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## GENERAL INSTRUCTIONS FOR INSTALLATION

This catalogue contains the wiring diagrams for A.C. call standard Elvox product applications.

1) Run the cabling through separate ducts from those containing lighting and industrial power cables. Use coloured cables as an aid in making the connections.
2) Install the units away from sources of heat and moisture.
3) Apartment intercoms (with or without handset) can be flush wall-mounted with the box vertical.
4) The 8-module DIN housing power supplies are fitted with 30A transformers with 1,6A fuses. The output voltage to the intermittent controls such as door locks and buzzers is 15VAC, do not exceed half the nominal power for continuous operation. Install an auxiliary transformer if the continuous power supply exceeds this limit.
5) When the system is hooked up, check that it is connected to the correct mains voltage. Make sure that all handsets have been replaced before switching on the system.
6) Run the final tests and adjust the volume with the potentiometer (depends on model).
7) Connect a repeater relay box (Art. 170/001) in installations with long cable runs and electric door locks or several buzzers. This unit must also be used for activating devices which operate at higher voltages (125-230) such as stairway lights.
IMPORTANT: Carefully follow the indications of the wiring diagrams and use cables of an appropriate section for the length of the cable run.

## 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 standard door entry 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.
- This leaflet must always be enclosed with the equipment.


## MIN. SECTION OF CONDUCTORS (mm²)

| Conductors | $\varnothing$ up to 50 m. | $\varnothing$ up to 100 m. | $\varnothing$ up to 200 m. |
| :--- | :---: | :---: | :---: |
| Common <br> and lock | $1 \mathrm{~mm}^{2}$ | $1.5 \mathrm{~mm}^{2}$ | $2.5 \mathrm{~mm}^{2}$ |
| Other | $0.25 \mathrm{~mm}^{2}$ | $0.5 \mathrm{~mm}^{2}$ | $1 \mathrm{~mm}^{2}$ |

Minimum cable sections apply to all diagrams unless otherwise specified

## Conversion table for section-diameter and resistance of 100 m . standard conductors.

| Section $\mathrm{mm}^{2}$ | 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 |
| Diameter (tenths) | $4 / 10$ | $6 / 10$ |  | $8 / 10$ | $10 / 10$ | $12 / 10$ | $14 / 10$ | $18 / 10$ |  |  |
| Resistance $\Omega 100 \mathrm{~m}$. | 14.00 | 6.60 | 4.80 | 3.50 | 2.20 | 1.70 | 1.14 | 0.69 | 0.39 | 0.28 |

CE quality mark according:
$1^{\circ}$ EC Directives 89/336/EEC + 92/31/EEC + 93/68/EEC regarding "Electromagnetic Compatibility" (EMC) through compliance with Standards EN50081-1 e EN 50082-1.
$2^{\circ}$ EC Directives 73/23 e 93/68 regarding "Product Safety" through compliance with Standards EN60065 e CEI 92-1, publication 2405-E.

Power supply units constitute SELV sources in compliance with the requirements stipulated in Article 411.1.2.2 of CEI standard 64-8 (ed. 1998).

## SYMBOLS

| 4 A.C.bell | -8 | Bulb | 0 | Loudspeaker |  | A.C. supply from mains |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 A.C. buzzer | - | Push-button | 6 | Amplified microphone | 宁 | Ground |
| $\triangle$ Electric lock | $\cdots$ | Switch | 円 | Receiver |  |  |

## PHONES SERIES 900



Wall-mounted interphones in thermoplastic material, complete with flexible coil cord they are supplied with screws for mounting on standard back box or with expanding plugs with screws, possibility of adding a second chime Art. 2/817. Available colours: white (code .05), black (code .04)
Dimensions: 90x222x70.
900-One push-button(option of adding a second push-button Art. 2/903); it may be connected to switchboards series 142-152-162. Dimensions: $90 \times 222 \times 70$

902 - One push-button (option of adding a second push-button Art. 2/903); seven more pairs of push-buttons Art. 2/904 may be inserted (allowing up to 16 push-buttons in total); this phone may be connected to switchboards series 142-152-162.
Dimensions: $90 \times 222 \times 70$
900/881 - Same as Art. 900, but for standard door-entry system with conversation privacy; to be used with power supply Art. 881; not to be connected to switchboards.
Dimensions: 90x222x70
149/900 - Desk type interphone for night service; complete with two push-buttons:door- lock release and communication with entrance panel; to be used with switchboards series 142 and 162. Dimensions: $90 \times 222 \times 70$

## Installation instructions:

Fig. 1- Separate the base of the interphone from the cover by inserting a wide-blade screwdriver in slots and turning it clockwise until the two elements snap apart.
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 upper side at 1.5 mt . height from ground level.

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


## PHONES SERIES 870

Wall-mounted interphones in two-colour plastic, complete with flexible coil cord; zinc plated steel base; buzzer and possibility of adding a second bell Art. 2/810 or electronic buzzer Art. 2/816; supplied with screws for mounting on standard
box or expanding plugs with screws. Available colours: white-black (code. 02), white (code .05) or black (code .04).
Dimensions: $71 \times 222 \times 57$.


870 - Two push-buttons (door-lock release and additional). This phone may be connected to switchboards series 142, 152 and 162. Dimensions: 71x222x57

870/001 - Same as Art. 870 but with conversation switch on handset, it cannoy be used with interphone switchboard. Dimensions: $71 \times 222 \times 57$

870/081 - Same as Art. 870, but for STANDARD DOOR-ENTRY SYSTEMS with conversation privacy, to be used with power supply Art. 881. Dimensions: $71 \times 222 \times 57$


## PHONES SERIES GALILEO

## 7100

Wall-mounted interphone, with two pushbuttons, available in white or grey, with loudspeaker for calls to systems in the SOUND-SYSTEM range. Mounting on rectangular vertical 3module back box or by means of expansion plugs. Possibility of adding seven supplementary pushbuttons or other accessories. The interphone can also be desk-mounted by means of the special conversion kit. Adaptable for operation with a.c. call by means of supplementary chimes Art. 7148 (buzzer), Art. 7150 (ding-dong chime) or Art. 7151 (modulated chime). Dimensions: 90x220x72

## 710R

Interphone as above with built-in buzzer and possibility of adding supplementary chime (Art. 7151 + loudspeaker Art. R090) for intercommunication systems.

Opening of interphone



2/817 - Additional chime (electronic buzzer); to be used on interphones series 900, 902; 15V A.C. supply.


2/901 - Desk-top conversion kit for interphones series 900 902; standard colour white (code .05), available also in black (code .04), with 6-conductor cable; complete with fixed terminal block.
2/902 - Desk-top conversion kit for interphones in the 900 and 902 series. Standard colour white (code 05), also available in black (code 04). Equipped with 12-conductor cable and removable plug and socket.
MOUNTING INSTRUCTIONS


Fig. 1


Fig. 2


2/903 - Additional single push-button; to be used with interphones series 900 and 902 .

2/904 - Pair of additional keys and push-buttons; to be used with interphones series 902, after removing covers. Available colours: white (code .05), black (code .04) .

MOUNTING INSTRUCTIONS


Art. 2/904


Fig. 3


2/906 - Signalling module with red LED. To be used on interphones series 900 and 902 instead of a push-button to indicate open lock or other functions. 15 V A.C. or D.C. supply.

2/9V6 - Signalling module as above, but with green LED.

MOUNTING INSTRUCTIONS


Proceed as follows to install the module in interphones series 900-902:
1- Remove the housing from the bottom of the unit.
2- Use a screwdriver to prize out the clips on the inside of the housing marked with the arrow $\Rightarrow$ and remove the cover plate.

3- Replace one of the plastic slides on the hole cover plate with the transparent slide control provided with Art. 2/906.
4- Clip the cover plate into position first on the opposite side to the arrow on the housing. Check that the slide controls are correctly positioned, and only then clip the plastic slide into position on the side marked with the arrow $\Rightarrow$.
5- Fit the LED module in the bottom of the unit at the clear panel, and make all necessary connections. 15V D.C.-A.C. operating voltage.


2/908 - Large key module (replaces supplementary pair of buttons article 2/904). Standard colour white (code 05), also available in black (code 04).
MOUNTING INSTRUCTIONS


Fig. 2


Proceed as follows to install the module in interphones series 902:
1- Remove the outer shell from the bottom of the system unit.
2- Insert push-button on the interphone button
3- Use a screwdriver to prize out the clips on the inside of the shell marked with the arrow $\Rightarrow$ and remove the cover plate.
4- Clip the cover plate into position first on the opposite side to the arrow on the shell. Check that the slide controls are correctly positioned, and only then clip the button into position on the side marked with the arrow $\Rightarrow$.


2/909 - Two-way switching module for switching the phonic line between two external entrance panels (replaces pair of pushbuttons). Standard colour white (code 05), also available in black (code 04).

## MOUNTING INSTRUCTIONS




Fig. 3

## MOUNTING INSTRUCTIONS

Proceed as follows to install the module in interphones series 902:
1- Remove the outer shell from the bottom of the system unit.
2- Insert push-button on the interphone button
3- Use a screwdriver to prize out the clips on the inside of the shell marked with the arrow $\Rightarrow$ and remove the cover plate.
4- Clip the cover plate into position first on the opposite side to the arrow on the shell. Check that the slide control are correctly positioned, and only then clip the button into position on the side marked with the arrow $\Rightarrow$.

## MODULE USE

The Art. 2/909 switch module enables phone communication with two external entrance panels. After installing the accessory, connect the BLUE wire to terminal " 1 " and the WHITE wire to terminal " 2 " on the phone terminal board and make the connections according to the wiring diagram below:

## OPERATION

To communicate with speech unit no. 1 after receiving a call, simply raise the handset; to communicate with speech unit no. 2 keep the relative push-button pressed (module Art. 2/909).
N.B. If there are two electric door locks, a supplementary push-button must be fitted (Art. 2/903) for independent activation of each mechanism.


For other connections follow diagrams provided with power supplies Arts. 836.

A- Entrance panel with speech unit
B- Electric lock 12V A.C.
C- Speech unit Art. 930/836

| LIDEODORENIRYSYSIEMS | INTERPHONE ACCESSORIES | Art. 900-902-870-801 |
| :---: | :---: | :---: |

2/910 - One-way switching module with RED LED.
Used in place of 2 pushbuttons on 902 series interphones for various functions. Power supply voltage 15 V d.c. or a.c.


2/912 - N/C pushbutton and external key. Used for automatic entry system control and mounted in place of a single pushbutton.


2/810 - Additional buzzer for Art. 870.
2/816 - Additional chime (electronic buzzer); to be used on interphones series 870 ; 12 V A.C. supply.


## Art. 7148

Electromechanical chime (buzzer) installed on interphones Art. 7100 for use with AC power supply. 12-15Vac power supply. Consumption: 400 mA


## ELECTRONIC CHIME ASSEMBLY

1) 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 Fig. 1-2.
2) Fit the buzzer in its housing on the loudspeaker by pressing it down until it is correctly inserted (Fig. 3).
3) Disconnect the two loudspeaker conductors with faston connectors from the mother board of the interphone.
4) Connect the two terminals on the buzzer to a voltage supply of 12 to 15 Vac .


Fig. 3


## Art. 7151



Electronic modulated chime. Installed on interphones Art. 7100 for use with AC power supply.
12-15V AC power supply.
Example of chime Art. 7151 connections
Phones Art. 7100 + Art. 7151


## Art. 7150

Electronic ding-dong chime. Installed on interphones Art. 7100 for use with AC power supply. $12-15 \mathrm{~V}$ ac/ $15 \div 20 \mathrm{~V}$ dc power supply.


## ELECTRONIC CHIMES ASSEMBLY

1) 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 Fig. 1-2.
2) Fit the electronic card in its housing on the loudspeaker by pressing it down until it is correctly inserted (Fig. 3).
3) Disconnect the two loudspeaker conductors with faston connectors from the mother board of the interphone and connect them to the two pins ("A-A" named) on chimes card (Fig. 4).
4) Make the connections as indicated in the wiring diagrams.


## Art. 7140

Desktop conversion kit for interphone series 7100; with 6 -core cable and fixed terminal board.

Art. 7A40 - Desktop conversion kit for interphone series 7100 ; with 16 -core cable; equipped with removable plug and socket.





## Art. 7154

Red led signalling module; occupies space of one pushbutton.
Operating voltage: $15 \mathrm{Vdc} / \mathrm{ac}$.
MOUNTING INSTRUCTIONS


Fig. 1 -Remove the housing from the bottom of the unit.
Fig. 2 -Detach the cover on the back of the unit by pressing the internal clips and sliding it out. This done, fit the module with transparent cover in its place by pushing it down until it snaps shut.
Fig. 3 - Fit the LED module in the bottom of the unit at the clear panel, and make all necessary connections.

## Art. 7155

Conversation privacy card for insertion in interphone Art. 7100. Used with special power supply unit Art. 881. In this case only the user receiving the call from the entry panel is enabled for conversation with the door entry panel.


## CARD ASSEMBLY ON INTERPHONE

1) Remove the three jumpers on connectors $A, B$ and $C$ from the interphone mother board (see figure).
2) Fit card art. 7155 onto the connector marked A-CN4 taking care that the tab on the card fits into the slot on the interphone motherboard.


Art. 7156


2-way 2-position switching module to connect two amplified entry panels (Art. 930/836); occupies space of 2 standard pushbuttons.

## MOUNTING INSTRUCTIONS

Fig.1: Remove the cover from the interphone.
Fig. 2: At the rear of the unit, push the internal clips to remove the hole cover plate. Insert the black key in place of the hole cover plate and push down until it clicks into place.
Fig. 3: Fit the switching module in alignment with the transparent key on the lower section of the interphone and make the relative connections.

Connect respectively the RED wire to terminal 1 and the WHITE wire to terminal 2 on the interphone terminal block and wire as shown in the diagram overleaf.

## OPERATION

To communicate with entrance panel 1 following a call, lift the handset and speak; to communicate with entrance panel 2 , press the pushbutton on module art. 7156 to speak with the caller.



## MODULAR ENTRANCE PANELS

Flush-mounted modular series for standard doorentry systems, without speech unit; panel in natural (code .14) or dark brown (code .16) anodized aluminium, complete with push-buttons and removable name-tags in self-extinguishing plastic; 24 V 3 W tube lamps; back-box; luminous push-button for panel lighting. Preset for mounting of speech unit
 Art. 930 or Art. 930/836.

| Article | Push-button <br> number | * | Panel <br> dimens. | Back box <br> dimens. |
| :--- | ---: | :--- | :--- | :--- |
| $2900 / 001$ | 1 | a | $100 \times 187$ | $89 \times 164 \times 50$ |
| $2900 / 002$ | 2 | a | $100 \times 187$ | $89 \times 164 \times 50$ |
| $2900 / 003$ | 3 | b | $100 \times 215$ | $89 \times 192 \times 50$ |
| 2900004 | 4 | c | $100 \times 233$ | $89 \times 22050$ |
| $2900 / 005$ | 5 | d | $100 \times 271$ | $89 \times 248 \times 50$ |
| $2900 / 006$ | 6 | e | $100 \times 299$ | $89 \times 276 \times 50$ |
| $2900 / 007$ | 7 | f | $100 \times 327$ | $89 \times 304 \times 50$ |
| $2900 / 008$ | 8 | g | $100 \times 355$ | $89 \times 332 \times 50$ |
| 2900009 | 9 | h | $100 \times 383$ | $89 \times 36050$ |
| $2900 / 010$ | 10 | i | $100 \times 411$ | $89 \times 388 \times 50$ |
| $2900 / 011$ | 11 | l | $100 \times 439$ | $89 \times 416 \times 50$ |
| $2900 / 012$ | 12 | m | $100 \times 467$ | $89 \times 444 \times 50$ |
| $2900 / 013$ | 13 | n | $100 \times 495$ | $89 \times 472 \times 50$ |

Flush-mounted modular series Art. 2950/... like series 2900, but is not preset for speech unit insertion. They may be connected to panels series 2900 by using the special hooks supplied.
N.B. Additional panel Art. 2950/... may be combined with same letters Art. 2900/... panels.

| Article | Push-button <br> number |  | Panel <br> dimens. | Back box <br> dimens. |
| :--- | :--- | :--- | :--- | :--- |
| $2950 / 002$ | 2 |  | $100 \times 131$ | $89 \times 108 \times 50$ |
| $2950 / 003$ | 3 |  | $100 \times 131$ | $89 \times 108 \times 50$ |
| $2950 / 004$ | 4 |  | $100 \times 159$ | $89 \times 136 \times 50$ |
| $2950 / 005$ | 5 | a | $100 \times 187$ | $89 \times 164 \times 50$ |
| $2950 / 006$ | 6 | b | $100 \times 215$ | $89 \times 192 \times 50$ |
| $2950 / 007$ | 7 | c | $100 \times 243$ | $89 \times 220 \times 50$ |
| $2950 / 008$ | 8 | d | $100 \times 271$ | $89 \times 248 \times 50$ |
| $2950 / 009$ | 9 | e | $100 \times 299$ | $89 \times 276 \times 50$ |
| $2950 / 010$ | 10 | f | $100 \times 327$ | $89 \times 304 \times 50$ |
| $2950 / 011$ | 11 | g | $100 \times 355$ | $89 \times 332 \times 50$ |
| $2950 / 012$ | 12 | h | $100 \times 383$ | $89 \times 360 \times 50$ |
| $2950 / 013$ | 13 | i | $100 \times 411$ | $89 \times 388 \times 50$ |
| $2950 / 014$ | 14 | l | $100 \times 439$ | $89 \times 416 \times 50$ |
| $2950 / 015$ | 15 | m | $100 \times 467$ | $89 \times 444 \times 50$ |
| $2950 / 016$ | 16 | n | $100 \times 495$ | $89 \times 472 \times 50$ |

## PANELS WITH RAINPROOF COVERS

Series 2970
In natural (code .14) or dark brown (code .16) anodized aluminium. Same characteristics as series 2900.

|  | Push-button <br> Article | Panel <br> number <br> dimens. |
| :--- | :--- | :--- |
| $2970 / 001$ | 1 | $113 \times 203 \times 70$ |
| $2970 / 002$ | 2 | $113 \times 203 \times 70$ |
| $2970 / 003$ | 3 | $113 \times 231 \times 70$ |
| $2970 / 004$ | 4 | $113 \times 259 \times 70$ |
| $2970 / 005$ | 5 | $113 \times 287 \times 70$ |
| $2970 / 006$ | 6 | $13 \times 315 \times 70$ |
| $2970 / 007$ | 7 | $113 \times 343 \times 70$ |
| $2970 / 008$ | 8 | $113 \times 371 \times 70$ |

## SURFACE-MOUNTED ENTRANCE PANELS

Modular series for standard door-entry systems, without speech unit; panel in natural (code .14) or dark brown (code .16) anodized aluminium, complete with push-buttons and removable name-tags in self-extinguishing plastic; 24 V 3 W tube lamps; luminous push-button for panel lighting. Preset for mounting of speech unit Art. 930 or Art. 930/836.

| Article | Push-button <br> number |  | Panel <br> dimens. |
| :--- | :--- | :--- | :--- |
| $2990 / 001$ | 1 | a | $100 \times 187 \times 35$ |
| $2990 / 002$ | 2 | a | $100 \times 187 \times 35$ |
| $2990 / 003$ | 3 | b | $100 \times 215 \times 35$ |
| $2990 / 004$ | 4 | c | $100 \times 23 \times 35$ |
| 2990005 | 5 | d | $100 \times 271 \times 35$ |
| $2990 / 006$ | 6 | e | $100 \times 299 \times 35$ |
| $2990 / 007$ | 7 | f | $100 \times 327 \times 35$ |

Surface mounted modular series Art. 2995/... like series 2990, but is not preset for speech unit insertion. They may be connected to panels series 2990 by using special hooks supplied.
N.B. Additional panel Art. 2995/... may be combined with same letters Art. 2990/... panels.

| Article | Push-button <br> number | * | Panel <br> dimens. |
| :--- | :--- | :--- | :--- |
| $2995 / 005$ | 5 | a | $100 \times 187 \times 35$ |
| $2995 / 006$ | 6 | b | $100 \times 215 \times 35$ |
| $2995 / 007$ | 7 | c | $100 \times 243 \times 35$ |
| $2995 / 008$ | 8 | d | $100 \times 271 \times 35$ |
| $2995 / 009$ | 9 | e | $100 \times 299 \times 35$ |
| $2995 / 010$ | 10 | f | $100 \times 327 \times 35$ |

## MOUNTING INSTRUCTIONS

To separate front plate from back box, follow these instructions (see Fig. 1):
1: Loosen screw in lower of front plate to limit of thread, using special key provided.
2: Lift lower border of front plate slightly outwards and upwards..
3-4: Detach front plate by pulling it downwards.
For mounting of wiring cables use proper holes by removing plastic caps placed on entrance panel bottom.


When using additional modular panels, match them with speech unit entrance panel, paying attention that they are at the same height (see Fig. 2).

The back box upper side is to be flush-mounted at an advisable height of 1.40 to 1.70 m . from floor level.


Fig. 1


NAME-TAG REMOVAL
Remove the name-tag as follows:
1- First detach the front plate from its support.
2- Pull the name-tag holder gently out and downwards to remove it (Fig. 3) and extract the name-tag.

3- Refit the name-tag and its holder (the holder will click into place).

IMPORTANT: To install the unit on a gate, first fit a metal plate for mounting the entrance panel (Fig. 4).

## ACCESSORY FOR MODULAR ENTRANCE PANELS

2/292 - Double key with name-tag and pushbutton, to replace single push-buttons on modular panels series 2900, 2950, and 2970 to double the number of push-buttons.

## VANDAL RESISTANT PANELS

Provided with die-cast aluminium plate with special paint treatment, resistant against atmospheric conditions; standard colour: "PAINTED BRONZE" (code .28). They are supplied with special screws and security key; push-buttons in anodised aluminium and name-tags in self-extinguishing plastic. Complete with push-button holder
 frame in zinc-plated steel; 24 V 3 W tube lamp for panel lighting.
Can be combined with die-cast flush-mounted back box Art. 320S or rain guards Art. 320P -322P-323P.
Preset for mounting of speech unit art. 930.

| Article | Push-button <br> number | Panel <br> dimens. | Back box <br> dimens. |
| :--- | :--- | :--- | :--- |
| 3200 | 0 | $120 \times 278 \times 18$ | $111 \times 265 \times 45$ |
| 3201 | 1 | $120 \times 278 \times 18$ | $111 \times 265 \times 45$ |
| 3202 | 2 | $120 \times 278 \times 18$ | $111 \times 265 \times 45$ |
| 3203 | 3 | $120 \times 278 \times 18$ | $111 \times 265 \times 45$ |
| 3204 | 4 | $120 \times 278 \times 18$ | $111 \times 265 \times 45$ |
| 3205 | 5 | $120 \times 278 \times 18$ | $111 \times 265 \times 45$ |
| 3206 | 6 (doppi) | $120 \times 278 \times 18$ | $111 \times 265 \times 45$ |
| 3208 | 8 (doppi) | $120 \times 278 \times 18$ | $111 \times 265 \times 45$ |
| 3210 | 10 (doppi) | $120 \times 278 \times 18$ | $111 \times 265 \times 45$ |

## MOUNTING INSTRUCTIONS

Flush mount back box at wall level.
Fig. 1 The drawing shows the components of the panel:
A - Front plate
B - Speech unit
C - Frame
D - Back-box
E - Special key for security screws
Figs. 2-3 These panels may be mounted either horizontally or vertically. In this case back-boxes are separated from the panels and frames and assembled as shown in the drawing, in order to be able to rnount them at the same height. For this purpose, special brackets are used for holding back-box in position in the plaster. These brackets may be vertically or horizontally fitted.
Fig. 4 Make the holes for the electric wires to pass through, placing the wires in the correct position.
Fig. 5 To gain access to the name-tags, take out the narne-tag holder from the rear, as shown in the drawing.

Carry out connections to speech unit by means of removable terminal block, wire push-buttons, bulb and door-lock. After testing, fit front plate, by using security screws with special supplied tool (Fig. 1 point "E").

The back box upper side is to be flush-mounted at an advisable height of 1.40 to 1.70 m . from floor level.

Fig. 6 - Mounting with rainproof cover.
The rain-proof cover is mounted on external wall-mounted vandal-proof security panels. To install, follow the procedure previously described but without using the back box. The panel may be set up with 1, 2 or 3 rows using rain-proof covers Art. 320P, 322P or 323P respectively.
Fig. 3

Fig. 5

Fig. 6
PANEL WITH LETTER BOX AND REAR OPENING
Door entry panel in RAL 7035 grey painted aluminium mit protection in antiUV tecnopolimers, separated from the zinc plated pre-painted housing. Preset for outdoor station (audio only) Art. 930. Equipped with 24V 3W lamp.


| Article | Push-button <br> No. | Plate dimens. <br> mm | Housing <br> dimens. mm |
| :--- | :--- | :--- | :--- |
| 2501 | 1 | $220 \times 320$ | $205 \times 305 \times 152$ |
| 2502 | 2 | $220 \times 320$ | $205 \times 305 \times 152$ |

PANEL WITH LETTER BOX WITH FRONT OR REAR OPENING

Panel and rainproof cover in natural anodized aluminium (code .14) or dark brown (code .16); with 24 V 3 W bulb. This panel is supplied with lock on front opening. To transform it to rear opening, simply invert lock with the hinges of the two openings (Fig. 1-4).


Preset for speech unit 930 series and camera, Art. 570 or 571 with VIDEO-MOVING system mounting.

| Article | Push-button <br> No. | Plate <br> dimens. mm |
| :--- | :--- | :--- |
| $2550 / 301$ | 1 | $265 \times 363 \times 135$ |
| $2550 / 302$ | 2 | $265 \times 363 \times 135$ |

## MOUNTING INSTRUCTIONS

The back box upper side is to be flush-mounted at an advisable height of 1.40 to 1.70 m . from floor level.

This panel is provided with letter-box with front opening. To obtain rear opening follow these instructions:

Fig. 1-2
Open front opening with special screw provided.
Remove front plate by pulling it downwards after loosening screw A.

Fig. 3
Open rear part of panel by loosening the screws on lock block. Remove parts B-C-D and lock. Insert them again reversing their position.

Fig. 4
Carry out electric wiring to speech unit and to camera, write name on name-tag and block front plate. Then fix front opening with lock system removed from rear opening.


Fig. 4


The MULTI-SYSTEM modular entrance panel component system has been designed to provide the option of combining panels of various types of audio and video door entry systems using only a few basic components. The panels can be prearranged for built-in wall installation and equipped with rainproof cover frames, if required. The same device can be installed on a wall surface using the appropriate back box. These products are constructed in extruded aluminiurn and coated with a paint, especially resistant to atmospheric attack, and technopolymers with excellent technical characteristics and provide a protection level of IP45.

Several modules are available as described below.



Ard. PaCN

Aft. ganf

Asf. SgNP

Ast. DOP?

Ard. Braz

Asf. gags

Ast. Butz

Ard. 8895

Art. 1008

Art. 8003

Arf. Sold

AIt. 8004

Art. gdos

At. 9000

Art. gosed

Asf. gotic

Ast. 的解

Ard. 8042

The modules are easily inserted into the module-holding frame as indicated:


Fig. 3


## ASSEMBLY

The MULTISYSTEM panel uses the module holder frame in the 1, 2 and 3 module versions (Art. 9081, 9082 and 9083 respectively). Assembly proceeds as follows:

1) Open the frame and disconnect the lower head (Fig. 1).
2) Insert the modules and separators (detail A, Fig. 2).
3) Close the frame and secure the lower head (Fig. 3).
4) Fit the light holder supplied with the modules to the button holder (Fig. 4).
5) Fit the buttons on the button holder (Fig. 5).
6) Fit the electronic unit to the button holder frame (Fig. 6).
7) Fix the frame to the external frame with wall-mounting box (Fig. 7).
8) To gain access to the name card, remove the card clip from behind as shown in Fig. 8.

## INSTALLATION

When the modutar entrance panels are flush－mounted in a wall，the flush mounted back box，Art． 9091 is used for 1－module ver－ sion，Art． 9092 for 2 －modules，Art． 9093 for 3 modules．More modules can be obtained by combining the three models．Back boxes are construct in hot－galvanized sheet steel with heads made from engineering plastic．Each back box is supplied with two fittings permitting you to join several built－in models together（Fig．1）so various models can be used contemporaneously provi－ ding rnore keys．Removing the plastic from the heads，located in correspondence to the fittings，creates a passage for connec－ ting cables．Panel installation for the intercom installation should be done at 1.65 meters，measuring from its upper edge to the ground surface（Fig．2）．
When more than one panel is used，we recommend use of the series 91XX hole－cover frame or the series 92XX rainproof cover to ensure that the plates are kept aligned and any damage which might be done to the wall during installation is covered（Fig． 3 and 4）．
If installation is on the wall surface，a series 93XX back box should be used suitable to the module－holder frames selected， together with the series 92XX rainproof protection of the same size．


Fig． 2


## CODED DOOR LOCK Art． 9015

Keypad module for coded lock opening．Allows separate opening of up to four door locks via a personal code．
The functions are controlled entirely by a microprocessor which handles communication with the central unit Art． 9050 and user messages via the three leds on the keypad module．
The keypad module can be connected in parallel with up to three others，powered by a single central unit Art． 9050.

## INSTALLATION

The keypad module is installed on MULTISYSTEM panels like any other module of the series．The coded lock can be installed on audio and／or video entry systems，or by itself．

BRASS DOOR ENTRY PANELS SERIES PATAVIUM


Art． 2101
Art． 2102
Art． 2103
Art． 2104
Art． 2105
Art． 2106
Art． 2107
Art． 2108
Art． 2109
Art． 2110


Art． 2202 Art． 2216 Art． 2204 Art． 2218 Art． 2206 Art． 2220 Art． 2208 Art． 2222 Art． 2210 Art． 2224 Art． 2212 Art． 2226 Art． 2214 Art． 2228


Art． 2000 Art． 2007 Art． 2001 Art． 2008
Art． 2002 Art． 2009
Art． 2003 Art． 2010
Art． 2004 Art． 2011
Art． 2005 Art． 2012
Art． 2006 Art． 2013

Panel and push－button in nichel－plated brass with artistic gilding and protective transparent．
They may be configurated with only one row of push－buttons（series 21 XX ，120mm long，for 1 to 10 users）．
Double row of push－buttons（series 22XX， 180 mm long，for 2 to 28 users）．
All of them include flush－mounted back boxes and are pre－arranged or speech unit series 930 ．
Both types of door entry panels may be associated to brass door entry panels series 20XX with push－buttons only．


Art. 142

Article $\begin{aligned} & \text { Line } \\ & \text { number }\end{aligned}$
Dimens.

| $142 / 010$ | 10 | $258 \times 265 \times 153$ | $240 \times 247 \times 100$ |
| :--- | :--- | :--- | :--- |
| $142 / / 20$ | 20 | $308 \times 265 \times 153$ | $290 \times 247 \times 100$ |
| $142 / 030$ | 30 | $358 \times 265 \times 153$ | $340 \times 247 \times 100$ |
| $142 / 040$ | 40 | $408 \times 265 \times 153$ | $390 \times 247 \times 100$ |
| $142 / 050$ | 50 | $458 \times 265 \times 153$ | $440 \times 247 \times 100$ |
| $142 / 060$ | 60 | $508 \times 265 \times 153$ | $490 \times 247 \times 100$ |
| ${ }^{*} 12 / 080$ | 80 | $408 \times 265 \times 153$ | $390 \times 247 \times 100$ |
| $* 142 / 100$ | 100 | $458 \times 265 \times 153$ | $440 \times 247 \times 100$ |
| $* 142 / 120$ | 120 | $508 \times 265 \times 153$ | $490 \times 247 \times 100$ |

N.B. When switchboard is flush-mounted it protrudes 60 mm .

* These models use a multiplier switching system. Each line selector has two bulbs of different colours for connections to two extensions by using multiplier key.


Art. 152 - Art. 154

NORMAL VERSION

| Article | Line <br> number | Dimens. <br> mm. | Dimens. of cavity for <br> flush-mounting mm |
| ---: | :---: | :--- | :--- |
| $152 / 010$ | 10 | $258 \times 265 \times 153$ | $240 \times 247 \times 100$ |
| $152 / 020$ | 20 | $308 \times 265 \times 153$ | $290 \times 247 \times 100$ |
| $152 / 030$ | 30 | $358 \times 265 \times 153$ | $340 \times 247 \times 100$ |
| $152 / 040$ | 40 | $408 \times 265 \times 153$ | $390 \times 247 \times 100$ |
| $152 / 050$ | 50 | $458 \times 265 \times 153$ | $440 \times 247 \times 100$ |
| $152 / 060$ | 60 | $508 \times 265 \times 153$ | $490 \times 247 \times 100$ |
| $* 152 / 080$ | 80 | $408 \times 265 \times 153$ | $390 \times 247 \times 100$ |
| $* 152 / 100$ | 100 | $458 \times 265 \times 153$ | $440 \times 247 \times 100$ |
| $* 152 / 120$ | 120 | $508 \times 265 \times 153$ | $490 \times 247 \times 100$ |

N.B. When switchboard is flush-mounted it protrudes 60 mm .

* These models use a multiplier switching system. Each line selector has two bulbs of different colours for connections to two extensions by using multiplier key.


## BUILDING COMPLEX VERSION

To be used in conjunction with power supply unit article 834 and diode terminal block article 2/834 (see Page 63).

| Article | Line <br> number | Dimens. <br> mm. | Dimens. of cavity for <br> flush-mounting mm |
| :--- | ---: | :--- | :--- |
| $154 / 010$ | 10 | $258 \times 265 \times 153$ | $240 \times 247 \times 100$ |
| $154 / 020$ | 20 | $308 \times 265 \times 153$ | $290 \times 247 \times 100$ |
| $154 / 030$ | 30 | $358 \times 265 \times 153$ | $340 \times 247 \times 100$ |
| $154 / 040$ | 40 | $408 \times 265 \times 153$ | $390 \times 247 \times 100$ |
| $154 / 050$ | 50 | $458 \times 265 \times 153$ | $440 \times 247 \times 100$ |
| $154 / 060$ | 60 | $508 \times 265 \times 153$ | $490 \times 247 \times 100$ |
| $154 / 080$ | 80 | $608 \times 265 \times 153$ | $590 \times 247 \times 100$ |
| $154 / 100$ | 100 | $758 \times 265153$ | $640 \times 247 \times 100$ |
| $154 / 120$ | 120 | $808 \times 265 \times 153$ | $790 \times 247 \times 100$ |

N.B.: When flush-mounted the switchboard protrudes 60 mm .


Art. 162

| Article | Line <br> number | Dimens. <br> mm. | Dimens. of cavity for <br> flush-mounting mm |
| :--- | :--- | :--- | :--- |
| $162 / 010$ | 10 | $258 \times 265 \times 153$ | $240 \times 247 \times 100$ |
| $162 / 020$ | 20 | $308 \times 265 \times 153$ | $290 \times 247 \times 100$ |
| $162 / / 30$ | 30 | $358 \times 265 \times 153$ | $340 \times 247 \times 100$ |
| $162 / 040$ | 40 | $408 \times 265 \times 153$ | $390 \times 247 \times 100$ |
| $162 / 050$ | 50 | $458 \times 265 \times 153$ | $440 \times 247 \times 100$ |
| $162 / 060$ | 60 | $508 \times 265 \times 153$ | $490 \times 247 \times 100$ |
| $162 / 080$ | 80 | $608 \times 265 \times 153$ | $590 \times 247 \times 100$ |
| $162 / 100$ | 100 | $708 \times 265 \times 153$ | $690 \times 247 \times 100$ |
| $162 / 120$ | 120 | $808 \times 265 \times 153$ | $790 \times 247 \times 100$ |

N.B.: When flush-mounted the switchboard protrudes 60 mm .

149/162 - Switching module for external line on switchboards series 162; beige thermoplastic housing; mounting with expanding plugs with screws.
Dimensions: $100 \times 85 \times 30$.

## THREE-NOTE ELECTRONIC CHIMES

In white thermoplastic material; mounting on rectangular standard back box or with expanding plugs with screws.


860A - Three-note and two-tone chime for calls from two different entrances. 230V A.C. supply ( $+6,-10 \% 50-60 \mathrm{~Hz}$ ).
Dimensions: 140×140×50
860B - Three-note and two-tone chime for calls from two different entrances. 15V A.C. supply.
Dimensions: $140 \times 140 \times 50$

860C - Three note/three tone chime for calls from three different entrances; designed to fit a standard 9 V battery to enable operation also in the event of a power failure. Power supply: 15 V ac - dc

## REPEATER RELAY

170/001 - Repeater relay, for activation of stair-lighting or several chimes; 3A 230 V load to contacts; 12 V D.C. or A.C. supply.
Dimensions with covers inserted: $70 \times 115 \times 50$

## DIODE TERMINAL BLOCK

2/834-20-diode terminal block to be used in conjunction with power supply unit article 6834 on door entry systems for building complexes. One terminal
 block is required every 20 users.
Dimensions with covers inserted: $70 \times 115 \times 50$

## 8-DIN MODULE POWER SUPPLY

8-DIN module housing in grey thermoplastic material; complete with protective covers for terminal blocks; mounting on a plate or with expanding plugs with screws; two spare fuses 230 V (+6\%, $10 \%) 50-60 \mathrm{~Hz}$ supply.


831 - For standard door-entry system; external volume adjustment; 10-15V 30VA output.
Dimensions with covers inserted: $140 \times 115 \times 65$
836 - For standard door-entry system with amplified speech unit art. 930/836; 10-15V 30VA output; 10.5V D.C. 0.4 A output stabilized and protected against overloads. To be used with switchboards series 142,152 and 162.
Dimensions with covers inserted: 140×115×65
881 - For standard door-entry system with conversation privacy; external volume adjustment; 15V 20VA output.
Dimensions with covers inserted: $140 \times 115 \times 65$
838 - For intercommunicating phones with STANDARD DOOR-ENTRY SYSTEMS with one entrance panel; automatic switching of conversation when a call is made; external volume adjustment; 10-15V 30VA output.
Dimensions with covers inserted: $140 \times 115 \times 65$

9050-Central control unit for microprocessor-controlled door lock release. Stores up to 200 8-digit codes even during power failure. Safety key access to programming mode.
The unit is powered by a 15 V A.C. power supply from the electric door entry system or transformer article 832/030. Connecting facility for 4 modules Art. 9015 (see page 15). Dimensions with covers inserted: 140×115×65

## 12-DIN MODULE POWER SUPPLY

12-DIN module housing in grey thermoplastic material; complete with protective covers for terminal blocks; mounting on a plate or with expanding plugs with screws; two spare fuses; 230 V (+6\%, $10 \%$ ) $50-60 \mathrm{~Hz}$ supply; protection against short-circuits and thermic
 protection with PTC, maximum absorbed power 30VA.

6834 - Power supply for electric door entry systems in building complexes. $15 \mathrm{~V}, 30 \mathrm{VA}$ low voltage output. Equipped with device for switching between main entrance panel or switchboard and secondary panel. To be used in conjunction with one or more articles 2/834.
Dimensions with covers inserted: $208 \times 135 \times 72$

## SWITCHING MODULES FOR SEVERAL OUTDOOR UNITS

8-DIN module housing in grey thermoplastic material; complete with protective covers for terminal blocks; mounting on a plate or with expanding plugs with screws. These items switch conversation and lock release control.


839/302 - Switching module for standard door-entry system with two outdoor units with automatic switching when a call is made; to be added to standard power supplies. Several switching modules may be connected in parallel to wire several outdoor units (in this case one output must be used for all subsequent connections).
Dimensions with covers inserted: $140 \times 115 \times 65$.
839/303 - Same as art. 839/302, but for three outdoor units. Dimensions with covers inserted: $140 \times 115 \times 65$

839/402 - Similar to the switch Art. 839/302 but designed for installation in systems based on the switchboard Art. 152. Dimensions with covers inserted: $140 \times 115 \times 65$.
839/403 - Similar to the switch Art. 839/303 but designed for installation in systems based on the switchboard Art. 152.
Dimensions with covers inserted: $140 \times 115 \times 65$.

5493/800 - Automatic switching module to be added to power supply Art. 831 to connect a network of intercommunicating phones. Activation of outdoor unit is excluded during internal communications. $230 \mathrm{~V}(+6 \%,-10 \%) 50-60 \mathrm{~Hz}$ supply; 15 V A.C. 20VA output.

Dimensions with covers inserted: 140x115x65.

## TRANSFORMERS

4-DIN module housing in grey thermoplastic material; complete with protective covers for terminal blocks; mounting on a plate or with expanding plugs with screws.


M832 - Safety transformer with 12V 20VA output; protection against short-circuiting and overheating with PTC; 230 V (+6\%, -10\%) 50-60 Hz supply.
Dimensions: 75×90×65
832/030 - Safety transformer with 15V 30VA output; protection against short-circuits and thermical protection with PTC; $230 \mathrm{~V}(+6 \%,-10 \%) 50-60 \mathrm{~Hz}$ supply voltage.
Dimensions: 75x90x65

Blister pack, complete with all articles necessary (except conductors and locks) to install on standard door-entry system. $230 \mathrm{~V}(+6 \%,-10 \%) 50-60 \mathrm{~Hz}$ supply voltage.

894 - For single residence; two-wire connection in parallel from transformer to interphone, entrance panel and lock; consisting of: 1 interphone Art. 894C standard colour white (code .05), 1 panel Art. 894T with built-in speech unit, 1 transformer Art. M832, with $230 \mathrm{~V}(+6 \%,-10 \%) 50-60 \mathrm{~Hz}$ supply. Packing dimensions: $225 \times 350 \times 70$

7894 - As per kit 894, but equipped with GALILEO series interphone with three-note chime Art. 794C. This kit enables connection of two interphones in parallel in the same residential unit. The supplementary interphone must be the same, i.e. Art. 794C.

894/900 - Same as Art. 894 but with flush-mounted panel series 9000 (Art. 9911) with built-in speech unit Art. 894E; in white colour.
Packing dimensions: $225 \times 350 \times 70$
Kit 7894/900 - As per kit 894/900, but equipped with GALILEO series interphone with three-note chime Art. 794C. This kit enables connection of two interphones in parallel in the same residential unit. The supplementary interphone must be the same, i.e. Art. 794C.

895/001 - For single residence consisting of: 1 two push-button interphone Art. 870 standard colour white (code .05), 1 panel Art. 895T with built-in speech unit, 1 transformer Art. M832, $230 \mathrm{~V}(+6 \%,-10 \%) 50-60 \mathrm{~Hz}$ supply. Packing dimensions: $225 \times 350 \times 70$.

895/901 - Same as Art. 895/001 but with flush-mounted panel series 9000 (Art. 9911) with built speech unit Art. $930 / 832$, interphone in white colour.
Packing dimensions: $225 \times 350 \times 70$
895/002 - For double residence consisting of: two push-button interphones Art. 870 standard colour white (code .05), 1 panel Art. 895D with built-in speech unit, 1 transformer Art. M832 with $230 \mathrm{~V}(+6 \%,-10 \%) 50-60 \mathrm{~Hz}$ supply.
Packing dimensions: $300 \times 350 \times 70$.
895/902 - Same as Art. 895/002 but with flush-mounted panel series 9000 (Art. 9912) with built-in speech unit Art. 930/832, interphone in white colour.
Packing dimensions: $300 \times 350 \times 70$.

## INTERCOMS ALLOWING ONLY ONE CONVERSA-

 TIONDesk-top intercommunicating sub-masters in beige thermoplastic housing. Series 4100 differs from series 4000 as conversation may be made among all installation units. Supply and amplification from amplified power supply art 4199/800. These units are equipped with PRIVACY key, but users may be called by loudspeakers or by any electronic chime; talk key; electronic call key; line selector keyboard for selecting desired unit and LED signalling engaged lines. Talk operations are carrried out by calling station. Connection to submaster outdoor unit arts. 9951 or 9971 (to call entrance panel a separate bell must be connected); to loudspeaker art. 4055 or power amplifier art. 4040 for acoustic paging call.


4000/A01 - Desk-top standard master with one line.
Dimensions: 155×187x80
4000/101 - Desk-top standard master with one line for art. 4040.

Dimensions: $155 \times 187 \times 80$
4000/A03 - Desk-top standard master with 3 lines.
Dimensions: 155x187x80


4000/A06 - Desk-top standard master with 6 lines. Dimensions: $210 \times 250 \times 84$

4000/A12 - Desk-top standard master with 12 lines.
Dimensions: $210 \times 250 \times 84$
4000/A18 - Desk-top standard master with 18 lines.
Dimensions: 210x250x84

## STANDARD SUB-MASTERS

Surface wall-mounted; beige thermoplastic housing, complete with mounting support.


4050 - Surface wall-mounted standard sub-master without CALL and PRIVACY functions. Dimensions: 155x187x80

4050/001 - Surface wall-mounted standard sub-master with CALL and PRIVACY functions. Dimensions: 155x187x80


4103 - Desk-top intercommunicating sub-master with 3 lines. Dimensions: $155 \times 187 \times 80$

4106 - Desk-top intercommunicating sub-master with 6 lines. Dimensions: $210 \times 250 \times 84$

4112 - Desk-top intercommunicating sub-master with 12 lines.
Dimensions: $210 \times 250 \times 84$
4118 - Desk-top intercommunicating sub-master with 18 lines. Dimensions: $210 \times 250 \times 84$

## MULTIPLE CONVERSATION INTERCOM

Desk top intercommunicating masters in beige thermoplastic housing. Multiple simultaneous conversation among units of the same installation, up to a maximum of half the number of installed units. Connection by one common wire plus two wires for each unit installed. Each unit is supplied by main low voltage power supply and is complete with amplifier, engaged and free line leds, electronic call key, PRIVACY key and line selector keyboard.


4330/106 - Desk-top intercommunicating master with 6 lines. Multiple simultaneous conversations. Dimensions: $210 \times 250 \times 84$

4330/112 - Desk-top intercommunicating master with 12 lines. Multiple simultaneous conversations.
Dimensions: $210 \times 250 \times 84$
4330/118 - Desk-top intercommunicating master with 18 lines. Multiple simultaneous conversations.
Dimensions: 210x250x84
N.B.: Conversation functions are performed by the master only, leaving the sub-master disengaged. The system may be connected to a power amplifier or loudspeaker horns to page calls and make public announcements (no reply facility).

## SPECIAL SUB-MASTERS

For connection to units series 4000 and 4100.


## POWER AMPLIFIERS

For acoustic paging call by loudspeakers in all intercommunicating installations. Thermoplastic container which can be wall-mounted or inserted on a panel with 24 -module DIN rail; $230 \mathrm{~V}(+6 \%,-10 \%) 50-60 \mathrm{~Hz}$ supply voltage; 100 V constant voltage output. They may be connected to intercoms series 4000-4100-4330 and to interphones series 902-7100-710R.

4040 - Amplifier with 50W output power with possibility of answering only for intercom installations series 4000 and 4100.

Dimensions: $210 \times 244 \times 100$



9951 - Illuminated panel with grey paint finish 9000 series complete with one push-button. Supplied with speech unit and back box.
Panel dimensions: 100×159
Back box dimensions: $89 \times 136 \times 50$.

4055 - Loudspeaker for connecting only one sub-master with possibility of answering.

4058/001 - Loudspeaker for connecting only one sub-master with possibility of answering.


9971 - Illuminated panel from 9000 series like article 9951 but in surface wallmounted version. Supplied complete with rainproof cover with IP45 protection. Max. dimension $118 \times 178 \times 68$.


## LOUDSPEAKERS

With 100V D.C. transformer input.

4056 - Loudspeakers with line transformer; adjustment of maximum absorbed power from 1.5 W to 10 W to be connected to amplifiers series 4040/...

4057 - Waterproof loudspeakers with line transformer; adjustment of maximum absorbed power from 2.5 W to 20 W to be connected to amplifiers series 4040/...

4058 - Loudspeakers with line transformer; adjustment of maximum absorbed power from 0.25 W to 4 W to be connected to amplifiers series 4040/...


## ELECTRONIC INTERCOMMUNICATING PHONES

Wall-mounted phone in two-colour beige/brown (code .10) or white/brown (code .08) plastic housing; flexible coil cord; electronic chime for internal calls; mounting on vertical standard back box or with expanding plugs with screws.
851/001-40 calls with 4 simultaneous and private conversations for use with power supply art. 856/800. Possibility of communication with an entrance panel and/or paging call by using power supply art. 857/800 Dimensions: $135 \times 222 \times 90$

## INSTALLATION INSTRUCTIONS OF INTERCOM

The intercom can fit wall installation. A metal bracket can be secured by wedging in dowels or to a rectangular vertical box (see fig. 2). To loose phone from bracket prise the release lever, lift and remove the phone.


Fig. 1 - Operating of intercom


Fig. 2 - Wall mounting
Installation of the desk type: detach from back of the phone the slanting base by lifting its jutting end (fig. 3). Wire the set with Art. 2/805 as shown in fig. 4. Reassemble hooking first the thin end of the base (fig. 5).


Fig. 4


Fig. 5


Fig. 3


Fig. 6 - Desk type

## ACCESSORIES

For electronic intercommunicating phones.

2/805 - Desk conversion kit for interphone art. 851/001, complete with terminal block and 11-conductor cable.

2/850 - Device to be inserted into art. 851/001 to receive acoustic paging call directly to interphones by using power supply art. 857/800.


INSTRUCTIONS FOR INSERTION OF ACCESSORY ART. 2/850
Remove cover and then wires of loudspeaker from connector marked A-A on the left of the hook.
The same wires must be slipped into connector A-A of module Art. 2/850 that must be inserted on the three free poles A-A-BL of connector. At last remove the bridge bertween A and $B$ of the connector under the terminal block and connect the three wires of Art. 2/850; the orange one on A, the white one on $B$ and the blue one on $C$. In this way, it is possible to make an acoustic paging call directly on the loudspeaker of the sets by connecting terminals 9 and 11 power supply to intercoms.

## POWER SUPPLIES

8-DIN module housing in grey thermoplastic material; complete with protective covers for terminal blocks; mounting on a plate or with expanding plugs with screws; 230 V ( $+6 \%$, $10 \%) 50-60 \mathrm{~Hz}$ supply.

856/800 - Power supply for 4 simultaneous and private intercommunicating conversations; for up to 20 interphones, beyond this number a second power supply must be used. 12V D.C. 1A output stabilized and protected against overloads.


Dimensions with covers inserted: 140×115×65
12-DIN module housing in grey thermoplastic material; complete with protective covers for terminal blocks; mounting on a plate or with expanding plugs with screws; two spare fuses; $230 \mathrm{~V}(+6 \%,-10 \%) 50-60 \mathrm{~Hz}$ supply; protection against shortcircuiting and overheating with PTC; 60VA maximum absorbed power.
857/001 - Like article 856/800, this power supply unit also features a decoder to activate the audio door entry system and/or page calls directly on interphones using article $2 / 850$. Used in conjunction with amplifier 4040 calls may be paged on loudspeakers or horns.
70 VA maximum absorbed power. Dimensions $185 \times 275 \times 106$


| VIDEDDOORENTITYSYSIETUS | INTERCOMMUNICATING PHONES | Debr entry systems with |
| :---: | :---: | :---: |

## FM WIRELESS INTERCOMS

Three-channel units for up to 3 simultaneous conversations; no wire connection required; conversation is accomplished by utilizing standard wiring when intercom is plugged into A.C. outlet.


4900 - FM wireless intercom. Three audio channels with membrane touch keys and automatic or manual conversation; each unit is complete with noise filter and with a special P.L.L. circuit (Phase Locked Loop) so that FM communication is less disturbed and more reliable than AM system. Communication is possible up to about 800 m provided that the two units are supplied by the same phase and that there are no distribution transformers. $230 \mathrm{~V}(+6 \%,-10 \%) 50-60 \mathrm{~Hz}$ supply voltage.
Dimensions: $178 \times 121 \times 51$

## FM INTERPHONES

Pair consisting of an interphone $A$ and an interphone $B$ allowing duplex conversation; no wire connection required, just plug into 230 V A.C. outlet.


4950 - Pair of white FM interphones. Intercommunication between the two phones is only possible provided they are both powered by the same phase and are not interposed by transformers.
Open voice or electronic sound call.
Power supply: 230 V ( $+6 \%,-10 \%$ ) $50-60 \mathrm{~Hz}$ supply Dimensions: $95 \times 220 \times 70$

|  | WIRING DIAGRAM: ELVOPHONE KIT | Dabor entru systems with $\qquad$ |
| :---: | :---: | :---: |

## 2-WIRE DOOR ENTRY SYSTEM, KIT ART. 894-7894

## SYSTEM DESCRIPTION

The kit, powered by a M832 transformer, contains: 1 interphone Art. 894C o 7894C and 1 surface wall monted panel Art. 894T or flush-mounted panel Art. 9911 and a speech unit Art. 894E, with 2-cable connection.

## OPERATING PRINCIPLE

When a caller presses the call button on the external panel, a modulated call tone sounds on the interphone. The user can lift the handset and converse with the caller without time limit. The call is interrupted during lock activation.

LIST OF ARTICLES COMPRISING SYSTEM (Diagram ref. C2023-1, C2023-2)
Diagram

| Ref. | Art. | Name | Quantity |
| :--- | :--- | :--- | :--- |
| A | $894 C-794 C$ | Phone | 1 |
| B | M832 | Transformer | 1 |
| C | $894 T$ | Entrance panel | 1 |
| D | 9911 | Entrance panel | 1 |
| E | $894 E$ | Speech unit | 1 |
| F | - | Electric lock 12V A.C. | 1 |

## CONNECTION TO TERMINALS OF TRANSFORMER:

## 0 : $\quad$ Supply 230 V A.C. $(+6 \%-10 \%)$

230: $\quad 50-60 \mathrm{~Hz} 20 \mathrm{VA}$ protected by PTC SIEMENS C860 or PTC PHILIPS 232266151913
0-12: Interphone/panel system power supply with output as follows: 12V A.C. 1.5A (on intermittent operation).

Production is subject constant quality checks:



Audio connection: use two wires $0.75 \mathrm{~mm}^{2}$ up to 150 m . distance.
Audio and lock connection: use cable $1 \mathrm{~mm}^{2}$ up to 50 m . distance.
Follow carefully the drawing.
WIRING DIAGRAM N ${ }^{\circ} \mathbf{C 2 9 9 9}$

WIRING DIAGRAM FOR DOOR ENTRY SYSTEM FOR SINGLE RESIDENCE WITH FLUSH-MOUNTED PANEL - KIT ART. 894/900


Audio connection: use two wires $0.75 \mathrm{~mm}^{2}$ up to 150 m . distance.
Audio and lock connection: use cable $1 \mathrm{~mm}^{2}$ up to 50 m . distance.
Follow carefully the drawing.

WIRING DIAGRAM:

SINGLE RESIDENCE DOOR ENTRY PANEL WIRING DIAGRAM EXTERNAL WALL-MOUNTED ENTRY PANEL - KIT ART. 7894


Audio connection: use two wires $0.75 \mathrm{~mm}^{2}$ up to 150 m . distance.
Audio and lock connection: use cable $1 \mathrm{~mm}^{2}$ up to 50 m . distance.
DIAGRAM N ${ }^{\circ} \mathbf{C 3 1 3 8}$

## SINGLE RESIDENCE DOOR ENTRY PANEL WIRING DIAGRAM FLUSH-MOUNTED BACK-BOX - KIT ART. 7894/900

N.B. Connections marked as a dotted line apply to the insertion of interphone (where relevant) in parallel to original interphone and a call repeater device Art. 2/841.


## 5-WIRE DOOR ENTRY SYSTEM, KIT ART. 895

## SYSTEM DESCRIPTION

The kit, powered by a M832 transformer, contains: 1 interphone Art. 870 (two-button) and 1 external panel with external unit. The call from the external panel sounds a buzzer.
The kits 895/002 and 895/902 contain 2 interphones Art. 870 and a two-button external panel, for two-family installations without reserved call function. The cable connecting the external panel with the interphone should not be the same as that connecting the transformer with the panel.
For the use of the second interphone button see version $n^{\circ} 6$.

## OPERATING PRINCIPLE

When a caller presses the call button on the external panel, a call tone sounds on the interphone buzzer. The user can lift the handset and converse with the caller without time limit.
N.B. The conductors between brackets are to be considered if a second interphone is fitted.

## LIST OF ARTICLES COMPRISING SYSTEM (Diagram ref. C2024-1, C2024-2)

## Diagram

| Ref. | Art. | Name | Quantity |
| :--- | :--- | :--- | :--- |
| A | 870 | Phone | 1 (2) |
| B | M832 | Transformer | 1 |
| C | $895 \mathrm{~T}-$ 895D | Entrance panel with speech unit | 1 |
| D | $9911-9912$ | Entrance panel | 1 |
| E | $930 / 832$ | Speech unit | 1 |
| F | - | Electric lock 12V A.C. | 1 |

## CONNECTION TO TERMINALS OF TRANSFORMER

0 : $\quad$ Supply 230V A.C. ( $+6 \%-10 \%$ )
230: $\quad 50-60 \mathrm{~Hz} 20 \mathrm{VA}$ protect by
PTC SIEMENS C860 or PTC PHILIPS 232266151913
0-12: Interphone/panel system power supply with output as follows:
12V A.C. 1.5A (on intermittent operation).
Production is subject constant quality checks:



## AMPLIFIED STANDARD DOOR ENTRY SYSTEM WITH POWER SUPPLY ART. 831

## SYSTEM DESCRIPTION

The power supply enables audio connection between the external unit and the internal units without reserved call function. The door signal sounds a second buzzer internal/external to the interphone (see versions $n^{\circ} 1$ and 2).

## OPERATING PRINCIPLE

When a caller presses a call button on the external entrance panel an acoustic signal is emitted on the internal unit, at which point, the user can pick up the internal handset an speak to the caller without time limits.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C1988)

## Diagram

| Ref. | Art. |
| :--- | :--- |
| A | 831 |
| B | $900-902-870-870 / 001-801$ |
| B1 | 710R $-(7100+7151)$ |
| C | $2900-2970-2990-3200$ and series 9000 |
| D | 930 |
| E | - |
| n | - |


| Name | Quantity |
| :--- | :--- |
| Power supply | 1 |
| Phone | $1+\mathrm{n}$ |
| Phone GALILEO | $1+\mathrm{n}$ |
| Entrance panel | 1 |
| Speech unit | 1 |
| Electric lock 12V A.C. | 1 |
| Number of users | $1+\mathrm{n}$ |

## CONNECTION TO TERMINALS OF POWER SUPPLY

PRI: Supply 230V A.C. $+6 \%-10 \%$ $50-60 \mathrm{~Hz} 30 \mathrm{VA}$ protected by fuse F 0.25A

1: Handset receiver
2: Handset microphone
3: Handset receiver and microphone common
3-: $\quad$ Intercommunication system power supply
6+: 10V D.C.
6: $\quad$ Common receiver and microphone for speech unit
7: Speech unit microphone
8: $\quad$ Speech unit loudspeaker
0-10-15: Output 10-15V a.c. 1.6A (on intermittent operation) protected by fuse F 1.6A

Note: When using continuous duty 0-15 outputs, do not connect loads over $0,8 \mathrm{~A}$.

Power supply constitute SELV sources in compliance with the requirements stipulated in Article 411.1.2.2 of CEI standard 648 (ed. 1998).
Production is subject constant quality checks:


WIRING DIAGRAM FOR STANDARD AMPLIFIED DOOR ENTRY SYSTEM WITH POWER SUPPLY ART. 831


## AMPLIFIED DOOR ENTRY SYSTEM WITH POWER SUPPLY ART. 836

## SYSTEM DESCRIPTION

The power supply enables audio connection between the external unit and the internal units without reserved call function. The door signal sounds a second buzzer internal/external to the interphone (see versions $\mathrm{n}^{\circ} 1$ and 2 ).

## OPERATING PRINCIPLE

When a caller presses a call button on the external entrance panel an acoustic signal is emitted, at which point, the user can pick up the internal handset and speak to the caller without the limits.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C2026)

## Diagram

| ref. | Art. | Name | Quantity |
| :--- | :--- | :--- | :--- |
| A | 836 | Power supply | 1 |
| B | - | Electric lock 12V A.C. | 1 |
| C | $2900-2970-2990-3200$ and series 9000 | Entrance panel | 1 |
| D | $930 / 836$ | Speech unit | 1 |
| E | $900-902$ | Phone | $1+\mathrm{n}$ |
| F | $870-870 / 001$ | Phone | $1+\mathrm{n}$ |
| G | $710 R-(7100+7151)$ | Phone GALILEO | $1+\mathrm{n}$ |
| n | - | Number of users | $1+\mathrm{n}$ |

Note: An extra wire (in addition to the number expressed in brackets) is required for each unit in case of calls from the apartment door.

## CONNECTION TO TERMINALS OF POWER SUPPLY

PRI: Supply 230V A.C. $+6 \%-10 \%$ $50-60 \mathrm{~Hz} 30 \mathrm{VA}$
protected by fuse F 0.25A
+: Amplified door entrance panel power supply
-: $\quad$ 10.5V D.C. $0,4 \mathrm{~A}$
$+\mathrm{J}: \quad$ Sound circuit power supply for intercommunicating
-: systems internal only
0-10-15: Output 10-15V a.c. 1 A (on intermittent operation) protected by fuse F 1.6A

Note: When using continuous duty 0-15 outputs, do not connect loads over 0.8A.

Power supply constitute SELV sources in compliance with the requirements stipulated in Article 411.1.2.2 of CEI standard 648 (ed. 1998).
Production is subject constant quality checks:


| VIDFODOOR ENTF Y SYGTEVIS | DOOR ENTRY SYSTEM WITHOUT CONVERSATION PRIVACY | Dicr entiry systems with - AC call |
| :---: | :---: | :---: |

WIRING DIAGRAM STANDARD DOOR ENTRY SYSTEM WITH SPEECH UNIT ART. 930/836 AND POWER SUPPLIES ART. 836


## AMPLIFIED DOOR ENTRY SYSTEM WITH POWER SUPPLY ART. 881

## SYSTEM DESCRIPTION

The power supply enables audio connection between the external unit and the internal units with reserved call function. The door signal sounds a second buzzer internal/external to the interphone (see versions $n^{\circ} 1$ and 2 ).

## OPERATING PRINCIPLE

By pressing entrance panel push-button the caller sets the buzzer ringing and the electronic memory arranges connections of the wanted intercom circuit. At the same time an electronic device disconnects previously engaged intercoms.
Raising of the handset enables communication with the outdoor station and excludes possibility of eavesdropping.
Disconnecting of the intercom occurs when pressing the door opener push-button.
LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C1987)

| Diagram ref. | Art. |
| :--- | :--- |
| A | 881 |

B
C
D
E
2900-2970-2990-3200 and series 9000
930
902/881
F 870/081
G $\quad 7100+7151+7155$
n
Name
Power supply
Electric lock 12V A.C.
Entrance panel
Speech unit
Phone
Phone
Phone + Chime + Memory card
Number of users

Quantity 881

Number of users

## CONNECTION TO TERMINALS OF POWER SUPPLY

PRI: Supply 230V A.C. ( $+6 \%-10 \%$ ) $50-60 \mathrm{~Hz} 20 \mathrm{VA}$ protect by fuse F 0.25A

1: Handset receiver
2: Handset microphone
3: Handset receiver and microphone common
5: $\quad$ Connect to terminal number 3
6: $\quad$ Common receiver and microphone for speech unit
7: Speech unit microphone
8: Speech unit loudspeaker
0-10-15: Output 15V A.C. 1.6A (on intermittent operation) protected by fuse F 1.6A

Note: When using continuous duty 0-15 outputs, do not connect loads over 0.8A.

Power supply constitute SELV sources in compliance with the requirements stipulated in Article 411.1.2.2 of CEI standard 64-8 (ed. 1998).



## AMPLIFIED DOOR ENTRY SYSTEM WITH INTERCOMMUNICATING PHONES IN A SINGLE APARTMENT

## SYSTEM DESCRIPTION

Power supply Art. 831 is mainly used for audio connection between external unit and internal users; the latter can converse with each other while cutting out the external unit.
This type of system can be installed in individual apartments or in several apartments using switching module Art. 5493/800 for each intercommunicating network. In this way each user can have an internal intercommunicating network with absolute conversation privacy both for outgoing calls to the entry panel and for internal intercommunicating or other calls.
The door signal sounds a second buzzer internal or external to the interphone (see versions $n^{\circ} 1$ and 2 ).

## OPERATING PRINCIPLE

When a caller presses a call button on the external entrance panel an acoustic signal is emitted, at which point, the user can pick up the internal handset and speak to the caller without time limits.
External communications: when external bell rings, lift handset to speak with entrance panel. Internal communications: lift handset and press the call push-buttons corresponding to the interphone yo want to talk to. Outdoor unit is automatically excluded. If during internal commnication somebody calls from entrance panel, both handsets must be hanged up; for subsequent communication with ouside, lift one handset.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C2021)

| Diagram ref. | Art. |
| :--- | :--- |
| A | 831 |
| B | - |
| C | $2900-2970-2990-3200$ and series 9000 |
| D | 930 |
| E | $902+\mathrm{n}^{\circ} 1$ Art. 2/903 + n. Art. 2/904 |
| E1 | Art. $100+7151+7152$ |
| F | $900-902-870-870 / 001-710 R-(7100+7151)$ |
| G | - |
| H | $5493 / 800$ |
| $m$ | - |
| $n$ | - |


| Name | Quantity |
| :--- | :--- |
| Power supply | 1 |
| Electric lock 12V A.C. | 1 |
| Entrance panel | 1 |
| Speech unit | 1 |
| Phone | $2 \div 16$ |
| Phone GALILEO | $2 \div 9$ |
| Phone | $1 \div n$ |
| Additional bell | $1 \div n$ |
| Switching module | 1 |
| Number of users | $2 \div 16$ |
| Number of calls from entrance panel | $2 \div \mathrm{n}$ |



## WIRING INSTRUCTIONS

 The diagram shows the maximum number of interphone connections．To connect fewer interphones， proceed as follows：with three interphones use tems with three push－but－ ons（ Art． 7100 with 1 additional push－button）； push－button 1 corresponds o terminal 7 and operates the door lock．Push－but－ tons 2 and 3 correspond to terminals 8 and 9 and are reserved to intercommuni－ cating calls．Connect then he first three terminal blocks（terminals 1 to 9 ）．N．B．On Art． 7100 cut the cable connecting SD and 4．The interphone is equip－ ped with 2 pushbuttons；to increase the number of pushbuttons used，insert Art． 7152 （maximum 7 to obtain a total of 9 pushbut－ tons）．

Entrance panel with speech unit Art．2900－2970－2990－3200 and series 9000
B－Additional push－button for lock
C－Electric lock 12V A．C．
D－Speech unit Art． 930
E－Outdoor bell 15 V A．C．

WIRING DIAGRAM N ${ }^{\circ}$ C3169

INTERPHONE SETTING
ART． 7100 FOR INTERCOMMUNICATING SYSTEMS


Common push－button

## WIRING INSTRUCTIONS

The diagram shows the maximum number of interphone connections. To connect fewer interphones, proceed as follows: with three interphones use tems with three push-butons (Art. 902 with 2 additional push-buttons);
push-button 1 corresponds to terminal 7 and operates the door lock. Push-buttons 2 and 3 correspond to terminals 8 and 9 and are reserved to intercommunicating calls. Connect then the first three terminal blocks (terminals 1 to 19).
N.B. On Art. 902 cut bridge from terminals 3-4-5 near the first push-button and remove the remaining bridge between terminals 3 and 5 (see drawing). Art. 902 is supplied with only one push-button. To increase the push-button number add one simple push-button Art. 2/903 and several pairs of additional pushbuttons Art. 2/904 (max. 7 to obtain 16 push-buttons).


$$
\text { ART. } 710 \mathrm{R}
$$

A- Entrance panel with speech unit
Art. 2900-2970-2990-3200 and series 9000
B- Additional push-button for lock
C- Electric lock 12 V A.C.
D- Speech unit Art. 930
E- Outdoor bell 15 V c.a


## AMPLIFIED STANDARD DOOR ENTRY SYSTEM WITH POWER SUPPLY ART. 838

## SYSTEM DESCRIPTION

Power supply Art. 838 is mainly used for audio connection between external unit and internal users; the latter can converse with each other while cutting out the external unit.

## OPERATING PRINCIPLE

When a caller presses a call button on the external entrance panel an acoustic signal is emitted, at which point, the user can pick up the internal handset and speak to the caller without time limits.
External communications: when external bell rings, lift handset to speak with entrance panel. Internal communications: lift handset and press the call push-buttons corresponding to the interphone you want to talk to. Outdoor unit is automatically excluded. If during internal commnication somebody calls from entrance panel, both handsets must be hanged up; for subsequent communication with ouside, lift one handset.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C1993)

| Diagram ref. | Art. |
| :--- | :--- |
| A | 838 |
| B | - |
| C | $2900-2970-2990-3200$ and series 9000 |
| D | 930 |
| E | $902+\mathrm{n}^{\circ} 1$ Art. $2 / 903+\mathrm{n}$. Art. 2/904 |
| E1 | $7100+7152+7151$ |
| F | - |
| $m$ | - |
| $n$ | - |


| Name | Quantity |
| :--- | :--- |
| Power supply | 1 |
| Electric lock 12V A.C. | 1 |
| Entrance panel | 1 |
| Speech unit | 1 |
| Phone | $2 \div 16$ |
| Phone GALILEO | $2 \div 9$ |
| Additional bell | $1 \div \mathrm{n}$ |
| Number of calls from entrance panel | $1 \div 16$ |
| Number of intercommunicating phones | $2 \div 16$ |

## CONNECTION TO TERMINALS OF POWER SUPPLY:

PRI: Supply 230V A.C. $+6 \%-10 \%$ $50-60 \mathrm{~Hz} 30 \mathrm{VA}$ protected by fuse F 0.25 A

1: Handset receiver
2: Handset microphone
3: Handset receiver and microphone common
5: Audio system supply
6: Common receiver and microphone for speech unit
7: Speech unit microphone
8: Speech unit loudspeaker
0-10-15: Output 15V A.C. 1.6A (on intermittent operation) protect by fuse F 1.6A. Output 10V A.C.

Note: When using continuous duty 0-15 outputs, do not connect loads over 0.8A.

Power supply constitute SELV sources in compliance with the requirements stipulated in Article 411.1.2.2 of CEI standard 64-8 (ed. 1998).

Production is subject constant quality checks:


A
A


## WIRING INSTRUCTIONS

The diagram shows the maximum number of interphone connections. To connect fewer interphones, proceed as follows: with three interphones use items with three push-buttons ( Art. 7100 with 1 additional push-button);
push-button 1 corresponds to terminal 7 and operates the door lock. Push-buttons 2 and 3 correspond to terminals 8 and 9 and are reserved to intercommunicating calls. Connect then the first three terminal blocks (terminals 1 to 9 ).
N.B. On Art. 7100 cut the cable connecting SD and 4 . The interphone is equipped with 2 pushbuttons; to increase the number of pushbuttons used, insert Art. 7152 (maximum 7 to obtain a total of 9 pushbuttons).


## POWER SUPPLY ART. $838-30 V A$

 $\underset{\text { Mains }}{\text { ERTI }}$

INTERPHONE SETTING
ART. 7100 FOR INTERCOMMUNICATING SYSTEMS


Important:
Before connecting the system, connect the jumpers on interphones Art. 7100 as indicated in the wiring diagram.

A- Entrance panel with speech unit Art. 2900-2970-2990-3200 and series 9000
B- Additional push-button for lock
C- Electric lock 12V A.C.
D- Speech unit Art. 930
E- Outdoor bell 15 V c.a.


COLOURS OF CONDUCTORS

WIRING DIAGRAM ${ }^{\circ} \mathbf{C 3 1 7 0}$
ث

REMOVE


## WIRING INSTRUCTIONS

The diagram shows the maximum num ber of interphone connections. To connect fewer interphones, proceed as follows: with three interphones use items with three push-buttons (Art. 902 with 2 additional push-buttons); push-button 1 corresponds to terminal 7 and operates the door lock. The other two (corresponding to terminals $8-9$ ) for intercommunicating calls. Connect then the first three terminal blocks (terminals 1 to 9 ).
N.B. On Art. 902 cut bridge from terminals 3-4-5 near the first push-button and remove the remaining bridge between terminals 3 and 5 (see drawing). Art. 902 is supplied with only one push-button. To increase the push-button number, add one simple push-button Art 2/903 and several pairs of additional push-buttons Art. 2/904 (max. 7 to obtain 16 push-buttons).
A. Entrance panel with speech unit Art. 2900-2970-2990-3200 and series 9000 B- Additional push-button for lock
C- Electric lock 12V A.C.
D- Speech unit Art. 930
E- Outdoor bell

| VIDEODOOR ENTRYSYSIEMS | WIRING DIAGRAM: <br> INTERCOMMUNICATING INTERPHONES |  $1 \overrightarrow{A K}$ |
| :---: | :---: | :---: |

## INTERCOMMUNICATING PHONES WITH POWER SUPPLY ART. 836

## SYSTEM DESCRIPTION

The power supply used is the 836, which allows audio connection between the external unit and the internal users without reserved call function.

## OPERATING PRINCIPLE

Every interphone can call all the others.

| LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C1454/4) |  |  |  |
| :--- | :--- | :--- | :--- |
| Diagram ref. | Art. | Name | Quantity |
| A | 836 | Power supply | 1 |
| B | $902+n^{\circ} 1$ Art. $2 / 903+n^{\circ}$ Art. $2 / 904$ | Phone | $2+17$ |
| B1 | $7100+7151+7152$ | Citofono GALILEO | $2 \div 10$ |
| $n$ | - | Number of users | $2+17$ |




## WIRING INSTRUCTIONS

The wiring diagram illustrates the connection procedure for the maximum number of interphones.
For smaller installations, proceed as described below: to connect four interphones, use interphones with three buttons (Art. 7100 plus 1 additional button). Terminals 1 to 4 connect the common wires. Terminals 7, 8 and 9 connect the three call buttons.
Terminals 1 to 9 must therefore be connected on the first four terminal blocks as shown in the wiring diagram.
Art. 7100 is supplied already fitted with two buttons.
The unit may however be expanded to accommodate a further 7 buttons (for a total of 9 buttons) using additional buttons Art. 7152.

## IMPORTANT:

On interphones Art 7100 connect terminals 1 and 3 between them. Also disconnect the red handset wire.

## CABLE CROSS-SECTION

Use a $0.25 \mathrm{~mm}^{2}$ multi-twisted pair cable to connect the line. For distances exceeding 200 metres, use a cable with a larger cross-section.Connect the 1A diode 1N4004 in the event of buzzing on AC calls.
O

INTERPHONE SETTING



## WRING DIAGRAM OF MASTER PHONE WITH SUB-MASTER PHONES SERIES GALILEO



INTERPHONE SETTING

## OPERATION

The main interphone " $A$ " is enabled for calls and conversations with all internal units. Internal units can only call and converse with main interphone "A". All communication are without conversation privacy.

IMPORTANT:
On interphones Art 7100 connect terminals 1 and 3 between them. Also disconnect the red handset wire.

## CABLE CROSS-SECTION

Use a $0.25 \mathrm{~mm}^{2}$ multi-twisted pair cable to connect the line. For distances exceeding 200 metres, use a cable with a larger cross-section.

Connect the 1A diode 1N4004 in the event of buzzing on AC calls.



| Lineole | WIRING DIAGRAM: INTERCOMMUNICATING INTERPHONES | Dicr entiry systems with - AC © d |
| :---: | :---: | :---: |

## TWO INTERCOMMUNICATING PHONES

On interphone "A" cut the connection cable between "SD" and " 4 " and connect the " 4 " terminal to the " CH " chime terminal.

Phone
Art. 7100+7151


On interphone "B" cut the connection cable between "SD" and " 4 " and connect terminals 1-4"CH".



Remove bridge between terminal 5 and terminal 3

Phone
ART. 902
ART. 900
ART. 710R


Remove bridge 3-4-5 and connect to 1-4-5.

Phone
ART. 902
ART. 900 ART. 710R


# INSTALLATION WITH SWITCHBOARD ART. 142 WITH POSSIBILITY OF NIGHT SERVICE INTERPHONE AND EXTERNAL AUDIO DOOR <br> <br> SYSTEM DESCRIPTION <br> <br> SYSTEM DESCRIPTION <br> Switchboard night Line selecting keyboard intecom key 

Allows calls from the switchboard to the user and vice-versa; interphone call switching to an internal unit for night service with optional communication with an external unit; complete with leds for fitting to the interphones. Single-wire hookup: 1 common and 1 return wire for each interphone.

## SWITCHBOARD INSTALLATION

Switchboard may be desk-top flush-mounted, desk-top mounted or surface wall-mounted. For surface wall-mounting, carry out following operations: open housing and loosen screws fixing the two metal side supports. Slide supports out and reverse their position. In this way, the position of switchboard front panel is tilted, allowing handset hooking.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. CC2015)

| Diagram ref. | Art. |
| :--- | :--- |
| A | 836 |
| B | - |
| C | $2900-2970-2990$ |
|  | 3200 and series 9000 |
| D | 930 |
| E | $900-902$ |
| F | 870 |
| G | $710 \mathrm{R}(7100+7148)$ |
| H | $149 / 900$ |
| I | 142 |
| L | 860 B |
| n | - |

## Name

Power supply
Electric lock 12CV A.C.
Quantity
1
1
Entrance panel 1
Speech unit 1
Phone 1+n
Phone $1+n$
Phone $1+n$
Phone 1 Switchboard 1 Keeper's door bell 1 Number of users

## OPERATION OF SWITCHBOARD ART. 142

During "day" operation (Key GN released and G switched on), the switchboard allows private conversations between it and the interphones.
To communicate from switchboard to interphones: press corresponding line selector key and push-button "CH".
To communicate from interphones to switchboard: simply raise the handset.
The switchboard incorporates a flashing light and intermittent buzzer indicating incoming calls.
During "night" operation (key GN pressed down and N switched on), the switchboard is disconnected and all calls are switched through to the night service phone. (During "day" operation, press key CN on the switchboard to reach the night service phone). During "night" operation, press key PE on the night service phone to communicate with the entrance panel.
Push-button AP opens the electric door lock.
In switchboards with more than 80 lines a multiplier key "=X" allows doubling of the number of lines, i.e. every key enables insertion of two different users.
To communicate from switchboard with an interphone:

- lift handset
- choose on multiplier key the white or red lamp corresponding to the desired interphone.
- press line selector key, the lamp with the same colour of the multiplier key lamp chosen, comes on.
To connect a different line, press again the multiplier key. All other functions are the same.
To replace a warning light extract it using the tweezers (supplied), after removing top part of key.
n


Desk intercom
Art.149/900

key



## WIRING INSTRUCTIONS

On interphones Art. 902 remove bridge from terminals 3-4-5 e replace it by connecting terminals 2 and 5 . Insert diode as indicated in wiring diagram. In intercoms Art. 710R remove connection cable from terminal C-4, bridge terminal 1 and 5. Insert a diode as per diragram.
In intercoms Art. 870, bridge terminal 2 e $4 / 5$ and insert a diode as per diagram.
The switchboard is prearranged to operate:

1) with intercoms only: two wire system (1 common, 1 call) for each phone. No other connection required.
2) with intercoms and night service desk intercom: wiring system: all connections shown in diagram except those indicated by dotted lines.
3) with intercoms, night service desk intercom, outdoor station: all connections as from the whole of diagram.
4) when using for the first time if buzzing noise is not regular; adjust pressure of the vibrating part of the buzzer.


| UIDEODOOREENITY YSSIETIUS | WIRING DIAGRAM: <br> PORTER'S SWITCHBOARD INSTALLATION | Dicr entir systems with $\square$ AC call |
| :---: | :---: | :---: |

WIRING DIAGRAM OF SWITCHBOARD ART. 152


## SWITCHBOARD TERMINALS:

1- Call common contact to switchboard
2 - Common (microphone)
3 - Negative- voice common contact
4- Door keeper call or door opener
CP - Common (keyboard)
6-7-8 Outdoor station
S - Lock
SP-SP - Porter's lodge buzzer
F - Voice calls and other calls to interphones

## N.B.

On interphones Art. 902 remove bridge from terminals 3-4-5. On interphones Art. 902 carry out bridges by connecting terminals $B$ and 6, 4 and 5. ON Interphones Art. 870 connect terminals B and 6.
On interphones Art. 710R remove the cable connecting $C$ and 4 and wire in jumpers B-6 and 4-5.

A- Entrance panel with speech unit Art. 2900-2970-2990-3200 and series 9000
B- Additional push-button for lock
C- Electric lock 12CV A.C.
D- Speech unit Art. 930
E- Porter's doorbell

## INSTALLATION WITH INTERNAL INTERCOMMUNICATING SWITCHBOARD ART. 162 WITH POSSIBILITY OF NIGHT SERVICE INTERPHONE AND EXTERNAL AUDIO DOOR ENTRANCE PANEL.

## SYSTEM DESCRIPTION

Similar to the series 142 unit but with the option of putting any two interphones in contact with each other; during calls between interphones the switchboard is free to respond to other calls; acoustic and visual end-of-call signal; possibility of connection to an external line.

## SWITCHBOARD INSTALLATION

The switchboard may be desktop mounted, flush wall-mounted or flush/desk-top mounted. For surface all-mounting carry out following operations: open housing and loosen screws fixing the two metal side supports. Slide supports out and reverse their position.
In this way, the position of switchboard front panel is tilted, allowing handset hooking.

| LIST OF ARTICLES COMPRISING SYSTEM (Diagram ref. CC2017) |  |  |  |
| :---: | :---: | :---: | :---: |
| Diagram ref. | Art. | Name | Quantity |
| A | 836 | Power supply | 1 |
| B | - | Electric lock 12CV A.C. | 1 |
| C | 2900-2970-2990 |  |  |
|  | 3200 and series 9000 | Entrance panel | 1 |
| D | 930 | Speech unit | 1 |
| E | 900-902 | Phone | $1+n$ |
| F | 870-870/001 | Phone | $1+n$ |
| G | 710R - (7100+7148) | Phone | $1+n$ |
| H | 149/900 | Phone | 1 |
| 1 | 162 | Switchboard | 1 |
| L | 149/162 | Telephone switching module | 1 |
| M | - | Keeper's door bell | 1 |
| n | - | Number of users |  |



Desk intercom Art.149/900

## OPERATION OF SWITCHBOARD ART. 162

During "day" operation (key GN released and G switched on), the switchboard allows private conversations between it and the interphones. To communicate from switchboard to interphones: press corresponding line selector key and push-button "CH".
To communicate from interphones to switchboard: simply raise the handset. The switchboard incorporates a flashing light and intermittent buzzer indicating incoming calls.
During "night" operation (key CN pressed down, N switched on), the switched is disconnected and all calls are switched through to the night service phone. (During "day" working, press key CN on the switchboard to reach the night service phone). During "night" operation, press key PE on the night service phone to communicate with the entrance panel. Push-button AP opens the service door lock. Key "==" on the switchboards allows communication between two phone units or between an internal phone unit and an outside line (through terminals LL), only if part G double key GN is pressed down.

- To allow conversation between two users press the two line selectors keys corresponding to the desired users, then press "==". The switchboard is thus excluded from conversation. The operator can answer other users' calls by lifting the handset without pressing the line selector push-button.
- When the two interphone handsets have been replaced, their leds on the switchboard light up together and the switchboard buzzer sounds intermittently.
- At this point the line keys for the two interphones and the "==" key reset (not active). If the switchboard is busy with another call,
 releasing the above keys will interrupt the call; to resume the call press the line key for the unit in question.
- To connect a user with the external line, press the line key for the user in question and subsequently "==".
N.B: While the switchboard can make reserved calls to the internal units, the "==" key must not remain down with the leds on unless when interphones are calling each other or when an interphone is making an external call.
To replace the bulbs slide off the upper part of the button and remove the bulb with the tweezers provided with the system.


| WIDEODOORENIGYSYSIENS | LUMINOUS INDICATORS | Dicr entiry sysems with |
| :---: | :---: | :---: |

LUMINOUS INDICATOR PANEL ART. 145/...

## SYSTEM DESCRIPTION

When one of the pushbuttons connected to the lines is pressed, the relative indicator on the signalling panel illuminates and an intermittent acoustic signal is activated. More than one signal can be activated at the same time. In the event of multiple calls, partial reset is possible on single keys only. Alternatively, if the reset key is pressed, all indicators are switched off and the acoustic signal is shut off.

## Panel installation

See installation procedure for switchboards Art. 142-152-162


## SINGLE INDICATOR PANEL CONNECTION

Transformer
DIAGRAM N ${ }^{\circ} \mathbf{C C 1 7 3 3 - 1}$
Art. M832-832/030


CONNECTION OF INDICATOR PANELS IN PARALLEL


Call push-buttons


Call push-buttons

|  | WIRING DIAGRAM: DOOR ENTRY SYSTEM WITH SEVERAL OUTDOOR UNITS | Dr미 entry systems with $\qquad$ HC call |
| :---: | :---: | :---: |

## AMPLIFIED DOOR ENTRY SYSTEM WITH AUTOMATIC SWITCHING MODULES ART. 839/302 AND 839/303

## SYSTEM DESCRIPTION

The switch can be connected to power supplies Art. 831-881-838 which allows for the audio connection between external and internal units. Switch Art. 839/302-303 allows for automatic switching of the audio and lock opening lines between 2 or 3 external units.

## OPERATING PRINCIPLE

When a caller presses a call button on an external entrance panel, the audio function and door lock release are automatically activated for that door entrance panel while the other entrance panels remain disabled. The last call made is given priority over all preceding calls.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C1961)

| Diagram ref. | Art. | Name | Quantity |
| :--- | :--- | :--- | :--- |
| A | $839 / 303$ | Switching module | 1 |
| B | $839 / 302$ | Switching module | 1 |
| C | - | Electric lock 12V A.C. | 1 |
| D | $2900-2970-2990-3200$ and series 9000 | Entrance panel | 1 |
| E | 930 | Speech unit | 1 |
| F | $831-881-838$ | Power supply | 1 |
| G | $900-902-870-710 R$ | Citofono | $1 \div n$ |
| $n$ | - | Number of users | $1 \div \mathrm{n}$ |







## SYSTEM DESCRIPTION

The power supply is Art. 836 which allows for the audio connection between the internal and external units. Switch Art. 839/402 - 403 allows for automatic switching between 2 or 3 external units.

## OPERATING PRINCIPLE

When a visitor presses a pushbutton on one of the entry panels (if the switchboard is set to "EXTERNAL" mode) the audio and lock on the entry panel where the call was made are enabled automatically; in this way operation of other entry panels is inhibited. The last call has priority over previous calls. For a description of operation of the entire system, see operation of switchboard Art. 152.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C2807)

| Diagram ref. | Art. | Name | Quantity |
| :--- | :--- | :--- | :--- |
| A | $839 / 403$ | Switching module | 1 |
| B | $839 / 402$ | Switching module | 1 |
| C | - | Electric lock 12V A.C. | 1 |
| D | $2900-2970-2990-3200$ and series 9000 | Entrance panel | 1 |
| E | 930 | Speech unit | 1 |
| n | - | Number of users | $1 \div$ n |




| VIDEODOOR ENITY SSISTIUS | WIRING DIAGRAM: <br> DOOR ENTRY SYSTEM FOR BUILDING COMPLEX | Diocr entry systems with |
| :---: | :---: | :---: |

## AUDIO BUILDING COMPLEX WITHOUT CONVERSATION PRIVACY

## SYSTEM DESCRIPTION

The system allows connection of various apartment blocks with a main entrance panel. Every single block may be equipped with an entrance panel with speech unit and interphones in each apartment. Main door station may have a speech unit entrance panel with names of all users in all buildings. Art. 839/302 in every apartment block, selects audio-door-lock connection of calling entrance panel (main and secondary). Every building is thus perfectly independent and enables simultaneous communication of interphones, in every apartment with its own entrance panel.
The door signal sounds a second buzzer internal or external to the interphone (see version $n^{\circ} 1$ and 2 ).

## LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C2022)

| Diagram ref. | Art. | Name |
| :--- | :--- | :--- |
| A | $900-902$ | Phone |
| A1 | $870-870 / 001$ | Phone |
| A2 | $710 \mathrm{R}-(7100+7151)$ | Phone GALILEO |
| B | 831 | Power supply |
| C | $2900-2970-2990-3200$ and series 9000 | Entrance panel |
| D | 930 | Speech unit |
| E | - | Electric lock 12V A.C. |
| F | $839 / 302$ | Switching module |
| G | $170 / 001$ | Relay |
| n | - | Number of users building 1 |
| m | - | Number of users building 2 |
| 0 | - | Number of users building 3 |

## Quantity

Phone $1 \div$ n
$1 \div$ n
ILEO
$1 \div n$
1
Entrance panel 1
Speech unit 1
Electric lock 12V A.C.
Relay
帾

Number of users building 3



## AUDIO BUILDING COMPLEX WITH SWITCHBOARD ART. 154

## SYSTEM DESCRIPTION

The installation allows for the connection of several buildings equipped with stairway panels with a main external unit controlled by porters switchboard Art. 154. Each building installation includes a panel with external unit and interphones in the various apartments. The main external unit consists of a panel with external unit which unifies all the users in all the buildings. The same switchboard groups the call lines for all the interphones. For the door signal an internal or external buzzer must be installed on the interphone (see variant 1 or 2). The switchboard allows for connection of several buildings, each with its own stairway panel and main panel; it is also equipped with two operating modes: INTERNAL and EXTERNAL. When set to INTERNAL mode, the building interphones can communicate with the switchboard while those of another building can communicate with its own stairway panel; when set to EXTERNAL, the buildingís interphones can communicate both with their stairway panel and the main external panel.
All internal units can communicate with their own stairway panels; an interphone in one building can also communicate with main external panel or the switchboard and at the same time any user in any building can communicate with his own stairway panel.
The door lock button activates the stairway panel lock after an external call has been received; when the external call is made from the main panel, only the main panel lock (internal jumper on Art. 6834 set to A) can be activated, or both the main lock and the lock at the stairway panel from which the call is made (internal jumper on Art. 6834 set to B).
LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. CC2616)

| Diagram ref. | Art. | Name | Quantity |
| :--- | :--- | :--- | :--- |
| A | $900-902$ | Phone | $1+\mathrm{n}$ |
| A1 | 870 | Phone | $1+\mathrm{n}$ |
| A2 | $710 \mathrm{R}-(7100+7148)$ | Phone GALILEO | $1+\mathrm{n}$ |
| B | 836 | Power supply | 1 |
| C-C1 | $2900-2970-2990-3200$ and series 9000 | Entrance panel | 1 |
| D | 930 | Speech unit | 1 |
| E | - | Electric lock 12V A.C. | 1 |
| F | 6834 | Power supply | 1 |
| G | $2 / 834$ | Diode box | 1 (one for 20 users) |
| I | 154 | Switchboard | 1 |
| L | - | Porter's doorbell | 1 |
| n-m -0 | - | Number of users of buildings $1-2-3$ | $1+n$ |

## OPERATING PRINCIPLE

When in INTERNAL mode (button I/E on I) the system enables the reserved call function between the switchboard and the interphones. To call an interphone from the switchboard, press the line selector button and press CH ; to call the switchboard from the interphone, lift the handset and press the button marked with a bulb symbol. To answer a call from the switchboard, press the line switch corresponding to the illuminated led. If another interphone handset is raised while a call is already in progress between an interphone and the switchboard, a line engaged tone ( 50 Hz ) sounds on the handset. Nonetheless, in the other buildings reserved calls can be made from the stairway panels to their interphones.

When in INTERNAL mode, all calls from the main panel are intercepted by the switchboard, which can communicate with the external unit by momentarily selecting E with the $\mathrm{I} / \mathrm{E}$ switch and also open the door lock by pressing AP. On the contrary to transfer a call from the panel to the interphone, the switchboard must be in "EXTERNAL" mode, with the relative interphone line selector activated. In this mode the call from panel to interphone is not reserved. In normal "EXTERNAL" mode operation (I/E on E) the main panel calls the interphone directly and the latter can open the door lock with the button marked with the key symbol. The call from the main panel to the interphone is not reserved, but a simultaneous call can be made from a stairway panel to one of its internal units.





The chime is supplied by 230 V A.C. A potentiometer inside the chime regulates sound intensity. Chime may be wallmounted, either on standard recessed box or with expanding screws. Calls may be made from two separate push-buttons. The first call is identified by a three-note chime. The second call is identified by a two-note chime.

## CONNECTION OF CHIME CARD ART. 860C OPERATED BY 9 V BUFFER BATTERY ONLY.

Button 1 = 1-tone note
Button 2=2-tone note
Button 3=3-tone note
N.B.

- Buttons P1-P2-P3 may be used either individually or together as illustrated in the diagram.
- The setting of internal jumpers 1-2-3 does not affect chime card operation.

Chime
Art. 860C


Battery


Call push-buttons

P1
P2
P3


WIRING INSTRUCTIONS FOR THE CONNECTION OF ELECTRONIC CHIME ART. 860A IN PARALLEL TO OLD STANDARD CHIMES
Wiring diagram $\mathbf{N}^{\circ} \mathbf{C 2 9 9 6 A}$


The chime may be connected in parallel to ordinary bells or electronic chimes of a pre-existing installation, but it must be supplied by 230 V A.C. A potentiometer inside the chime regulates sound intensity. Mounting on standard recessed box or with expanding screws. Calls may be made from two separate push-buttons. The first call is identified by a threenote chime. The second call is identified by a two-note chime.

## CONNECTION OF CHIME CARD ART. 860C OPERATED BY A.C. POWER SUPPLY WITH CHIME ACTIVATION CONTROLLED BY FREE BUTTONS.

Button 1=1-tone note
Button 2= 2-tone note
Button 3=3-tone note

## N.B.

- Buttons P1-P2-P3 may be used either individually or together as illustrated in the diagram.
- The setting of internal jumpers 1-2-3 does not affect chime card operation.

Chime
Art. 860C


Battery


Supply
$10 \div 15 \mathrm{~V}$ c.a.

Call push-buttons


CONNECTION OF CHIME CARD ART. 860C OPERATED BY A.C. POWER SUPPLY WITH CHIME ACTIVATION CONTROLLED BY A.C. OR "SOUND SYSTEM" CALL SYSTEM.

To select the type of note, adjust the three internal settings as follows:
Jumper set to position 1=1-tone note
Jumper set to position 2= 2-tone note
Jumper set to position 3=3-tone note

## N.B.

The chime is not activated if the jumper is not set to any one of the three positions.


CONNECTION OF CHIME CARD ART. 860C IN PLACE OF OLD MECHANICAL CHIME (A.C. POWER SUPPLY ONLY: 12-15 VAC). SYSTEM 1.

To select the type of note, adjust the three internal settings as follows:
Jumper set to position $1=1$-tone note
Jumper set to position 2= 2-tone note
Jumper set to position 3=3-tone note

## N.B.

The chime is not activated if the jumper is not set to any one of the three positions.
N.B.:

- Connect the diode provided to terminals "-" and "CH" as illustrated in the diagram.
- A battery must be fitted for this type of application.


CONNECTION OF CHIME CARD ART. 860C IN PARALLEL WITH MECHANICAL CHIMES (A.C. POWER SUPPLY ONLY: 12-15 VAC).

To select the type of note, adjust the three internal settings as follows:
Jumper set to position $1=1$-tone note
Jumper set to position 2= 2-tone note
Jumper set to position 3=3-tone note

## N.B.

The chime is not activated if the jumper is not set to any one of the three positions.

## N.B.:

- Connect the diode provided to terminals "-" and "CH" as illustrated in the diagram.
- A battery must be fitted for this type of application.


CONNECTION OF CHIME CARD ART. 860C IN PLACE OF OLD MECHANICAL CHIME (A.C. POWER SUPPLY ONLY: 12-15 VAC). SYSTEM 2.

Follow all the instructions illustrated in application system 1 with the exception of the diode, which must be connected in parallel to the call button. No 9 V battery is required if the diode is installed.


## ELECTRONIC INTERCOMMUNICATING PHONES AND POWER SUPPLY ART. 856/800

## DESCRIPTION OF SYSTEM

A single power supply unit Art. 856/800 is sufficient to connect up to 20 electronic interphones. For additional interphones (maximum 40) two power supply units Art. 856/800 are required, each powering the same number of units. In the case of installations with extremely long cable runs or with excessive voltage drops whereby the voltage between terminals 1 and 2 of the interphone is less than 10 Vdc , an additional power supply unit Art. $856 / 800$ must be installed at the minimum voltage point. The second or third power supply unit may be connected using terminals 1,2 and 3 while leaving the others disconnected.
N.B. The conductors must be installed in ducts well away from the mains power supply.

## INTERPHONE CODING

Coding is effected by connecting the wires complete with faston connector to the relative terminals A-B-C-D and 1-2-3-4-5-6-7-$8-9-10$ located inside the unit. For example, to code unit A3, connect the relative wires to terminals $A$ and 3 and to code unit D10, connect the relative wires to terminals D and 10.

## OPERATING PRINCIPLE

Each unit up to a maximum of 40 is coded with a letter (A-B-C-D) and number ( 1 to 10 ).
The system permits a maximum of 4 simultaneous conversations each with conversation privacy.
To make a call, lift the handset and press first the button marked with the corresponding letter and then the button marked with the corresponding number. An acoustic tone in the receiver indicates that the unit being called is enabled to reply. No signal means that the unit is engaged or all the communication lines are busy. Do not call repeatedly and in any case, release the call button as soon as the acoustic tone terminates. To repeat a call to the same user or make a new call, follow the same procedure, each time replacing the handset to disengage the communication line.

LIST OF ARTICLES COMPRISING SYSTEM (Diagram ref. C1567-1)
Diagram ref. Art. Name

| Diagram ref. | Art. |
| :--- | :--- |
| E | $856 / 800$ |
| F | $851 / 001$ |
| G | $170 / 001$ |
| H | M832 |

Name
Power supply
Phone
Relay
Transformer $1 \div$ n
12 V A.C. additional bell $1 \div$ n
N.B. the numbers shown in the diagram under the interphones indicate the call codes of said units.

## POWER SUPPLY TERMINALS

| 1 | Negative, earth |
| :--- | :--- |
| 2 | Positive +12 V supply |
| 3 | Digital call line |

4-5-6-7 Conversation line


## WIRING DIAGRAM FOR ELECTRONIC INTERCOMMUNICATING PHONES Art. 851/001



NOTE: Terminal No. 8 in the interphones is used for connecting an additional bell by the relay Art. 170/001.
N.B. POWER SUPPLIES SHOULD BE INSTALLED DIVIDING THE INTERCOMS UNIFORMILY, CARRYING OUT CONNECTIONS AS PER EXEMPLIFYING DIAGRAM.

Conductors must be placed on proper cable passages far from the power line. All the intercom must be parallel-wired by means of 7 conductors variable in diameter according to the schedule.
Min. section of conductors (diameter in mm)

|  | $\varnothing$ <br> up to 50 m. | $\varnothing$ <br> up to 100 m. | $\varnothing$ <br> up to 200 m |
| :--- | :---: | :---: | :---: |
| $1-2$ | $1 \mathrm{~mm}^{2}$ | $1.5 \mathrm{~mm}^{2}$ | $2.5 \mathrm{~mm}^{2}$ |
| conductors | $0.25 \mathrm{~mm}^{2}$ | $0.5 \mathrm{~mm}^{2}$ | $1 \mathrm{~mm}^{2}$ |

PLEASE CONTACT OUR TECHNICAL DEPARTMENT FOR WIRING EXCEEDING 200 METERS.

## ELECTRONIC INTERCOMMUNICATING PHONES WITH DOOR ENTRY SYSTEM AND PAGING CALL FUNCTION

## DESCRIPTION OF SYSTEM

Power supply Art. 857/001 connects electronic intercommunicating phones to an entrance panel and/or acoustic paging system. One power supply unit Art. 857/001 is sufficient for up to 20 units. In the case of additional units (maximum 39) or installations with extremely long cable runs or with excessive voltage drops whereby the voltage between terminals 1 and 2 of the unit is less than 10 Vdc , an additional power supply unit Art. 856/800 must be installed (with each of the two suppliers powering the same number of units). The second or third power supply unit may be connected using terminals 1,2 and 3 while leaving the others disconnected.
N.B. The conductors must be installed in ducts well away from the mains power supply.

In the case of paging systems using acoustic power diffusors connected to amplifier Art. 4040, the diffusor conductors (terminals $0-100 \mathrm{~V}$ ) and interphone conductors must not run in the same duct. Furthermore, the diffusors must be installed well away from the call units or be acoustically isolated to avoid the characteristic whistling caused by the feedback.
Installation with entrance panel. In the case of installations with entrance panel, terminal 10 must be connected to activate the door lock in addition to terminals 1 to 7 .
Installation with paging system using power diffusors. To operate the paging function with amplifier Art. 4040, terminal 9 must be connected in addition to terminals 1 to 7 .
Installation with paging function on intercom units. The paging function on intercom units is activated by mounting accessory Art $2 / 850$ in the relative units and connecting these by way of terminals 1 to 7 and terminals 9 and 11. The paging function may be installed in conjunction with the entrance panel and amplifier Art. 4040.

## INTERPHONES CODING

Each set is given its codified number slipping the bridges on to their respective pegs specified by letters A-B-C-D and figures 1 -$2-3-4-5-6-7-8-9-10$ which are inside the set. For instance to codify A3 the bridges must be shifted to positions A and 3. To codify C10 the bridges must be shifted to C and 10 positions.

## IMPORTANT

On installations with entrance panel and/or paging system, code D10 is reserved and cannot therefore be used as an interphone code.

## OPERATING INSTRUCTIONS

Each set is coded with a letter (A-B-C-D) and a number (1-10).
Up to 39 sets can be connected; code D10 is reserved for the paging call or speech unit (Power supply Art. 857/001). Up to 4 conversations can be held simultaneously and without interference.
To make a call lift the handset and enter the code for the desired line.
If you hear a tone, the line is available; if not, either the line is engaged or four calls are already in progress.
If at first you cannot connect, do not keep pressing the call button; release it as soon as the call tone terminates. To repeat the call to the same user or to make a new call, repeat the procedure, replacing the handset between calls to disengage the line.

## COMMUNICATIONS WITH THE OUTDOOR UNIT

When the buzzer sounds to indicate a call from the external panel, respond by pressing D and 10. The door lock button $\boldsymbol{\gamma}$ activated only in this situation.

## ACOUSTIC PAGING CALLS

If available with Art. 2/850 or Art. 4040, press D10 push-buttons then keep pressed "O" push button from the intercom to make a paging call and hold down. This cuts out the external unit and relays the call to the other units or external loudspeakers.
NOTE: The unit is fitted with a "muting" device which cuts out and reactivates the receiver during pauses in conversation. This impedes crosstalk from other calls in progress.

| Diagram ref. | Art. | ram ref. CI1569, Cl1 Name | Quantity |
| :---: | :---: | :---: | :---: |
| A | 857/001 | Power supply |  |
| B | - | Electric lock 12V A.C. | 1 |
| C | 2900-2970-2990-3200 and series 9000 | Entrance panel | 1 |
| D | 930 | Speech unit | 1 |
| E | 851/001 | Phone | $1 \div n$ |
| F | 170/001 | Relay | $1 \div n$ |
| G | - | Additional chime | $1 \div n$ |
| H | 860B | External call chime | $1 \div n$ |
| I | 4040/... | Amplifier | 1 |
| L | 4056-4057-4058 | Loudspeakers | $1 \div n$ |




## N.B.

The terminal N. 8 in the intercoms is used for connecting an additional bell via relay Art. 170/001, as per the schematic drawing with dotted wiring.
N.B: POWER SUPPLIES SHOULD BE INSTALLED DIVIDING THE INTERCOMS UNIFORMLY, CARRYING OUT CONNECTIONS AS PER THE EXEMPLIFYING DIAGRAM.

ELECTRONIC INTERCOMMUNICATING PHONES

## INTERCOMMUNICATING ELECTRONIC INTERPHONES WITH OUTDOOR UNIT AND PAGING CALL FUNCTION VIA LOUDSPEAKERS AND/OR DIRECTLY VIA THE INTERPHONES

A- Entrance panel with speech unit
Art. 2900-2970-2990-3200 and series 9000
B- Additional push-button for lock
C- Electric lock 12V A.C.
D- Speech unit Art. 930

Relay
ART. 170/001




ENTRANCE
BELL
ART. 860B



PHONES
ART. 851/001
HORNS
ART. 4056-4057-4058


AMPLIFIER
ART. 4040

N.B.

The terminal N. 8 in the intercoms is used for connecting an additional bell via relay Art. 170/001, as per the schematic drawing with dotted wiring.
N.B: POWER SUPPLIES SHOULD BE INSTALLED DIVIDING THE INTERCOMS UNIFORMLY, CARRYING OUT CONNECTIONS AS PER THE EXEMPLIFYING DIAGRAM.

## SYSTEM DESCRIPTION

The system allows for connection of up to 18 sub-masters to a master unit with two wires for each connected unit. A paging call system can also be connected using an amplifier Art. 4040.
The master controls all calls between itself and the sub-masters. The system is powered by the power supply incorporated in the master.

## SUB-MASTERS

Sub-masters Art. 4055, 4058/001 and 4050 allow for conversation with the master unit, but cannot make calls to it. The master unit cannot be cut out ("PRIVACY") from the call - every sound can be heard from the master. If calls to the master are to be made, simply install a call button (N.O.) in parallel with the unit itself.
Sub-masters Art. 9951 and 9971 differ from the preceding units in that: calls can be made to the master; they do not have the "PRIVACY" function, however. The 4050/001 is the only sub-master which allows for calls to the master and privacy function. Pressing and holding down the "PRIVACY" button cuts out the master; to restore conversation between the two, release the button.

## OPERATION OF INTERCOM MASTER ART. 4000/A01

Intercom Art. 4000/A01 allows for connection of a single sub-master, but not the amplifier Art. 4040. To call the sub-master (which can be a normal desktop unit, an external panel or a loudspeaker) from the master press the call button, announce the call, release the talk button and wait for the sub-master to reply. When the sub-master replies, press the talk button again to talk to the sub-master and release it to listen. Once the call is over, switch off the master with the OFF button. The sub-master calls the master by pressing its button which sounds a 800 Hz buzzer on the master. When the master replies, the call starts and is controlled by the master as described above. If using the 4050/001 sub-master, press the "PRIVACY" key at the end of the call to cut out the master. The master also has a volume adjustment knob.

## OPERATION OF INTERCOM MASTER ART. 4000/001

The 4000/101 is similar in operation to the 4000/A01, with the difference that it can only be used with the 4040 series amplifier.

## OPERATION OF INTERCOM MASTER ART. 4000/A03-A06-A12-A18

These masters allow $3,6,12$ and 18 sub-masters respectively to be connected, as well as the 4040 series amplifier. The amplifier must be connected to the last line of the master (the 3rd, 6th, 12th or 18th respectively). To call one of the sub-masters (which can be a normal desktop unit, an external panel or a loudspeaker) from the master, press the appropriate selector and press the CALL button. When the sub-master replies, press the talk button again to talk to the internal unit and release it to listen. At the end of the call, deactivate the intercom selector key. The sub-master calls the master by pressing its button which sounds a 800 Hz buzzer on the master and lights up the led corresponding to the calling intercom. To talk, press the relevant selector key and use the talk button as described above. At the end of the call deactivate the selector key and if using submaster Art. 4050/001 press the "PRIVACY" button.
If the 4040 series amplifier is connected, to make a paging call press the last selector key on the master (the 3rd, 6th, 12th or 18th respectively) and then the talk button to make the "OPEN VOICE" announcement. The 4000/A01-A06-A12-A18 masters are fitted with a "DICTATION" key which locks the talk button in transmission mode. To enable this mode, press the talk button and "DICTATION" key simultaneously. The master also has a volume adjustment knob.


STANDARD INTERCOM MASTER WITH ACOUSTIC PAGING CALL FUNCTION
LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. I1360-1 I1361-1)

Diagram ref. Art.
A
B
C
C
D
E
E
F
G
H
4055

4040

4000/101
4050-4050/001
4058/001
9951-9971
4056-4057-4058
4000/A03-A06-A12-A18

Name
Terminal block station master
Submaster
Horn submaster
Loudspeaker submaster
Panel with integrated electronic unit.
Amplifier
Loudspeakers
Terminal block station master

Quantity
1
$1 \div n$
$1 \div n$
$1 \div n$
$1 \div n$
1
$1 \div n$
1

Terminal block station master




WIRING DIAGRAM:
Dbor entriv systems with

## INTERCOMMUNICATING MASTERS WITH AMPLIFIED POWER SUPPLY

## SYSTEM DESCRIPTION

The system, powered by a single 4198/800, allows for connection of up to 19 intercommunicating masters or up to 18 internal units and paging call system via amplifier Art. 4040. The system allows for only one call at a time.

## OPERATING INSTRUCTIONS

To call: first press desired line key, then call push-button.
When called unit answers hold talk button pressed down and only release it to hear reply.
When conversation is over, press line key again to disengage the line.
In order to answer, the called person must only make sure that PRIVACY key is off, without pressing any other key. At the end of conversation, privacy may be continued if PRIVACY key is pressed again. When any line key is pressed, the red LED on all units comes on, indicating to other users that the line is busy. Volume control: inside power supply Art. 4199/800.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. I1700-I1701)

| Diagram ref. | Art. |
| :--- | :--- |
| A | $4199 / 800$ |
| B | $4103-4106-4112-4118$ |
| C | 4040 |
| D | $4056-4057-4058$ |

## Name

Amplified power supply
Intercommunicating masters
Amplifier
Loudspeakers

Quantity
1
$2 \div 19$
1


WIRING DIAGRAM OF INTERCOMMUNICATING MASTERS ART. 4103 WITH AMPLIFIED POWER SUPPLY ART. 4199/800

WIRING DIAGRAM
ART.
4103-4106-4112-4118
WITH AMPLIFIER
ART. 4040


TAKE CARE: CARRY OUT CONNECTION TO TERMINALS 1 AND 2 BY WIRE COUPLE SEPARATE FROM OTHER CONDUCTORS.

## WIRING INSTRUCTIONS

Diagram shows installation 4 intercommunicating masters Art. 4103.

- Installation requires 9 ordinary conductors, 4 conductors for intercommunicating calls and one (optional) conductor for acoustic paging calls.
- The first two terminals must be connected through a telephone cable to a cable couple, separate from other conductors. A multicouple telephone cable may be used up to 200 m .
- Installation must be carried out through separate ducting, avoiding other electric networks.


INTERCOMMUNICATING MASTERS ART. 4103

## WIRING INSTRUCTIONS

Diagram shows installation with the maximum number of intercommunicating master art. 4118. With Art. 4112 there can be up to max. 13 units and with Art. 4106 up to 7 units.

Installations requires 9 ordinary conductors, 1 conductors to call every unit installed and one (optional) conductor for acoustic paging calls
The first two terminals must be connected through a telephone cable to a cable couple, separate from other conductors. A multicouple telephone cable may be used up to 200 m .
If possible install power supply at centre of installation.
Installation must be carried out through own wiring passage, avoiding other electric networks.

For a lower number of units, connections should be made as follows:
Choose unit numbers to be connected, for example 10. Obviously, units with more than 10 push-buttons must be used.
Connect the first 9 terminals to power supply, then the remaining 10 terminals ( 11 to 20) for the calls, as per diagram.


INSTALLATION OF INTERCOMS WITH SPECIAL SUB-MASTERS

## SYSTEM DESCRIPTION

The intercommunicating interphones can be connected to external panels and/or loudspeakers; if the interphone has a call button, an external buzzer must be used to notify the intention to call the intercommunicating switchboard.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. I1702)

## Diagram ref. Art

| A | series 4100 |
| :--- | :--- |
| B | $4199 / 800$ |
| C | $9951-9971$ |
| D | $4055-4058 / 001$ |
| E | $860 B$ |

## Name

Intercommunicating sub-masters
Power suply
Submasters
Horn sub-masters
Chime $1 \div$ n
1
$1 \div n$
$1 \div n$
$1 \div n$
$1 \div n$

## Quantity



## WIRING DIAGRAM OF INTERCOMS SERIES 4100 WITH SPECIAL SUB-MASTERS



## L <br> IDE:ODOORENITYSTISEEMS <br> INTERCOMMUNICATING MASTERS ALLOWING SEVERAL SIMULTANEOUS CONVERSATIONS

## DIRECTION FOR USE

To call: press first the line selector engaging the wanted station, then the call key or the conversation key (for open voice calling). On being answered speak while keeping the conversation push-button pressed, release it to listen.
At end of conversation press again the line selector to free the line.
Replying from called stations only requires that the key marked "PRIVACY" is disconnected.
At the end of the conversation press the "PRIVACY" key again to prevent eavesdropping.
N.B. Pressing of a line selector switches on one of two warning lights (red lamp for busy line, green for free line). Receiver volume control is adjustable acting on knob top-right of the set.
Where maker's arrangement is inadequate, the emisson volume of calling station must be checked and adjusted acting on volume control reachable after removing the base of the set.

## SYSTEM DESCRIPTION

The system, powered by a single 4399/800, allows for connection of up to 19 intercommunicating internal units or up to 18 internal units and PA system via amplifier Art. 4040. The system allows for a number of simultaneous conversations equal to the number of connected units divided by two (19 units allows for 9 simultaneous conversations).

| LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. I1580/1-I1356/1) |  |  |  |
| :--- | :--- | :--- | :--- |
| Diagram ref. | Art. | Name | Quantity |
| A | $4399 / 800$ | Power supply | 1 |
| B | $4330 / 106-4330 / 112-4330 / 118$ | Intercommunicating masters | $1 \div 19$ |



## WIRING DIAGRAM OF MULTIPLE CONVERSATION INTERCOMMUNICATING MASTERS SERIES 4330/106-112-118



Wiring diagram Art. 4330/106-112118 with amplifier Art. 4040.


USE COUPLE CABLE

| LINES | TERMINAL | COUPLES/COLOURS |
| :--- | :--- | :--- |
| Supply | 0 |  |
| $16-20 V$ d.c. | 20 |  |
| Own | PL | White |
| Number | PR | Blue |
| Earth | M | Couple |
|  |  | White-Yellow |
| $1^{\circ}$ LIne | L1 | White |
|  | R1 | Green |
| $2^{\circ}$ LIne | L2 | White |
|  | R2 | Brown |
| $3^{\circ}$ LIne | L3 | White |
|  | R3 | Ash |
| $4^{\circ}$ LIne | L4 | White |
|  | R4 | Blue-White |
| $5^{\circ}$ Line | L5 | White |
|  | R5 | Blue-Yellow |
| $6^{\circ}$ Line | L6 | White |
|  | R6 | Blue-Green |

## WIRING DIAGRAM N ${ }^{\circ}$ I1580-1

## WIRING INSTRUCTIONS

The diagram features an installation of a multiple conversation (7 intercommunicating intercoms) system, consisting of all masters Art. 4330/106.
Following instructions refer to a quite similar installation with Art. 4330/112 and 4330/118.
1 - The system requires laying of a separate two wires $\left(0,75 \mathrm{~mm}^{2}\right.$. in diameter) trunk line plus a telephonic cable housing as many couples of conductors ( $0.25 \mathrm{~mm}^{2}$. in diameter) as the stations to be connected, plus one earth common couple,e.g. with 7 stations $7+1=8$. Cables fitting the description can connect stations up to 300 m . maximum. For distances over 300 mt . increase diameter of conductors. For distances up to 100 mt . the power supply line can make use of conductors like those of the telephonic cable, with an additional two wire cable.
2 - The trunk line connects in parallel all intercoms to power supply art. 4399/001 providing voltage drop to proper values. Art. 4399/001 is powered through the main switch. With rather long lines and too thin conductors, voltage drops may occur on the supply line. It must be checked with a voltmeter that such voltage is never lower than 16 V , otherwise it must be boosted simply by shifting the bridge inside Art. $4339 / 001$ from terminal 18 to terminal 20 or 22, depending on the extent of the voltage drop. If this measure proves to be inadequate a second power supply may be connected splitting the line in two sections. It is advisable to install the power supplier at the centre of the connecting line to avoid excessive voltage drops.
3 - The telephonic cables couples are momentaneously connected in parallel to station terminals according to colours as from the side prospectus.
4 - Code-numbering of each station:
1st station: connect terminals PL/PR with L1/R1 respectively; 2nd station: connect terminals PL/PR with L2/R2 respectively; 3rd station: connect terminals PL/PR with L3/R3 respectively;
a.s.o. Connections of last station terminals undergo no charge.

## WIRING INSTRUCTIONS FOR AMPLIFIER OUTPUT CIRCUIT ON INTERCOM AND INTERPHONE SYSTEMS

Voltage at amplifier output terminals is substantially constant (100 V). A multi-socket translator inside hornspeakers allows the connection in parallel of several speakers and the control of the sound volume to meet different requirements.

- Art. 4056: horn speaker suitable for sheds, stores, etc.
- Art. 4057: horn speaker suitable for installation in the open;
- Art. 4058: wall speaker baffle for office, waiting rooms etc.

For the installation to operate correctly it is necessary that the total sum of speakers power be inferior to nominal amplifier power against risk of overloading it.
Wiring of intercom system and network lines conductors must not be housed together, the former must also laid separately from speakers lines, to avoid typical buzzing.
$0-100 \mathrm{~V}$ output terminals are to be connected in parallel to all speakers through bipolar cable at least $0.75 \mathrm{~mm}^{2}$ in diameter, to be increased where line is over 100 m long; attention must be paid to correct connection terminal-conductor.
To prevent feedback, calling points with intercoms making use of amplifiers must be soundproof as regards the speakers.
To prevent damaging the amplifier make sure the output line to speakers is neither shortcircuited nor open (i.e.with no speaker connected) before operating the installation. Once the system is powered adjust volume control first to minimum then to give satisfactory result. If in some places the power of sound is different than wanted, act only on the speaker concerned.

## AMPLIFIER TECHNICAL DATA

| Art. | Input | Input | Output | Output | Ouput |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | sensitivity mV | impedance Ohm | voltage V | impedance Ohm | power W |
| 4040 | 700 | $10-10 \mathrm{~K}$ | 100 | 200 | 50 |

The above value on condition that C and M terminals are shortcircuited.

## HORNS CONNECTION TO AMPLIFIER




8S0
TTRIMITC


## AMPLIFIER TERMINALS

0-100: output 100V constant line;
C: input impedance variation (10 Ohm - Kohm);
I: input line;
M: input earth;
R: relay positive switch
T: relay negative switch;
0-230: network voltage.

## LOUDSPEAKER TECHNICAL DATA

|  | POSITION 1 | POSITION 2 |  | POSITION 3 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Art. | Imp. | Power | Imp. | Power | Imp. | Power

## TAKE CARE

Amplifier Art. 4040 can be used with the answering system (selectable on the amplifier itself) only on interphone series 4000 and 4100. Installation procedures are the same as those for amplifiers without answering systems, with the exception of the cable connected to the loudspeakers.
Carry out this connection by separate pipeline installed far from A.C. conductors and excluding or screening also the other intercom wires. Horn speakers must be located in acoustic insulated noiseless places far from call stations, to avoid feedback.

## APPLICATION EXAMPLE

Premises to be fitted with phonic installation inclusive of:

- 3 offices of steard dimensions.
- wating room twice as large.
- noisy shed with 4 loudspeakers position.
- area in the open about $\mathrm{m} 50 \times 50$ with outdoor speakers.

A SYSTEM AS THE FOLLOWING MAY BE EXPLECTED

| Premises | Speakers | Models of <br>  <br>  <br> $N^{\circ}$ | Speakers Art. | position | Single speaker <br> power W |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Offices | 3 | 4058 | 1 | 0.5 | Total |
| Waiting room | 1 | 4058 | 2 | 1 | 1.5 |
| Shed | 4 | 4056 | 5 | 5 | 1 |
| Open | 2 | 4057 | 3 | 12.5 | 20 |
| Sum total of power |  |  |  | 25 |  |
|  |  |  |  |  |  |


|  | M STANDARD AGRAMS <br> Deder entry systems with |
| :---: | :---: |
| VERSION 1 <br> Connection of outdoor call push-button with power supply Art. 831, 838, 836. <br> N.B. No supplementary chime can be added to interphone Art. 7100. | VERSION 2 <br> Connection of additional bells with power supply Art. 831, 838, 836. |
| VERSION 3 <br> Connection of outdoor call push-button with switchboard Art. 152. | VERSION 4 <br> Connection of additional bells with switchboard Art. 152. |



## VERSION 6

Additional interphone button application in kits Art. 895/901-895/902
The button marked with the bulb symbol activates the auxiliary function connected to relay Art. 170/001.


| LIDEODOORENIRYSYSTENS | VERSION FROM STANDARD |
| :---: | :---: | :---: |
| WIRING DIAGRAMS | Diber entry systems with |

## VERSION 7

Connection of two or more interphones in parallel via a single line to switchboard Art. 152.
Raising the first handset excludes the successive interphones (see diagram cc2016).


## VERSION 8

Coded lock connection Art. 9015
The system is for installation in all MULTISYSTEM panel installations.
For programming instructions, refer to the handbook supplied with the device.
N.B: The device can fit up to 49015 keypads and 4 auxiliary functions ( 2 at 15 V AC and 2 via supplementary relays). Up to 200 8 -digit codes can be programmed.


|  | VERSION FROM STANDARD WIRING DIAGRAMS | Dion entiry systems with - 能 C |
| :---: | :---: | :---: |
| VERSION 9 |  |  | NE SYSTEM WITHOUT OUTDOOR UNIT

## SYSTEM DESCRIPTION

Any interphone can make paging calls from any free call button; in the examples the last button is used.

## OPERATING PRINCIPLE

To make the call raise the handset and hold down the button.
LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C2030-1)

| Diagram ref. | Art. |
| :--- | :--- |
| A | 836 |
| B | $902-(7100+7151)$ |
| C | $4056-4057-4058$ |
| D | 4040 |
| n | - |

n

| Name | Quantity |
| :--- | :--- |
| Power supply | 1 |
| Interphone | $1 \div 16$ |
| Loudspeakers | $1 \div x$ |
| Amplifier | 1 |



工-

TAKE CARE:
The wiring diagram of amplifier Art. 4040 phone system using power supply Art. 857/001 is enclosed with abovesaid articles.


## VERSION 10

## WIRING INSTRUCTIONS FOR AMPLIFIER INPUT IN INTERCOMMUNICATING INTERPHONE SYSTEM WITH OUTDOOR UNIT

## SYSTEM DESCRIPTION

Any intercom may make paging calls from any free call button; in the examples the last button is used.

## OPERATING PRINCIPLE

To make the call switch the power supply Art. 838 to INTERNAL by pressing the last but one button which simulates an internal call with the 150 Ohm resistor, then hold down the last button on the intercom which makes the call itself.

LIST OF ARTICLES REQUIRED FOR INSTALLATION (Diagram ref. C2030)

| Diagram ref. | Art. | Name | Quantity |
| :--- | :--- | :--- | :--- |
| A | 838 | Power supply | 1 |
| B | - | Electric lock 12V A.C. | 1 |
| C | $2900-2970-2990-3200$ and series 9000 | Entrance panel | 1 |
| D | 930 | Speech unit | 1 |
| E | $902-7100+7151$ | Phone | $1 \div 16$ |
| F | 4040 | Amplifier | 1 |
| G | $4056-4057-4058$ | Horn speakers | $1 \div \mathrm{n}$ |
| n | - | Number of users |  |

## WIRING DIAGRAM N ${ }^{\circ} \mathbf{C 2 0 3 0}$

A- Entrance panel with speech unit
Art. 2900-2970-2990-3200 and
series 9000 and series PATAVIUM
B- Additional push-button for lock
C- Electric lock 12V A.C.
D- Speech unit Art. 930




On interphones connect a 150 Ohm 1W resistor between terminal 5 and , i.e. the terminal of the last but one push-button.
N.B. The 150 Ohms allows the switching to internal position of power supply Art. 838, simulating an intercommunicating call.

