power supply 13Vac-0.1A
2 Ground
3 and **4** Driver to switch the relay to "**b**" position - ON position
5 and **6** Driver to switch the relay to "**a**" position - OFF position
7, **8**, **9** and **10** Common contact of relays
7a, **8a**, **9a** and **10a** OFF position of the relay contacts
7b, **8b**, **9b** and **10b** ON position of the relay contacts
11 Ground command to switch the relay to "**a**" position - OFF position
12 Ground command to switch the relay to "**b**" position - ON position
13 Electronic call input





1471E. RELAY UNIT.

It is used when it is not possible to actuate commands directly. For example:
- stair light switching ON,
- activation of additional bells,
- additional door lock release, etc.

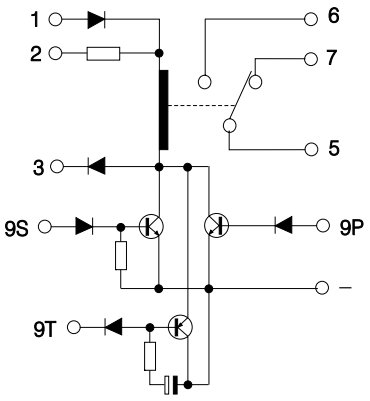
Can be fixed on DIN bar or screwed to the wall with 2 expansion plugs.

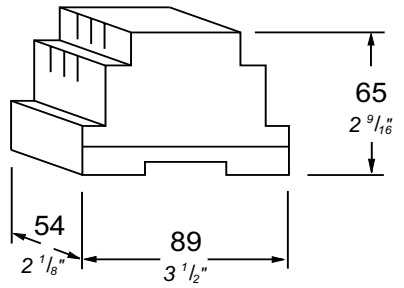
Technical data

Power supply:	13Vac; 12÷24Vdc
Current consumption:	0,05A
Number of exchanges:	1
Switching current:	1A (24V)
Housing:	DIN 4 modules A
Operating temperature:	0° ÷ 50°C
Maximum permissible humidity:	90% RH

Terminals

1 Alternate current input 13Vac-dc
2 Continuous current input 21Vdc
3 Negative half-wave input or ground
5 Common contact of relay
6 Normally open contact of relay
7 Normally closed contact of relay
9P Electronic call input without resistive load
9S Electronic call input with resistive load
9T Electronic call input timed operation (1 sec.)
- Ground





1471. RELAY UNIT.

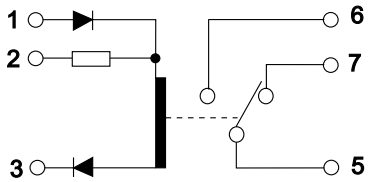
As **1471E**, with lower number of terminals and in a small housing.

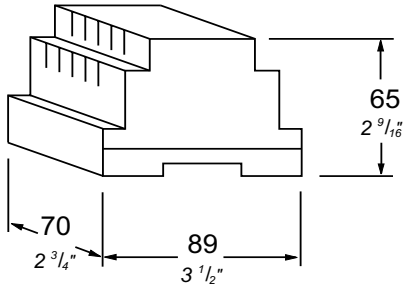
Technical data

Power supply:	13Vac; 12÷24Vdc
Current consumption:	0.05A
Number of exchanges:	1
Switching current:	5A (50V)
Housing:	DIN 3 modules A
Operating temperature:	0° ÷ 50°C
Maximum permissible humidity:	90% RH

Terminals

1 Alternate current input 13Vac-dc
2 Continuous current input 21Vdc
3 Negative half-wave input or ground
5 Common relay contact
6 Normally open contact of relay
7 Normally closed contact of relay





1472. 2- CONTACT RELAY UNIT.

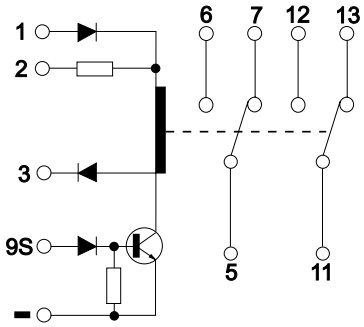
As **1471E,** with higher number of exchanges and without terminals 9P and 9T.

Technical data

Power supply:	13Vac; 12÷24Vdc
Current consumption:	0.05A
Number of exchanges:	2
Switching current:	1A (24V)
Housing:	DIN 4 modules A
Operating temperature:	0° ÷ 50°C
Maximum permissible humidity:	90% RH

Terminals

1 Alternate current input 13Vac-dc
2 Continuous current input 21Vdc
3 Negative half-wave input or ground
5 Common contact of exchange 1
6 Normally open contact of exchange 1
7 Normally closed contact of exchange 1
11 Common contact of exchange 2
12 Normally open contact of exchange 2
13 Normally closed contact of exchange 2
9S Electronic call input with resistive load
- Ground



- **The cable runs** of intercom and video intercom installations must be kept separate from the mains or any other electrical installation as required by the **International Safety Standards** and the entire installation must be realized in compliance with the safety rules in force in any specific Country.
- It is necessary to provide a disconnecting and safety switch before the power supply. Use a single general switch in case of several power supplies (also in multiple entrance).
- Before connecting the power supply make sure that its rating data corresponds to this of the mains.
- For electromagnetic reasons, all service modules must be installed near their power supply.

Wires

1) For the correct operation of the intercom and videointercom system you must choose the correct type of cable.
2) Wires must be dimensioned according to the distance of the different devices and their current consumption.
3) Do not connect wires in parallel to reach the required cross-section (for example multi-pair telephone cables). Only use a single wire with suitable cross-section. When using multi-core cables you must select them with low parasite parameters (low capacitance per meter, low inductance over Ohm).
4) If the installation includes additional power supplies you must place them near the device to be powered.

Background noise

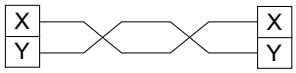
To avoid possible background noise over the speech line, it is advisable:

5) not to lay intercom or telephone cables in the same runaway as the wires used to power alternate current loads;
6) to avoid using the same multi-core cable to transmit audio signals and alternate current power supplies (lamps, amplified external door stations, electrical door locks). Always use separate wires for alternate current power supplies;
7) for name-plate lamps, to use an additional 12Vac transformer (PRS210 type) with suitable power (consumption is 75mA for each lamp) with 2 power supply wires separate from audio wires;
8) in case of long distances between the external door station and the last videointercom, to place the power supply near by the external door station.

WIRE CROSS SECTION

Distance		1.3.C-.7.E			A.S.— (*)						Intercom installation terminals
		10.4.1.C-.7.E.V+			F.H.A.S.— (*)			X.Y			Videointercom installation terminals
m.	feet	mm² S	mm Ø	AWG	mm² S	mm Ø	AWG	mm² S	mm Ø	AWG	
50	165	0.5	0.8	20	0.75	1	18	0.35	0.6	22	
100	330	0.75	1	18	1	1.2	16	0.35	0.6	22	
200	660	1	1.2	16	2	1.6	14	0.35	0.6	22	

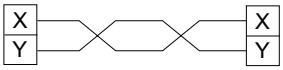
Note. For distances longer than 100m (330ft) max 200m (660ft) use twisted pair wire for conductores **X** and **Y**.



For the video connection see page 51.

VIDEO SIGNAL DISTRIBUTION WITH TWISTED PAIR

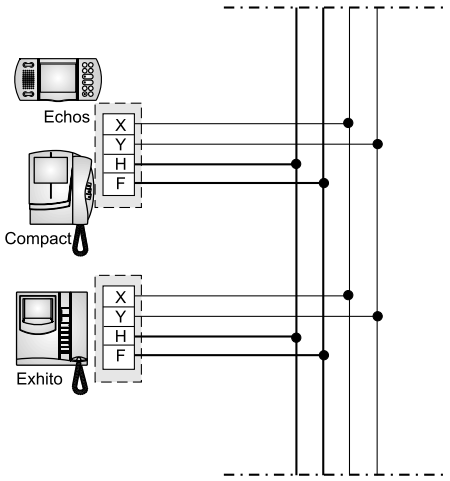
If the distance between the camera and the last video intercom in the system is lower than 200m (660ft), the connection can be made with 2x0.35mm² wires (Ø=0.6mm; AWG22) instead of the coaxial cable. For distances from 100m (330ft) to 200m (660ft) a twisted pair must be used.



For the connection of the video signal you can choose from:
- **connection with junction box**
- **serial connection (input and output)**
- **connection with floor distributors**

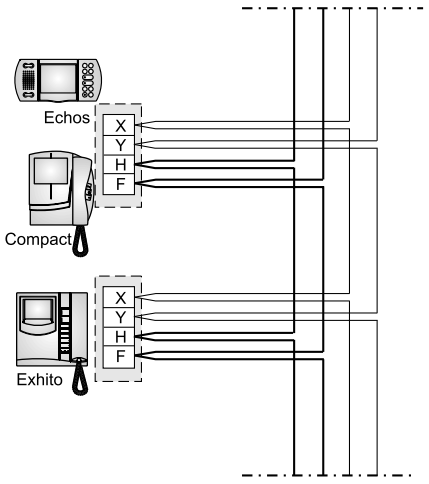
CONNECTION WITH JUNCTION BOX

All wires are distributed in the floor junction box.
Due to the signal loss introduced by each connection, the maximum number of video intercoms that can be connected in serial mode is 20. Two 75Ω resistances must be inserted between X and F and between Y and F in the last video intercom. The maximum distance between the video intercoms and the connector block is 2.5 metres.



SERIAL CONNECTION

Connections are made on the video intercom brackets, and not in the junction box. Due to the signal loss introduced by each connection, the maximum number of video intercoms that can be connected in serial mode is 20. Two 75Ω resistances must be inserted between X and F and between Y and F in the last video intercom.



CONNECTION WITH FLOOR DISTRIBUTORS

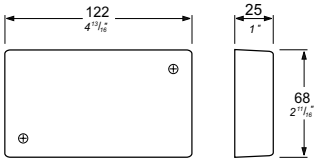
The video wires of each video intercom are insulated from the riser. Connections are made on the **DV2D** or **DV4D** floor video signal distributor box.

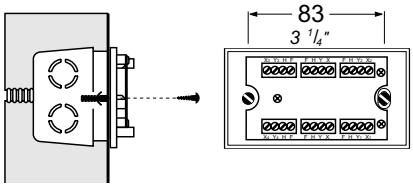
DV2D-DV4D. FLOOR VIDEO SIGNAL DISTRIBUTORS.

They allow for the distribution of the video signal taken from the riser on 2 or 4 outputs. They can be installed on the wall on a wall box, with expansion plugs or it can be placed in the junction box.

Technical data

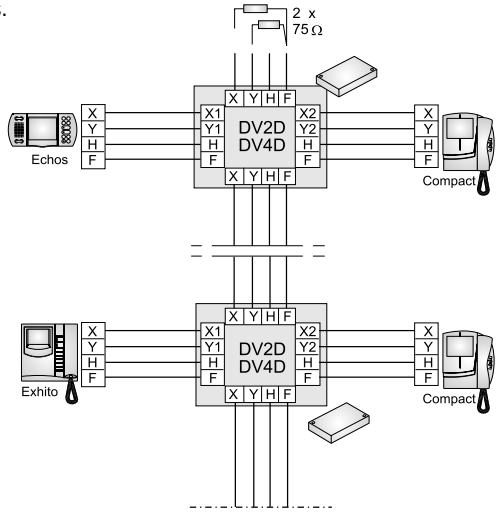
Power supply	15÷21Vdc
Operating current	60mA
Max. input video signal	2Vpp
Insertion loss	0.8dB
Bandwidth	>5MHz





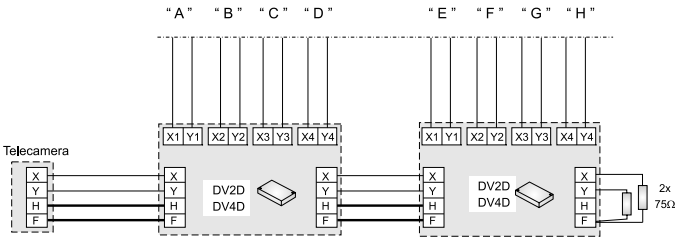
Connection of the video signal on a single riser

Terminals X and Y of the last distributor must be terminated with the 75Ω resistances supplied with the article. It is not necessary to terminate the unused outputs.



Connection of the video signal with distribution on several risers

In video systems with different risers you must use 1 or more video distributors art. **DV2D** or **DV4D**.
Terminals X and Y of the last distributor must be terminated with the 75Ω resistances supplied with the article. It is not necessary to terminate the unused outputs.



Example of connection on 8 risers

Videointercom systems

Check that the connections of the system are carried out correctly.
Put the system in use by connecting the power supply to the mains.
By pushing a call button from the external push-button panel, it activates the bell of the corresponding video intercom and it activates the system for a time of about 100 seconds. The images appear on the video intercom a few seconds after the call.
If in the meantime another call occurs, the video intercom shuts itself OFF and connects the last call. The system switches OFF automatically after 100 seconds.
In case more calls occur simultaneously, a protection circuit against overloading and short circuiting is provided to disable the timer and therefore to shut OFF the system.
In the absence of calls from the door station, from any video intercom (if provided in the system) it is possible to control the entrance by pressing the ⦿ button (control switch ON).
To work the electric door lock release press the ⊶ button from video intercoms.
In the two or more entrance systems all the audio and video communications and door lock release, from one entrance to the other, are automatically switched with the call or the control switch ON.
In these systems the control switch ON from the video intercoms can interrupt a running communication, for this reason it is advisable to interrupt, by means of a relay. This function when the video system is active, giving the priority of the communication to the door stations for some examples from page 68 onwards.

Intercommunicating systems

The switch between door station or intercommunicating devices is automatic after receiving a call (from door station or from another intercommunicating device) or by pressing the button "⦿" from video-intercoms.
By pressing the button "🔑" from intercoms or videointercoms electric look release is operated and automatically the system switches to the door station side. During an intercommunicating conversation between two devices, it would be possible from the external door station to call other apartments.
During an intercommunicating conversation between two devices an incoming call from the door station to one of the two devices will automatically switch the communication to the door station.
All the devices with intercommunicating features, when they are in communication with the door station, do not have privacy between them. On the contrary, the privacy with other apartments is guaranteed.
Installing several art. 1443ED in a multi ways installations allows to have the intercommunicating service between apartments with privacy towards the door station.
At the end of a communication art.1443ED remains switched to the side from which the last call has been originated.
Red LED shows that the switching module:
- is switched to the side of door station when it lights-ON
- is switched to the intercommunicating side or there is no power when it lights-OFF.

Intercom systems

For all the intercom systems, simply lift the handset to speak to the door station.
The call is indicated by a sound signal on the loudspeaker of the handset. If the handset of the intercom is not properly hung-up the sound is not reproduced.
To activate the door release, press the push-button with the key symbol.
In systems with two or more entrances the communication and door release are switched automatically on the entrance from which the call is made while the other entrances are isolated.

Adjustments

All the regulations are carried out in the factory. For possible corrections the intervention of a specialized technician is advisable.
The Contrast, Colour and Brightness adjustments, being subject to the environmental lighting conditions, are accessible from the underneath by means of a screw driver.

INSTALLATION DIAGRAMS

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Notes.
For a clearer understanding of the diagrams, **the sequence of terminals in each individual article has not been followed.** Only the terminal code (letter and/or number) is valid, not the graphic sequence.
Terminals with the same letter or number have the same functions.

The items may have more terminals than the ones shown in the installation diagrams. **The excess terminals must not be connected.**

INTERCOMS WITH OR WITHOUT PRIVATE CONVERSATION CONNECTED TO 1 EXTERNAL DOOR STATION

• EXTERNAL DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
1	**AG100A**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD71÷MD74**
...	**AG100T**	1	**PL81÷PL89**	1	**MAS61÷MAS63** (1)	1	**MD84÷MD812**
...	**AG20**	1	**PL91÷PL99 ***	1	**MA91÷MA93 ***	1	**MD94÷MD912 ***
...	**AG21**	1	**PL10PED÷PL12PED**	1	**MAS10PED÷MAS12PED**	1	**MD10ED÷MD12ED**
...	**AG222**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD21÷MD228**
1	**AG30ED**	...	**PL20, PL50**	...	**MAS20**	...	**MD20, MD50**
		...	**241DMA**	...	**241DMA**	...	**241D**

• INTERNAL STATIONS

...	**EX311**	Exhito series with 2 call buttons
...	**EX321**	Exhito series modular intercom
...	**KM811W**	Compact series intercom with 1 call button
...	**PT511EW**	Project series intercom with 1 call button
...	**SM50 *** **	Private conversation module

• VARIOUS ARTICLES

1	**PRS210ED**	Transformer with electronic ringing generator
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.
*** Only for diagram "b"; system with private conversation.

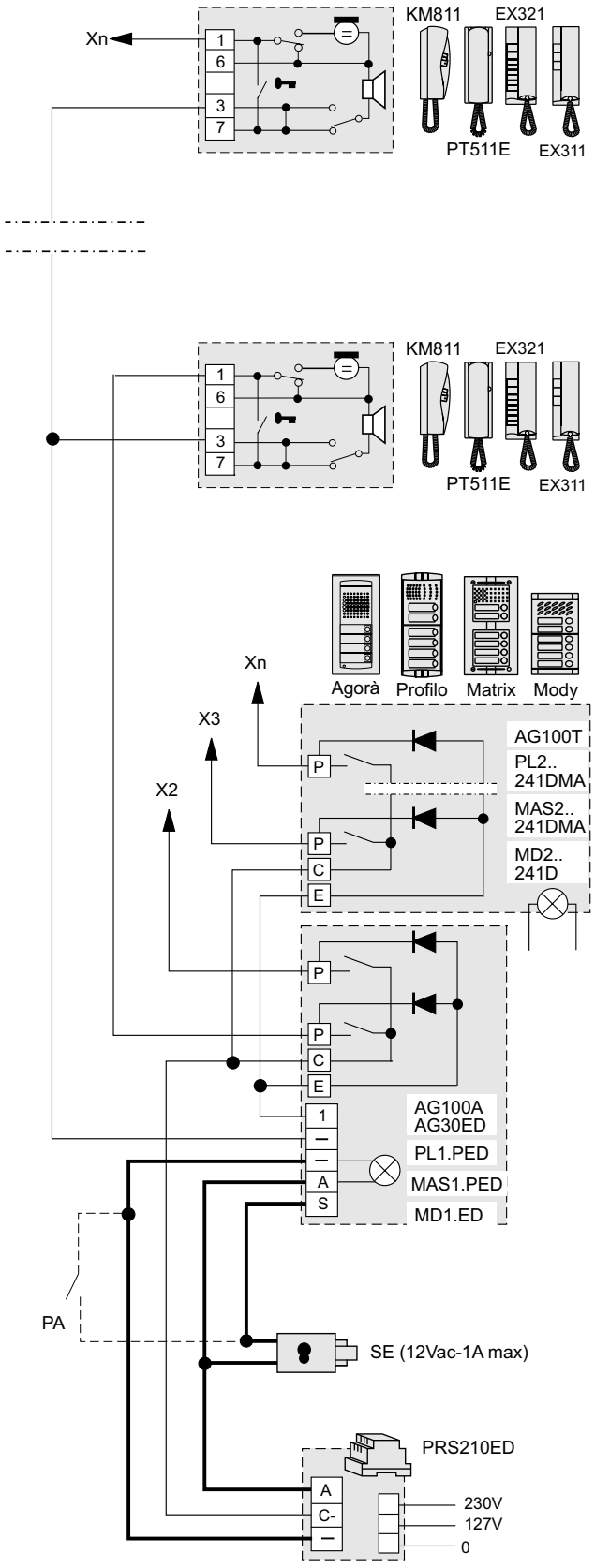
Working instructions. See page 52.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning refer to the installation recommendations and table on page 50.

Agorà door station

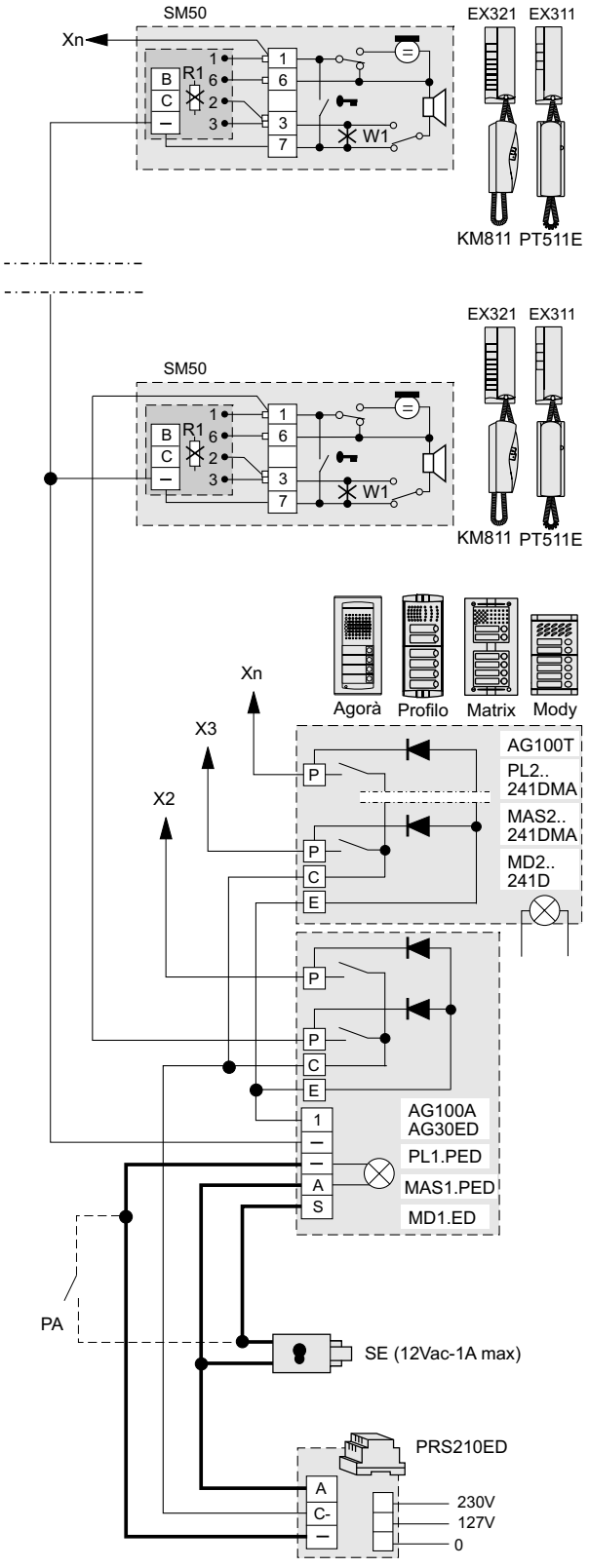
Note. Door station **AG100A** do not have the terminal **"E"** because the requested connection is automatically done inserting the pre-assembled cable which comes with the product *(see drawing 5a on page 18)*. On the contrary, do not forget to make the connection between the terminal **"1"** of art. **AG100A** and terminal **"E"** of the additional door stations **AG100T**'s *(if any)*.

a) INTERCOMS CONNECTED TO 1 EXTERNAL DOOR STATION



b) INTERCOMS WITH PRIVATE CONVERSATION CONNECTED TO 1 EXTERNAL DOOR STATION

Note
- In all SM50 **cut** the **resistance R1** and in the intercom the **jumper W1**.



INTERCOMS CONNECTED TO 2 AUTOMATICALLY SWITCHED EXTERNAL DOOR STATIONS

• EXTERNAL DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
2	**AG100A**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD71÷MD74**
...	**AG100T**	2	**PL81÷PL89**	2	**MAS61÷MAS63** (1)	2	**MD84÷MD812**
...	**AG20**	2	**PL91÷PL99 ***	2	**MA91÷MA93 ***	2	**MD94÷MD912 ***
...	**AG21**	2	**PL10PED÷PL12PED**	2	**MAS10PED÷MAS12PED**	2	**MD10ED÷MD12ED**
...	**AG222**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD21÷MD228**
2	**AG30ED**	...	**PL20, PL50**	...	**MAS20**	...	**MD20, MD50**
		...	**241DMA**	...	**241DMA**	...	**241D**

• INTERNAL STATIONS

...	**EX311**	Exhito series with 2 call buttons
...	**EX321**	Exhito series modular intercom
...	**KM811W**	Compact series intercom with 1 call button
...	**PT511EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

1	**1473**	Exchanger
1	**PRS210ED**	Transformer with electronic ringing generator
1	**PRS210**	Transformer
2	**PA ****	Door release push-button (*optional*)
2	**SE ****	Electric door lock (12VAC-1A)

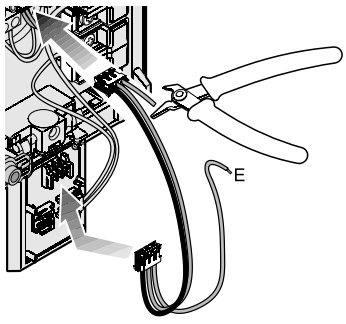
... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 52.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning refer to the installation recommendations and table on page 50.

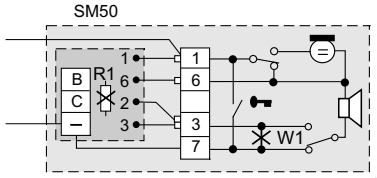
Agorà door stations

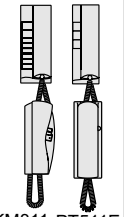
Attention. To create the terminal **"E"** in the door stations **AG100A** it is necessary to cut the red wire which connects the door speaker amplifier **AG30ED** to the backlighting board with diodes and LED's *(see figure).*
The terminal **"E"** of the entrance "**a**" must remain disconnected and insulated, on the contrary that of entrance "**b**" must be connected to the terminals **"E"** of additional **AG100T**'s (*if any*).



Install the privacy module.

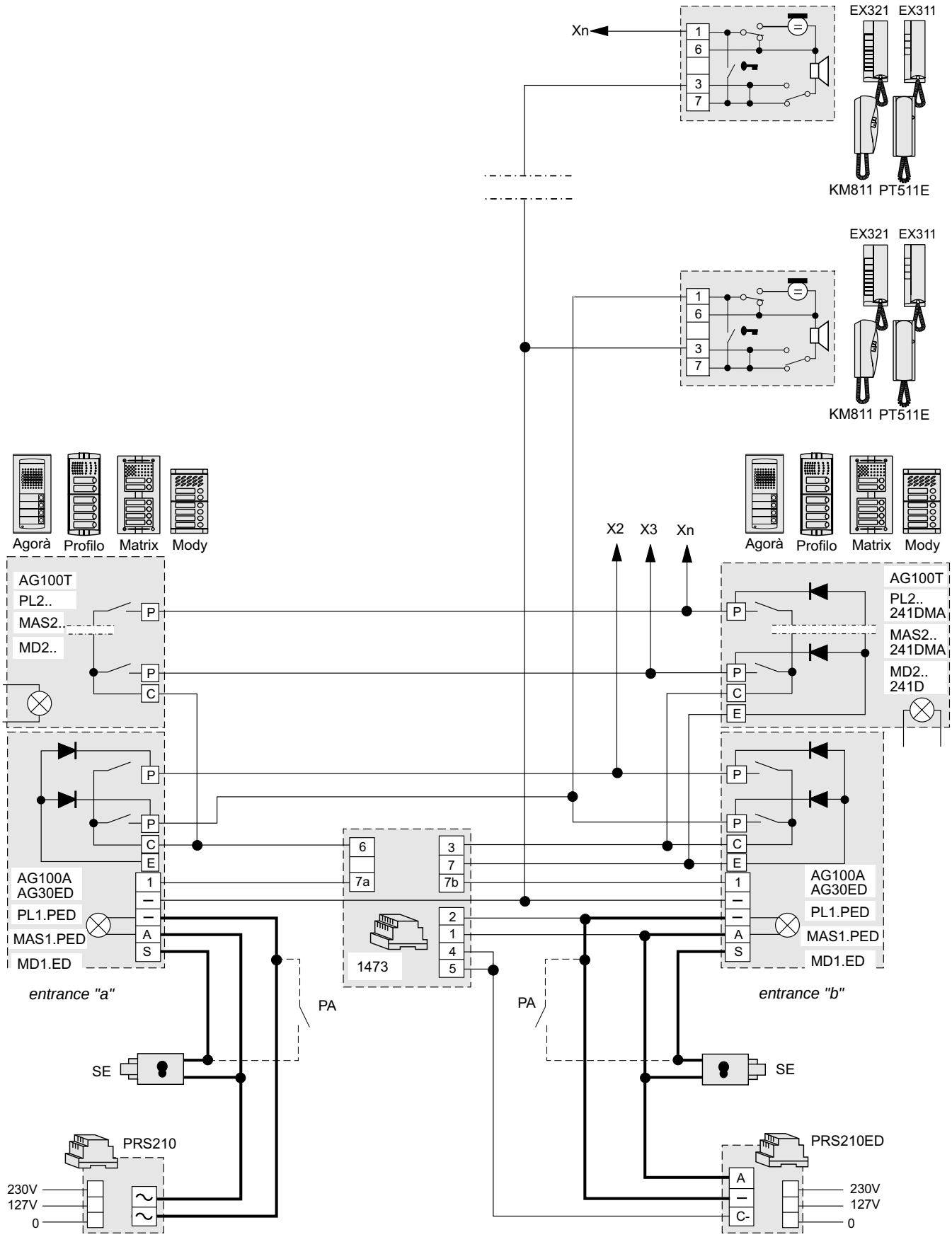
If privacy feature is requested, **SM50** module must be installed inside all the intercoms.





In all SM50 **cut** the **resistance R1** and in the intercom the **jumper W1**.

INTERCOMS CONNECTED TO 2 AUTOMATICALLY SWITCHED EXTERNAL DOOR STATIONS



INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON STATION *(multiple entrance)*

• EXTERNAL DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
1+X	**AG100A**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD71÷MD74**
...	**AG100T**	1+X	**PL81÷PL89**	1+X	**MAS61÷MAS63** (1)	1+X	**MD81÷MD812**
...	**AG20**	1+X	**PL91÷PL99 ***	1+X	**MA91÷MA93 ***	1+X	**MD91÷MD912 ***
...	**AG21**	1+X	**PL10PED÷PL12PED**	1+X	**MAS10PED÷MAS12PED**	1+X	**MD10ED÷MD12ED**
...	**AG222**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD21÷MD228**
1+X	**AG30ED**	...	**PL20, PL50**	...	**MAS20**	...	**MD20, MD50**
		...	**241DMA**	...	**241DMA**	...	**241D**

• INTERNAL STATIONS

...	**EX311**	Exhito series with 2 call buttons
...	**EX321**	Exhito series modular intercom
...	**KM811W**	Compact series intercom with 1 call button
...	**PT511EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

X	**1473**	Exchanger
X	**PRS210ED**	Transformer with electronic ringing generator
1	**PRS210**	Transformer
1+X	**PA ****	Door release push-button (*optional*)
1+X	**SE ****	Electric door lock (12VAC-1A)

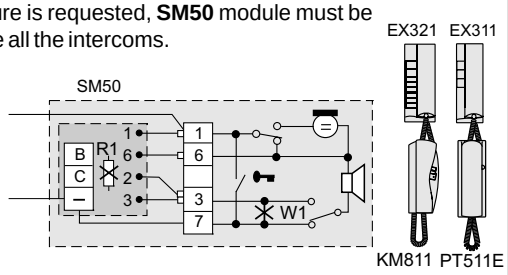
... Refers to number of users.
X Refers to the number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning refer to the installation recommendations and table on page 50.

Working instructions.
As the basic system described on page 52, with the following variations:
- The audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

Install the privacy module.

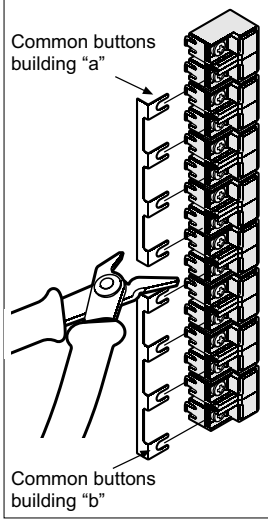
If privacy feature is requested, **SM50** module must be installed inside all the intercoms.



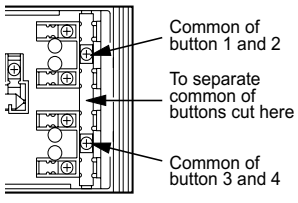
In all SM50 **cut** the **resistance R1** and in the intercom the **jumper W1**.

The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.

The common terminals of push-button **Agorà** series can be separated according to the requirements, by **cutting opportunely the common rail or just do not using it**.

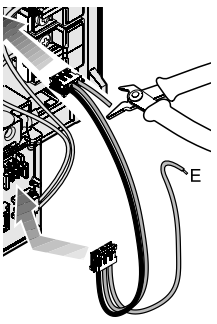


In **Mody** series the common terminals of push-buttons can be separated module by module or every 2 push-buttons by cutting opportunely the common rail which connects the common terminals of push-buttons.

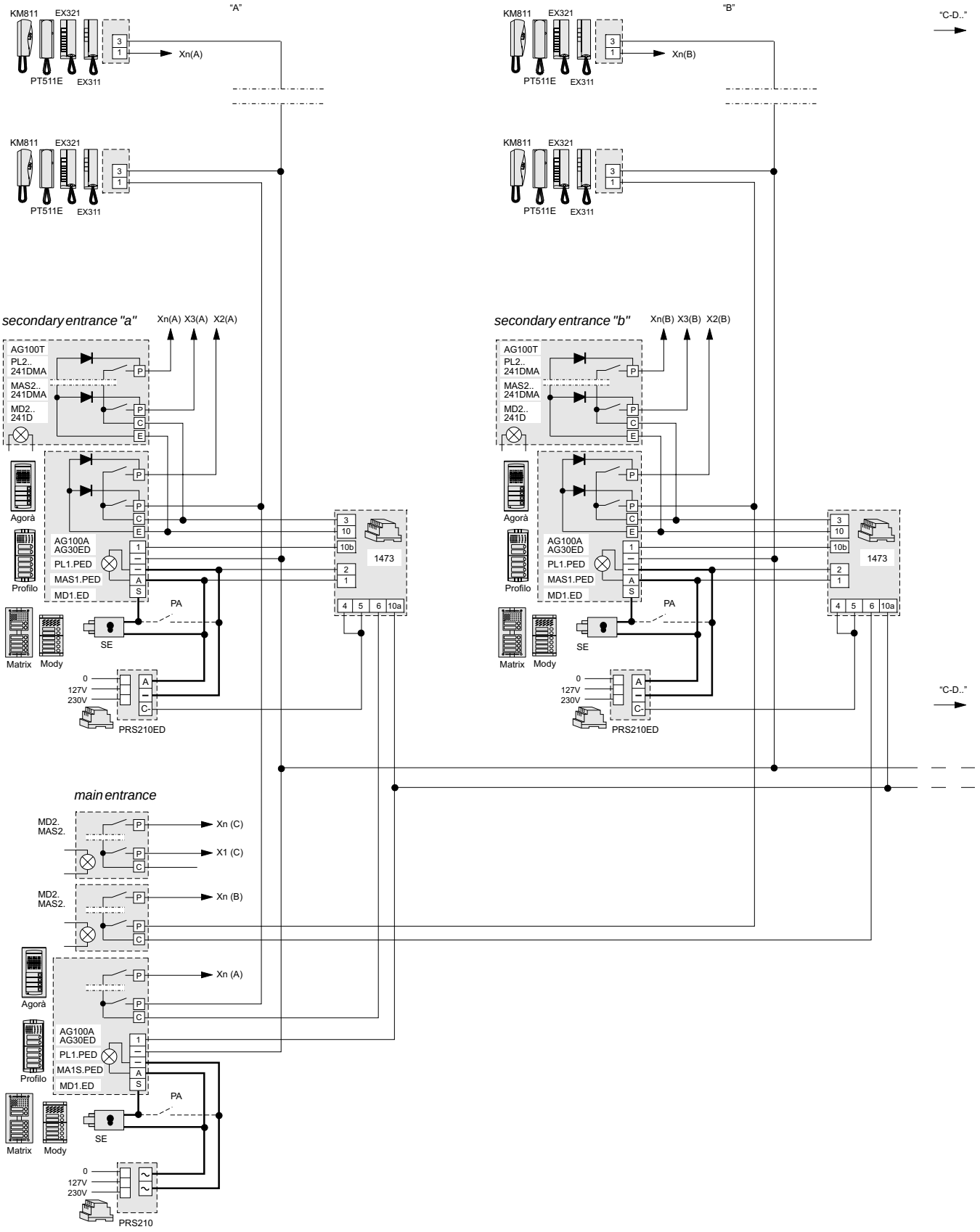


Agorà door stations

Attention. In the door station **AG100A** of the **secondary** entrances create the terminal **"E"** cutting the red wire which connects the door speaker **AG30ED** to the backlighting board *(see figure)*, than connect it to the terminals **"E"** of additional **AG100T**'s *(if any)*.
In the door station **AG100A** of the **main** entrance only cut and insulate the conductor **"E"** *(red wire)*.



INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON STATION *(multiple entrance)*



ONE-WAY INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON DOOR STATION

• Main DOOR STATION

AGORA' series		PROFILO series		MATRIX series		MODY series	
1	**AG100A**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD71÷MD74**
...	**AG100T**	1	**PL81÷PL89**	1	**MAS61÷MAS63** (1)	1	**MD81÷MD812**
...	**AG20**	1	**PL91÷PL99 ***	1	**MA91÷MA93 ***	1	**MD91÷MD912 ***
...	**AG21**	1	**PL10PED÷PL12PED**	1	**MAS10PED÷MAS12PED**	1	**MD10ED÷MD12ED**
...	**AG222**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD21÷MD228**
1	**AG30ED**	...	**PL20, PL50**	...	**MAS20**	...	**MD20, MD50**

• Secondary DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
X	**AG100A**	X	**PL71**	X	**MA71**	X	**MD71**
X	**AG21**	X	**PL81**	X	**MAS61** (1)	X	**MD81**
3xX	**AG20**	X	**PL91 ***	X	**MA91 ***	X	**MD91 ***
X	**AG30ED**	X	**PL11PED**	X	**MAS11PED**	X	**MD11ED**
		X	**241DMA**	X	**241DMA**	X	**241D**

• INTERNAL STATIONS

...	**EX311**	Exhito series with 2 call buttons
...	**EX321**	Exhito series modular intercom
...	**KM811W**	Compact series intercom with 1 call button
...	**PT511EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

X	**1473**	Exchanger
X	**PRS210ED**	Transformer with electronic ringing generator
1	**PRS210**	Transformer
1+X	**PA ****	Door release push-button (*optional*)
1+X	**SE ****	Electric door lock (12VAC-1A)
X	**D ****	100V-1A diode (type 1N4007)

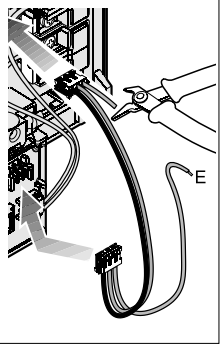
... Refers to number of users.
X Refers to the number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning refer to the installation recommendations and table on page 50.

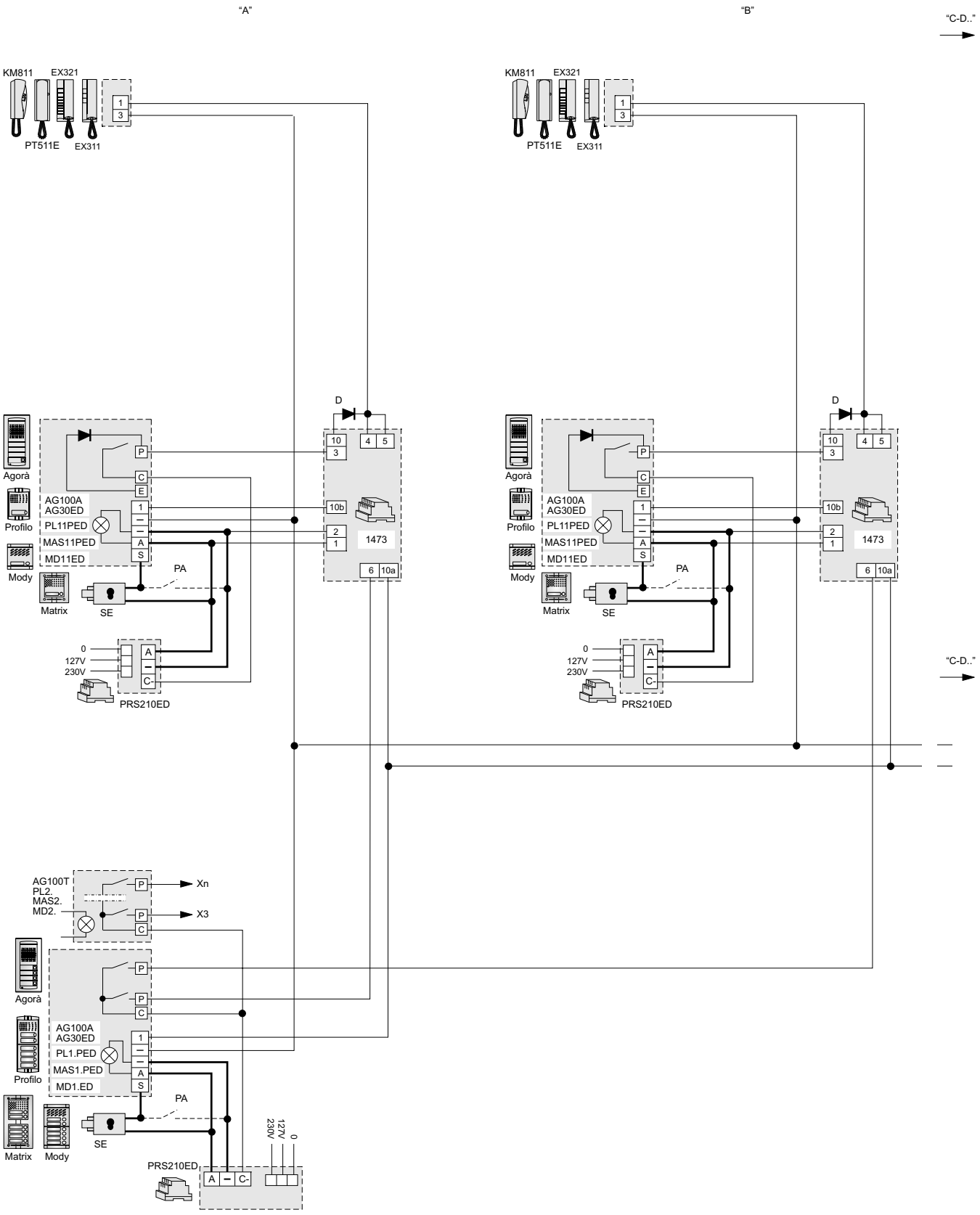
Working instructions.
As the basic system described on page 52, with the following variations:
- The audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

Agorà door stations

Attention. In the door stations **AG100A** it is necessary to cut and insulate the red wire which connects the door speaker amplifier **AG30ED** to the backlighting board with diodes and LED's *(see figure).*



ONE-WAY INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON DOOR STATION
(multiple entrance)



INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 2 MAIN COMMON STATIONS *(multiple entrance)*

• EXTERNAL DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
2+X	**AG100A**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD71÷MD74**
...	**AG100T**	2+X	**PL81÷PL89**	2+X	**MAS61÷MAS63** (1)	2+X	**MD81÷MD812**
...	**AG20**	2+X	**PL91÷PL99 ***	2+X	**MA91÷MA93 ***	2+X	**MD91÷MD912 ***
...	**AG21**	2+X	**PL10PED÷PL12PED**	2+X	**MAS10PED÷MAS12PED**	2+X	**MD10ED÷MD12ED**
...	**AG222**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD21÷MD228**
2+X	**AG30ED**	...	**PL20, PL50**	...	**MAS20**	...	**MD20, MD50**
		...	**241DMA**	...	**241DMA**	...	**241D**

• INTERNAL STATIONS

...	**EX311**	Exhito series with 2 call buttons
...	**EX321**	Exhito series modular intercom
...	**KM811W**	Compact series intercom with 1 call button
...	**PT511EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

2xX	**1473**	Exchanger
X	**PRS210ED**	Transformer with electronic ringing generator
2	**PRS210**	Transformer
2+X	**PA ****	Door release push-button (*optional*)
2+X	**SE ****	Electric door lock (12VAC-1A)

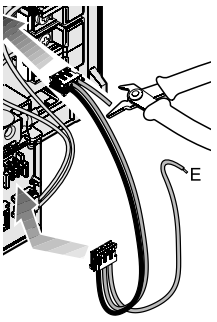
... Refers to number of users.
X Refers to the number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning refer to the installation recommendations and table on page 50.

Working instructions.
As the basic system described on page 52, with the following variations:
- The audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

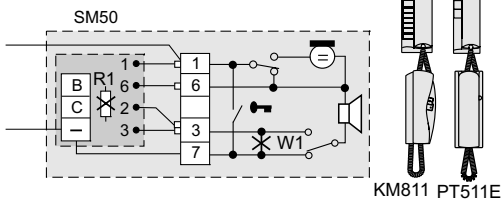
Agorà door stations

Attention. In the door station **AG100A** of the **secondary** entrances create the terminal **"E"** cutting the red wire which connects the door speaker **AG30ED** to the backlighting board *(see figure)*, than connect it to the terminals **"E"** of additional **AG100T**'s *(if any)*.
In the door station **AG100A** of the **main** entrances only cut and insulate the conductor **"E"** *(red wire)*.



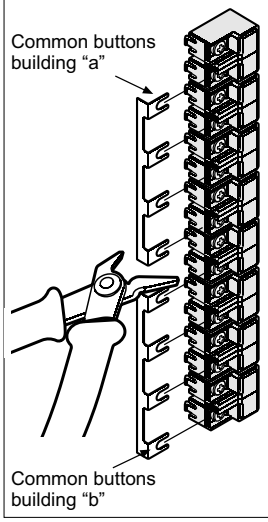
Install the privacy module.

If privacy feature is requested, **SM50** module must be installed inside all the intercoms.

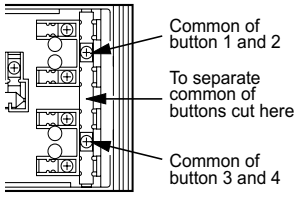


In all SM50 **cut** the **resistance R1** and in the intercom the **jumper W1**.

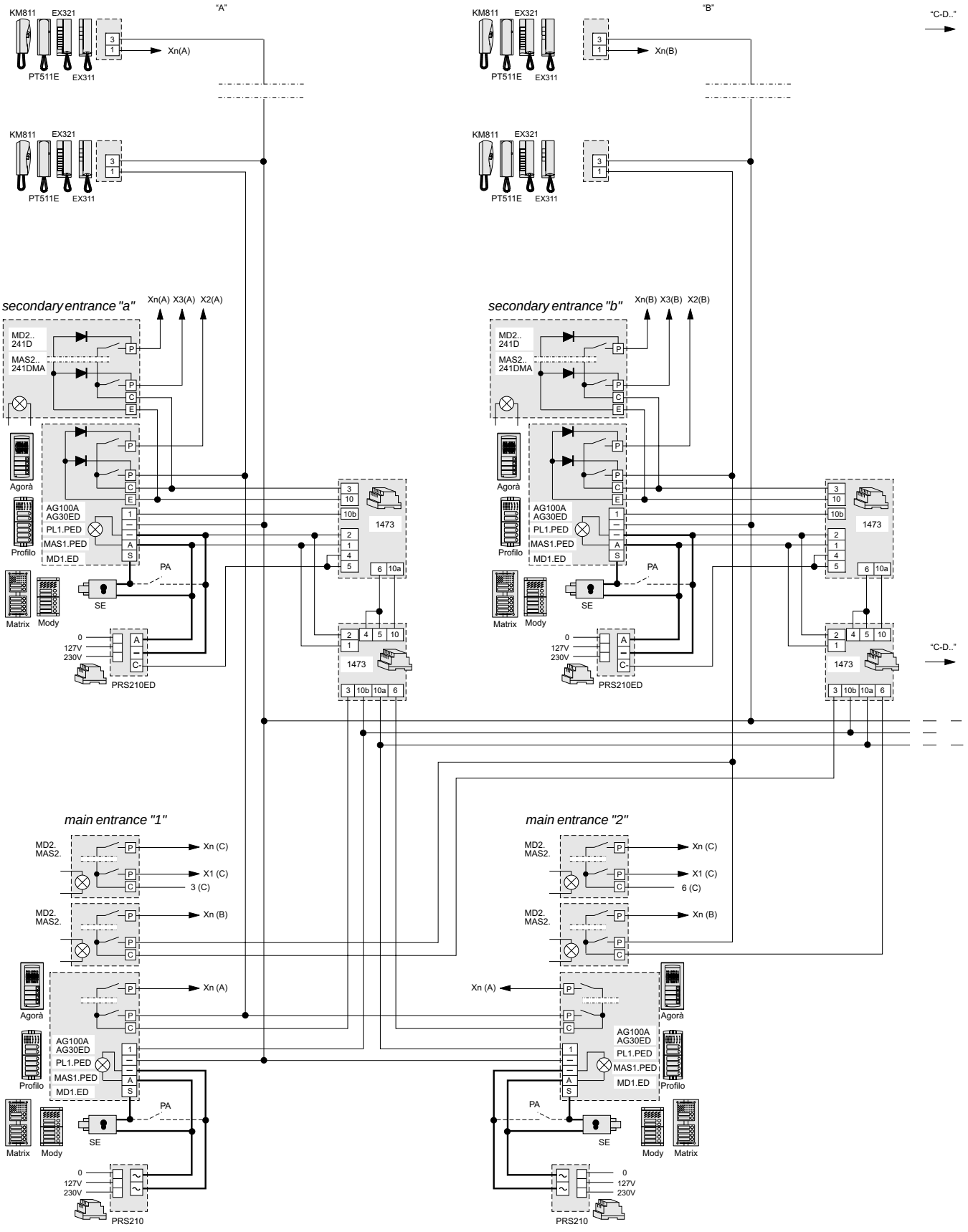
The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.
The common terminals of push-button **Agorà** series can be separated according to the requirements, by **cutting opportunely the common rail or just do not using it**.



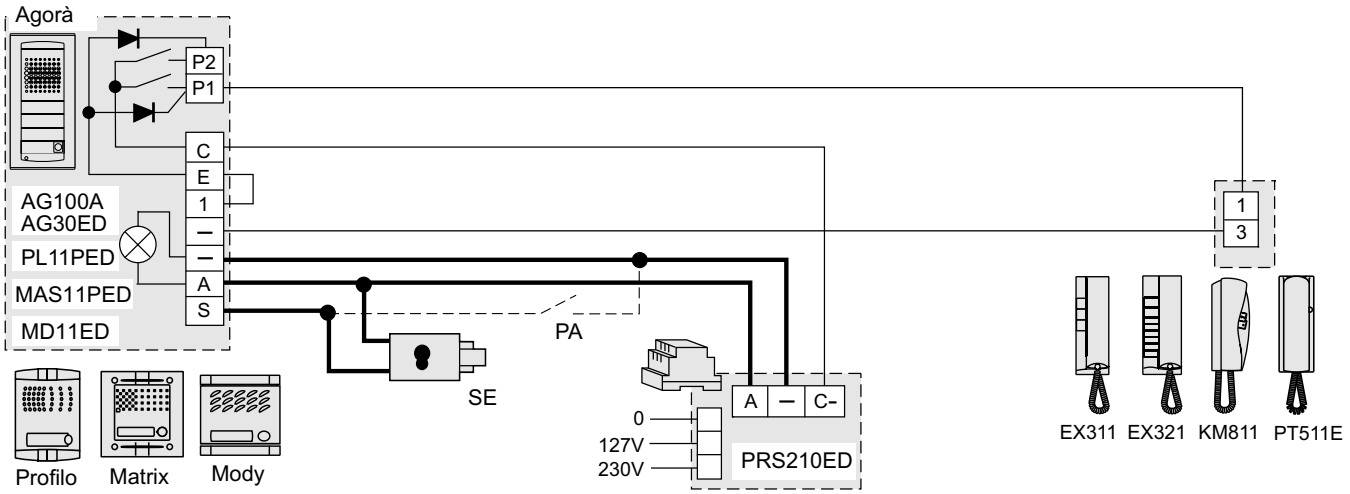
In **Mody** series the common terminals of push-buttons can be separated module by module or every 2 push-buttons by cutting opportunely the common rail which connects the common terminals of push-buttons.



INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 2 MAIN COMMON STATIONS *(multiple entrance)*

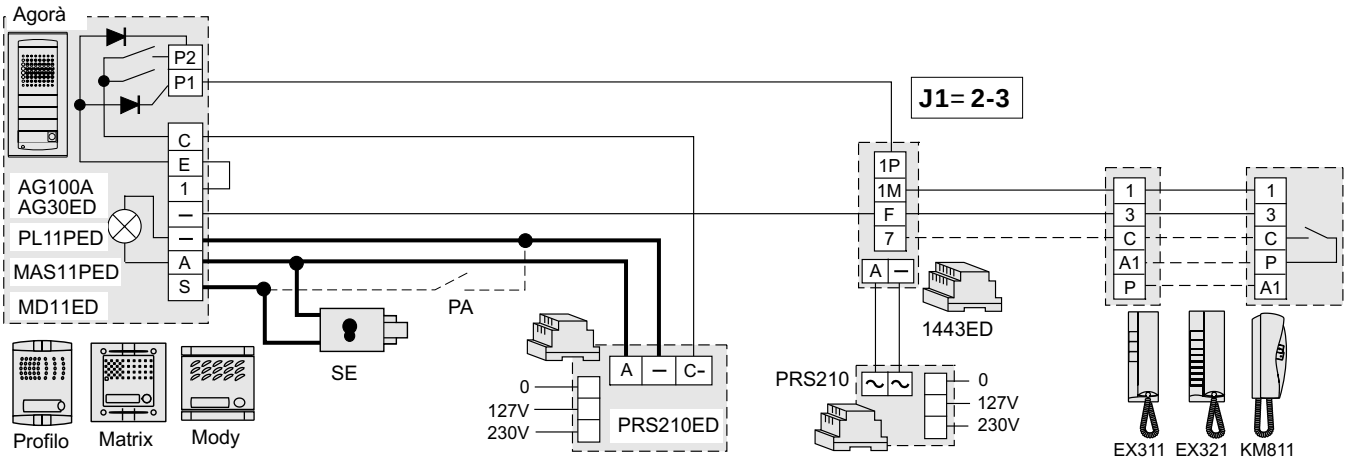


ONE-WAY INTERCOM SYSTEM



Si 211R/5

ONE-WAY INTERCOM SYSTEM WITH INTERCOMMUNICATING SERVICE BETWEEN 2 INTERCOMS



• EXTERNAL DOOR STATIONS for Si 211R/1 and Si 211R/5

AGORA' series		**PROFILO series**		**MATRIX series**		**MODY series**	
1	**AG100A**	1	**PL71**	1	**MA71**	1	**MD71**
1	**AG21**	1	**PL81**	1	**MAS61** (1)	1	**MD81**
3	**AG20**	1	**PL91 ***	1	**MA91 ***	1	**MD91 ***
1	**AG30ED**	1	**PL11PED**	1	**MAS11PED**	1	**MD11ED**

• INTERNAL STATIONS for Si 211R/1

1	**EX311**	Exhito series with 2 call buttons
1	**EX321**	Exhito series modular intercom
1	**KM811W**	Compact series intercom with 1 call button
1	**PT511EW**	Project series intercom with 1 call button

• INTERNAL STATIONS for Si 211R/5

2	**EX311**	Exhito series with 2 call buttons
2	**EX321**	Exhito series modular intercom
2	**KM811W**	Compact series intercom with 1 call button
2	**ST701**	Additional push-button for intercom KM811W

• VARIOUS ARTICLES for Si 211R/1

1	**PRS210ED**	Transformer with electronic ringing generator
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

• VARIOUS ARTICLES for Si 211R/5

1	**PRS210ED**	Transformer with electronic ringing generator
1	**PRS210**	Transformer
1	**1443ED**	Switcher module for intercommunicating system
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

(1) Or MA61.

***** Rain shelters are used instead of back boxes and hood covers.

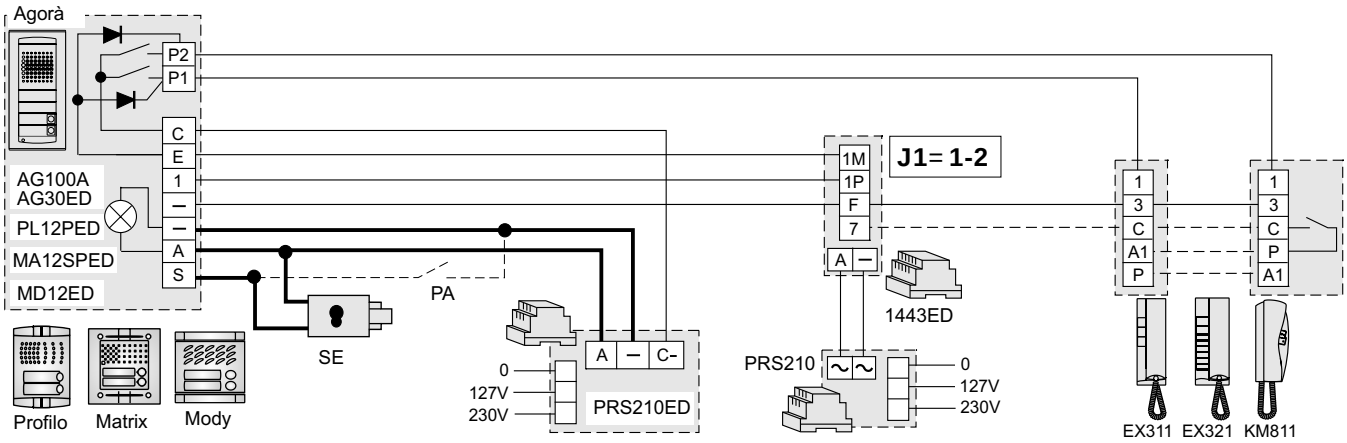
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 52.

Notes

- In art. **1443ED** it is necessary to move the jumper J1 in the position indicated in the installation diagram *(see also on page 48)*.
- Do not forget to connect the terminal **E** with the terminal **1** of the door stations **Profilo**, **Matrix** and **Mody** (no connection it is required in the **Agorà** series).
- For wires dimensioning refer to the installation recommendations and table on page 50.

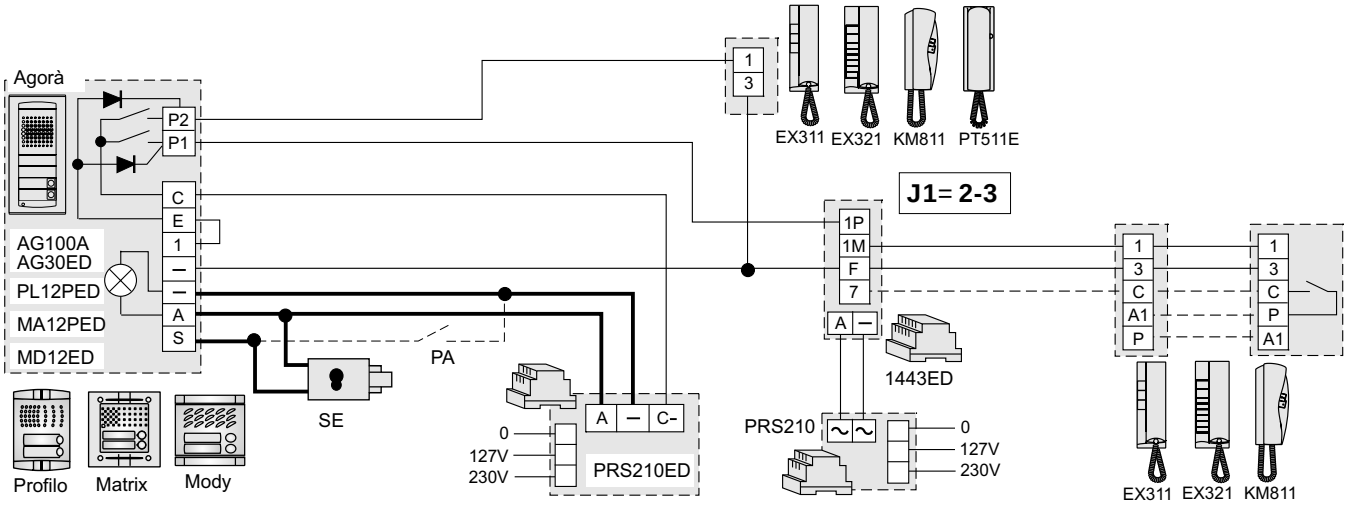
TWO-WAY INTERCOM SYSTEM WITH INTERCOMMUNICATING SERVICE BETWEEN 2 APARTMENTS



Note.
In the door station **AG100A** cut the red wire to create the terminal **"E"** *(see drawing 5b on page 18)*.

Si 212R/3

TWO-WAY INTERCOM SYSTEM WITH INTERCOMMUNICATING SERVICE BETWEEN IN AN APARTMENT



• EXTERNAL DOOR STATIONS for Si 212R/1 and Si 212R/3

AGORA' series		PROFILO series		MATRIX series		MODY series	
1	**AG100A**	1	**PL71**	1	**MA71**	1	**MD71**
2	**AG21**	1	**PL81**	1	**MAS61** (1)	1	**MD81**
2	**AG20**	1	**PL91 ***	1	**MA91 ***	1	**MD91 ***
1	**AG30ED**	1	**PL12PED**	1	**MAS12PED**	1	**MD12ED**

• INTERNAL STATIONS for Si 212R/1

2	**EX311**	Exhito series with 2 call buttons
2	**EX321**	Exhito series modular intercom
2	**KM811W**	Compact series intercom with 1 call button
2	**ST701**	Additional push-button for intercom KM811W

• INTERNAL STATIONS for Si 212R/3

3	**EX311**	Exhito series with 2 call buttons
3	**EX321**	Exhito series modular intercom
3	**KM811W**	Compact series intercom with 1 call button
2	**ST701**	Additional push-button for intercom KM811W
1	**PT511EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES for Si 212R/1 and Si 212R/3

1	**PRS210ED**	Transformer with electronic ringing generator
1	**PRS210**	Transformer
1	**1443ED**	Switcher module for intercommunicating system
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

(1) Or MA61.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 52.

Notes
- In art. **1443ED** it is necessary to move the jumper J1 in the position indicated in the installation diagram *(see also on page 48)*.
- Do not forget to connect the terminal **E** with the terminal **1** of the door stations **Profilo**, **Matrix** and **Mody** (no connection it is required in the **Agorà** series).
- For wires dimensioning refer to the installation recommendations and table on page 50.

MULTI-WAY INTERCOM SYSTEM WITH A DOOR STATION AND SOME APARTMENTS WITH INTERCOMMUNICATING SERVICE

• EXTERNAL DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
1	**AG100A**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD71÷MD74**
...	**AG100T**	1	**PL81÷PL89**	1	**MAS61÷MAS63** (1)	1	**MD81÷MD812**
...	**AG20**	1	**PL91÷PL99 ***	1	**MA91÷MA93 ***	1	**MD91÷MD912 ***
...	**AG21**	1	**PL10PED÷PL12PED**	1	**MAS10PED÷MAS12PED**	1	**MD10ED÷MD12ED**
...	**AG222**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD21÷MD228**
1	**AG30ED**	...	**PL20, PL50**	...	**MAS20**	...	**MD20, MD50**
		...	**241DMA**	...	**241DMA**	...	**241D**

• INTERNAL STATIONS WITHOUT INTERCOMMUNICATING SERVICE (for the details of the internal intercommunicating devices which can be installed see the list on the bottom of this page)

...	**EX311**	Exhito series with 2 call buttons
...	**EX321**	Exhito series modular intercom
...	**KM811W**	Compact series intercom with 1 call button
...	**PT511EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES (for all the specific devices to be installed in the intercommunicating apartments see the detailed list on the bottom of this page)

1	**PRS210ED**	Transformer with electronic ringing generator
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

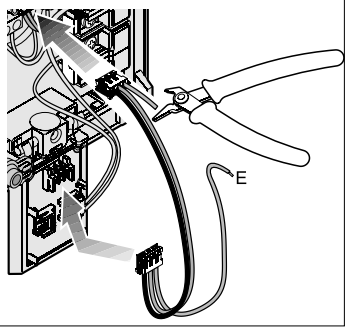
... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 52.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning refer to the installation recommendations and table on page 50.

Agorà door station

Attention. In the door station **AG100A** of the **secondary** entrances create the terminal **"E"** cutting the red wire which connects the door speaker **AG30ED** to the backlighting board *(see figure)*.



In the multi-apartment diagram are shown 3 different examples of connection for the intercommunicating service.

(A) Intercommunicating service between 2 apartments each of them with 2 parallel intercoms (Exhito and/or Compact series)

Exhito		Compact	
4	**EX311**	4	**KM811W**
	EX321	1	**1443ED**
1	**1443ED**	1	**PRS210**
1	**PRS210**	4	**ST701**

Notes:
- In the art. **1443ED** move the jumper **J1** from the position 2-3 to the position **1-2.**
- In each of the 2 apartments it is be possible to connect at maximum 3 intercoms in parallel, but the intercommunicating calls are between apartments (and not among the intercoms in the same apartment).

(B) Intercommunicating service in the same apartment between 2 intercoms (Exhito and/or Compact series)

Exhito		Compact	
2	**EX311**	2	**KM811W**
	EX321	2	**ST701**
1	**1443ED**	1	**1443ED**
1	**PRS210**	1	**PRS210**

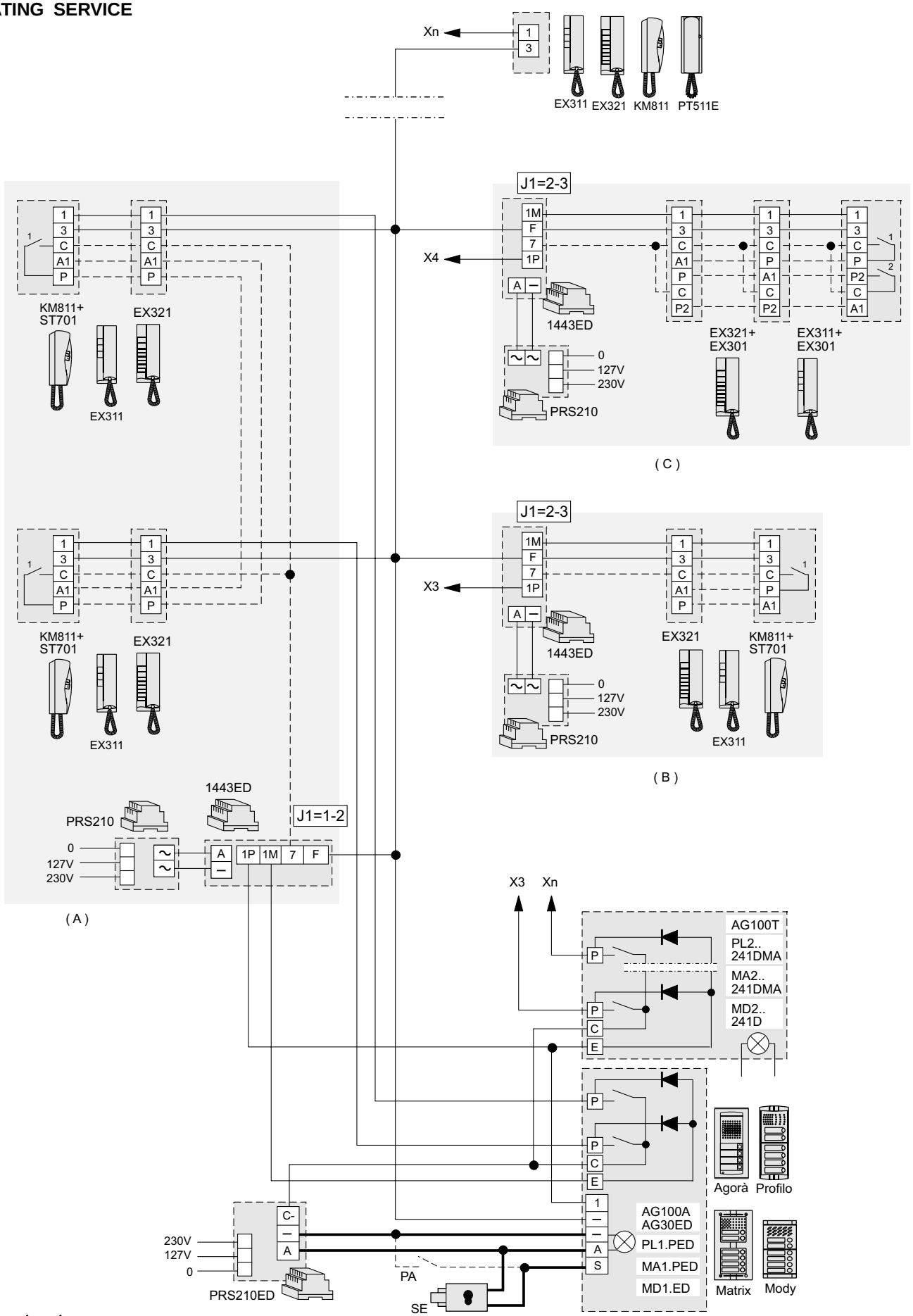
Notes:
- Verify that in the art. **1443ED** the jumper **J1** has been set in the position **2-3**.
- To make an intercommunicating call, pick up the handset, be sure that there are not any other communication in progress, and press the push-button 1. The called intercom, to receive the ringing tone, must have the handset correctly hooked in its place (not unhooked).

(C) Intercommunicating service in the same apartment with 3 intercoms Exhito series

Exhito			
3	**EX311**	3	**EX321**
3	**EX301**	3	**EX301**
1	**1443ED**	1	**1443ED**
1	**PRS210**	1	**PRS210**

Notes:
- Verify that in the art. **1443ED** the jumper **J1** has been set in the position **2-3**.
- To make an intercommunicating call, pick up the handset, be sure that there are not any other communication in progress, and press the push-button 1 or 2. The called intercom, to receive the ringing tone, must have the handset correctly hooked in its place (not unhooked).

MULTI-WAY INTERCOM SYSTEM WITH A DOOR STATION AND SOME APARTMENTS WITH INTERCOMMUNICATING SERVICE



MULTI-WAY MIXED INTERCOM AND VIDEOINTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION

• EXTERNAL DOOR STATIONS

AGORA' series	PROFILO series	MATRIX series	MODY series
1 AG100V	... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
... AG100T	1 PL81÷PL89	... MAS61÷MAS63 (1)	1 MD82÷MD812
... AG20	1 PL91÷PL99 *	1 MA91÷MA93 *	1 MD92÷MD912 *
... AG21	1 PL40PCED÷PL42PCED	1 MAS43CED	1 MD10ED÷MD12ED
... AG222	PL40PED÷PL42PED	MAS43ED	1 MD41D
1 AG40CED	... PL21÷PL228	... MAS22, MAS24	... MD21÷MD228
	... PL20, PL50	... MAS20	... MD20, MD50
	... 241DMA	... 241DMA	... 241D

• VIDEOINTERCOMS

ECHOS series	EXHITO series	COMPACT series
... EH9161CT	... EX3100C	... KM8111CW
... EH9161CW	... EX3160C	... KM8111W
... 9083	... EX3160	... WB8111
... WA9100T-W	... WB3161	
... TA9160	... TA3160	

• INTERCOMS

EXHITO series	COMPACT series	PROJECT series
... EX311	... KM811W	... PT511EW
... EX321	... SM50 ***	... SM50 ***
... SM50 ***		

• VARIOUS ARTICLES

1	**1181E**	Timed power-supply
...	**DV2D-DV4D**	Video distributors
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.
*** Use only for privacy feature.

Working instructions. See page 52.

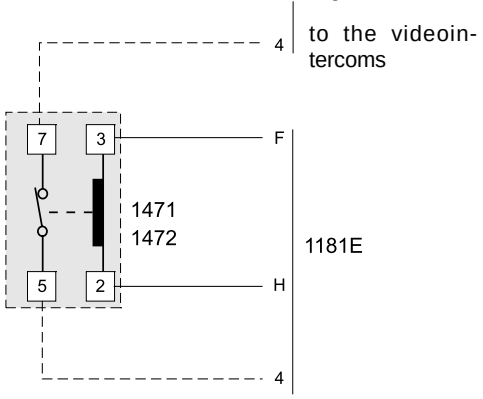
Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.

Agorà door stations

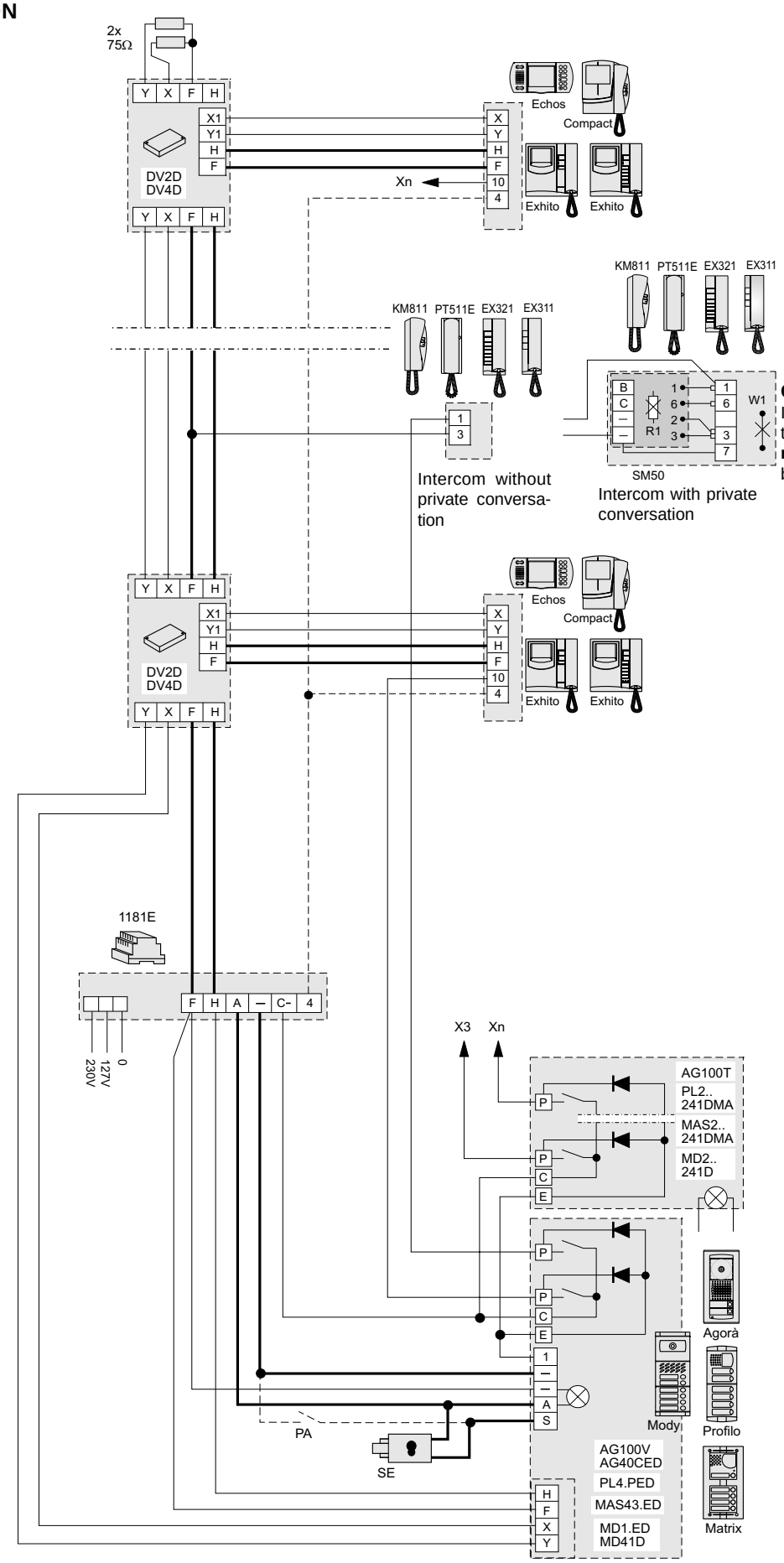
Note. Door station **AG100V** do not have the terminal **"E"** because the requested connection is automatically done inserting the pre-assembled cable which comes with the product *(see drawing 5a on page 18)*. On the contrary, do not forget to make the connection between the terminal **"1"** of art. **AG100V** and terminal **"E"** of the additional door stations **AG100T**'s *(if any)*.

Control switching ON deactivation

To activate the control switching ON from the videointercoms only when the system is in stand-by, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



MULTI-WAY MIXED INTERCOM AND VIDEOINTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION



Conversation privacy
In case of conversation privacy function, **jumper W1** of the intercom and **resistance R1** of module **SM50** must be **cut.**

MULTI-WAY VIDEOINTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION WITH SURVEILLANCE CAMERA

• EXTERNAL DOOR STATIONS

AGORA' series	PROFILO series	MATRIX series	MODY series
1 AG100A	... PL71÷PL73	... MA71÷MA73	... MD71÷MD74
... AG100T	1 PL81÷PL89	... MAS61÷MAS63 (1)	1 MD81÷MD812
... AG20	1 PL91÷PL99 *	1 MA91÷MA93 *	1 MD91÷MD912 *
... AG21	1 PL10PED÷PL12PED	1 MAS10PED÷MAS12PED	1 MD10ED÷MD12ED
... AG222	... PL21÷PL228	... MAS22, MAS24	... MD21÷MD228
1 AG30ED	... PL20, PL50	... MAS20	... MD20, MD50
	... 241DMA	... 241DMA	... 241D

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series
... EH9161CT	... EX3100C	... KM8111CW
... EH9161CW	... EX3160C	... KM8111W
... 9083	... EX3160	... WB8111
... WA9100T-W	... WB3161	
... TA9160	... TA3160	

• VARIOUS ARTICLES

1	**1181E**	Timed power-supply
...	**DV2D-DV4D**	Video distributors
1	**CV01**	Video signal converter
1	**TVT..**	CCTV camera
1	**H..**	Lens with or without autoiris
1	**CU..**	Outdoor heated housing
1	**AST..**	Bracket for camera or housing
1	**APS..**	Power supply for camera
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

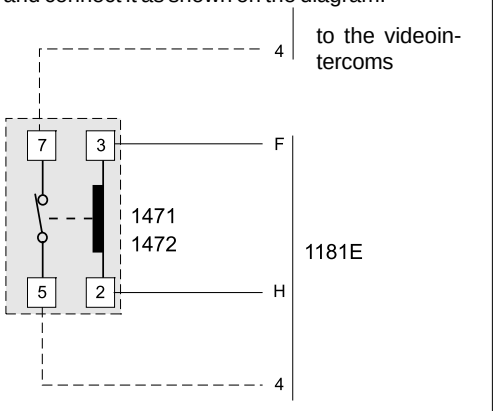
Working instructions. See page 52.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.

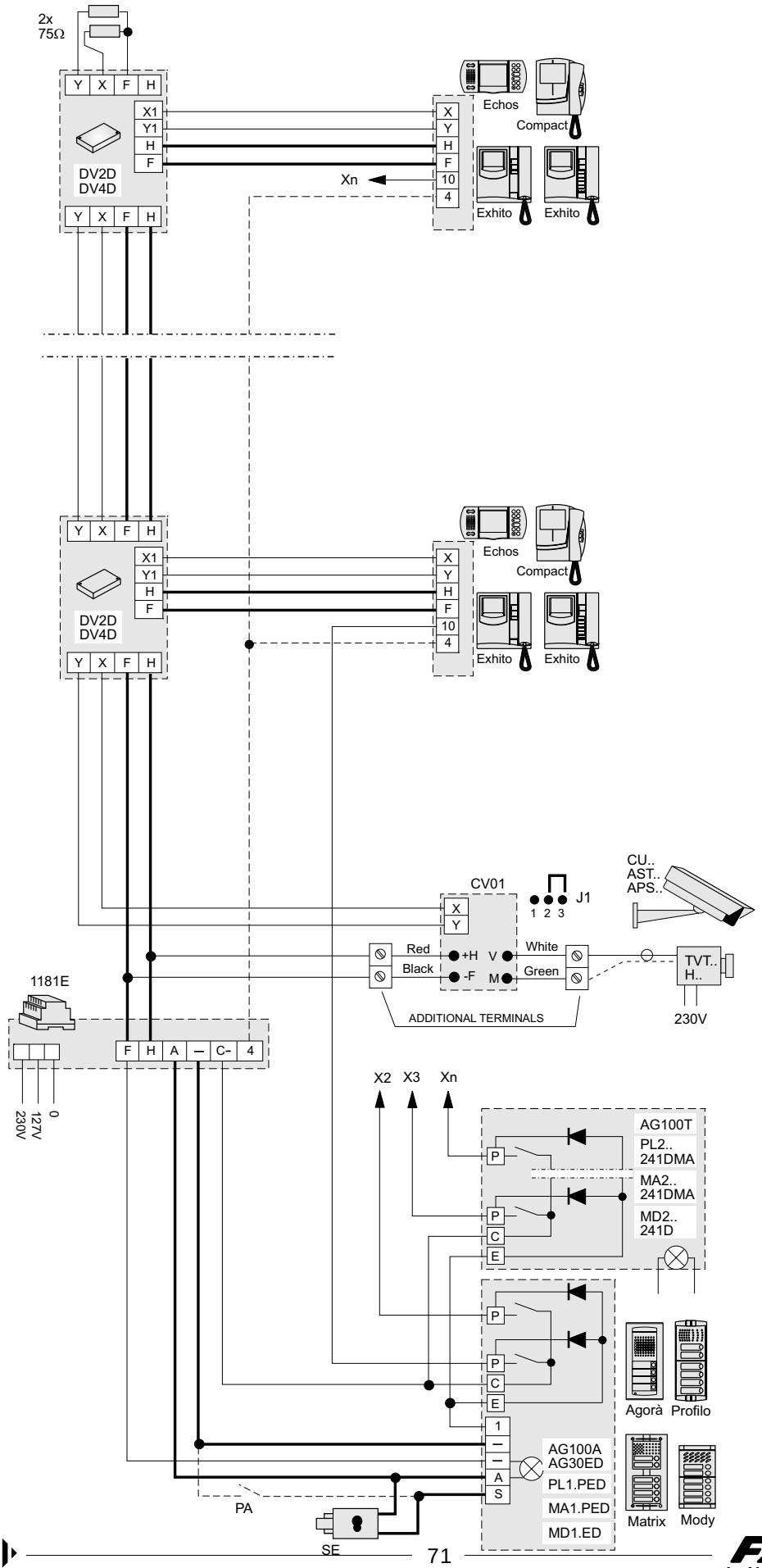
Agorà door station

Note. Door station **AG100A** do not have the terminal **"E"** because the requested connection is automatically done inserting the pre-assembled cable which comes with the product *(see drawing 5a on page 18)*. On the contrary, do not forget to make the connection between the terminal **"1"** of art. **AG100A** and terminal **"E"** of the additional door stations **AG100T**'s *(if any)*.

Control switching ON deactivation
To activate the control switching ON from the videointercoms only when the system is in standby, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



MULTI-WAY VIDEOINTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION WITH SURVEILLANCE CAMERA



MULTI-WAY VIDEOINTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS, ONE OF WHICH ONLY AUDIO

• EXTERNAL DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
1	**AG100V**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD72÷MD74**
1	**AG100A**	2	**PL81÷PL89**	...	**MAS61÷MAS63** (1)	2	**MD82÷MD812**
...	**AG100T**	2	**PL91÷PL99 ***	2	**MA91÷MA93 ***	2	**MD92÷MD912 ***
...	**AG20**	1	**PL40PCED÷PL42PCED**	1	**MAS43CED**	2	**MD10ED÷MD12ED**
...	**AG21**		**PL40PED÷PL42PED**		**MAS43ED**	1	**MD41D**
...	**AG222**	1	**PL10PED÷PL12PED**	1	**MAS10PED÷MAS12PED**	...	**MD21÷MD228**
1	**AG30ED**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD20, MD50**
1	**AG40CED**	...	**PL20, PL50**	...	**MAS20**	...	**241D**
		...	**241DMA**	...	**241DMA**		

• INTERNAL STATIONS

ECHOS series		EXHITO series		COMPACT series	
...	**EH9161CT**	...	**EX3100C**	...	**KM8111CW**
...	**EH9161CW**	...	**EX3160C**	...	**KM8111W**
...	**9083**	...	**EX3160**	...	**WB8111**
...	**WA9100T-W**	...	**WB3161**		
...	**TA9160**	...	**TA3160**		

• VARIOUS ARTICLES

1	**1473**	Exchanger
1	**1181E**	Timed power-supply
1	**PRS210**	Transformer
...	**DV2D-DV4D**	Video distributors
2	**PA ****	Door release push-button (*optional*)
2	**SE ****	Electric door lock (12VAC-1A)

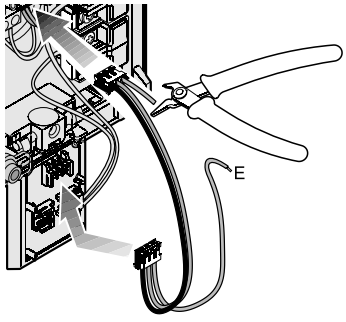
... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 52, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.

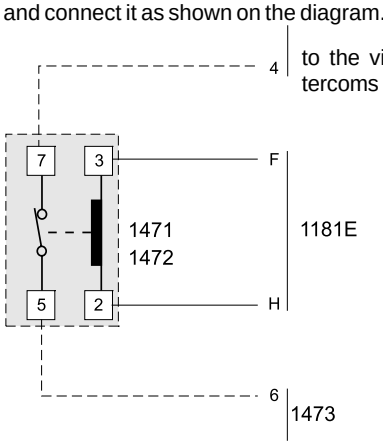
Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.

Agorà door stations

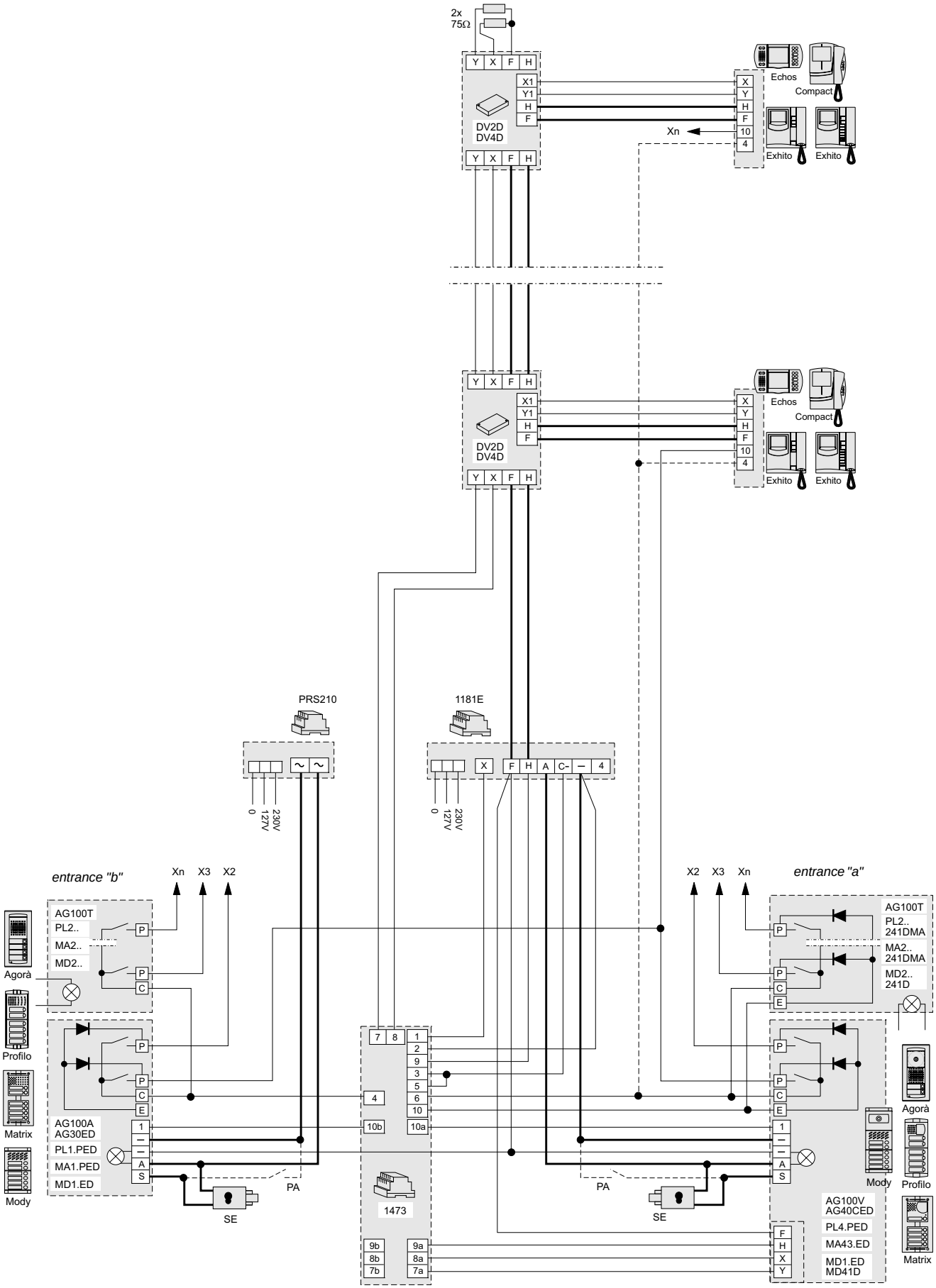
Attention. To create the terminal **"E"** in the door station **AG100A** and **AG100V** it is necessary to cut the red wire which connects the door speaker amplifier **AG30ED** or **AG40CED** to the backlighting board with diodes and LED's *(see figure).*
The terminal **"E"** of the entrance "**b**" must remain disconnected and insulated, on the contrary that of entrance "**a**" must be connected to the terminals **"E"** of additional **AG100T**'s (*if present*).



Control switching ON deactivation
To activate the control switching ON from the videointercoms only when the system is in standby, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



MULTI-WAY VIDEOINTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS, ONE OF WHICH ONLY AUDIO



MULTI-WAY VIDEOINTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS

• EXTERNAL DOOR STATIONS

AGORA' series	PROFILO series	MATRIX series	MODY series
2 **AG100V**	... **PL71÷PL73**	... **MA71÷MA73**	... **MD72÷MD74**
... **AG100T**	2 **PL81÷PL89**	... **MAS61÷MAS63** (1)	2 **MD82÷MD812**
... **AG20**	2 **PL91÷PL99 ***	2 **MA91÷MA93 ***	2 **MD92÷MD912 ***
... **AG21**	2 **PL40PCED÷PL42PCED**	2 **MAS43CED**	2 **MD10ED÷MD12ED**
... **AG222**	**PL40PED÷PL42PED**	**MAS43ED**	2 **MD41D**
2 **AG40CED**	... **PL21÷PL228**	... **MAS22, MAS24**	... **MD21÷MD228**
	... **PL20, PL50**	... **MAS20**	... **MD20, MD50**
	... **241DMA**	... **241DMA**	... **241D**

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series
... **EH9161CT**	... **EX3100C**	... **KM8111CW**
... **EH9161CW**	... **EX3160C**	... **KM8111W**
... **9083**	... **EX3160**	... **WB8111**
... **WA9100T-W**	... **WB3161**	
... **TA9160**	... **TA3160**	

• VARIOUS ARTICLES

1	**1473**	Exchanger
1	**1181E**	Timed power-supply
1	**PRS210**	Transformer
...	**DV2D-DV4D**	Video distributors
2	**PA ****	Door release push-button (*optional*)
2	**SE ****	Electric door lock (12VAC-1A)

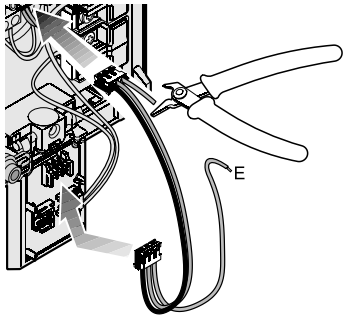
... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 52, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.
- With **Echos videointercoms** series it is possible to monitor also the **"b"** entrance by connecting the terminal **P1** of the Echos videointercoms to the terminal **"4"** of the exchanger art.1473 and by moving the jumper **J2** on the back of the videointercom to the position **2-3** *(see page 4).*

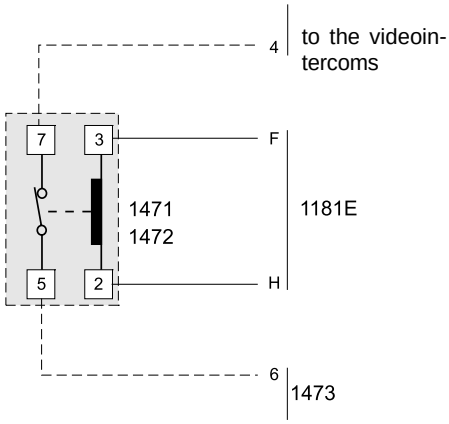
Agorà door stations

Attention. To create the terminal **"E"** in the door station **AG100V** it is necessary to cut the red wire which connects the door speaker amplifier **AG40CED** to the backlighting board with diodes and LED's *(see figure).* The terminal **"E"** of the entrance "**b**" must remain disconnected and insulated, on the contrary that of entrance "**a**" must be connected to the terminals **"E"** of additional **AG100T**'s (*if present*).

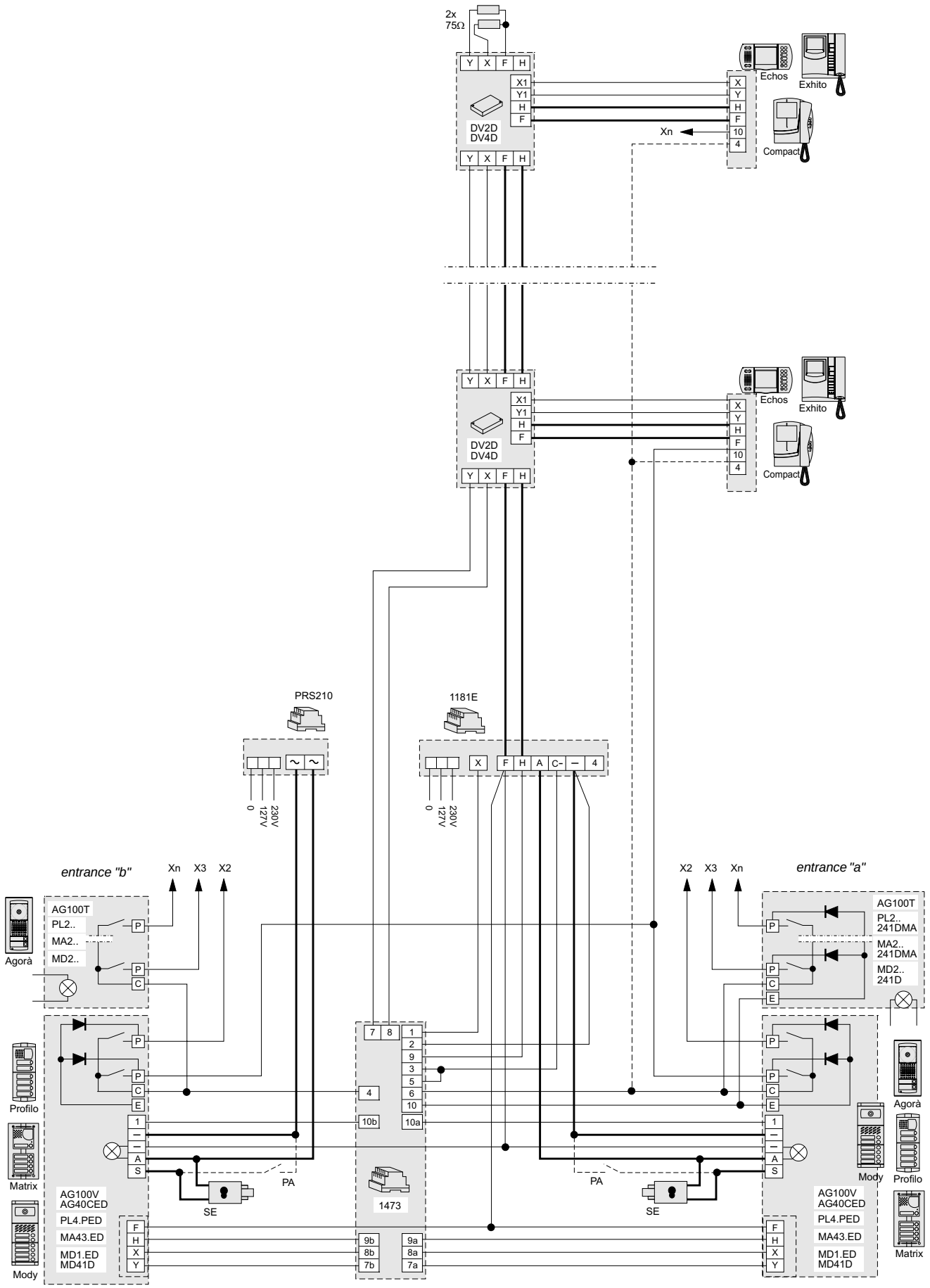


Control switching ON deactivation

To activate the control switching ON from the videointercoms only when the system is in stand-by, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



MULTI-WAY VIDEOINTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS



MULTI-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON VIDEO STATION (multiple entrance)

• EXTERNAL DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
1+X	**AG100V**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD72÷MD74**
...	**AG100T**	1+X	**PL81÷PL89**	...	**MAS61÷MAS63** (1)	1+X	**MD82÷MD812**
...	**AG20**	1+X	**PL91÷PL99 ***	1+X	**MA91÷MA93 ***	1+X	**MD92÷MD912 ***
...	**AG21**	1+X	**PL40PCED÷PL42PCED**	1+X	**MAS43CED**	1+X	**MD10ED÷MD12ED**
...	**AG222**		**PL40PED÷PL42PED**		**MAS43ED**	1+X	**MD41D**
1+X	**AG40CED**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD21÷MD228**
		...	**PL20, PL50**	...	**MAS20**	...	**MD20, MD50**
		...	**241DMA**	...	**241DMA**	...	**241D**

• INTERNAL STATIONS

ECHOS series		EXHITO series		COMPACT series	
...	**EH9161CT**	...	**EX3100C**	...	**KM8111CW**
...	**EH9161CW**	...	**EX3160C**	...	**KM8111W**
...	**9083**	...	**EX3160**	...	**WB8111**
...	**WA9100T-W**	...	**WB3161**		
...	**TA9160**	...	**TA3160**		

• VARIOUS ARTICLES

X	**1473**	Exchanger
1+X	**1181E**	Timed power-supply
1+...	**DV2D-DV4D**	Video distributors
1+X	**PA ****	Door release push-button (*optional*)
1+X	**SE ****	Electric door lock (12VAC-1A)

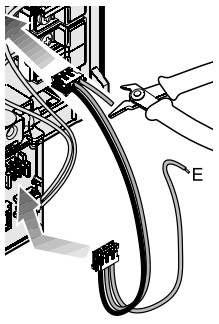
... Refers to number of users.
X Refers to number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.
- With **Echos videointercoms** series it is possible to monitor also the main entrance by connecting the terminal **P1** of the Echos videointercoms to the terminal **"5"** of the exchanger art.1473 connected to its own riser and by moving the jumper **J2** on the back of the videointercoms to the position **2-3** *(see on page 4).*

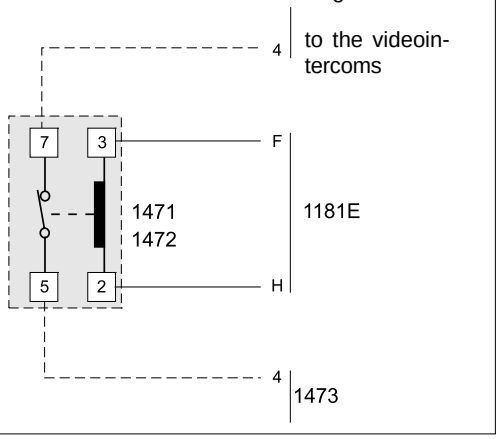
Working instructions.
As the basic system described on page 52, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

Agorà door stations

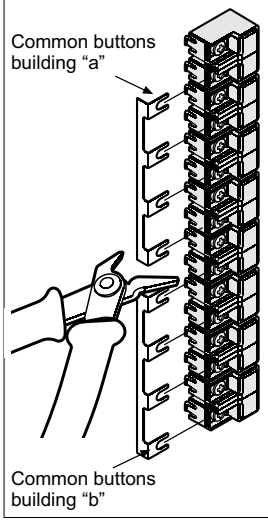
Attention. In the door station **AG100V** of the **secondary** entrances create the terminal **"E"** cutting the red wire which connects the door speaker **AG40CED** to the backlighting board *(see figure)*, than connect it to the terminals **"E"** of additional **AG100T**'s *(if any).*
In the door station **AG100V** of the **main** entrance only cut and insulate the conductor **"E"** *(red wire).*



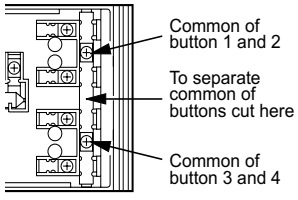
Control switching ON deactivation
To activate the control switching ON from the videointercoms only when the system is in stand-by, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



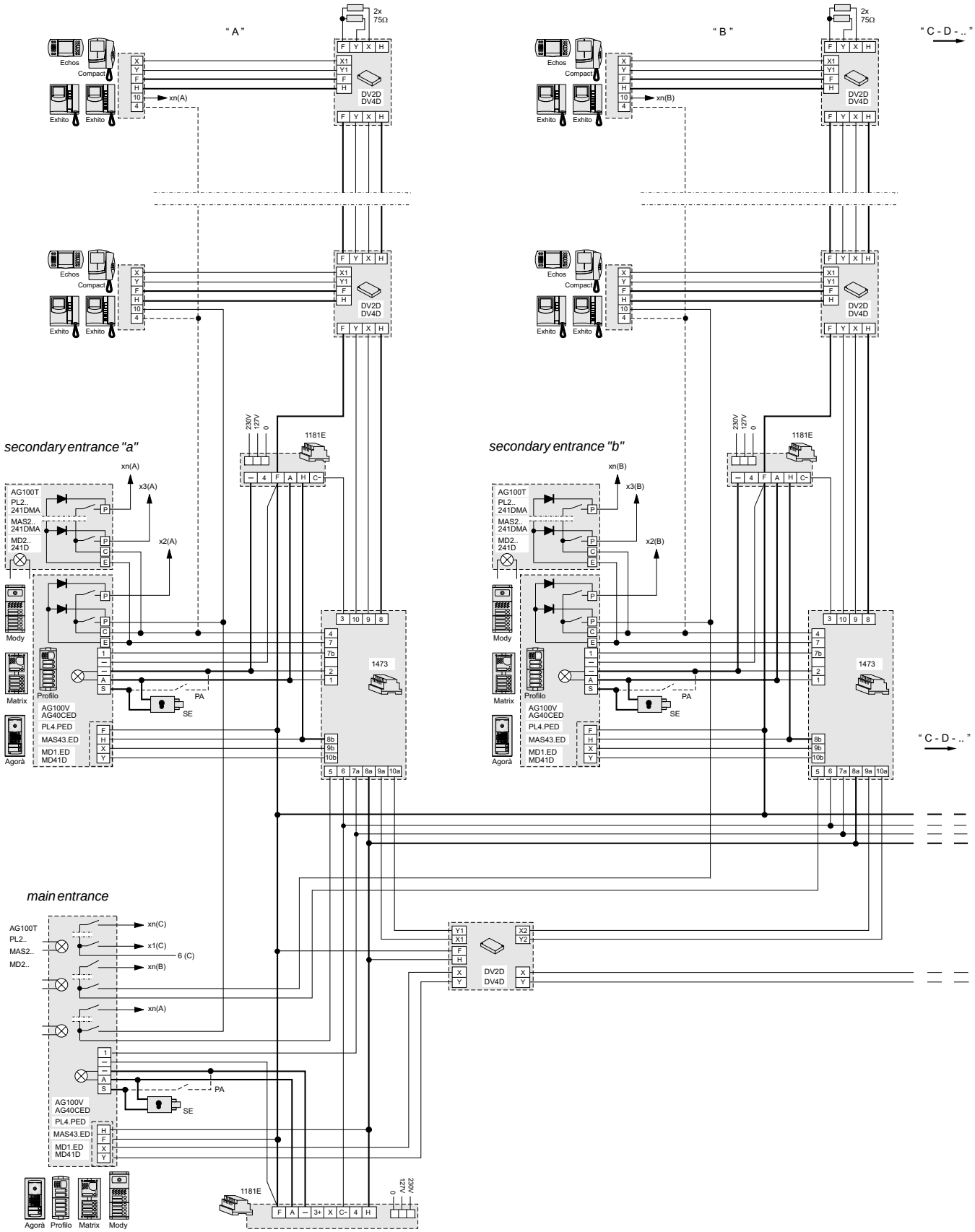
The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.
The common terminals of push-button **Agorà** series can be separated according to the requirements, by **cutting opportunely the common rail or just do not using it**.



In **Mody** series the common terminals of push-buttons can be separated module by module or every 2 push-buttons by cutting opportunely the common rail which connects the common terminals of push-buttons.



MULTI-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON VIDEO STATION (multiple entrance)



MULTI-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION (multiple entrance)

• EXTERNAL DOOR STATIONS

	AGORA' series		**PROFILO series**		**MATRIX series**		**MODY series**
1	**AG100V**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD72÷MD74**
X	**AG100A**	1+X	**PL81÷PL89**	...	**MAS61÷MAS63** (1)	1+X	**MD82÷MD812**
...	**AG100T**	1+X	**PL91÷PL99 ***	1+X	**MA91÷MA93 ***	1+X	**MD92÷MD912 ***
...	**AG20**	1	**PL40PCED÷PL42PCED**	1	**MAS43CED**	1+X	**MD10ED÷MD12ED**
...	**AG21**		**PL40PED÷PL42PED**		**MAS43ED**	1	**MD41D**
...	**AG222**	X	**PL10PED÷PL12PED**	X	**MAS10PED÷MAS12PED**	...	**MD21÷MD228**
X	**AG30ED**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD20, MD50**
1	**AG40CED**	...	**PL20, PL50**	...	**MAS20**	...	**241D**
		...	**241DMA**	...	**241DMA**		

• INTERNAL STATIONS

ECHOS series		**EXHITO series**		**COMPACT series**	
...	**EH9161CT**	...	**EX3100C**	...	**KM8111CW**
...	**EH9161CW**	...	**EX3160C**	...	**KM8111W**
...	**9083**	...	**EX3160**	...	**WB8111**
...	**WA9100T-W**	...	**WB3161**		
...	**TA9160**	...	**TA3160**		

• VARIOUS ARTICLES

X	**1473**	Exchanger
1+X	**1181E**	Timed power-supply
1+...	**DV2D-DV4D**	Video distributors
1+X	**PA ****	Door release push-button (*optional*)
1+X	**SE ****	Electric door lock (12VAC-1A)

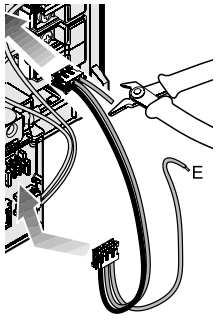
... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.
- If it is requested to monitor the **main** entrance it is necessary to connect the terminal **"4"** of the videointercoms to the terminal **"5"** of the exchanger art. 1473 connected to its **own riser**.

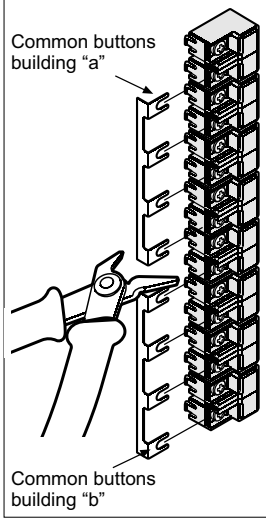
Working instructions.
As the basic system described on page 52, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

Agorà door stations

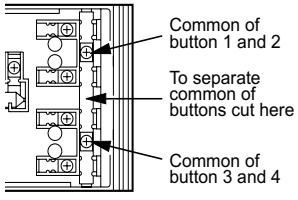
Attention. In the door station **AG100A** of the **secondary** entrances create the terminal **"E"** cutting the red wire which connects the door speaker **AG30ED** to the backlighting board *(see figure)*, than connect it to the terminals **"E"** of additional **AG100T**'s *(if any)*.
In the door station **AG100V** of the **main** entrance only cut and insulate the conductor **"E"** *(red wire)*.



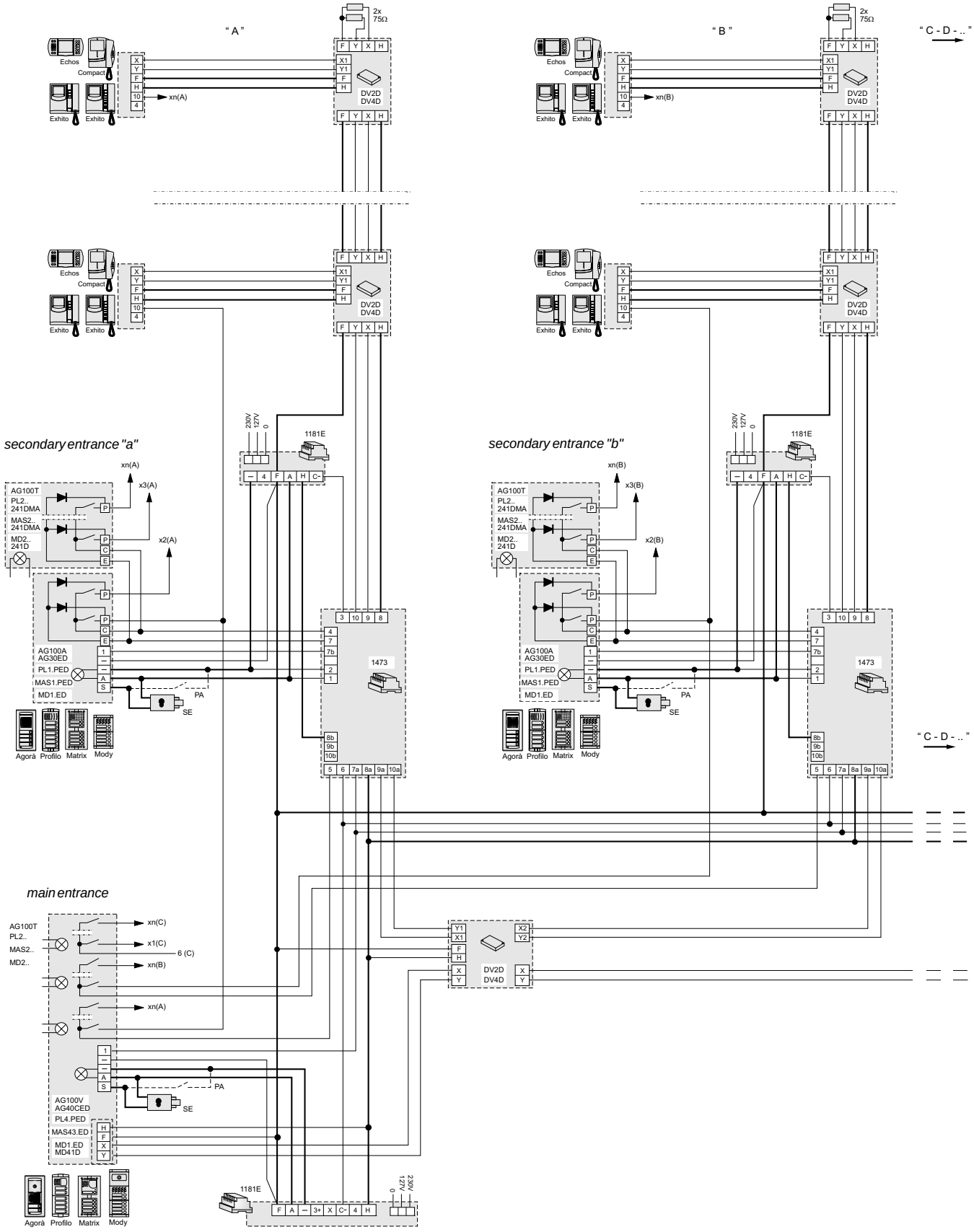
The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.
The common terminals of push-button **Agorà** series can be separated according to the requirements, by **cutting opportunely the common rail or just do not using it**.



In **Mody** series the common terminals of push-buttons can be separated module by module or every 2 push-buttons by cutting opportunely the common rail which connects the common terminals of push-buttons.



MULTI-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION (multiple entrance)



ONE-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON VIDEO STATION

• MAIN DOOR STATION

AGORA' series	PROFILO series	MATRIX series	MODY series
1 AG100V	... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
... AG100T	1 PL81÷PL89	... MAS61÷MAS63 (1)	1 MD82÷MD812
... AG20	1 PL91÷PL99 *	1 MA91÷MA93 *	1 MD92÷MD912 *
... AG21	1 PL40PCED÷PL42PCED	1 MAS43CED	1 MD10ED÷MD12ED
... AG222	PL40PED÷PL42PED	MAS43ED	1 MD41D
1 AG40CED	... PL21÷PL228	... MAS22, MAS24	... MD21÷MD228
	... PL20, PL50	... MAS20	... MD20, MD50
	... 241DMA	... 241DMA	... 241D

• SECONDARY DOOR STATIONS

AGORA' series	PROFILO series	MATRIX series	MODY series
X AG100V	X PL71	X MA71	X MD72
X AG21	X PL81	X MAS61 (1)	X MD81
X AG20	X PL91 *	X MA91 *	X MD91 *
X AG40ED	X PL41PCED	X MAS43CED	X MD41D
	PL41PED	MAS43ED	X MD11ED

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series
... EH9161CT	... EX3100C	... KM8111CW
... EH9161CW	... EX3160C	... KM8111W
... 9083	... EX3160	... WB8111
... WA9100T-W	... WB3161	
... TA9160	... TA3160	

• VARIOUS ARTICLES

X	**1473**	Exchanger
1+x	**1181E**	Timed power-supply
1+...	**DV2D-DV4D**	Video distributors
1+X	**PA ****	Door release push-button (*optional*)
1+X	**SE ****	Electric door lock (12VAC-1A)
X	**D ****	100V-1A diode (type 1N4007)

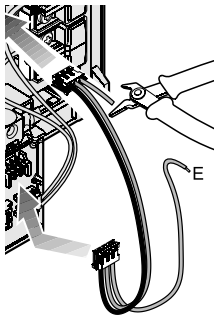
... Refers to number of users.
X Refers to number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.

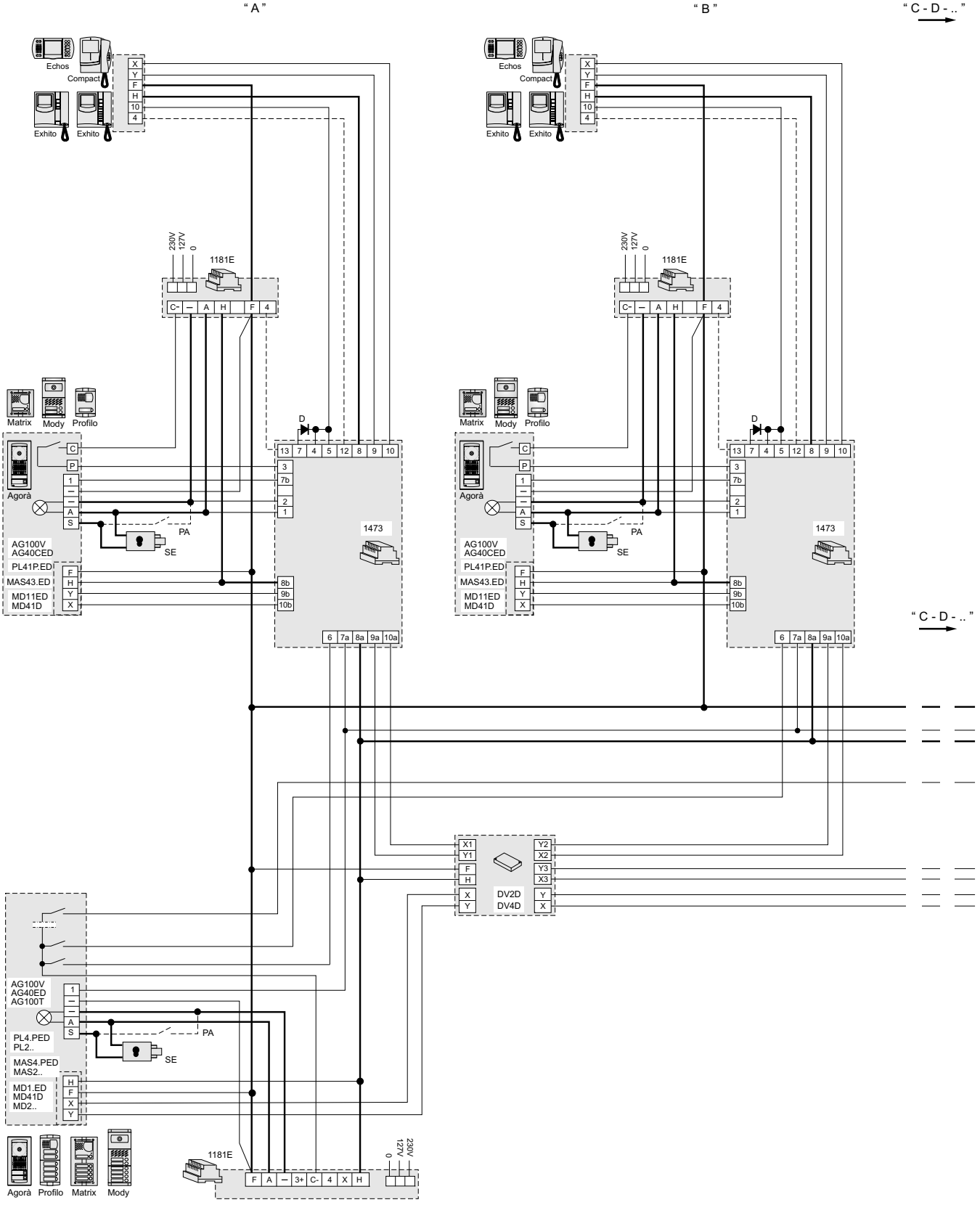
Working instructions.
As the basic system described on page 52, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

Agorà door stations

Attention. In the door station **AG100V** it is necessary to cut and insulate the red wire which connects the door speaker amplifier **AG40CED** to the backlighting board with diodes and LED's *(see figure).*



ONE-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON VIDEO STATION



ONE-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION

• MAIN DOOR STATION

AGORA' series		PROFILO series		MATRIX series		MODY series	
1	**AG100V**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD71÷MD74**
...	**AG100T**	1	**PL81÷PL89**	...	**MAS61÷MAS63** (1)	1	**MD81÷MD812**
...	**AG20**	1	**PL91÷PL99 ***	1	**MA91÷MA93 ***	1	**MD91÷MD912 ***
...	**AG21**	1	**PL40PCED÷PL42PCED**	1	**MAS43CED**	1	**MD10ED÷MD12ED**
...	**AG222**		**PL40PED÷PL42PED**		**MAS43ED**	1	**MD41D**
1	**AG40CED**	...	**PL21÷PL228**	...	**MAS22, MAS24**	...	**MD21÷MD228**
		...	**PL20, PL50**	...	**MAS20**	...	**MD20, MD50**
		...	**241DMA**	...	**241DMA**	...	**241D**

• SECONDARY DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
X	**AG100A**	X	**PL71**	X	**MA71**	X	**MD71**
X	**AG21**	X	**PL81**	X	**MAS61** (1)	X	**MD81**
3xX	**AG20**	X	**PL91 ***	X	**MA91 ***	X	**MD91 ***
X	**AG30ED**	X	**PL11PED**	X	**MAS11PED**	X	**MD11ED**

• INTERNAL STATIONS

ECHOS series		EXHITO series		COMPACT series	
...	**EH9161CT**	...	**EX3100C**	...	**KM8111CW**
...	**EH9161CW**	...	**EX3160C**	...	**KM8111W**
...	**9083**	...	**EX3160**	...	**WB8111**
...	**WA9100T-W**	...	**WB3161**		
...	**TA9160**	...	**TA3160**		

• VARIOUS ARTICLES

X	**1473**	Exchanger
1+x	**1181E**	Timed power-supply
1+...	**DV2D-DV4D**	Video distributors
1+X	**PA ****	Door release push-button (*optional*)
1+X	**SE ****	Electric door lock (12VAC-1A)
X	**D ****	100V-1A diode (type 1N4007)

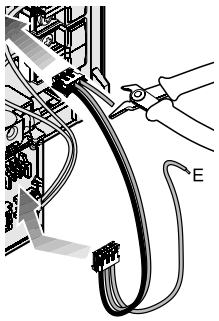
... Refers to number of users.
X Refers to number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.

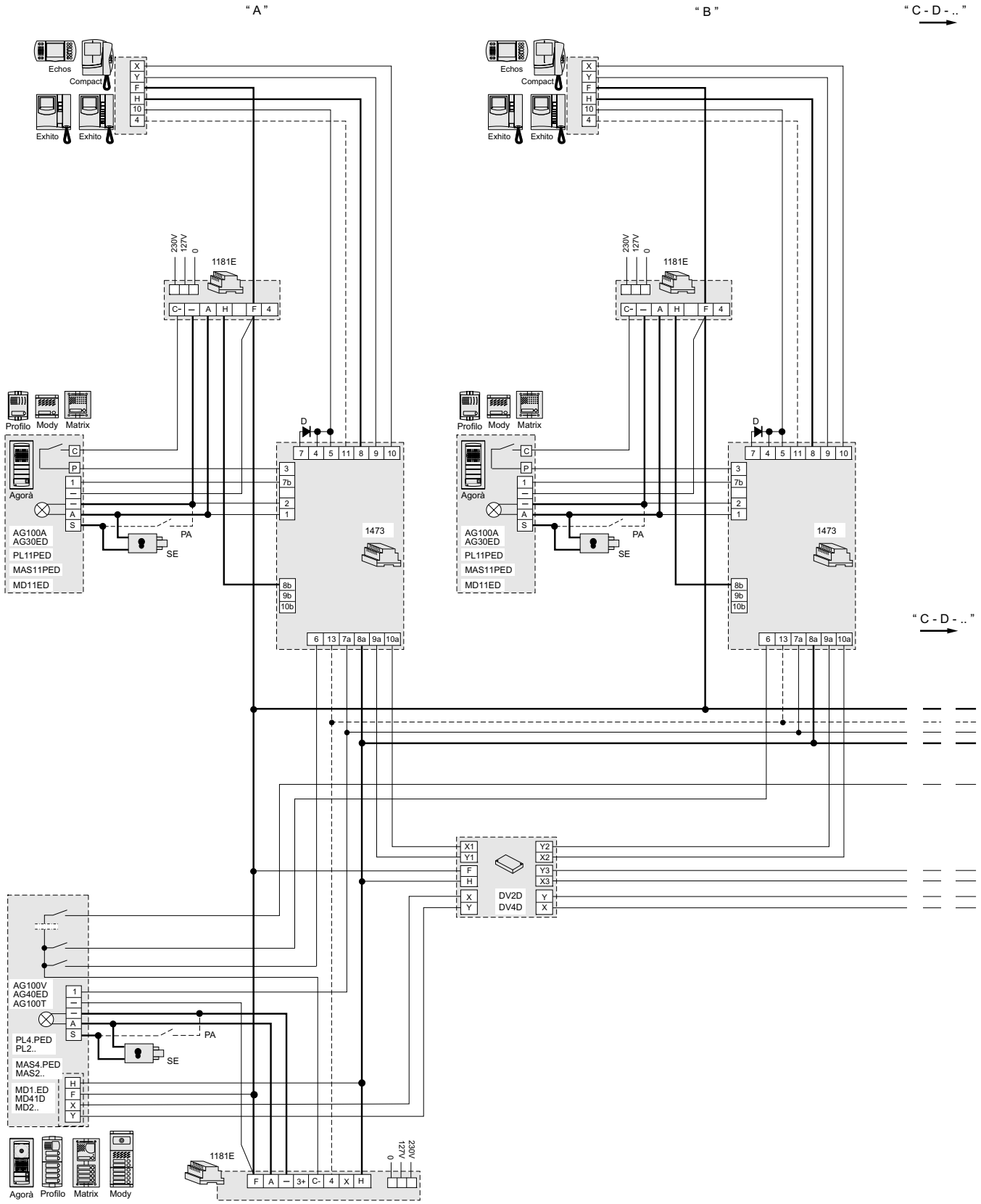
Working instructions.
As the basic system described on page 52, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

Agorà door stations

Attention. In the door stations **AG100A** and **AG100V** it is necessary to cut and insulate the red wire which connects the door speaker amplifier **AG30ED** or **AG40CED** to the backlighting board with diodes and LED's *(see figure).*



ONE-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION



MULTI-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 2 MAIN COMMON VIDEO STATIONS (multiple entrance)

• EXTERNAL DOOR STATIONS

AGORA' series	PROFILO series	MATRIX series	MODY series
2+X **AG100V**	... **PL71÷PL73**	... **MA71÷MA73**	... **MD72÷MD74**
... **AG100T**	2+X **PL81÷PL89**	... **MAS61÷MAS63** (1)	2+X **MD82÷MD812**
... **AG20**	2+X **PL91÷PL99 ***	2+X **MA91÷MA93 ***	2+X **MD92÷MD912 ***
... **AG21**	2+X **PL40PCED÷PL42PCED**	2+X **MAS43CED**	2+X **MD10ED÷MD12ED**
... **AG222**	**PL40PED÷PL42PED**	**MAS43ED**	2+X **MD41D**
2+X **AG40CED**	... **PL21÷PL228**	... **MAS22, MAS24**	... **MD21÷MD228**
	... **PL20, PL50**	... **MAS20**	... **MD20, MD50**
	... **241DMA**	... **241DMA**	... **241D**

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series
... **EH9161CT**	... **EX3100C**	... **KM8111CW**
... **EH9161CW**	... **EX3160C**	... **KM8111W**
... **9083**	... **EX3160**	... **WB8111**
... **WA9100T-W**	... **WB3161**	
... **TA9160**	... **TA3160**	

• VARIOUS ARTICLES

2xX	**1473**	Exchanger
1+X	**1181E**	Timed power-supply
1	**PRS210**	Transformer
2+...	**DV2D-DV4D**	Video distributors
2+X	**PA ****	Door release push-button (*optional*)
2+X	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
X Refers to number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Notes

- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.
- With **Echos videointercoms** series it is possible to monitor also the **main** entrances by connecting the terminals **P1** and **P2** of the Echos videointercoms respectively to the terminals **"6"** and **"3"** of the exchanger art. **1473 (DS2)** connected to its **own riser** and by moving the jumper **J2** on the back of the videointercoms to the position **2-3** *(see on page 4).*

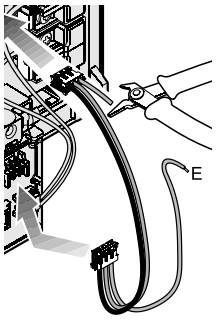
Working instructions.

As the basic system described on page 52, with the following variations:

- The audio-video functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

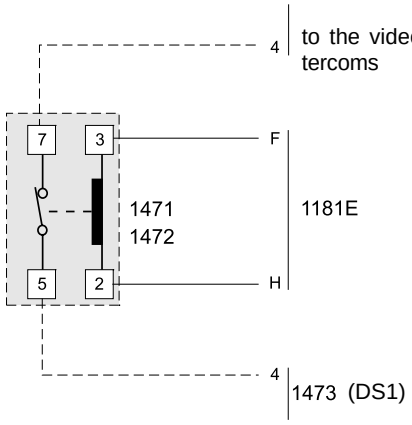
Agorà door stations

Attention. In the door station **AG100V** of the **secondary** entrances create the terminal **"E"** cutting the red wire which connects the door speaker **AG40CED** to the backlighting board *(see figure)*, than connect it to the terminals **"E"** of additional **AG100T**'s *(if any).*
In the door station **AG100V** of the **main** entrances only cut and insulate the conductor **"E"** *(red wire).*

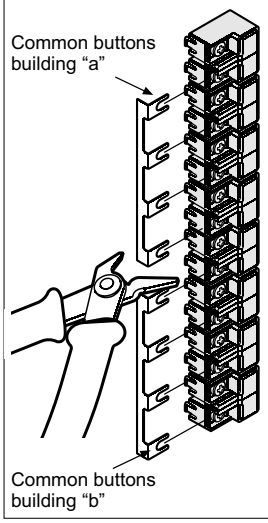


Control switching ON deactivation

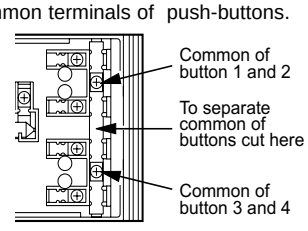
To activate the control switching ON from the videointercoms only when the system is in stand-by, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



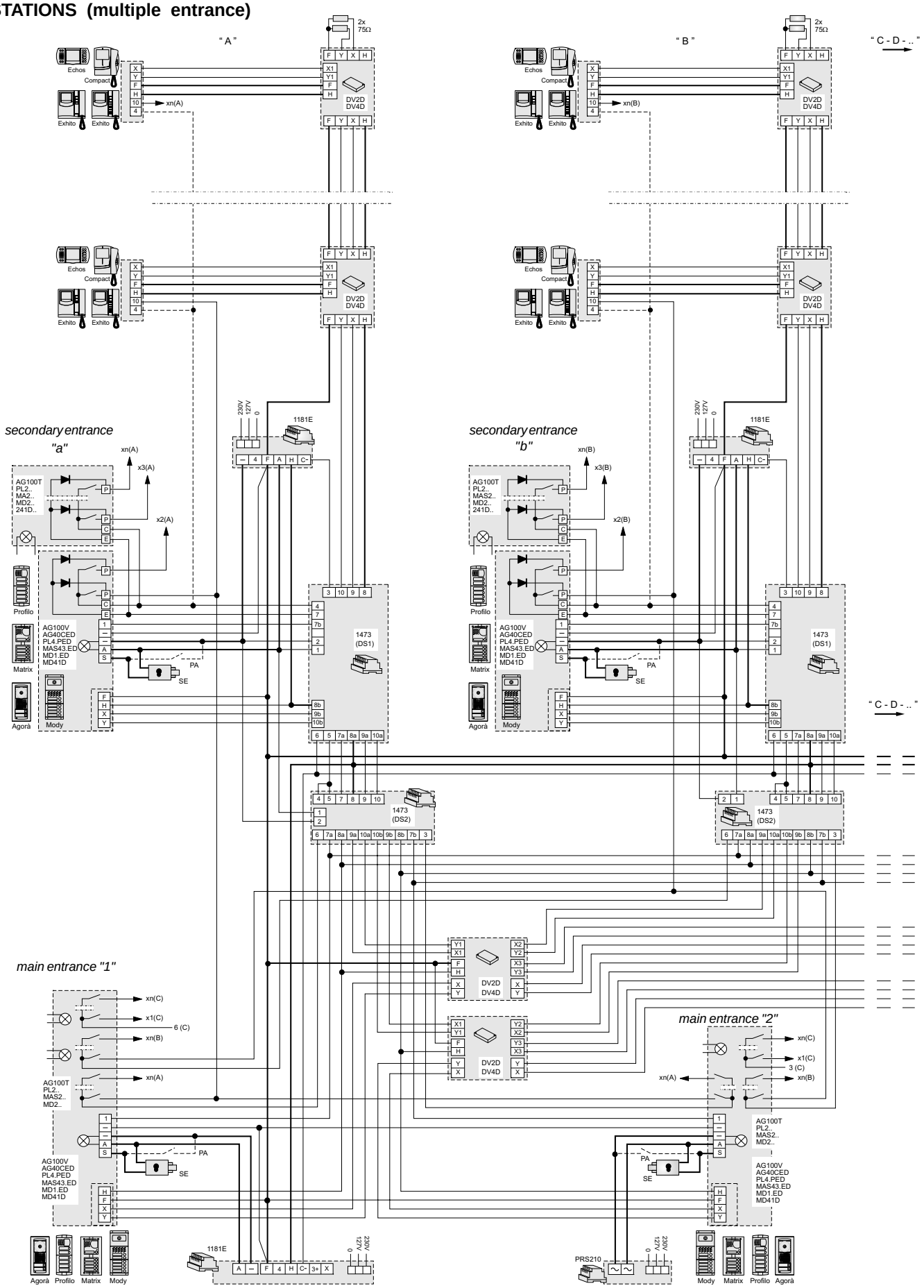
The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.
The common terminals of push-button **Agorà** series can be separated according to the requirements, by **cutting opportunely the common rail or just do not using it**.



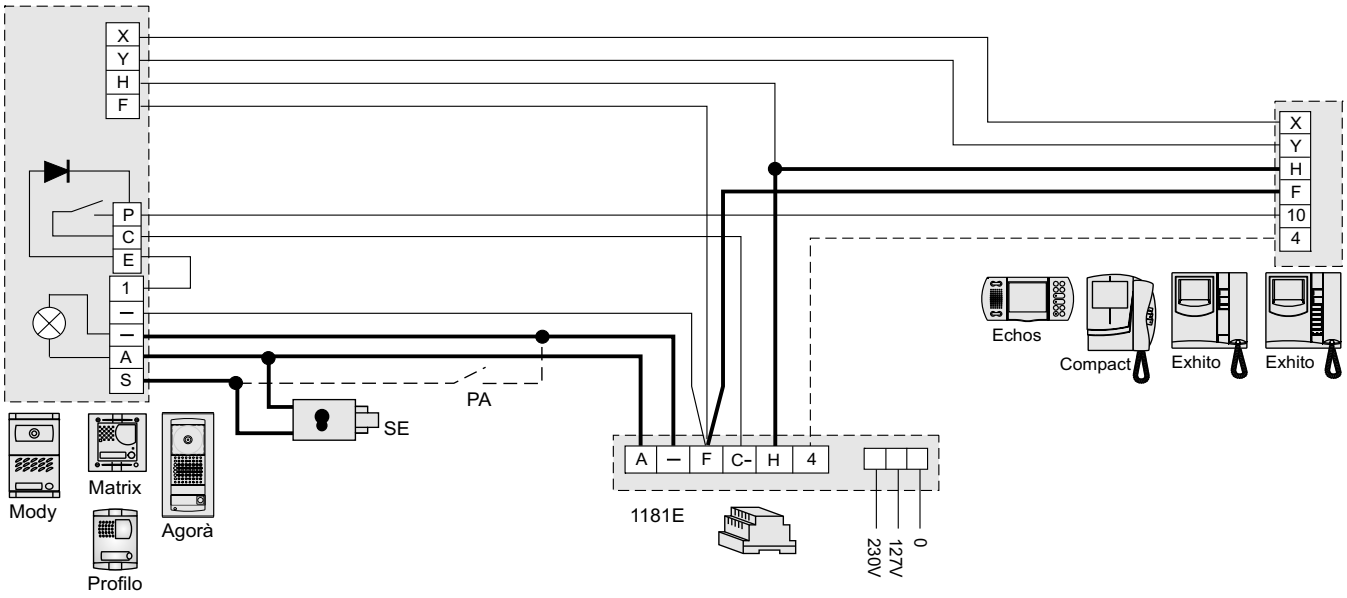
In **Mody** series the common terminals of push-buttons can be separated module by module or every 2 push-buttons by cutting opportunely the common rail which connects the common terminals of push-buttons.



MULTI-WAY VIDEOINTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 2 MAIN COMMON VIDEO STATIONS (multiple entrance)



ONE-WAY VIDEOINTERCOM SYSTEM



• EXTERNAL DOOR STATIONS

AGORA' series		PROFILO series		MATRIX series		MODY series	
1	**AG100V**	1	**PL71**	1	**MA71**	1	**MD72**
1	**AG21**	1	**PL81**	1	**MAS61** (1)	1	**MD82**
1	**AG20**	1	**PL91 ***	1	**MA91 ***	1	**MD92 ***
1	**AG40CED**	1	**PL41PCED**	1	**MAS43CED**	1	**MD11ED**
			PL41PED		**MAS43ED**	1	**MD41D**

• INTERNAL STATIONS

ECHOS series		EXHITO series		COMPACT series	
1	**EH9161CT**	1	**EX3100C**	1	**KM8111CW**
	EH9161CW		**EX3160C**		**KM8111W**
1	**9083**		**EX3160**	1	**WB8111**
1	**WA9100T-W**	1	**WB3161**		
1	**TA9160**	1	**TA3160**		

• VARIOUS ARTICLES

1	**1181E**	Timed power-supply
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

(1) Or MA61.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 52.

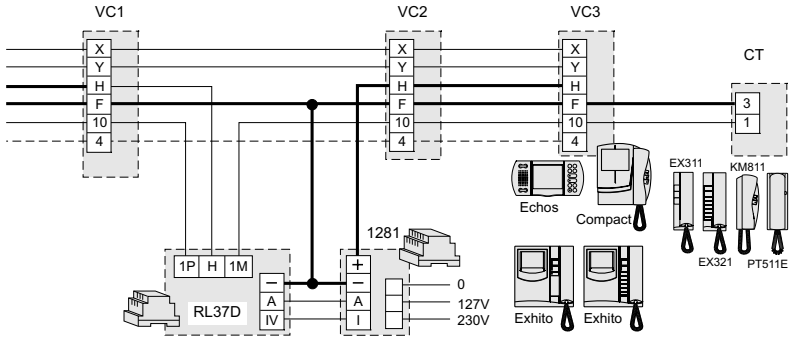
Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For wires dimensioning refer to the installation instructions and table on pages 50.

Agorà door station

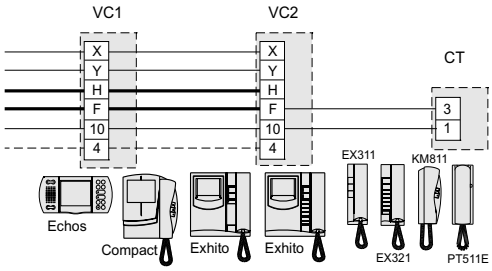
Note. Door station **AG100V** do not have the terminal **"E"** because the requested connection is automatically done inserting the pre-assembled cable which comes with the product *(see drawing 5a on page 18)*.

All **videointercom** installation diagrams in this technical manual are drawn with only one video intercom for each user. It is possible to "personalise" the installation by properly matching the applications on the following pages to the basic diagrams. To obtain the requested wiring diagram it is necessary overlay the desired application diagram on the "basic" diagram in order to cover the existing videointercom (VC1 will replace the videointercom of the basic diagram). More than one application diagram can be overlaid on a multi-ways diagram.

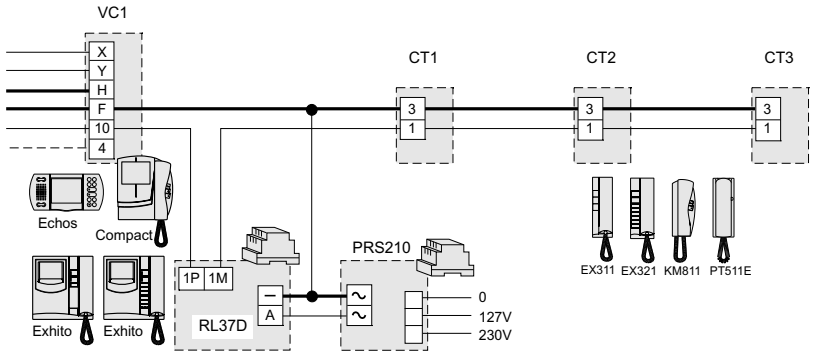
a) Application of 3 videointercoms and 1 intercom in parallel



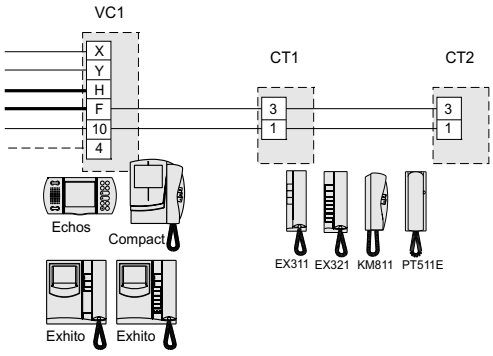
b) Application of 2 videointercoms and 1 intercom in parallel



c) Application of 1 videointercom and 3 intercoms in parallel



d) Application of 1 videointercom and 2 intercoms in parallel

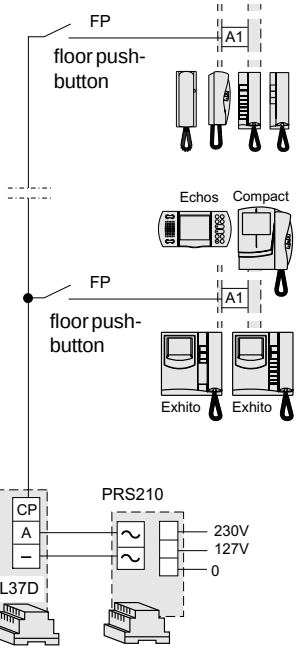


List of the additional devices needed to carry out the installation diagrams reported in this page

Diagram	Videointercoms + accessories	Intercoms	Power supplies	Supplementary call module
"a"	**2 EH9161 + 2 9083** **2 EX3100 + 2 WB3161** **2 EX3160 + 2 WB3161** **2 KM8111 + 2 WB8111**	**1 EX311** **1 EX321** **1 KM811** **1 PT511E**	**1 1281**	**1 RL37D**
"b"	**1 EH9161 + 1 9083** **1 EX3100 + 1 WB3161** **1 EX3160 + 1 WB3161** **1 KM8111 + 1 WB8111**	**1 EX311** **1 EX321** **1 KM811** **1 PT511E**		
"c"		**3 EX311** **3 EX321** **3 KM811** **3 PT511E**	**1 PRS210**	**1 RL37D**
"d"		**2 EX311** **2 EX321** **2 KM811** **2 PT511E**		
"e"			**1 PRS210**	**1 RL37D**
	Select the desired model among those listed			

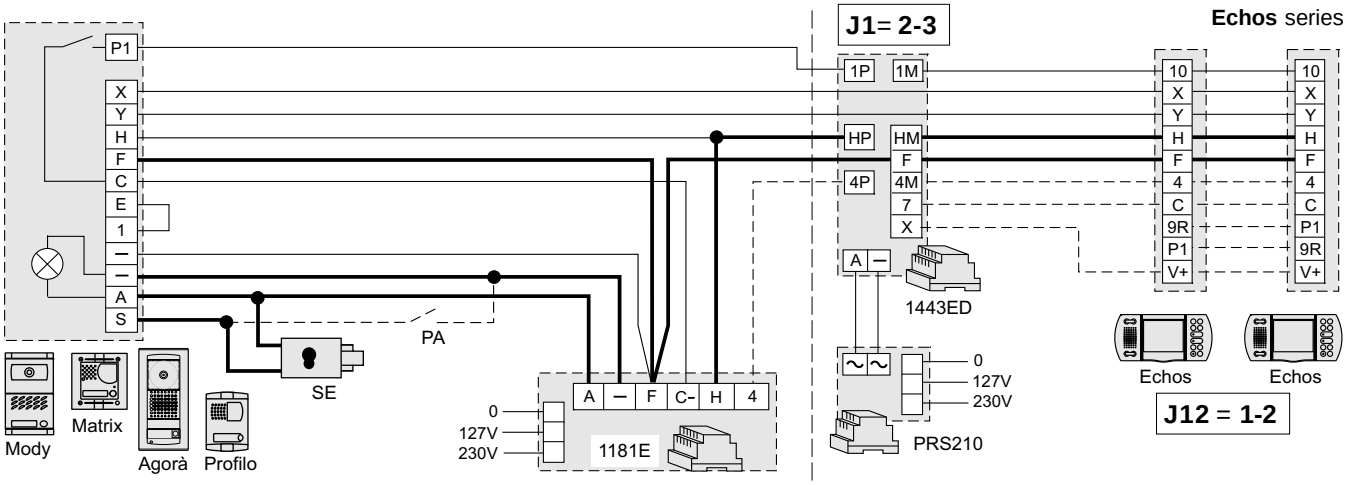
e) Floor call *(for intercom and videointercom systems)*

In all the diagrams shown in this manual (except intercommunicating devices Exhito and Compact series) it is possible to have a floor call feature with different ringing tone from the door station call, using the art. RL37D.



Note.
To get a different ringing tone, **move the jumper J2**, located inside the art. **RL37D**, from position **1-2** to position **2-3**.

ONE-WAY VIDEOINTERCOM SYSTEM WITH INTERCOMMUNICATING SERVICE BETWEEN 2 VIDEOINTERCOMS



• EXTERNAL DOOR STATIONS

series AGORA'	PROFILO	MATRIX	MODY
1 **AG100V**	1 **PL71**	1 **MA71**	1 **MD72**
1 **AG21**	1 **PL81**	1 **MAS61** (1)	1 **MD82**
1 **AG20**	1 **PL91 ***	1 **MA91 ***	1 **MD92 ***
1 **AG40CED**	1 **PL41PCED**	1 **MAS43CED**	1 **MD11ED**
	PL41PED	**MAS43ED**	1 **MD41D**

• INTERNAL STATIONS

series ECHOS	EXHITO	COMPACT
2 **EH9161CT**	2 **EX3100C**	2 **KM8111CW**
EH9161CW	**EX3160C**	**KM8111W**
2 **9083**	**EX3160**	2 **WB8111**
2 **WA9100T-W**	2 **WB3161**	
2 **TA9160**	2 **TA3160**	

• VARIOUS ARTICLES

1 **1181E** Timed power-supply
1 **1443ED** Switcher module for intercommunicating system
1 **PRS210** Transformer
1 **PA **** Door release push-button (*optional*)
1 **SE **** Electric door lock (12VAC-1A)

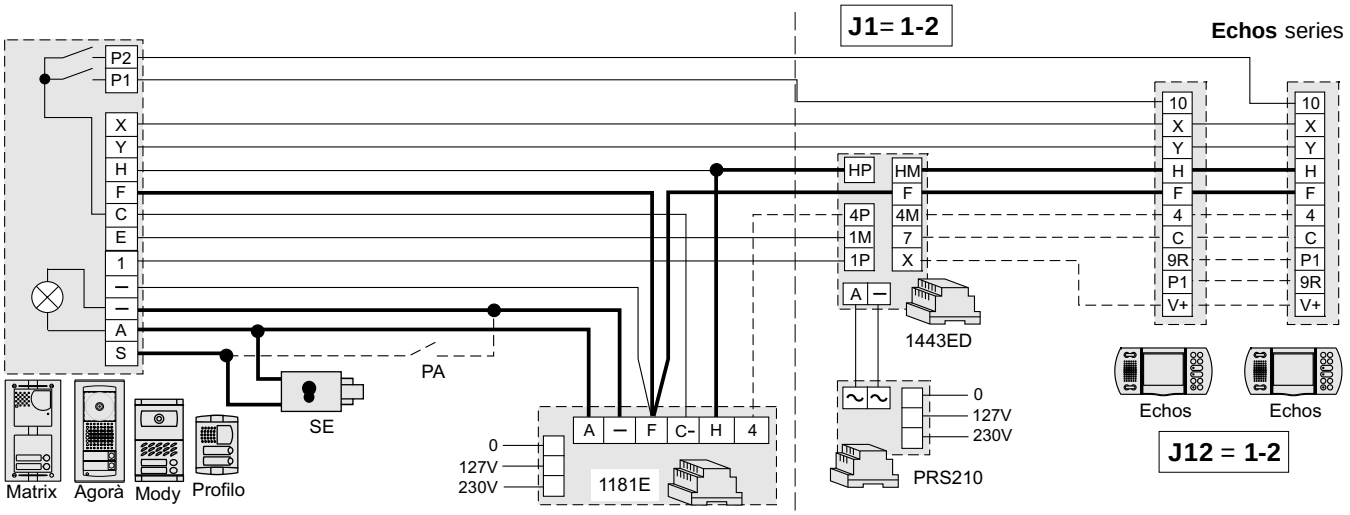
(1) Or MA61.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 52.

Notes

- Move jumper **J1**, on the wall brackets **WB3161** and **WB8111** from position **2-3** to position **1-2**
- Move jumper **J12**, on the back of **Echos** videointercoms to short circuits pin **1-2**.
- Set jumper **J1**, inside art.**1443ED** to position **2-3**.
- Instead a videointercom it is possible to install an intercom **EX311**, **EX321** or **KM811** wired as reported in the last example of this page.
- Door station **AG100V** do not have the terminal **"E"** because the requested connection is automatically done inserting the pre-assembled cable which comes with the product *(see drawing 5a on page 18)*
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For wires dimensioning refer to the installation instructions and table on page 50.

TWO-WAY VIDEOINTERCOM SYSTEM WITH INTERCOMMUNICATING SERVICE BETWEEN 2 APARTMENTS



• EXTERNAL DOOR STATIONS

series AGORA'	PROFILO	MATRIX	MODY
1 **AG100V**	1 **PL71**	1 **MA72**	1 **MD72**
2 **AG21**	1 **PL81**	1 **MAS62** (1)	1 **MD82**
1 **AG40CED**	1 **PL91 ***	1 **MA92 ***	1 **MD92 ***
	1 **PL42PCED**	1 **MAS43CED**	1 **MD12ED**
	PL42PED	**MAS43ED**	1 **MD41D**
		1 **MAS22**	
		1 **241DMA**	

• INTERNAL STATIONS

series ECHOS	EXHITO	COMPACT
2 **EH9161CT**	2 **EX3100C**	2 **KM8111CW**
EH9161CW	**EX3160C**	**KM8111W**
2 **9083**	**EX3160**	2 **WB8111**
2 **WA9100T-W**	2 **WB3161**	
2 **TA9160**	2 **TA3160**	

• VARIOUS ARTICLES

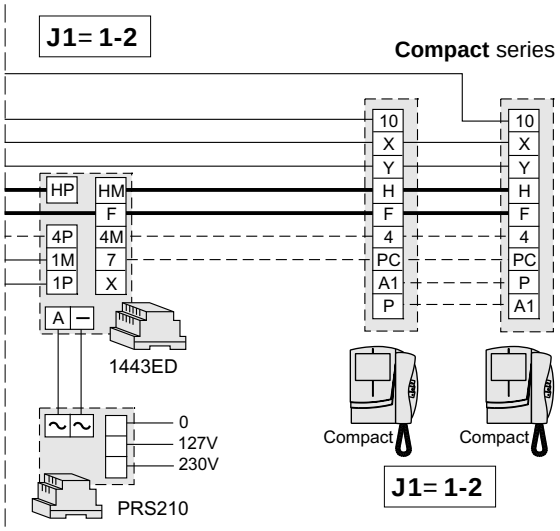
1 **1181E** Timed power-supply
1 **1443ED** Switcher module for intercommunicating system
1 **PRS210** Transformer
1 **PA **** Door release push-button (*optional*)
1 **SE **** Electric door lock (12VAC-1A)

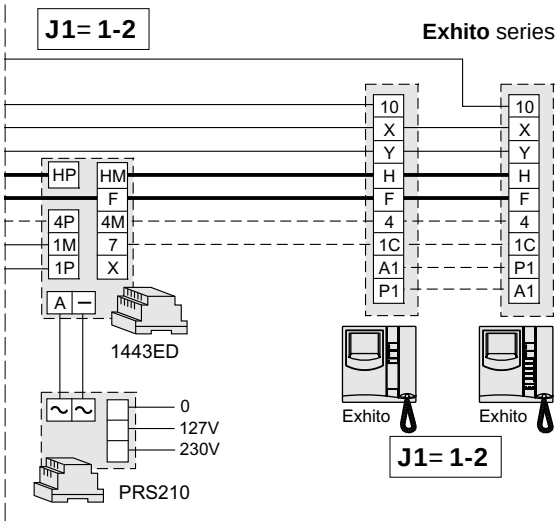
(1) Or MA62.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 52.

Notes

- Move jumper **J1**, on the wall brackets **WB3161** and **WB8111** from position **2-3** to position **1-2**
- Move jumper **J12**, on the back of **Echos** videointercoms to short circuits pin **1-2**.
- Set jumper **J1**, inside art.**1443ED** to position **1-2.**
- In the door station **AG100V** cut the red wire to create the terminal **"E"** *(see drawing 5b on page 18)*.
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For wires dimensioning refer to the installation instructions and table on page 50.





MULTI-WAY VIDEOINTERCOM SYSTEM WITH A DOOR STATION AND SOME APARTMENTS WITH INTERCOMMUNICATING SERVICE

• **EXTERNAL DOOR STATIONS**

AGORA' series		**PROFILO series**		**MATRIX series**		**MODY series**	
1	**AG100V**	...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD71÷MD74**
...	**AG100T**	1	**PL81÷PL89**	1	**MAS61÷MAS63** (1)	1	**MD81÷MD812**
...	**AG20**	1	**PL91÷PL99 ***	1	**MA91÷MA93 ***	1	**MD91÷MD912 ***
...	**AG21**	1	**PL40PCED÷PL42PCED**	1	**MAS43ED÷MAS43CED**	1	**MD10ED÷MD12ED**
...	**AG222**		**PL40PED÷PL42PED**	...	**MAS22, MAS24**	1	**MD41D**
1	**AG40CED**	...	**PL21÷PL228**	...	**MAS20**	...	**MD21÷MD228**
		...	**PL20, PL50**	...	**241DMA**	...	**MD20, MD50**
		...	**241DMA**			...	**241D**

• **INTERNAL STATIONS** (see the list on the bottom of this page)

• **COMMON VARIOUS ARTICLES** (for all the specific devices to be installed in the intercommunicating apartments see the detailed list on the bottom of this page)

1	**1181E**	Timed power-supply
...	**DV2D-DV4D**	Video distributors
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 52.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 50.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 50 and 51.

In the multi-apartment diagram are shown 3 different examples of connection for the intercommunicating service.

(A) Intercommunicating service between 2 apartments with videointercoms Echos, Exhito and/or Compact series

Echos	**Exhito**	**Compact**
2 **EH9161**	2 **EX3100**	2 **KM8111W**
2 **9083**	**EX3160**	2 **WB8111**
2 **WA9100**	2 **WB3161**	1 **1443ED**
2 **TA9160**	2 **TA3160**	1 **PRS210**
1 **1443ED**	1 **1443ED**	
1 **PRS210**	1 **PRS210**	

Notes:
- In the art. **1443ED** move the jumper **J1** from the position 2-3 to the position **1-2.**
- Move jumper **J1**, on the wall brackets **WB3161** and **WB8111** from position **2-3** to position **1-2**
- Move jumper **J12**, on the back of **ECHOS** videointercoms to short circuits pin **1-2**.

(B) Intercommunicating service in the same apartment among 2 videointercoms and 1 intercom Exhito series

Exhito

2 **EX3160**	1 **EX321**
2 **WB3161**	1 **EX301**
2 **TA3160**	
1 **1443ED**	
1 **PRS210**	

Notes:
- Set jumper **J1**, inside art.**1443ED** to position **2-3**.
- Move jumper **J1**, on the wall brackets **WB3161** from position **2-3** to position **1-2**

(C) Intercommunicating service in the same apartment between 2 videointercoms Echos

Echos

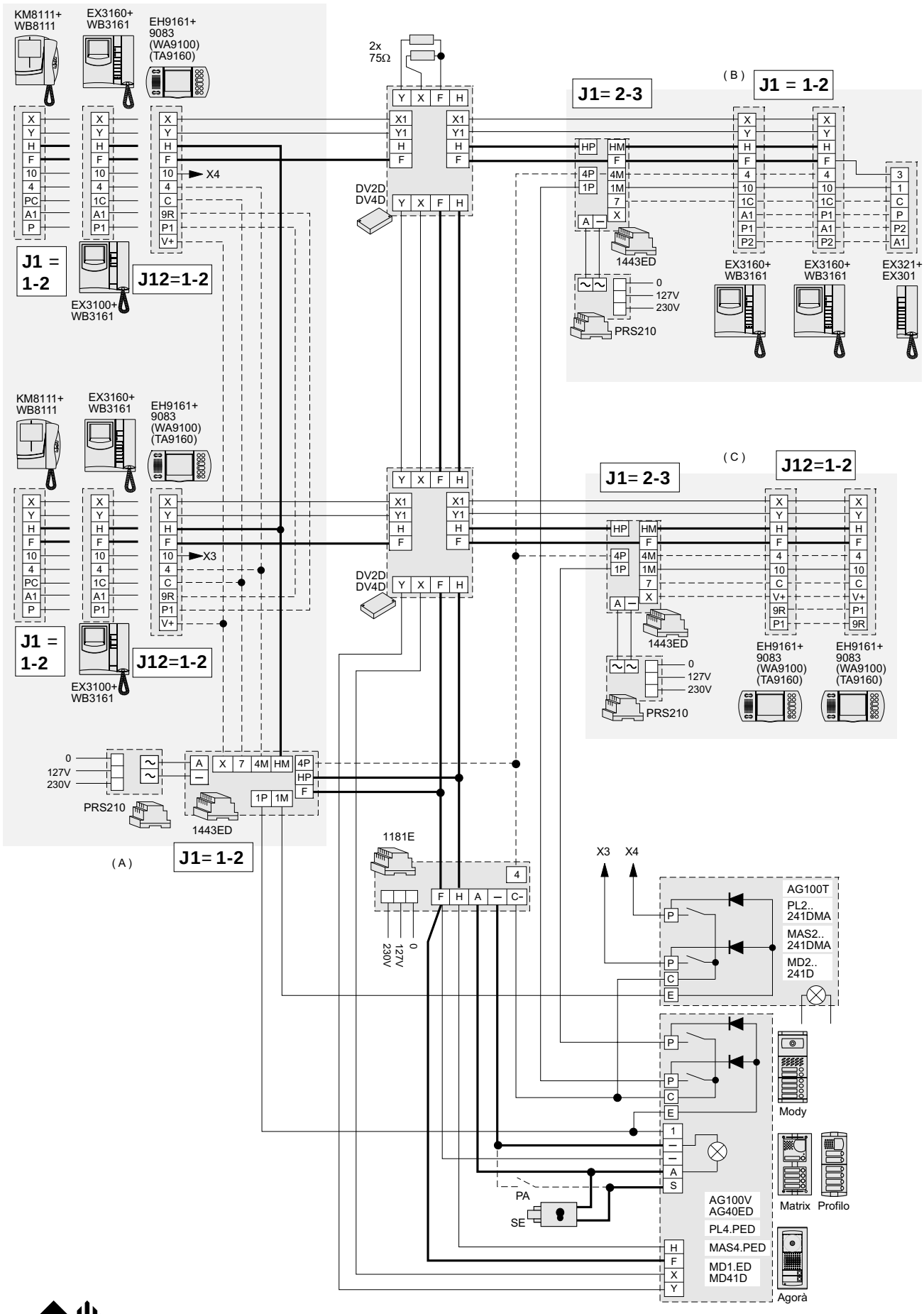
2 **EH9161**
2 **9083**
1 **1443ED**
1 **PRS210**

Notes:
- Set jumper **J1**, inside art.**1443ED** to position **2-3**.
- Move jumper **J12**, on the back of **ECHOS** videointercoms to short circuits pin **1-2**.

Notes for intercommunicating functions
To make an intercommunicating call it is necessary:
- with the videointercom switched OFF, pick up the handset (or press the button for Echos series) and be sure that there are not any other communications in progress;
- press the push-button related to the videointercom or intercom to be called.

To hear the ringing tone, the called videointercom or intercom must have the handset correctly hooked in its place (no unhooked).
Read also the operating notes on page 52.

MULTI-WAY VIDEOINTERCOM SYSTEM WITH A DOOR STATION AND SOME APARTMENTS WITH INTERCOMMUNICATING SERVICE



INTERCOMS AND VIDEOINTERCOMS

TRADITIONAL

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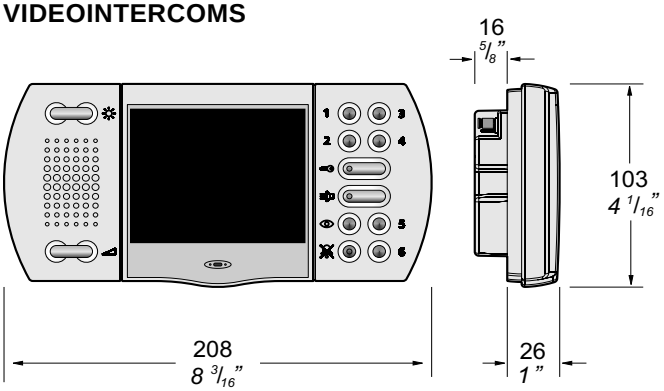
VIDEOINTERCOMS



EH9100CW. **Hands Free Colour Video Intercom** with audio-video privacy, 4 types of calls, 14 differentiated programmable ring tones, audio, contrast, and brightness adjustment. White colour. Complete with 6 keys for monitor control switching-on, door lock opening, intercom calls and supplementary services. It can be installed on the wall by using the back box art.**9083** or wall adaptor **WA9100W**.

EH9160CW. It differs from the model **EH9100CW** for the presence of additional 4 buttons and the possibility to realize systems with intercommunicating service.

EH9160CT. Hands-free videointercom with same features of the model **EH9160CW** but in metallized grey colour finish. It can be installed on the wall by using the back box art.**9083** or wall adaptor **WA9100T**.

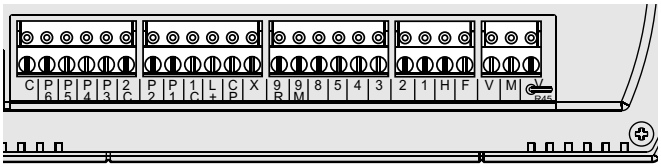
Technical characteristics

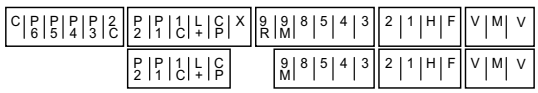
Power supply:	18÷24Vdc
Operating current:	0.3A
Screen:	3.5" LCD
Television standard:	PAL
Horizontal frequency:	15625Hz
Vertical frequency:	50Hz
Band width:	>5MHz
Video signal on 75Ω:	0.8÷1.5Vpp
Starting up time:	1 second
Number of bell rings:	2 (programmable)
Operating temperature:	0°÷+50°C
Maximum admissible humidity:	90%RH

Terminals

X Video signal input-output
M Video ground (shielded coaxial)
F General ground
H Positive voltage input (18÷24Vdc)
1 Microphone output
2 Speaker and automatic switching OFF input
3 Audio ground
4 Control switching ON – button
5 Door lock release - button
8 Positive power supply output for video distributors 12Vdc
9M Call input from external door station
9R* Electronic call input from other intercommunicating devices
X* Positive voltage input for intercommunicating devices (15÷18Vdc)
CP Electronic floor-call input
L+ LED for open-door signalling or other functions
1C Common contact for buttons P1 and P2
P1 - P2 Service buttons (max 50mA)
2C* Common contact for buttons P3, P4, P5 and P6
P3 ÷ P6* Service buttons (max 50mA)
C* Common contact for P1÷P6; only for intercommunicating service)

* Terminals only on the models **EH9160CT** and **EH9160CW**





How to select the function for buttons from 1 to 6

Buttons from 1 to 6 can be used for several functions, that is:
- **intercommunicating calls;**
- **control switching ON** of the video intercom when more than one external door station or extra surveillance cameras are present on the system;
- **free voltage contacts** for supplementary functions.

ATTENTION. The common contacts of the buttons are only two: one for the buttons 1 and 2, the other for the buttons 3,4,5 and 6, so at least only two of the three possible different operations described before can be achieved at the same time. When the buttons are used for intercommunicating calls or videointercom control switching ON the terminals 1C and 2C must remain unconnected.

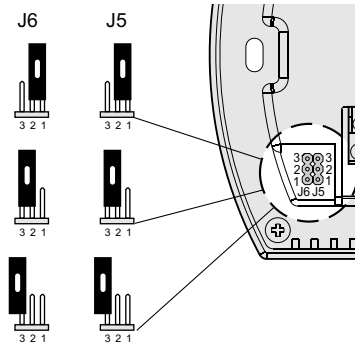
Model	*Buttons*	*Jumpers*	*Position*	*Function*
EH9100C	**1**, **2**	**J5**	**1-2** **2-3** *(*)* **free**	not used control switching ON free contacts (common 1C)
EH9160C	**1, 2** **3**, **4**, **5**, **6**	**J5** **J6**	**1-2** *(*)* **2-3** **free**	intercommunicating calls control switching ON free contacts (common 2C)

(*) *Factory setting*

1 - 2
Intercommunicating calls

2 - 3
Control switching ON

Free
Free contacts -
commons 1C and 2C



Installation and settings

For installation and display adjustment see the pages 5 and 6.

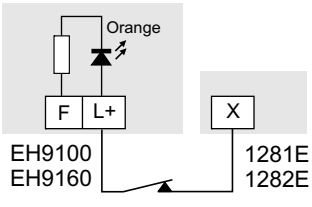
Supplementary functions

Floor call

For floor call feature make the connection as reported on page 221.

Door-open's warning and other functions

For door-open's warning or other similar functions connect a normally closed contact (NC) of a sensor or a relay between the terminal **L+** of the videointercom and terminal **X** of power supply **1282E** or **1281E** .

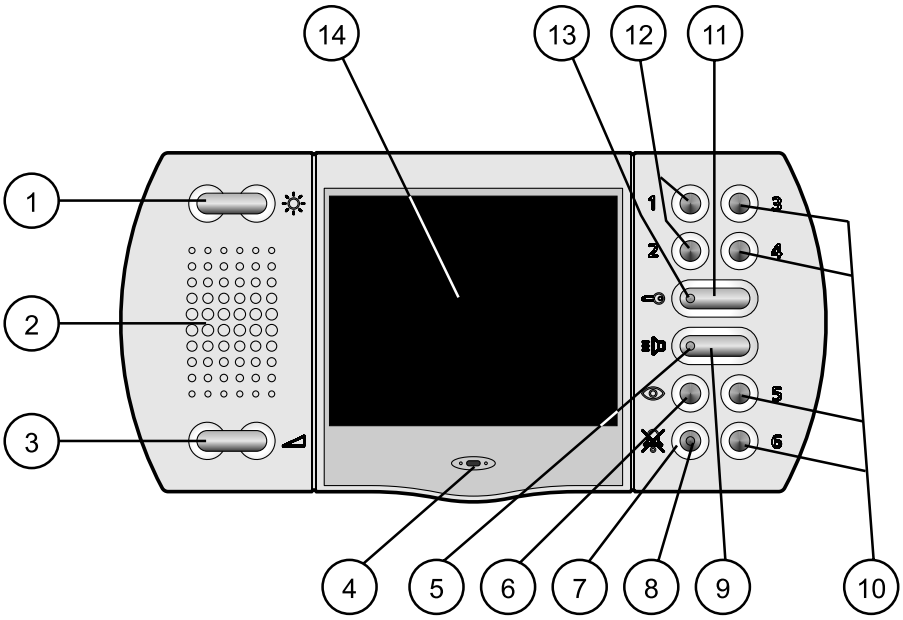


Closed contact the orange LED is ON.
Open contact the orange LED is OFF.

9083. Back-box for video intercoms **EH9160CT** and **EH9160CW**.

WA9100T. Wall adaptor for the **EH9160CT** videointercom.
WA9100W. Wall adaptor for the **EH9160CW** videointercom.

TA9160. Table adapter for **Echos** videointercoms. Complete with junction box and 2.4m connection cable with 20 wires.



Characteristics

① Image **brightness** adjustment.

② **Loudspeaker**. It allows to hear the conversation and to receive the calls from the external door station, from other intercommunicating equipments or from local door station.

③ Call and communication **volume** adjustment.

④ **Microphone**. It allows to talk with the door station or with other intercommunicating equipments

⑤ **Green LED**. The LED shows:
- a communication in progress when it lights up continuously;
- an intercommunicating call when it flashes.

⑥ **Control switching ON** button. It allows to power ON the video intercom and monitoring the entrance.

⑦ **Mute** button. It allows to:
- **enable/disable the audio** (microphone) to the door station during a conversation;
- **enable/disable the bell rings** if pressed for less then 2 seconds after receiving a call or making a control switching ON function;
- **enter/exit the programming mode** if pressed for more than 2 seconds.

⑧ **Red LED**. The LED shows:
- temporary disabling of audio when it continuously lights-up. If audio is enabled again the LED recover the previous operating mode;
- bell rings disabling. The LED flashes when a call is received and during the conversation with an external door station or another intercommunicating equipment;
- the videointercom is in programming operation mode when it is continuously lit-up.

⑨ **Audio communication** button. It allows to enable the audio communication with the door station or another intercom after receiving a call or a *control switching ON operation* (). The audio communication is end pressing again the button or if the communication time expires.

⑩ Buttons **3**,**4**,**5** and **6** are available for supplementary services. *These buttons are present only on the model EH9160C.*
After positioning properly the **jumper J6** they can be used for:
- intercommunicating calls;
- control switching ON function for multiple entrance systems;
- as free voltage contacts (max 50mA).
These four buttons, having a shared common contact (terminal 2C), can be only used for one of the functions listed above at time.

⑪ **Lock release** button. It allows to operate the electric lock release either with the video intercom in ON or OFF state.

⑫ Buttons **1** and **2** are available for supplementary services. After positioning properly the **jumper J5** they can be used for:
- intercommunicating calls *(only for EH9160C);*
- control switching ON function for multiple entrance systems;
- as free voltage contacts (max 50mA).
These four buttons, having a shared common contact (terminal 1C), can be only used for one of the functions listed above at time.

⑬ **Orange LED**. The LED lights-up when at the terminal **L+** is connected a positive voltage (8÷12Vdc). To signal an open-door state it is necessary to install to the door a proper sensor whose contacts must be a normally closed type *(see page 94)*.

⑭ **3.5" Colour LCD Display.**

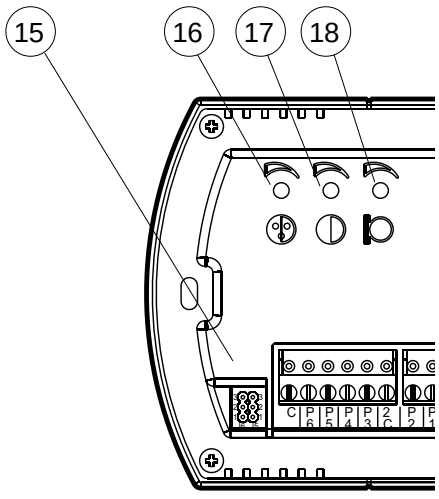
⑮ **Jumpers** for **programming buttons** 1 to 6.

⑯ **Microphone sensitivity adjustment MIC.SENS.**

⑰ **Colour adjustment .**

⑱ **Contrast adjustment .**

⑲ **Adjustment of the microphone amplifier .**



ADJUSTMENTS

Brightness adjustment.
With the video intercom switched ON, press left and right the button to adjust the brightness of the image. To store the current setting press the button. The pressure of this button switches OFF the video intercom.

Colour and Contrast adjustment.
The trimmers are located on the back of the video intercom and can be operated by means of a small screwdriver. To adjust the trimmers is required:
- dismount the video intercom from the wall to accede to the adjustment points;
- power ON the video intercom;
- insert the screwdriver in the hole marked with the symbol of the adjustment required;
- rotate the screwdriver clock or anti-clock wise to find the desired image quality;
- fix again the video intercom to the wall.

Enabling, disabling and volume of the ringing sound.
When you receive a call from the door station or from another intercommunicating equipment it is possible to adjust the level of the ringing sound pressing left and right the button. To store the current setting press the button.
To disable the ringing sound it is necessary, during a receiving call, to press momentarily the button; the red LED flashes during the call and the conversation.
The status (enabled or disabled) and the level of the ringing sound are stored and they are used for next calls. If the ringing sound is disabled during a receiving call or during a communication the red LED will flash to indicate this status, but no LED indication will be present in stand-by mode. With the model EH9160, after connecting a positive 15-18Vdc to the terminal X it will be possible to have the LED indication of the disabled ringing sound also with the video intercom in stand-by mode.

Setting of the audio volume
- With the video intercom switched ON, press the button to enable the communication. To set the receiving audio level (loudspeaker) press left and right the button. To store the selected level press the button. The pressure of this button switches OFF the video intercom.
- If required the communication the audio is intermittent or distorted it is advisable to adjust the microphone sensitivity by acting on the trimmer located on the back of the video intercom.
- In case of incorrect automatic switching of the video intercom between talk and listening function decrease the level of the preferred function and increase the other one by acting on the button or on the trimmer of the videointercom.
- **Attention**. For a better setting of the audio levels on the video intercom adjust the microphone sensitivity of the door station to the minimum value and the loudspeakers volume to an intermediate value.
- If there are intercommunicating devices adjust also their audio levels.

PROGRAMMING

To enter the programming mode it is required:
- to switch ON the video intercom pressing the button.
- to keep pressed for more than 2 seconds the buttons; a beep will confirm the correct operation and the red LED lights up.

Number of rings of the bell (external and intercommunicating calls)
After entering the programming mode it is necessary:
- to press the button to verify the number of the rings currently programmed;
- to press left and right the button to respectively increase or decrease the number of rings. After each pressure of the button the selected number of rings will be heard;
- please keep the button pushed for more than 2 seconds or wait for the end of the programming time in order to make the changes confirmed and exit from the operation.

Ringer tone selection (call from door station)
Once entering into programming mode, it is necessary:
- to push the button in order to check the ringer tone now programmed;
- to push laterally (left or right side) the button to select the previous or next ringer tone;
- after having selected the favourite ringer tone, keep the button pushed for more than 2 seconds or wait for the end of the programming time to make the changes confirmed and exit from the operation.

OPERATIONS

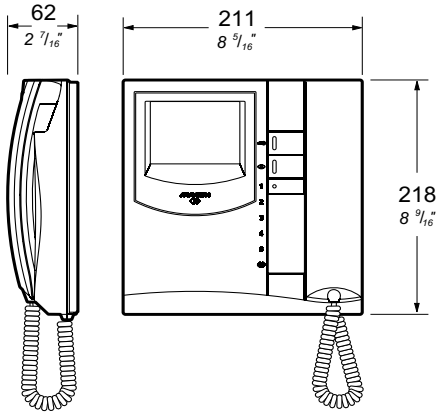
Call from the door station
Making a call from the door station the video intercom will ring (according to the programming) or the red LED starts flashing if the bell rings has been disabled; on the display appears the image of the calling station. To start the communication press the button. If it is desired to disable the audio to the door station, but continuing hearing the audio from the door station press shortly the button; in this status the red LED will light up continuously. To restore the audio to the door station press again the button; the red LED will recover the previous status. To end the communication and switch OFF the video intercom press the button. The video intercom switches OFF automatically when the communication time expires or if from the door station a call to another user is made.

Control switching ON
The button and the buttons numbered from 1 to 6, if present and correctly programmed (see table on the previous pages), allow to display the images (without audio) of the entrances presents in the system. To get also the audio it is sufficient to press the button. Press it again to switch OFF the video intercom.
Control switching ON is allowed only when the system is in stand-by mode (no running communications); if, pressing the control switching ON buttons, the video intercom doesn't switch ON a communication between another user and the door station could be active.

Door lock release
To operate the electric door lock release press the button independently if the video intercom is switched ON or OFF. If the system has more door stations the electric door lock release of the door station from which the last call has been made or to which a control switching ON has been directed will be activated.

Intercommunicating Call *(only EH9160C)*
Pressing one of the buttons set to make intercommunicating calls the audio of the calling video intercom will be enabled and the green LED lights UP, the called video intercom rings with a different sound with respect to the call received from the external door station; the green LED flashes for all the call time and lights up continuously when the communication is enabled. If the ringing sound has been disabled also the red LED will flash. Press the button to enable the communication with the calling equipment. To end the communication press the button. The communication will also end when the communication time expires or if there is a call from the external door station.

VIDEOINTERCOMS



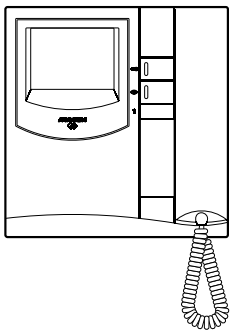
EX3160. White Flat video intercom with private audio-video function, electronic microphone, differentiated double electronic ringing sounds (modulated and continuous) and terminal board for the connection to the wall bracket. Equipped with led's and 2 buttons for camera control switch ON and door-open. Together with the videointercom there are 5 extra buttons which can be assembled in the proper slots *(see page 10)*.
The video intercom can be fixed to the wall (flush-mounted) with the **WB3160** bracket.

Technical data

Power supply	12÷15Vdc
Operating current	0.4A
Monitor	4" FLAT CRT
TV standard	CCIR-625 lines
Line frequency	15625Hz
Frame frequency	50Hz
Bandwidth	>5MHz
Video signal on 75Ω	0.8÷1.5Vpp
Switching ON time	2 seconds
Operating temperature	0°÷+50°C
Maximum permissible humidity	90%RH

EX3160C. Version of **EX3160** video intercom with colour LCD.

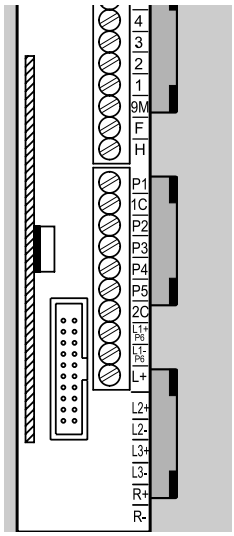
EX3100C. It is different from the model EX3160C because of the lack of LED's and for the reduced number of buttons (only 3 for electrical lock release, monitoring and supplementary functions).



Technical data

Power supply	12÷15Vdc
Operating current	0.4A
Screen	4" LCD
TV standard	PAL
Line frequency	15625Hz
Frame frequency	50Hz
Bandwidth	>5MHz
Video signal on 75Ω	0.8÷1.5Vpp
Switching ON time	1 second
Operating temperature	0°÷+50°C
Maximum permissible humidity	90%RH

WB3160. Wall bracket for **EX3100C**, **EX3160** and **EX3160C** video intercoms with terminal boards for connection to the system.

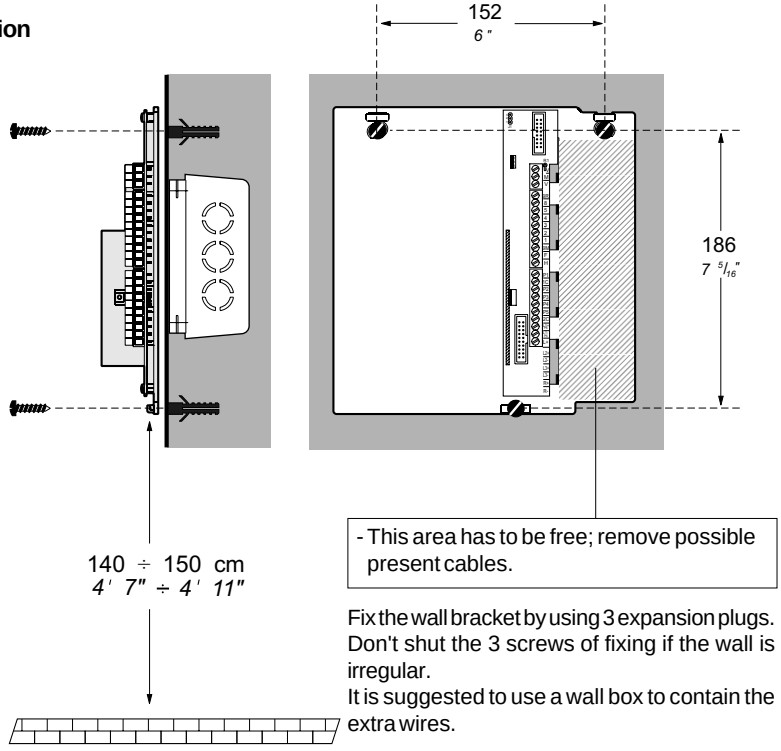


Terminals

V Video signal input-output
M Video ground (shielded coaxial)
F General ground
H Positive voltage input (18÷24Vdc)
1 Microphone output
2 Speaker and automatic switching OFF input
3 Audio ground
4 Control switching ON (button)
5 Door lock release - button
8 Positive power supply output for video distributors 12Vdc
9M Call input from external door station
9R Electronic call input from other intercommunicating devices
1C Common contact for P1, P2, P3 (P2-P3 only for EX3160, EX3160C)
P1 Service button (max 0.3A)
P2 ÷ P5 (*) Service buttons (max 0.3A)
2C (*) Common contact for buttons P4 and P5
L1+ (*) Positive power supply input for red Led (+12Vdc)
L1- (*) Negative power supply input for red Led
L+ Not connected

(*) Not connected in **EX3100C videointercom.**

Installation



- This area has to be free; remove possible present cables.

Fix the wall bracket by using 3 expansion plugs. Don't shut the 3 screws of fixing if the wall is irregular.
It is suggested to use a wall box to contain the extra wires.

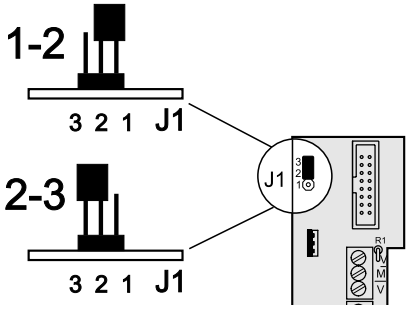
TA3160. Table adaptor for Exhito videointercoms with weighted base, junction box and 2.4m connection cable with 20 wires.

Note.
For the installation of the videointercom and mounting of additional buttons, see pages 9 and 10.

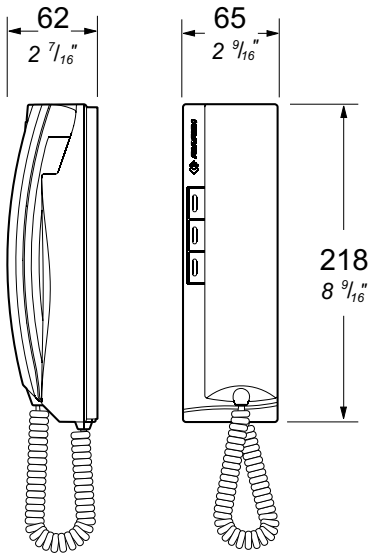
Choosing the private conversation or intercommunicating service

1-2 = Video intercom without audio privacy

2-3 = Video intercom with audio privacy



INTERCOMS

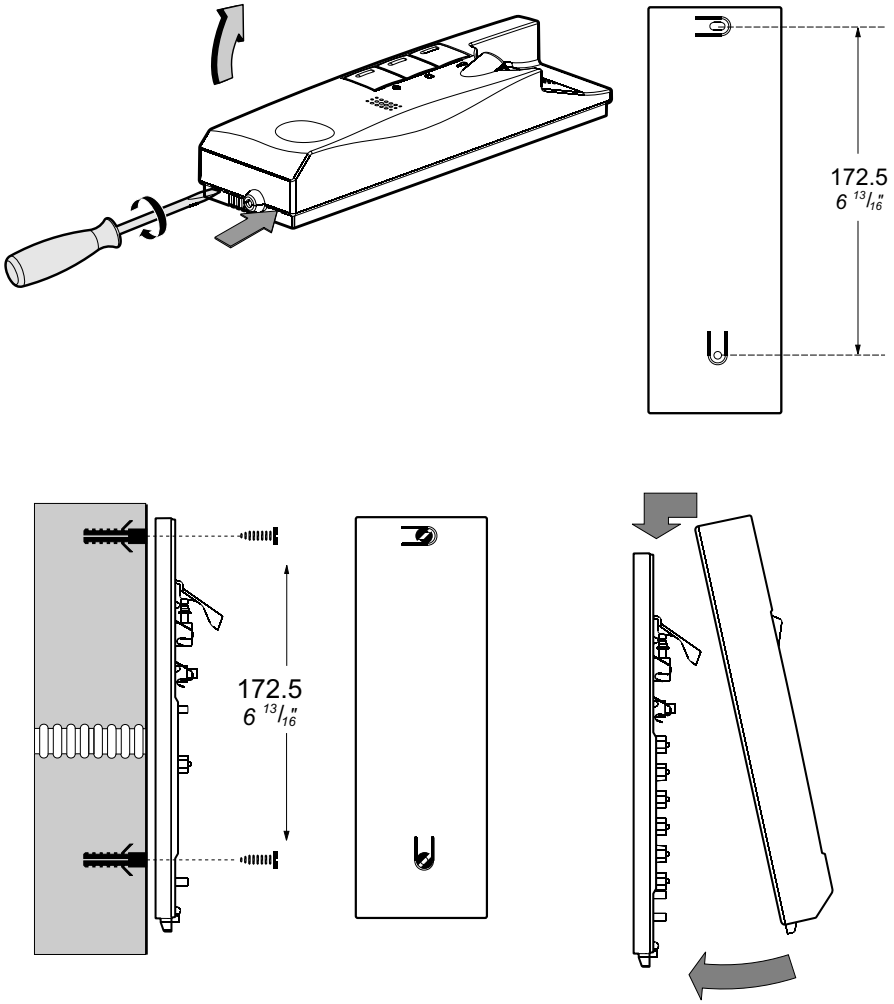


EX310. White electronic intercom with two push-buttons, spiral cord, electronic microphone and possibility to insert an additional **EX301** push-button and a **SR41**, **RL36** or **EX304** module *(description and characteristics of the modules on page 13)*. Wall-mountable with expansion plugs or wall box.

Terminals

- **1** Microphone
- **2** Loudspeaker
- **3** Ground
- **5** Door release button (max 1A)
- **0** Common button (connected to terminal 3 with jumper **W1**)
- **C** Common contact for **1** push-button
- **9** Electronic call input
- **P** Service push-button (max 1A)

Wall version



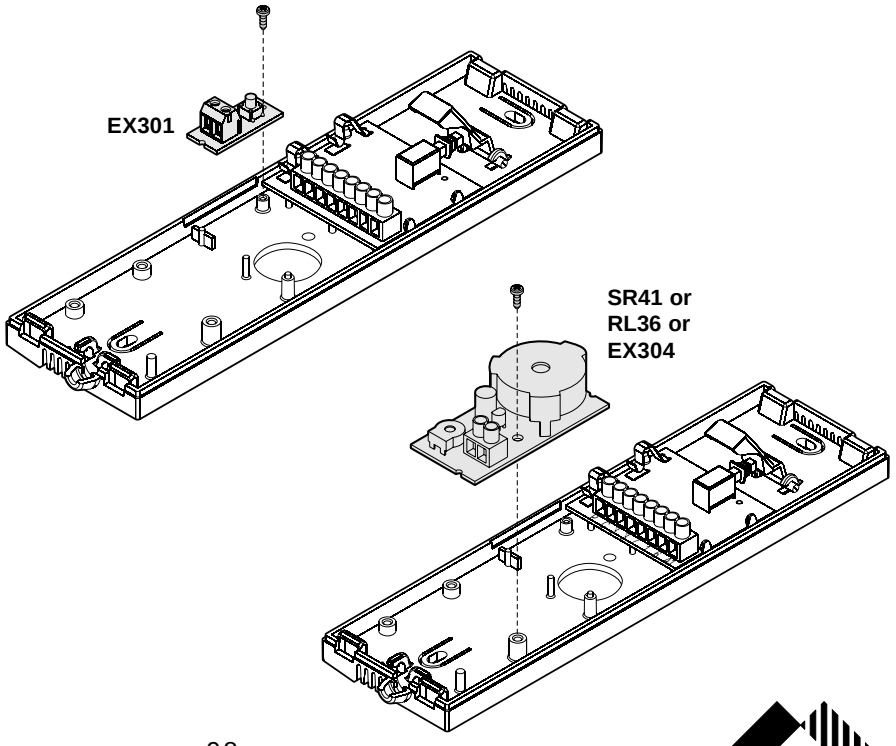
Accessories

EX301. Single button module for **Exhito** intercoms. Maximum contact current is 0.1A. For higher currents use a relay.
Note. For easier reference the 2 terminals of the module are defined as C and P, but they have no polarity and can be inverted.

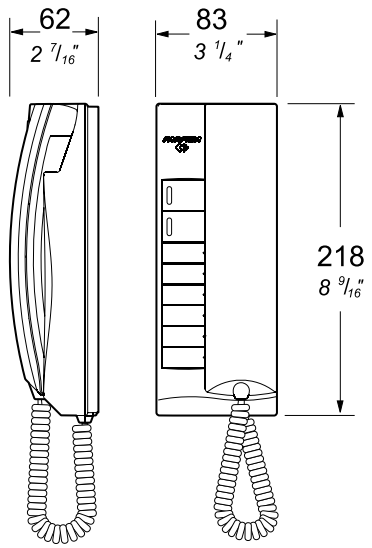
EX304. Additional loudspeaker module. *See page 13.*

RL 36. Relay module. *See page 99.*

SR41. Electronic buzzer module. *See page 13.*



INTERCOMS



EX320. White colour intercom for 4+1 intercom systems and intercommunicating systems connected to 1 or more external door stations. Complete with spiral cord, electronic microphone and 2 buttons extendable to 8 by adding the **EX301** single button module.
Possibility of inserting modules **EX304**, **EX332**, **ST703, SR41**, **RL36** and **SM50E**.
Wall-mountable with expansion plugs or wall box or on the desk using the table adaptor **TA320**.

Terminals

1 Microphone
2 Loudspeaker
3 Ground
5 Door release button (max 1A)
0 Common button (connected to terminal 3 with jumper **W1**)
C Common contact for **1** push-button
9 Electronic call input
P Service push-button (max 1A)

Installation

For wall installation of the intercom see to page 12

Accessories

EX301. Single button module. *See page 12.*

EX304. Additional loudspeaker module. *See page 13.*

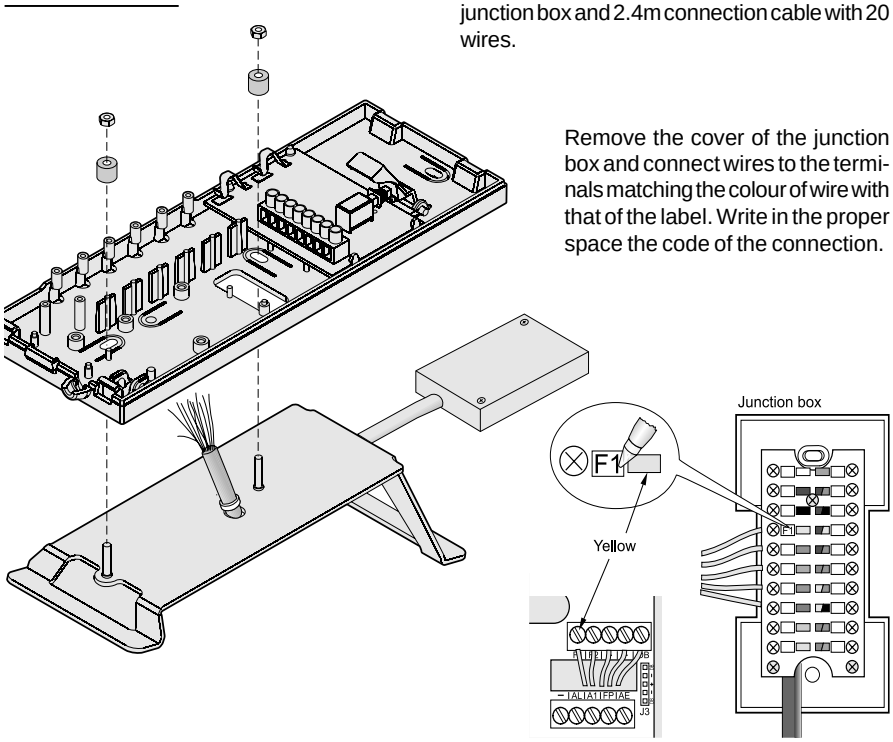
EX332. Module with **3 LED**. *See page 13.*

SR41. Electronic buzzer module. *See page 13.*

Table version

TA320. Table adaptor with weighted base, junction box and 2.4m connection cable with 20 wires.

Remove the cover of the junction box and connect wires to the terminals matching the colour of wire with that of the label. Write in the proper space the code of the connection.



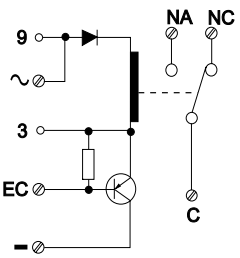
RL 36. Relay module. When installed inside intercoms it allows to activate additional bells. Maximum switching current is 1A (24V).

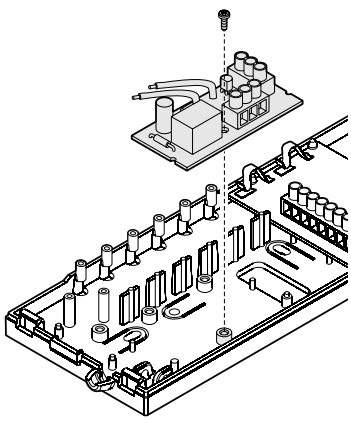
Terminals

C common terminal of relay
NA normally open contact of relay
NC normally closed contact of relay
- ground
~ 13Vac/dc voltage input
EC relay activation input (ground command)

Wires

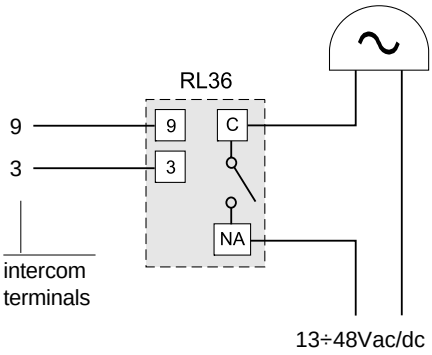
9 electronic call input without resistive load
3 ground





Additional bell connection

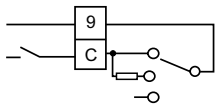
If the ringing volume is not sufficient or if you need to chime the call in a different place, you can add an additional bell enabled by a relay.

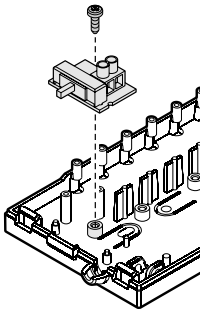


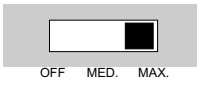
ST703. Ringing volume adjustment switch.

To terminal 9 of the intercom or 9A of **EX304** additional loudspeaker.

Call push-button

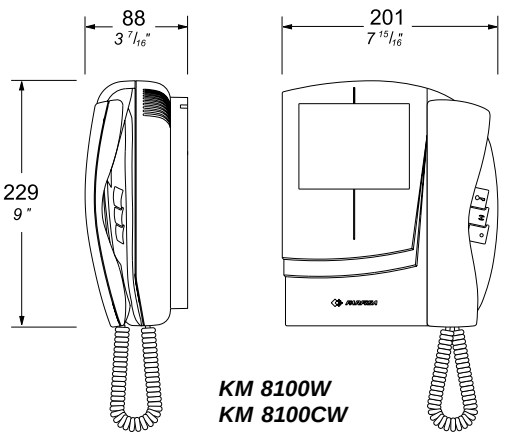




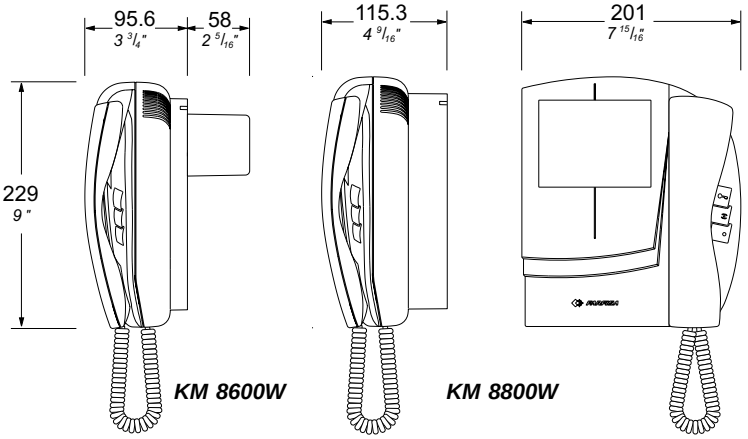


3 levels to adjust ringing volume (off, medium and maximum)

VIDEOINTERCOMS



KM 8100W
KM 8100CW



KM 8600W

KM 8800W

KM 8100W. White colour videointercom with flat CRT, audio-video privacy, electronic microphone and terminal board for the connection to the wall-bracket. With three buttons for door lock release, control switch ON and auxiliary service. The maximum acceptable current to the button terminals is 0.3A. For higher currents use relay unit art.**1471** or **1472**. It can be installed on the wall (with no built-in) by using the wall-bracket **WB8600**.

KM8100CW. Version of **KM8100W** videointercom with colour LCD.

Technical data

Power supply	18÷24Vdc
Operating current	0.5A
Video tube (KM8100W)	4" FLAT CRT
Screen (KM8100CW)	4" LCD
TV standard (KM8100W)	CCIR-625 lines
TV standard (KM8100CW)	PAL
Horizontal frequency	15625Hz
Vertical frequency	50Hz
Bandwidth	>5MHz
Video signal on 75Ω	0.8÷1.5Vpp
Starting up time (KM8100W)	2÷4 seconds
Starting up time (KM8100CW)	1 second
Operating temperature	0°÷+50°C
Max. permissible humidity	90%RH

KM 8600W. White colour videointercom with traditional cathode tube, audio-video privacy, electronic microphone and terminal board for the connection to the wall-bracket. With three buttons for door lock release, control switch ON and auxiliary service. The maximum acceptable current to the button terminals is 0.3A. For higher currents use relay unit art.**1471** or **1472**. It can be installed on the wall (with no built-in) by using the wall-bracket **WB8600** and the back-box art.**8083**.

Technical data

Power supply	18÷24Vdc
Operating current	0.7A
Video tube	4,5-90°
TV standard	CCIR-625 lines
Horizontal frequency	15625Hz
Vertical frequency	50÷60Hz
Bandwidth	>5MHz
Video signal on 75Ω	0.8÷1.5Vpp
Starting up time	5÷7 sec.
Operating temperature	0°÷+50°C
Max. permissible humidity	90%RH

KM 8800W. White colour reflex videointercom, with audio-video privacy, electronic microphone and terminal board for the connection to the wall-bracket. With three buttons for door lock release, control switch ON and auxiliary service. The maximum acceptable current to the button terminals is 0.3A. For higher currents use relay unit art.**1471** or **1472**. It can be installed on the wall (with no built-in) by using the wall-bracket **WB8600**.

Technical data

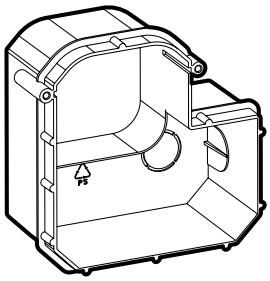
Power supply	18÷24Vdc
Operating current	0.7A
Video tube	4,5-90°
TV standard	CCIR-625 lines
Horizontal frequency	15625Hz
Vertical frequency	50÷60Hz
Bandwidth	>5MHz
Video signal on 75Ω	0.8÷1.5Vpp
Starting up time	5÷7 sec.
Operating temperature	0°÷+50°C
Max. permissible humidity	90%RH

WB 8600. Plastic bracket to fix the video intercoms **KM8100W**, **KM8600W** and **KM8800W** to the wall. Complete with terminal board for connection to the system and connectors for connection to the video intercom.

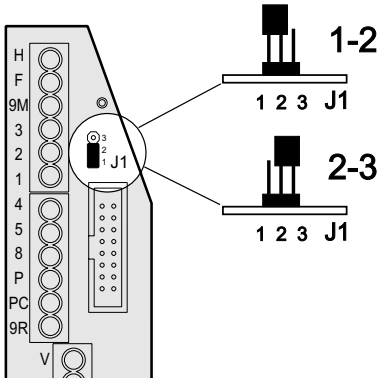
Terminals

- **V** Video signal input 0.8÷1.5Vpp
- **M** Video ground
- **F** General ground
- **H** Positive power supply input 18÷24Vdc
- **1** Microphone output
- **2** Speaker and automatic switching OFF input
- **3** Audio ground
- **4** Control switching ON – button
- **5** Door lock release - button on intercom
- **8** Positive power supply output for video distributors 12Vdc
- **9M** Call input from external door station (250mA)
- **9R** Intercommunicating or floor-call input
- **P** Service button (symbol ●)
- **PC** Common of service button

8083. Back-box for video intercom art.**KM8600W**.



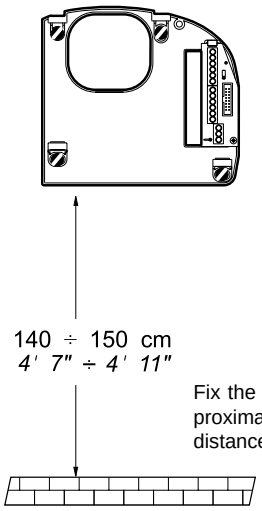
Choosing the private conversation or intercommunicating service



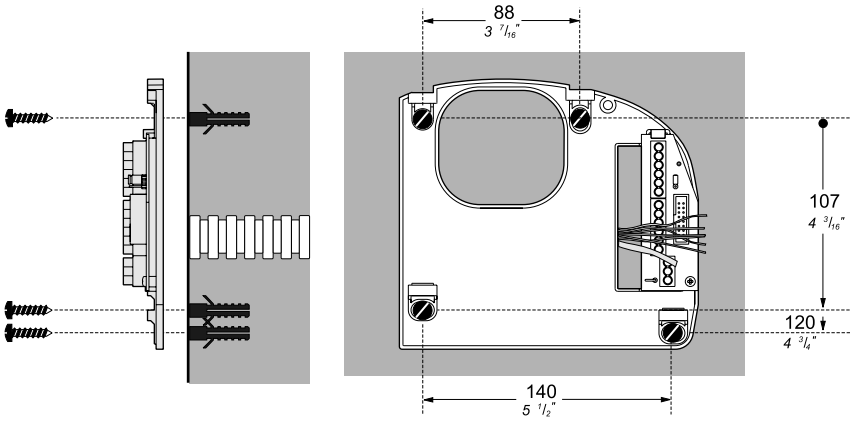
1-2 = Video intercom without audio privacy
2-3 = Video intercom with audio privacy

Installation

Only for KM8100W and KM8800W models

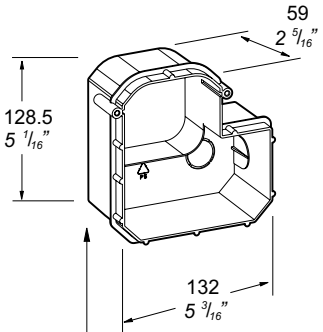


Fix the wall bracket at approximately 1.5m (4' 11") distance from the floor.

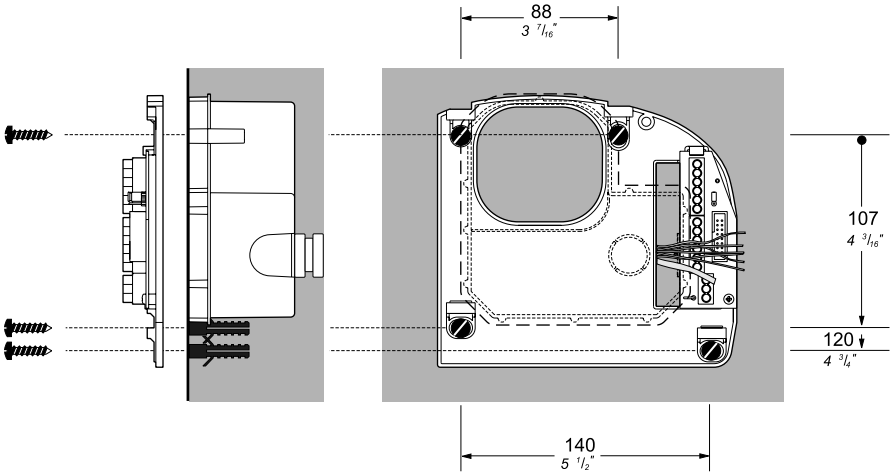


Fix the wall bracket by using 4 expansion plugs.

Only for KM8600W model

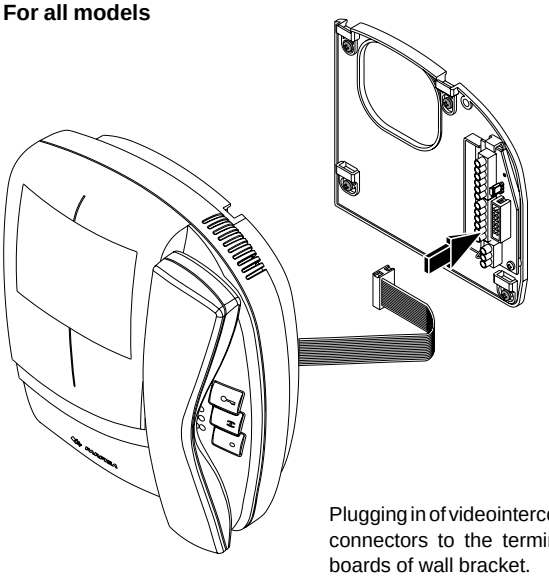


Place the box **8083** on the wall at a height of about 1.5m (4' 11") from the floor keeping the front edges flush-mounted and vertical to the finished plaster.

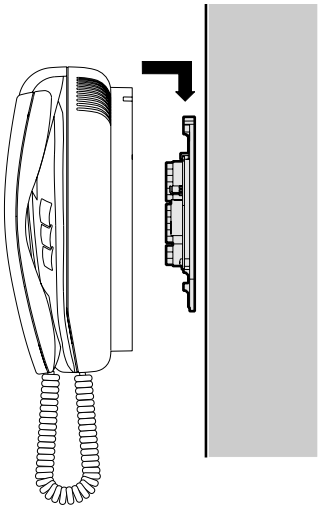


Fix the bracket **WB8600** to the back box **8083** with the 2 screws supplied with the bracket and adding 2 screws and expansion plugs for the lower fixing.

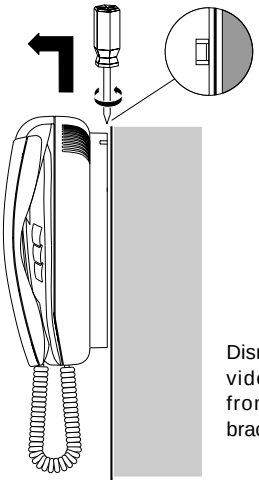
For all models



Plugging in of videointercom connectors to the terminal boards of wall bracket.

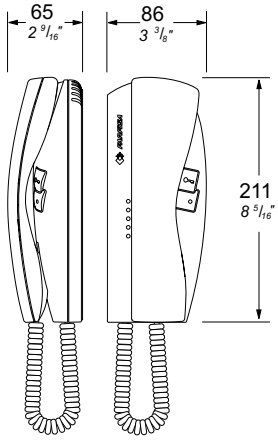


Installation of videointercom onto the wall bracket.



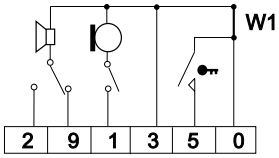
Dismounting of videointercom from the wall bracket.

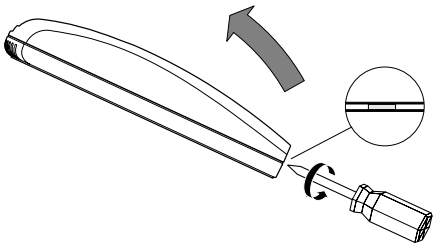
INTERCOM

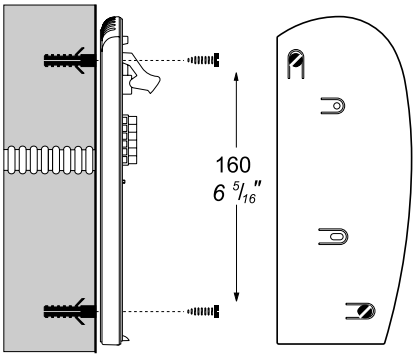


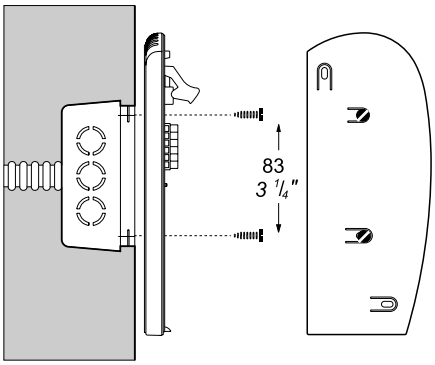
KM810W. White electronic intercom with 1 button, spiral cord, electronic microphone, and possibility of installation of **SR41**, **SM50E** modules and a **ST701** additional push-button. Wall-mountable with expansion plugs or wall box.

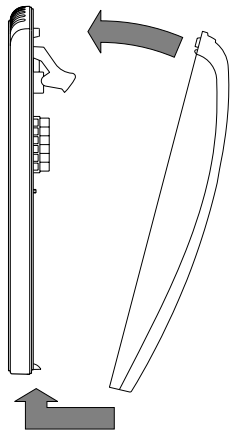
Terminals
1 microphone
2 speaker
3 ground
5 door release button (max 1A)
7 common door release button (connected to terminal 3 with jumper **W1**)
9 electronic call input



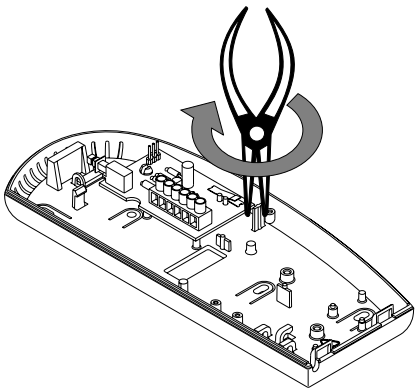


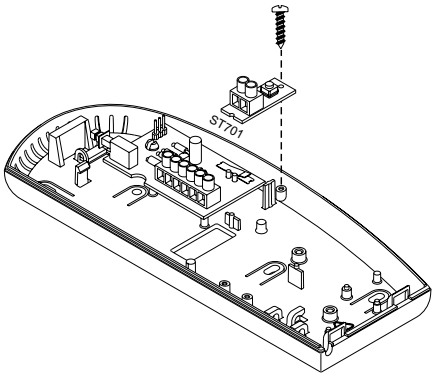




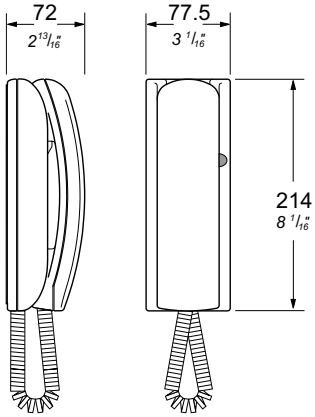


Mounting of the additional button **ST701.**



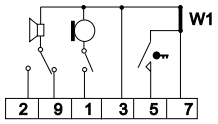


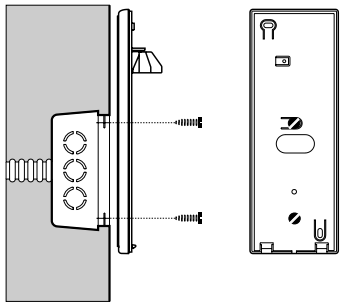
INTERCOM

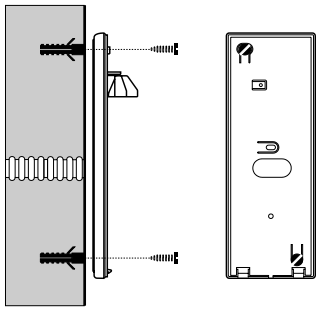


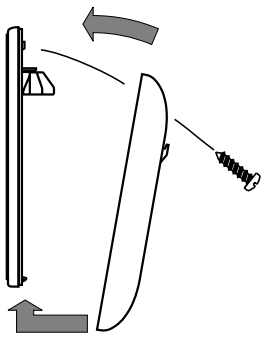
PT510EW. White electronic intercom with 1 button, spiral cord, electronic microphone, and possibility of installation of **SR41** and **SM50E** modules. Wall-mountable with expansion plugs or wall box.

Terminals
1 microphone
2 speaker
3 ground
5 door release button (max 1A)
7 common door release button (connected to terminal 3 with jumper **W1**)
9 electronic call input



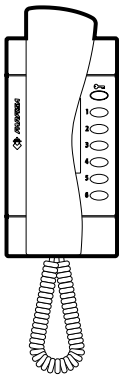






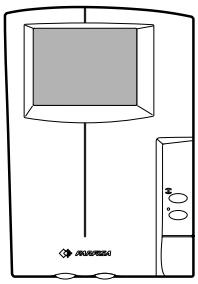
COMPOSITION BOARD OF STUDIO SERIES INTERNAL STATIONS

Wall version



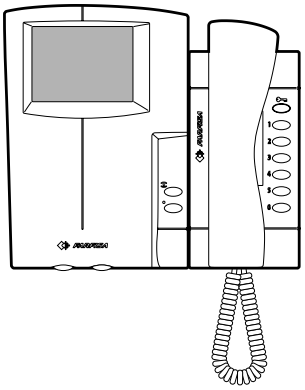
Intercom

ST720W intercom



Monitor

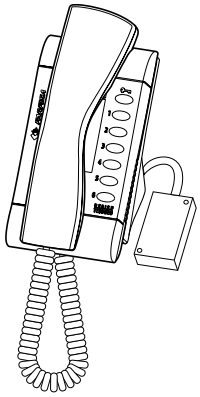
ST7100W B/W monitor
ST7100CW colour monitor
WB7100 wall bracket for monitor



Videointercom

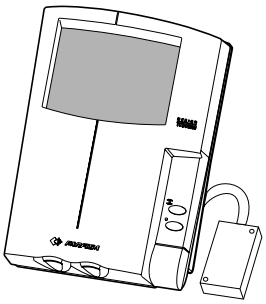
ST7100W B/W monitor
ST7100CW colour monitor
WB7100 wall bracket for monitor
ST720W intercom
WB700 wall bracket for intercom

Table version



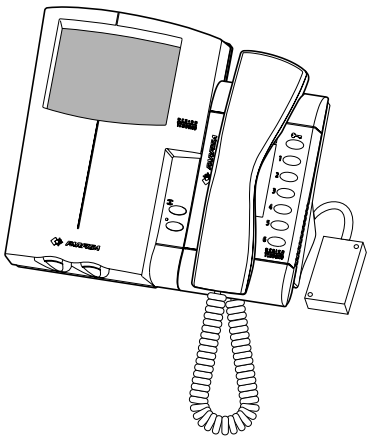
Intercom

ST720W intercom
WB700 wall bracket for intercom
TA720 table adaptor for intercom



Monitor

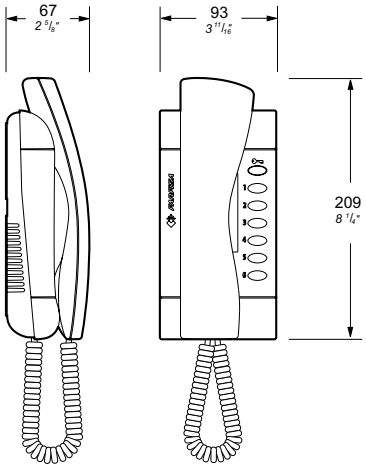
ST7100W B/W monitor
ST7100CW colour monitor
WB7100 wall bracket for monitor
TA7100 table adaptor for monitor



Videointercom

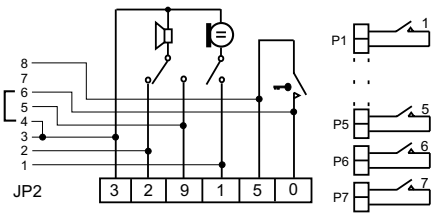
ST7100W B/W monitor
ST7100CW colour monitor
WB7100 wall bracket for monitor
TA7100 table adaptor for monitor
ST720W intercom
WB700 wall bracket for intercom
TA700 table adaptor for intercom

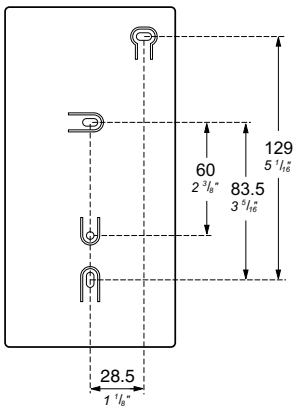
INTERCOM Studio series

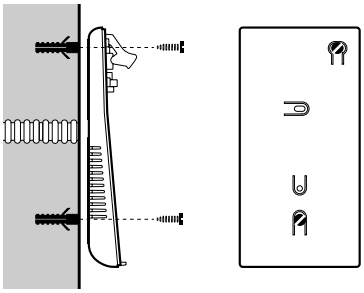


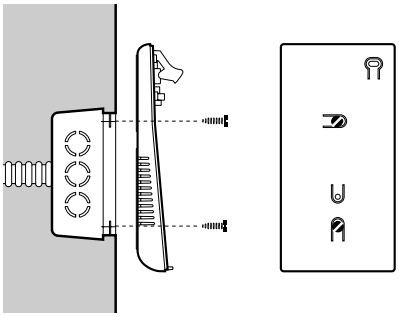
ST 720W. White colour intercom for 4+1 intercom systems and intercommunicating systems connected to 1 or more external door stations. Complete with spiral cord, electronic microphone and 1 button extendable to 7 by adding the **ST 701** single button module.
Wall-mountable with expansion plugs or wall box or with **WB700** bracket if combined with **ST 7100** monitor or other modules.

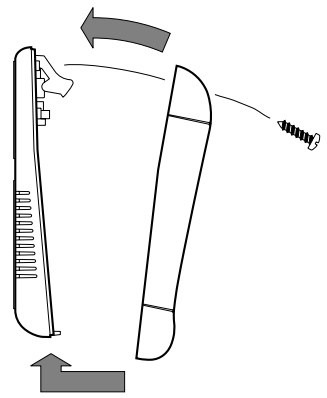
Terminals
1 microphone
2 speaker
3 ground
5 door release button (max 1A)
0 common button grounded with the jumper present in the **JP2** connector
9 electronic call input





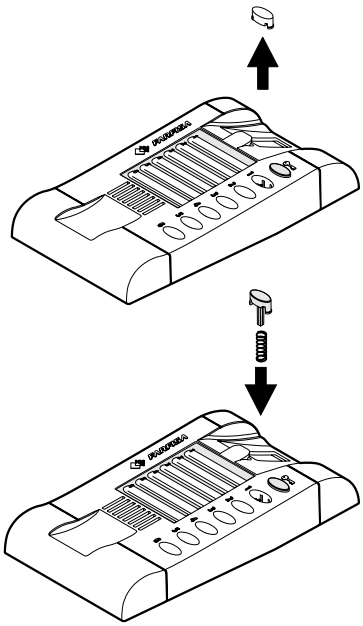


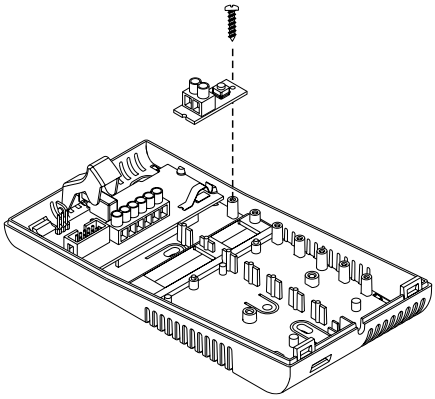




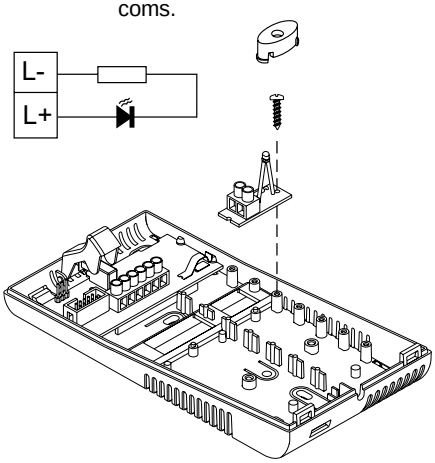
Accessories

ST 701. Single button module for **ST720** intercoms. Maximum contact current is 0.1A. For higher currents use a relay.
Note. For easier reference the 2 terminals of the module are defined as C and P, but they have no polarity and can be inverted.

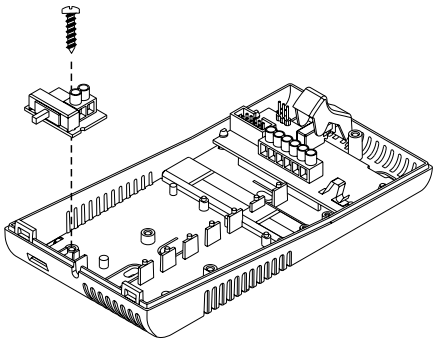




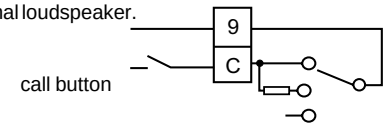
ST 702W. LED module for **ST720W** intercoms.

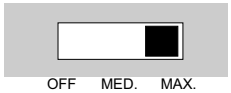


ST 703. Ringing volume adjustment switch.



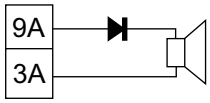
to terminal 9 of the intercom or 9A of **ST 704** additional loudspeaker.

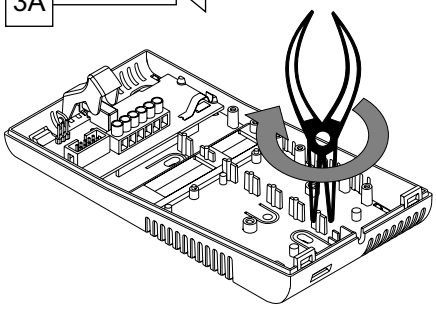


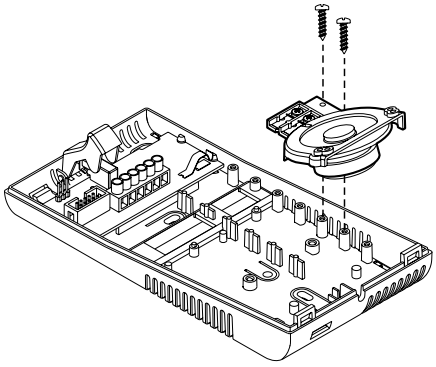


3 levels to adjust ringing volume (off, medium and maximum)

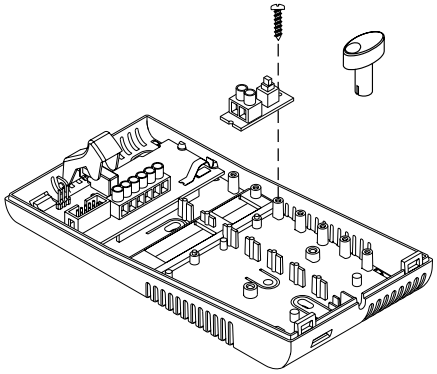
ST 704. Additional loudspeaker. It allows to receive calls with off-hook handset, or in systems with 2 calls, with 1 single call and 1 call in common to other intercoms.
To install the module the last module holder on the intercom base must be removed (see drawing). The article takes the space of 2 modules, and therefore reduces the number of additional buttons to 4.



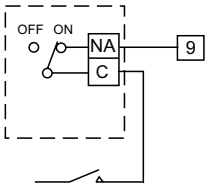




ST 715. Switch module. It allows to activate or deactivate one of the intercom functions (for example call, door lock release, etc.). Maximum contact current is 0.1A.



Example of switch module application to deactivate the intercom call



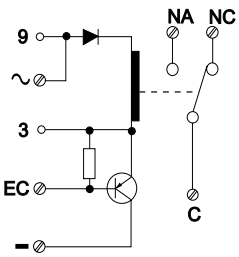
to terminal 9 of the intercom or 9A of **ST704** additional loudspeaker.

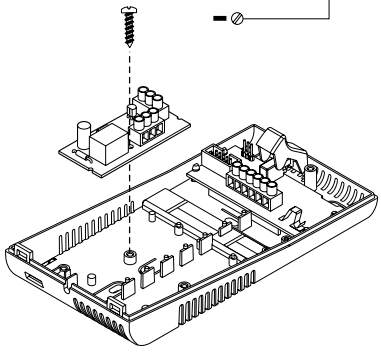
call button

RL 36. Relay module. When installed inside intercoms it allows to activate additional bells (see page 183). Maximum switching current is 1A (24V).

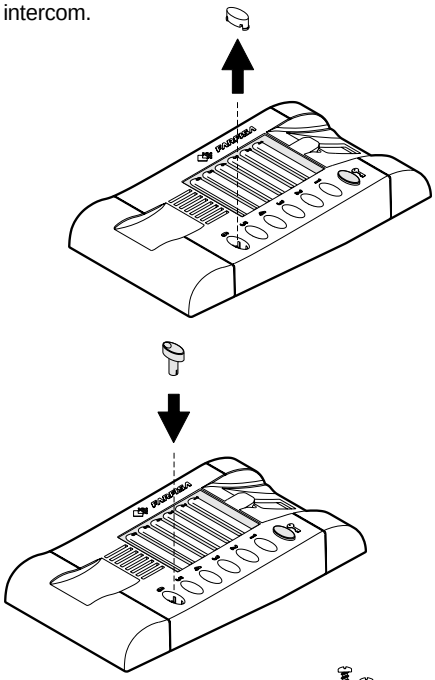
Terminals
C common terminal of relay
NA normally open contact of relay
NC normally closed contact of relay
- ground
~ 13Vac/dc voltage input
EC relay activation input (ground command)

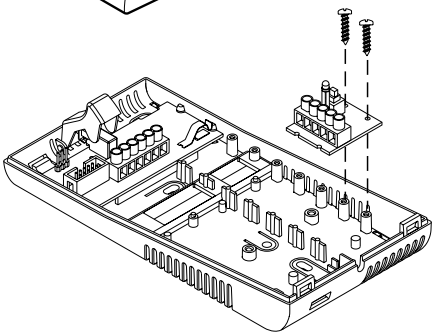
Wires
9 electronic call input without resistive load
3 ground



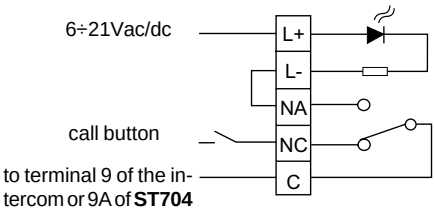


ST 716. Switch module with LED. It allows to activate/deactivate/divert one of the intercom functions (for example call, door lock release, etc.) with visual indication of the function. Maximum contact current of switch module is 0.1A.
The article takes the space of 2 modules. It is recommended to install it in the last position in order to use the space in the bottom part of the intercom.





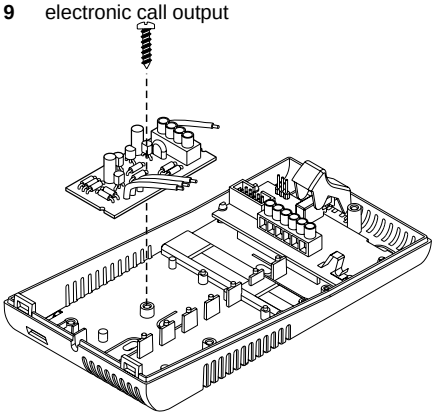
Example of switch module with LED application to deactivate the intercom call with visual indication



SM 50E. Private conversation module. When installed inside all the intercoms of the multi-way intercom system it allows only the called user to be put in communication with the external door station. The module cannot be used in intercommunicating systems and if the intercom is combined with a monitor (in this case the service is provided by the monitor itself).

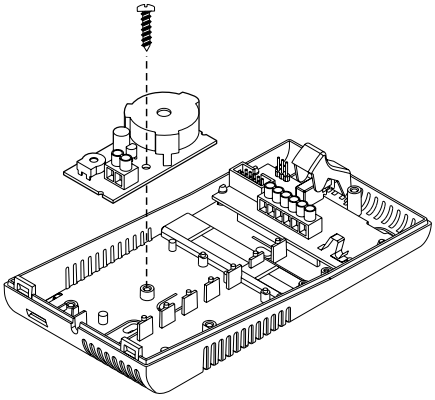
Terminals
B audio line transmitter
C audio line receiver
9 electronic call input
- ground

Wires
1 microphone
2 speaker
3 ground
9 electronic call output

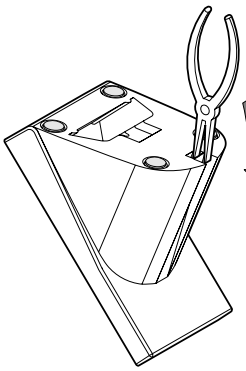


SR 41. Electronic buzzer module. Thanks to low current consumption, it can be used for parallel call to several intercoms. Provided with volume adjustment.

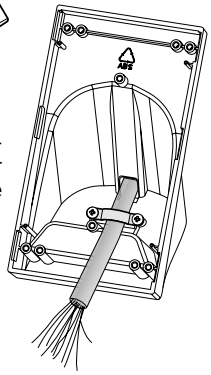
Terminals
3 ground
4 power supply input (13Vac-70mA; 9÷20Vdc-15mA)



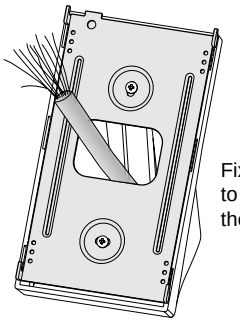
TA 720W. Table adapter, white colour. Complete with junction box and 2.4m connection cable with 20 wires.



Make the hole for the connection cable.

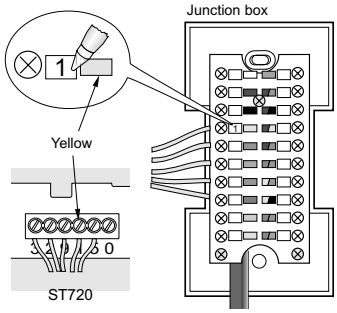


Block the connection cable to the table adapter and block it with the cable clamp.

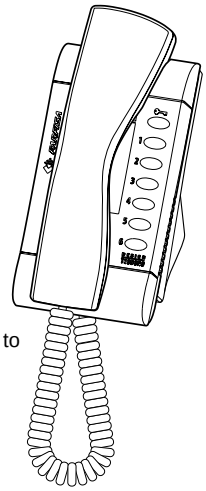


Fix the **WB700** bracket to the table adapter with the 2 screws supplied.

Open the intercom and make the connections as shown in the installation diagram.

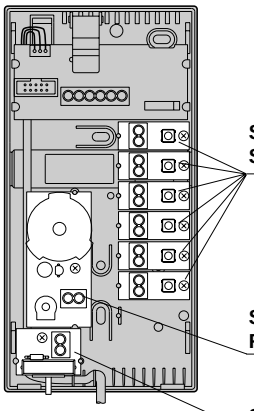


Mark the colour/terminal combination in the junction box



Hook the intercom to the adapter.

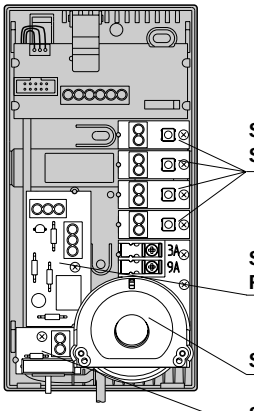
Combination of additional modules
All modules described above can be installed inside the **ST 720** intercoms. It must be kept in mind that they cannot be installed all at the same time. Below are some examples of possible combinations.



ST701 or **ST702** or **ST715** (max 6)

SR41 or **SM50E** or **RL36** (1-see note)

ST703 (max 1)

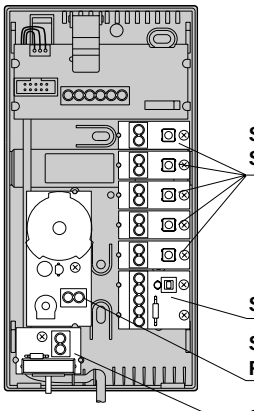


ST701 or **ST702** or **ST715** (max 4)

SR41 or **SM50E** or **RL36** (1-see note)

ST704 (max 1)

ST703 (max 1)



ST701 or **ST702** or **ST715** (max 5)

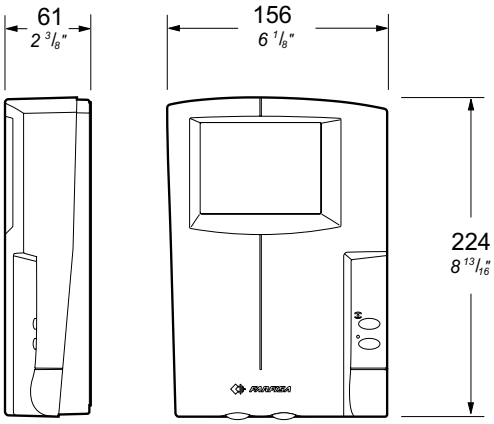
ST716 (max 1)

SR41 or **SM50E** or **RL36** (1-see note)

ST703 (max 1)

Note
An additional **SR41** or **SM50E** or **RL36** module can be installed taking the place of the last 4 positions of the push-button modules after removing the plastic holders.

MONITORS



ST 7100W. White monitor with flat CRT and 2 buttons. One button for control switch ON and one button for supplementary services. Maximum acceptable current of buttons is 0.3A. For higher currents use relay art. **1471** or **1472**.
The monitor can be surface mounted on the wall with bracket art. **WB7100**.

Technical data

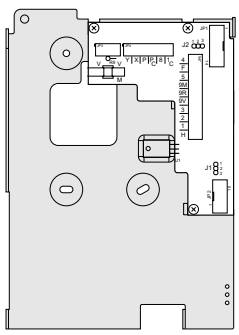
Power supply	18÷24Vdc
Operating current	0.35A
Monitor	4" FLAT CRT
TV standard	CCIR-625 lines
Horizontal frequency	15625Hz
Vertical frequency	50Hz
Bandwidth	>5MHz
Video signal on 75Ω	0.8÷1.5Vpp
Starting up time	2÷4 sec.
Operating temperature	0°÷+50°C
Max. permissible humidity	90%RH

ST 7100CW. Version with colour LCD of monitor **ST7100W**.

Technical data

Power supply	18÷24Vdc
Operating current	0.4A
Monitor	4" LCD
TV standard	PAL
Horizontal frequency	15625Hz
Vertical frequency	50Hz
Bandwidth	>5MHz
Video signal on 75Ω	0.8÷1.5Vpp
Starting up time	1 sec.
Operating temperature	0°÷+50°C
Max. permissible humidity	90%RH

FIXING ELEMENTS



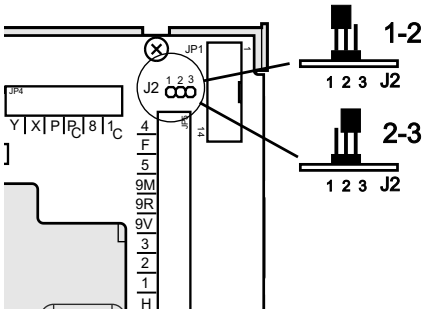
WB 7100. Bracket to fix the monitor **ST7100** to the wall or to the table adapter (art.**TA7100**). Complete with terminal board for connection to the system and connectors for connection to the monitor. One or more brackets **WB 700** can be combined with **WB 7100** to expand the system. The bracket is arranged to be electrically connected to the intercom **ST720** (the connection cable is supplied with bracket **WB 700**).

Terminals

- **V** Video signal input 0.8÷1.5Vpp
- **M** Video ground
- **F** General ground
- **H** Positive power supply input 18÷24Vdc
- **X** Negative balanced video signal input
- **Y** Positive balanced video signal input
- **1** Microphone output
- **2** Speaker and automatic switching OFF input
- **3** Audio ground
- **4** Control switching ON – button
- **5** Door lock release - button on intercom
- **8** Positive power supply output for video distributors 12Vdc
- **9M** Call input from external door station (250mA)
- **9R** Intercommunicating or floor-call input
- **9V** Input for direct activation from FN4000 digital system (ground command)
- **1C** Common of buttons for control switching ON
- **P** Service button (symbol ●)
- **PC** Common of service button

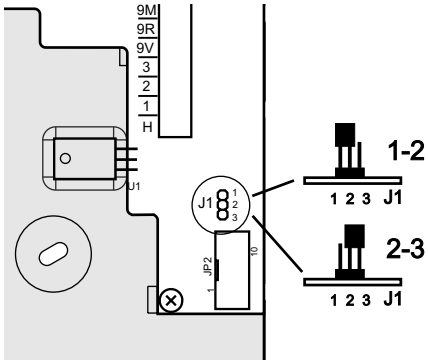
With monitor **ST7100** the video connection can be made with 75 Ohm coaxial cable or twisted pair. The choice between the two systems depends on the correct selection of video distributor and camera. The number of wires and possible installations does not change. **Do not forget to position jumper J2 correctly and use the proper input terminals on bracket WB7100**.

Choosing the video connection with coaxial cable or twisted pair



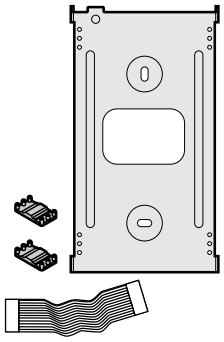
1-2 = Video connection with coaxial cable at terminals **V** and **M**
2-3 = Video connection with twisted pair at terminals **X** and **Y**

Choosing the private conversation or intercommunicating service

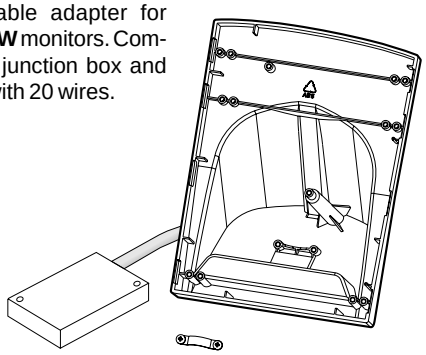


1-2 = Monitor without audio privacy
2-3 = Monitor with audio privacy

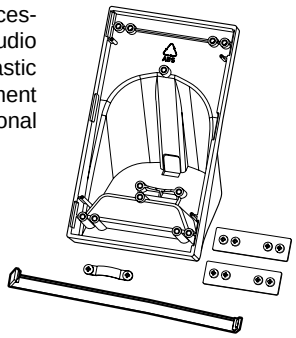
WB 700. Bracket for fixing mechanically intercom **ST 720** and/or accessories of Studio line to monitor **ST7100** or among them. Complete with:
- flat cable for electrical connection of one intercom **ST 720** to monitor **ST 7100**
- templates for correct alignment with bracket **WB7100** and/or brackets **WB700**.



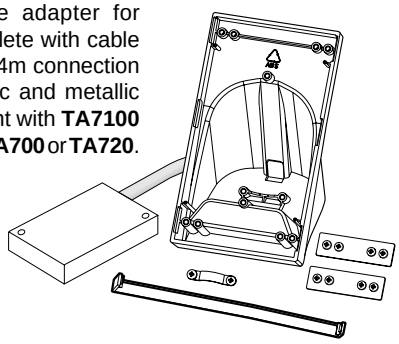
TA7100W. White Table adapter for **ST7100W** and **ST7100CW** monitors. Complete with cable clamp, junction box and 2.4m connection cable with 20 wires.



TA700W. White table adapter for accessories, intercoms and telephones of Studio series. Complete with cable clamp, plastic and metallic frames for correct alignment with **TA7100** adapters and/or additional **TA700** or **TA720**.



TA720W. White table adapter for **ST720W** intercoms. Complete with cable clamp, junction box and 2.4m connection cable with 20 wires, plastic and metallic frames for correct alignment with **TA7100** adapters and/or additional **TA700** or **TA720**.



Note. Choose model **TA720** when the 20 wires of the **TA7100** connection cable are not sufficient to cover the system requirements.

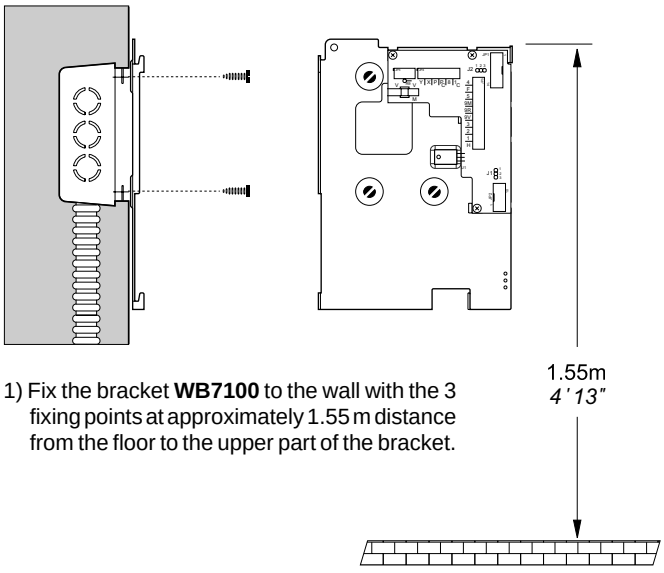
INSTALLATION

The modularity of the Studio articles permits the realisation of different types of system. Some of the possible compositions are illustrated below.
- **monitor only**
- **video intercom** *(see page 110)*
- **digital video intercom** *(see manual 10 – 2010 edition)*

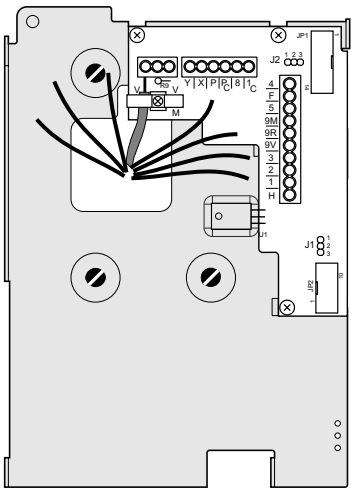
MONITOR ONLY

Installation steps for monitor **ST7100** or **ST 7100C** in wall or table version.

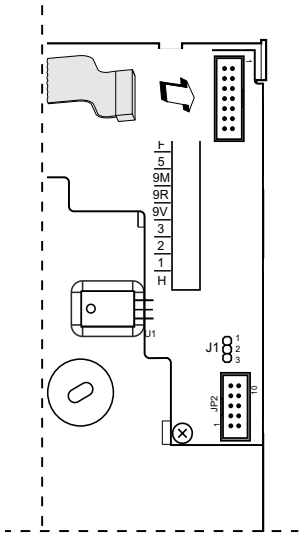
Wall version



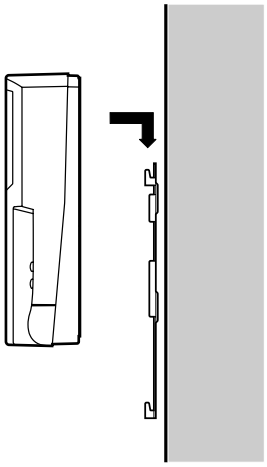
1) Fix the bracket **WB7100** to the wall with the 3 fixing points at approximately 1.55 m distance from the floor to the upper part of the bracket.



2) Make the connections on the bracket terminal board.

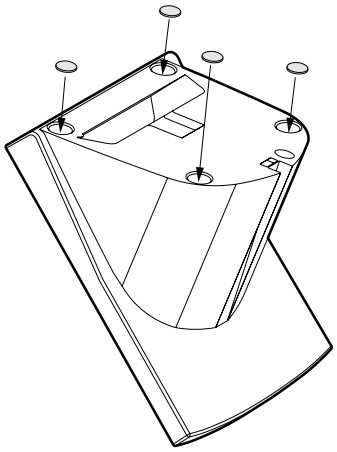


3) Connect the monitor cable to the bracket.



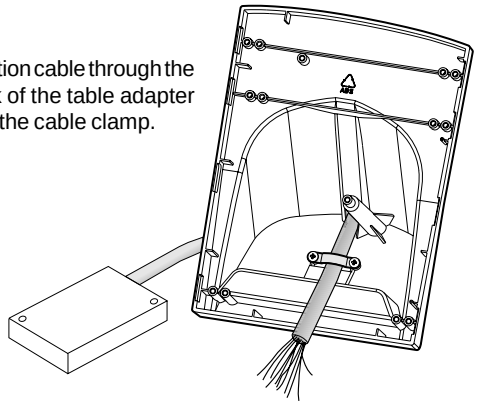
4) Hook the monitor to the bracket.

Table version

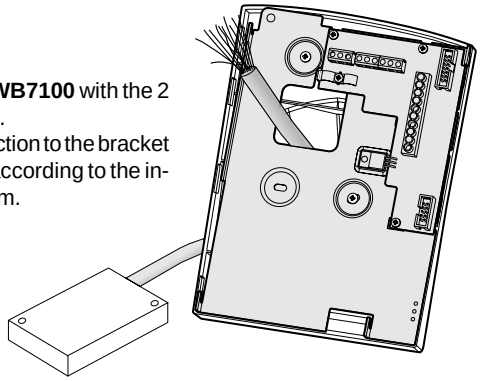


1) Apply the 4 anti-slip rubber pads in their housing under the table adapter base.

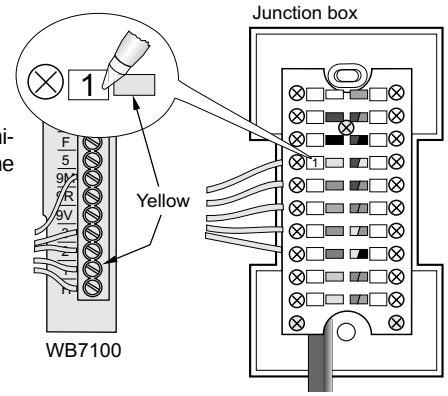
2) Pass the connection cable through the hole on the back of the table adapter and block it with the cable clamp.

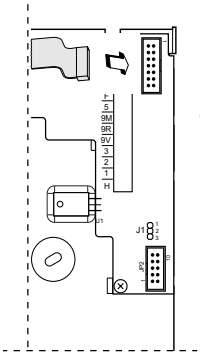


3) Fix the bracket **WB7100** with the 2 screws supplied.
4) Make the connection to the bracket terminal board according to the installation diagram.



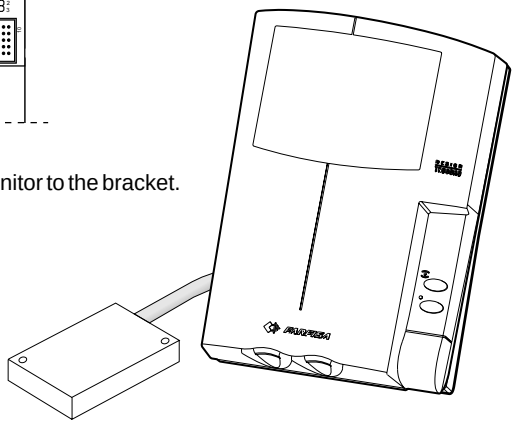
5) Mark the colour/terminal combination on the junction box.





6) Connect the monitor cable to the bracket.

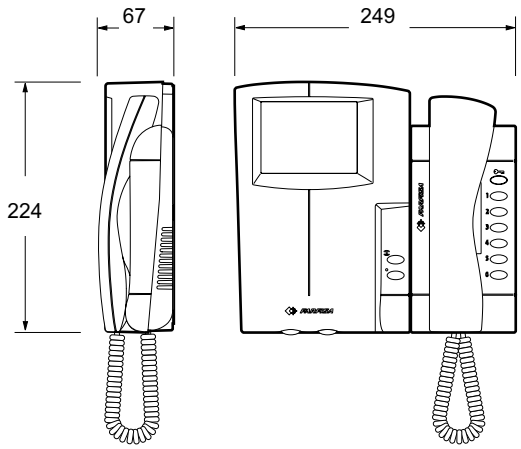
7) Hook the monitor to the bracket.

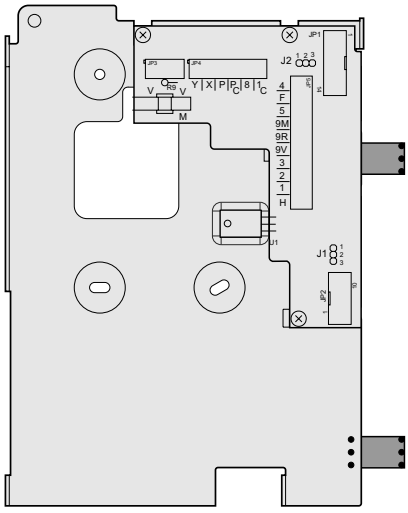


VIDEO INTERCOM

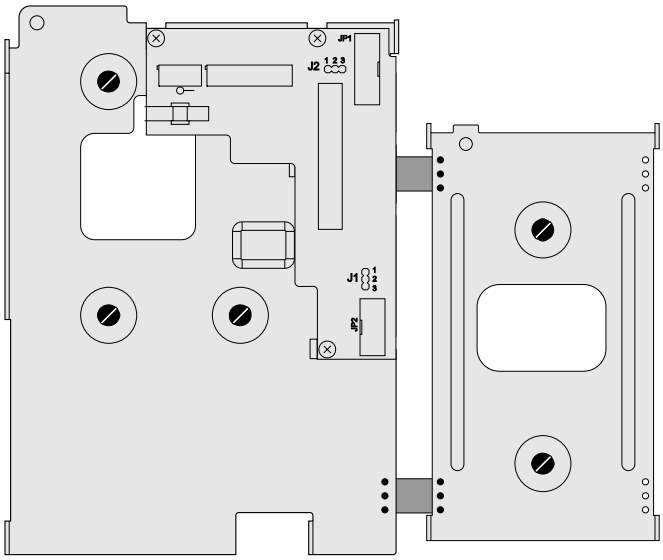
Installation steps for monitor **ST7100** (or **ST7100C**), intercom **ST720,** brackets **WB7100** and **WB700** and table adapters (if required) for the realisation of an internal station with video intercom functions.

Wall version

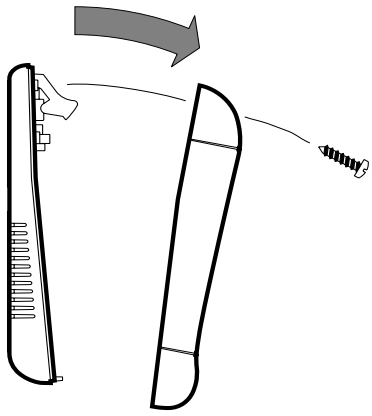




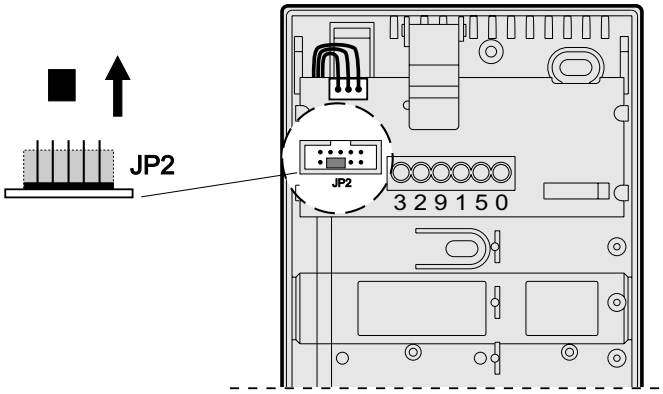
1) Splice the bracket **WB700** with the **WB7100** inserting the 2 plastic templates in the proper holes.



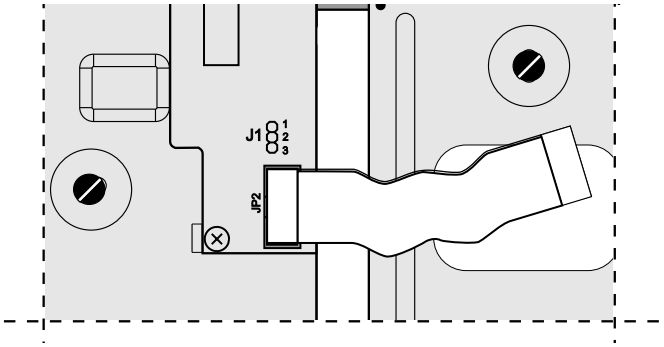
2) Fix the 2 brackets to the wall following the indications of drawing 1 on page 108.



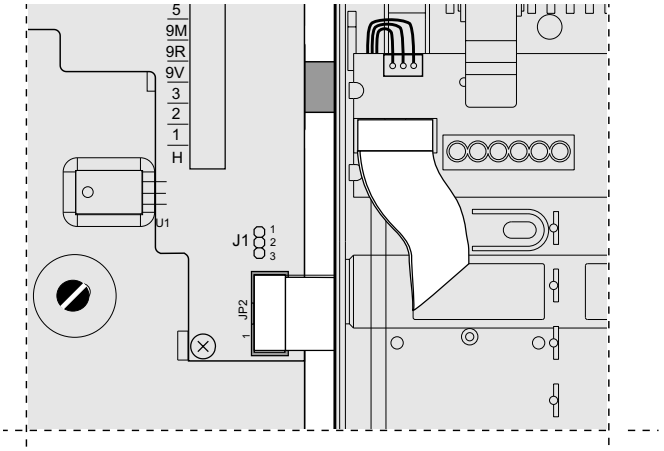
3) Remove the intercom cover.



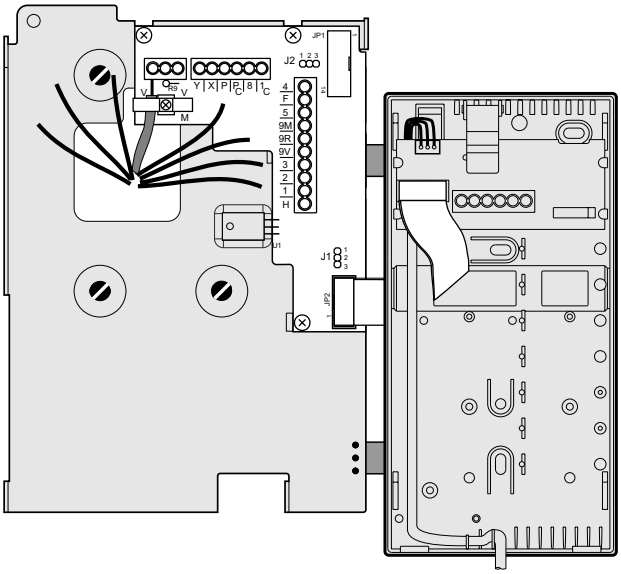
4) Remove the **mobile jumper** of **connector JP2** of the intercom.



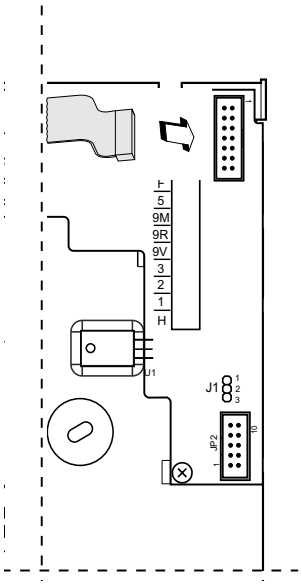
5) Connect the flat cable supplied with bracket **WB700** to connector JP2 of bracket **WB7100**.



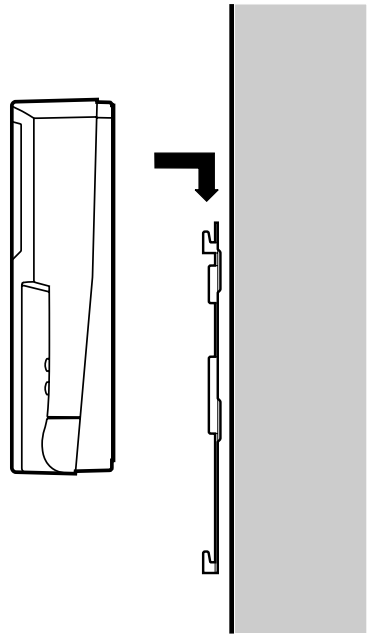
6) Hook the intercom base to bracket **WB700** and connect the other end of the flat cable to connector JP2 of the intercom by passing the cable between the intercom base and the bracket. Pull the cable in such a way that the extra part of the cable remains inside the intercom.



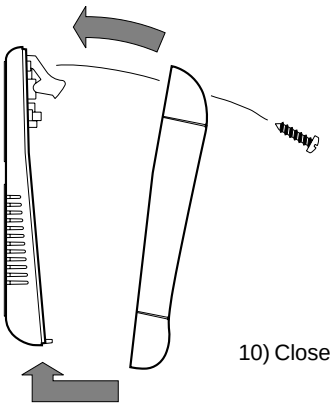
7) Make the connection on the terminal board of bracket **WB7100** according to the installation diagram. In case of additional buttons or modules, additional connections must be made inside the intercom.



8) Connect the monitor cable to the bracket.

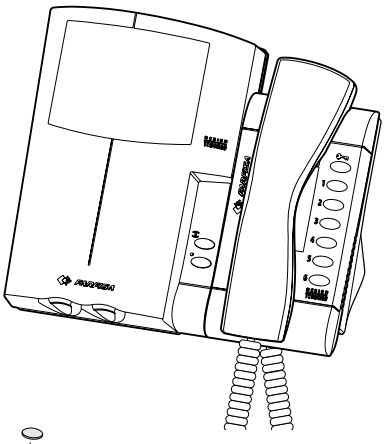


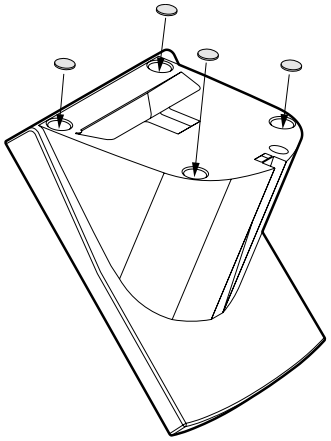
9) Hook the monitor to the bracket.

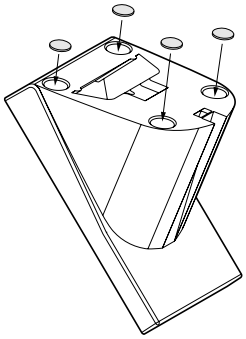


10) Close the intercom.

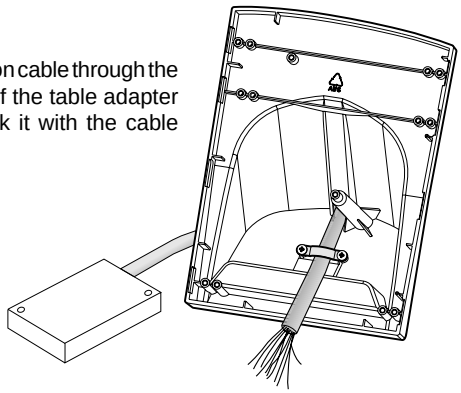
Table version



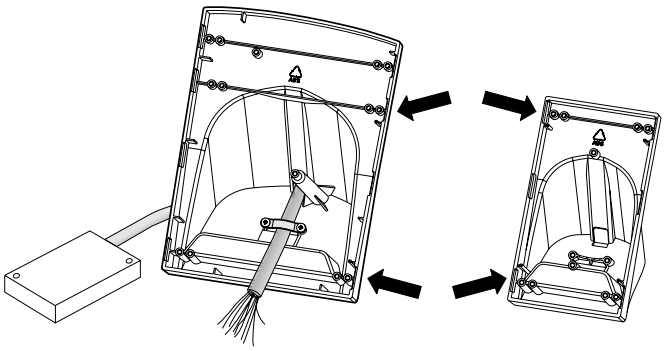




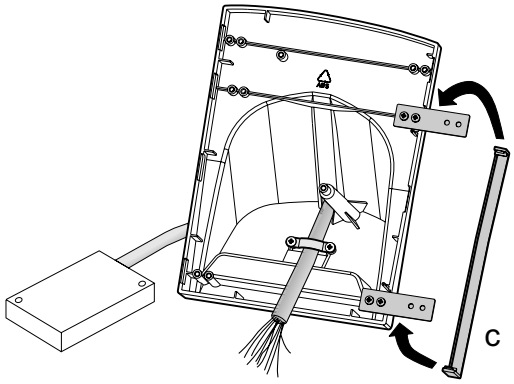
1) Apply the 8 anti-slip rubber pads in their housings under the base of table adapters **TA7100** and **TA700**.



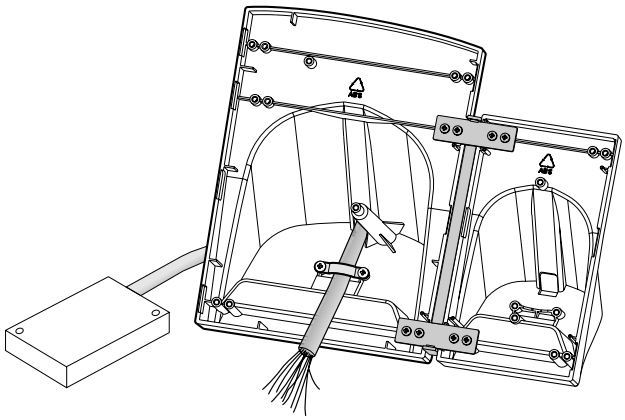
2) Pass the connection cable through the hole in the back of the table adapter **TA7100** and block it with the cable clamp.



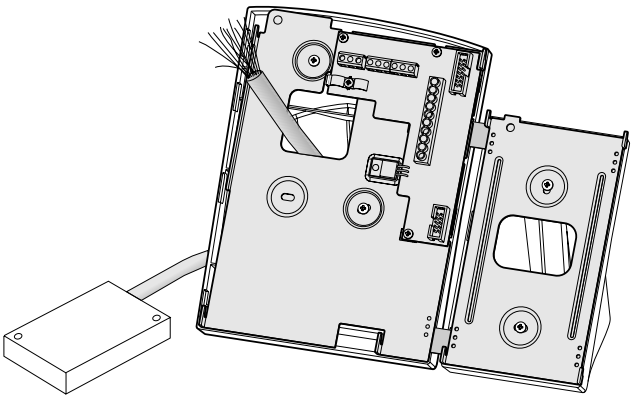
3) The arrows indicate the breaking points for the application of the metallic frames.



4) Screw the 2 metallic frames to the desk adapter **TA7100** and hook the plastic frame to them.

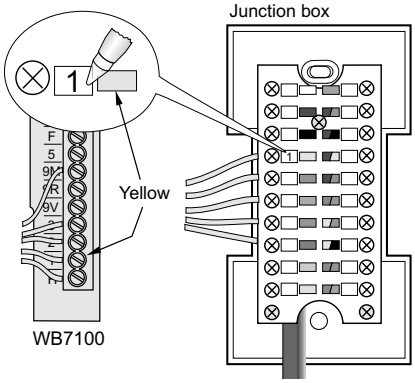


5) Fix the table adapter **TA700** to the 2 metallic frames.

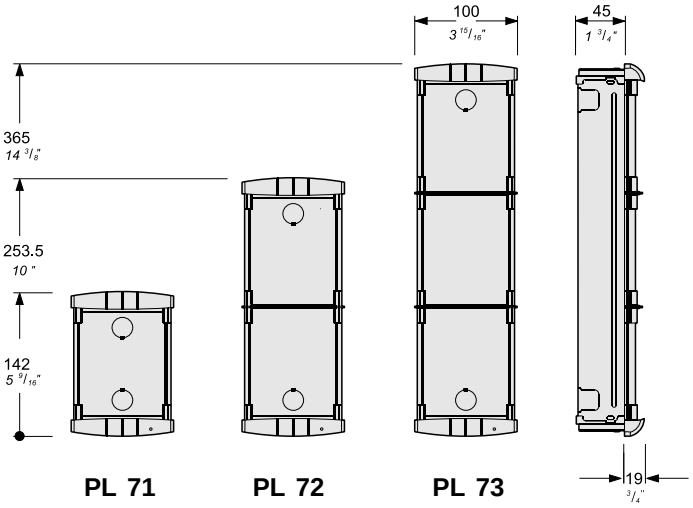


6) Screw the brackets **WB7100** and **WB700** to the table adapters.

7) Hook the monitor and intercom according to the instructions on pages 110 and 111 (from point 3 to 10). When connecting the wires to the terminal boards of bracket **WB7100** (point 7) you must mark the colour/ terminal combination on the junction box.



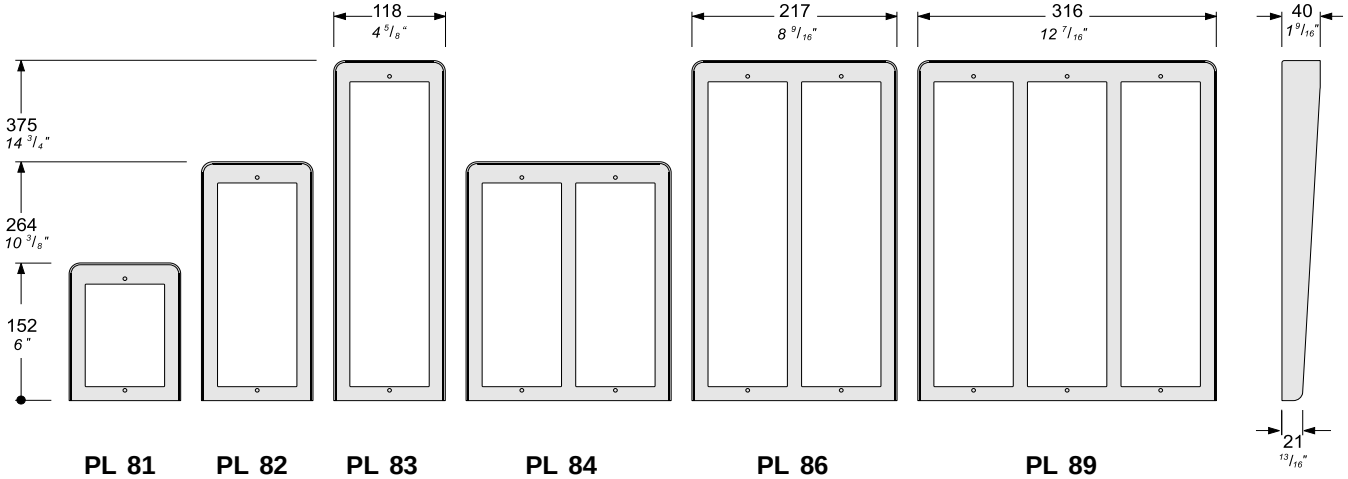
Module frames complete with back box



PL 71 PL 72 PL 73

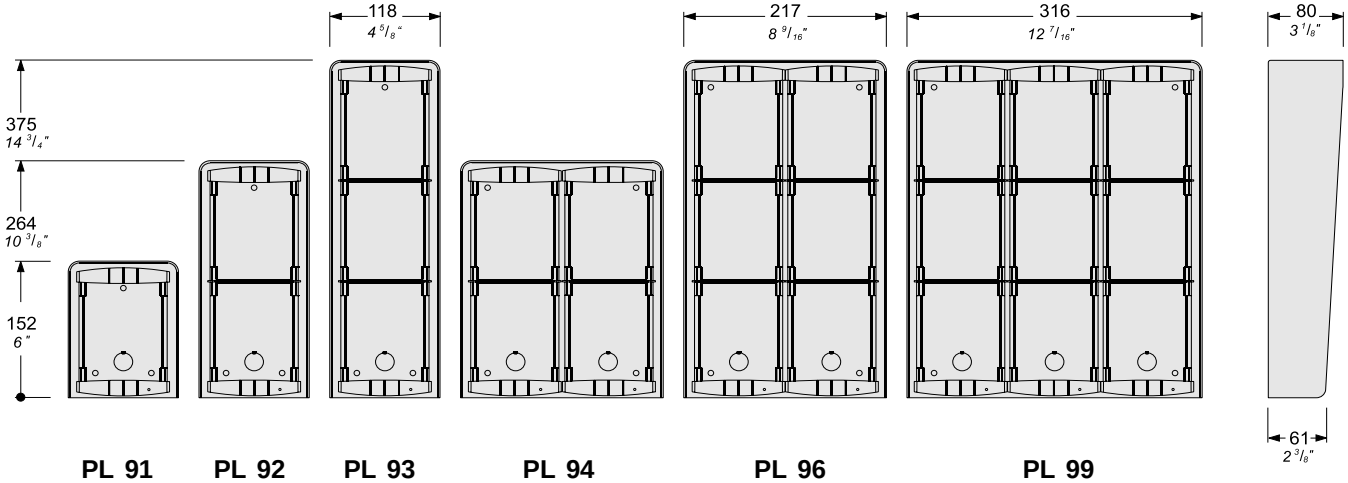
Push-button panels in extruded aluminium and steel push-buttons made up of modular elements. Suitable for the most diverse installation requirements. The careful selection of modules allows for multiple application opportunities; from one-way installations to blocks of flats; from intercom to video intercom installations.
The optimized size of modules allows for easy installation on the gage jamb.

Hood covers



PL 81 PL 82 PL 83 PL 84 PL 86 PL 89

Rain shelter with module frames

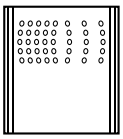


PL 91 PL 92 PL 93 PL 94 PL 96 PL 99

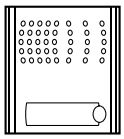
EXTERNAL DOOR STATIONS

Push-button panel

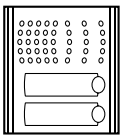
Modules with integrated door speaker



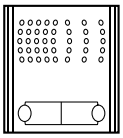
PL10P
without call buttons



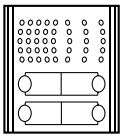
PL11P
with 1 call button



PL12P
with 2 call buttons

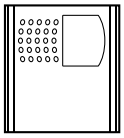


PL122P
with 2 call buttons - 2 row



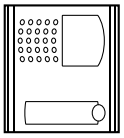
PL124P
with 4 call buttons - 2 row

Video modules with integrated door speaker



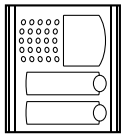
PL40P
without call buttons and with B\W camera

PL40PC
colour version



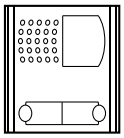
PL41P
with 1 call button and B\W camera

PL41PC
colour version



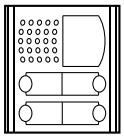
PL42P
with 2 call buttons and B\W camera

PL42PC
colour version



PL422P
with 2 call buttons and B\W camera - 2 row

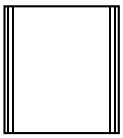
PL422PC
colour version



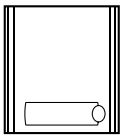
PL424P
with 4 call buttons and B\W camera - 2 row

PL424PC
colour version

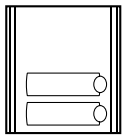
Modules: blank, buttons and number



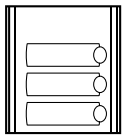
PL 20
blank module



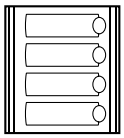
PL 21
with 1 call button



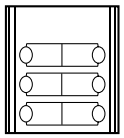
PL 22
with 2 call buttons



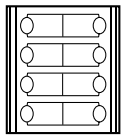
PL 23
with 3 call buttons



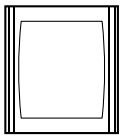
PL 24
with 4 call buttons



PL226
with 6 call buttons - 2 row

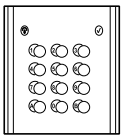


PL228
with 8 call buttons - 2 row

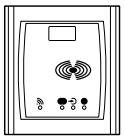


PL 50
number module

Access control modules



FC 52PL
Keypad module for access control *(see characteristics on page 116).*



FP 52PL
Proximity reader for access control *(see characteristics on page 116).*

Technical characteristics and terminal boards of the button modules

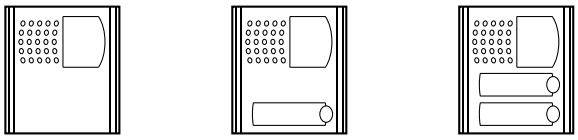
PL21	PL22	PL23	PL24	PL226	PL228	PL50	
A (25mA)	A	A	A (50mA)	A	A	A (0.1A)	AC power supply input for nameplate Led (13Vac)
-	-	-	-	-	-	-	Ground
C	C	C	C	C/C2	C/C2		Call push-buttons common
P1	P1	P1	P1	P1	P1		Call push-button
	P2	P2	P2	P2	P2		Call push-button
		P3	P3	P3	P3		Call push-button
			P4		P4		Call push-button
				P5÷P7	P5÷P8		Call push-buttons (C2 common)

Technical characteristics and terminal boards of the Profilo modules

PL10P	PL11P	PL12P	PL122P	PL124P	PL40PC	PL41PC	PL42PC	PL422PC	PL424PC	
1	1	1	1	1	1	1	1	1	1	Reception audio line
2	2	2	2	2	2	2	2	2	2	Transmission audio line
3	3	3	3	3	3	3	3	3	3	Power supply input for electric door speaker (6÷12Vdc)
4	4	4	4	4	4	4	4	4	4	Audio ground
-	-	-	-	-	-	-	-	-	-	Ground for name-plate Led and service Led (13Vac)
A	A	A	A	A	A	A	A	A	A	AC or DC power supply input for name-plate Led (13Vac-dc)
	C	C	C(C2)	C(C2)		C	C	C(C2)	C(C2)	Call push-buttons common
	P1	P1	P1	P1		P1	P1	P1	P1	Call push-button
		P2		P2			P2		P2	Call push-button
			P3	P3-P4				P3	P3-P4	Call push-buttons (call push-buttons common C2)
				V	V	V	V	V	V	Video signal output (coaxial cable)
					M	M	M	M	M	Video ground (coaxial shield)
					H	H	H	H	H	Positive voltage input for camera (18÷24Vdc)
L+	L+	L+	L+				L+	L+	L+	Power supply input for service Led (13Vac-dc)

Push-button panel

Video modules with integrated door speaker



PL40P.
Modules complete with:
- CCD color camera with autoiris and fixed 3.6mm lens.
- amplified speaker unit with volume adjustment of 2 channels (reception and transmission)
- aluminium front plate with transparent screen
- horizontal and vertical adjustments
- red operation LED

PL40PC. Colour version of the **PL40P** model.

PL41P.
Same as **PL40P,** with 1 call button and name plate panel with transparent screen and green LED backlighting.

PL41PC. Colour version of the **PL41P** model.

PL42P. Same as **PL40PED**, with 2 call buttons and name plate panel with transparent screen and green LED backlighting.

PL42PC. Colour version of the **PL42P** model.

PL422P. Same as **PL40PED**, with 2 call buttons on 2 rows and name plate panel with transparent screen and green LED backlighting.

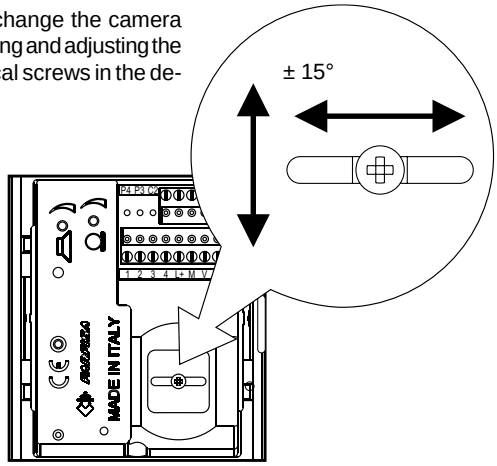
PL422PC. Colour version of the **PL422P** model.

PL424P. Same as **PL40PED**, with 4 call buttons on 2 rows and name plate panel with transparent screen and green LED backlighting.

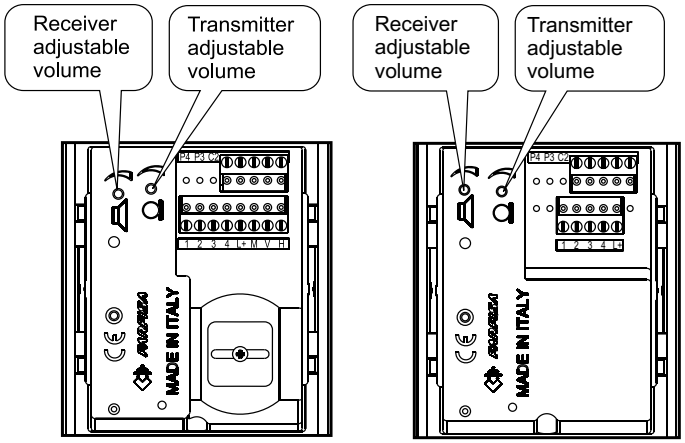
PL424PC. Colour version of the **PL424P** model.

Technical data	PL40P÷ PL424P	PL40PC÷ PL424PC
Camera power supply	21±3Vdc	21±3Vdc
Operating current	0.2A	0.4A
Audio power supply	6÷12Vdc-0.06A	6÷12Vdc-0.06A
Video signal output sur 75Ω	1Vpp	1Vpp
Video signal standard	CCIR	PAL
Minimum illumination	2 Lux	2,5 Lux
Led's	6 infrared	6 white
White balanced	-	auto
Sensor	CCD 1/4" B/W	CCD 1/3" colour
Number of pixels	291.000	291,000
Horizontal frequency	15.625Hz	15,625Hz
Vertical frequency	50Hz	50Hz
Lens	3.6mm; F5	4mm; F4
Focus	0.1m ÷ ∞	0.6m ÷ ∞
Autoiris	electronic	electronic
Horizontal adjustment	± 15°	± 15°
Vertical adjustment	± 15°	± 15°
Operating temperature	-10°÷+40°C	-10°÷+40°C
Maximum permissible humidity	80%RH	80%RH

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

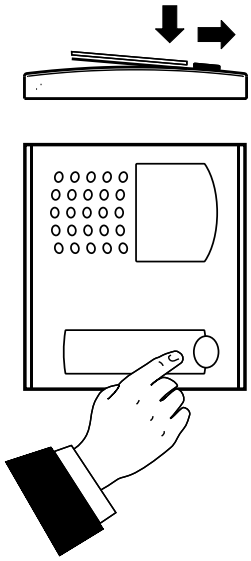


Audio adjustments
If necessary, it is possible to adjust the volume of the 2 audio channels opportunely varying the accessible trimmers.

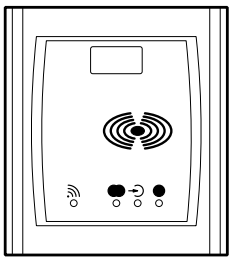


Terminals
- **1** Reception audio line
- **2** Transmission audio line
- **3** Power supply input for electric door speaker (6÷12Vdc)
- **4** Audio ground
- **-** Alternated power supply input or ground for name-plate Led
- **A** AC or DC power supply input for name-plate Led (12Vac-dc)
- **C** Call push-buttons common
- **P1** Call push-button
- **V** Video signal output (coaxial cable)
- **M** Video ground (coaxial shield)
- **H** Positive voltage input for camera (18÷24Vdc)
- **L-** Negative power supply input for service Led
- **L+** Positive power supply input for service Led

Dismounting of name holder to insert name label.



PROXIMITY READER FOR ACCESS CONTROL



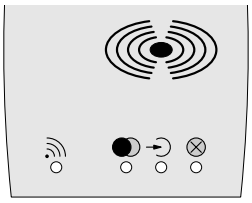
FP52PL.
This article allows for the activation of 2 relays by means of keytags or electronic ISO cards based on transponder technology.
Programmable activation time from 1 to 63 seconds for every relay. 4 user cards and 1 master card supplied with the product. Acoustic and visual control signals and 3-digit display to view numbers and codes during set-up and operation.

Technical data

Power supply	12Vac/dc ±10%
Stand-by current	0.1A
Maximum current consumption	0.25A
Contact ratings	24Vac - 2A
Max. number of cards	490
Max. number of Master cards	10
Number of relays	2
Relay time	1 to 63 sec.
Minimum recognition distance	3 cm
Maximum recognition time	1 sec.
Operating temperature	0° ÷ +40°C
Maximum permitted humidity	85% RH

Terminals

+/A positive or alternate current input
-/A ground or alternate current input
PB door open button
NC2 normally closed contact of relay 2
NA2 normally open contact of relay 2
C2 common terminal of relay 2
NC1 normally closed contact of relay 1
NA1 normally open contact of relay 1
C1 common terminal of relay 1



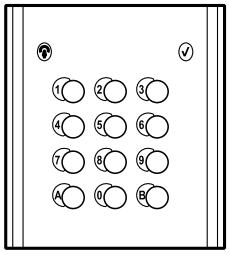
***Card recognition LED**. It turns ON during card recognition.*

***Relay activation LED.** It indicates relay deactivation (red) or activation (green).*

***Program LED.** It turns ON during system programming.*

***Card cancellation and system setup LED**. It turns ON during Master or user card cancellation and system setup.*

ACCESS CONTROL KEYPAD



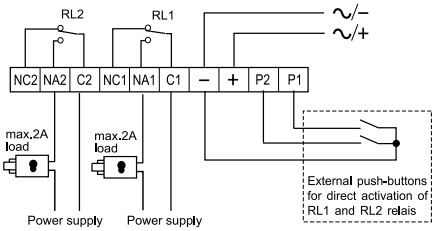
FC 52PL.
Access control keypad with 12 digits and 2 relays for lock release. 4 programmable access codes for each relay. Programmable door opening time from 1 up 99 sec. for each relay (or bistable operation of relay 1). Acoustic and visual confirmation for entered keys, accepted programming and for wrong codes.

Technical data

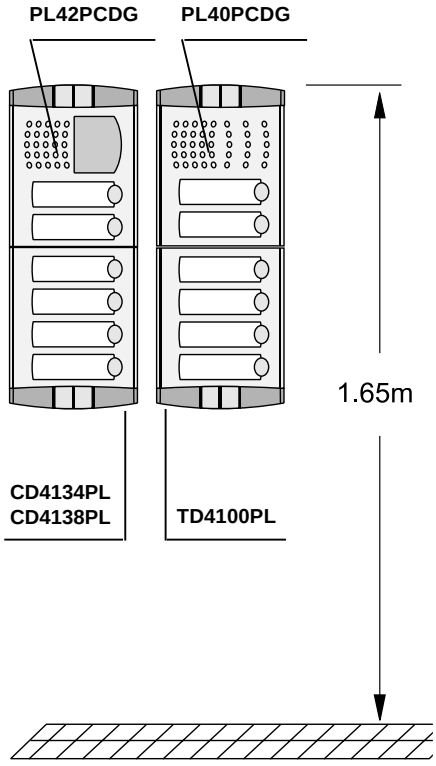
Power supply:	12Vac/dc ±10%
Stand-by current:	0.06A
Maximum current consumption:	0.15A
Contact ratings:	12Vac-2A
Numbers of codes for relays 1:	12 or direct activation
Numbers of codes for relays 2:	12 or direct activation
Activation time for each relay:	from 1 to 99 sec. (or bistable relay 1)
Operating temperature:	0° ÷ +40°C
Maximum permissible humidity:	85% RH

Terminals

NC2 normally closed contact of relay 2
NA2 normally open contact of relay 2
C2 common contact of relay 2
NC1 normally closed contact of relay 1
NA1 normally open contact of relay 1
C1 common contact of relay 1
– ground or alternate voltage input
+ positive or alternate voltage input
P2 activation of the relay 2; if momentarily connected to ground it allows the activation for the programmed time
P1 activation of the relay 1; if momentarily connected to ground it allows the activation for the programmed time

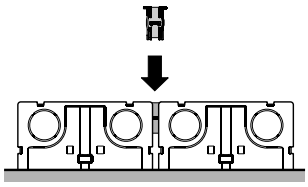


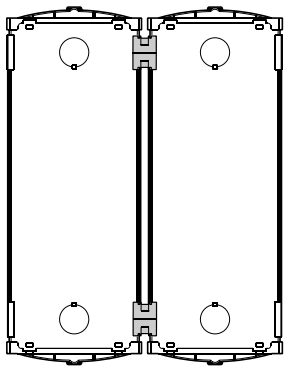
INSTALLATION



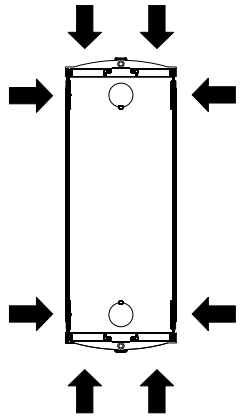
Place the push-button panel back box at a height of about 1.65m *(5' 5")* from the floor keeping the front edges flush-mounted and vertical to the finished plaster.
Position the camera in such a way that sunlight or other direct or reflected light sources with high intensity do not hit the camera lens.

Assembling modules side by side

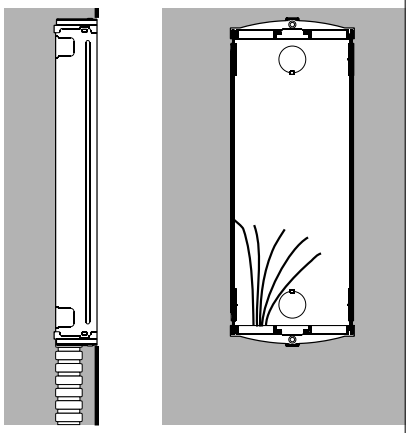




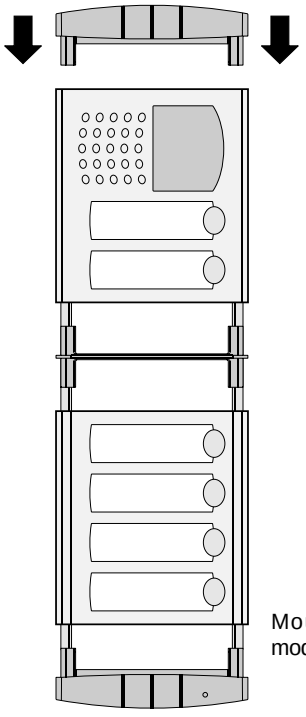
Insertion of spacers between back boxes. Spacers and cable bushing (not supplied with the products) must be inserted before brick work.



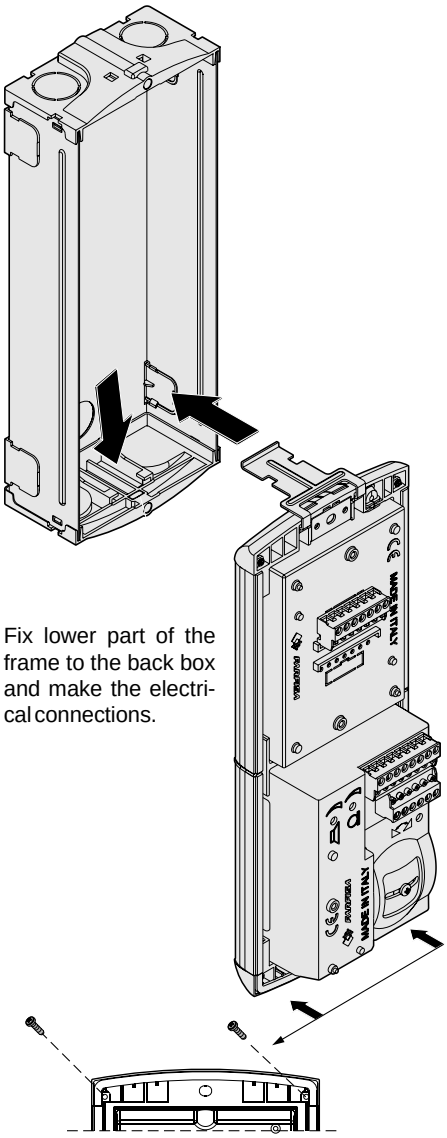
Openings for cables.



Flush mounting and cables placing.

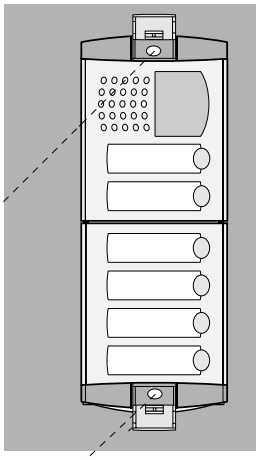


Mounting of module.



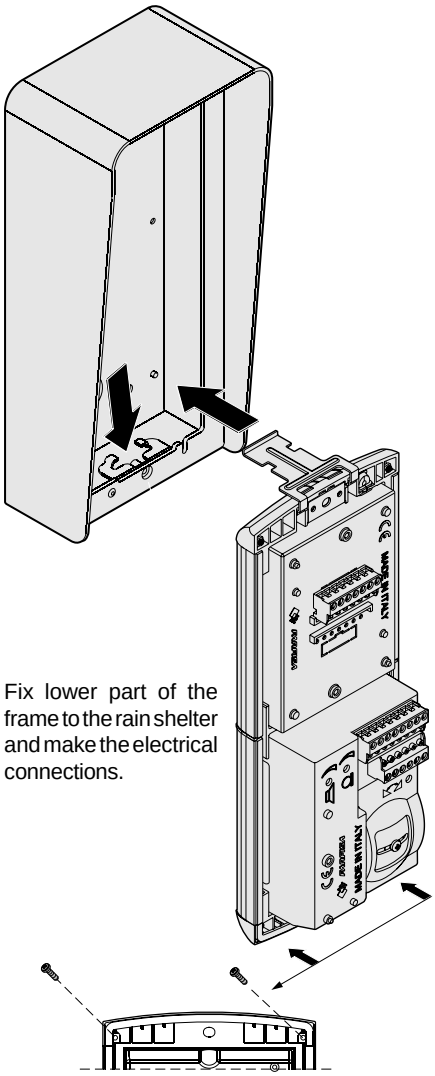
Fix lower part of the frame to the back box and make the electrical connections.

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



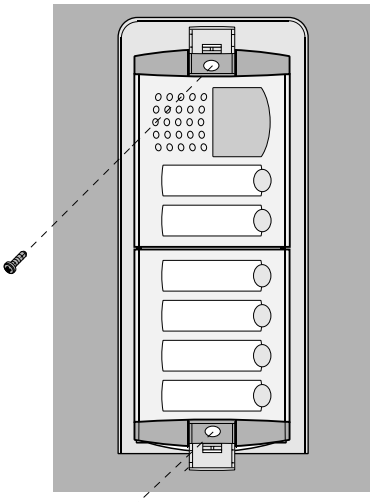
Fixing of frame to back box. Align the frame before tightening the screws.

Rain shelter



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

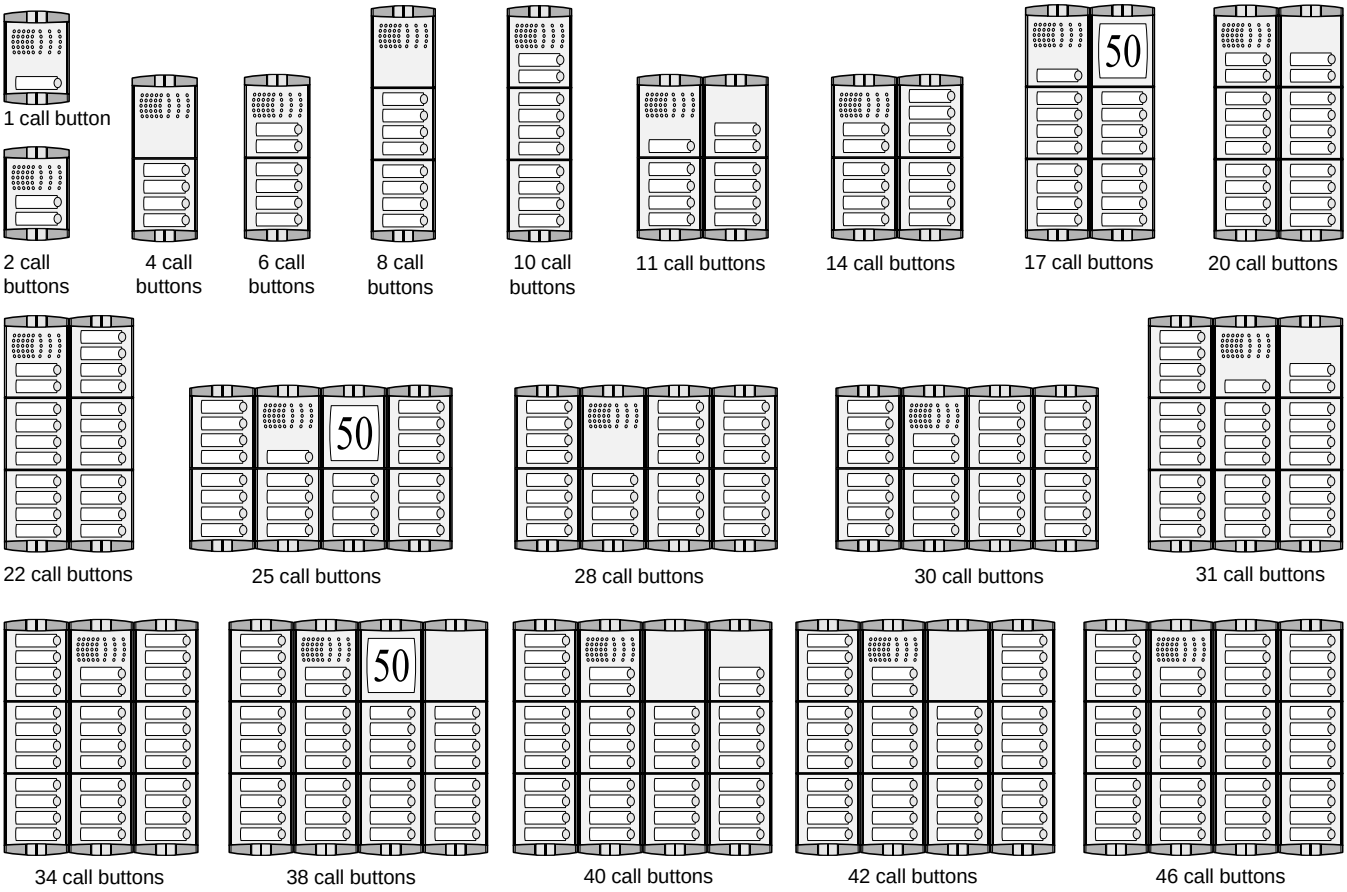
Fixing of module frames to the upper side by the 2 small screws included in the rain shelter.



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

1 ROW PUSH BUTTON PANELS

Examples of compositions in intercom systems



1 call button
2 call buttons
4 call buttons
6 call buttons
8 call buttons
10 call buttons
11 call buttons
14 call buttons
17 call buttons
20 call buttons
22 call buttons
25 call buttons
28 call buttons
30 call buttons
31 call buttons
34 call buttons
38 call buttons
40 call buttons
42 call buttons
46 call buttons

Composition board of Profilo push-button panels.

N° calls	Dimensions	Door speaker module (amplifier)	Button, blank or information modules (*)			Back box and module frame (**)	Rain shelters
1	100x142x19 *(3 15/16" x 5 9/16" x 3/4")*	1 PL11P	-	-	-	1 PL71	1 PL91
2		1 PL12P	-	-	-	1 PL71	1 PL91
4	100x253,5x19 *(3 15/16" x 10" x 3/4")*	1 PL10P	1 PL24	-	-	1 PL72	1 PL92
6		1 PL12P	1 PL24	-	-	1 PL72	1 PL92
8	100x365x19 *(3 15/16" x 14 3/8" x 3/4")*	1 PL10P	2 PL24	-	-	1 PL73	1 PL93
10		1 PL12P	2 PL24	-	-	1 PL73	1 PL93
11	200x253,5x19 *(7 7/8" x 10" x 3/4")*	1 PL11P	2 PL24	1 PL22	-	2 PL72	1 PL94
14		1 PL12P	3 PL24	-	-	2 PL72	1 PL94
17	200x365x19 *(7 7/8" x 14 3/8" x 3/4")*	1 PL11P	4 PL24	-	1 PL20	2 PL73	1 PL96
20		1 PL12P	4 PL24	1 PL22	-	2 PL73	1 PL96
22		1 PL12P	5 PL24	-	-	2 PL73	1 PL96
25	400x253,5x19 *(15 3/4" x 10" x 3/4")*	1 PL11P	6 PL24		1 PL20	4 PL72	-
28		1 PL10P	7 PL24	-	-	4 PL72	-
30		1 PL12P	7 PL24	-	-	4 PL72	-
31	300x365x19 *(11 13/16" x 14 3/8" x 3/4")*	1 PL11P	7 PL24	1 PL22		3 PL73	1 PL99
34		1 PL12P	8 PL24	-	-	3 PL73	1 PL99
38	400x365x19 *(15 3/4" x 14 3/8" x 3/4")*	1 PL12P	8 PL24	2 PL22	1 PL20	4 PL73	-
40		1 PL12P	9 PL24	1 PL22	1 PL20	4 PL73	-
42		1 PL12P	10 PL24	-	1 PL20	4 PL73	-
46		1 PL12P	11 PL24	-	-	4 PL73	-

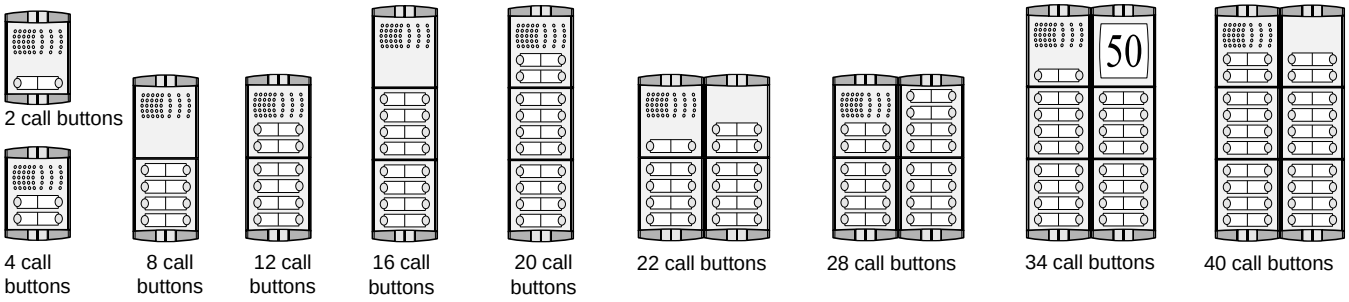
(**) If requested the hood covers can be added *(see on page 113)*

(*) or PL50

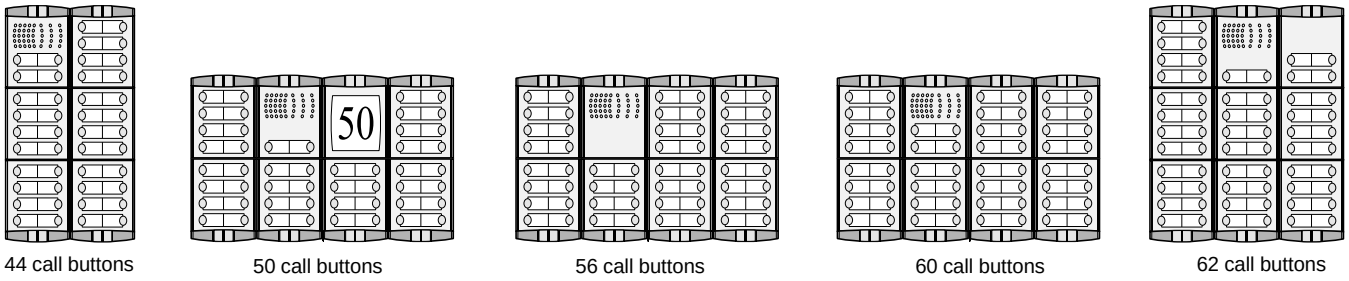
It replaces PL71, PL72 or PL73

2 ROW PUSH BUTTON PANELS

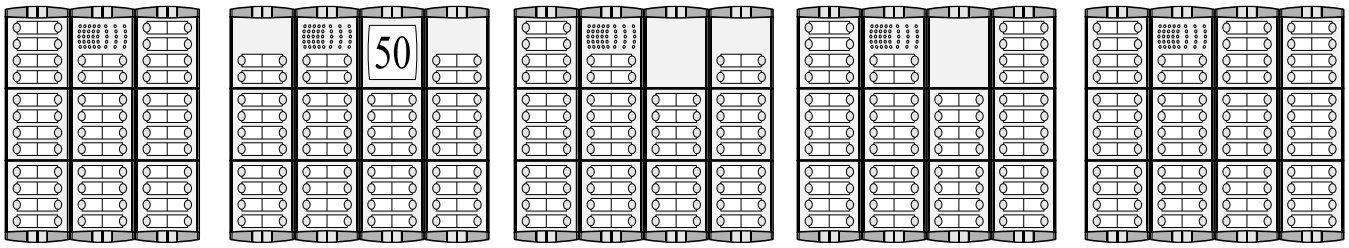
Examples of compositions in intercom systems



2 call buttons, 4 call buttons, 8 call buttons, 12 call buttons, 16 call buttons, 20 call buttons, 22 call buttons, 28 call buttons, 34 call buttons, 40 call buttons



44 call buttons, 50 call buttons, 56 call buttons, 60 call buttons, 62 call buttons



68 call buttons, 76 call buttons, 80 call buttons, 84 call buttons, 92 call buttons

Composition board of Profilo push-button panels.

N° calls	Dimensions	Door speaker module (amplifier)	Button, blank or information modules (*)			Back box and module frame (**)	Rain shelters
2	100x142x19 (3 15/16" x 5 9/16" x 3/4")	1 PL122P	-	-	-	1 PL71	1 PL91
4		1 PL124P	-	-	-	1 PL71	1 PL91
8	100x253,5x19 (3 15/16" x 10" x 3/4")	1 PL10P	1 PL228	-	-	1 PL72	1 PL92
12		1 PL124P	1 PL228	-	-	1 PL72	1 PL92
16	100x365x19 (3 15/16" x 14 3/8" x 3/4")	1 PL10P	2 PL228	-	-	1 PL73	1 PL93
20		1 PL124P	2 PL228	-	-	1 PL73	1 PL93
22	200x253,5x19 (7 7/8" x 10" x 3/4")	1 PL122P	2 PL228	1 PL224	-	2 PL72	1 PL94
28		1 PL124P	3 PL228	-	-	2 PL72	1 PL94
34	200x365x19 (7 7/8" x 14 3/8" x 3/4")	1 PL122P	4 PL228	-	1 PL20	2 PL73	1 PL96
40		1 PL124P	4 PL228	1 PL224	-	2 PL73	1 PL96
44		1 PL124P	5 PL228	-	-	2 PL73	1 PL96
50	400x253,5x19 (15 3/4" x 10" x 3/4")	1 PL122P	6 PL228		1 PL20	4 PL72	-
56		1 PL10P	7 PL228	-	-	4 PL72	-
60		1 PL124P	7 PL228	-	-	4 PL72	-
62	300x365x19 (11 13/16" x 14 3/8" x 3/4")	1 PL122P	7 PL228	1 PL224		3 PL73	1 PL99
68		1 PL124P	8 PL228	-	-	3 PL73	1 PL99
76	400x365x19 (15 3/4" x 14 3/8" x 3/4")	1 PL124P	8 PL228	2 PL224	1 PL20	4 PL73	-
80		1 PL124P	9 PL228	1 PL224	1 PL20	4 PL73	-
84		1 PL124P	10 PL228	-	1 PL20	4 PL73	-
92		1 PL124P	11 PL228	-	-	4 PL73	-

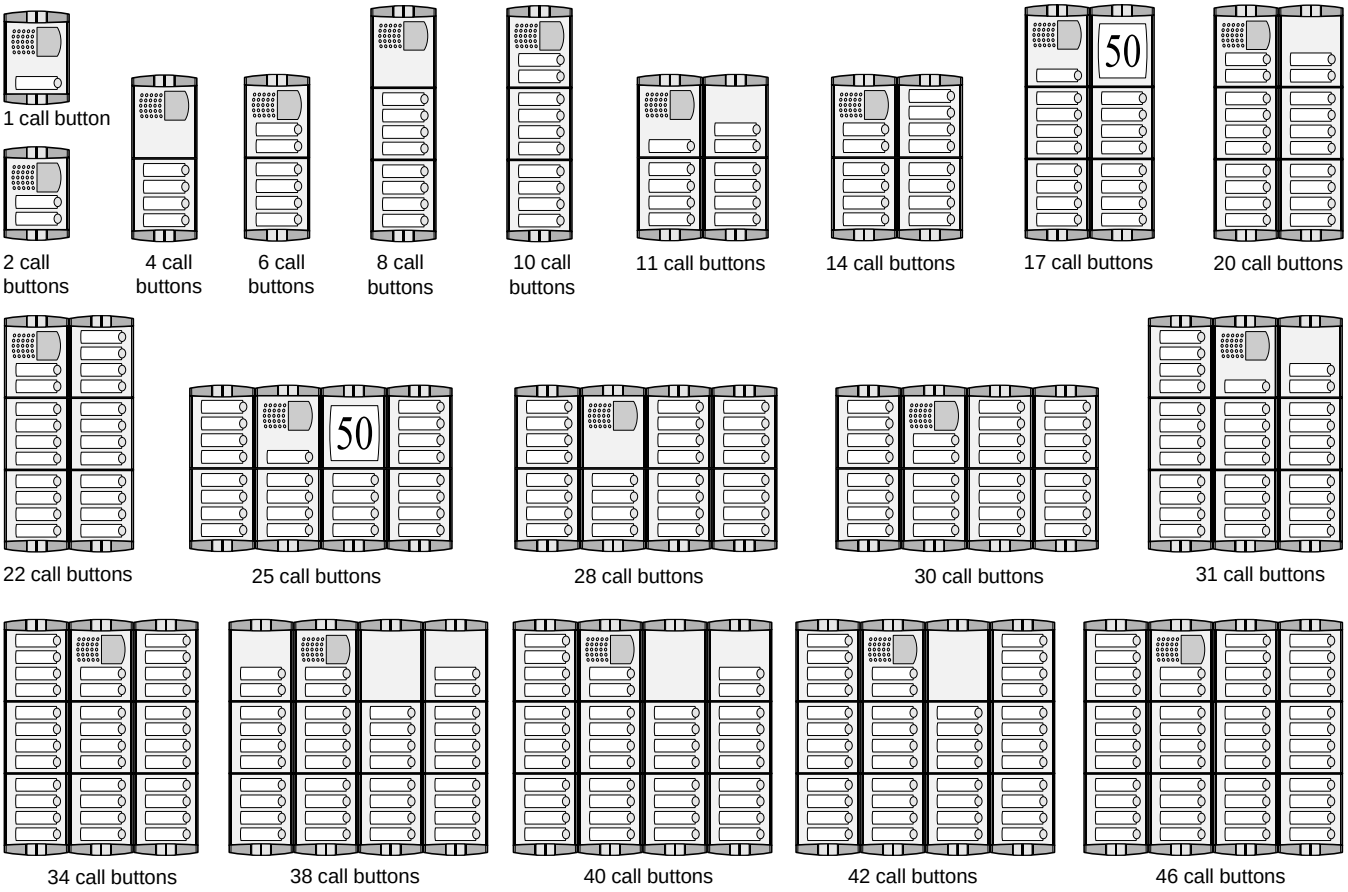
(**) If requested the hood covers can be added *(see on page 113)*

(*) or PL50

It replaces PL71, PL72 or PL73

1 ROW PUSH BUTTON PANELS

Examples of compositions in videointercom systems



1 call button

2 call buttons

4 call buttons

6 call buttons

8 call buttons

10 call buttons

11 call buttons

14 call buttons

17 call buttons

20 call buttons

22 call buttons

25 call buttons

28 call buttons

30 call buttons

31 call buttons

34 call buttons

38 call buttons

40 call buttons

42 call buttons

46 call buttons

Composition board of Profilo push-button panels.

N° calls	Dimensions	Modules camera with door speaker	Button, blank or information modules (*)			Back box and module frame (**)	Rain shelters
1	100x142x19 *(3 15/16" x 5 9/16" x 3/4")*	1 PL41P	-	-	-	1 PL71	1 PL91
2		1 PL42P	-	-	-	1 PL71	1 PL91
4	100x253,5x19 *(3 15/16" x 10" x 3/4")*	1 PL40P	1 PL24	-	-	1 PL72	1 PL92
6		1 PL42P	1 PL24	-	-	1 PL72	1 PL92
8	100x365x19 *(3 15/16" x 14 3/8" x 3/4")*	1 PL40P	2 PL24	-	-	1 PL73	1 PL93
10		1 PL42P	2 PL24	-	-	1 PL73	1 PL93
11	200x253,5x19 *(7 7/8" x 10" x 3/4")*	1 PL41P	2 PL24	1 PL22	-	2 PL72	1 PL94
14		1 PL42P	3 PL24	-	-	2 PL72	1 PL94
17	200x365x19 *(7 7/8" x 14 3/8" x 3/4")*	1 PL41P	4 PL24	-	1 PL20	2 PL73	1 PL96
20		1 PL42P	4 PL24	1 PL22	-	2 PL73	1 PL96
22		1 PL42P	5 PL24	-	-	2 PL73	1 PL96
25	400x253,5x19 *(15 3/4" x 10" x 3/4")*	1 PL41P	6 PL24		1 PL20	4 PL72	-
28		1 PL40P	7 PL24	-	-	4 PL72	-
30		1 PL42P	7 PL24	-	-	4 PL72	-
31	300x365x19 *(11 13/16" x 14 3/8" x 3/4")*	1 PL41P	7 PL24	1 PL22		3 PL73	1 PL99
34		1 PL42P	8 PL24	-	-	3 PL73	1 PL99
38	400x365x19 *(15 3/4" x 14 3/8" x 3/4")*	1 PL42P	8 PL24	2 PL22	1 PL20	4 PL73	-
40		1 PL42P	9 PL24	1 PL22	1 PL20	4 PL73	-
42		1 PL42P	10 PL24	-	1 PL20	4 PL73	-
46		1 PL42P	11 PL24	-	-	4 PL73	-

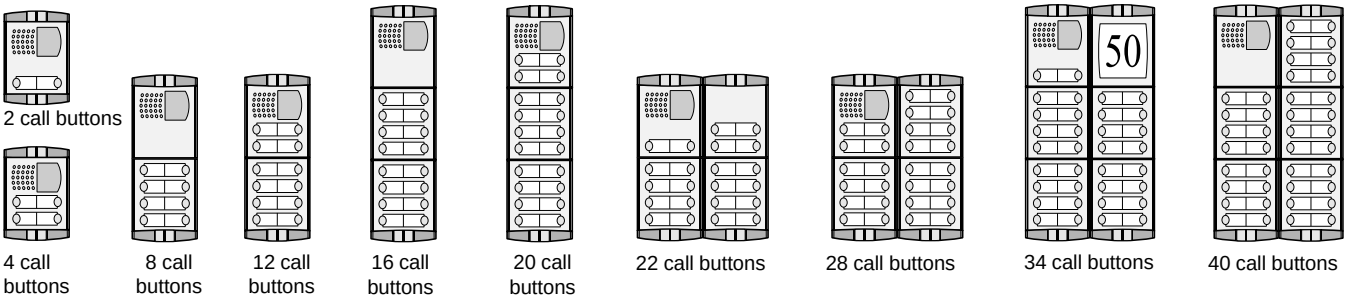
(**) If requested the hood covers can be added *(see on page 113)*

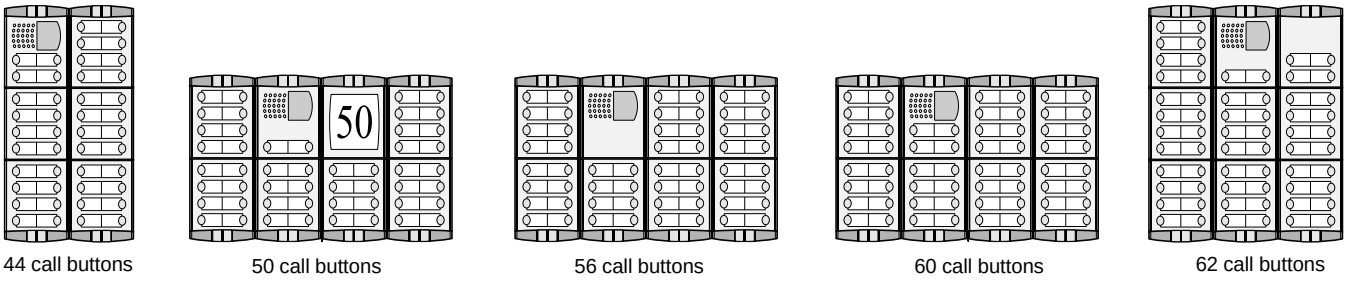
(*) or PL50

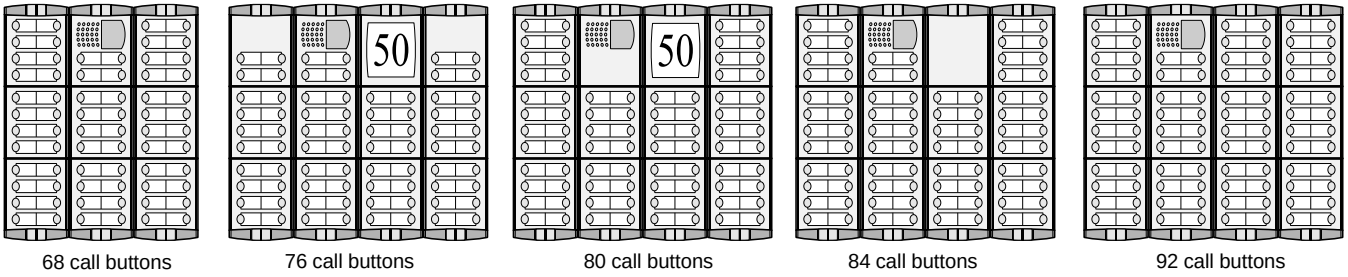
It replaces PL71, PL72 or PL73

2 ROW PUSH BUTTON PANELS

Examples of compositions in videointercom systems







Composition board of Profilo push-button panels.

N° calls	Dimensions	Modules camera with door speaker	Button, blank or information modules (*)			Back box and module frame (**)	Rain shelters
2	100x142x19 (3 15/16" x 5 9/16" x 3/4")	1 PL422P	-	-	-	1 PL71	1 PL91
4		1 PL424P	-	-	-	1 PL71	1 PL91
8	100x253,5x19 (3 15/16" x 10" x 3/4")	1 PL40P	1 PL228	-	-	1 PL72	1 PL92
12		1 PL424P	1 PL228	-	-	1 PL72	1 PL92
16	100x365x19 (3 15/16" x 14 3/8" x 3/4")	1 PL40P	2 PL228	-	-	1 PL73	1 PL93
20		1 PL424P	2 PL228	-	-	1 PL73	1 PL93
22	200x253,5x19 (7 7/8" x 10" x 3/4")	1 PL422P	2 PL228	1 PL224	-	2 PL72	1 PL94
28		1 PL424P	3 PL228	-	-	2 PL72	1 PL94
34	200x365x19 (7 7/8" x 14 3/8" x 3/4")	1 PL422P	4 PL228	-	1 PL20	2 PL73	1 PL96
40		1 PL424P	5 PL228	-	-	2 PL73	1 PL96
44		1 PL424P	5 PL228	-	-	2 PL73	1 PL96
50	400x253,5x19 (15 3/4" x 10" x 3/4")	1 PL422P	6 PL228		1 PL20	4 PL72	-
56		1 PL40P	7 PL228	-	-	4 PL72	-
60		1 PL424P	7 PL228	-	-	4 PL72	-
62	300x365x19 (11 13/16" x 14 3/8" x 3/4")	1 PL422P	7 PL228	1 PL224		3 PL73	1 PL99
68		1 PL424P	8 PL228	-	-	3 PL73	1 PL99
76	400x365x19 (15 3/4" x 14 3/8" x 3/4")	1 PL424P	8 PL228	2 PL224	1 PL20	4 PL73	-
80		1 PL40P	10 PL228	-	1 PL20	4 PL73	-
84		1 PL424P	10 PL228	-	1 PL20	4 PL73	-
92		1 PL424P	11 PL228	-	-	4 PL73	-

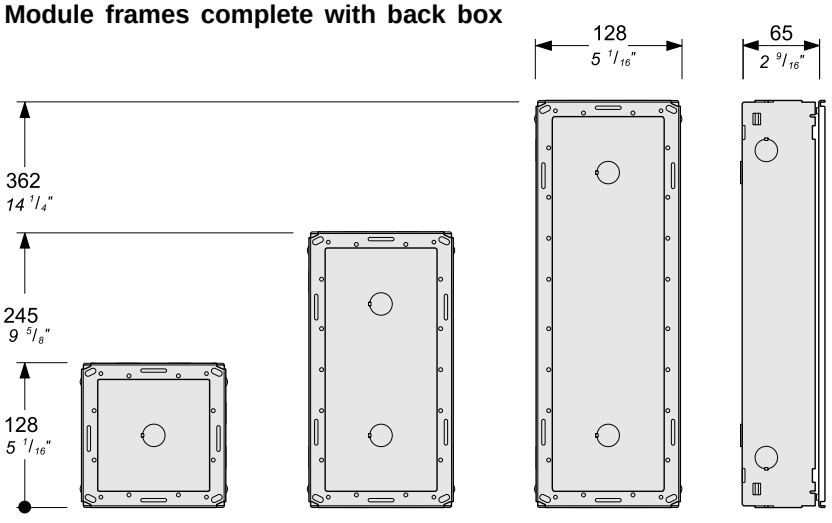
(**) If requested the hood covers can be added *(see on page 113)*

(*) or PL50

It replaces PL71, PL72 or PL73

PUSH-BUTTONS MATRIX series

Module frames complete with back box

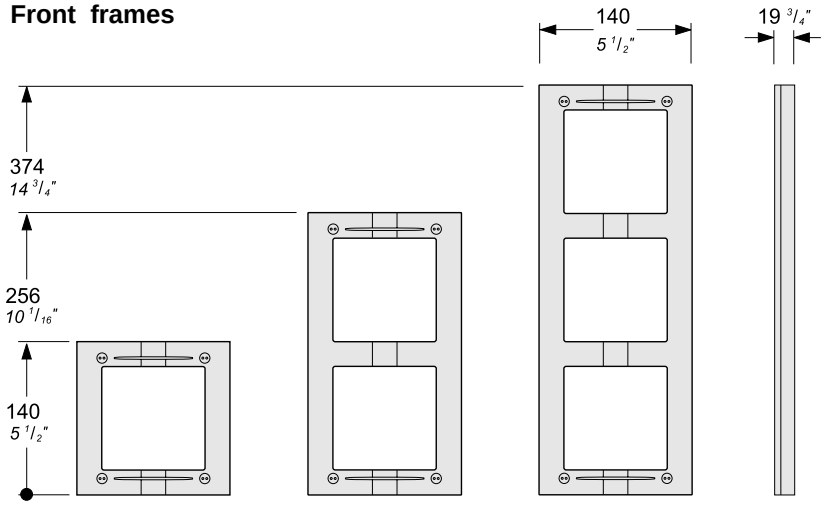


MA 71 **MA 72** **MA 73**

Stainless steel anti-vandalism push-button panels especially studied to withstand burglary, penetration of solids and water jets (IP 45 protection degree against the penetration of external solids and water; IK09 against shocks).
The Matrix push-button panels include back boxes, module frames, die-cast aluminium decorative frames, button modules, and modules with built-in speaker unit (with or without camera).
The careful selection of modules allows for multiple application opportunities; from one-way installations to blocks of flats; from intercom to video intercom installations.
The push-button elements have been developed to allow both for horizontal and vertical configuration.

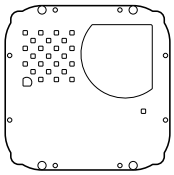
Notice! *To maintain the brilliance of door station plates, periodic cleaning with specific products for stainless steel is required.*

Front frames



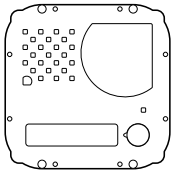
MA 61 **MAS 61** **MA 62** **MAS 62** **MA 63** **MAS 63**

Video modules with integrated door speaker



MAS42
without call buttons and with B/W camera

MAS42C
without call buttons and with colour camera

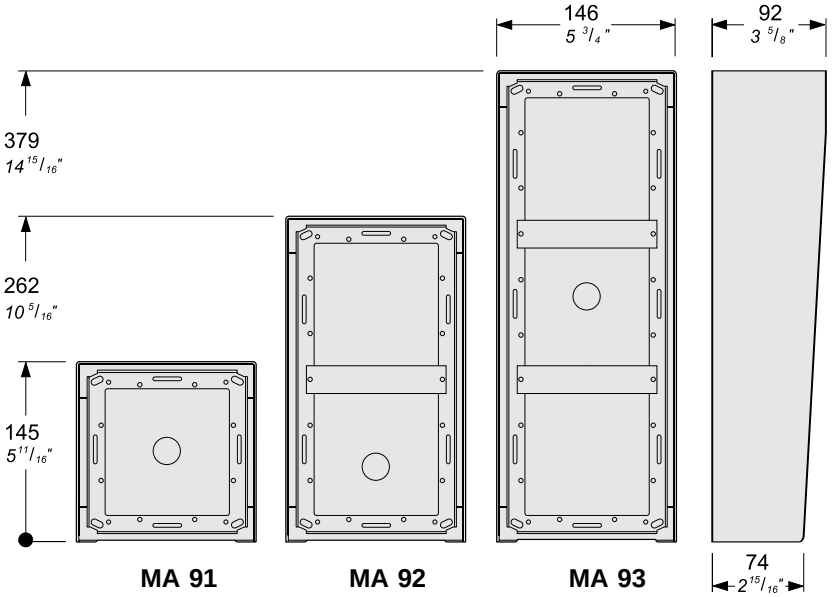


MAS43
with 1 call button and B/W camera

MAS43C
with 1 call button and colour camera

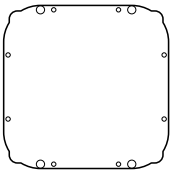
For specifications see page 123.

Rain shelters

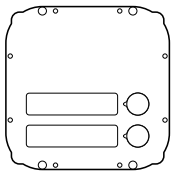


MA 91 **MA 92** **MA 93**

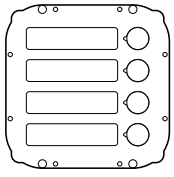
Push-button modules



MAS20.
Blank module in stainless steel.



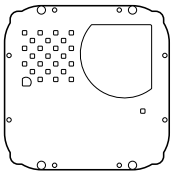
MAS22.
Module with 2 call buttons and name plate panel with breakproof transparent screen and green LED backlight.

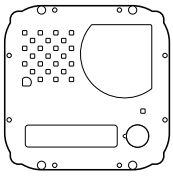


MAS24.
With 4 call buttons.

PUSH-BUTTONS MATRIX series

Video modules with integrated door speaker





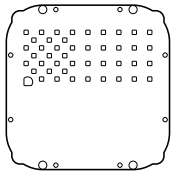
MAS42.
Modules complete with:
- CCD camera with autoiris, fixed 3.6mm lens and 6 infrared LED's.
- amplified speaker unit with volume adjustment of 2 channels (reception and transmission)
- steel front plate with breakproof transparent screen
- red operation LED
- horizontal and vertical adjustments

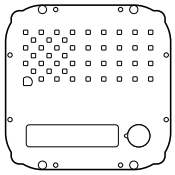
MAS42C.
Colour version of model **MA S42**.

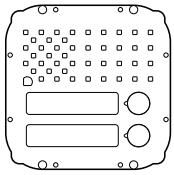
MAS43.
Same as **MA 42**, with call button and name plate panel with breakproof transparent screen and green LED back-lighting.

MAS43C.
Colour version of model **MA S43**.

Modules with integrated door speaker







MAS10P. Amplified speaker unit with volume adjustment of 2 channels (reception and transmission), steel front plate and red operation LED.

MAS11P. Same as MA S10P, with call button and name plate panel with breakproof transparent screen and green LED backlight.

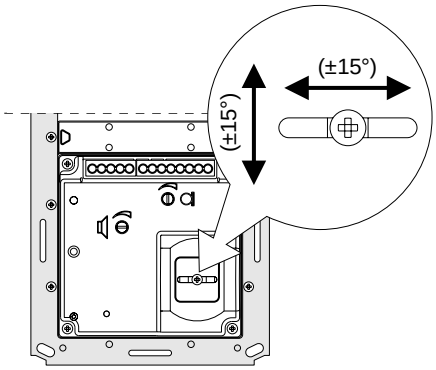
MAS12P. With 2 call buttons.

Technical data	MA42-MA43	MA42C-MA43C
Power supply	21±3Vdc	21±3Vdc
Operating current	0.3A	0.4A
Video signal output	1Vpp on 75Ω	1Vpp on 75Ω
Video signal standard	CCIR	PAL
Minimum illumination	2 Lux	2.5 Lux
White balance	-	auto
Sensor	CCD 1/4" B/W	CCD 1/3" colour
Number of pixels	291,000	291,000
Horizontal frequency	15,625Hz	15,625Hz
Vertical frequency	50Hz	50Hz
Lens	3.6mm; F5	4mm; F4
Focus	0.1m ÷ ∞	0.6m ÷ ∞
Autoiris	electronic	electronic
Horizontal adjustment	± 15°	± 15°
Vertical adjustment	± 15°	± 15°
Operating temperature	-10°÷+40°C	-10°÷+40°C
Max. permissible humidity	80%RH	80%RH

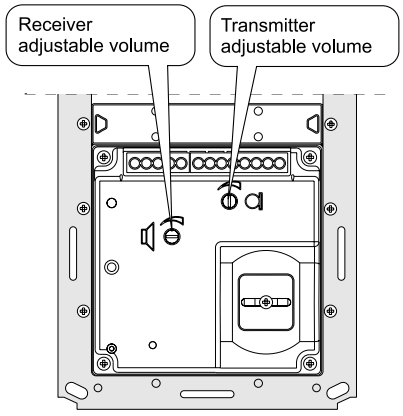
Technical characteristics of MATRIX modules terminal boards

MAS10P	MAS11P	MAS12P	MAS20	MAS22	MAS24	MAS42 MAS42C	MAS43 MAS43C	
1	1	1				1	1	Reception audio line
2	2	2				2	2	Transmission audio line
3	3	3				3	3	Power supply input for electric door speaker (6÷12Vdc)
4	4	4				4	4	Audio ground
-	-	-	-	-	-	-	-	Alternated power supply input or ground for name-plate Led
A	A	A	A	A	A	A	A	AC or DC power supply input for name-plate Led (12Vac-dc)
	C	C		C	C		C	Call push-buttons common
	P1	P1		P1	P1		P1	Call push-button
		P2		P2	P2			Call push-button
					P3			Call push-button
					P4			Call push-button
						V	V	Video signal output (coaxial cable)
						M	M	Video ground (coaxial shield)
						H	H	Positive voltage input for camera (18÷24Vdc)
L-	L-	L-				L-	L-	Alternated power supply input or ground for service Led
L+	L+	L+				L+	L+	AC or DC power supply input for service Led (12Vac-dc)

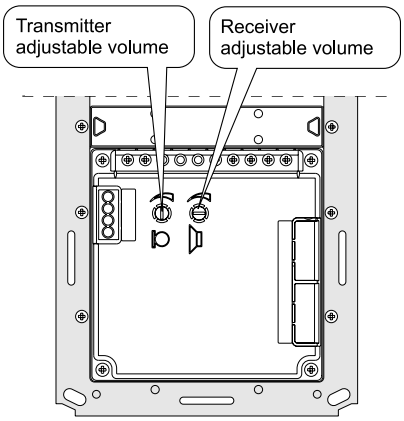
Adjustments
You can manually change the camera framing by unloosening and adjusting the horizontal and vertical screws in the desired direction.



Audio adjustments
If necessary, it is possible to adjust the volume of the 2 audio channels opportunely varying the external knobs.

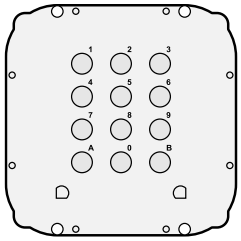


MAS42 MAS42C MAS43 MAS43C



MAS10P MAS11P MAS12P

ACCESS CONTROL KEYPAD



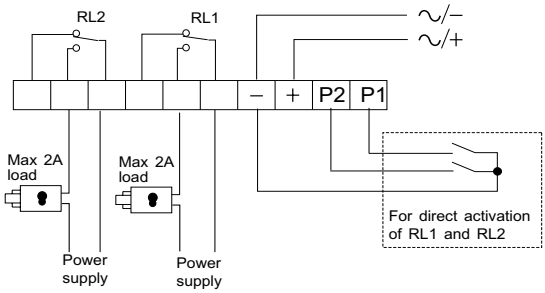
FC 52MAS. Electronic keypad with 12 keys and 2 relays for lock release and access control of door stations. 12 programmable access codes for each relay. Programmable door opening time from 1 up 99 sec. for each relay (or bistable operation of relay). Acoustic and visual confirmation for entered keys, accepted programming and for wrong codes.

Technical data

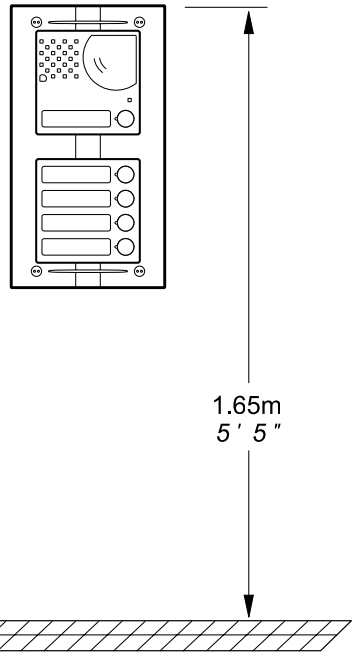
Power supply:	12Vac/dc ±10%
Stand-by current:	0.02A
Max. current consumption:	0.1A
Contact ratings:	12Vac - 2A
Numbers of codes for relay 1:	12 + direct activation
Numbers of codes for relay 2:	12 + direct activation
Activation time for each relay:	from 1 to 99 seconds (or bistable)
Operating temperature:	0° ÷ +40°C
Maximum permissible humidity:	85% RH
Degree of protection	IP 45

Terminals

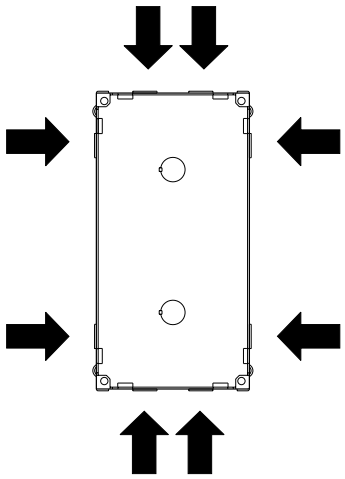
2 normally closed contact of relay 2
normally open contact of relay 2
common contact of relay 2
1 normally closed contact of relay 1
normally open contact of relay 1
common contact of relay 1
– ground or alternating voltage input
+ positive or alternating voltage input
P2 activation of the relay 2; if momentarily connected to ground it allows the activation for the programmed time
P1 activation of the relay 1; if momentarily connected to ground it allows the activation for the programmed time



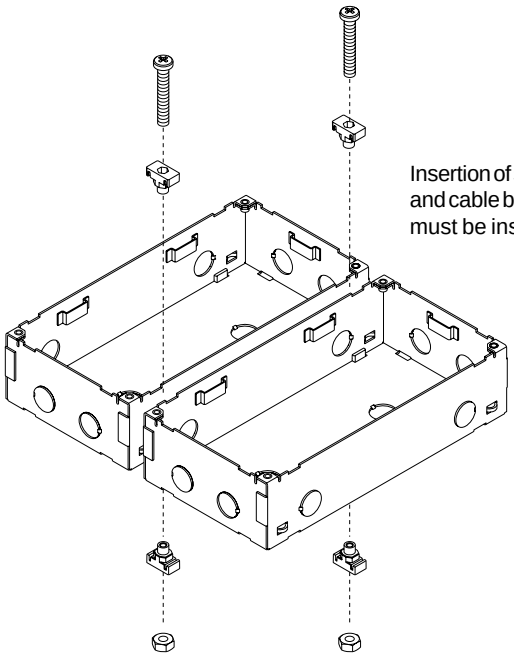
INSTALLATION



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

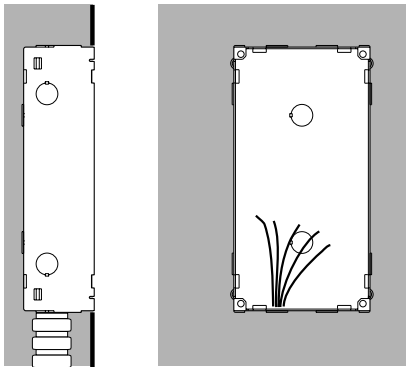


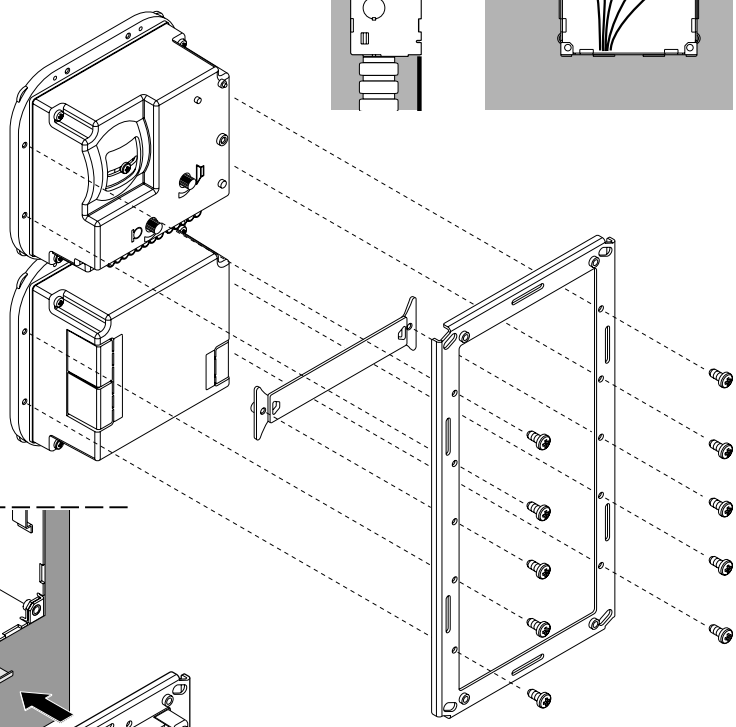
Openings for cables.



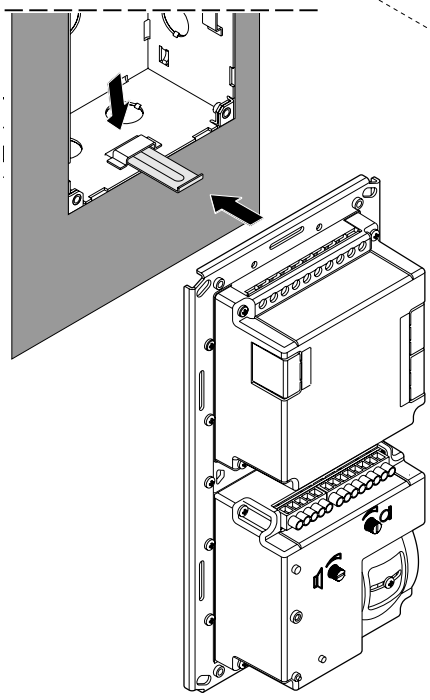
Insertion of spacers between back boxes. Spacers and cable bushing (not supplied with the products) must be inserted before brick work.

Flush mounting and cables placing.

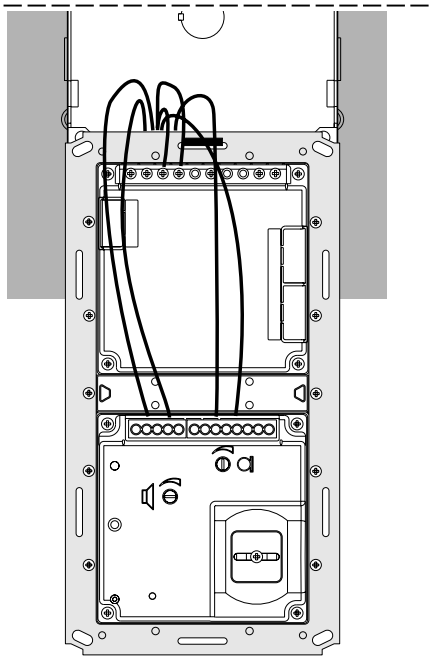




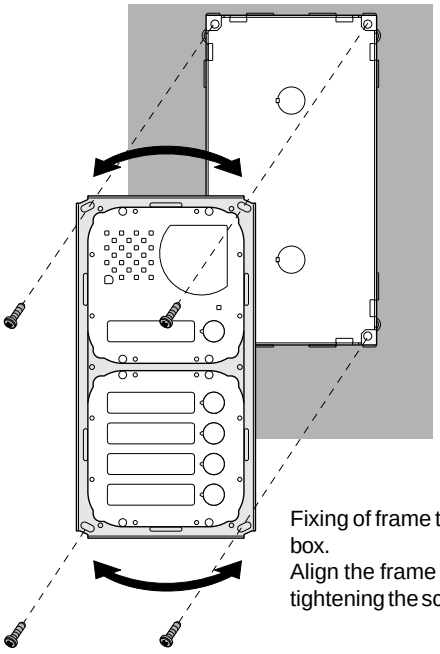
Mounting modules.



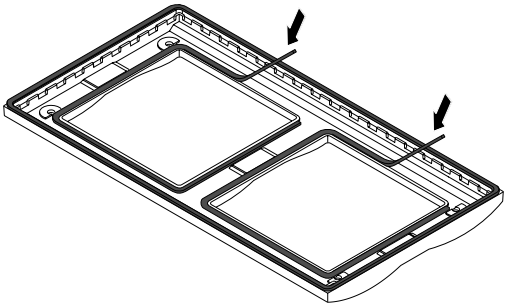
For easier connection to the electrical system, it is recommended to insert the metal plate supplied with the product in the back box opening, as shown in the figure. The plate is used to hook the frame with pre-assembled modules.
Leave the plate in the box to reuse it for maintenance operations.



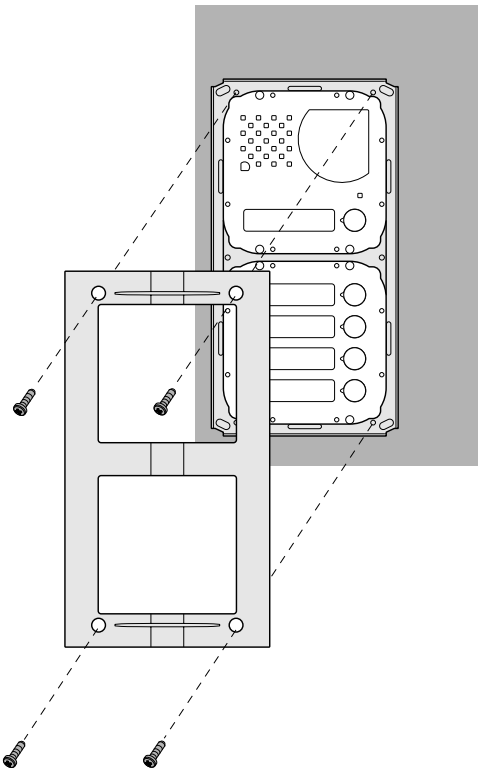
Connection of wires to module terminal boxes.



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

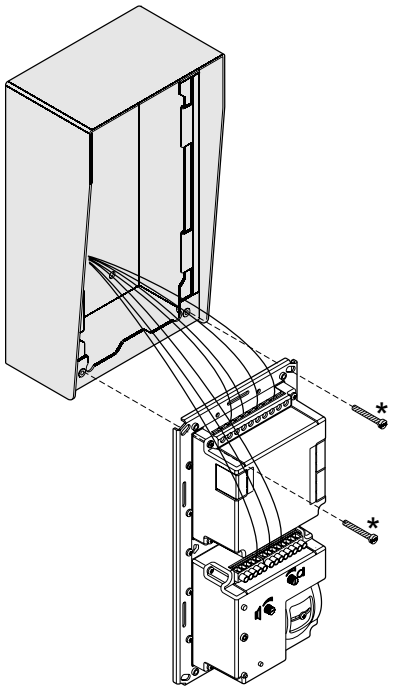


Apply the protection gaskets supplied with the product on the internal part of the frame openings.

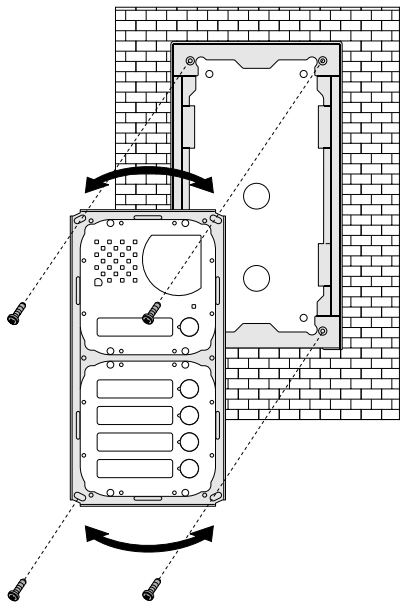


Fixing of frame to module frame.

Rain shelters



* Long screws can be used to anchor the frame during wire connection tp modules.

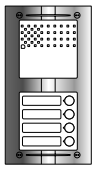


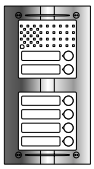
Fixing of frame to rain shelter.
Align the frame before tightening the screws.

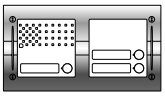
Examples of compositions in intercom systems

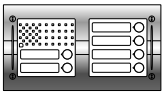
1 call button

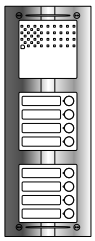
2 call buttons

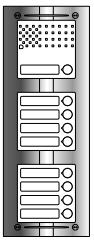

4 call buttons

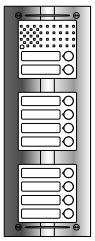

6 call buttons

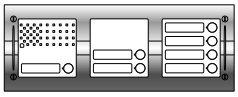

3 call buttons

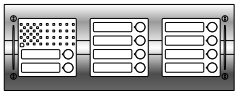

6 call buttons

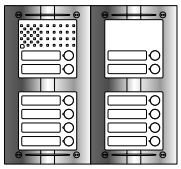

8 call buttons

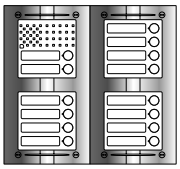

9 call buttons

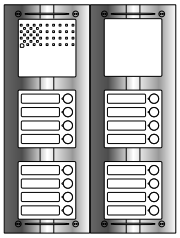

10 call buttons

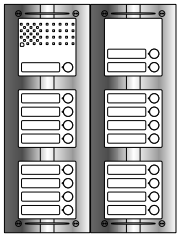

7 call buttons

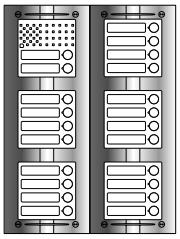

10 call buttons

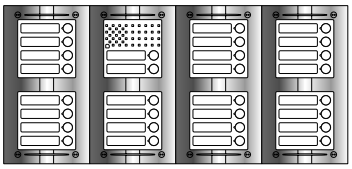

12 call buttons

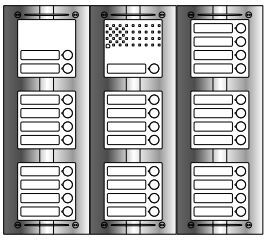

14 call buttons

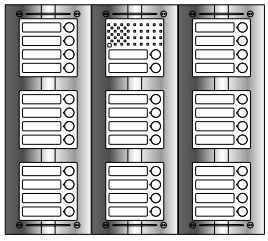

16 call buttons

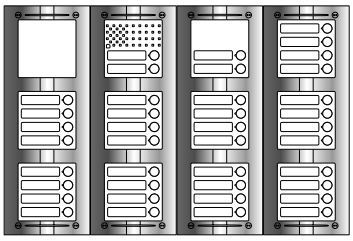

19 call buttons

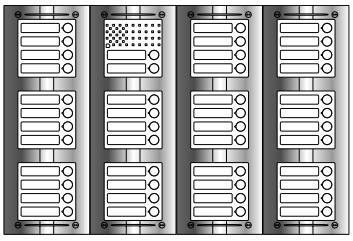

22 call buttons


30 call buttons


31 call buttons


34 call buttons


40 call buttons


46 call buttons

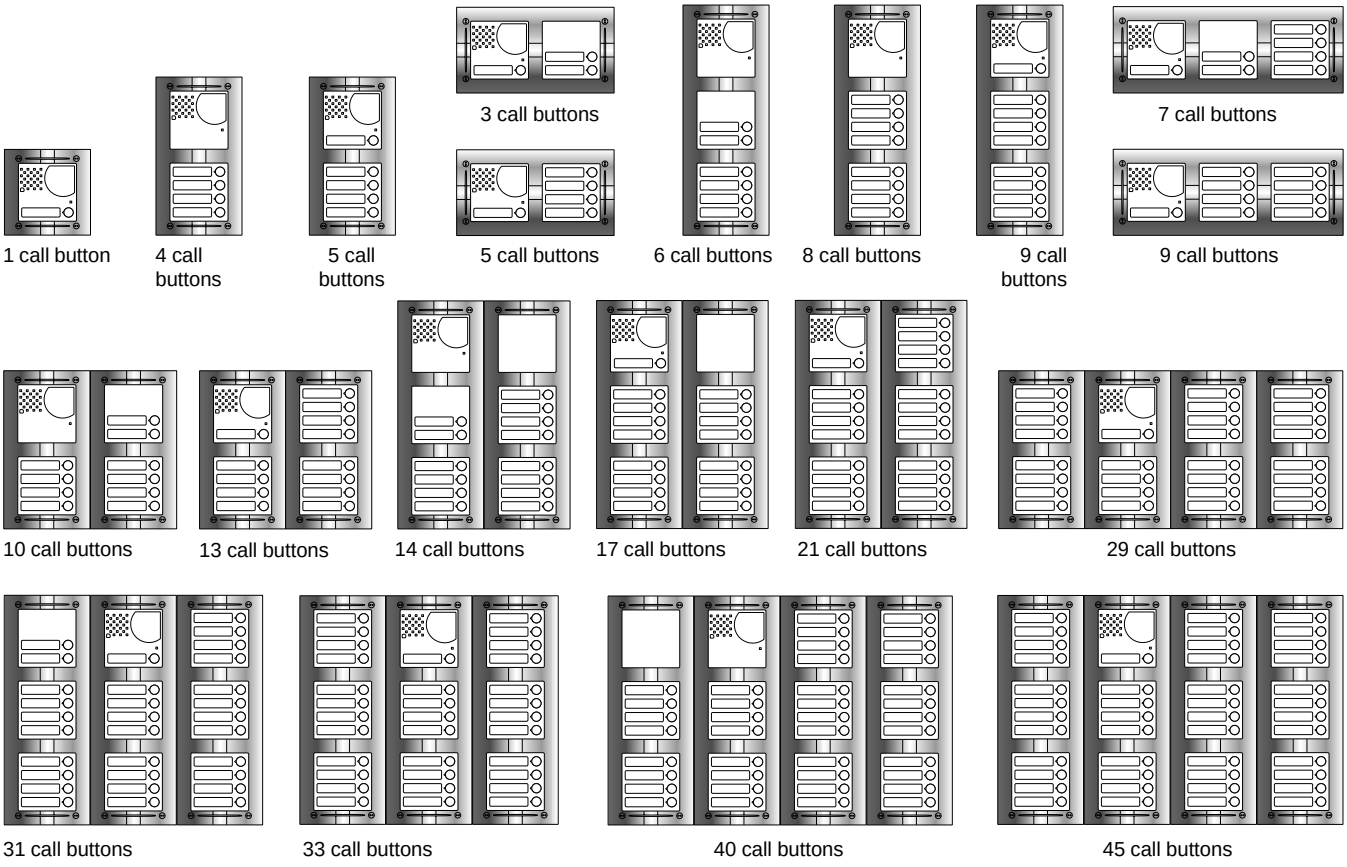
Composition board of Matrix push-button panels.

N° calls	Dimensions	Module with door speaker	Button and blank modules		Front frame	Back box and module frame	Rain shelter (*)
1	140x140x19 (5 1/2" x 5 1/2" x 3/4")	1 MAS11P	-	-	1 MAS61	1 MA71	1 MA91
2		1 MAS12P	-	-	1 MAS61	1 MA71	1 MA91
3	140x256x19 (5 1/2" x 10 1/16" x 3/4")	1 MAS11P	1 MAS22	-	1 MAS62	1 MA72	1 MA92
4		1 MAS10P	1 MAS24	-	1 MAS62	1 MA72	1 MA92
6		1 MAS12P	1 MAS24	-	1 MAS62	1 MA72	1 MA92
8	140x374x19 (5 1/2" x 14 3/4" x 3/4")	1 MAS10P	2 MAS24	-	1 MAS63	1 MA73	1 MA93
9		1 MAS11P	2 MAS24	-	1 MAS63	1 MA73	1 MA93
10		1 MAS12P	2 MAS24	-	1 MAS63	1 MA73	1 MA93
12	280x256x19 (11" x 10 1/16" x 3/4")	1 MAS12P	2 MAS24	1 MAS22	2 MAS62	2 MA72	-
14		1 MAS12P	3 MAS24	-	2 MAS62	2 MA72	-
16	280x374x19 (11" x 14 3/4" x 3/4")	1 MAS10P	4 MAS24	-	2 MAS63	2 MA73	-
19		1 MAS11P	4 MAS24	1 MAS22	2 MAS63	2 MA73	-
22		1 MAS12P	5 MAS24	-	2 MAS63	2 MA73	-
27	560x256x19 (22 1/16" x 10 1/16" x 3/4")	1 MAS11P	6 MAS24	1 MAS22	4 MAS62	4 MA72	-
30		1 MAS12P	7 MAS24	-	4 MAS62	4 MA72	-
31	420x374x19 (16 9/16" x 14 3/4"x 3/4")	1 MAS11P	7 MAS24	1 MAS22	3 MAS63	3 MA73	-
34		1 MAS12P	8 MAS24	-	3 MAS63	3 MA73	-
38	560x374x19 (22 1/16" x 14 3/4" x 3/4")	1 MAS10P	8 MAS24	3 MAS22	4 MAS63	4 MA73	-
40		1 MAS10P	9 MAS24	2 MAS22	4 MAS63	4 MA73	-
43		1 MAS11P	10 MAS24	1 MAS22	4 MAS63	4 MA73	-
46		1 MAS12P	11 MAS24	-	4 MAS63	4 MA73	-

(*) Rain shelters are used in replacementof back boxes

EXTERNAL DOOR STATIONS

Examples of compositions in video intercom systems



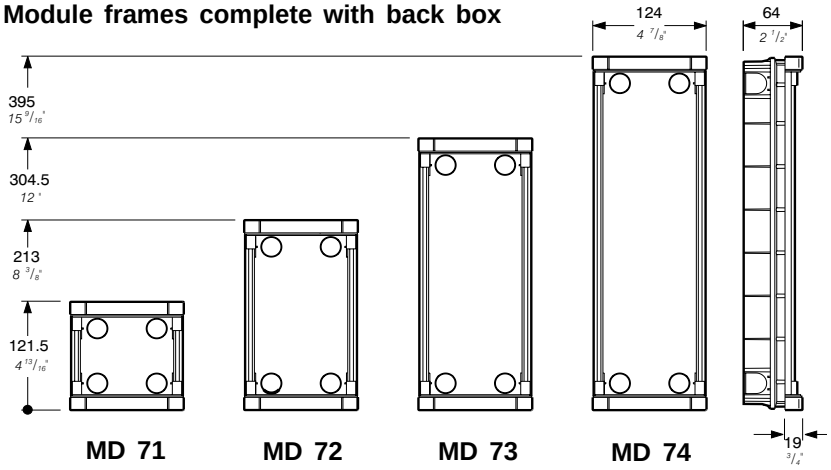
Composition board of Matrix push-button panels.

N° calls	Dimensions	Camera and door speaker module	Button and blank modules	Front frame	Back box and module frame	Rain shelter (*)
1	140x140x19 (5 1/2" x 5 1/2" x 3/4")	1 MAS43	- - -	1 MAS61	1 MA71	1 MA91
2	140x256x19 (5 1/2" x 10 1/16" x 3/4")	1 MAS42	1 MAS22 - -	1 MAS62	1 MA72	1 MA92
4		1 MAS42	1 MAS24 - -	1 MAS62	1 MA72	1 MA92
5		1 MAS43	1 MAS24 - -	1 MAS62	1 MA72	1 MA92
6	140x374x19 (5 1/2" x 14 3/4" x 3/4")	1 MAS42	1 MAS24 1 MAS22 -	1 MAS63	1 MA73	1 MA93
7		1 MAS43	1 MAS24 1 MAS22 -	1 MAS63	1 MA73	1 MA93
8		1 MAS42	2 MAS24 - -	1 MAS63	1 MA73	1 MA93
9		1 MAS43	2 MAS24 - -	1 MAS63	1 MA73	1 MA93
10	280x256x19 (11" x 10 1/16" x 3/4")	1 MAS42	2 MAS24 1 MAS22 -	2 MAS62	2 MA72	-
13		1 MAS43	3 MAS24 - -	2 MAS62	2 MA72	-
14	280x374x19 (11" x 14 3/4" x 3/4")	1 MAS42	3 MAS24 1 MAS22 1 MAS20	2 MAS63	2 MA73	-
17		1 MAS43	4 MAS24 - 1 MAS20	2 MAS63	2 MA73	-
21		1 MAS43	5 MAS24 - -	2 MAS63	2 MA73	-
27	560x256x19 (22 1/16" x 10 1/16" x 3/4")	1 MAS43	6 MAS24 1 MAS22 -	4 MAS62	4 MA72	-
29		1 MAS43	7 MAS24 - -	4 MAS62	4 MA72	-
31	420x374x19 (16 9/16" x 14 3/4" x 3/4")	1 MAS43	7 MAS24 1 MAS22 -	3 MAS63	3 MA73	-
33		1 MAS43	8 MAS24 - -	3 MAS63	3 MA73	-
38	560x374x19 (22 1/16" x 14 3/4" x 3/4")	1 MAS42	9 MAS24 1 MAS22 1 MAS20	4 MAS63	4 MA73	-
40		1 MAS42	10 MAS24 - 1 MAS20	4 MAS63	4 MA73	-
43		1 MAS43	10 MAS24 1 MAS22 -	4 MAS63	4 MA73	-
45		1 MAS43	11 MAS24 - -	4 MAS63	4 MA73	-

(*) Rain shelters are used in replacementof back boxes

PUSH-BUTTONS

Module frames complete with back box



MD 71 MD 72 MD 73 MD 74

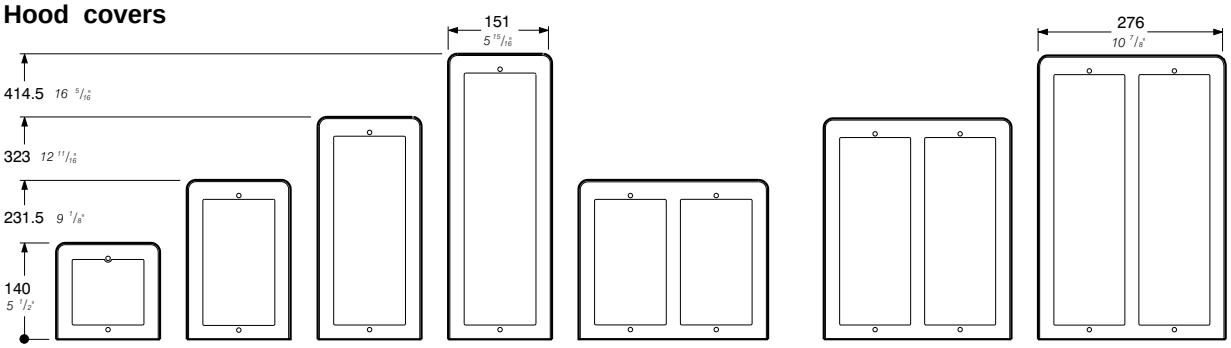
Push-button panels in extruded aluminium made up of modular elements. Suitable for the most diverse installation requirements.

MD71. 72. 73. 74. Plastic back boxes complete with module frames.

MD81.82.83.804.84.86.808.89.812. Aluminium hood covers. To be added to MD71.72.73.74 back boxes.

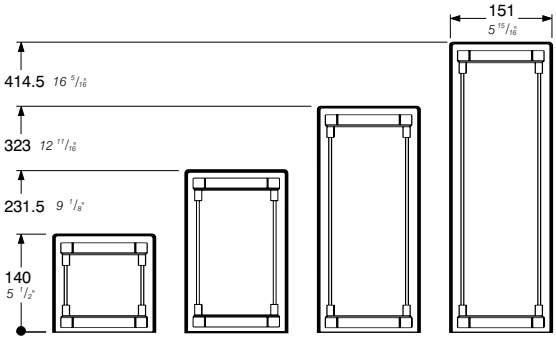
MD91.92.93.904.94.96.908.99.912. Anodized aluminium rain shelters with module frames. Used for wall mounting.

Hood covers

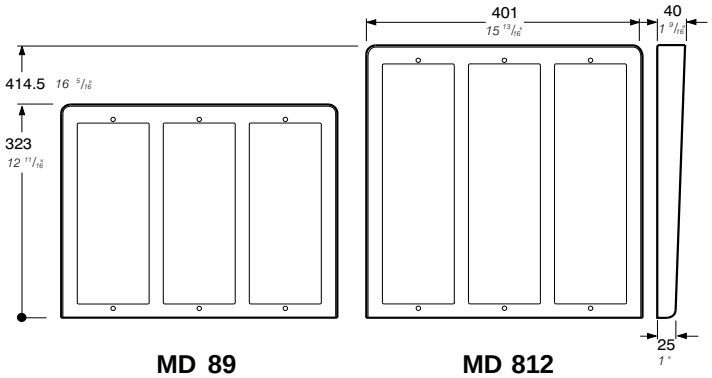


MD 81 MD 82 MD 83 MD 804 MD 84 MD 86 MD 808

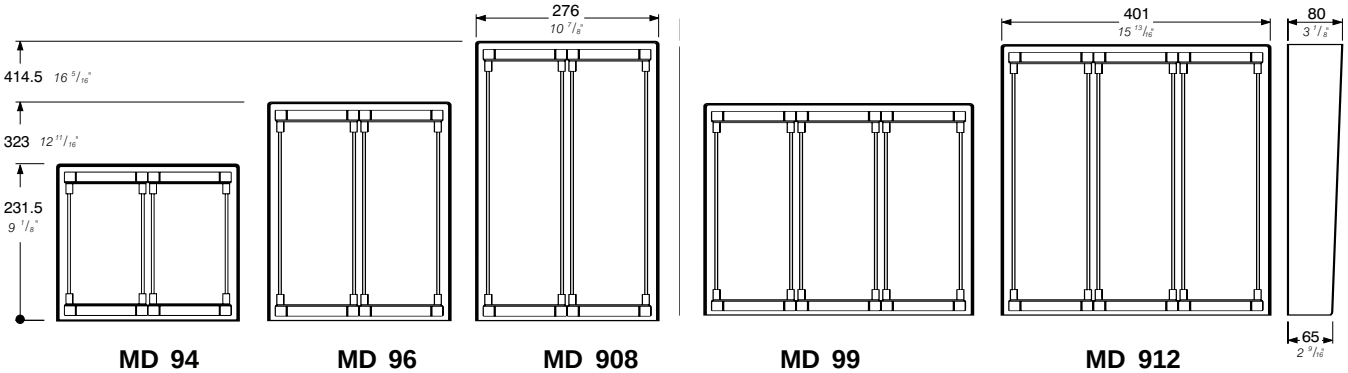
Rain shelter with module frames



MD 91 MD 92 MD 93 MD 904



MD 89 MD 812

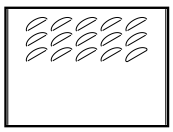


MD 94 MD 96 MD 908 MD 99 MD 912

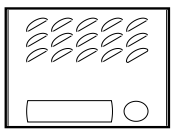
PUSH-BUTTONS MODY series

1 row push-button modules

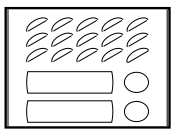
Modules for electric door speaker (amplifier)



MD 10
without buttons

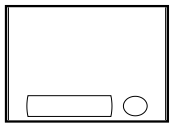


MD 11
1 call button

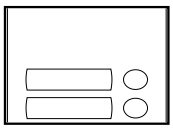


MD 12
2 call buttons

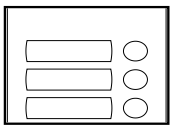
Button modules



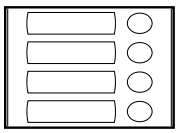
MD 21
1 call button



MD 22
2 call buttons



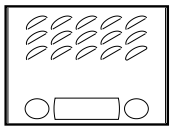
MD 23
3 call buttons



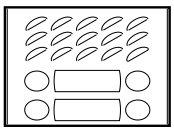
MD 24
4 call buttons

2 row push-button modules

Modules for electric door speaker (amplifier)

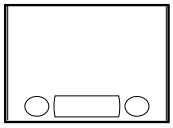


MD 122
2 call buttons

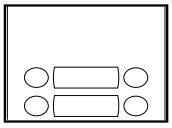


MD 124
4 call buttons

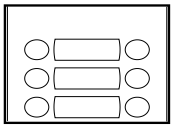
Button modules



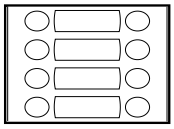
MD 222
2 call buttons



MD 224
4 call buttons



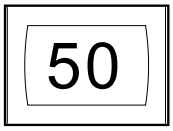
MD 226
6 call buttons



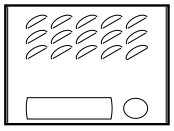
MD 228
8 call buttons

Modules: blank, number, amplified door stations, access control and cameras

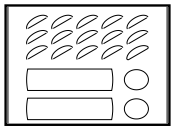
MD20
blank module



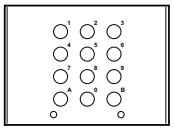
MD50
number module



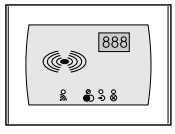
MD 100
Amplified door station with 1 call button *(see page 132)*



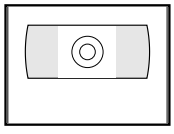
MD 200
Amplified door station with 2 call buttons *(see page 132)*



FC52P. Keypad module for access control *(see characteristics on page 132).*

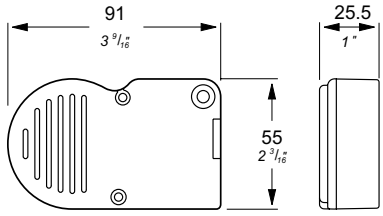


FP52. Proximity reader for access control *(see characteristics on page 132).*



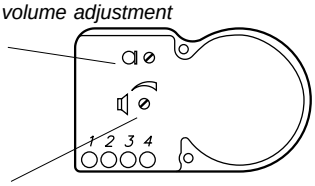
MD41. MD41D.
Black and white cameras.
MD41C. Colour cameras *(see characteristics on page 131).*

ELECTRIC DOOR SPEAKER



MD 30.
It consists of a double amplifier (receiver and transmitter) with adjustable volume of 2 channels. Also fittable to **Prestige** and **ErreP/R** series push-button panels (for **ErreP/R** door stations by means of **299/1** adapter).

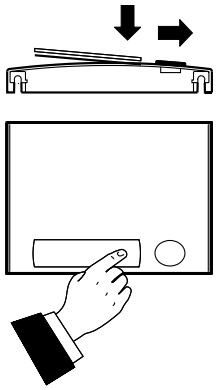
Transmitting volume adjustment



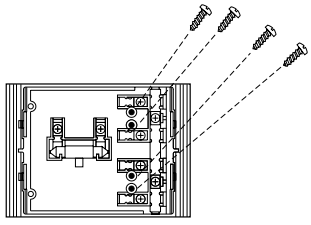
Receiving volume adjustment

Terminals
1 audio receiver
2 audio transmitter
3 positive power supply 6 ÷ 8Vdc - 60mA
4 ground

Dismounting and protection of name labels



Dismounting of name holder to insert name label.



In any button module, in order to avoid the dismounting of name holder, insert a 3MAx12 screw in the holes shown in the picture for each name plate to be blocked. Screws are not supplied by the manufacturer.

CAMERAS

For the realisation of video intercom systems you must select the camera according to the type of installation:

- **Video intercom system with coaxial cable**
- **Video intercom system with twisted pair**

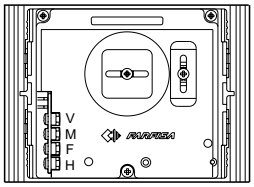
For system with coaxial cable

MD41.

B/W adjustable camera complete with:
- solid-state sensor (CCD), electronic autoiris, 3.6mm fixed optics and 6 infrared LEDs;
- front plate of anodized aluminium with break-proof transparent screen;
- horizontal and vertical adjustment.

MD41C Color.

Colour adjustable camera complete with:
- solid-state sensor (CCD), autoiris and 4mm fixed optics;
- front plate of anodized aluminium with break-proof transparent screen;
- horizontal and vertical adjustment.

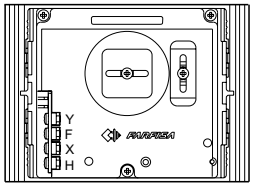


Terminals
V Video signal output
M Ground
F Not connected
H Power supply input

For system with twisted pair

MD41D.

B/W adjustable camera complete with:
- solid-state sensor (CCD), electronic autoiris, 3.6mm fixed optics and 6 infrared LEDs;
- front plate of anodized aluminium with break-proof transparent screen;
- horizontal and vertical adjustment.

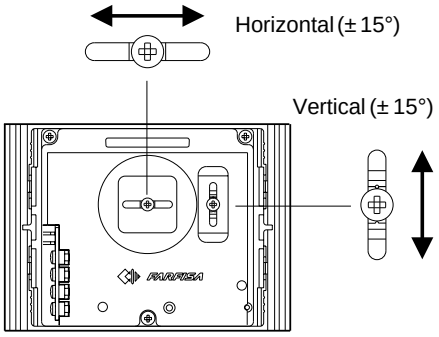


Terminals
Y Positive video signal output
F Ground
X Negative video signal output
H Power supply input

Note
For colour installations use the video signal converter **CV01** (see page 150).

Adjustments

If necessary, you can manually modify the camera position by means of the horizontal and vertical adjustments located on the back of the camera.
To do this, you must:
- remove the upper screw of the push-button panel to access the back of the camera;
- loosen the screw of the horizontal or vertical adjustment (or both screws, if you want to adjust the image in all the directions);
- move the camera in the desired direction;
- tighten the screw to block the camera in the desired position;
- fix the push-button panel.

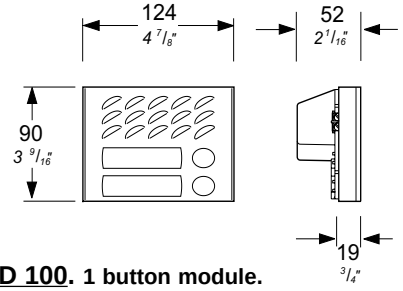


Technical data	MD41	MD41C	MD41D
Power supply	21±3Vdc	21±3Vdc	15÷21Vdc
Operating current	0.3A	0.4A	0.3A
Video signal output	1Vpp on 75Ω	1Vpp on 75Ω	1Vpp balanced
Video signal standard	CCIR	PAL	CCIR
Minimum illumination	2 Lux	2.5 Lux	2 Lux
White balance	-	auto	-
Sensor	CCD 1/4" B/W	CCD 1/3" colour	CCD 1/4" B/W
Number of pixels	291000	291000	291000
Horizontal frequency	15625Hz	15625Hz	15625Hz
Vertical frequency	50Hz	50Hz	50Hz
Lens	3.6mm; F5	4mm; F4	3.6mm; F5
Focus	0.1m ÷ ∞	0.6m ÷ ∞	0.1m ÷ ∞
Autoiris	electronic	electronic	electronic
Horizontal adjustment	± 15°	± 15°	± 15°
Vertical adjustment	± 15°	± 15°	± 15°
Operating temperature	-10°÷+40°C	-10°÷+40°C	-10°÷+40°C
Max. permissible humidity	80%RH	80%RH	80%RH

Note
MD40, **MD40C** and **MD40D** cameras have the same specifications as models MD41, MD41C and MD41D, except that they have not horizontal and vertical adjustment.

PUSH-BUTTONS MODY series

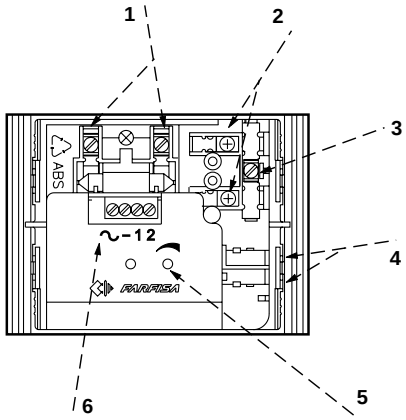
AMPLIFIED DOOR STATIONS



MD 100. 1 button module.
Be used in all intercom, telephone, intercommunicating and video intercom systems.
Complete with electric door speaker amplified in the two channels, receiving adjustable volume, call button and anodized aluminium front plate. It can replace the **MD11** and **MD30** module and use all the other accessories of the **Mody** series.

MD 200. 2 buttons module.

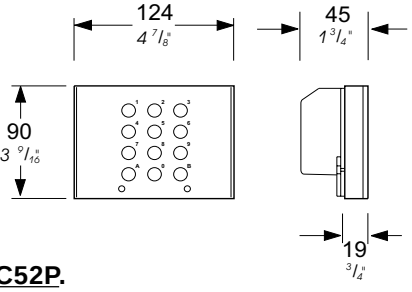
Terminals
- ground
~ supply 13Vac/ 12-21Vdc-60mA
1 audio receiver
2 audio transmitter
C call push-buttons common
call push-buttons
⊗ name-plate lamp (24V-70mA)



1 Lamp terminals
2 Push-button terminal board
3 Common contact of call push-buttons
4 Terminals on stair light push-button
5 External volume adjustment
6 Terminal board for connection to the system

Installation diagrams
For the installation of the **MD100** and **MD200** modules see the installation diagrams for systems with one entrance.

ACCESS CONTROL KEYPAD

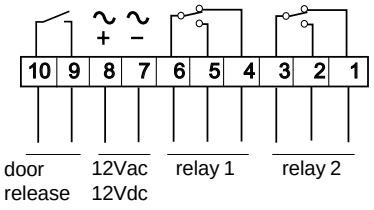


FC52P.
Access control keypad with 12 digits and 2 relays for lock release. 4 programmable access codes for each relay. Programmable door opening time from 1 up 99 sec. for each relay (or bistable operation of relay 1). Acoustic and visual confirmation for entered keys, accepted programming and for wrong codes.

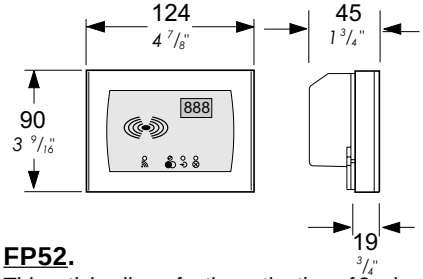
Technical data

Power supply:	12Vac/dc ±10%
Stand-by current:	0.015A
Maximum current consumption:	0.1A
Contact ratings:	12Vac-5A.
Numbers of codes for relays 1:	4
Numbers of codes for relays 2:	4 or direct activation
Activation time for each relay:	from 1 to 99sec. (or bistable relay 1)
Operating temperature:	0° ÷ +40°C
Maximum permissible humidity:	85% RH

Terminals
1 normally closed contact of relay 2
2 normally open contact of relay 2
3 common contact of relay 2
4 normally closed contact of relay 1
5 normally open contact of relay 1
6 common contact of relay 1
7 ground or alternate voltage input
8 positive or alternate voltage input
9-10 connection to optional door lock release



PROXIMITY READER FOR ACCESS CONTROL

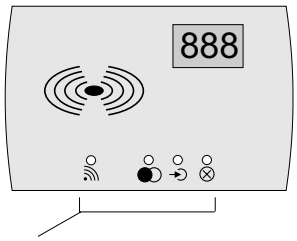


FP52.
This article allows for the activation of 2 relays by means of keytags or electronic ISO cards based on transponder technology.
Programmable activation time from 1 to 63 seconds for every relay. 4 user cards and 1 master card supplied with the product. Acoustic and visual control signals and 3-digit display to view numbers and codes during set-up and operation.

Technical data

Power supply	12Vac/dc ±10%
Stand-by current	0.1A
Maximum current consumption	0.25A
Contact ratings	24Vac - 2A
Max. number of cards	490
Max. number of Master cards	10
Number of relays	2
Relay time	1 to 63 sec.
Minimum recognition distance	3 cm
Maximum recognition time	1 sec.
Operating temperature	0° ÷ +40°C
Maximum permitted humidity	85% RH

Terminals
+/A positive or alternate current input
-/A ground or alternate current input
PB door open button
NC2 normally closed contact of relay 2
NA2 normally open contact of relay 2
C2 common terminal of relay 2
NC1 normally closed contact of relay 1
NA1 normally open contact of relay 1
C1 common terminal of relay 1



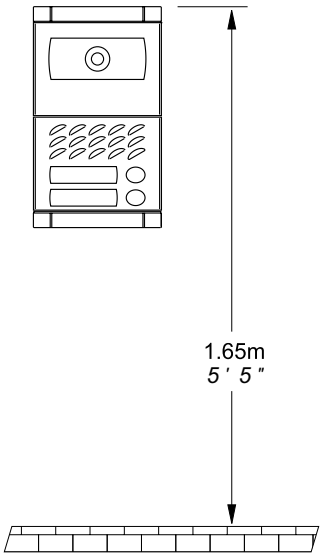
***Card recognition LED**. It turns ON during card recognition.*

***Relay activation LED.** It indicates relay deactivation (red) or activation (green).*

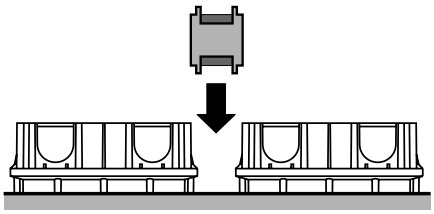
***Program LED.** It turns ON during system programming.*

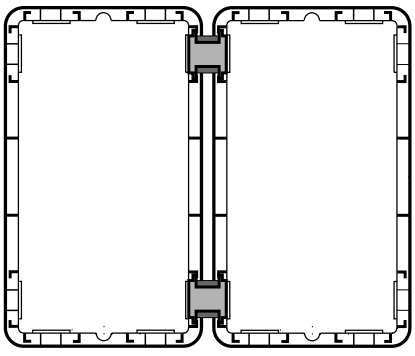
⊗ ***Card cancellation and system setup LED**. It turns ON during Master or user card cancellation and system setup.*

PUSH-BUTTONS MODY series

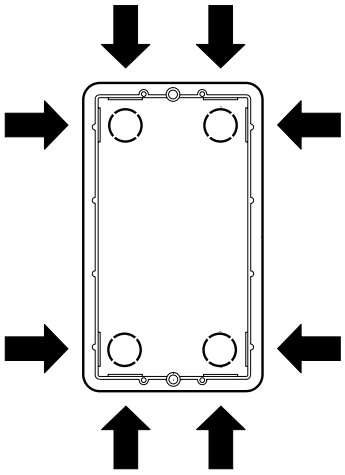


Place the push-button panel back box at a height of about 1.65m from the floor keeping the front edges flush-mounted and vertical to the finished plaster.
Position the camera in such a way that sunlight or other direct or reflected light sources with high intensity do not hit the camera lens.

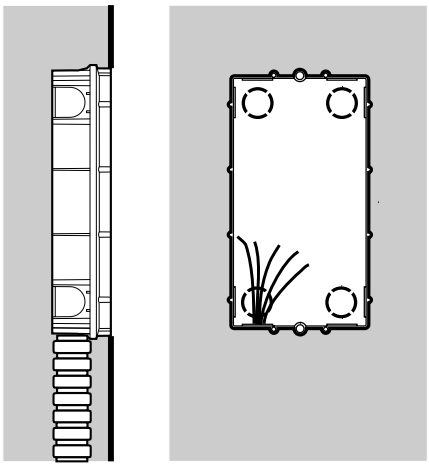




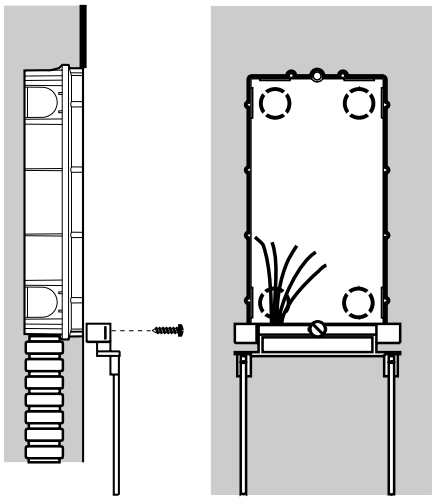
Insertion of cable bush between back boxes. The cable bushes must be inserted before brickwork.



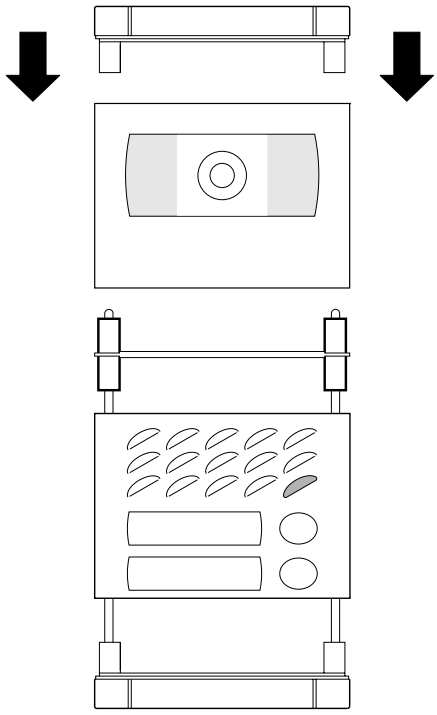
Openings for cables.



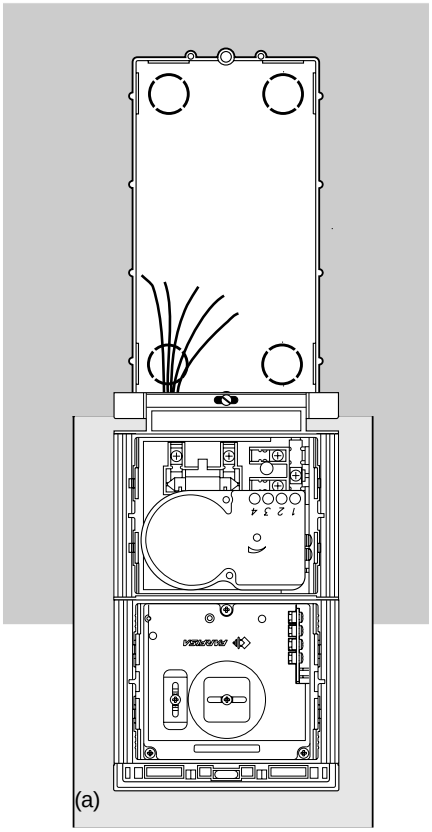
Flush mounting and cables placing.



Lower fixing of the module frame.

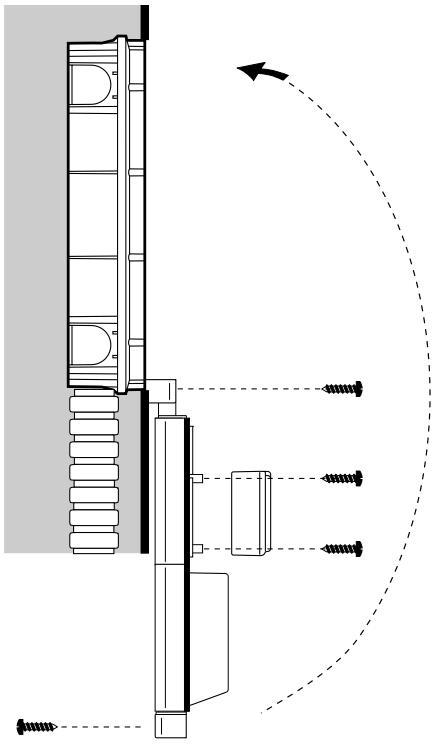


Mounting of button module.

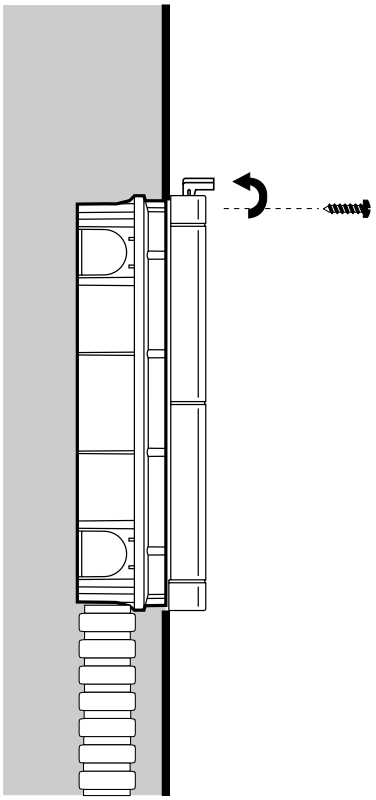


Lower fixing of the module frame on back box. It is advised to insert a protection (a) between panel and wall while fixing.

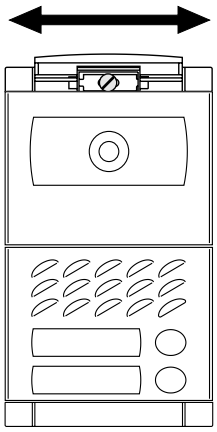
PUSH-BUTTONS MODY series



Mounting of frame bottom and door speaker (amplifier).

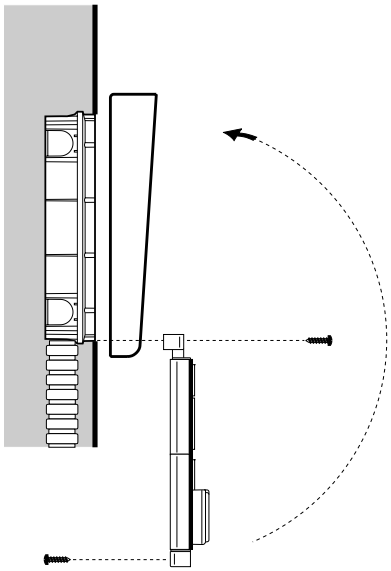


Top fixing of the panel.



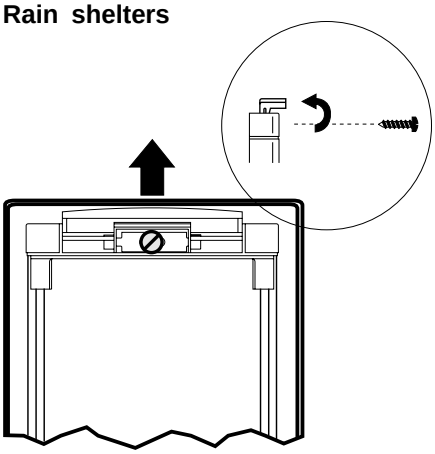
Alignment of the panel.

Hood covers

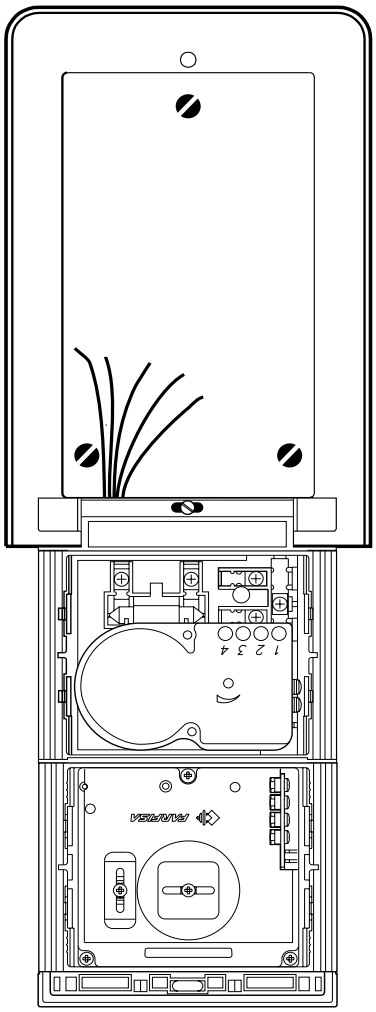


Fixing of the hood cover between the back box and the module frame.

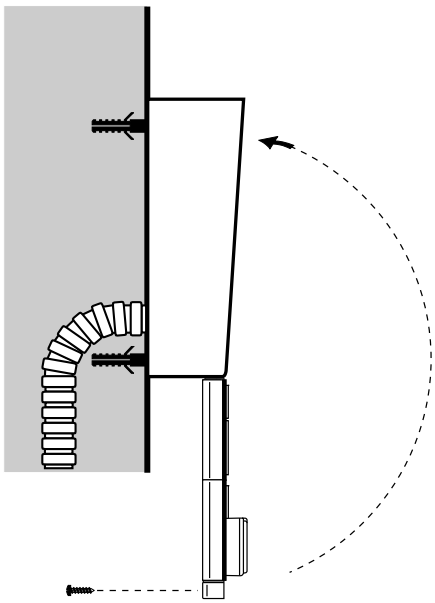
Rain shelters



Dismounting of the frame top side from the rain shelter.

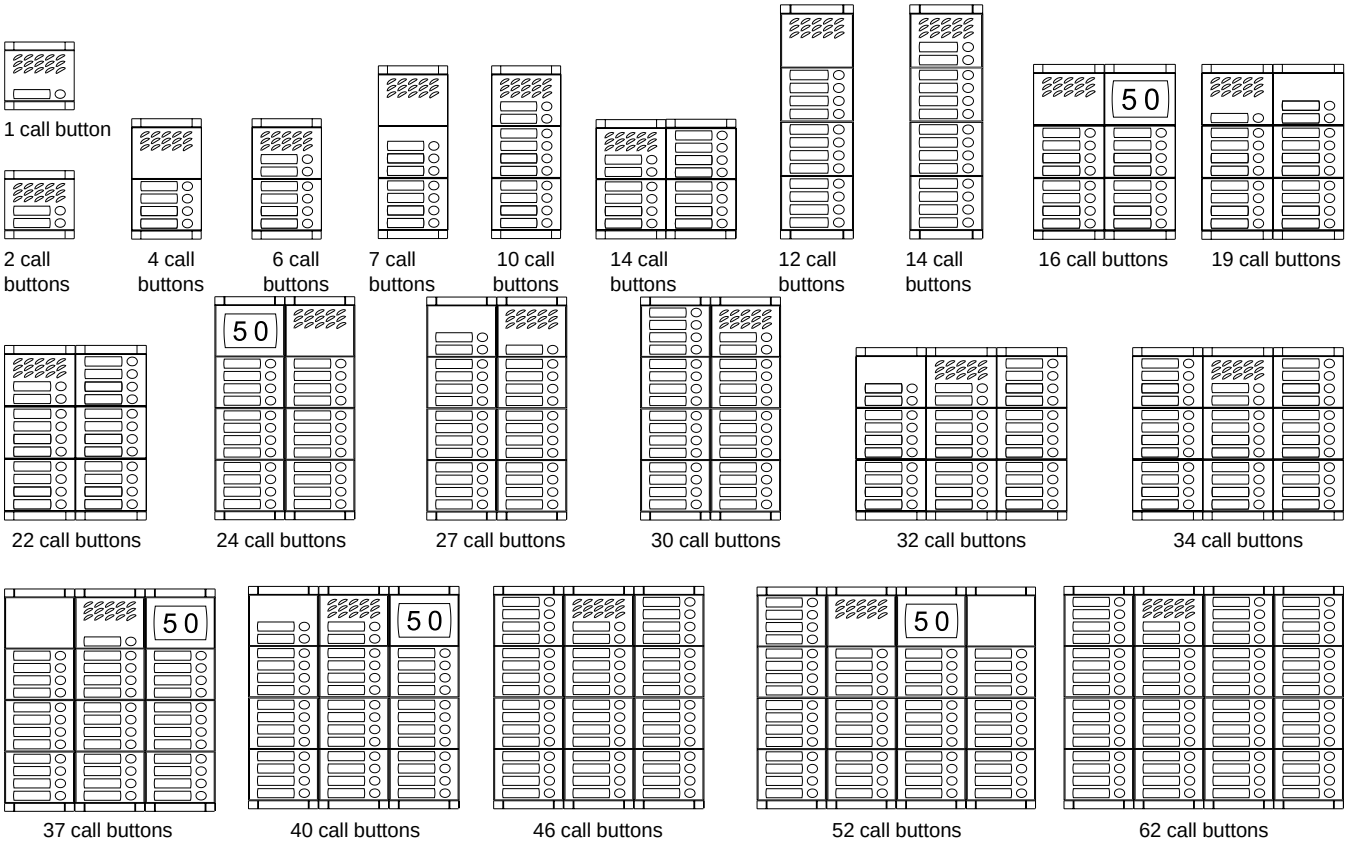


Modules insertion and wall fixing of rain shelter.



Mounting of the frame top to the rain shelter.

Examples of compositions of Mody push-button panels in intercom systems



Composition board of Mody push-button panels.

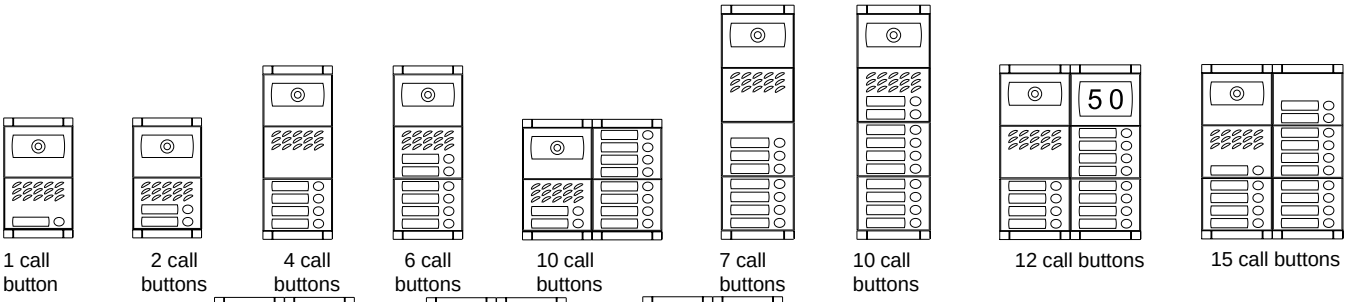
N° calls	Dimensions *(mm / inches)*	Module for speaker	Door speaker (amplifier)	Button modules and number or blank module			Back box and module frame	Hood covers	Rain shelters
1	124x121.5x19 (4 7/8"x 4 13/16"x 3/4")	1 MD11	1 MD30	-	-	-	1 MD71	1 MD81	1 MD91
2		1 MD12	1 MD30	-	-	-	1 MD71	1 MD81	1 MD91
4	124x213x19 (4 7/8"x 8 3/8"x 3/4")	1 MD10	1 MD30	1 MD24	-	-	1 MD72	1 MD82	1 MD92
6		1 MD12	1 MD30	1 MD24	-	-	1 MD72	1 MD82	1 MD92
7	124x304.5x19 (4 7/8" x 12" x 3/4")	1 MD10	1 MD30	1 MD24	1 MD23	-	1 MD73	1 MD83	1 MD93
10		1 MD12	1 MD30	2 MD24	-	-	1 MD73	1 MD83	1 MD93
12	248x213x19 (9 3/4" x 8 3/8" x 3/4")	1 MD10	1 MD30	3 MD24	-	-	2 MD72	1 MD84 ■	1 MD94 ■
14		1 MD12	1 MD30	3 MD24	-	-	2 MD72	1 MD84 ■	1 MD94 ■
16	248x304.5x19 (9 3/4" x 12" x 3/4")	1 MD10	1 MD30	4 MD24	-	1 *	2 MD73	1 MD86	1 MD96
19		1 MD11	1 MD30	4 MD24	1 MD22	-	2 MD73	1 MD86	1 MD96
22		1 MD12	1 MD30	5 MD24	-	-	2 MD73	1 MD86	1 MD96
24	248x395x19 (9 3/4" x 15 9/16" x 3/4")	1 MD10	1 MD30	6 MD24	-	1 *	2 MD74	1 MD808	1 MD908
27		1 MD11	1 MD30	6 MD24	1 MD22	-	2 MD74	1 MD808	1 MD908
30		1 MD12	1 MD30	7 MD24	-	-	2 MD74	1 MD808	1 MD908
32	372x304.5x19 (14 5/8" x 12" x 3/4")	1 MD12	1 MD30	7 MD24	1 MD22	-	3 MD73	1 MD89	1 MD99
34		1 MD12	1 MD30	8 MD24	-	-	3 MD73	1 MD89	1 MD99
37	372x395x19 (14 5/8" x 15 9/16" x 3/4")	1 MD11	1 MD30	9 MD24	-	2 *	3 MD74	1 MD812	1 MD912
40		1 MD12	1 MD30	9 MD24	1 MD22	1 *	3 MD74	1 MD812	1 MD912
42		1 MD12	1 MD30	10 MD24	-	1 *	3 MD74	1 MD812	1 MD912
46		1 MD12	1 MD30	11 MD24	-	-	3 MD74	1 MD812	1 MD912
48	496x395x19 (19 1/2" x 15 9/16" x 3/4")	1 MD10	1 MD30	12 MD24	-	3 *	4 MD74	-	-
52		1 MD10	1 MD30	13 MD24	-	2 *	4 MD74	-	-
57		1 MD11	1 MD30	14 MD24	-	1 *	4 MD74	-	-
62		1 MD12	1 MD30	15 MD24	-	-	4 MD74	-	-

■ or MD74 or MD804 or MD904

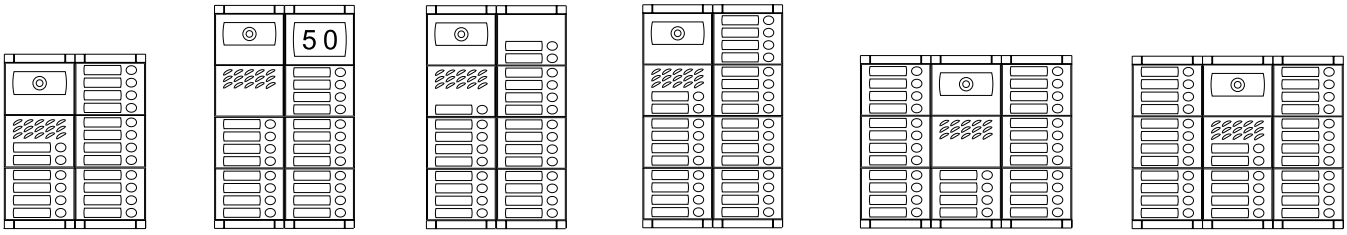
* MD20 or MD50 or FC52P

It replaces MD71, 72, 73, 74

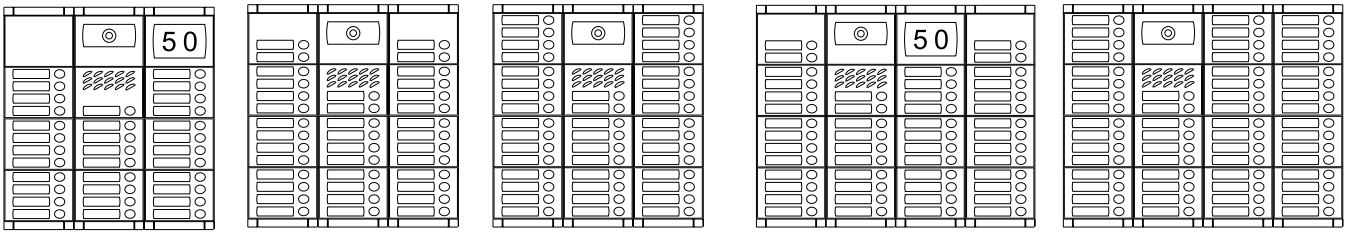
Examples of compositions of Mody push-button panels in videointercom systems



1 call button — 2 call buttons — 4 call buttons — 6 call buttons — 10 call buttons — 7 call buttons — 10 call buttons — 12 call buttons — 15 call buttons



18 call buttons — 20 call buttons — 23 call buttons — 26 call buttons — 28 call buttons — 30 call buttons



33 call buttons — 38 call buttons — 42 call buttons — 50 call buttons — 58 call buttons

Composition board of Mody push-button panels.

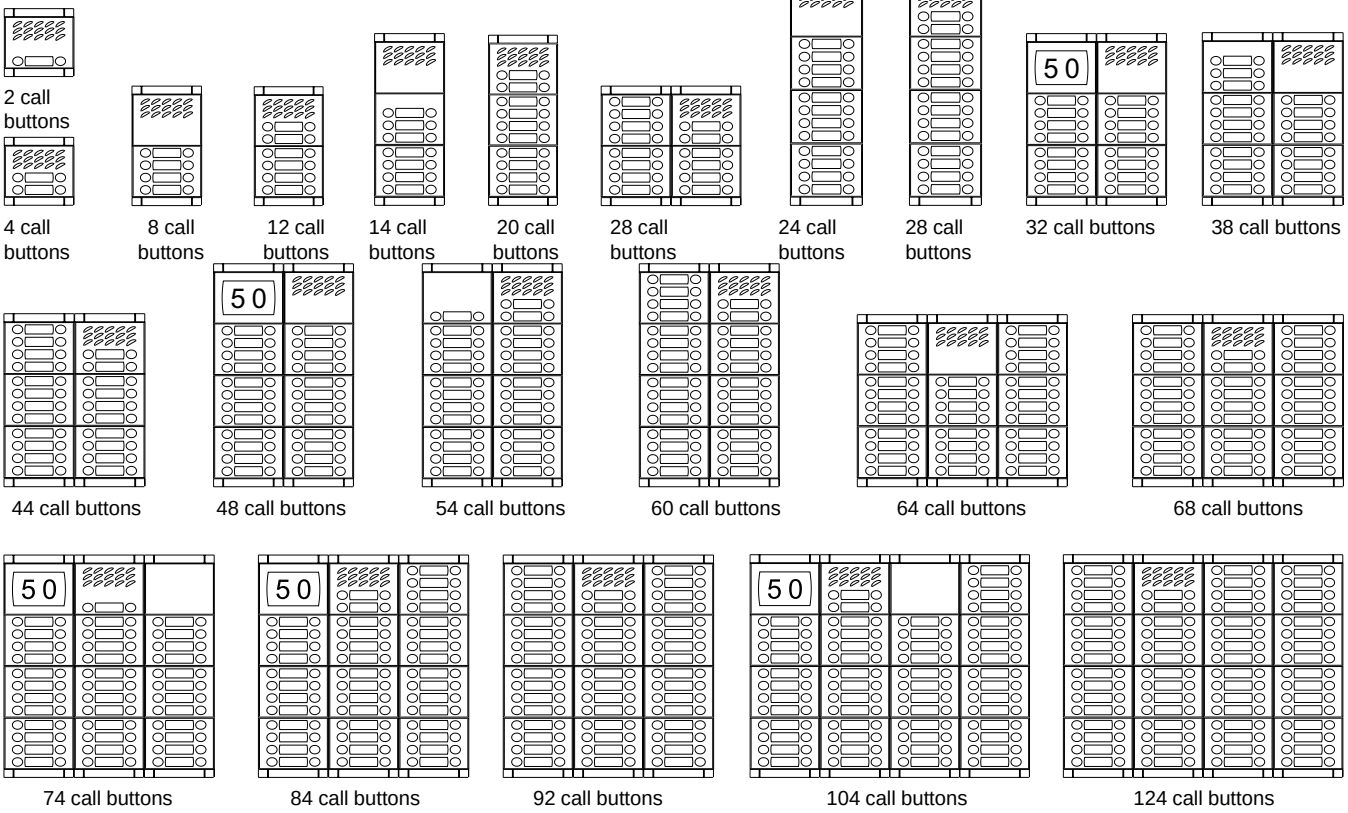
N° calls	Dimensions *(mm / inches)*	Camera module	Module for speaker	Door speaker (amplifier)	Button modules and number or blank module			Back box and module frame	Hood covers	Rain shelters
1	124x213x19 ($4^{7}/_{8}$"x$8^{3}/_{8}$"x$^{3}/_{4}$")	1 MD41	1 MD11	1 MD30	-	-	-	1 MD72	1 MD82	1 MD92
2		1 MD41	1 MD12	1 MD30	-	-	-	1 MD72	1 MD82	1 MD92
4	124x304.5x19 ($4\ ^{7}/_{8}$"x 12" x$^{3}/_{4}$")	1 MD41	1 MD10	1 MD30	1 MD24	-	-	1 MD73	1 MD83	1 MD93
6		1 MD41	1 MD12	1 MD30	1 MD24	-	-	1 MD73	1 MD83	1 MD93
7	248x213x19 ($9\ ^{3}/_{4}$"x $8\ ^{3}/_{8}$" x$^{3}/_{4}$")	1 MD41	1 MD10	1 MD30	1 MD24	1 MD23	-	2 MD72	1 MD84 ■	1 MD94 ■
10		1 MD41	1 MD12	1 MD30	2 MD24	-	-	2 MD72	1 MD84 ■	1 MD94 ■
12	248x304.5x19 ($9\ ^{3}/_{4}$"x 12" x$^{3}/_{4}$")	1 MD41	1 MD10	1 MD30	3 MD24	-	1 *	2 MD73	1 MD86	1 MD96
15		1 MD41	1 MD11	1 MD30	3 MD24	1 MD22	-	2 MD73	1 MD86	1 MD96
18		1 MD41	1 MD12	1 MD30	4 MD24	-	-	2 MD73	1 MD86	1 MD96
20	248x395x19 ($9\ ^{3}/_{4}$"x 15 $^{9}/_{16}$" x$^{3}/_{4}$")	1 MD41	1 MD10	1 MD30	5 MD24	-	1 *	2 MD74	1 MD808	1 MD908
23		1 MD41	1 MD11	1 MD30	5 MD24	1 MD22	-	2 MD74	1 MD808	1 MD908
25		1 MD41	1 MD11	1 MD30	6 MD24	-	-	2 MD74	1 MD808	1 MD908
26		1 MD41	1 MD12	1 MD30	6 MD24	-	-	2 MD74	1 MD808	1 MD908
28	372x304.5x19 ($14\ ^{5}/_{8}$" x 12" x$^{3}/_{4}$")	1 MD41	1 MD10	1 MD30	7 MD24	-	-	3 MD73	1 MD89	1 MD99
30		1 MD41	1 MD12	1 MD30	7 MD24	-	-	3 MD73	1 MD89	1 MD99
33	372x395x19 ($14\ ^{5}/_{8}$" x 15 $^{9}/_{16}$" x$^{3}/_{4}$")	1 MD41	1 MD11	1 MD30	8 MD24	-	2 *	3 MD74	1 MD812	1 MD912
36		1 MD41	1 MD12	1 MD30	8 MD24	1 MD22	1 *	3 MD74	1 MD812	1 MD912
38		1 MD41	1 MD12	1 MD30	8 MD24	2 MD22	-	3 MD74	1 MD812	1 MD912
40		1 MD41	1 MD12	1 MD30	9 MD24	1 MD22	-	3 MD74	1 MD812	1 MD912
42		1 MD41	1 MD12	1 MD30	10 MD24	-	-	3 MD74	1 MD812	1 MD912
45	496x395x19 ($19\ ^{1}/_{2}$" x 15 $^{9}/_{16}$" x$^{3}/_{4}$")	1 MD41	1 MD11	1 MD30	10 MD24	2 MD22	2 *	4 MD74	-	-
50		1 MD41	1 MD12	1 MD30	11 MD24	2 MD22	1 *	4 MD74	-	-
54		1 MD41	1 MD12	1 MD30	13 MD24	-	1 *	4 MD74	-	-
58		1 MD41	1 MD12	1 MD30	14 MD24	-	-	4 MD74	-	-

■ or MD74 or MD804 or MD904

* MD20 or MD50 or FC52P

It replaces MD72, 73, 74

Examples of compositions of Mody push-button panels in intercom systems



Composition board of Mody push-button panels.

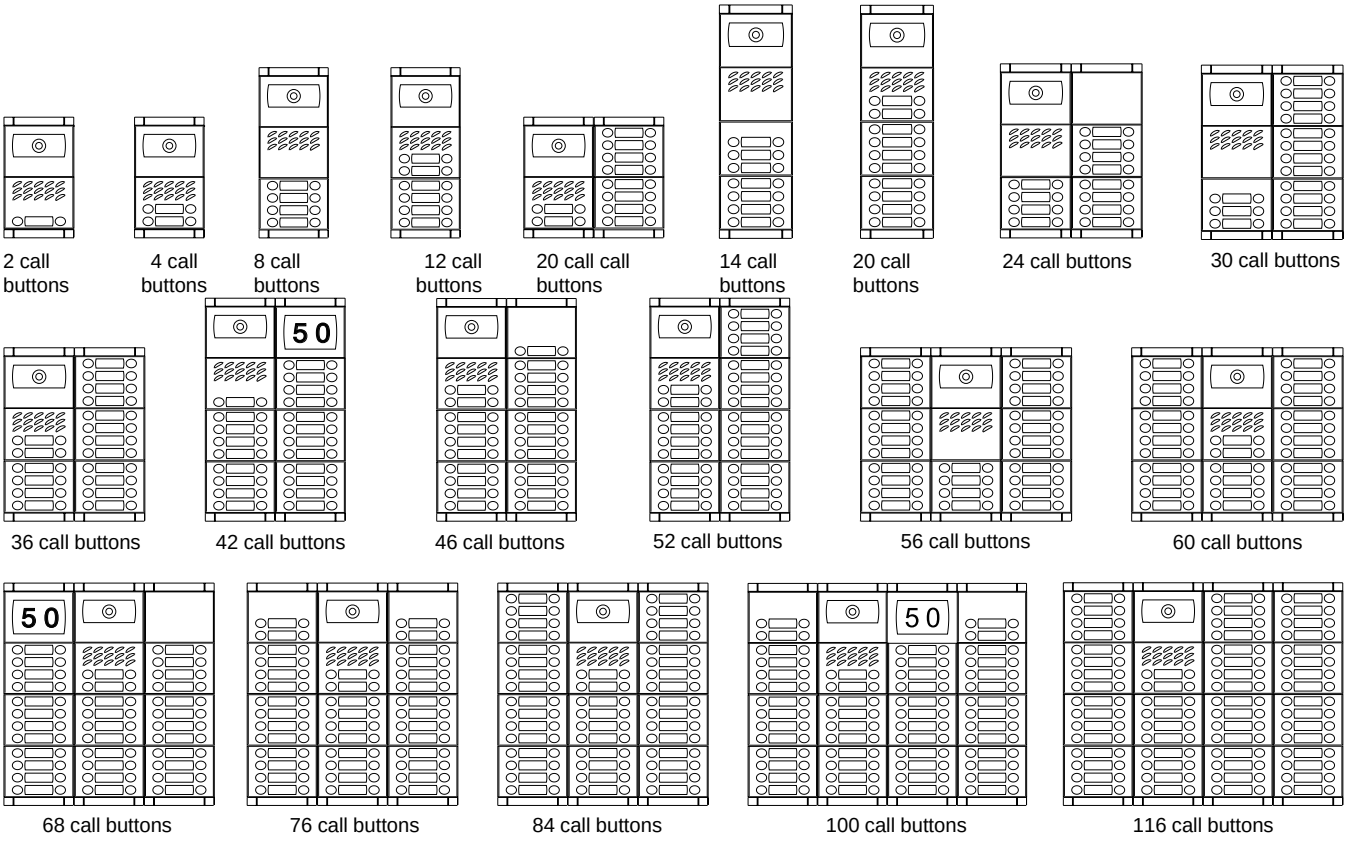
N° calls	Dimensions *(mm / inches)*	Module for speaker	Door speaker (amplifier)	Button modules and number or blank module	Back box and module frame	Hood covers	Rain shelters
2	124x121.5x19 ($4^{7}/_{8}$"x$4^{13}/_{16}$"x$^{3}/_{4}$")	1 MD122	1 MD30	- - -	1 MD71	1 MD81	1 MD91
4		1 MD124	1 MD30	- - -	1 MD71	1 MD81	1 MD91
8	124x213x19 ($4^{7}/_{8}$"x$8^{3}/_{8}$"x$^{3}/_{4}$")	1 MD10	1 MD30	1 MD228 - -	1 MD72	1 MD82	1 MD92
12		1 MD124	1 MD30	1 MD228 - -	1 MD72	1 MD82	1 MD92
14	124x304.5x19 ($4\ ^{7}/_{8}$"x 12" x$^{3}/_{4}$")	1 MD10	1 MD30	1 MD228 1 MD226 -	1 MD73	1 MD83	1 MD93
20		1 MD124	1 MD30	2 MD228 - -	1 MD73	1 MD83	1 MD93
24	248x213x19 ($9\ ^{3}/_{4}$"x$8\ ^{3}/_{8}$"x$^{3}/_{4}$")	1 MD10	1 MD30	3 MD228 - -	2 MD72	1 MD84 ■	1 MD94 ■
28		1 MD124	1 MD30	3 MD228 - -	2 MD72	1 MD84 ■	1 MD94 ■
32	248x304.5x19 ($9\ ^{3}/_{4}$"x 12" x$^{3}/_{4}$")	1 MD10	1 MD30	4 MD228 - 1 *	2 MD73	1 MD86	1 MD96
38		1 MD10	1 MD30	4 MD228 1 MD226 -	2 MD73	1 MD86	1 MD96
44		1 MD124	1 MD30	5 MD228 - -	2 MD73	1 MD86	1 MD96
48	248x395x19 ($9\ ^{3}/_{4}$"x 15 $^{9}/_{16}$" x$^{3}/_{4}$")	1 MD10	1 MD30	6 MD228 - 1 *	2 MD74	1 MD808	1 MD908
54		1 MD122	1 MD30	6 MD228 1 MD224 -	2 MD74	1 MD808	1 MD908
60		1 MD124	1 MD30	7 MD228 - -	2 MD74	1 MD808	1 MD908
64	372x304.5x19 ($14\ ^{5}/_{8}$"x 12" x$^{3}/_{4}$")	1 MD10	1 MD30	8 MD228 - -	3 MD73	1 MD89	1 MD99
68		1 MD124	1 MD30	8 MD228 - -	3 MD73	1 MD89	1 MD99
74	372x395x19 ($14\ ^{5}/_{8}$"x 15 $^{9}/_{16}$" x$^{3}/_{4}$")	1 MD122	1 MD30	9 MD228 - 2 *	3 MD74	1 MD812	1 MD912
80		1 MD124	1 MD30	9 MD228 1 MD224 1 *	3 MD74	1 MD812	1 MD912
84		1 MD124	1 MD30	10 MD228 - 1 *	3 MD74	1 MD812	1 MD912
92		1 MD124	1 MD30	11 MD228 - -	3 MD74	1 MD812	1 MD912
96	496x395x19 ($19\ ^{1}/_{2}$"x 15 $^{9}/_{16}$" x$^{3}/_{4}$")	1 MD10	1 MD30	12 MD228 - 3 *	4 MD74	-	-
104		1 MD10	1 MD30	13 MD228 - 2 *	4 MD74	-	-
114		1 MD122	1 MD30	14 MD228 - 1 *	4 MD74	-	-
124		1 MD124	1 MD30	15 MD228 - -	4 MD74	-	-

■ or MD74 or MD804 or MD904

* MD20 or MD50 or FC52P

It replaces MD71, 72, 73, 74

Examples of compositions of Mody push-button panels in videointercom systems



Composition board of Mody push-button panels.

N° calls	Dimensions *(mm / inches)*	Camera module	Module for speaker	Door speaker (amplifier)	Button modules and number or blank module	Back box and module frame	Hood covers	Rain shelters
2	124x213x19 ($4^{7}/_{8}$"x$8^{3}/_{8}$"x$^{3}/_{4}$")	1 MD41	1 MD122	1 MD30	- - -	1 MD72	1 MD82	1 MD92
4		1 MD41	1 MD124	1 MD30	- - -	1 MD72	1 MD82	1 MD92
8	124x304.5x19 ($4\ ^{7}/_{8}$"x 12" x$^{3}/_{4}$")	1 MD41	1 MD10	1 MD30	1 MD228 - -	1 MD73	1 MD83	1 MD93
12		1 MD41	1 MD124	1 MD30	1 MD228 - -	1 MD73	1 MD83	1 MD93
14	248x213x19 ($9\ ^{3}/_{4}$"x 8 $^{3}/_{8}$" x$^{3}/_{4}$")	1 MD41	1 MD10	1 MD30	1 MD228 1 MD226 -	2 MD72	1 MD84 ■	1 MD94 ■
20		1 MD41	1 MD124	1 MD30	2 MD228 - -	2 MD72	1 MD84 ■	1 MD94 ■
24	248x304.5x19 ($9\ ^{3}/_{4}$"x 12" x$^{3}/_{4}$")	1 MD41	1 MD10	1 MD30	3 MD228 - 1 *	2 MD73	1 MD86	1 MD96
30		1 MD41	1 MD10	1 MD30	3 MD228 1 MD226 -	2 MD73	1 MD86	1 MD96
36		1 MD41	1 MD124	1 MD30	4 MD228 - -	2 MD73	1 MD86	1 MD96
42	248x395x19 ($9\ ^{3}/_{4}$"x 15 $^{9}/_{16}$" x$^{3}/_{4}$")	1 MD41	1 MD122	1 MD30	5 MD228 - 1 *	2 MD74	1 MD808	1 MD908
46		1 MD41	1 MD122	1 MD30	5 MD228 1 MD224 -	2 MD74	1 MD808	1 MD908
50		1 MD41	1 MD122	1 MD30	6 MD228 - -	2 MD74	1 MD808	1 MD908
52		1 MD41	1 MD124	1 MD30	6 MD228 - -	2 MD74	1 MD808	1 MD908
56	372x304.5x19 ($14\ ^{5}/_{8}$"x 12" x$^{3}/_{4}$")	1 MD41	1 MD10	1 MD30	7 MD228 - -	3 MD73	1 MD89	1 MD99
60		1 MD41	1 MD124	1 MD30	7 MD228 - -	3 MD73	1 MD89	1 MD99
68	372x395x19 ($14\ ^{5}/_{8}$"x 15 $^{9}/_{16}$" x$^{3}/_{4}$")	1 MD41	1 MD124	1 MD30	8 MD228 - 2 *	3 MD74	1 MD812	1 MD912
72		1 MD41	1 MD124	1 MD30	8 MD228 1 MD224 1 *	3 MD74	1 MD812	1 MD912
76		1 MD41	1 MD124	1 MD30	8 MD228 2 MD224 -	3 MD74	1 MD812	1 MD912
80		1 MD41	1 MD124	1 MD30	9 MD228 1 MD224 -	3 MD74	1 MD812	1 MD912
84		1 MD41	1 MD124	1 MD30	10 MD228 - -	3 MD74	1 MD812	1 MD912
90	496x395x19 ($19\ ^{1}/_{2}$"x 15 $^{9}/_{16}$" x$^{3}/_{4}$")	1 MD41	1 MD122	1 MD30	10 MD228 2 MD224 2 *	4 MD74	-	-
100		1 MD41	1 MD124	1 MD30	11 MD228 2 MD224 1 *	4 MD74	-	-
108		1 MD41	1 MD124	1 MD30	13 MD228 - 1 *	4 MD74	-	-
116		1 MD41	1 MD124	1 MD30	14 MD228 - -	4 MD74	-	-

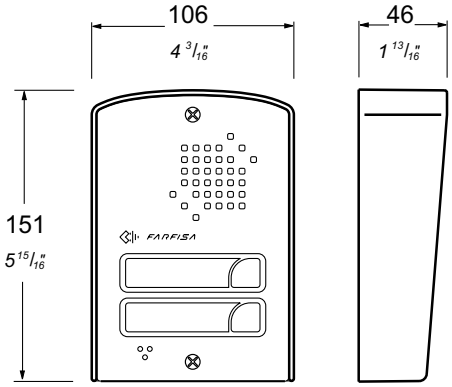
■ or MD74 or MD804 or MD904

* MD20 or MD50 or FC52P

It replaces MD72, 73, 74

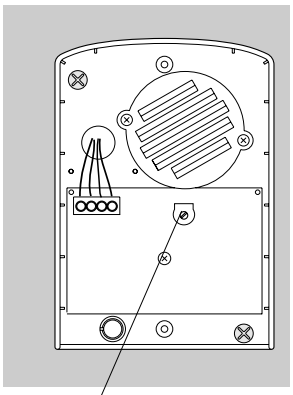
PUSH-BUTTONS UP series

Surface mounted version

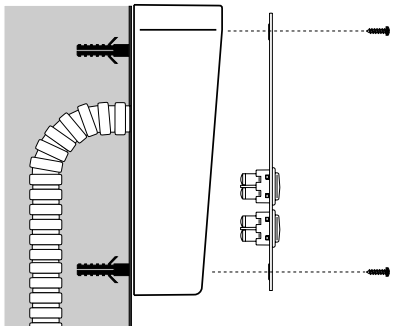


<u>UP 100</u>. Amplified push-button panel with 1 call button.
Be used in all 4+1 intercom and intercommunicating systems.
Complete with electric door speaker amplifier in the two channels, volume control of the receiving channel, front panel in anodized aluminium with call button. Wall-mountable with expansion plugs.

<u>UP 200</u>. Amplified push-button panel with 2 call buttons.



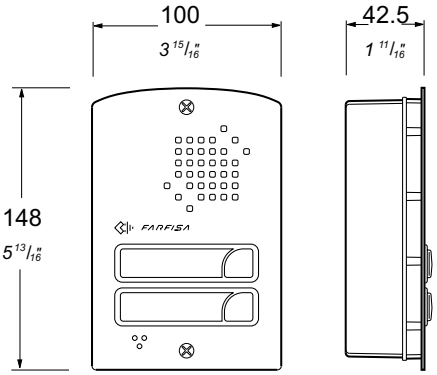
External volume adjustment



Terminals
- ground
∼ 13Vac-70mA voltage input
1 audio receiver
2 audio transmitter

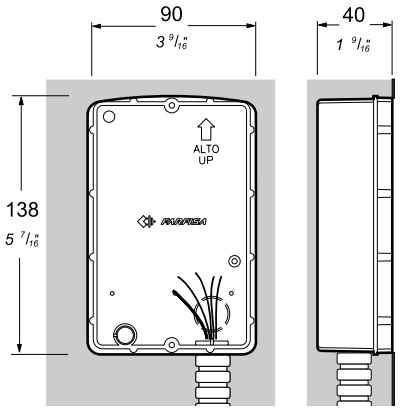
Wires in electronic call systems
C the yellow wire must not be used; it is recommended to insulate or cut it.

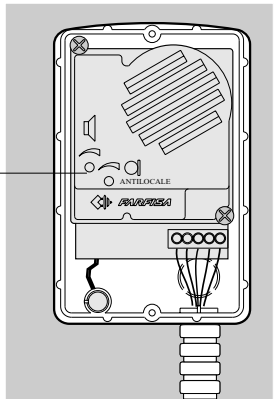
Flush mounted version



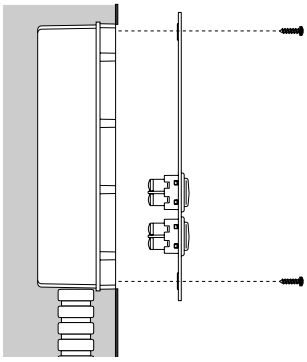
<u>UP 11</u>. Amplified push-button panel with 1 call button.
Be used in all 4+1 intercom and intercommunicating systems.
Complete with electric door speaker amplifier in the two channels, volume control of the receiving channel, front panel in anodized aluminium with call button.
To install it you must:
- fix the back box to the wall;
- install the speaker unit;
- make the connections;
- screw the front panel onto the back box.

<u>UP 12</u>. Amplified push-button panel with 2 call buttons.

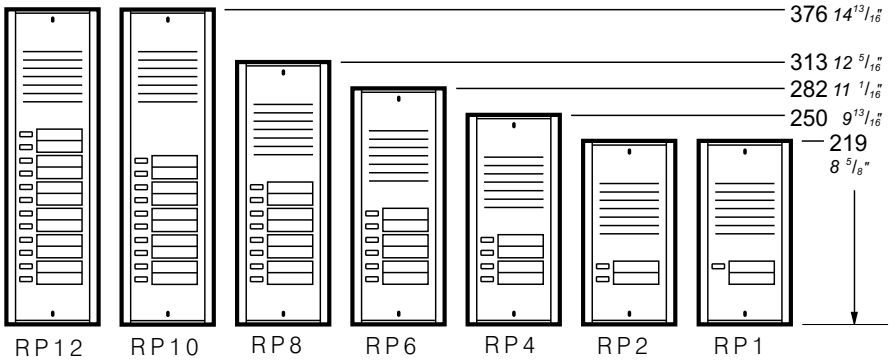


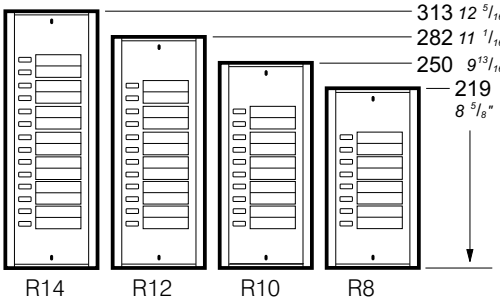


External volume adjustment

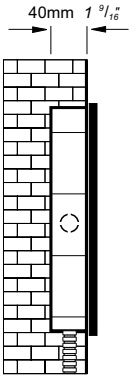


PUSH-BUTTONS ErreP/R series





RP. Push-button panels with anodized aluminium front panel and buttons, complete with name plate lights. The electric door speaker can be fitted inside the push-button panel.
The unit should be flush-mounted and the microphone should be firmly attached to the front panel to avoid feedback and to obtain the highest audio quality.



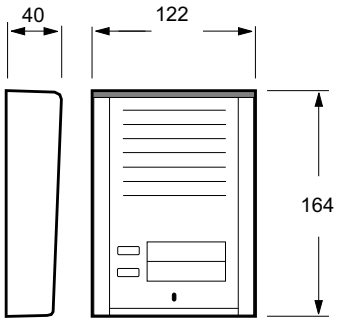
R. Push-button panels provided only with buttons. An electric door speaker cannot be fitted inside. When such panels are installed together with the previous ones, a system with over 12 calls is obtained (see table).

ELECTRIC DOOR SPEAKER (amplifier)

337C. It features a double amplifier (receiver and transmitter); receiver has volume control. It is applicable inside the **RP** or **TM** push-button panels (or in other push-button panels by means of the adaptor art.**299**).
Provided with an electret microphone and tropicalized speaker.

Terminals
1 audio receiver
2 audio transmitter
3 positive power supply 6÷8Vdc -60mA
4 ground

AMPLIFIED DOOR STATIONS



RP100. 1-button amplified door station.
It is complete with an amplifier, in both channels, electric door speaker, volume control of the receiving channel, front panel in anodized aluminium, call button, rain shelter and name plate light.
It can be installed on the wall with expansion plugs or on a wall box.

RP200. 2-button amplified door station.

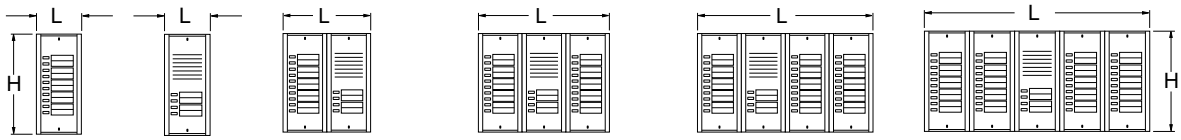
Technical data
Power supply: 13Vac
Operating current: 130mA

Terminals
2 audio receiver
1 audio transmitter
C common contact of call push-buttons
P1 call push-button
P2 call push-button
- ground
~ alternate voltage input 13Vac

Note. The **W1** jumper must be cut in order to be used in electronic call systems.

Instructions of the various ErreP/R push-button panel series and their dimensions en mm *(and inches)*

L and **H** = Dimensions of the panel **l** and **h** = Dimensions of the back-box



Series	R	RP	R+RP	R+RP+R	R+RP+R+R	R+R+RP+R+R
L / H	112 (4 7/16")		224 (8 13/16")	336 (13 1/4")	448 (17 5/8")	560 (22 1/16")
218.5 (8 5/8")	R8	RP1	R8+RP1=**9**	2R8+RP1=**17**	3R8+RP1=**25**	4R8+RP1=**33**
	R8	RP2	R8+RP2=**10**	2R8+RP2=**18**	3R8+RP2=**26**	4R8+RP2=**34**
250 (9 13/16")	R10	RP4	R10+RP4=**14**	2R10+RP4=**24**	3R10+RP4=**34**	4R10+RP4=**44**
281.5 (11 1/16")	R12	RP6	R12+RP6=**18**	2R12+RP6=**30**	3R12+RP6=**42**	4R12+RP6=**54**
313 (12 5/16")	R14	RP8	R14+RP8=**22**	2R14+RP8=**36**	3R14+RP8=**50**	4R14+RP8=**64**
H / l	103 (4 1/16")		215 (8 7/16")	327 (12 7/8")	439 (17 5/16")	551 (21 11/16")

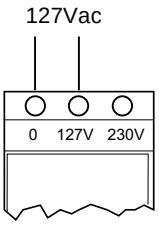
L / h
206.5 (8 1/8")
238 (9 3/8")
269.5 (10 5/8")
301 (11 7/8")
h / l

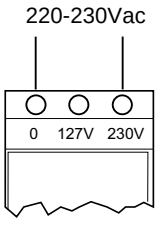
Power supplies are not provided with fuses, but they are protected against overloading or short-circuiting by a heat sensor (thermoprotector), to restore power, it is necessary to cut OFF the mains voltage for about one minute. Reconnect power after having eliminated the problem.
Do not obstruct the openings for ventilation or heat dissipation to allow the equipment to operate correctly. The power supply can be fixed on DIN bar or screwed to the wall.
All power supplies can provide power for a maximum of **6 (24V-3W) lamps** for illuminating push-button panel name plates. If required add the necessary **PRS210** transformers (approx. 1 for 10 lamps).

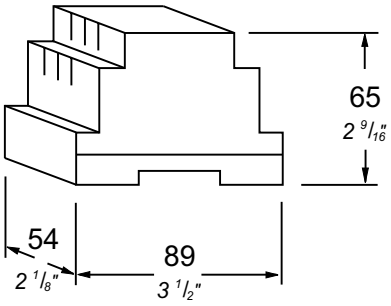
General technical data

Input voltage:	127Vac or 220-230Vac
Working temperature:	0°÷+50°C
Maximum of humidity:	90%RH

Warning
All power supplies in this manual can work either 127Vac or 220-230Vac.
Check carefully the right connection.





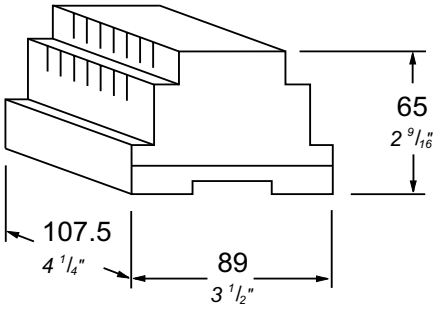


PRS 210. TRANSFORMER.

Used to power 13Vac devices; **MD100, MD200, RP100**, **RP200**, **UP** series amplified external door stations, accessories, additional door locks, name plate light, etc.

Technical data

Power:	15VA
Output voltage:	13Vac
Maximum load:	0.7A
Maximum of intermittent load:	1A
Housing:	DIN 3 modules A
Weight:	0.42 Kg. *(0.93lb)*
Approved by:	VDE according to the Safety Standard EN60065



PRS 240. STABILIZED POWER SUPPLY WITH 2 ELECTRONIC RINGING GENERATORS.

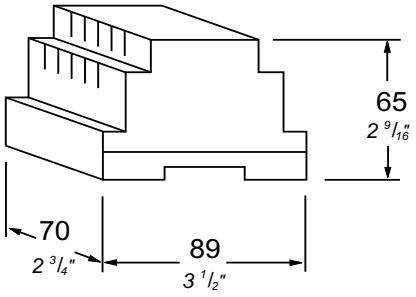
Power supply with two electronic ringing generators for calls. It supplies the voltages needed for the correct operation of intercom systems.

Technical data

Power:	18VA
Ringing frequency:	450Hz modulated
Housing:	DIN 6 modules A
Weight:	0.5 Kg. *(1.1lb)*
Approved by:	VDE according to the Safety Standard EN60065

Output terminals
- Ground
+ Audio line power supply 7.2Vdc-0.1A
X Power supply for aux. services 12Vdc-0.2A
~ Power supply 13Vac for:
- name plate lamps (continuous load 0.6A)
- electric door lock and bells (intermittent load 1A)

C+ Modulated electronic call output 12Vpp-0.25A
7 Continuous electronic call output 12Vpp-0.25A



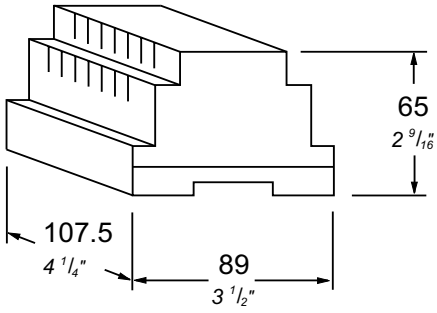
PRS 220. STABILIZED INTERCOM POWER SUPPLY.

Used in intercom systems where the ringing generator is located in a different power supply or service module.

Technical data

Power:	15VA
Housing:	DIN 4 modules A
Weight:	0.45 Kg. *(0.99lb)*
Approved by:	VDE-SASO according to the Safety Standard EN60065

Output terminals
- Ground
+ Audio line power supply 6Vdc-0.1A
~ Power supply 13Vac for:
- name plate lamps, exchangers (continuous load 0.6A)
- electric door lock and bells (intermittent load 1A)



PRS226E. POWER SUPPLY – SWITCHER FOR INTERCOMMUNICATING SYSTEMS.

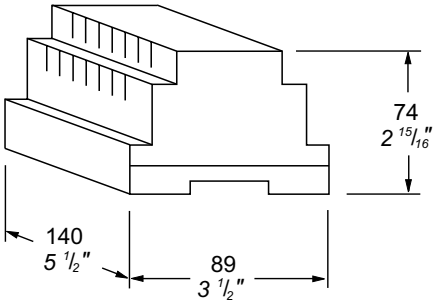
Used to power intercom intercommunicating systems. It allows for automatic switching between the audio connection of the external door station and the intercommunicating service to the intercoms.

Technical data

Power:	18VA
Housing:	DIN 6 modules A
Weight:	0.5 Kg *(1.1lb)*
Approved:	VDE according to the Safety Standard EN60065

Output terminals
- Ground
+ 8Vdc-0.1A power supply for door speaker unit
X 12Vdc-0.2A power supply for auxiliary services
~ 13Vac power supply for:
- name plate light, switcher (continuous service 0.6A)
- electric door lock (intermittent service 1A)

7 Electronic call output for intercommunication
Y Electronic call output for push-button panels
A Output for alternate current calls from push-button panels 13Vca-0.15A
G Audio line receiver from intercoms
2 Audio line transmitter to intercoms
D Audio line transmitter to electric door speaker
C+ Audio line receiver from electric door speaker
9 Electronic call input for audio switching in multi-family systems
4 Common contact of relay activated by terminal 9
4a Normally closed contact of relay activated by terminal 9
4b Normally open contact of relay activated by terminal 9



1281E. AUDIO-VIDEO POWER SUPPLY-TIMER.

It allows to power in timed way (about 100 seconds) a videointercom installation with electronic call. Moreover it allows to switch-ON one monitor at a time and to switch it OFF at the end of the timing.

Technical data

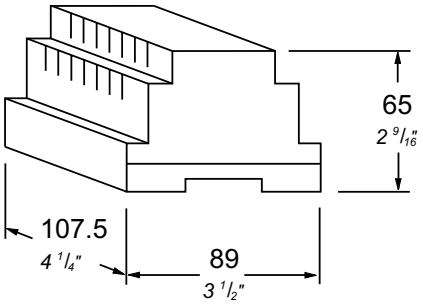
Input voltage	127 or 220-230Vac
Frequency	50/60Hz
Power	48VA
Operating temperature	0°÷+40°C
Maximum permissible humidity	90%RH
Housing	DIN 8 modules A
Weight	0.95Kg.
Approved	VDE according to safety standard EN60065

Terminals

A Output voltage 13Vac for:
-name plate light, exchangers and timer (continuous service 0.6A)
-electric door lock and bells (intermittent service 1A)
- Ground
H Timed positive voltage input-output 18÷21Vdc-1A max.
F Ground
X Auxiliary voltage output 12Vdc-0.2A
4 Control switching ON input from the monitors 7.5Vdc-8mA
5 Command for door lock release command 3mA
S Alternate voltage for door lock release 13Vac-1A max
C+ Electronic ringing generator for calls from external station 12Vpp-0.25A
3+ Positive voltage output 8Vdc-0.1A

Notes

- The power supply is not provided with fuses, but all of its outputs are protected against overloading and short circuiting by temperature sensors. To reset the power supply, power must be cut OFF for about one minute and can be restored after having eliminated the problem.
- The power supply must be installed in a dry place and can be fixed on DIN bar or on a wall by using the expansion plugs.



1281. STABILIZED POWER SUPPLY WITH SWITCHING REGULATOR.

Connected to the timer art.**1282E**, allows to drive at low voltage a monitor (or 2 in parallel in FLAT type), a camera unit with a solid state sensor (CCD), electric door lock, name plate lights, etc.

Technical data

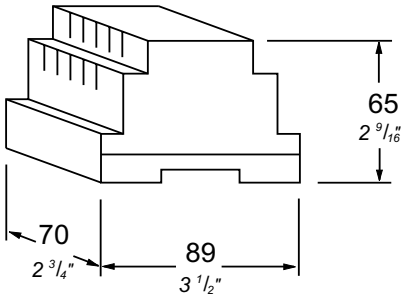
Input voltage	127 or 220-230Vac
Frequency	50/60Hz
Power	48VA
Operating temperature	0°÷+40°C
Maximum permissible humidity	90%RH
Housing	DIN 8 modules A
Weight	0.95Kg.
Approved	VDE according to safety standard EN60065

Terminals

A Output voltage 13Vac for:
-name plate light, exchangers and timer (continuous service 0.6A)
-electric door lock and bells (intermittent service 1A)
- Ground
+ Continuous output 21Vdc-1A (timed operation)
I Logic command input from timing
0 = activated
+5Vdc = non activated

Notes

- The power supply is not provided with fuses, but all of its outputs are protected against overloading and short circuiting by temperature sensors. To reset the power supply, power must be cut OFF for about one minute and can be restored after having eliminated the problem.
- The power supply must be installed in a dry place and can be fixed on DIN bar or on a wall by using the expansion plugs.
- The connection between power supply **1281** and timer **1282E** must not to be longer than 25cm.



1282E. AUDIO-VIDEO TIMER.

Connected to the stabilized power supply art.**1281**, it allows a video intercom system to be timed (50 seconds).
It also allows time to be increased during a conversation (3 minutes), automatic power OFF at the end of the conversation; switching ON of one monitor at a time. By adding the intercommunicating module art.**1443E** on the proper connector, an intercommunicating service with privacy towards the external station is obtained.

Technical data

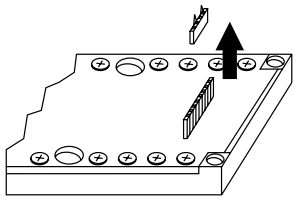
Turn ON time:	-50 sec. with handset replaced -3 min. with handset lifted
Operating temperature	0°÷+50°C
Maximum permissible humidity	90%RH
Housing	DIN 6 modules A

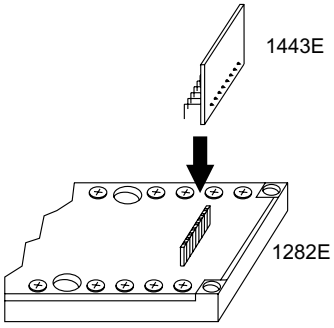
Terminals

IV Logic command output of timing 0/5Vdc
X Auxiliary voltage output 12Vdc-0.2A
A Alternate voltage input-output 13Vac-1.6A
F Ground
H Timed positive voltage input-output 18÷21Vdc-1A max.
4 Control switching ON input from the monitors 7.5Vdc-8mA
5 Command for door lock release command 3mA
S Alternate Voltage for door lock release 13Vac-1A max
1D Transmitter audio channel input 5Vdc-20mA
2D Receiver audio channel input 1.5Vdc-20mA
3D Audio ground
C+ Electronic ringing generator for calls from external station 12Vpp-0.25A
7 Electronic ringing generator for intercommunicating calls 12Vpp-0.25A
1 Transmitter audio channel output 5Vdc-20mA
2 Receiver audio channel output 1.5Vdc-20mA
3+ Positive voltage output 8Vdc-0.1A

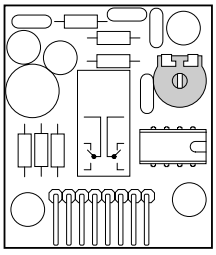
1443E. INTERCOMMUNICATING MODULE.

Added inside the timer art.**1282E**, it allows for the intercommunicating service with privacy towards the external station.

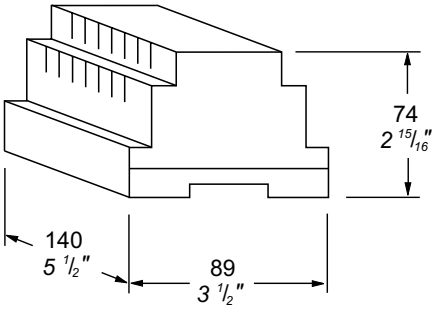




Use the trimmer to adjust the intercommunicating volume.



art.**1443E**

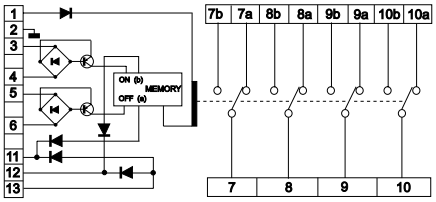


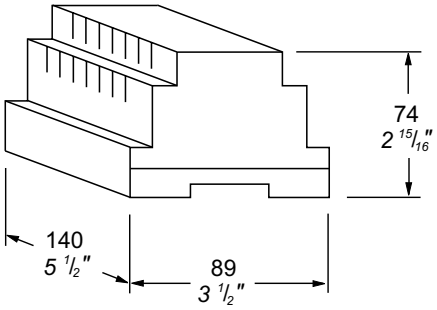
1473. 4-CONTACT ANALOG EXCHANGER.

Used in systems with 2 or more door stations to automatically switch audio lines and door lock release on the calling station.
Both 3-4 terminals and 11 (side b) or 5-6 terminals and 12 (side a) can be used to activate switching.
Can be fixed on DIN bar or screwed to the wall with 2 expansion plugs.

Technical data
Power supply: 13Vac; 15÷21Vdc
Current consumption: 0.1A
Number of exchanges: 4
Max. switching current: 5A (50V)
Housing: DIN 8 modules A
Operating temperature: 0° ÷ 50°C
Maximum permissible humidity: 90% RH

Terminals
1 Power supply 13Vac-0.1A
2 Ground
3 and **4** Driver to switch the relay to "**b**" position - ON position
5 and **6** Driver to switch the relay to "**a**" position - OFF position
7, **8**, **9** and **10** Common contact of relays
7a, **8a**, **9a** and **10a** OFF position of the relay contacts
7b, **8b**, **9b** and **10b** ON position of the relay contacts
11 Ground command to switch the relay to "**a**" position - OFF position
12 Ground command to switch the relay to "**b**" position - ON position
13 Electronic call input

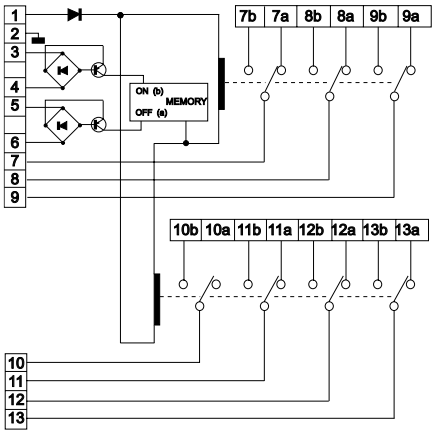


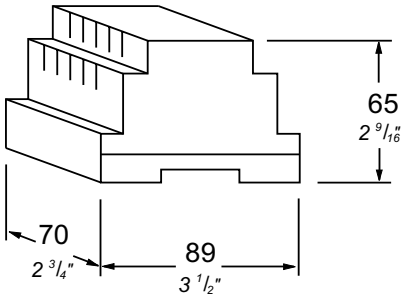


1273TV. 7-CONTACT ANALOG EXCHANGER.

It is used in systems with 2 or more video entrances for switching automatically the video signals, the audio lines and door lock on the calling entrance. Can be fixed on DIN bar or with two expansion plugs. In housing DIN 8 modules A. For the switching of video signals it is advisable to use terminals 8-8a-8b and 9-9a-9b, being that they are physically closer.

Terminals
1 Power supply 13Vac-0.1A (15÷21Vdc)
2 Ground
3 and **4** Driver to switch the relay in "**b**" position - ON position
5 and **6** Driver to switch the relay in "**a**" position - OFF position
7,**8**,**9**,**10**,**11**,**12**,**13** Common contact of relay
7a,**8a**,**9a**,**10a**,**11a**,**12a**, **13a** OFF position of relay contacts
7b,**8b**,**9b**,**10b**,**11b**,**12b**, **13b** ON position of relay contacts





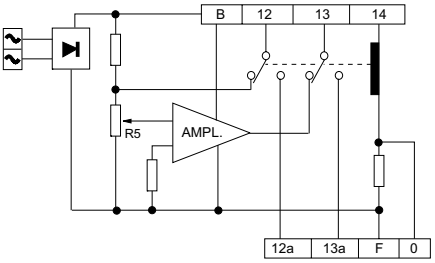
2443. AMPLIFIER-SWITCHER FOR INTERCOMMUNICATING SYSTEMS.

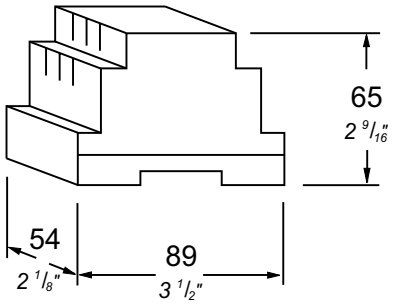
It is suitable for video intercom systems where it is necessary to have the intercommunicating service in different flats with privacy towards both outside and other users. Use one art.**2443** in every intercommunicating flat. Can be fixed on DIN bar or with two expansion plugs. In housing DIN 4 modules A.

Terminals

F General ground
B Power supply 8Vdc-60mA
~ Power supply 13Vac-70mA
12 Connection toward the microphone of the monitors
12a Audio output from door station (transmitter channel)
13 Connection towards the loudspeaker of the monitors
13a Audio input from the door station (receiver channel)
14 Timed power supply for audio connection toward the door station 12÷24Vdc-60mA
0 To connect to terminal F when the terminal 14 is powered to 12Vdc (terminal 8 of the monitor)

Note
If it is necessary to adjust the volume of the intercommunicating audio turn trimmer R5.





GN30. ELECTRONIC RINGING GENERATOR WITH 3 DIFFERENT SOUNDS.

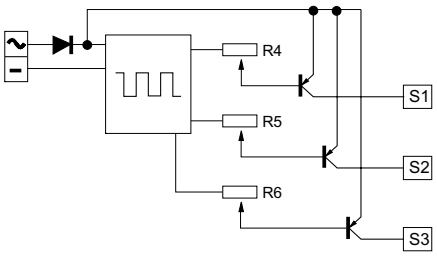
It allows for differentiating calls from external door stations or from door station and floor-calls. It can be used either in electronic or alternate current call systems.
Can be fixed on DIN bar or screwed to the wall with 2 expansion plugs.

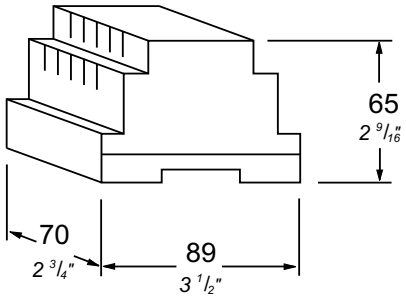
Technical data
Power supply: 13Vac
Current consumption with ringing ON: 0.6A
Housing: DIN 3 modules A
Operating temperature: 0° ÷ 50°C
Maximum permissible humidity: 90% RH

Terminals

~ Alternate current input
- Ground
S1 Modulated electronic ringing output (standard tone)
S2 Continuous electronic ringing output
S3 Modulated electronic ringing output (acute tone)

Note. If necessary, the volumes of the electronic ringing generator can be individually adjusted by means of R4 (S1), R5 (S2) and R6 (S3) trimmers.





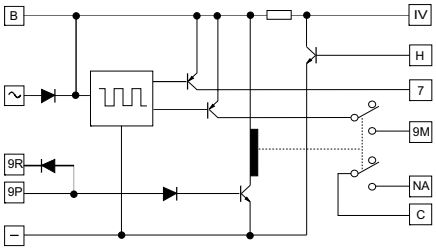
RL37. RELAY MODULE.

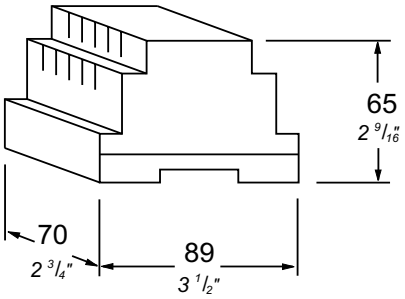
Relay module used to regenerate the electronic call for additional 3 intercoms or video intercoms. It permits to activate/deactivate max. 3 additional video power supplies. Complete with electronic ringing generator for intercommunication.
Can be fixed on DIN bar or screwed to the wall with 2 expansion plugs.

Technical data
Power supply: 13Vac
Current consumption: 0.04A
Current consumption with ringing ON: 0.6A
Number of exchanges: 1
Max. switching current: 1A (24V)
Housing: DIN 4 modules A
Operating temperature:0° ÷ 50°C
Maximum permissible humidity: 90% RH

Terminals

~ Alternate current input
- Ground
H Timed continuous current input 21Vdc
IV Additional power supply activation
C Common contact of relay
NA Normally open contact of relay
9P Electronic call input
9M Regenerated electronic call output activated by terminal 9P
9R Direct electronic call output from terminal 9P
B 8Vdc voltage output





1471E. RELAY UNIT.

It is used when it is not possible to actuate commands directly. For example:
- stair light switching ON,
- activation of additional bells,
- additional door lock release, etc.

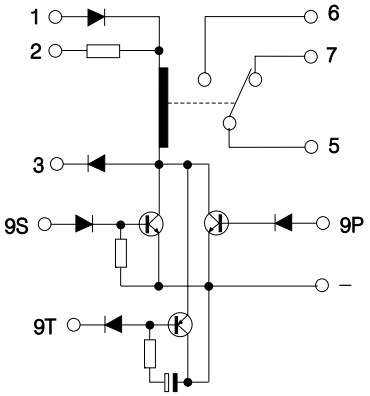
Can be fixed on DIN bar or screwed to the wall with 2 expansion plugs.

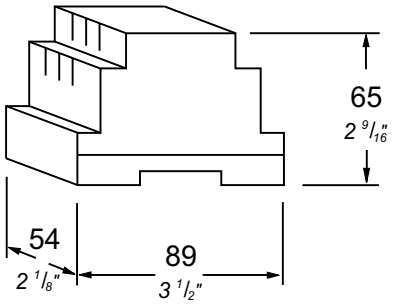
Technical data

Power supply: 13Vac; 12÷24Vdc
Current consumption: 0,05A
Number of exchanges: 1
Switching current: 1A (24V)
Housing: DIN 4 modules A
Operating temperature: 0° ÷ 50°C
Maximum permissible humidity: 90% RH

Terminals

1 Alternate current input 13Vac-dc
2 Continuous current input 21Vdc
3 Negative half-wave input or ground
5 Common contact of relay
6 Normally open contact of relay
7 Normally closed contact of relay
9P Electronic call input without resistive load
9S Electronic call input with resistive load
9T Electronic call input timed operation (1 sec.)
- Ground





1471. RELAY UNIT.

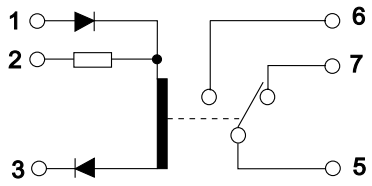
As **1471E**, with lower number of terminals and in a small housing.

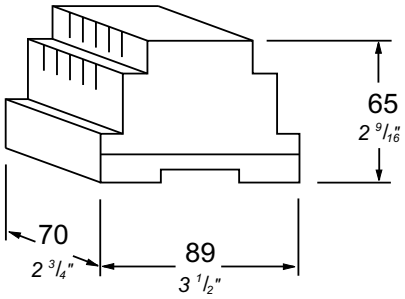
Technical data

Power supply: 13Vac; 12÷24Vdc
Current consumption: 0.05A
Number of exchanges: 1
Switching current: 5A (50V)
Housing: DIN 3 modules A
Operating temperature: 0° ÷ 50°C
Maximum permissible humidity: 90% RH

Terminals

1 Alternate current input 13Vac-dc
2 Continuous current input 21Vdc
3 Negative half-wave input or ground
5 Common relay contact
6 Normally open contact of relay
7 Normally closed contact of relay





1472. 2- CONTACT RELAY UNIT.

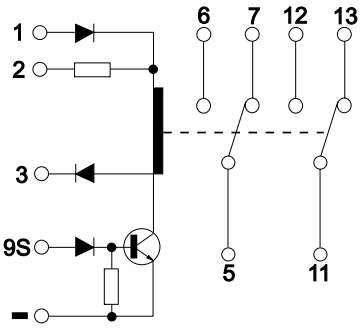
As **1471E,** with higher number of exchanges and without terminals 9P and 9T.

Technical data

Power supply: 13Vac; 12÷24Vdc
Current consumption: 0.05A
Number of exchanges: 2
Switching current: 1A (24V)
Housing: DIN 4 modules A
Operating temperature: 0° ÷ 50°C
Maximum permissible humidity: 90% RH

Terminals

1 Alternate current input 13Vac-dc
2 Continuous current input 21Vdc
3 Negative half-wave input or ground
5 Common contact of exchange 1
6 Normally open contact of exchange 1
7 Normally closed contact of exchange 1
11 Common contact of exchange 2
12 Normally open contact of exchange 2
13 Normally closed contact of exchange 2
9S Electronic call input with resistive load
- Ground



General characteristics

- **The cable runs** of intercom and video intercom installations must be kept separate from the mains or any other electrical installation as required by the **International Safety Standards** and the entire installation must be realized in compliance with the safety rules in force in any specific Country.
- It is necessary to provide a disconnecting and safety switch before the power supply. Use a single general switch in case of several power supplies (also in multiple entrance).
- Before connecting the power supply make sure that its rating data corresponds to this of the mains.
- For electromagnetic reasons, all service modules must be installed near their power supply.

Wires

1) For the correct operation of the intercom system you must choose the correct type of cable.
2) Wires must be dimensioned according to the distance of the different devices and their current consumption.
3) Do not connect wires in parallel to reach the required cross-section (for example multi-pair telephone cables). Only use a single wire with suitable cross-section. When using multi-core cables you must select them with low parasite parameters (low capacitance per metre, low inductance over Ohm).
4) If the installation includes additional power supplies you must place them near the device to be powered.

Background noise

To avoid possible background noise over the speech line, it is advisable:

5) not to lay intercom or telephone cables in the same runaway as the wires used to power alternate current loads;
6) to avoid using the same multi-core cable to transmit audio signals and alternate current power supplies (lamps, amplified external door stations, electrical door locks). Always use separate wires for alternate current power supplies;
7) not to connect name-plate lamps (or other devices powered with alternate current) to terminal **4** (-) of the speaker unit; 2 wires must originate from terminal **-** (minus sign) of the power supply, one for terminal **4** of the speaker unit and one for the lamps (or other devices powered with alternate current);
8) for name-plate lamps, to use an additional 12Vac transformer (PRS210 type) with suitable power (consumption is 75mA for each lamp) with 2 power supply wires separate from audio wires;
9) in case of long distances between the external door station and the last intercom, to place the power supply near the external door station and use a relay for the electric door lock in order to avoid alternate current induction along the riser (see diagram on page 152).

WIRE CROSS-SECTION

Intercom system

Distance		**Audio and calls** - —— -			**Door lock and ground** *(wires in **bold face type**)* - — -		
m.	feet	mm² S	mm Ø	AWG	mm² S	mm Ø	AWG
50	165	0,35	0,6	22	0,75	1	18
100	330	0,35	0,6	22	1	1,2	16
200	660	0,5	0,8	20	2	1,4	14
300	990	0,75	1	18	2,5	1,8	13
400	1300	1	1,2	16	-	-	-

Videointercom system

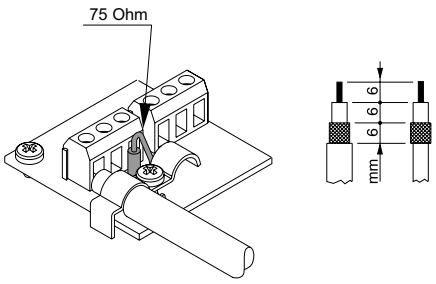
Distance		*Terminals* **1 . 2 . 1D . 2D . 3D . 4 . 5 3+ . 7 . A . C+ . 9M** (calls) - —— -			**F . H . S . —** *(wires in **bold face type**)* - — -		
m.	feet	mm² S	mm Ø	AWG	mm² S	mm Ø	AWG
50	165	0,5	0,8	20	0,75	1	18
100	330	0,75	1	18	1	1,2	16
200	660	1	1,2	16	1,5	1,4	14
300	990	1,5	1,4	15	2,5	1,8	13

For the video signal use a TV 75Ω low loss coaxial cable or a twisted pair (see next pages).

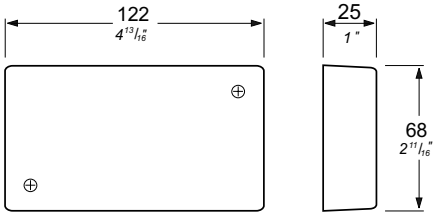
VIDEO SIGNAL DISTRIBUTION WITH COAXIAL CABLE

For the video signal use a TV 75Ω low loss coaxial cable.

Monitors terminal board
The resistance for terminate the video signal (75Ω) is located on the terminal board of the monitor wall bracket.



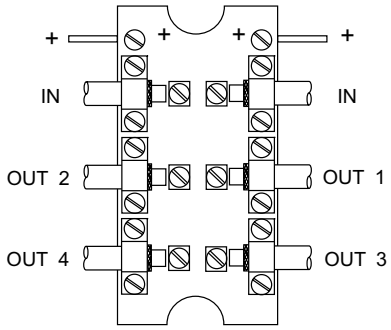
DV2-DV4. VIDEO SIGNAL DISTRIBUTORS.



They allow the distribution of the video signal on 2 or 4 outputs. It can be installed on the wall, on a wall box, with expansion plugs or it can be placed in the junction box.

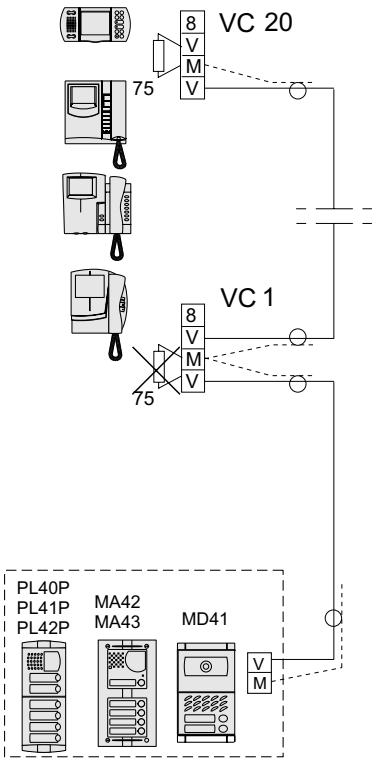
Technical data

Power supply		12Vdc±2
Operating current	**DV2**	50mA
	DV4	100mA
Insertion loss		0.8dB
Max. input video signal		2Vpp
Bandwidth		>5MHz



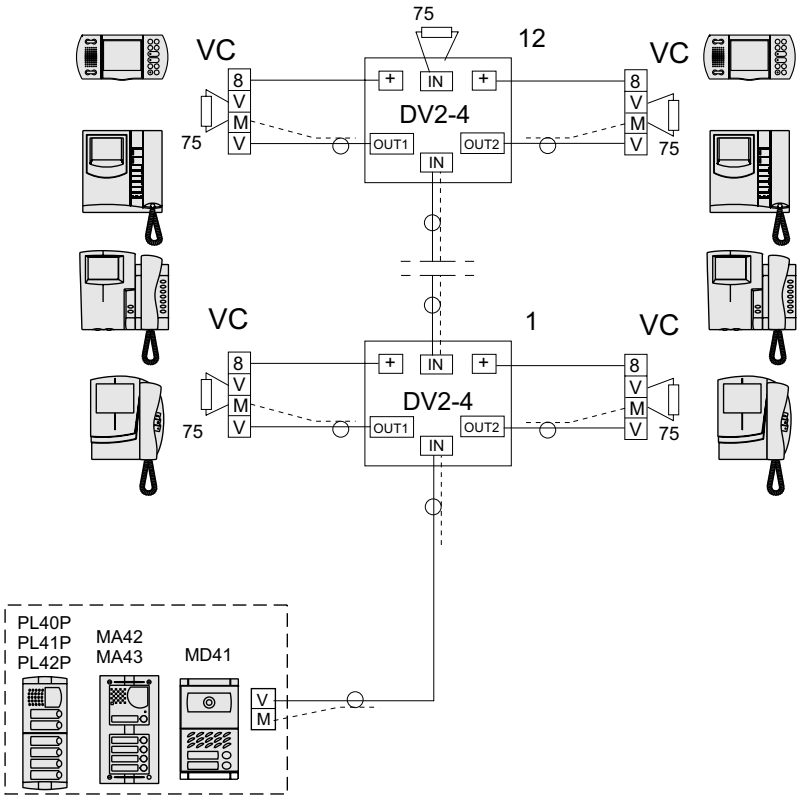
Serial connection of the coaxial cable (input and output from monitor)

To carry out the video connection in a serial mode it is necessary **to cut the resistance of 75Ω** located on the wall-bracket terminal board. Leave it only on the last monitor. The monitors serially connectable are max. 20.



Connection of the coaxial cable with video distributors

For multi-way video systems it is advisable to use video distributor that, being powered by the monitors connected to it (terminal 8), do not create overloads on the video power supply. The outputs that are not used must be closed with resistances of 75Ω that are provided in kit. Maximum 12 video distributors can be connected together.



476. VIDEO DISTRIBUTOR-AMPLIFIER.
It allows for the distribution of the video signal coming from the cameras on 5 independent lines. It is not necessary to terminate on 75Ω the unused outputs.

Terminals

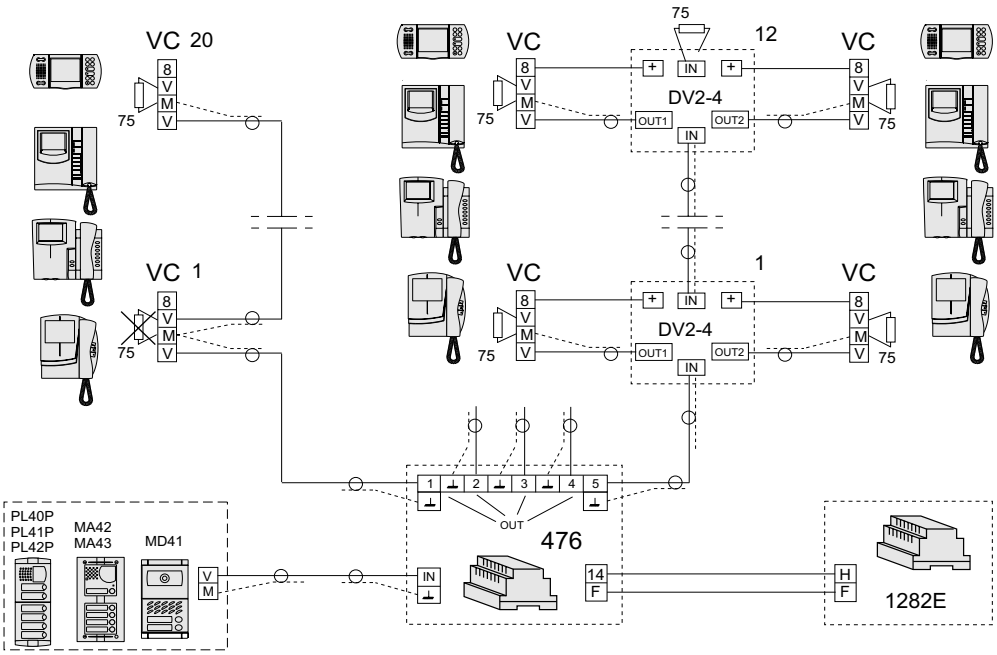
F	General ground
14	Positive power supply
IN	Video signal input
1-2-3-4-5	Video signal outputs
⏚	Video ground (shield of the coaxial cable)

Technical data

Power supply	21 ± 3Vdc
Operating current at max. load	250mA
Gain at max. load	from 0 to 3.5dB (adjustable)
Gain with one output terminated to 75Ω	from 0 to 9dB (adjustable)
Bandwidth	>5MHz
Operating temperature	0°÷+50°C
Maximum permissible humidity	90% RH
Housing	DIN 8 modules A

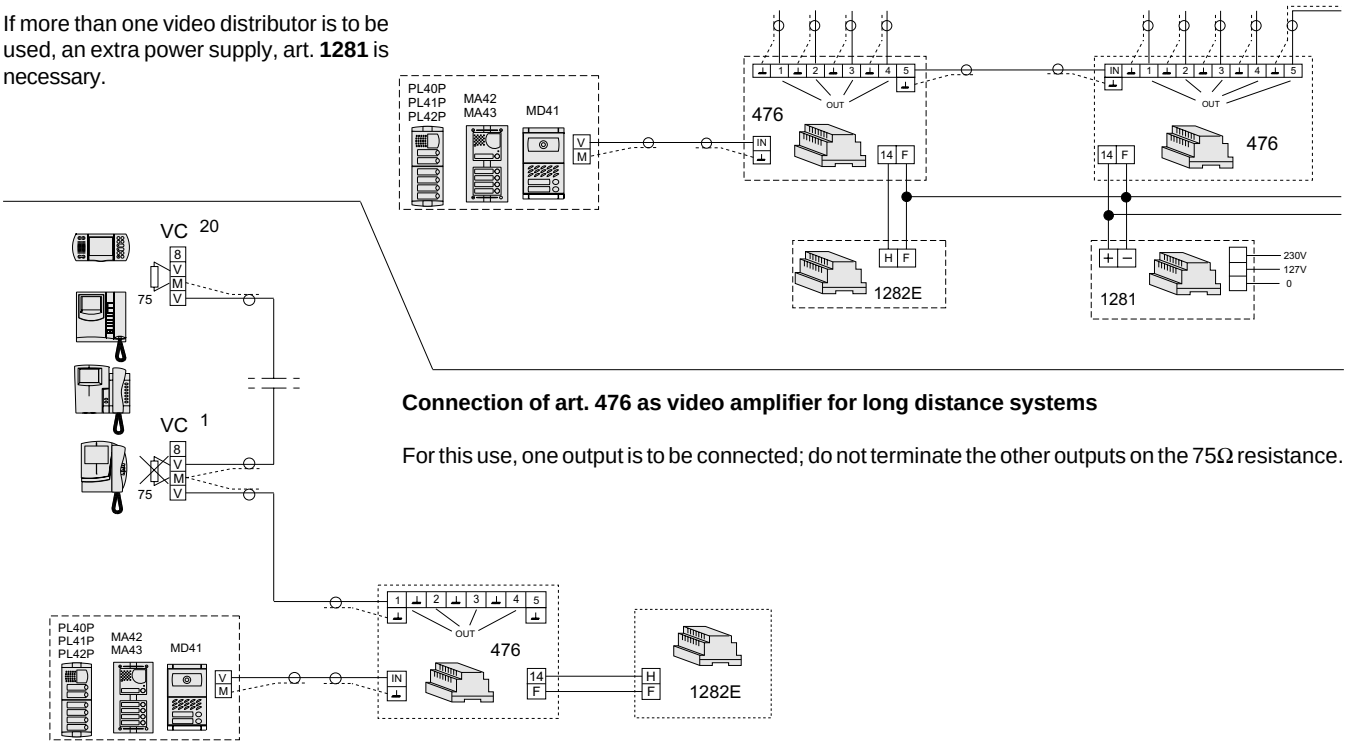
Connection of the coaxial cable with distribution on maximum 5 column rising (serial and/or with video distributors)

In video systems with different columns rising or with a high number of users, it is necessary to use the video distributor-amplifier art.**476**.
It is not necessary to terminate the unused outputs on the 75Ω resistance.



Connection of the coaxial cable with video signal distribution on more than 5 risers

If more than one video distributor is to be used, an extra power supply, art. **1281** is necessary.

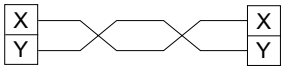


Connection of art. 476 as video amplifier for long distance systems

For this use, one output is to be connected; do not terminate the other outputs on the 75Ω resistance.

VIDEO SIGNAL DISTRIBUTION WITH TWISTED PAIR

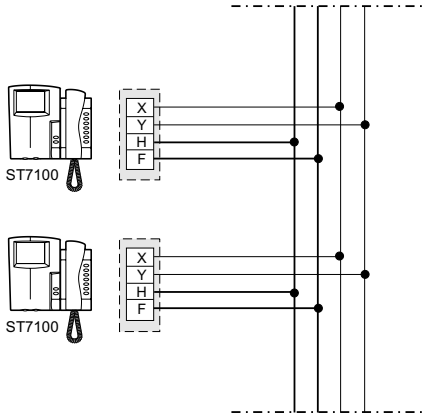
If the distance between the camera and the last video intercom in the system is lower than 200 m, the connection can be made with 2x0.35mm² wires (Ø=0,6mm) instead of the coaxial cable. For distances from 100m to 200m a twisted pair must be used.



For the connection of the video signal you can choose from:
- **connection with junction box**
- **serial connection (input and output)**
- **connection with floor distributor**

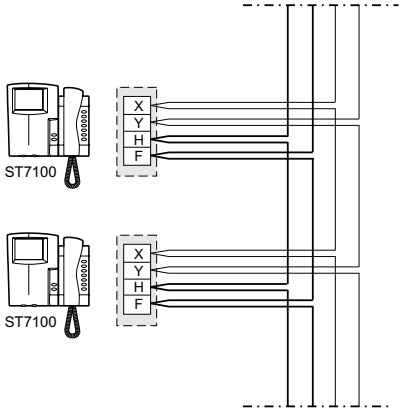
CONNECTION WITH JUNCTION BOX

All wires are distributed in the floor junction box.
Due to the signal loss introduced by each connection, the maximum number of video intercoms that can be connected in shunted mode is 20. Two 75Ω resistances must be inserted between X and F and between Y and F in the last video intercom. The maximum distance between the video intercoms and the connector block is 2.5 metres.



SERIAL CONNECTION

Connections are made on the video intercom brackets, and not in the junction box. Due to the signal loss introduced by each connection, the maximum number of video intercoms that can be connected in serial mode is 20. Two 75Ω resistances must be inserted between X and F and between Y and F in the last video intercom.



CONNECTION WITH FLOOR DISTRIBUTOR

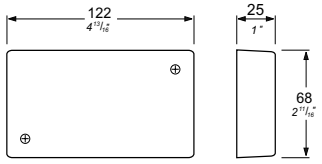
The video wires of each video intercom are insulated from the riser. Connections are made on the **DV2D** or **DV4D** floor video signal distributor box.

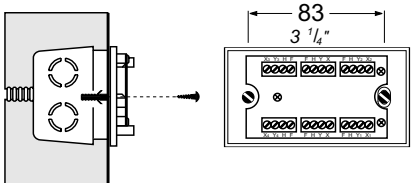
DV2D-DV4D. FLOOR VIDEO SIGNAL DISTRIBUTORS.

They allow for the distribution of the video signal taken from the riser on 2 or 4 outputs. They can be installed on the wall on a wall box, with expansion plugs or it can be placed in the junction box.

Technical data

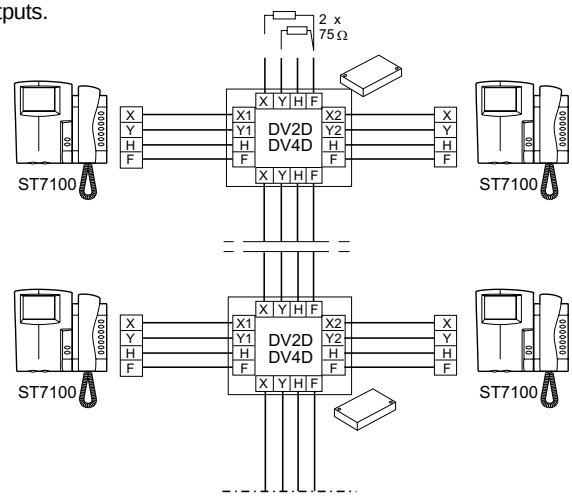
Power supply	15÷21Vdc
Operating current	60mA
Max. input video signal	2Vpp
Insertion loss	0.8dB
Bandwidth	>5MHz





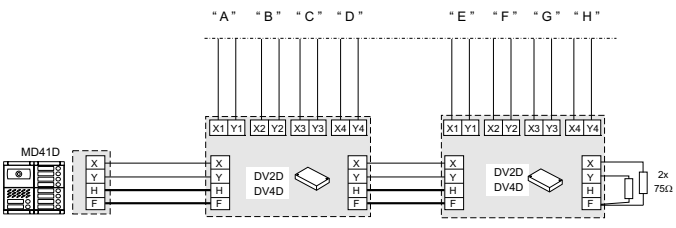
Connection of the video signal on a single riser

Terminals X and Y of the last distributor must be terminated with the 75Ω resistances supplied with the article. It is not necessary to terminate the unused outputs.



Connection of the video signal with distribution on several risers

In video systems with different risers you must user 1 or more video distributors art. **DV2D** or **DV4D**.
Terminals X and Y of the last distributor must be terminated with the 75Ω resistances supplied with the article. It is not necessary to terminate the unused outputs.



Example of connection on 8 risers

VIDEO SIGNAL CONVERSION FROM COAXIAL CABLE TO BALANCED LINE

The **Studio** video intercom line allows for the realisation of video intercom systems by simply using a twisted pair and the camera **MD41D**. If the system includes colour cameras Matrix or Profilo series or models for CCTV, you must use a video converter to transform the video signal from coaxial to balanced. The board **CV01** permits this type of conversion and can be fixed on the back of **Mody, Matrix** or **Profilo** cameras (all models, except for **MD41D**) or near any **CCTV camera** (in outdoor housings, connector blocks, etc).

CV 01.

Video signal converter from coaxial cable to balanced line (twisted pairs).

Wires

V (white) video signal input
M (green) video ground
-F (black) ground
+H (red) 12÷21Vdc power supply input (according to the position of jumper J1)

Terminals

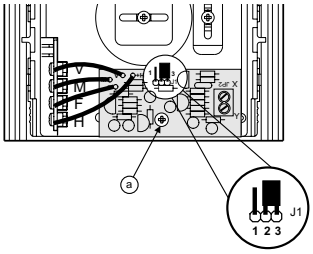
X negative balanced video signal output
Y positive balanced video signal output

SYSTEMS WITH MODY, MATRIX OR PROFILO CAMERAS

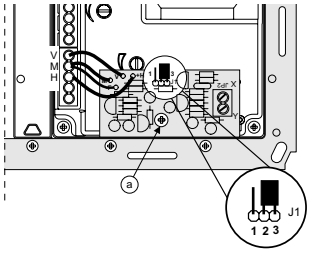
Installation

- Fix the **CV01** board on the back of the housing of the camera with the screw supplied (a).
- Make the connections as shown on the diagram.
- Check that the **jumper J1** is in position 2-3 (power supply =21Vdc).

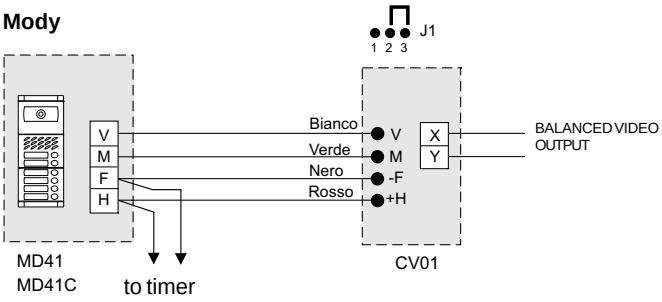
Mody



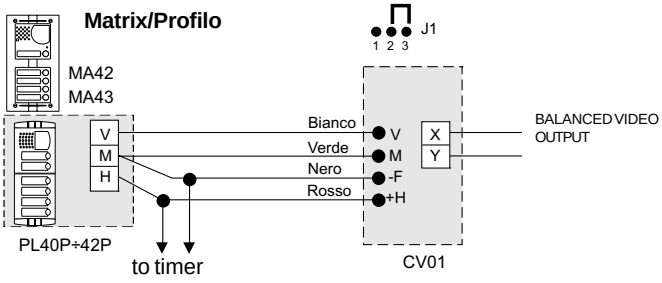
Matrix/Profilo



Mody



Matrix/Profilo



SYSTEMS WITH CCTV CAMERAS

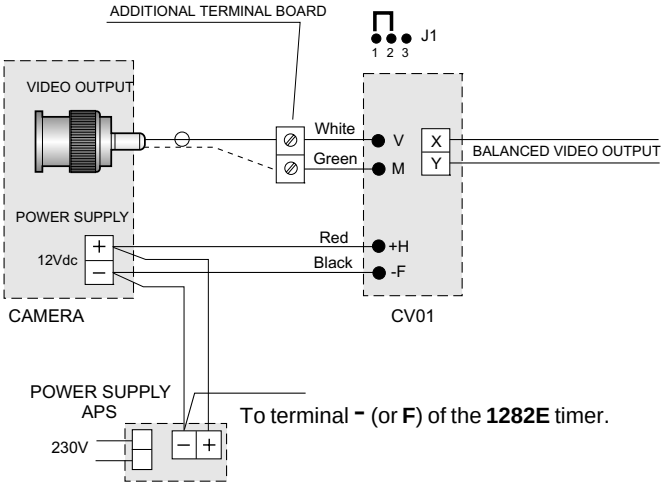
Installation

- Place the **CV01** board in the outdoor housing of the **CCTV** camera or in any other housing.
- Make the connections as shown on the diagram.

Connection with 12Vdc CCTV camera

This type of connection allows for powering the board with the camera power supply.

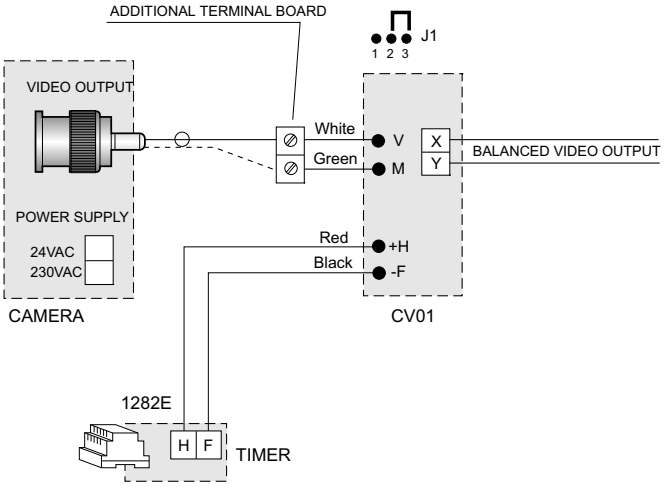
- Move the **jumper J1** from position 2-3 to 1-2 (power supply=12Vdc).



Connection with 24Vac or 230Vac CCTV camera

This type of connection allows for powering the board in timed mode.

- Check that the **jumper J1** is in position 2-3 (power supply=21Vdc).



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INTERCOMS CONNECTED TO 1 EXTERNAL DOOR STATION

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD71÷MD74
1 PL81÷PL89	1 MAS61÷MAS63 (1)	1 MD81÷MD812
1 PL91÷PL99 *	1 MA91÷MA93 *	1 MD91÷MD912 *
1 PL10P÷PL12P	1 MAS10P÷MAS12P	1 MD10÷MD124
... PL21÷PL228	... MAS22-MAS24	... MD21÷MD228
... PL20, PL50	... MAS20	... MD20, MD50
		1 MD30

• INTERNAL STATIONS

...	**EX310**	Exhito series intercom with 2 call buttons
...	**EX320**	Exhito series modular intercom
...	**KM810W**	Compact series intercom with 1 call button
...	**ST720W**	Studio series modular intercom
...	**PT510EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

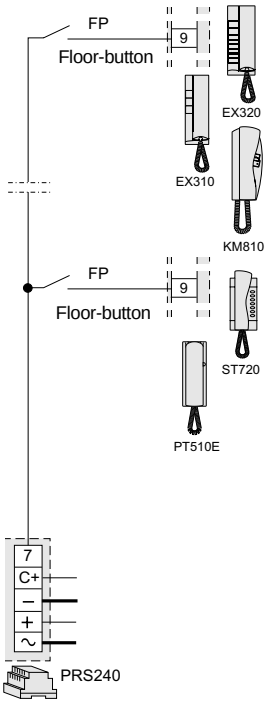
1	**PRS240**	Power supply with electronic ringing generator
1	**PA ****	Door release push-button (*optional*)
1	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

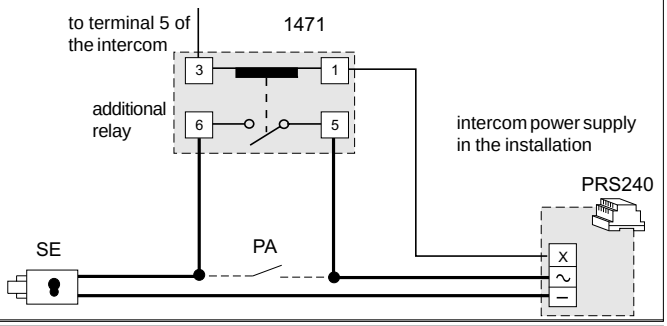
Working instructions. See page 183.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning refer to the installation recommendations and table on page 146.

Floor call
This work diagram allows for differentiating the floor-call from the call from the push-button panel.

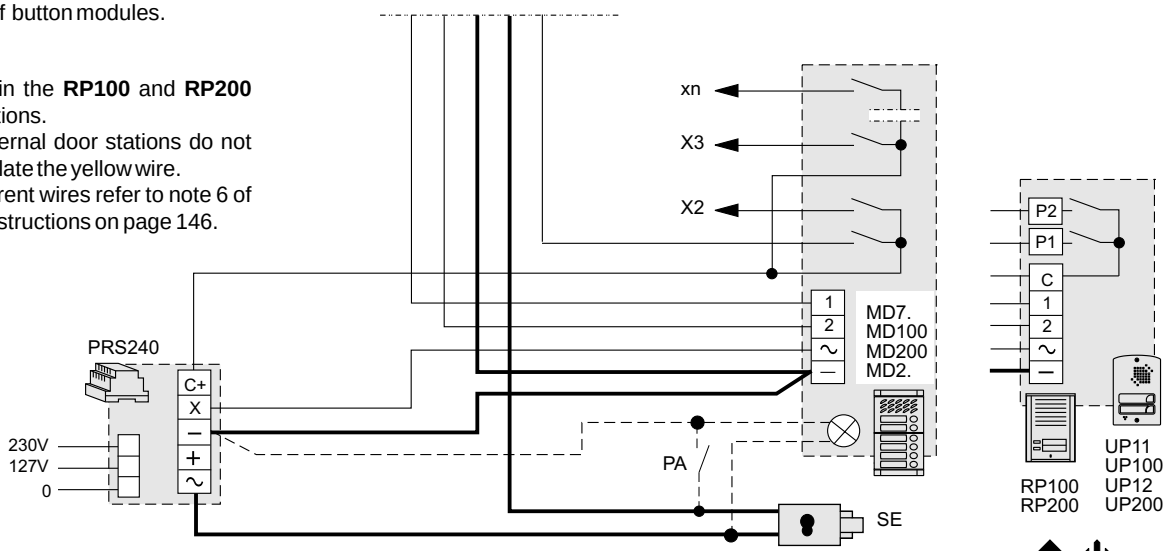


Electric door lock activation by means of an additional relay

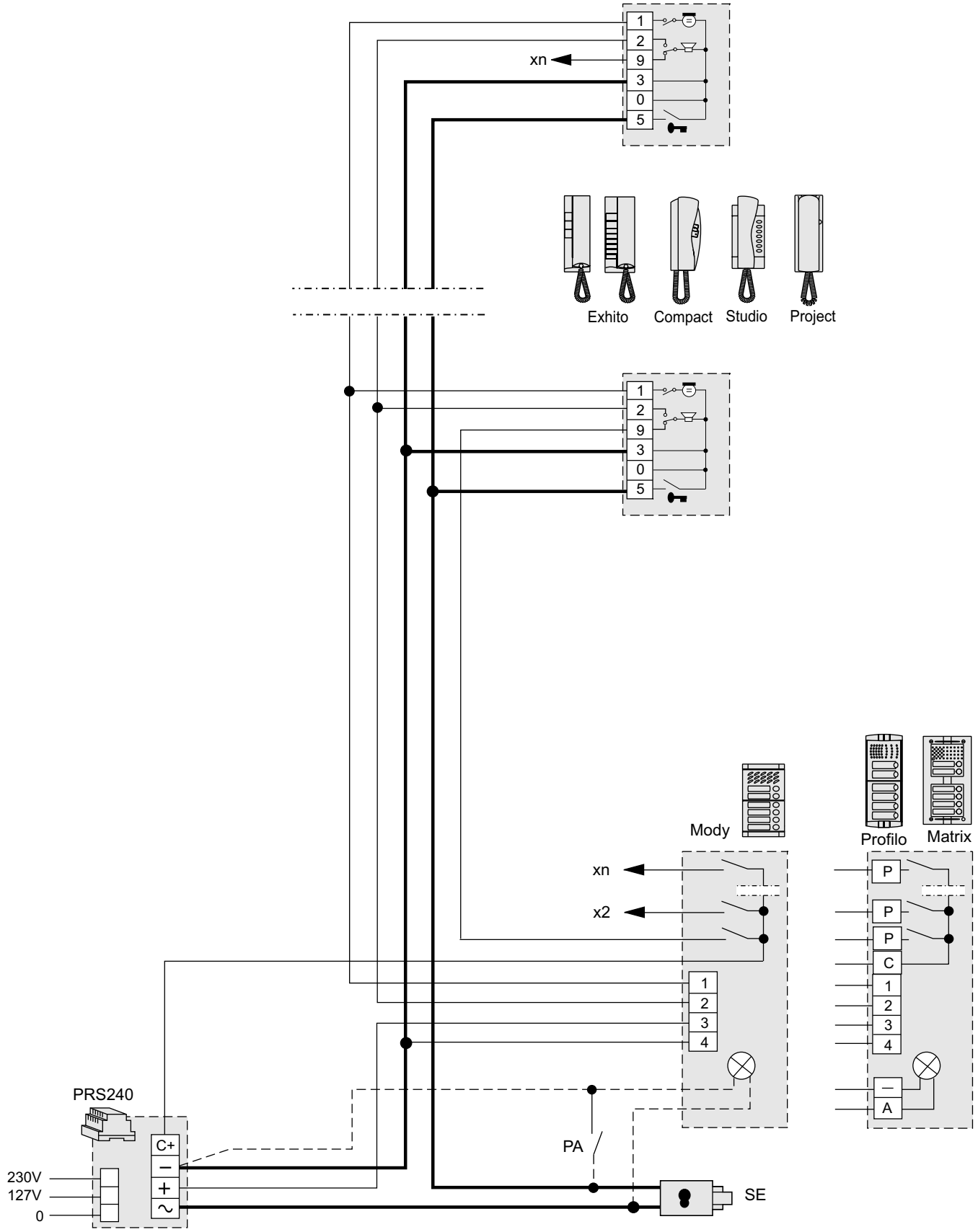


Application diagram
When using **MD100**, **MD200**, **RP100**, **RP200** and **UP** amplified external door stations, place this diagram on the diagram on page 153 and line it up with the riser.
One or two-way systems can be realized with **RP** and **UP** series. As regards the **Mody** series, multi-family systems can be realized by adding the required quantity of button modules.

Warning.
- Cut jumper **W1** in the **RP100** and **RP200** external door stations.
- In **UP** series external door stations do not connect and insulate the yellow wire.
- For alternate current wires refer to note 6 of the installation instructions on page 146.



INTERCOMS CONNECTED TO 1 EXTERNAL DOOR STATION



INTERCOMS CONNECTED TO 2 AUTOMATICALLY SWITCHED EXTERNAL DOOR STATIONS

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD71÷MD74
2 PL81÷PL89	2 MAS61÷MAS63 (1)	2 MD81÷MD812
2 PL91÷PL99 *	2 MA91÷MA93 *	2 MD91÷MD912 *
2 PL10P÷PL12P	2 MAS10P÷MAS12P	2 MD10÷MD124
... PL21÷PL228	... MAS22-MAS24	... MD21÷MD228
... PL20, PL50	... MAS20	... MD20, MD50
		2 MD30

• INTERNAL STATIONS

...	**EX310**	Exhito series intercom with 2 call buttons
...	**EX320**	Exhito series modular intercom
...	**KM810W**	Compact series intercom with 1 call button
...	**ST720W**	Studio series modular intercom
...	**PT510EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

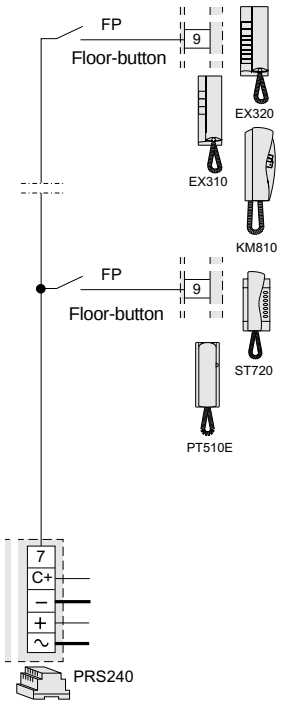
1	**1473**	Exchanger
1	**PRS240**	Power supply with electronic ringing generator
2	**PA ****	Door release push-button (*optional*)
2	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

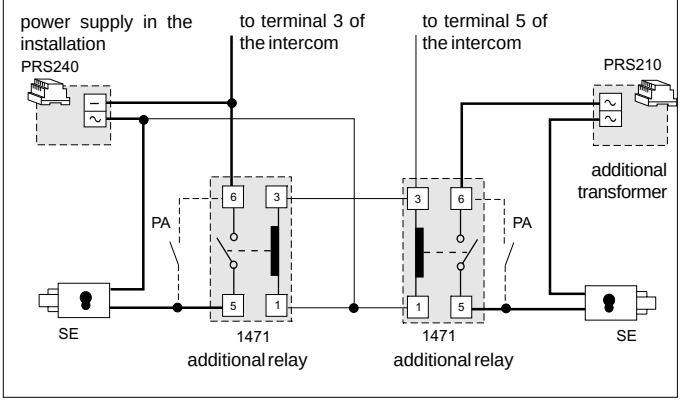
Working instructions.
As the basic system described on page 183, with the following variations:
- The audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning refer to the installation recommendations and table on page 146.

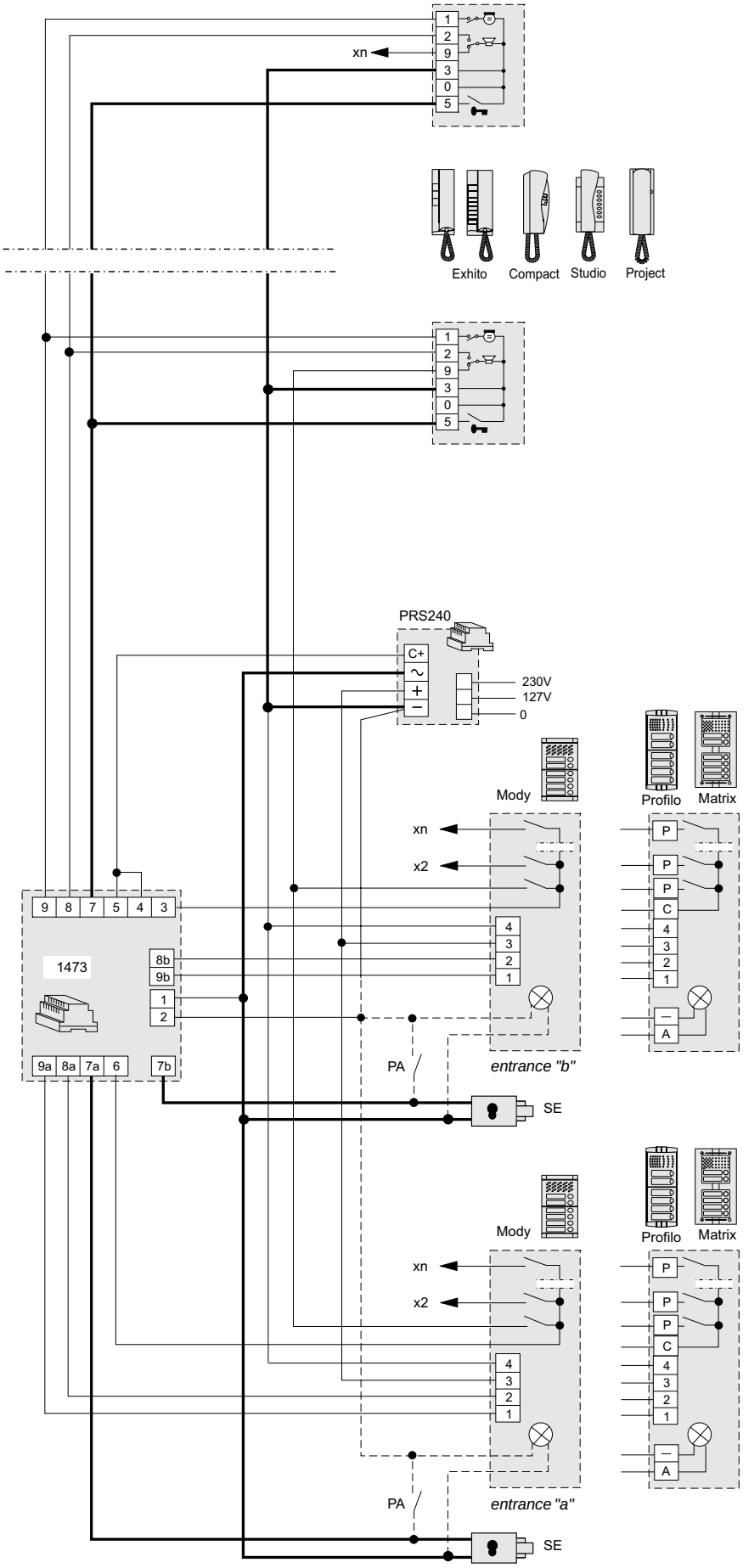
Floor call
This work diagram allows for differentiating the floor-call from the call from the push-button panel.



Connection of 2 door locks with simultaneous opening



INTERCOMS CONNECTED TO 2 AUTOMATICALLY SWITCHED EXTERNAL DOOR STATIONS



INTERCOMS CONNECTED TO 3 AUTOMATICALLY SWITCHED EXTERNAL DOOR STATIONS

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD71÷MD74
3 PL81÷PL89	3 MAS61÷MAS63 (1)	3 MD81÷MD812
3 PL91÷PL99 *	3 MA91÷MA93 *	3 MD91÷MD912 *
3 PL10P÷PL12P	3 MAS10P÷MAS12P	3 MD10÷MD124
... PL21÷PL228	... MAS22-MAS24	... MD21÷MD228
... PL20, PL50	... MAS20	... MD20, MD50
		3 MD30

• INTERNAL STATIONS

...	**EX310**	Exhito series intercom with 2 call buttons
...	**EX320**	Exhito series modular intercom
...	**KM810W**	Compact series intercom with 1 call button
...	**ST720W**	Studio series modular intercom
...	**PT510EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

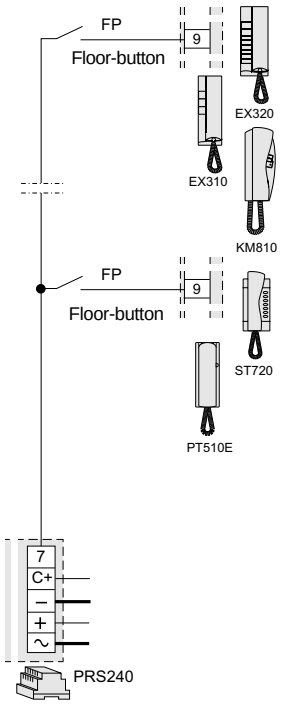
2	**1473**	Exchanger
1	**PRS240**	Power supply with electronic ringing generator
3	**PA ****	Door release push-button (*optional*)
3	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

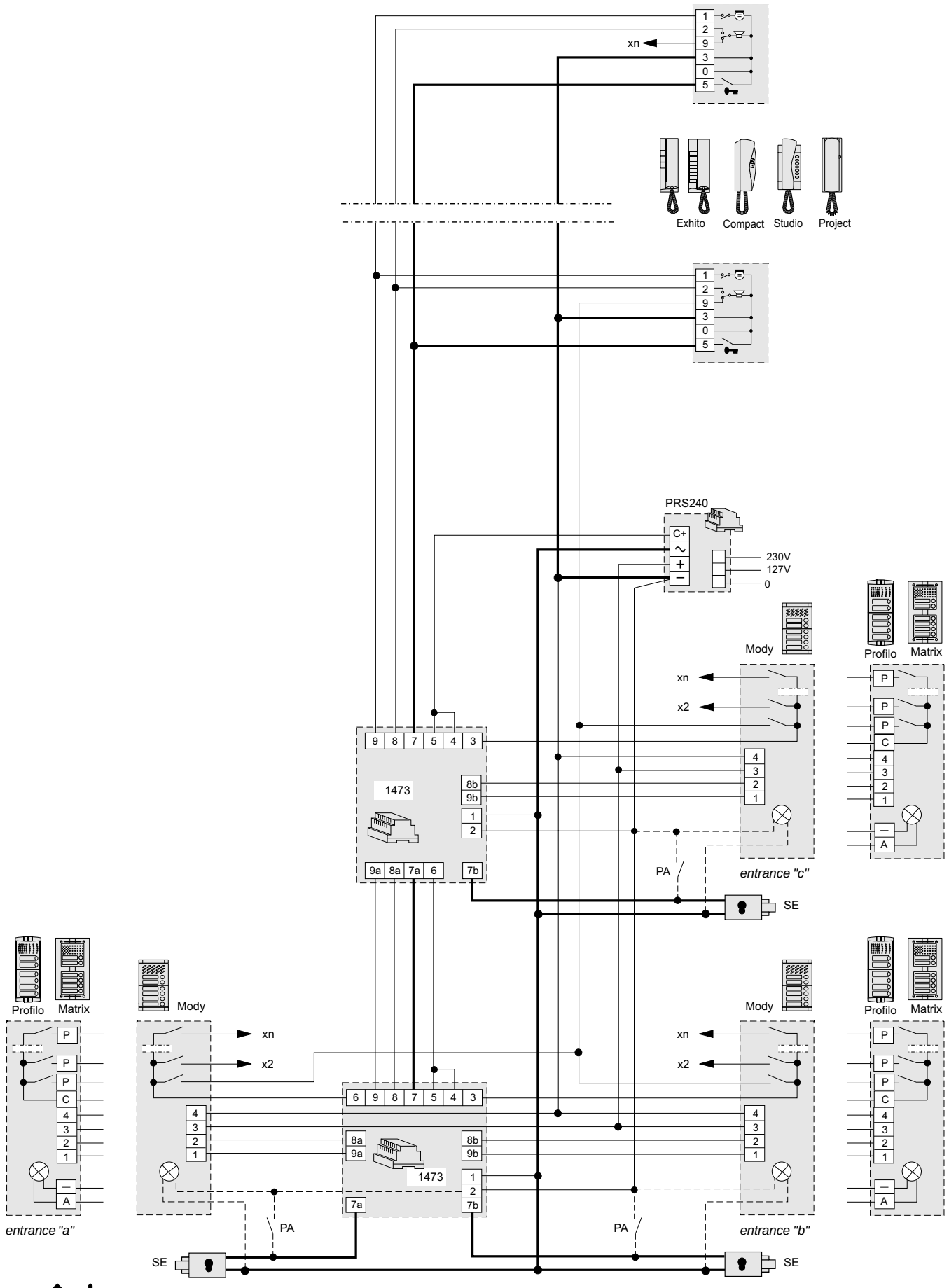
Working instructions.
As the basic system described on page 183, with the following variations:
- The audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning refer to the installation recommendations and table on page 146.

Floor call
This work diagram allows for differentiating the floor-call from the call from the push-button panel.



INTERCOMS CONNECTED TO 3 AUTOMATICALLY SWITCHED EXTERNAL DOOR STATIONS



INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON STATION (multiple entrance)

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... **PL71÷PL73**	... **MA71÷MA73**	... **MD71÷MD74**
1+X **PL81÷PL89**	1+X **MAS61÷MAS63** (1)	1+X **MD81÷MD812**
1+X **PL91÷PL99 ***	1+X **MA91÷MA93 ***	1+X **MD91÷MD912 ***
1+X **PL10P÷PL12P**	1+X **MAS10P÷MAS12P**	1+X **MD10÷MD124**
... **PL21÷PL228**	... **MAS22-MAS24**	... **MD21÷MD228**
... **PL20, PL50**	... **MAS20**	... **MD20, MD50**
		1+X **MD30**

• INTERNAL STATIONS

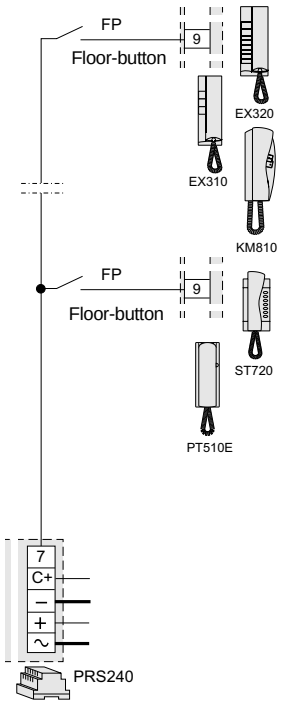
...	**EX310**	Exhito series intercom with 2 call buttons
...	**EX320**	Exhito series modular intercom
...	**KM810W**	Compact series intercom with 1 call button
...	**ST720W**	Studio series modular intercom
...	**PT510EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

X	**1473**	Exchanger
1+X	**PRS240**	Power supply with electronic ringing generator
1	**PRS220**	Power supply
1+X	**PA ****	Door release push-button (*optional*)
1+X	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
X Refers to the number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

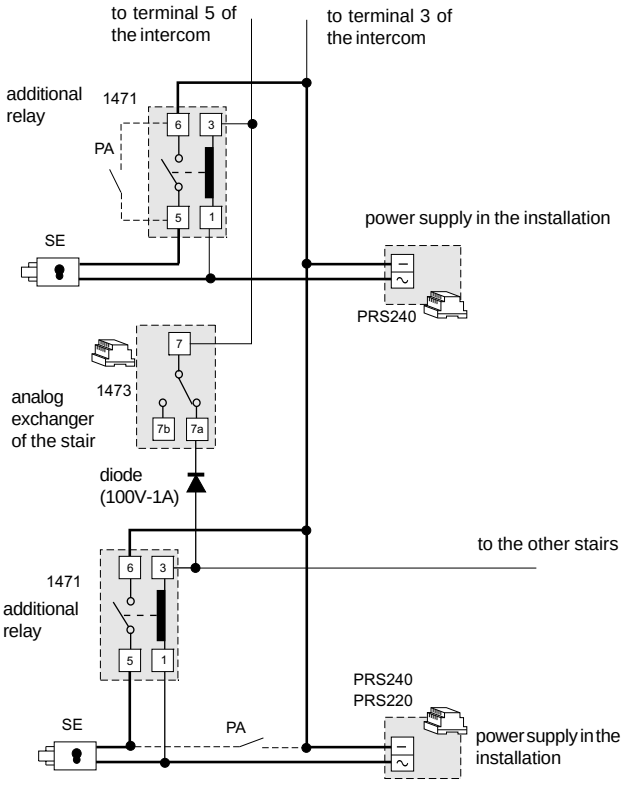
Floor call
This work diagram allows for differentiating the floor-call from the call from the push-button panel.



Working instructions.
As the basic system described on page 183, with the following variations:
- The audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

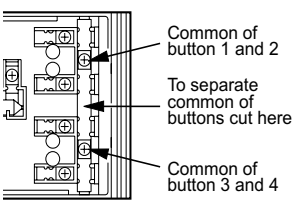
Notes
- You can also use **Prestige** and **TM** push-button panels. For the latter series you must request the version with separate common terminals.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning refer to the installation recommendations and table on page 146.

Connection of 2 door locks, one of which always activable, in a system with multiple entrance

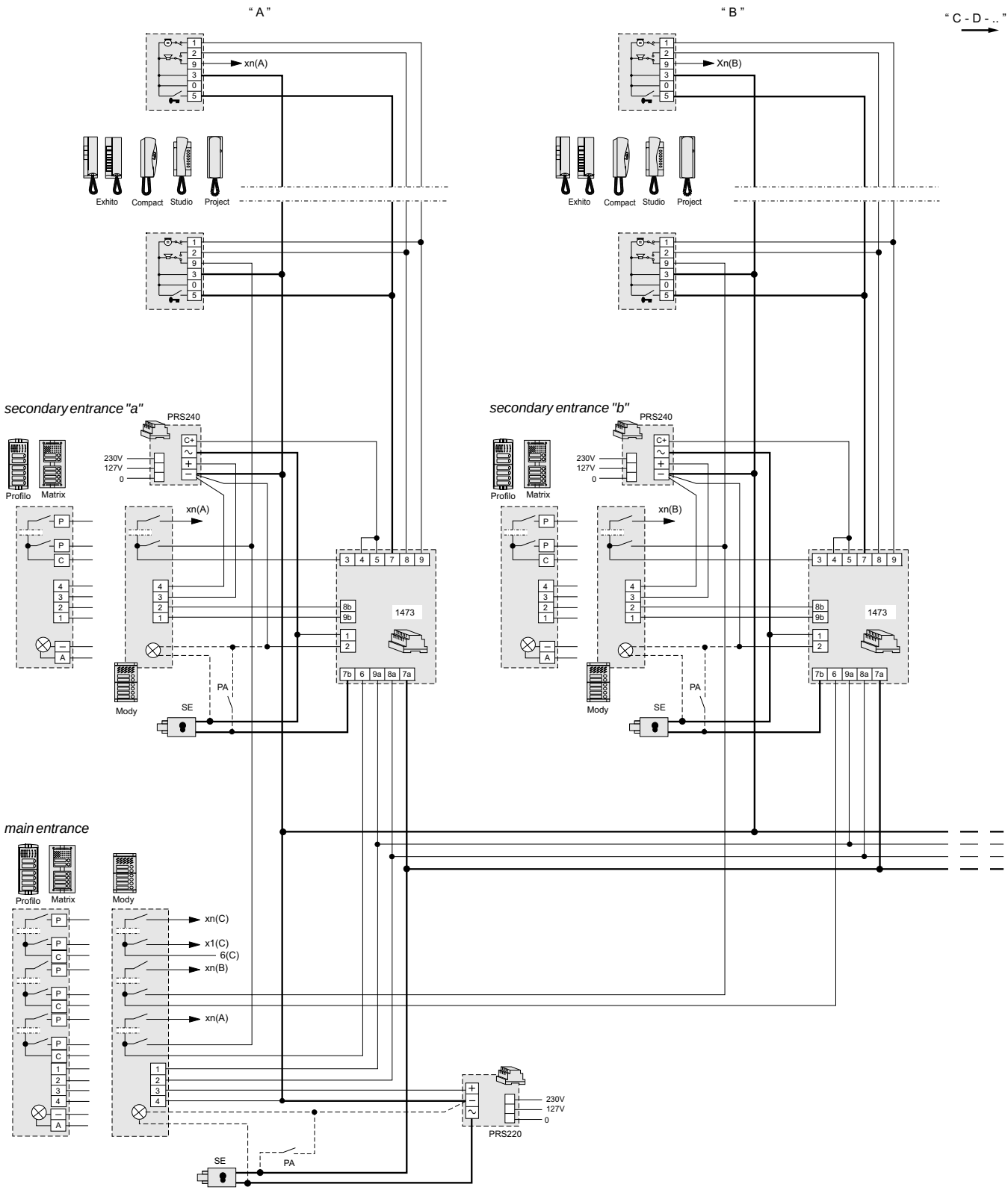


The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.

In **Mody** series the common terminals of push-buttons can be separated module by module or every 2 push-buttons by cutting opportunely the common rail which connects the common terminals of push-buttons.



INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON STATION (multiple entrance)



ONE WAY INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON STATION (multiple entrance)

• Main DOOR STATION

PROFILO series	MATRIX series	MODY series
... **PL71÷PL73**	... **MA71÷MA73**	... **MD71÷MD74**
1 **PL81÷PL89**	1 **MAS61÷MAS63** (1)	1 **MD81÷MD812**
1 **PL91÷PL99 ***	1 **MA91÷MA93 ***	1 **MD91÷MD912 ***
1 **PL10P÷PL12P**	1 **MAS10P÷MAS12P**	1 **MD10÷MD124**
... **PL21÷PL228**	... **MAS22-MAS24**	... **MD21÷MD228**
... **PL20, PL50**	... **MAS20**	... **MD20, MD50**
		1 **MD30**

• Secondary DOOR STATIONS

PROFILO series	MATRIX series	MODY series
X **PL71**	X **MA71**	X **MD71**
X **PL81**	X **MAS61** (1)	X **MD81**
X **PL91 ***	X **MA91 ***	X **MD91 ***
X **PL11P**	X **MA11P**	X **MD11**
		X **MD30**

• INTERNAL STATIONS

...	**EX310**	Exhito series intercom with 2 call buttons
...	**EX320**	Exhito series modular intercom
...	**KM810W**	Compact series intercom with 1 call button
...	**ST720W**	Studio series modular intercom
...	**PT510EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

X	**1473**	Exchanger
1+X	**PRS240**	Power supply with electronic ringing generator
1+X	**PA ****	Door release push-button (*optional*)
1+X	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
X Refers to the number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

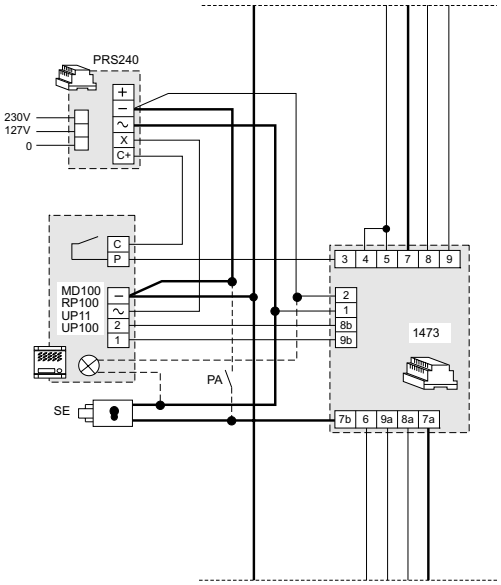
Working instructions.
As the basic system described on page 183, with the following variations:
- The audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

Notes
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning refer to the installation recommendations and table on page 146.

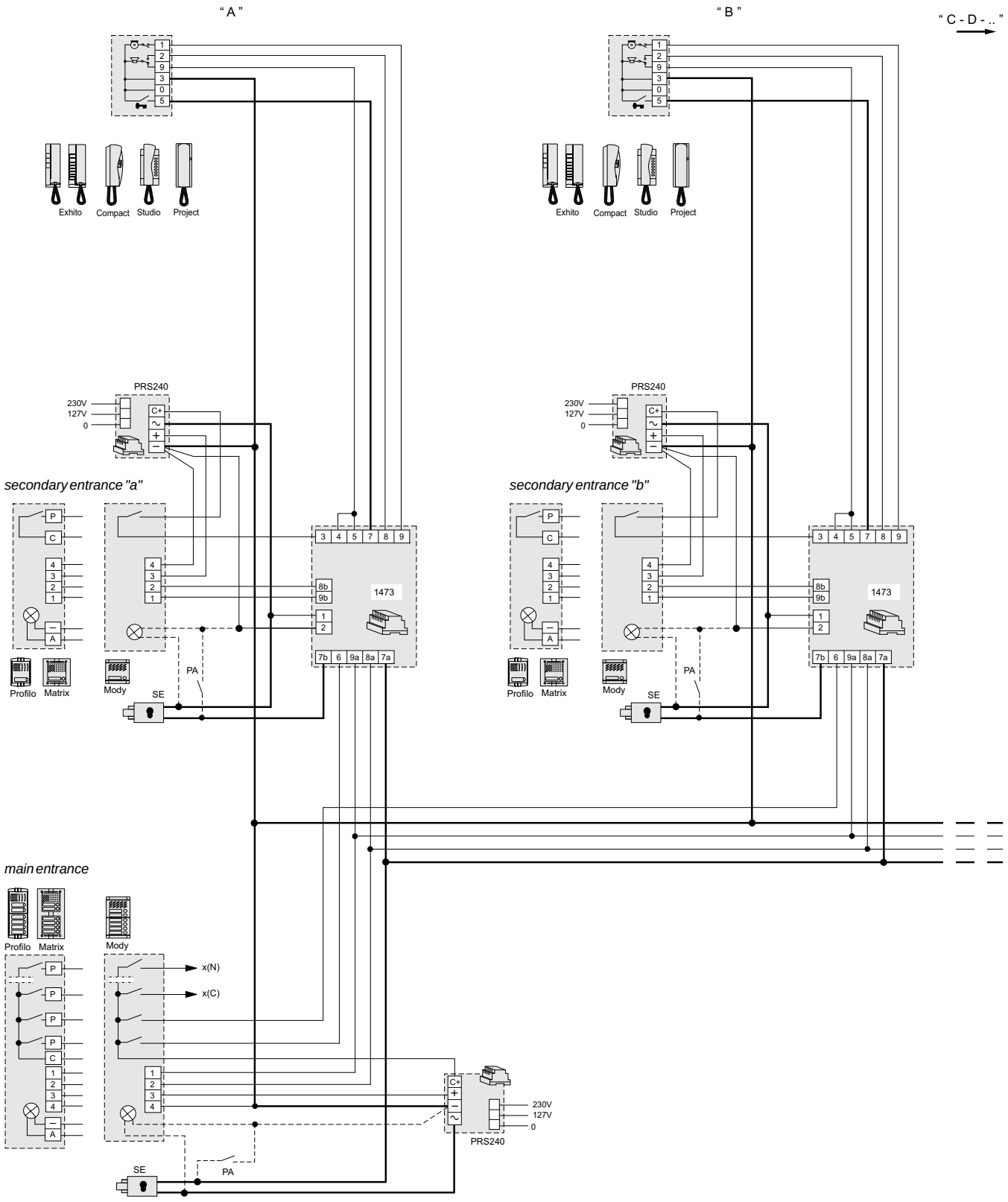
Application diagram

When using **MD100**, **RP100**, **UP11** and **UP100** amplified external door stations as one-way secondary door stations, place this diagram on the diagram on page 161 and line it up with the riser.

Warning.
- Cut jumper **W1** in the **RP100** external door stations.
- In **UP** series external door stations do not connect and insulate the yellow wire.
- For alternate current wires refer to note 6 of the installation instructions on page 146.



ONE WAY INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON STATION (multiple entrance)



INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 2 MAIN COMMON STATIONS (multiple entrance)

• EXTERNAL DOOR STATIONS

PROFILO series	**MATRIX series**	**MODY series**
... **PL71÷PL73**	... **MA71÷MA73**	... **MD71÷MD74**
2+X **PL81÷PL89**	2+X **MAS61÷MAS63** (1)	2+X **MD81÷MD812**
2+X **PL91÷PL99 ***	2+X **MA91÷MA93 ***	2+X **MD91÷MD912 ***
2+X **PL10P÷PL12P**	2+X **MAS10P÷MAS12P**	2+X **MD10÷MD124**
... **PL21÷PL228**	... **MAS22-MAS24**	... **MD21÷MD228**
... **PL20, PL50**	... **MAS20**	... **MD20, MD50**
		2+X **MD30**

• INTERNAL STATIONS

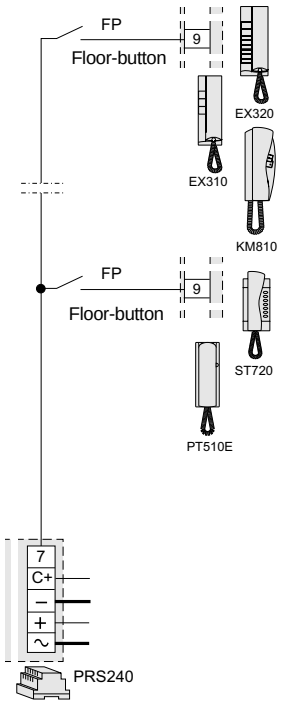
... **EX310**	Exhito series intercom with 2 call buttons
... **EX320**	Exhito series modular intercom
... **KM810W**	Compact series intercom with 1 call button
... **ST720W**	Studio series modular intercom
... **PT510EW**	Project series intercom with 1 call button

• VARIOUS ARTICLES

2xX **1473**	Exchanger
X **PRS240**	Power supply with electronic ringing generator
1 **PRS220**	Power supply
2+X **PA ****	Door release push-button (*optional*)
2+X **SE ****	Electric door lock (12VAC-1A)

... Refers to number of users.
X Refers to the number of stairways.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Floor call
This work diagram allows for differentiating the floor-call from the call from the push-button panel.

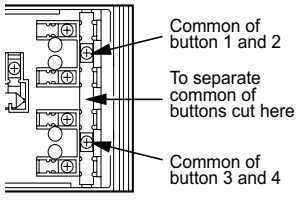


Working instructions.
As the basic system described on page 183, with the following variations:
- The audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

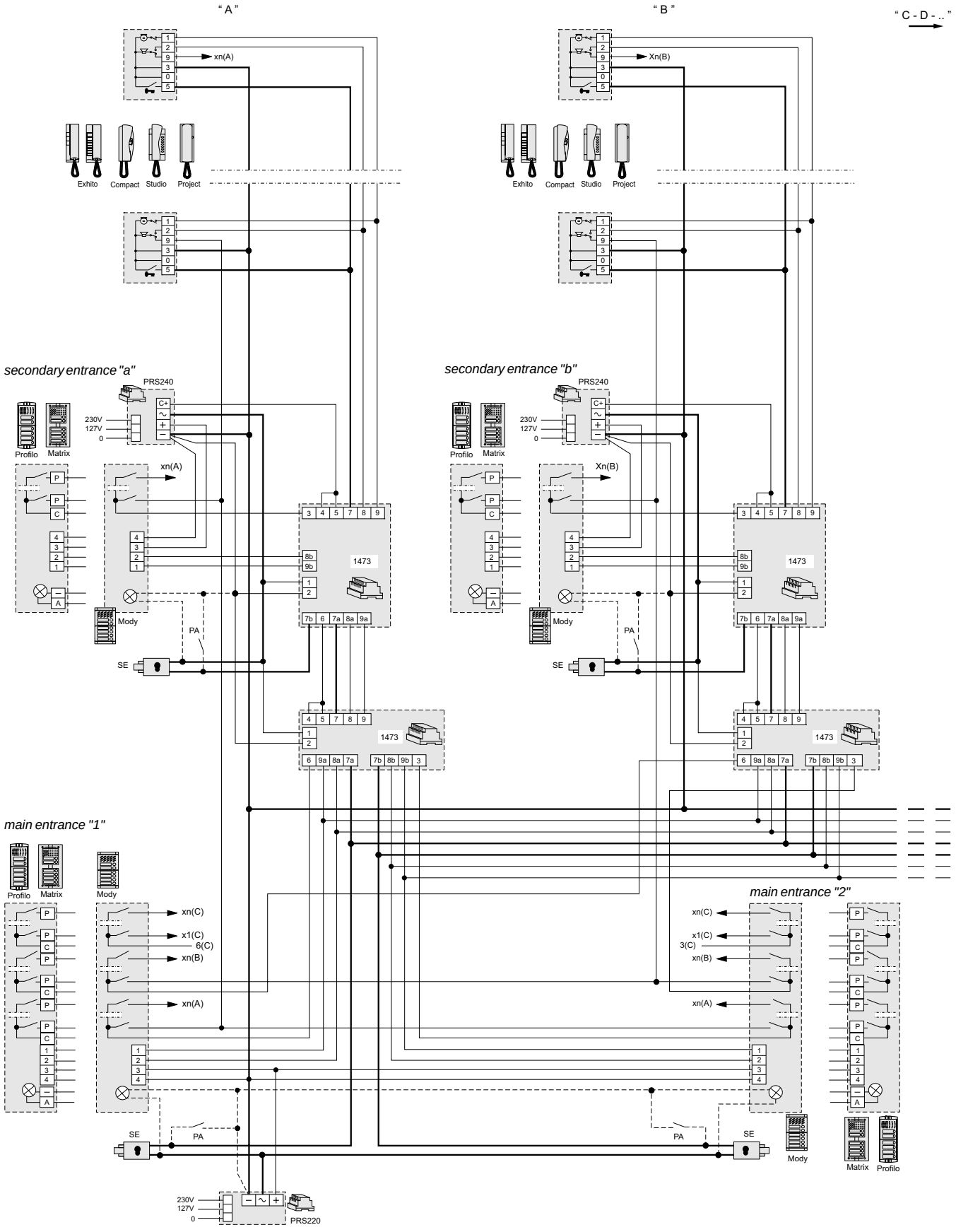
Notes
- You can also use **Prestige** and **TM** push-button panels. For the latter series you must request the version with separate common terminals.
- For the connection of name-plate lamps, read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning refer to the installation recommendations and table on page 146.

The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.

In **Mody** series the common terminals of push-buttons can be separated module by module or every 2 push-buttons by cutting opportunely the common rail which connects the common terminals of push-buttons.



INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS AND 2 MAIN COMMON STATIONS (multiple entrance)



Si 200L/7

STUDIO series INTERCOMMUNICATING INTERCOMS (2 to 7 users)

Q.ty	*Article*	*Description*
...	**ST 720W**	Studio series modular intercom
...	**ST 701**	Single button module
1	**PRS226E**	Power supply-switcher

... Refers to number of users.

Working instructions. See page 183.

Notes
- Do not forget to connect all terminals C of the additional buttons.
- **Do not use KEY button** for intercommunication calls (5 terminal).
- For wires dimensioning refer to the installation instructions and table on page 146.

COMPACT series INTERCOMMUNICATING INTERCOMS (max. 2 users)

Q.ty	*Article*	*Description*
2	**KM810W**	Compact series intercom
2	**ST 701**	Single button module
1	**PRS226E**	Power supply-switcher

Working instructions. See page 183.

Notes
- **Do not use KEY button** for intercommunication calls (5 terminal).
- For wires dimensioning refer to the installation instructions and table on page 146.

Si 200L/8

EXHITO series INTERCOMMUNICATING INTERCOMS (2 to 8 users)

Q.ty	*Article*	*Description*
...	**EX320**	Exhito series modular intercom
...	**EX301**	Single button module
1	**PRS226E**	Power supply-switcher

... Refers to number of users.

Working instructions. See page 183.

Notes
- Do not forget to connect terminals C and the common terminal of all the additional buttons.
- **Do not use KEY button** for intercommunication calls (5 terminal).
- For wires dimensioning refer to the installation instructions and table on page 146.

EXHITO series INTERCOMMUNICATING INTERCOMS (max. 3 users)

Q.ty	*Article*	*Description*
...	**EX310**	Exhito series intercom
...	**EX301**	Single button module
1	**PRS226E**	Power supply-switcher

... Refers to number of users.

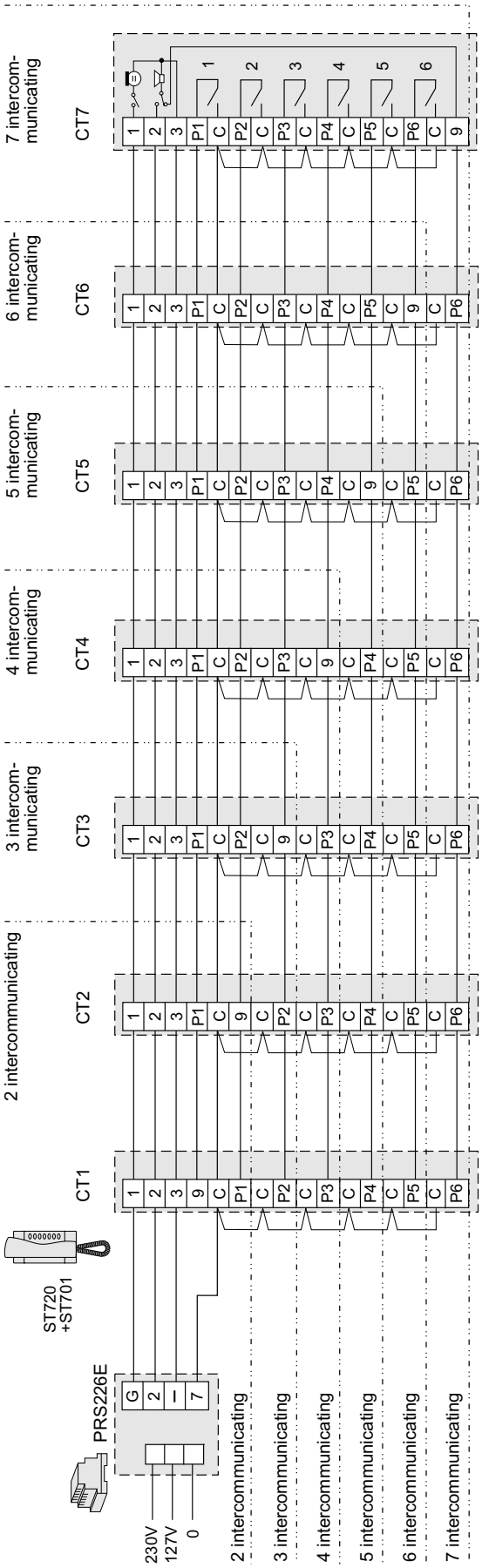
Working instructions. See page 183.

Notes
- Do not forget to connect terminals C and the common terminal of the additional button.
- **Do not use KEY button** for intercommunication calls (5 terminal).
- For wires dimensioning refer to the installation instructions and table on page 146.

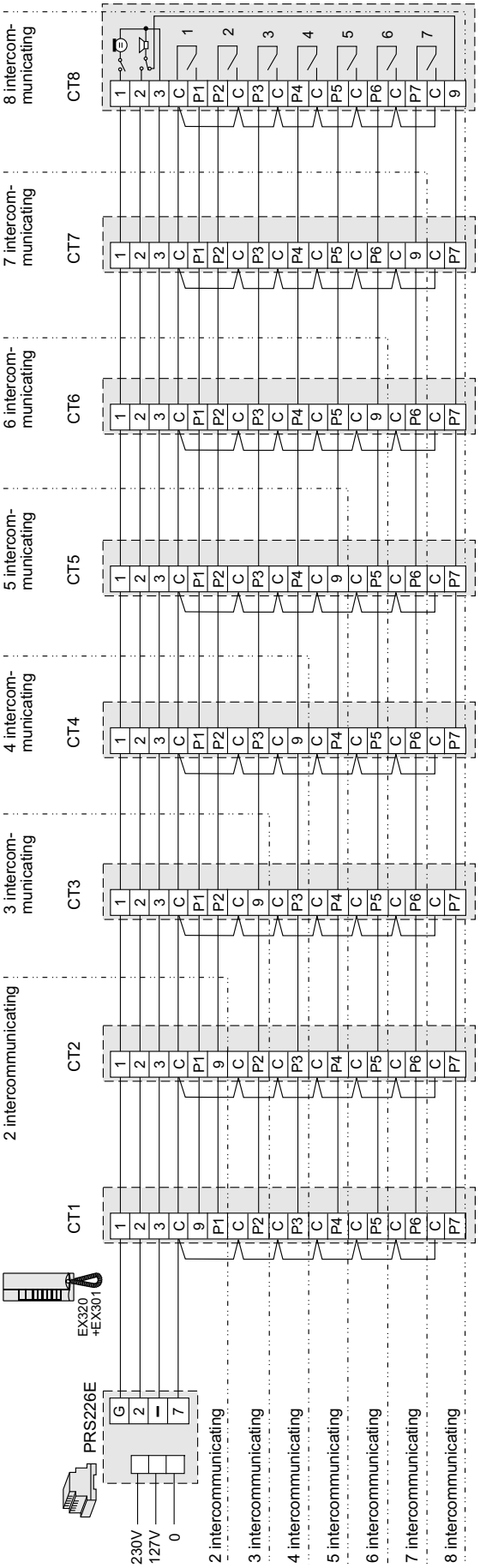
Table for choosing intercoms and accessories for the required type of installation

Number of inter-	Exhito		Exhito		Studio		Compact	
communicating	EX320	EX301	EX310	EX301	ST 720W	ST 701	KM810W	ST701
2	2	0	2	0	2	2	2	2
3	3	3	3	3	3	6		
4	4	8			4	12		
5	5	15			5	20		
6	6	24			6	30		
7	7	35			7	42		
8	8	48						

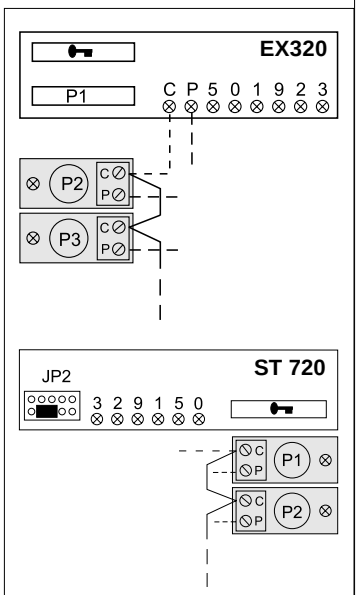
STUDIO series INTERCOMMUNICATING INTERCOMS (2 to 7 users)



EXHITO series INTERCOMMUNICATING INTERCOMS (2 to 8 users)



5 INTERCOMMUNICATING INTERCOMS CONNECTED TO 1 EXTERNAL DOOR STATION WITH SINGLE CALLS



• INTERNAL STATIONS

EXHITO series		STUDIO series	COMPACT series
... EX320	... EX310	... ST720W	... KM810W
... EX301	... EX301	... ST701	... ST701

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD71÷MD73
1 PL81÷PL83	1 MAS61÷MAS63 (1)	1 MD81÷MD83
1 PL91÷PL93*	1 MA91÷MA93*	1 MD91÷MD93*
1 PL10P÷PL12P	1 MAS10P÷MAS12P	1 MD10÷MD124
... PL21÷PL228	... MAS22-MAS24	... MD21÷MD228
... PL20-PL50	... MAS20	... MD20-MD50
		1 MD30

• VARIOUS ARTICLES

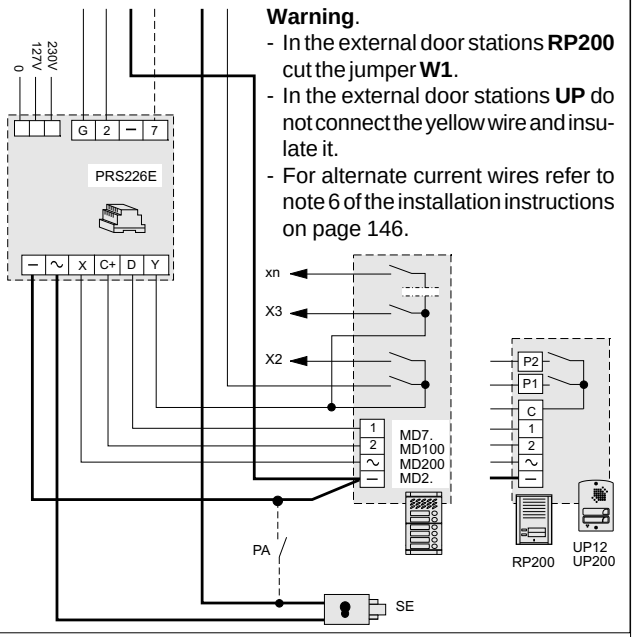
1	**PRS226E**	Power supply-switcher
1	**PA ****	Door release push-button *(optional)*
1	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users *(see table on the bottom of this page)*.
(1) Or MA61÷MA63.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 183.

Notes
- Do not forget to connect terminals C of the additional buttons.
- For the connection of name-plate lamps, read notes 6 and 7 of the installation instructions on page 146.
- For wires dimensioning refer to installation instructions and table on page 146.

Application diagram
When using **MD100**, **MD200**, **RP200, UP12** and **UP200** amplified external door stations (RP and UP series for two-way systems only) place this diagram on the diagram on page 167 and line it up with the riser.



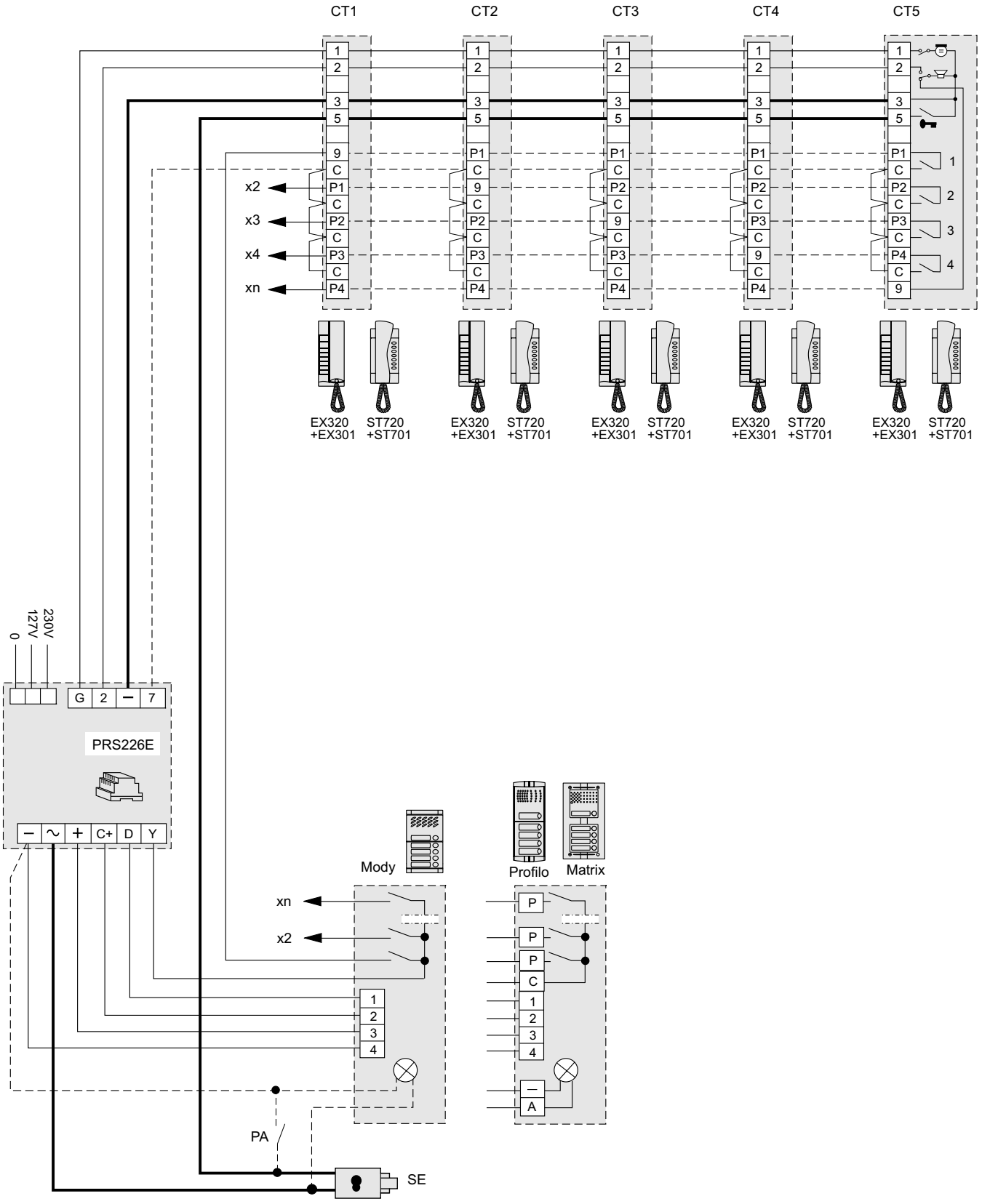
Warning.
- In the external door stations **RP200** cut the jumper **W1**.
- In the external door stations **UP** do not connect the yellow wire and insulate it.
- For alternate current wires refer to note 6 of the installation instructions on page 146.

Table for choosing intercoms and accessories for the required type of installation

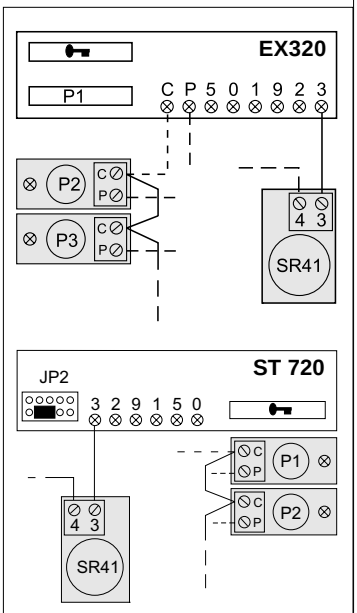
Number of intercommunicating	Exhito EX320	Exhito EX301	Exhito EX310	Exhito EX301	Studio ST720W	Studio ST701	Compact KM810W	Compact ST 701	Application diagram on page:
2	2	0	2	0	2	2	2	2	176
3	3	3	3	3	3	6			176
4	4	8			4	12			176
5	5	15			5	20			167
6	6	24			6	30			177
7	7	35			7	42			177
8	8	48							*

*upon request

5 INTERCOMMUNICATING INTERCOMS CONNECTED TO 1 EXTERNAL DOOR STATION WITH SINGLE CALLS



5 INTERCOMMUNICATING INTERCOMS CONNECTED TO 1 EXTERNAL DOOR STATION WITH COMMON CALL. Call from external door station with alternate current.



• INTERNAL STATIONS

EXHITO series		STUDIO series	COMPACT series
... EX320	... EX310	... ST720W	... KM810W
... EX301	... EX301	... ST701	... ST701
... SR41	... SR41	... SR41	... SR41

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
1 PL71	1 MA71	1 MD71
1 PL81	1 MAS61 (1)	1 MD81
1 PL91 *	1 MA91 *	1 MD91 *
1 PL11P	1 MA11P	1 MD11
		1 MD30

• VARIOUS ARTICLES

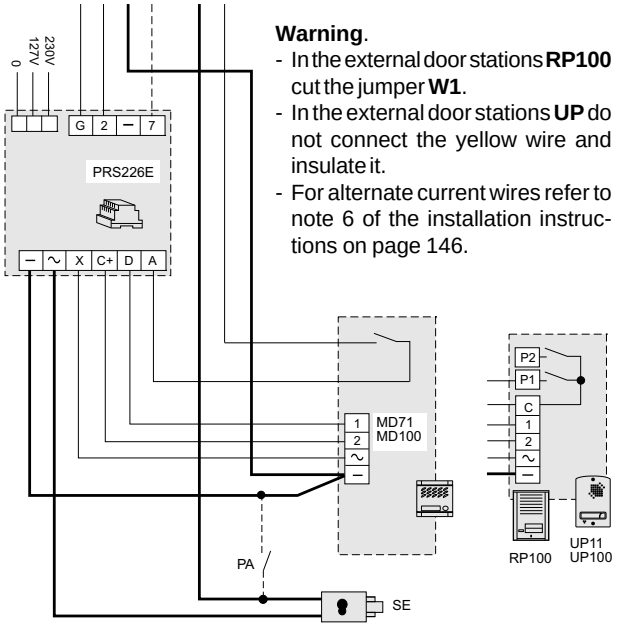
1	**PRS226E**	Power supply-switcher
1	**PA ****	Door release push-button *(optional)*
1	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users *(see table on the bottom of this page)*.
(1) Or MA61.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 183.

Notes
- Do not forget to connect terminals C of the additional buttons and install the **SR41** electronic buzzer in each intercom.
- For the connection of name-plate lamps, read notes 6 and 7 of the installation instructions on page 146.
- For wires dimensioning refer to installation instructions and table on page 146.

Application diagram
When using **MD100**, **RP100**, **UP11** and **UP100** amplified external door stations place this diagram on the diagram on page 169 and line it up with the riser.



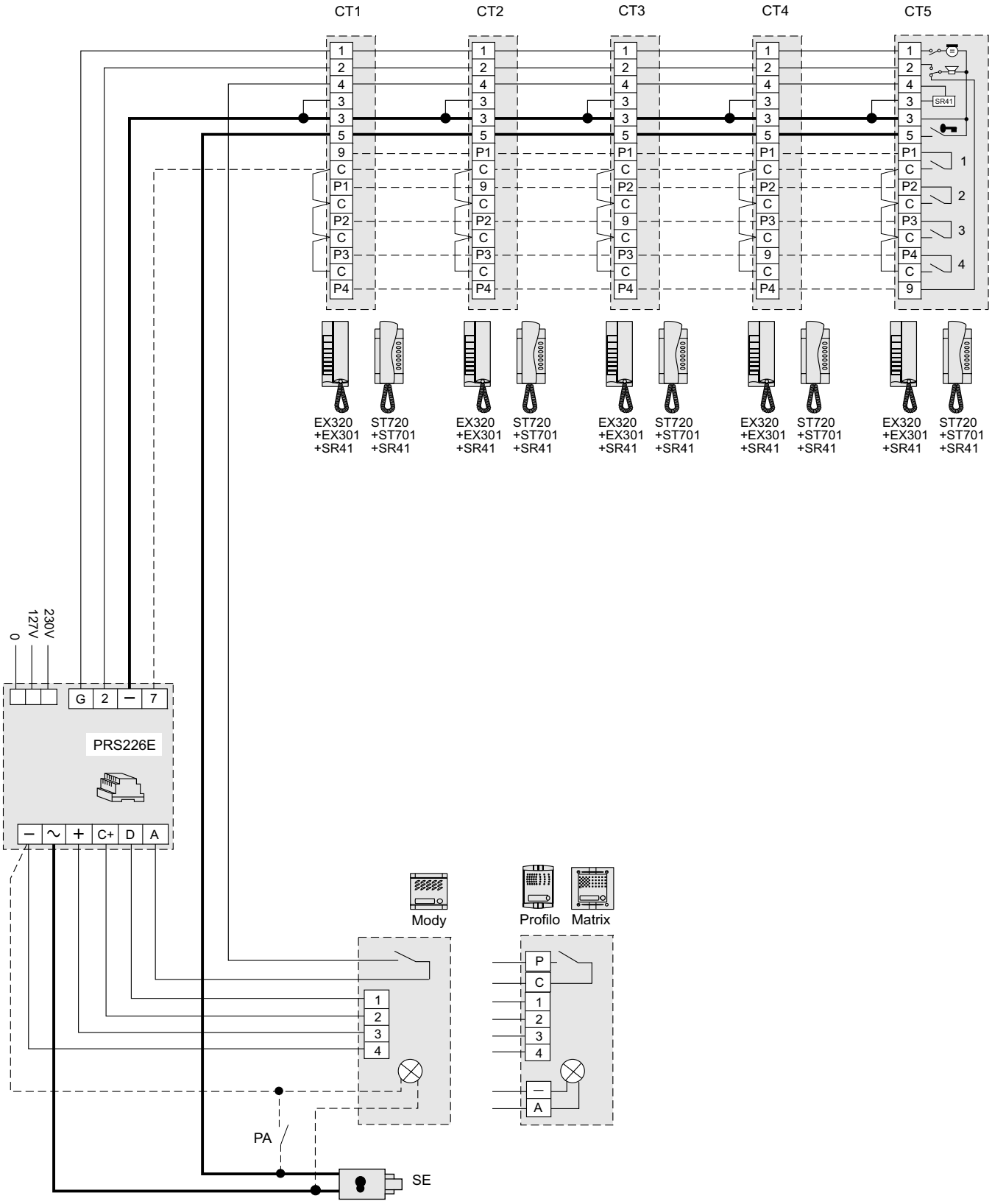
Warning.
- In the external door stations **RP100** cut the jumper **W1**.
- In the external door stations **UP** do not connect the yellow wire and insulate it.
- For alternate current wires refer to note 6 of the installation instructions on page 146.

Table for choosing intercoms and accessories for the required type of installation

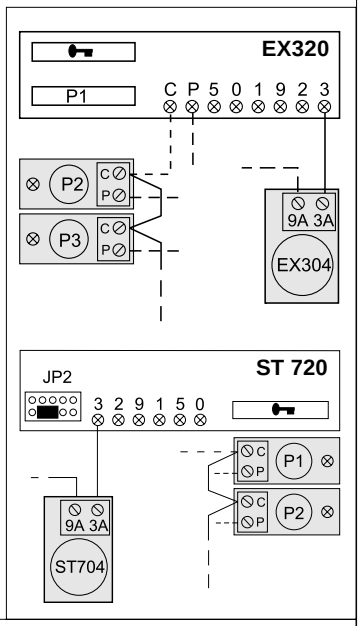
N. of intercom-	Exhito			Exhito			Studio			Compact			Application dia-
municating	EX320	EX301	SR41	EX310	EX301	SR41	ST720W	ST701	SR41	KM810W	ST 701	SR41	gram on page:
2	2	0	2	2	0	2	2	2	2	2	2	2	178
3	3	3	3	3	3	3	3	6	3				178
4	4	8	4				4	12	4				178
5	5	15	5				5	20	5				169
6	6	24	6				6	30	6				179
7	7	35	7				7	42	7				179
8	8	48	8										*

* upon request

5 INTERCOMMUNICATING INTERCOMS CONNECTED TO 1 EXTERNAL DOOR STATION WITH COMMON CALL.
Call from external door station with alternate current.



5 INTERCOMMUNICATING INTERCOMS CONNECTED TO 1 EXTERNAL DOOR STATION WITH COMMON CALL



• INTERNAL STATIONS

EXHITO series			STUDIO series
... EX320	... EX310		... ST720W
... EX301	... EX301		... ST701
... ST704	... ST704		... ST704

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
1 PL71	1 MA71	1 MD71
1 PL81	1 MAS61 (1)	1 MD81
1 PL91 *	1 MA91 *	1 MD91 *
1 PL11P	1 MA11P	1 MD11
		1 MD30

• VARIOUS ARTICLES

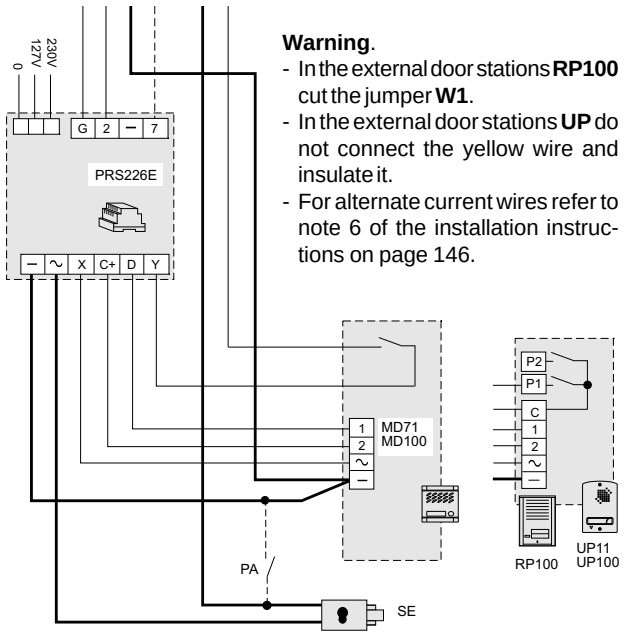
1	**PRS226E**	Power supply-switcher
...	**PRS210**	Transformer
...	**RL 37**	Relay module
1	**PA ****	Door release push-button *(optional)*
1	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users *(see table on the bottom of this page)*.
(1) Or MA61.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 183.

Notes
- Do not forget to connect terminals C of the additional buttons and install the **EX304** or **ST704** speaker module in every intercom.
- For the connection of name-plate lamps, read notes 6 and 7 of the installation instructions on page 146.
- For wires dimensioning refer to installation instructions and table on page 146.

Application diagram
When using **MD100**, **RP100**, **UP11** and **UP100** amplified external door stations place this diagram on the diagram on page 171 and line it up with the riser.

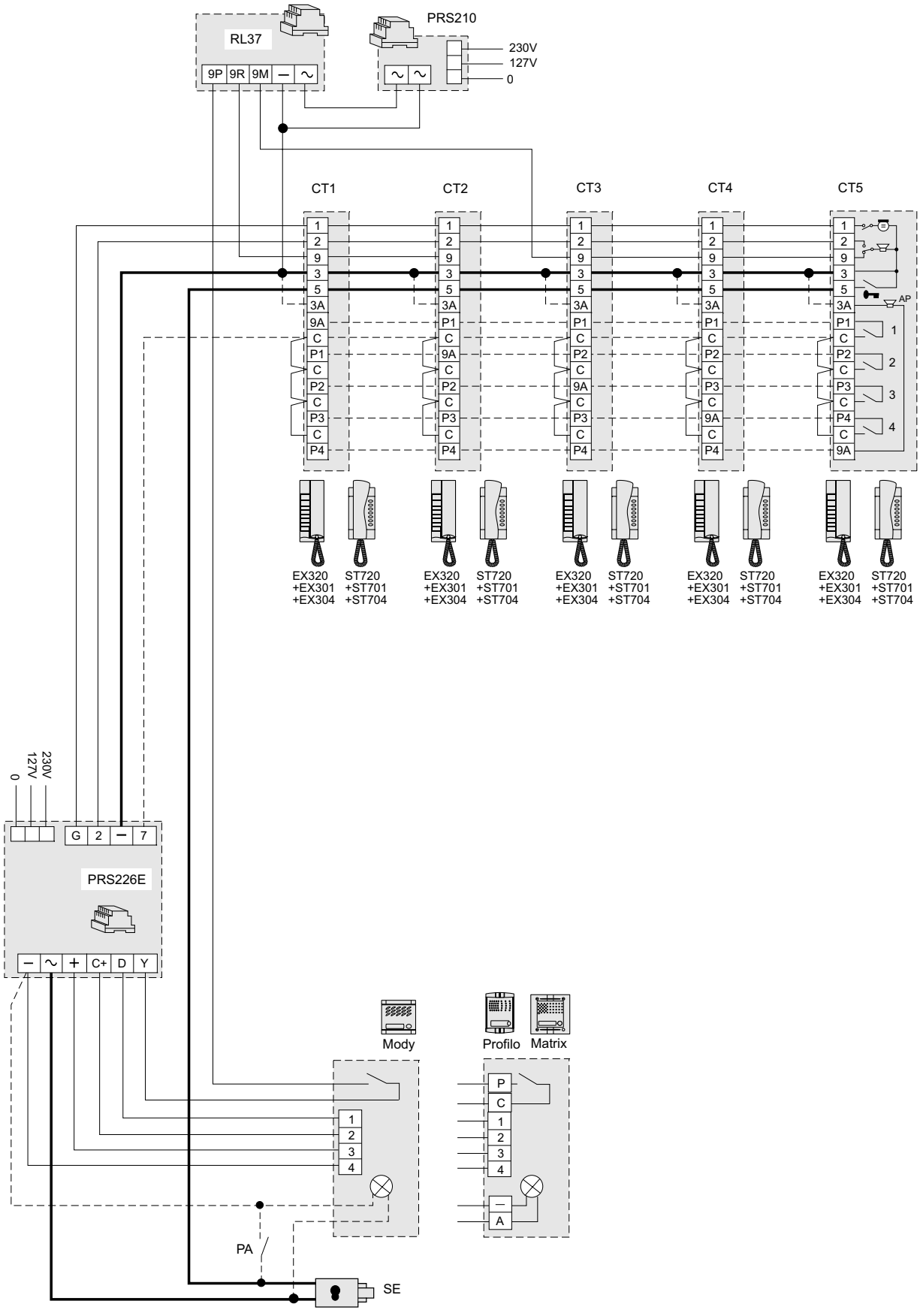


Warning.
- In the external door stations **RP100** cut the jumper **W1**.
- In the external door stations **UP** do not connect the yellow wire and insulate it.
- For alternate current wires refer to note 6 of the installation instructions on page 146.

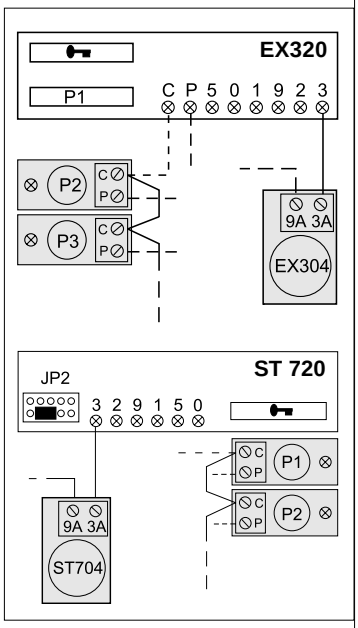
Table for choosing intercoms and accessories for the required type of installation

N. of intercom-	Exhito			Exhito			Studio			Accessories		Application dia-
municating	EX320	EX301	EX304	EX310	EX301	EX304	ST720W	ST701	ST704	RL37	PRS210	gram on page:
2	2	0	2	2	0	2	2	2	2	0	0	180
3	3	3	3	3	3	3	3	6	3	0	0	180
4	4	8	4				4	12	4	1	1	180
5	5	15	5				5	20	5	1	1	171

5 INTERCOMMUNICATING INTERCOMS CONNECTED TO 1 EXTERNAL DOOR STATION WITH COMMON CALL



5 INTERCOMMUNICATING INTERCOMS CONNECTED TO 2 EXTERNAL DOOR STATIONS WITH COMMON CALL



- **INTERNAL STATIONS**

EXHITO series			**STUDIO** series
... **EX320**	... **EX310**		... **ST720W**
... **EX301**	... **EX301**		... **ST701**
... **ST704**	... **ST704**		... **ST704**

- **EXTERNAL DOOR STATIONS**

PROFILO series	**MATRIX** series	**MODY** series
2 **PL71**	2 **MA71**	2 **MD71**
2 **PL81**	2 **MAS61** (1)	2 **MD81**
2 **PL91 ***	2 **MA91 ***	2 **MD91 ***
2 **PL11P**	2 **MA11P**	2 **MD11**
		2 **MD30**

- **VARIOUS ARTICLES**

1	**PRS226E**	Power supply-switcher
1	**1473**	Exchanger
...	**PRS210**	Transformer
...	**RL 37**	Relay module
2	**PA ****	Door release push-button *(optional)*
2	**SE ****	Electric door lock (12VAC-1A)

... Refers to number of users *(see table on the bottom of this page).*
(1) Or MA61.
***** Rain shelters are used instead of back boxes and hood covers.
****** Articles not supplied by ACI Farfisa.

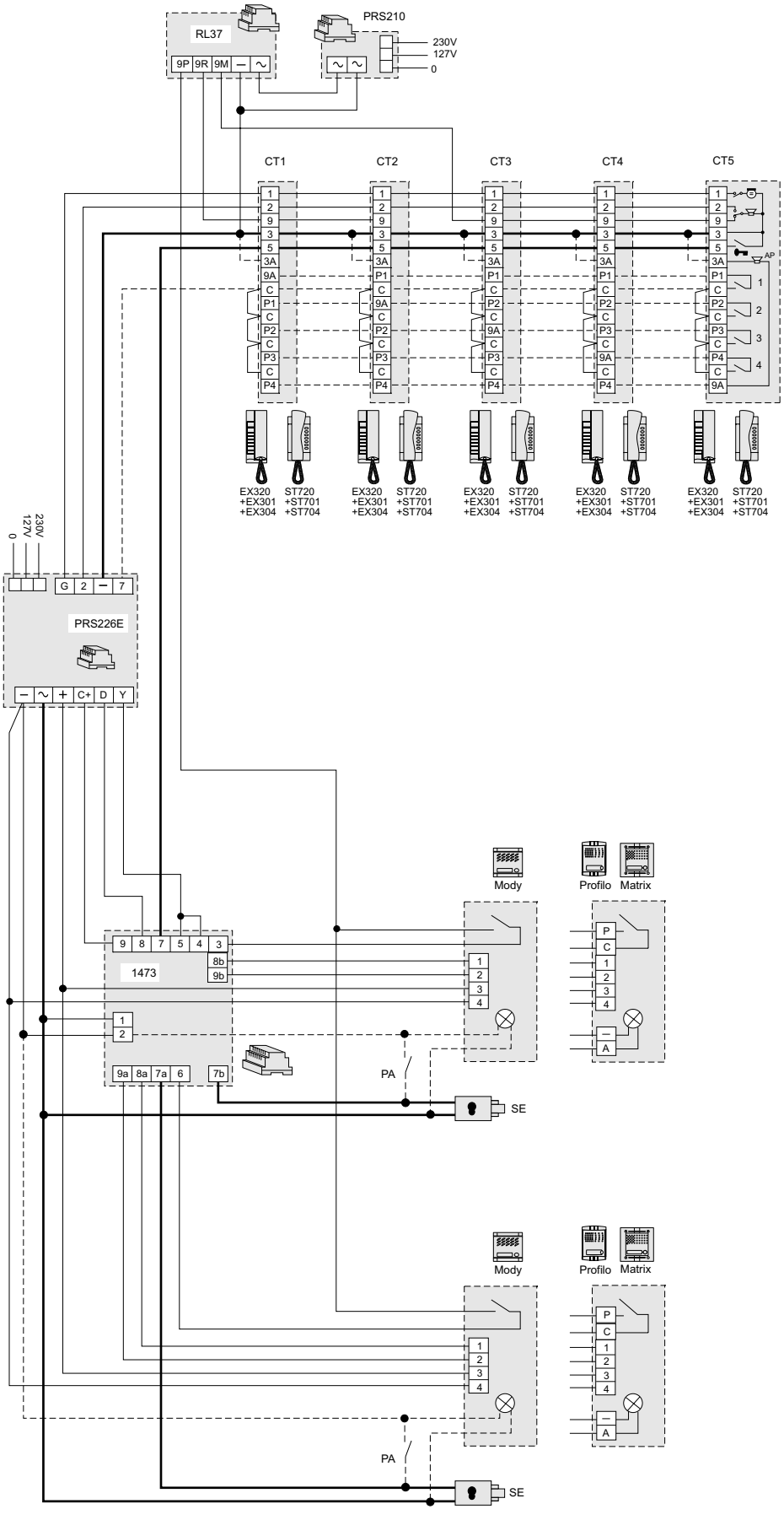
Working instructions
As the basic system described on page 183, with the following variations:
- the audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.

Notes
- Do not forget to connect terminals C of the additional buttons and install the **EX304** or **ST704** speaker module in every intercom.
- For the connection of name-plate lamps, read notes 6 and 7 of the installation instructions on page 146.
- For wires dimensioning refer to installation instructions and table on page 146.

Table for choosing intercoms and accessories for the required type of installation

N. of intercom-	Exhito			Exhito			Studio			Accessories		Application dia-
municating	EX320	EX301	EX304	EX310	EX301	EX304	ST720W	ST701	ST704	RL37	PRS210	gram on page:
2	2	0	2	2	0	2	2	2	2	0	0	180
3	3	3	3	3	3	3	3	6	3	0	0	180
4	4	8	4				4	12	4	1	1	180
5	5	15	5				5	20	5	1	1	173

5 INTERCOMMUNICATING INTERCOMS CONNECTED TO 2 EXTERNAL DOOR STATIONS WITH COMMON CALL



ONE-WAY INTERCOMMUNICATING SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON STATION (multiple entrance)

• INTERNAL STATIONS

EXHITO series				STUDIO series	
...	**EX320**	...	**EX310**	...	**ST720W**
...	**EX301**	...	**EX301**	...	**ST701**
...	**ST704**	...	**ST704**	...	**ST704**

• Main EXTERNAL DOOR STATIONS

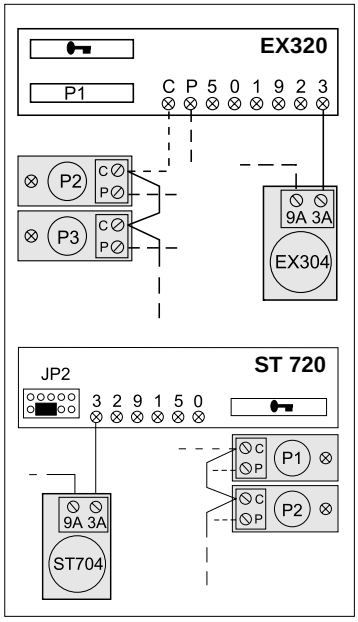
PROFILO series		MATRIX series		MODY series	
...	**PL71÷PL73**	...	**MA71÷MA73**	...	**MD71÷MD74**
1	**PL81÷PL89**	1	**MAS61÷MAS63** (1)	1	**MD81÷MD812**
1	**PL91÷PL99 ***	1	**MA91÷MA93 ***	1	**MD91÷MD912 ***
1	**PL10P÷PL12P**	1	**MAS10P÷MAS12P**	1	**MD10÷MD124**
...	**PL21÷PL228**	...	**MAS22-MAS24**	...	**MD21÷MD228**
...	**PL20, PL50**	...	**MAS20**	...	**MD20, MD50**
				1	**MD30**

• Secondary EXTERNAL DOOR STATIONS

PROFILO series		MATRIX series		MODY series	
X	**PL71**	X	**MA71**	X	**MD71**
X	**PL81**	X	**MAS61** (1)	X	**MD81**
X	**PL91 ***	X	**MA91 ***	X	**MD91 ***
X	**PL11P**	X	**MA11P**	X	**MD11**
				X	**MD30**

• VARIOUS ARTICLES

X	**PRS226E**	Power supply-switcher
1	**PRS220**	Power supply
X	**1473**	Exchanger
...	**PRS210**	Transformer
...	**RL 37**	Relay module
1+X	**PA ****	Door release push-button *(optional)*
1+X	**SE ****	Electric door lock (12VAC-1A)



... Refers to number of users *(see table on the bottom of this page).*

(1) Or MA61÷MA63.

***** Rain shelters are used instead of back boxes and hood covers.

****** Articles not supplied by ACI Farfisa.

Notes

- Do not forget to connect terminals C of the additional buttons and install the **EX304** or **ST704** speaker module in every intercom.
- For the connection of name-plate lamps, read notes 6 and 7 of the installation instructions on page 146.
- For wires dimensioning refer to installation instructions and table on page 146.
- The diagram shows 2 and 3 intercommunicating intercoms. In case of a higher number of intercoms see pages 171 and 180.

Working instructions

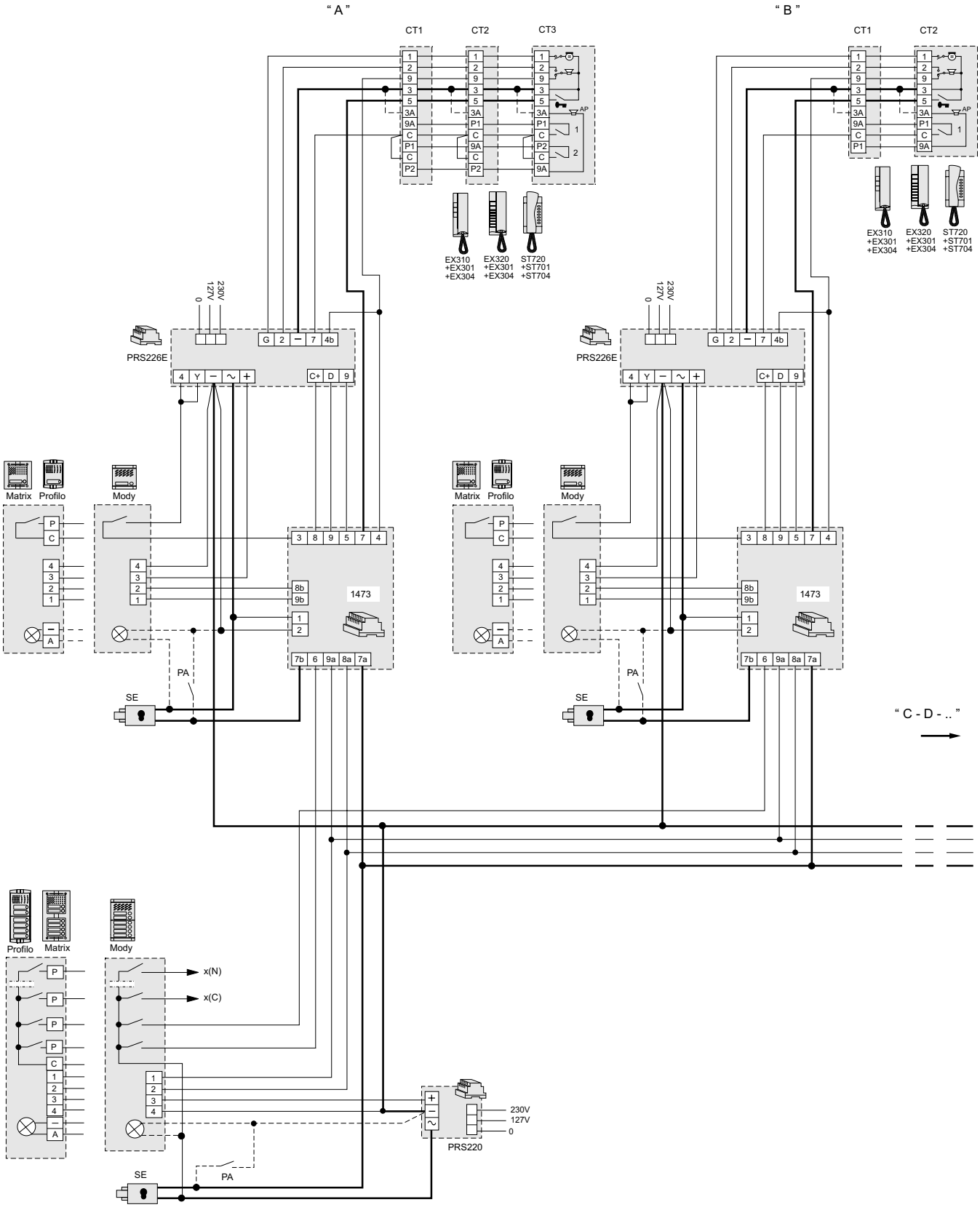
As the basic system described on page 183, with the following variations:

- the audio functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.
- services to secondary door stations are independent and can be operated at the same time.

Table for choosing intercoms and accessories for the required type of installation

N. of intercom-	Exhito			Exhito			Studio			Accessories		Application dia-
municating	EX320	EX301	EX304	EX310	EX301	EX304	ST720W	ST701	ST704	RL37	PRS210	gram on page:
2	2	0	2	2	0	2	2	2	2	0	0	175
3	3	3	3	3	3	3	3	6	3	0	0	175
4	4	8	4				4	12	4	1	1	180
5	5	15	5				5	20	5	1	1	171

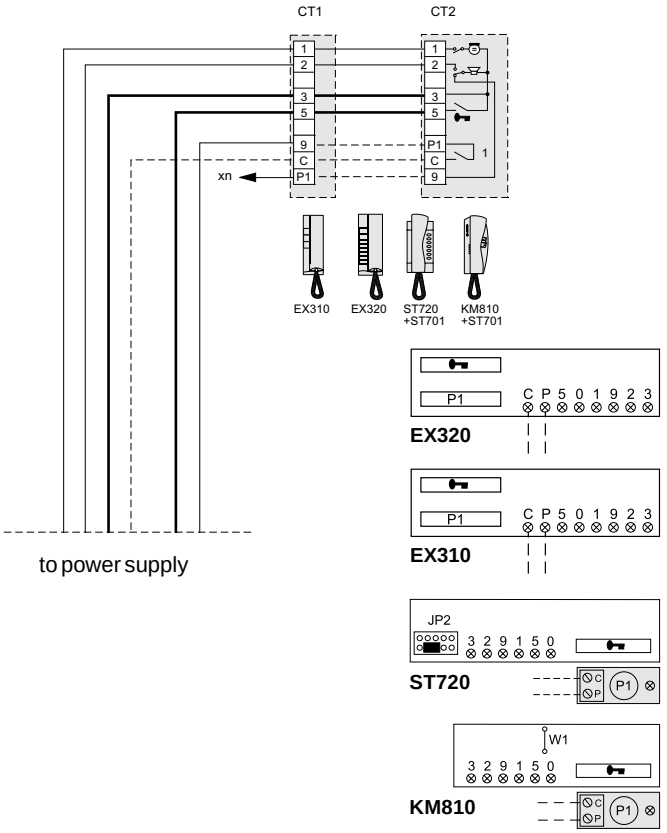
ONE-WAY INTERCOMMUNICATING SYSTEM WITH SECONDARY DOOR STATIONS AND 1 MAIN COMMON STATION (multiple entrance)



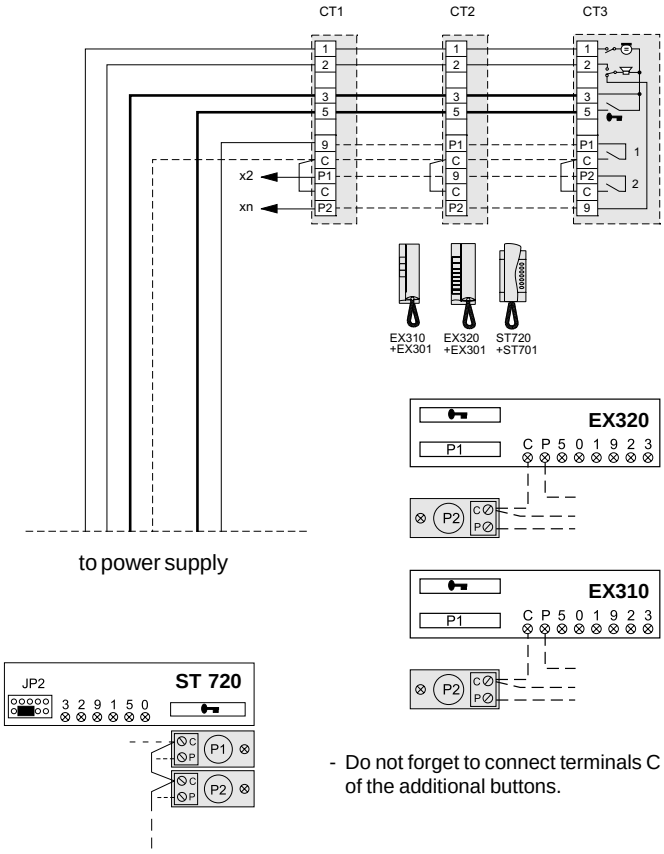
APPLICATION DIAGRAMS FOR INTERCOMMUNICATING SYSTEM WITH SINGLE CALL FROM EXTERNAL STATION

- To match with diagrams: **Si 215L/5**

2 INTERCOMMUNICATING INTERCOMS

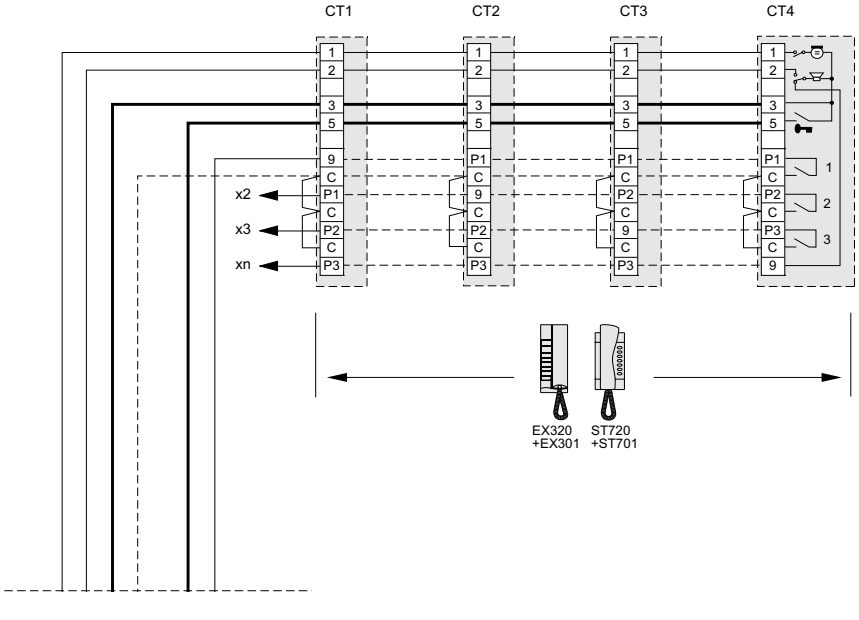


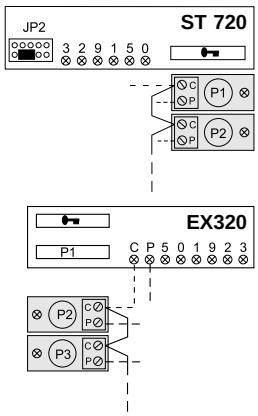
3 INTERCOMMUNICATING INTERCOMS



- Do not forget to connect terminals C of the additional buttons.

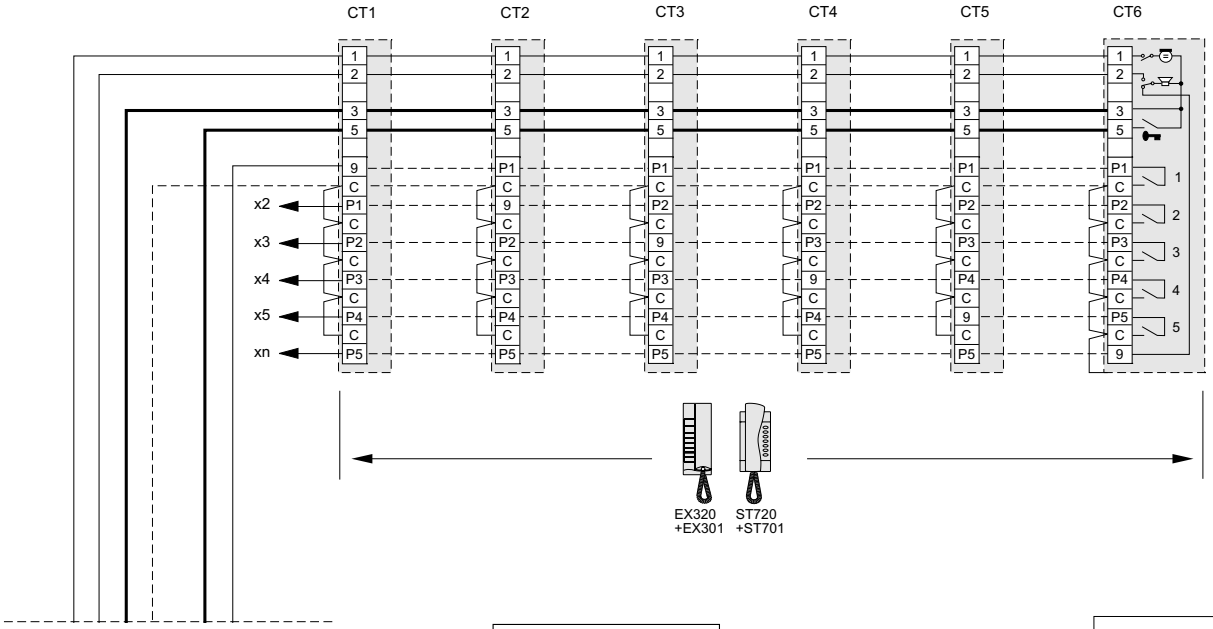
4 INTERCOMMUNICATING INTERCOMS



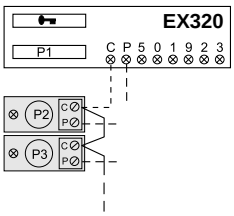


- Do not forget to connect terminals C of the additional buttons.

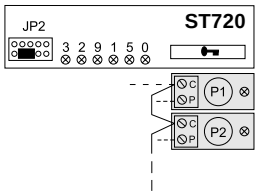
6 INTERCOMMUNICATING INTERCOMS



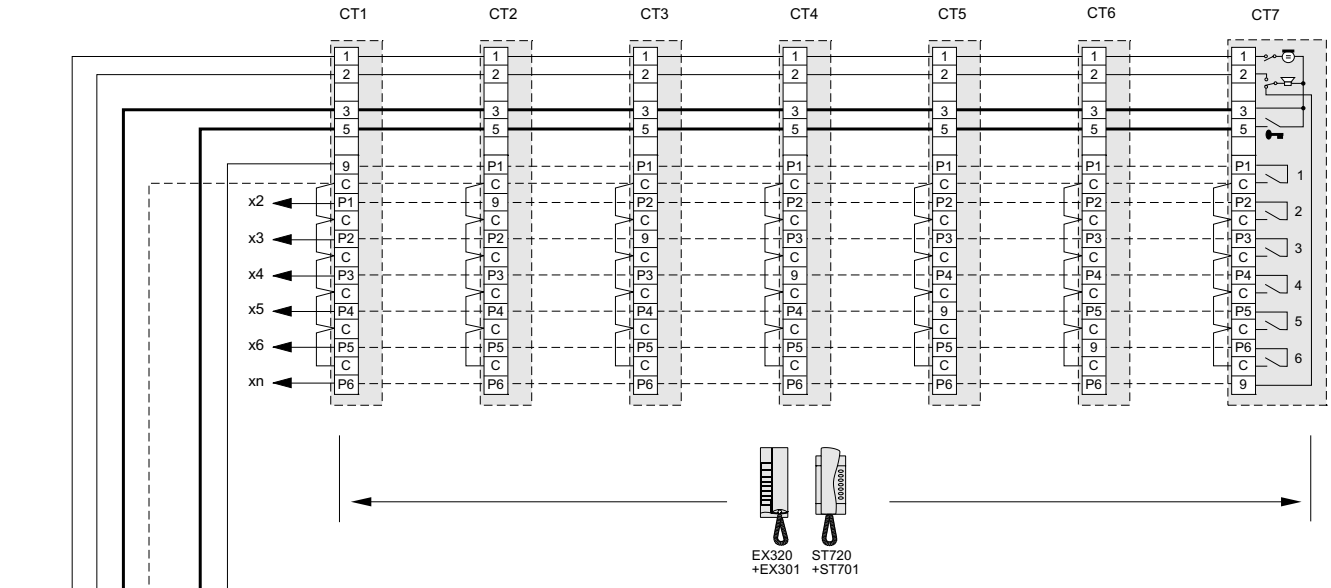
to power supply



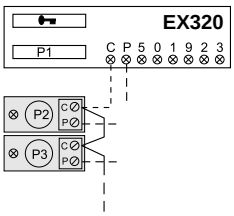
- Do not forget to connect terminals C of the additional buttons.



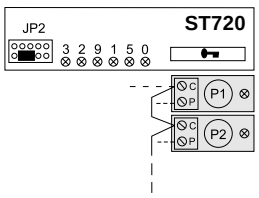
7 INTERCOMMUNICATING INTERCOMS



to power supply

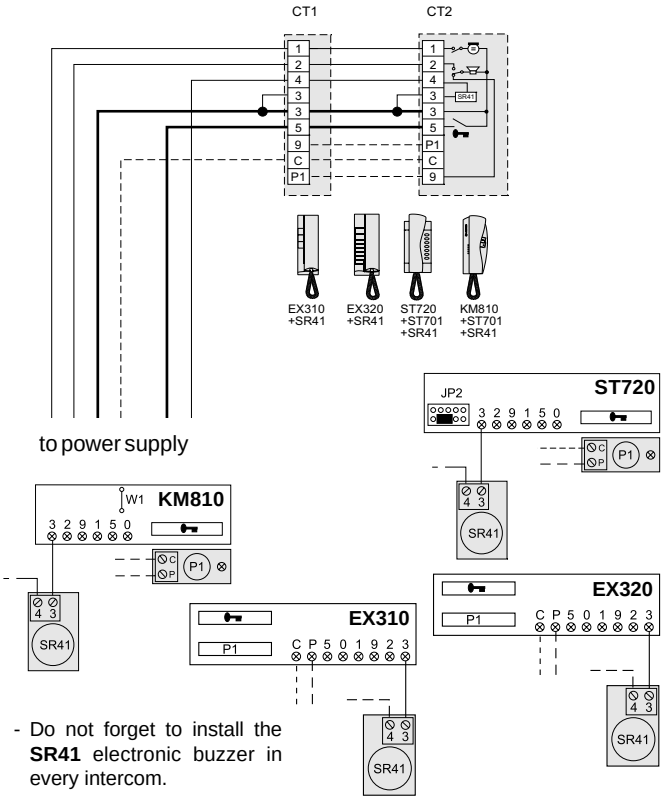


- Do not forget to connect terminals C of the additional buttons.



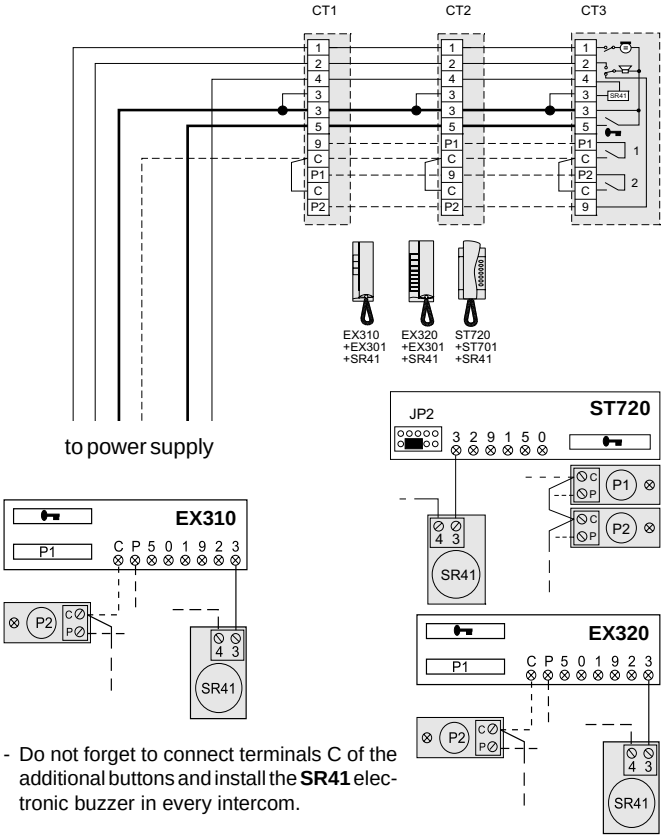
APPLICATION DIAGRAMS FOR INTERCOMMUNICATING SYSTEMS WITH COMMON ALTERNATE CURRENT CALL FROM EXTERNAL STATION AND ELECTRONIC CALL FOR EXTENSIONS
- To match with diagrams **Si 211L/5**

2 INTERCOMMUNICATING INTERCOMS



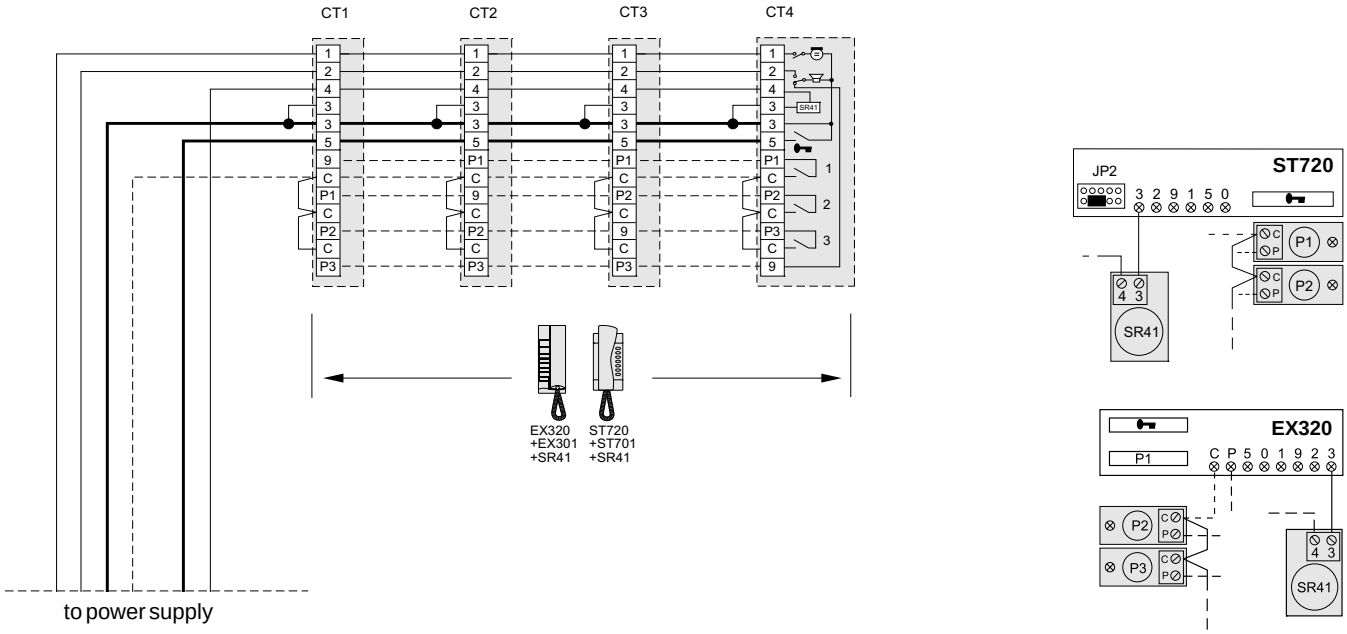
- Do not forget to install the **SR41** electronic buzzer in every intercom.

3 INTERCOMMUNICATING INTERCOMS



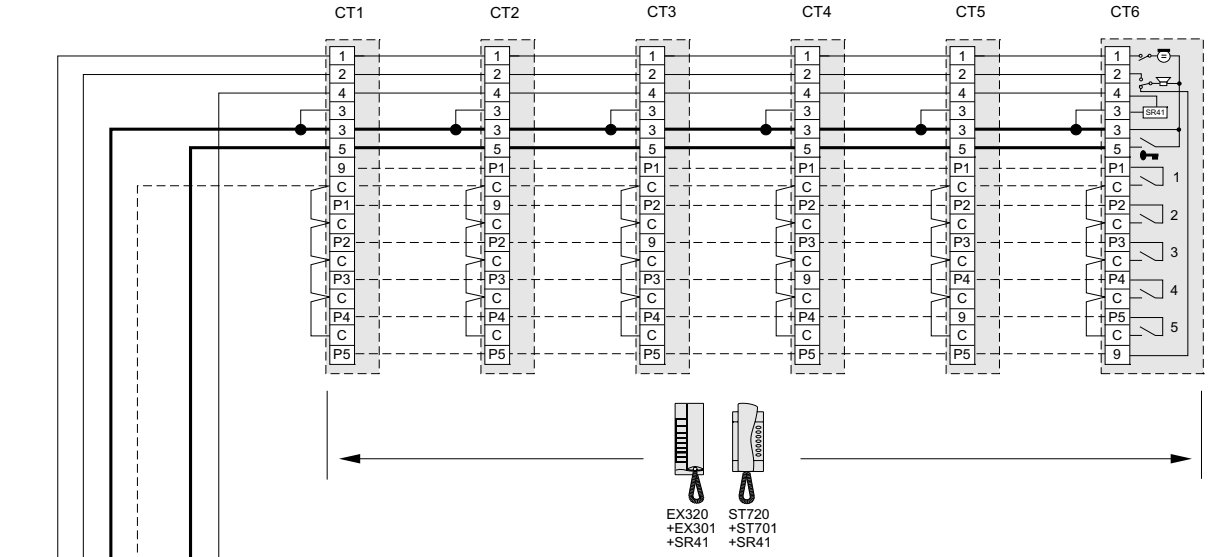
- Do not forget to connect terminals C of the additional buttons and install the **SR41** electronic buzzer in every intercom.

4 INTERCOMMUNICATING INTERCOMS

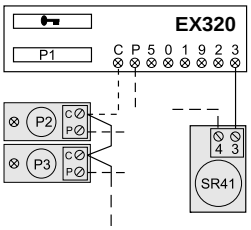


- Do not forget to connect terminals C of the additional buttons and install the **SR41** electronic buzzer in every intercom.

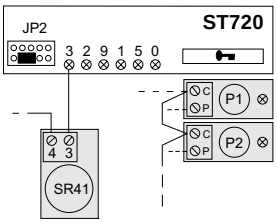
6 INTERCOMMUNICATING INTERCOMS



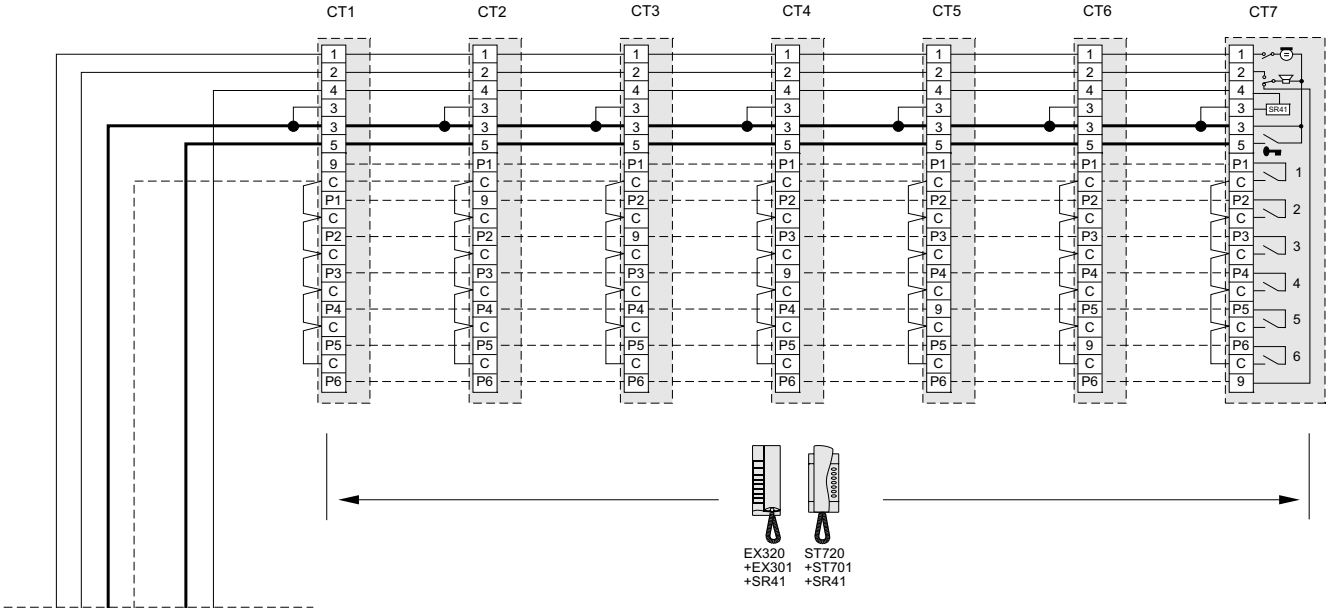
to power supply



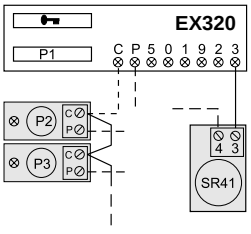
- Do not forget to connect terminals C of the additional buttons and install the **SR41** electronic buzzer in every intercom.



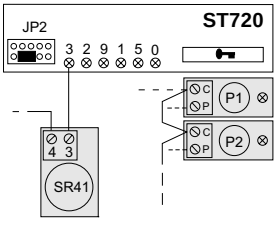
7 INTERCOMMUNICATING INTERCOMS



to power supply



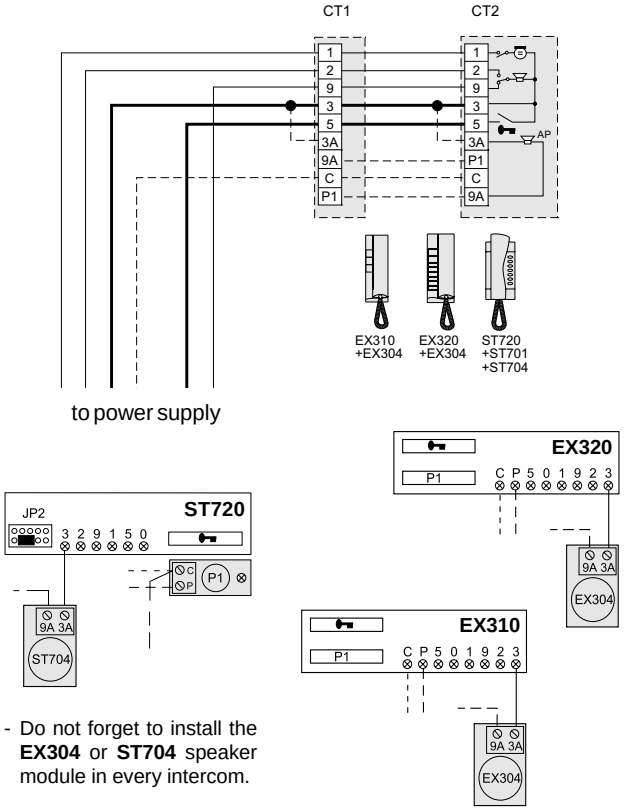
- Do not forget to connect terminals C of the additional buttons and install the **SR41** electronic buzzer in every intercom.



APPLICATION DIAGRAMS FOR INTERCOMMUNICATING SYSTEMS WITH COMMON ELECTRONIC CALL FROM EXTERNAL STATION AND ELECTRONIC CALL FOR EXTENSIONS

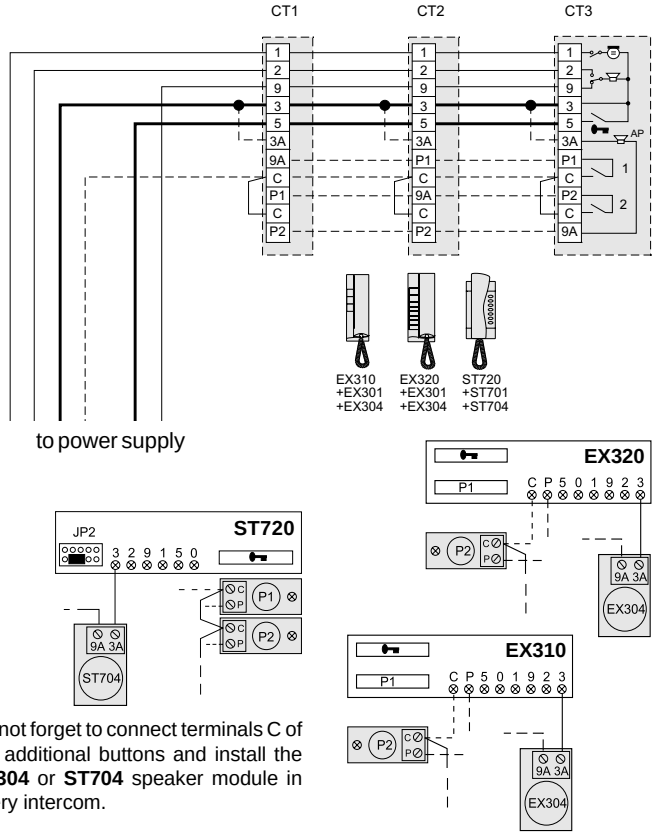
- To match with diagrams: **Si 211L/5S**; **Si 221L/5S**; **Si261L/1S**

2 INTERCOMMUNICATING INTERCOMS



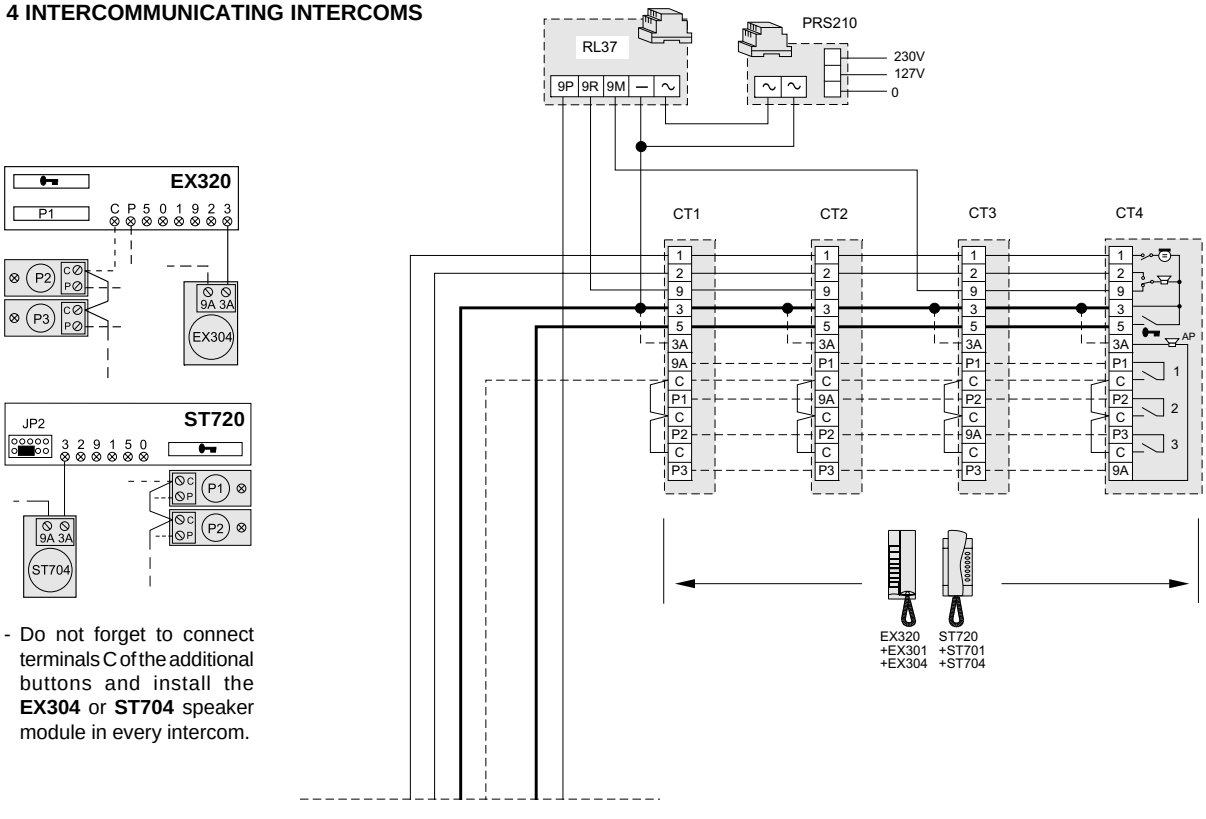
- Do not forget to install the **EX304** or **ST704** speaker module in every intercom.

3 INTERCOMMUNICATING INTERCOMS



- Do not forget to connect terminals C of the additional buttons and install the **EX304** or **ST704** speaker module in every intercom.

4 INTERCOMMUNICATING INTERCOMS

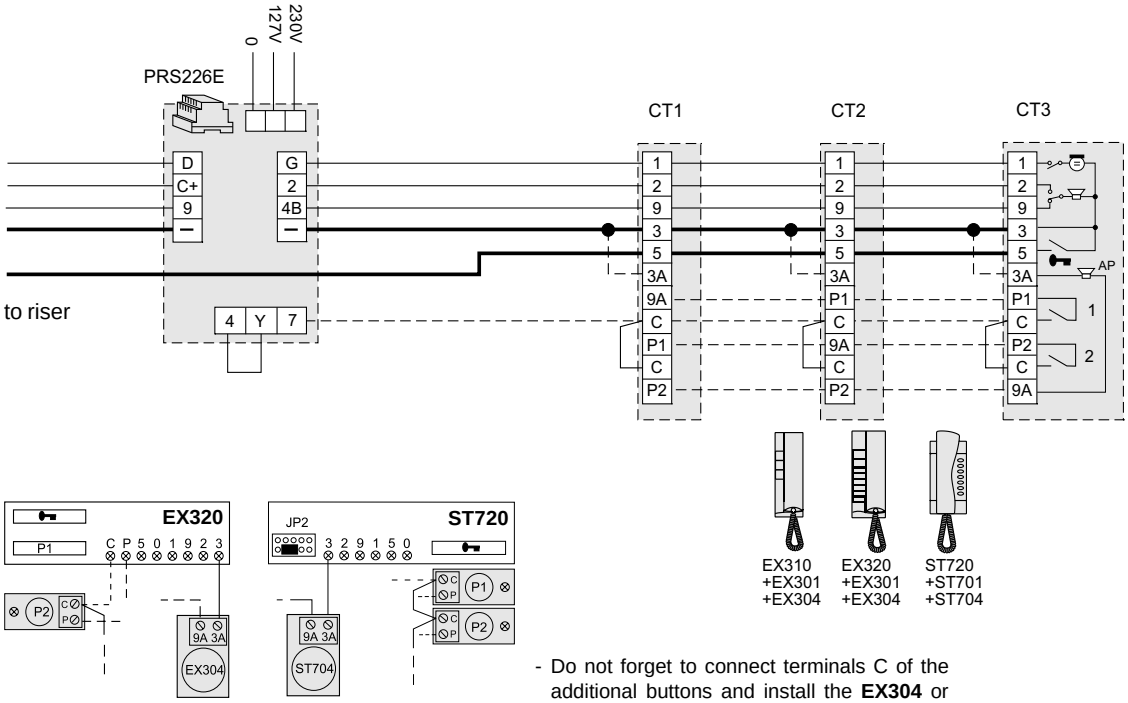


- Do not forget to connect terminals C of the additional buttons and install the **EX304** or **ST704** speaker module in every intercom.

APPLICATION DIAGRAMS FOR ONE-WAY INTERCOMMUNICATING SERVICES IN APARTMENT BUILDING SYSTEMS. ELECTRONIC CALL FROM THE DOOR STATION.

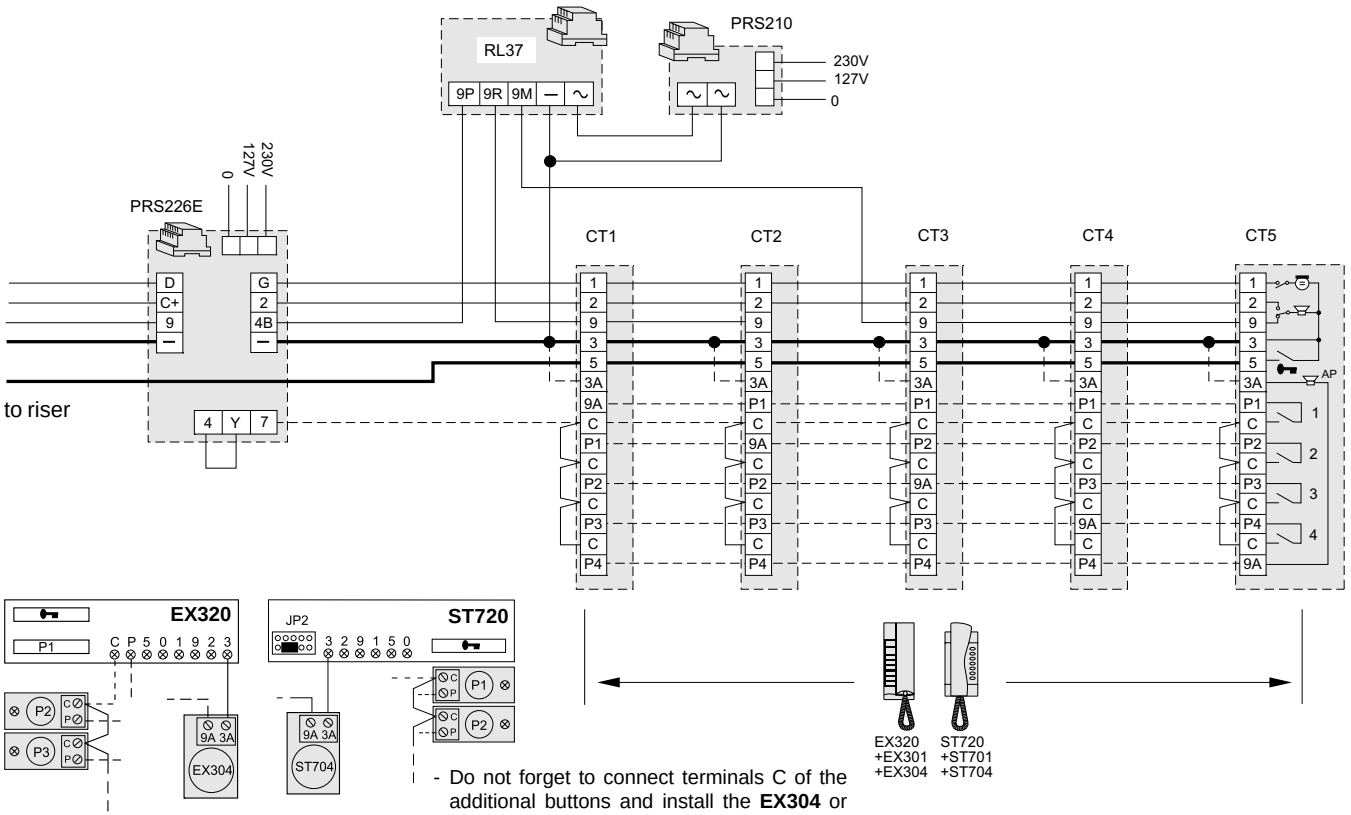
- To match with diagrams: **Si 21MO/1**; **Si 22MO/1**; **Si 23MO/1**; **Si 26MO/1**; **Si 27MO/1.**

3 INTERCOMMUNICATING INTERCOMS



- Do not forget to connect terminals C of the additional buttons and install the **EX304** or **ST704** speaker module in every intercom.

5 INTERCOMMUNICATING INTERCOMS

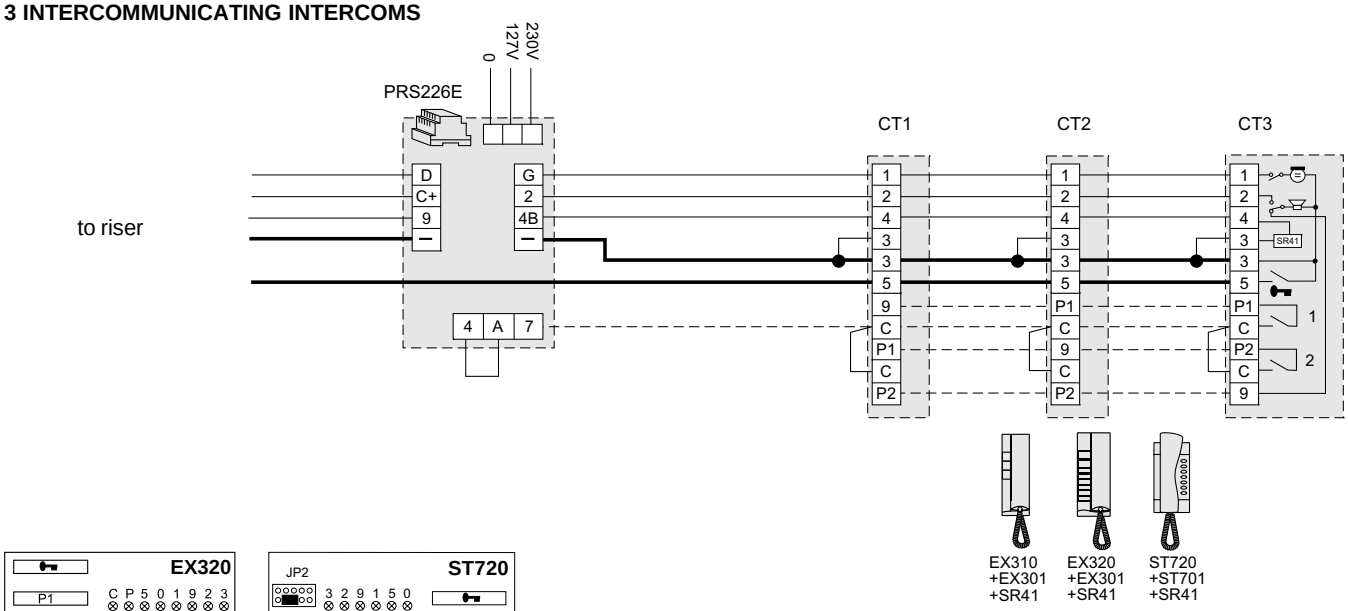


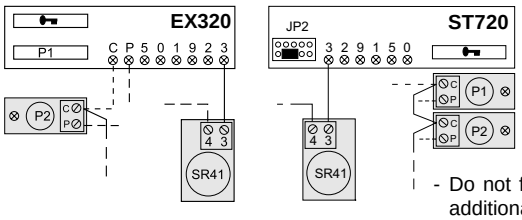
- Do not forget to connect terminals C of the additional buttons and install the **EX304** or **ST704** speaker module in every intercom.

APPLICATION DIAGRAMS FOR ONE-WAY INTERCOMMUNICATING SERVICES IN APARTMENT BUILDING SYSTEMS. EXTERNAL CALL ON ELECTRONIC BUZZER.

- To match with diagrams: **Si 21MO/1**; **Si 22MO/1**; **Si 23MO/1**; **Si 26MO/1**; **Si 27MO/1.**

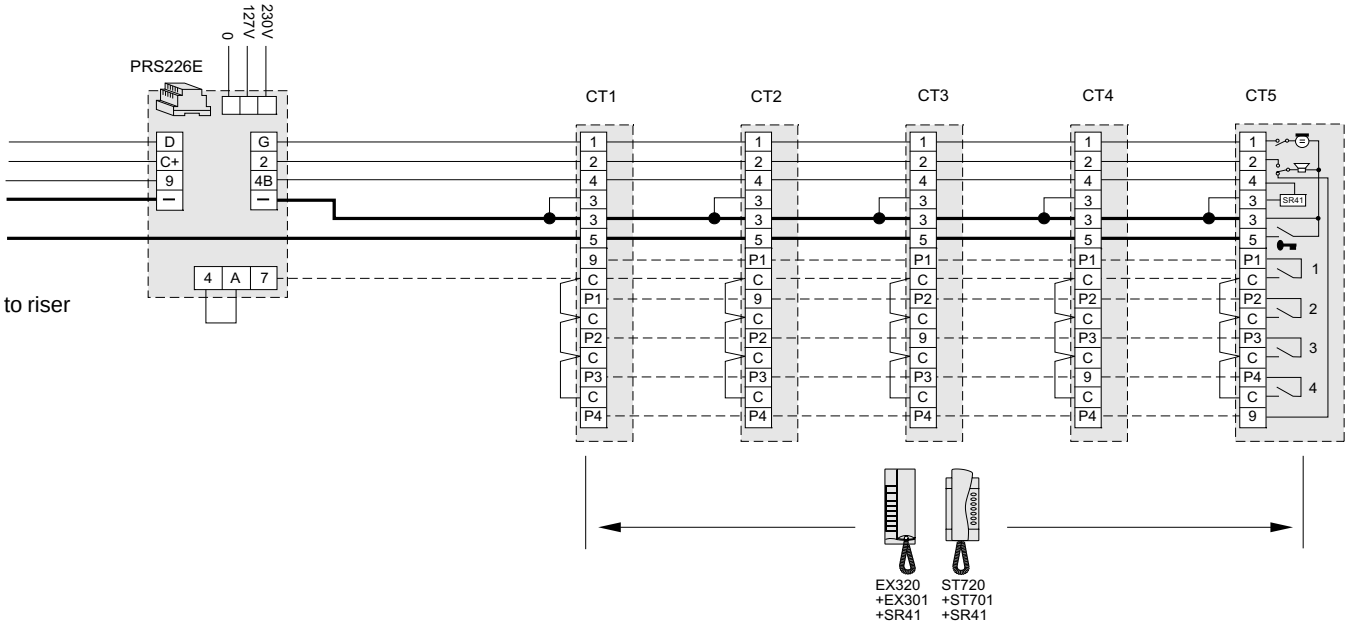
3 INTERCOMMUNICATING INTERCOMS

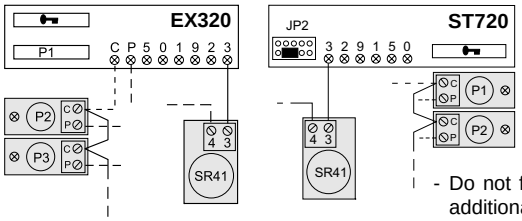




- Do not forget to connect terminals C of the additional buttons and install the **SR41** electronic buzzer in every intercom.

5 INTERCOMMUNICATING INTERCOMS





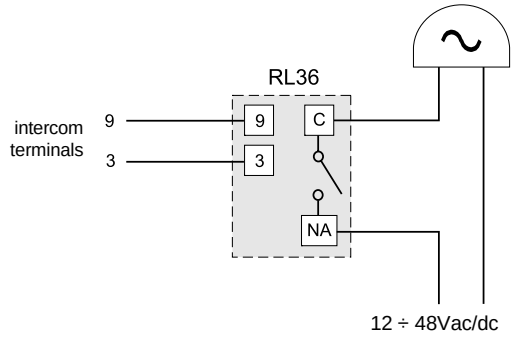
- Do not forget to connect terminals C of the additional buttons and install the **SR41** electronic buzzer in every intercom.

Application diagrams

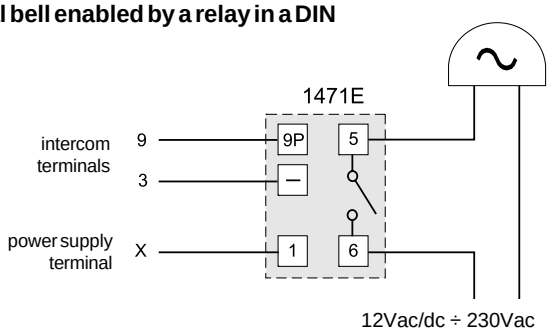
ADDITIONAL BELL

If the ringing volume is not sufficient or if you need to chime the call in a different place, you can add an additional bell enabled by a relay.

Additional bell enabled by a relay to be installed inside the intercom

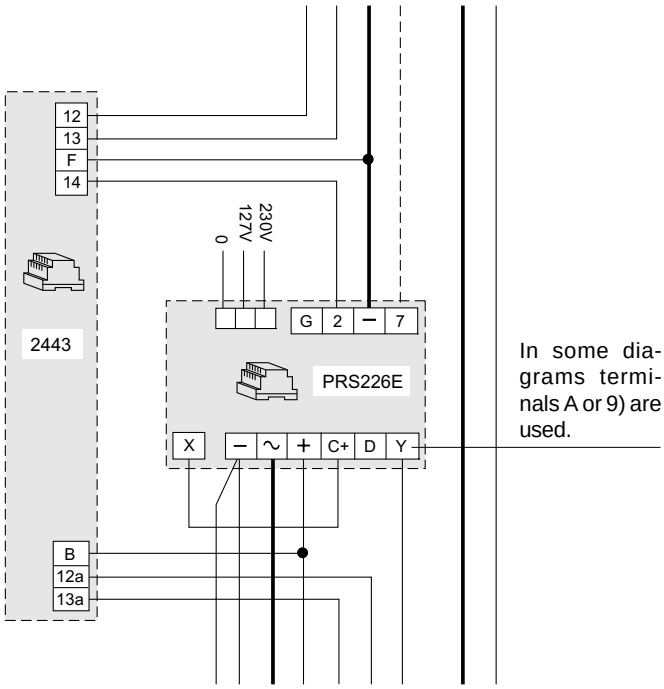


Additional bell enabled by a relay in a DIN housing



ADDITIONAL AUDIO AMPLIFIER

In intercommunicating systems with long distances between intercoms and power supply, to increase the intercommunication audio level, it is advisable to install an amplifier art. **2443** (see page 144 for characteristics). The following diagram can be applied to all intercommunicating systems (from page 167 to page 173).



WORKING INSTRUCTIONS

Basic systems
For all the intercom systems, simply lift the handset to speak to the door station. The call is indicated by a sound signal on the loudspeaker of the handset. If the handset of the intercom is not properly hung-up the sound is not reproduced.
To activate the door release, press the push-button with the key symbol.
In systems with two or more entrances the communication and door release are switched automatically on the entrance from which the call is made while the other entrances are isolated.

Systems with private conversation module
In all standard intercom systems (not intercommunicating) a private audio system can be provided (only the intercom which has been called can speak to the door station) by installing the “private conversation module” art.**SM50E** in every intercom.
After the call, the user has about 30 seconds to lift handset and answer. There is no time limit for the private conversation. When the handset is replaced the system returns to the OFF condition. If a user does not replace the handset properly, the next call from another intercom, automatically cuts him out of the audio connection with the door station.

Intercommunicating systems
Intercommunicating systems allow users to speak to one another by simply lifting the handset; any user can join in to a conversation already in progress.
To avoid interference it is necessary to observe the following instructions:
- lift the handset;
- make sure that there is not a conversation already in progress;
- then press the call push-button corresponding to the desired user.

Intercommunicating systems connected to door station
Such systems allow conversation between two or more inside users with the exclusion of the door station, or between one inside user and the door station.
When there is a call from an external push-button panel the audio line of the electric door speaker is activated automatically; when a call is made from one of the intercoms, the internal intercommunicating audio line is automatically activated.
The user called has simply to lift the handset.
Any user can join in to a conversation already in progress.
To avoid interference it is necessary to observe the following instructions:
- lift the handset;
- make sure that there is not a conversation already in progress;
- then press the call push-button corresponding to the desired user.

Internal calls have a different sound (continuous tone) from external calls (modulate tone or electronic buzzer).
To actuate the electric door lock you must press the button with the key.

PRELIMINARY CHECKS

- Check for the presence of the mains voltage in the terminals 230Vac (or 127Vac) of the power supply.
- The power supply is not provided with fuses, but it is protected against overloading or short-circuiting by a heat sensor (thermo-protector), to restore power, it is necessary to cut OFF the mains voltage for about one minute. Reconnect power after having eliminated the problem.
- Check the voltage output of the power supply (see in detail the values indicated in the power supply chapter).
- Check that the cross section of the cables corresponds to what is indicated on page 146 and in the descriptions of each individual diagram.

PROBLEM, REASON AND SOLUTIONS

Nothing at all is working
Absence of main voltage. Short-circuit or overload of the terminals of the power supply output. Faulty power supply.

The lock does not work
Faulty lock. Faulty door release push-button. The cross section of the cables indicated in bold type is insufficient. A connecting cable to the lock has been interrupted. Faulty power supply.

Calls from the door station do not work
The common connection of the push-buttons on the push-button panel has been interrupted. Faulty power supply.

A call to an individual intercom does not work
The connecting wire from the door station to the intercom has been interrupted. The handset has not been replaced correctly (in electronic call systems the ringing sound is reproduced directly by the loudspeaker of the handset which is disconnected when the handset is lifted to avoid ringing sound during the conversation). Faulty intercom.

No audio from both channels
Absence of power between **3** (+) and **4** (-) of the electric door-speaker (6÷8Vdc). Short-circuit between **+** and **-** of the power supply. Faulty power supply.

No audio from the intercoms to door station
Connection **1** from the intercoms to the electric door-speaker has been interrupted or short-circuited. There is no ground connection to terminal **4** of the electric door-speaker (amplifier). Faulty electric door-speaker (amplifier).

No audio from the door station to the intercoms
Connection **2** from the intercoms to the electric door-speaker (amplifier) has been interrupted or short-circuited. Faulty electric door-speaker (amplifier).

Audio with humming in the background (50/60Hz)
The wires have been canalized together with the cables that power AC loads. Wrong connections or under dimensioned cross-section of wires (see recommendation and table on page 35). Faulty power supply.

A whistle is heard at the external door station (Larsen effect)
The electric door-speaker (amplifier) is badly housed in the push-button panel. The microphone hole of the external door station might be clogged. Lower the volume.

Radio reception on the door station
The defect can occur when there is a transmitter working in the proximity. Apply a capacitor from 0.1µF between terminals **1** and **3** of the electric door speaker (amplifier).

INTERCOMMUNICATING SYSTEMS

No audio in both channels. Intercommunicating service is not working
Short-circuit between **+** and **-** of the power supply. Faulty power supply.

Calls from the door station work. No audio in both channels. Intercommunicating service is working
No power supply between **3** (+) and **4** (-) of the electric door-speaker (8Vdc). Faulty power supply.

No audio from the intercoms to the door station
The connection between **1** of the intercoms and **G** of the power supply has been interrupted. The connection between **D** of the power supply and **1** of the electric door-speaker (amplifier) has been interrupted. Faulty electric door-speaker (amplifier). Faulty power supply.

No audio from the door station to the intercoms
The connection between **2** of the intercoms and **2** of the power supply has been interrupted. The connection between **C+** of the power supply and **2** of the electric door-speaker (amplifier) has been interrupted. Faulty electric door-speaker (amplifier). Faulty power supply.

The intercommunicating calls work, but the door station is still connected
Faulty power supply.

The intercommunicating calls do not work
Check that cable **7** is connected to **7** of the power supply. Faulty power supply.

No audio in the intercommunicating service
Faulty power supply.

SYSTEM WITH MORE ENTRANCES

Entrance A is never activated
Short-circuit between **5** and **6** of the exchanger. Faulty exchanger.

Entrance B is never activated
Short-circuit between **3** and **4** of the exchanger. Faulty exchanger. No power supply to **1** and **2** of the exchanger (13Vac).

Installation diagrams

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- **Si 411O/3** One-way video intercom system with long distance between video intercom and main power supply *(coaxial cable)* 187
- **Si 41MO/1** Video intercom system connected to one external door station *(coaxial cable)* 189
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- additional diagrams for Echos series 222
- additional diagrams for Compact series 223
- additional diagrams for one-way Exhito series 224
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ONE-WAY VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION. Video connection with coaxial cable.

• INTERNAL STATIONS

ECHOS series		EXHITO series		COMPACT series		STUDIO series	
1	EH9100CT/CW	1	EX3100C	1	KM8100W	1	ST7100CW
	EH9160CT/CW		EX3160C		KM8600W		ST7100W
1	9083		EX3160		KM8800W	1	ST720W
1	WA9100T/W	1	WB3160	1	WB8600	1	WB7100
1	TA9160	1	TA3160	1	8083	1	WB700
						1	TA7100
						1	TA700

• EXTERNAL DOOR STATIONS

PROFILO series		MATRIX series		MODY series	
...	PL71	...	MA71	...	MD72
1	PL81	...	MAS61 (1)	1	MD82
1	PL91 *	1	MA91 *	1	MD92 *
1	PL41PC-PL41P	1	MAS43C-MAS43	1	MD11
				1	MD41
				1	MD30

• VARIOUS ARTICLES

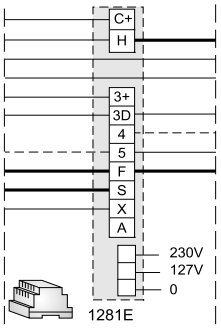
1	**1281**	Power supply
1	**1282E**	Timer
1	**PA ****	Door release button *(optional)*
1	**SE ****	Electric door lock (12Vac-1A)

(1) Or MA61.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 218.

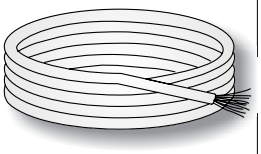
Notes
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name plate lamps read notes 6 and 7 of the installation instructions on page 146.
- For wires dimensioning refer to the installation instructions and table on page 146.

Connection of 1281E power supply-timer instead of 1281 plus 1282E.



By adding **1281E** to the schematics on pages 186 and 187 (si411O/1, si411O/2 and si411O/3) instead of 1281 plus 1282E, the installation will be switched OFF at the end of the timing only.

1304. MULTI-CORE CABLE



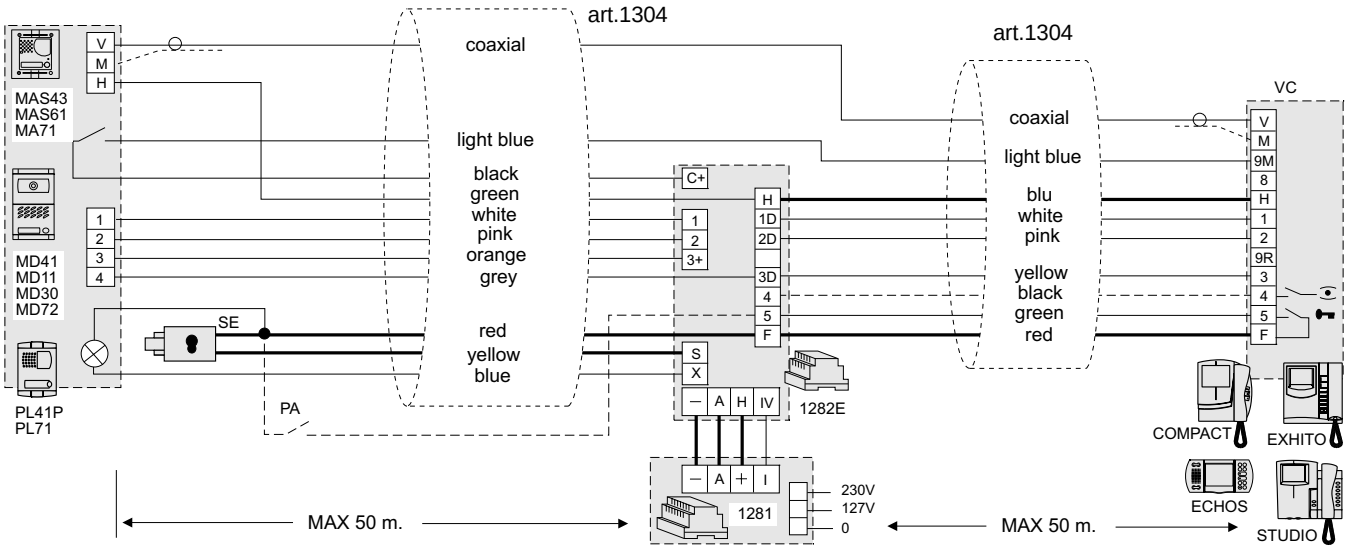
Video intercom cable with 10 wires of different cross-sections and 75Ω coaxial cable. It can be used in systems with a maximum distance of 100 meters (50m between timer and camera unit and 50m between timer and video intercom).

Wire characteristics

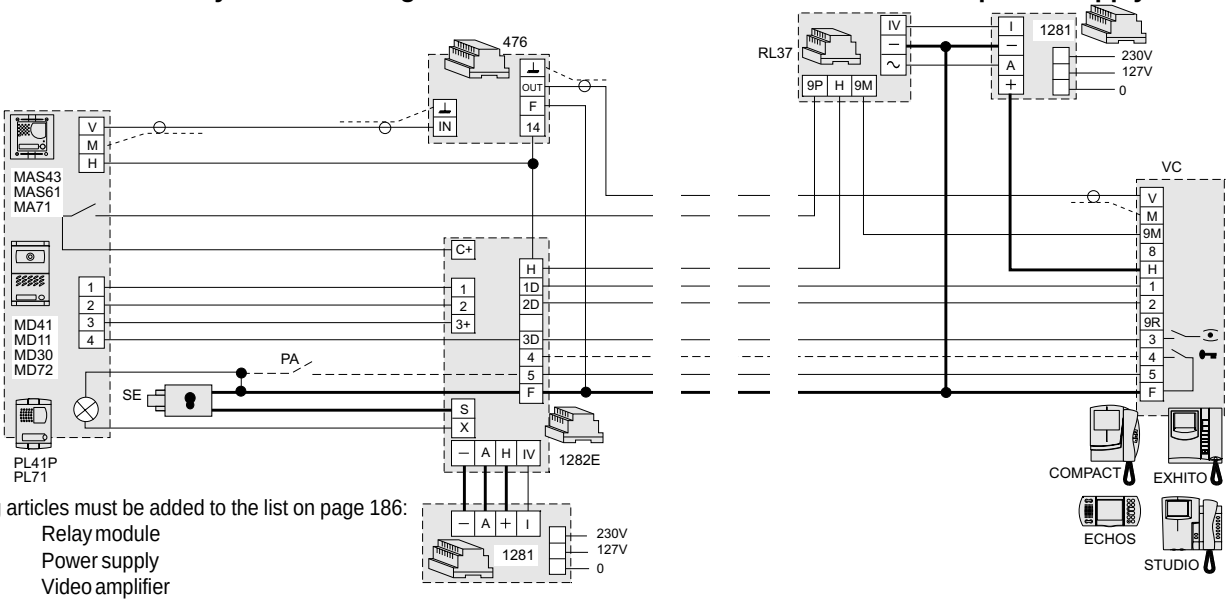
Colour	*Cross-section (mm²)*	*AWG*
Red	1	16
Yellow	0.5	20
Blue	0.5	20
Black	0.35	21
Green	0.35	21
Orange	0.35	21
White	0.25	23
Pink	0.25	23
Light blue	0.25	23
Grey	0.25	23

75Ω low loss **coaxial cable.**

ONE-WAY VIDEO INTERCOM CONNECTION WITH MULTI-CORE CABLE art. 1304



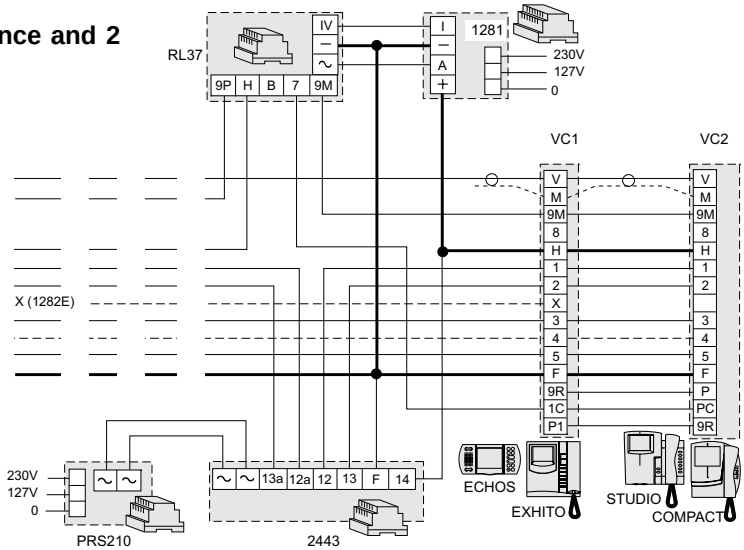
One-way video intercom system with long distance between video intercom and main power supply



The following articles must be added to the list on page 186:

1	**RL37**	Relay module
1	**1281**	Power supply
1	**476**	Video amplifier

One-way video intercom system with long distance and 2 intercommunicating videointercoms



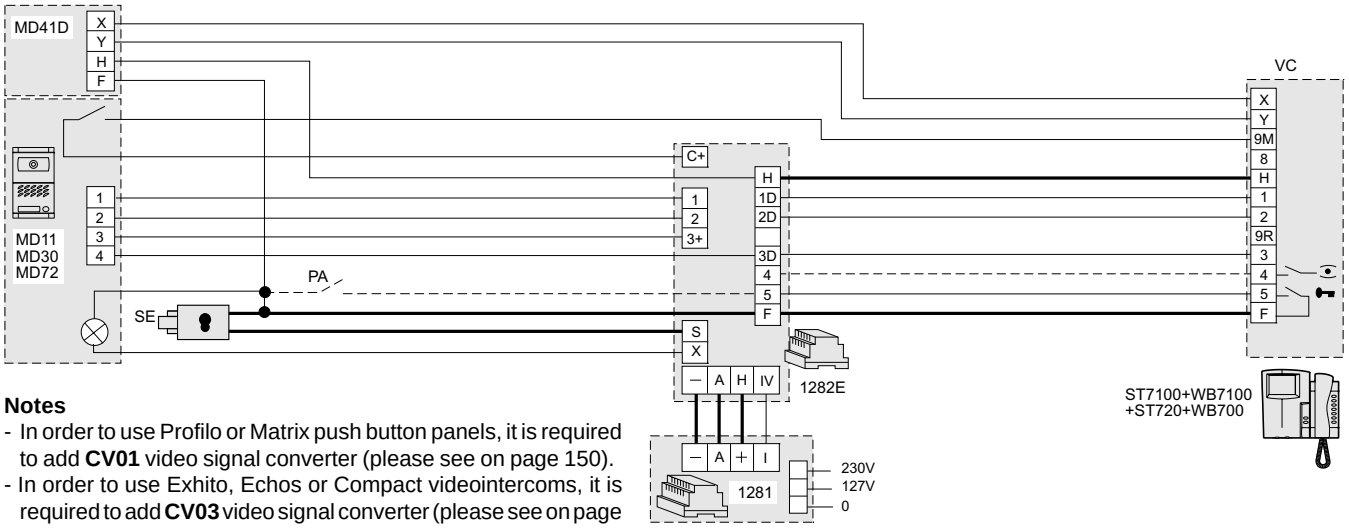
The following articles must be added to the list on page 186:

1	**RL37**	Relay module
1	**1281**	Power supply
1	**476**	Video amplifier
1	**2443**	Amplifier-switcher for intercommunicating
1	**PRS210**	Transformer

Notes

- On brackets the **jumper J1** must be moved from position **2-3** to **1-2**.
- On the bracket of the first video intercom (VC1) you must **cut** the 75Ω resistance.
- To have the intercommunicating service with the **Echos** series it is necessary: -use model **EH9160**; - move jumper **J5** from position **2-3** to **1-2**;- make the **"X"** connection between art. **1282E** and the 2 videointercoms **EH9160**.

ONE-WAY VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION. Video connection with twisted pair



Notes

- In order to use Profilo or Matrix push button panels, it is required to add **CV01** video signal converter (please see on page 150).
- In order to use Exhito, Echos or Compact videointercoms, it is required to add **CV03** video signal converter (please see on page 199).

VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
1 PL81÷PL89	... MAS61÷MAS63 (1)	1 MD82÷MD812
1 PL91÷PL99 *	1 MA91÷MA93 *	1 MD92÷MD912 *
1 PL40PC÷PL42PC	1 MAS42C-MAS43C	1 MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	1 MD41
... PL21÷PL228	... MAS22-MAS24	1 MD30
... PL20, PL50	... MAS20	... MD21÷MD228
		... MD20, MD50

• VARIOUS ARTICLES

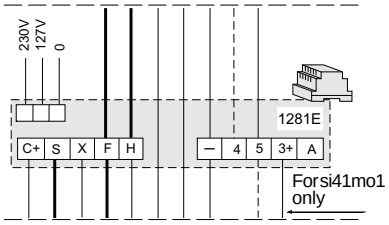
...	**DV2-DV4**	Video distributors
1	**1281**	Power supply
1	**1282E**	Timer
1	**PA ****	Door release button *(optional)*
1	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 218.

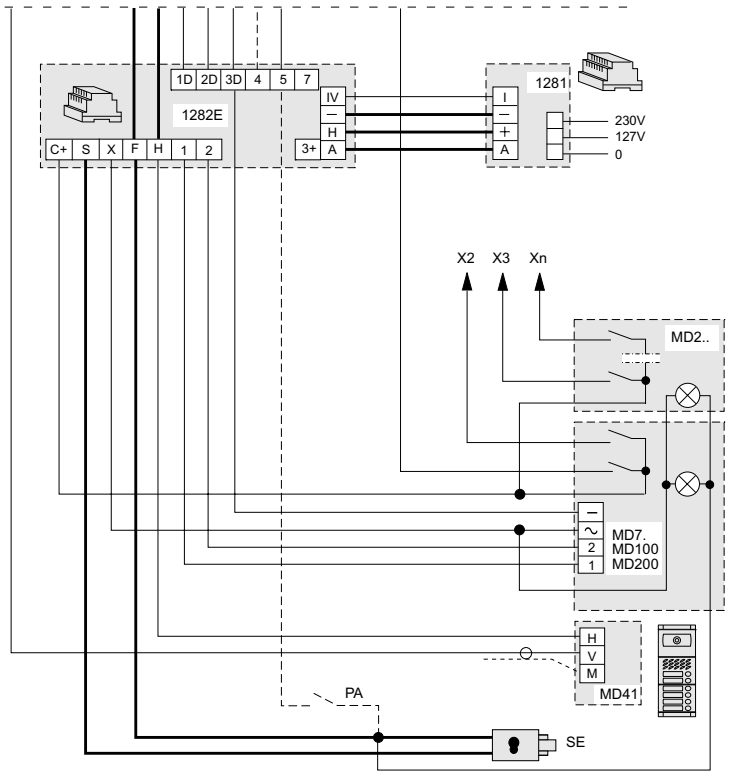
Notes
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For one-way systems connect the coaxial cable to the monitor bracket directly, without using the video distributor.
- For other types of push-button panels see the general catalogue.

Connection of 1281E power supply-timer instead of 1281 plus 1282E.

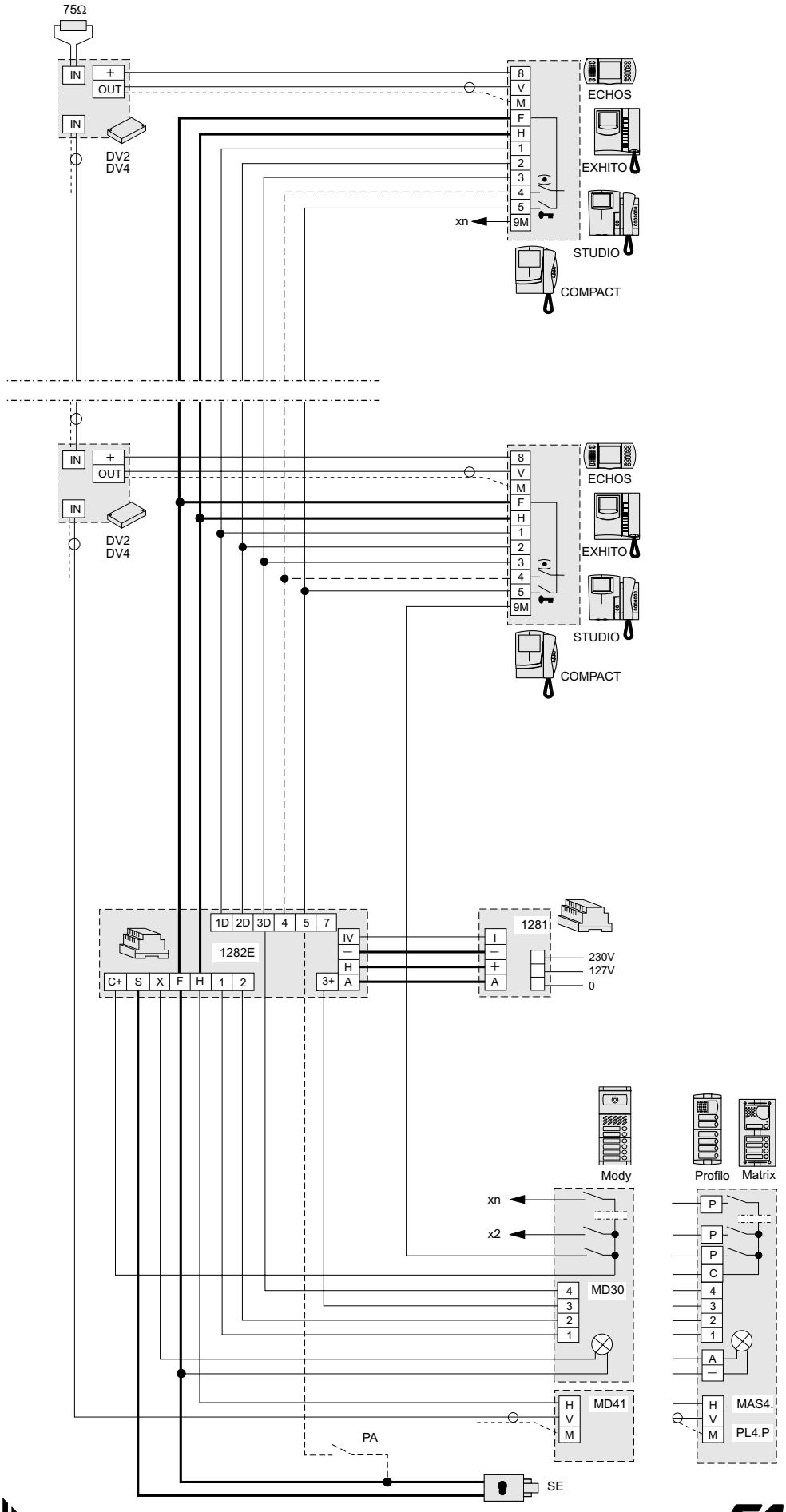


By adding **1281E** to the schematics on pages 188 and 189 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only
- no control switch-ON interruption with the video intercoms during external audio-video connection. If the service is necessary, add **1471** relay in order to interrupt conductor 4.

When using **MD100** and **MD200** amplified external door stations, it is advisable to place this diagram on the diagram of page 189 and line it up with the riser. For AC powered wires refer to the indications on page 146.



VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION



VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
... CV03	... CV03	... CV03	... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
1 PL81÷PL89	... MAS61÷MAS63 (1)	1 MD82÷MD812
1 PL91÷PL99 *	1 MA91÷MA93 *	1 MD92÷MD912 *
1 PL40PC÷PL42PC	1 MAS42C-MAS43C	1 MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	1 MD41D
1 CV01	1 CV01	1 MD30
... PL21÷PL228	... MAS22-MAS24	... MD21÷MD228
... PL20, PL50	... MAS20	... MD20, MD50

• VARIOUS ARTICLES

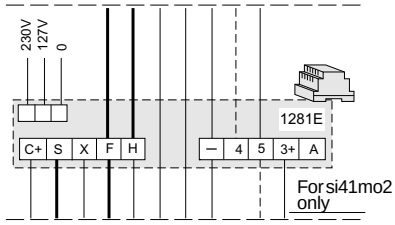
...	**DV2D-DV4D**	Video distributors
1	**1281**	Power supply
1	**1282E**	Timer
1	**PA ****	Door release button *(optional)*
1	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 218.

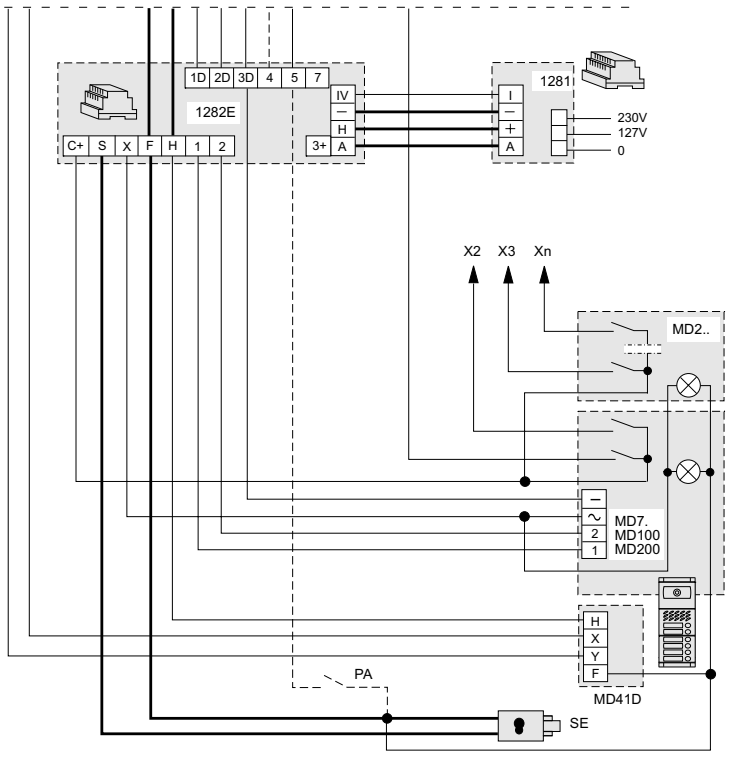
Notes
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For one-way systems connect the twisted pair to the monitor bracket directly, without using the video distributor.
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146 and 149.
- For other types of push-button panels see the general catalogue.

Connection of 1281E power supply-timer instead of 1281 plus 1282E.

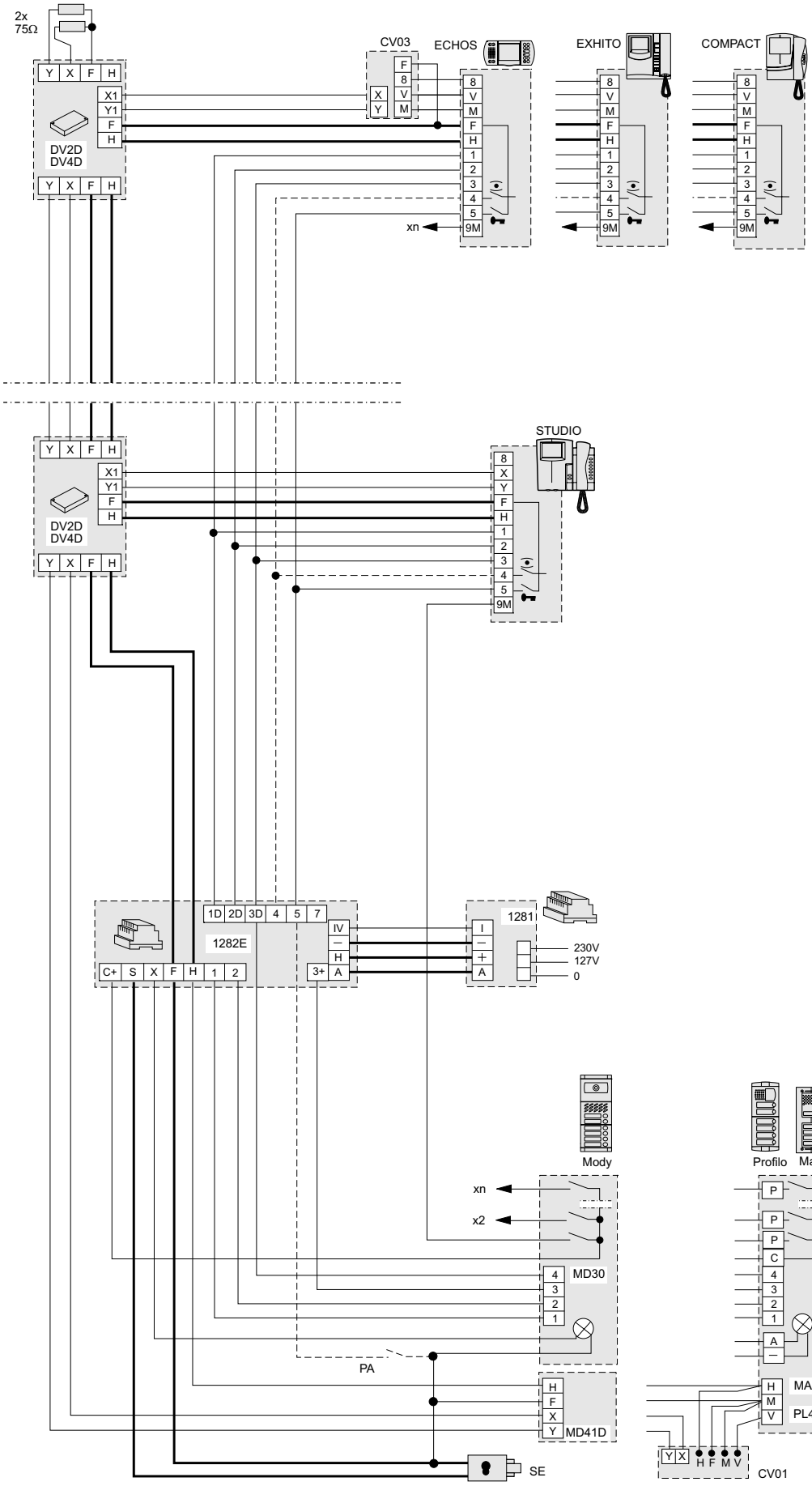


By adding **1281E** to the schematics on pages 190 and 191 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only
- no control switch-ON interruption with the video intercoms during external audio-video connection. If the service is necessary, add **1471** relay in order to interrupt conductor 4.

When using **MD100** and **MD200** amplified external door stations, it is advisable to place this diagram on the diagram of page 191 and line it up with the riser.
For AC powered wires refer to the indications on page 146.



VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION



MIXED INTERCOM AND VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION

• VIDEOINTERCOMS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• INTERCOMS

EXHITO series	EXHITO series	COMPACT series	STUDIO series
... EX310	... EX320	... KM810W	... ST720W
... SM50E	... SM50E	... SM50E	... SM50E

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
1 PL81÷PL89	... MAS61÷MAS63 (1)	1 MD82÷MD812
1 PL91÷PL99 *	1 MA91÷MA93 *	1 MD92÷MD912 *
1 PL40PC÷PL42PC	1 MAS42C-MAS43C	1 MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	1 MD41
... PL21÷PL228	... MAS22-MAS24	1 MD30
... PL20, PL50	... MAS20	... MD21÷MD228
		... MD20, MD50

• VARIOUS ARTICLES

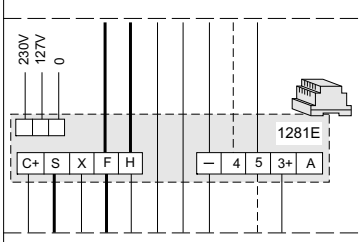
...	**DV2-DV4**	Video distributors
1	**1281**	Power supply
1	**1282E**	Timer
1	**PA ****	Door release button *(optional)*
1	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions. See page 218.

Notes
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For one-way systems connect the coaxial cable to the monitor bracket directly, without using the video distributor.
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For other types of push-button panels see the general catalogue.
- By using **MD100** and **MD200** amplified external door stations, we recommend to place schematic on page 188 on the other on page 193.

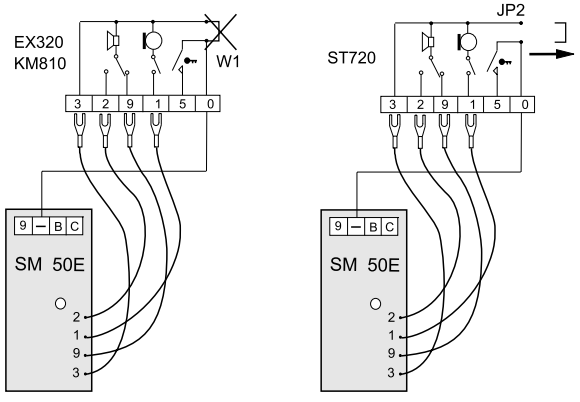
Connection of 1281E power supply-timer instead of 1281 plus 1282E.



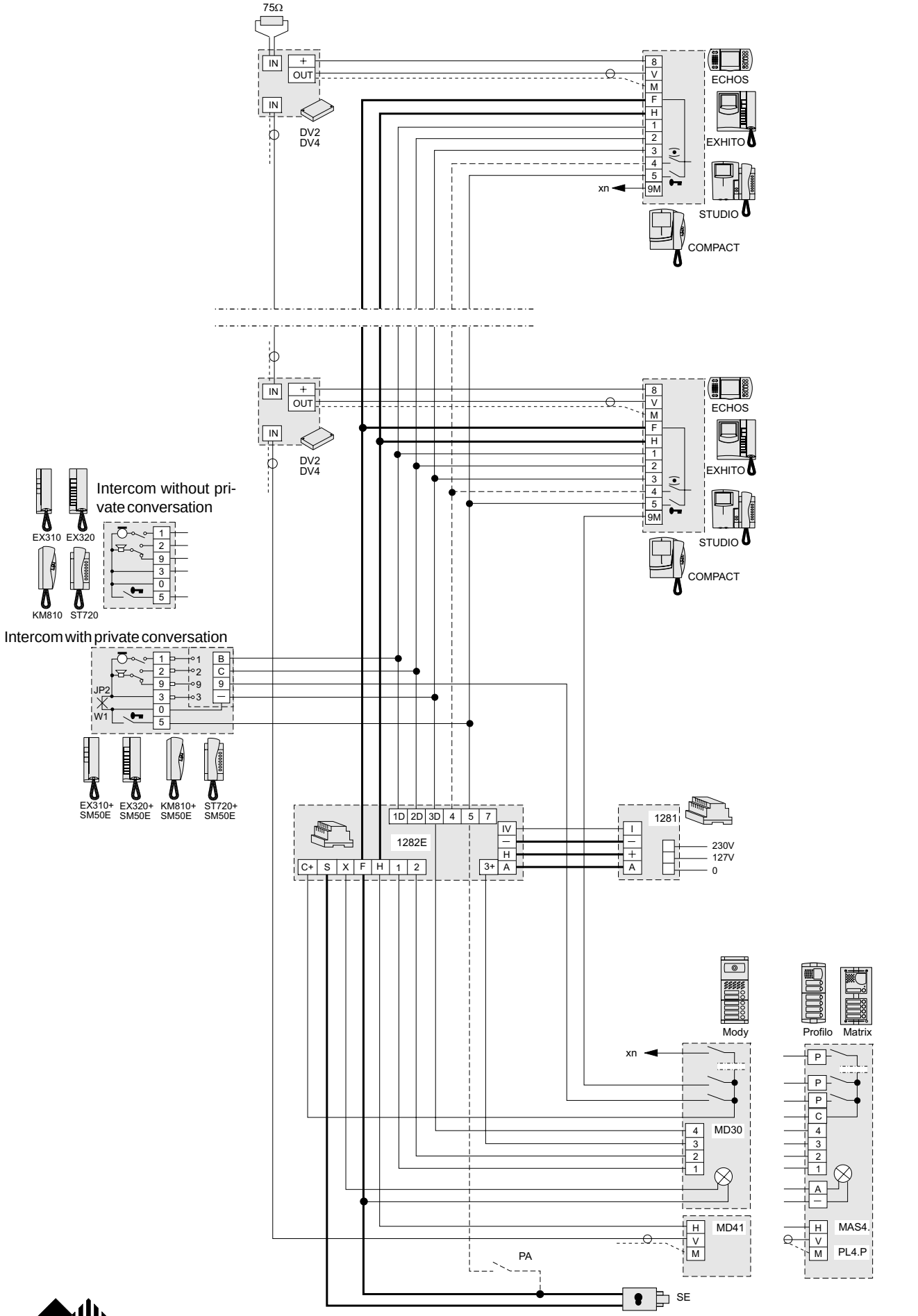
By adding **1281E** to the schematics on page 193 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only
- no control switch-ON interruption with the video intercoms during external audio-video connection. If the service is necessary, add **1471** relay in order to interrupt conductor 4.

Private conversation

All the videointercoms have the privacy function which allows only the called videointercom to talk with the door station. To guarantee the same function to the user with a simple intercom device it is necessary to install inside the intercom the privacy module **SM50E** and:
- (***ST 720***) - **remove the mobile jumper** inside the connector **JP2**
- (***EX310***, ***EX320*** *and* ***KM 810***) - **cut the jumper W1**
- **connect** terminal 0 of the intercom to terminal - (minus) of the SM50E module.



MIXED INTERCOM AND VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION



VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION WITH SURVEILLANCE CAMERA

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
1 PL81÷PL89	... MAS61÷MAS63 (1)	1 MD82÷MD812
1 PL91÷PL99 *	1 MA91÷MA93 *	1 MD92÷MD912 *
1 PL10P÷PL12P	1 MAS10P÷MAS12P	1 MD10÷MD124
... PL21÷PL228	... MAS22-MAS24	1 MD30
... PL20, PL50	... MAS20	... MD21÷MD228
		... MD20, MD50

• VARIOUS ARTICLES

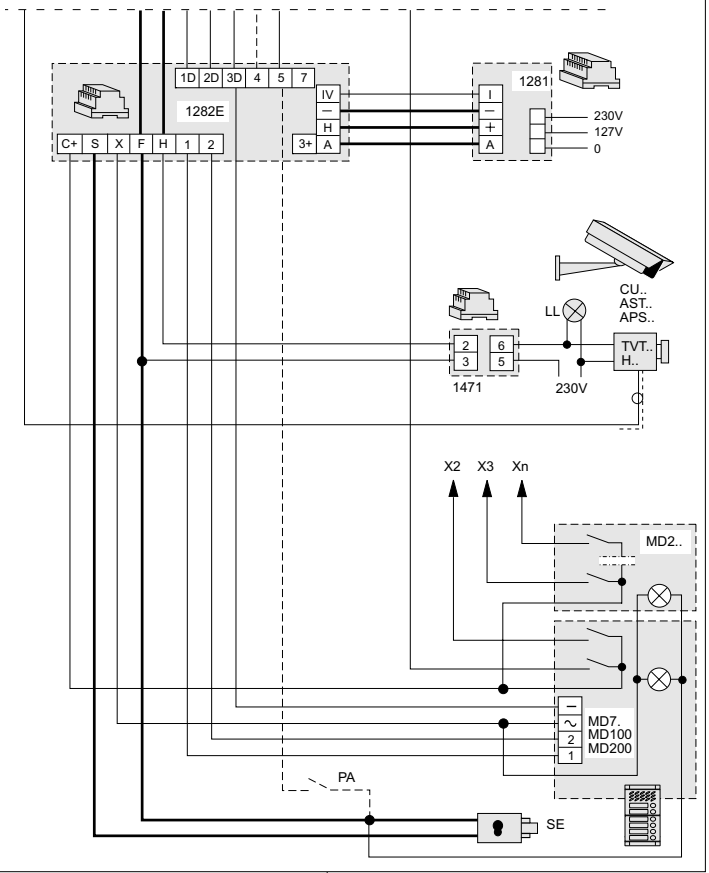
... **DV2-DV4** Video distributors
1 **1281** Power supply
1 **1282E** Timer
1 **1471** Relay unit
1 **TVT..** CCTV camera
1 **H..** Lens with or without autoiris
1 **CU..** Outdoor heated housing
1 **AST..** Bracket for camera or housing
1 **APS..** Power supply for camera
1 **LL**** Lamp with maximum power 800W *(optional)*
1 **PA **** Door release button *(optional)*
1 **SE **** Electric door lock (12Vac-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

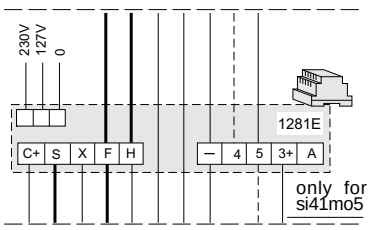
Working instructions. See page 218.

Notes
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For one-way systems connect the coaxial cable to the monitor bracket directly, without using the video distributor.
- For the selection of CCTV equipment or other types of push-button panels see the general catalogue.

When using **MD100** and **MD200** amplified external door stations, it is advisable to place this diagram on the diagram of page 195 and line it up with the riser.
For AC powered wires refer to the indications on page 146.

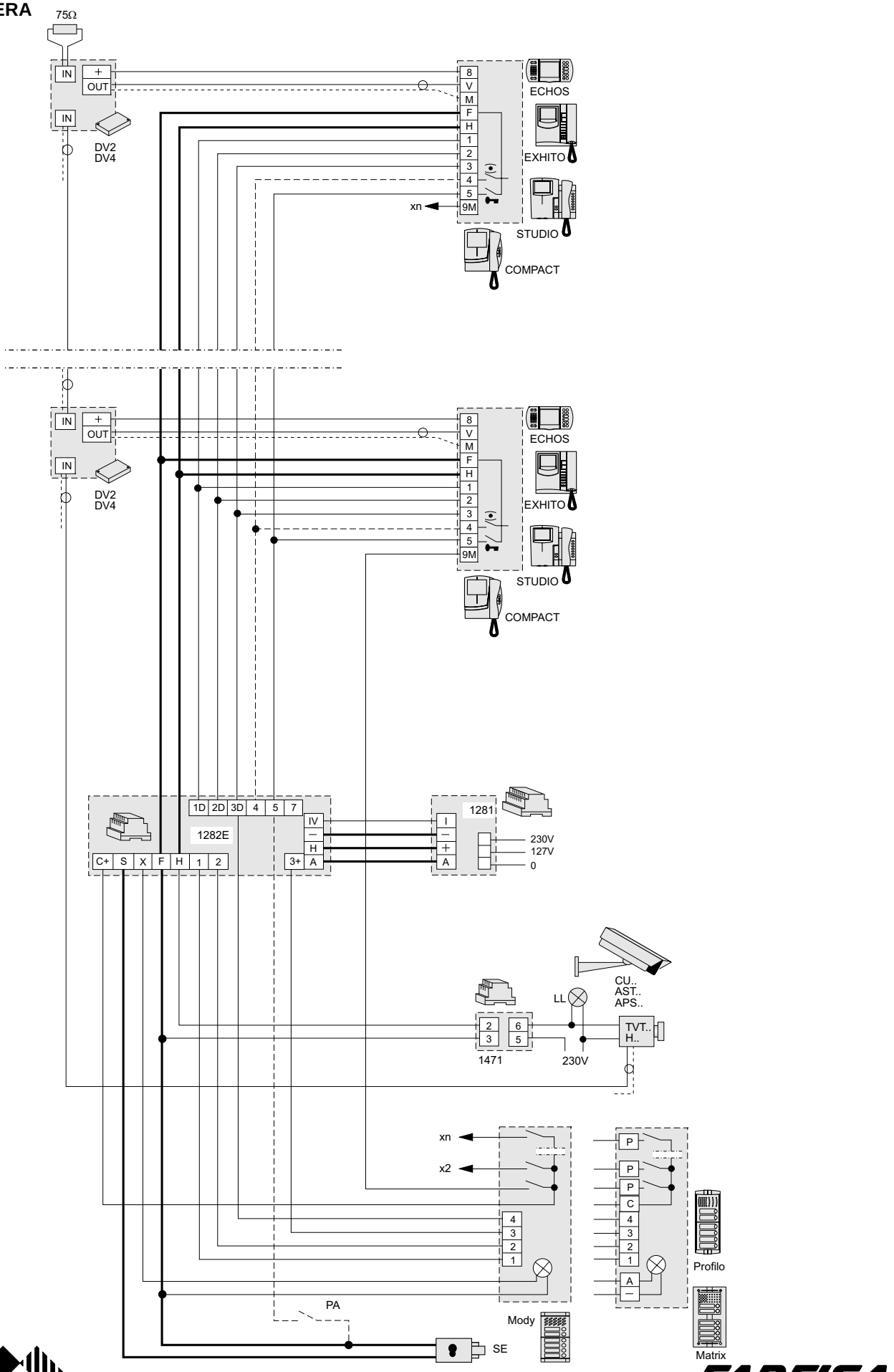


Connection of 1281E power supply-timer instead of 1281 plus 1282E.



By adding **1281E** to the schematics on pages 194 and 195 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only
- no control switch-ON interruption with the video intercoms during external audio-video connection. If the service is necessary, add **1471** relay in order to interrupt conductor 4.

VIDEO INTERCOM SYSTEM CONNECTED TO ONE EXTERNAL DOOR STATION WITH SURVEILLANCE CAMERA



VIDEO INTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

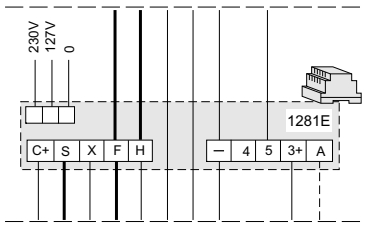
PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
2 PL81÷PL89	... MAS61÷MAS63 (1)	2 MD82÷MD812
2 PL91÷PL99 *	2 MA91÷MA93 *	2 MD92÷MD912 *
2 PL40PC÷PL42PC	2 MAS42C-MAS43C	2 MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	2 MD41
... PL21÷PL228	... MAS22-MAS24	2 MD30
... PL20, PL50	... MAS20	... MD21÷MD228
		... MD20, MD50

• VARIOUS ARTICLES

...	**DV2-DV4**	Video distributors
1	**1281**	Power supply
1	**1282E**	Timer
1	**1273TV**	Exchanger
2	**PA ****	Door release button *(optional)*
2	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Connection of 1281E power supply-timer instead of 1281 plus 1282E.

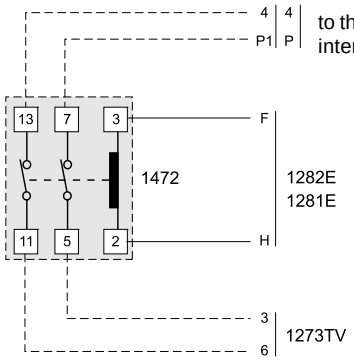


By adding **1281E** to the schematics on page 197 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

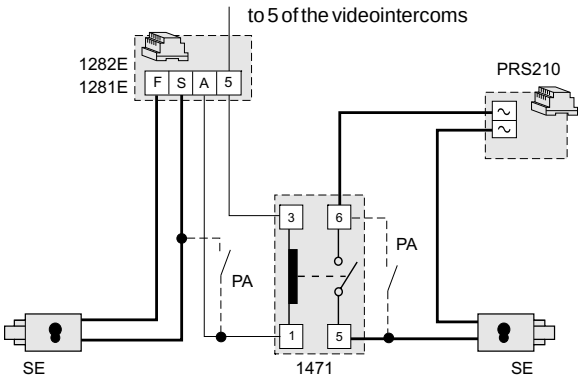
Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.

Notes
- If monitoring function is required it is necessary to connect the dashed conductors and:
  - ***Echos*** *series* - verify that jumper **J5**, located on the back of videointercom, is in the position **2-3**;
  - ***Exhito*** *series* (possibility of monitoring only the "a" entrance);
  - ***Compact*** *series* - connect together terminals **1C** and **PC** on the wall bracket;
  - ***Studio*** *series* - connect together terminals **1C** and **PC** on the wall bracket.
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For one-way systems connect the coaxial cable to the monitor bracket directly, without using the video distributor.
- For other types of push-button panels see the general catalogue.

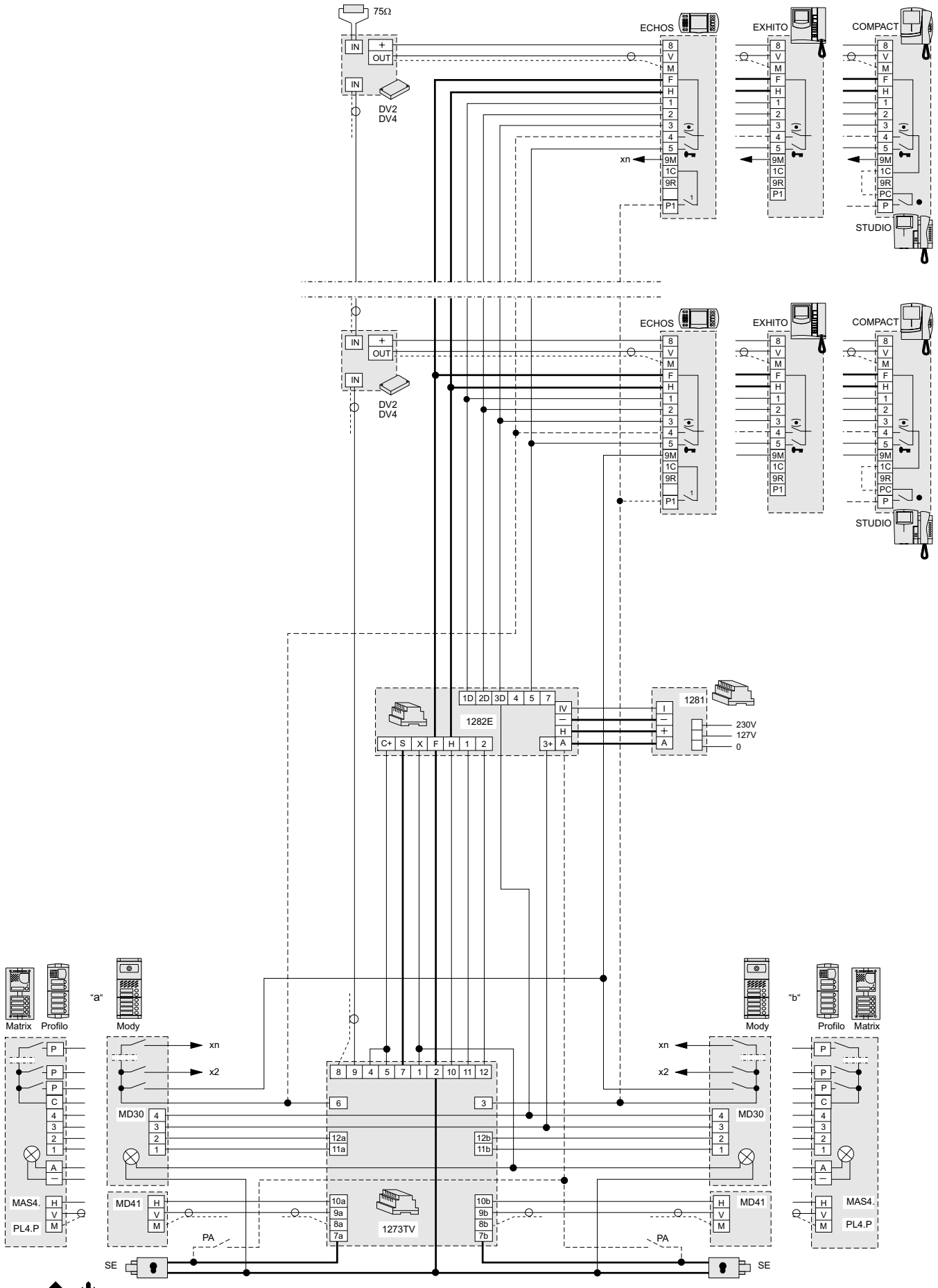
Control switching ON deactivation
To deactivate the monitoring function during the conversation and to keep it only when the system is in standby, it is necessary to install a 2-exchange relay (type **1472**) and connect it as shown on the diagram.



Connection of 2 door locks with simultaneous opening
If it is necessary to operate the 2 door locks of the system at the same time, you must:
- add a 12Vac transformer with suitable power (type **PRS210**)
- add a 12Vac relay (type **1471**)
- make the connections as shown in the diagram below.



VIDEO INTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS



VIDEO INTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
... CV03	... CV03	... CV03	... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

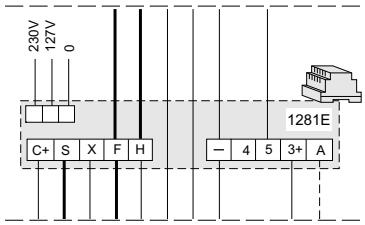
PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
2 PL81÷PL89	... MAS61÷MAS63 (1)	2 MD82÷MD812
2 PL91÷PL99 *	2 MA91÷MA93 *	2 MD92÷MD912 *
2 PL40PC÷PL42PC	2 MAS42C-MAS43C	2 MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	2 MD41
... PL21÷PL228	... MAS22-MAS24	2 MD30
... PL20, PL50	... MAS20	... MD21÷MD228
... CV01	... CV01	... MD20, MD50

• VARIOUS ARTICLES

...	**DV2D-DV4D**	Video distributors
1	**1281**	Power supply
1	**1282E**	Timer
1	**1273TV**	Exchanger
2	**PA ****	Door release button *(optional)*
2	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Connection of 1281E power supply-timer instead of 1281 plus 1282E.

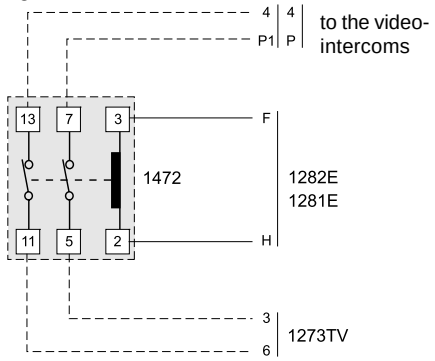


By adding **1281E** to the schematics on page 199 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

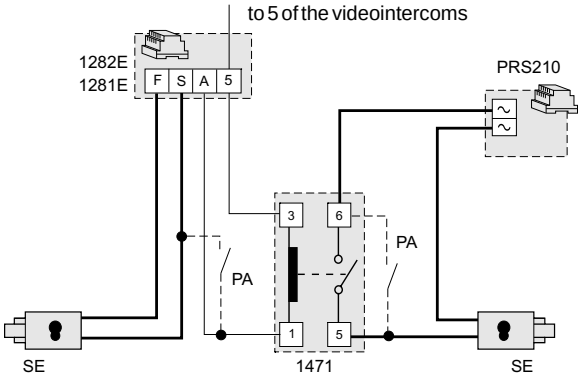
Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.

Notes
- If monitoring function is required it is necessary to connect the dashed conductors and:
  - ***Echos** series* - verify that jumper **J5**, located on the back of videointercom, is in the position **2-3**;
  - ***Exhito** series* (possibility of monitoring only the "a" entrance);
  - ***Compact** series* - connect together terminals **1C** and **PC** on the wall bracket;
  - ***Studio** series* - connect together terminals **1C** and **PC** on the wall bracket.
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146 and 149.
- For other types of push-button panels see the general catalogue.

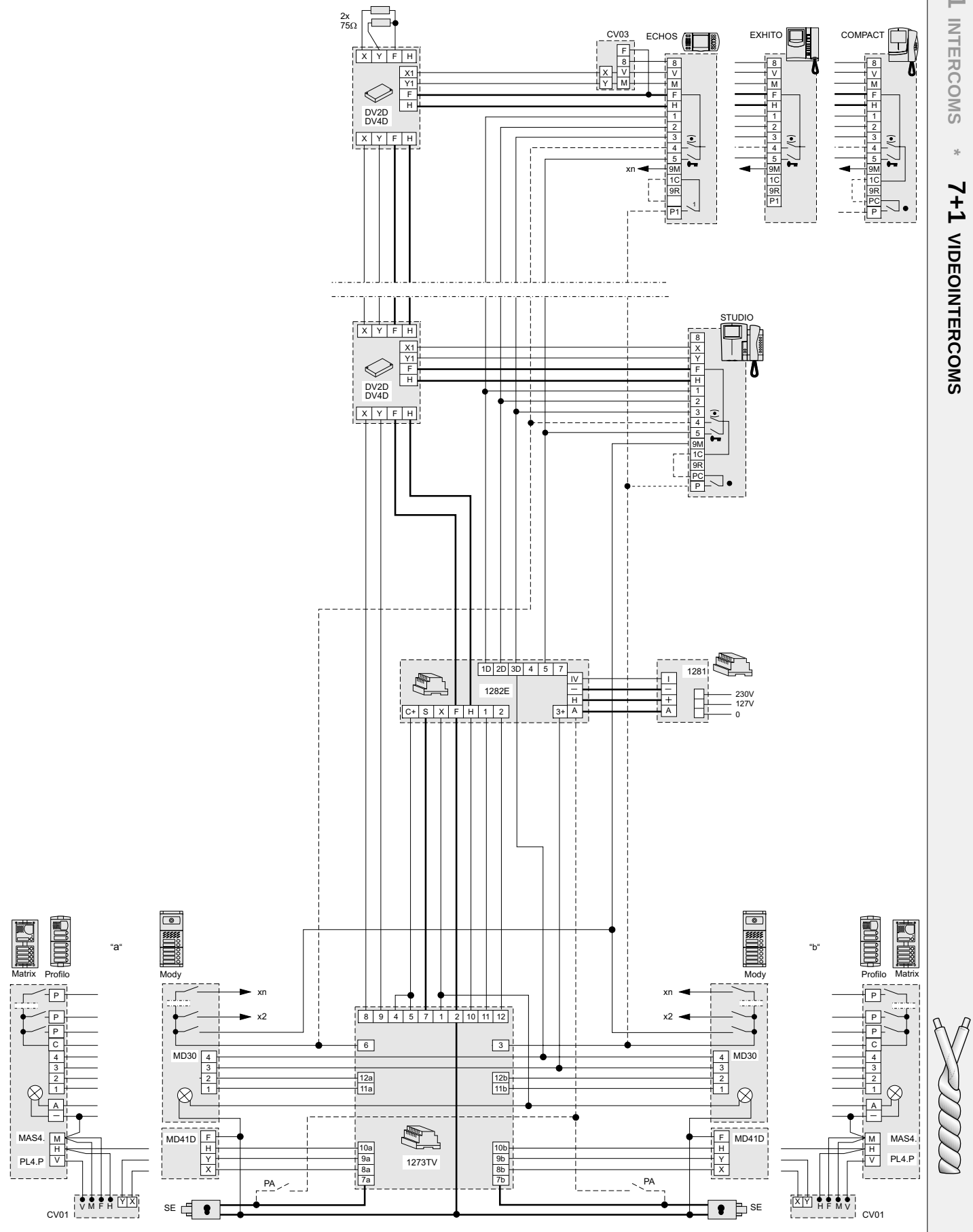
Control switching ON deactivation
To deactivate the monitoring function during the conversation and to keep it only when the system is in standby, it is necessary to install a 2-exchange relay (type **1472**) and connect it as shown on the diagram.



Connection of 2 door locks with simultaneous opening
If it is necessary to operate the 2 door locks of the system at the same time, you must:
- add a 12Vac transformer with suitable power (type **PRS210**)
- add a 12Vac relay (type **1471**)
- make the connections as shown in the diagram below.



VIDEO INTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS



VIDEO INTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS, ONE OF WHICH ONLY AUDIO

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

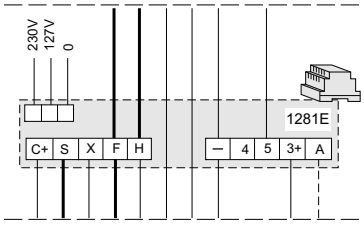
	PROFILO series	MATRIX series	MODY series
...	PL71÷PL73	... MA71÷MA73	... MD72÷MD74
2	PL81÷PL89	... MAS61÷MAS63 (1)	2 MD82÷MD812
2	PL91÷PL99 *	2 MA91÷MA93 *	2 MD92÷MD912 *
1	PL40PC÷PL42PC	1 MAS42C-MAS43C	2 MD10÷MD124
	PL40P÷PL42P	MAS42-MAS43	1 MD41
1	MA10P÷12P	1 MAS10P÷MAS12P	2 MD30
...	PL21÷PL228	... MAS22-MAS24	... MD21÷MD228
...	PL20, PL50	... MAS20	... MD20, MD50

• VARIOUS ARTICLES

...	**DV2-DV4**	Video distributors
1	**1281**	Power supply
1	**1282E**	Timer
1	**1473**	Exchanger
2	**PA ****	Door release button *(optional)*
2	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Connection of 1281E power supply-timer instead of 1281 plus 1282E.

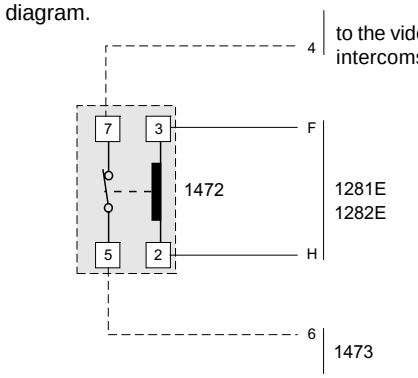


By adding **1281E** to the schematics on page 201 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

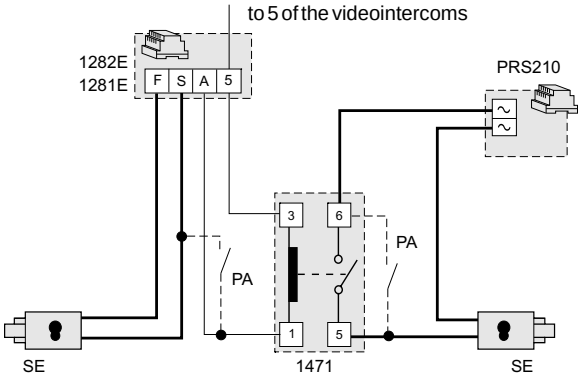
Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call and remain in this state until a call from another entrance is received.

Notes
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For one-way systems connect the coaxial cable to the monitor bracket directly, without using the video distributor.
- For other types of push-button panels see the general catalogue.

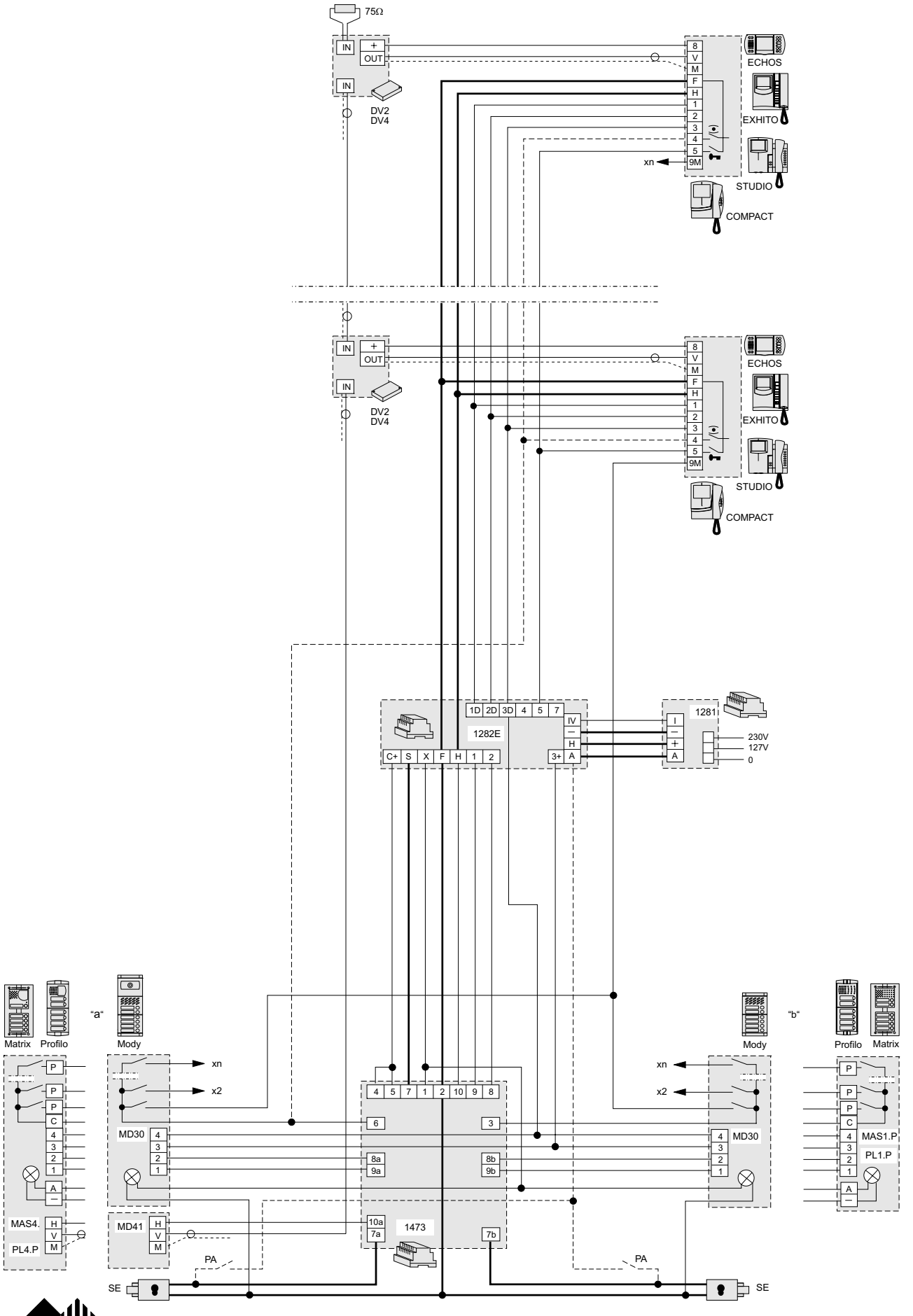
Control switching ON deactivation
To deactivate the monitoring function during the conversation and to keep it only when the system is in standby, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



Connection of 2 door locks with simultaneous opening
If it is necessary to operate the 2 door locks of the system at the same time, you must:
- add a 12Vac transformer with suitable power (type **PRS210**)
- add a 12Vac relay (type **1471**)
- make the connections as shown in the diagram below.



VIDEO INTERCOM SYSTEM CONNECTED TO TWO EXTERNAL DOOR STATIONS, ONE OF WHICH ONLY AUDIO



VIDEO INTERCOM SYSTEM CONNECTED TO THREE EXTERNAL DOOR STATIONS

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
3 PL81÷PL89	... MAS61÷MAS63 (1)	3 MD82÷MD812
3 PL91÷PL99 *	3 MA91÷MA93 *	3 MD92÷MD912 *
3 PL40PC÷PL42PC	3 MAS42C-MAS43C	3 MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	3 MD41
... PL21÷PL228	... MAS22-MAS24	3 MD30
... PL20, PL50	... MAS20	... MD21÷MD228
		... MD20, MD50

• VARIOUS ARTICLES

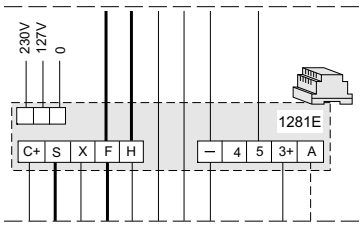
...	**DV2-DV4**	Video distributors
1	**1281**	Power supply
1	**1282E**	Timer
2	**1273TV**	Exchanger
3	**PA ****	Door release button *(optional)*
3	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.

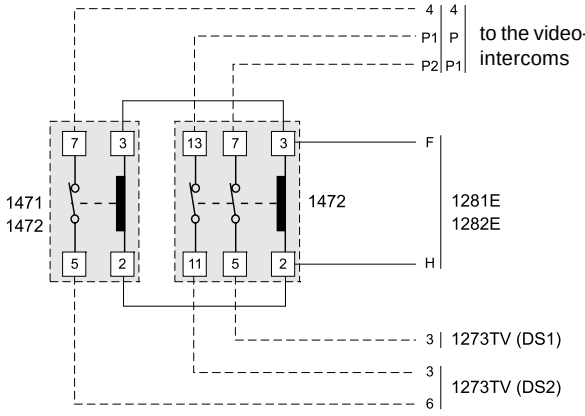
Notes
- If monitoring function is required it is necessary to connect the dashed conductors and:
  - ***Echos*** *series* - verify that jumper **J5**, located on the back of videointercom, is in the position **2-3**;
  - ***Exhito*** *series* (possibility of monitoring only the "a" entrance);
  - ***Compact*** *series* (possibility of monitoring the "a" and "b" entrances - connect together terminals **1C** and **PC** on the wall bracket;
  - ***Studio*** *series* - connect together terminals **1C, PC** and **C** on the wall bracket.
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For one-way systems connect the coaxial cable to the monitor bracket directly, without using the video distributor.
- For other types of push-button panels see the general catalogue.

Connection of 1281E power supply-timer instead of 1281 plus 1282E.



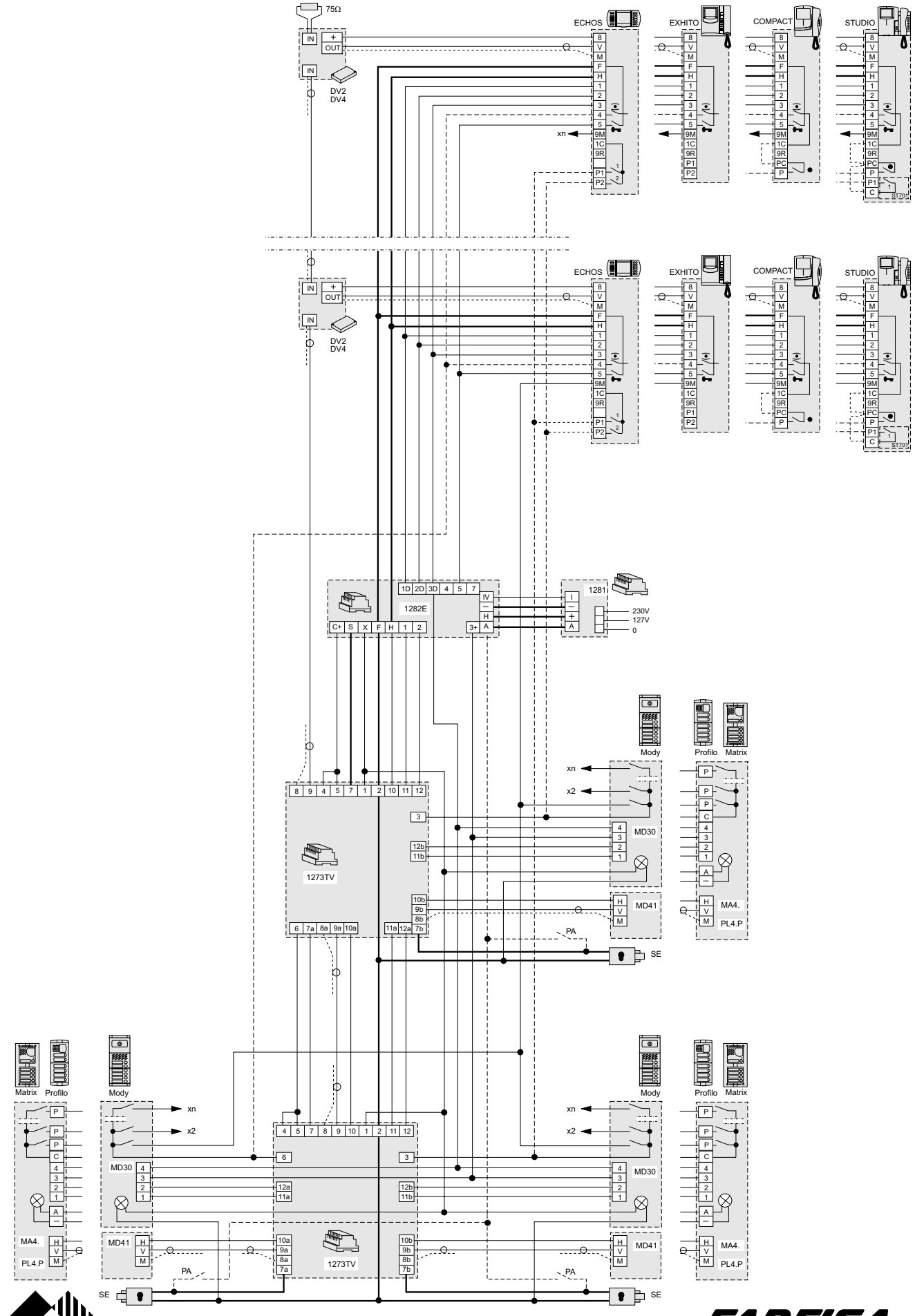
By adding **1281E** to the schematics on page 203 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

Control switching ON deactivation
To deactivate the monitoring function during the conversation and to keep it only when the system is in standby, it is necessary to install a 2-exchange relay (type **1472**) and connect it as shown on the diagram.



DS1 and DS2 are diagram references.

VIDEO INTERCOM SYSTEM CONNECTED TO THREE EXTERNAL DOOR STATIONS



VIDEO INTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON VIDEO STATION (multiple entrance)

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
1+X PL81÷PL89	... MAS61÷MAS63 (1)	1+X MD82÷MD812
1+X PL91÷PL99 *	1+X MA91÷MA93 *	1+X MD92÷MD912 *
1+X PL40PC÷PL42PC	1+X MAS42C-MAS43C	1+X MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	1+X MD41
... PL21÷PL228	... MAS22-MAS24	1+X MD30
... PL20, PL50	... MAS20	... MD21÷MD228
		... MD20, MD50

• VARIOUS ARTICLES

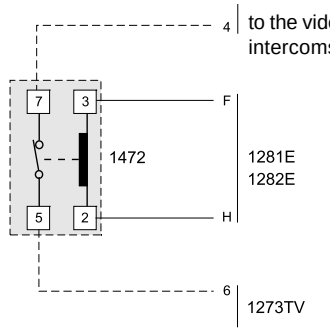
...	**DV2-DV4**	Video distributors
1+X	**1281**	Power supply
1+X	**1282E**	Timer
X	**1273TV**	Exchanger
1+...	**476**	Video distributor-amplifier
1+X	**PA ****	Door release button *(optional)*
1+X	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
X Refers to number of secondary door stations.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

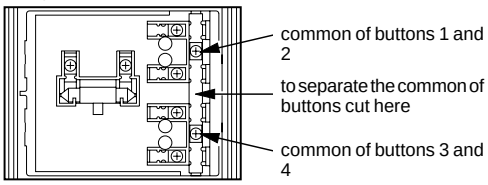
Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For other types of push-button panels see the general catalogue.

Control switching ON deactivation
To deactivate the monitoring function during the conversation and to keep it only when the system is in standby, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



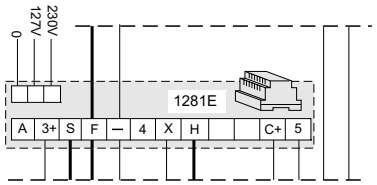
The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. Buttons of the **Mody** series can be divided into 2-button groups. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.

Mody series button module

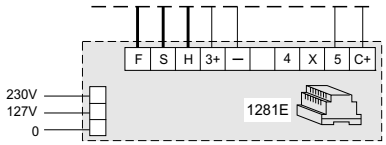


Connection of 1281E power supply-timer instead of 1281 plus 1282E.

Power supply-timer of the secondary entrance

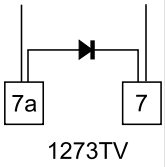


Power supply-timer of the main entrance



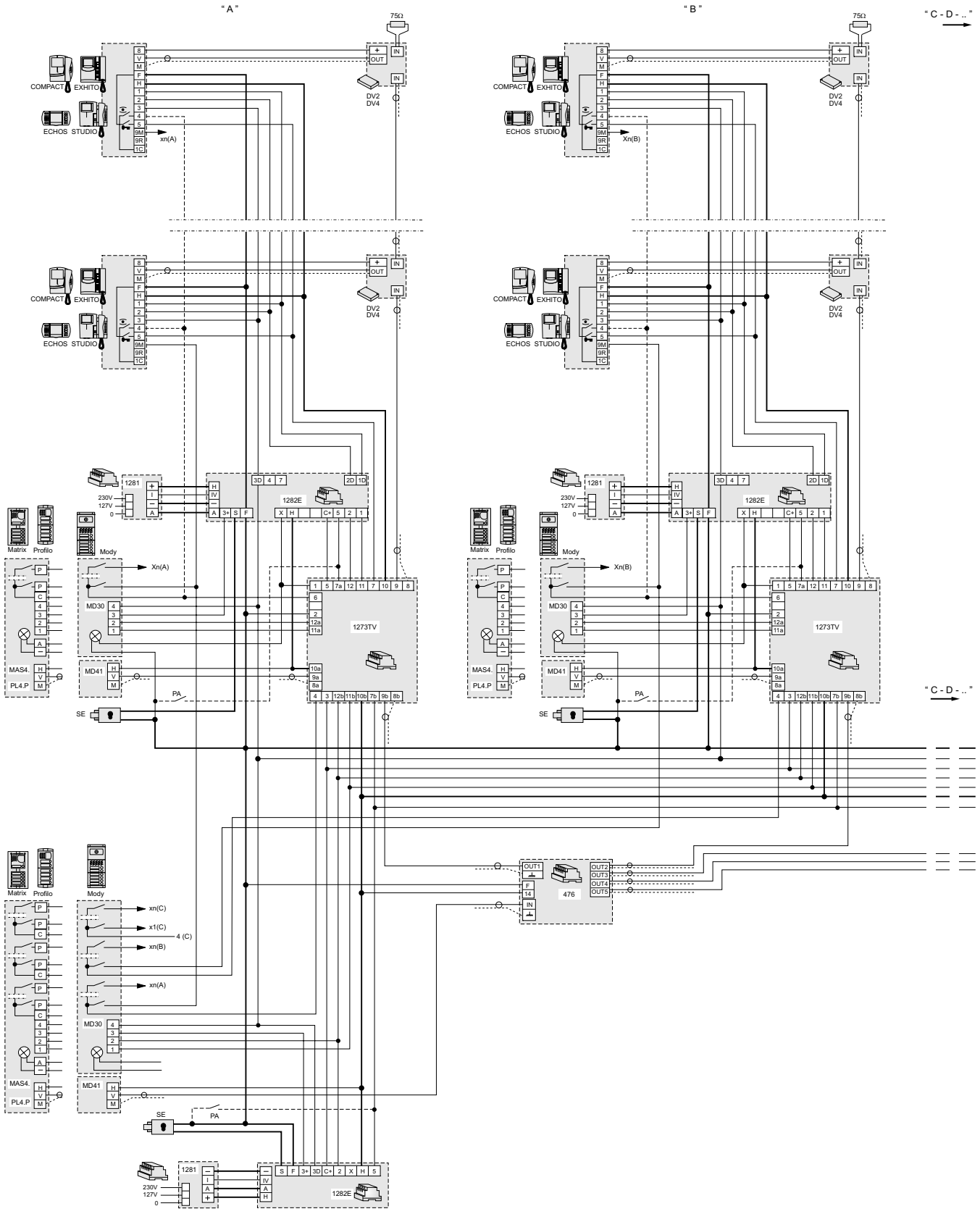
By adding **1281E** to the schematics on page 205 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

Connection of two door locks, of which the secondary is always activable, in a system with multiple entrance



For this option it is necessary to install a diode (100V-1A; type 1N4007) between terminals 7 (cathode) and 7a (anode) of every secondary exchanger. The diode allows to activate also the door look of your own entrance when the door look of the main entrance is activated. On the contrary when the door lock of your own entrance is activated the door look of the main entrance is not activated.

VIDEO INTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON VIDEO STATION (multiple entrance)



VIDEO INTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON VIDEO STATION (multiple entrance)

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
... CV03	... CV03	... CV03	... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
1+X PL81÷PL89	... MAS61÷MAS63 (1)	1+X MD82÷MD812
1+X PL91÷PL99 *	1+X MA91÷MA93 *	1+X MD92÷MD912 *
1+X PL40PC÷PL42PC	1+X MAS42C-MAS43C	1+X MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	1+X MD41D
... PL21÷PL228	... MAS22-MAS24	1+X MD30
... PL20, PL50	... MAS20	... MD21÷MD228
... CV01	... CV01	... MD20, MD50

• VARIOUS ARTICLES

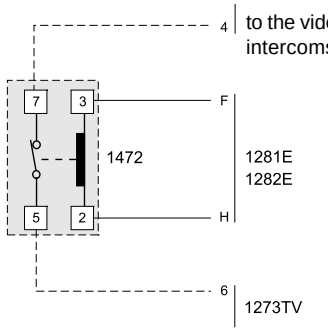
...	**DV2D-DV4D**	Video distributors
1+X	**1281**	Power supply
1+X	**1282E**	Timer
X	**1273TV**	Exchanger
1+X	**PA ****	Door release button *(optional)*
1+X	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
X Refers to number of secondary door stations.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

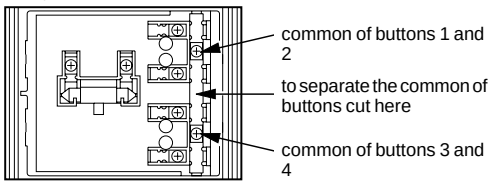
Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146 and 149.
- For other types of push-button panels see the general catalogue.

Control switching ON deactivation
To deactivate the monitoring function during the conversation and to keep it only when the system is in standby, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



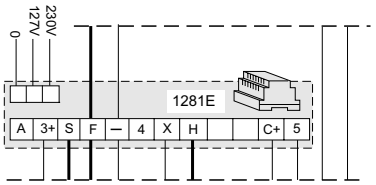
The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. Buttons of the **Mody** series can be divided into 2-button groups. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.

Mody series button module

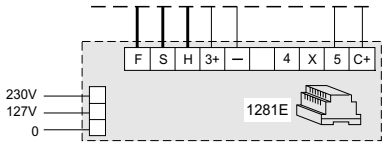


Connection of 1281E power supply-timer instead of 1281 plus 1282E.

Power supply-timer of the secondary entrance

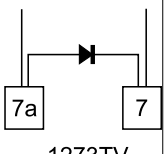


Power supply-timer of the main entrance



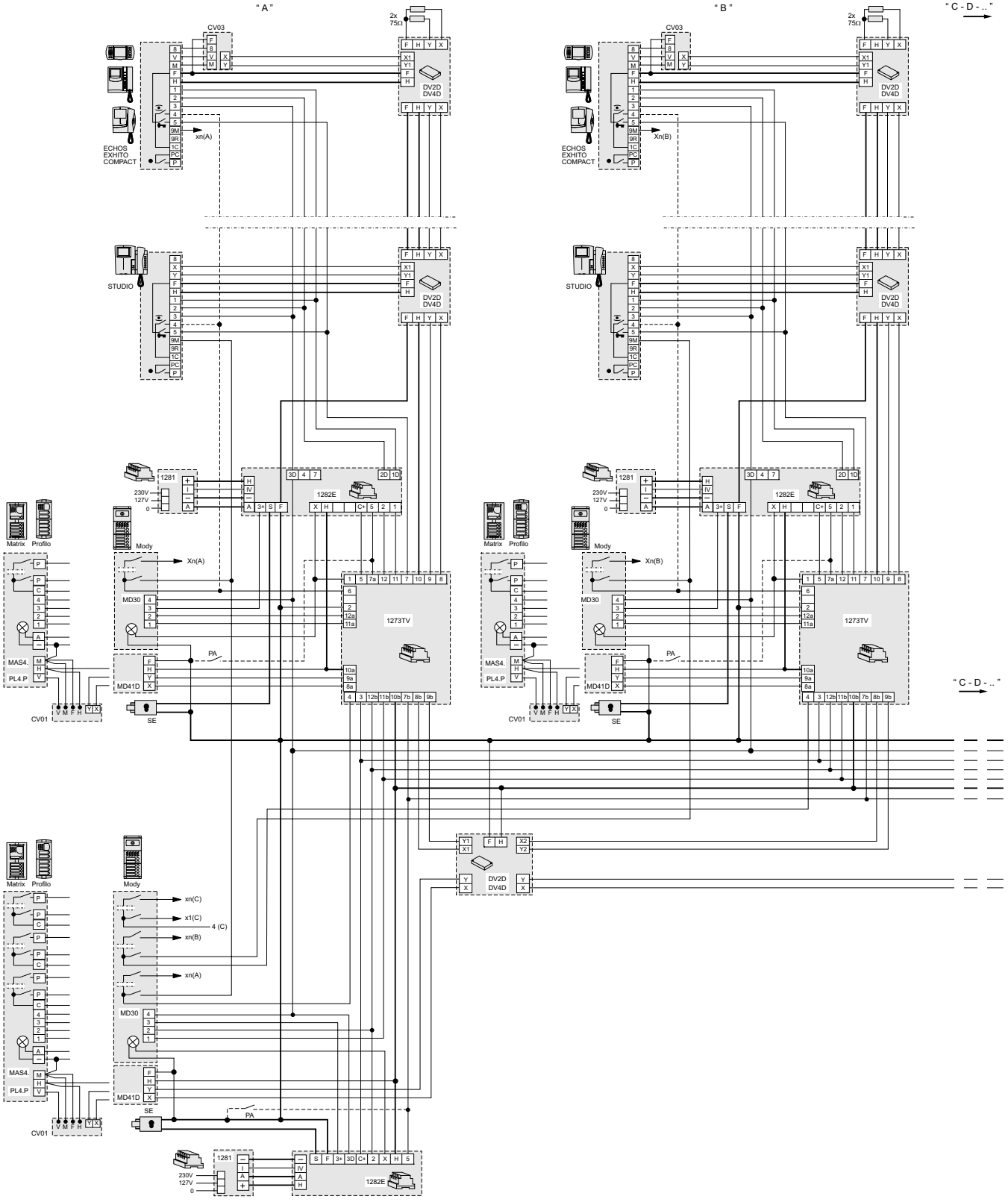
By adding **1281E** to the schematics on page 207 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

Connection of two door locks, of which the secondary is always activable, in a system with multiple entrance



For this option it is necessary to install a diode (100V-1A; type 1N4007) between terminals 7 (cathode) and 7a (anode) of every secondary exchanger. The diode allows to activate also the door look of your own entrance when the door look of the main entrance is activated. On the contrary when the door lock of your own entrance is activated the door look of the main entrance is not activated.

VIDEO INTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON VIDEO STATION (multiple entrance)



VIDEO INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION (multiple entrance)

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
1+X PL81÷PL89	... MAS61÷MAS63 (1)	1+X MD82÷MD812
1+X PL91÷PL99 *	1+X MA91÷MA93 *	1+X MD92÷MD912 *
1 PL40PC÷PL42PC	1 MAS42C-MAS43C	1+X MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	1 MD41
X PL10P÷PL124P	X MAS10P÷MAS12P	1+X MD30
... PL21÷PL228	... MAS22-MAS24	... MD21÷MD228
... PL20, PL50	... MAS20	... MD20, MD50

• VARIOUS ARTICLES

...	**DV2-DV4**	Video distributors
1+X	**1281**	Power supply
1+X	**1282E**	Timer
X	**1273TV**	Exchanger
1+...	**476**	Video distributor-amplifier
1+X	**PA ****	Door release button *(optional)*
1+X	**SE ****	Electric door lock (12Vac-1A)

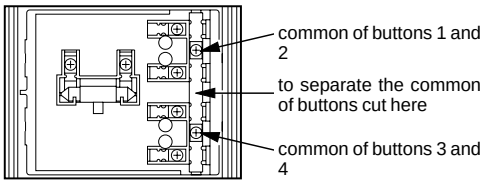
... Refers to number of users.
X Refers to number of secondary door stations.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For other types of push-button panels see the general catalogue.

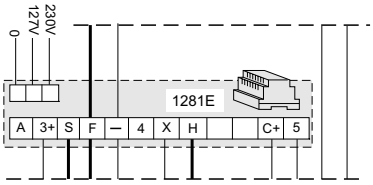
The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. Buttons of the **Mody** series can be divided into 2-button groups. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.

Mody series button module

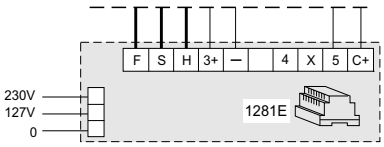


Connection of 1281E power supply-timer instead of 1281 plus 1282E.

Power supply-timer of the secondary entrance

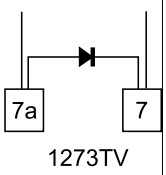


Power supply-timer of the main entrance



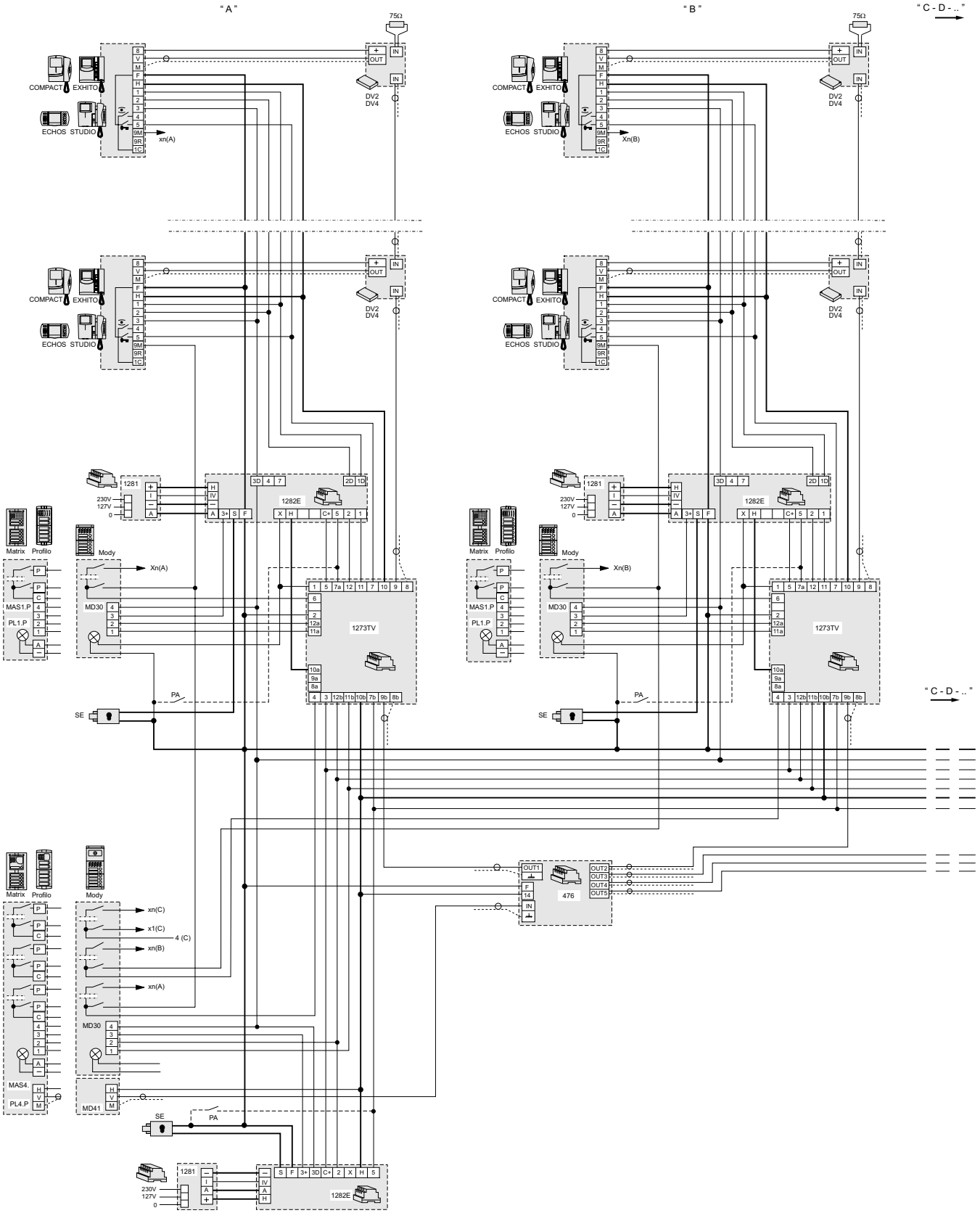
By adding **1281E** to the schematics on page 209 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

Connection of two door locks, of which the secondary is always activable, in a system with multiple entrance



For this option it is necessary to install a diode (100V-1A; type 1N4007) between terminals 7 (cathode) and 7a (anode) of every secondary exchanger. The diode allows to activate also the door look of your own entrance when the door look of the main entrance is activated. On the contrary when the door lock of your own entrance is activated the door look of the main entrance is not activated.

VIDEO INTERCOM SYSTEM WITH SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION (multiple entrance)



VIDEO INTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON STATION ONLY AUDIO (multiple entrance)

• INTERNAL STATIONS

	ECHOS series	EXHITO series	COMPACT series	STUDIO series
...	**EH9100CT/CW**	**EX3100C**	**KM8100W**	**ST7100CW**
	EH9160CT/CW	**EX3160C**	**KM8600W**	**ST7100W**
...	**9083**	**EX3160**	**KM8800W**	**ST720W**
...	**WA9100T/W**	**WB3160**	**WB8600**	**WB7100**
...	**TA9160**	**TA3160**	**8083**	**WB700**
				TA7100
				TA700

• EXTERNAL DOOR STATIONS

	PROFILO series	MATRIX series	MODY series
...	**PL71÷PL73**	**MA71÷MA73**	**MD72÷MD74**
1+X	**PL81÷PL89**	**MAS61÷MAS63** (1)	**MD82÷MD812**
1+X	**PL91÷PL99 ***	**MA91÷MA93 ***	**MD92÷MD912 ***
X	**PL40PC÷PL42PC**	**MAS42C-MAS43C**	**MD10÷MD124**
	PL40P÷PL42P	**MAS42-MAS43**	**MD41**
1	**PL10P÷PL124P**	**MAS10P÷MAS12P**	**MD30**
...	**PL21÷PL228**	**MAS22-MAS24**	**MD21÷MD228**
...	**PL20, PL50**	**MAS20**	**MD20, MD50**

• VARIOUS ARTICLES

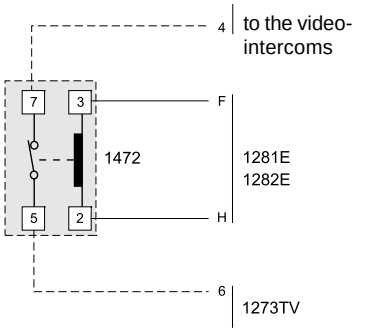
...	**DV2-DV4**	Video distributors
1+X	**1281**	Power supply
1+X	**1282E**	Timer
X	**1273TV**	Exchanger
1+X	**PA ****	Door release button *(optional)*
1+X	**SE ****	Electric door lock (12Vac-1A)

... Refers to number of users.
X Refers to number of secondary door stations.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

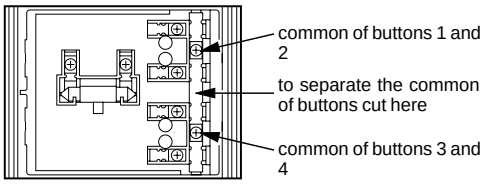
Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For other types of push-button panels see the general catalogue.

Control switching ON deactivation
To deactivate the monitoring function during the conversation and to keep it only when the system is in standby, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



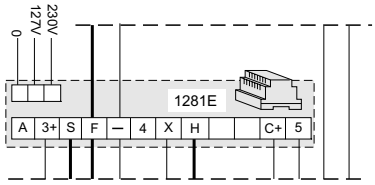
The main entrance push-button panel must have separate common terminals. One common terminal for each secondary door station. Buttons of the **Mody** series can be divided into 2-button groups. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.

Mody series button module

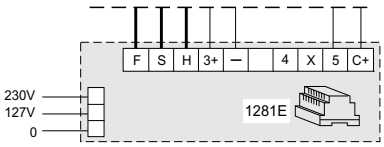


Connection of 1281E power supply-timer instead of 1281 plus 1282E.

Power supply-timer of the secondary entrance

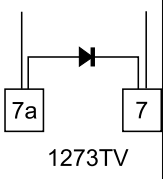


Power supply-timer of the main entrance



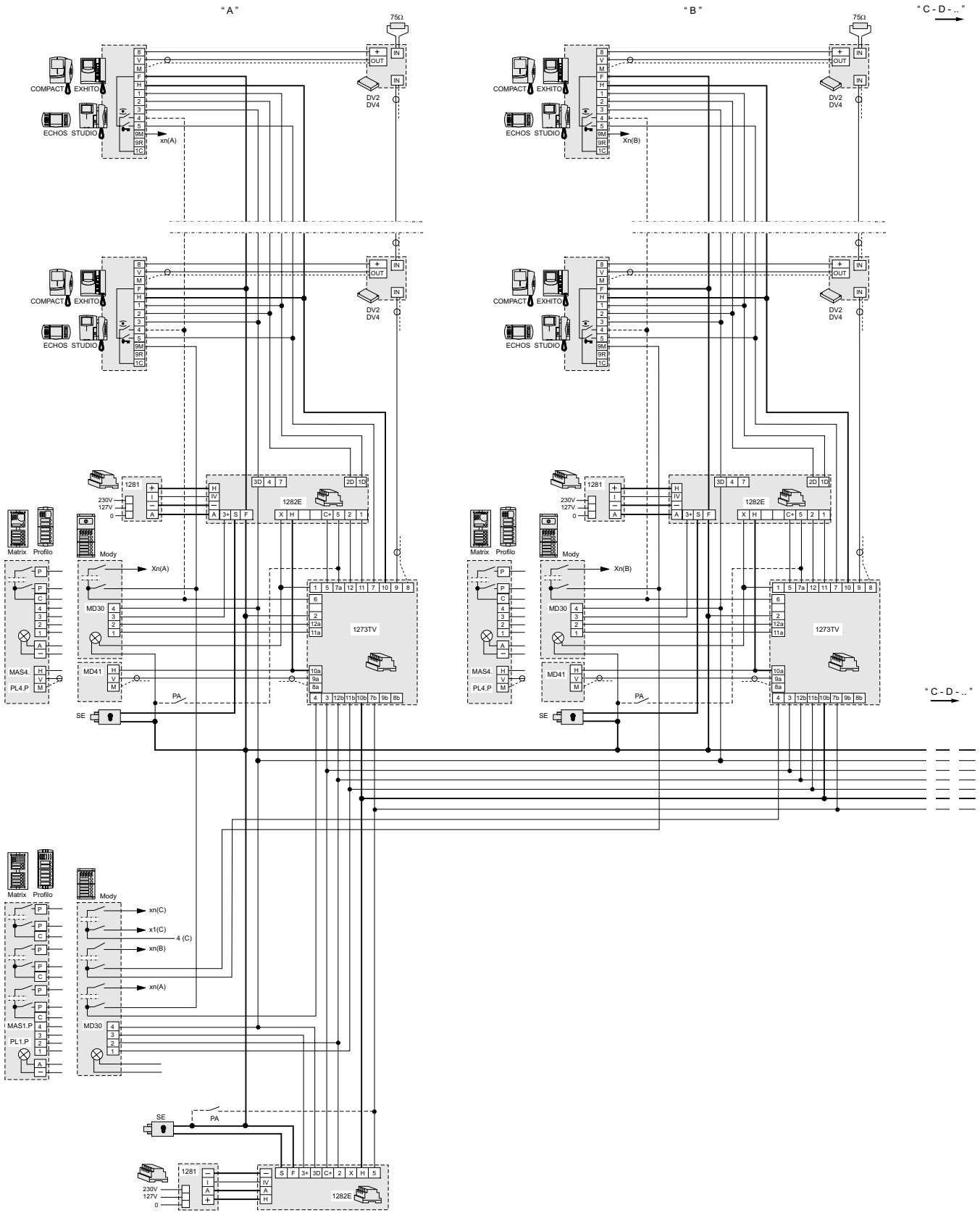
By adding **1281E** to the schematics on page 211 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

Connection of two door locks, of which the secondary is always activable, in a system with multiple entrance



For this option it is necessary to install a diode (100V-1A; type 1N4007) between terminals 7 (cathode) and 7a (anode) of every secondary exchanger. The diode allows to activate also the door look of your own entrance when the door look of the main entrance is activated. On the contrary when the door lock of your own entrance is activated the door look of the main entrance is not activated.

VIDEO INTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 1 MAIN COMMON STATION ONLY AUDIO (multiple entrance)



VIDEO INTERCOM SYSTEM WITH ONE-WAY SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION (multiple entrance)

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• MAIN EXTERNAL DOOR STATION

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA72÷MA73	... MD72÷MD74
1 PL81÷PL89	... MAS62÷MAS63 (1)	1 MD82÷MD812
1 PL91÷PL99 *	1 MA92÷MA93 *	1 MD92÷MD912 *
1 PL40PC÷PL42PC	1 MAS42C-MAS43C	1 MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	1 MD41
		1 MD30
... PL21÷PL228	... MAS22-MAS24	... MD21÷MD228
... PL20, PL50	... MAS20	... MD20, MD50

• SECONDARY EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71	... MA71	... MD71
X PL81	... MAS61 (1)	X MD81
X PL91 *	X MA91 *	X MD91 *
		X MD11
X PL11P	X MA11P	X MD30

• VARIOUS ARTICLES

...	**DV2-DV4**	Video distributors
1	**1281**	Power supply
1	**1282E**	Timer
X	**1473**	Exchanger
X	**PRS240**	Power supply
X	**1471**	Relay unit
1+...	**476**	Video distributor-amplifier
1+X	**PA ****	Door release button *(optional)*
1+X	**SE ****	Electric door lock (12Vac-1A)

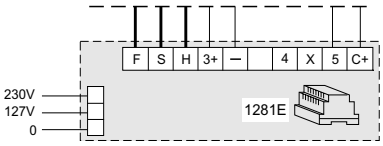
... Refers to number of users.
X Refers to number of secondary door stations.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.
- By making the call from the secondary audio station, the video intercom remains switched OFF.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- **DV..** distributors can be used instead of the video distributors **476** by adding a power supply wire (from + to terminal 8 of every video intercom).
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.

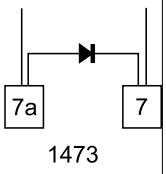
Connection of 1281E power supply-timer instead of 1281 plus 1282E.

Power supply-timer of the main entrance



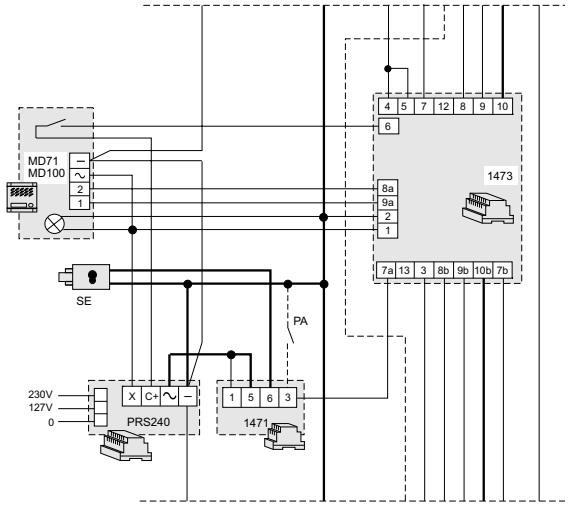
By adding **1281E** to the schematics on page 213 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

Connection of two door locks, of which the secondary is always activable, in a system with multiple entrance

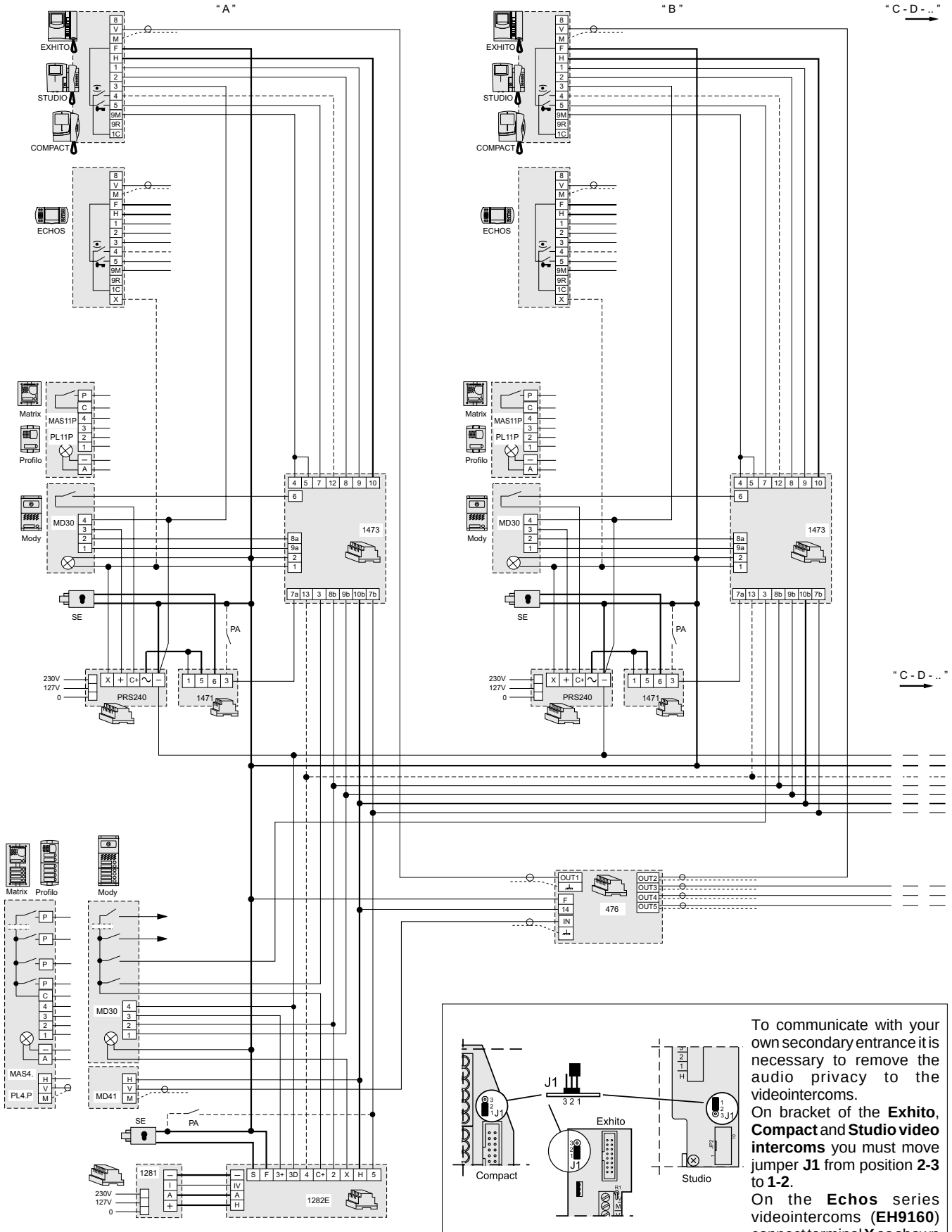


For this option it is necessary to install a diode (100V-1A; type 1N4007) between terminals 7 (cathode) and 7a (anode) of every secondary exchanger. The diode allows to activate also the door look of your own entrance when the door look of the main entrance is activated. On the contrary when the door lock of your own entrance is activated the door look of the main entrance is not activated.

Connection of the MD100 amplified external door station to the secondary door station instead of electric door speaker MD30 and module MD11.



VIDEO INTERCOM SYSTEM WITH ONE-WAY SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION (multiple entrance)



To communicate with your own secondary entrance it is necessary to remove the audio privacy to the videointercoms.
On bracket of the **Exhito**, **Compact** and **Studio video intercoms** you must move jumper **J1** from position **2-3** to **1-2**.
On the **Echos** series videointercoms (**EH9160**) connect terminal **X** as shown in the installation diagram.

VIDEO INTERCOM SYSTEM WITH ONE-WAY SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION (multiple entrance)

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
... CV03	... CV03	... CV03	... TA7100
			... TA700

• MAIN EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA72÷MA73	... MD72÷MD74
1 PL81÷PL89	... MAS62÷MAS63 (1)	1 MD82÷MD812
1 PL91÷PL99 *	1 MA92÷MA93 *	1 MD92÷MD912 *
1 PL40PC÷PL42PC	1 MAS42C-MAS43C	1 MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	1 MD41
1 CV01	1 CV01	1 MD30
... PL21÷PL228	... MAS22-MAS24	... MD21÷MD228
... PL20, PL50	... MAS20	... MD20, MD50

• SECONDARY EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71	... MA71	... MD71
X PL81	... MAS61 (1)	X MD81
X PL91 *	X MA91 *	X MD91 *
		X MD11
X PL11P	X MA11P	X MD30

• VARIOUS ARTICLES

...	DV2D-DV4D	Video distributors
1	1281	Power supply
1	1282E	Timer
X	1473	Exchanger
X	PRS240	Power supply
X	1471	Relay unit
1+X	PA **	Door release button *(optional)*
1+X	SE **	Electric door lock (12Vac-1A)

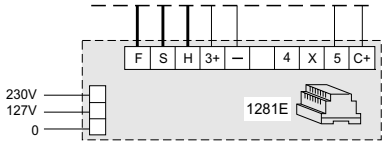
... Refers to number of users.
X Refers to number of secondary door stations.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.
- By making the call from the secondary audio station, the video intercom remains switched OFF.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146 and 149.

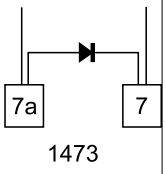
Connection of 1281E power supply-timer instead of 1281 plus 1282E.

Power supply-timer of the main entrance



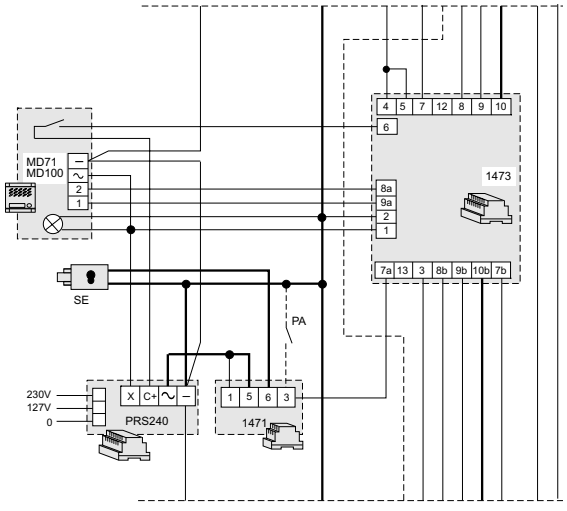
By adding **1281E** to the schematics on page 215 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

Connection of two door locks, of which the secondary is always activable, in a system with multiple entrance

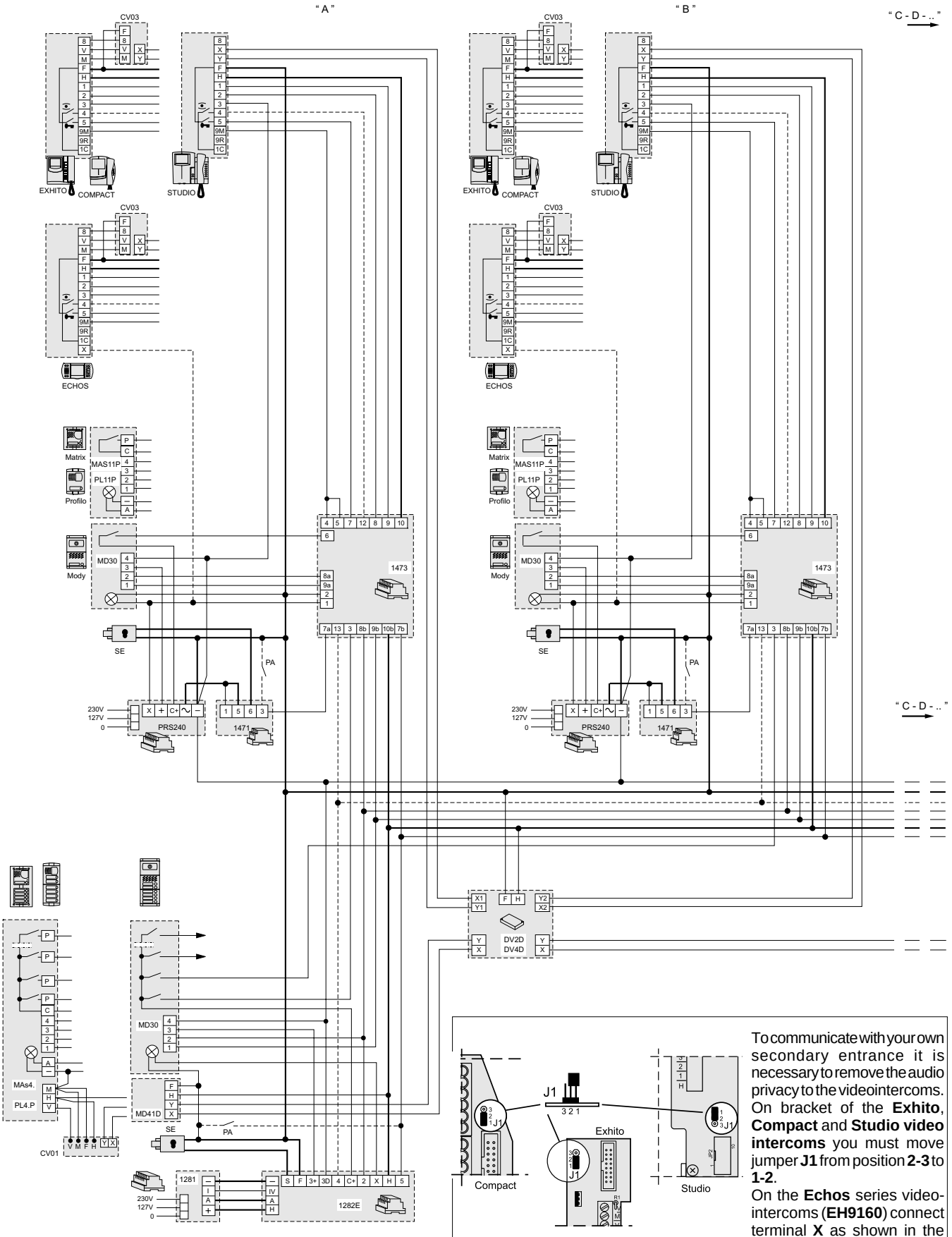


For this option it is necessary to install a diode (100V-1A; type 1N4007) between terminals 7 (cathode) and 7a (anode) of every secondary exchanger. The diode allows to activate also the door look of your own entrance when the door look of the main entrance is activated. On the contrary when the door lock of your own entrance is activated the door look of the main entrance is not activated.

Connection of the MD100 amplified external door station to the secondary door station instead of electric door speaker MD30 and module MD11.



VIDEO INTERCOM SYSTEM WITH ONE-WAY SECONDARY DOOR STATIONS ONLY AUDIO AND 1 MAIN COMMON VIDEO STATION (multiple entrance)



To communicate with your own secondary entrance it is necessary to remove the audio privacy to the videointercoms. On bracket of the **Exhito**, **Compact** and **Studio video intercoms** you must move jumper **J1** from position **2-3** to **1-2**.

On the **Echos** series videointercoms (**EH9160**) connect terminal **X** as shown in the installation diagram.

VIDEO INTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 2 MAIN COMMON VIDEO STATIONS (multiple entrance)

• INTERNAL STATIONS

ECHOS series	EXHITO series	COMPACT series	STUDIO series
... EH9100CT/CW	... EX3100C	... KM8100W	... ST7100CW
EH9160CT/CW	EX3160C	KM8600W	ST7100W
... 9083	EX3160	KM8800W	... ST720W
... WA9100T/W	... WB3160	... WB8600	... WB7100
... TA9160	... TA3160	... 8083	... WB700
			... TA7100
			... TA700

• EXTERNAL DOOR STATIONS

PROFILO series	MATRIX series	MODY series
... PL71÷PL73	... MA71÷MA73	... MD72÷MD74
2+X PL81÷PL89	... MAS61÷MAS63 (1)	2+X MD82÷MD812
2+X PL91÷PL99 *	2+X MA91÷MA93 *	2+X MD92÷MD912 *
2+X PL40PC÷PL42PC	2+X MAS42C-MAS43C	2+X MD10÷MD124
PL40P÷PL42P	MAS42-MAS43	2+X MD41
... PL21÷PL228	... MAS22-MAS24	2+X MD30
... PL20, PL50	... MAS20	... MD21÷MD228
		... MD20, MD50

• VARIOUS ARTICLES

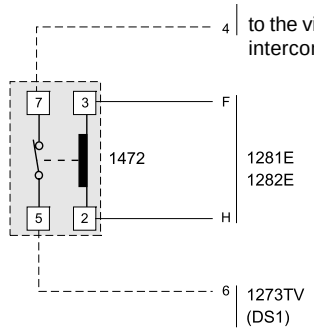
...	**DV2-DV4**	Video distributors
2+X	**1281**	Power supply
1+X	**1282E**	Timer
2xX	**1273TV**	Exchanger
2+...	**476**	Video distributor-amplifier
1	**1471**	Relay unit
2+X	**PA ****	Door release button *(optional)*
2+X	**SE ****	Electric door lock (12Vac-1A)
2	**D ****	100V-1A diodes (type 1N4007)

... Refers to number of users.
X Refers to number of secondary door stations.
(1) Or MA61÷MA63.
***** The rain shelter is used in the place of the back box and hood cover.
****** Articles not supplied by ACI Farfisa.

Working instructions.
As the basic system described on page 218, with the following variations:
- The audio-video functions and door lock opening are automatically switched to the door station which has made the call (or control switching ON) and remain in this state until a call from another entrance is received.
- Services to secondary door stations are independent and can be operated at the same time.

Notes
- For audio compatibility we do not suggest to connect door stations MODY series with internal devices ECHOS series.
- If the control switching ON is necessary, connect terminal 4 of the timer (dashed wire).
- For the connection of name plate lamps read notes 6, 7 and 8 of the installation instructions on page 146.
- For wires dimensioning and video connection refer to the installation instructions and table on pages 146÷148.
- For other types of push-button panels see the general catalogue.

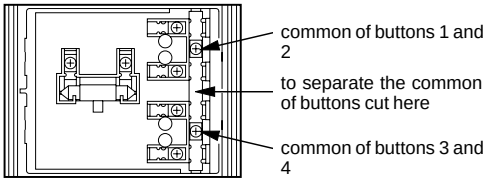
Control switching ON deactivation
To deactivate the monitoring function during the conversation and to keep it only when the system is in standby, it is necessary to install a relay (type **1471** or **1472**) and connect it as shown on the diagram.



DS1 is a diagram reference

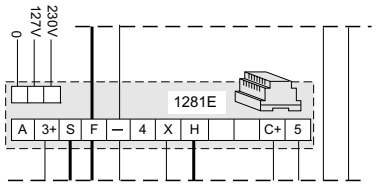
The main entrance push-button panels must have separate common terminals. One common terminal for each secondary door station. Buttons of the **Mody** series can be divided into 2-button groups. The common terminals of push-buttons **Profilo** and **Matrix** series **can be separated only module by module**.

Mody series button module

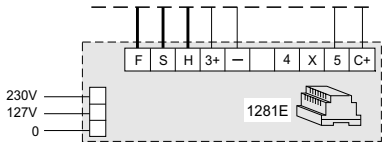


Connection of 1281E power supply-timer instead of 1281 plus 1282E.

Power supply-timer of the secondary entrance

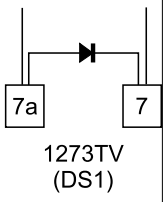


Power supply-timer of the main entrance



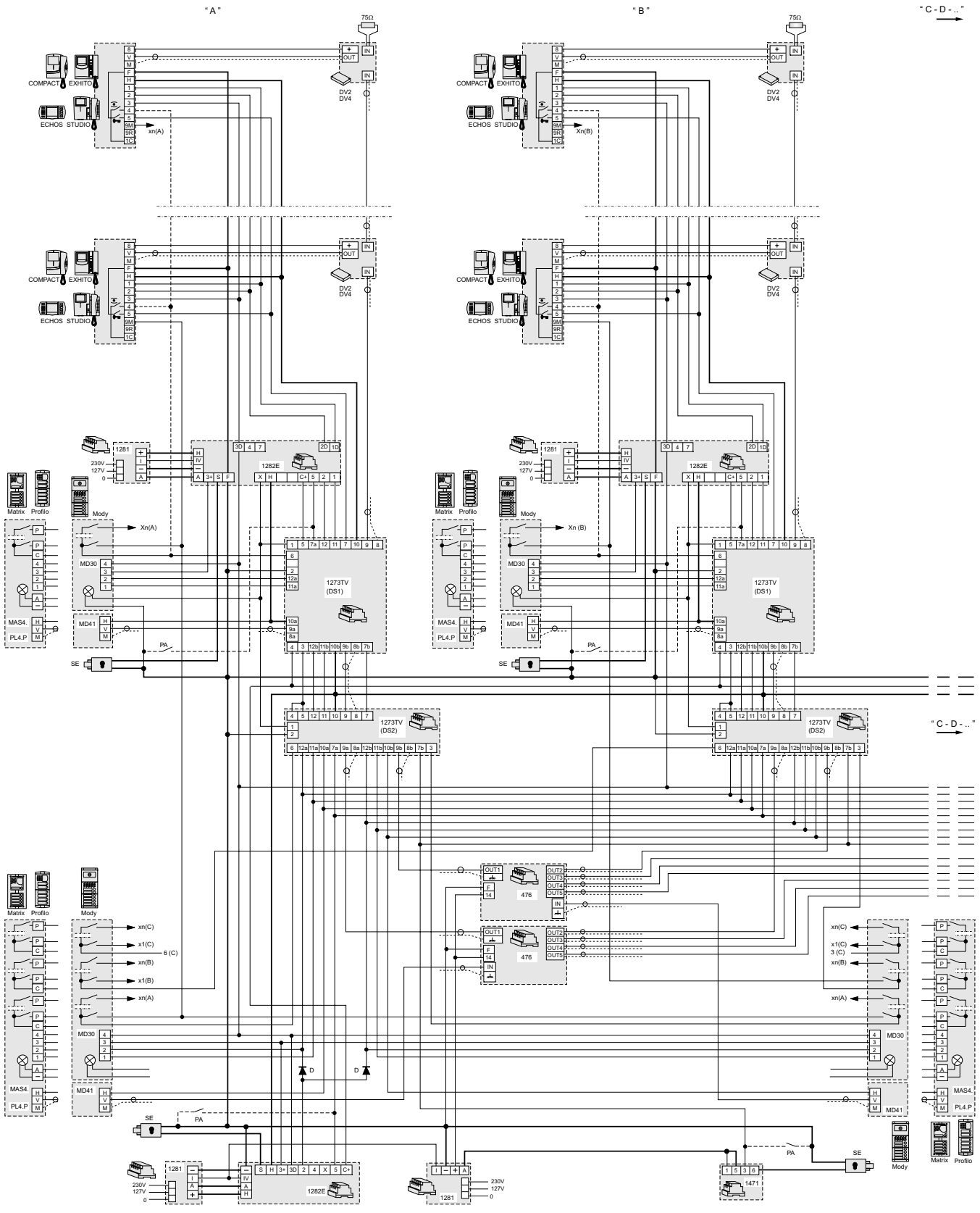
By adding **1281E** to the schematics on page 217 instead of 1281 plus 1282E, the system working will modify as follows:
- switching-OFF at the end of the timing only.

Connection of two door locks, of which the secondary is always activable, in a system with multiple entrance



For this option it is necessary to install a diode (100V-1A; type 1N4007) between terminals 7 (cathode) and 7a (anode) of every secondary exchanger. The diode allows to activate also the door look of your own entrance when the door look of the main entrance is activated. On the contrary when the door lock of your own entrance is activated the door look of the main entrance is not activated.

VIDEO INTERCOM SYSTEM WITH SECONDARY VIDEO STATIONS AND 2 MAIN COMMON VIDEO STATIONS (multiple entrance)



D The 2 diodes in the schematic are not necessary if, instead of 1281 plus 1282E of the main entrances, 1281E power supply-timer is used (please see relative drawing on previous page).

WORKING INSTRUCTIONS

Check that the connections of the system are carried out correctly.
Put the system in use by connecting the power supply to the mains.
By pushing a call button from the external push-button panel, the call is sent to the corresponding video intercom, the system is activated for about 50 seconds (100 seconds with 1281E power supply-timer) and the image appears on the monitor a few seconds after the call.
By lifting the handset, the called user can speak with the external station and increases at the same time the activation time of the system (about 3 minutes) (feature not available for 1281E power supply-timer).
If a call to another internal station occurs in the meantime, the monitor switches OFF and the last monitor called is activated.
By using 1281 power supply and 1282E timer, the installation can be switched OFF by replacing the handset or at the end of the timing; by using 1281E the installation can be switched OFF only at the end of the timing.
By making a call to a video intercom with off-hook handset, the monitors is activated without hearing the ringing call.
If more calls occur simultaneously, a protection circuit against overloading and short circuiting is provided to disable the timer and switch OFF the system. If provided for in the system, from any monitor it is possible to control the entrance by pressing the ⊙ button (control switch ON). It is not possible to make this control using 1281 power supply together with 1282E timer during a conversation. Vice versa using 1281E power supply-timer the control switch ON is always possible.
To operate the electric door lock release press the ⊶ button.
In systems with 2 or more entrances, audio, video and door lock release switching between two entrances is automatic upon the call or control switching ON.
In systems with 2 or more entrances, the control switch ON from the monitors interrupt the communication in progress, consequently in multi-way systems it is advisable to interrupt during a communication the switch ON function by means of a relay art. ***1471*** *or* ***1472****, giving the priority to the communication to the external door stations (see installation diagrams of video intercom systems with several entrances).*
In systems with intercommunicating service, the communication between monitors and/or intercoms is possible only when the system is in stand-by.

Adjustments
Being subject to the environmental lighting conditions, contrast and brightness can be adjusted by means of external knobs.
All the other adjustments can be carried out inside the monitor. For any necessary maintenance intervention of a specialized technician is mandatory.

TROUBLESHOOTING

The probability of breakdown in the video-intercom systems is obviously greater than in the intercom system. Consequently this brief troubleshooting takes into consideration the most common defects. When a defect is limited to only one videointercom it is evident that the trouble is a short circuit to the videointercom itself, to the connecting terminal board or to the wires that go to the riser. The simplest way to test the efficiency of a videointercom is to connect it in another flat where everything functions correctly.

Preliminary checks
- Check for the presence of the mains voltage between terminals **230** (or **127**) and **0** of the power supply.
- The power supply is not provided with fuses, but all of its outputs are protected against overloading and short circuiting by temperature sensors. To reset the power supply, power must be cut OFF for about one minute and can be restored after having eliminated the problem.
- Check the voltage output of the power supply (see in detail the values indicated in the power supply and control chapter-page 142).
- Check that the cross section of the wire corresponds to what is indicated on page 146 and on the descriptions of each diagram.
- Check that the connection of the wire corresponds to the installation diagram.

Problem, reason and solutions

Videointercoms shut OFF. Ringing tone not present. Control switching ON not functioning.
Absence of main voltage. Short circuits or overloading of the output terminals of the power supply and/or timer. Faulty power supply. Faulty timer.

Videointercoms shut OFF. Ringing tone not present. Control switch ON functioning.
The **C+** wire is interrupted. Faulty timer.

Videointercoms turn ON. Absence of image.
The wire **H** that powers the camera is interrupted. The coaxial cable is interrupted or has a short circuit. The shield of the coaxial cable is interrupted. The video distributors (if present) are not being powered. Faulty camera unit.

Control switch ON by videointercoms does not function.
Wire **4** is interrupted. Faulty timer. The system is working.

The system does not shut OFF by replacing the handset.
Such a defect can be due to the non-working audio section from the door station to the videointercoms (see related section). Faulty timer. Faulty electric door speaker.

Unfocused image.
Dirty optics or lens. Faulty camera.

Image only slightly contrasted and/or out of synchronism.
Bad quality of coaxial cable or coaxial cable in dispersion. Nominal impedance of coaxial cable not of 75Ω. High distance system (use video amplifier art.**476**). Check the correct connection of the coaxial cable (see pages 147 and 148).

The electric door lock does not function.
Faulty lock. The cross section of the wires indicated in bold type is insufficient. A connecting wire to the lock has been interrupted. The **5** wire is interrupted. Faulty timer.

Audio section

No audio from both channels.
Absence of power supply voltage between **3** and **4** of the electric door speaker (6÷8Vdc). Short circuit between **3** and **F** of the timer. The **3D** wire is interrupted. Faulty timer.

No audio from the videointercoms to the door station.
The **1D** or **1** wire (from the timer to the door station) is interrupted or has a short circuit. Absence of the ground connection to terminal **4** of the electric door speaker (amplifier). Faulty electric door speaker.

No audio from the door station to the videointercoms.
The **2D** or **2** wire (from the timer to the door station) is interrupted or has a short circuit. Defective electric door speaker (amplifier).

Audio with humming in the background (50/60Hz).
The wires have been canalized together with the cables that power AC loads. Separate the ground connection of the electric door speaker (amplifier) and of the name plate lights, or power them with an additional transformer *(see recommendations on page 146)*. Faulty power supply.

A whistle is heard at the external door station (Larsen effect).
The microphone hole of the external door station might be clogged. Lower the volume.

Radio reception on the door station.
The defect can occur when there is a transmitter working in the proximity. Apply a capacitor from 0.1µF between terminals **1** and **3** of the electric door speaker (amplifier).

Intercommunicating systems

During the intercommunication the door speaker is still connected.
The video system is ON (privacy towards the outside only when the video system is in standby). The module for intercommunicating has not been plugged in the timer art.**1443E**. Faulty timer.

No audio in the intercommunicating service.
The wall-brackets of the videointercoms have the **J1** jumper in position of audio privacy. Defective module for intercommunicating. Faulty timer.

The intercommunicating calls does not work.
Faulty timer. Check that wire **7** is connected correctly. Check the button connections inside the intercoms.

System with more entrances

Entrance A is never activated.
Short circuit between **5** and **6** of the exchanger. Faulty exchanger.

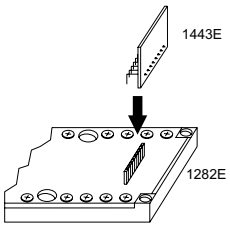
Entrance B is never activated.
Short circuit between **3** and **4** of the exchanger. Faulty exchanger. No power supply to **1** and **2** of the exchanger (12Vac; 17÷21Vdc).

EXTENSION OF VIDEO INTERCOM SYSTEM

All installation diagrams in this technical manual are drawn with only one video intercom for each user. It is possible to "personalise" the installation by properly matching the applications on the following pages (page 222 to 229) to the basic diagrams (page 189 to page 217). Such examples refer to applications with one video intercom entrance. To realise systems with 2 or more audio/video entrances were more than one control switch ON is needed, use for this function the first buttons of the video intercom (P, P1, P2, etc.) and the lower ones (P3, P4, etc.) for the intercommunicating calls.
In the basic diagrams the dashed lines identify the wires for control switch ON, whereas in the additional diagrams the dashed lines also refer to the wires for intercommunicating service.
When the simultaneous switch ON of several video intercoms is needed and extra power supplies are to be added, do not forget that terminal **IV** of timer **1282E** can be connected to a **maximum of 3** power supplies **1281**.

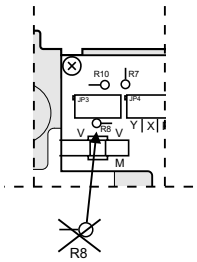
NOTES

1) To provide the intercommunicating service, make the dashed connections, install the module **1443E** inside timer **1282E**.

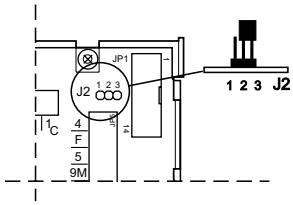


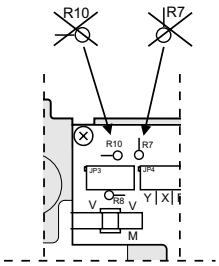
2) The diode shown in this installation diagram must be connected to power video distributors **DV2** and **DV4**. If the system is realized with **twisted pair, or if video distributors are not used, the diode must not be connected.**

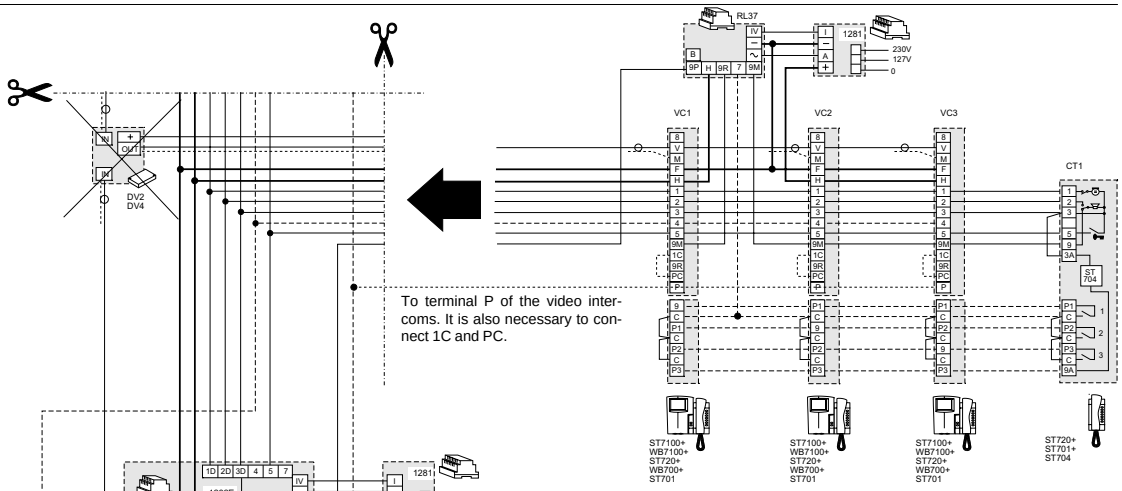
3) If the video system is realized with coaxial cable connected in serial mode (input and output from the video intercom), you must **cut** the 75Ω resistance **R8** of the bracket and leave it only on the last video intercom.



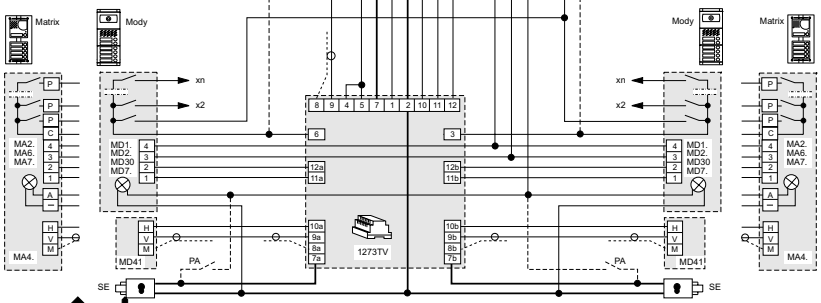
4) *(Only Studio series)*
Additional diagrams refer to video connection with coaxial cable. If the system is realized with twisted pair, it is necessary to:
- connect the pair to terminals **X** and **Y** and leave terminals **V** and **M** unconnected;
- move the **jumper J2** of bracket **WB7100** from position **1-2** to **2-3**.
- if the installation diagram includes more than 2 video intercoms in parallel make the video connection with distributors **DV..D** (or connect them serially **cutting** the 75Ω resistances **R7** and **R10** of bracket **WB7100** and leaving them only on the last video intercom).







Example of combination of an additional diagram with a basic diagram for the realisation of a one-way system with intercoms and video intercoms in parallel with or without intercommunicating service *(description on page 220)*.



EXTENSION OF VIDEO INTERCOM SYSTEM

Extension of ONE-WAY system

To realise a one-way system with several monitors and/or intercoms in parallel, **with or without intercommunicating service,** you must proceed as follows:

- make a photocopy of the additional diagram desired, selecting it among those of pages 222, 223, 224, 226 and 227;
- place the diagram on the basic diagram so as to cover the existing video intercom and line up the wires of the two diagrams;
- if specified in the additional diagram, connect the wires **I** and **C** (common terminal of additional buttons) to terminals **IV** and **7** of art. **1282E**;
- to obtain the intercommunicating service, make the connections which have been drawn with a dashed line, install the **1443E** module inside timer **1282E** and move the **jumper J1** of the videointercom bracket from position **2-3** to **1-2**.

Example (see page 219): by making a photocopy of the additional diagram of page 224 (2 video intercoms and 1 intercom in parallel with or without intercommunicating service), placing it on the installation diagram of page 197 (Si 42MO/1), lining it up to the wires of the first video intercom and eliminating the second video intercom and the video distributor, it is possible to obtain a one-way system with 2 video intercoms and 1 intercom in parallel connected to 2 external video stations.

Extension in one apartment of a MULTI-WAY system

To realise a **multi-way** system with several video intercoms and/or intercoms in parallel in one apartment **with or without intercommunicating service,** you must proceed as follows:

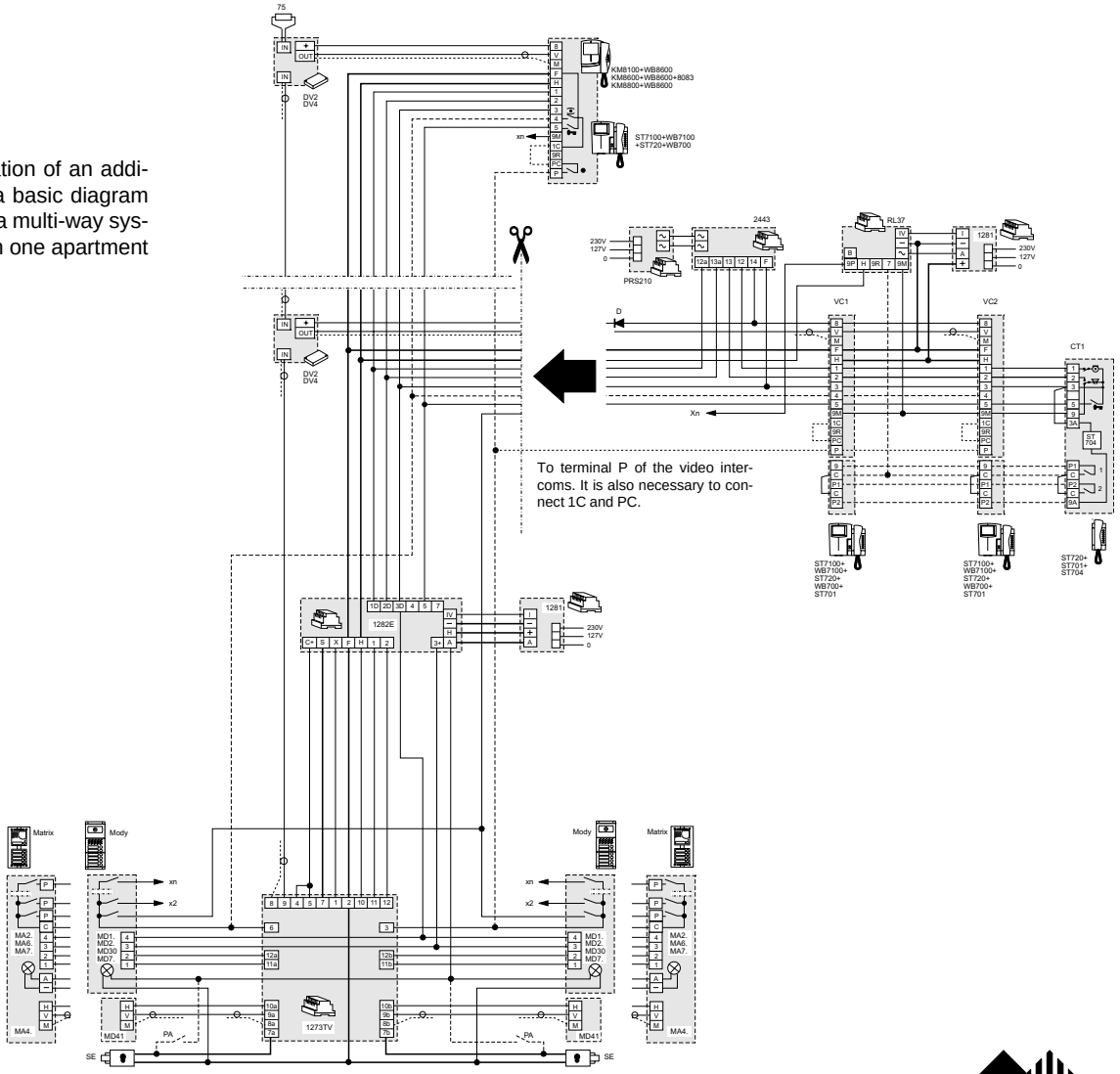
- make a photocopy of the additional diagram desired, selecting it among those of pages 223, 225, 228 and 229;
- place the diagram on the basic diagram so as to cover the existing video intercom and line up the wires of the two diagrams;
- to obtain the intercommunicating service, make the connections which have been drawn with a dashed line and move the **jumper J1** of the videointercom bracket from position **2-3** to **1-2**.

Example: by making a photocopy of the additional diagram of page 224 (2 videointercoms and 1 intercom in parallel with or without intercommunicating service), placing it on the installation diagram of page 197 (Si 42MO/1), lining it up to the wires of the first video intercom, it is possible to obtain a multi-way system with 2 video intercoms and 1 intercom in parallel in one apartment and intercommunicating connected to 2 external video stations.

Extension of a MULTI-WAY system in several apartments

To realise a **multi-way** system with several video intercoms and/or intercoms in parallel in 2 or more apartments **with or without intercommunicating service,** you must repeat the operations described in the preceding section several times.

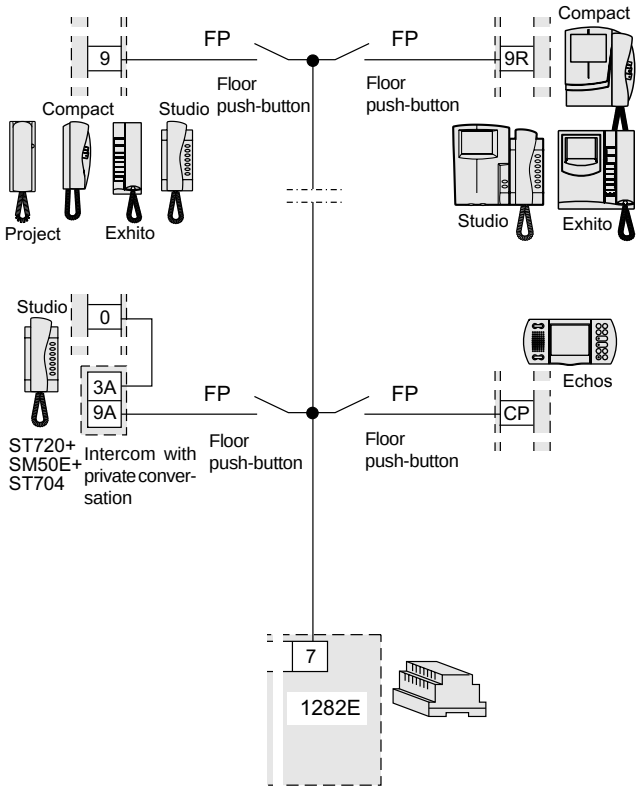
Example of combination of an additional diagram with a basic diagram for the realisation of a multi-way system with extension in one apartment only.



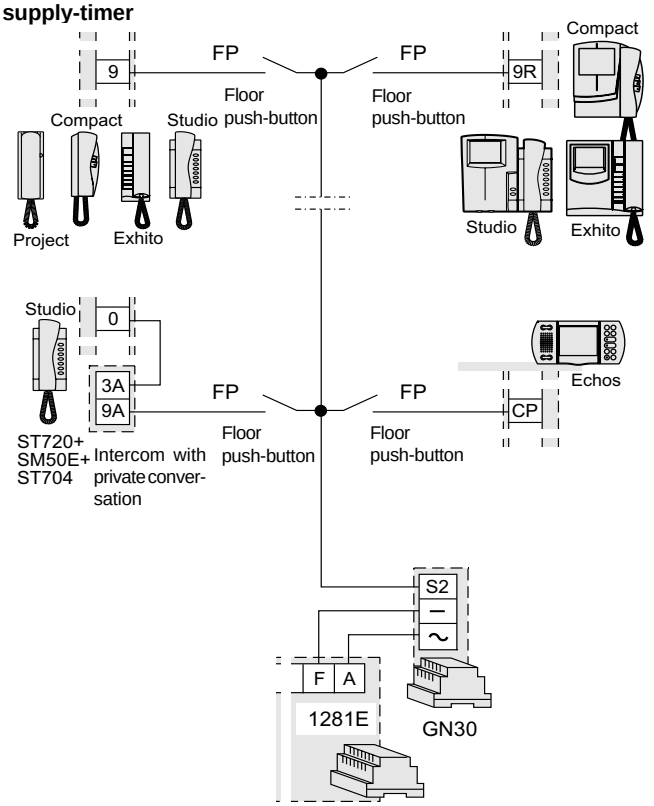
Floor call

In all the installation schematics it is possible to have a floor call with different sound from the one coming from the push button panel, by adding a conductor to the riser connected to all the buttons of the floor calls. The other terminal of each button has to be connected to the user intercom or videointercom.

Connection of the floor call on an installation with 1281 power supply and 1282E timer.



Connection of the floor call on an installation with 1281E power supply-timer

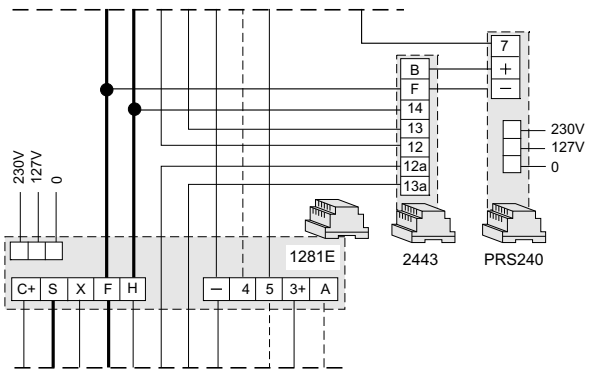


When in the installation **1281E** power supply-timer is foreseen, in order to have a differentiated chime, add **GN30** ringer generator.

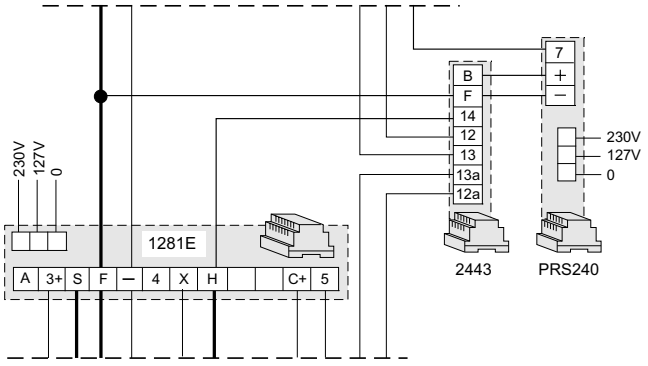
Installation of 1281E power supply-timer in ONE-WAY systems with intercommunicating service

In order to have the intercommunicating service amongst intercoms and/or videointercoms with privacy towards the external station, it is necessary to install inside **1282E** timer the **1443E** intercommunicating module. If the installation has to use **1281E** power supply-timer it is necessary to add, and properly connect, a **2443** relay-amplifier and a **PRS240** power supply (see schematics).

Application on all one- or multi-way systems with one or more main entrances. Schematics from page 189 to page 203.

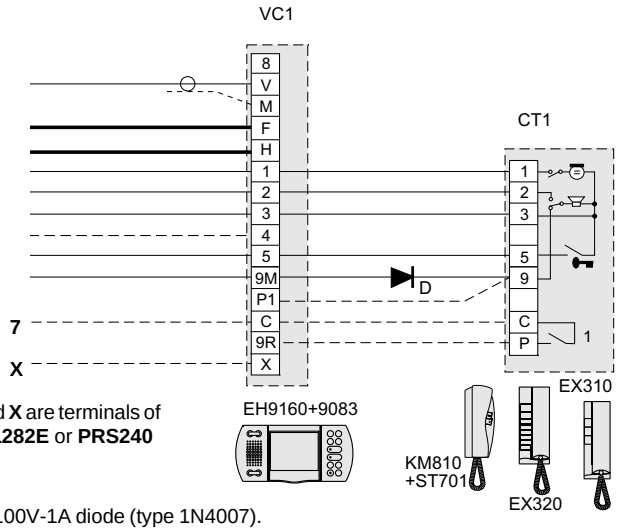


Application on all multi-way systems with main and secondary entrances. Schematics from page 205 to page 217.



ONE-WAY additional diagrams

1 VIDEO INTERCOM AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE FOR ONE-WAY SYSTEMS



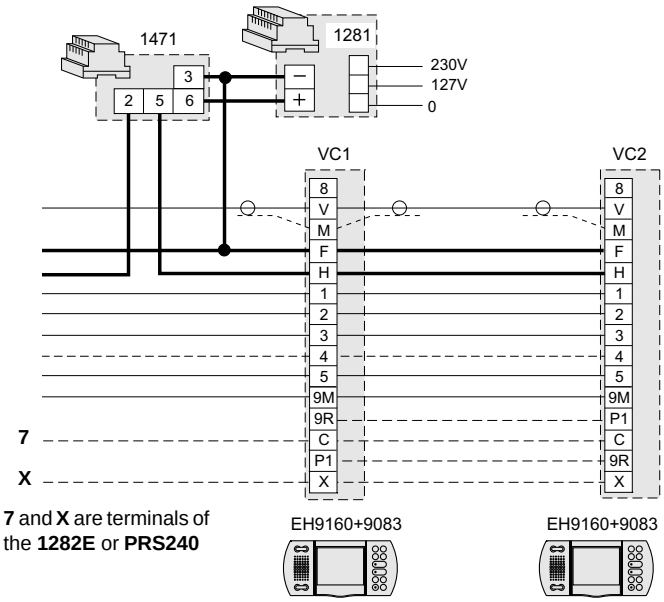
7 and **X** are terminals of the **1282E** or **PRS240**

D = 100V-1A diode (type 1N4007).

Notes

- On the videointercoms **EH9160** verify that jumper **J5** is in position **2-3** *(see page 94).*
- If push-button **P1** of the videointercom is used for other functions, use pushbuttons from P3 to P6 and check that jumper **J6** is in position **2-3**.
- Read note 1 of page 219.

2 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE FOR ONE-WAY SYSTEMS

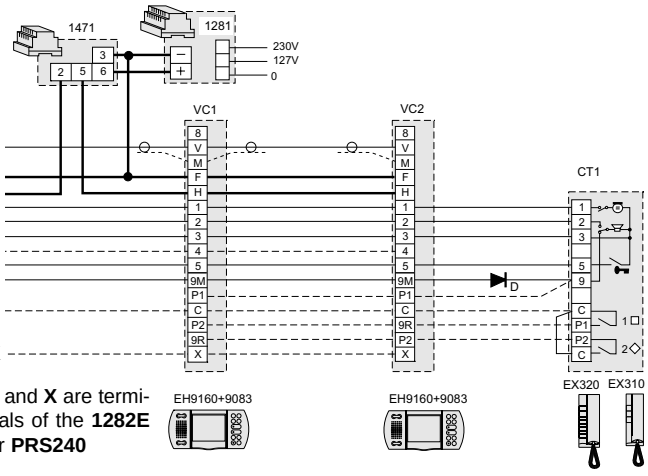


7 and **X** are terminals of the **1282E** or **PRS240**

Notes

- On the videointercoms **EH9160** verify that jumper **J5** is in position **2-3** *(see page 94).*
- If pushbutton **P1** of the videointercom is used for other functions, use pushbuttons from P3 to P6 and check that jumper **J6** is in position **2-3**.
- Read notes 1 and 3 of page 219.

2 VIDEO INTERCOMS AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE FOR ONE-WAY SYSTEMS



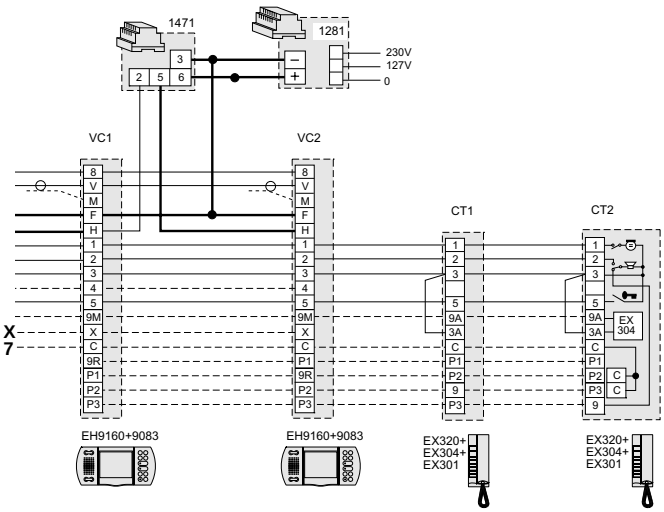
7 and **X** are terminals of the **1282E** or **PRS240**

D = 100V-1A diode (type 1N4007).

Notes

- On the videointercoms **EH9160** verify that jumper **J5** is in position **2-3** *(see page 94).*
- If pushbutton **P1** and **P2** of the videointercom is used for other functions, use pushbuttons from P3 to P6 and check that jumper **J6** is in position **2-3**.
- Read notes 1 and 3 of page 219.

2 VIDEO INTERCOMS AND 2 INTERCOMS WITH INTERCOMMUNICATING SERVICE FOR ONE-WAY SYSTEMS



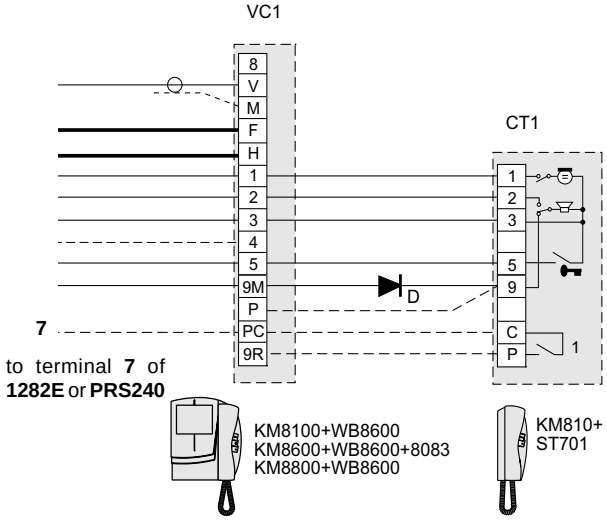
7 and **X** are terminals of the **1282E** or **PRS240**

Notes

- On the videointercoms **EH9160** verify that jumper **J5** is in position **2-3** *(see page 94).*
- If pushbutton **P1** and **P2** of the videointercom is used for other functions, use pushbuttons from P3 to P6 and check that jumper **J6** is in position **2-3**.
- Read notes 1 and 3 of page 219.

ONE/MULTI-WAY additional diagrams

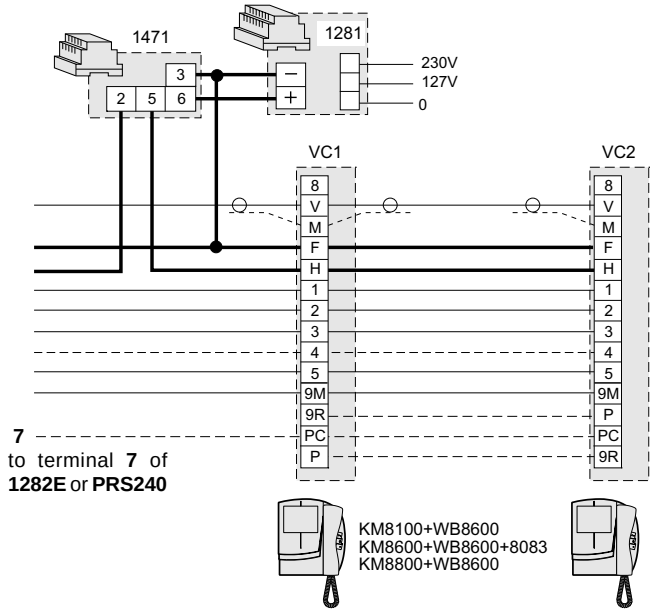
1 VIDEO INTERCOM AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE FOR ONE-WAY SYSTEMS



D = 100V-1A diode (type 1N4007).

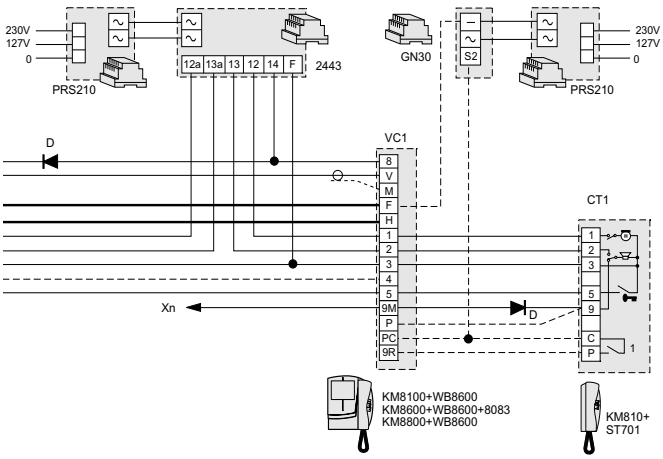
Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 100)* for the intercommunicating service.
- Read note 1 of page 219.

2 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE FOR ONE-WAY SYSTEMS



Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 100)* for the intercommunicating service.
- Read notes 1 and 3 of page 219.

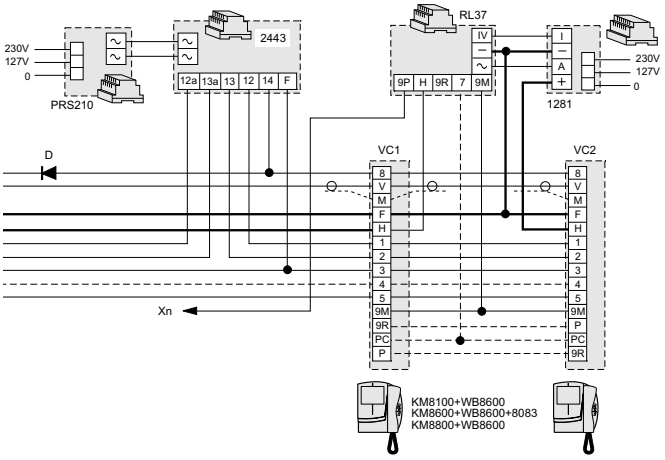
1 VIDEO INTERCOM AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE FOR MULTI-WAY SYSTEMS



D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 100)* for the intercommunicating service.
- Read note 2 of page 219.

2 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE FOR MULTI-WAY SYSTEMS



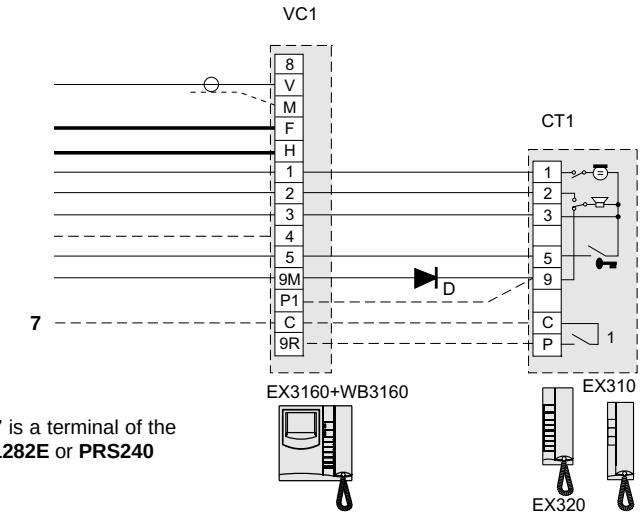
D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 100)* for the intercommunicating service.
- Read notes 2 and 3 of page 219.

COMPACT

ONE-WAY additional diagrams

1 VIDEO INTERCOM AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE

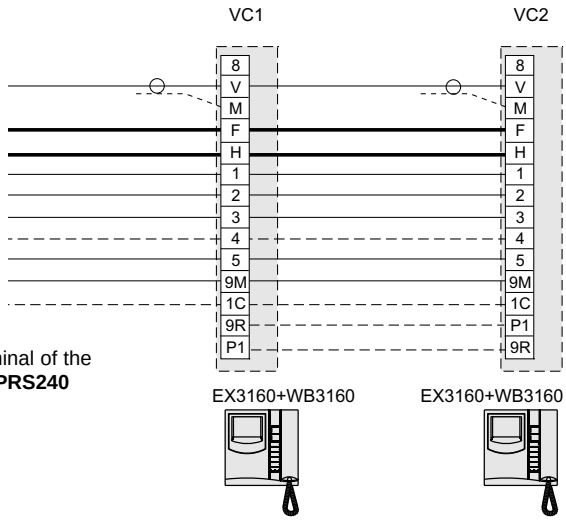


7 is a terminal of the **1282E** or **PRS240**

D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 97)* for the intercommunicating service.
- Read note 1 of page 219.

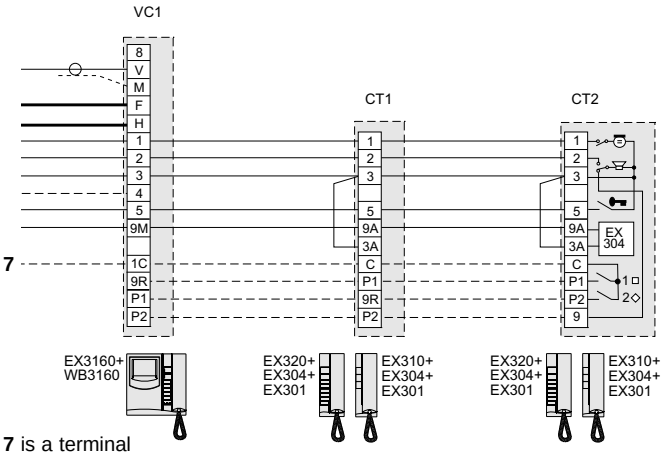
2 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE



7 is a terminal of the **1282E** or **PRS240**

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 97)* for the intercommunicating service.
- Read notes 1 and 3 of page 219.

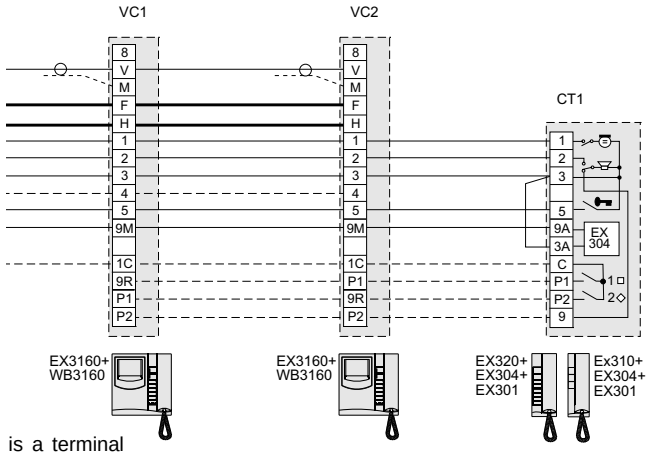
1 VIDEO INTERCOM AND 2 INTERCOMS WITH INTERCOMMUNICATING SERVICE



7 is a terminal of the **1282E** or **PRS240**

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 97)* for the intercommunicating service.
- Read note 1 of page 219.

2 VIDEO INTERCOMS AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE

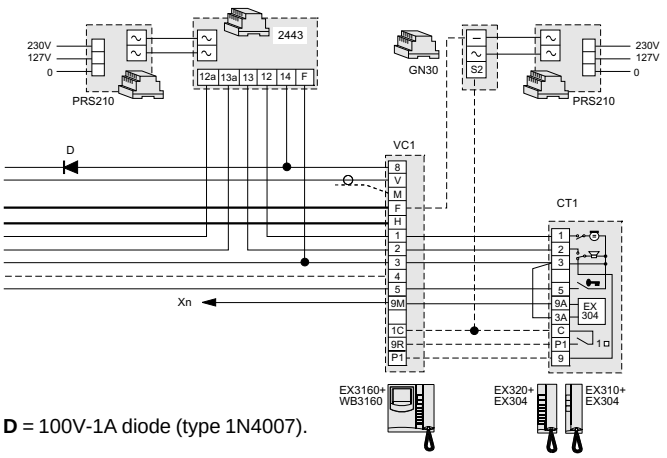


7 is a terminal of the **1282E** or **PRS240**

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 97)* for the intercommunicating service.
- Read notes 1 and 3 of page 219.

MULTI-WAY additional diagrams

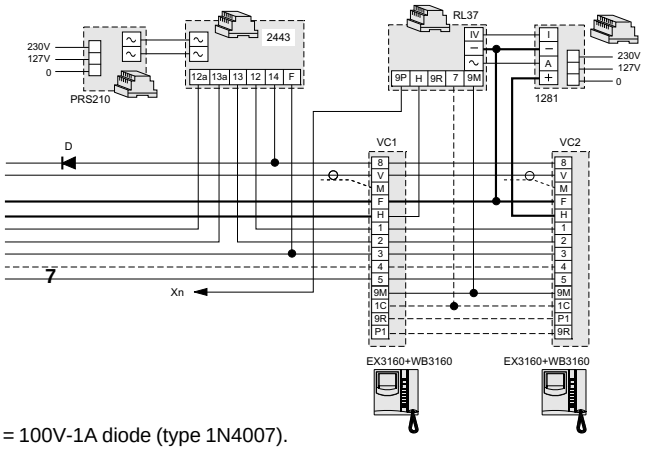
1 VIDEO INTERCOM AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE



D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 97)* for the intercommunicating service.
- Read note 2 of page 219.

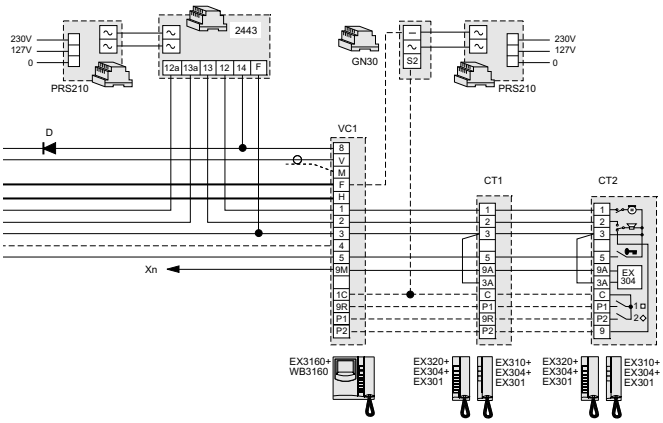
2 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE



D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 97)* for the intercommunicating service.
- Read notes 2 and 3 of page 219.

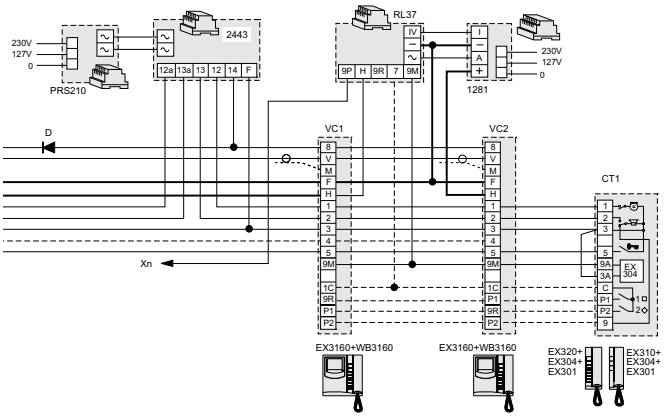
1 VIDEO INTERCOM AND 2 INTERCOMS WITH INTERCOMMUNICATING SERVICE



D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 97)* for the intercommunicating service.
- Read note 2 of page 219.

2 VIDEO INTERCOMS AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE

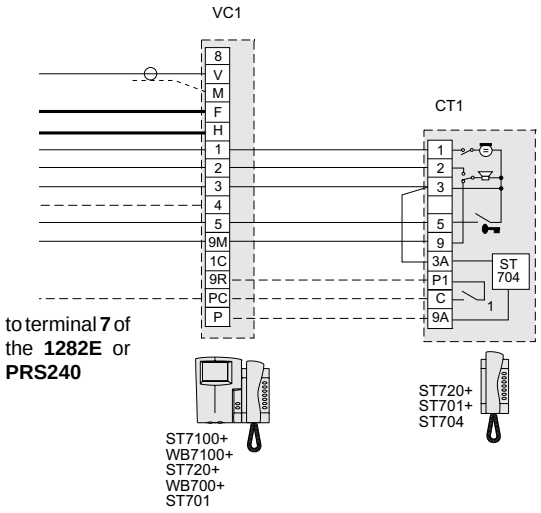


D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 97)* for the intercommunicating service.
- Read notes 2 and 3 of page 219.

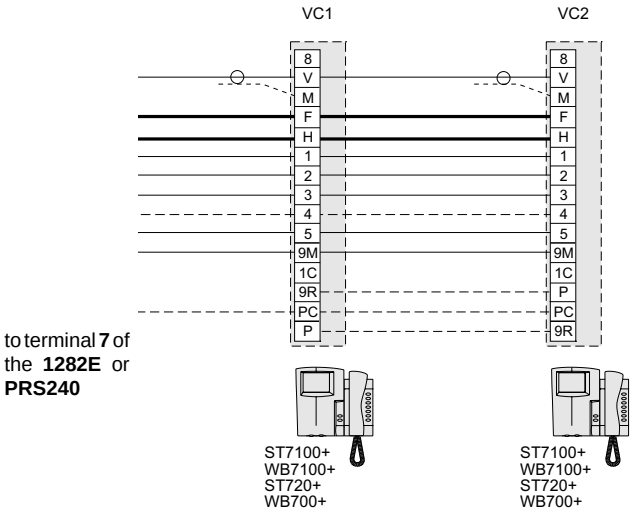
ONE-WAY additional diagrams

1 VIDEO INTERCOM AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE



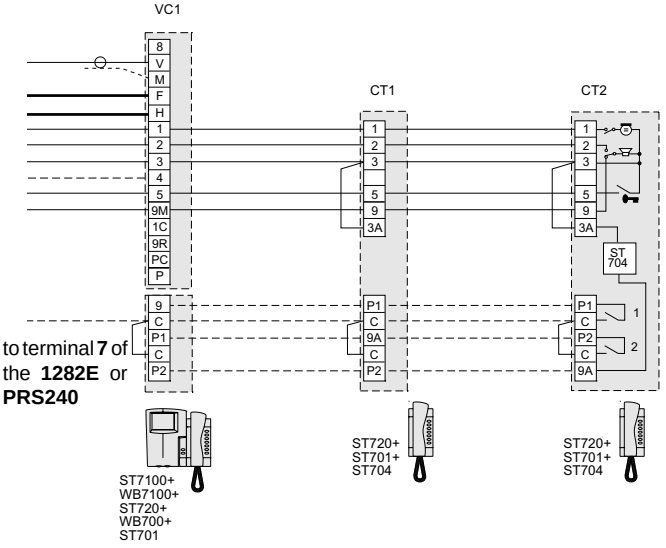
Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 1 and 4 of page 219.

2 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE



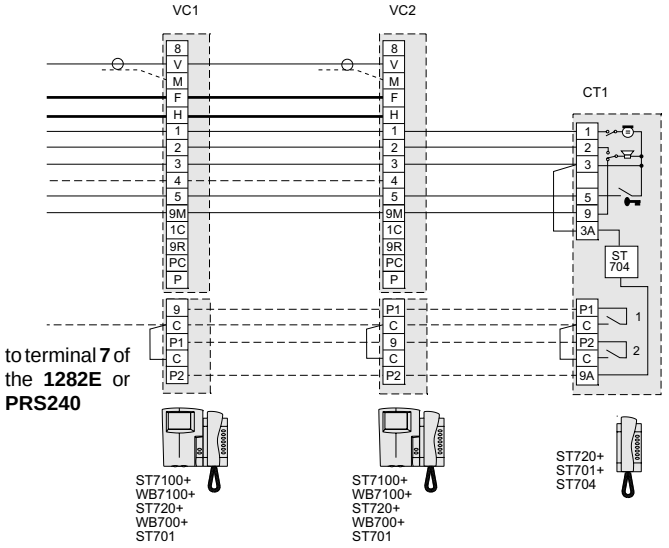
Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 1, 3 and 4 of page 219.

1 VIDEO INTERCOM AND 2 INTERCOMS WITH INTERCOMMUNICATING SERVICE



Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 1 and 4 of page 219.

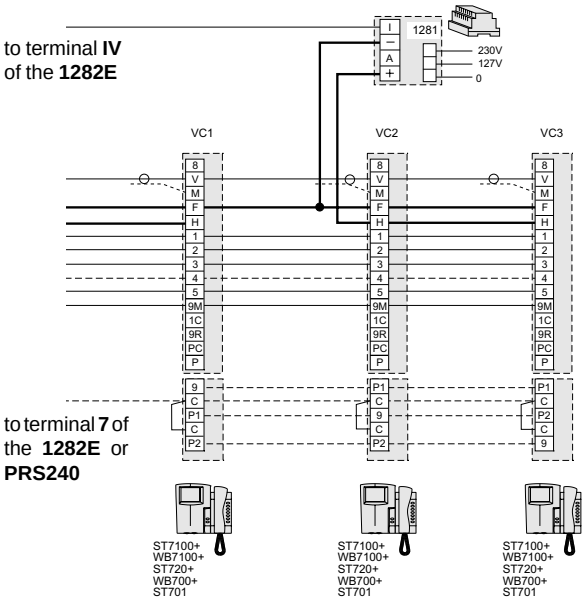
2 VIDEO INTERCOMS AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE



Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 1, 3 and 4 of page 219.

ONE-WAY additional diagrams

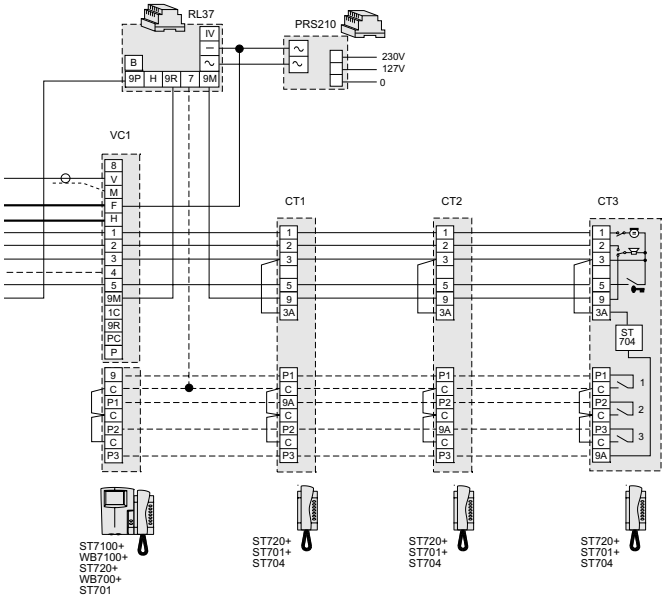
3 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE



Notes

- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 1, 3 and 4 of page 219.

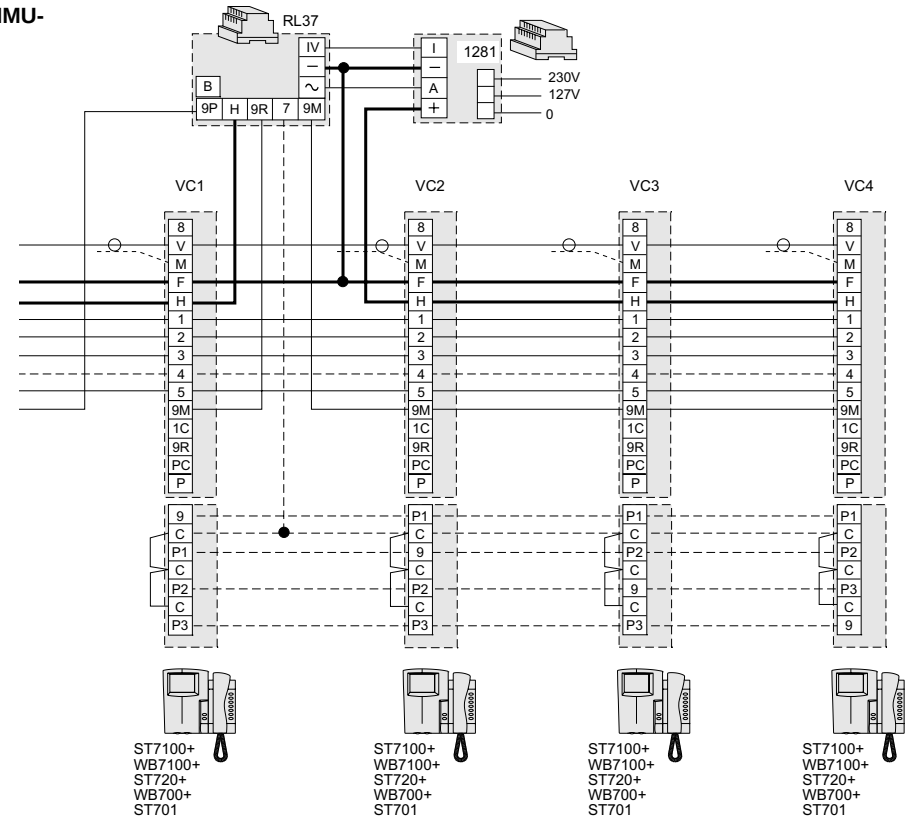
1 VIDEO INTERCOM AND 3 INTERCOMS WITH INTERCOMMUNICATING SERVICE



Notes

- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 1 and 4 of page 219.

4 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE

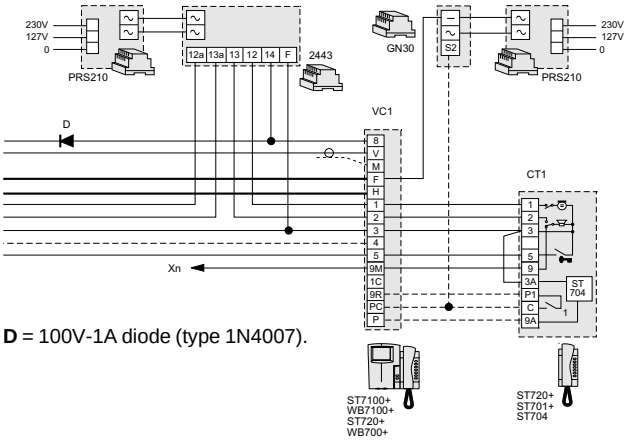


Notes

- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 1, 3 and 4 of page 219.

MULTI-WAY additional diagrams

1 VIDEO INTERCOM AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE

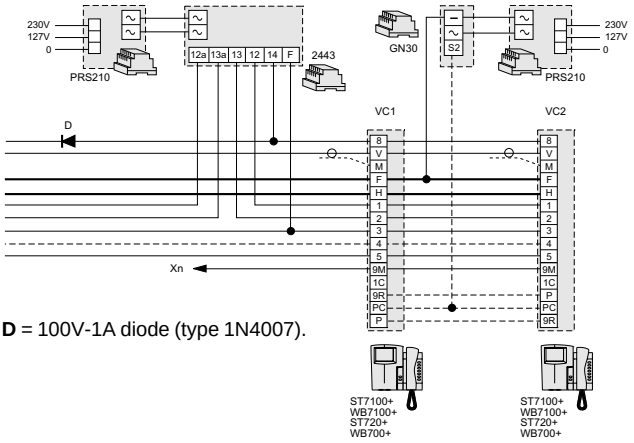


D = 100V-1A diode (type 1N4007).

Notes

- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 2 and 4 of page 219.

2 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE

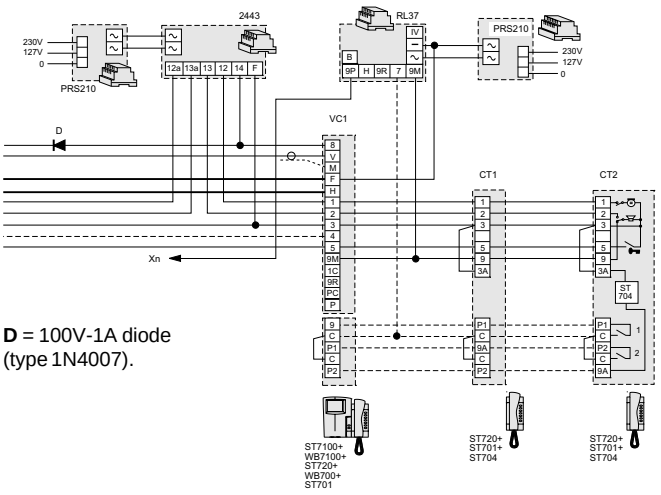


D = 100V-1A diode (type 1N4007).

Notes

- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 2, 3 and 4 of page 219.

1 VIDEO INTERCOM AND 2 INTERCOMS WITH INTERCOMMUNICATING SERVICE

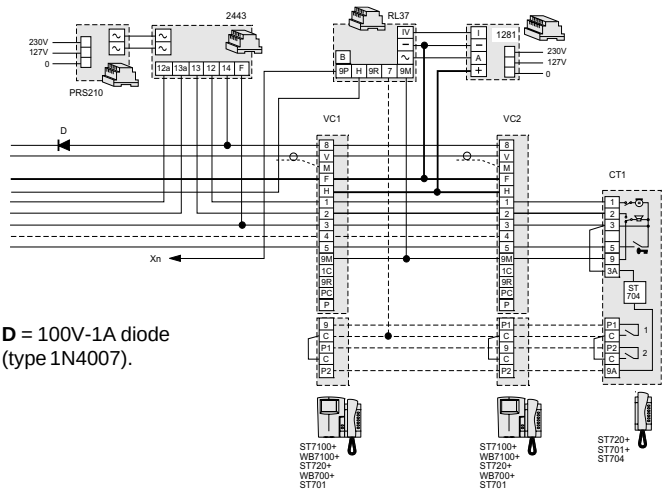


D = 100V-1A diode (type 1N4007).

Notes

- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 2 and 4 of page 219.

2 VIDEO INTERCOMS AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE

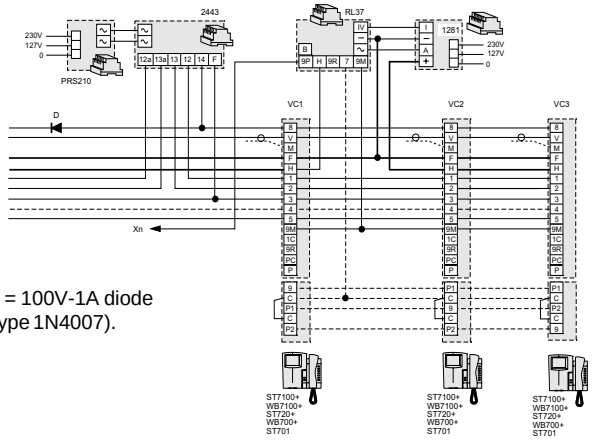


D = 100V-1A diode (type 1N4007).

Notes

- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 2, 3 and 4 of page 219.

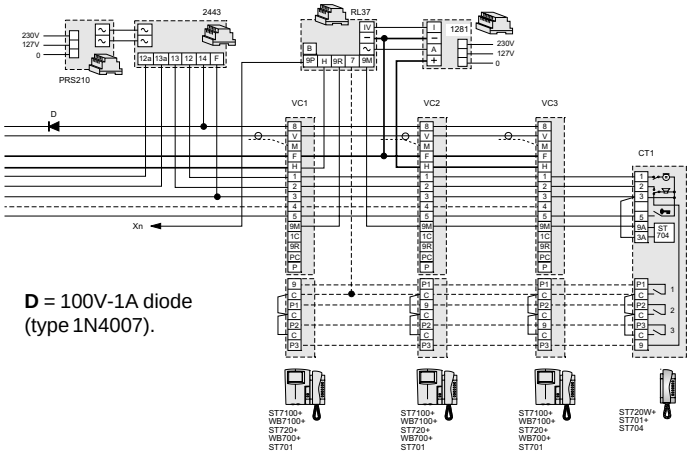
3 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE



D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 2, 3 and 4 of page 219.

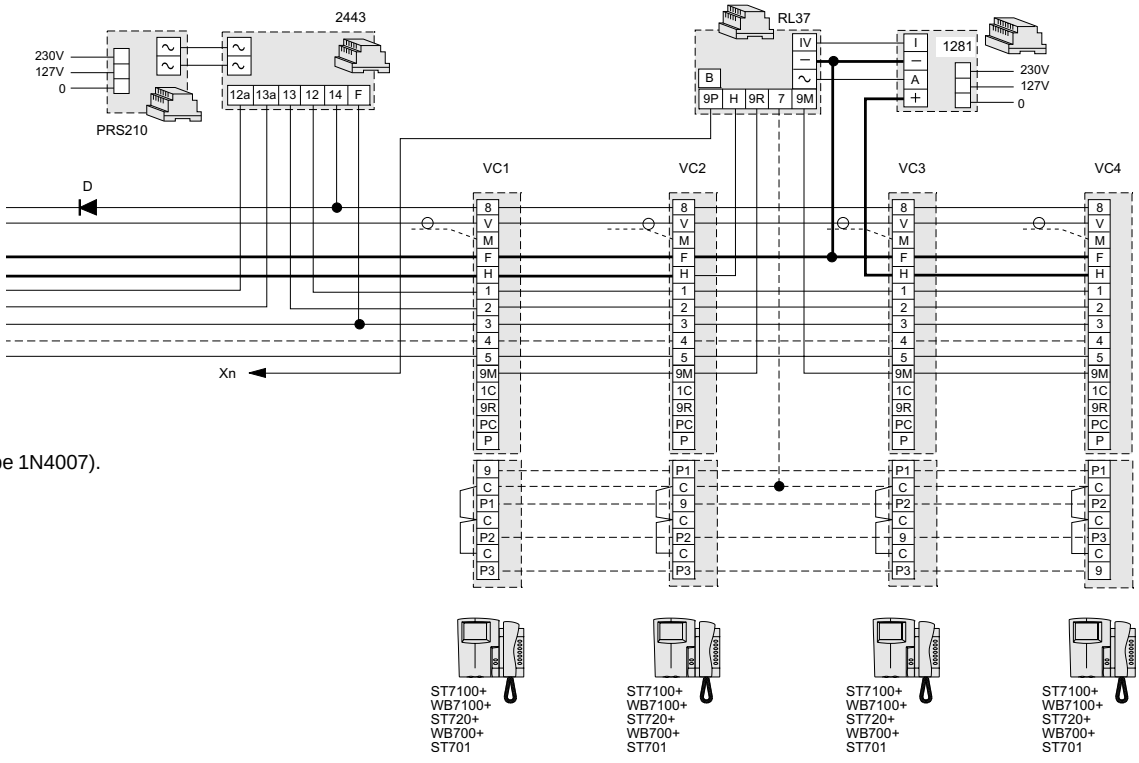
3 VIDEO INTERCOMS AND 1 INTERCOM WITH INTERCOMMUNICATING SERVICE



D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 2, 3 and 4 of page 219.

4 VIDEO INTERCOMS WITH INTERCOMMUNICATING SERVICE



D = 100V-1A diode (type 1N4007).

Notes
- On the videointercom bracket to move the jumper **J1** from position **2-3** to **1-2** *(see page 107)* for the intercommunicating service.
- Read notes 2, 3 and 4 of page 219.

List of article that can be used in electronic call systems with page reference.

Article	*Description*	*Page ref.*
241D	Module with diodes for 2 users. Mody series	40
241DMA	Module with diodes for 4 users. Matrix series	24-33
1181E	Timed power supply	47
1443ED	Intercommunicating module	48
1471	1-contact relay unit	49
1471E	1-contact relay unit	49
1472	2-contact relay unit	49
1473	4-contact exchanger	48
9083	Back-box for Echos videointercoms	5
AG20	Blank module for Agorà series	16
AG21	Single button module for Agorà series	16
AG222	Double button unit for Agorà series	16
AG30ED	Door speaker for Agorà series	16
AG40CED	Colour camera and door speaker for Agorà series	16
AG100A	Intercom door station for Agorà series	16
AG100T	Door station additional buttons for Agorà series	16
AG100V	Videointercom door station for Agorà series	16
DV2D	2-output video distributor	51
DV4D	4-output video distributor	51
EH9161CT	Hands-free colour videointercom for Echos series	4
EH9161CW	Hands-free colour videointercom for Echos series	4
EX301	Single button module for Exhito intercoms	11-12
EX304	Additional loudspeaker for Exhito intercoms	13
EX311	Intercom with 2 expandable button to 3. Exhito series	11
EX321	Extendable intercom Exhito series	12
EX332	3 Led module for EX321 intercom	13
EX3100C	Colour LCD videointercom with 3 buttons. Exhito series	9
EX3160	Flat videointercom. Exhito series	9
EX3160C	Colour LCD videointercom. Exhito series	9
FC52MAS	Access control keypad. Matrix series	33
FC52P	Access control keypad. Mody series	39
FC52PL	Access control keypad. Profilo series	25
FP52	Proximity reader for access control. Mody series	39
FP52PL	Proximity reader for access control. Profilo series	25
KM811W	Intercom with 1 expandable button to 2. Compact series	15
KM8111CW	Colour LCD videointercom. Compact series	14
KM8111W	White Flat videointercom Compact series	14
MAS10PED	Module with door speaker, without buttons. Matrix series	32
MAS11PED	Module with door speaker and with 1 button. Matrix series	32
MAS12PED	Module with door speaker and with 2 buttons. Matrix series	32
MAS20	Blank module Matrix series	33
MAS22	Module without door speaker, with 2 buttons. Matrix series	33
MAS24	Module without door speaker, with 4 buttons. Matrix series	33
MAS43CED	Colour camera module, door speaker and 1 button. Matrix	32
MAS43ED	Camera module with door speaker and 1 button. Matrix s.	32
MA61	Front frame for 1 module. Matrix series	31
MAS61	Front frame for 1 module. Matrix series	31
MA62	Front frame for 2 modules. Matrix series	31
MAS62	Front frame for 2 modules. Matrix series	31
MA63	Front frame for 3 modules. Matrix series	31
MAS63	Front frame for 3 modules. Matrix series	31
MA71	Back box with frames for 1 module. Matrix series	31
MA72	Back box with frames for 2 modules. Matrix series	31
MA73	Back box with frames for 3 modules. Matrix series	31
MA91	Rain shelter with frames for 1 module. Matrix series	31
MA92	Rain shelter with frames for 2 modules. Matrix series	31
MA93	Rain shelter with frames for 3 modules. Matrix series	31
MD10ED	Module with speaker and without buttons. Mody series	40
MD11ED	Module with speaker and with 1 button. Mody series	40
MD12ED	Module with speaker and with 2 buttons. Mody series	40
MD20	Blank module. Mody series	39
MD21	Button module with 1 push-button. Mody series	39
MD22	Button module with 2 push-buttons. Mody series	39
MD23	Button module with 3 push-buttons. Mody series	39
MD24	Button module with 4 push-buttons. Mody series	39
MD41D	Camera module Mody series	39
MD50	Information number module. Mody series	39
MD71	Back box with frames for 1 module. Mody series	38
MD72	Back box with frames for 2 modules. Mody series	38
MD73	Back box with frames for 3 modules. Mody series	38
MD74	Back box with frames for 4 modules. Mody series	38
MD81	Hood cover for 1 module. Mody series	38
MD82	Hood cover for 2 modules. Mody series	38
MD83	Hood cover for 3 modules. Mody series	38
MD84	Hood cover for 4 modules (2 frames with 2 modules)	38
MD804	Hood cover for 4 modules (1 frame with 4 modules)	38
MD86	Hood cover for 6 modules (2 frames with 3 modules)	38
MD808	Hood cover for 8 modules (2 frames with 4 modules)	38
MD89	Hood cover for 9 modules (3 frames with 3 modules)	38
MD812	Hood cover for 12 modules (3 frames with 4 modules)	38
MD91	Rain shelter for 1 module. Mody series	38
MD92	Rain shelter for 2 modules. Mody series	38
MD93	Rain shelter for 3 modules. Mody series	38
MD94	Rain shelter for 4 modules (2 frames with 2 modules)	38
MD904	Rain shelter for 4 modules (1 frame with 4 modules)	38
MD96	Rain shelter for 6 modules (2 frames with 3 modules)	38
MD908	Rain shelter for 8 modules (2 frames with 4 modules)	38
MD99	Rain shelter for 9 modules (3 frames with 3 modules)	38
MD912	Rain shelter for 12 modules (3 frames with 4 modules)	38
MD222	Button module with 2 push-buttons, 2 row. Mody series	39
MD224	Button module with 4 push-buttons, 2 row. Mody series	39
MD226	Button module with 6 push-buttons, 2 row. Mody series	39
MD228	Button module with 8 push-buttons, 2 row. Mody series	39
PL10PED	Module with door speaker, without buttons. Profilo series	23
PL11PED	Module with door speaker, with 1 button. Profilo series	23
PL12PED	Module with door speaker, with 2 buttons. Profilo series	23
PL20	Blank module Profilo series	23
PL21	Module without door speaker, with 1 button. Profilo series	23
PL22	Module without door speaker and with 2 buttons. Profilo s.	23
PL23	Module without door speaker and with 3 buttons. Profilo s.	23
PL24	Module without door speaker and with 4 buttons. Profilo s.	23
PL40PED	Camera module, door speaker, without buttons. Profilo s.	24
PL40PCED	Colour camera module, speaker, without buttons. Profilo	24
PL41PED	Camera module, door speaker, 1 button. Profilo series	24
PL41PCED	Colour camera module, door speaker, 1 button. Profilo	24
PL42PED	Camera module, door speaker, 2 buttons. Profilo series	24
PL42PCED	Colour camera module, door speaker, 2 buttons. Profilo	24
PL50	Information number module. Profilo series	23
PL71	Back box with frames for 1 module. Profilo series	22
PL72	Back box with frames for 2 modules. Profilo series	22
PL73	Back box with frames for 3 modules. Profilo series	22
PL81	Hood cover for 1 module. Profilo series	22
PL82	Hood cover for 2 modules. Profilo series	22
PL83	Hood cover for 3 modules. Profilo series	22
PL84	Hood cover for 4 modules. Profilo series	22
PL86	Hood cover for 6 modules. Profilo series	22
PL89	Hood cover for 9 modules. Profilo series	22
PL91	Rain shelter for 1 module. Profilo series	22
PL92	Rain shelter for 2 modules. Profilo series	22
PL93	Rain shelter for 3 modules. Profilo series	22
PL94	Rain shelter for 4 modules. Profilo series	22
PL96	Rain shelter for 6 modules. Profilo series	22
PL99	Rain shelter for 9 modules. Profilo series	22
PL226	Module with 6 buttons, 2 row, Profilo series	23
PL228	Module with 8 buttons, 2 row, Profilo series	23
PRS210	Transformer 13Vac - 15VA	47
PRS210ED	Transformer with electronic ringing 13Vac - 15VA	47
PT511EW	White intercom with 1 push-button. Project series	15
RL36	Relay module for intercoms	13
RL37D	Supplementary call module	47
SM50	Private conversation module for intercoms	13
SR41	Electronic buzzer module for intercoms	13
ST703	Ringing volume adjustment for Exhito intercom	13
TA320	Desk adapter for intercom. Exhito series	12
TA3160	Desk adapter for videointercom. Exhito series	10
TA9160	Desk adapter for videointercom. Echos series	6
WA9100T	Wall adaptor for the EH9161CT videointercom	6
WA9100W	Wall adaptor for the EH9161CW videointercom	6
WB3161	Wall bracket for videointercoms. Project series	9
WB8111	Wall bracket for videointercoms. Compact series	14

List of article that can be used in electronic call systems with page reference.

Article	*Description*	*Page ref.*
337C	Electric door-speaker for ErreP/R push-button panel	140
476	5-output video distributor	148
1273TV	7-contact exchanger	143
1281	Video power supply	142
1281E	Power supply-timer	142
1282E	Audio-video timer	142
1304	Video intercom cable with 10 wires + coaxial	186
1443E	Intercommunicating module	143
1471	Relay unit	145
1471E	Relay unit	145
1472	2-contact relay unit	145
1473	4-contact exchanger	143
2443	Audio-relay amplifier	144
8083	Back-box for KM8600W videointercoms	100
9083	Back-box for Echos videointercoms	94
CV01	Video signal converter	150
DV2	2-output video distributor	147
DV2D	2-output video distributor	149
DV4	4-output video distributor	147
DV4D	4-output video distributor	149
EH9100CW	Hands-free colour videointercom for Echos series	94
EH9160CT	Hands-free colour videointercom for Echos series	94
EH9160CW	Hands-free colour videointercom for Echos series	94
EX301	Single button module for Exhito intercoms	98
EX304	Additional loudspeaker for Exhito intercoms	98
EX310	Intercom with 2 expandable button to 3. Exhito series	98
EX320	Extendable intercom Exhito series	99
EX332	3 Led module for EX320 intercom	99
EX3100C	Colour LCD videointercom with 3 buttons. Exhito series	97
EX3160	Flat videointercom. Exhito series	97
EX3160C	Colour LCD videointercom. Exhito series	97
FC52MAS	Access control keypad. Matrix series	124
FC52P	Access control keypad. Mody series	132
FC52PL	Access control keypad. Profilo series	116
FP52	Proximity reader for access control. Mody series	132
FP52PL	Proximity reader for access control. Profilo series	116
GN30	Electronic ringing generator with 3 different sounds	144
KM810W	Intercom with 1 expandable button to 2. Compact series	102
KM8100CW	Colour LCD videointercom. Compact series	100
KM8100W	White Flat videointercom Compact series	100
KM8600W	White videointercom Compact series	100
KM8800W	White Reflex videointercom Compact series	100
MAS10P	Module with door speaker, without buttons. Matrix series	123
MAS11P	Module with door speaker and with 1 button. Matrix series	123
MAS12P	Module with door speaker and with 2 buttons. Matrix series	123
MAS20	Blank module Matrix series	122
MAS22	Module without door speaker, with 2 buttons. Matrix series	122
MAS24	Module without door speaker, with 4 buttons. Matrix series	122
MAS42	Camera module with speaker without buttons. Matrix	123
MAS42C	Colour camera module with speaker without buttons. Matrix	123
MAS43	Camera module with door speaker and 1 button. Matrix s.	123
MAS43C	Colour camera module, door speaker and 1 button. Matrix	123
MA61	Front frame for 1 module. Matrix series	122
MAS61	Front frame for 1 module. Matrix series	122
MA62	Front frame for 2 modules. Matrix series	122
MAS62	Front frame for 2 modules. Matrix series	122
MA63	Front frame for 3 modules. Matrix series	122
MAS63	Front frame for 3 modules. Matrix series	122
MA71	Back box with frames for 1 module. Matrix series	122
MA72	Back box with frames for 2 modules. Matrix series	122
MA73	Back box with frames for 3 modules. Matrix series	122
MA91	Rain shelter with frames for 1 module. Matrix series	122
MA92	Rain shelter with frames for 2 modules. Matrix series	122
MA93	Rain shelter with frames for 3 modules. Matrix series	122
MD10	Module for door speaker without push-buttons. Mody series	130
MD11	Module for door speaker with 1 push-button. Mody series	130
MD12	Module for door speaker with 2 push-buttons. Mody series	130
MD20	Blank module. Mody series	130
MD21	Button module with 1 push-button. Mody series	130
MD22	Button module with 2 push-buttons. Mody series	130

Article	*Description*	*Page ref.*
MD23	Button module with 3 push-buttons. Mody series	130
MD24	Button module with 4 push-buttons. Mody series	130
MD30	Electric door speaker. Mody series	130
MD41	Camera module. Mody series	131
MD41C	Colour camera module. Mody series	131
MD41D	Camera module. Mody series	131
MD50	Number module. Mody series	130
MD71	Back box with frames for 1 module. Mody series	129
MD72	Back box with frames for 2 modules. Mody series	129
MD73	Back box with frames for 2 modules. Mody series	129
MD74	Back box with frames for 2 modules. Mody series	129
MD81	Hood cover for 1 module. Mody series	129
MD82	Hood cover for 2 modules. Mody series	129
MD83	Hood cover for 3 modules. Mody series	129
MD84	Hood cover for 4 modules (2 frames with 2 modules)	129
MD804	Hood cover for 4 modules (1 frame with 4 modules)	129
MD86	Hood cover for 6 modules (2 frames with 3 modules)	129
MD808	Hood cover for 8 modules (2 frames with 4 modules)	129
MD89	Hood cover for 9 modules (3 frames with 3 modules)	129
MD812	Hood cover for 12 modules (3 frames with 4 modules)	129
MD91	Rain shelter for 1 module. Mody series	129
MD92	Rain shelter for 2 modules. Mody series	129
MD93	Rain shelter for 3 modules. Mody series	129
MD94	Rain shelter for 4 modules (2 frames with 2 modules)	129
MD904	Rain shelter for 4 modules (1 frame with 4 modules)	129
MD96	Rain shelter for 6 modules (2 frames with 3 modules)	129
MD908	Rain shelter for 8 modules (2 frames with 4 modules)	129
MD99	Rain shelter for 9 modules (3 frames with 3 modules)	129
MD912	Rain shelter for 12 modules (3 frames with 4 modules)	129
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