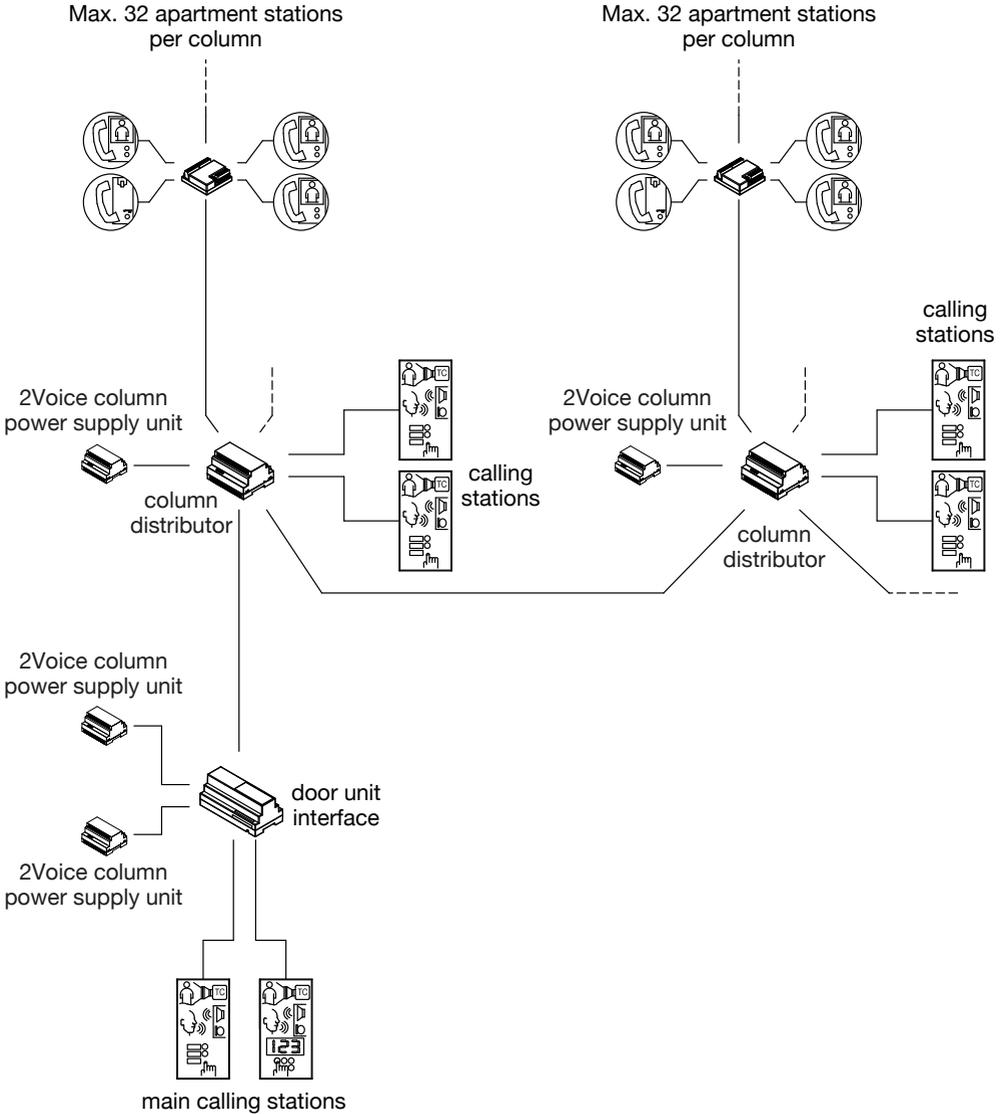




SYSTEM BOOKLET





INDEX

1. GENERAL CHARACTERISTICS AND INSTALLATION TYPES USING ONLY COLUMN POWER SUPPLY UNIT REF. 1083/2	3
2. SYSTEM TYPOLOGIES	4
3. SYSTEM OPERATION	8
3.1 CALL AND BUSY STATE MANAGEMENT	8
3.2 CALLING STATION FUNCTIONS	8
3.3 VIDEO SURVEILLANCE AND ACCESS CONTROL FUNCTIONS	9
3.4 APARTMENT STATION PERFORMANCE	9
4. ADDITIONAL FUNCTIONS	10
4.1 STAIRCASE LIGHTS FUNCTION	10
5. SYSTEM INSTALLATION	11
5.1 STANDARDS AND INTERFERENCE IMMUNITY	11
5.2 MINIMUM AND MAXIMUM NUMBER OF DEVICES	11
5.3 SYSTEM POWER	13
5.4 ALLOWED CABLES	14
5.5 MAX. DISTANCES AND EXTENSIONS	14
5.6 ELECTRICAL DOOR LOCK CONNECTION	24
5.7 GARAGE DOOR CONTROL UNIT EXTERNAL RELAY CONNECTION	24
5.8 CALLING STATION AUXILIARY SIGNAL CONNECTION	24
5.9 APARTMENT STATION SIGNAL CONNECTION	25
5.10 WIRING AND USE OF LINE TERMINATIONS	25
6. ACTIVATING THE SYSTEM	26
6.1 LINE TERMINATION SETTINGS (Z)	27
6.2 DEVICE CONFIGURATION	27
6.3 POWER-ON AND POWER VOLTAGE TEST	32
6.4 CHECK THE SYSTEM	33
6.5 ASSOCIATING DOOR UNIT BUTTONS TO USERS	34
6.6 BASIC FUNCTIONAL TEST	36
6.7 OPTIONAL PROGRAMMING FOR ADDITIONAL FUNCTIONS	36
7. TECHNICAL SPECIFICATIONS OF THE DEVICES	40
8. KEY TO SYMBOLS	40
NOTES ON DIAGRAMS	41

The 2Voice video door phone system is easy to install. Only two non-polarised wires are needed to interconnect all system devices.

It is modular and suitable for making from one- and two-family systems to large systems of various types (audio, video and mixed) and provide the best solution for all needs.

1. GENERAL CHARACTERISTICS AND INSTALLATION TYPES USING ONLY COLUMN POWER SUPPLY UNIT REF. 1083/23

The column power supply ref. 1083/23 can be used to make video door phone systems with up to 32 users per column (using a distributor or column interface), with up to 12 columns, each of which with up to 2 secondary calling stations. Up to 2 main calling stations and possibly one concierge switchboard may be present.

The characteristics of the 2Voice video door phone system are shown below, **using ONLY the power supply unit Ref. 1083/23 in the systems.**

IMPORTANT The Ref. 1083/20A can be used in systems in which the column power supply unit Ref. 1083/23 is also present. In this case, in the section of the system in which the power supply unit Ref. 1083/20A is used, refer to the booklet provided with the product.

System

- Possibility of managing up to 2 automatically switching main door units.
- Possibility of managing up to 12 columns, with up to 2 secondary calling stations each.
- Possibility of managing up to 80 door phone apartment stations in single column systems with only one power supply unit.
- Possibility of managing up to 48 apartment stations video door phones in single column systems with only one power supply unit.
- Possibility of managing up to 56 door phone apartment stations in each column with only one power unit.
- Possibility of managing up to 32 video door phone apartment stations in each column with only one power unit.
- Possibility of managing up to 4 door units in parallel for each user.
- Possibility of connecting a concierge switchboard with typical functions to the system day/night function, lost call storage, etc.
- Use of only two non-polarised wires throughout the system.
- No local power supply is needed on calling stations or apartment stations.
- Extension wiring using 4-user distributor or in-out configuration directly on the terminals of the devices.
- Extension short-circuit protection.
- Programming: simplified using dip switches for apartment stations, buttons for door units and Bluetooth/WiFi connection for calling modules.
- Lock activation from all apartment stations, with programmable activation time and mode (free/privacy).
- Activation of a secondary lock (garage door) from all apartment stations.

Video surveillance and access control

- Possibility of directly connecting either two cameras or five cameras with the aid of an optional video switch to the calling stations (for calling stations with correct setup only).
- Door open indication by means of LEDs on apartment stations.
- Possibility of programming a 4-digit door opening code on calling modules (without time restraints) for each user and general codes with time restraints.

Calling stations

- With buttons (door units) or name director (calling modules).
- Current colour camera for video door phone call stations.
- Open door sensor.
- In the case of calling stations with buttons (door units), up to 80 buttons can be connected using button module devices for the Alpha panels and up to 64 buttons using 4 button expansion devices for Sinthesi panels.

Apartment stations

- Video door phone apartment stations with colour or black and white monitor, hands-free function and handset.

- Five door phone call tones (selectable by the user).
- Differentiated rings on same call tones according to origin (from main, from secondary, from intercom apartment station, from switchboard).
- Cyclic auto-on function for calling stations and surveillance camera stream (for calling stations with correct setup only).
- Calls to concierge switchboard.
- Freely programmable intercom call in column or apartment.
- Floor call button with differentiated call tone selectable by the user (5 possible call tones).
- Possibility of connecting, a fail-safe supplementary ringer or a calling repeater relay or a wireless call repeater to the apartment station for repeating all calls.
- Entrance door opening state display.

Additional functions

- Possibility of switching on the staircase lights using a special decoder from the apartment stations, the door units and the switchboard.
- Possibility of connecting a video door phone messaging service in each column.
- Operating of audio repeater for hearing aid users in accordance with European Law SOCU0611477A.

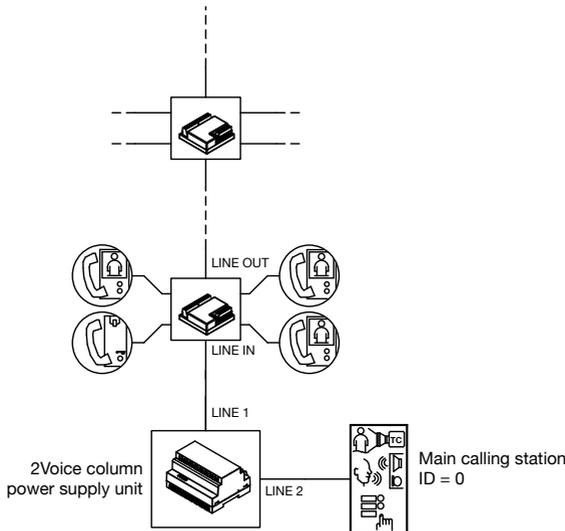
Standards

- IMQ and VDE certified power unit.
- All devices comply with CE directives in the matter of electromagnetic compatibility and to the low voltage directive.
- The system is intrinsically protected from static and pulse electromagnetic interference.

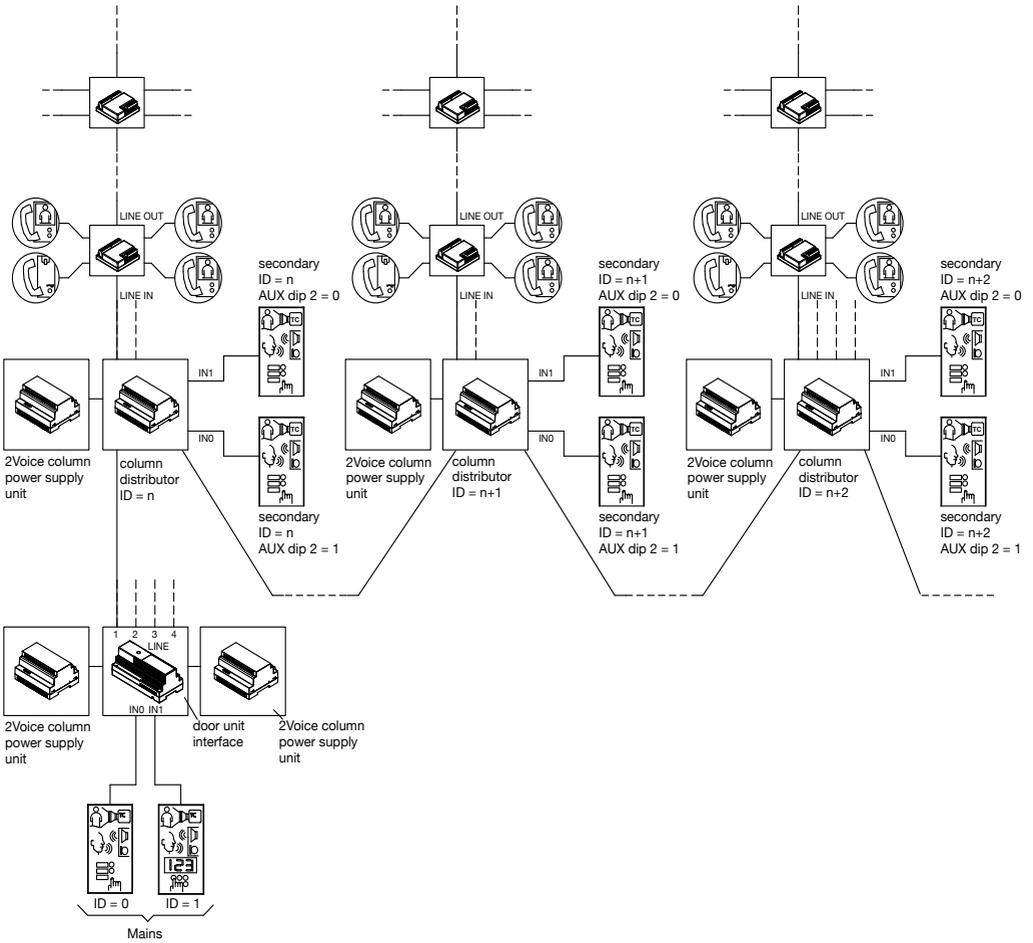
2. SYSTEM TYPOLOGIES

The systems described below can be made using only the column power supply unit Ref. 1083/23.

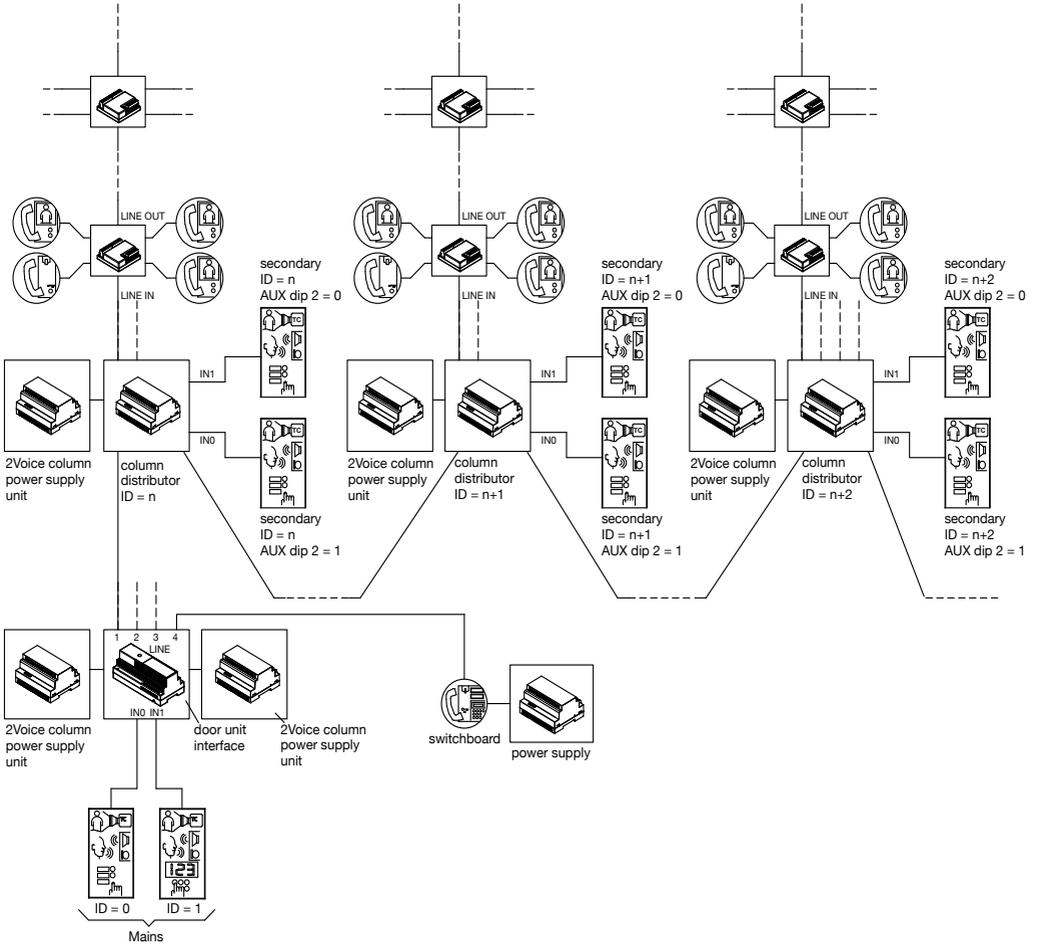
Single column 1 riser 1 calling station



12 columns 2 main calling stations and 2 secondary stations for each column



12 columns 2 main calling stations and 2 secondary stations for each column, concierge switchboard



3. SYSTEM OPERATION

3.1 CALL AND BUSY STATE MANAGEMENT

The 2Voice system allows several conversations at the same time on different columns, in addition to a further conversation between main calling station and an apartment station belonging to any column not engaged by the conversation.

The system works as follows when a call is made:

- A call from a main call station switches all the other main calling stations and the entire column of the called apartment station to busy for a call pick-up time (max. 60 s). During the call pick-up time, the system (main calling stations and secondary stations on the concerned column) is switched to busy. When the user picks up and establishes a conversation, the busy state is prolonged for the guaranteed conversation time: this time configurable during installation from 1 to 70 s. After the guaranteed conversation time, another call can interrupt the conversation. The maximum conversation time is 10 minutes.
The system returns to standby mode at the end of the conversation or after the timeout.
- A call from a secondary calling station will cause the same effects, but will exclusively involve the concerned column, including the secondary station, if applicable, but not the other calling stations (either main or secondary).
The system returns to standby mode at the end of the conversation or after the timeout.
- Auto-on from an apartment station to a calling station will switch all the main secondary calling stations and the entire column of the door unit to busy for the call pick up time (max. 60 s.) – but not the secondary calling stations of the other columns. If the apartment station user picks up the call (either by picking up the handset or – on hands-free video door phones – by pressing the specific button), the busy state can be extended for a time equal to the guaranteed conversation time or not (configurable during installation from 1 to 70s). During the busy time generated by auto-on, normal door phone calls may interrupt auto-on or not according to the call station programmed setting (interruption parameter). The maximum conversation time is 10 minutes. The other apartment stations in the system cannot operate the auto-on function for the busy time.
The system returns to standby mode at the end of the conversation or after the timeout.
- An intercom call will switch all the apartment stations in the column and possible secondary calling station to busy for the pick up calling time (max. 60s). When the called user picks up, the busy state may be extended or not for the time equal to the guaranteed conversation time (configurable during installation from 1 to 70s). During the busy time generated by and intercom call, normal door phone calls may interrupt the intercom call or not according to the call station programmed setting (interruption parameter). The maximum conversation time is 10 minutes.
The system returns to standby mode at the end of the conversation or after the timeout.
- A floor call will not effect the system busy state.

3.2 CALLING STATION FUNCTIONS

 For specific features of each call station, see its instruction manual.

CALL FORWARDING

The following cases may occur when a call is made (i.e. when a calling button is pressed on a door unit) according to the state of the calling station state and of the called column:

- Free system: the station outputs a call forwarding tone (1 beep).
- Busy system: the station outputs a warning tone (3 beeps in sequence) and the yellow LED on the front will blink until busy mode ends. Press the calling button or make the call again according to the station type at the end of busy mode.

DOOR ELECTRIC LOCK MANAGEMENT

The calling stations have two terminals for managing the capacitance discharge and hold of the door electric lock (SE-, SE+). Consequently, no separate power source is needed to operate the electric lock.

The electric lock is operated in the following cases:

- Whenever the hall button is pressed (terminals PA, CT).
- When a door open command is received from an apartment station according to the configuration (“free” or “privacy”):
 - “Privacy”: the electric lock may only be activated by pressing the door opening button on the calling station when an audio conversation has been established or when after having received a call or

- auto-on function either a video connection has been established or during the call pick-up time.
- “Free”: the electric lock may be activated by pressing the door opening button on the call station if this is configured as main or if this configured as secondary and the user belongs to the same column as the calling station. This function is typically used for secondary stations.
- When a door open command is received from the switchboard.

Name tags, if powered by the ILL terminal of the apartment station will go out while the electric lock is actuated.

GARAGE DOOR LOCK MANAGEMENT

The calling station have two terminals connected to the contacts of a normally open relay which can be used to control a gate opening control unit (1). The relay is operated for 1 second after receiving the garage door opening command according to the operating mode (“free” or “privacy”) as the door lock.

- (1) The relay is not suitable to control direct power loads and can only be used as control relay. Refer to the calling station manual for electrical features.

3.3 VIDEO SURVEILLANCE AND ACCESS CONTROL FUNCTIONS

SURVEILLANCE CAMERA AUTO-ON FUNCTION (for calling stations with correct setup only)

Users can switch the video door unit on by pressing the button dedicated for this function on the apartment station (typically the  button). Up to two surveillance cameras can be connected to the calling stations (terminals V3, V5). Up to 5 cameras connected to the calling station may be used with a video switching device 1038/69 or 1083/69. The user can press the  button to cyclically view the images of the surveillance cameras on the main calling station with ID equal to 0, then in sequence the images of other main calling stations, finally the cameras of the secondary stations of the column to which it belongs.

DOOR SENSOR MANAGEMENT FOR OPEN DOOR FUNCTION

The door units have two terminals for managing an NC open door sensor (SP, CT). The apartment units provided with indicator LED may use the red LED to indicate the state of the door of the last calling station and opened by pressing the door opening button. The LED will light up if the door of the main calling station is open and will blink if the secondary calling station door is open.

DOOR OPENER CODES

4-digit door opening codes (without time restraints) for each user and general codes (with time restraints) can be programmed on calling modules. Refer to the calling module instruction manual for more information.

3.4 APARTMENT STATION PERFORMANCE

 For specific features of each door unit, see its instruction manual.

RECEIVING A CALL

The user’s apartment station will ring with one of the five possible ring tones when a call is received for the following times:

Source of the call	Time	Total duration of the tone
Call from main station	3 s ON	3 s
Call from secondary station	0.4 s ON 0.2 s OFF repeated five times	2,8 s
Call from switchboard	0.1 s ON 0.05 s OFF repeated three times pause 0.2 s repeated five times	2,8 s
Intercom call	0.5 s ON 0.5 s OFF repeated three times	2,5 s

The floor call is the same as a main station call in terms of duration but a different tone is used:

Floor call	3 s ON	3 s
------------	--------	-----

The electric lock of the door unit can be operated when a video door unit or door unit call is received without needing to establish a conversation.

If there are several apartment stations in parallel, the extensions will ring in sequence. The user's extension 0 will also switch the video door phone if the call comes from a video door phone station. In this case, during the call pick-up time (60s from the call), the video door phones of the other extensions can be switched on by pressing the auto-on button ● (video switching function) until one of the called user's video door phones picks up.

If the picture is already displayed, pressing button ● will show the stream of the surveillance cameras of the calling station only in cycle.

The picture of the main camera will appear only on the apartment station that picked up after picking the call up.

The camera picture will therefore be normally shown on only one apartment station at a time.

AUTOMATIC SWITCH-ON FUNCTION

Press the ● button on the video door phone to switch the auto-on function on if the apartment station is in stand-by. When the auto-on function is selected, the camera of the main station with ID equal to 0 is displayed. Pressing the button ● again will display the stream from all the additional cameras (where applicable) connected to the main station 0, and then the other main stations and finally the secondary stations present in the column, including additional cameras. The cycle will resume from the main station 0 at the end of the cycle.

Pick up the handset or press the button for establishing a conversation on hands-free video door phones to establish an audio communication with the selected door unit. The door can be opened at any time when the audio conversation is in progress.

Auto-on will end automatically after 60 seconds if the audio channel is not activated.

CALLS TO SWITCHBOARD

The apartment stations are provided with a dedicated switchboard call button. Pick up the handset or press the audio button on hands-free apartment stations after pressing the switchboard call button to make the call.

INTERCOM CALL FORWARDING

After having programmed an apartment station button for intercom function (see programming paragraph), pick up the handset or press the audio button on a hands-free apartment station to activate audio and then press the intercom calling button. The following cases can occur according to the column state:

- Free column: the calling apartment station will output a confirmation tone (1 beeps) and the called apartment station will ring. Communication is established when the called user picks up.
- Busy column: the apartment station outputs a warning tone (4 beeps in rapid sequence). Hang up and try again later.

FLOOR CALL FUNCTION

The apartment stations are equipped with a pair of terminals (CP) for connecting the floor call button. The apartment station will ring with the set tone for 3s when the button is pressed. The tone will be different from that of the other calls. Connect this button to only one extension if there are extensions in parallel. The apartment stations will ring in sequence.

SUPPLEMENTARY RINGER

The apartment stations are provided with a pair of terminals (S+, S-) for connecting a supplementary ringer or relay or wireless call repeater. This ringer is controlled when any call tone is generated.

DOOR OPEN FUNCTION

The apartment stations can monitor the physical state of the doors if a sensor is connected to the SP and CT terminals on the calling stations. The red LED will light up when the door of a main calling station is left open and will blink if the door of a secondary station is on. The function is only active for the last called door phone or video door phone on which the door opening button was pressed and corresponding to the last calling door unit.

4. ADDITIONAL FUNCTIONS

4.1 STAIRCASE LIGHTS FUNCTION

An apartment station button can be programmed to switch the staircase lights on by means of a special decoder.

5. SYSTEM INSTALLATION

5.1 STANDARDS AND INTERFERENCE IMMUNITY

All devices must be set up and wired according to rules of best practice and according to national installation standards. Particular attention must be devoted to power units and transformers: these must be arranged in suitable electric panels and equipped with appropriately dimensioned protection and circuit breaker switches. **The installation of the Ref. 1083/23 is possible ONLY in an electrical panel.** All devices comply with EC Standards with regards to electromagnetic compatibility and electrical safety. Furthermore, the power supply unit is IMQ and VDE certified. The system guarantees good noise immunity only if a Urmet cable is used for the bus lines and earth is connected to the earth system.

In all cases, to improve interference immunity, do not arrange the system wires near 110V, 230V and 400V power wires which generate strong electromagnetic fields.

The following problems, typical of all video door phone system, the frequency and severity of which cannot be foreseen, may occur if these rules are not respected:

- Data transmission errors between devices with consequent impossibility of making calls.
- Poor video quality: loss of details, double picture, etc.
- Video interference.
- Audio signal interference.

5.2 MINIMUM AND MAXIMUM NUMBER OF DEVICES

The minimum configuration of the 2Voice system comprises: a power supply unit 1083/20A, a calling station and at least one apartment station.

Maximum number of devices and users **using the column power supply unit Ref. 1083/23.**

Device	Maximum number
Four-user distributor Ref. 1083/55 (column derived from a device /23)	12
Four-user distributor Ref. 1083/55 (column derived from a device /53 or /50)	8 x 12 columns
Power supply unit Ref. 1083/23	14
Column distributors Ref. 1083/53 or column interfaces Ref. 1083/50	12
Door unit interface Ref. 1083/75	1

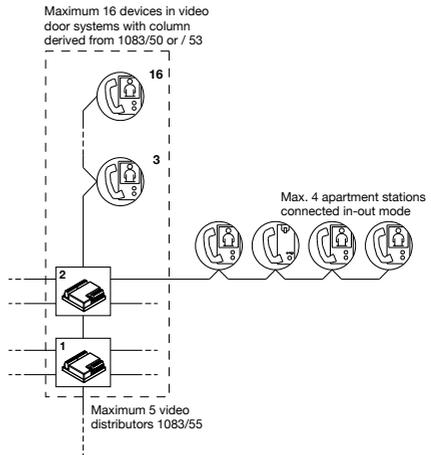
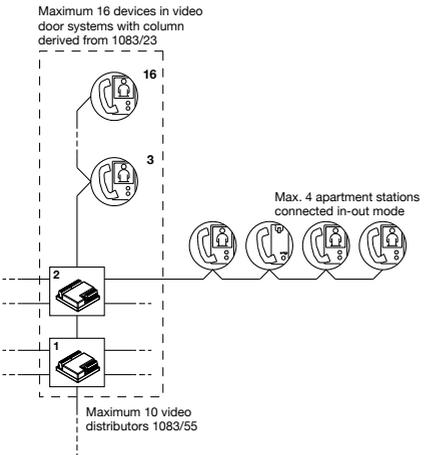
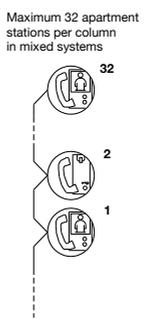
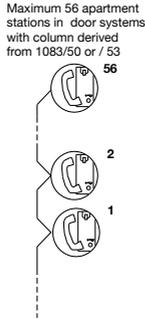
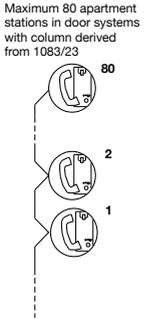
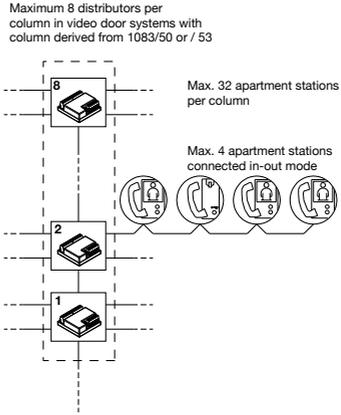
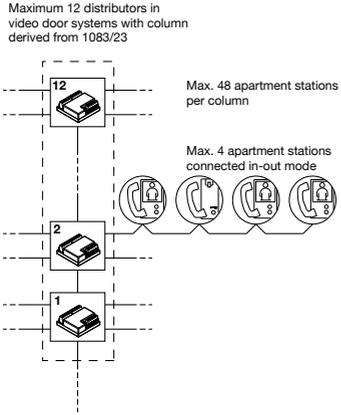
Calling stations	Maximum number
Main door phone or video door phone calling stations	2
Secondary door phone or video door phone calling stations	24
Total number of calling stations in the system	26

The maximum number of users (apartments) and indoor spaces varies according to the device from which the column is derived.

Apartment stations	Maximum number	
	1083/23	1083/53 or /50
Number of users (apartments) per door phone column	80	56
Number of users (apartments) per video door phone column	48	32
Total number of door phone apartment stations per column (apartment stations in parallel are included in the count)	80	56
Total number of video door phone apartment stations per column (the apartment stations in parallel are included in the count)	48	32
Number of apartment stations in parallel (in the same apartment)	4	4
Total number of door phone apartment stations connected in in-out mode per column	80	56
Total number of apartment stations connected in in-out mode per column (*)	32	32

IMPORTANT! Refer to the maximum number of users and apartment stations in a video door phone configuration if the system configuration is mixed (door phone apartment stations + video door phone apartment stations).

(*) The maximum number of devices is 16 in mixed configurations (apartment stations + distributors connected in in-out mode in the column). The apartment stations connected as extensions to the distributor are not included in the count.



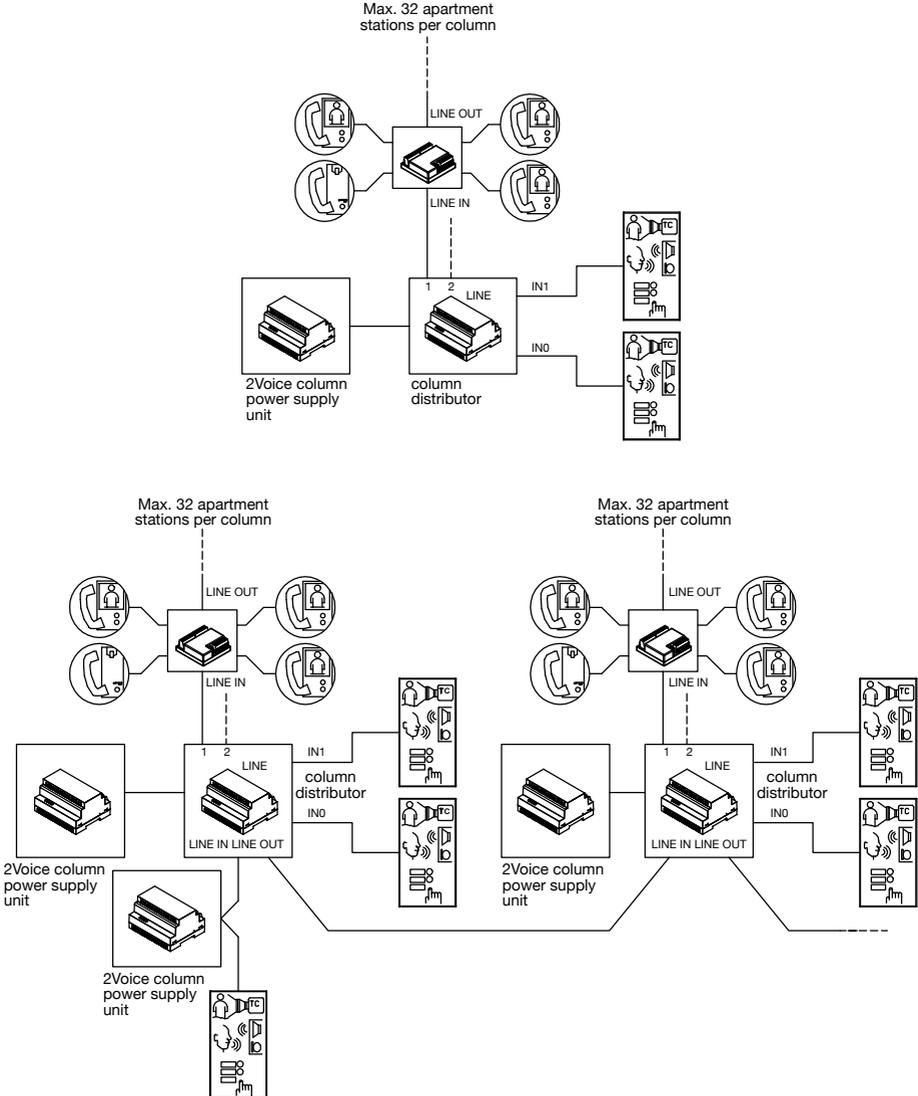
5.3 SYSTEM POWER

The following must be taken into consideration for calculating the number of power supply units in the system:

- Single column system with 2 door units and 32 name tags each, up to 56 apartment stations, 1 column distributor or column interface: 1 power supply unit.

If the door unit (Sinthesi) has more than 32 name tags, a Ref. 9000/230 or Ref. 9000/110 transformer is needed to illuminate the button modules. In this case, disconnect the connection between the "ILL" terminals of the calling station and the button module.

- System with 12 columns (12 column distributors Ref. 1083/53 or column interfaces Ref. 1083/50): add 1 power supply unit for each column.
- System with more than one main calling station and door unit interface: add one power supply unit.



5.5 MAX. DISTANCES AND EXTENSIONS

DOOR PHONE SYSTEMS

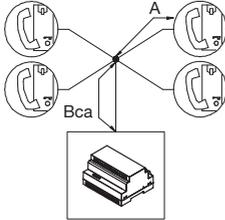
DOOR PHONE RISERS CONNECTION

This chapter shows the different ways of connecting an all door phone riser regardless of whether it is derived from a column power supply unit, a column distributor or a column interface.

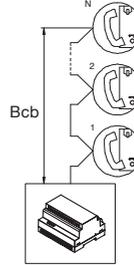
 The following indications are valid for audio only systems; these distances can not be applied if even one video device is present (video door entrance panel or video door phone).

Connection of a door phone riser with electric nodes or in-out connection for a door phone riser

Door phone riser with electric nodes



Door phone riser with in-out connection



A = distance between the node and the door phone

Bca = distance between the device from which the riser is derived and the most distant node

Bcb = distance between the device from which the backbone is derived and the furthest door phone

Cable	Number of apartment stations according to the device from which the riser is derived		distance		
	1083/23	1083/53 or /50	A	Bcx	A+Bc
2Voice cable Ref. 1083/92	80	56	50m	600m	600m
2Voice cable Ref. 1083/94	80	56	50m	375m	375m
Ø 0,6mm telephone pair without sheath	64	56	50m	300m	300m
CAT5 UTP (one twisted pair)	64	56	50m	200m	200m
HVV05-F 1,5 mm ² rubber covered	80	56	50m	300m	300m
7057/235 Urmet cable (blue/red)	64	56	50m	300m	300m
1mm ² section single cable	32	32	50m	300m	300m

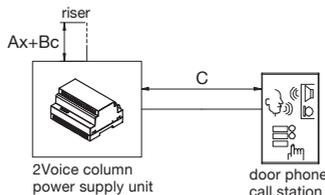
 For system extensions and connection of street side branch and call stations see the next paragraphs.

CONNECTION OF CALL STATIONS

This chapter describes different connection modes of door phone call stations in systems with only one riser column of door phones.

 The following indications are valid for audio only systems; these distances can not be applied if even one video door phone device is present (video door entrance panel or video door phone).

Column with one door phone call station



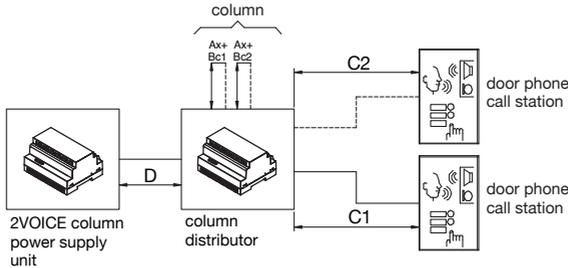
C = distance between the power supply and the call station

 For connection and distances of the riser, see the paragraph "Door phone risers connection"

Cable	distance	extension (*)
	C	
2Voice cable Ref. 1083/92	600m	800m
2Voice cable Ref. 1083/94	375m	800m
Ø 0,6mm telephone pair without sheath	300m	600m
CAT5 UTP (one twisted pair)	200m	800m
HVV05-F 1,5 mm ² rubber covered	300m	300m
7057/235 Urmet cable (blue/red)	300m	300m
1mm ² section single cable	300m	300m

(*) the system extension is the sum of all the single segments which compose it:
 $C+Bc+A1+A2+...+An$

Devices derived from a column distributor or a column interface with one or two door phone calling stations



Cx = distance between the column distributor or column interface and the calling station

D = distance between the column distributor or column interface and the power supply unit

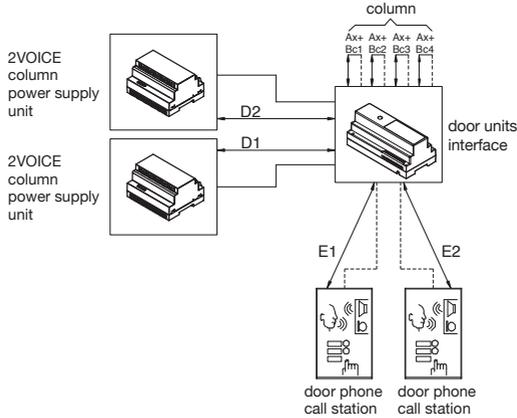
 For connection and distances of the riser, see the paragraph "Door phone risers connection".

Cable	distance		extension (*)
	Cx	D	
2Voice cable Ref. 1083/92	400m	5m	800m
2Voice cable Ref. 1083/94	250m	5m	800m
Ø 0,6mm telephone pair without sheath	100m	5m	600m
CAT5 UTP (one twisted pair)	100m	5m	800m
HVV05-F 1,5 mm ² rubber covered	50m	5m	300m
7057/235 Urmet cable (blue/red)	50m	5m	300m
1mm ² section single cable	50m	5m	150m

(*) the system extension is the sum of all the single segments which compose it:
 $C1+C2+D+Bc1+Bc2+A1+A2$

 These requirements must also be taken into account when the riser distributor or the riser interface is connected on the riser on street side in systems with multiple risers.

Door unit interface derived devices with up to 2 door phone calling stations



Ex = distance between the door units interface and the call station

Dx = distance between the door units interface and the power supply

For connection and distances of the riser, see the paragraph "Door phone risers connection".

Cable	distance		extension	
	Ex	Dx	call station	column
2Voice cable Ref. 1083/92	400m	5m	800m	800m
2Voice cable Ref. 1083/94	250m	5m	500m	800m
Ø 0,6mm telephone pair without sheath	200m	5m	400m	600m
CAT5 UTP (one twisted pair)	100m	5m	200m	500m

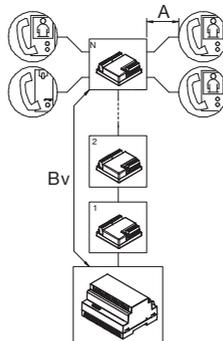
The call stations extension is the sum of segments E1+E2+E3+E4+D1 and the column extension is the sum of segments Bc1+Bc2+Bc3+Bc4+A1+A2+... +An+D2.

VIDEO DOOR PHONE SYSTEMS VIDEO DOOR PHONE RISERS CONNECTION

This chapter shows the different ways of connecting a riser with at least one video door phone regardless of whether it is derived from a column power supply unit, a column distributor or a column interface.

Special decoders and door phone connections are similar, but special decoders must be installed at the end of a branch. On the decoder In/out connection can not be performed.

Connection of a video door phone riser with distributors



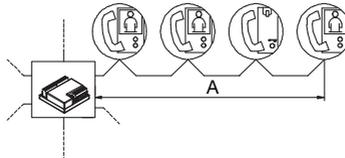
A = distance between the 4-user distributor and the apartment station

Bv = distance between the device from which the riser is derived and the most distant 4-user distributor

Cable	Number of apartment stations according to the device from which the riser is derived		video	distance		
	1083/23	1083/53 or /50		A	Bv	A+Bv
2Voice cable Ref. 1083/92	48	32	Colour	50m	200m	200m
			B/W	50m	200m	200m
2Voice cable Ref. 1083/94	48	32	Colour	50m	125m	125m
			B/W	50m	125m	125m
Ø 0,6mm telephone pair without sheath	48	32	Colour	50m	150m	150m
			B/W	50m	125m	125m
CAT5 UTP (one twisted pair)	48	32	Colour	50m	125m	125m
			B/W	50m	75m	75m
HVV05-F 1,5 mm ² rubber covered	48	32	Colour	50m	125m	125m
			B/W	50m	125m	125m
7057/235 Urmet cable (blue/red)	48	32	Colour	50m	125m	125m
			B/W	50m	125m	125m
1mm ² section single cable	32	32	Colour	50m	50m	75m
			B/W	50m	50m	75m

 For system extensions and connection of street side branch and call stations see the next paragraphs.

Apartment stations derived by a distributor

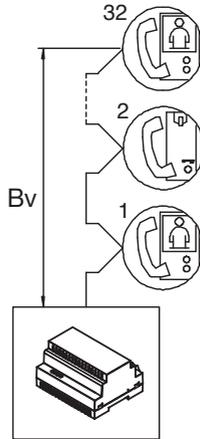


A = distance between the 4-user distributor and the most distant apartment station

Cable	No. of apartment stations	distance
		A
2Voice cable Ref. 1083/92	Max 4	50m
2Voice cable Ref. 1083/94		
Ø 0,6mm telephone pair without sheath		
CAT5 UTP (one twisted pair)		
HVV05-F 1,5 mm ² rubber covered		
7057/235 Urmet cable (blue/red)		
1mm ² section single cable		

In/out connection of a video door phone riser

32 video door phone apartment stations max. for each riser



B_v = distance between the device from which the riser is derived and the most distant apartment station

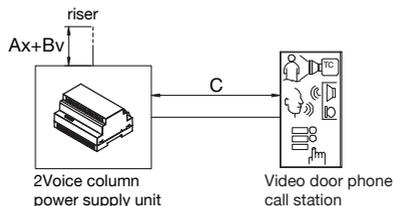
Cable	No. of apartment stations	video	distance
			B_v
2Voice cable Ref. 1083/92	32	Colour	200m
		B/W	200m
2Voice cable Ref. 1083/94	32	Colour	125m
		B/W	125m
Ø 0,6mm telephone pair without sheath	32	Colour	190m
		B/W	190m
CAT5 UTP (one twisted pair)	32	Colour	190m
		B/W	115m
HVV05-F 1,5 mm ² rubber covered	32	Colour	150m
		B/W	150m
7057/235 Urmet cable (blue/red)	32	Colour	100m
		B/W	100m
1mm ² section single cable	32	Colour	100m
		B/W	100m

 For system extensions and connection of street side branch and call stations see the next paragraphs.

WIRING CONNECTION OF CALL STATIONS WITH ONE RISER COLUMN VIDEO DOOR PHONE

This chapter describes the different connection modes of video door phone call stations in systems with only one riser column of apartment stations.

Column with one video door phone call station



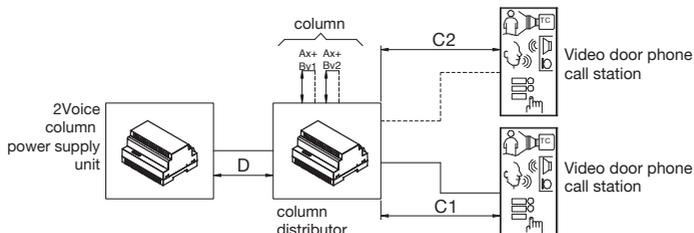
C = distance between the power supply and the call station

 For connection and distances of the riser, see the paragraph “Video door phone risers connection”.

Cable	video	distance	extension (*)
		C	
2Voice cable Ref. 1083/92	Colour	200m	800m
	B/W	200m	800m
2Voice cable Ref. 1083/94	Colour	125m	800m
	B/W	100m	600m
Ø 0,6mm telephone pair without sheath	Colour	100m	800m
	B/W	100m	800m
CAT5 UTP (one twisted pair)	Colour	100m	800m
	B/W	100m	800m
HVV05-F 1,5 mm ² rubber covered	Colour	50m	300m
	B/W	50m	300m
7057/235 Urmet cable (blue/red)	Colour	50m	300m
	B/W	50m	300m
1mm ² section single cable	Colour	50m	150m
	B/W	50m	150m

(*) the system extension is the sum of all the single segments which compose it:
 $C+Bv+A1+A2+...+An$

Devices derived from a column distributor or a column interface with one or two video door phone calling stations



Cx = distance between the column distributor or column interface and the calling station
 D = distance between the column distributor or column interface and the power supply unit

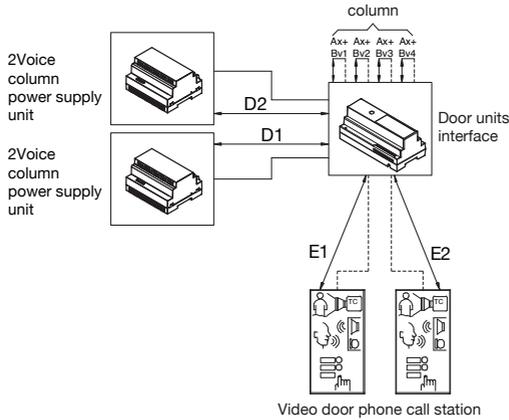
 For connection and distances of the riser, see the paragraph “Video door phone risers connection”.

Cable	distance		extension (*)
	Cx	D	
2Voice cable Ref. 1083/92	200m	5m	800m
2Voice cable Ref. 1083/94	125m	5m	800m
Ø 0,6 mm telephone pair without sheath	100m	5m	600m
CAT5 UTP (one twisted pair)	100m	5m	800m
HVV05-F 1,5 mm ² rubber covered	50m	5m	300m
7057/235 Urmet cable (blue/red)	50m	5m	300m
1mm ² section single cable	50m	5m	150m

(*) the system extension is the sum of all the single segments which compose it:
 $C1+C2+D+Bv1+Bv2+A1+A2$

 These requirements must also be taken into account when the riser distributor or the riser interface is connected on the riser on street side in systems with multiple risers.

Devices derived from a door units interface with 2 video door phone call stations max.



Ex = distance between the door units interface and the call station
 Dx = distance between the door units interface and the power supply

For connection and distances of the riser, see the paragraph "Video door phone risers connection".

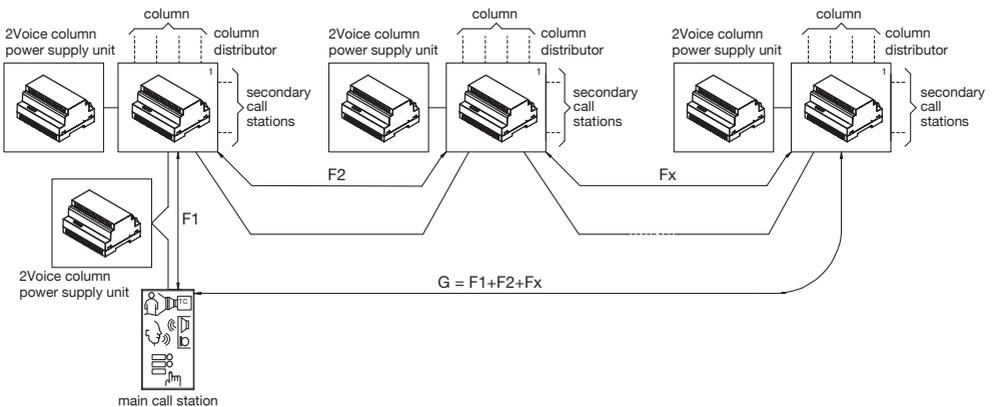
Cable	distance		extension	
	Ex	Dx	call station	column
2Voice cable Ref. 1083/92	200m	5m	400m	800m
2Voice cable Ref. 1083/94	125m	5m	250m	800m
Ø 0,6mm telephone pair without sheath	200m	5m	400m	600m
CAT5 UTP (one twisted pair)	100m	5m	200m	500m

The calling station extension is the sum of stretches E1+E2+D1, while the column extension is the sum of stretches Bc1+Bc2+Bc3+Bc4+A1+A2+... +An+D2.

STREET SIDE BRANCHES CONNECTION IN SYSTEMS WITH MORE THAN ONE COLUMN

This chapter shows the different ways of connecting the riser on street side between the door unit interface and the various column distributors.

Connection of 12 columns max., each one with 2 secondary call stations and one main call station

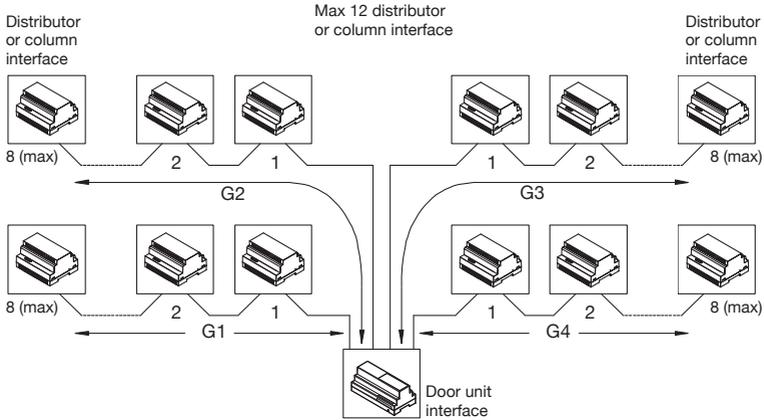


G = distance between the main call station and the most distant column interface

Cable	distance
	G
2Voice cable Ref. 1083/92	200m
2Voice cable Ref. 1083/94	125m

For distances and extension of each column, see paragraph “Devices derived from a column interface with one or two video door phone call stations”.

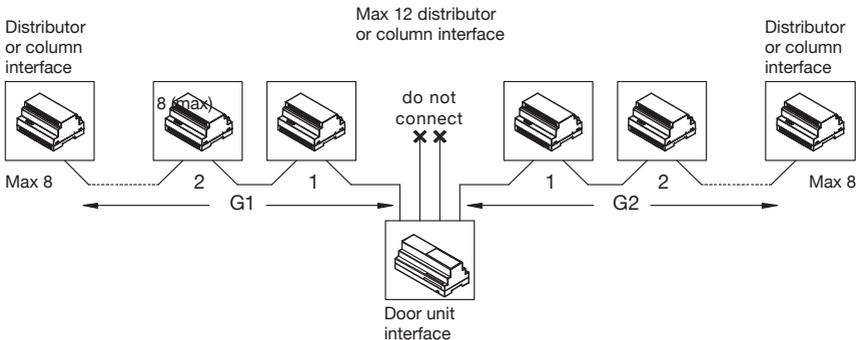
Street side branch connection split on the 4 outputs of door units interface



Cable	Max. total number of distributors or column interfaces	distance	Street side branch extension
		Gx	G1+G2+G3+G4
2Voice cable Ref. 1083/92	Max 12	600m	2400m
2Voice cable Ref. 1083/94	Max 12	375m	1500m

For distances and extension of each column, refer to “Devices derived from a column distributor or a column interface with one or two video door phone calling stations”.

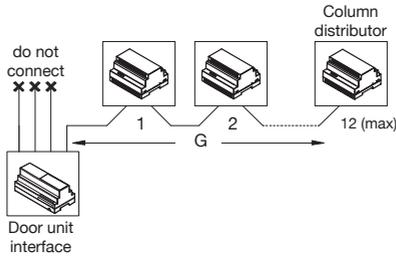
Street side branch connection split on the 2 outputs of door units interface



Cable	Max. total number of distributors or column interfaces	distance	Street side branch extension
		Gx	G1+G2
2Voice cable Ref. 1083/92	Max 12	400m	1200m
2Voice cable Ref. 1083/94	Max 12	250m	750m

For distances and extension of each column, see paragraph “Devices derived from a column distributor or a column interface with one or two video door phone calling stations”.

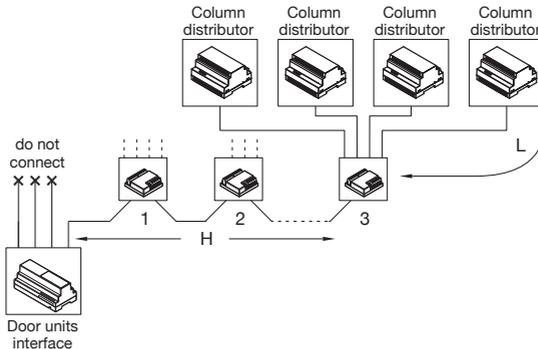
Street side branch connection split on only 1 output of the door units interface



Cable	Max. number of distributors or column interfaces	distance
		Gx
2Voice cable Ref. 1083/92	Max 12	400m
2Voice cable Ref. 1083/94	Max 12	250m

For distances and extension of each column, see paragraph “Devices derived from a column distributor or a column interface with one or two video door phone calling stations”.

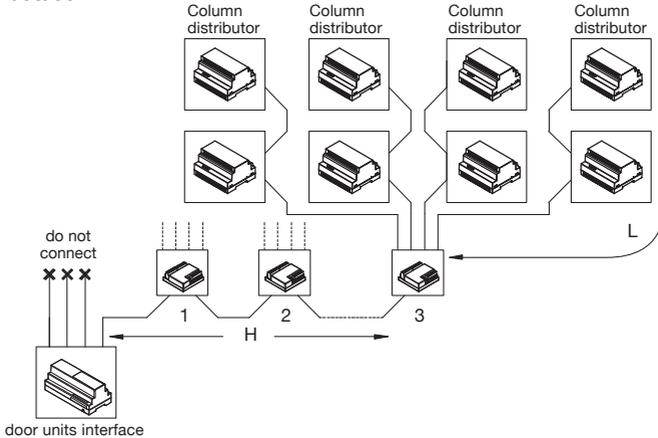
Street side branch connection split on only 1 output of the door units interface using 3 4-user distributors Ref. 1083/55



Cable	No. of 4-user distributors	Number of distributors or column interfaces	distance		Street side branch extension H+L1+L2+...+L12
			H	L	
2Voice cable Ref. 1083/92	Max 3	Max 12	200m	50m	800m
2Voice cable Ref. 1083/94	Max 3	Max 12	125m	50m	725m

For distances and extension of each column, refer to “Devices derived from a column distributor or a column interface with one or two video door phone calling stations”.

Street side branch connection split on only 1 output of the door units interface using 3 4-user distributors Ref. 1083/55



Cable	No. of 4-user distributors	Number of distributors or column interfaces	distance		Street side branch extension H+L1+L2+...+L12
			H	L	
2Voice cable Ref. 1083/92	Max 3	Max 12	200m	50m	800m
2Voice cable Ref. 1083/94	Max 3	Max 12	125m	50m	725m

For distances and extension of each column, see paragraph “Devices derived from a column distributor or a column interface with one or two video door phone calling stations”.

5.6 ELECTRICAL DOOR LOCK CONNECTION

Maximum distance	Wire cross section area	0,28 mm ²	0,5 mm ²	1 mm ²
Door calling station and electric lock		10 m	20 m	30 m

5.7 GARAGE DOOR CONTROL UNIT EXTERNAL RELAY CONNECTION

Maximum distance	Wire cross section area	0,28 mm ²	0,5 mm ²	1 mm ²
Calling station and garage door control unit		30 m	50 m	100 m

5.8 CALLING STATION AUXILIARY SIGNAL CONNECTION

Maximum distance	Wire cross section area	0,28 mm ²
Hall button (PA-CT)		25 m
Door sensor (SP-CT)		25 m
Surveillance camera switching signal (T+, T-)		300 m

Maximum distance	Wire cross section area	0,75 mm ²	1,5 mm ²	2,5 mm ²
Name tag lighting with Ref. 9000/230 or Ref. 9000/110		100 m	200 m	300 m

5.9 APARTMENT STATION SIGNAL CONNECTION

Maximum distance	Wire cross section area	0,28 mm ²
Floor call button (CP)		10 m
Supplementary ringer (S+, S-)		10 m

5.10 WIRING AND USE OF LINE TERMINATIONS

Definitions:

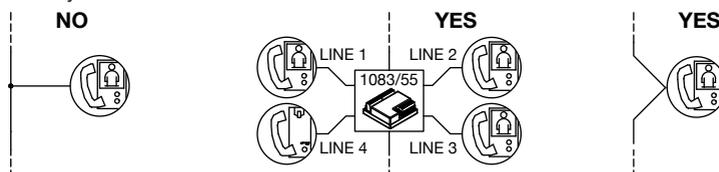
BACKBONE:	A two-wire line leading from a terminal pair of the column distributor or power unit to which the devices are connected.
EXTENSION:	A two-wire line leading from LINE1-4 terminals of the distributor to which the apartment stations are connected.
END OF LINE:	The last device connected to a backbone or extension.
TERMINATION (Z):	An impedance to be fitted at the end of each line by means of a jumper to adapt a backbone or an extension.
IN-OUT CONNECTION:	A connection of the devices by means of which the LINE terminals work as node between the input pair and the output pair.
APARTMENT:	House unit with up to 4 apartment stations which can be called at the same time.
COLUMN:	Set of risers derived from a column distributor, a column interface or a door unit interface.
STREET SIDE RISER:	Two-wire line starting from a door unit interface and distributing the signal to column distributors or column interfaces.
SYSTEM DIMENSION:	Sum of all the connection segments which constitute the system.
CALL STATIONS:	Devices able to send a door phone or video door phone call to apartment stations.
APARTMENT STATIONS:	These are the devices (door phones, video door phones, decoding, etc.) present in the system (max 128 per column). The devices in parallel fall into the count.
USER:	It is the apartment station that needs code.

The 2Voice system elements must be interconnected in a genuine transmission network. For this reason, each network section must be adapted to the wire impedance for correct operation. Consider the following:

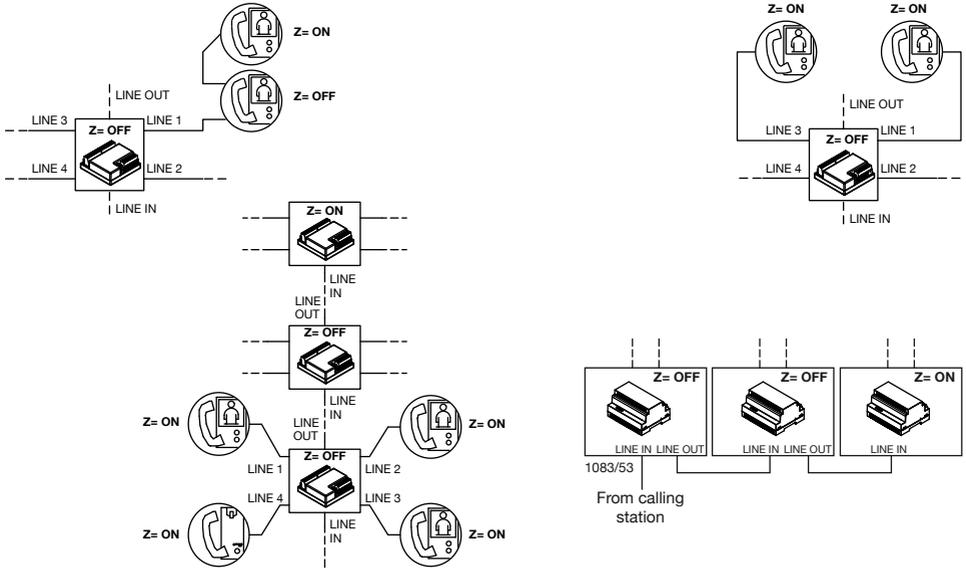
- Only use the type of wire shown in the previous chapter (2).
- The minimum twisting radius must not be less than 10 times the external diameter of the wire (approximately 7cm) to prevent altering characteristics.
- Remove the sheath for the length needed to separate the pair in the two-wire line only.
- **Do not add electrical nodes to connect the devices.** Use the device terminals only. Fit a 4-user video distributor Ref. 1083/55 to connect an extension apartment unit to a riser column that does not cross the apartment.

Exception: electric nodes are allowed if audio door phones only are present in the column.

- (2) The use of other wire types must be subjected to prior approval by Urmet according to the type and distances in the system.



- A jumper to be inserted in the line termination (Z) is present in apartment stations, distributors, column distributors and column interfaces. Activate the termination for devices wired at the end of a line from which another section does not start from the device terminals (end of line):

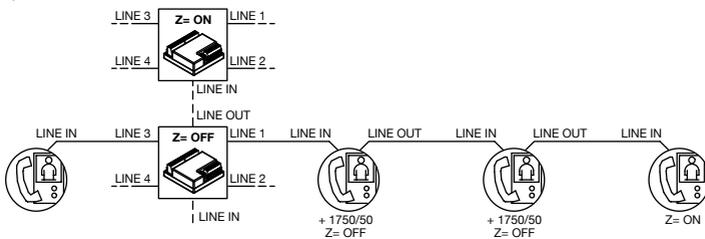


Refer to the corresponding instruction booklets provided with the products for identifying the position of the line termination jumper in the various devices.

Warning

The line terminal on/off jumper (Z) is not present on some video door phones (e.g. 1750/1, 1750/5, 1750/6, 1750/15, 1750/16 and 1760/6).

Consequently, the in-out connection can only be implemented by adding the Ref. 1750/50 accessory, which must be installed in the device preceding the end-of-line device in the specific housing on the back of the video door phone.



6. ACTIVATING THE SYSTEM

Perform the following operations in order after wiring the devices:

1. Set up the line terminations.
2. Configure the devices using the dip-switches.
3. Switch on power and check voltage.
4. Check the system.
5. Associate door unit button to users or program calling module name directory.
6. Run basic functional test.
7. Program the door units and/or the apartment stations when required after the steps above.

6.1 LINE TERMINATION SETTINGS (Z)

Refer to the previous chapter for correct Z line termination settings.

Default settings

All door phones are configured by default with line termination on.

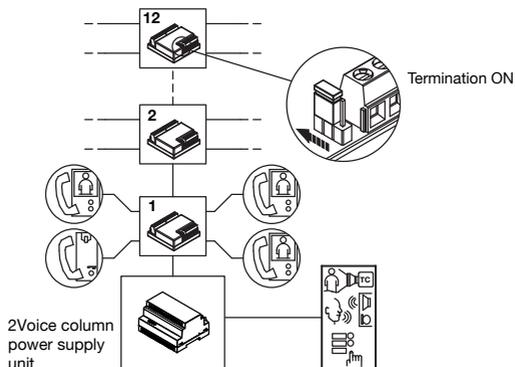
All brackets are configured by default with line termination on.

All distributors are configured by default with line termination off.

All column interfaces are configured by default with line termination on (jumper between Z terminal present).

The line terminal on/off jumper (Z) is not present on some video door phones (e.g. 1750/1, 1750/5, 1750/6, 1750/15, 1750/16 and 1760/6).

In this manner, in the typical case of system with calling station connected directly to the power supply unit and apartment stations connected as floor extensions to a column, only the jumper of the termination of the last distributor needs to be changed to the ON position.



6.2 DEVICE CONFIGURATION

The configuration can be made also when the system is not powered because dip-switches on the door unit and apartment stations and interface columns are used.

Particular care must be devoted to setting the device codes. Consider the following for correct system operation:

- Each calling station in the system must have a **univocal code (ID)** which is set using the dip-switches to 0-3 for main stations and 0-31 for secondary stations. There may be two secondary stations with the same ID on the same column but with different address (see below for setting the address of a secondary station, values may be only 0 and 1).
- For secondary calling stations, the ID must coincide with the column ID set on the column interface.
- Each door unit must be characterised by a code (user code) set using dip-switches from 0 to 126 and a code (apartment station code) set using dip-switches from 0 to 3.
- The apartment station code must be 0 if there is one only station in the apartment.
- Up to 4 apartment stations can be connected in parallel: use the same user code and **different** apartment station codes.
- **No two apartments** in the same column may have the same user code.
- Each column distributor or column interface must be characterised by a univocal code (column ID) set using the dip switches from 0-31. Secondary door units in the column must have the same ID. All the apartment stations of a column acquire the column ID from the column interface.
- The column interface is not needed if there is only one column distributor or column interface in the system and the column ID apartment stations will be 0. A column distributor or column interface for each column is needed if the system has more than one column.
- The interface of all calling stations, apartment stations and columns must start from 0 **and be consecutive**.

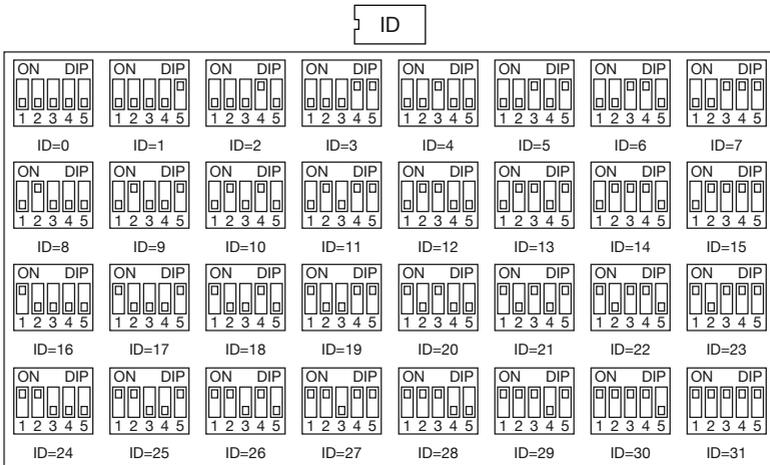
CALLING STATION CONFIGURATION

The calling stations in the system must be univocally identified according to the type. The following explanation concerns the door unit with buttons mod. Sinthesi. Refer to the corresponding instruction booklet for other door unit types, e.g. Alpha calling station or calling modules.

ID: door unit identification

Set a number from 0 to 3 if the door unit is a main unit or from 0 to 31 if the door unit is a secondary unit as shown in the following figure.

- There must not be two main stations with the same ID. Two secondary stations may coexist with the same ID but with different address (0 or 1).
- The ID of the secondary door unit must coincide with the column ID set on the column distributor 1083/53 or column interface 1083/1083, if present.



AUX: auxiliary settings

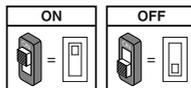
Station type: the door unit can be configured either as a main or a secondary device. All the users in the system may be called from the main door unit. A secondary door unit may only call the users of the column to which it belongs. Users can identify the source of the call by the ring tone.

Secondary calling station: Two secondary calling stations may be present in a column and must have a different address (0 or 1).

Door opener: The electric lock can be managed in “privacy” or “free” mode. The door unit works as follows in the two cases:

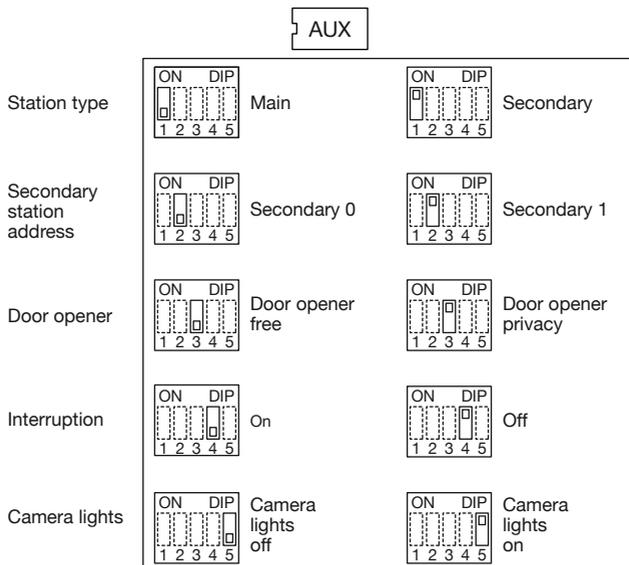
- “Privacy”: the electric lock may only be activated by pressing the door opening button on the calling station when an audio conversation has been established or when after having received a call or auto-on function either a video connection has been established.
- “Free”: the electric lock may be activated by pressing the door opening button on the call station if this is configured as main or if this configured as secondary and the user belongs to the same column as the calling station. This function is typically used for secondary stations.

Interruption: when a call or intercom call or auto-on (with or without audio) is in progress or while the video door phone messaging service is being consulted, the concerned column or more in general the system parts in busy mode may be interrupted by a call from the calling station or not according to the configuration of this switch.



The parameter “interruption” must be programmed in the same way for all system call stations.

Camera lights: the camera lights may be turned off if illumination in the surrounding environment is sufficient at night.



DOOR OPENING TIME The position of the rotary switch (DOOR TIME) determines the activation time of the door lock.

Pos. 0 = 1 s	Pos. 1 = 10 s	Pos. 2 = 20 s	Pos. 3 = 30 s
Pos. 4 = 40 s	Pos. 5 = 50 s	Pos. 6 = 60 s	Pos. 7 = 70 s
Pos. 8 = 80 s	Pos. 9 = 90 s		

GUARANTEED CONVERSATION TIME The position of the rotary switch (CONV TIME) determines a guaranteed conversation time, i.e. extends the busy time from the answer onwards.

The busy time is equal to the reply time (max. 60s) added to the guaranteed conversation time.

Pos. 0 = 1 s	Pos. 1 = 10 s	Pos. 2 = 20 s	Pos. 3 = 30 s
Pos. 4 = 40 s	Pos. 5 = 50 s	Pos. 6 = 60 s	Pos. 7 e 8 = 70 s
Pos. 9 = NOT ALLOWED			

The guaranteed conversation time must be programmed in the same way for all system call stations.

APARTMENT STATION CONFIGURATION

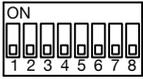
The following explanations concern Miro video door phone, for other apartment stations see their instruction manual.

CODE: user code.

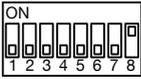
Set a number from 0 to 126 according to the following rules:

- No two apartments in the system must have the same user code.
- Apartment stations in parallel in the same apartment must have the same user code.
- **User codes on the same backbone be must consecutive.**

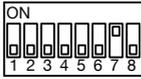
Use the CODE dip-switches from 2 to 8 (2= most significant bit - 8= least significant bit) to set the required code. Dip-switch 1 must be OFF (except for models 1183/5, 1750/1, 1750/5, 1750/6, 1750/15, 1750/16, 1719/1, 1719/2, 1760/6, 1760/15, 1760/16 and 1760/31 see respective instruction booklet provided with the product).



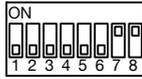
USER 0



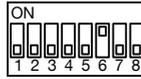
USER 1



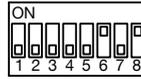
USER 2



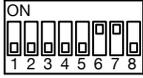
USER 3



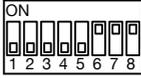
USER 4



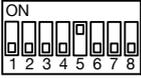
USER 5



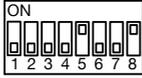
USER 6



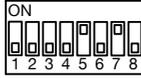
USER 7



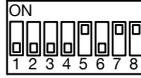
USER 8



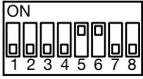
USER 9



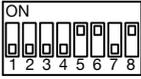
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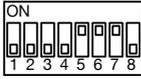
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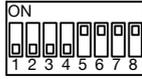
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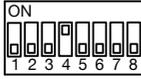
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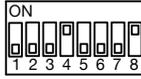
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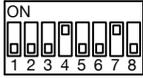
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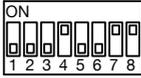
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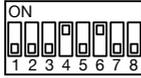
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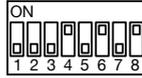
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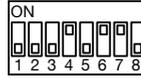
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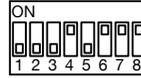
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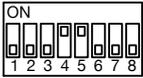
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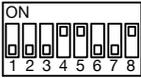
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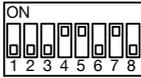
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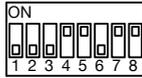
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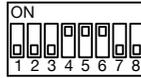
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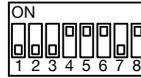
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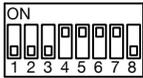
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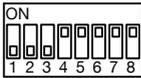
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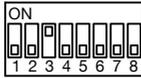
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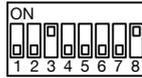
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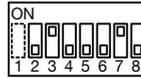
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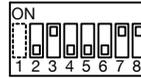
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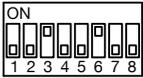
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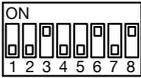
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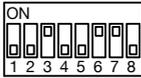
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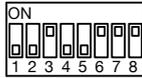
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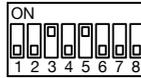
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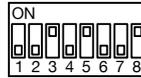
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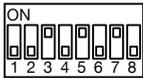
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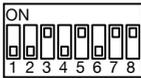
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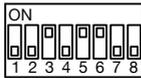
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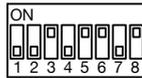
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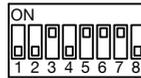
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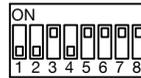
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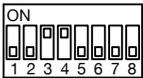
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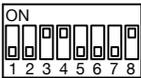
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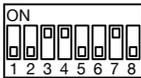
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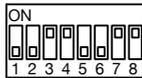
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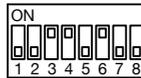
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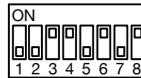
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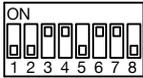
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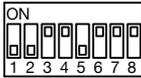
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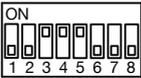
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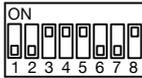
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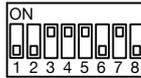
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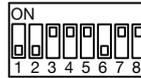
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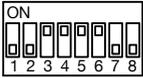
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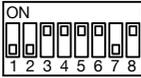
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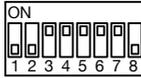
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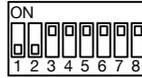
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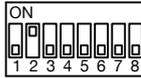
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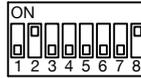
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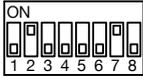
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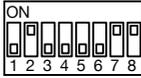
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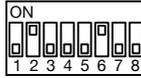
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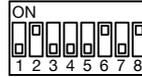
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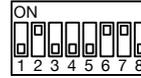
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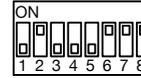
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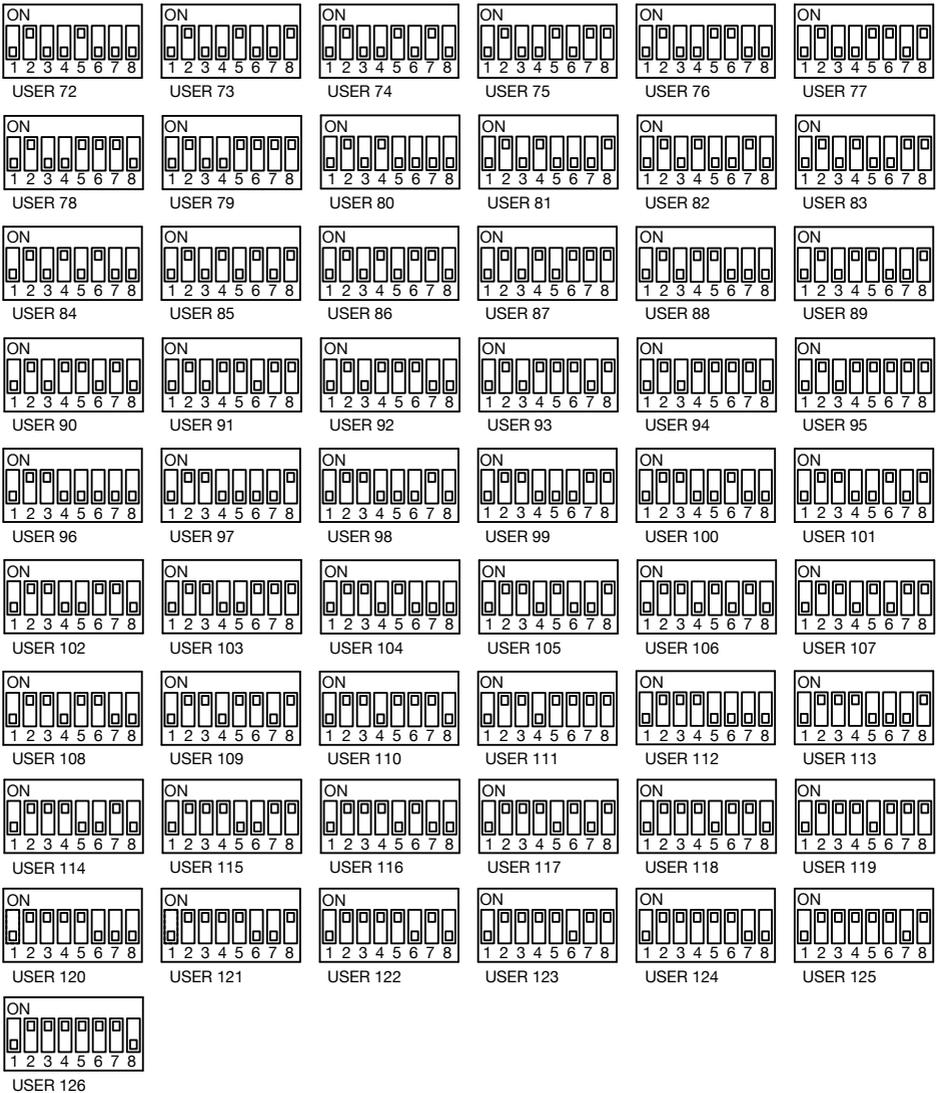
USER 69



USER 70



USER 71



INT: apartment station code.

Set a number from 0 to 3 according to the following rules:

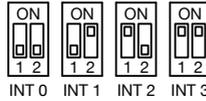
- The apartment station code must be 0 if there is only one station in the apartment.
- Up to 4 apartment stations can be connected in parallel: use the same user code and different apartment station codes.

The apartment station code is used to identify the single stations of the same user. This means that intercom calls can be address to the single user in the same apartment.

All the users apartment stations will ring at the same time in the event of intercom calls to different apartments, door unit calls and floor calls. Consider the following:

- Extension 0 will ring immediately when a call is received. Extensions 1, 2 and 3 will ring in sequence after each other.
- Apartment station 0 will enable monitor switch-on if the call is from a video calling station.

The button can be pressed on any other apartment station of the same user to switch on the other video door phone (“video switching” function).

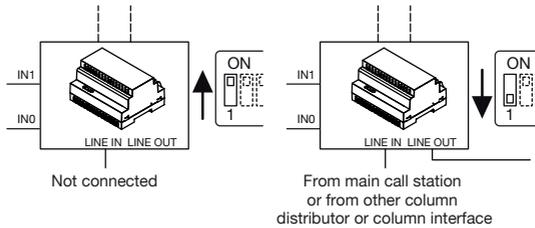


CONFIGURATION OF COLUMN DISTRIBUTORS 1083/53 AND COLUMN INTERFACES REF. 1083/50

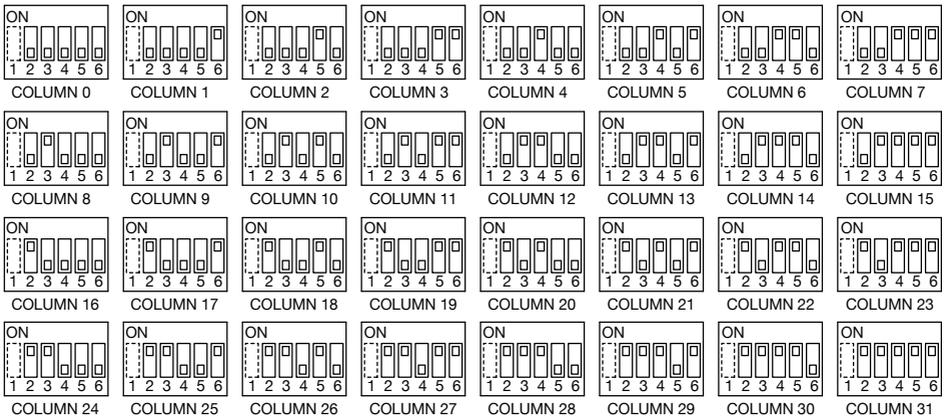
All information on the **column interface Ref. 1083/50** (number of users, distances, extensions, dip switch configuration, etc.) also apply to **column distributor Ref. 1083/53** with the exception of the following constraints:

- The column distributor Ref. 1083/53 may be replaced by a column interface Ref. 1083/50 if there are **up to 2 risers** in the system on the column (LINE 1 and LINE 2).
- It is not possible to use the additional functions related to the AUX terminals on the column interface Ref. 1083/50 (e.g. staircase lighting).

DIP 1: This switch informs the system if the distributor or riser interface has or has not any device connected on LINE IN terminals; if no device is connected to LINE IN (case of a simple system in which only one or two calling stations directly connected to IN1 and IN0 inputs of the riser interface are used) it must be set to ON.



DIP 2 - 6: these are used to program the column ID and must be set according to the table shown below. Remember that the secondary calling station IDs directly connected to the column distributor or column interface must coincide with the column ID shown here.



6.3 POWER-ON AND POWER VOLTAGE TEST

Power the system and run the following tests with the system in standby conditions after carefully setting the line terminations and configuring all devices before fitting the monitors on the brackets:

Ref. 1083/20A and column power supplier unit Ref. 1083/23

Check that direct voltage from 44V \pm to 48V \pm is present at each LINE1 and LINE2 terminal pair.

Calling stations

Check for direct voltage in the range from 38V \pm and 48V \pm at the LINE terminals.

Video distributors Ref. 1083/55

Check for direct voltage in the range from 38V \pm and 48V \pm at the LINE (IN/OUT) and LINE1-4 terminals.

Apartment stations

Check for direct voltage in the range from 38V $\overline{\text{---}}$ and 48V $\overline{\text{---}}$ at the LINE terminals.

Column distributor Ref. 1083/53 and column interfaces Ref. 1083/50

Check for direct voltage in the range from 38V $\overline{\text{---}}$ and 48V $\overline{\text{---}}$ at the POWER, LINE IN and LINE OUT terminals.

Door unit interfaces

Check for direct voltage in the range from 38V $\overline{\text{---}}$ and 48V $\overline{\text{---}}$ at the POWER IN and POWER LINE terminals.

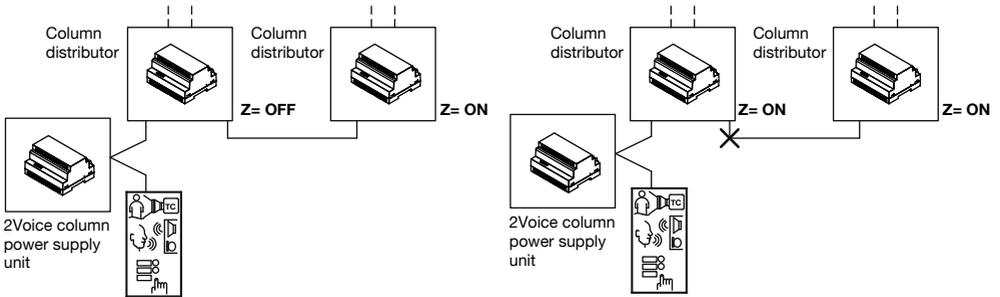
6.4 CHECK THE SYSTEM

HOW TO SPLIT THE SYSTEM INTO SECTIONS

It may be useful to split the system into sections to isolate suspected problems when troubleshooting or seeking incorrectly wired areas.

As previously mentioned, the interconnection of devices forms an adapted transmission network. It is not therefore possible to disconnect parts of the system without considering the disruption that this will cause. Observe the following rules:

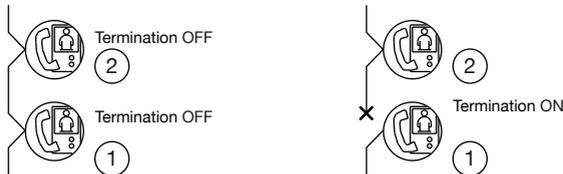
1. Turn the interface termination of the distributor or column interface to the ON position if a branch of a line connected to the column distributor or column interface is disconnected.



The column distributor Ref. 1083/53 excludes and inserts line terminations through the Jumper **Z**.

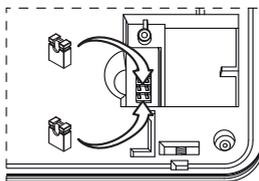
Disconnect the starting side and not the arrival side.

2. Fit a termination (**Z** in the ON position) on the last device connected to the riser column if a section connected in in-out mode is disconnected.

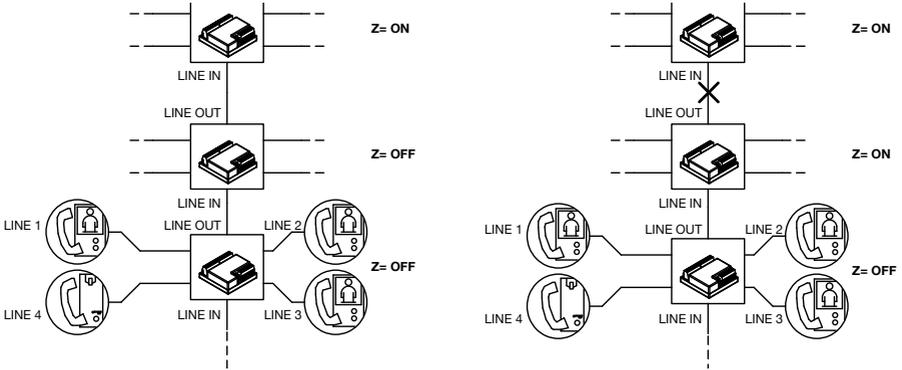


Video door phone 2 will be isolated. In this way, video door phone 1 will become the last of the line and its line termination must be on. Also in the case, disconnect the starting side and not the arrival side.

In the case of video door phones (e.g. 1750/1, 1750/5, 1750/6, 1750/15, 1750/16 and 1760/6) which do not have the line terminal on/off jumper (Z), remove the Ref. 1750/50 accessory from the video door phone which will be the last device in the line and insert the two jumpers in the positions shown in the figure below in its place.



3. The termination of the last distributor must be inserted if a segment connected by means of distributors is disconnected.



 A least 1 device must be connected to the 4-user distributor. Always disconnect the starting side and not the arrival side.

6.5 ASSOCIATING DOOR UNIT BUTTONS TO USERS

The main door unit calling buttons must be associated to the users of the different columns if several columns are present in the system.

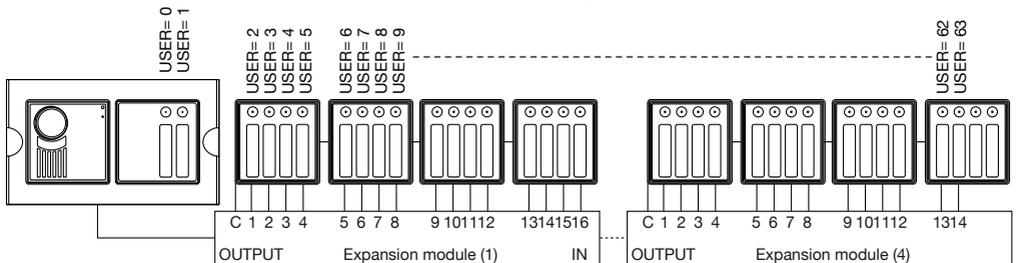
 The following explanations refer to Sinthesi door unit. Refer to the respective instruction manuals for other door units, e.g. Alpha.

BUTTON CODES

Up to 62 buttons (in addition to the basic buttons) may be connected to the door unit using up to 4 button expansion modules.

By default the buttons are associate to the users from 0 to 63 of the column to which it belongs if the door unit is configured as secondary unit.

If instead the door unit is configured as main unit, then the buttons are automatically associated to the column 0, which simplifies the installation of main units in single column systems.



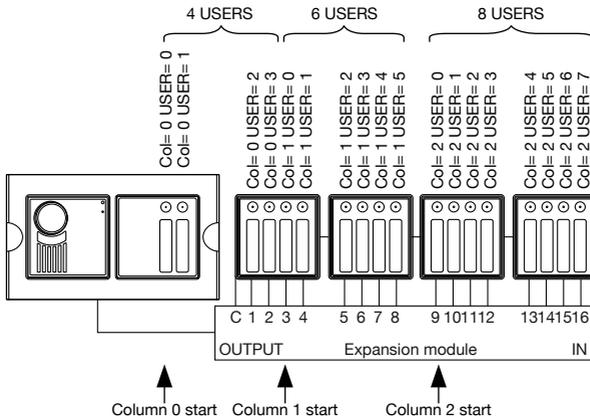
Instead, if the door unit is configured as main unit and several columns are present in the system, an association must be created between the buttons and the users of the different column proceed as follows:

- Access advanced configuration (see the instruction manual of each product).
- Set the ID dip-switch to the code of the first column in the system (column 0 typically).
- Press the button corresponding to user 0 of the selected column. All the subsequent buttons will be automatically associated to the users of the column itself in sequence.
- Repeat the operation on all the columns.
- Reset the ID dip-switch in start position.
- Set again the switches to positions used to configure door lock release time and guaranteed communication time in order to exit from the advanced configuration.

Example:

- System with 3 columns, the first with 4 users, the second with 6 users and the third with 8 users.
- Access advanced configuration.
- Set the ID dip-switch to 0.
- Press the upper button of the door unit (first button).
- Set the ID dip-switch to 1.
- Press third button of the first button module (fifth button) to associate user 0 of column 1 in this manner.
- Set the ID dip-switch to 2.
- Press first button of the third button module (eleventh button) to associate user 0 of column 2 in this manner.
- Reset the ID dip-switch in start position.
- Quit advanced configuration mode.

The final configuration will be:



The configuration of column 0 is not required if the default settings of the door unit are maintained because all buttons are assigned to this column.

Repeat the operation on all the main door units.

If the door units are configured as secondary, but each one must call a different group of users, the following steps can be performed:

- Access advanced configuration (see the instruction manual of each product).
- Set the ID dip-switch of the call module with the apartment station code that will be associated to the first button (offset);

The offset code can only be included between 0 and 31

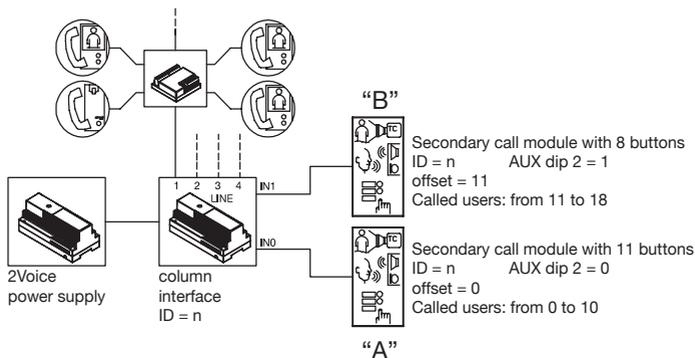
- Change the position of AUX dip-switch no. 5 (the call module emits a confirmation tone);
- Set again the AUX dip-switch no. 5 in its previous position (the call module emits a confirmation tone);
- Set again the ID dip-switches in their previous position;

Exit from the advanced configuration, by setting again the switches in the positions used to program the door lock release time and the guaranteed conversation time: the yellow led turns off.

Example:

The secondary call module “A” only calls users form 0 to 10 and the “B” only users from 11 to 18.

- On the call module “B” access to advanced configuration;
- Set the ID dip-switch to 11;
- Move the AUX dip-switch no. 5;
- Set again all the dip-switches in their previous position;
- Exit from the advanced configuration.



6.6 BASIC FUNCTIONAL TEST

The functional system test may be started after having checked that all power supplies are correct and that all the line terminations are correctly inserted. The test consists in calling all users from the door units, checking that all apartment stations of the called user ring, checking for presence of picture for video calls, checking audio and checking operation of the electric lock of the door and garage.

1. Press a calling button on a main calling station.
 - The door unit will output a tone to indicate that the call has been forwarded.
2. Check the following when a call is received.
 - The user’s extension 0 will ring and the caller’s picture will appear on the display. The user has 60 seconds to reply by picking up the handset or pressing the audio button (for hands-free apartments stations).
 - No picture will appear on extensions 1, 2 and 3 if there are several apartment stations in parallel. Press the auto-on button (button ) to switch on another video door phone (“video switching” function). This operation can be repeated on all called user’s monitors until the 60 second call timeout or until one of the handsets definitively picks the picture up.
 - A conversation which can last for up to 10 minutes will be established after picking up.
 - The electric lock of the door and of the garage can be operated by pressing the specific buttons from the time of the call to the end of the conversation.
3. End the conversation by hanging up the handset or pressing the audio button again (on hands-free apartment stations). The system will return to standby mode.
4. Repeat these operations for all users in the system.
5. Repeat the operations from step 1 on all stations if there are other calling stations in the system. Remember that the monitors will not be operated if the door unit is not a video unit.

6.7 OPTIONAL PROGRAMMING FOR ADDITIONAL FUNCTIONS

The following programming operations are needed after testing the basic operation of the system only if the following functions are required:

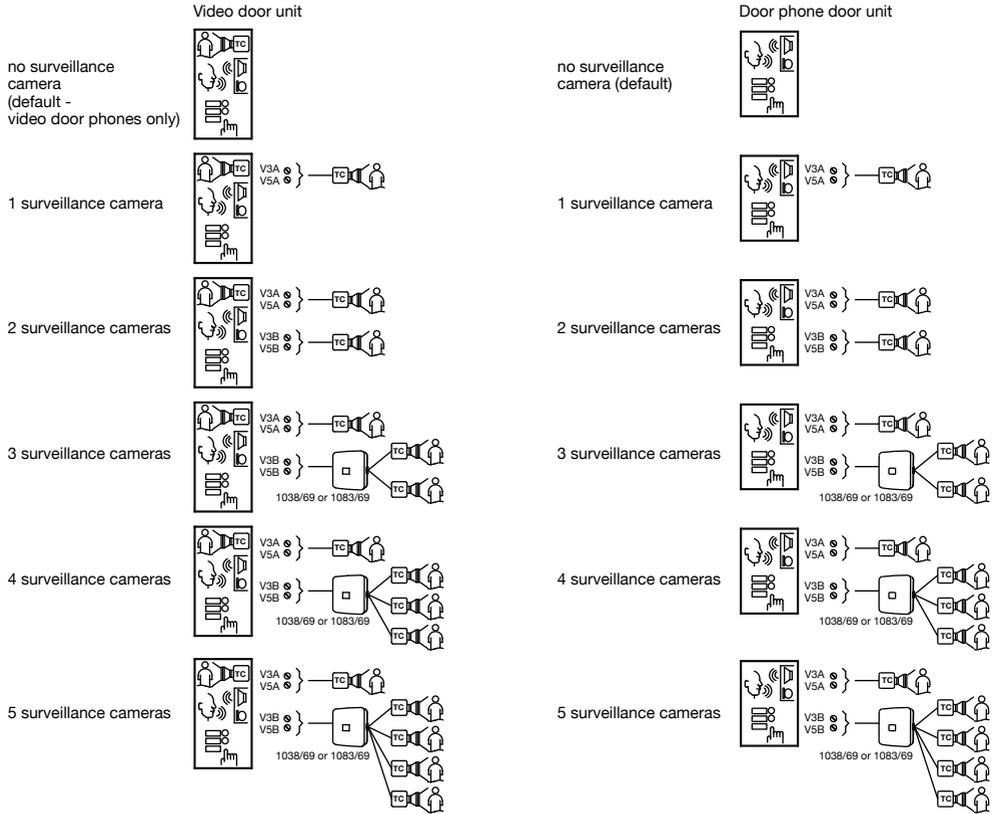
1. Surveillance camera auto-on function: program this function in the presence of surveillance cameras connected to one or more calling stations.
2. Door unit button association for special function.
3. Apartment station intercom function: associate the user code to be called or the apartment code to be called to the buttons.
4. Door phone tone: select one of the five options.
5. Floor call tone: select one of the five options.

SURVEILLANCE CAMERA AUTO-ON FUNCTION (for calling stations with correct setup only)

The function is programmed as follows if surveillance cameras are connected to a calling station:

1. Access advanced configuration (see the instruction manual of each product).
2. Press the hall button (PA-CT) for a number of times corresponding to the number of surveillance cameras present. The door unit will beep a number of times corresponding to the number of programmed cameras each time the button is pressed (max. 5). A long beep is generated when the button is pressed again after the five beeps to indicate that 0 cameras are connected (default).
3. Return the rotary switches to the correct position to quit advanced configuration mode.

The following configurations are possible according to the number of programmed cameras:



The camera of the door unit will be activated in case of video door phone call from door unit. The camera connected to the V3 and V5(A) terminals will be activated in case of call from an audio door unit with surveillance camera.

DOOR UNIT BUTTON ASSOCIATION FOR SPECIAL FUNCTION

A button may be configured for a special function, e.g. for lighting up the staircase lights.

Proceed as follows to configured the button:

- Access advanced configuration.
- Hold the chosen button pressed for 3s.: the door unit will generate a tone to confirm acquisition.

INTERCOM FUNCTION

In the 2Voice system, a door unit button may be programmed to call another user in the same column or another apartment station in the same apartment. All apartment stations of the called user will ring in the first case. Only the specifically programmed apartment station will ring in the second case.

INTERCOM FUNCTION BETWEEN DIFFERENT USERS

Go to the apartment station to be programmed as caller (apartment station A).

There are two different ways to enter programming state (check which method is used on the instruction booklet supplied with the product):

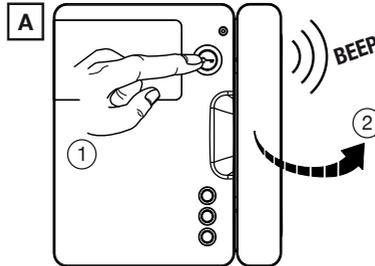
1a) With dedicated button (Miro and Vmodo)

- Hold the ● button pressed for longer than 5 seconds. The yellow LED will blink slowly to confirm that programming mode is selected. In all cases, the device will quit programming mode and save any changes after 10 minutes.

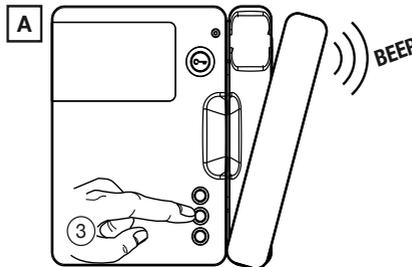
- Press the button to be programmed for at least 3 seconds, until the confirmation tone sounds.
- Go to the user who will be called by pressing the button (user B) and press the door opener button. The apartment stations will beep to indicate that they have been programmed.
- Alternatively, go to a calling station and press the calling button of user B. The apartment station being programming (A) will beep to indicate that it has been programmed. The apartment stations of user B will ring at the same time. Ignore this call.
- Hold the ● button pressed for longer than 5 seconds to quit programming mode.
- Check the programmed function: pick up handset A and press the programmed button. Check that all the apartment stations of user B ring and check for audio after replying.
- You will need to program apartment station B to call A to make the opposite call possible.

1b) By picking up handset (Signo).

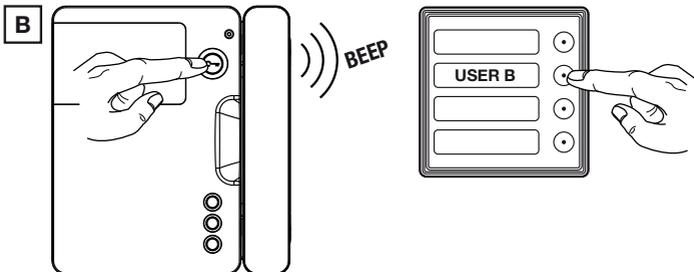
- Hold the door opener button (1) pressed and pick up the handset (2). The apartment station A will output a tone to indicate that programming mode is in progress.



- Press the button to be programmed. The apartment station will output a confirmation tone.



- Go to the user who will be called by pressing the button (user B) and press the door opener button. The apartment stations will be beep to indicate that they have been programmed. Alternatively, go to a calling station and press the calling button of user B. The apartment station being programming (A) will beep to indicate that it has been programmed. The apartment stations of user B will ring at the same time. Ignore this call.



- Hook up the handset of apartment station A. It will beep to indicate exit from programming mode.

 *The other functions will not be lost if the buttons are programmed for this function because the intercom call is made with the **handset off-hook**.*

INTERCOM FUNCTION IN THE SAME APARTMENT

Go to the apartment station to be programmed as caller (apartment station C1).

There are two different ways to enter programming state (check which method is used on the instruction booklet supplied with the product):

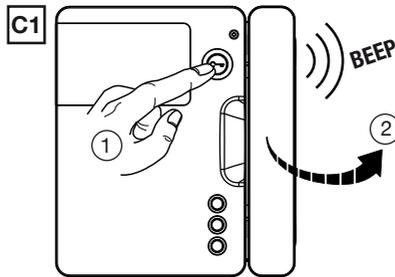
1b) With dedicated button (Miro and Vmodo).

- Hold the • button pressed for longer than 5 seconds. The yellow LED will blink slowly to confirm that programming mode is selected. In all cases, the device will quit programming mode and save any changes after 10 minutes.
- Press the button to be programmed for at least 3 seconds, until the confirmation tone sounds.
- Go to the apartment station that the button will call (apartment station C2) and press the door opener button. The apartment stations C1 and C2 will be beep to indicate that they have been programmed.
- Hold the • button pressed for longer than 5 seconds to quit programming mode.
- Check the programmed function: release the handset C1 and press the programmed button. Check that the apartment station C2 rings and check audio.
- You will need to program apartment station C2 to call C1 to make the opposite call possible.

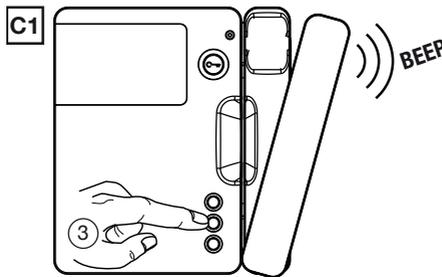
 Refer to the booklets provided with the apartment stations for how to change the calling tones.

1a) With handset off-hook (Mod Signo).

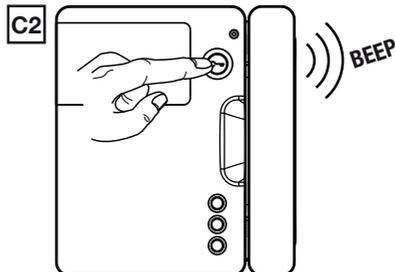
- Hold the door opener button (1) pressed and pick up the handset (2). The apartment station C1 will output a tone to indicate that programming is in progress.



- Press the button to be programmed. The apartment station C1 will output a confirmation tone.



- Go to the apartment station that the button will call (apartment station C2) and press the door opener button. The apartment stations C1 and C2 will be beep to indicate that they have been programmed.



- Hook up the handset of apartment station C1 (or press the audio button again). It will beep to indicate exit from programming mode.

 *The other functions will not be lost if the buttons are programmed for this function because the intercom call is made with the **handset off-hook**.*

PROGRAMMING DATA DELETION

Deleting door unit data:

1. Access advanced programming.
2. Hold any calling button pressed for at least 5 seconds (after the second emitted beep), then release it.
3. Return the switches to the working position.
In this manner, the button-user association setting, the special function button association setting and the number of surveillance cameras are deleted.

Deleting apartment station data:

Refer to the booklets provided with the apartment stations for deleting door phone and video door phone settings (intercom calling codes).

DOOR UNIT ERROR INDICATIONS

The following indication may appear on apartment stations when existing advanced configuration mode:

- Several door units with the same ID: buzzer error tone: repetitive beeps.

7. TECHNICAL SPECIFICATIONS OF THE DEVICES

4-user distributor Ref. 1083/55

Power voltage: **36 – 48 V⁻⁻⁻**
 Max. consumption: **9,0 mA max**
 Working temperature range:..... **- 5 ÷ + 45 °C**
 Dimensions:..... **45 x 45 x 16 mm**

Column power supply unit Ref. 1083/23

Power supply in CAT II 2500 V.

Once installed, the power supply is subject to transient voltages higher than those of the overvoltage category for which is was designed. For this reason, an additional transient voltage protection is required outside the device.

Power: **110-230 V~ +/- 10% 50 / 60 Hz**
 Power: **60 W**
 Output LINE 1/2: **50 V⁻⁻⁻**
with electronic production against current overload

Working temperature range: **- 10 ÷ + 50 °C**

Dimensions (W x H x D):..... **108 x 90 x 60 mm (6 DIN modules)**

Weight: **circa 600 g**

8. KEY TO SYMBOLS

Symbol	Description
	Direct input voltage
	Alternating input voltage
	Symbol for CLASS II appliances with a connection to functional earth
 	See the installation manual of the device

NOTES ON DIAGRAMS

C4.013 Fit a 9V (MN1604/6LR61) battery in the ringer. The ringer is equipped with two jumpers indicated by W1 and W2. Remove one of the two jumpers for two-tone or one-tone operation as shown in the following table:

SOUND TYPE	JUMPERS		
	W1	W2	
THREE-TONE	X	X	Both jumpers inserted
TWO-TONE	X		Jumper W1 only; remove W2
ONE-TONE			Jumper W2 only; remove W1

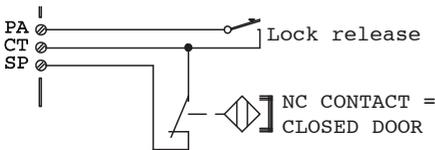
VX.037 On device setting the jumper/dip-switch "Z" in position "ON".

V2.003 Switch the line termination "Z" to the off position (see instruction booklet provided with the product).

VD.007 Floor call button.

VV.004 Attention: Don't remove the jumper between pins "Z" of the last riser interface.

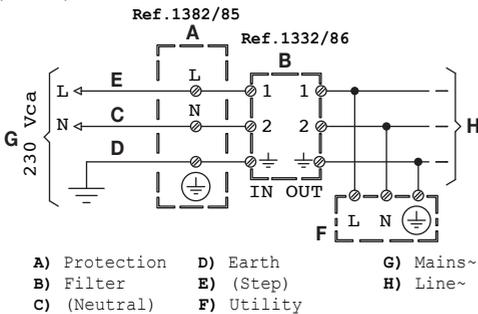
VV.007 If door open warning service is needed, the following connection has to be carried out on the call station (for preset devices only).



VV.008 Setting the dip-switch "1" in position OFF.

VX.006 Per il montaggio dell'accessorio nel dispositivo vedere il libretto istruzioni a corredo prodotto.

VX.008 Connect the devices to a filter and power (Rev. A) line protection device.

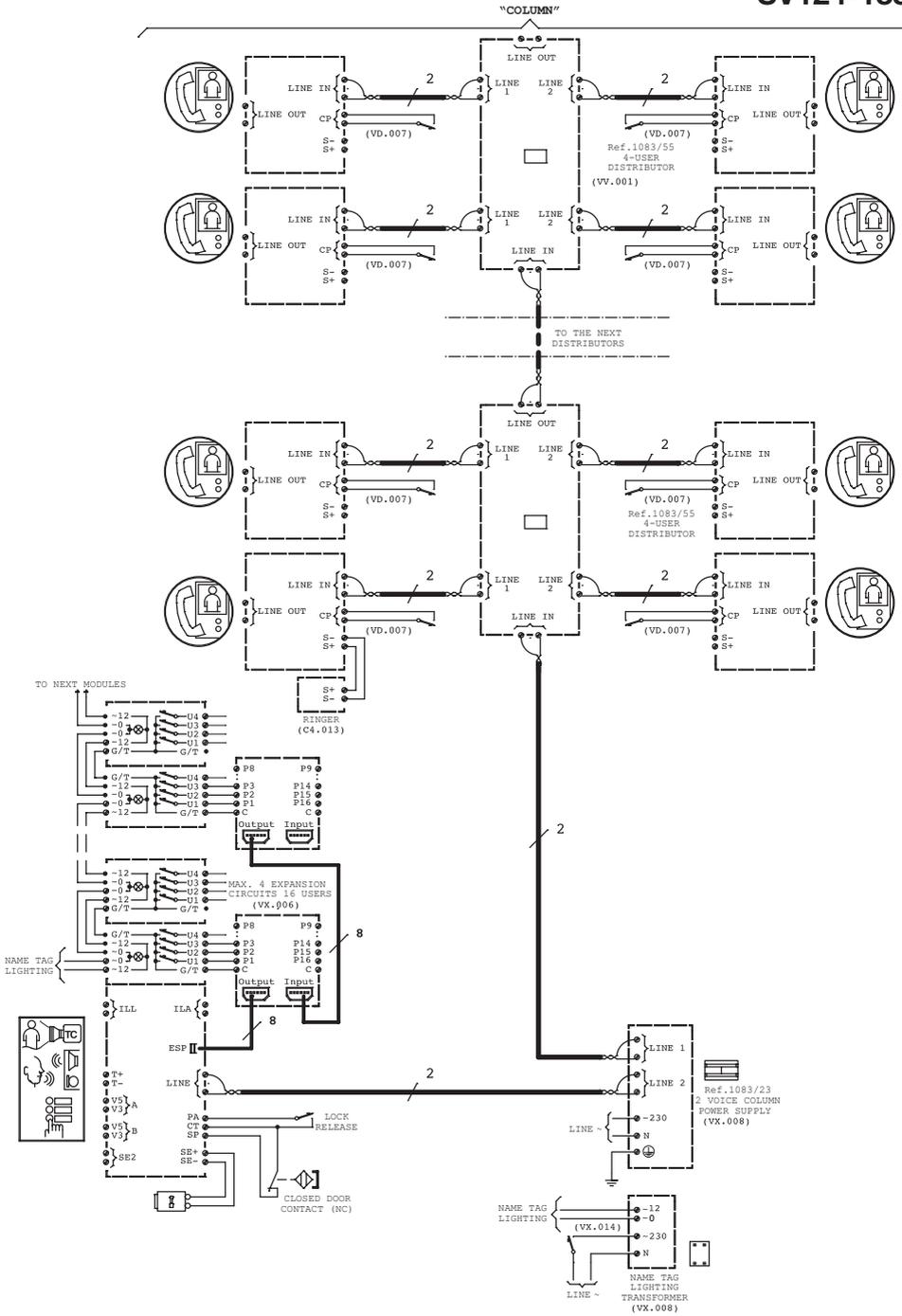


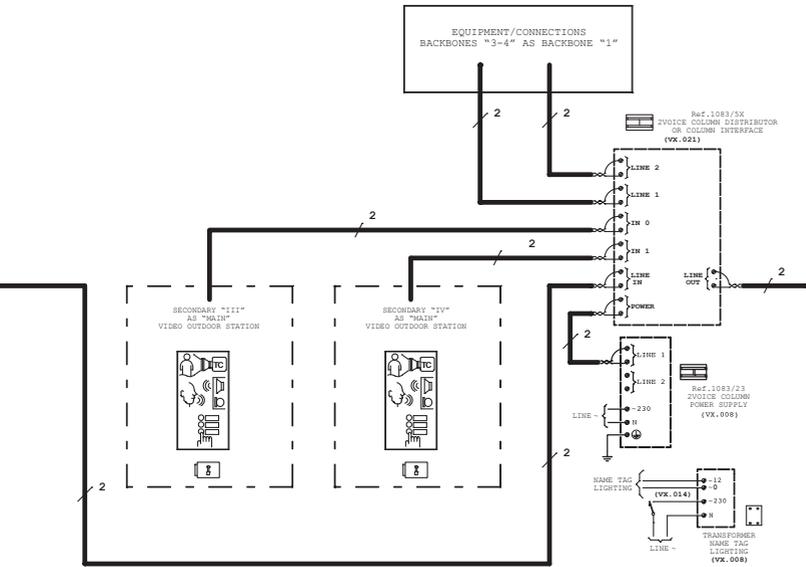
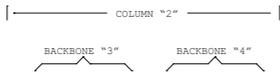
VX.014 Dusk switch or similar device for switching lights on, where appropriate.

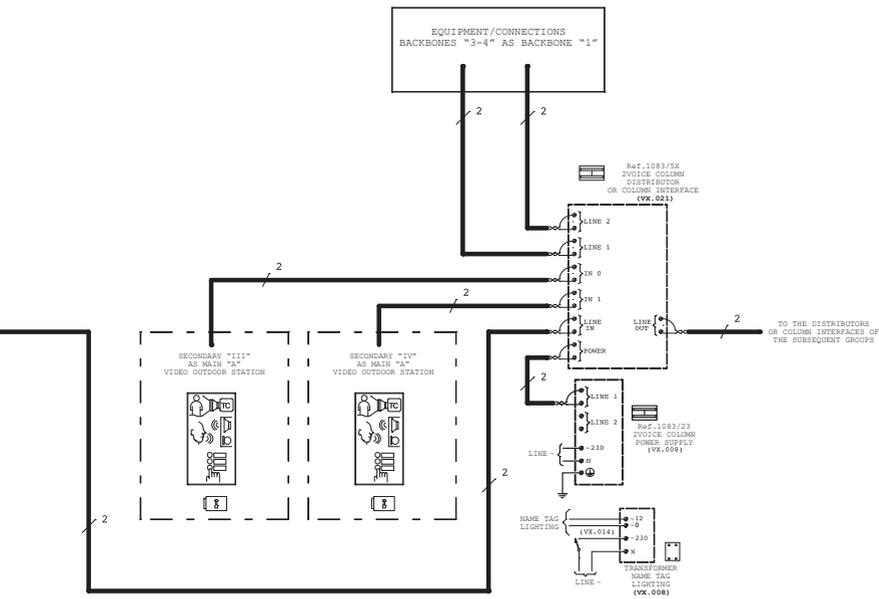
VX.021 Cut or remove the jumpers Z on the device(s).

Connection of 1 column with N video door phones to 1 video entrance panel (VPE).

SV124-1353

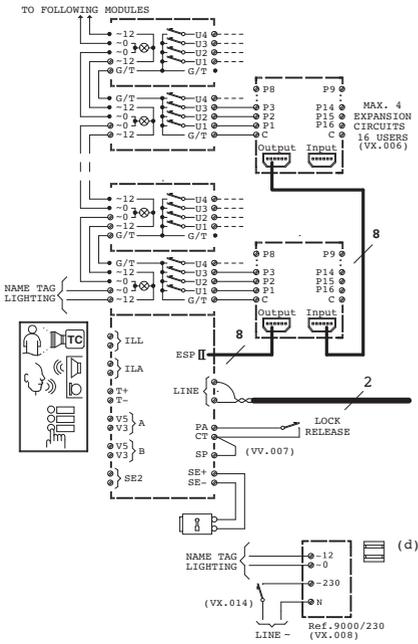




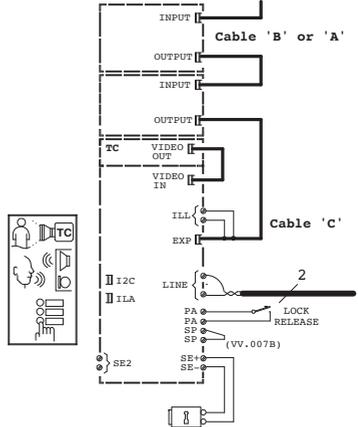


Replacement of the push-button panel mod. Synthesi S2 with push-button panel mod. Synthesi Steel or mod. Alpha.

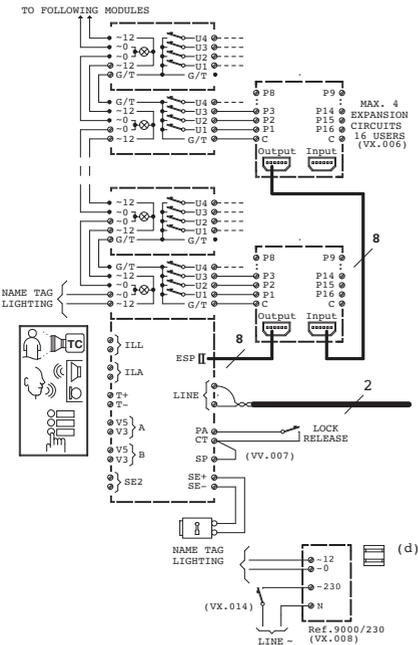
Synthesi S2



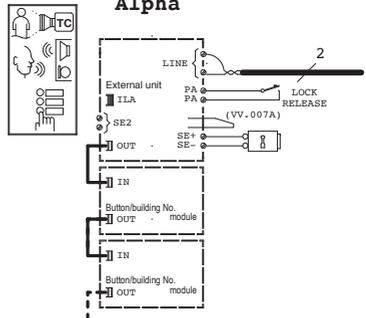
Synthesi Steel



Synthesi S2

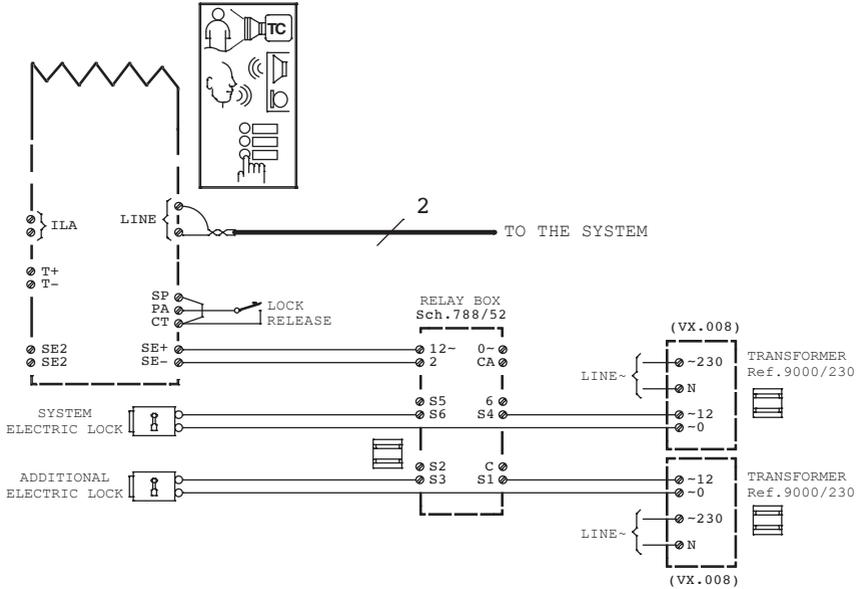


Alpha

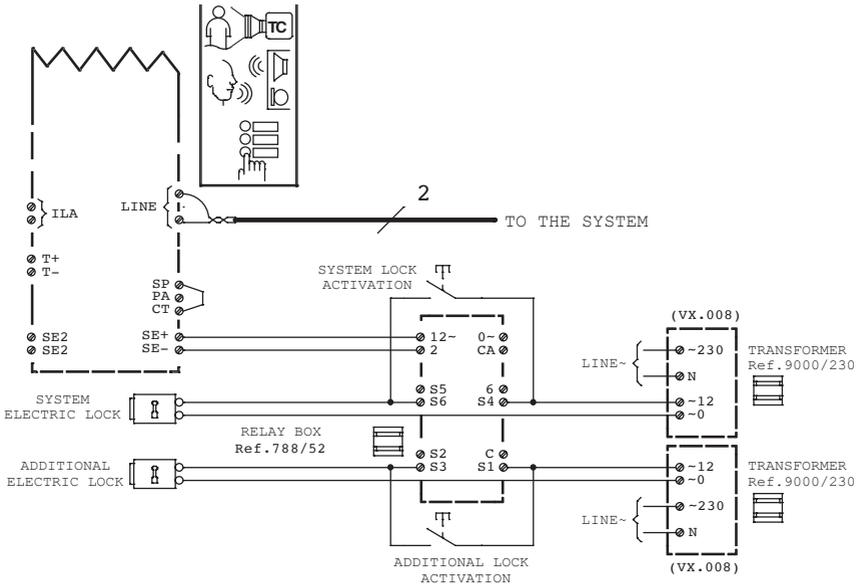


Example of connection for activation of an additional electric lock in parallel with the system one
SV124-1029C

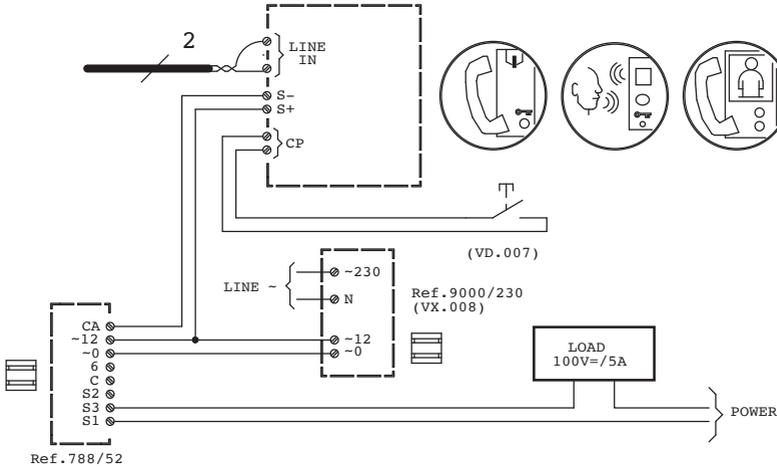
A) Manual command for electric lock simultaneous activation.



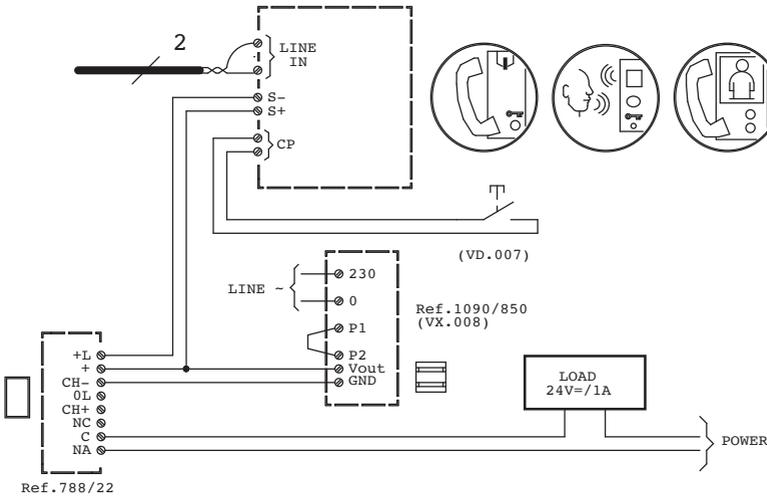
B) Manual command dedicated for each electric lock.



Example of call repeat with relay box Ref. 788/52.



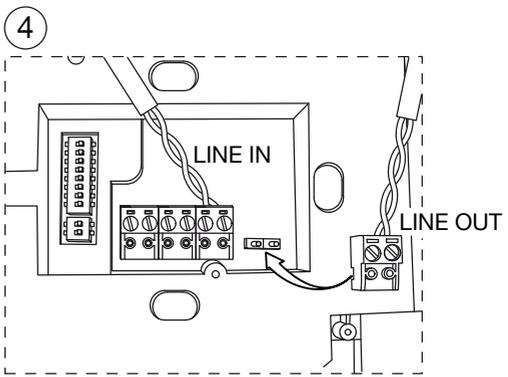
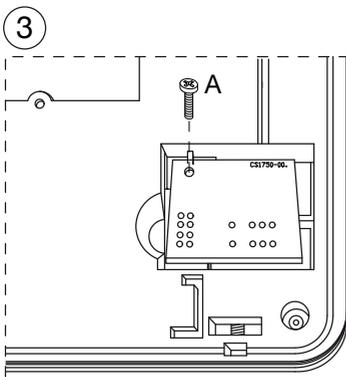
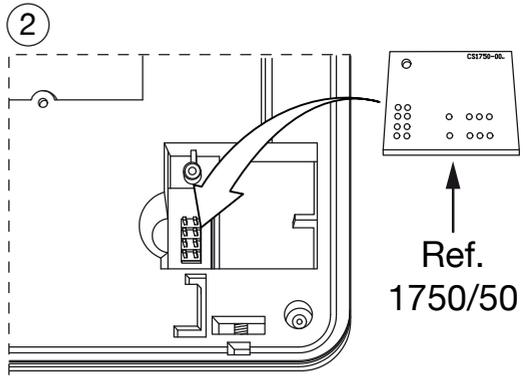
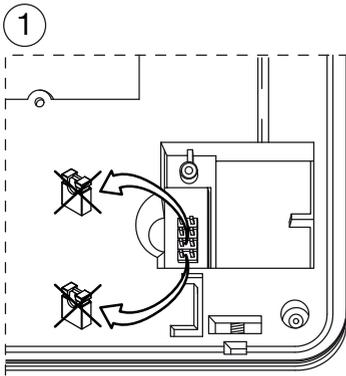
Example of call repeat with relay box Ref. 788/22.



WARNING

The line terminal on/off jumper (Z) is not present on some video door phones (e.g. 1750/1, 1750/5, 1750/6, 1750/15, 1750/16 e 1760/6).

Consequently, the in-out connection can only be implemented by adding the Ref. 1750/50 accessory, which must be installed in the device preceding the end-of-line device in the specific housing on the back of the video door phone.



DS1083-137

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