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## DIGIBUS

### DIGITAL CALL SYSTEM FOR AUDIO AND VIDEO DOOR ENTRY SYSTEMS

#### Introduction

Our constant research effort has lead to the creation of the DIGIBUS digital call system. This system can be applied to all audio and video door entry systems, and offers almost unlimited possibilities. Its versatility and ease of installation and operation make DIGIBUS the leading edge of this technology.

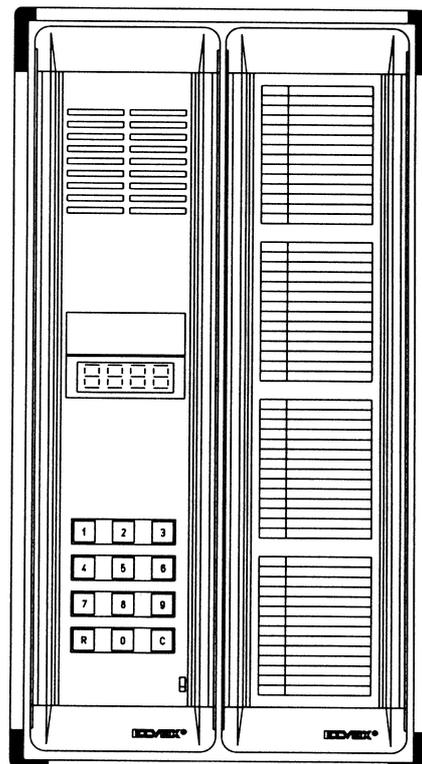
#### Main features:

- Manages a high number of users (up to 9999 calls)
  - Parallel connection between all units via one single BUS
  - Easy expandability: new units or risers can be added at any time
  - Easy system programming
  - No switching modules in case of multiple panels or buildings
  - Flexible installation with choice between two systems:
    - the first option allows for installation of all units (audio or visual panels) in parallel on one single BUS with built-in user identification.
    - the second option uses floor distributors to connect the door entry panels with a single telephone wire. This option has the advantage of isolating the riser from faults and short-circuits in the domestic electrical system.
  - The system has been designed for communications applications in medium to large residential complexes.
- As said above, the system enables a large number of users to be connected without the need for each unit to have its own call line, since each user is assigned a code which identifies the call on a single line.

**N.B:** Despite its extreme flexibility, DIGIBUS is not compatible with the "3-DIGIT" digital call system.

#### SAFETY INSTRUCTIONS FOR INSTALLERS

- Carefully read the instructions on this leaflet: they give important information on the safety, use and maintenance of the installation.
- After removing the packing, check the integrity of the set. Packing components (plastic bags, expanded polystyrene etc.) are dangerous for children. Installation must be carried out according to national safety regulations.
- A safety switch, installed before the power supply is recommended.
- Before connecting the set, ensure that the data on the label correspond to those of the network.
- Use this set only for the purposes designed, i.e. for DIGIBUS systems. Any other use may be dangerous. The manufacturer is not responsible for damage caused by improper, erroneous or irrational use.
- Before cleaning or maintenance, disconnect the set.
- In case of failure or faulty operation, disconnect the set and do not open it. For repairs apply only to the technical assistance centre authorized by the manufacturer. Safety may be compromised if these instructions are disregarded.
- Do not obstruct openings of ventilation/heat exit slits.
- Installers must ensure that manuals with the above instructions are left on connected units after installation, for users' information.
- All items must only be used for the purposes designed.



**POWER SUPPLY INSTALLATION**

The power supply must be installed in a dry place away from direct heat or dust. Ensure easy access for inspection and maintenance. Secure the unit to the wall with the anchor bolts provided or insert it into a rack with a omega DIN bar. Before connecting the unit use a tester to make sure that the cables are not broken or short-circuited. For user safety, the equipment operates at a low voltage and is separated from the mains by a high-insulation transformer. We recommend installation of an overload cutout of appropriate capacity between the mains and the unit. To complete the installation, proceed as follows:

- 1) Make the cabling connections to the terminal block in accordance with the diagrams enclosed with this manual.
- 2) Connect up the power terminal block located beneath the rear cover.
- 3) Connect power supply to the mains: after the first initial settling phase of the installation only the voltage indicators diodes to the panel, interphones and monitors must remain lighted. Pay attention these warnings are valid for all other appliances of the installation. Furthermore as far as the panel provided with camera and the external cameras are concerned consider the following points:
- 4) Camera operates from - 5° to + 50° C; to avoid overheating protect it against the sunlight with some form of shelter.
- 5) Lens must be protected against direct light (sun, car headlights, etc.)
- 6) Person to be framed by camera must be illuminated from the front. If lighting is insufficient use an additional external lamp powered directly by the network.
- 7) Before closing unit, clean protective glass and lens, repeat this operation from time to time.

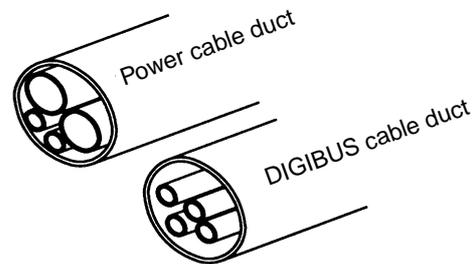
**GENERAL CABLE INSTALLATION INSTRUCTIONS**

Correct DIGIBUS installation requires the following factors to be taken into account:

- the installation site
- the size of the installation

The equipment is fully compliant with the following directives: EMC 89/336/EEC + 92/31/EEC and DL 04.12.1992 n°476 regarding Community safety standards and electromagnetic compatibility. Nonetheless, for correct installation, the following precautions must be taken:

- the system cables must be layed taking into account the overall length of the system cabling; the cross-section of the cables increases with the overall length of the installation as shown in the tables given below.
- the cables connecting the external/internal units and the power supply must not be run together with power cables (230V or greater), but must be installed in their own ducts.



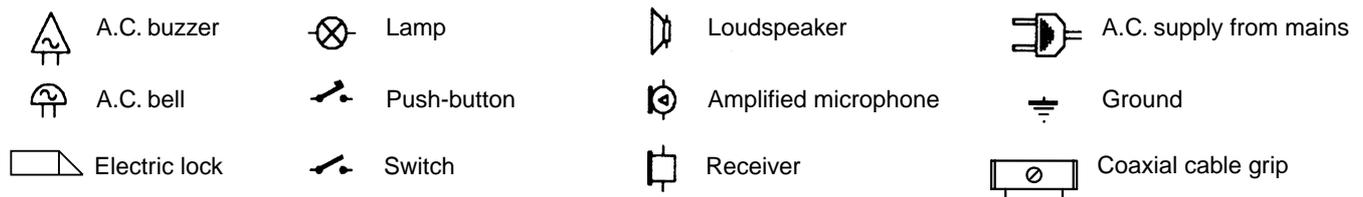
**MINIMAL CONDUCTOR SECTION (mm<sup>2</sup>)**

| Conductors   | Ø up to 50 m.   | Ø up to 100 m.       | Ø up to 200 m.      |
|--------------|---|----------------------|---------------------|
| 4-5          | 0,75 mm <sup>2</sup>                                  | 1 mm <sup>2</sup>    | 1,5 mm <sup>2</sup> |
| + - and lock | 1 mm <sup>2</sup>                                     | 1,5 mm <sup>2</sup>  | 2,5 mm <sup>2</sup> |
| Others       | 0,5 mm <sup>2</sup>                                   | 0,75 mm <sup>2</sup> | 1 mm <sup>2</sup>   |
| Video        | Coaxial cable 75 Ohm (RG59 or RG11 double insulation) |                      |                     |

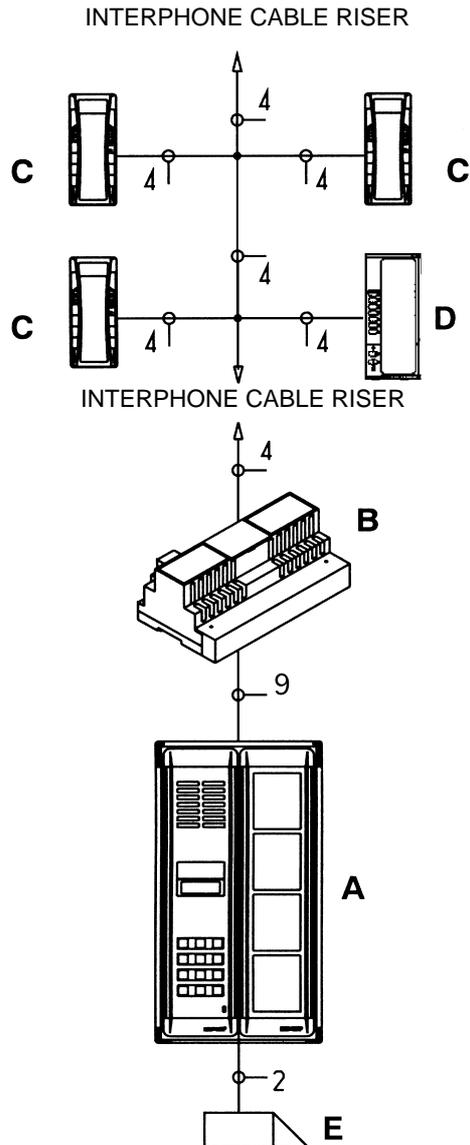
**Conversion table of sections-diameters and relative resistances for 100 m. standard conductors.**

|                         |       |      |      |      |       |       |       |       |      |      |
|-------------------------|-------|------|------|------|-------|-------|-------|-------|------|------|
| Section mm <sup>2</sup> | 0,12  | 0,25 | 0,35 | 0,50 | 0,75  | 1,00  | 1,50  | 2,50  | 4,00 | 6,00 |
| Diameter mm.            | 0,40  | 0,58 | 0,68 | 0,80 | 1,00  | 1,15  | 1,40  | 1,80  | 2,30 | 2,80 |
| Decimal diameter        | 4/10  | 6/10 |      | 8/10 | 10/10 | 12/10 | 14/10 | 18/10 |      |      |
| Resistance Ω 100m.      | 14,00 | 6,60 | 4,80 | 3,50 | 2,20  | 1,70  | 1,14  | 0,69  | 0,39 | 0,28 |

**DIAGRAM SYMBOLS**



**1- SIMPLE RESIDENTIAL INSTALLATION WITH ENTRANCE PANELS EQUIPPED WITH INTERNAL DECODING.**  
Diagram ref. p3062

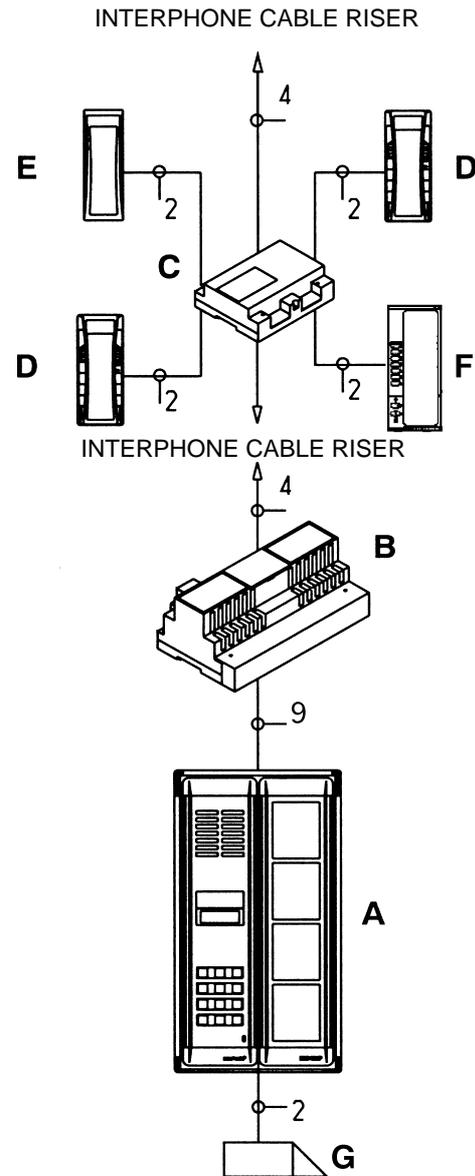


- A- Entrance panel Art. 942/... - 943/... - 944
- B- Power supply Art. 6941
- C- Interphone Art. 940
- D- Interphone Art. 7110
- E- Electric lock 12V A.C.

**NOTES:**

- To make the call from the apartment door see version no. 3B.
- To control the auxiliary functions see version no. 2B

**2 - SIMPLE RESIDENTIAL INSTALLATION WITH FLOOR DISTRIBUTORS FITTED WITH INTERNAL DECODING.**  
Diagram ref. p3063

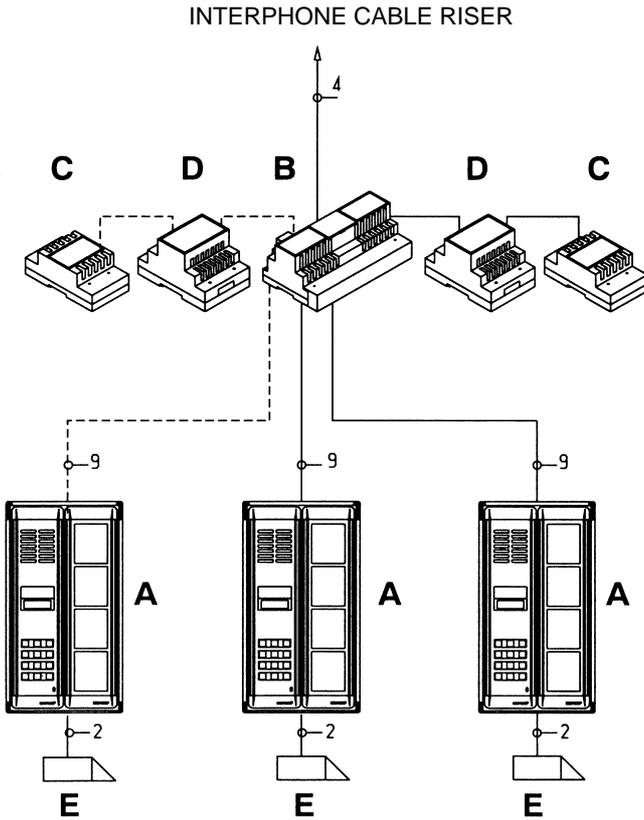


- A- Entrance panel Art. 942/... - 943/... - 944
- B- Power supply Art. 6941
- C- Digital distributor Art. 949A
- D- Interphone Art. 900/137
- E- Interphone Art. 875/037
- F- Interphone Art. 7101
- G- Electric lock 12V A.C.

**NOTES:**

- To make the call from the apartment door see variation n. 3A.
- To control the auxiliary functions see variation n. 2A

**3 - SIMPLE RESIDENTIAL INSTALLATION  
WITH ONE OR MORE PANELS IN  
PARALLEL. Diagram ref. p2709**



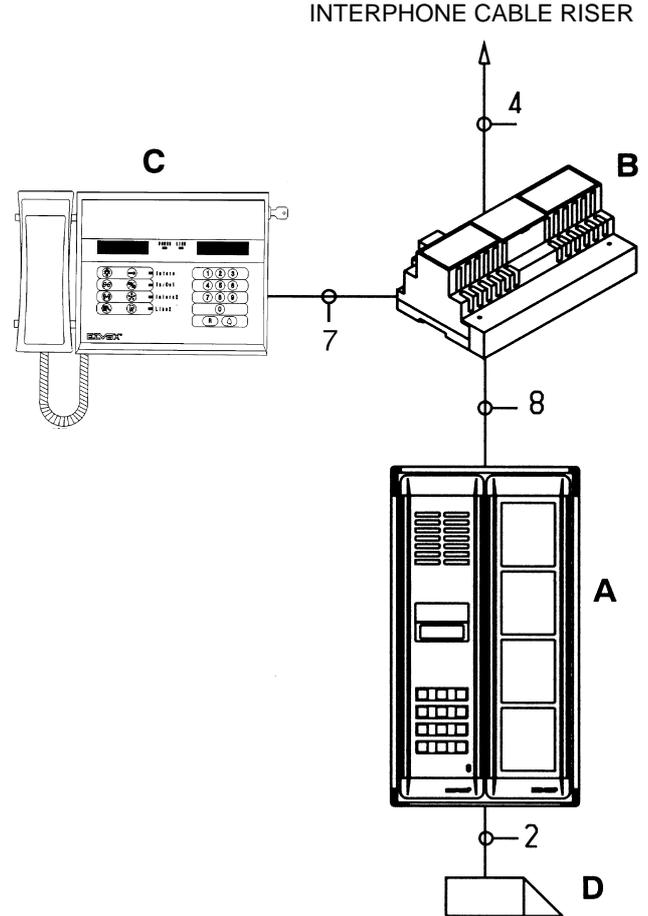
- A- Entrance panel Art. 942/... - 943/... - 944
- B- Power supply Art. 6941
- C- Relay Art. 170/001
- D- Transformer Art. M832
- E- Electric lock 12V A.C.

**NOTES**

In two of the three entrance panels cut the metallic jumper on the interphone cable riser terminal block side.

- To make the call from the apartment door see version no. 3A or 3B
- To control the auxiliary functions see version no. 2A or 2B

**4 - SIMPLE RESIDENTIAL INSTALLATION  
WITH PORTER'S SWITCHBOARD.  
Diagram ref. p2767**



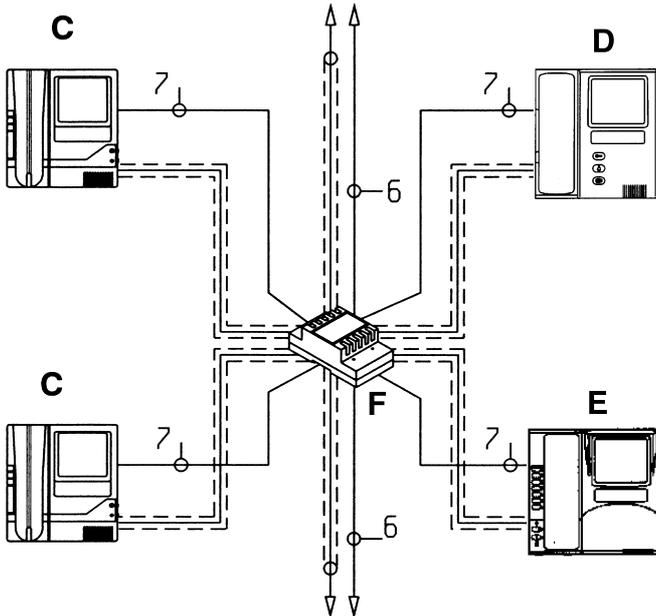
- A- Entrance panel Art. 942/... - 943/... - 944
- B- Power supply Art. 6941
- C- Switchboard Art. 945A - 955
- D- Electric lock 12V A.C.

**NOTES**

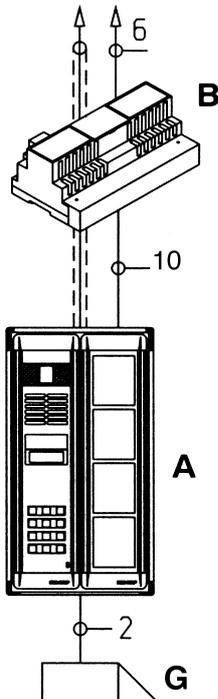
- To make the call from the apartment door see version no. 10A or 10B
- To control the auxiliary functions see version no. 2A or 2B



**7 - SIMPLE RESIDENTIAL INSTALLATION  
WITH INTERPHONES EQUIPPED WITH  
INTERNAL DECODING**  
Diagram ref. pv3002



MONITOR CABLE RISER

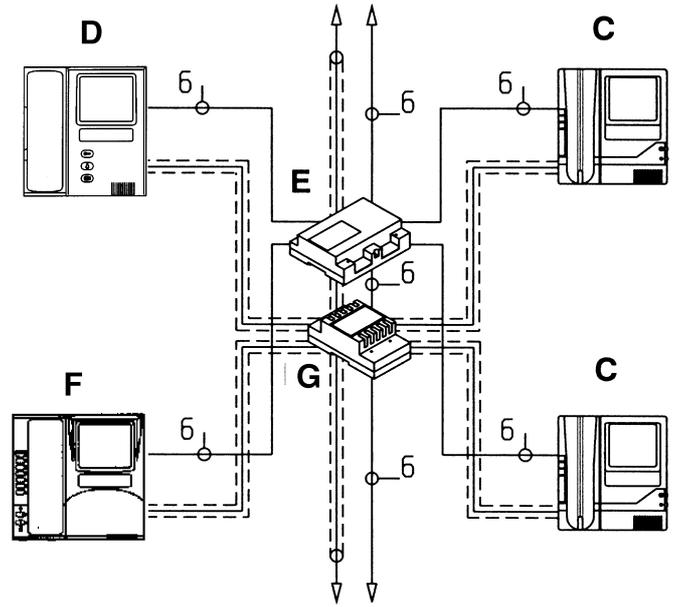


**NOTES**

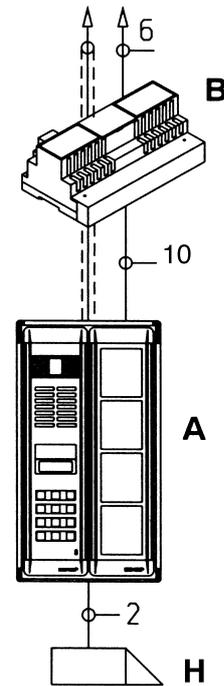
- To make the call from the apartment door see version no. 3B
- To control the auxiliary functions see version no. 4B

- A- Entrance panel Art. 943/5.. - 946 - 947
- B- Power supply Art. 6948
- C- Monitor Art. 5404/940 - 5601/940 - 5604/940
- D- Monitor Art. 5340
- E- Monitor Art. 7000 + Interphone Art. 7110
- F- Distributor Art. 5556/004 - 6554
- G- Electric lock 12V A.C.

**8 - SIMPLE RESIDENTIAL INSTALLATION  
WITH FLOOR DISTRIBUTORS EQUIPPED  
WITH INTERNAL DECODING**  
Diagram ref. pv3064



MONITOR CABLE RISER

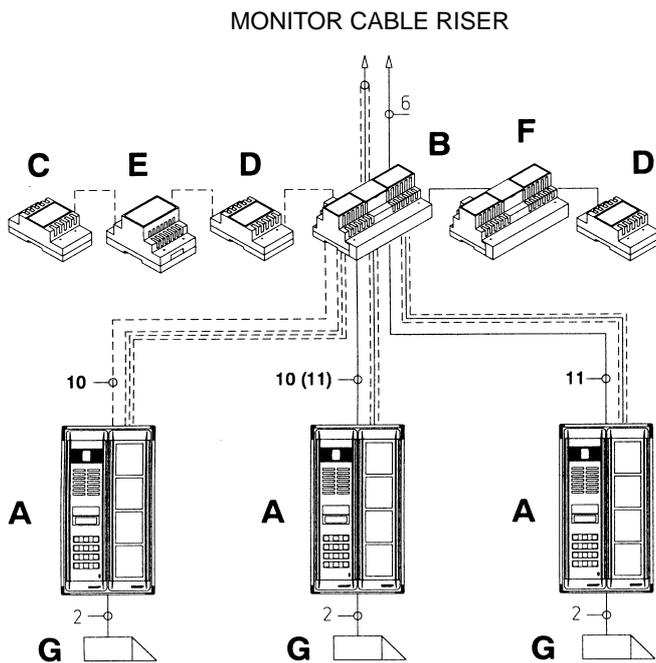


**NOTES**

- To make the call from the apartment door see version no. 3A
- To control the auxiliary functions see version no. 4A

- A- Entrance panel Art. 943/5.. - 946 - 947
- B- Power supply Art. 6948
- C- Monitor Art. 5404/037 - 5601/037 - 5604/037
- D- Monitor Art. 5337
- E- Distributor Art. 949A
- F- Monitor Art. 7000 + Interphone Art. 7101
- G- Distributor Art. 5556/004 - 6554
- H- Electric lock 12V A.C.

**9 - SIMPLE RESIDENTIAL INSTALLATION  
WITH ONE OR MORE entrance panels  
CONNECTED IN PARALLEL**  
Diagram ref. pv2712



- A- Video entrance panel Art. 943/5.. - 946 - 947
- B- Power supply Art. 6948
- C- Relay Art. 170/001
- D- Relay Art. 170/051
- E- Transformer Art. M832
- F- Additional power supply Art. 6942
- G- Electric lock 12V A.C.

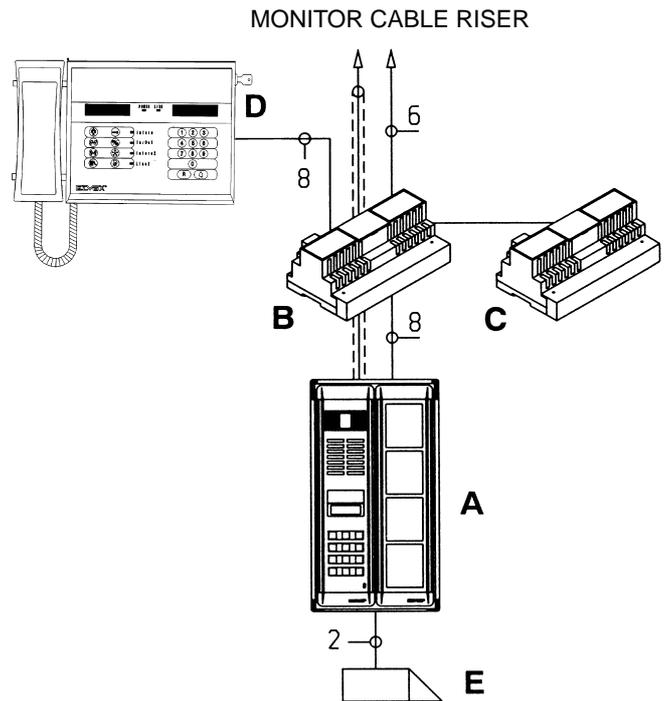
**NOTES**

In two of the three door entrance panels cut two metallic jumpers on the interphone cable riser terminal block side.

**The cables shown in parentheses are for the case in which three panels are connected in parallel.**

- To make the call from the apartment door see version no. 3A or 3B
- To control the auxiliary functions see version no. 4A or 4B

**10- SIMPLE RESIDENTIAL INSTALLATION  
WITH PORTER'S SWITCHBOARD.**  
Diagram ref. pv2769



- A- Video entrance panel Art. 943/5.. - 946 - 947
- B- Power supply Art. 6948
- C- Power supply Art. 6942
- D- Switchboard Art. 945A - 955
- E- Electric lock 12V A.C.

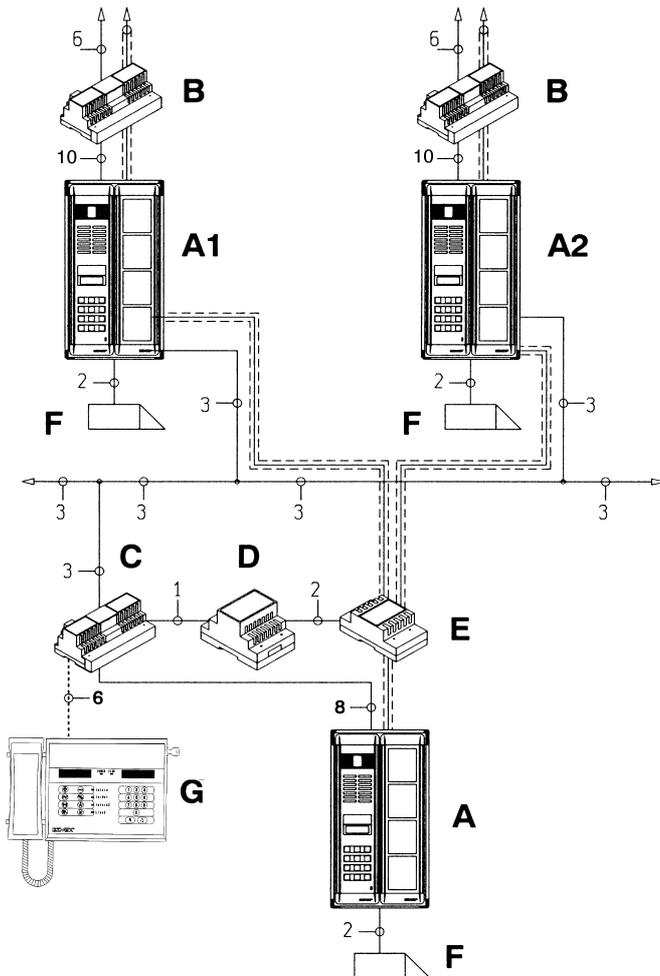
**NOTES**

The conversation and answer timings set by the switchboard override those set on the panel.

- To make the call from the apartment door see version no. 10A or 10B
- To control the auxiliary functions see version no. 4A or 4B

**11- RESIDENTIAL INSTALLATION WITH ONE MAIN entrance panel AND TWO OR MORE PANELS INSTALLED ON EACH ENTRANCE (residential complex). Diagram ref. ps2559 - pc2560 - ps3189**

MONITOR CABLE RISER      MONITOR CABLE RISER



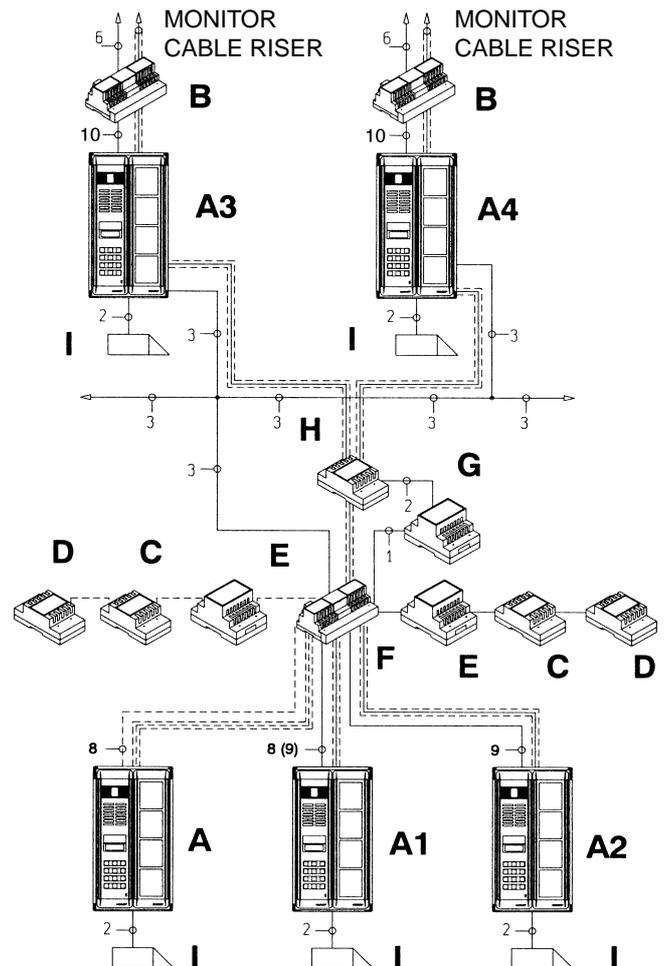
- A- Main entrance panel  
Art. 943/5.. - 946 - 947
- A3-A4- Secondary entrance panels  
Art. 943/5.. - 946 - 947 (or Art. 942/... - 943/... - 944)
- B- Power supply Art. 6948
- C- Power supply Art. 6942
- D- Power supply Art. 5582/001
- E- Distributor Art. 5556/004 - 6554
- F- Electric lock 12V A.C.
- G- Switchboard Art. 945A - 955

**NOTES**

The maximum and minimum number of users must be programmed on the secondary panels (see panel parameter programming).

- To make the call from the apartment door see version no. 3A or 3B
- To control the auxiliary functions see version no. 4A or 4B

**12- RESIDENTIAL INSTALLATION WITH TWO OR MORE MAIN entrance panels AND TWO OR MORE PANELS INSTALLED ON EACH ENTRANCE (residential complex). Diagram ref. ps2768**



- A-A1-A2- Main entrance panel  
Art. 943/5.. - 946 - 947
- A3-A4-Ax Secondary entrance panels  
Art. 943/5.. - 946 - 947 (or Art. 942/... - 943/... - 944)
- B- Power supply Art. 6948
- C- Relay Art. 170/001
- D- Relay Art. 170/051
- E- Transformer Art. M832
- F- Power supply Art. 6942
- G- Power supply Art. 5582/001
- H- Distributor Art. 5556/004 - 6554
- I- Electric lock 12V A.C.

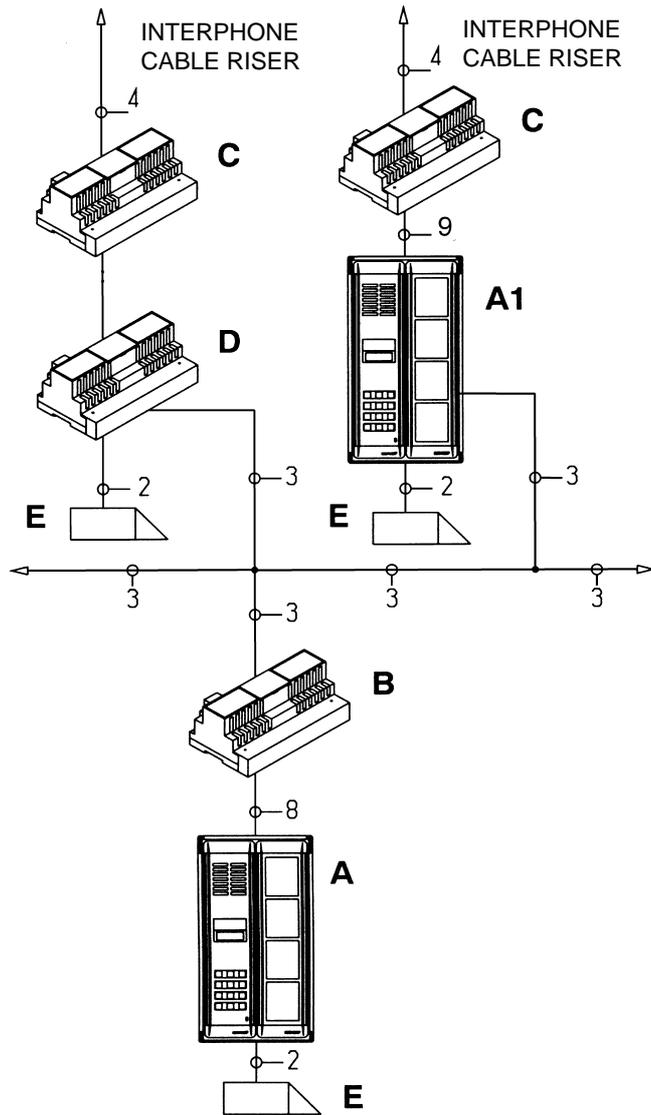
**NOTES**

The maximum and minimum number of users must be programmed on the secondary panels (see panel parameter programming). In two of the three entrance panels A-A1-A2 cut the metallic jumper on the interphones riser terminal block side.

**The cables shown in parentheses are for the case in which three panels are connected in parallel.**

- To make the call from the apartment door see version no. 3A or 3B
- To control the auxiliary functions see version no. 4A or 4B

**13- RESIDENTIAL AUDIO ENTRY SYSTEM INSTALLATION WITH MAIN PANEL AND ONE OR MORE ENTRANCES WITH OR WITHOUT PANEL (residential complex). Diagram ref. pe2770**



- A- Main entrance panel  
Art. 942/...-943/...-944
- A1-Ax Secondary entrance panels  
Art. 942/... - 943/... - 944
- B- Power supply Art. 6942
- C- Power supply Art. 6941
- D- Switching module Art. 949
- E- Electric lock 12V A.C.

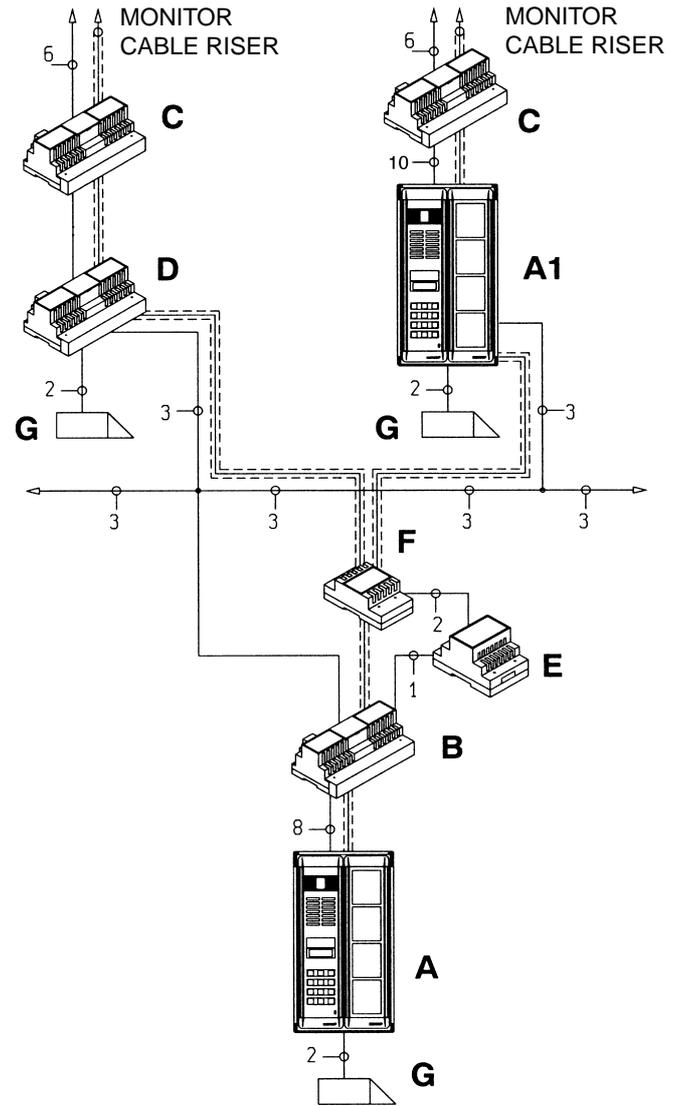
**NOTES**

The switching module Art. 949 is fitted with a led which flashes when its riser is busy with a call from the main panel. The maximum and minimum number of users must be programmed on the secondary panels (see panel and 949 distributor parameter programming).

**The switching module Art. 949 must also have the ON-OFF jumper next to the terminal block in the ON position.**

- To make the call from the apartment door see version no. 3A or 3B
- To control the auxiliary functions see version no. 2A or 2B

**14- RESIDENTIAL VIDEO ENTRY SYSTEM INSTALLATION WITH MAIN PANEL AND TWO OR MORE ENTRANCES WITH OR WITHOUT PANEL (residential complex). Diagram ref. ps2771**



- A- Main entrance panel Art. 943/5.. - 946 - 947
- A1-Ax Secondary entrance panels  
Art. 943/5.. - 946 - 947 (o Art. 942/... - 943/... - 944)
- B- Power supply Art. 6942
- C- Power supply Art. 6948
- D- Switching module Art. 949
- E- Power supply Art. 5582/001
- F- Distributor Art. 5556/004 - 6554
- G- Electric lock 12V A.C.

**NOTES**

The switching module Art. 949 is fitted with a led which flashes when its riser is busy with a call from the main panel. The maximum and minimum number of users must be programmed on the secondary panels (see panel and 949 distributor parameter programming).

**The switching module Art. 949 must also have the ON-OFF jumper next to the terminal block in the ON position.**

- To make the call from the apartment door see version no. 3A or 3B
- To control the auxiliary functions see version no. 4A or 4B

**FAULT**

**SOLUTION**

- |   |   |
|---|---|
| 1- No internal or external audio  | Adjust the internal and external volume trimmers on the panel. Check the connection between the 3 <sup>rd</sup> terminals on the panel and internal unit.   |
| 2- No internal audio  | Check connection of panel terminals Ch and 3C with the corresponding power supply terminals. Check that on calling the LED L5 on the power supply lights up.  |
| 3- Conversation between internal and external unit cuts off immediately   | Measure the current between internal unit (or floor distributor) terminals 1 and 4 and check that it is 25mA.<br>Check the voltage between panel terminals 1 and 4 (11.0 - 12.0 V).<br>Check that the internal unit is working by replacing it with a perfectly working unit. |
| 4- The internal unit does not memorise the sent code  | Check the connection between the 1 <sup>st</sup> terminals of the panel and the internal unit or floor distributor.   |
| 5- External unit feedback (whistle)   | Turn the "BALANCING" trimmer slowly clockwise and then anticlockwise; if the problem persists then lower the "INTERNAL" and "EXTERNAL" volumes and then repeat the "BALANCING" trimmer adjustment.  |
| 6- External unit camera does not traverse   | Make sure that the "MOTOR SPEED" trimmer is set to maximum. Check that the panel is correctly installed in its mount.   |
| 7- Call not sent to riser   | Make sure that the ON-OFF switch on the rear of the panel is in the ON position. (For a system with several panels in parallel, check that only one of these is ON and the others OFF).<br>Check that the current between panel terminals 1 and 4 is 25mA and 11.0-12.0 V DC. |
| 8- Distorted audio in some interphones in a building of a residential complex   | Check the maximum and minimum number of users programmed on the stairway panels.  |
| 9- Lock does not open   | Check that there are 15V DC between power supply terminals S1 and 15 when the lock is actuated and check the connection of terminal S between the power supply and the panel (L1 and L2 light up when the lock is actuated).  |
| 10- All panel parameters lost after a few days of normal operation  | Check that the panel circuits have not been damaged by atmospheric charges, power line short-circuits (terminals 4 and 5) or on the digital line (terminals 1 and 6). Make sure that the unit has not been tampered with.   |
| 11- The stairway panel in a residential complex does not lock in stand-by state when a call is being made from the main panel | Check the stairway panel programming, especially the parameter "PRIORITY" which must be set to 0000.  |
| 12- The interphone does not call the porter   | Check the internal unit button contact and the switchboard.   |
| 13- Monitor off                            | Check the voltage between terminals 7 and 8 (15-20 V DC).   |
| 14- Horizontal lines on the monitor        | Adjust the horizontal frequency.  |
| 15- Vertical hunting                       | Adjust the vertical frequency.  |
| 16- Monitor on / no image                  | Inspect the coaxial cable by unplugging it from the camera and testing it: it must measure 75 Ohm (due to the last monitor's burden resistor). Check that the panel is powered up (Voltage 11-13.5 V DC).   |
| 17- Black bars                             | Check the voltage between terminals 7 and 8 (minimum 15 V DC) and between the red and black camera wires (minimum 11 V DC).   |
| 18- Distorted or ghost image               | Check that the last monitor's 75 Ohm burden resistor is inserted.   |
| 19- Strong call return on the panel loudspeaker   | In residential complexes or installation with porter's switchboard, check the panel programming (point 4, Call time).   |

## ART. 940 INTERPHONE

(colour white; black colour option code ART. 940/000.004)

### DESCRIPTION

DIGIBUS entry system interphone for desktop or wall-mounted installation. Equipped with digital call signal decoding, two-position call volume adjustment and door lock button (active only after reception of call - when the interphone is waiting, the same button calls the porter and sends the user code to the switchboard). The interphone can be fitted with auxiliary function buttons (F1/F2). The call volume is adjusted by moving the speaker wire from the + position (maximum) to the - position (minimum).

**This interphone is used together with power supplies Art. 6941 and Art. 6948.**

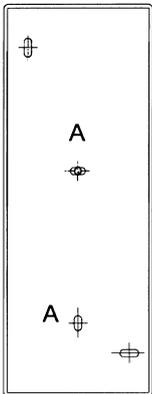
N.B.

Interphone Art. 940/P01 has the same features as Art. 940, furthermore it can make an outdoor call without using the additional call repeater.

Mounting template for Art. 940

Holes A-A:

layout for mounting on vertical 3-module box.



### Installation instructions:

Fig. 1- Separate the base of the interphone from the cover by inserting a wide-blade screwdriver in slots A-A and turning it clockwise until the two elements snap apart.

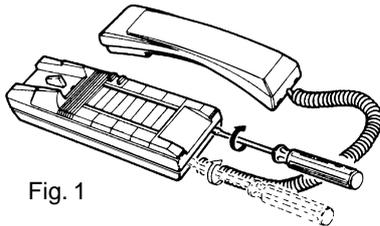


Fig. 1

Fig. 2-

Fit the interphone in the previously embedded vertical rectangular box and secure using the two screws provided. Alternatively tighten the same screws, in the expansion plugs (diameter 5) and make the various terminal connections. Fit the interphone to the wall so that its upper edge is 1.5 m from the floor.

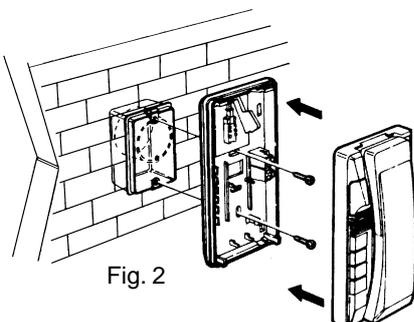


Fig. 2

Fig. 3-

Close the interphone by positioning the cover on top and pressing the bottom until the two parts snap together.

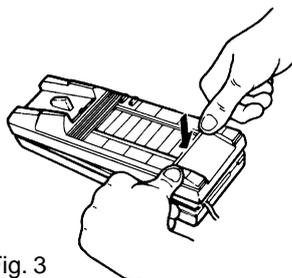


Fig. 3

### PROGRAMMING AND OPERATION

The following operations must be carried out only after the entrance panel has been programmed (see Art. 942/943/944). To program the interphone number, remove the cover, press the PS1 button on the circuit board and hold down the "KEY" button. If the procedure has been effected correctly, the unit will assume programming mode with LED "L1" lighting up, at which point "KEY" push-button can be released. If the LED does not light up, the sequence must be repeated.

The interphone handset will now enable communication with the stairway panel so that the latter sends back the interphone code.

Hook the handset again. As the code is transmitted from the panel to the phone, it will be memorized by the unit and remain stored until further programming, even in the event of the panel being disconnected from the power supply.

The entryphone generates a call sound in confirmation of the programming operation.

In case of installations with several entries, the connector for the entrance panel interphone riser must be removed, leaving only one entrance panel in operation for the programming phase.

This operation can be repeated any number of times, using other numbers between 0001 and 9999.

### TERMINAL BLOCK FOR CONNECTION

- 1) Digital call line
- 2) Not used
- 3) Phone line
- 4) Negative line
- 5) + 13,5V D.C.
- 6) Additional chime
- 4) Negative line
- 9) Auxiliary functions (F1) - connect if indicated in diagram
- 10) Auxiliary functions (F2) - connect if indicated in diagram

### ACCESSORIES

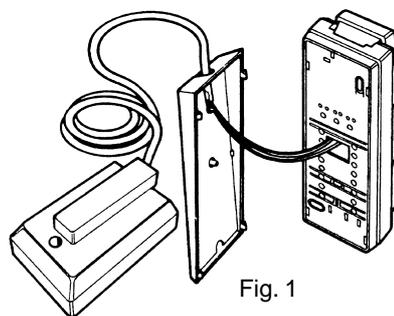


Fig. 1

**2/901** - Desk-top conversion kit for interphones series 940; standard colour white (code .05), available also in black (code .04), with 6-conductor cable; complete with fixed terminal block.

**2/903** - Single additional button used for an auxiliary function (see power supply Art. 6941).

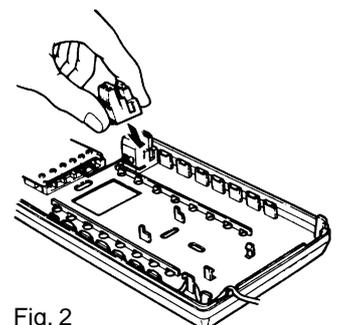
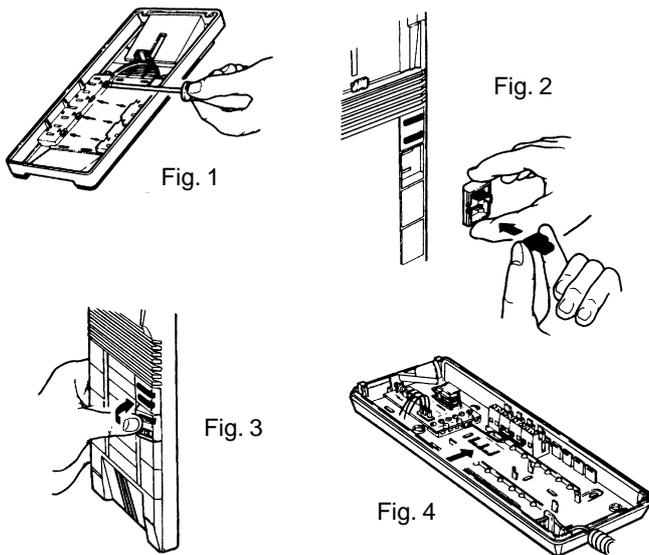


Fig. 2

**2/904** - Pair of additional keys and buttons, fitted after the inserts have been extracted from the holes in the lid. Used for more than one auxiliary function (see power supply Art. 6941).

**ASSEMBLY**



**Art. 900/137** colour white

**DESCRIPTION**

DIGIBUS system interphone without digital call signal decoding (the decoding circuit is installed in the digital distributor Art. 949A), with door lock button (active only after reception of call - when the interphone is waiting, the same button calls the porter and sends the user code to the switchboard).

The interphone can be fitted with auxiliary function buttons (F1/F2). The call volume is adjusted by moving the speaker wire from the + position (maximum) to the - position (minimum).

This interphone must be used in combination with the floor distributor Art. 949A for 4 apartments.

Installation and assembly as for Art. 940.

**TERMINAL BLOCK**

- 1) Phone line
- 3) Negative line
- 4/5) Additional chime
- 6) Entrance panel call

**Art. 875/037** colour white

**DESCRIPTION**

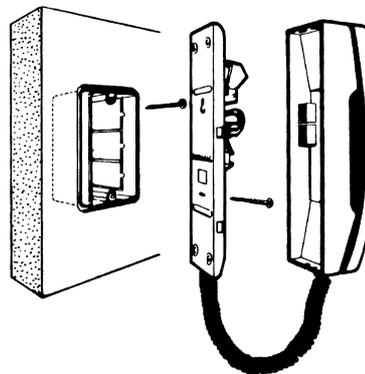
DIGIBUS system interphone without digital call signal decoding (the decoding circuit is installed in the digital distributor Art. 949A), with door lock button (active only after reception of call - when the interphone is waiting, the same button calls the porter and sends the user code to the switchboard). Equipped with a second button for a single auxiliary function. This interphone must be used in combination with the floor distributor Art. 949A.

Programming and operation: see Art. 949A.

**TERMINAL BLOCK**

- 1) Phone line
- 3) Negative line
- 6) entrance panel call
- 7) Additional button for auxiliary function

**INSTALLATION**



Fix the base of the interphone to the flush or anchor bolt-mounted box with the screws provided. Hook up the terminal block and close the interphone by pushing the base of the unit into the box until it secures with a click.

**INTERPHONE ART. 7110 colour white**

Dimensions: 90x222x72 mm

**DESCRIZIONE**

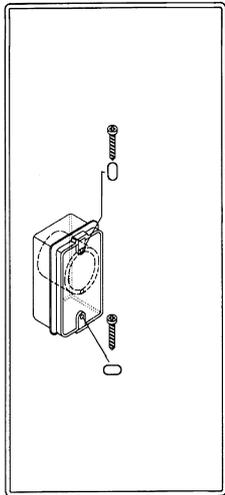
White surface wall-mounted interphone with two buttons and micro-controller for 4-digit coding and decoding, designed for installation in systems from the DIGI-BUS range. The interphone may be mounted on a 3-module rectangular vertical back box or fixed with expansion plugs. The unit may be expanded to accommodate a further three buttons or other accessories. It may be combined with monitors Art. 7000-7001 and desk-mounted using the relative conversion kit.

Door lock button is active only after reception of call - when the interphone is waiting, the same button calls the porter and sends the user code to the switchboard and additional push-button.

**The interphone can be fitted with auxiliary function buttons (F1/F2).**

**Può essere collegato con sistemi aventi posti esterni tipo Art. 930/037 and is used together with power supplies Art. 6941 and Art. 6948.**

Dima di foratura per Art. 7110.



Holes A-A:  
layout for mounting on vertical  
3 module box.

**Installation instructions:**

Fig. 1- Separate the base of the interphone from the cover by inserting a wide-blade screwdriver in slots A-A and turning it clockwise until the two elements snap apart.

Fig. 1



Fig. 2- Fit the interphone in the previously embedded vertical rectangular box and secure using the two screws provided. Alternatively tighten the same screws, in the expansion plugs (diameter 5) and make the various terminal connections. Fit the interphone to the wall so that its upper edge is 1.5 m from the floor.

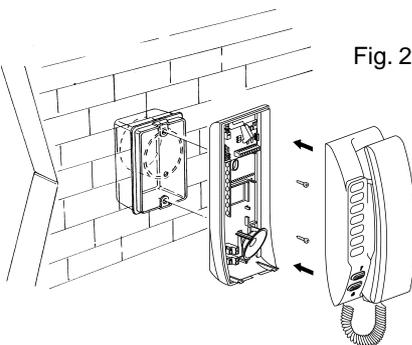


Fig. 2

Fig. 3- Close the interphone by positioning the cover on top and pressing the bottom until the two parts snap together.

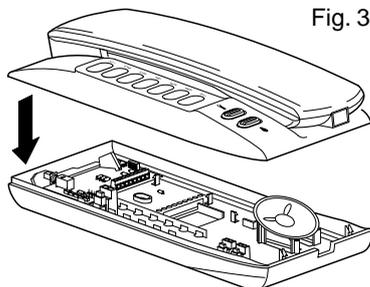
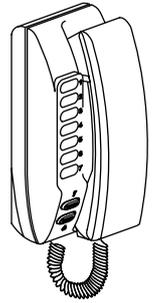


Fig. 3

**La programmazione e il funzionamento sono simili al citofono Art. 940.**

**TERMINAL BLOCK FOR CONNECTION**

- 1) Digital call line
- 3) Phone line
- 4) Negative line
- 5) + 13,5V D.C.
- 6) Additional chime
- 4) Negative line
- 9) Auxiliary functions (F1) - connect if indicated in diagram
- 10) Auxiliary functions (F2) - connect if indicated in diagram
- 11) Outdoor call push-button
- 12) Phone line for speech units serie 930/037



**ACCESSORIES**

**7140 - 7A40**

Desk-top conversion kit for interphones series GALILEO; with 6-conductor cable and 16-conductor cable for Art. 7A40; complete with fixed terminal block.

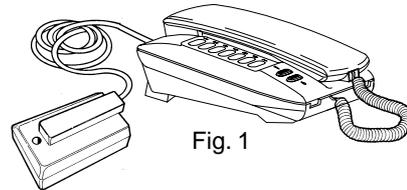


Fig. 1

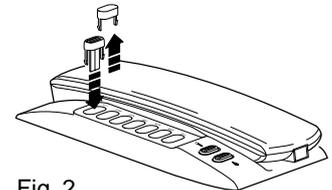
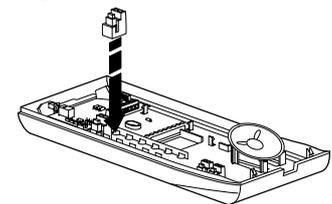


Fig. 2

**7152**

Single additional button used for an auxiliary function (see power supply Art. 6941).



**Art. 7101 colour white**

**DESCRIPTION**

DIGIBUS system interphone without digital call signal decoding (the decoding circuit is installed in the digital distributor Art. 949A), with door lock button (active only after reception of call - when the interphone is waiting, the same button calls the porter and sends the user code to the switchboard).

Il citofono dispone di un secondo pulsante ed è predisposto per l'installazione di altri nel caso di si intende attivare eventuali funzioni ausiliarie (F1, F2)

This interphone must be used in combination with the floor distributor Art. 949A for 4 apartments.

Installation and assembly as for Art. 7110.

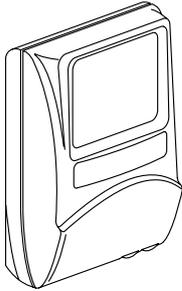
It may be combined with monitors Art. 7000-7001 and desk-mounted using the relative conversion kit.

**TERMINAL BLOCK**

- 1) Phone line
- 2) Self-activation (not in use)
- 3) Negative line
- 4) Negative line
- 5) Additional chime
- 6) Entrance panel call
- +S) 12VD.C. output

**Art. 3570**DIMENSIONS:  
135x220x72.

White multi-function telephone. It may be combined with monitors Art. 7000-7001, in both the surface wall-mounted version using fixing bracket Art. 7146, and desk-top version using conversion kit Art. 7143. Used in conjunction with PT-approved telephone switchboards Art. 3514 and 3528 from the INTER-SYSTEM range, this telephone can also activate audio and video door entry functions. It may also be connected to pulse and touch-tone (DTMF) dialling lines.

**Art. 7000**DIMENSIONS:  
135x220x63

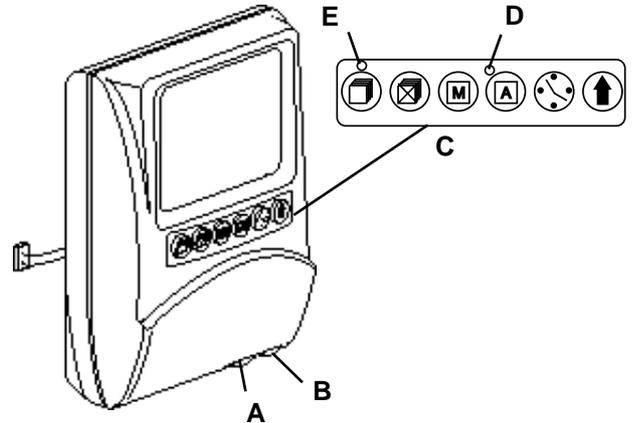
White 4" flat-screen black/white monitor. Supplied with connector for quick wiring to interphones 7100-7101-7110. The monitor may also be combined with telephone Art. 3570, in both wall-mounted and desk-top versions using the corresponding accessories.

**Art. 7001**DIMENSIONS:  
135x220x63

White 4" flat-screen black/white monitor. This monitor has all the same characteristics as Art. 7000, but also features the MEMO-VISION image-recording system which can record up to 16 black and white images. This monitor is powered by additional power supply Art. 5682.

**CONTROL DESCRIPTION ART. 7001**

- A) CONTRAST ADJUSTMENT KNOB 
- B) BRIGHTNESS CONTROL NOB 
- C) "MEMOVISION" function keyboard.
- D) ON-OFF LED for automatic recording.
- E) DISCHARGED BATTERY SIGNALLING LED



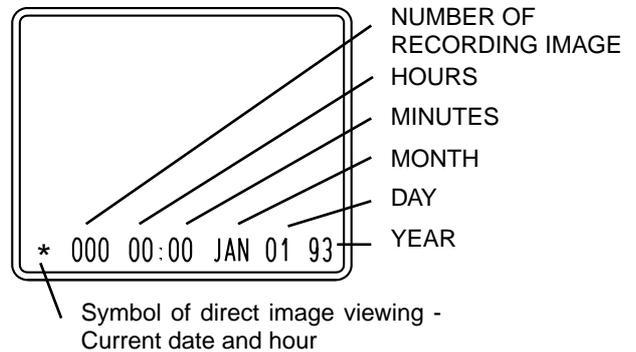
**OPERATING INSTRUCTIONS**

**1.- DATE-TIME PROGRAMMING:**

This operation is necessary as these data appear on every recorded image.

- A.- Press the  pushbutton. The monitor is switched on and the figures for the day, month, year, hours and minutes will start flashing. Each time the  key is pressed the figures for the day and hours will increase of one unit.
- B.- Press key  several times so that the day, month, year, hours and minutes flash one after the other. Change the hours and minutes as necessary using the  key. Once the sequence has been started, it must be carried through to the end by pressing key  several times until none of the date or time figures are flashing. If during these operations, the internal set time expires and the monitor switches off, then press the key  to continue.

**Example of date-hour programming displayed on screen.**



**2 - PROGRAMMING OF AUTOMATIC IMAGE RECORDING**

To activate this function, press the  push-button; the red LED (H) and the monitor will come on simultaneously, the latter indicating the hour, date and number of recorded images (if any have been recorded). The monitor will now record the images of anyone calling from outside. Once the maximum number of 16 recordings has been reached, the next (17th registration) will cover the first.

**N.B.** By activating the automatic recording function, all the other keys are automatically inhibited.

**3 - VIEWING OF RECORDED IMAGES**

De-activate the automatic recording function if previously activated by pressing the  key; the RED LED (H) will go out.

Press the  push-button to view the first recorded image. In order to watch the entire sequence of images, press the same button more than once. Once the sequence has been started, it is necessary to carry through to the end so as to reactivate the functions of the other keys and for the memory programming.

**N.B.** During the sequence of images, the symbol  will appear on the left side of the screen. Once the sequence has come to an end, the \* symbol will re-appear and the monitor will return to normal operation. The image-viewing function uses a timer fitted inside the monitor, operating independently of the timer in the main system and allowing the recorded images to be viewed even if in the meantime, the other monitors are using the video system for calls or other functions.

**4 - VIDEO RECORDING RESET**

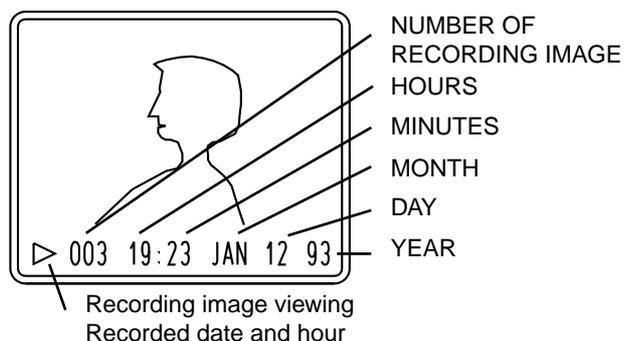
Press the  button and keep it pressed for 5 seconds to cancel the contents on memory. The monitor must be operating normally when this operation is carried out; (with the \* symbol appearing on the screen).

**5 - MANUAL VIDEO RECORDING**

This function allows an image picked up by the camera to be recorded when automatic function is not activated (red LED off). When the call from outside is received, the image on the screen is recorded immediately by pressing the  key.

**N.B.** This function can also be used when the monitor is switched on from inside.

**Example of recorded image displayed on screen.**



**INSTALLATION OF MONITOR AND INTERPHONE**

Fig. 1 - Embed back box Art. 7149 so that it is flush-mounted on the wall about 1.40 m from the ground.

Fig. 2 - Remove the hole caps from the back box and attach mounting bracket Art. 7146 using the 4 screws provided.

Fig. 3 - Separate the base of the interphone from the cover by inserting a screwdriver in the slots and prising open the two elements as shown in the figure.

Fig. 4 - Mount the interphone base on the left hand side of the mounting bracket by hanging it over the hooks and pushing it down until it is locked in place.

Connect the terminals on the interphone and monitor terminal block on the right hand side of the mounting bracket.

Connect the three-pole cable supplied with the monitor by inserting the plug at one end in the socket marked "CN2" on the interphone and the plug at the other end in the socket marked "CN2" on the terminal block fixed to the mounting bracket on the monitor side (see detail).

Next insert monitor plug "B" in socket "CN1" on the bracket terminal block.

Fig. 5 - Attach the monitor to the mounting bracket by hanging it over the hooks and pushing it down until it is locked in place.

Close the interphone by positioning the cover on top (Fig. 3A) and pressing the bottom (Fig. 3B) until the two parts snap together.

To detach the interphone or monitor from the mounting bracket, prise open the safety tab with a screwdriver and detach the unit by pushing it up (in the opposite direction to that indicated by arrows 1 and 2).

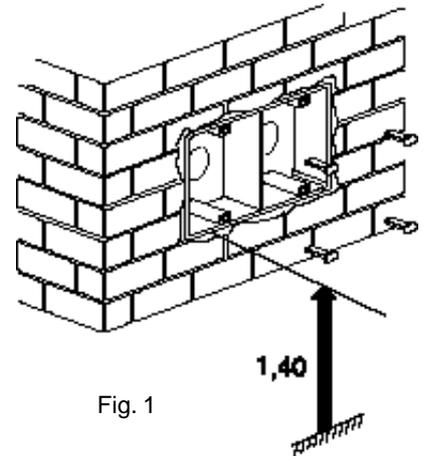


Fig. 1

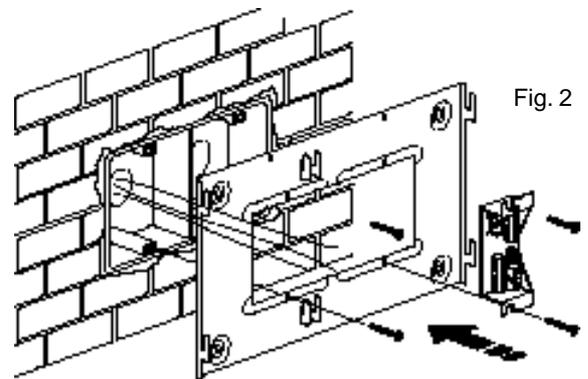


Fig. 2

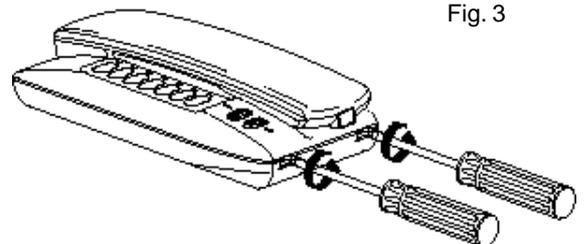


Fig. 3

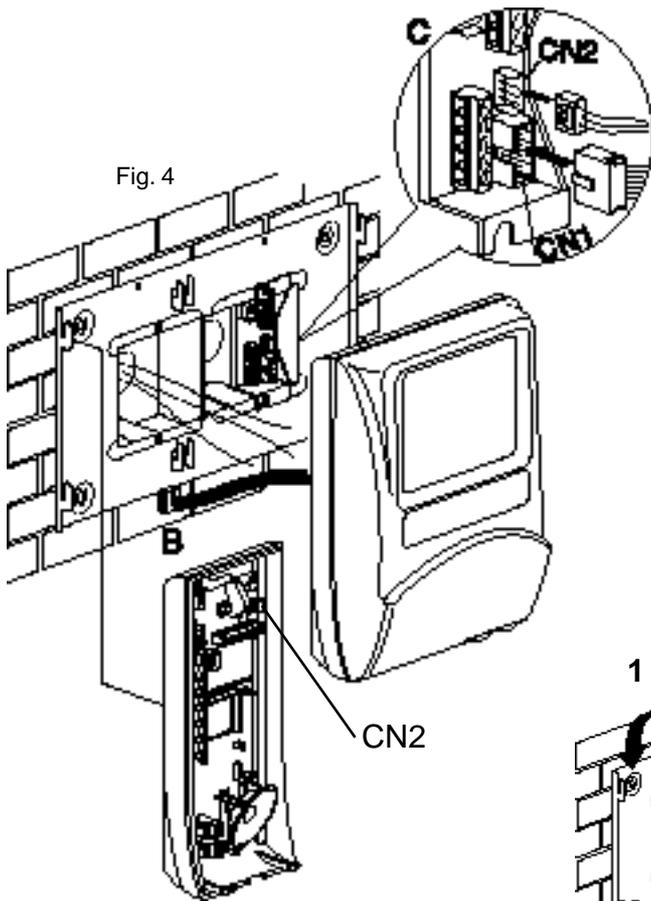


Fig. 4

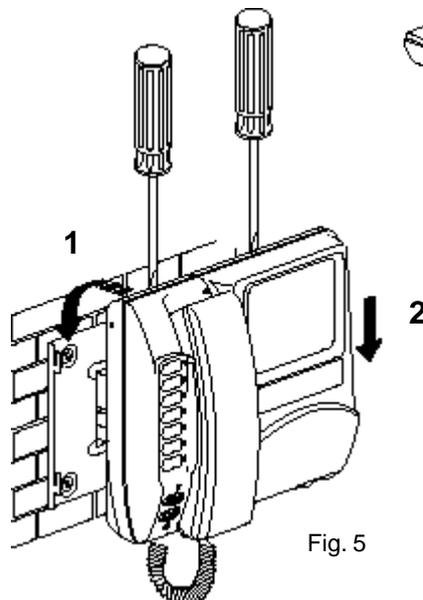
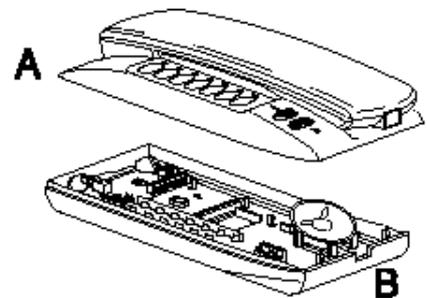


Fig. 5

**INSTALLATION OF MONITOR AND TELEPHONE**

Fig. 1 - Embed back box Art. 7149 so that it is flush-mounted on the wall about 1.40 m from the ground.

Fig. 2 - Remove the hole caps from the back box and attach mounting bracket Art. 7146 using the 4 screws provided.

Fig. 3 - Insert the telephone cord plug supplied with the bracket in the socket on the back of multi-function telephone Art. 3573. Connect the other end of the cord to the telephone line from the switch-board (Art. 3514-3528) by inserting the plug in the socket on accessory Art. 3560 (detail D).

Fig. 4 - Attach the telephone to the mounting bracket by hanging it over the hooks and pushing it down until it is locked in place. Insert monitor plug "B" in the socket marked "CN1" on the bracket terminal block (detail C).

Finally mount the monitor by hanging it over the hooks and pushing it down until it is locked in place.

To detach the telephone or monitor from the mounting bracket, prise open the safety tab with a screwdriver and detach the unit by pushing it up (in the opposite direction to that indicated by arrows 1 and 2).

**N.B.:** Do not use the 3-pole cable supplied with the monitor.

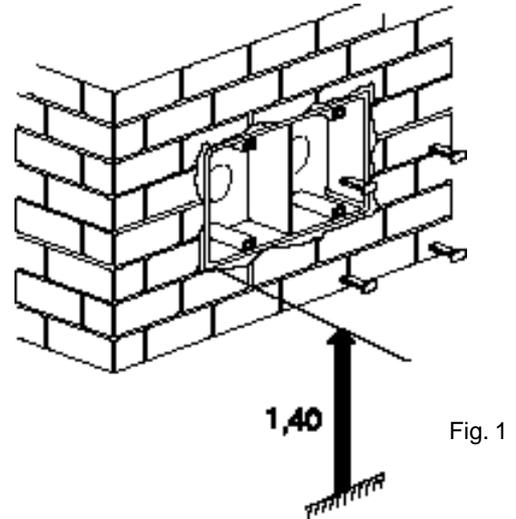


Fig. 1

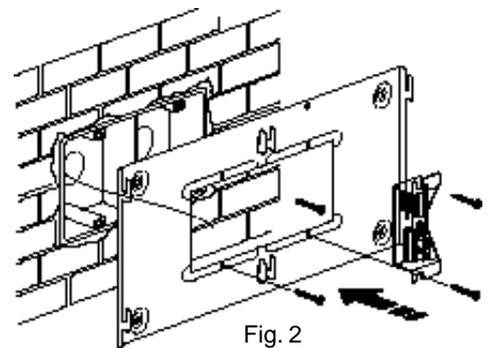


Fig. 2

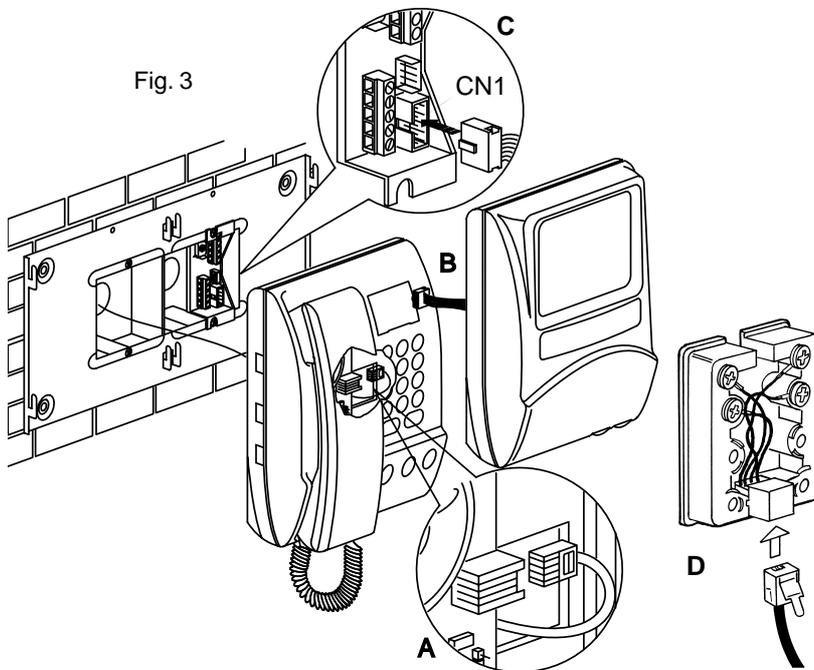


Fig. 3

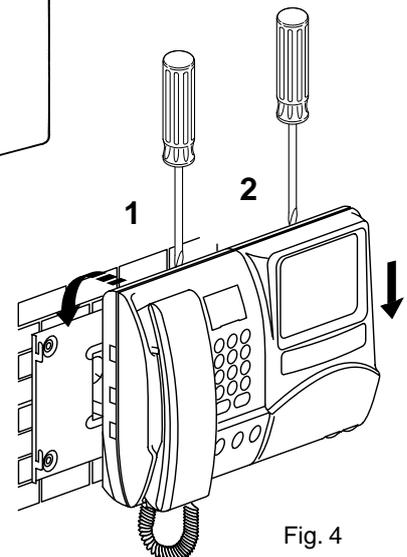
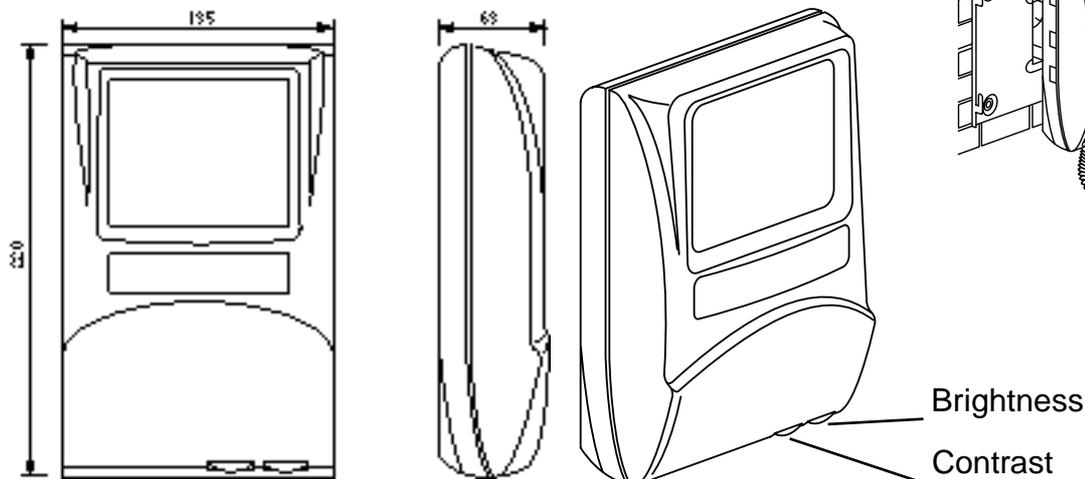


Fig. 4

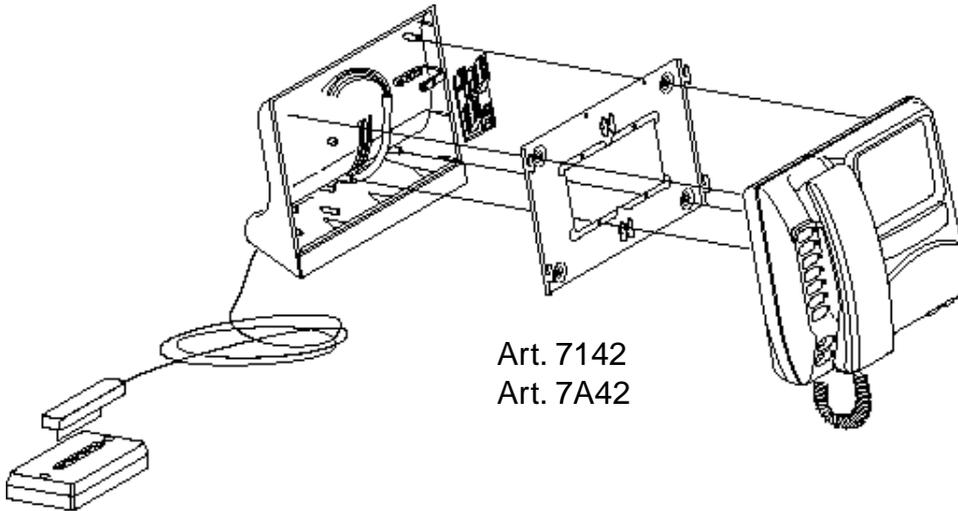
**MONITOR DIMENSIONS AND ADJUSTMENTS:**



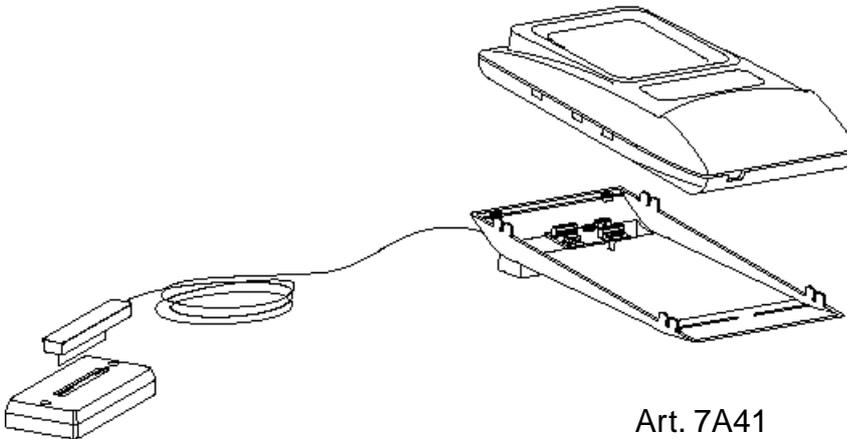
**TECHNICAL CHARACTERISTICS OF ART. 7000**

- Slim-line surface wall-mounted monitor with 4" flat screen
- Minimum supply voltage: 15 Vdc (maximum 20 Vdc)
- Video signal standard: CCIR with 625 lines and 50 frames (EIA standard available on request)
- Passband: 4 MHz
- Video signal input voltage: 0.5 - 2 Vpp via 75 Ohm coax cable or twisted pair.

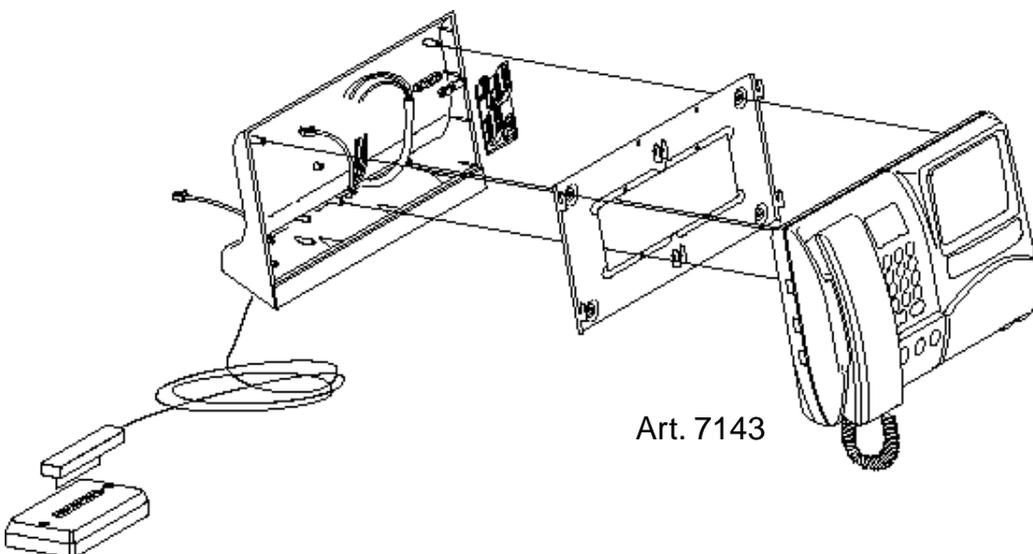
**Desk-top conversion kit for monitor and interphones:**



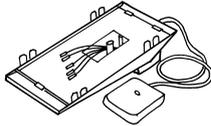
**Desk-top conversion kit for monitors only:**



**Desk-top conversion kit for monitor and telephone:**

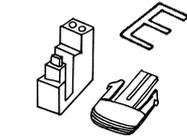


**Art. 7140**



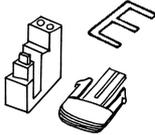
White desk-top conversion kit for interphones Art. 7100-7101-7110-7120. Supplied with 2-metre, 6-wire cable and fixed terminal block.

**Art. 7A40**



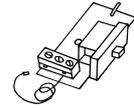
White desk-top conversion kit for interphones Art. 7100-7101-7110-7120. Supplied with 2-metre, 16-wire cable, complete with plug and socket. This kit is installed in intercommunicating systems.

**Art. 7152**



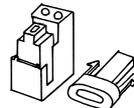
Additional button and key. Mounted in the corresponding button housings on GALILEO interphones after first removing the cover.

**Art. 7153**



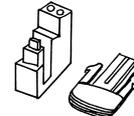
4-position switch module controlling call volume adjustment and call exclusion. Mounted in the corresponding housing after first removing the cover. This switch can also be installed in 902 series interphones.

**Art. 7154**



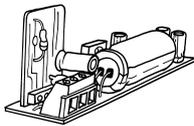
Red LED signalling module indicating call exclusion etc. Mounted in the corresponding housing after first removing the cover.

**Art. 7157**



N/C button and external key. Used in automation systems. Mounted in the corresponding housings after first removing the cover.

**Art. 7150**



Ding-dong chime card mounted in the corresponding housing on interphones Art. 7101-7110. Changes the call signal. Compatible with all video and audio door entry systems from the "SOUND-SYSTEM" range.

**This card also enables the entire GALILEO range to be installed in video and audio door entry systems from the "a.c. CALL range".**

**Art. 3514**

DIMENSIONS:  
210x244x60

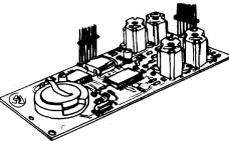


Telephone switchboard with intercom interface, featuring one local telephone line and four internal lines.

The unit comprises a 24-module ABS container suitable for both wall-mounted installation and DIN-rail assembly on electric panels.

**Art. 3528**

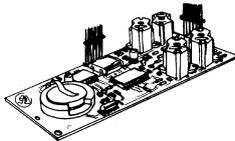
DIMENSIONS:  
210x244x60



Telephone switchboard with intercom interface, featuring two local telephone lines and eight internal lines.

The unit comprises a 24-module ABS container suitable for both wall-mounted installation and DIN-rail assembly on electric panels.

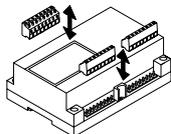
**Art. 352S**



Optional card for the printer connection, telephone paying unit control and wake up service, equipped with proper cable for the printer connection.

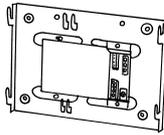
**Art. 3551**

DIMENSIONS:  
140x115x65



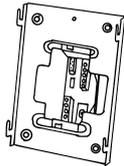
Telephone switchboard interface for use in DIGIBUS installations.

**Art. 7145**



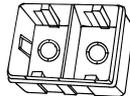
Wall-mounted fixing bracket for combined interphone (Art. 7100-7101-7110) and monitor (7000-7001) units, complete with connection terminal block. Supplied with fixing screws for attachment to flush-mounted back box Art. 7149.

**Art. 7A47**



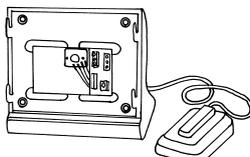
Wall-mounted fixing bracket for individual monitor (Art. 7000-7001), complete with connection terminal block and fixing screws for attachment to rectangular vertical back box. Mounts individual monitor unit only.

**Art. 7149**



Flush-mounted back box for wall mounting brackets Art. 7145 - 7146.

**Art. 7142**



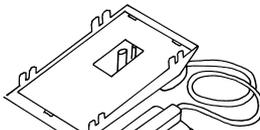
Desk-top conversion kit for combined interphone (Art. 7100-7101) and monitor (7000-7001) units, complete with connection terminal block. Supplied with 2-metre, 12-wire cable and coax. Equipped with plug and socket.

**Art. 7A42**



Desk-top conversion kit for combined interphone (Art. 7100-7101) and monitor (7000-7001) units, complete with connection terminal block. Supplied with 2-metre, 22-wire cable and coax. Suitable for intercommunicating monitor or interphone systems. Equipped with plug and socket. Mounts individual monitor unit separate from interphone.

**Art. 7A41**



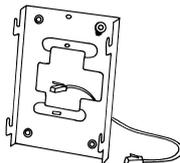
Desk-top conversion kit for individual monitor (Art. 7000-7001), complete with connection terminal block. Supplied with 2-metre, 8-wire cable and coax. Equipped with plug and socket. Mounts individual monitor unit separate interphone.

**Art. 7160**



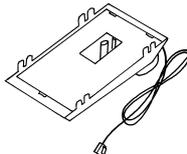
Power supply for installation in table-mount kits Art. 7142 and 7A42. This power supply is fitted in installations with several monitors connected in parallel or in systems with extremely long cable runs prone to excessive voltage drops. Power supply: 230 Vac.

**Art. 7147**



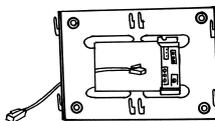
Wall-mounted fixing bracket for telephone Art. 3570, complete with fixing screws for attachment to vertical rectangular back box. Mounts individual telephone unit only, without monitor.

**Art. 7141**



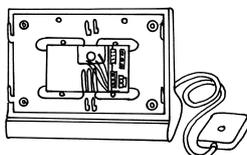
White desk-top conversion kit for telephone Art. 3570. Supplied with 2.40 metre cable fitted with telephone plugs.

**Art. 7146**



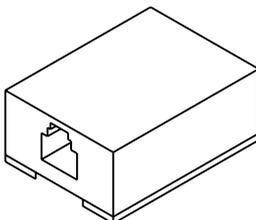
Wall-mounted fixing bracket for combined telephone (Art. 3570) and monitor (Art. 7000-7001) units installed in video door entry systems. Complete with connection terminal block and fixing screws for attachment to flush-mounted back box Art. 7149.

**Art. 7143**



White desk-top conversion kit for combined telephone (Art. 3570) and monitor (Art. 7000-7001) units installed in video door entry systems. Supplied with 12-wire cable, coax fitted with plug and socket, and telephone cable fitted with telephone plugs. Complete with mounting bracket and connection terminal block.

**Art. 3560**



Accessory for connection of telephone with standard 6/4 plug to single-pole telephone lines.

**GENERAL CHARACTERISTICS**

The monitors are constructed in two versions: the first version includes the 4" and 5" models equipped with electronic decoding for use in combination with power supply Art. 6948; the second version includes the same models without internal decoding and therefore for installation in combination with the floor distributor 949A for four apartments. All monitors are made of thermoplastic, with handset, door lock button (enabled only after a call from the entrance panel) and 2 other buttons: one for the VIDEOMOVING function marked



and one for auxiliary functions marked . The monitors are equipped with brightness control, speaker, discrete conversation mode, and interchangeable circuit boards. Minimum power voltage 15V. 625 line standard CCIR video signal, 50 frames (EIA standard option). 4 MHz scanning frequency; video input signal voltage 0.5-2Vpp.

**OPERATING PRINCIPLES OF A DIGIBUS VIDEO ENTRY SYSTEM**

A video entry system consists of an external entrance panel with camera, a power supply and one or more monitors. When a call is made from the entrance panel, an audio signal is heard in the corresponding apartment; at the same time, the image of the caller appears on the monitor.

The field of view is lit by infrared diodes fitted in the entrance panel (not visible to the naked eye).

Lifting the internal unit handset puts the user in audio contact with the caller, and pressing the door lock button opens the door. The lock activation time can be set from 1 to 90 seconds on the entrance panel.

When the conversation is over (10 to 90 seconds programmed on the entrance panel) the unit switches off automatically. If the caller calls another user, the previous internal unit switches off without waiting for the programmed time to elapse. A cutout switches off the internal unit on case of overload or short-circuit on the line itself.

For greater user safety, all equipment operates at a low voltage and is separated from the mains by a high insulation transformer.

**MONITOR WITH INTERNAL ELECTRONIC CALL SIGNAL DECODING**

- Art. 5340 Low profile wall-mounted monitor with flat 4" screen fitted with adjustable volume electronic call loudspeaker.  
Dimensions: 202x220x80
- Art. 5604/940 Extreme low profile monitor as above with external call directly on handset speaker.  
Dimensions: 202x219x66
- 5604/940.P01 same as monitor Art. 5604/940, but with possibility of outdoor call.
- Art. 5601/940 Wall-mounted monitor with 5" reflex screen and external call directly on handset speaker.  
Dimensions: 202x219x100
- 5601/940.P01 same as monitor Art. 5601/940, but with possibility of outdoor call.

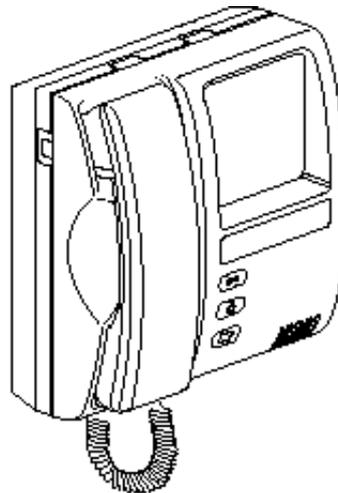
The above monitors are intended for installation in combination with the power supply Art. 6948.

**MONITOR WITHOUT INTERNAL ELECTRONIC CALL SIGNAL DECODING**

- Art. 5337 Monitor as per Art. 5340.
- Art. 5604/037 Monitor as per Art. 5604/940.
- Art. 5601/037 Monitor as per Art. 5601/940

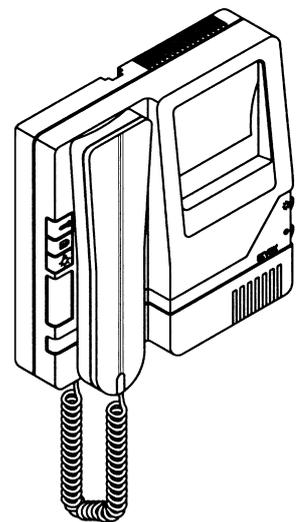
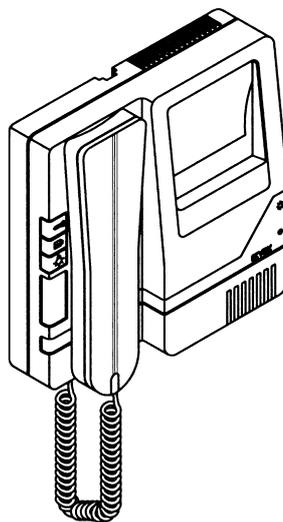
The above interphones are intended for installation in combination with floor distributor Art. 949A (one distributor per 4 internal units).

**Art.5340 - 5337**



**Art. 5604/940  
Art. 5604/037**

**Art. 5601/940  
Art. 5601/037**



**ART. 5340**

**DESCRIPTION**

Monitor for electronic door-opener system with decoding circuit of the call digital signal, brightness adjustment, door lock opening push-button, working only if the monitor has been called; the same push-button is used (when handset is hooked) for calling the operator with transmission of its own decoding number to the switchboard. There are two additional push-buttons on the housing; the central one with the  symbol for the "VIDEOMOVING" function; the other

with the  symbol for auxiliary functions. Fitted with interchangeable circuit boards. Discrete conversation mode. Minimum power voltage 15V. 625 line standard CCIR video signal, 50 frames (EIA standard option). 4 MHz scanning frequency; video input signal voltage 0.5-2Vpp.

**PROGRAMMING AND OPERATION**

To program the monitor number press button G (Fig. 5) briefly with a small instrument through the slot above the monitor and then hold down the button marked . If the procedure has been effected correctly, the unit will assume programming mode with LED "L1" which can also be seen through the hole (Fig. 5).

At which point  push-button can be released. If the LED does not light up, the sequence must be repeated. The handset is now lifted to establish communication with the entrance panel, so that the code for monitor to be programmed can be received. Hook the handset again. As the code is transmitted from the panel to the monitor, it will be memorized by the unit and remain stored until further programming, even in the event of the panel being disconnected from the power supply. The monitor emits the call tone to confirm completion of programming and the video switches on. If LED L1 fails to switch off after 5 seconds, check the wiring connections. During programming the door lock and traversing functions are not available. In case of installations with several entries, connector for the entrance panel monitor riser must be removed, leaving only one entrance panel in operation. This operation can be repeated any number of times, using other numbers between 0001 and 9999.

**N.B: Call the monitor a second time to check that the code has been memorised.**

**TERMINAL BLOCK FOR CONNECTION**

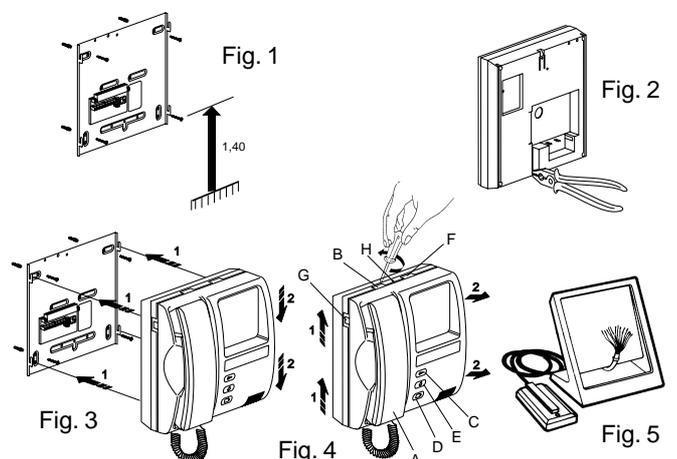
- 1) Line for digital calls
- 2) Not used
- 3) Phone line
- 4) Negative line
- 5) + 13,5V D.C. line
- 6) Additional chime
- 7) Monitor negative line
- 8) Monitor positive line
- 9) Outdoor call
- 10) Floor distributor supply
- 11) F2 auxiliary functions; connect if indicated in diagram.
- 12) F1 auxiliary functions, connect if indicated in diagram
- V1) Connection for video cable (input)
- V2) Connection for video cable (output).

- A) HANDSET: allows communication with outdoor unit and with the switchboard.
- B) BRIGHTNESS CONTROL KNOB  : adjust monitor brightness
- C) PUSH-BUTTON  : electric lock release (after call). This push-button is used (when the switchboard is connected) to call the door-keeper lodge.
- D) PUSH-BUTTON  : used for camera control. Press this button repeatedly to adjust the vertical angle of the camera's field of view in order to compensate for variations in the subject's height (VIDEOMOVING system).
- E) PUSH-BUTTON  : used for auxiliary functions (stair-light, etc.).
- F) CALL ADJUSTMENT: Three-position switch for adjusting the call volume.
- G) Access slot for programming the monitor code and LED L1.

**SERIES 5300 MONITOR INSTALLATION RECOMMENDATIONS**

**Install monitor far from sources of heat and light.**

- Fig. 1- Fix metal hooking plate of monitor to 6-module standard back-box (its base mounted at 1,40m. from floor level).
- Fig. 2- For mounting use fixing screws. Hole is for passage of cable.
- Fig. 3- When cable is externally installed, remove plastic as indicated
- Fig. 4- After connecting cables to terminal block, insert monitor following arrows 1 and 2.  
To remove monitor from its hooking plate, press a screwdriver against lock and remove it by following arrows 1 and 2.
- Fig. 5- It is possible to change this monitor into a desk version by using proper trasformation desk kit.



**ART. 5601/940 - 5604/940**

**GENERAL CHARACTERISTICS**

Monitors for electronic door opener systems equipped with digital call decoding circuit, contrast and brightness control, lock release push-button (enabled only after a call from the entrance panel), the same push-button is used, when monitor is in the rest mode, to call the lodge's operator with the user's own decoding number to switchboard.

Two other push-buttons: one for the VIDEOMOVING function

marked  and one for auxiliary functions marked .

The monitors are provided with discrete conversation mode and interchangeable circuit board. Minimum power voltage 15V; 625 line standard CCIR video signal, 50 frames (EIA standard option). 4 MHz scanning frequency; video input signal voltage 0,5-2Vpp.

**PROGRAMMING AND OPERATION**

To program the number of the monitor, remove cover placed underneath the handset (see Fig. 1) using a screwdriver and press "PS4" push-button.

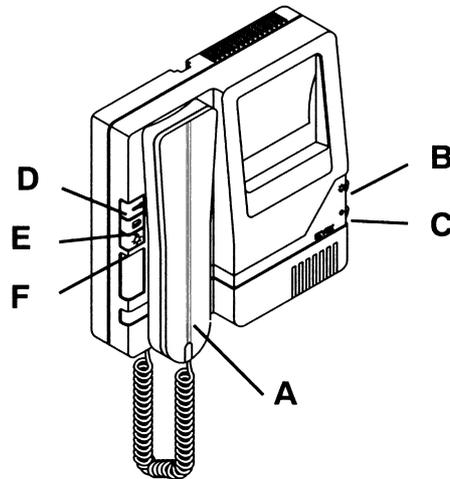
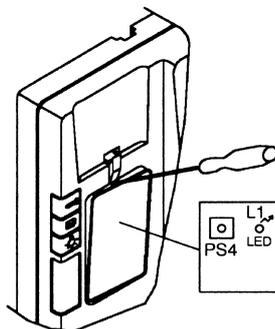
Then press and hold  push-button. If the procedure has been effected correctly, monitor will assume programming mode with LED "L1" lighting up, at which point  push-button can be released. If the LED does not light up, the sequence must be repeated.

The handset is now lifted to establish communication with the entrance panel, so that the code for monitor to be programmed can be received. Hook the handset again. As the code is transmitted from the panel to the monitor, it will be memorized by the unit and remain stored until further programming, even in the event of the panel being disconnected from the power supply. The monitor calls to confirm programming and "L1" LED diode will be switched off after a few seconds. During the programming phase the lock release and camera movement pushbuttons are not operating. In case of installations with several entries, connector for entrance panel must be removed, leaving only one in operation for the programming phase only. This operation can be repeated any number of times, using other numbers between 0001 and 9999.

**N.B. Call the monitor a second time to check that the code has been memorized.**

**TERMINAL BLOCK FOR CONNECTION**

- 1) Digital call line
- 2) Not used
- 3) Phono line
- 4) Negative line
- 5) + 13,5V D.C. line
- 6) Additional chime
- 7) Monitor negative line
- 8) Monitor positive line
- 9) Not in use
- 10) Video distributor to floor
- 11) F2 Auxiliary functions - connect if indicated in diagram
- 12) F1 Auxiliary functions - connect if indicated in diagram
- V1) Wiring for video connector (input)
- V2) Wiring for video connector (output)



A) HANDSET: allows communication with outdoor unit and with the switchboard.

B) BRIGHTNESS CONTROL KNOB  : adjust monitor brightness

C) CONTRAST KNOB  : potentiometer to adjust contrast.

D) PUSH-BUTTON  : electric lock release. This push-button is used (when the switchboard is connected) to call the door-keeper lodge, when the handset is hooked.

E) PUSH-BUTTON  : it may be used for camera control. Press this button repeatedly to adjust the vertical angle of the camera's field of view in order to compensate for variations in the subject's height (VIDEOMOVING system).

F) PUSH-BUTTON  : it may be used for auxiliary functions (stair-light, etc.).

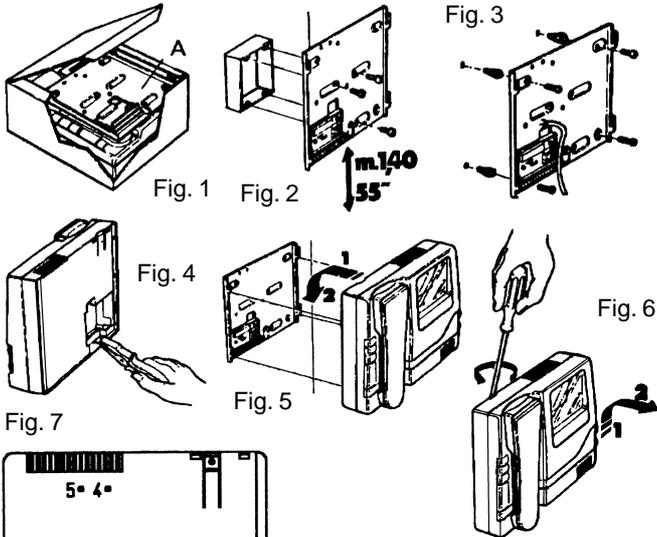
**NOTE!** This monitor is intended for installation in combination with the power supply Art. 6948, serie DIGIBUS.

**INSTALLATION RECOMMENDATIONS**

**Install monitor far from sources of heat and light.**

- Fig. 1- Monitor hooking plate is packed in upper part of box, see diagram point "A".
- Fig. 2- Fix metal hooking plate of monitor to 6-module standard back-box (its base mounted at 1,40m. from floor level).
- Fig. 3- For mounting use fixing screws. Hole is for passage of cable.
- Fig. 4- When cable is externally installed, remove plastic as indicated
- Fig. 5- After connecting cables to terminal block, insert monitor following arrows 1 and 2.
- Fig. 6- To remove monitor from its hooking plate, press a screwdriver against lock and remove it by following arrows 1 and 2.

**N.B:** To clean the screen of Art. 5601/940 remove the cover by pressing it gently in and down.



Adjustments on back of monitor (Fig. 7).  
Hole 6: vertical amplitude  
Hole 7: vertical frequency

**ART.5337 - 5601/037 - 5604/037**

**DESCRIPTION**

Monitor for electronic door-opener system used with the floor distributor Art. 949A, provided with contrast and brightness adjustment, lock opening push-button, working only if the monitor has been called; the same push-button is used (when the handset is hooked) for calling the operator with transmission of its own decoding number to the switchboard. There are two additional push-buttons on the housing: the

central one with the  symbol for the "VIDEOMOVING"

function, the other with the  symbol for auxiliary functions.

For installation and operation refer to the descriptions of Art. 5604/940 and 5340 above.

**PROGRAMMING**

These interphones do not have internal decoding and call code memory; refer to the programming information regarding floor distributor Art. 949A on page 43.

**TERMINAL BLOCK FOR CONNECTION**

- 1) Phone line
  - 2) Not used
  - 3) "Negative" line
  - 4) Not used
  - 5) Not used
  - 6) Additional chime
  - 7) Monitor "negative" line
  - 8) Monitor "positive" line
  - 9) Not used
  - 10) Video distributor to floor
  - 11) F2 Connection for auxiliary functions. Connect if indicated in diagram.
  - 12) F1 Connection for auxiliary functions. Connect if indicated in diagram.
- V1) Connection for video cable (input)  
V2) Connection for video cable (output)

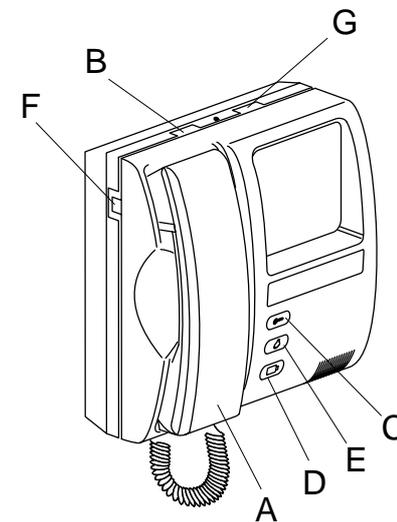
**DESK VERSION**



**Art.5610**

Can be used for all models excepting the 5601 series.

**ART.5337**



A) HANDSET: allows communication with outdoor unit and with the switchboard.

B) BRIGHTNESS CONTROL KNOB  : adjust monitor brightness

C) PUSH-BUTTON  : electric lock release. This push-button is used (when the switchboard is connected) to call the door-keeper lodge (when handset is hooked).

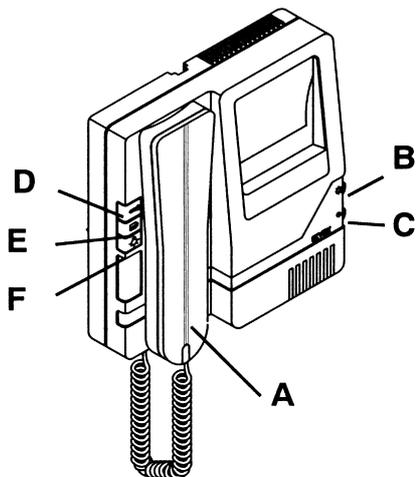
D) PUSH-BUTTON  : used for camera control. Press this button repeatedly to adjust the vertical angle of the camera's field of view in order to compensate for variations in the subject's height (VIDEOMOVING system). The function is enabled only if the relative terminal is connected.

E) PUSH-BUTTON  : used for auxiliary functions (stair-light, etc.).

F) CALL ADJUSTMENT: Three-position switch for adjusting the call volume.

G) CONTRAST KNOB  : potentiometer to adjust contrast.

## ART. 5601/037 - 5604/037



A) HANDSET: allows communication with outdoor unit and with the switchboard.

B) BRIGHTNESS CONTROL KNOB  : adjust monitor brightness

C) CONTRAST KNOB  : potentiometer to adjust contrast.

D) PUSH-BUTTON  : electric lock release.  
This push-button is used (when the switchboard is connected) to call the door-keeper lodge.

E) PUSH-BUTTON  : used for camera control. Press this button repeatedly to adjust the vertical angle of the camera's field of view in order to compensate for variations in the subject's height (VIDEOMOVING system). The function is enabled only if the relative terminal is connected.

F) PUSH-BUTTON  : used for auxiliary functions (stair-light, etc.).

**ART. 942**

**DESCRIPTION**

Digital entrance panel capable of generating digital calls to user interphones with up to 9999 different codes; the relative numbers are entered by way of a 12-key keypad. The caller selects the required number, between 0000 and 9999, which appears in a display, then presses "C" to make the call. Push-button "R" is used to cancel the operation. The panel can be made to operate on its own or in conjunction with others by effecting the appropriate terminal connections at the rear. In addition to the connection terminals, the rear of the panel carries "External Volume-P1", "Internal Volume-P2" and "Balance-P3" controls, which are factory set. It is recommended, should the need arise, that any adjustment to eliminate feedback at the outdoor speaker be limited to "External Volume" and possibly "Balance", turning the trimmer slowly in one direction or the other until the whistle disappears. The panel is supplied with illuminated name indicator modules in versions for 50 to 350 users, and with a rain-proof cover.

**OPERATION**

When the unit is switched on the "BUSY - WAIT" sign above the display lights up. The "panel busy" indicator flashes only if the line is busy with another conversation. When a number is dialled on the keypad it appears on the display; press "C" to send the digital code. The speaker plays back the acoustic call tone at low volume. When the called unit handset is lifted, the entrance panel activates and enables conversation for up to the maximum programmed time. The interphone and entrance panel both deactivate five seconds after the interphone handset is replaced.

**ENTRANCE PANEL OPERATION IN residential complex**  
**This type of operation requires the setup to be changed. This can be done either directly from the panel keypad or using the programmer Art. 950.**

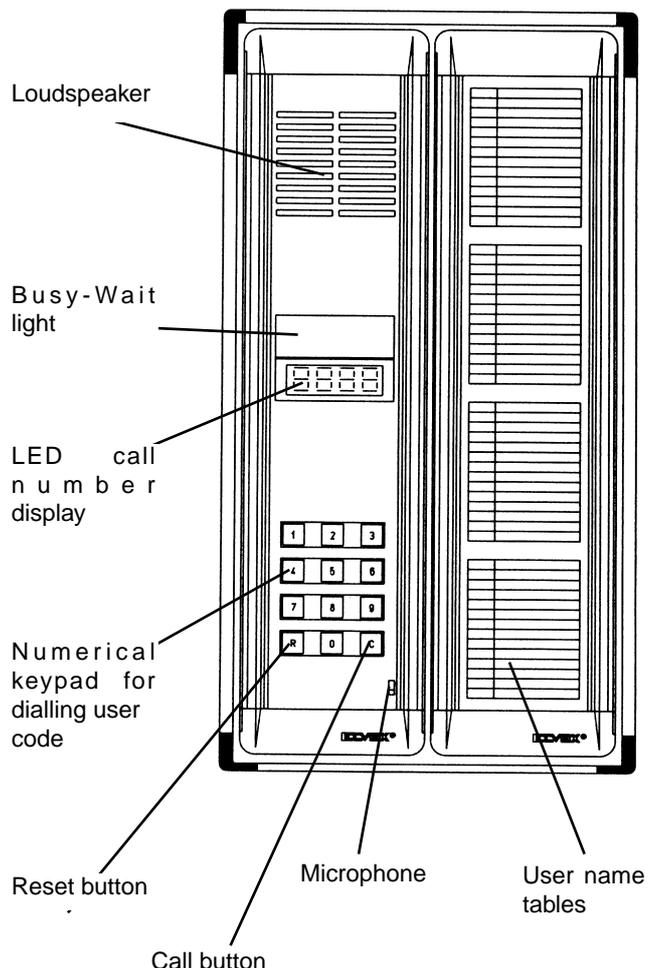
The entrance panel may be installed in residential complexes equipped with a main entrance panel and two or more auxiliary panels. The main panels have CALL PRIORITY over all other panels. The call priority function is set when programming the technical parameters, i.e.: to activate the function, the value must be set to -0001 for "ACTIVATE PRIORITY" (if using the programmer Art. 950) or function 07 (directly from the panel keypad).

The auxiliary panel will only accept a determined code group from the main entrance panel or switchboard. This code group is set during the programming phase and includes all the codes between the initial and the final user's code on the auxiliary panel itself. This means that users can be divided into stairs or building groups within the entire complex. Such a division means that any call from the main entrance panel only engages one auxiliary panel in the entire residential complex which is momentarily disabled by a "Wait-engaged" signal. To prevent all the auxiliary panels from being engaged by a call from the main entrance panel they must be programmed with different code groups, bearing in mind that a separate code must be associated with each user. Calls made by users to the porter switchboard are always guaranteed irrespective of whether the auxiliary panel is engaged in conversation with another user or not.

When programming the CHIME DURATION parameter (04), the auxiliary panels must be set with a shorter time setting than the main entrance panel (i.e.: auxiliary panel: 1 second, main entrance panel: 2 seconds).

Lock activation is an important function in a residential complex: when carrying out the setup, if "ACTIVATE LOCK" (08) is set to 0001, the interphone opens all the locks along the line between itself and the calling panel; if the value is set to 0000, it opens only the lock relative to the calling panel.

**Example of 50-user panel Art. 942/050**



**ENTRANCE PANEL SETUP**

**The following programming must be done after the system has been switched on and before programming the individual interphones.**

The setup can be done in two ways:

1. To program the setup parameters without disassembling the panel from its mount, press the buttons R and 4 together: the panel now displays four hyphens (- - -) to indicate that it is awaiting the factory-set access code (**0123**). Enter the code and press C; the panel enters programming mode.
2. To program the panel directly without using the access code, press the button PS2 on the rear of the panel with an appropriate tool: the display will start flashing the number 01 alternately with the minimum number set for operation in the residential complex. If necessary reset the number from the keypad; in case of error, re-enter the whole number. Now press C to confirm the number in memory and enter programming mode.

**The number set is not memorised if not confirmed with C after it is displayed.**

To exit programming mode, press C and then R. Pressing C several times in succession scrolls through the factory-set values without altering them. The set values stay in memory until the next programming operation even during power failures. The default parameter values (see table) can be set automatically by pressing the PS2 button twice. In the case of panels connected in parallel on the same interphone riser, the parameters must be the same for all excepting the priority, camera and panel keypad lock opening values.

**PROGRAMMING WITH THE PROGRAMMER Art. 950**

This panel can be programmed using programming module Art. 950.

Connect the programmer to the panel with the telephone connector on its base. The programmer displays the parameter descriptions on its alphanumeric display, thus reducing programming time and eliminating simple errors due to misinterpretation of the parameters themselves. To enter programming mode with the 950, simply connect to the panel, press first PS1 and then PS2 and then the key E on the programmer itself. The first programmable parameter will appear on the programmer display (SEE TECHNICAL DATA TABLE).

To change the setup parameters use the programmer keypad; to confirm and move on to the next parameter press



and press ESC to exit. (SEE PROGRAMMER Art. 950 INSTRUCTIONS).

**Opening the lock from the entrance panel**

The panel can be used to open the door lock directly on entry of a code on the keypad.

Up to 20 different codes are available for this function (up to 4 digits per code).

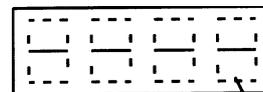
To open the lock, press R and 1 or 0 or "C" together (see PANEL PROGRAMMING); four hyphens will be displayed to indicate initiation of the procedure. The flashing hyphen moves to the left with each digit entered. When the fourth digit is entered the door opens if the entered code is correct (if 0000 has been programmed in all positions the function is not available); if the code is less than 4 digits long, press C to confirm the entry and open the lock. Pressing R cancels the function.

**WARNING:** No more than 5 seconds must elapse between one keystroke and the next otherwise the whole procedure must be repeated and the user is returned to the normal user call mode. After the lock has opened the panel returns to its normal mode of operation.

**Example 1: code 0031**

**R - 1 - 3 - 1 - C**

Press together



Display

**Es . 2: codice 4415**

**R - 1 - 4 - 4 - 1 - 5**

Press together

**The full parameters table is given below with the factory-set values (standard) and the maximum and minimum limits programmable.**

**Entrance panel technical parameters table**

| Parameter | Parameter with Art. 950 | Minimum value | Maximum value | Preset value | Description  | When to modify parameters                                    |
|-----------|-------------------------|---------------|---------------|--------------|--|--|
| -01-      | Initial user            | 0001          | 9999          | 0001         | Minimum call number  | In residential complexes                                     |
| -02-      | Final user              | 0001          | 9999          | 9999         | Maximum call number  | In residential complexes                                     |
| -03-      | Call time               | 0001          | 0255          | 0060         | Maximum conversation time<br>(Time = Value x 1 second)                                       | Optional   |
| -04-      | Call signal time        | 0001          | 0010          | 0001         | Call signal activation time<br>(Time = Value x 1 second)                                     | In residential complexes                                     |
| -05-      | Enables camera          | 0000          | 0001          | 0000         | Video camera in entrance panel (0=NO, 1=YES)   | In entrance panels with video camera                         |
| -06-      | Answer time             | 0001          | 0255          | 0030         | Reply delay time<br>(Time = Value x 1 second)  | Optional   |
| -07-      | Enables priority        | 0000          | 0001          | 0000         | Entrance panel with call priority (0=NO, 1=YES)  | Optional, but only for entrance panels connected in parallel |
| -08-      | Enable lock             | 0000          | 0001          | 0000         | Enables door lock activation (0=NO, 1=YES)   | Optional, but only in building complexes                     |
| -09-      | Lock 0, R-1, C          | 0000          | 0002          | 0001         | Access code for door lock release function from entrance panel (0=0, 1=R+1, 2=C)             | Optional   |
| -10-      | EM1 time                | 0001          | 0255          | 0001         | EM1 auxiliary function activation time<br>(Time = Value x 1 second)                          | Optional   |
| -11-      | EM2 time                | 0001          | 0255          | 0001         | EM2 auxiliary function activation time<br>(Time = Value x 1 second)                          | Optional   |
| -12-      | Lock time               | 0001          | 0255          | 0001         | Door lock activation time<br>(Time = Value x 1 second)                                       | Optional   |
| -13-      | Enable sound            | 0000          | 0001          | 0000         | Enables a call signal at the entrance panel when a call is made (0=NO, 1=YES)                | Optional   |
| -14-      | TC Technical code       | 0000          | 9999          | 0123         | Technical programming access code  | In all cases   |
| -15-      | Panel block             | 0000          | 0001          | 0000         | Disables the entrance panel (0=NO, 1=YES)  | Optional   |
| -16-      | M.S.D. Panel            | 0000          | 0099          | 0000         | Edits the call number<br>E.g.: 0001 becomes x1xx,<br>0090 becomes 9xxx,<br>0091 becomes 91xx | Optional, but only in residential complexes                  |
| -17-      | Lamp speed              | 0010          | 0255          | 0033         | Alternating data display speed during programming<br>(Time=Value x 10 milliseconds)          | Optional   |
| -18-      | English lang.           | 0000          | 0001          | 0000         | Used with programmer Art. 950.   | Optional   |
| -19-      | New type                | 0000          | 0001          | 0001         | Door lock release code check   | In video door entry systems with Art. 949A                   |
| -21-      | Lock code 1             | 0000          | 9999          | 0000         | Door lock release code   | Optional   |
| -22-      | Lock code 2             | 0000          | 9999          | 0000         | Door lock release code   | Optional   |
| -23-      | Lock code 3             | 0000          | 9999          | 0000         | Door lock release code   | Optional   |
| “         | “                       | “             | “             | “            | “  | Optional   |
| -40-      | Lock code 20            | 0000          | 9999          | 0000         | Door lock release code   | Optional   |

The last column of the table indicates when parameter settings must be changed. Those parameters identified as optional may instead be modified at the installer's discretion. For example: conversation time, door lock release code etc.

**IMPORTANT NOTE**

The function **PANEL NUMBER** takes values from 0000 and 0099; it acts on the code sent to the riser when a number is dialled from the panel. The last two digits of this parameter are substituted for the first two digits of the dialled number.

**If this parameter is set to 0000 the dialled number is not affected.**

| Panel number | Dialled code | Code sent to the riser by the panel |
|--------------|--------------|-------------------------------------|
| 0000         | 0010         | 0010                                |
| 0001         | 0009         | 0109                                |
| 0009         | 1118         | 1918                                |
| 0010         | 0135         | 1135                                |
| 0015         | 7224         | 1524                                |
| 0044         | 1001         | 4401                                |
| 0099         | 0004         | 9904                                |

The **PANEL NUMBER** forces the code sent to the riser by modifying it.

**N.B: Once the PANEL NUMBER has been set it modifies all the dialled numbers without exception. This parameter must be set before the interphones are assigned their codes.**

The function **NEW TYPE** affects panels installed in a video door entry system with distributor Art. 949A; the parameter **NEW TYPE** is to be set to 0000 on all door entrance panel of the installation.

For the installation and programming of the panel see "PANEL INSTALLATION", page 34.

**ART. 943/...**

**DESCRIPTION**

Digital entrance panel with capacity for making up to 240 digital calls with different codes from standard keystrokes.

The panel is thus supplied complete with ready wired push-button panels (see catalogue).

The entrance panels are designed to operate independently or with other panels, either connected in parallel or forming part of a residential complex system, simply by connecting the terminal boards at the rear of the panels themselves. External (P1) / Internal (P2) volume and audio equalisation (P3) adjustment controls (factory set) are also fitted on the back of the panels. If there is a whistle in the outdoor unit, adjust "External Volume" and if necessary also "Balance", by turning the trimmer slowly clockwise or anticlockwise until the disturbance disappears.

After switching on the system and before using the panel, wait for the "BUSY - WAIT" sign to flash three times. During normal panel operation in residential complex or parallel installations, the "BUSY - WAIT" sign is used to indicate that the line is busy with another call. The speaker sounds the acoustic call tone at low volume. When the called interphone handset is raised the panel is activated for conversation. The duration of conversation between panel and internal unit is determined by the panel programming, which can be modified with the programmer Art. 950 or 950/001 (see SETUP).

**entrance panel OPERATION IN residential complex**

**This kind of operation requires the setup to be changed, which can only be done with the programmer Art. 950 or 950/001.**

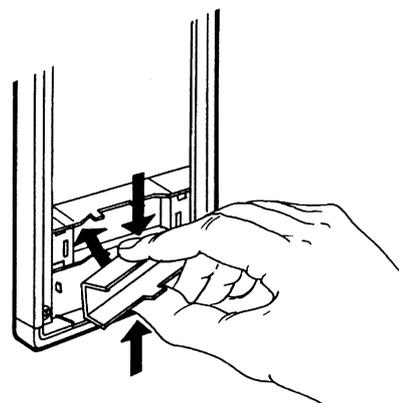
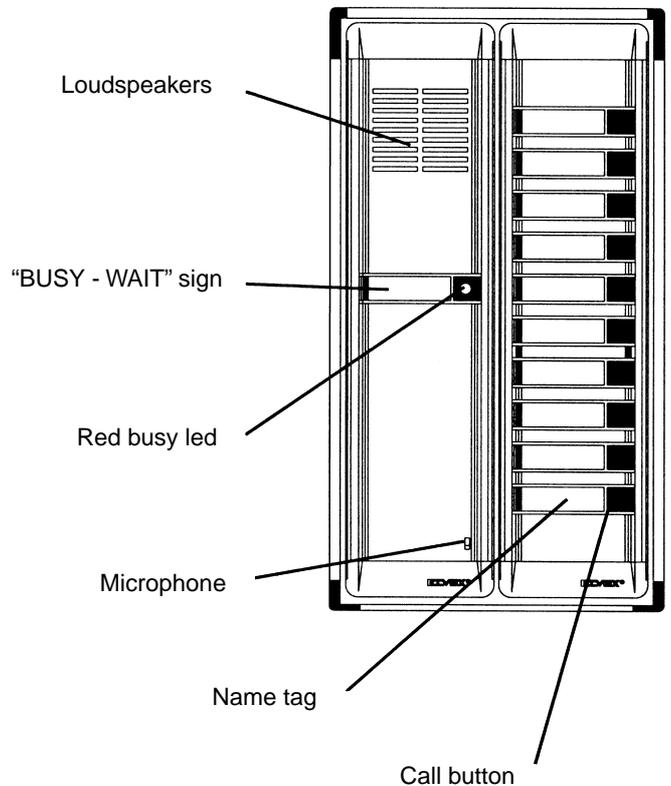
The entrance panel may be installed in residential complexes equipped with a main entrance panel and two or more auxiliary panels. The auxiliary panels are those installed at the foot of stairs while the main ones, which have CALL PRIORITY over all other panels, are fitted at the main entrance. The call priority function is set when programming the technical parameters, i.e.: to activate the function, the value must be set to -0001 for "ACTIVATE PRIORITY" (if using the programmer Art. 950) or function 07 (if using the programmer Art. 950/001).

The auxiliary panel will only accept a determined code group from the main entrance panel or switchboard. This code group is set during the programming phase and includes all the codes between the initial and the final user's code on the auxiliary panel itself. This means that users can be divided into stairs or building groups within the entire complex. Such a division means that any call from the main entrance panel only engages one auxiliary panel in the entire residential complex which is momentarily disabled by a "Wait-engaged" signal. To prevent all the auxiliary panels from being engaged by a call from the main entrance panel they must be programmed with different code groups, bearing in mind that a separate code must be associated with each user. Calls made by users to the porter switchboard are always guaranteed irrespective of whether the auxiliary panel is engaged in conversation with another user or not.

When programming the CHIME DURATION parameter (04), the auxiliary panels must be set with a shorter time setting than the main entrance panel (i.e.: auxiliary panel:1 second, main entrance panel: 2 seconds).

Lock activation is an important function in a residential complex: when carrying out the setup, if "ACTIVATE LOCK" (08) is set to 0001, the interphone opens all the locks along the line between itself and the calling panel; if the value is set to 0000, it opens only the lock relative to the calling panel.

**Example of 10-button panel for call to interphone riser Art. 943/010.**



**To access the name tag remove the tag mount from behind as shown.**

## PROGRAMMING 943 SERIES PANELS WITH PROGRAMMER ART. 950

The following operations must be carried out with the system switched on and before programming the interphones.

943/... series panels must be programmed in two steps:

- 1) SETUP
- 2) KEY PROGRAMMING

### SETUP

To change the factory-set values of the setup parameters, connect the programmer to the panel, press the key **E** on the programmer and then **PS2** on the rear of the panel.

The first programmable parameter will appear on the display (see SERIES 943 PANEL SETUP PARAMETERS). To con-

firm the existing value press  and the next parameter will be displayed. To change the parameter value, key in the

new code and press  to confirm.

TO TERMINATE THE PROGRAMMING PROCEDURE PRESS **ESC** ON THE PROGRAMMER. IF THE VALUES HAVE BEEN CORRECTLY SENT TO THE PANEL, THE MESSAGE "PGM TEC. OK!!!" WILL APPEAR ON THE 950'S DISPLAY. IF THIS DOES NOT OCCUR, PRESS **E** AND THEN **ESC**; IF THE MESSAGE STILL DOES NOT APPEAR, RE-TRANSMIT THE VALUES.

**N.B:** To reset the default values automatically, simply

enter setup mode on the 943 panel and press  + **P**; the message "Initialisation (Y/N)" will appear.

Press **Y** to initialise: the message "Initialising.." followed by "Pgm Tec. OK" appears. Press **N** to annul the operation.

To program the 943 panel with the 950/001 programmer, refer to the paragraph "DEDICATED PROGRAMMER ART. 950/001" on page 58 of this manual.

The full parameters table for 943 series panels is given below with the factory-set values (standard) and the maximum and minimum limits programmable.

**Entrance panel technical parameters table**

| Parameter with Art. 950/001 | Parameter with Art. 950 | Minimum value | Maximum value | Preset value | Description   | When to modify parameters                                    |
|-----------------------------|-------------------------|---------------|---------------|--------------|---|--|
|                             | English language        | 0000          | 0001          | 0000         | Used with programmer Art. 950.  | Optional   |
| -01-                        | First user              | 0001          | 9999          | 0001         | Minimum call number   | In residential complexes                                     |
| -02-                        | Final user              | 0001          | 9999          | 9999         | Maximum call number   | In residential complexes                                     |
| -03-                        | Conversation time       | 0001          | 0255          | 0060         | Maximum conversation time (Time = Value x 1 second)   | Optional   |
| -04-                        | Call signal time        | 0001          | 0010          | 0001         | Call signal activation time (Time = Value x 1 second)                                       | In residential complexes                                     |
| -05-                        | Video camera enable     | 0000          | 0001          | 0000         | Video camera in entrance panel (0=NO, 1=YES)  | In entrance panels with video camera                         |
| -06-                        | Reply time              | 0001          | 0255          | 0030         | Reply delay time (Time = Value x 1 second)  | Optional   |
| -07-                        | Call priority enable    | 0000          | 0001          | 0000         | Entrance panel with call priority (0=NO, 1=YES)   | Optional, but only for entrance panels connected in parallel |
| -08-                        | Door lock enable        | 0000          | 0001          | 0000         | Enables door lock activation (0=NO, 1=YES)  | Optional, but only in building complexes                     |
| -09-                        | Call signal enable      | 0000          | 0001          | 0000         | Enables a call signal at the entrance panel when a call is made (0=NO, 1=YES)               | Optional   |
| -10-                        | EM1 time                | 0001          | 0255          | 0001         | EM1 auxiliary function activation time (Time = Value x 1 second)                            | Optional   |
| -11-                        | EM2 time                | 0001          | 0255          | 0001         | EM2 auxiliary function activation time (Time = Value x 1 second)                            | Optional   |
| -12-                        | Door lock time          | 0001          | 0255          | 0001         | Door lock activation time (Time = Value x 1 second)   | Optional   |
| -13-                        | Coding enable           | 0000          | 0001          | 0000         | For the call, the camera considers the number associated to the push button (0=NO, 1=YES)   | It is required for the push-burrans software programming     |
| -15-                        | Entrance panel disable  | 0000          | 0001          | 0000         | Disables the entrance panel (0=NO, 1=YES)   | Optional   |
| -16-                        | Call number edit        | 0000          | 0099          | 0000         | Edits the call number<br>E.g.: 0001 becomes x1xx,<br>0090 becomes 9xxx<br>0091 becomes 91xx | Optional, but only in residential complexes                  |
| -17-                        | New type                | 0000          | 0001          | 0001         | Door lock release code check  | In video door entry systems with Art. 949A                   |

The last column of the table indicates when parameter settings must be changed. Those parameters identified as optional may instead be modified at the installer's discretion. For example: conversation time, door lock release code etc.

**IMPORTANT NOTE:**

The function **PANEL NUMBER** takes values from 0000 and 0099; it acts on the code sent to the riser when a number is dialled from the panel. The last two digits of this parameter substituted the first two digits of the dialled number.

**If this parameter is set to 0000 the dialled number is not affected.**

| Panel number | Dialled code | Code sent to the riser by the panel |
|--------------|--------------|-------------------------------------|
| 0000         | 0010         | 0010                                |
| 0001         | 0009         | 0109                                |
| 0009         | 1118         | 1918                                |
| 0010         | 0135         | 1135                                |
| 0015         | 7224         | 1524                                |
| 0044         | 1001         | 4401                                |
| 0099         | 0004         | 9904                                |

The **PANEL NUMBER** forces the code sent to the riser by modifying it.

**N.B: Once the PANEL NUMBER has been set it modifies all the dialled numbers without exception. This parameter must be set before the interphones are assigned their codes.**

The function **NEW TYPE** affects panels installed in a video door entry system with distributor Art. 949A; the parameter **NEW TYPE** is to be set to 0000 on all door entrance panel of the installation.

**PROGRAMMING THE BUTTONS**

Each button is associated with a 4-digit code, each of which can identify an interphone.

This key-code combination may be programmed in one of two ways:

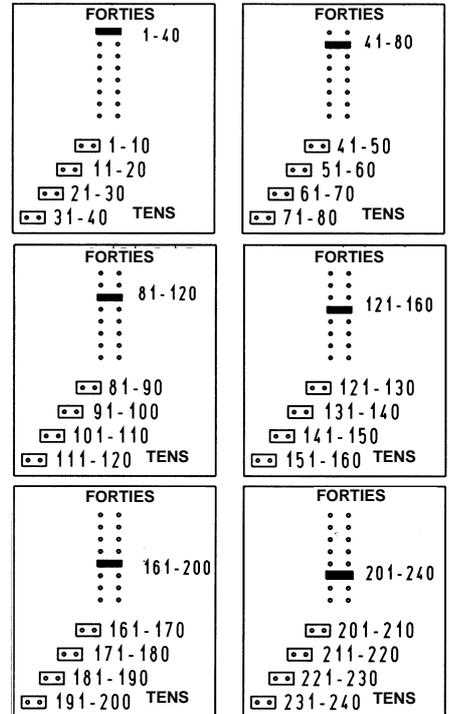
- A: hardware programming
- B: software programming

**PROGRAMMING THE HARDWARE**

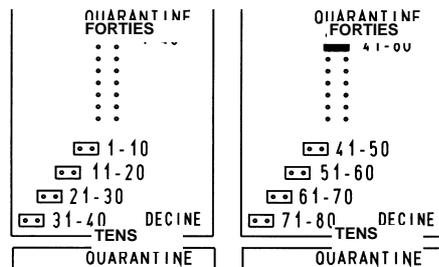
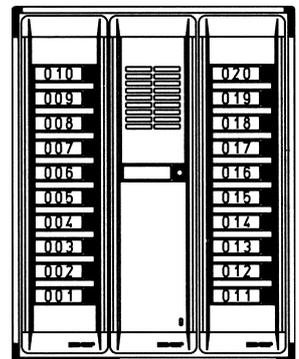
Simply fit the jumpers properly on the card behind the button panel. This is the simplest and quickest way of programming the buttons, but limits the codes which can be associated to a given key to 240 (1-240). To program the panel, remember that the vertical jumpers select groups of forty whereas the horizontal jumpers select groups of ten. Once the first number (corresponding to the bottom leftmost button) has been chosen, the higher buttons are automatically assigned the consecutive numbers. The numbers of the remaining buttons run from the bottom to the top and from left to right, one button panel at a time.

**N.B:** The buttons PS1 and PS2 on the back of the panel must not be used for this purpose.

**PROGRAMMING DIAGRAM**

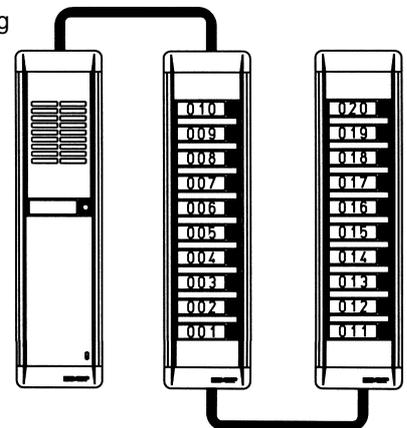


**EXAMPLE OF JUMPER SETTINGS FOR 20-BUTTON PANEL**



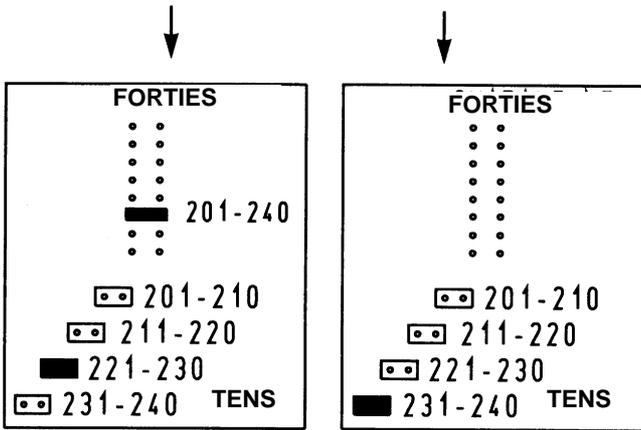
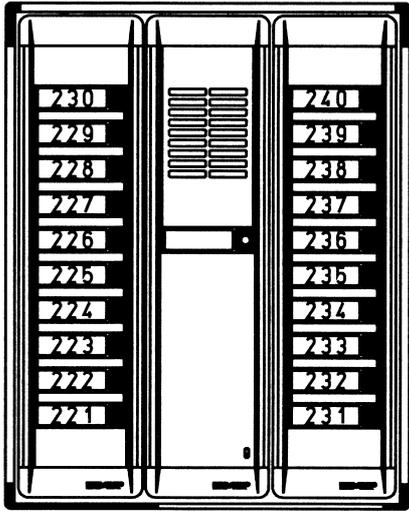
**KEYPAD FROM 1 TO 10      KEYPAD FROM 11 TO 20**

Internal 20-wire cabling

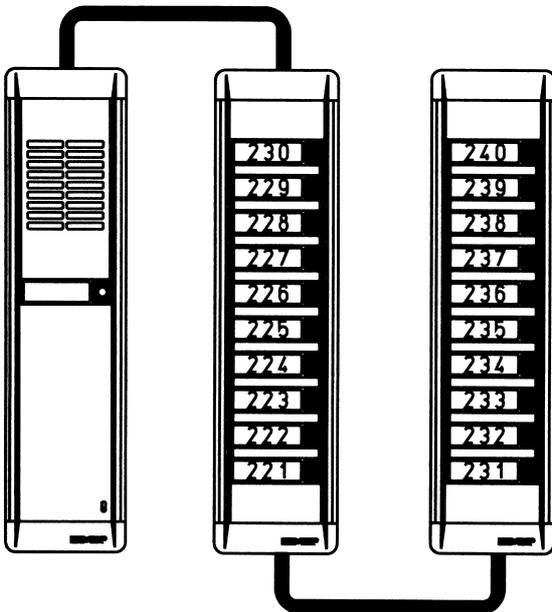


Internal 16-wire cabling

EXAMPLE OF A 20-BUTTON PANEL WITH NUMBERS FROM 221 TO 240

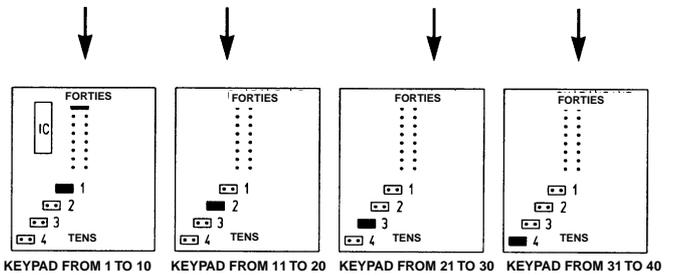
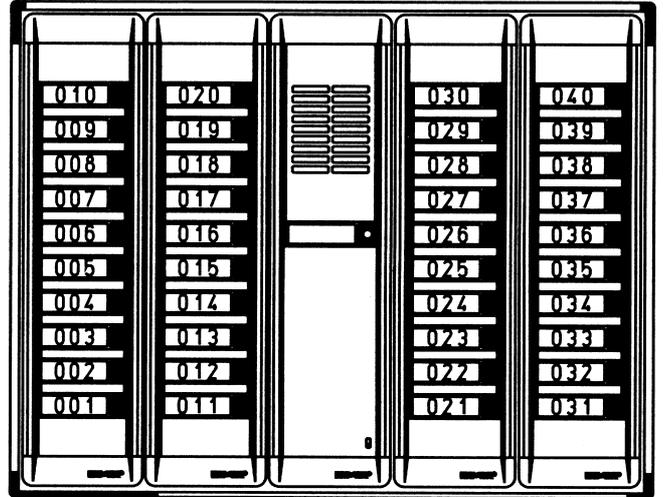


Internal 20-wire cabling



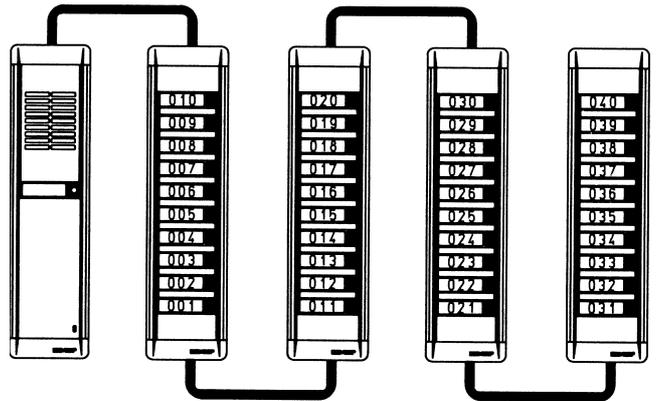
Internal 16-wire cabling

EXAMPLE OF A 40-BUTTON PANEL WITH NUMBERS FROM 1 TO 40



Internal 20-wire cabling

Internal 16-wire cabling



Internal 16-wire cabling

**PROGRAMMING THE SOFTWARE BUTTONS WITH THE PROGRAMMER ART. 950**

Using the programmer it is possible to associate the buttons of the 943 series panels with any codes from 0001 to 9999, independently of their physical position on the panel. When coding one or more buttons on a panel which has been previously setup with jumpers, it **MUST be initialised** during the coding process.

**ACCESSING BUTTON CODING MODE**

To access coding mode, connect the programmer to the panel with its cable, and use the buttons inside the panel itself.

The coding process must be accepted by the panel, so the first step is to change the setup parameter "ENABLE CODING" to 0001.

Exit from setup mode by pressing ESC; this puts you in coding mode.

Now press PS1 on the back of the panel; press PS2 before the "WAIT-ENGAGED" light flashes three times and then N on the programmer keypad. The programmer will display the message "Data...". To initialise the panel buttons, press any one and the following programmer message will appear (see diagram) on the 950 display:

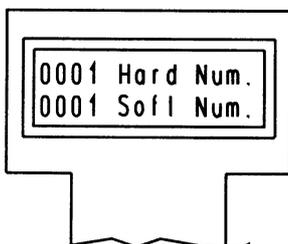
Example:  
Key n°1



To initialise the memory, press  + P; the message "Close" will appear and the WAIT-ENGAGED light will flash for the duration of the operation. When the flashing stops, exit by pressing ESC.

To code the buttons, return to button coding mode as explained above, and press the button that is to be coded.

The following message will appear on the 950's display:



**Soft.Num** is the number associated with that button by initialisation.

**Hard.Num** gives the physical position of the button on the panel.

Now enter a new code and press , and the **Soft.Num** value will change. The message "Data..." will reappear. To code other buttons, proceed as described above. To exit from button coding mode, press any panel button and then ESC on the programmer.

**QUICK GUIDE TO BUTTON CODING**

1. SWITCH ON THE PANEL
2. CONNECT THE PROGRAMMER TO THE PANEL WITH ITS CABLE
3. PRESS PS1 ON THE BACK OF THE PANEL
4. PRESS PS2 ON THE BACK OF THE PANEL
5. PRESS N ON THE PROGRAMMER
6. PRESS THE KEY TO BE CODED
7. ENTER THE NEW CODE ON THE PROGRAMMER KEYPAD
8. PRESS THE PROGRAMMER RETURN KEY GO TO 9 TO EXIT, GO TO 6 TO CONTINUE WITH OTHER BUTTONS
9. PRESS THE CODED BUTTON AGAIN
10. PRESS ESC ON THE PROGRAMMER
11. END

**N.B:** Button initialisation automatically codes the button with the number of its physical position on the panel.

e.g:      0001 Softnum  
            0001 Hardnum  
  
            0015 Softnum  
            0015 Hardnum

## ALPHANUMERIC PANEL ART. 944

### GENERAL DESCRIPTION

Art. 944 panel is an alphanumeric digital door entry panel which can identify a user to be called by means of a name or numerical code comprising 4 digits and associated with the relative intercom unit. This panel is fitted with a 4-line back-lit display (16 characters per line) and a 15-key keypad. The alphanumeric panel is completely compatible with other "DIGI-BUS" products and features the same electrical characteristics as other panels in the series. Simple functional parameters and up to 20 lock opening codes can be easily programmed.

The first 12 keys on the keypad (starting from the top) are used for:

- a) to enter the user code number, send the call, or cancel a call.
- b) parameters programming.

The last 3 keys are for consulting the list of names registered on the panel in alphabetic order. Up to 1000 names associated with the user codes (from 0001 to 9999) can be stored in memory.

There are two modes to call a user from the panel; by entering the numerical user code and pressing C, or by using the arrow and asterisk keys; press the   arrow to display a group of 3 names. To search a name, use the arrow keys to scroll through the name groups.

Once the user name is displayed, indicated by the symbol < or \* (depending on technical programming settings) on the first line of the display, press C to make the call. To cancel the call, press "R". In both cases calls must be activated when the panel is in rest mode, i.e. when the message "ELVOX DIGI-BUS" is displayed.

**To install and setup the panel refer to "Panel installation" on page 34.**

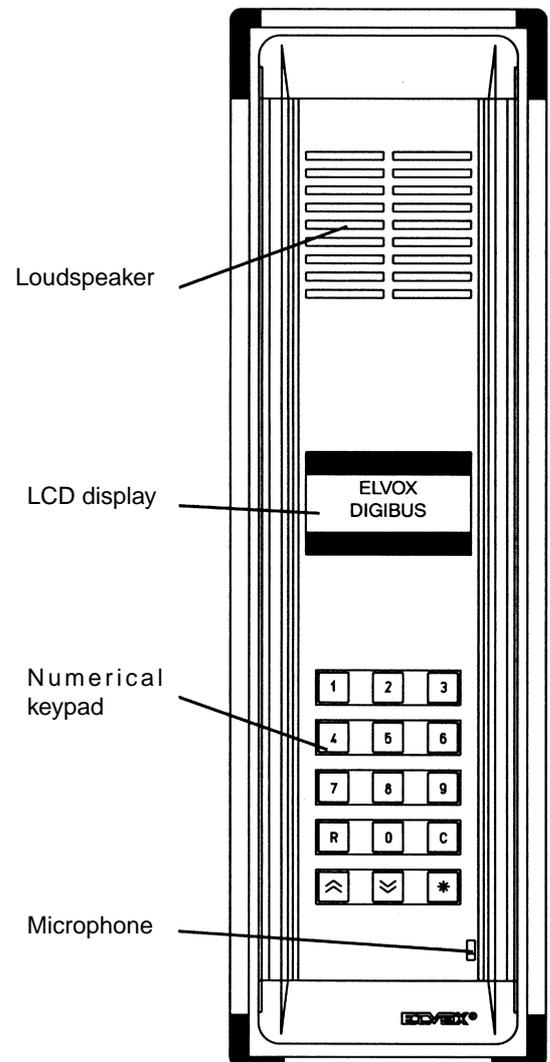
### Opening the lock from the entrance panel

The panel can be used to open the door lock directly on entry of a code on the keypad.

Up to 20 different codes are available for this function (up to 4 digits per code).

To open the lock, press R and 1 or 0 together (see PANEL PROGRAMMING); four hyphens will be displayed to indicate initiation of the procedure. The flashing hyphen moves to the left with each digit entered. When the fourth digit is entered the door opens if the entered code is correct (if 0000 has been programmed in all positions the function is not available); if the code is less than 4 digits long, press C to confirm the entry and open the lock. Pressing R cancels the function.

**WARNING:** No more than 5 seconds must elapse between one keystroke and the next otherwise the whole procedure must be repeated and the user is returned to the normal user call mode. After the lock has opened the panel returns to its normal mode of operation.



## TECHNICAL PROGRAMMING

### SET-UP

When the panel is connected for the first time to the system carry out the following preliminary operations: Connect the panel to the system and ensure that the jumper on the back of the panel (in the vicinity of the terminal strip) is set to ON (unless indicated otherwise on the wiring diagram) and switch on the system. With the panel in rest mode, as indicated by the message "ELVOX DIGI-BUS", press PS1 on the back of the panel to enter automatically in the technical data programming menu "TECH. PGM" to enable the operator to personalise the panel functions as required. The table below shows the main sections of the technical data programming menu. To edit pre-set values, use the numerical keys from 0 to 9 and press C to confirm new values and pass on to the next parameter.

Press C several times to scroll through the factory-set values without modifying them.

**N.B:** PS1 allows direct access to the setup menu without requiring a password.

### TECHNICAL DATA PROGRAMMING

The technical data programming menu enables personalisation of the panel by editing the programmable parameters according to system requirements. There are two menu access modes: by means of pushbutton PS1 as described above or by means of the panel keypad. Access via the keypad is carried out by pressing R and 4

On entry of the code the technical data programming menu is displayed. If the menu access code is set at zero, entry is granted directly after pressing R and 4 simultaneously: at this point, four hyphens " - - - " will appear on the display to prompt for password input from the numerical keypad; confirm with C for access to the technical data programming menu. If menu access code is set at zero, access is enabled by pressing "R" and "4".

When editing parameters in the menu press C to confirm new values and pass on to the next parameter. If you wish to pass on to another parameter without making any modifications simply press C.

**ON COMPLETION OF PANEL PROGRAMMING, PRESS R TO EXIT**

## PROGRAMMING THE LIST OF NAMES (DATABASE)

### Database programming

The DATABASE programming menu enables the entry of a list of user names in the panel memory.

The names can be inserted in two ways:

1. directly from the panel keypad
2. with the programmer Art. 950

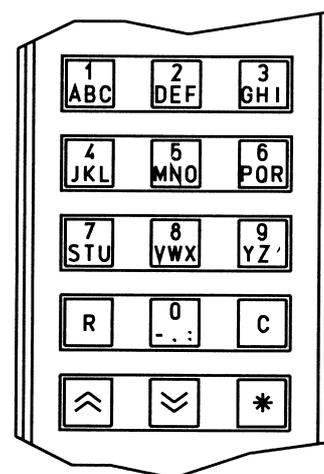
## PROGRAMMING THE DATABASE DIRECTLY FROM THE PANEL KEYPAD

To access the menu, press "R" and "7" simultaneously, after which four dashes ("-") appear on the display with the request to enter the access code. Enter the relative code from the numerical keypad and press "C" to confirm as per the technical data programming procedure. Code entry gives access to the database programming function. If the access code for the menu is set at zero, access is enabled by pressing "R" and "7".

Once inside the database, as confirmed by the message "PGM DATABASE" on the display, enter the names in the list. To enter names, first enter the associated call number, as requested on the display, and press "C" to confirm. On confirmation, the panel searches the list to check that the number is not already associated with a name; if already associated, the name is displayed, otherwise the relative message is displayed. At this point enter the name according to the numbers/letters indicated in the table below. To enter names (comprising a maximum of 16 characters, including spaces) use the numerical keys (from 0 to 9) according to the table below, whereby each number corresponds to three letters (keys "3" and "0" also feature punctuation characters). As each number key corresponds to three alphabetical characters press the numerical key once, twice or three times according to the letter required.

In both cases, name entries or modifications are carried out as described below. If no modifications are required, press "C" and enter a new number.

TABLE OF CORRESPONDING KEYPAD NUMBERS/LETTERS



### NOTE:

With key "0" the symbol "-" corresponds to a blank space. To

move along a line use the   arrow keys on the panel. In any event during name entries the panel moves the cursor forward automatically a few seconds after a numerical key is pressed. Press the \* key to store a name in the database and pass onto a new phase.

**Note: Do not press "C" or you will pass onto the next phase without storing the name in the database.**

Press "R" to exit the programming function.

**PROGRAMMING THE DATABASE WITH THE PROGRAMMER ART. 950**

In large residential complexes, it frequently happens that many users are associated with a single panel; our development of software and digital signal transmission has enabled us to create a fundamentally important tool for dealing with situations of lengthy testing and data entry. The 944 panel features quick and easy user name insertion with the **950 programmer**. With the programmer attached to the desktop power supply, the installer can enter the names to be stored in the panel and then upload them into the panel itself whenever he wishes. Indeed, this panel does not allow for setup with the programmer, but rather for insertion of the name/code database. To enter the database of names into the programmer, refer to the 950 programmer instructions.

**UPLOADING THE DATABASE INTO THE PANEL**

The programmer can only upload blocks of names; for example, if we consider the transmission of the data from 0010 to 0200, **ALL** the names with codes between these two numbers will be transmitted to the panel. To send only one name, see the first and last number equal to that of the name to be transmitted.

**IMPORTANT:** only consecutive codes can be transmitted to the panel, for example 0010, 0345, 6780. To upload these codes, set the lowest number on the programmer to 0010 and the highest to 6780. before starting, make sure that the "SERIAL ENABLE" panel setup parameter is set to 0001 to enable the panel to accept the data being uploaded (see table).

Ensure that the programmer is correctly connected to the panel with its cable before attempting the upload (see figure). Once the names and numerical codes are entered in the programmer, as explained in "USER DATA ENTRY", page 54, exit from the database by pressing ESC. **To start the upload, press T**; The message "Start Address" appears on the programmer display. Enter the first number of the list to

be uploaded and press ; the message "End Address"

will appear; enter the last number and press .

The message "Wait..." will now appear.

At this point, enter setup mode on the panel by pressing R+4 (see the alphanumeric panel setup instructions) and exit by pressing R. All the names uploaded will scroll on the display. At the end of the upload, the display will return to the default message: ELVOX DIGI-BUS.

**N.B:** When the panel is in upload mode, every time you enter and exit from setup mode, the messages "Open...", etc, will appear. Press R again to exit definitively.

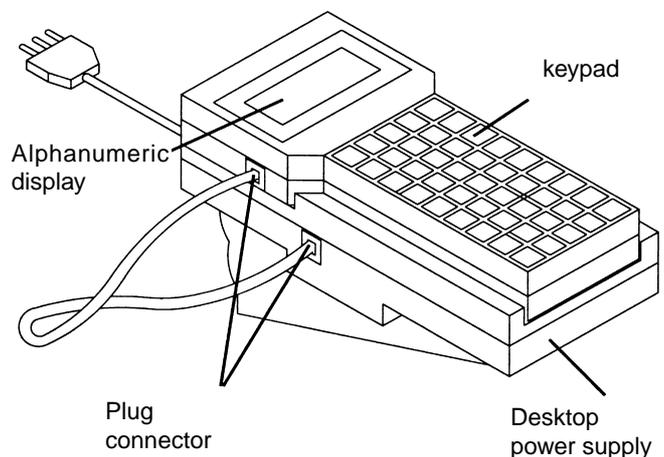
If the upload does not terminate successfully, the message "REPEAT" will appear on the 950 display; exit from the upload by pressing ESC and repeat the procedure.

**CANCELLING THE DATABASE FROM THE PANEL**

Enter database programming mode and press PS1 on the back of the panel. This starts the cancellation procedure and the display will show the message "CLEARING". This procedure cannot be aborted once it has been started, and the data cancelled cannot be recuperated. The "CLEARING" message disappears when the procedure has terminated.

This procedure should only be used after a period in which provisional data have been entered in the database and it is time to enter the definitive data.

**To install and setup the panel refer to "Panel installation" on page 34.**



**TABLE OF PROGRAMMABLE TECHNICAL FUNCTIONS ON ART. 944**

| POSITION                   | PRESET VALUE | DESCRIPTION   |
|----------------------------|--------------|---|
| ENGLISH LANGUAGE           | 0000         | Set to 0001 display messages in English; 0000 displays them in Italian  |
| MIN. USER CODE             | 0001         | For residential complexes: user minimum number (0001 to 9999)   |
| MAX USER CODE              | 9999         | For residential complexes: user maximum number (0001 to 9999)   |
| CALL DURATION              | 0060         | Maximum duration of a call between panel and called unit (10 to 255 seconds)  |
| CALL TONE DURATION         | 0001         | Maximum call tone duration (1 to 10 seconds)  |
| RESPONSE TIME              | 0030         | Maximum time before handset is lifted in response to call tone (1 to 255 seconds)   |
| LOCK TIME                  | 0001         | Lock activation time (1 to 90 seconds)  |
| EM1 TIME                   | 0001         | EM1 function duration (1 to 90 seconds) - additional function associated with F1 control terminal   |
| EM2 TIME                   | 0001         | EM2 function duration (1 to 90 seconds) - additional function associated with F2 control terminal.<br>If door entrance panel is equipped with camera this function is used only for VIDEOMOVING function.   |
| CAMERA ENABLE              | 0000         | Camera installed in panel (0=NO, 1=YES)   |
| PRIORITY ENABLE            | 0001         | Panel with priority over other panels in system (0=NO, 1=YES)   |
| LOCK ENABLE                | 0000         | Lock open in case of several panels in cascade on one riser (0=NO, 1=YES)   |
| SERIAL ENABLE              | 0000         | If set at 0001, enables panel programming by means of the programming module. To reset the panel after entering the TC or DB programming menu, press R twice.   |
| DATABASE CODE              | 0000         | Code to access list of names entered on panel (if setting = 0000, the access code is not requested)   |
| DATABASE PROGRAMMING CODE  | 0123         | Code to access name entry function in the DATABASE (if setting = 0000, the access code is not requested)  |
| TECHNICAL PROGRAMMING CODE | 0123         | Code to access technical programming function (if setting = 0000, the access code is not requested)   |
| "R-1" OR "0" or "C" LOCK   | 0001         | Keys for coded lock activation via panel (0 = key "0", 1 = keys "R" and "1", 2 key "C") pressed simultaneously (secret procedure)   |
| PANEL BLOCK ENABLE         | 0000         | Deactivates the panel (0 = panel operative, 1 = panel non- operative)   |
| "<" OR "*" MESSAGE         | 0000         | Set at 0000 enables reference symbol <, indicating symbol to call if set at 0001, otherwise symbol *.   |
| MESSAGE SPEED              | 0030         | Sets message scrolling speed.   |
| MESSAGE ENABLE             | 0000         | If set at 0001 enables the display (alternative to "ELVOX DIGI-BUS" rest mode message) of three lines (8 characters per line) each corresponding to the messages stored with code reference numbers 9997, 9998, 9999.<br>Spaces on display can be used to insert permanent additional information for visitors.                       |
| PANEL NUMBER               | 0000         | Considers the two highest figures only, from 0100 to 9900. Enables the replacement of the two highest numbers in the code entered on the panel as follows:<br>0001 is changed to x1xx<br>0090 is changed to 9xxx<br>0091 is changed to 91xx<br>Different users can be called with the same codes from different door entrance panels. |
| NEW TYPE                   | 0001         | To be set at 0000 when switchboard Art. 945A is installed.  |
| LOCK 1                     | 0000         | } Insert any number included between 0001 and 9999.   |
| LOCK 2                     | 0000         |   |
| LOCK 3                     | 0000         |   |
| LOCK 20                    | 0000         |   |

## VIDEO entrance panels

Digibus video entrance panels are fitted with an internal CCD camera with infrared led illumination. They are fitted with the exclusive VIDEOMOVING system as standard, to allow the angle of view to be controlled from the internal unit.

### Art. 943/5...

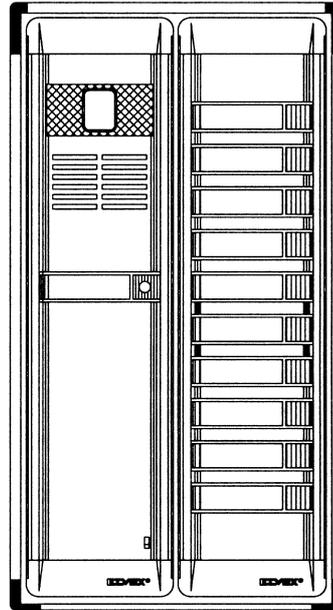
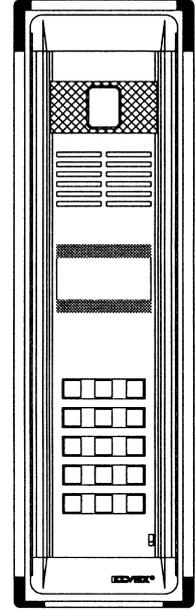
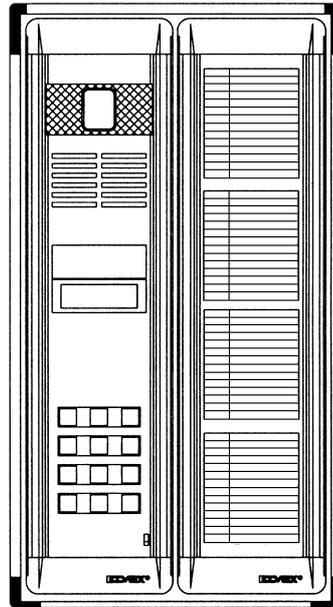
The same as Art. 943 with the addition of video. The same to program and operate; the reader is referred to page 23 which deals with the 943 series.

### Art. 946

The same as Art. 942 with the addition of video. The same to program and operate; the reader is referred to page 19 which deals with the 942 series.

### Art. 947

The same as Art. 944 with the addition of video. The same to program and operate; the reader is referred to page 29 which deals with the 944 series.

**Art. 943/5...****Art. 947****Art. 946**

**PANEL INSTALLATION**

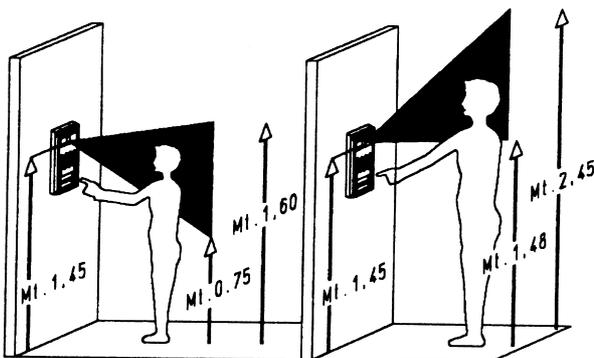
Before installing equipment, choose location for camera entrance panel: the camera should be protected from direct light (sun, car headlights, etc.) as this may affect the quality of the picture, and may damage the camera. The lighting source should face the subject to avoid back-lighting. The camera is equipped with infrared Leds allowing perfect picture at one metre distance. The digital panel and the plates of the name indicator modules must first be separated from the rainproof cover by loosening the retaining screws at the edge of the plates, using the key provided. Withdraw the screws to their full travel, then distance the components from the bottom edge of the cover and separate the plates by diagram downwards. Remove the screws and separate the frame from the box. Secure the rainproof cover to the wall at a height such that the distance from the top edge of the box to the ground is 1.45 m approx. Pass the wires through the hole in the bottom of the box, then refit and secure the frame. Wire up the removable terminal strips and the name indicator lamps.

Make sure that "ON-OFF" jumper, placed at the terminal block of the interphone riser, is in "ON" position. Locate the digital panel and the name indicator modules, offering the top part of the plates to the relative seating and then easing in the bottom part, then secure the screws along the bottom edge.

**COVERAGE ANGLE OF "VIDEOMOVING" SYSTEM CAMERA**

Inclination of vertical coverage angle on camera may be electrically tilted, in order to view people of different stature or to obtain a full view when the entrance panel is not mounted at the prescribed height.

The diagram shows min. and max. coverage angle of camera when this is fitted at an average height of 1.45m.



**1- TERMINAL BLOCKS**

**IMPORTANT**

Before hooking up the terminal blocks make sure that the entire system is switched off. Only switch on the system after all the devices, audio/video panels, power supplies, switchboards etc. have been hooked up.

**OUTDOOR UNIT CONNECTION TERMINALS (STAIRWAY)**

- M) Connection of the shielded video conductor (output signal)
- V) Connection of the video conductor (input signal)

- 1) Digital call line
- 2) Not used
- 3) Phono line
- 4) Connection of speaker and/or video power supply (negative line)
- 5) Connection of speaker and/or video power supply (+13, 5V.D.C.)
- + ) Connection of video power supply (18V D.C. positive)
- ) Connection of video power supply (negative).

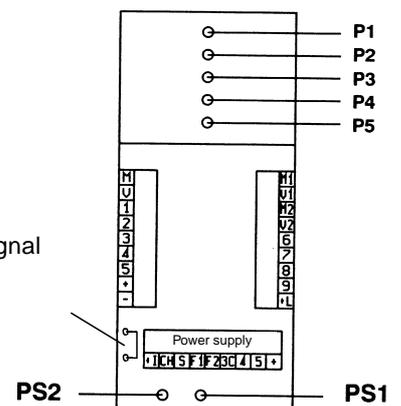
**POWER SUPPLY CONNECTION TERMINALS**

- +I) Connection of video power supply (To connect to power supply Art. 948)
- CH) Acoustic call enable line
- S) Electric doorlock control line
- F1) 1st auxiliary function control line
- F2) 2nd auxiliary function control line
- 3C) Acoustic call line
- 4) Negative panel power supply line
- 5) +13.5 Vdc 1.5A entrance panel power supply.
- + ) Connection of video power supply (18V D.C. positive)

**residential complex CONNECTION TERMINALS**

- M1) Connection of shielded video conductor (input signal)
- V1) Connection of video conductor (input signal)
- M2) Connection of shielded video conductor (output signal)
- V2) Connection of video conductor (output signal)
- 6) Digital call line
- 7) Not used
- 8) Phono line
- 9) Negative power supply line
- +L) 12V DC for supplementary relay or camera.

Jumper for the digital signal current generator



**2- PANEL REAR ADJUSTMENT DEVICES**

- P1) External volume adjustment trimmer
- P2) Audio balance adjustment trimmer
- P3) Internal volume adjustment trimmer
- P4) Video camera motor speed adjustment trimmer
- P5) Digital signal adjustment trimmer (do not modify unless expressly required by specific layouts)

**PROGRAMMING BUTTONS**

Panels 944 and 947 are fitted only with the PS1 button for access to setup mode or for cancelling the database.

Panels 942 and 946 are fitted with both Ps1 and Ps2 which are used for access to setup mode with or without the 950 programmer.

The 943, 943/5 panels are fitted with both PS1 and PS2 buttons, used for setup and button coding (see parameter programming instructions for the respective panels). The digital signal current generator switch must always be ON, unless expressly specified for a given layout.

**3- PANEL INSTALLATION**

- 1) Remove the digital panel and/or the button panels or the name panels from the rain cover by slackening the securing screws on the lower part of the panels all the way with the driver provided (1); extract them from the lower edge of the cover (2) and remove the panels by pulling downwards (3).
- 2) Remove screws to separate frame from back box. Fix the rain cover to the wall at a height of about 1.65 m from the ground-level box. Pass conductors through bottom of back box and refix frame.
- 3) Hook up the "removable" terminal blocks and the button or name panel lights.
- 4) Make sure that the jumper next to the "power supply unit" terminal board is in the "ON" position unless otherwise indicated in the diagram.
- 5) Program the entrance panel (see entrance panel coding)
- 6) Fit the digital panel and any button or name panels by resting the upper part of the panel in its seat, inserting the bottom section and locking the security screw at the bottom with the special key.

**DESCRIPTION FIG. 3**

- A) Wall-mounted box
- B) Rain cover
- C) Panel frame
- D) Digital module, button or name panel

**N.B:** The assembly sequence is always the same even if several name or button panels are to be fitted; the difference lies only in the entrance panels (especially D), which change with the model.

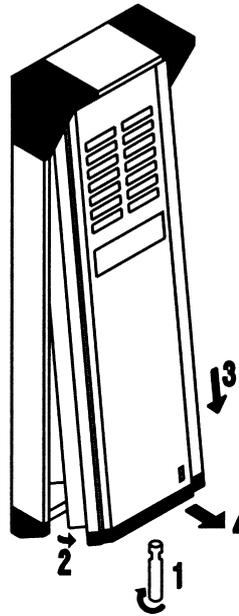


Fig. 1

Fig. 1: One-column panel

Fig. 2: Three-column panel

Fig. 3: Panel assembly

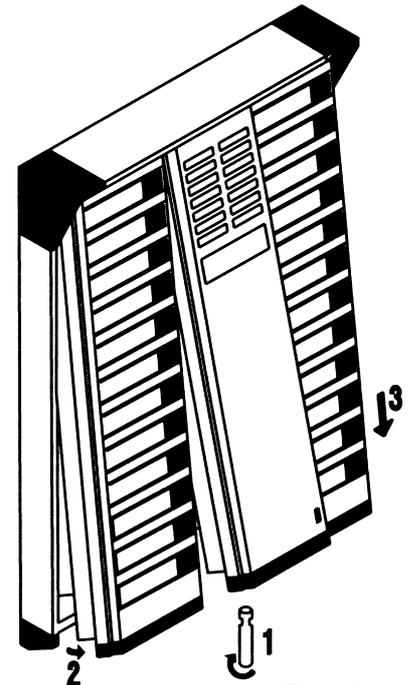


Fig. 2

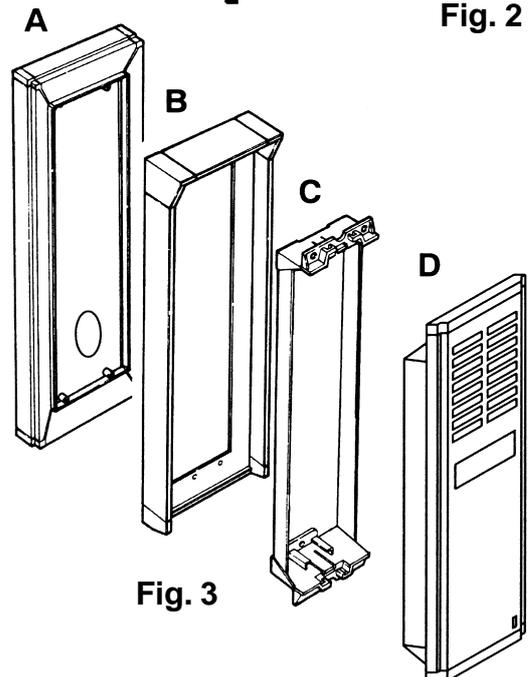


Fig. 3

**DATAPLATE**

The dataplate on the back of the panel gives the type of panel, date of manufacture, potentiometer and user code window locations, as factory-set (Art. 943/... and 943/5.. only).

- Zone A: Panel name
- Zone B: Settings
  - External volume trimmer
  - Audio balance trimmer
- Zone C: Quality control and test date
- Zone D: Settings
  - Internal volume trimmer
  - Camera motor speed trimmer
  - Digital signal trimmer (do not adjust unless expressly specified)
- Zone E: Setup parameters, lower and upper bounds of user codes for the stairway (factory-set during testing only for Art. 943/... and 943/5..).

**A**

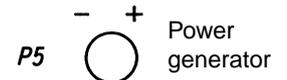
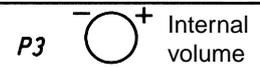


- .942/....
- .943/....
- .943/5...
- .944
- .946/....
- .947
- .

**B**



**C**



**D**

Coding for residential com-

User minimum number

User maximum number

**E**

## ART. 6941

### TECHNICAL SPECIFICATIONS

The basic power supply unit for all DIGIBUS electronic door opener systems, housed in a grey thermoplastic case. Designed for mounting to equipment panels with DIN omega rails (12 modules), or wall fixing with masonry plugs.

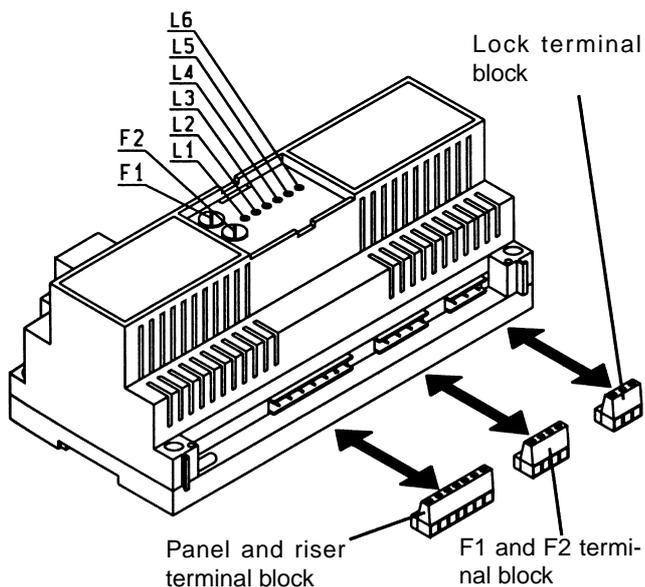
- Dimensions: 208x135x72 Weight 1.5 kgs
- Power supply: 230 V A.C. 50 - 60Hz
- Maximum absorbed power: 60 VA
- Low voltage supply: 13.5 V DC 1.5 A (maximum 50 distribution units and one entrance panel or 200 phones Art. 940 and one entrance panel)
- Panel illumination output: 15V rectified, 0.4A continuous duty (max 3 lamps rated 24V 3 W)
- Lock output: 15V rectified 1A
- Interchangeable card for quick maintenance
- Removable terminal strips
- Indication circuit with LEDs showing current operating status
- Frequency modulated acoustic call circuit.

Built-in protection features:

- Transformer primary: PTC SIEMENS type C840
- 3.15 A 250 V fuse (F1) on 1st secondary, driving internal electronic circuits
- 3.15 A 250 V fuse (F2) on 2nd secondary, driving electric doorlock circuit
- Electronic interphone riser or panel short-circuit or overload cutout

### LEDS

- L1- Lock voltage
- L2- Lock activation
- L3- Auxiliary function F1
- L4- Auxiliary function F2
- L5- Audio
- L6- Supply



### POWER SUPPLY ART. 6941 OPERATION

When a call is sent from the entrance panel, the CH terminal sends a signal to the power supply to enable the acoustic call tone which is transmitted to the riser by terminal 3.

When the door lock button is pressed on the internal unit (or an auxiliary function F1 or F2), terminal 1 sends a digital signal to the panel which decodes it and enables the power supply to execute the command (terminals S1 for the lock or outputs R1 or R2 for F1 or F2 respectively).

**N.B: The call functions, switching between panels and supplementary functions are not controlled by the power supply, but by the panel. The panel must therefore be supplied with current within the specified limits.**

The illumination power for buttons with name indicator slots is provided by the 0-15 output line from the power supply: a maximum of three lamps (24 V 3 W) can be connected.

When the panel is equipped with several bulbs, additional transformers must be fitted: 1x Art. M832 for 10x 24V 3W bulbs or 1x Art. 832/030 for 16x 24V 3W bulbs.

### TERMINAL BLOCKS AND LEDES

- CH- Acoustic call enable line
- S- Electric doorlock control line YELLOW LED L2 - lights up when door opener button is pressed at an interphone
- F1- 1st auxiliary function control line GREEN LED L3 - lights up when button F1 is pressed at an interphone
- F2- 2nd auxiliary function control line YELLOW LED L4 - lights up when button F2 is pressed at an interphone
- 3- Acoustic call line GREEN LED L5 - lights up when an acoustic call is activated or when an interphone is switched in and the relative handset is off the hook
- 4- Negative line to interphones
- 5- +13.5V DC 1.5A power supply to maximum 50 distribution units or 200 internal code type interphones and one entrance panel. RED LED L6 - lights up when voltage through terminal measures +13.5 Vdc

### TERMINALS "4-R1-4-R2"

- 4- Negative line
- R1- Timed line for activation of first auxiliary function. F1 max. load 12V D.C. 0.1A.
- 4- Negative line
- R2 Timed line for activation of second auxiliary function. F2; max. load 12V D.C. 0.1A.

### LOCK TERMINALS S1-15-0

- S1 Electric doorlock time control line, protected by 3.15 A fuse (F2) YELLOW LED L1 - lights up when voltage across terminals S1 and 15 measures 15V rectified (doorlock activated)
- 15-0 Power line to auxiliary functions, protected by 3.15 A fuse (F1)

### "PRIM" TERMINALS

These terminals are located beneath the thermoplastic shield

bearing the symbol " ⚡ ", and are used for making the connection to the mains supply. There is no earth wire as this is a class 2 power supply.

## ART. 6942

### TECHNICAL SPECIFICATIONS

Supplementary power supply for DIGIBUS audio or video entry systems. Mainly used for supplying the monitors or interphones, for the switchboard or main panel in residential complexes. Housed in a grey thermoplastic case and designed for mounting to equipment panels with DIN omega rails (12 modules), or wall fixing with masonry plugs.

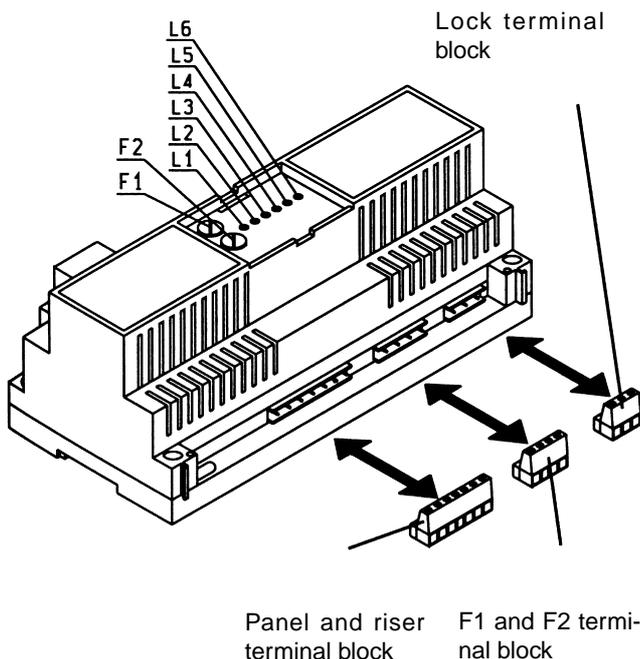
- Dimensions: 208x135x72 Weight 1.5 kg
- Power supply: 230 V A.C. 50 - 60Hz
- Maximum absorbed power: 60 VA
- Interphone, panel or switchboard power output: 13.5V DC 1.5 A.
- Panel illumination output: 15V rectified, 0.4A continuous duty (max 3 lamps rated 24V 3 W)
- Lock output: 15V rectified 1A
- Interchangeable card for quick maintenance
- Removable terminal strips
- Indication circuit with LEDs showing current operating status

Built-in protection features:

- Transformer primary: PTC SIEMENS type C840
- 3.15 A 250 V fuse (F1) on 1st secondary, driving internal electronic circuits
- 3.15 A 250 V fuse (F2) on 2nd secondary, driving electric doorlock circuit
- Panel or interphone riser overload/short-circuit cutout.

### LEDS

- L1- Lock voltage
- L2- Lock activation
- L3- Auxiliary function F1
- L4- Auxiliary function F2
- L5- Not used
- L6- Power



For examples of installation see diagrams:

1. page 6 n° 5; ref. hook up diagrams p2786: the power supply is used to power a main panel in a residential complex installation
2. page 8 n° 10; ref. hook up diagram pc2769: the power supply is used as additional unit to power a porter's switchboard
3. page 88-89 versions 7-8; the power supply is used to power an interphone (monitor) riser in installations with more than 50 distributors Art. 949A and 200 interphones (monitors) with internal coding.

### TERMINAL BLOCKS AND LEDES

- CH - Not used
- S- Electric doorlock control line YELLOW LED L2 - lights up when door opener button is pressed at an interphone
- F1- 1st auxiliary function control line GREEN LED L3 - lights up when button F1 is pressed at an interphone
- F2- 2nd auxiliary function control line YELLOW LED L4 - lights up when button F2 is pressed at an interphone
- 3- Not used
- 4- Negative line to interphones
- 5- +13.5V DC 1.5A power supply to maximum 50 distribution units or 250 internal code type interphones and one entrance panel. RED LED L6 - lights up when voltage through terminal measures +13.5 Vdc

### TERMINALS "4-R1-4-R2"

- 4- Negative line
- R1- Timed line for activation of first auxiliary function. F1; max. load 12V D.C. 0.1A.
- 4- Negative line
- R2 Timed line for activation of second auxiliary function. F2 max. load 12V D.C. 0.1A.

### LOCK TERMINALS S1-15-0

- S1 Electric doorlock time control line, protected by 3.15 A fuse (F2) YELLOW LED L1 - lights up when voltage across terminals S1 and 15 measures 15V rectified (doorlock activated)
- 15-0 Power line to auxiliary functions, protected by 3.15 A fuse (F1)

### "PRIM" TERMINALS

These terminals are located beneath the thermoplastic shield

bearing the symbol "⚡", and are used for making the connection to the mains power supply. There is no earth wire as this is a class 2 power supply.

## ART. 6948

### TECHNICAL SPECIFICATIONS

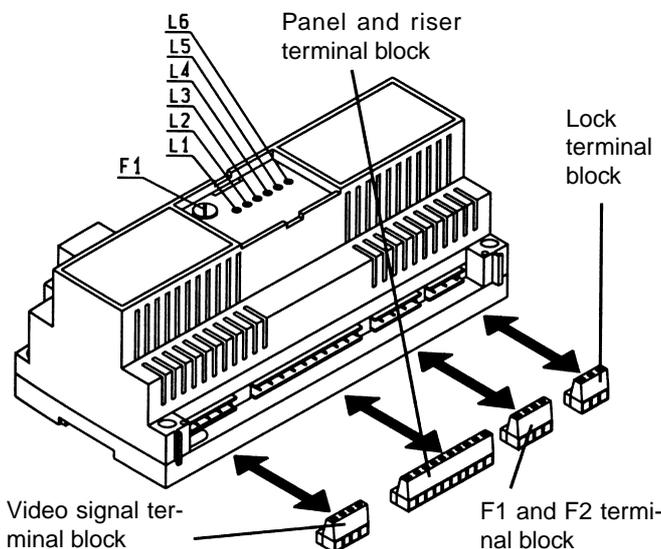
The basic power supply unit for all video electronic door opener systems, housed in a grey thermoplastic case. Designed for mounting to equipment panels with DIN omega rails (12 modules), or wall fixing with masonry plugs.

- Dimensions: 208x135x90 Weight 1.5 kg
  - Power supply: 230 V A.C. 50 - 60Hz
  - Maximum absorbed power: 60 VA
  - Low voltage supply: 13.5 V DC 1 A (maximum 10 distribution units Art. 949A and one entrance panel or 60 monitors Art. 5601/940 and one entrance panel)
  - Monitor supply output: 18V D.C. 0,8A
  - Panel illumination output: 15V rectified, 0.4A continuous duty (max 3 lamps rated 24V 3 W)
  - Lock output: 15V rectified 1A
  - Interchangeable card for quick maintenance
  - Removable terminal strips
  - Indication circuit with LEDs showing current operating status
  - Frequency modulated acoustic call circuit.
- Built-in protection features:
- Transformer primary: PTC SIEMENS type C840
  - 3.15 A 250 V fuse (F1) on 1st secondary, driving internal electronic circuits
  - PTC SIEMENS C945 on 2nd secondary, driving functions supply
  - Electronic interphone riser or panel short-circuit or overload cutout

**IMPORTANT: each apartment can be equipped with one 5601 series monitor or one 5604 and one 5300 monitor in parallel. To connect a greater number of monitors in parallel in the same apartment, one or more 5582/001 or 6583 power supplies must be installed (see hook up variants).**

### LEDS

- L1- Monitor supply
- L2- Lock activation
- L3- Auxiliary function F1
- L4- Auxiliary function F2
- L5- Audio
- L6- Digital supply



### POWER SUPPLY ART. 6948 OPERATION

When a call is sent from the entrance panel, the CH terminal sends a signal to the power supply to enable the acoustic call tone which is transmitted to the riser by terminal 3. When the door lock button is pressed on the internal unit (or an auxiliary function F1 or F2), terminal 1 sends a digital signal to the panel which decodes it and enables the power supply to execute the command (terminal S1 for the lock, or outputs R1 and R2 for F1 or F2, respectively).

**N.B: The call functions, switching between panels and supplementary functions are not controlled by the power supply, but by the panel. The panel must therefore be supplied with current within the specified limits.**

The illumination power for buttons with name indicator slots is provided by the 0-15 output line from the 6941 unit: a maximum of three lamps (24V 3W) can be connected.

### CONNECTION TERMINALS

- +1 : Monitor switching off enable line.
- CH: Acoustic call enable line
- S: Electric doorlock control line YELLOW LED L2 - lights up when door opener button is pressed at a monitor
- F1: 1st auxiliary function control line GREEN LED L3 - lights up when button F1 is pressed at a monitor
- F2: 2nd auxiliary function control line YELLOW LED L4 - lights up when button F2 is pressed at a monitor. Functions used for VIDEOMOVING.
- 3: Acoustic call line GREEN LED L5 - lights up when an acoustic call is activated or when a monitor is switched in and the relative handset is off the hook
- 4: Negative line to interphones
- 5: +13.5 V.D.C. 1A power supply to maximum 10 distribution units Art. 949A or 60 internal code type interphones and one entrance panel. RED LED L6 - lights up when voltage through terminal measures +13.5 Vdc
- +: Positive supply line for monitors 18V D.C. 0,8A
- : Negative supply line

### TERMINALS "4-R1-4-R2"

- 4- Negative line
- R1- Timed line for activation of first auxiliary function. F1 max. load 12V D.C. 0.1A.
- 4- Negative line
- R2- Timed line for activation of the 2nd function F2. Used for "VIDEOMOVING".

### S1 and 15-0 TERMINALS

- S1: Electric doorlock time control line, protected by PTC type C945. YELLOW LED L1: Lights up when voltage through terminal S1 and 15 measures 15V rectified (lock release in function).
- 15-0: Power line to auxiliary functions, protected by PTC type C945.

### "PRIM" TERMINALS

These terminals are located beneath the thermoplastic shield

bearing the symbol "⚡", and are used for making the connection to the mains supply. There is no earth wire as this is a class 2 power supply.

## ART 6947

### TECHNICAL SPECIFICATIONS

Additional power supply for DIGIBUS video entry systems, used for boosting monitor power and the call tone. Housed in a grey thermoplastic case and designed for mounting to equipment panels with DIN omega rails (12 modules), or wall fixing with masonry plugs.

- Dimensions: 208x135x72 Weight 1.5 kg
- Power supply: 230 Vac 50 - 60Hz
- Maximum absorbed power: 60 VA
- Interphone and/or monitor power output: 13.5V DC 1.5 A.
- Interchangeable card for quick maintenance
- Removable terminal strips
- Indication circuit with LEDs showing current operating status

Built-in protection features:

- Transformer primary: PTC SIEMENS type C840
- 3.15 A 250 V fuse on secondary, driving internal electronic circuits
- Monitor riser overload/short-circuit cutout.

### POWER SUPPLY ART. 6947 OPERATION

This power supply is installed in systems with long cable runs between the central power supply and the monitor. It is intended to boost both the monitor (interphone) call tone and the monitor line power (18V DC +/-), to ensure optimal values. See page 87 variant n°9 for the hook up.

### LEDS

- L5- Audio
- L6- Power

### LEDS

Led L5 lights up for the duration of the call tone when a call is sent from the entrance panel. It lights up again when the handset is lifted and switches off when the handset is replaced or the maximum conversation time has elapsed. Led L6 lights up when the power supply is connected to the mains.

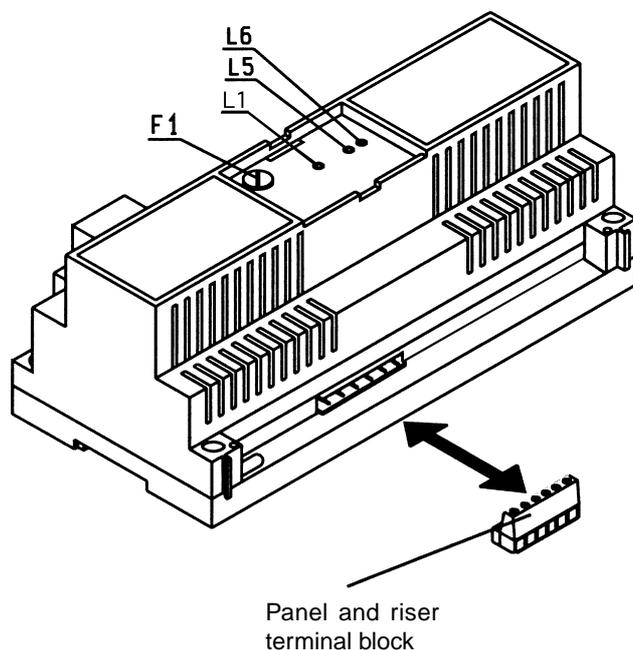
### CONNECTION TERMINALS

- +1 : Monitor switching off enable line.
- CH: Acoustic call enable line
- 3: Audio/call tone line.
- GREEN LED L5 - lights up when an acoustic call is activated or when a monitor is switched in and the relative handset is off the hook
- 4: Negative line to interphone
- +: Positive supply line for monitor riser 18V D.C. 0,8A
- : Negative supply line for monitor riser

### "PRIM" TERMINALS

These terminals are located beneath the thermoplastic shield

bearing the symbol "⚡", and are used for making the connection to the mains supply. There is no earth wire as this is a class 2 power supply.



## DIGITAL SWITCHING MODULE ART. 949

### DESCRIPTION

This unit is designed to solve various problems inherent in residential complex installations.

This switch connects calls made from the main panel to a series of internal units without secondary inputs with a DIGIBUS panel.

These calls do not affect the rest of the installation which may be video and/or audio.

In practice the 949 switch replaces the secondary panel and allows users installed on a riser connected only to the main panel to execute all the functions proper to a stairway panel without the need for a secondary input. The 949 switch, like the panels, has programmable parameters which must be set during testing according to specific criteria.

### SETUP

This unit must be setup with the 950 programmer, using the connector common to all DIGIBUS units.

**N.B:** The following procedure must be carried out with the system switched on and before programming the interphones.

### SETUP:

To change the factory-set setup parameters, connect the programmer, press E and then PS2 on the programmer.

The first programmable parameter will appear on the display (see SETUP PARAMETER TABLE). To confirm the existing

value press  and the next parameter will be displayed;

to change it, enter the new value and press  to confirm.

To exit from setup mode press ESC on the programmer.

If the upload has terminated correctly, the message "Pgm.Tecn.OK!!" is displayed.

**To reset the switch press PS1 and wait for LED L1 to flash 3 times.**

### TERMINAL BLOCK

#### IMPORTANT

Before hooking up the terminal blocks make sure that the entire system is switched off. Only switch on the system after all the devices, audio/video panels, power supplies, switchboards etc. have been hooked up.

#### SUPPLY AND DIGITAL RISER SIGNAL TERMINAL BLOCK

- 1) Digital signal to interphone/monitor riser
- 2) Audio/call tone to riser
- 3) Through connection for riser power supply (negative)
- 4) Through connection for riser power supply (positive 13.5V D.C.)

#### POWER SUPPLY TERMINAL BLOCK

+I) monitor power control (connect to 6948 power supply unit if installed in a video entry system)

CH) Call tone activation signal

S) Lock activation signal

F1) Supplementary function activation (F1)

F2) Supplementary function activation (F2)

3C) Call tone connection

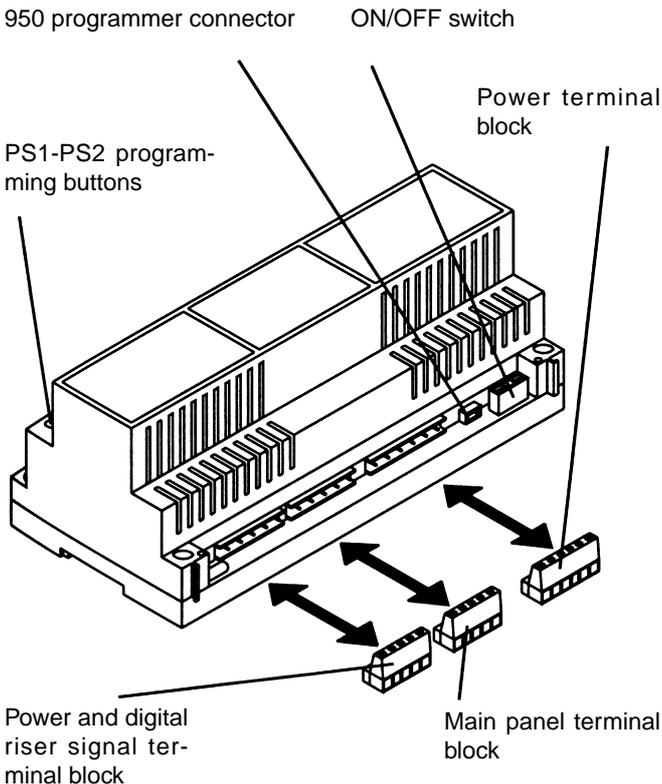
#### MAIN PANEL TERMINAL BLOCK

6) Digital signal from main panel

8) Audio signal from the main panel

9) Through connection for power supply (negative)

+L) 12V DC for camera activation (only video systems)



**TABLE OF SETUP VALUES FOR PROGRAMMER ART. 950**

| Parameter with Art. 950/001 | Parameter with Art. 950 | Minimum value | Maximum value | Preset value | Description   | When to modify parameters                                    |
|-----------------------------|-------------------------|---------------|---------------|--------------|---|--|
|                             | English language        | 0000          | 0001          | 0000         | Used with programmer Art. 950.  | Optional   |
| -01-                        | First user              | 0001          | 9999          | 0001         | Minimum call number   | In residential complexes                                     |
| -02-                        | Final user              | 0001          | 9999          | 9999         | Maximum call number   | In residential complexes                                     |
| -03-                        | Conversation time       | 0001          | 0255          | 0060         | Maximum conversation time (Time = Value x 1 second)   | Optional   |
| -04-                        | Call signal time        | 0001          | 0010          | 0001         | Call signal activation time (Time = Value x 1 second)                                       | In residential complexes                                     |
| -05-                        | Video camera enable     | 0000          | 0001          | 0000         | Video camera in entrance panel (0=NO, 1=YES)  | In entrance panels with video camera                         |
| -06-                        | Reply time              | 0001          | 0255          | 0030         | Reply delay time (Time = Value x 1 second)  | Optional   |
| -07-                        | Call priority enable    | 0000          | 0001          | 0000         | Entrance panel with call priority (0=NO, 1=YES)   | Optional, but only for entrance panels connected in parallel |
| -08-                        | Door lock enable        | 0000          | 0001          | 0000         | Enables door lock activation (0=NO, 1=YES)  | Optional, but only in residential complexes                  |
| -09-                        | Call signal enable      | 0000          | 0001          | 0000         | Enables a call signal at the entrance panel when a call is made (0=NO, 1=YES)               | Optional   |
| -10-                        | EM1 time                | 0001          | 0255          | 0001         | EM1 auxiliary function activation time (Time = Value x 1 second)                            | Optional   |
| -11-                        | EM2 time                | 0001          | 0255          | 0001         | EM2 auxiliary function activation time (Time = Value x 1 second)                            | Optional   |
| -12-                        | Door lock time          | 0001          | 0255          | 0001         | Door lock activation time (Time = Value x 1 second)   | Optional   |
| -13-                        | Coding enable           | 0000          | 0001          | 0000         | For the call, the camera considers the number associated to the push button (0=NO, 1=YES)   | It is required for the push-buttons software programming     |
| -15-                        | Entrance panel disable  | 0000          | 0001          | 0000         | Disables the entrance panel (0=NO, 1=YES)   | Optional   |
| -16-                        | Call number edit        | 0000          | 0099          | 0000         | Edits the call number<br>E.g.: 0001 becomes x1xx,<br>0090 becomes 9xxx<br>0091 becomes 91xx | Optional, but only in residential complexes                  |
| -17-                        | New type                | 0000          | 0001          | 0001         | Door lock release code check  | In video door entry systems with Art. 949A                   |

The last column of the table indicates when parameter settings must be changed. Those parameters identified as optional may instead be modified at the installer's discretion. For example: conversation time, door lock release code etc.

**N.B.**

**ON COMPLETION OF PANEL PROGRAMMING, PRESS ESC TO EXIT THE PROGRAMMING MODULE. IF TRANSMISSION HAS BEEN CARRIED OUT CORRECTLY THE 950 DISPLAYS THE MESSAGE TECH. PGM. OK!!! IF THIS DOES NOT OCCUR, PRESS ESC AND REPEAT THE TRANSMISSION PROCEDURE.**

## ART. 949A

### DESCRIPTION

This distribution unit, to which four - 900/137 - 875/037 or monitor Art. 5337 - 5601/037 - 5604/037 type interphones are connected, is able to select and assign four electronic calls directed to the respective users. The unit will discriminate between a control signal generated to open the door and a switchboard call to the exchange originating from interphones with only one button, as well as controlling two types of auxiliary function. The distributor allows for connection to interphones or the audio line with only two wires; a special cutout circuit enables the system to continue functioning even if the line to the user is tampered with or short-circuits.

### INSTALLATION

The 949A distribution unit must be located in a dry, dustfree place away from heat sources. The location should afford ease of access for the purposes of inspection and setting operations. The unit can be mounted either to the wall, using the fixing plugs provided, or to an equipment panel with DIN omega rails (8-module size). Before any connections are made, checks should be made (using a normal tester) to ensure that there are no conductors broken or short circuiting. Wire up the connection terminals as in diagrams provided. Connect the installation to the mains.

### PROGRAMMING AND OPERATION

To program the number of the distributor and consequently of the 4 sets connected with it, press button "P1", then press and hold "P2". If the procedure has been effected correctly, the unit will assume programming mode with LED "A" lighting up, at which point "P2" can be released. If the LED does not light up, the sequence must be repeated. The handset is now lifted to establish communication with the entrance panel, so that the code for the interphone (or monitor) wired to terminals A1-A3 can be received. Replace the handset and wait for the call on unit "A". As the code is transmitted from the panel to the distribution unit, it will be memorized for good by the unit and remain stored until further reprogramming, even in the event of the panel being disconnected from the power supply.

Interphone (monitor) "A" will emit the call tone to indicate successful termination of programming.

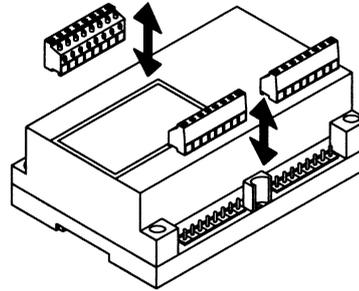
The other three interphones, connected to the distribution unit, are programmed as the previous one.

By pressing and holding button "P2" the Leds A-B-C-D, corresponding to the interphones or monitor, connected to the distribution unit, are selected in sequence.

In case of installations with several entries, connector concerning the interphone (or monitor) risers of other entrance panels must be removed, letting in operation only one entrance panel for the sole programming phase.

This operation can be repeated any number of times, using other numbers between 0000 and 9999.

To make a call to the switchboard (if installed) simply press the button on the interphone (monitor) marked with a key symbol when the unit is not busy. When the unit is in audio connection with a panel, pressing this same button will open the doorlock associated with that particular panel.



The distribution unit affords two auxiliary functions common to the system (stair or passage lights, sundry services, etc.); for each function the interphone (monitor) should have a button in addition to the door lock / call porter button fitted as standard supply (these latter functions are not available on the interphone Art. 875/037). To program just one auxiliary function, position the "F1-F2" jumper on "F1"; for two auxiliary functions, position the jumper "F1-F2" on "F2".

For panels with cameras, the function F2 controls camera tracking (VIDEOMOVING). It should be kept in mind that when the F1/F2 functions are activated, the Art. 949A sends only the code of the interphone connected to terminals A1 and A3 to the porter's switchboard, even if it was another interphone which made the call.

### PANEL SIDE TERMINAL BLOCK

- A) Auxiliary function - connect if indicated in diagram
- B) Auxiliary function - connect if indicated in diagram
- 4) Auxiliary functions - connect if indicated in diagram
- 1) Digital call line
- 2) Not used
- 3) Phono line
- 4) Negative line
- 5) +13.5 Vdc

### INTERPHONE SIDE TERMINAL BLOCK

- C) Auxiliary functions - connect if indicated in diagram
- D) Auxiliary functions - connect if indicated in diagram
- 4) Auxiliary functions - connect if indicated in diagram
- 1) Digital call line
- 2) Not used
- 3) Phono line
- 4) Negative line
- 5) +13.5 Vdc

### INTERPHONE TERMINAL BLOCK

- A1) Phono connection line - 1st interphone
- A3) Common connection line - 1st interphone
- B1) Phono connection line - 2nd interphone
- B3) Common connection line - 2nd interphone
- C1) Phono connection line - 3rd interphone
- C3) Common connection line - 3rd interphone
- D1) Phono connection line - 4th interphone
- D3) Common connection line - 4th interphone

### NOTE

For the purposes of proper maintenance of the system, the label on the distributor bearing the codes of the 4 connected internal units MUST be compiled at the time of programming.

## ART. 945A

### DESCRIPTION

Porter's switchboard in desk-top version with black thermo-plastic housing. This switchboard can call up to 9999 users using a 20-key keypad which serves to enter user numbers, make calls, activate intercom or conference functions, release the door lock and cancel the operation currently in progress. The unit is equipped with two displays: one for incoming calls from the main entrance panel or to internal units and one for calls from internal units to the switchboard. The switchboard can store up to 20 different calls which can be displayed using the memory scroll button. The unit is equipped with mechanical key which enables/disables the switchboard keypad depending on the position selected ("INTERNAL": keypad enabled and "EXTERNAL": keypad disabled). The switchboard can also be interfaced with programmer Article 950 to program the technical parameters.

### PRELIMINARY OPERATIONS

Following installation and connection of all the units in the system, switch on the system and make sure all the power supplies in the system effectively power up (indicated by illumination of the power leds on the power supplies themselves).

Wait at least ten seconds after powering up the system before programming the units.

You can then check and, if necessary, program the operating parameters of the entrance panels and/or switchboard.

### PROGRAMMING THE SWITCHBOARD PARAMETERS

The switchboard is supplied already loaded with a standard program which may be edited following the instructions given below. The parameter settings must be altered if the existing ones do not satisfy system requirements. The switchboard can be programmed in one of two ways: using the switchboard keypad or using programmer Article 950.

As regards the second programming option using Art. 950, refer to the instructions enclosed with the programmer itself.

To enter programming mode, proceed as follows:

#### A) Direct entry to programming mode.

Set the switchboard to "INTERNAL" mode by turning the mechanical key counter-clockwise with the "IN/ON" light indicator switched off. Cancel every operation using button R; all the button lamps must be switched off.

Press button "PS1" and then "PS2" under the switchboard.

If the above sequence has been correctly performed the numbers "-01-" and "0001" will be alternately displayed on the right hand screen.

If this is not the case, repeat the entire procedure.

#### B) Entry to programming mode using the front keypad on the switchboard.

Set the switchboard to "INTERNAL" mode by turning the mechanical key counter-clockwise with the "IN/ON" light indicator lighted. Cancel every operation using button R; all the button lamps must be switched off.

Simultaneously press buttons "R" and "4" on the front keypad. When a series of dashes "—" are displayed on the right hand screen, enter the code "0123".

If the above sequence has been correctly performed the numbers "-01-" and "0001" will be alternately displayed on the right hand screen. If this is not the case, repeat the entire procedure.

Once you have entered programming mode use the bell button  to scroll the parameters (-01-, -02-, -03-, etc.) and the numerical keys to edit their settings. In the case of error, only use the numerical keys to correct the value entered.

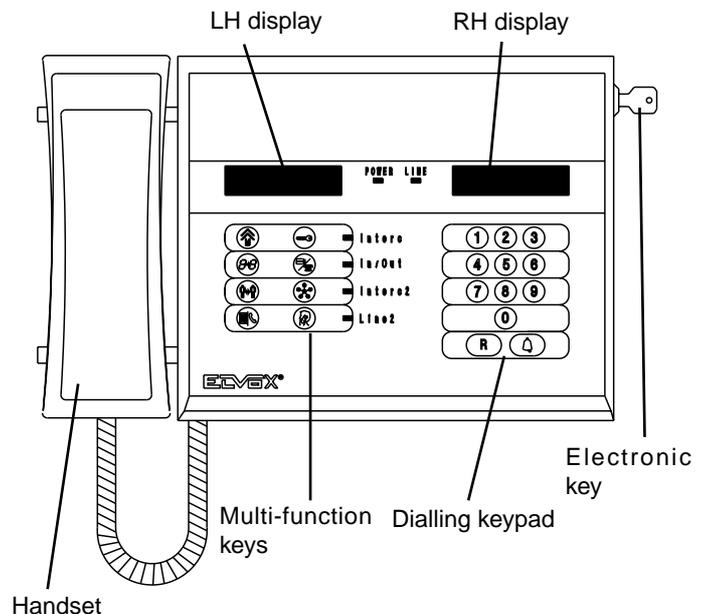
Press the bell button  to confirm any changes.

On completion of programming, press buttons  and R to exit the technical programming function.

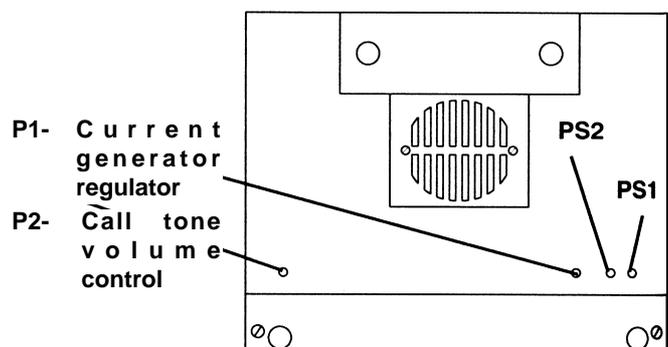
If, during programming, one or more settings are changed, the switchboard will confirm memorisation of the new parameters by displaying a series of dashes "- - -" on the right hand screen when you exit the programming function. Parameters may be programmed and consulted as and when required.

Parameter settings are stored in the memory even in the event of power failure until next edited.

### SWITCHBOARD KEYPAD



### BACK OF SWITCHBOARD



**Switchboard technical parameters table**

| Parameter | Parameter with Art. 950    | Minimum value | Maximum value | Set value | Description  |
|-----------|----------------------------|---------------|---------------|-----------|--|
| -01-      | First user                 | 0001          | 9999          | 0001      | Not used   |
| -02-      | Final user                 | 0001          | 9999          | 9999      | Not used   |
| -03-      | Reply time                 | 0001          | 0255          | 0060      | Reply delay time<br>(Time = Value x 1 second)                            |
| -04-      | Conversation time          | 0001          | 0255          | 0090      | Maximum conversation time (Time = Value x 1 second)                      |
| -05-      | Call signal time           | 0001          | 0010          | 0001      | Call signal activation time (Time = Value x 1 second)                    |
| -06-      | Door lock time             | 0001          | 0255          | 0001      | Door lock activation time (Time = Value x 1 second)                      |
| -07-      | EM1time                    | 0001          | 0255          | 0001      | EM1 auxiliary function activation time (Time = Value x 1 second)         |
| -08-      | EM2 time                   | 0001          | 0255          | 0001      | EM2 auxiliary function activation time (Time = Value x 1 second)         |
| -09-      | Video camera enable        | 0000          | 0001          | 0000      | Indicates presence of switchboard video camera and monitor (0=NO, 1=YES) |
| -10-      | Switchboard number         | 0001          | 9999          | 9999      | Direct call number to switchboard  |
| -11-      | Technical programming code | 0000          | 9999          | 0123      | Technical programming access code  |
| -12-      | Code check                 | 0000          | 0001          | 0001      | Code check (0=NO, 1=YES)   |
| -13-      | Door lock enable           | 0000          | 0001          | 0001      | Enables door lock activation (0=NO, 1=YES)                               |
| -14-      | Language                   | 0000          | 0001          | 0000      | English language selection for programming with ART. 950 (0=NO, 1=YES)   |
| -15-      | Alarm code                 | 0000          | 0001          | 0000      | Enables the call chime in external position (0 = NO, 1 = YES)            |

**DESCRIPTION OF SWITCHBOARD KEYPAD**

The switchboard is equipped with a 20-key keypad divided into two sections: the right hand section is used to make calls, program the switchboard and cancel operations currently in progress. The left hand zone is instead used to activate porter call, door lock release, intercom, conference, video camera panning, call transfer to internal unit (only in video installations) and notification functions.

**DESCRIPTION OF KEYPAD**

**Left hand section:**

- Button  **MEMORY SCROLL:**  
Use to scroll calls from interphones or monitors: In parameter programming mode this button is reserved for use with Art. 950.
- Button  **DOOR LOCK RELEASE:**  
Activates terminal S on the switchboard and opens the door lock at the main entrance panel communicating with the switchboard.
- Button  **TRANSFER:**  
Transfers the number from the left hand display (porter call) to the right hand display in order to make a call to an internal unit, activate the intercom or conference function or cancel the number.

- Button  **TELEPHONE/PANNING:**  
When the switchboard is communicating with the main entrance panel, this button activates the VIDEOMOVING function at the panel in question. When the switchboard is not communicating with the panel, this button is used to connect the telephone line (terminals a-b) to the interphone cable riser.
- Button  **INTERCOM:**  
This function enables conversation between two users: two interphones (monitors) or interphone (monitor) and entrance panel. Intercommunicating, conferencing or conversations between the entrance panel and interphone (monitor) are indicated by illumination of the lamp "INTERC".
- Button  **CONFERENCE:**  
This function enables conversation between two or three users (interphones or monitors). Activation of the conferencing function is indicated by illumination of the lamp "INTERC". Illumination of the lamp "INTERC 2" indicates a conversation between three or four users, one of which is the switchboard.
- Button  **INTERNAL/EXTERNAL:**  
Use to manually switch the switchboard from internal to external mode and vice versa. Illumination of the lamp "IN/OUT" indicates that the switchboard is in external mode.

Button  NOTIFICATION:  
This button allows the switchboard to enter a conversation already in progress. An acoustic signal announces activation of this function to users. The lamp "LINE 2" illuminates each time the switchboard communicates with a user.

**Right hand section:**

Button 0-9 NUMBER SELECTION:  
Use to enter user call numbers and change technical parameter settings during switchboard programming operations.

Button R DISPLAY ZEROSET:  
Cancels and interrupts all conversations. This button is also used to exit the technical parameter programming function.

Button  USER CALL:  
Routes the call once the number has been entered. In technical parameter programming mode, this button is also used to confirm any changes made to settings and pass onto the next parameter.

Buttons R and 4 PROGRAMMING ACCESS:  
Press these buttons simultaneously to enter the technical parameter programming function.

**Keypad lamps in central section of switchboard:**

POWER SUPPLY:  
The light indicator is lit when the switchboard is powered.

LINE AUDIO:  
The light indicator is lit on the audio line (Terminal 3) when there is at least one set connected and unhooked. The light indicator is also lit when there is a call signal on the audio line.

INTERC INTERCOM:  
The light indicator is lit when two interphones (monitors) or an interphone (monitor) and a door entry panel are communicating together.

IN/OUT EXTERNAL:  
When the light indicator is switched off the switchboard is in "internal" mode, otherwise is in "external" mode.

INTERC 2 CONVERSATION AMONG THREE USERS:  
When three sets, interphones, monitors, door entry panels (whose one is the switchboard) are communicating together the light indicator is lit.

LINE 2 SWITCHBOARD:  
When the switchboard is communicating with a set, intercom, monitor or main door entry panel, the light indicator is lit

**OPERATION OF SWITCHBOARD**

**Introduction**

Switchboard Art. 945A can operate in two modes: internal and external mode.

To select the mode required use the mechanical key on the right hand side of the switchboard by turning it clockwise mark to select EXTERNAL mode and turning it to counter-clockwise to select INTERNAL mode. The lamp in button "IN/OUT" indicates the status of the switchboard (lamp "on" = external mode; lamp "off" = internal mode). In EXTERNAL mode the switchboard keypad is completely disabled and unable to perform any function. As a result, all calls from the main entrance panel are routed directly to the interphone/monitor cable riser without being intercepted by the switchboard. In this mode however, it is still possible to receive porter calls, make direct calls to the switchboard and receive notification of a conversation between the main entrance panel and interphone (monitor). In INTERNAL mode all functions are activated and authorised by the switchboard operator.

- **EXTERNAL operation ("IN/OUT" symbol lamp "on").**
- *Call from entrance panel to user:* when the switchboard is in external mode it is possible to call internal units directly from the entrance panel without the switchboard intercepting the call. The switchboard however is notified that a conversation is in progress by illumination of the LINE indicator lamp, illumination of the lamp "INTERC" and the display of a "STOP" message on the right hand screen. If you wish to interrupt the line from the switchboard, return the switchboard to INTERNAL mode using the mechanical key and press button R. If instead, you wish to enter the conversation, return the switchboard to INTERNAL

mode using the mechanical key and press button . Entry into a conversation by the switchboard operator is announced to the units by an acoustic signal and by illumination of the lamps in buttons "INTERC 2" and "LINE 2". To exclude the switchboard from the conversation,

repress button  and return to EXTERNAL mode. To release the main entrance panel door lock from the switchboard, press the lock button  while the switchboard is still in INTERNAL mode.

- *Direct call to switchboard from main entrance panel:* when the switchboard is in EXTERNAL mode it is possible to communicate with the switchboard from the entrance panel using the direct call number (see parameter -10-). Each time this number is used, the switchboard activates the call signal, displays a series of dashes "—" on the right hand screen and automatically connects up to the entrance panel by activating its phonic line and monitor. This function only permits communication with the main entrance panel. To open the entrance panel door or activate the VIDEOMOVING function, turn the key to INTERNAL mode and press buttons  and  respectively.

- *Porter call:* when the switchboard is in EXTERNAL mode calls to the switchboard by monitors or interphones are recorded and displayed on the unit's left hand screen. Only the acoustic call signal is disabled (Parameter -15- at 0000), if parameter -15 - is set at 0001 the call acoustic signal is enabled, in external position too. The switchboard must be set to INTERNAL mode to manage the calls.

**INTERNAL operation ("IN/OUT" symbol lamp "off").**

- *Call from switchboard to internal unit:* to make calls from the switchboard to one of the internal units, use the numerical keys to enter the required user number and

press the bell button .

After placing the call, the switchboard will connect its phonic line and activate its video camera and monitor (which displays the image filmed by the switchboard video camera). The switchboard frees the line with the internal unit if no handset is raised within the set reply time (see parameter -03-) or the maximum conversation time elapses (see parameter -04-) if the user does answer the call. When the reply time or maximum conversation time elapses the switchboard automatically interrupts the connection by switching off its monitor and video camera. The line is also disconnected if the handset is replaced before the permitted conversation time has elapsed - the switchboard frees the line 5 seconds after the handset has been replaced. The operator may also disconnect a conversation at any time by pressing button R on the switchboard.

The lamp in button "LINE 2" remains illuminated for the time the switchboard is connected to an internal unit.

- *Call from main entrance panel to switchboard:* when the switchboard is in INTERNAL mode, all incoming calls from the entrance panel are intercepted by the switchboard which automatically switches to the entrance panel by activating its monitor. Calls to the switchboard are indicated by an acoustic signal and illumination of the lamps "IN/OUT" and "LINE 2".

These lamps remain illuminated for the duration of the conversation.

When the switchboard switches to the entrance panel it is possible to release the door lock and activate the VIDEO-MOVING function at the entrance panel using buttons

 and  respectively.

If the switchboard is communicating with an internal unit, the line only automatically switches to the main entrance panel when the direct call number is used (see parameter -10-). In this situation the switchboard automatically switches to the entrance panel. If a user number is digitated at the main entrance panel (not the same as the switchboard direct number), when the switchboard is communicating with an internal unit, the switchboard does not automatically switch to the entrance panel. The call is however accompanied by an acoustic signal to the engaged units and the display of the user number entered at the panel on the right hand screen of the switchboard. To communicate with the entrance panel, the switchboard can be swit-

ched to the entrance panel using button  without disconnecting the interphone or monitor. When the switchboard is connected to the entrance panel the lamp in button "IN/OUT" illuminates.

- *Call from entrance panel to internal unit via switchboard:* when the switchboard is in INTERNAL mode, each incoming call from the entrance panel is intercepted by the switchboard which then routes the call to the relative internal unit. After receiving a call from the entrance panel, the operator calls the relative internal unit by pressing the bell button .

When the internal unit answers the call the operator can then transfer the line to the panel by pressing button  (the lamp "INTERC" and "IN/OUT" in the button illuminates).

While the entrance panel is waiting to be connected to the required internal unit, the switchboard transmits an acoustic "hold" signal to the entrance panel which lasts for the duration of the conversation between the switchboard and internal unit. This signal terminates as soon as the line is transferred to the entrance panel.

- *Call from user to switchboard:* users can use the door lock release button on the interphone or monitor to call the switchboard. The number of the internal unit which has made the call is displayed on the left hand screen of the switchboard. If the switchboard is set to INTERNAL mode, the call is also accompanied by an acoustic signal. To

communicate with the internal unit, press button  to transfer the number to the right hand screen and press the

bell button .

If instead you wish to cancel the call, press buttons  and R. If more than one call is made to the switchboard (up to 20 different calls) the switchboard notifies the operator by flashing the left hand display. To

scroll the different calls, simply press button .

Note: interphones and monitors can only call the switch-

board using the door lock button  when they are not engaged in a conversation. Otherwise activation of the door lock button would transmit a door lock release code.

- *Intercommunication between internal units:* to activate the intercom facility between two internal units, one of the two units must first call the switchboard. The operator then calls the internal unit which has made the call followed by

the other internal unit using the bell button .

This done, the operator then presses button  to connect the two units. When the two units are connected the switchboard is excluded from the conversation.

If an incorrect user number is entered, only use the numerical keys to change the number. Do not press button R unless you wish to permanently disconnect the intercom function.

The duration of conversations using the intercom facility is determined by the conversation time set for parameter -04- on the switchboard.

- *Conference:* the conferencing function permits conversations with up to three internal units. To activate this function from the switchboard, the operator must first call one of the

units using the bell button  and then connect the other units one by one by entering the corresponding number

and pressing button . Each time button  is pressed, the switchboard routes the call to an internal unit without disconnecting those already connected. In conferencing mode the switchboard remains connected to the

conversation line. To exclude press button .

If an incorrect user number is entered, only use the numerical keys to change the number. Do not press button R unless you wish to permanently disconnect the conferencing function. The duration of conversations using the conference function is determined by the conversation time set for parameter -04- on the switchboard.

- *Conversation with telephone line:* the switchboard can connect an internal unit to the external telephone line to both receive incoming telephone calls and make outgoing telephone calls. To activate this function, connect a telephone to the switchboard (terminals aa-bb) and telephone line (terminals a-b).

- Incoming telephone call: to reply to incoming telephone calls, use the telephone connected to the switchboard. To transfer the call to an internal unit, call the relative unit

using the bell button  and press button . Connection of the internal unit to the telephone line is indicated by illumination of the lamp "INTERC".

- Outgoing telephone call: if an internal unit wishes to make an outgoing telephone call, use the telephone connected to the switchboard to call the external user. Next call back

the internal unit using the code and bell button  and

press button . Connection of the internal unit to the telephone line is indicated by illumination of the lamp "INTERC".

The duration of the telephone conversation is determined by the conversation time set for parameter -04- on the switchboard.

- *Notification:* this function allows the switchboard to enter a conversation already in progress. Using this function the switchboard can interrupt intercommunicating, conferencing or telephone conversations as well as conversations between an interphone (monitor) and entrance panel. Each time the switchboard enters a conversation an acoustic warning signal is transmitted to all the units. Activation of this function is indicated on the switchboard by illumination of the lamps in buttons "INTERC" and "LINE 2". Press the notification button again to exclude the switchboard from the conversation.

## ADJUSTMENTS AND DESCRIPTION OF TERMINALS

### Adjustment trimmers

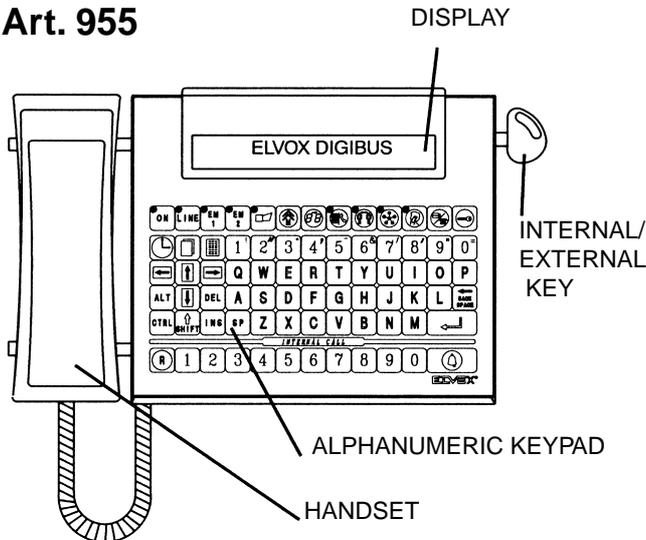
The following trimmers are fitted on the back of the switchboard:

- P1- Adjusts the digital signal current generator (**d.c. value 25 mA must not be changed unless otherwise specified**).
- P2- Adjusts the volume of the switchboard acoustic call signal.

### Switchboard terminals.

- H) Not used by switchboard Art. 945.
- CH) Terminal controlling call signal activation.
- S) Terminal controlling electric door lock activation.
- F1) Terminal controlling activation of auxiliary function 1.
- F2) Terminal controlling activation of auxiliary function 2.
- 3C) Acoustic call terminal.
- 4) Negative terminal.
- 5) Terminal + 13.5 Vdc.
- R+ e R-) Additional bell connection terminals.
- +I) Terminal controlling monitor deactivation.
- I) Terminal controlling switchboard monitor deactivation.
- T) Terminal controlling switchboard video camera deactivation.
- 1) Terminal controlling digital signal to interphone/monitor cable riser.
- 3) Terminal controlling phonic signal to interphone/monitor cable riser.
- 6) Terminal controlling digital signal to main entrance panel.
- 8) Terminal controlling phonic signal to main entrance panel.
- 9) Negative terminal.
- 10) Terminal + 13.5 Vdc.
- aa e bb) Telephone connection terminals.  
The telephone used to connect the door entry system and telephone line must be connected to these terminals.
- a e b) External telephone line connection terminals.

**Art. 955**



**Introduction**

The alphanumeric switchboard Art.955 belongs to the "DIGI-BUS" series and is completely compatible with all the products in this range. The special feature of this product is the database and emergency signal management system.

The switchboard is fitted with a display and alphanumeric keyboard to enable full control of all operative phases of these functions: database programming and/or consultation, time and date settings, printout of names or events related to an emergency signal, etc.

Furthermore, the switchboard has two connectors, placed on the back, for connection with a printer and with the Art. 950 programming module.

For a description of the switchboard, the keys have been grouped together in four zones according to their function. These zones are:

**Special keys:** for management of the following functions: emergencies, intercommunication and/or conference calls, internal/external switching, door lock release etc.

**Menu management keys:** for entry and exit to/from switchboard menus, movement within the menu, the use of special characters, and the printout of names stored in the database.

**Database management keys:** correspond to the alphanumeric keypad for entry of names in the database.

**Call management keys:** enable the entry of call numbers. However these functions can be carried out by different keys (e.g. numerical keys and call keys can perform the same functions).

**Setup**

Each time the Art. 955 switchboard is connected to the system and switched on, you must wait until the initialization phase ends before you carry out any other operation, otherwise all operations would be interrupted. The end of the initialization phase is signalled by the appearance of the word ELVOX on the display.

To set the switchboard in internal or external mode, use the key-operated switch located on the right of the switchboard. Switchboard external mode is indicated by the illumination of

the led on the key with the symbol ; this mode inhibits use of the switchboard keyboard.

Another necessary operation to be made the first time the switchboard is connected to the system is the programming of technical data on the switchboard so it may be personalized to the needs of the system.

To enter the technical data programming menu, press the PS1 key located beneath the switchboard. Furthermore, it would be a good idea to totally delete the database, as described afterwards, before you add names to the database.

**Technical data programming**

The technical data programming menu enables switchboard personalisation by editing the parameters shown in the table

below. Press both push-buttons  and  simultaneously. On display will appear 4 symbols (- - -) and the request for access code. The code (other than zero) selected,

confirm it with  push-button. If the access code is zero, press both push-buttons simultaneously and the access to menu will be automatic. By pressing "PS1" push-button, at the bottom of switch-board, the menu access will be automatic.

Entry to the menu is indicated by the display message

"PGM. TECHNICAL". Use the  key to move forward and/or to confirm the entered values, use the numerical keys

to edit the pre-set values and press the key  to exit the menu.

| <b>POSITION</b> | <b>TYPICAL VALUES</b> | <b>DESCRIPTION</b>   |
|-----------------|-----------------------|--|
| ENGLISH DATA    | 0000                  | Displays data in Italian or English (0 = Italian, 1 = English)   |
| INITIAL USER    | 0001                  | Fixed value (not modifiable)   |
| FINAL USER      | 9999                  | Fixed value (not modifiable)   |
| ANSWER TIME     | 0030                  | Maximum time between call and start of conversation (1 to 90 seconds)  |
| CONVERSAT. TIME | 0060                  | Maximum duration of conversation (10 to 90 seconds)  |
| CALL TIME       | 0001                  | Call duration (1 to 10 seconds)  |
| LOCK TIME       | 0001                  | Switchboard lock activation time (1 to 90 seconds)   |
| EM1 TIME        | 0001                  | EM1 activation time (1 to 90 seconds)  |
| EM2 TIME        | 0001                  | EM2 activation time (1 to 90 seconds)  |
| ENABLED EM1     | 0000                  | Associates activation of EM1 function with emergency signal (0 = no, 1 = yes)  |
| ENABLED EM2     | 0000                  | Associates activation of EM2 function with emergency signal (0 = no, 1 = yes) only if "ENABLE CAMERA" is set at "0000".          |
| ENABLE CAMERA   | 0000                  | Presence of video camera/monitor on switchboard (0000 = no, 0001 = yes): if function is activated, the EM2 Function is disabled. |
| ENABLE SERIAL   | 0000                  | Enables serial transmission via switchboard and programming module Art.950   |
| N. SWITCHBOARD  | 9999                  | Number to call switchboard from entrance panels. The message of the entered numbers in database is displayed                     |
| CALENDAR CODE   | 0000                  | Code for access to time and date setting function (if setting = 0000, the access code is not requested)                          |
| DATABASE CODE   | 0000                  | Code for access to programming names in DATABASE (if setting = 0000, the access code is not requested)                           |
| TECHNICAL CODE  | 0000                  | Code for access to technical data programming function (if setting = 0000, the access code is not requested)                     |

**Database programming**

The database programming menu enables entry of a list of names associated with a given number, so that names as well as numbers can be used to call a user.

In addition to the above, the emergency functions EM1 and EM2 can be assigned labels defining the type of emergency for each name stored in the database. Obviously this is only possible if the functions EM1 and EM2 are enabled (see technical data programming). To access the menu, press



, after which four dashes ("-") appear with the request to

enter the access code. Enter the code and press



to confirm.

When the access code is entered, the database programming menu is displayed. If the menu access code is set at

zero, direct access is granted simply by pressing



. Once you have entered the database, indicated by the message "PGM. DATABASE" on the display, you can enter the names in the list and/or assign labels to the emergency functions.

1) Name entry: To enter names, first enter the associated call number, as requested on the display and press



to confirm. The switchboard then searches the list to see if the number is already associated with a name; if already associated, the relative name is displayed, otherwise the message "IT DOESN'T EXIST" appears. In both cases name entries or modifications are carried out as described below. If you wish to proceed without modifying previously entered names, press



and enter a new number.

Use the database management keys to enter the names (made up of a maximum of 16 characters, including spaces). By pressing the letter keys, the corresponding letter will be entered in capital letters. If you press letter

keys while simultaneously pressing the key , you will enter lower case letters. You can insert special characters or numbers only after having inserted at least one capital letter at the beginning of the name.

Special characters are inserted by simultaneously pressing the key  and one of the numerical keys that indicate a special character.

Also, the following keys can be used for name entries:



for blank spaces,



to cancel the character to

the left of the cursor, the



key to cancel the character

following the cursor, keys



to move along

the line and key  to insert characters (this function is enabled when the cursor type is changed; to deactivate, press the same key). When the name is entered, press



to store the name and pass onto to a new phase.

2) Label assignment for emergency functions: to assign labels, enter the call number, as requested on the display

and press  to confirm. On confirmation, the switchboard searches the list to check if the number is already associated with a name. If already associated, the relative name is displayed, otherwise the message "IT

DOESN'T EXIST" is displayed. Next press keys  or



. At this point the switchboard indicates whether the number and function have already been assigned with a label. If not, the message "NO LABEL!" is displayed. In any event, to modify the label, follow the procedure for

name entries described above. Press  to save the modifications or to pass onto a new phase and enter a new number.

**Note:** In correspondence of the direct dial number called by the switchboard, you must insert the phrase (16 characters) in the database you want to display when calling. Press

 to exit the programming function.

**Total Deletion of the Database**

You can automatically delete the entire database without having to delete each stored name one at a time. To delete the entire database, enter the database programming menu as described earlier. Once you are in the DATABASE

PGM menu, simultaneously press the  and  keys. When the keys are pressed, the phrase DELETE? (Y/N) will appear on the display for confirmation of the operation.

Press the  key to delete the database, or the

 key to exit the operation.

If deletion is authorized, the procedure will be confirmed with the words "CLEAR" on the display.

Once the procedure has started, data retrieval is no longer possible. The end of the procedure is indicated when the "CLEAR" message disappears from the display.

**Time/Date settings**

To access this menu, press the key , after which four dashes ("-") appear on display with the request for entry of

the access code. Enter the code and press  to confirm, whereupon access to the time and date setting menu is granted. If the access code is set at zero, you enter the menu

directly by pressing . Once inside the menu, the cursor

positions itself below the clock numbers. Use keys  and

 to move to the hours, minutes, day, month and year

and use keys  and  to modify the date and time. To

exit the menu press key  (the clock starts as soon as you exit the menu).

**Exit for expiry**

Attention: every time you enter in a menu without pressing any push-button for nearly one minute the exit from menu is automatic.

**Transmission of data from the switchboard to the programming module and vice versa.**

The Art. 950 programming module was designed to simplify programming of the entrance panel and switchboard Art. 955. In fact, the module permits data for the entrance panel and switchboard Art. 955 to be prepared beforehand, then transferred afterwards through a telephone cable (4-wire cable). The only type of data that can be transferred in both directions from the switchboard Art. 955 are names in the database.

Data transfer from the switchboard to the programming module: enter the DATABASE PGM menu and simultaneously

press keys  and : After you have pressed the keys, insert the first and last numbers of the data to be transferred corresponding to the users programmed in the database.

The request of the two numbers appears with the FIRST NUMBER and LAST NUMBER message, which is confirmed

with the  key. After the last number has been confirmed, the switchboard goes on stand-by, and the message PLEASE WAIT appears. To start the transfer, press the

 key on the programming module. During data transfer, both the switchboard and programming module will display the data transferred along with the DATA message.

Data transfer from the programming module to the switchboard (two different methods):

- 1) Press the  key on the programming module and insert the first and final numbers of the data to be transferred corresponding to the users programmed in the database. The request of the two numbers appears with the FIRST NUMBER and LAST NUMBER message,

which is confirmed with the  key. After the last number has been confirmed, the modules goes on stand-by, and the message PLEASE WAIT appears. To start the transfer, enter the DATABASE PGM menu on

the switchboard and simultaneously press the  and

 keys. During data transfer, both the switchboard and programming module will display the data transferred along with the DATA message.

- 2) Press the  key on the programming module and insert the first and last numbers of the data to be transferred. After the last number has been confirmed, the module goes on stand-by, and the message PLEASE WAIT appears. At this point, enter the TECHNICAL PGM menu on the switchboard, set the SERIAL ENABLING to 0001, confirm the change with the key

, and exit the menu with the key .

Data will start transferring from the module to the switchboard when you exit the menu. After data transfer has taken place, reprogram the SERIAL ENABLING function to 0000. **WARNING!** The data that is being transferred will replace the existing data in the spaces between the first and final numbers.

**Print function**

If you wish to print the names stored in the database, press

 after entering the database programming menu.

To interrupt print-out, press the key .

As regards the printout of the calls received by the switchboard, the signals transmitted are sent automatically to the printer when the events actually occur but only if the EM1 and/or EM2 are active. In any case, reports will be sent to the printer only if they correspond to different users and only if the call has not been cancelled from the switchboard memory

by pressing the button marked .

**Emergency functions**

If the functions EM1 and EM2 are disabled (see technical data programming), each time the user presses the relative keys on the intercom unit or monitor, the switchboard only activates the outputs on terminals F1 and F2 for the set function times (output activation is indicated by the illumination of

the relative leds on keys  and  on the switchboard). The same occurs if keys  and  on the switchboard are pressed.

However, if the EM1 and EM2 functions are enabled each time a user presses the relative keys on the intercom unit or monitor, the switchboard signals the event as follows: the user name and the label associated with the type of emergency are displayed, the switchboard audio alarm is activated, the output to terminals F1 and F2 is activated, the output

to terminal H is activated (corresponds to key ) and the date, time of event, relative user and type of emergency are recorded on the printer.

N.B. each time an emergency signal is transmitted, the time interval during which the outputs of keys EM1 and EM2 remain activated depends on the values set in the technical data programming menu. However, the output related to the

key  remains activated until the same key is pressed again on the switchboard.

**NOTE:** if the "ENABLE TV CAMERA" function is activated, the EM2 function will be automatically deactivated, even if it is set at 0001 in the TECHNICAL PGM to reserve the panning function of the TV camera in the entrance panels.

**Call to user**

**N.B:** This option is only available with the key in the "internal" position.

There are two modes to call a user from the switchboard: by entering the user number and pressing key  or by entering the database to identify the name of the user and then calling by pressing key . In both cases, the calls must be activated with the switchboard in standby status indicated by the display message "DIGI-BUS".

As regards calls via the database there are two modes for access to the list: direct access or by entering the first letter of the user's name.

Press keys  and  for direct access to and movement inside the database.

**N.B.** the message "END OF LIST" appears each time you reach the beginning or end of the list. However, to consult the database by entering the first letter of the user name, press the relative key, and the switchboard displays the first name that begins with the selected or, if not present, subsequent

letter. Use the keys  and  scroll the list.

**Direct call to switchboard from panel**

**N.B:** This option is only available with the key in the "internal" position.

If you call the switchboard number from the panel, voice switching between the switchboard and panel is automatic. The audio connection is indicated by the illumination of the leds

on keys  and .

**Call from panel to user via switchboard.**

**N.B:** This option is only available with the key in the "internal" position.

When a call is sent from a panel, with the switchboard in internal mode, the signal is received by the switchboard which then warns the operator by activating the switchboard audio signal and displaying the number called (if the panel has a video camera and the switchboard is fitted with a monitor, the image filmed at the panel is displayed). At the same time the audio connection is made with the caller panel, indi-

cated by the illumination of leds on keys  and .

To contact a user called from the panel, press key  to make the audio connection between the user and switchboard and disconnect the panel from conversation mode and an acoustic wait tone sounds until the connection is re-established.. To make the audio connection between the user and

panel caller after entering the user, press key  which disconnects the switchboard from conversation mode and illuminates the led on the relative pushbutton.

**User call**

**N.B:** This option is only available with the key in the "internal" position.

Press the lock release pushbutton on the intercom unit or monitor to transmit a call to the switchboard, which will warn the operator by activating the audio signal and displaying the

user's name. To connect with the user, press key  and then . In the case of several calls by different users,

use key  to consult the calls and key  to select the user (to select, move the incoming call message to the top line on the display).

**Intercommunicating calls**

This function enables conversation between two users. To use the intercommunication function, one of the two users must have previously called the switchboard by pressing the lock

release pushbutton. After this, press key  to call the users alternately. To enable conversation between them,

press key . Activation of this function is indicated by the

illumination of the led on key . If the number is incorrect, do not press R; simply redial the number.

**Conference calls**

**N.B: This option is only available with the key in the "internal" position.**

As for intercommunicating calls, the conference function is only possible after one of the users calls the switchboard by means of the lock release pushbutton. The switchboard operator

then connects the user by pressing keys  and

. The switchboard operator can then connect other users to the conversation by entering the relative user number

(or by means of the database) and pressing key .

As the switchboard remains activated during the conversation,

press  to disconnect; the relative led on key 

will switch off. The difference between the conference function and the intercommunicating function is that in conference mode three users can be connected simultaneously.

**Call monitoring**

Use the key  to activate or deactivate switchboard call monitoring of a conversation. This function can be used for intercom calls, conference calls, or conversations between the outdoor panel and user. Each time you press the key, the operation will be indicated by a beep in the receiver and the

switching on or off of the light near the key .

**Direct call from the panel**

**N.B: This option is only available with the key in the "external" position.**

In this mode, all calls from the panel are sent to the respective internal units; the switchboard is excluded.

**KEYPAD**

Special keys, from left to right:

-  Switchboard power supply.
-  Phone signalling LED. This indicates a signal on the phono line.
-  Key activating the EM1 function, with light. The light remains for the time set in the TECHNICAL PGM menu.
-  Key activating the EM2 function, with light. The light remains for the time set in the TECHNICAL PGM menu.
-  Key deactivating the alarm function, with light. The light remains on until it is deactivated through the same toggle key.

-  Key for cyclical reading of calls to the switchboard.
-  Key for transferring the call to the right-hand side of the display. This removes the call from the buffer.
-  Internal/external key, with light. When the light is on, this means the switchboard is on external mode.
-  Intercom key, with light. When the light is on, this means conversation is underway between two or more users or between a user and entrance panel.
-  Conference key, with light. When the light is on, it means there is a three-way conference call between three users or between two users and the switchboard.
-  Call monitoring key, with light. When the light is on. This means the switchboard is monitoring the phone line.
-  Key for activating the panning function of the TV camera in the entrance panel, after the panel has called the switchboard. Otherwise, this key serves to transfer the call from the switchboard telephone to the user who was called.
-  Key for releasing the lock. This key releases the lock associated with terminal S on the switchboard and the lock on the entrance panel, if the switchboard was called by the entrance panel.

**KEYPAD**

**Keys for menu management, from left to right, top to bottom:**

-  Key for entering and exiting the DATE/TIME menu.
-  Key for exiting the TECHNICAL PGM menu. If you press this key when you are in the DATABASE PGM menu, you will delete the characters to the right of the cursor.
-  Key for entering and exiting the TECHNICAL PGM menu.
-  If you simultaneously press this key with a letter, the letter will be inserted in a lowercase format. If this key is simultaneously pressed with a number, the special character associated to the number will be inserted.
-  Key for activating a print-out of names in the database.

 Key for interrupting the print-out of the names inserted in the database.

 Key for activating and deactivating the function for inserting characters between other characters.

 In the DATABASE PGM and DATE/HOUR menus, the key is used to move to the left.

 The key transfers the call sent by a user to the right-hand side of the display. In the DATABASE PGM and DATE/HOUR menus, the key is used to move to the left.

 Key for consulting names in the database. In the DATE/HOUR menu, the key is used to increase values.

 Key for consulting names in the database. In the DATE/HOUR menu, the key is used to decrease values.

 &  These keys must be pressed simultaneously. The switchboard is initialized if these keys are pressed while the switchboard is in the stand-by mode. If you press these keys while transmission is underway with the Art. 950 programming module, transmission will be interrupted.

 &  These keys must be pressed simultaneously. If these keys are pressed while the switchboard is in the stand-by mode, you enter the TECHNICAL PGM menu. If you press these keys while you are in the DATABASE PGM menu, you will delete all the names in the database.

 &  These keys must be pressed simultaneously. If you press these keys during the transmission phase from the programming module to the switchboard, the switchboard will switch to the receive mode.

 &  These keys must be pressed simultaneously. If you press these keys during the transmission phase from the switchboard to the programming module, the switchboard will switch to the transmission mode.

**KEYPAD**

**Keys for inserting names in the database:**

 Inserts a space when programming names.

 Moves the cursor from right to left, deleting the characters to the left of the cursor.

 &  Pressing these two keys simultaneously inserts the ! character

 &  Pressing these two keys simultaneously inserts the " character

 &  Pressing these two keys simultaneously inserts the . character

 &  Pressing these two keys simultaneously inserts the , character

 &  Pressing these two keys simultaneously inserts the - character

 &  Pressing these two keys simultaneously inserts the & character

 &  Pressing these two keys simultaneously inserts the / character

 &  Pressing these two keys simultaneously inserts the ' character

 &  Pressing these two keys simultaneously inserts the \* character

 &  Pressing these two keys simultaneously inserts the = character

 If you press this key while in the "TECHNICAL PGM" and "DATABASE PGM" menus, you confirm the values and names entered in the switchboard and go on to the next phase. When the switchboard is in the stand-by mode, pressing the key activates the call to the selected user.

Letter keys also belong to this group.

**Keys for making calls:**

 If you press this key while you are in the TECHNICAL PGM and DATABASE PGM menus, you confirm the values or names entered in the switchboard and go on to the next phase. When the switchboard is in the stand-by mode, pressing this key activates the call to the selected user.

 If this key is pressed, the conversation underway is cut off and the switchboard initialization phase is interrupted.

Numerical keys also belong to this group.

**PROGRAMMER ART. 950**

**DESCRIPTION**

Our experience in the field of cable digital signal transmission has led to the design of a unit which simplifies and speeds up the management for the programmable features of our DIGITAL PANELS (Art. 942, 943, 943/5..., 944, 946, 947) and the alphanumeric switchboard Art. 955. It frequently happens that in large residential complexes with over 100 internal units, the same programming operations must be repeated many times. It is thus important to be able to repeat the programming of each panel quickly and with ease. The answer to this problem is the **PROGRAMMER ART 950**, which consists of two parts: the handheld keypad unit and the desktop unit containing its 5V DC power supply.

**N.B:** to switch on the display, press any key on the keypad.

**CONNECTION TO PROGRAMMABLE UNITS**

The connection between the programmer and the units which must send and receive data is made with a simple 50 cm 4-wire telephone cable with two telephone plugs: one for insertion in the programmer and the other for insertion in the socket on the panel which is to be programmed. The 950 programmer takes power directly from the panel to which it is connected.

**DESK-TOP UNIT**

The desktop unit is used only for entering the user names for the database on the Art. 944-947 panels or the 955 switchboard.

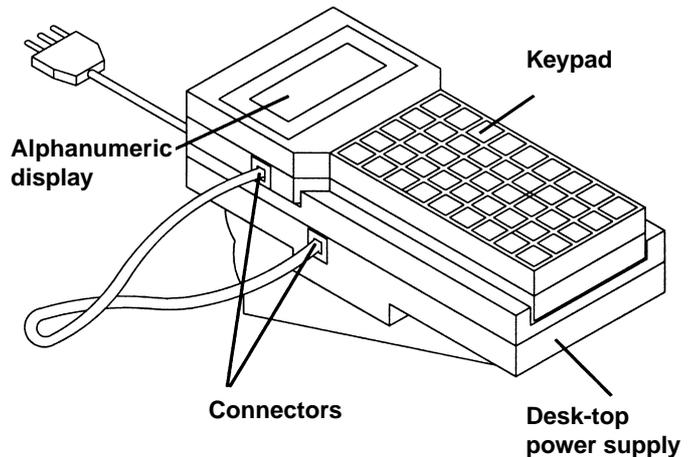
Plug the desktop unit into the mains (230V AC) and plug in the keypad unit.

The display lights up and the message ELVOX DIGIBUS appears.

The programmer is now ready to receive the database for later uploading to the panel.

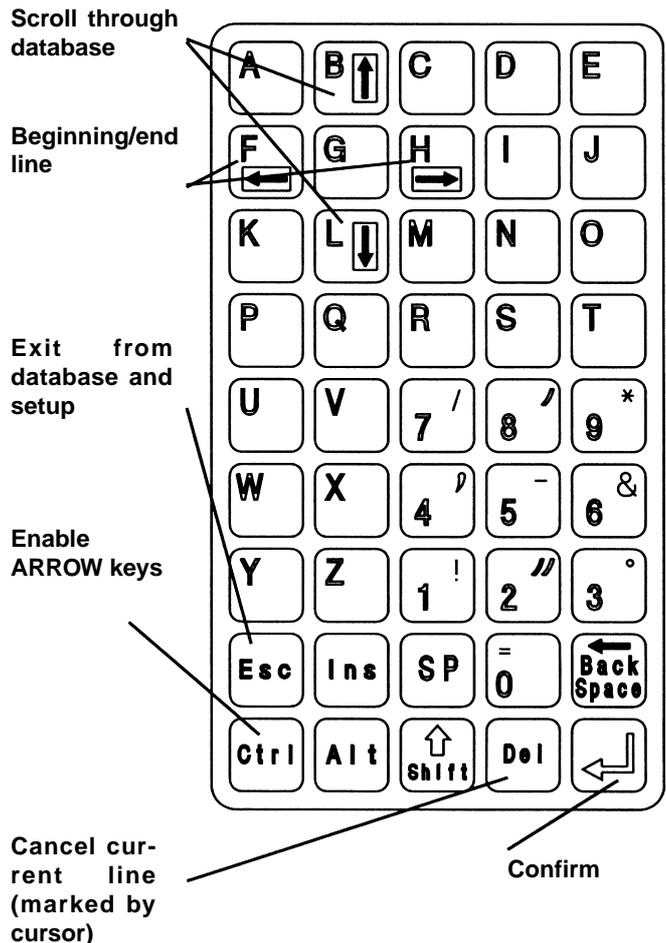
**N.B:** Data in the programmer's memory does not cancel itself when the power supply is cut off.

For complete instructions on using the 950 programmer when connected to the digital panels or switchboard see the programming instructions for the Art. 942 - 943 - 944 panels and the Art. 955 porter's switchboard.



**KEYPAD DESCRIPTION**

The upper unit consists of the electric circuits, the alphanumeric membrane keypad and an LCD back-lit display (4 lines x 16 characters). The following figure shows all the keys which are marked with more than one symbol. Pressing Shift + a letter key writes the character in lower case, and Shift + a number key writes the secondary character marked on the key (upper right).



**ENTERING USER DATA**

The programmer can store up to 1000 alphanumeric names in memory for later uploading to the panels or switchboard. This is of particular importance for those devices which can also display names, such as the Art. 944-947 panels and the 955 switchboard. Each name is associated with a 4-digit internal unit code. **If no button is pressed for 60 seconds the programmer returns to its stand-by state.** To enter a new user name, open the database in the programmer and enter the user code. The code and the message

**Pgm.DataBase** will appear on the display. Press . If the code is already in the database, the name associated with it will appear, if not, the message **Not found!**. Now

enter the name and press  to confirm it; the new name is thus stored in memory. The programmer is now ready to accept the next code. To display the whole list of names, open the database by pressing any number key on

the programmer keypad, and then press Ctrl +  or  to scroll through the database. The database is displayed in alphabetical order.

**N.B:**  
**TO CANCEL THE DATABASE, SIMPLY OPEN THE DATABASE AND PRESS CTRL + P.**

The message **CLEARING (Y/N)** will appear; press Y to cancel the whole database, and N to abort. **IMPORTANT: once the database is cancelled it cannot be retrieved.**

**PROGRAMMER ART. 950 SETUP**

The programmer can be setup to operate in different ways. Some of the setup parameters regard the programmer itself, others regard data transmission and verification. To enter setup mode, switch on the unit by pressing Ctrl + P. The first parameter and the message Pgm.Technical will be displayed. Modify the values with the numeric keypad and confirm with

; the following parameter will be displayed automatically (see SETUP PARAMETER TABLE). To scroll through

the parameters without modifying them, press . Press ESC to exit from setup mode.

**SETUP PARAMETER TABLE**

| NAME                  | DEFAULT VALUE | DESCRIPTION  |
|-----------------------|---------------|--|
| <b>ENGLISH</b>        | 0000          | If set to 0001, messages are displayed in English, otherwise (0000) in Italian.                      |
| <b>LIGHT DURATION</b> | 0030          | Time display remains on after last operation (seconds)   |
| <b>MESSAGE SPEED</b>  | 0030          | Message scroll speed with programmer in stand-by state. Increase the value to slow the message down. |
| <b>BAUD RATE</b>      | 4800          | Upload baud (bits per second) rate (300 to 9600).<br><b>NOT MODIFIABLE</b>                           |
| <b>PARITY</b>         | 0000          | Upload verification parameter.<br><b>NOT MODIFIABLE</b>  |
| <b>STOP</b>           | 0001          | End of upload bits: 0000=1 bit, 0001=2 bits.<br><b>NOT MODIFIABLE</b>                                |
| <b>DATA</b>           | 0000          | 0000=8 data bits, 0001=7 data bits.<br><b>NOT MODIFIABLE</b>   |

**N.B:**  
**The last four parameters regard the serial upload protocol and must not be modified unless for future versions.**

## PROGRAMMER ART. 950/001

### (SPECIFIC FOR PANEL ART. 943)

The 950/001 programmer is specifically designed for use with the 943 and 943/5 panels. It is a three-button unit with a function table which associates a given code with the programmable function and a display for modifying the function's value. The display is a mechanical device consisting of a row of six coding switches in two sets: the first (2 digits) identifies the function to be programmed, the second (4 digits) indicates its value. The 950/1 programmer is fitted with a flat cable connector which fits the socket on the 943/... and 943/5.. panels.

**N.B:** The unit takes its power from the panel and does not require an external power supply.

### SETUP OF TECHNICAL PARAMETERS

#### Preliminaries

- 1- Switch on the panel;
- 2- Set the first block of numbers to 01 and the second to 0001;
- 3- Connect the programmer to the socket on the lower LH section of the panel.

#### Programming

Press PS1 on the programmer: the led at the side of the WAIT/BUSY light on the panel will flash three times; wait for at least a further five seconds and press PS2. The led will now stay on for the duration of the programming procedure. Select the function to be programmed on the first set of switches and set the value on the second set.

Press the ENTER button to confirm the value and upload it to the panel.

**Repeat the procedure for every function to be programmed.**

**N.B: If the value has been entered in memory, the panel LED will flash once only. If the value is out of the acceptable range (see TABLE) or the upload was not successful, the LED will flash twice to indicate an error.**

To exit from setup mode, press the 950/001 programmer PS2 button; the led on the panel will flash three times and then switch off to indicate the end of transmission.

To set the default values on the panel, set the first set of switches to 97 and the second to 0000, instead of the values 01, 0001 in the **preliminaries** described above, and press ENTER: the led will flash continuously until programming is complete.

### PROGRAMMING THE BUTTONS

**Prepare the panel to accept button coding by setting parameter "13- enable coding" to 0001.**

#### Preliminaries

- 1- Switch on the panel
- 2- Set the first block of numbers to 99 and the second to 0000;
- 3- Connect the programmer to the socket on the lower LH section of the panel;
- 4- Press PS1 and then (within 5 seconds) PS2; the panel LED will stay on and the panel is ready to accept the coding.

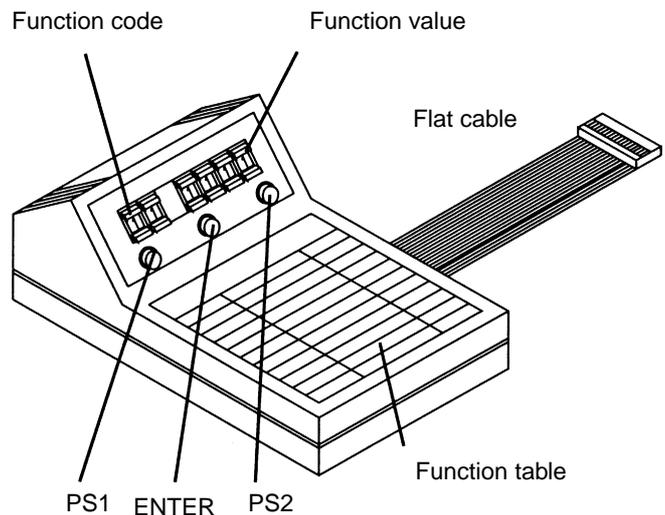
To code a button, press it on the panel; the LED will flash twice. Now set the new value on the programmer's second set of switches and press ENTER.

The panel LED will flash once to indicate correct coding, otherwise twice to indicate an error.

Repeat the procedure for all the buttons to be coded. To exit press PS2; the LED will flash twice to indicate the end of data transmission.

To associate the software value to the hardware value of all the buttons automatically, as setup with the jumpers on the rows of buttons, set 95 to 0000 in the **preliminaries**.

Connect the programmer and press PS1 and then (after 5 seconds) PS2; the LED will start to flash until programming is complete, and will then switch itself off.



### FUNCTION TABLE

| CODE | FUNCTION              | VALUE (Min - Max) |
|------|-----------------------|-------------------|
| 00   | PROGRAMMER OFF        | 0000              |
| 01   | INITIAL USER CODE     | 0001-9999         |
| 02   | FINAL USER CODE       | 0001-9999         |
| 03   | CONVERSATION DURATION | 0001-0090         |
| 04   | CALL TONE DURATION    | 0001-0010         |
| 05   | CAMERA ENABLE         | 0000-0001         |
| 06   | REPLY DELAY           | 0001-0090         |
| 07   | ENABLE PRIORITY       | 0000-0001         |
| 08   | DOOR LOCK ACTIVATION  | 0000-0001         |
| 10   | EM1 DELAY             | 0001-0010         |
| 11   | EM2 DELAY             | 0001-0010         |
| 12   | DOOR LOCK DELAY       | 0001-0010         |
| 13   | ENABLE CODING         | 0000-0001         |
| 15   | PANEL LOCK            | 0000-0001         |
| 16   | PANEL NUMBER          | 0000-9900         |
| 17   | NEW TYPE              | 0000-0001         |
| 95   | NUMBER PROGRAMMING    | 0000              |
| 97   | SETUP                 | 0000              |
| 99   | BUTTON CODING         | 0000              |

For an explanation of the parameters, refer to Art. 943.

## 5 - DIGIBUS INSTALLATION ELECTRICAL SPECIFICATIONS

### - NOTES FOR TESTING -

#### CURRENT/VOLTAGE CHECKS FOR ART. 940 INTERPHONE AND DIGITAL DISTRIBUTOR ART. 949A

TERMINAL/TERMINAL VALUES FOR UNIT SWITCHED ON AND ON STAND-BY

| TERMINALS   | NOMINAL VALUE | TOLERANCE    |
|-------------|---------------|--------------|
| 1-4         | +12.0 V DC    | +/- 1 V DC   |
| 3-4         | +13.0 V DC    | +/- 0.5 V DC |
| 5-4         | +13.0 V DC    | +/- 0.5 V DC |
| CURRENT 1-4 | +25 mA DC     | +/- 3 mA DC  |

The last measurement must be made with an ammeter.

#### NOTES:

WHEN PROGRAMMING THE INTERPHONE, ENSURE THAT THE RED (INTERPHONE ON) LED SWITCHES OFF 10 SECONDS AFTER THE HANDSET IS REPLACED. IF THIS DOES NOT HAPPEN, FIRST CHECK THE CONNECTION OF THE WIRES TO TERMINALS 1 (DIGITAL) AND 3 (AUDIO), AND ENSURE THAT THEY ARE NOT INVERTED. THE INTERPHONE RISER MUST BE SWITCHED ON TOGETHER WITH THE STAIRWAY PANEL (IN A residential complex) OR THE MAIN PANEL.

#### CURRENT/VOLTAGE CHECKS FOR MONITORS ART. 5601/940, 5604/940, 5340

TERMINAL/TERMINAL VALUES FOR UNIT SWITCHED ON AND ON STAND-BY

| TERMINALS   | NOMINAL VALUE | TOLERANCE    |
|-------------|---------------|--------------|
| 1-4         | +12.0 V DC    | +/- 1 V DC   |
| 3-4         | +13.0 V DC    | +/- 0.5 V DC |
| 5-4         | +13.0 V DC    | +/- 0.5 V DC |
| 8-7         | +18.0 V DC    | +/- 0.5 V DC |
| CURRENT 1-4 | +25 mA DC     | +/- 3 mA DC  |

The last measurement must be made with an ammeter.

#### NOTES:

IF THE MONITOR IMAGE IS NOT PERFECTLY CLEAR, CHECK THAT THE 75 OHM RESISTOR IS FITTED ON THE V2-M TERMINAL OF EACH MONITOR IN INSTALLATIONS WITH VIDEO FLOOR DISTRIBUTORS OR OF THE LAST MONITOR IN THE RISERS IF THE MONITORS ARE CONNECTED IN CASCADE.

#### CURRENT/VOLTAGE CHECKS FOR POWER SUPPLY ART. 6941

| TERMINALS | PANEL IN STAND-BY | PANEL ACTIVE   | NOTES   |
|-----------|-------------------|--|---|
| CH-4      | +13 V DC          | +13 V DC   | At the moment of the call led L5 switches on and the CH terminal goes to 0 V DC momentarily. Led L1 switches on at low intensity. |
| S-4       | +13.5 V DC        | +1.5 V DC during lock activation                             | Lock button enabled only if interphone is active. LEDES L1 and L2 switch on.  |
| R1-4      | 0 V DC            | +12 V DC during function activation (programmable)           | Function enabled with interphone in stand-by or active.   |
| R2-4      | 0 V DC            | +12 V DC during function activation (programmable)           | Function enabled with interphone in stand-by or active.   |
| 3C-4      | +13.5 V DC        | -4.5 V DC when call is sent from panel, otherwise +13.5 V DC | LED L5 on for duration of call, then off; On again when called unit handset lifted.   |
| 15-0      | 22.5 V DC         | 15 V DC  | Voltage measured in DC.   |
| S1-0      | 22.5 V DC         | 0 V DC during lock activation                                | S1 is controlled by panel which receives digital lock open command code from terminal 1.  |

**CURRENT/VOLTAGE CHECKS FOR POWER SUPPLY ART. 6942**

| TERMINALS | PANEL IN STAND-BY | PANEL ACTIVE   | NOTES  |
|-----------|-------------------|--|--|
| S-4       | +13.5 V DC        | +1.5 V DC during lock activation                             | Lock button enabled only if panel active. Leds L1 and L2 on.                             |
| R1-4      | 0 V DC            | +12 V DC during function activation (programmable)           | Function enabled with interphone in stand-by or active.                                  |
| R2-4      | 0 V DC            | +12 V DC during function activation (programmable)           | Function enabled with interphone in stand-by or active.                                  |
| 3C-4      | +13.5 V DC        | -4.5 V DC when call is sent from panel, otherwise +13.5 V DC | LED L5 on for duration of call, then off; on again when called unit handset lifted.      |
| 15-0      | 22.5 V DC         | 15 V DC  | Voltage measured in DC.  |
| S1-0      | 22.5 V DC         | 0 V DC during lock activation                                | S1 is controlled by panel which receives digital lock open command code from terminal 1. |

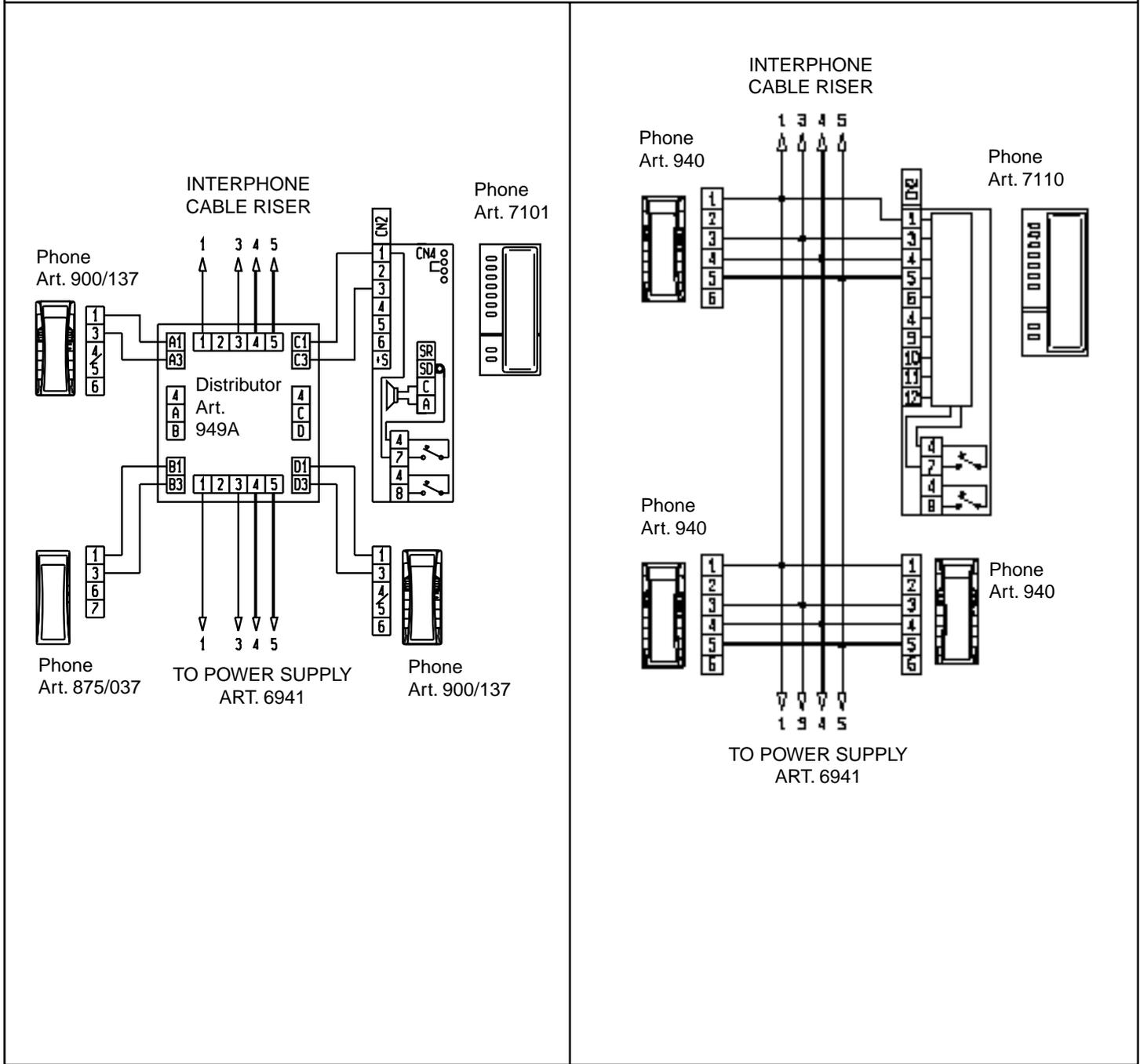
**CURRENT/VOLTAGE CHECKS FOR POWER SUPPLY ART. 6948**

| TERMINALS | PANEL IN STAND-BY | PANEL ACTIVE   | NOTES  |
|-----------|-------------------|--|--|
| CH-4      | +13 V DC          | +13 V DC   | At the moment of the call led L5 switches on and the CH terminal goes to 0 V DC momentarily. LED L1 switches on at low intensity.          |
| S-4       | +13.5 V DC        | +1.5 V DC  | Only for duration of lock activation. Lock button enabled only if video interphone has been called from a panel. LEDS L1 and L2 switch on. |
| R1-4      | 0 V DC            | +12 V DC during function activation (programmable)           | Function enabled with video interphone in stand-by or active.  |
| R2-4      | 0 V DC            | +12 V DC during function activation (programmable)           | Function reserved for camera tilt on external unit.  |
| 3C-4      | +13.5 V DC        | -4.5 V DC when call is sent from panel, otherwise +13.5 V DC | LED L5 on for duration of call, then off; On again when called unit handset lifted.  |
| 15-0      | 22.5 V DC         | 15 V DC  | Voltage measured in DC.  |
| (+)(-)    | 18 V DC           | 18 V DC  | When the monitor is activated and the handset lifted, the voltage goes to 0 V DC momentarily.  |
| +1-4      | +13 V DC          | 0 V DC at the moment of the call, otherwise 13 V DC          | Allows the panel to control monitor de-activation from the power supply.   |
| S1-0      | 22.5 V DC         | 0 V DC   | S1 is controlled by panel which receives digital lock open command code from the interphone.   |

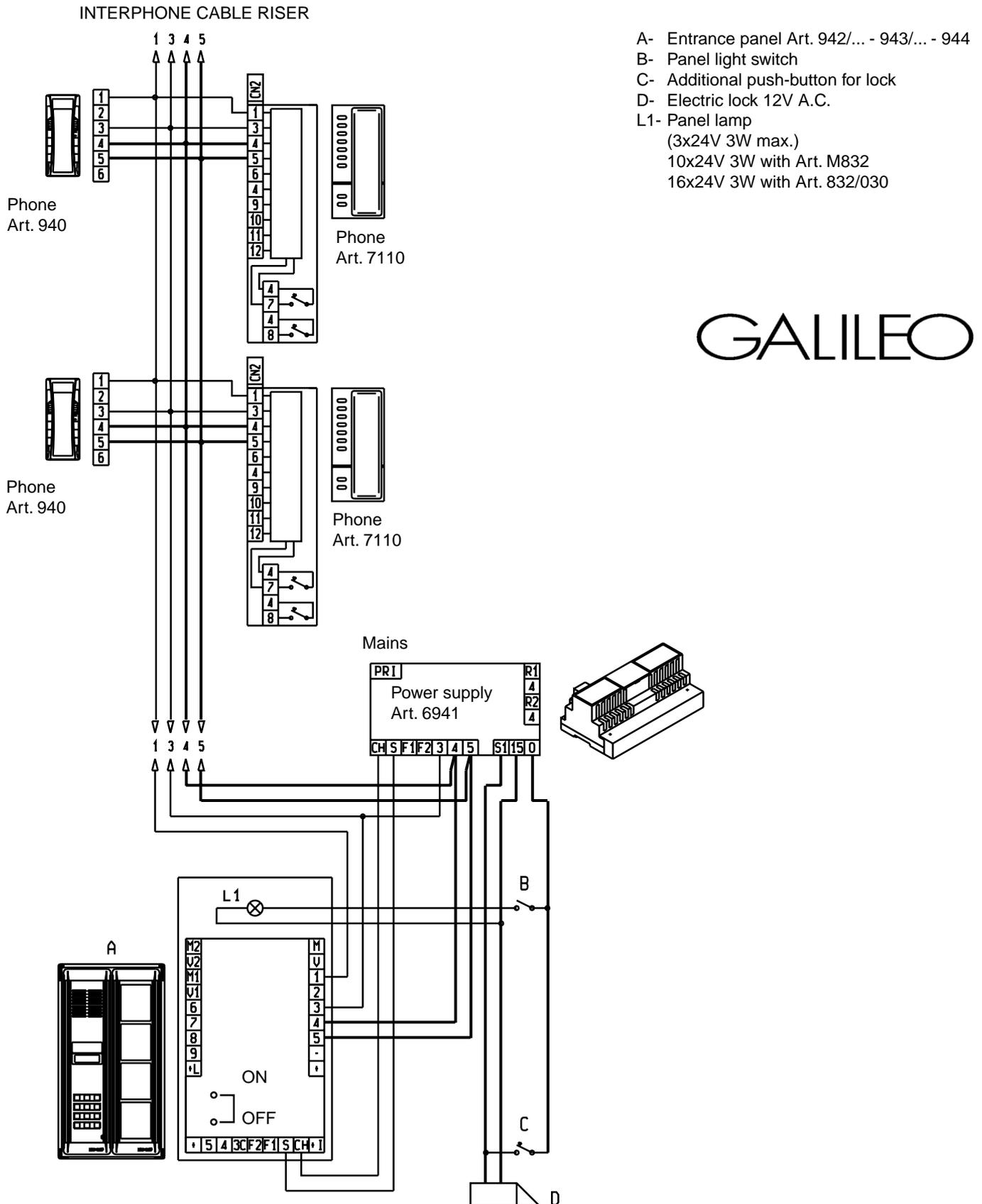
For the current/voltage checks for power supply Art. 6947 see power supply Art. 6948 terminals.

**INTERPHONE RISER WITH FLOOR DISTRIBUTOR ART. 949A (A) AND WITHOUT DISTRIBUTOR (B). Ref. diagram p2787**

The risers shown (Type A or B) must be included in all interphone diagrams given in this collection.

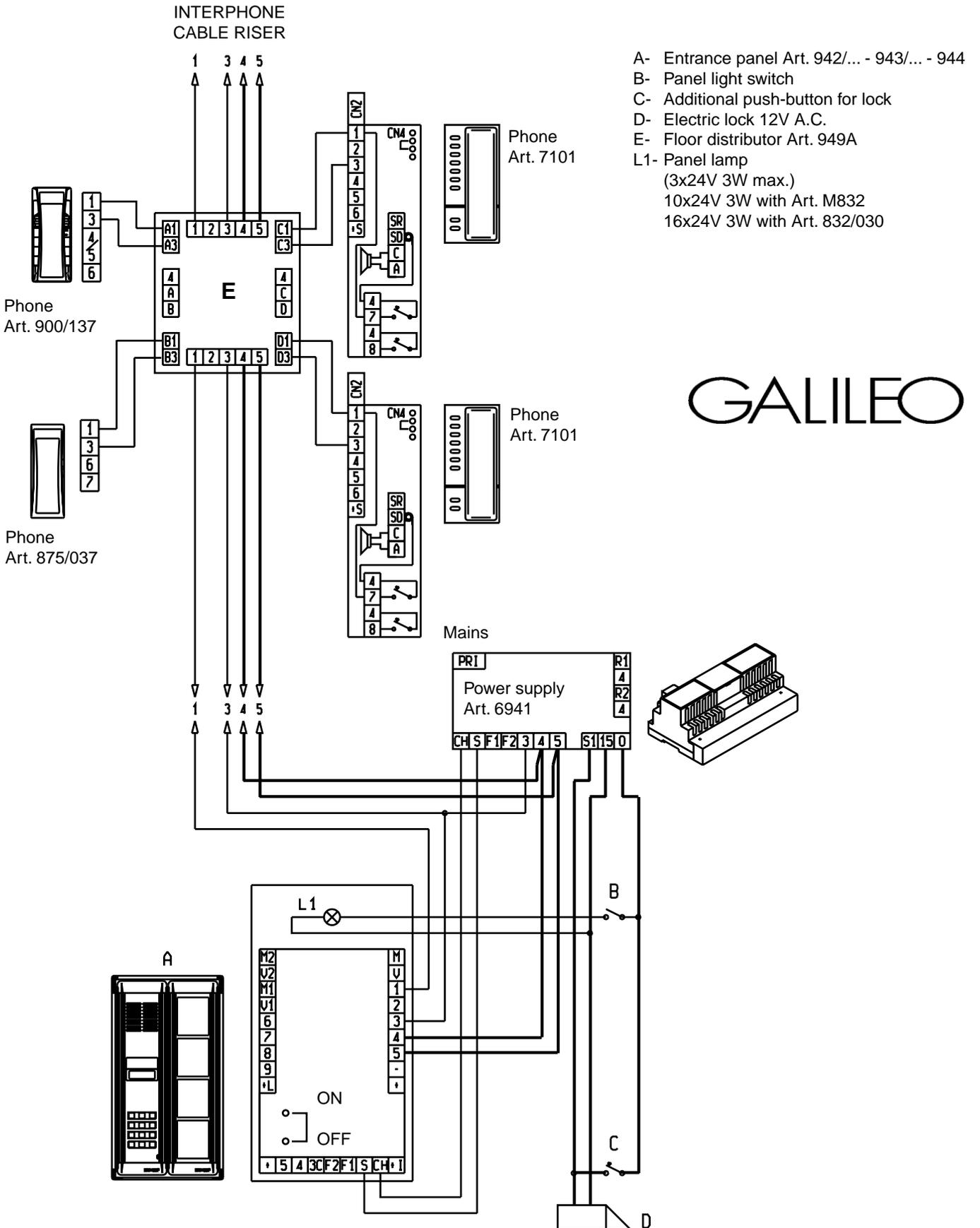


**1- SIMPLE RESIDENTIAL INSTALLATION WITH INTERPHONES EQUIPPED WITH INTERNAL DECODING. Ref diagram p3062**

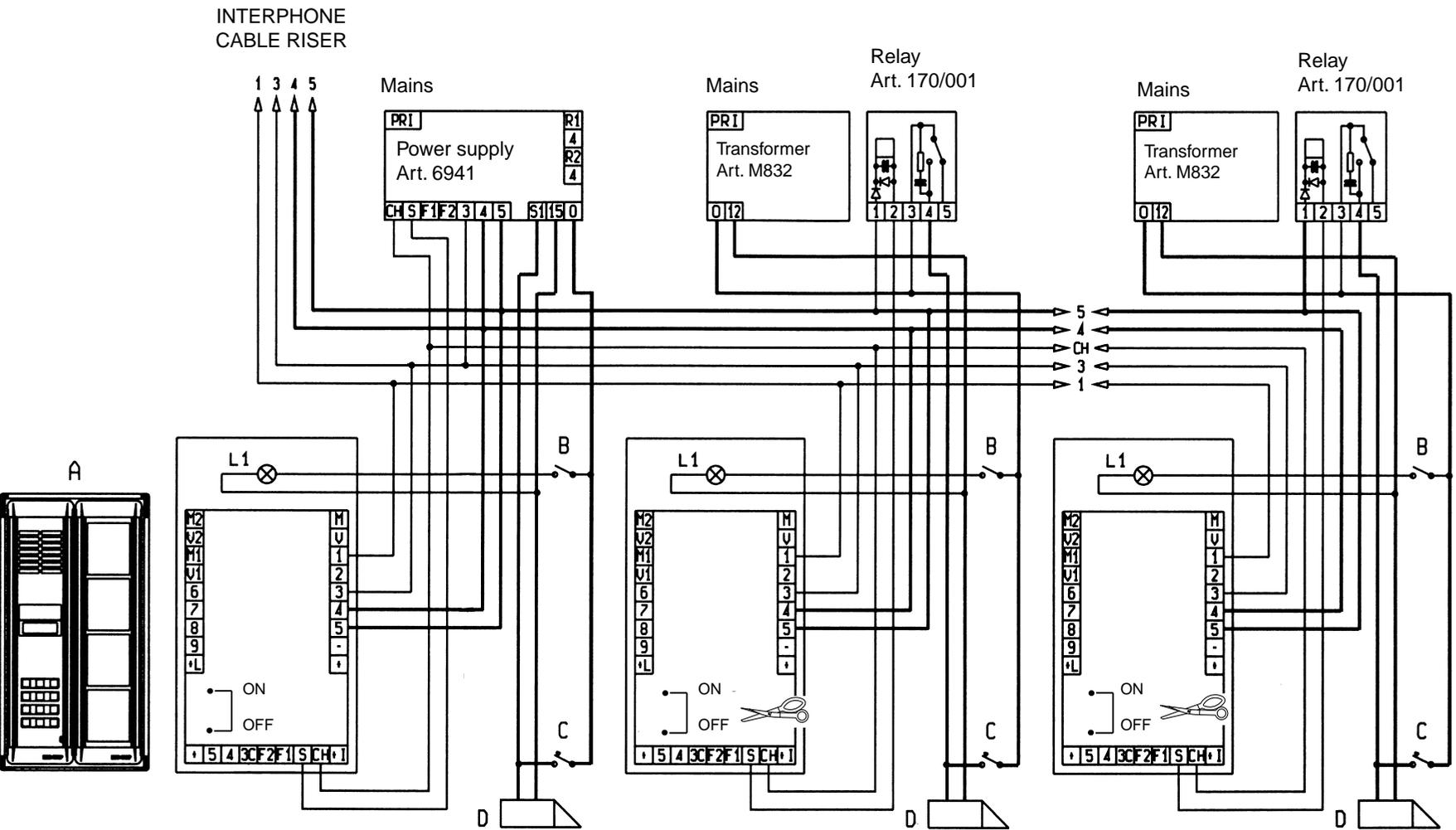


GALILEO

**2- SIMPLE RESIDENTIAL INSTALLATION WITH FLOOR DISTRIBUTORS EQUIPPED WITH INTERNAL DECODING. Ref. diagram p3063**



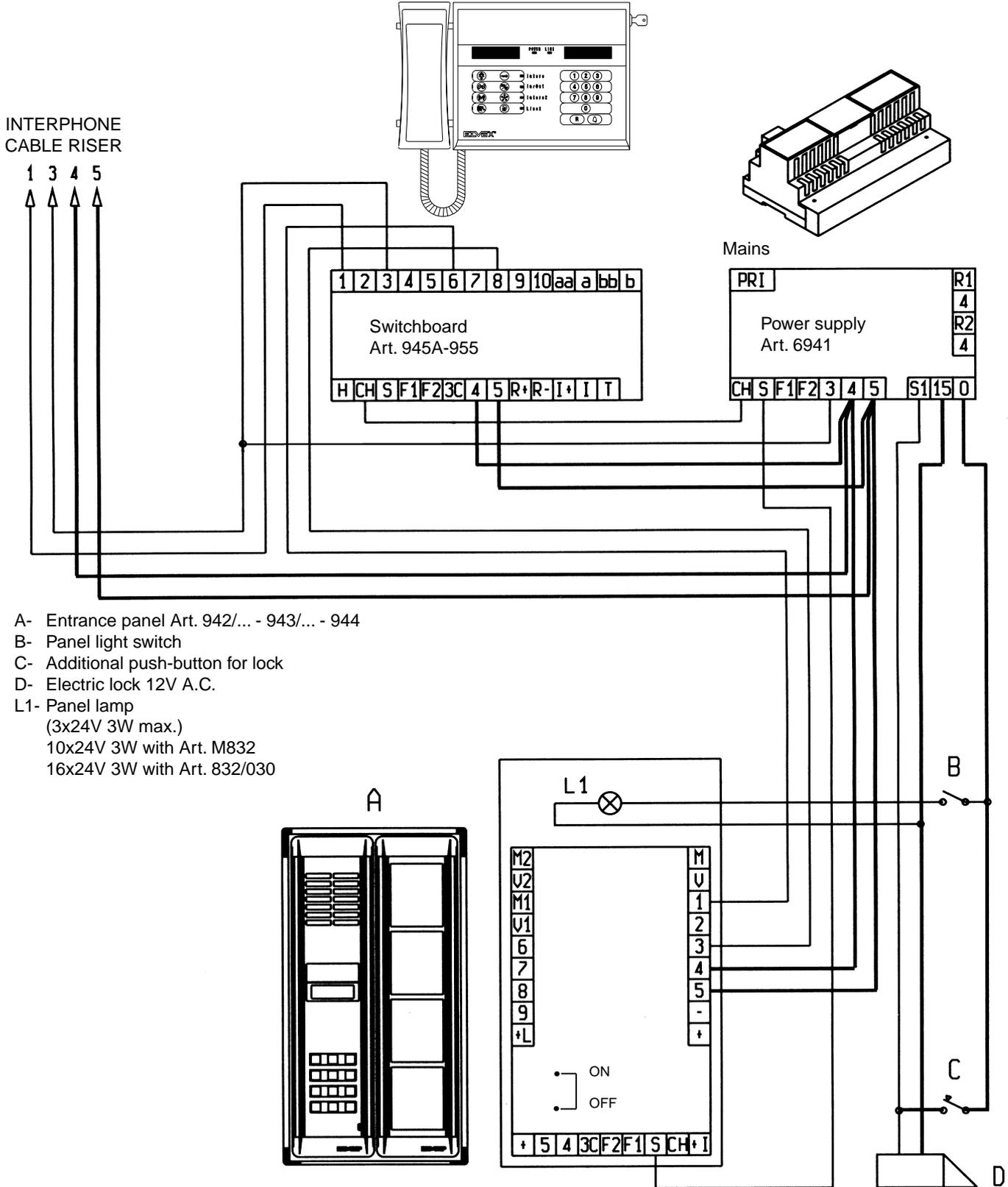
**3- SIMPLE RESIDENTIAL INSTALLATION WITH TWO OR MORE PANELS IN PARALLEL.**  
Ref. diagram p2709



Disconnect the metal jumper located on the side of the handset cable riser terminal block.

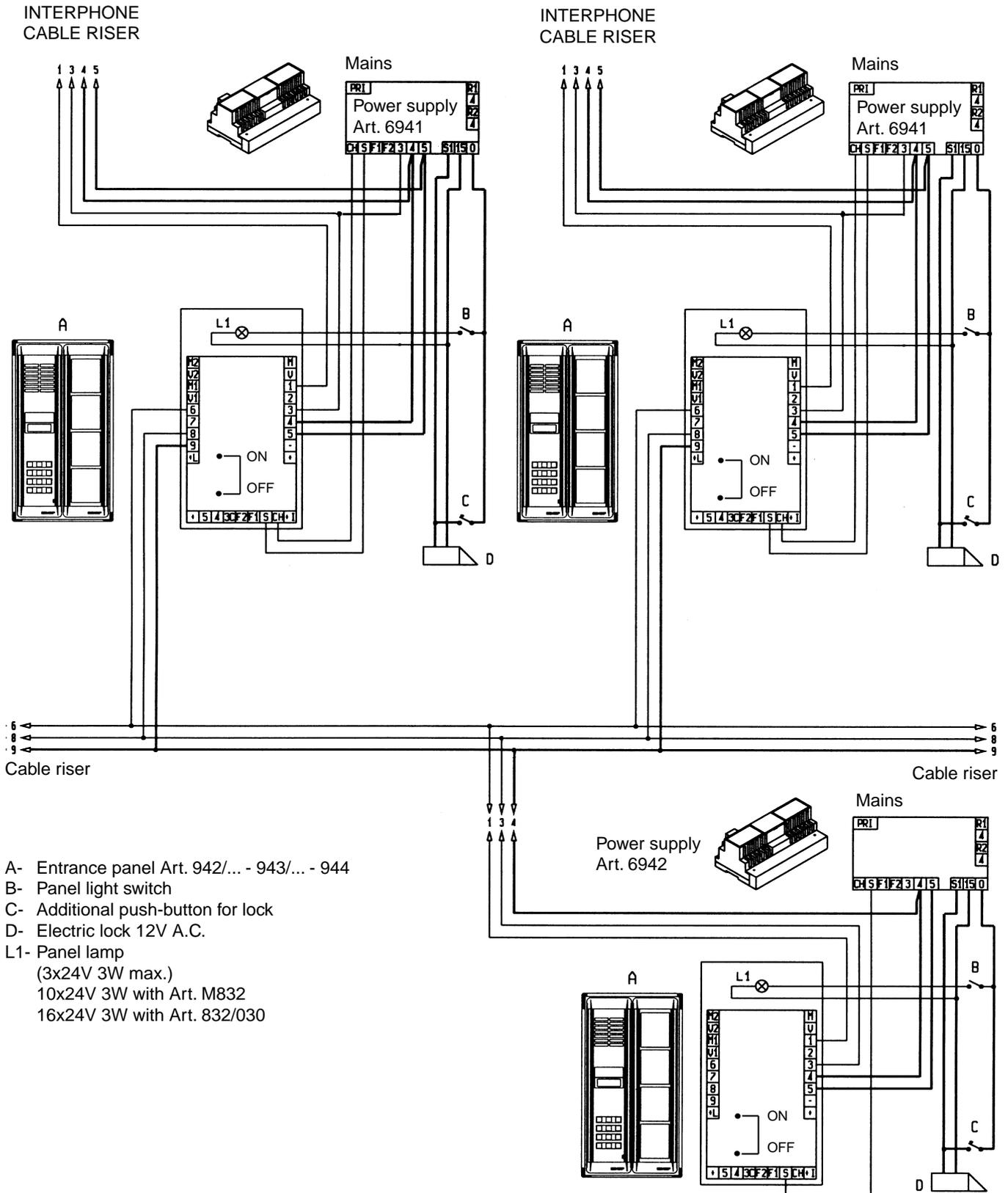
- A- Entrance panel Art. 942/... - 943/... - 944
- B- Panel light switch
- C- Additional push-button for lock
- D- Electric lock 12V A.C.
- L1- Panel lamp  
(3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030

**4- SIMPLE RESIDENTIAL INSTALLATION WITH PORTER'S SWITCHBOARD**  
Ref. diagram pc2767



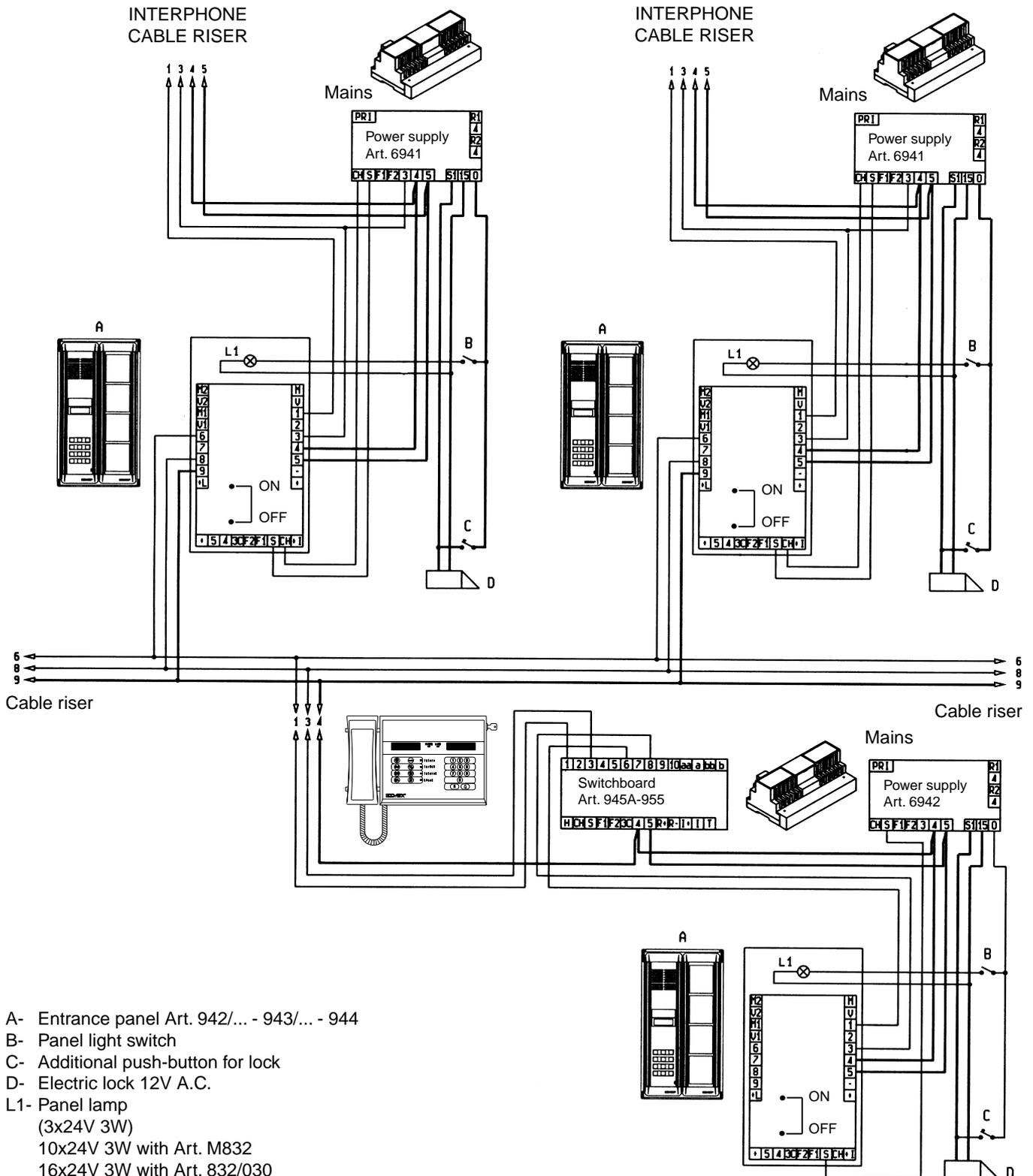
- A- Entrance panel Art. 942/... - 943/... - 944
- B- Panel light switch
- C- Additional push-button for lock
- D- Electric lock 12V A.C.
- L1- Panel lamp  
(3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030

**5A- RESIDENTIAL INSTALLATION WITH ONE MAIN PANEL AND TWO OR MORE SECONDARY PANELS. Ref. diagram p2765**



- A- Entrance panel Art. 942/... - 943/... - 944
- B- Panel light switch
- C- Additional push-button for lock
- D- Electric lock 12V A.C.
- L1- Panel lamp  
(3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030

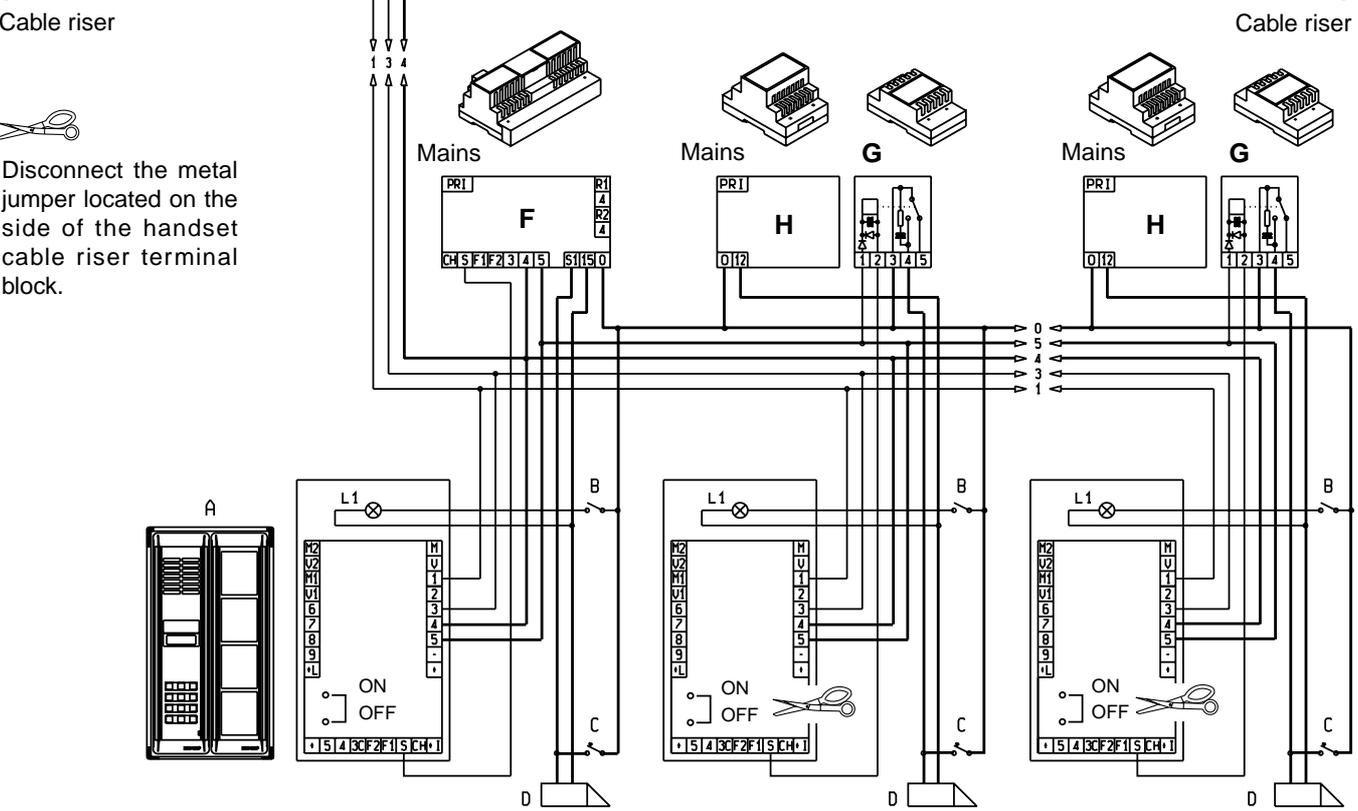
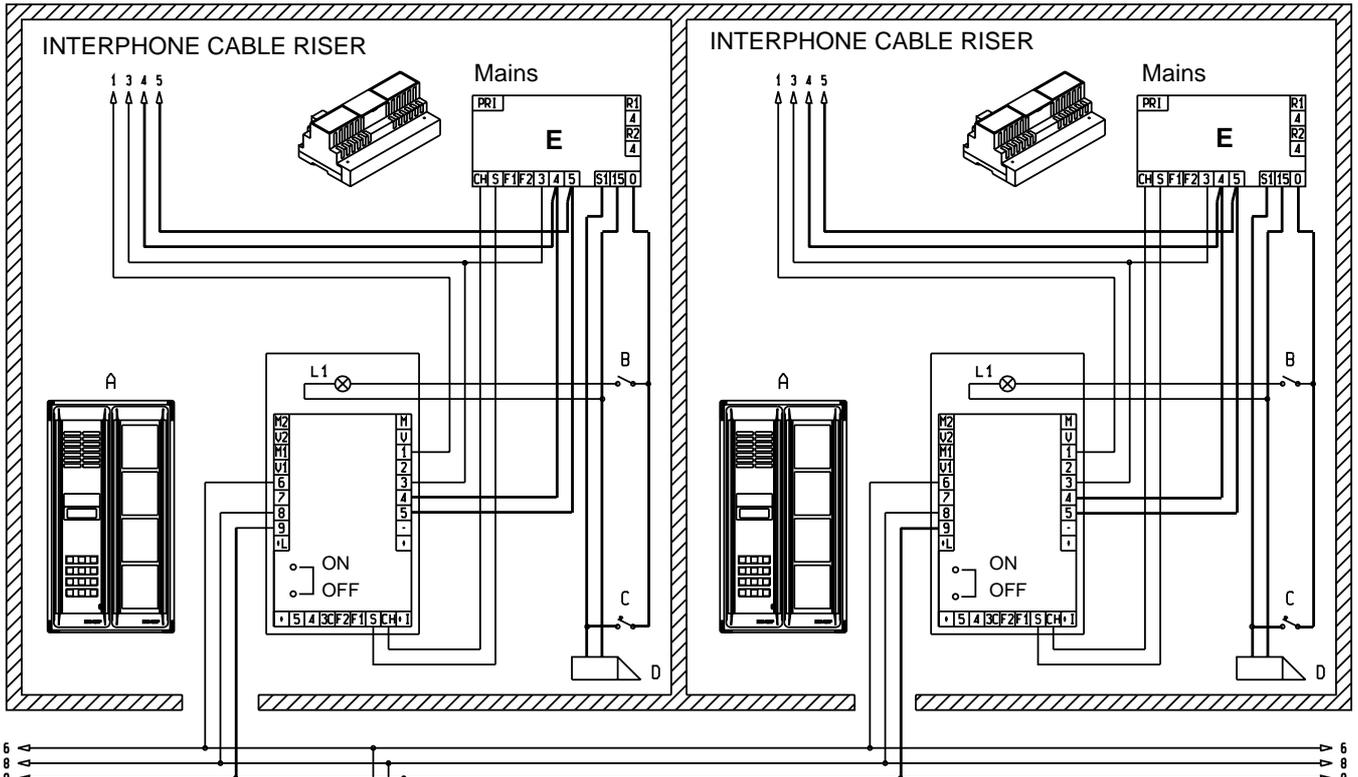
**5B- RESIDENTIAL INTERPHONE INSTALLATION WITH ONE MAIN PANEL, PORTER'S SWITCHBOARD AND TWO OR MORE SECONDARY PANELS (residential complex).**  
Ref. diagram pc2786



- A- Entrance panel Art. 942/... - 943/... - 944
- B- Panel light switch
- C- Additional push-button for lock
- D- Electric lock 12V A.C.
- L1- Panel lamp  
(3x24V 3W)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030

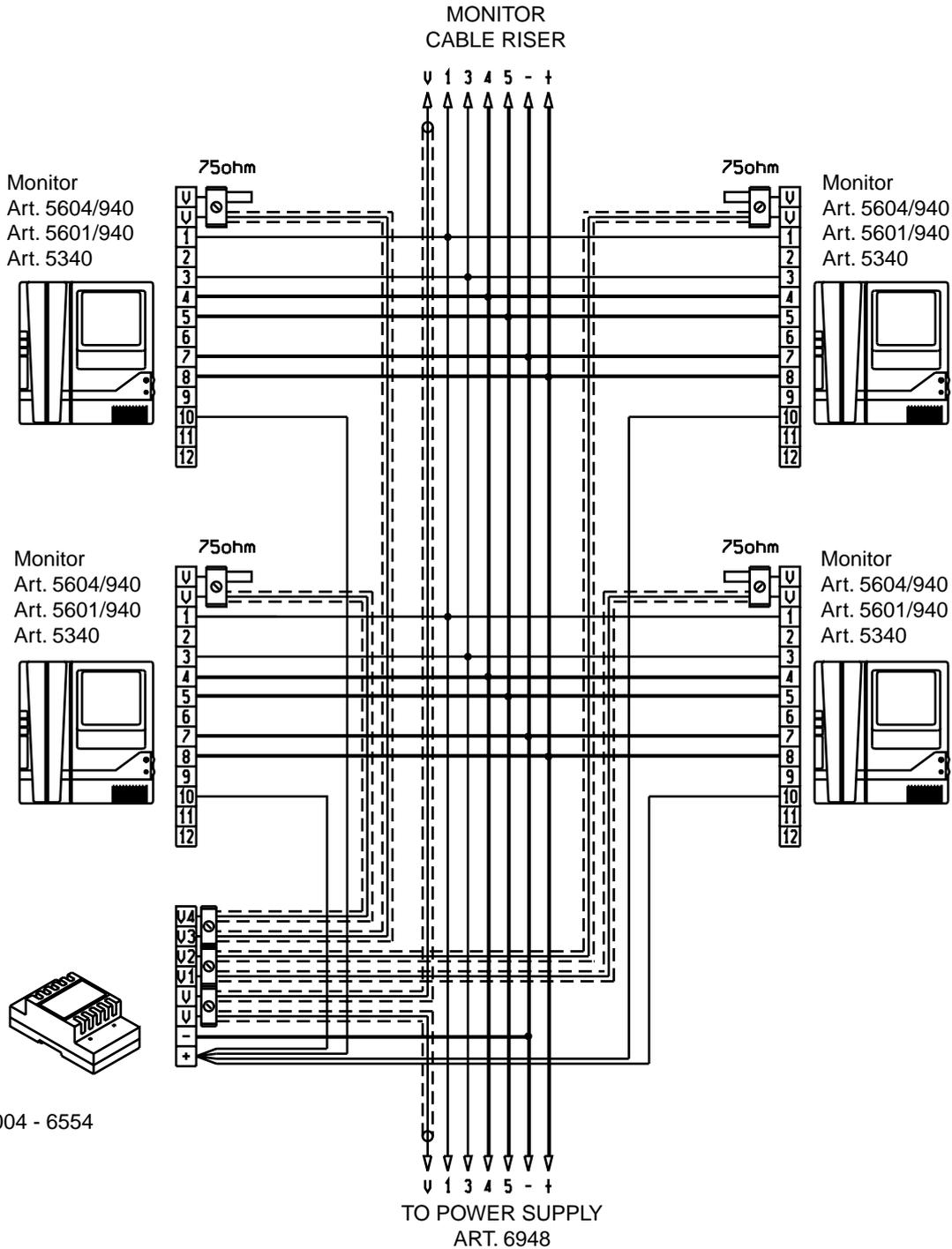
**6- RESIDENTIAL INSTALLATION WITH TWO OR MORE MAIN PANELS AND TWO OR MORE SECONDARY PANELS. Ref. diagram pe2766**

- A- Entrance panel
- Art. 942/... - 943/... - 944
- B- Panel light switch
- C- Additional push-button for lock
- D- Electric lock 12V A.C.
- F- Power supply Art. 6942
- G- Relay Art. 170/001
- H- Transformer Art. M832
- L1- Panel lamp
- (3x24V 3W max.)
- 10x24V 3W with Art. M832
- 16x24V 3W with Art. 832/030



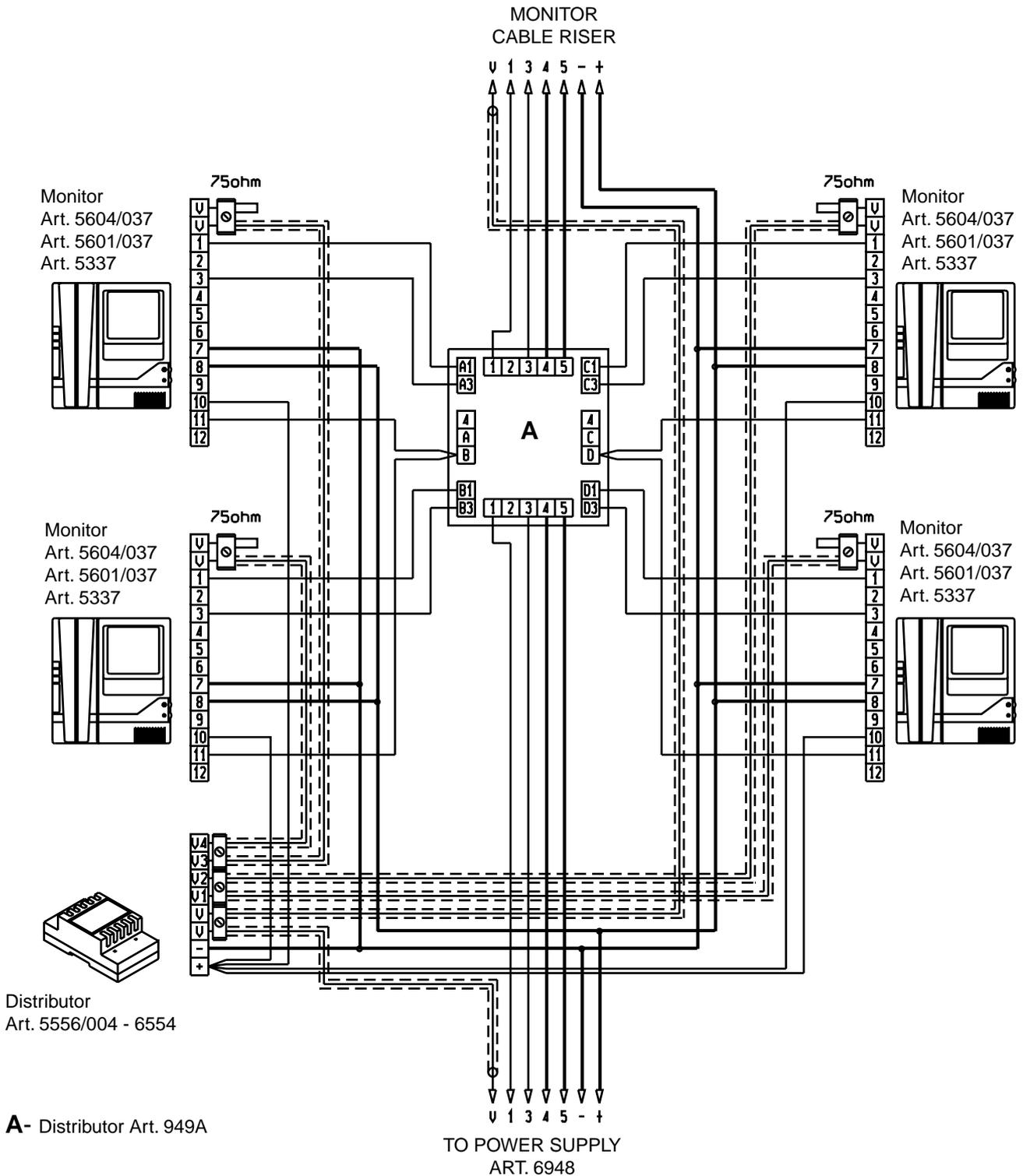
 Disconnect the metal jumper located on the side of the handset cable riser terminal block.

**MONITOR CABLE RISER WITH UNITS EQUIPPED WITH INTERNAL DIGITAL SIGNAL DECODING. Ref. diagram pv2406**



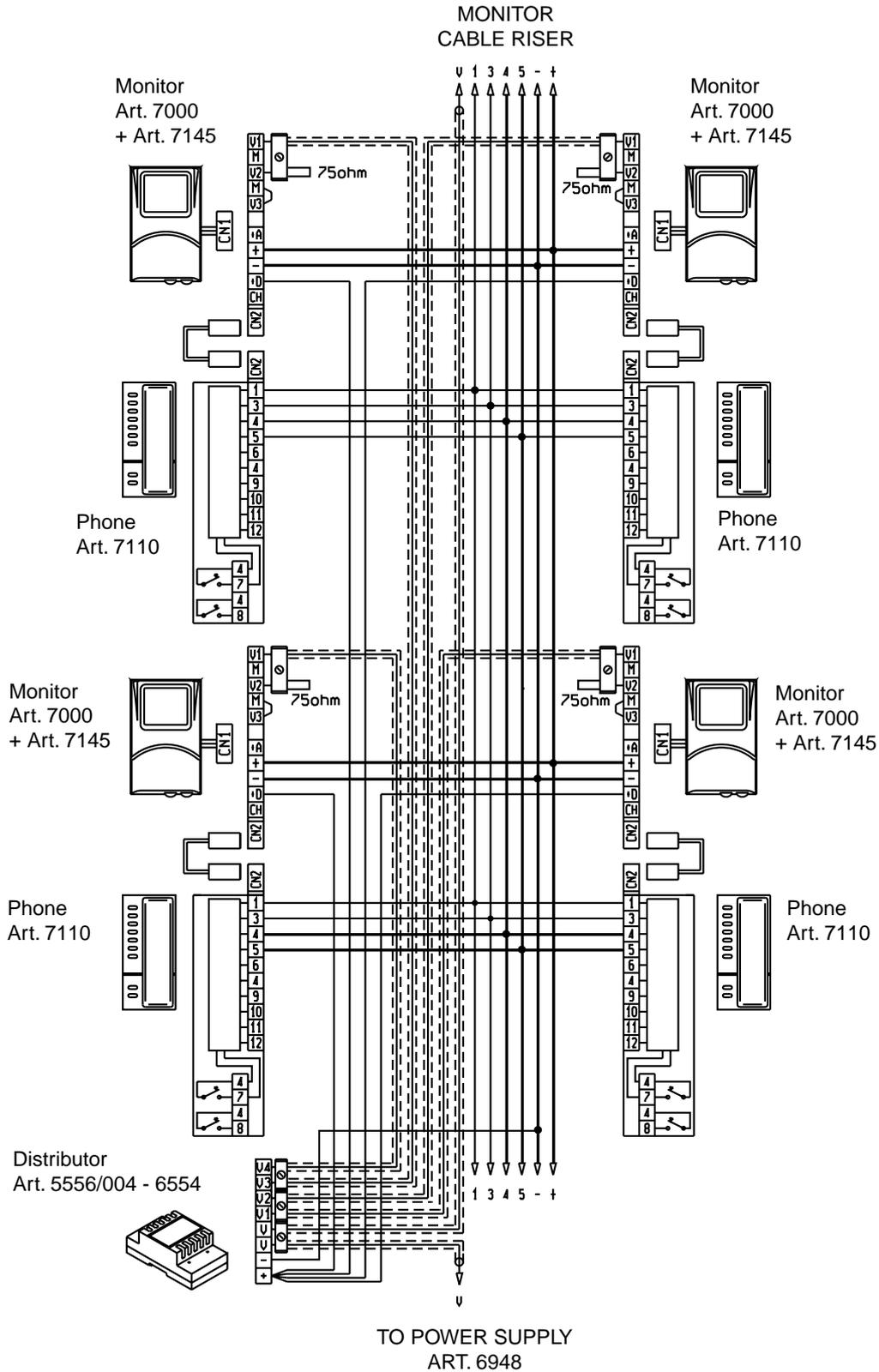
**The riser shown must be included in all the video interphone diagrams in this collection (this diagram is an alternative to diagram pv2399)**

**MONITOR RISER WITH FLOOR DISTRIBUTOR ART. 949A**  
Ref. diagram pv2399



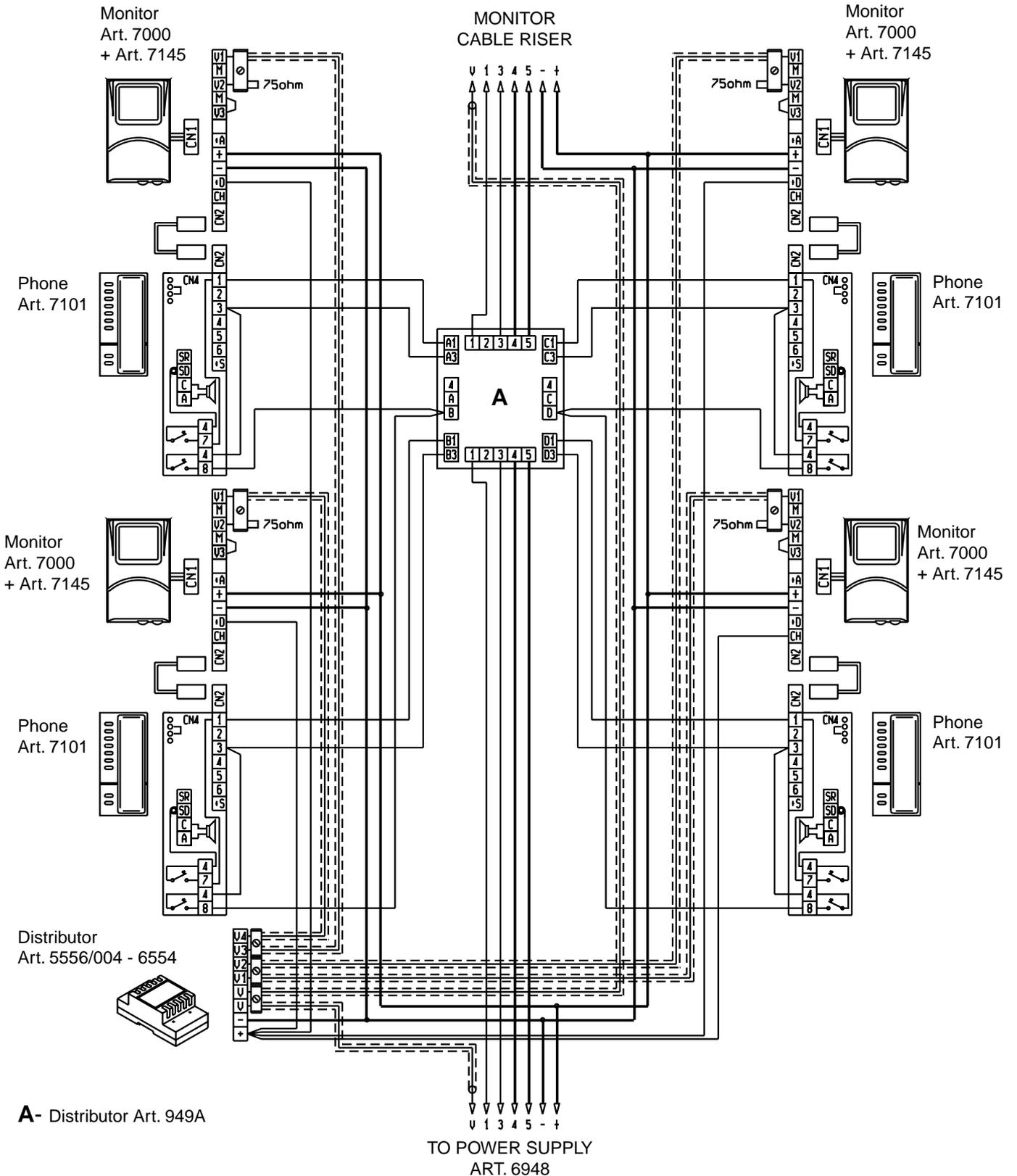
The riser shown must be included in all the video interphone diagrams in this collection (this diagram is an alternative to diagram pv2406)

**MONITOR CABLE RISER SERIES GALILEO WITH UNITS EQUIPPED WITH INTERNAL DIGITAL SIGNAL DECODING. Ref. diagram pv3099**



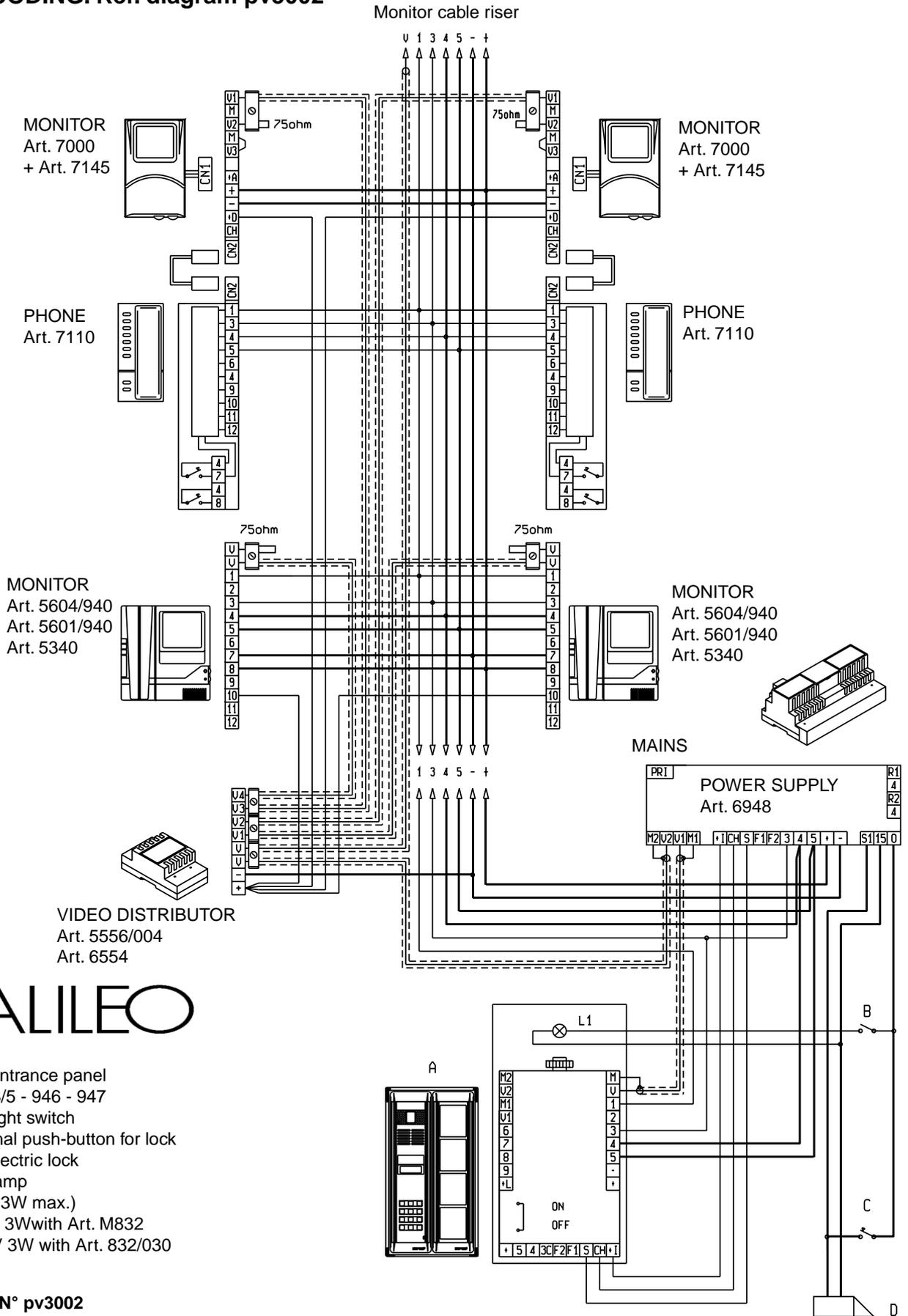
**The riser shown must be included in all the video interphone diagrams in this collection (this diagram is an alternative to diagram pv3098)**

**MONITOR RISER SERIES GALILEO WITH FLOOR DISTRIBUTOR ART. 949A**  
Ref. diagram pv3098



The riser shown must be included in all the video interphone diagrams in this collection (this diagram is an alternative to diagram pv3099)

**7- SIMPLE RESIDENTIAL INSTALLATION WITH MONITORS EQUIPPED WITH INTERNAL DECODING. Ref. diagram pv3002**

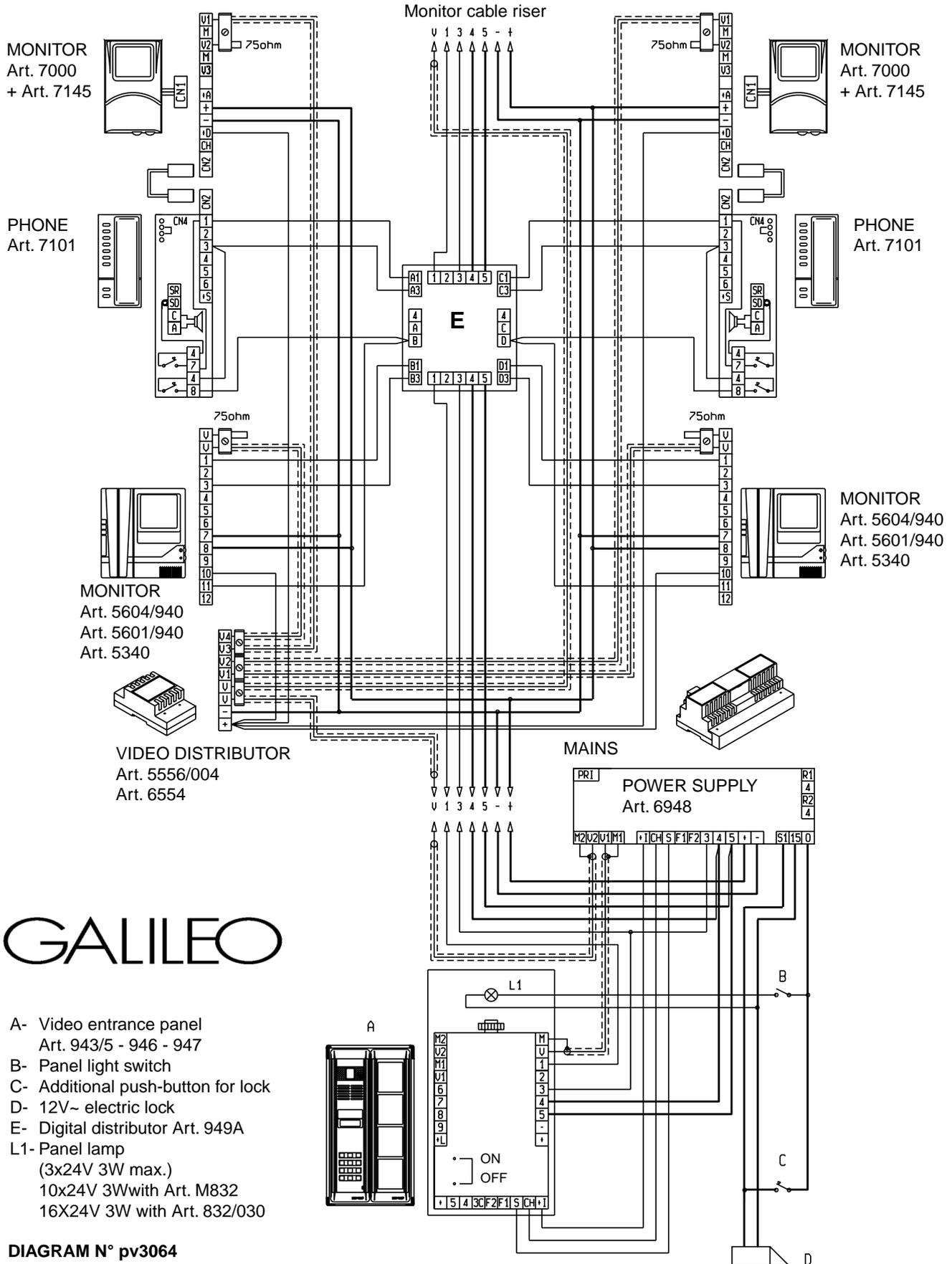


**GALILEO**

- A- Video entrance panel  
Art. 943/5 - 946 - 947
- B- Panel light switch
- C- Additional push-button for lock
- D- 12V~ electric lock
- L1- Panel lamp  
(3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030

DIAGRAM N° pv3002

**8- SIMPLE RESIDENTIAL INSTALLATION WITH DISTRIBUTORS EQUIPPED WITH INTERNAL DECODING. Ref. diagram pv3064**

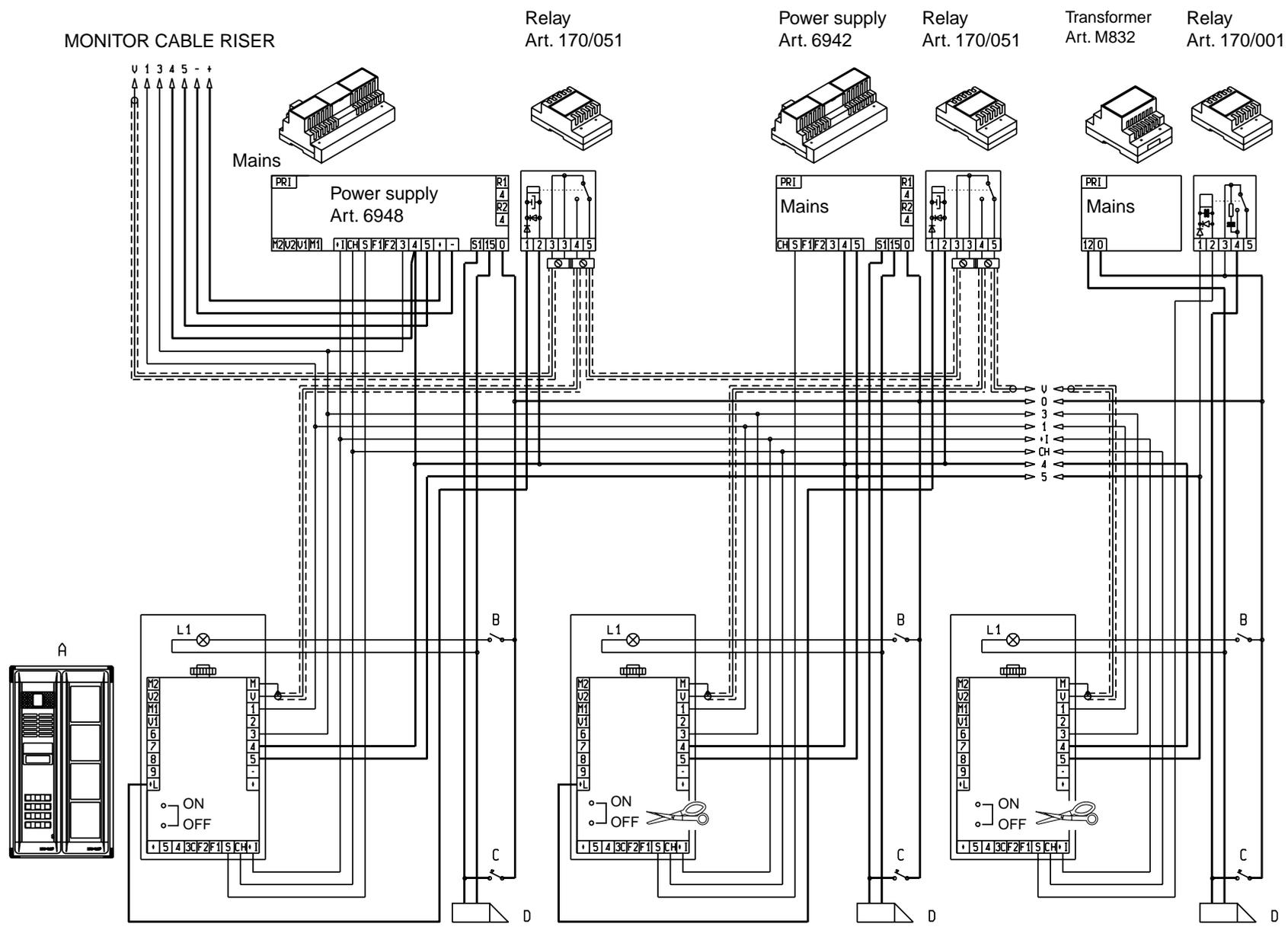


**GALILEO**

- A- Video entrance panel  
Art. 943/5 - 946 - 947
- B- Panel light switch
- C- Additional push-button for lock
- D- 12V~ electric lock
- E- Digital distributor Art. 949A
- L1- Panel lamp  
(3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030

**DIAGRAM N° pv3064**

**9- SIMPLE RESIDENTIAL INSTALLATION WITH TWO OR MORE PANELS IN PARALLEL**  
Ref. diagram pv2712



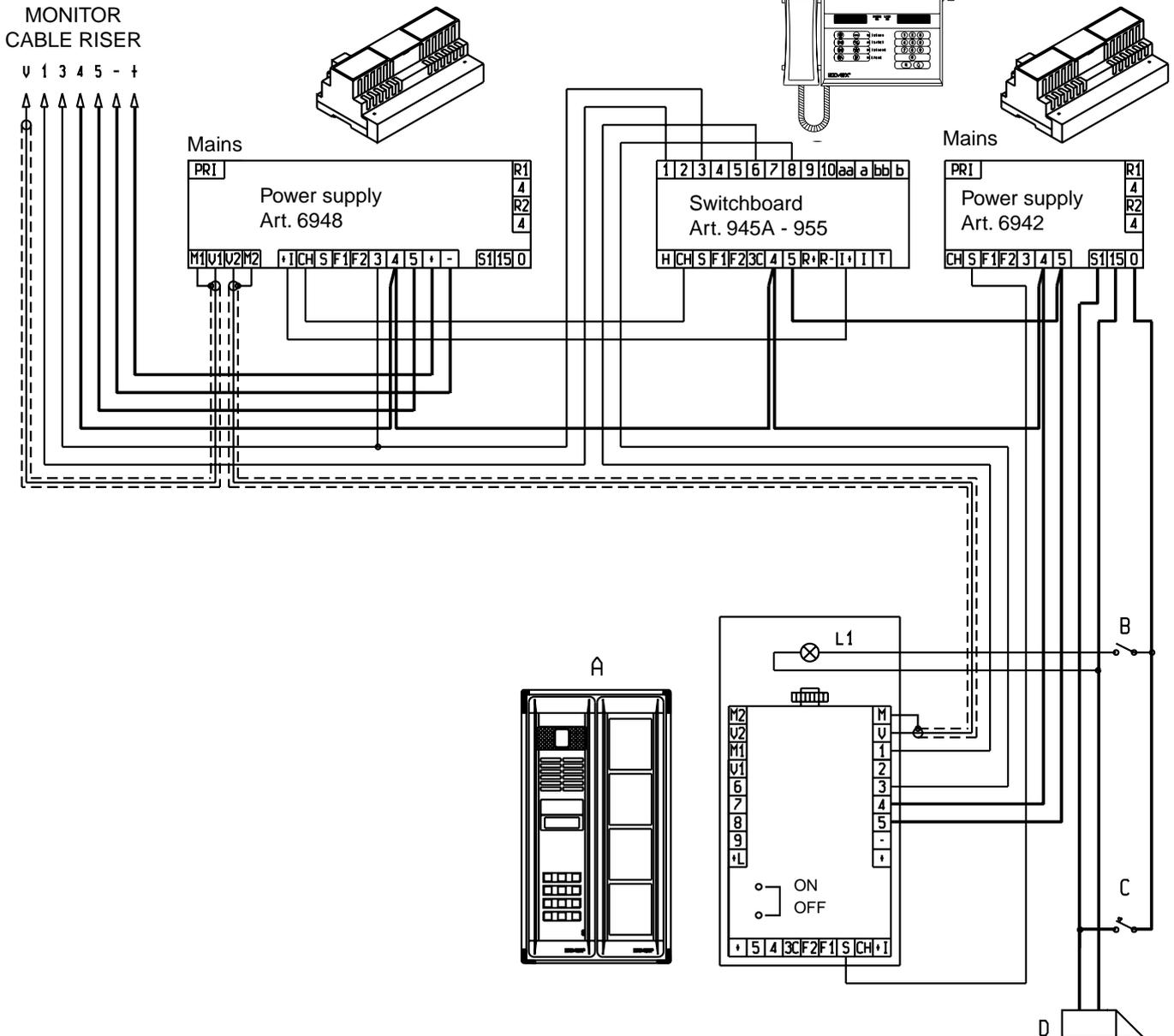
- A- Entrance panel Art. 943/5.. - 946 - 947
- B- Panel light switch
- C- Additional push-button for lock
- D- Electric lock 12V A.C.

- L1- Panel lamp  
(3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030

 Disconnect the metal jumper located on the side of the handset cable riser terminal board.

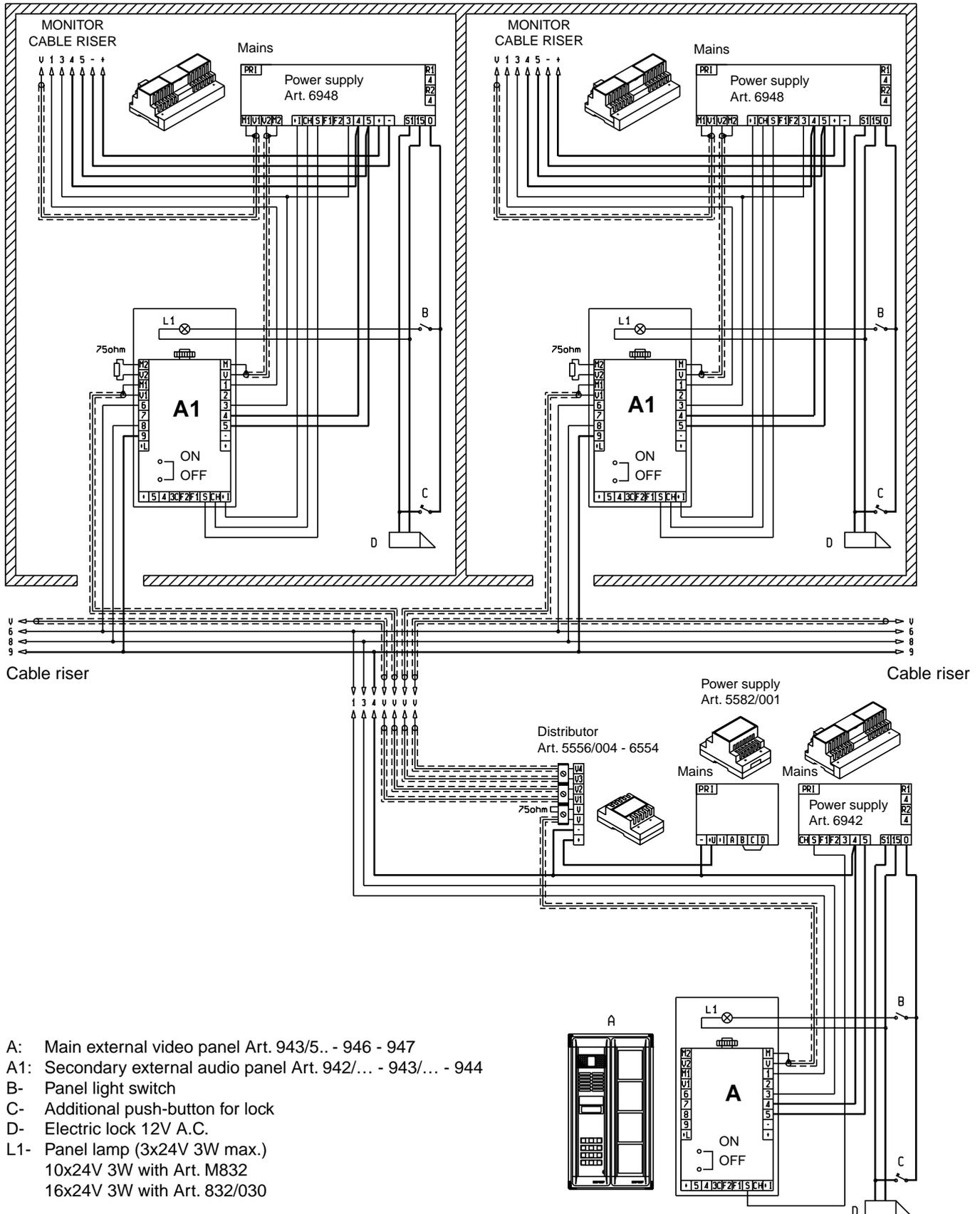
**10- SIMPLE RESIDENTIAL INSTALLATION WITH PORTER'S SWITCHBOARD**  
Ref. diagram pc2769

- A- Entrance panel  
Art. 943/5.. - 946 - 947
- B- Panel light switch
- C- Additional push-button for lock
- D- Electric lock 12V A.C.
- L1- Panel lamp  
(3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030





**12A- RESIDENTIAL INSTALLATION WITH ONE MAIN PANEL AND TWO OR MORE SECONDARY PANELS (residential complex). Ref. diagram ps2559**



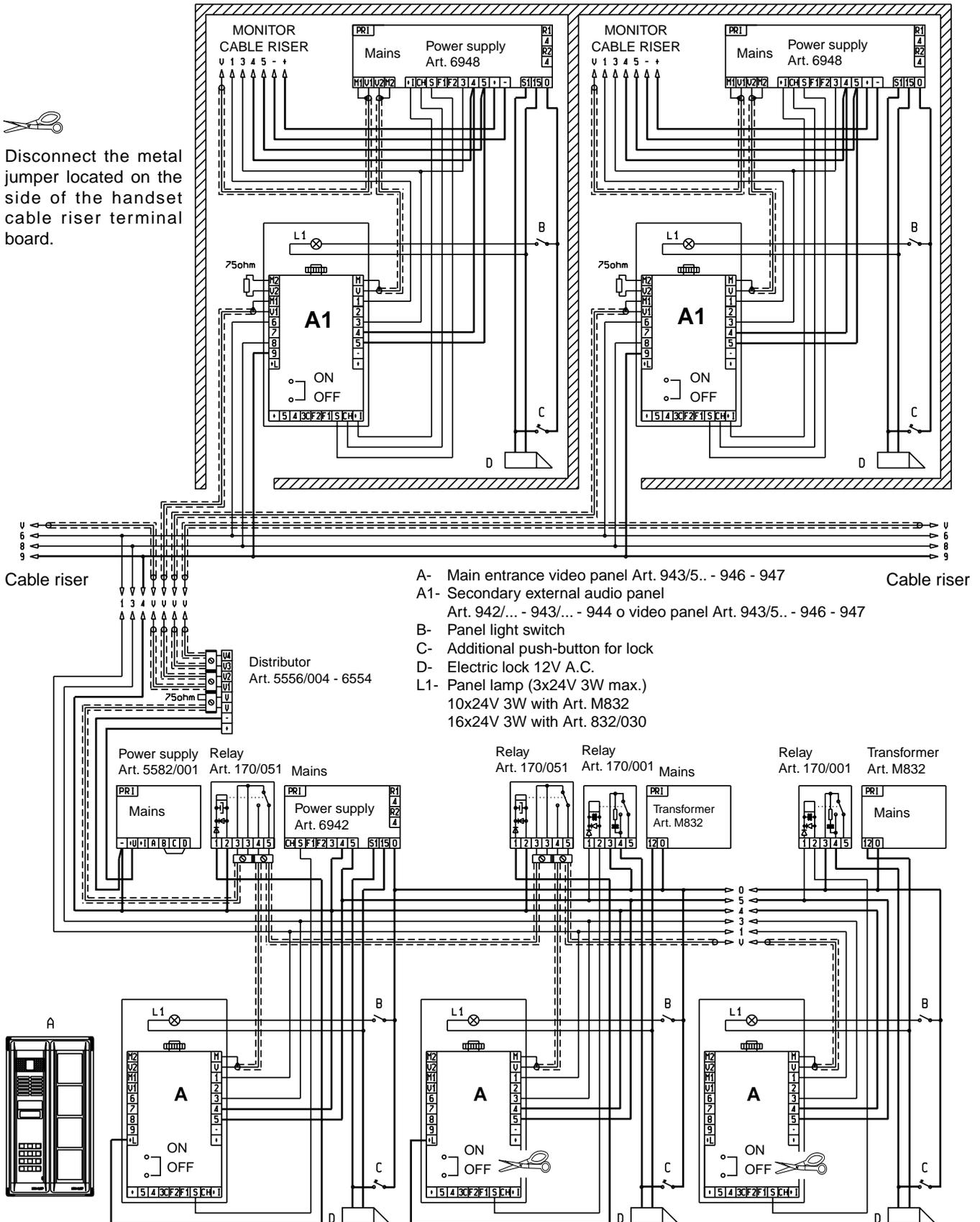
- A: Main external video panel Art. 943/5.. - 946 - 947
- A1: Secondary external audio panel Art. 942/... - 943/... - 944
- B- Panel light switch
- C- Additional push-button for lock
- D- Electric lock 12V A.C.
- L1- Panel lamp (3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030



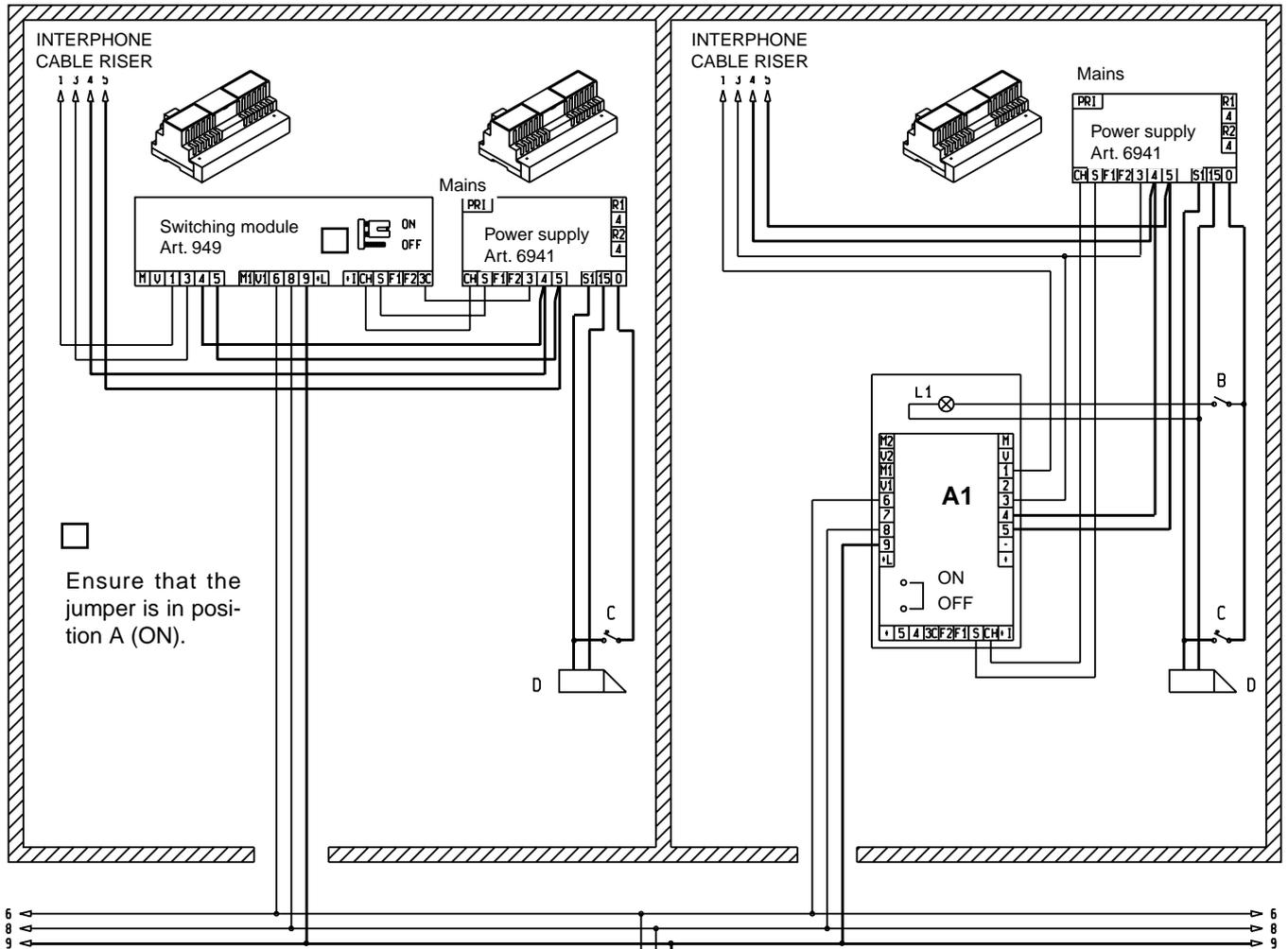
**13- RESIDENTIAL INSTALLATION WITH TWO OR MORE MAIN PANELS AND TWO OR MORE SECONDARY PANELS (residential complex). Ref. diagram ps2768**



Disconnect the metal jumper located on the side of the handset cable riser terminal board.



**14- RESIDENTIAL INTERPHONE INSTALLATION WITH ONE MAIN PANEL AND TWO OR MORE SECONDARY ENTRANCES WITH/WITHOUT PANELS (residential complex).  
Ref. diagram pe2770**

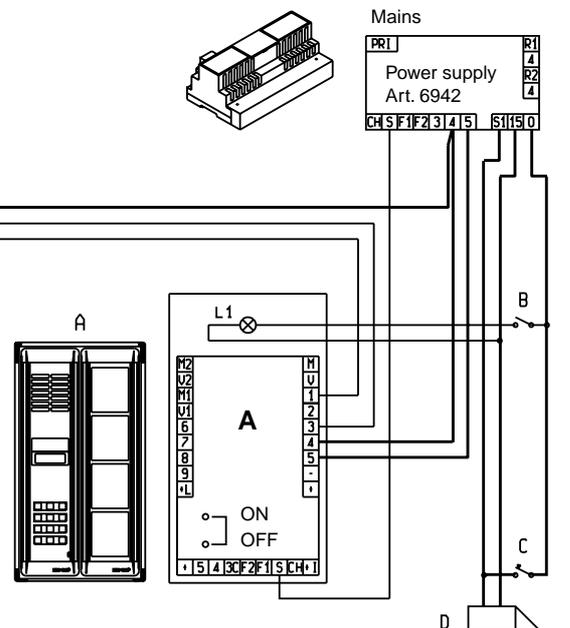


Ensure that the jumper is in position A (ON).

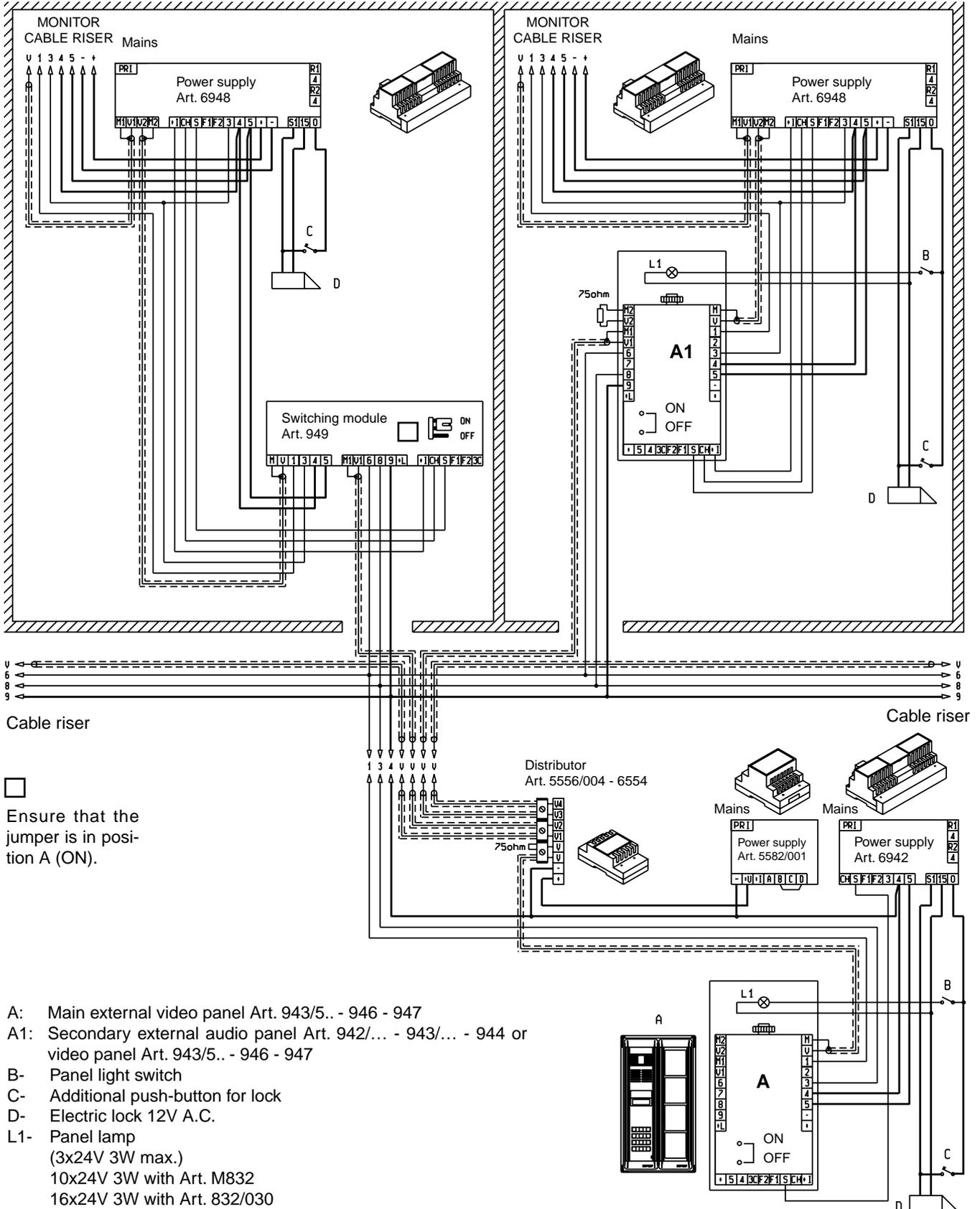
Cable riser

Cable riser

- A: Main external video panel Art. 943/5.. - 946 - 947
- A1: Secondary external audio panel Art. 942/... - 943/... - 944 or video panel Art. 943/5.. - 946 - 947
- B- Panel light switch
- C- Additional push button for lock
- D- Electric lock 12V A.C.
- L1- Panel lamp  
(3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030



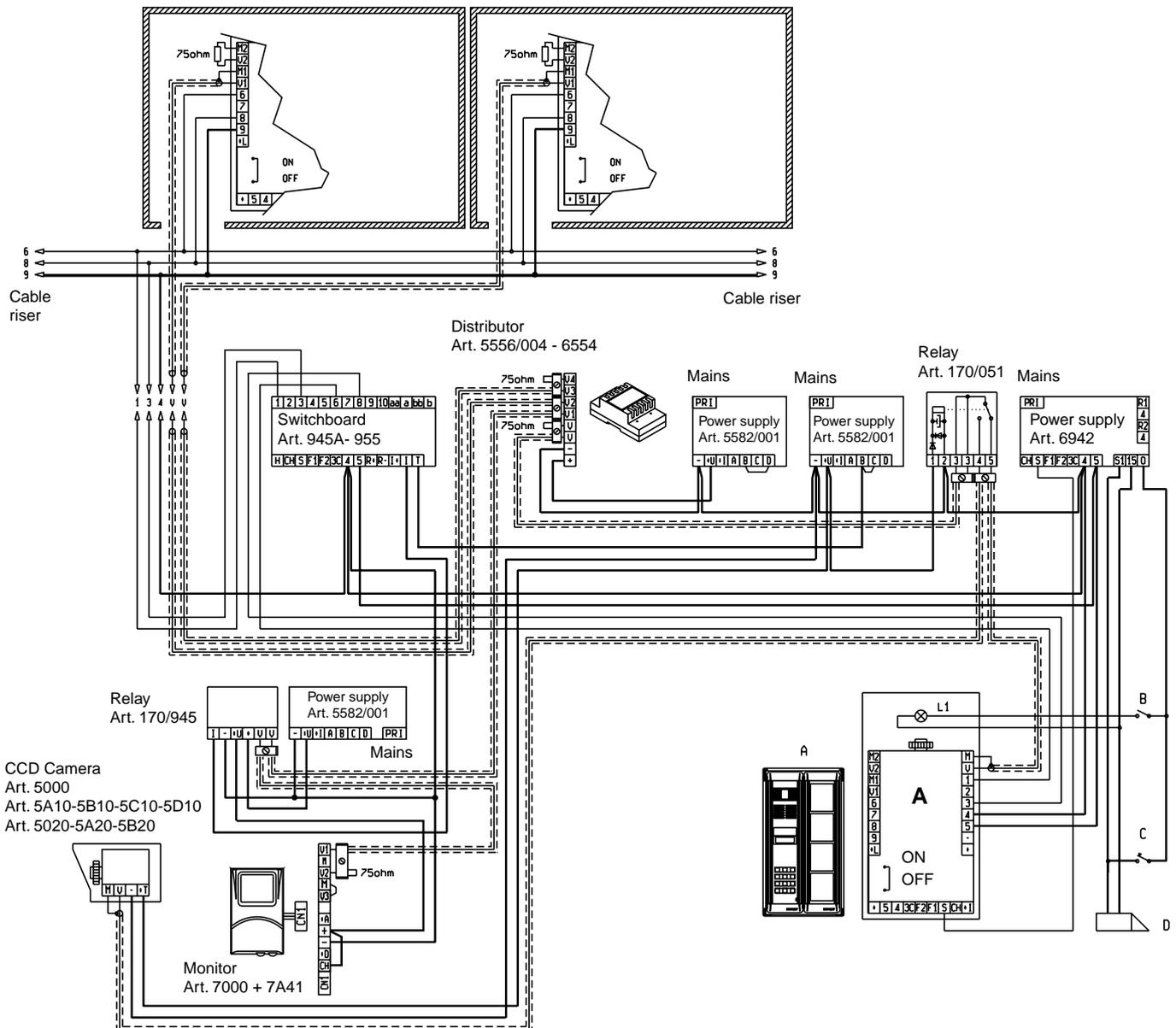
**15- RESIDENTIAL VIDEO ENTRY INSTALLATION WITH ONE MAIN PANEL AND TWO OR MORE SECONDARY ENTRANCES WITH/WITHOUT PANELS (residential complex).  
Ref. diagram ps2771**



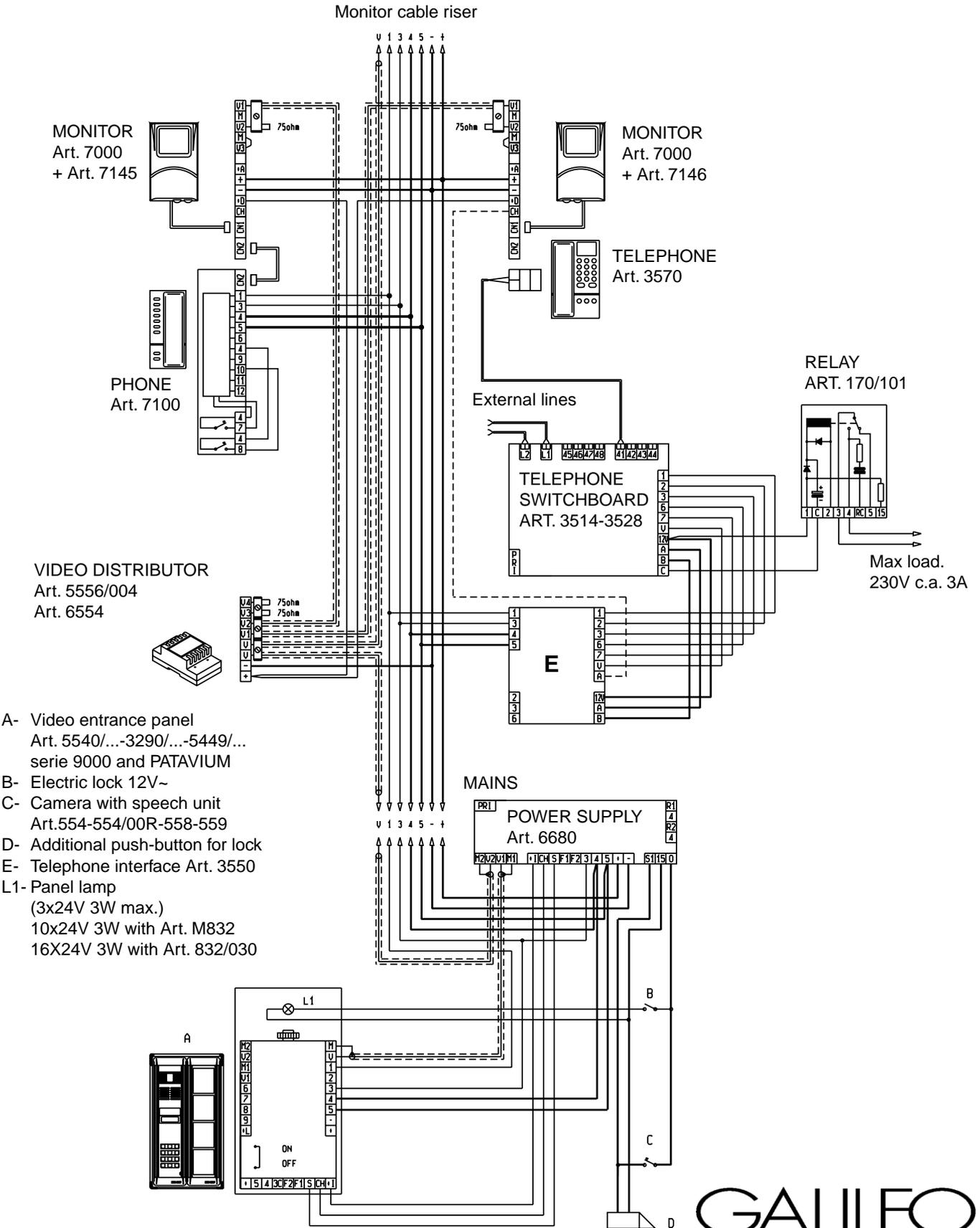


**17- RESIDENTIAL VIDEO ENTRY INSTALLATION WITH ONE MAIN PANEL, PORTER'S SWITCHBOARD, PORTER'S MONITOR AND CAMERA AND TWO OR MORE SECONDARY PANELS (residential complex). Ref. diagram pc2785**

- A- Entrance panel  
Art. 943/5.. - 946 - 947
- B- Panel light switch
- C- Additional push-button for lock
- D- Electric lock 12V A.C.
- L1- Panel lamp  
(3x24V 3W max.)  
10x24V 3W with Art. M832  
16x24V 3W with Art. 832/030

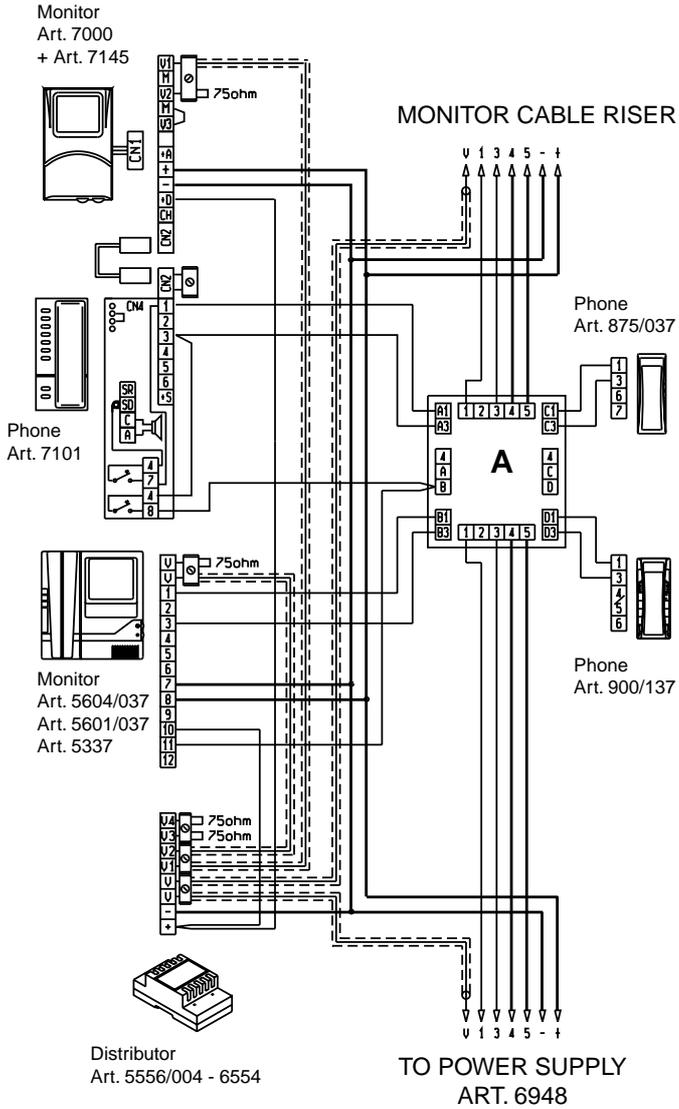


**18- RESIDENTIAL VIDEO DOOR ENTRY SYSTEM WITH GALILEO SERIES AND TELEPHONE SWITCHBOARD. Ref. diagram ct3003**



**VERSION 1A**

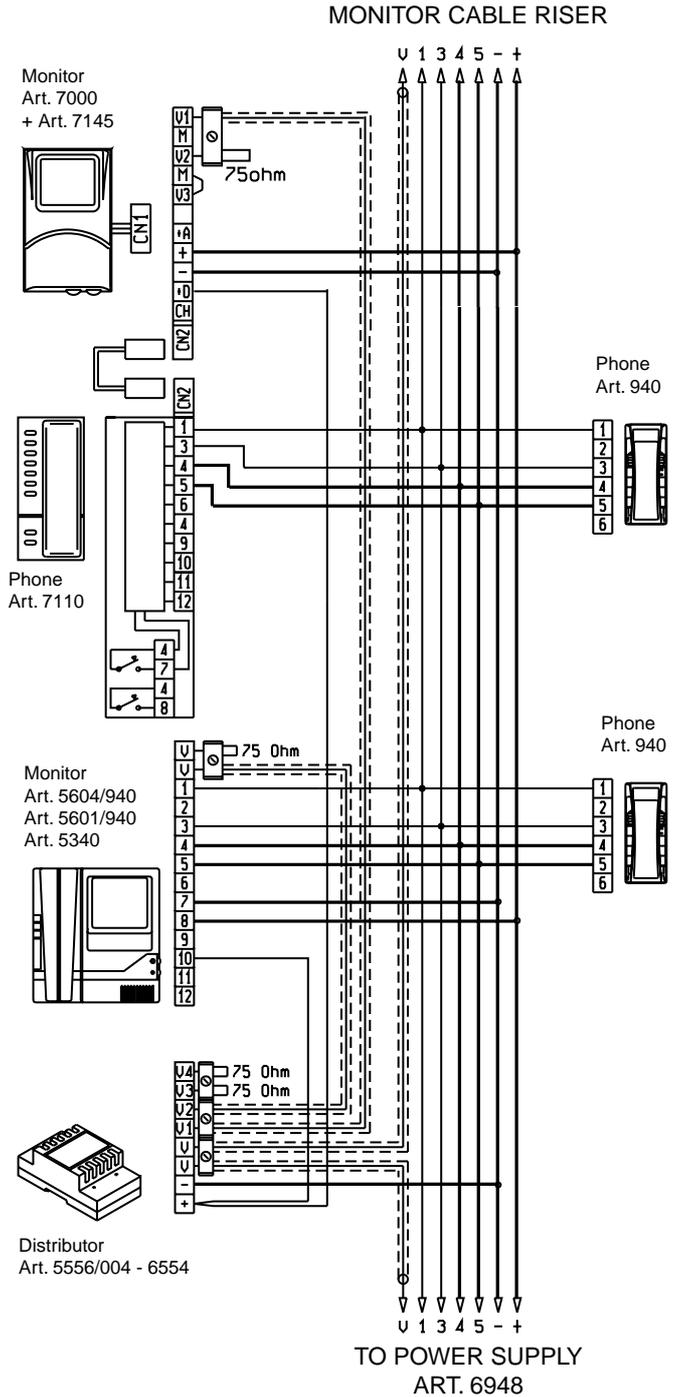
Mixed interphone/monitor installation without internal decoding in the same distributor Art. 949A.



**A-** Distributor Art. 949A

**VERSION 1B**

Mixed interphone/monitor installation with internal decoding in the same building.

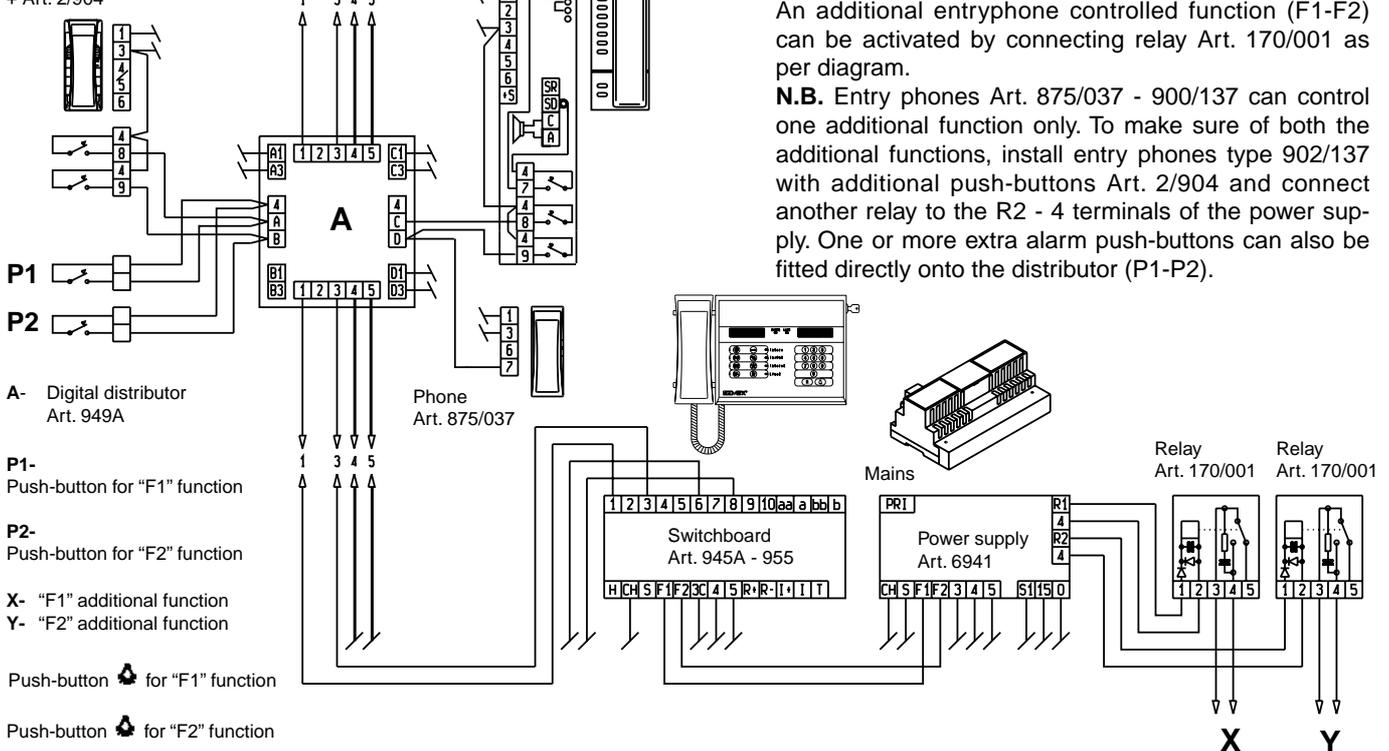


## VERSION 2A

Phone  
Art. 902/137  
+ Art. 2/904

INTERPHONE CABLE RISER

Phone  
Art. 7101



### Supplementary function F1-F2 connections in installations with interphones without internal decoding.

An additional entryphone controlled function (F1-F2) can be activated by connecting relay Art. 170/001 as per diagram.

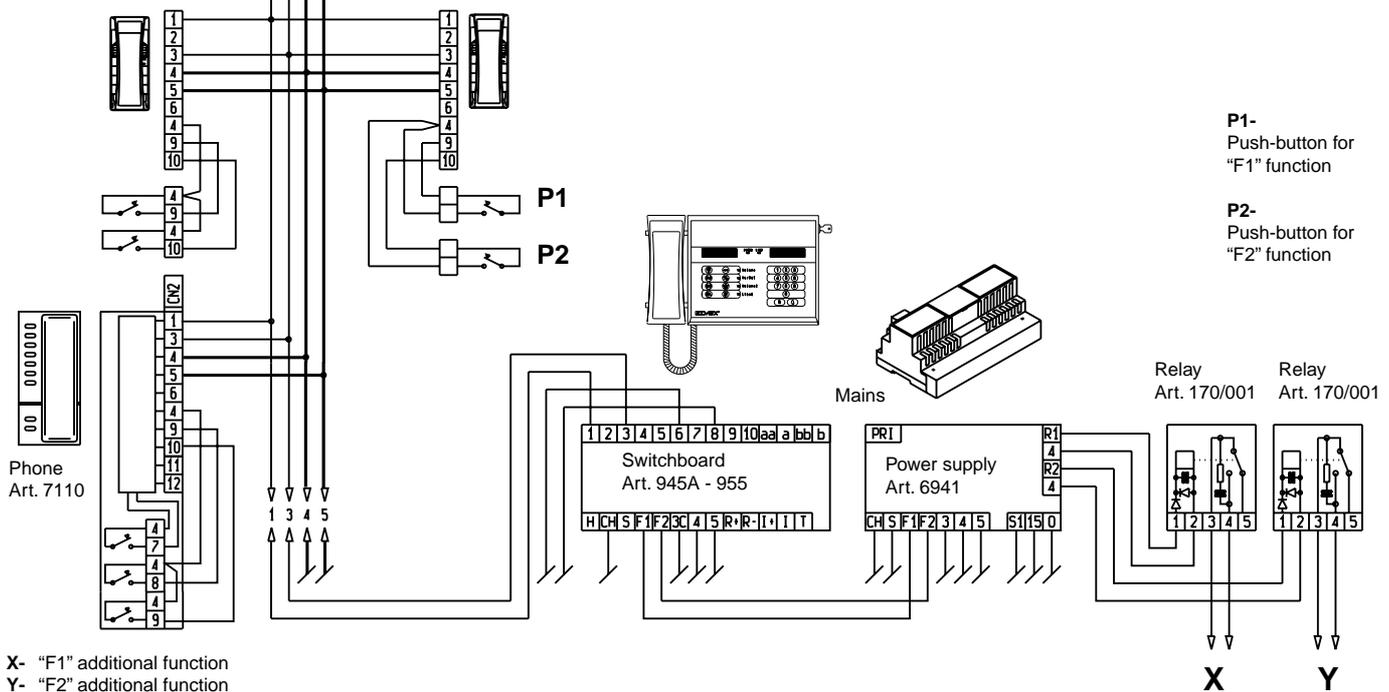
**N.B.** Entry phones Art. 875/037 - 900/137 can control one additional function only. To make sure of both the additional functions, install entry phones type 902/137 with additional push-buttons Art. 2/904 and connect another relay to the R2 - 4 terminals of the power supply. One or more extra alarm push-buttons can also be fitted directly onto the distributor (P1-P2).

## VERSION 2B

INTERPHONE CABLE RISER

Phone  
Art. 940  
+ Art. 2/904

Phone  
Art. 940  
+ Art. 2/904

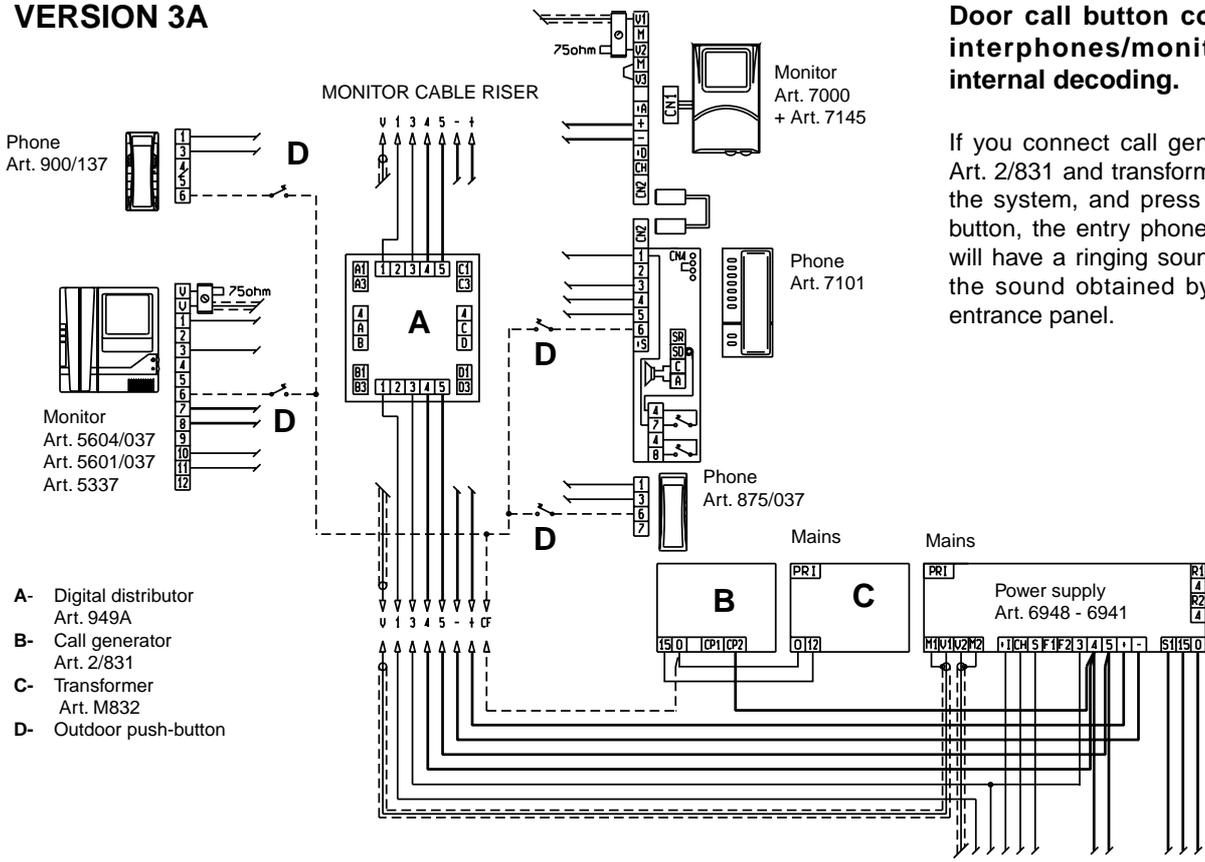


### Supplementary function F1-F2 connections in installations with interphones with internal decoding.

An additional entryphones controlled function (F1-F2) can be activated by connecting two relays Art. 170/001 as per diagram.

**N.B.** One or more additional alarm buttons can also be fitted directly on the interphone (P1-P2).

**VERSION 3A**

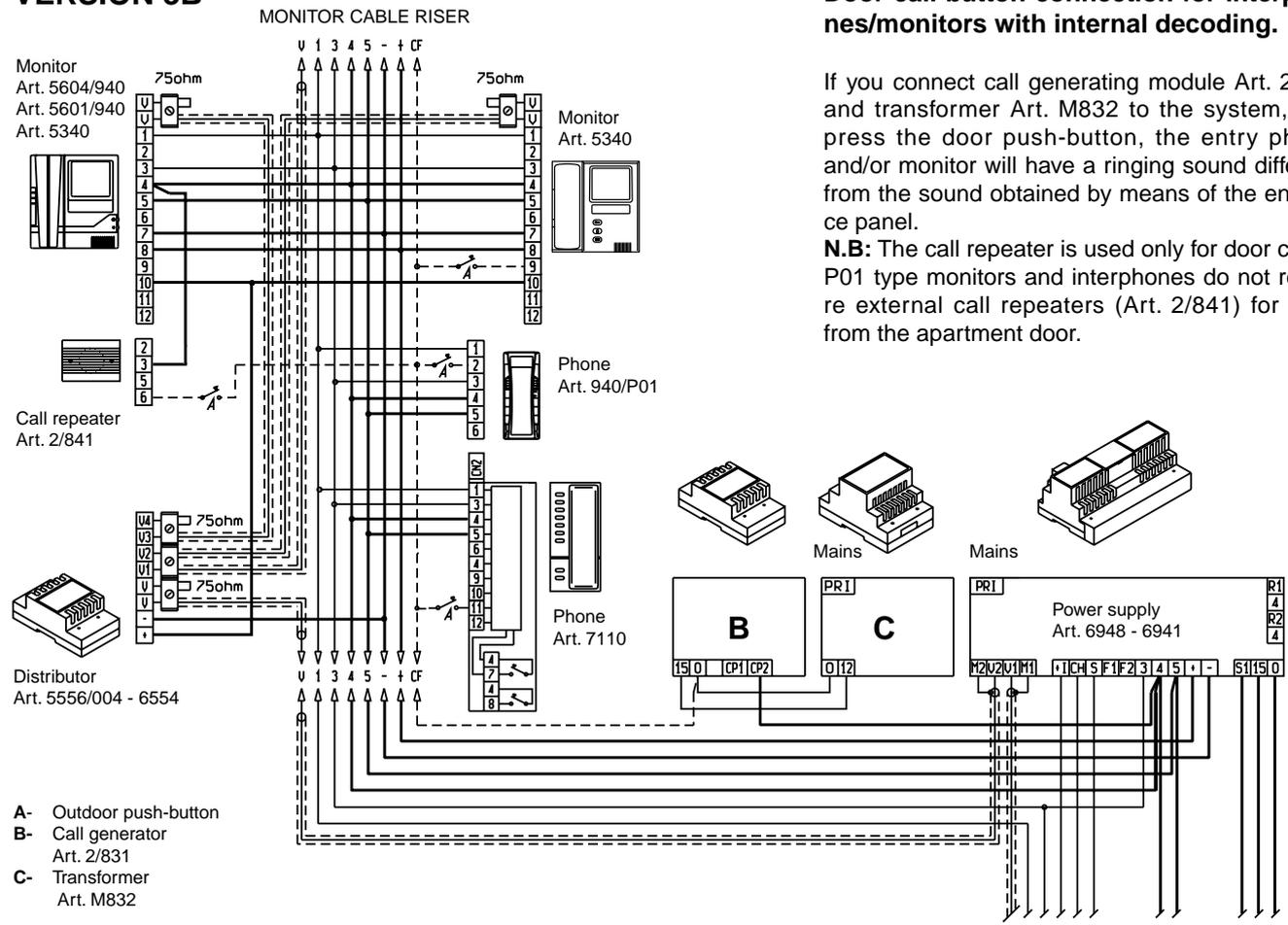


- A- Digital distributor Art. 949A
- B- Call generator Art. 2/831
- C- Transformer Art. M832
- D- Outdoor push-button

**Door call button connection for interphones/monitors without internal decoding.**

If you connect call generating module Art. 2/831 and transformer Art. M832 to the system, and press the door push-button, the entry phone and/or monitor will have a ringing sound different from the sound obtained by means of the entrance panel.

**VERSION 3B**



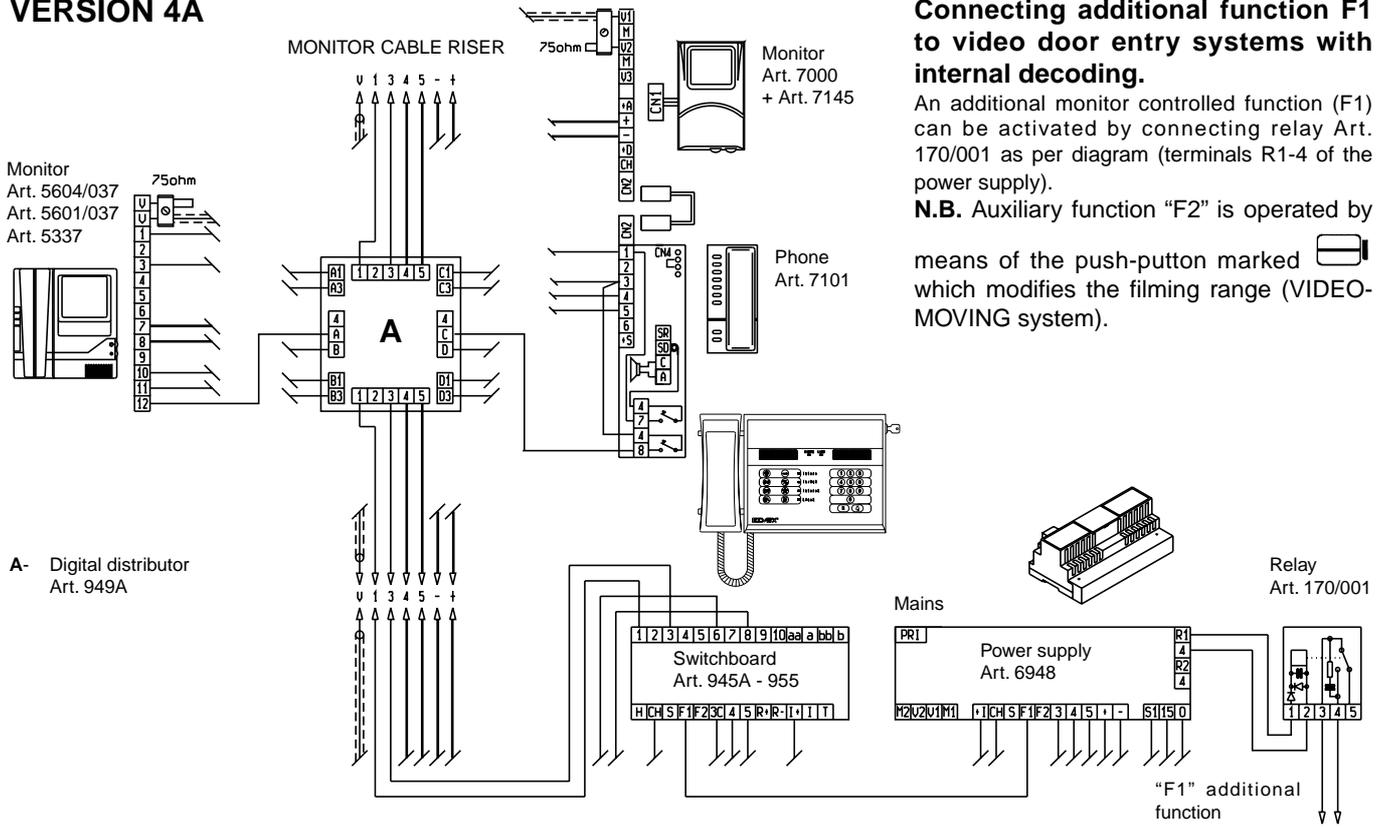
- A- Outdoor push-button
- B- Call generator Art. 2/831
- C- Transformer Art. M832

**Door call button connection for interphones/monitors with internal decoding.**

If you connect call generating module Art. 2/831 and transformer Art. M832 to the system, and press the door push-button, the entry phone and/or monitor will have a ringing sound different from the sound obtained by means of the entrance panel.

**N.B:** The call repeater is used only for door calls. P01 type monitors and interphones do not require external call repeaters (Art. 2/841) for calls from the apartment door.

**VERSION 4A**

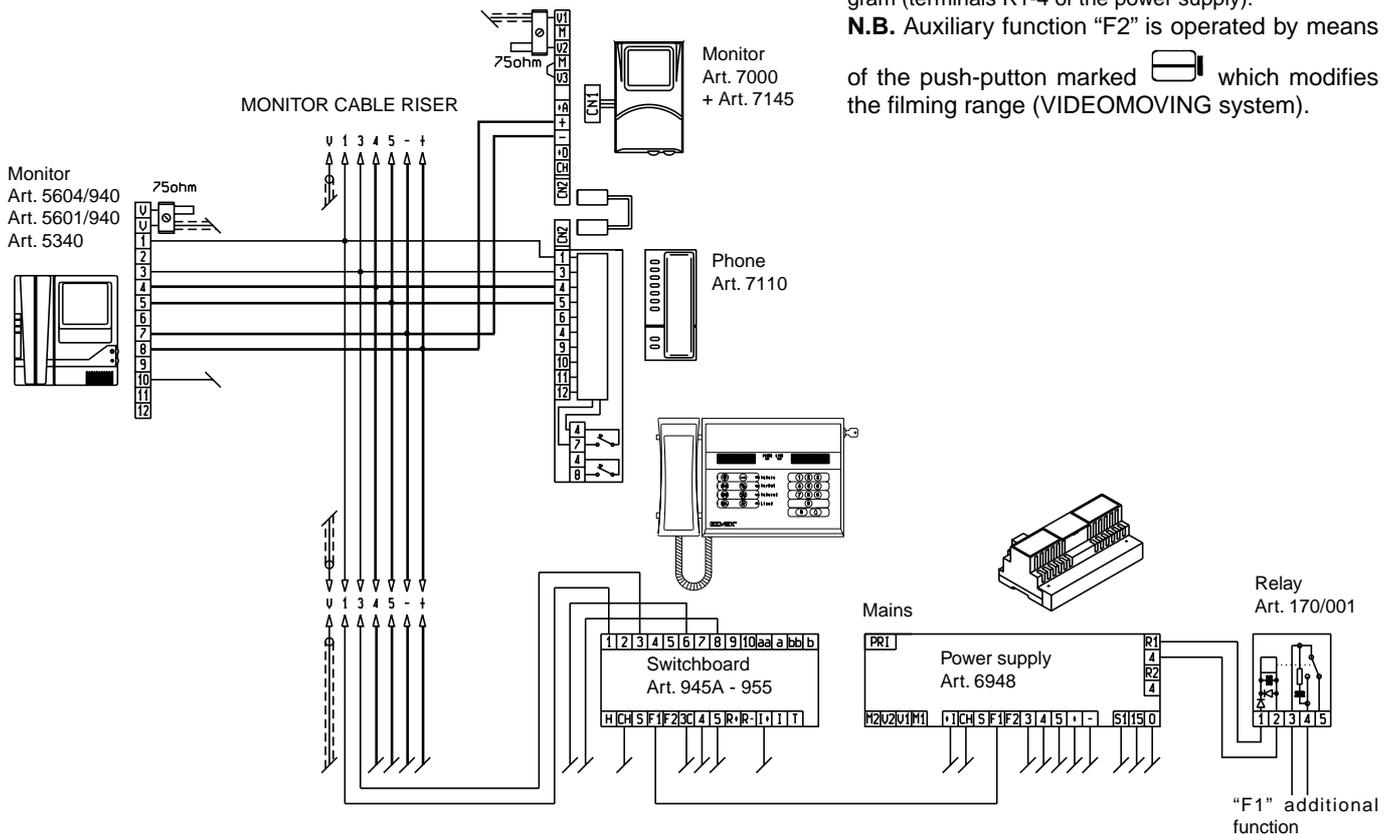


**Connecting additional function F1 to video door entry systems with internal decoding.**

An additional monitor controlled function (F1) can be activated by connecting relay Art. 170/001 as per diagram (terminals R1-4 of the power supply).

**N.B.** Auxiliary function "F2" is operated by means of the push-button marked  which modifies the filming range (VIDEO-MOVING system).

**VERSION 4B**



**Connecting additional function F1 to video door entry systems with internal decoding.**

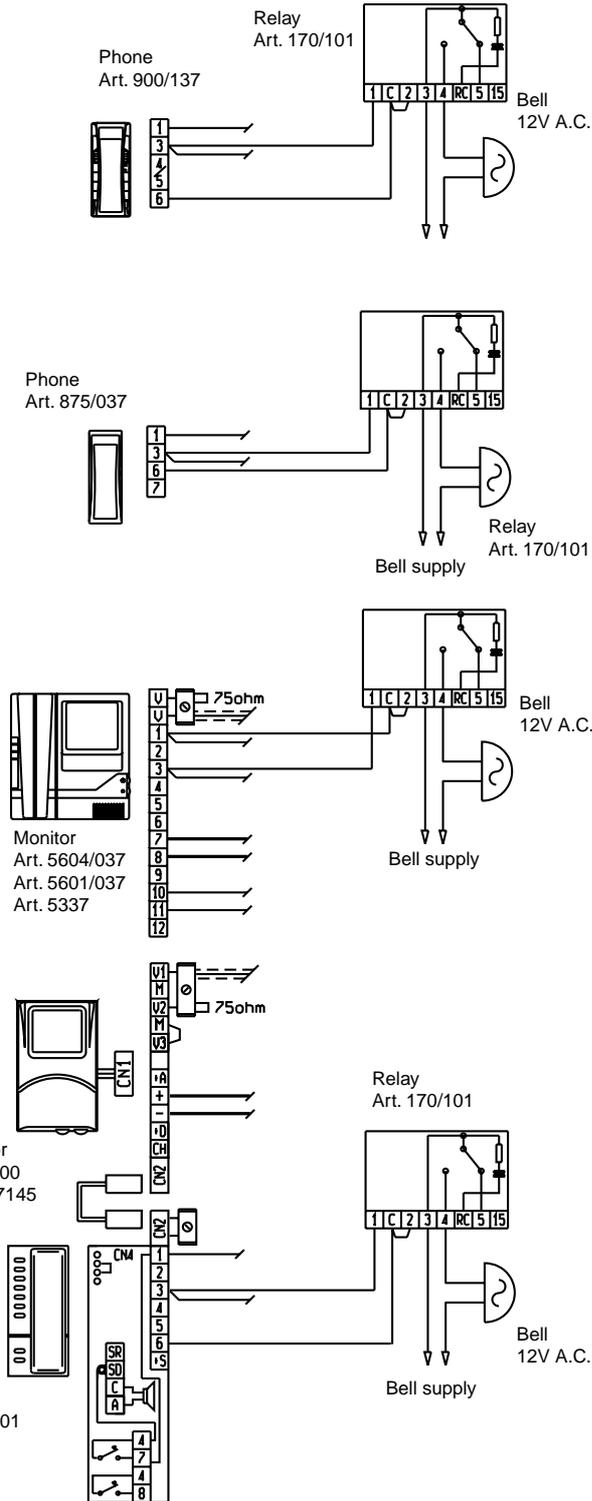
An additional monitor controlled function (F1) can be activated by connecting relay Art. 170/001 as per diagram (terminals R1-4 of the power supply).

**N.B.** Auxiliary function "F2" is operated by means of the push-button marked  which modifies the filming range (VIDEOMOVING system).

**VERSION 5A**

**Supplementary membrane bell connection for interphones/monitors without internal decoding.**

12V A.C. additional bells can be fitted using the relay Art. 170/101 connected as shown in the diagram.  
Contact rating 3A - 250V

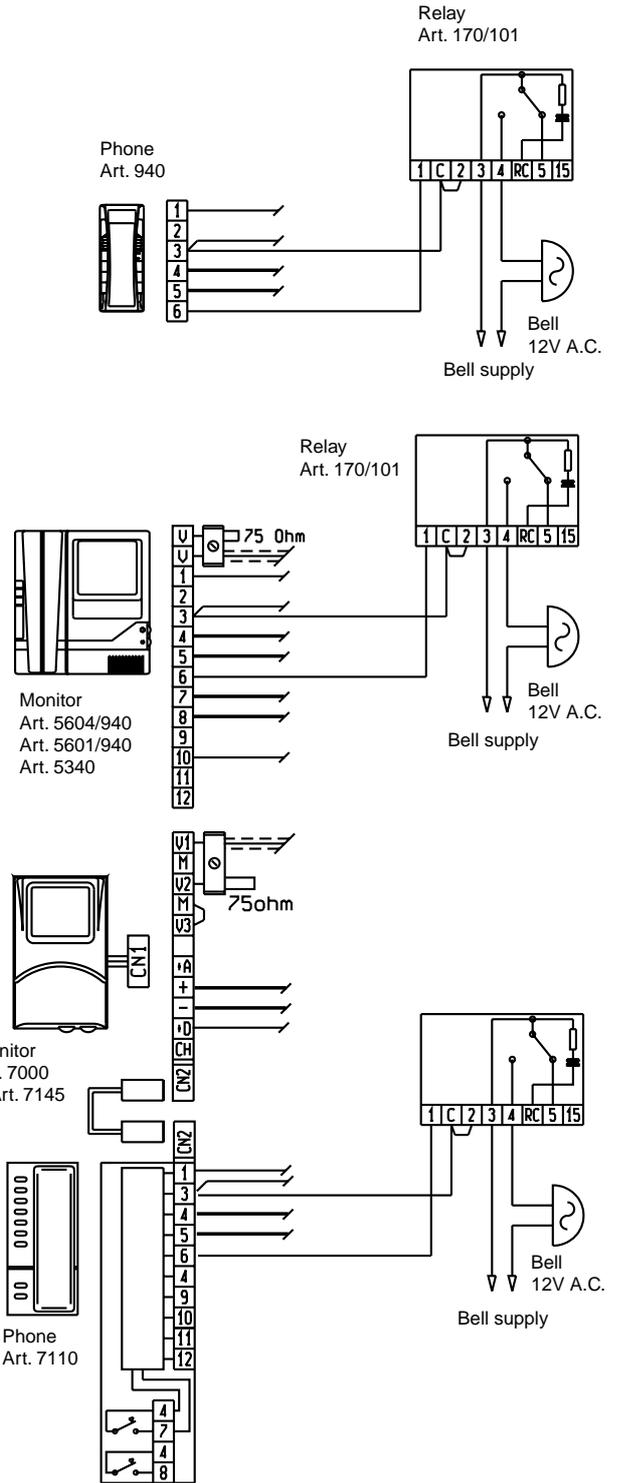


**N.B:** If additional bells with high absorption are fitted, also connect terminals RC-4 of relay Art. 170/101.

**VERSION 5B**

**Supplementary membrane bell connection for interphones/monitors with internal decoding.**

12V A.C. additional bells can be fitted using the relay Art. 170/101 connected as shown in the diagram.  
Contact rating 3A - 250V

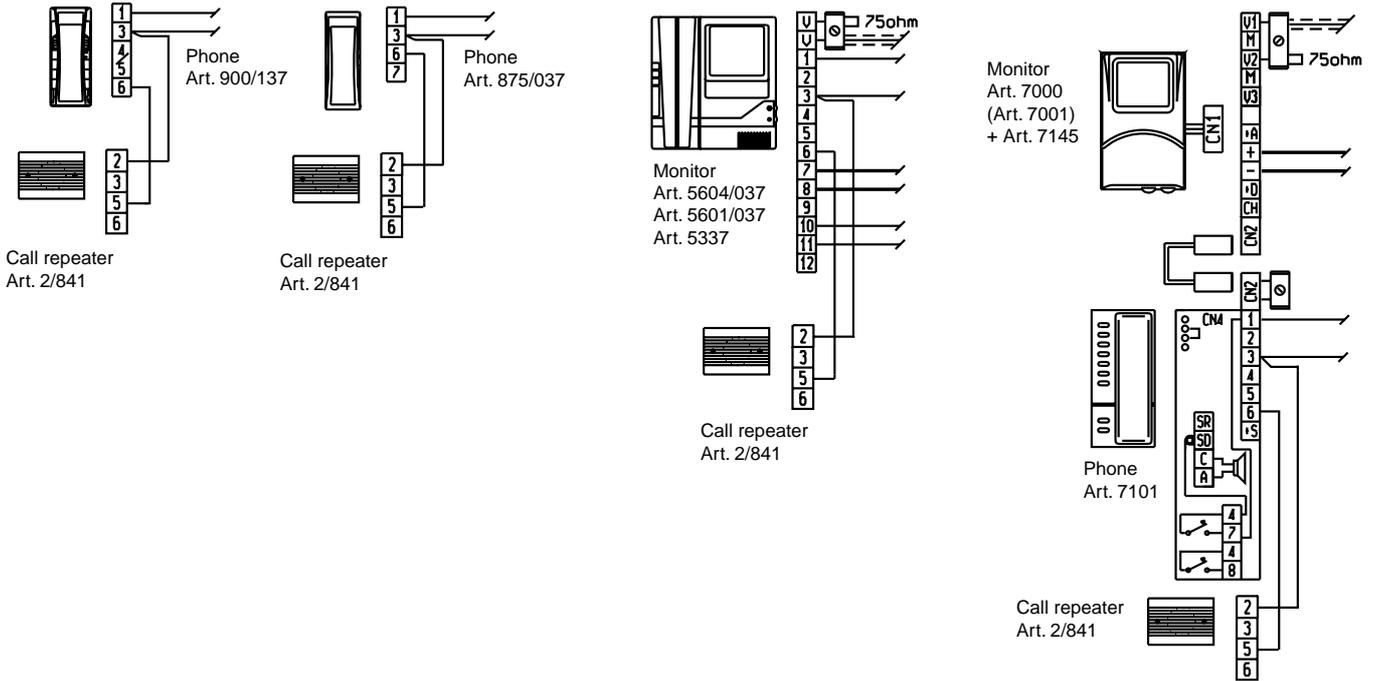


**N.B:** If additional bells with high absorption are fitted, also connect terminals RC-4 of relay Art. 170/101.

**VERSION 6A**

**Call repeater Art. 2/841 connection for units without internal decoding.**

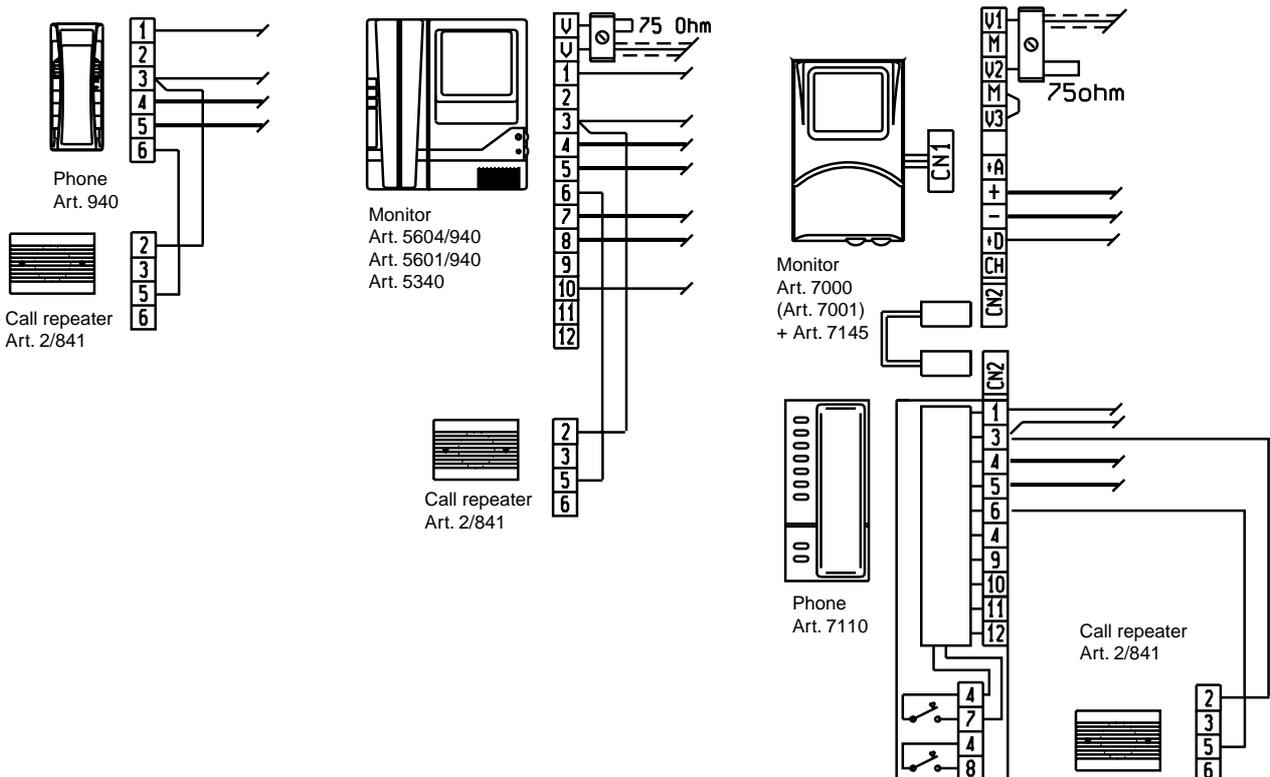
Loudspeaker model Art. 2/841 emits the same electronic sound reproduced by the entry phones and monitors.



**VERSION 6B**

**Call repeater Art. 2/841 connection for units with internal decoding.**

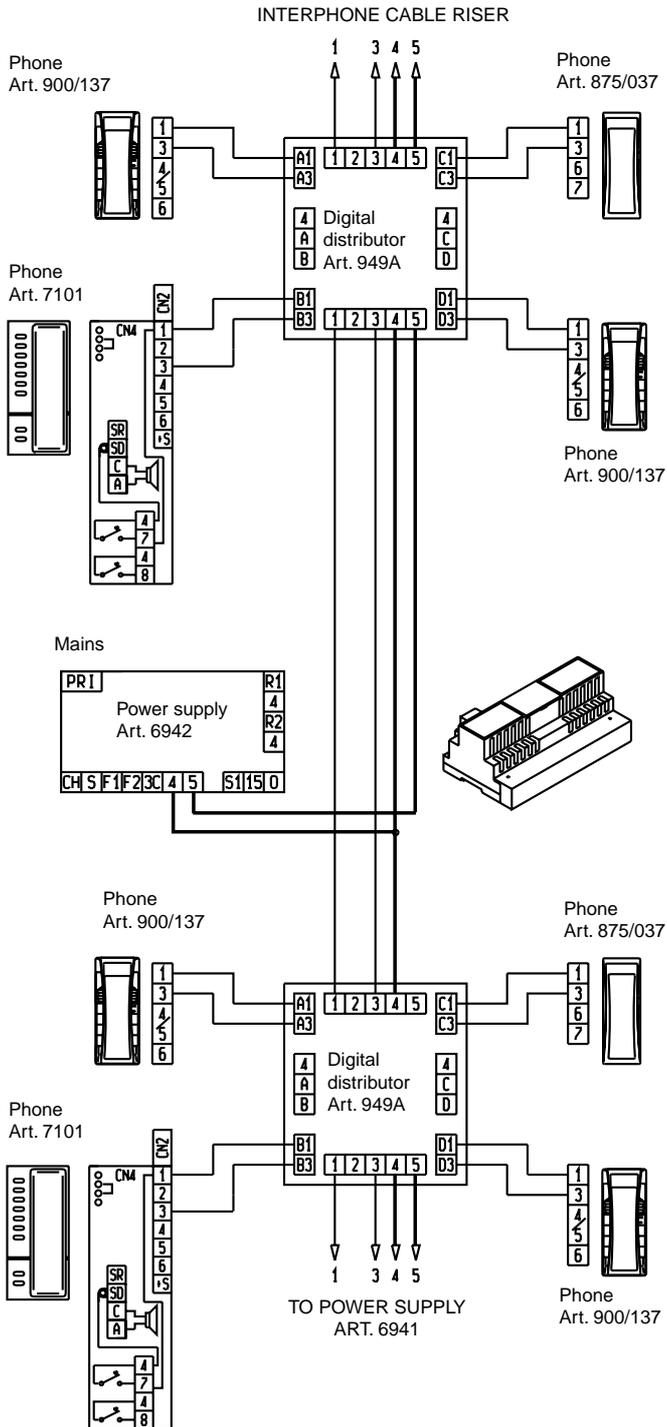
Loudspeaker model Art. 2/841 emits the same electronic sound reproduced by the entry phones and monitors.



**VERSION 7A**

Power supply Art. 6942 connection in interphone installations with many users or subject to strong voltage drops (units without internal decoding).

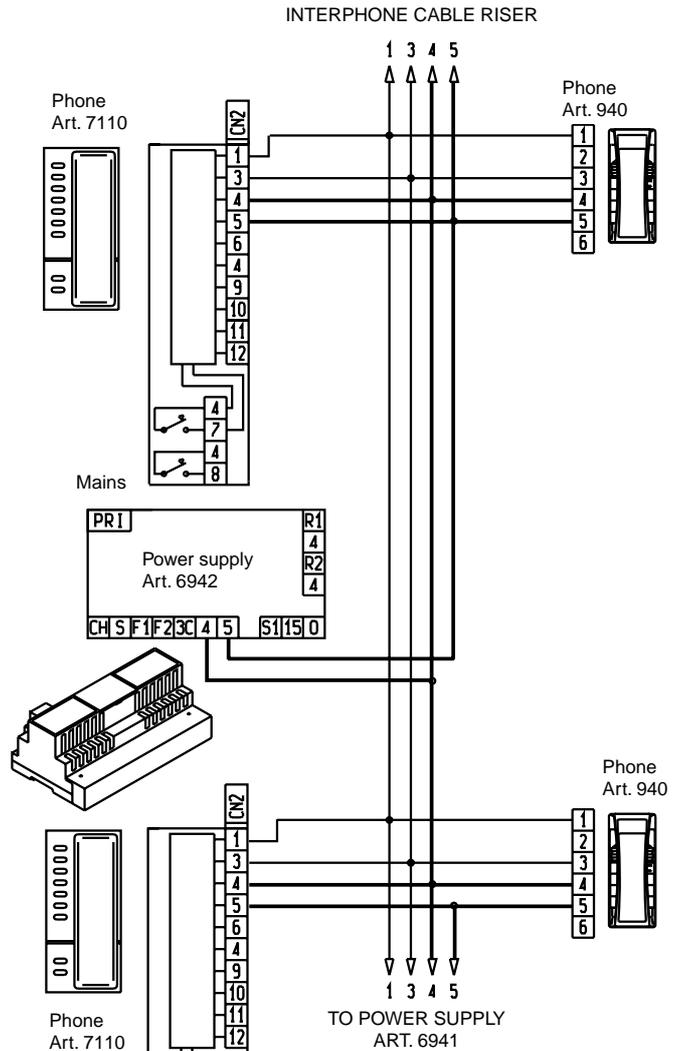
The power supply is installed in systems with long cable runs or more than 10 distributors Art. 949A.



**VERSION 7B**

Power supply Art. 6942 connection in interphone installations with many users or subject to strong voltage drops (units with internal decoding).

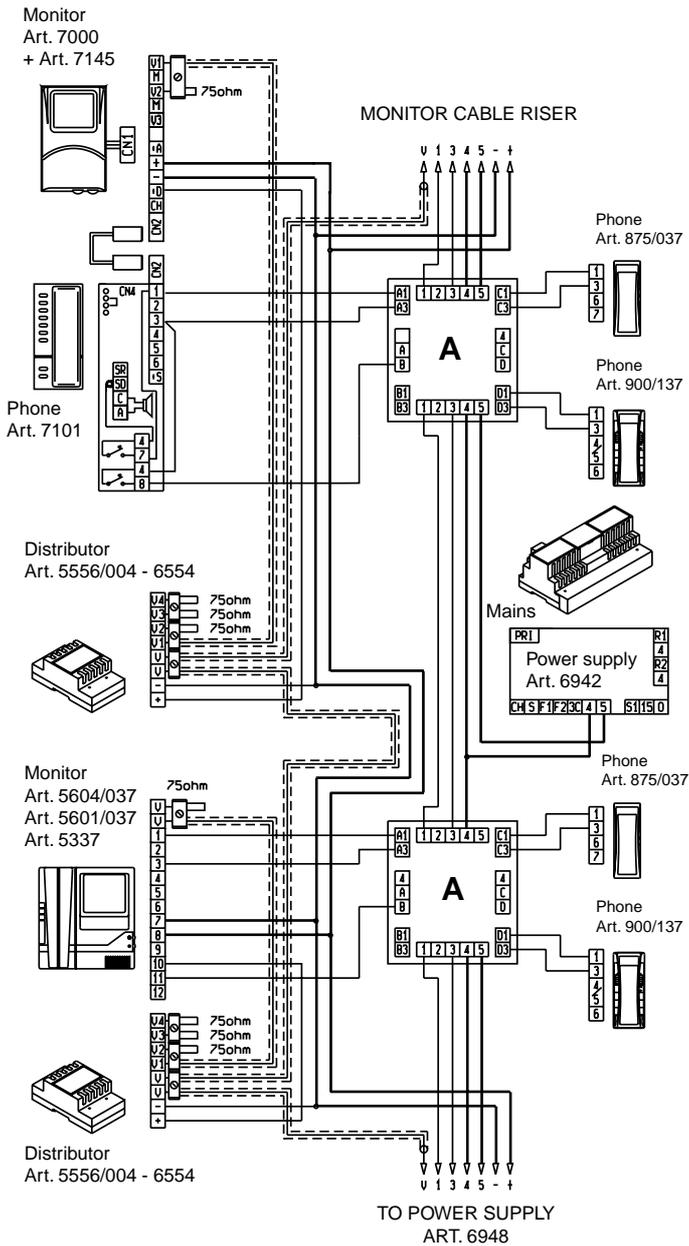
The power supply is installed in systems with long cable runs or more than 60 interphones.



**VERSION 8A**

Power supply Art. 6942 connection in video entry installations with many users or subject to strong voltage drops (monitors without internal decoding).

The power supply is installed in systems with long cable runs or more than 10 distributors Art. 949A.

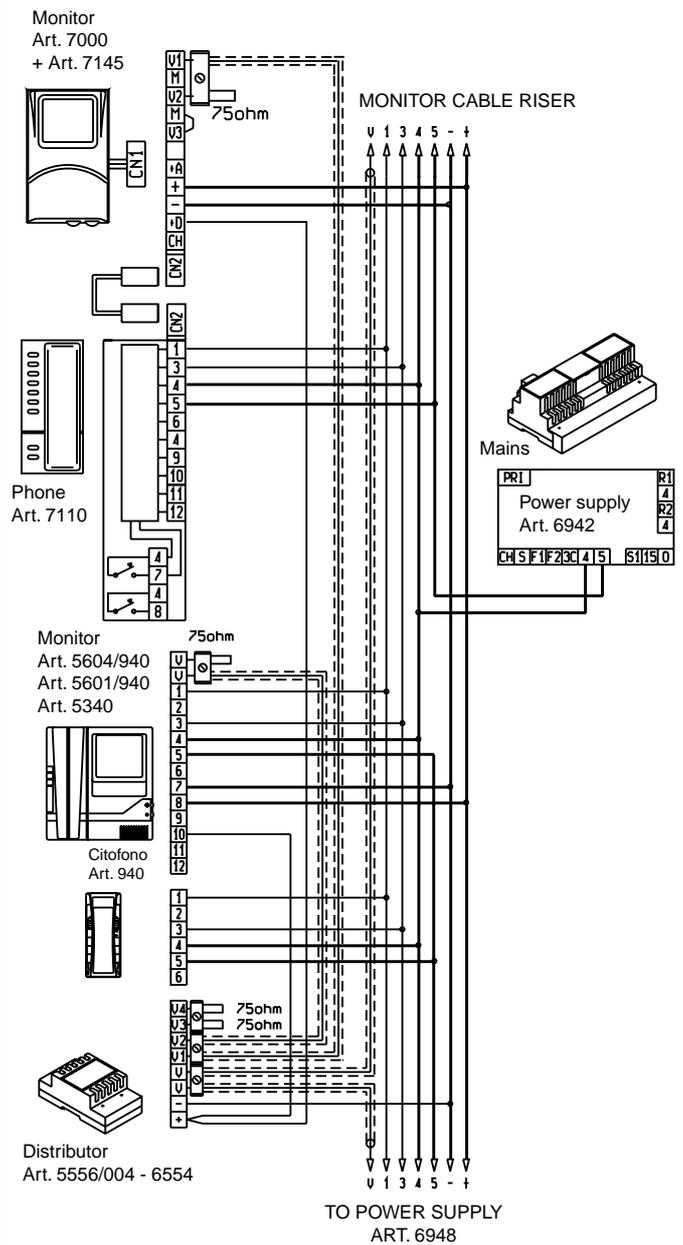


A- Digital distributor  
 Art. 949A

**VERSION 8B**

Power supply Art. 6942 connection in video entry installations with many users or subject to strong voltage drops (monitors with internal decoding).

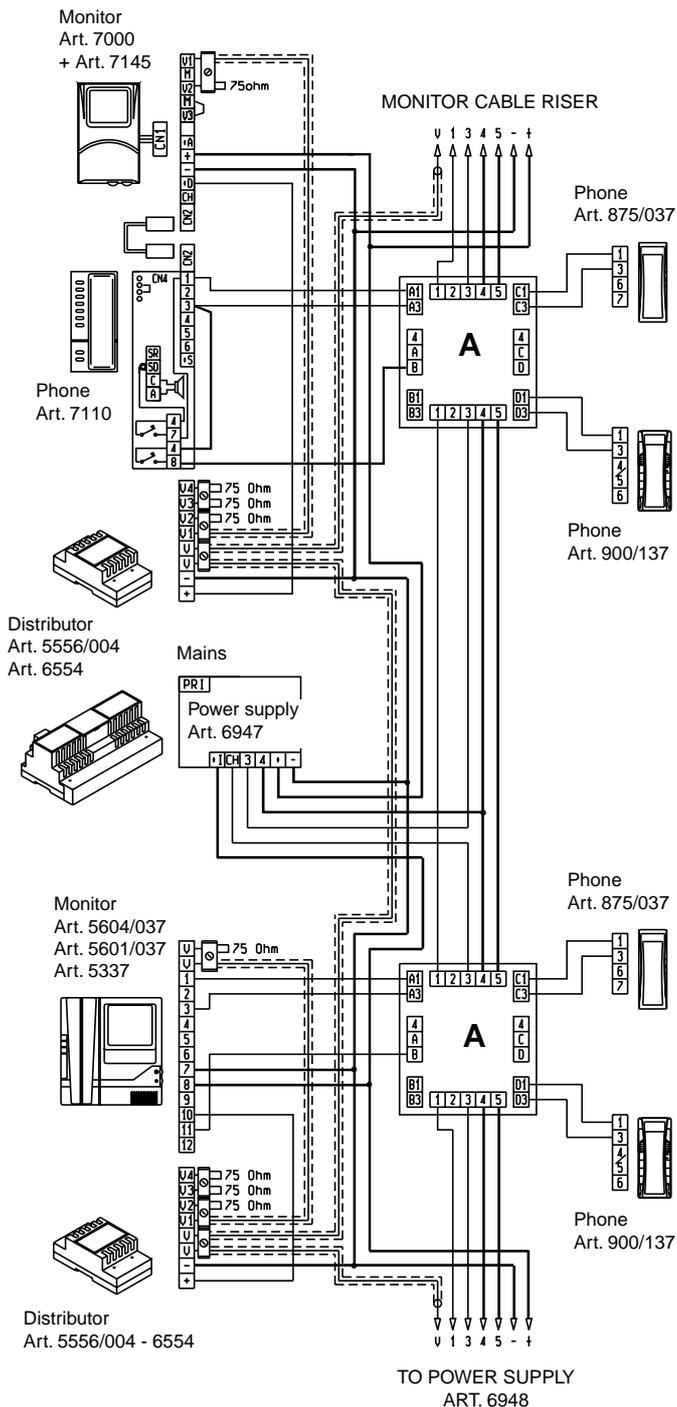
The power supply is installed in systems with long cable runs or more than 60 interphones.



**VERSION 9A**

Power supply Art. 6947 connection in video entry installations with many users or subject to strong voltage drops (monitors and interphones without internal decoding).

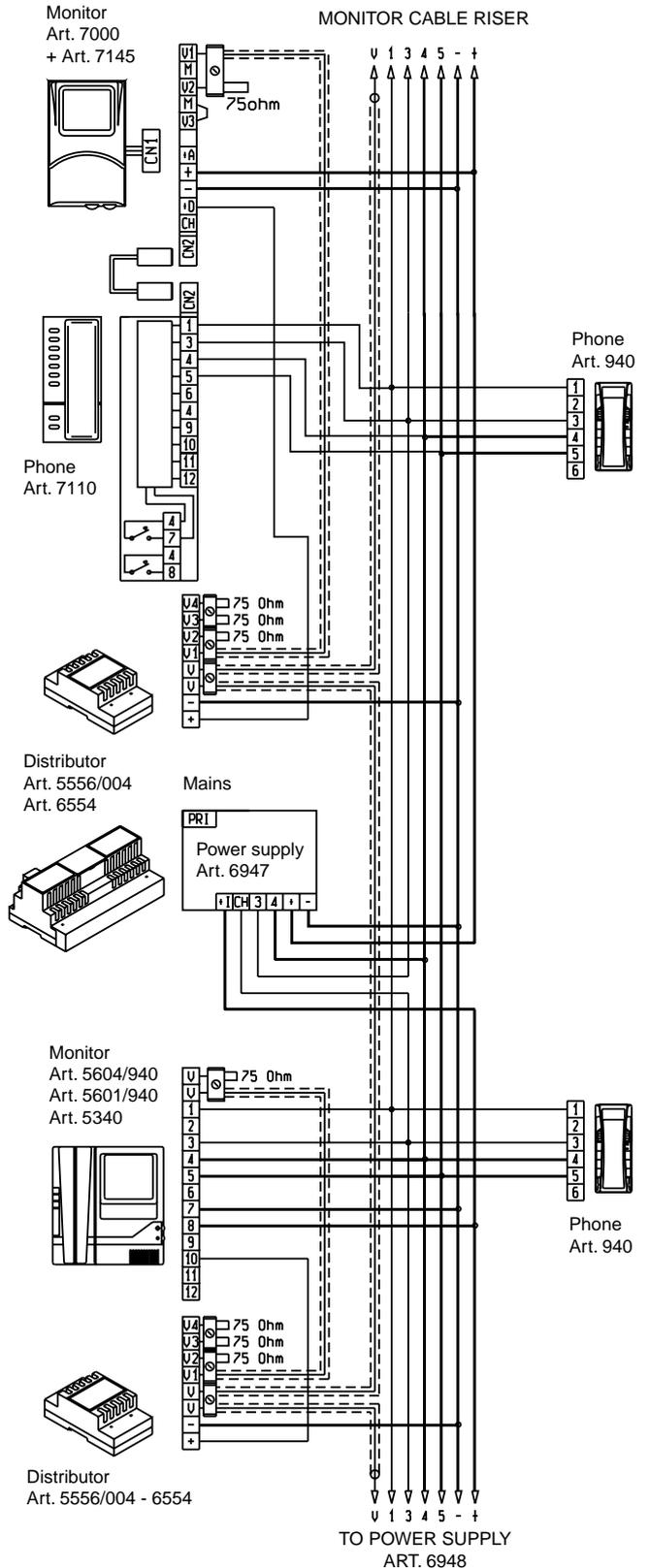
The power supply is installed in systems with long cable runs.



**VERSION 9B**

Power supply Art. 6947 connection in video entry installations with many users or subject to strong voltage drops (monitors and interphones with internal decoding).

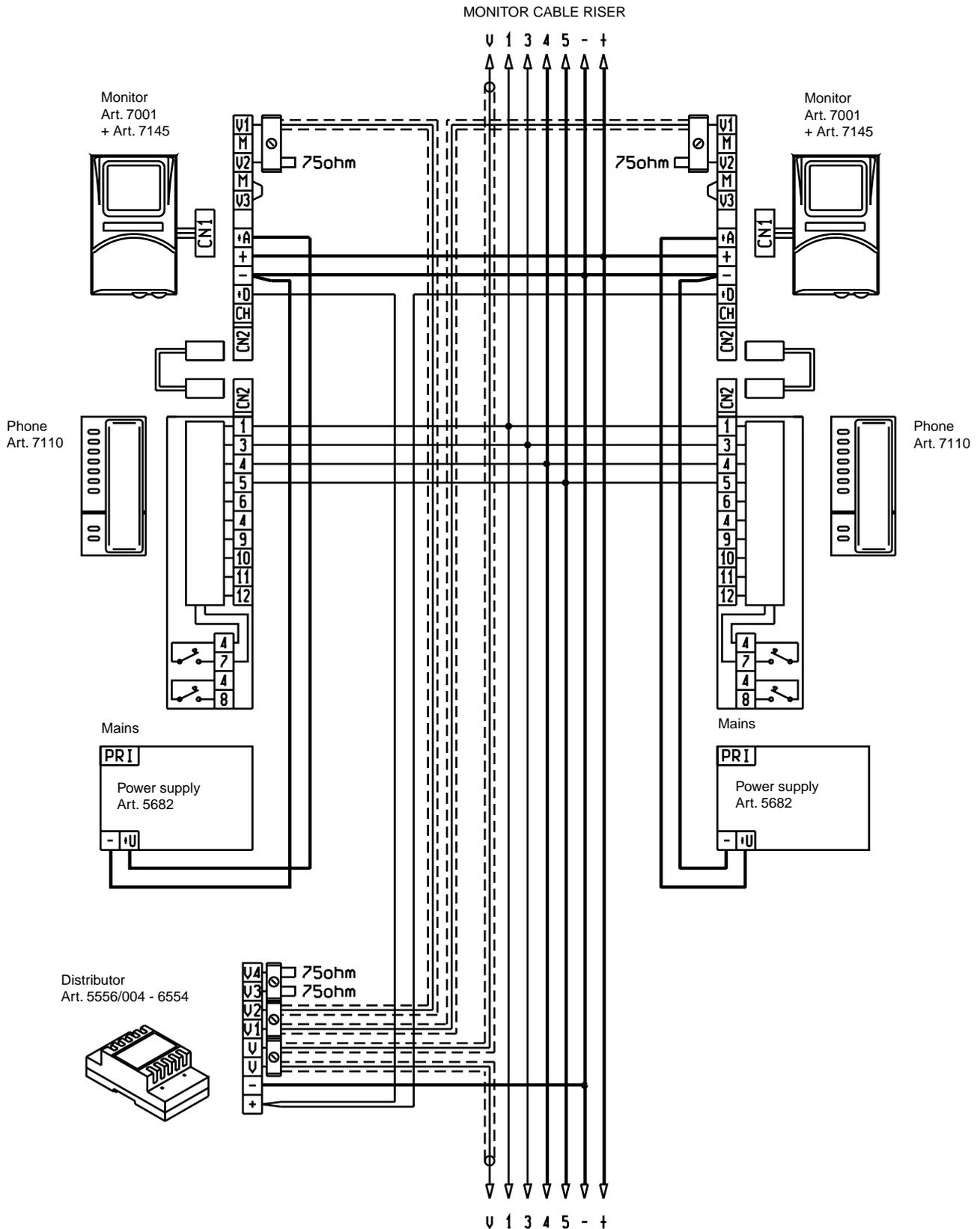
The power supply is installed in systems with long cable runs.



**VERSION 10A**

**Wiring diagram of GALILEO MEMOVISION monitor and interphones with internal decoding.**

Connect a power supply Art. 5682 for each monitor Art. 7001.

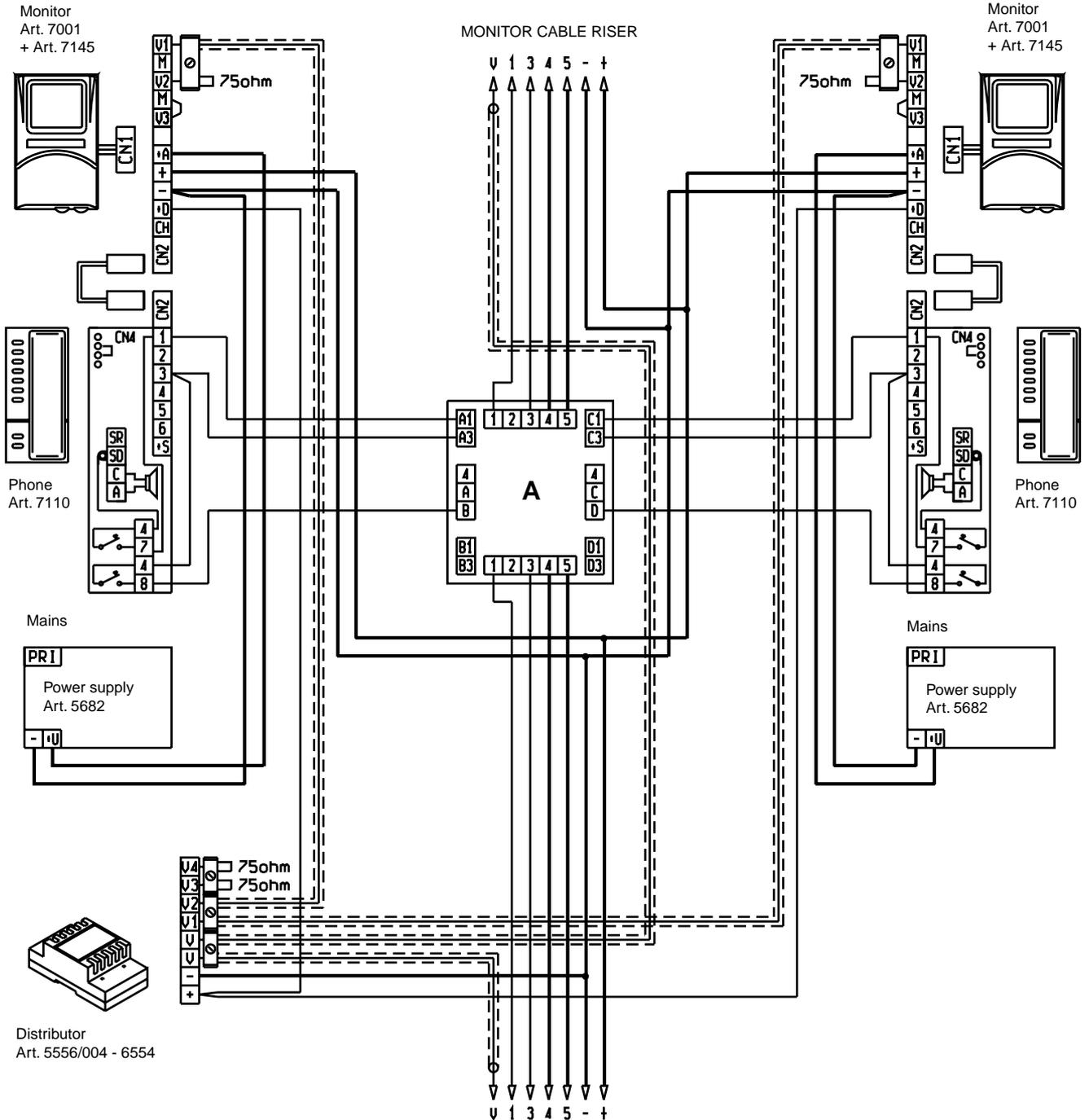


**VERSION 10B**

**Wiring diagram of GALILEO MEMOVISION monitor and interphones without internal decoding.**

Connect a power supply Art. 5682 for each monitor Art. 7001.

A- Digital distributor  
Art. 949A



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