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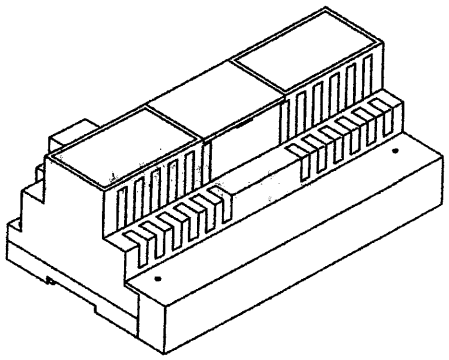
POWER SUPPLY FOR SINGLE AND MULTI-RESIDENTIAL VIDEO DOOR ENTRY SYSTEMS WITH "SOUND SYSTEM" CALL

INSTALLATION AND OPERATION MANUAL

Art. 6680/C17

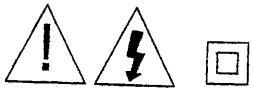


Sound system

UL product is according to UL 6500

Descrizione dei simboli contenuti nel trasformatore.
doppio quadrato: l'alimentatore è Classe II;
triangolo con fulmine: pericolo di scossa, tensione pericolosa;
triangolo con punto esclamativo: pericolo, prestare attenzione.

Description of symbols shown in the transformer.
double square: it is a class II power supply
triangle with ligthning: hazard of electric shock, dangerous voltage;
Triangle with exclamation mark: danger, pay attention.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

Cod. S65.68C.17E ed. 01 12/2003

GENERAL RULES FOR INSTALLATION

Wiring should be installed in separate lines from electrical and industrial cables. The use of coloured conductors will facilitale connections. For the camera entrance panel installation, please, note that:

A) Camera operates from -5° + 50° C; to avoid overheating, protected it from sunlight with some form of shelter.
B) Lens must be protected against direct light (sun, car headlights, etc.).
C) Person to be framed by camera must be illuminated from the front. If lighting is insufficient use an additional external lamp powered directly by the mains.
D) Before closing unit, clean protective glass and lens, repeat this operation from time to time.

Power supply Art. 6680/C17 must be placed in a dry place far from sources of dust and heat. To facilitate check-ups and adjustments, make sure that the place is easily accessible. Fix power supply to wall with proper support and fixing screws provided with the package or inserting it with proper DIN module. Before connecting it, ensure that conductors are not interrupted or short-circuited.

Installation should be made in lines separated from electric mains. To ensure user safety, all units run on low voltage and are separated from electric-mains by an high isolation transformer. It is advisable, in any case, to instal a thermal magnetic switch with an adequate capacity between the supplying mains and the unit. When repairing and/or servicing the power supply it will be sufficient to loosen the screws placed on the front side to remove the front panel, after having switched off the power.

IMPORTANT SAFETY INSTRUCTIONS

1- Read these instructions
2- Keep these instructions
3- Heed all warnings
4- Follow all instructions
5- Do not use this apparatus near water
6- Clean only with dry cloth
7- Do not block any ventilation openings. Install in accordance with the manufacurers instructions.
8- Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9- Do not deteat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11- Only use attachments/accessories specified by the manufacturer.
12- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has benn spilled or abjects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
13- Apparatus shall not be exposed to dripping or splashing and no objects with liquids, such a vases, shall be placed on the apparatus.

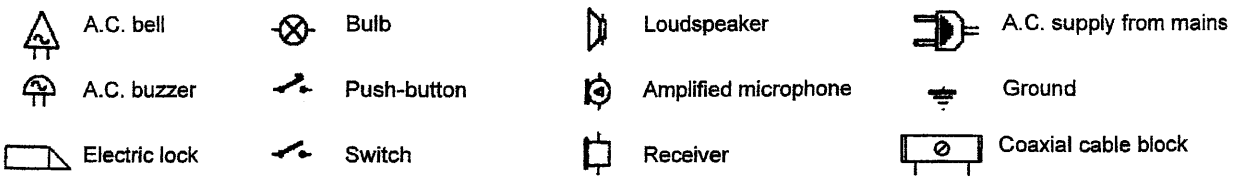
MINIMUM CONDUCTOR SECTION FOR STANDARD VIDEO-DOOR ENTRY SYSTEM AND TWO-CHANNEL VERSION WITH COAXIAL CABLE (in mm²)

Section type	Terminals	Ø fino a 50 m.	Ø fino a 100 m.	Ø fino a 200 m.
a	0, 3, 12, 15, -, +, AS, S1 C1, C2, C3, P1, P2, +T lock, calls	1 mm^2	1,5 mm^2	2,5 mm^2
b	Other	0,75 mm^2	1 mm^2	1,5 mm^2
Video	75 Ohm coaxial cable (type RG59) or RG11double insulation			

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

Section 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
AWG	26	23	22	20	18	16	14	12	10	
Decimal diameter	4/10	6/10		8/10	10/10	12/10	14/10	18/10		
Resistance Ω 100m.	14,00	6,60	4,80	3,50	2,20	1,70	1,14	0,69	0,39	0,28

SYMBOLS



OPERATION

The video door entry installation consists of one camera entrance panel with speech unit, one power supply and one or more monitors. The system can operate with monitors and B/W or colour cameras and with or without conversation privacy.
The power supply is not equipped with intercommunicating section; nevertheless it is possible to carry out a monitor and/or intercommuicating interphones network using switching module type 935A in conjunction with the basic power supply.

When an entrance panel push-button is pressed, the chime rings in the corresponding apartment. Almost immediately the imageof the caller appears on the monitor. The coverage area is illuminated by built-in infrared leds when using B/W camera, or by a built-in white light when using a colour camera.
If desired, the user may simply raise the interphone, communicate with the caller and, if appropriate, activate the door-opener. In this case, door-opening time may be varied from 1 to 30 seconds using the potentiometer P3.
The system turns itself off automatically after a preset time, adjustable from 30 to 90 seconds using potentiometer P1 inside the power supply. If the caller presses another user's push-button, the previously called monitor is automatically disactivated without waiting for the end of the preset time. When testing the installed system, use trimmer P2 to adjust the optimal volume of the speech unit. For simultaneous activation of two or ore monitors one extra power supply type 5582/C17 must be installed for each additional monitor or type 6583 for more monitors. A blocking circuit cuts off power to monitors if the line is overloaded or short-circuited. The power supply is also equipped with a specific device to eliminate any buzzing on the voice circuit caused by the use of wires that are too long and/or too thin only in installations with "SOUND SYSTEM" call. Push-buttons with name-tags are illuminated through output 0-15 on power supply. Up to a maximum number of three 24V 3W bulbs can be connected. An additional transformer, type M832 or 832/030 is required for entrance panels with more bulbs.

Technical specifications of power supply type 6680/C17 - (6680/C17/V03)

Type 6680/C17 is the basic power supply for all video door entry systems with SOUND SYSTEM call and is equipped with an electronic double tone generator, which replaces conventional alternative calling with a buzzer or bell. The sound is emitted with two different tones (present on terminals C1-C2) thereby allowing the user to immediately identify the source of the call (main entrance, gate, garage, etc.). This feature provides economic and pratical advantages since the use of several conventional sound emitting systems is no longer required; the signal is emitted from a single loudspeaker in the interphone. In some cases, savings can be made on the cable routing work requirements for additional bell systems. Manufactured in technopolimer class V-0 housing; preset for mounting on cases with 12-Module DIN support or with expanding plugs with screws.

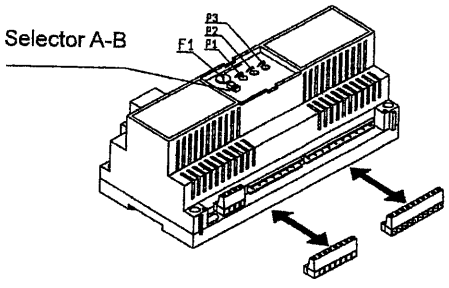
- 117V A.C. 60Hz supply (other voltages on request) with polarized plug
- 60VA maximum absorbed power.
- Dissipated power: 15W
- 18V D.C. 0.8A monitor supply (90 sec. ON, min. 90 sec. OFF)
- 13V D.C. 0.3A camera supply (90 sec. ON, min. 90 sec. OFF)
- 15V rectified voltage 0.25A continuous duty for push- button illumination (3x24V 3W max)
- Door lock output: 15V A.C. 1A intermittent cycle, (30 sec. ON, min. 150 sec. OFF)
- Amplified electric door-opener system.
- Timer and automatic disconnection device of monitor previously activated.
- Interchangeable cards for quick maintenance.
- Removable terminal blocks.

POWER SUPPLY OPERATING MODES

- Selector set A-B:
- "A" Position: operating with sound system call, to be used in case of summing noises (caused by power supply, door lock or lamps) dectected on the interphone line.
- "B" Position: normal operation with Sound System call, switching module in "A" position only in case of summing noises on the audio line.
- "B" Position: operating with 15V A.C. call only. In this case power supply 6680/C17 completely replaces power supply type 6580.

PROTECTION OF POWER SUPPLY:

- Primary coil of transformer by PTC SIEMENS C830
- 1st. secondary coil for internal electronic supply by F 3,15A 250V (F1) fuse.
- 2nd. secondary coil for lock supply by PTC SIEMENS C945
- Electronic protection against short-circuits and overloadings on monitor cable riser.
- Electronic protection against overloadings to outdoor unit.



Removable terminal blocks

ADJUSTMENTS

P1 - Activation time adjustment for monitor and camera.
P2 - Volume adjustment of speech unit.
P3 - Activation time adjustment for electric lock.
N.B.: The electric door lock must operate by way of an intermittent cycle so that one operating period corresponds to 5 rest periods, thereby preventing the protection device from overheating (one period corresponds to the door lock activation time).

Dimensions type 6680/C17 - 6680/C17/V03: 208x135x72 - Weight: 1.4 Kgs.

TERMINALS FOR MONITOR type 6300, 6301, 6303, 6500, 6501

1: Interphone receiver
2: Interphone microphone
3: Common audio line
4: Button for auxiliary services
5: Power supply negative
6: Power supply positive (minimum input voltage 15V DC)
7: Not connected.
8: Call from entrance panel
9: Lock push-button
10: 12V DC output for video distributor
11: Outdoor call
12: System auto-activation push-button
13: Green LED supply voltage
V1: For systems with coaxial cable, input for connection of the 75 Ohm video cable. For systems without coaxial cable, input for connection of the V1 signal.
V2: For systems with coaxial cable, output for connection of the 75 Ohm video cable or connection of the load resistance of 75 Ohm in the last monitor of the cable riser.
V3: For systems without coaxial cable, input for connection of the V2 signal.
M: Ground for terminals V1, V2, V3.
N.B. The monitors type 6300, 6500 have a microswitch on the back for setting the connection "coaxial cable/without coaxial cable" and one for the setting "conersation privacy/without conersation privacy" (type 6300,6303,6500).

TERMINALS FOR MONITOR type 6000, 6003

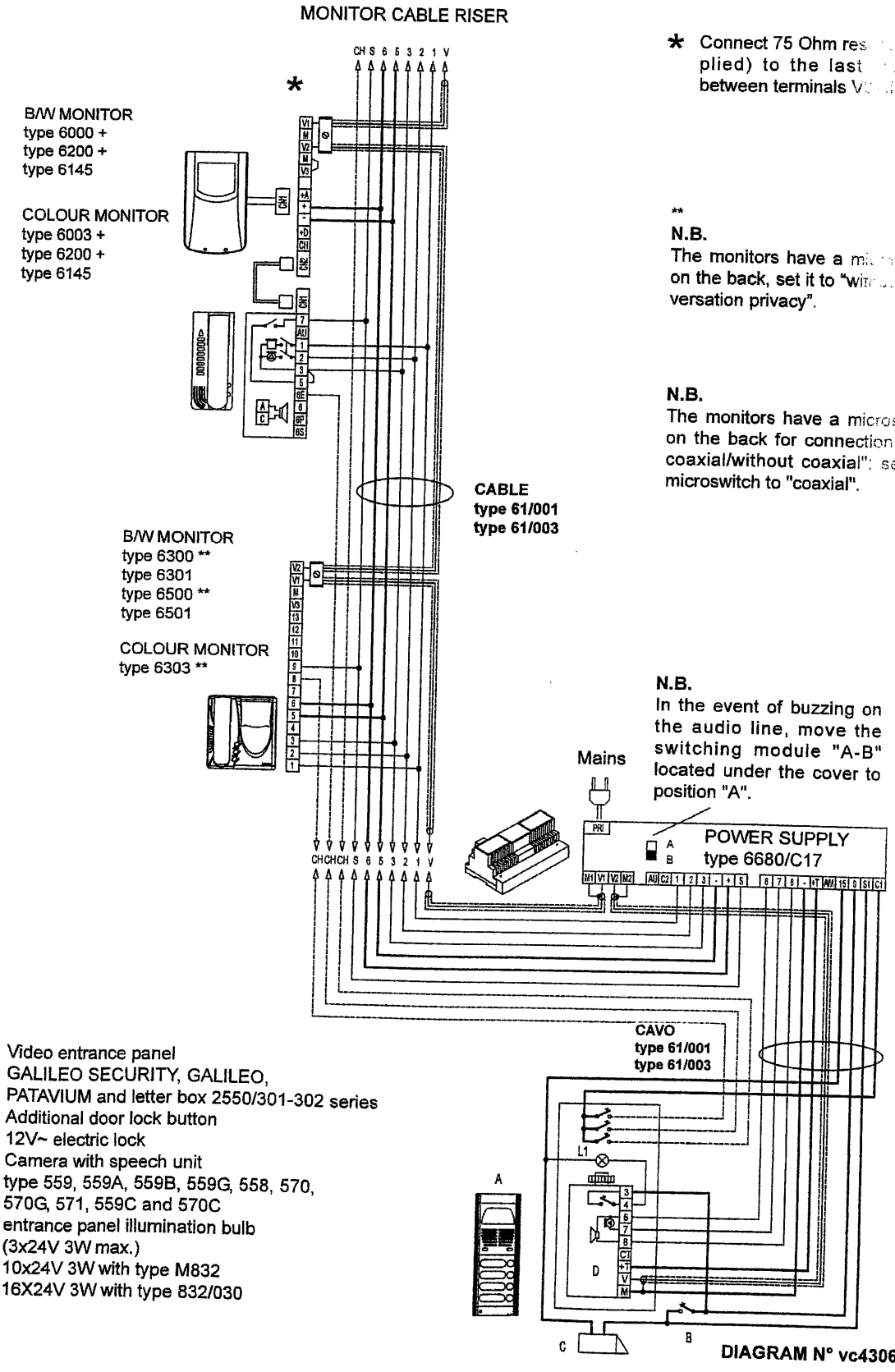
V1: Input for connection of 75 Ohm video cable in systems with coax cable; input for connection of video signal V1 in systems without coax cable.
V2: Output for connection of 75 Ohm video cable or 75 Ohm resistor in last monitor in systems with coax cable.
V3: Input for connection of video signal V2 in systems without coax cable.
N.B. Terminal V3 must be shorted to terminal M in systems with coax cable.
M: Earth for terminals V1, V2 and V3.
+A: Not used
+: Power supply (positive), minimum input voltage 15 V d.c.
-: Power supply (negative), minimum input voltage 15 V d.c.
+D: +12 V d.c. output for video distributor
CH: Monitor activation call
CN2: Monitor interface connector

INTERPHONE 6200

CN1: Monitor interface connector
7: Lock release push-button
AU: Monitor auto-activation control
1: Interphone receiver
2: Interphone microinterphone
3: Phonic common
6E: entrance panel call
6: Intercommunicating call
6P: Appartment outdoor call
6S: Ringtone activation output

POWER SUPPLY TERMINALS		SUGGESTED CONDUCTOR COLOUR (Ref. Cable type 61/001)	
1:	Interphone receiver	SKY BLUE	CONNECTIONS TO MONITORS + INTERPHONES
2:	Interphone microphone	WHITE	
3:	Common interphone line	PINK	
- :	Negative terminal of monitor supply voltage	BLACK SECT. 1mm	
+:	Positive terminal of 18V D.C. 0.8A monitor supply	RED SECT. 1mm	
S:	Control of lock relay	BROWN	
M:	Block of coaxial cable shield		
V1-V2:	Block of video signal (on coax cable)	COAXIAL CABLE	
6:	Common interphone line for speech unit	PINK	CONNECTION TO CAMERA ENTRANCE PANEL
7:	Speech unit microphone	WHITE	
8:	Speech unit loudspeaker	SKY BLUE	
+T:	13V D.C. 0.3A camera supply voltage	OSERIES	
- :	Negative line for camera supply voltage	BLACK SECT. 1mm	
AM:	Short-circuited to negative line, blocks monitor activation		
0:	0V (with reference to terminal 16)	BROWN	
15:	15V rectified voltage (selector in "A" position).or 250mA alternated (selector in "B" position on continuous operation)	RED SECT. 1mm	
S1:	Wiring to electric lock	BLUE SECT. 1mm	
C1:	Speech unit electronic call	GREEN	
C2:	Electronic call outside apartment door	WHITE/GREEN	

"SOUND SYSTEM" SINGLE AND MULTIPLE RESIDENCE VIDEO DOOR ENTRY SYSTEM WITH POWER SUPPLY TYPE 6680/C17 AND WITHOUT CONVERSATION PRIVACY



* Connect 75 Ohm resistor (supplied) to the last monitor, between terminals V1-V.

**

N.B.
The monitors have a microswitch on the back, set it to "without conversation privacy".

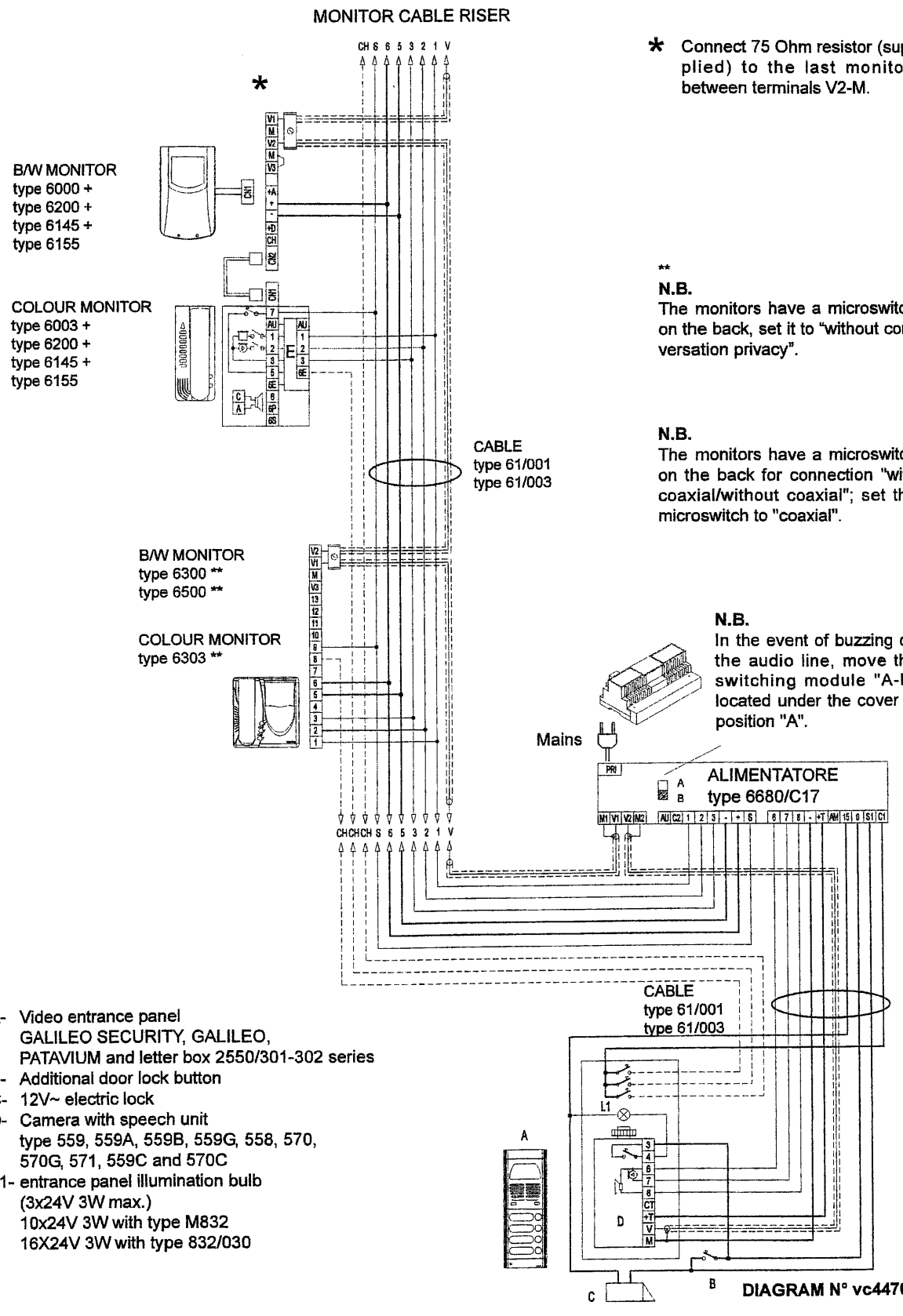
N.B.
The monitors have a microswitch on the back for connection with coaxial/without coaxial"; set the microswitch to "coaxial".

N.B.
In the event of buzzing on the audio line, move the switching module "A-B" located under the cover to position "A".

A- Video entrance panel
GALILEO SECURITY, GALILEO,
PATAVIUM and letter box 2550/301-302 series
B- Additional door lock button
C- 12V~ electric lock
D- Camera with speech unit
type 559, 559A, 559B, 559G, 558, 570,
570G, 571, 559C and 570C
L1- entrance panel illumination bulb
(3x24V 3W max.)
10x24V 3W with type M832
16X24V 3W with type 832/030

DIAGRAM N° vc4306

"SOUND SYSTEM" SINGLE AND MULTIPLE RESIDENCE VIDEO DOOR ENTRY SYSTEM WITH POWER SUPPLY TYPE 6680/C17 AND CONVERSATION PRIVACY



* Connect 75 Ohm resistor (supplied) to the last monitor, between terminals V2-M.

**

N.B.
The monitors have a microswitch on the back, set it to "without conversation privacy".

N.B.
The monitors have a microswitch on the back for connection "with coaxial/without coaxial"; set the microswitch to "coaxial".

N.B.
In the event of buzzing on the audio line, move the switching module "A-B" located under the cover to position "A".

A- Video entrance panel
GALILEO SECURITY, GALILEO,
PATAVIUM and letter box 2550/301-302 series
B- Additional door lock button
C- 12V~ electric lock
D- Camera with speech unit
type 559, 559A, 559B, 559G, 558, 570,
570G, 571, 559C and 570C
L1- entrance panel illumination bulb
(3x24V 3W max.)
10x24V 3W with type M832
16X24V 3W with type 832/030

DIAGRAM N° vc4476

INTERCOMMUNICATING VIDEO DOOR ENTRY SYSTEM WITH SWITCHING MODULE TYPE 935A

SYSTEM DESCRIPTION

The diagram shows the connection of one monitor and 7 interphones (all intercommunicating with each other and with the outdoor unit). More or fewer monitors and interphones may be connected, but the total number must not exceed 8 units corresponding to the number of push-buttons. When the total number of units is less than 8, only the terminal blocks of concerned intercommunicating units must be linked, excluding the call conductors of the other numbers.
Example: In the case of 3 intercom units (one monitor and 2 interphones as illustrated in the diagram above), connect terminal boards 1 to 11 on the interphones.
The monitors and interphones are fitted with loudspeakers capable of receiving separate electronic call signals both from the outdoor unit and from other intercommunication devices. The calls from entrance panel (C1) and from the apartment door button (C2) are generated by the power supply Art. 6680/C17, while the intercommunication call signal (C3) is supplied by the switching module Art. 935A.

OPERATING PRINCIPLE

The video door entry system consists of one camera entrance panel, one power supply and one or more monitors. When a push-button of entrance panel is pressed, the ringtone rings in the corresponding apartment. Almost immediately the image of the caller appears on the monitor. A number of built-in infrared LEDs diodes lights the coverage area when using a B/W camera, or LED diodes with white light when using a colour camera. If desired, the user may simply raise the interphone, communicate with the caller and, if appropriate, activate the door lock release. In this case the the door-opening time may be varied from 1 to 30 seconds using potentiomenter P3. The system turns itself off automatically after a preset time, adjustable from 30 to 90 seconds using potentiometer P1 inside the power supply.

EXTERNAL COMMUNICATIONS:

When the external call signal is heard, pick up the interphone to directly communicate outside. 60 seconds after the start of the conversation an electronic device within the switching module type 935A switches communication to internal only, and so to continue the conversation it is necessary to call again from the entrance panel.

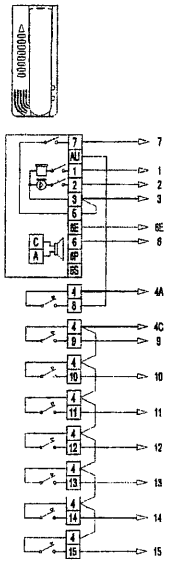
IINTERNAL COMMUNICATIONS:

Lift interphone and press push-button corresponding to desired interphone. Outdoor unit is automatically excluded.

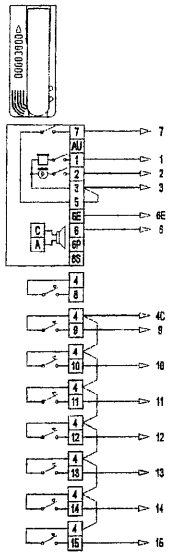
INTERCOMMUNICATING VIDEO DOOR ENTRY SYSTEM FOR SINGLE RESIDENCE WITH POWER SUPPLY 6680/C17 AND SWITCHING MODULE TYPE 935A

* Connect 75 Ohm resistor (supplied) to the last monitor, between terminals V2-M.

INTERPHONE SETTING TYPE 6200 + 6152 FOR MONITOR



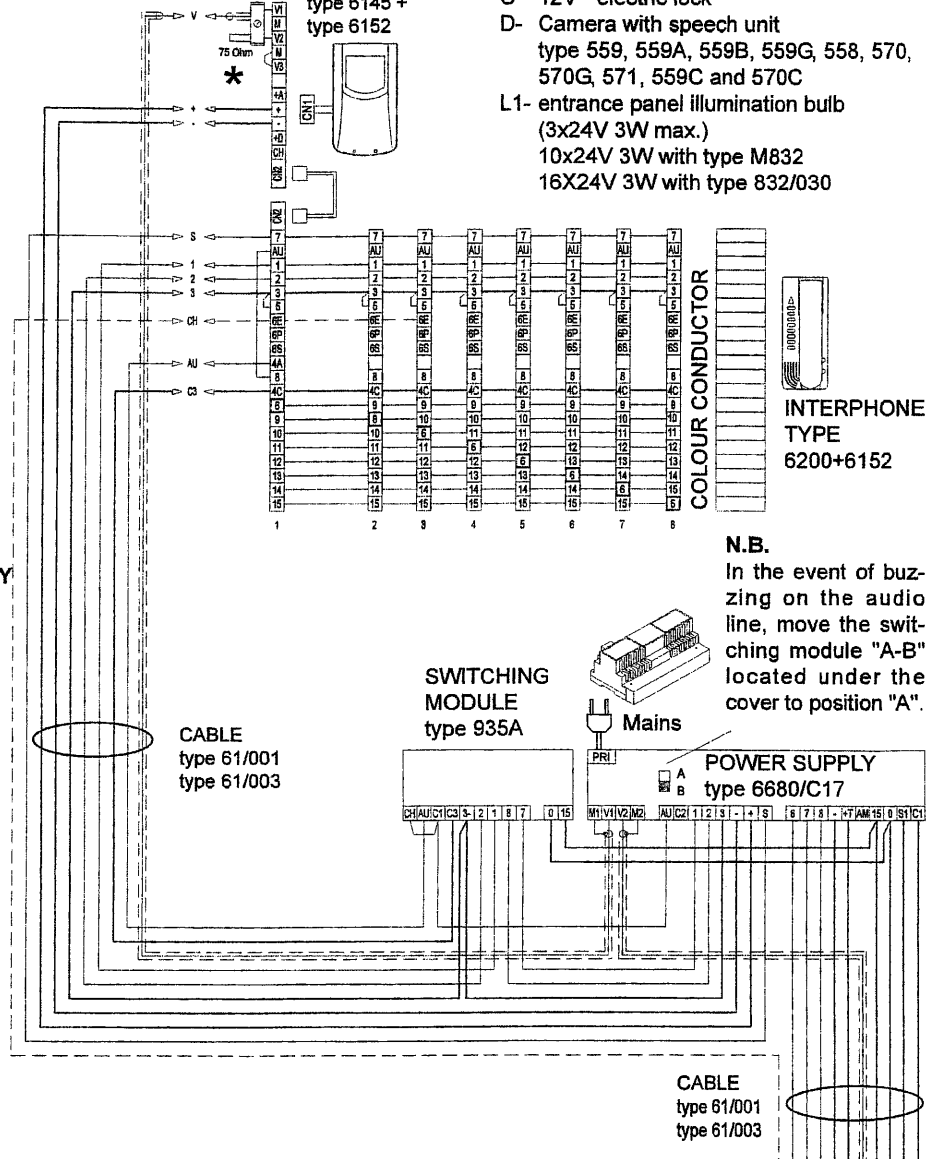
INTERPHONE SETTING TYPE 6200 + 6152 SECONDARY



B/W MONITOR
type 6000 +
type 6200 +
type 6145 +
type 6152

COLOUR MONITOR
type 6003 +
type 6200 +
type 6145 +
type 6152

A- Video entrance panel GALILEO SECURITY, GALILEO, PATAVIUM and letter box 2550/301-302 series
B- Additional door lock button
C- 12V~ electric lock
D- Camera with speech unit type 559, 559A, 559B, 559G, 558, 570, 570G, 571, 559C and 570C
L1- entrance panel illumination bulb (3x24V 3W max.)
10x24V 3W with type M832
16X24V 3W with type 832/030



N.B.
In the event of buzzing on the audio line, move the switching module "A-B" located under the cover to position "A".

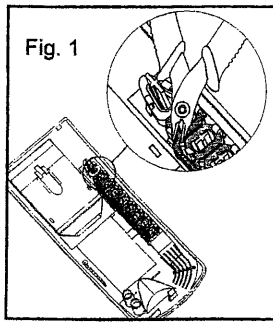


Fig. 1

Before connecting the system, fit the buttons type 6152 in their seat in the interphone. Connect the jumpers as shown in the diagram. Then distribute the keys in the interphone housing, removing the plastic that holds them as shown in figure 1.

N.B.
The monitors have a microswitch on the back for connection "with coaxial/without coaxial"; set the microswitch to "coaxial".

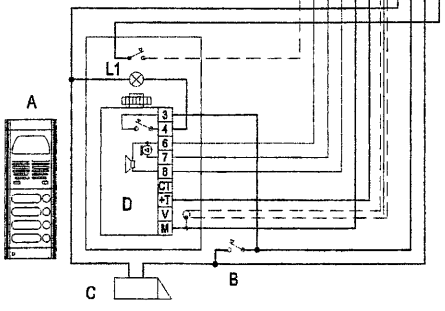


DIAGRAM N° vc3242

EXAMPLE OF INTERCOMMUNICATING MONITORS AND INTERPHONES FOR SINGLE RESIDENCE VIDEO DOOR ENTRY SYSTEM WITH SWITCHING MODULE TYPE 935A

Fig. 1
Two monitors and seven intercommunicating interphones.

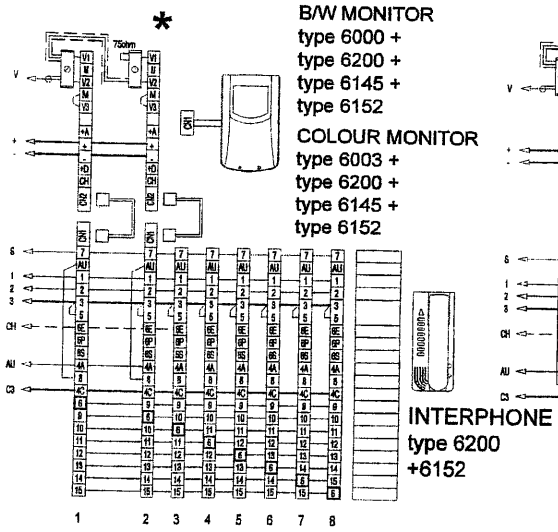


Fig. 2
Three monitors and five intercommunicating interphones.

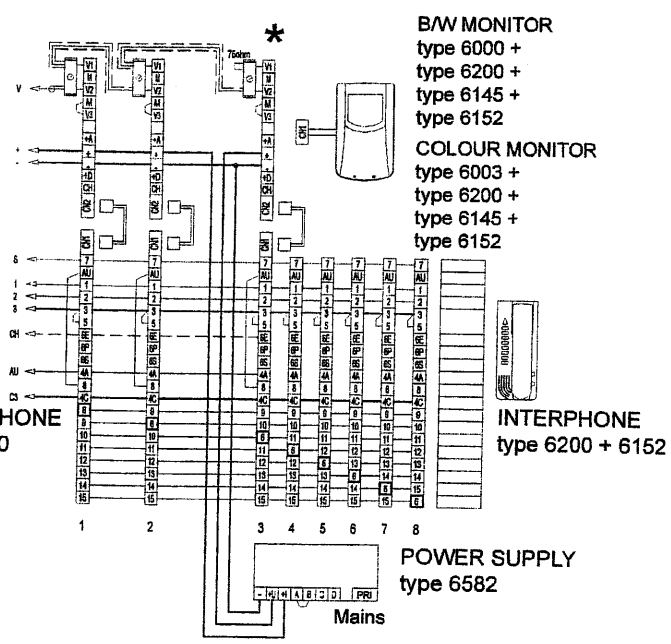


Fig. 3
Four monitors and four intercommunicating interphones.

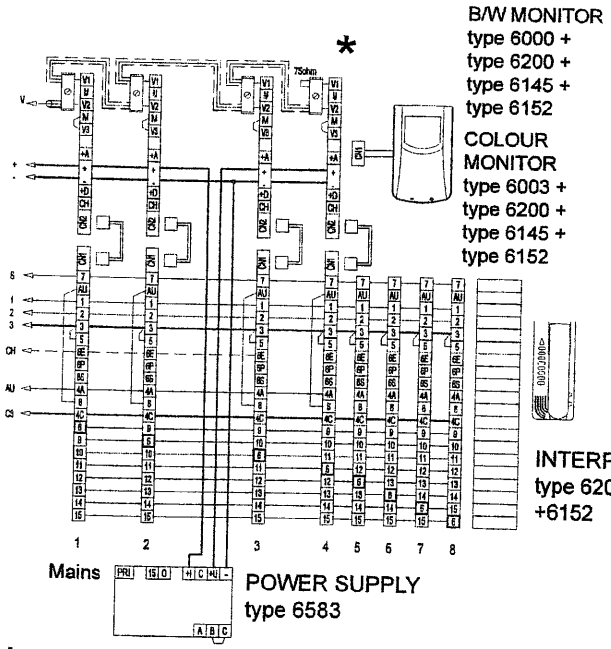
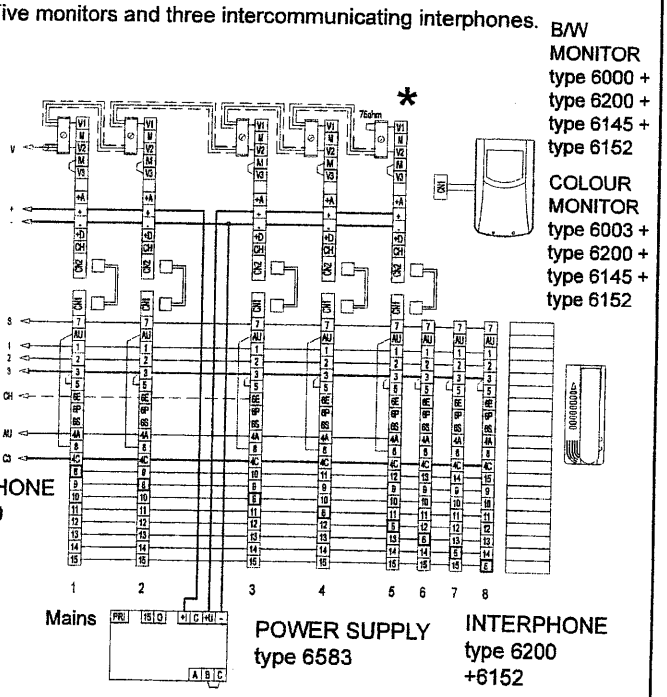


Fig. 4
Five monitors and three intercommunicating interphones.



* Connect 75 Ohm resistor (supplied) to the last monitor, between terminals V2-M.

Notes:

These wiring diagrams refer to a single residence installation. Call line (monitor terminal no. 6E) allows simultaneous activation of all appliances. On installations for several intercommunicating apartments, terminal no. 6E of each monitor will be connected to entrance panel corresponding push-button.

For a simultaneous activation of several monitors use an additional power supply type 5582/C17 for each monitor starting from the 3th one or power supply type 6583 for two (or max three monitors) operating simultaneously according to shown wiring diagras.

If all interphones and monitors should receive a call from the entrance panel (terminal no. 6E-8), it is necessary to install one or more call repeaters type 934 (see version).

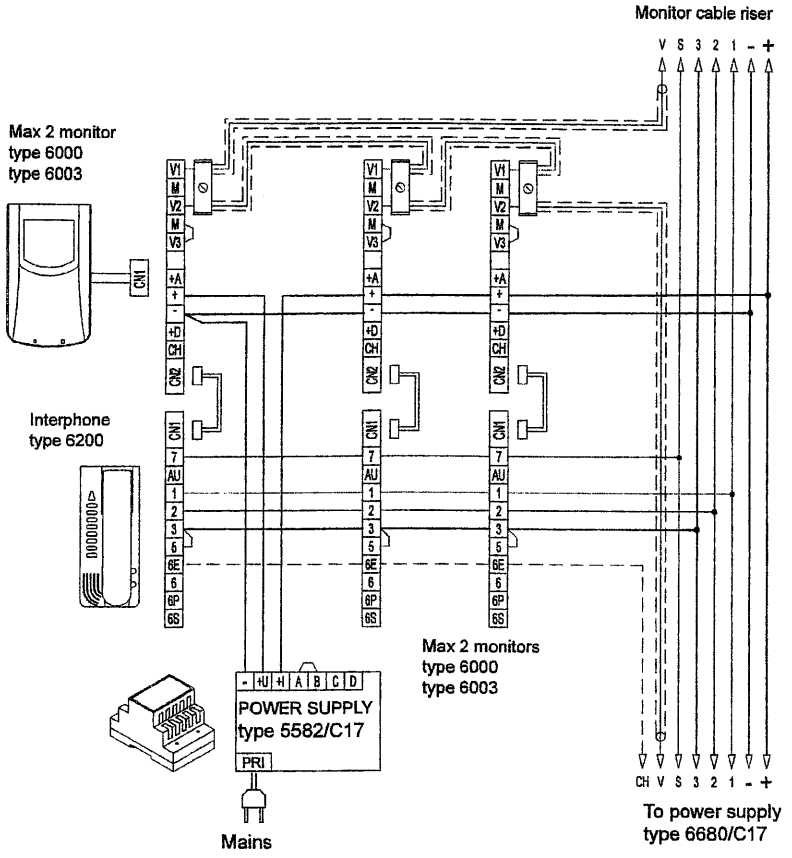
DIAGRAM N° vc4354

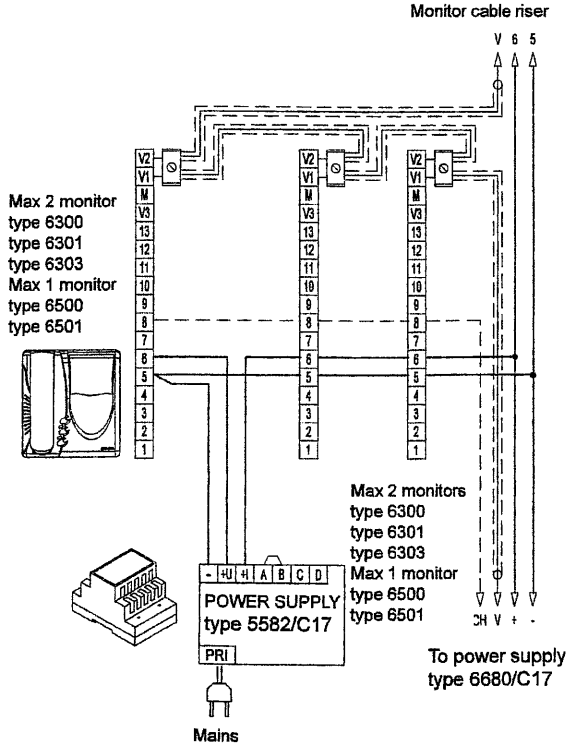
STANDARD VIDEO DOOR ENTRY SYSTEM WIRING DIAGRAM VERSIONS WITH COAX CABLE

VERSION 1

Wiring diagram with simultaneous activation of two or more monitors by power supply type 5582/C17

The power supply type 6680/C17 can simultaneously power two monitors type 6000, 6003, 6300, 6301, 6303 or one monitor type 6500, 6501 by connecting them as shown in the diagram.
With a larger number of monitors switched on simultaneously, it is necessary to use the additional power supply type 5582/C17: connect a maximum of two monitors type 6000, 6003, 6300, 6301, 6303, or one monitor type 6500, 6501, or use the desk-top bases with
built-in power supply. For simultaneous switch-on of more than one monitor with the same call, use type 934 to regenerate the call signal.
Use type 934 after the 3rd monitor and for a further 4 monitors.

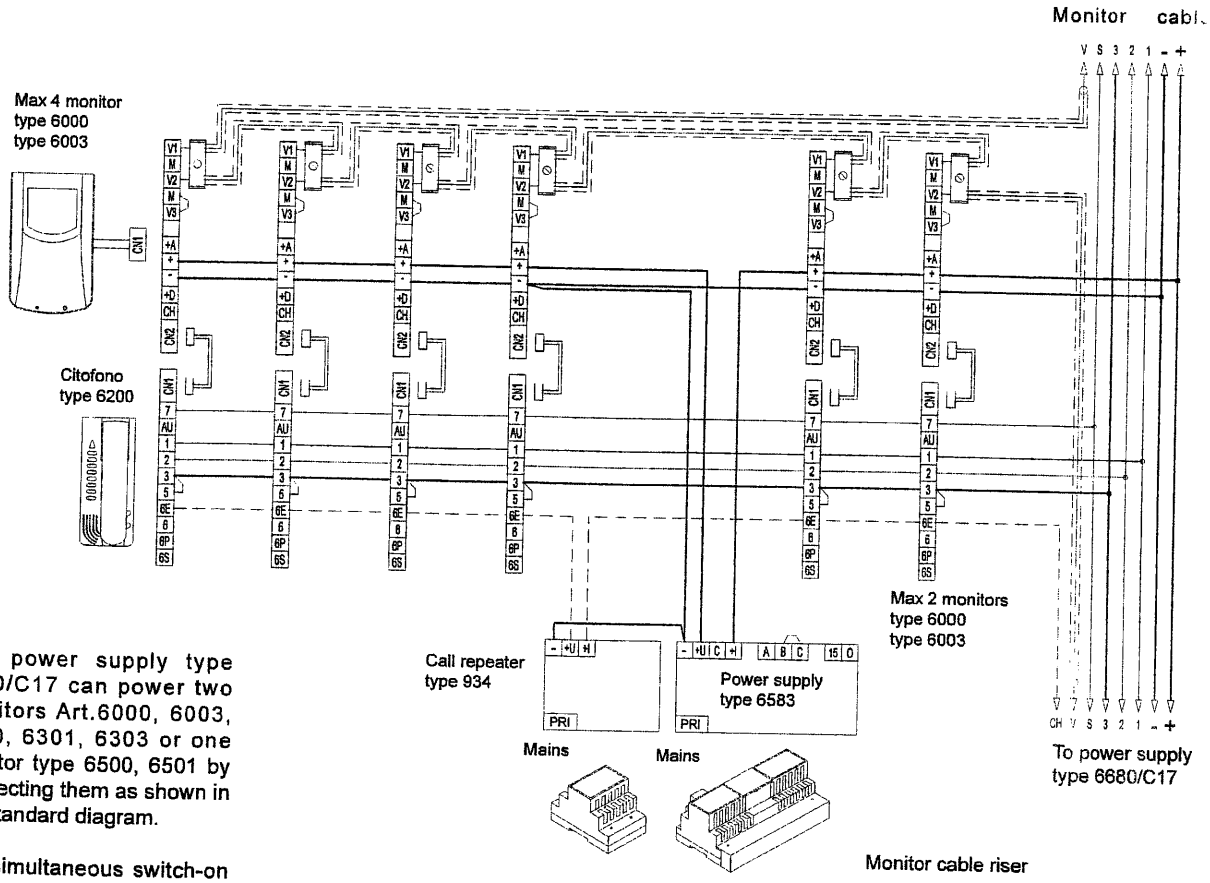




STANDARD VIDEO DOOR ENTRY SYSTEM WIRING DIAGRAM VERSIONS WITH COAX CABLE

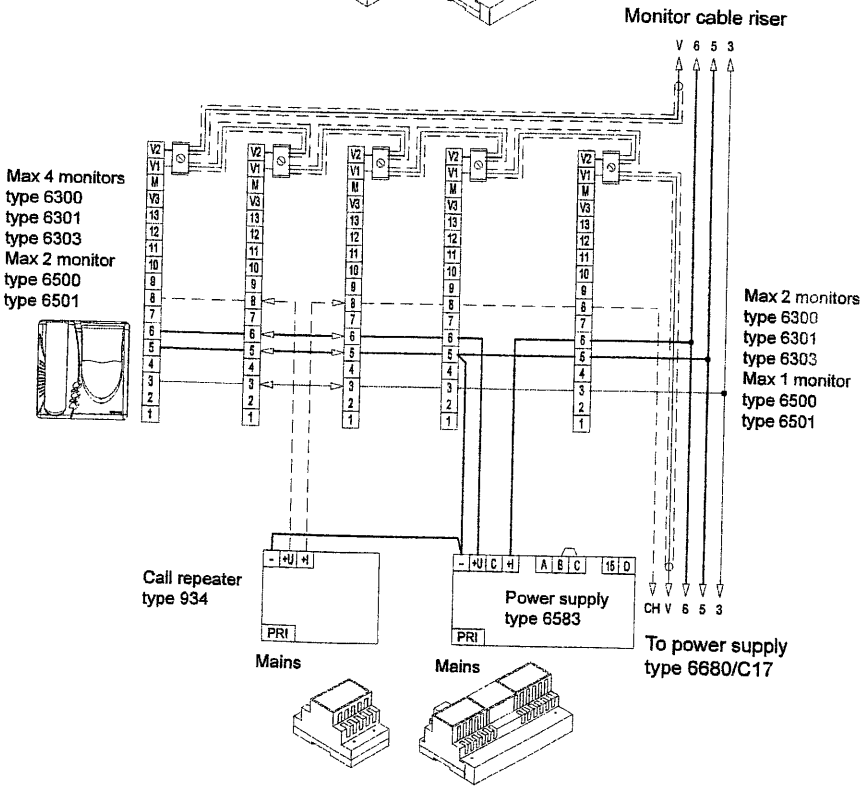
VERSION 2

Wiring diagram with simultaneous switch-on of two or more monitors with power supply type 6583, with call repeater type 934.



The power supply type 6680/C17 can power two monitors Art.6000, 6003, 6300, 6301, 6303 or one monitor type 6500, 6501 by connecting them as shown in the standard diagram.

For simultaneous switch-on of more than one monitor, it is necessary to use the additional power supply type 6583: connect a maximum of four monitors type 6000, 6003, 6300, 6301, 6303, or two monitors type 6500, 6501, or use the desk-top bases with built-in power supply.



IMPORTANT
The call generator of the standard power supply can power simultaneous calls for up to three monitors or interphones.
For a larger number, it is necessary to insert a call repeater type 934, which can power a further four.

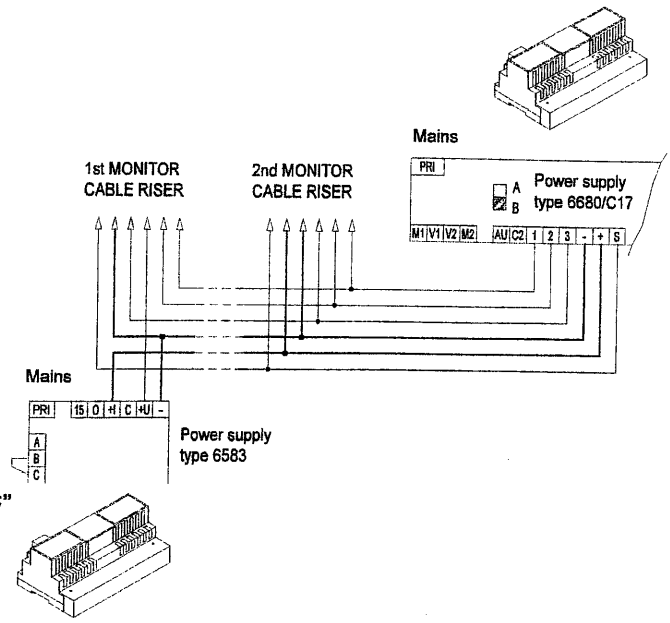
STANDARD VIDEO DOOR ENTRY SYSTEM WIRING DIAGRAM VERSIONS WITH COAX CABLE

VERSION 3

Connection of power supply type 6583 on installations with considerable voltage drop on power line "+ -".

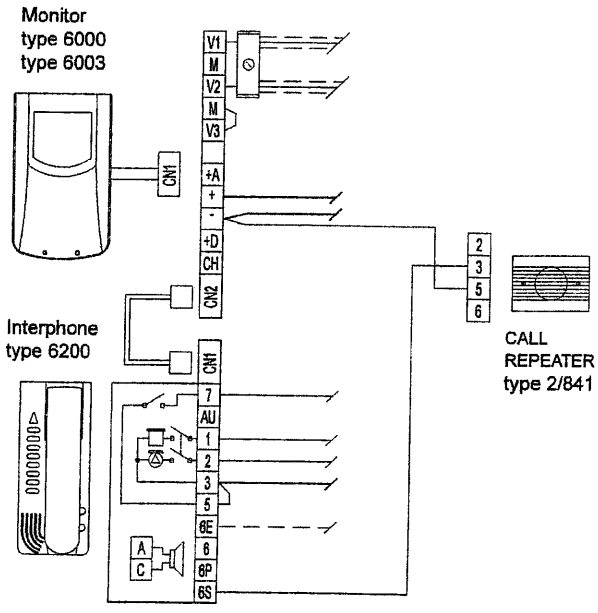
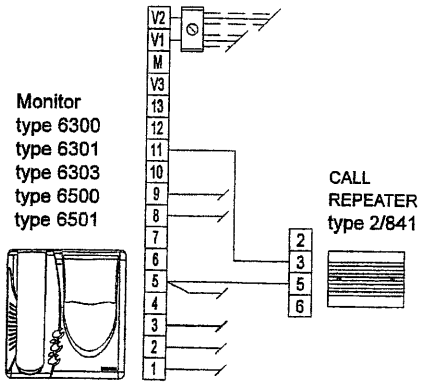
Stand-by line power supply type 6583 may be connected as shown in the diagram in case of long supply lines where power voltage on the line wiring to the monitors (+ -) is less than 15V D.C. between terminals 5-6. The unit can supply 18V D.C. 2A with intermittent operation.

If a line with excessive voltage drops powers a single monitor, you can use the power supply type 5582/C17.



N.B. Set jumper in "B-C"

VERSION 4

Connection of call repeater type 2/841.

The loudspeaker module type 2/841 repeats the monitor sound leaving the tone unaltered.