05/02 - PC

Part. T5843A/GB

Terraneo Telephone exchange PABX 18D

Installer instructions for use

335818

Basic functions

	Keys to press
Function	**Touch-tone telephone**
Call an extension	R + da 401 a 408
General internal call	R + 400
Call on outside telephone line	telephone number
Auto-dial on busy	R55
Short number phone book	R + 30 + short number from 01 to 50
Repeat the last outside telephone number called	R + 50
Answer a call (extension/outside/door entry)	lift the receiver
Put a conversation on hold (outside or door entry)	R
Put a conversation on hold and put through (outside or door entry)	R + from 401 to 408 and hang up
Continuing a conversation put on hold	R
Open door lock	R7, with Pivot
Switch on staircase light	R8, with Pivot
Self-switch on outdoor station	R61, with Pivot
Temporary unlock of locked prefixes	R + 97 + password + R
Activate “fast line” for data transmission	R + 91
Activating a relay	R + 99+1n (n=relay number from 0 to 8)
Deactivating a relay	R + 99+0 n (n=relay number from 0 to 8)
“Night” service	R + 312
Return to “day” service	R + 311
Audio room monitor	R + 920
Call capture with answering machine	R + extension No. where the answering machine is installed from 401 to 403

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1 INTRODUCTION

WARNINGS FOR THE INSTALLER

Before proceeding with the installation read this manual carefully, because the guarantee will be automatically cancelled as a result of negligence, incorrect operation, improper use or tampering with the circuit by unauthorised people.

- **Only specialised personnel should perform the installation and maintenance operations.**
- Use insulated screwdrivers and do not touch the terminals directly to avoid electro-static shocks.
- Do not install the exchange or telephones connected to it near water (e.g. laundries, swimming pools, damp surfaces) or heat sources (radiators, stoves, cookers).
- Do not install the exchange in places which are very dusty or where there are corrosive vapours.
- Room temperature from 0 to 40°C, relative humidity from 20% to 80%, not condensing.

When the installation is complete perform the following operations:

1. Perform all the tests described in section 9.7 “SYSTEM TYPE APPROVAL” carefully;

2. Check all the functions described in the “MAIN FUNCTIONS” chapter;

3. Perform the necessary programming described in the programming chapters, remembering to make a note of all the programming data in the summary table; also when the programming is finished, check correct operation of the exchange and all the telephones connected to it again.

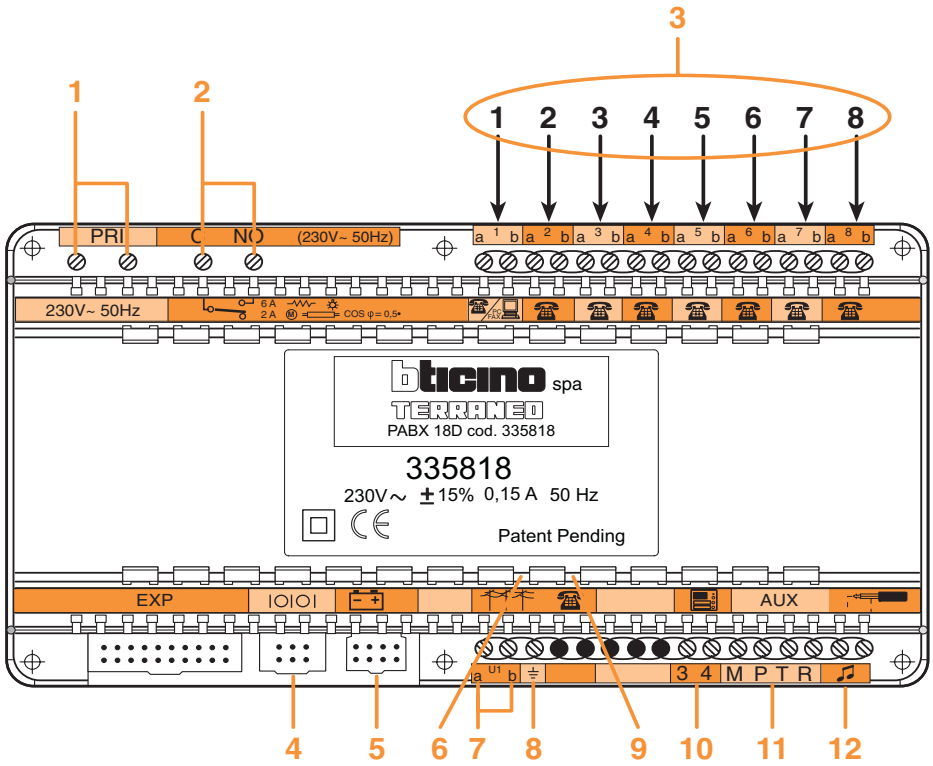
PACKAGE CONTENTS

The porter exchange package contains:

- PABX exchange item 335818
- user instruction manual
- installer instruction for use manual

1 INTRODUCTION

GENERAL VIEW



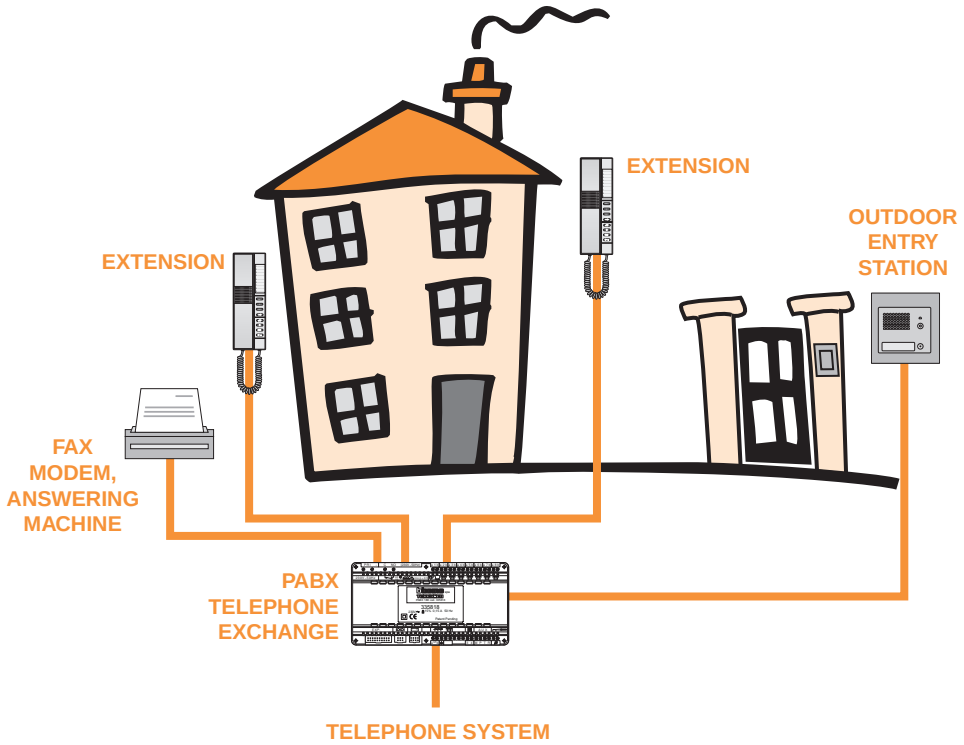
1 – 230V a.c. power supply
2 – Staircase light relay (actuation/remote operation)
3 – Extensions from 401 to 408. Connection 1 for telephones 401: emergency telephone line 1 and possibility of “fast line” programming for fax or modem.
4 – PC connector for exchange programming.
5 – Connector for back-up battery (function not available).
6 – Green led 230 V a.c. ON.
7 – Analog telephone line.
8 – Earth terminal to protect telephone lines inside the exchange.
9 – Red led to check correct operation.
10 – Speaker unit of the door entry system or riser interface, connection by interface of the 2-wire system or video distributor
11 – Relay for actuations and remote operations, connection for interface of the 2-wire system or video distributor
12 – Music while on hold from outside source.

1 INTRODUCTION

DESCRIPTION

The telephone exchange can make systems for communication in homes and offices combining the telephone services with the door entry services.
In the basic version it can manage **1 analog telephone line, 2 door entry calls** and **up to 8 telephones**.
Another telephone can be connected in parallel to each telephone.
Commands such as opening the door lock or switching on the staircase light can be activated by telephone.
Or by purchasing the relay expansion module **(item 335916)** extra devices can be operated, e.g. opening the driveway gate or other.
The Distributor and video Expander accessories can connect up to 8 video door entry telephones, (as an alternative to the 8 telephones which can be directly connected to the exchange), 3 outdoor video door entry stations and a surveillance camera, offering great simplification in making the system.

Because of its ease of use and flexible services the exchange is particularly suitable for use in homes, shops or offices. Its full compatibility with both pulse-dial telephones (such as dial telephones) and touch-tone telephones with keypad, is guaranteed.
The telephones can thus be of any type, including two-standard telephones (pulse-dial/touch-tone), cordless telephones and devices for the office (fax, answering machines and modem).
With pulse-dial telephones not all the exchange services and performance can be used.



2 MAIN FUNCTIONS

2.1 MAIN CONFIGURATION

The PABX telephone exchange is supplied with a “basic configuration”, corresponding to the following:

- as a base the programming, temporary unlock and remote activation password is: **1 2 3 4**;
- the exchange is set up for touch-tone telephone lines;
- the answering machine, modem or fax must be programmed;
- house-automation scenario 1 is active with the following settings:
- all the extensions are enabled to receive incoming calls on the outside telephone line;
- all the extensions are enabled for outgoing communications on the outside telephone line;
- all the extensions are enabled for the door entry services (call, door lock, staircase light, self-switching on);
- all the extensions are enabled to activate the actuation relays;
- house automation scenario 2 is for the night service.
- direct access to the outside telephone line is enabled.

2.2 PERSONALISING THE SERVICES

The installer can change the basic configuration dialling codes manually by means of touch-tone telephones or personal computer using the TIPBX software. A special password, which prevents programming by unauthorised persons, is saved permanently until the user changes it again.
Personalisation is not possible with pulse-dial telephones.

2.3 MUSIC WHILE ON HOLD

The exchange is already programmed with music while on hold containing the message “please hold the line”.
Any outside musical source can be used as an alternative to this (see section 2.7).

2.4 HOUSE-AUTOMATION SCENARIOS

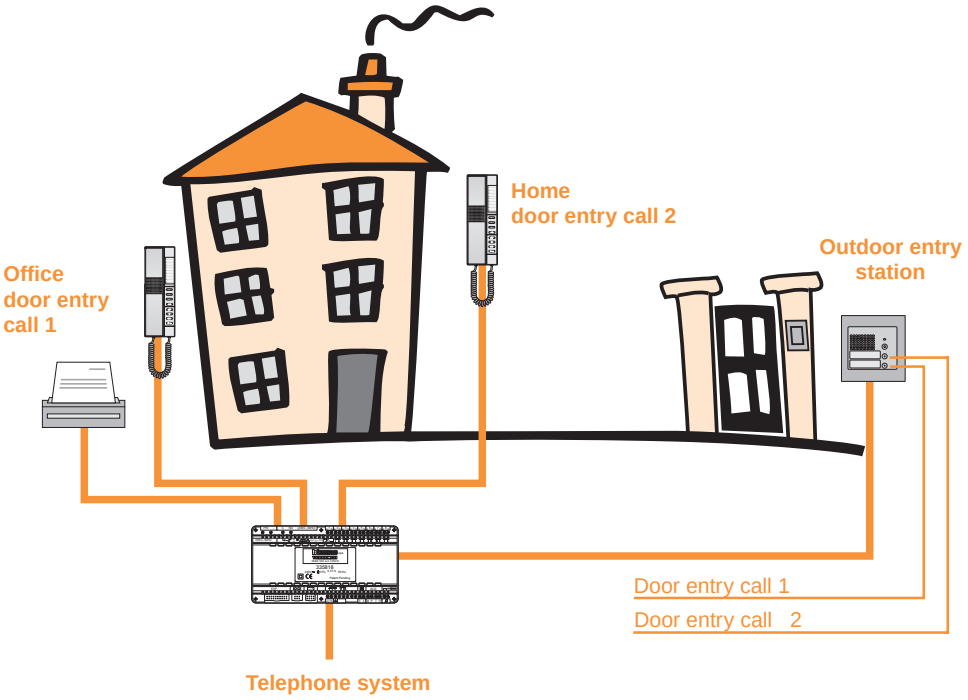
At certain times of the day it may be necessary to divert all the incoming calls to the office telephones to the home telephones, or not receive calls on some telephones, e.g. the telephones of the night area or study.
The exchange satisfies this requirement with the creation of **5 different house-automation scenarios**, or 5 different modes of operation which can be activated with a simple command.
The exchange is supplied with house-automation scenario 1 active and house-automation scenario 2 programmed in night service. To divert all the calls on extensions 401 and 402, just activate house-automation scenario 2 while to return to initial exchange conditions reactivate scenario 1. The other 3 basic house-automation scenarios are identical to scenario 1 and can be personalised to fulfil the most demanding requirements (see “Personalising house-automation scenarios” chapter).

2 MAIN FUNCTIONS

2.5 DOOR ENTRY CALLS

The telephone exchange can manage up to 2 separate door entry calls, which can be addressed separately on 2 telephone units.
If activated the DOSA service can put through a door entry call from an outdoor station to a telephone number, both landline and mobile. This service is also available even when you are not at home.

EXAMPLE OF A SYSTEM WITH TWO DOOR ENTRY CALLS



2 MAIN FUNCTIONS

2.6 EXTRA DOOR LOCKS

The relay inside the exchange can be used to command extra door locks or an automatic gate (if there is no switching on staircase light and after special programming) or a relay of accessory **item 335916**.

2.7 OUTSIDE MUSIC SOURCE

An outside music source with input voltage maximum 1 V p.p. can be connected to the ♫ terminals; disable the internal music source by programming.

2.8 COMMAND STAIRCASE LIGHT FROM OUTDOOR STATION PUSHBUTTON

The speaker unit staircase light key is, as base, associated with the exchange relay; this relay is thus activated both by the telephone ⊙≡ key (STAIRCASE LIGHT) or by the speaker unit staircase light key. Switching on from the outdoor station can however be disabled by programming (see the “Assigning a relay to the staircase light pushbutton of the outdoor station” section).

2.9 CALL REPEATER FOR EXTRA BELL

This function can command a relay when a telephone receives a call (from outside telephone line, door entry unit or extension).
The internal relay can be associated with the PABX (staircase light) by programming (see call repeater for extra bell function section) or the outside relays on the extra modules **item 335916** can be associated with an extension.
The “call repeater for extra bell” function is recommended to make the bell of a telephone in noisy rooms louder.

3 PROGRAMMING

Programming can be performed in two different ways:

- Manually typing codes on the keypads of the touch-tone telephones.

The programming is not possible with pulse-dial telephones.

- By means of a personal computer, using the dedicated software which can be downloaded free of charge from the www.bticino.it Internet site.

3.1 BASIC CONFIGURATION

When switching on for the first time, the exchange is programmed with the following basic configuration:

- Italian telephone network
- active touch-tone telephone line
- as a base the programming, remote activation and temporary unlock password is: **1 2 3 4**
- all the extensions are programmed as extension telephones: specific programming is required for the connection of FAX, answering machines or modem
- the door entry call signal lasts for 30 seconds
- the staircase light is switched on (with or R8) by means of the exchange relay in monostable mode for 2 seconds. The relay can be used for other services instead of switching on the staircase light by means of specific programming.

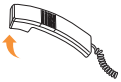
3.2 PROGRAMMING FUNCTIONS BY PERSONAL COMPUTER

All the functions can be programmed by Personal Computer; for this type of programming the exchange must be connected with a PC by means of interface **item 335919**. The interface is made up of a 1.5 m multi-cable with a connector to be put into the exchange IOIOI port and another connector to be put into the Personal Computer (COM1 – COM2).
Then use the “TIPBX” software which can be downloaded free of charge from the www.bticino.it Internet site in the technical software section.
For systems including the Video Distributor item 335918 th]*f* [oftware must be version **3.1** or later.
There is no need to enter the password when programming by computer. This allows reprogramming the exchange even if the password has been forgotten.

Warning: *When the programming is complete take the cable out of the exchange IOIOI port. Never leave the cable in the IOIOI port when switching the exchange on. If you do the red LED will flash.*

3 PROGRAMMING

3.3 ACCESS TO PROGRAMMING THROUGH EXTENSIONS

Lift the receiver 

Press ke R , you will hear the start-dialling tone.

Type: # * #

Dial the password (e.g. base 1 2 3 4)

- If the password is correct you will hear a start-dialling tone
- If the password is not correct you will hear a time-out tone. In this case hang up and repeat the procedure described above.

After the start-dialling tone proceed with the programming.

The programming can be performed from any extension.

3.4 REINITIALISATION COMMANDS (RESET)

To reset the factory values for some or whole groups of parameters use the following commands after performing the access programming procedure:

general reset:

* → 9 9 9 9 9 → * → #

wait for the confirmation tone.

Warning: The command modifies the Password returning it to the initial value **1 2 3 4** and cancels the short number table, the programmed locks tables and the carrier table.
For the other setting see the description of the basic configuration.
House-automatic scenario 1 is thus reset.

Telephone line parameters: reinitialisation of the telephone line parameters (length of R key or flash recognition time,…);

* → 1 9 9 9 9 → * → #

fax/modem: Cancelling Fax/Modem and answering machine programming.

* → 3 9 9 9 9 → * → #

3 PROGRAMMING

3.5 DIRECT ACCESS TO THE OUTSIDE TELEPHONE LINE

This command can activate or deactivate direct access to the outside telephone line of all the telephones enabled for outgoing calls.
With the “direct access to the outside telephone line” activated (basic configuration), connection to the telephone line occurs by just lifting the receiver of the enabled telephones.

If the mode is deactivated, lifting the receiver of the enabled telephones you will hear the internal dialling tone. To connect with the outside telephone line use codes **0** or **91**.

⚠ **Warning**: only with touch-tone telephones. The programming is valid for all the telephones.

Programming to deactivate direct access

1. lift the receiver
2. press the **R** key, wait for the start-dialling tone
3. dial **980**
4. dial the password (**4 numbers**) and wait for the dial tone
5. dial **10** to deactivate the service
6. confirm by pressing the **R** key
7. after receiving the confirmation tone hang up.

Programming to activate direct access

1. lift the receiver
2. dial **980**
3. dial the password (**4 numbers**) and wait for the dial tone
4. dial **11** to activate the service
5. composer le numéro **11** pour activer le service
6. confirm by pressing the **R** key
7. after receiving the confirmation tone hang up.

Note: the “**General reset 99999**” command resets the exchange with direct access to the telephone line **activated**.

4 SIMPLIFIED PROGRAMMING

The group of “Macrocommands” has been developed for simplified exchange programming. These commands also **reinitialise** the basic values of some parameters, as reported for each command.
Before entering the macrocommands the **programming access procedure** must be performed.
After the programming with macrocommands the exchange must be switched off and back on.

4.1 PROGRAMMING TYPE OF OUTSIDE TELEPHONE LINE

This **must** be performed when the two lines are pulse-dial or when only one of the two telephone lines is used.
The commands must be performed after the programming access procedures (see section 3.4).

				Type of line				
				Telephone line 1				
*	71	*	01	1	0	0	0	#
				0 No line 1 Touch-tone line 2 Pulse-dial line				

Example: activating the telephone line as pulse-dial

Lift the receiver

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

After the start-dialling tone type the Macrocommand:

* → 7 1 → * → 0 1 → 2 → 0 → 0 → 0 → #

After hearing the confirmation tone hang up

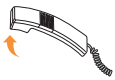
4 SIMPLIFIED PROGRAMMING

4.2 SETTING ANSWERING MACHINE AND MODEM/FAX

Devices such as answering machine, Fax or modem must be so programmed that the exchange can recognise them. Using the macrocommand the devices can only be positioned on the outlets indicated in the table.
Detailed programming is necessary to program the devices on other extensions (see personalisation of house-automation scenarios chapter).

			Type of device on 401	Type of device on 402
*	73	*	0	0
			Enter for each type of device **0 Telephone** **1 Answering machine** **2 Fax** **3 Modem** **4 Answering machine+Fax** **5 Modem Fax** **6 Answering machine+Modem Fax** **9 Does not change the previous programming**	

Example: telephone on extension 401 and fax on extension 402:

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

After the start-dialling tone type the Macrocommand:

* → 7 3 → * → 0 → 2 → #

After hearing the confirmation tone hang up

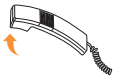
4 SIMPLIFIED PROGRAMMING

4.3 AUTOMATIC ANSWER

This macrocommand can activate the Fax or Modem tone remote activation and recognition services. The programming with this command is valid for all the house-automation scenarios.

			Telephone line 1				
*	74	*	0	0	0	0	#
			0 Not enabled 4 Remote operation 5 Recognition Fax or Modem tone 9 Does not change the previous programming				

Example: line 1 enabled for remote operation

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

After the start-dialling tone type the Macrocommand:

* → 7 4 → * → 4 → 0 → 0 → 0 → #

After hearing the confirmation tone hang up

4 SIMPLIFIED PROGRAMMING

4.4 PROGRAMMING THE RELAYS

This programming must be performed to define the mode of operation and/or the timing of the remotely operated relays.
The command must be performed after the programming access procedure.

			Relay number	Operation	
*	75	*	from 0 to 8	from 0 to 7	#
			0 exchange relay 1 relay 1 on module 1 2 relay 2 on module 1 3 relay 3 on module 1 4 relay 4 on module 1 5 relay 1 on module 2 6 relay 2 on module 2 7 relay 3 on module 2 8 relay 4 on module 2	0 remotely operated 2 seconds 1 remotely operated 3 minutes 2 remotely operated On/Off 3 not remotely operated 2 seconds 4 not remotely operated 3 minutes 5 not remotely operated On/Off 6 Staircase light 2 seconds 7 Staircase light 3 minutes	

After the sequence * 75 * several pairs of numbers (relay number and operation) can be entered to program several relays.

Note: the relay number = 0 identifies the internal relay in the exchange

Example: relay 0 remotely operated 2 seconds, relay 1 remotely operated On/Off

Lift the receiver

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

After the start-dialling tone type the Macrocommand:

* → 7 5 → * → 0 0 → 1 2 → #

After hearing the confirmation tone hang up

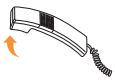
4 SIMPLIFIED PROGRAMMING

4.5 CALL REPEATER FUNCTION FOR EXTRA BELL

The table below gives the associations between relay and extension to be considered when installing an extra bell.

			Number of the relay with which an extension is associated		
*	75	*	from 0 to 8	8	#
			0 = exchange relay = 405 telefono 5 1 = relay 1 = 401 telephone 1 2 = relay 2 = 402 telephone 2 3 = relay 3 = 403 telephone 3 4 = relay 4 = 404 telephone 4 5 = relay 5 = 405 telephone 5 6 = relay 6 = 406 telephone 6 7 = relay 7 = 407 telephone 7 8 = relay 8 = 408 telephone 8		

Example: extra bell connected to relay 3 associated with extension 403:

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

After the start-dialling tone type the Macrocommand:

* → 7 5 → * → 3 → 8 → #

After hearing the confirmation tone hang up

4 SIMPLIFIED PROGRAMMING

4.6 DISABLING TELEPHONES FROM MAKING OUTGOING TELEPHONE CALLS

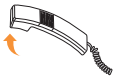
This personalisation defines which telephones can use the outside telephone line to make outgoing calls. In basic programming conditions **all** the extensions are **enabled** to use the outside line.

The personalisation procedure is the following:

* **Link with house-automation scenario X** (from 1 to 5) **which can be activated with command 31X (from 311 to 315)**
(see “Personalisation of house-automatic scenarios” chapter in the installer manual)

		*	Telephone number from 01 to 08			Line 1					
*	5	1	01	3	*	0	0	0	0	#	Disabling telephone **1**
*	5	1	01	3	*	1	0	0	0	#	Reenabling telephone **1**

Example: disabling telephone 8 from receiving incoming telephone calls.

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

After the start-dialling tone type the Macrocommand:

* → 5 → 1 → 0 8 → 3 → * → 0 → 0 → 0 → 0 → #

After hearing the confirmation tone (3 short tones) hang up.

4 SIMPLIFIED PROGRAMMING

4.7 DISABLING TELEPHONES FROM MAKING OUTGOING TELEPHONE CALLS

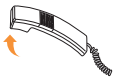
This personalisation defines which telephones can use the outside telephone line to make outgoing calls. In basic programming conditions **all** the extensions are **enabled** to use the outside line.

The personalisation procedure is the following:

* **Link with house-automation scenario X** (from 1 to 5) **which can be activated with command 31X (from 311 to 315)**
(see “Personalisation of house-automatic scenarios” chapter in the installer manual)

		*	Telephone number from 01 to 08			Line 1					
*	5	1	01	2	*	0	0	0	0	#	Disabling telephone **1**
*	5	1	01	2	*	1	0	0	0	#	Reenabling telephone **1**

Example: disabling telephone **04** from making outgoing telephone calls.

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

After the start-dialling tone type the Macrocommand:

* → 5 → 1 → 0 4 → 2 → * → 0 → 0 → 0 → 0 → #

After hearing the confirmation tone (3 short tones) hang up.

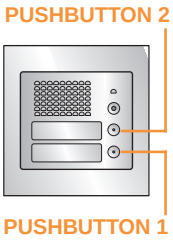
4 SIMPLIFIED PROGRAMMING

4.8 DISABLING TELEPHONES FROM RECEIVING DOOR ENTRY CALLS

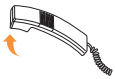
This personalisation defines which telephones can receive calls from the outdoor station.
In basic programming conditions all the telephones can receive door entry calls.
When there is an answering machine (modem or fax) it is useful to disable the receiving of door entry calls.
The personalisation procedure is the following:

* **Link with house-automation scenario X** (from 1 to 5) **which can be activated with command 31X (from 311 to 315)**
(see “Personalisation of house-automatic scenarios” chapter in the installer manual)

		*	Telephone number from 0 to 16					
*	5	1	01	0	*	1	#	Enabling to the call from only pushbutton **1**
*	5	1	01	0	*	2	#	Enabling to the call from only pushbutton **1**
*	5	1	01	0	*	3	#	Disabling telephone **1**
*	5	1	01	0	*	0	#	Reenabling telephone **1**



Example: disabling telephone 8 for video door entry calls

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

After the start-dialling tone type the Macrocommand:

* → 5 → 1 → 0 8 → 0 → * → 3 → #

After receiving the confirmation tone (3 quick tones) hang up.

4 SIMPLIFIED PROGRAMMING

4.9 DISABLING TELEPHONES FROM PERFORMING DOOR ENTRY SERVICES

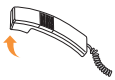
This personalisation defines which telephones can open the electric door lock, switch on the staircase lights or auto-switch on the outdoor station (door entry services).
In basic programming conditions all the telephones can perform the door entry services.

The personalisation procedure is the following:

Link with house-automation scenario X (from 1 to 5) **which can be activated with command 31X (from 311 to 315)**
(see “Personalisation of house-automatic scenarios” chapter in the installer manual)

		*		Telephone number from 0 to 16				
*	5	1	2	01	*	0	#	Disabling telephone **1**
*	5	1	2	01	*	1	#	Reenabling telephone **1**

Example: disabling telephone **04**

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

After the start-dialling tone type the Macrocommand:

* → 5 → 1 → 2 → 0 4 → * → 0 → #

After receiving the confirmation tone (3 quick tones) hang up.

5 PROGRAMMING THE TYPE APPLICATIONS

5.1 USING THE TYPE APPLICATIONS

This macrocommand can program the PABX exchange according to certain pre-set functions called “type applications”.

The type applications available are:

- Management of fax and modem
- Relay 1 programmed as remotely operative
- Answering machine management

To select the type application:

			Type applications	
*	76	*	xx	#

Where **XX** is the code to set to call the type application:

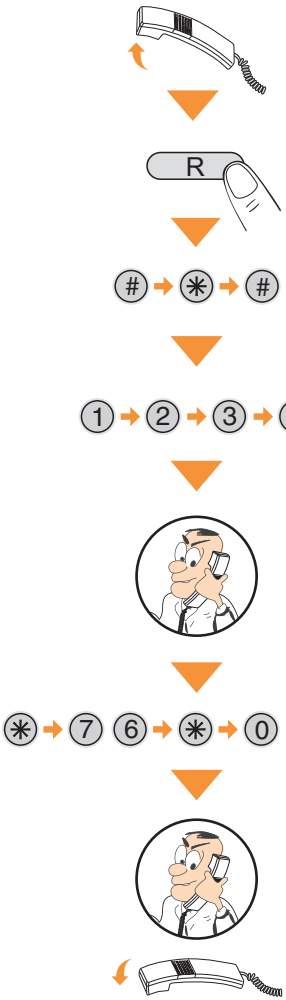
XX	Type applications
00	Management of fax and modem (example 1 sect. 5.2)
01	Relay 1 programmed as remotely operative from outside telephone line (example 2 sect. 5.2).
02	Answering machine management (example 3 sect. 5.2)

Note: after this programming there is no need to switch off the power to the exchange.

5 PROGRAMMING THE TYPE APPLICATIONS

5.1 USING THE TYPE APPLICATIONS

Example: programming the type application for a system with one division with answering machine setting corresponding to code 02 (example 3 of the following chapter).



Lift the receiver

Press the R key, you will hear the start-dialling tone

Type

Dial the password (base1234).

Wait for the start-dialling tone.

Type the command corresponding to the type application required.

After hearing the confirmation tone hang up (wait for about 40 seconds).

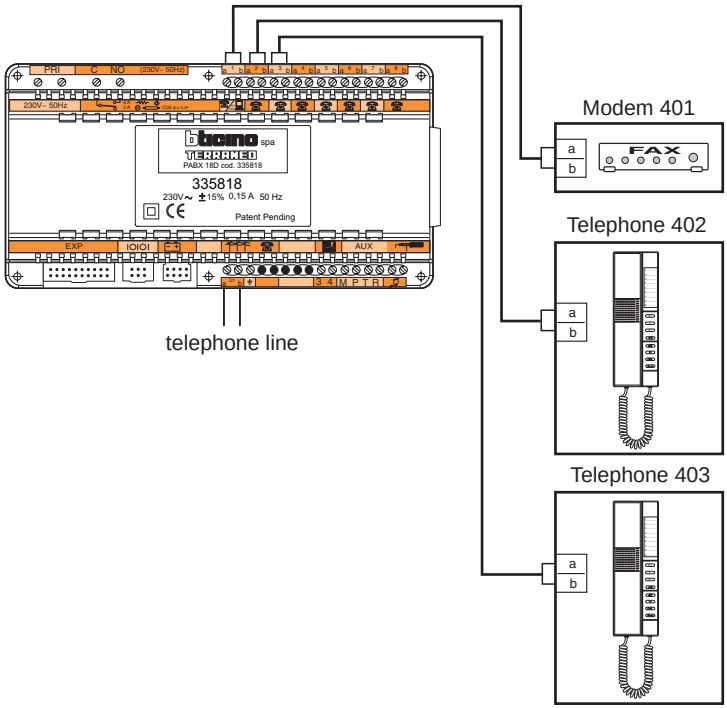
Note: after the following programming there is no need to switch off the power to the exchange.

5 PROGRAMMING THE TYPE APPLICATIONS

5.2 EXAMPLES OF TYPE APPLICATIONS

Example 1 – "Fax and Modem management" type applications

The exchange can automatically recognise the FAX or MODEM tones from the outside telephone line and send the call to the extensions programmed as FAX or MODEM.
Modem management is programmed on extension 1, for the incoming calls from outside telephone line 1.
The programming is valid for all the house-automation scenarios. To disable door entry calls on extension 1 refer to the "Disabling telephones for door entry calls" section, remembering that the command only acts on the house-automation scenario programmed.



to activate this type application use the command: ✱ 76 ✱ 00 #

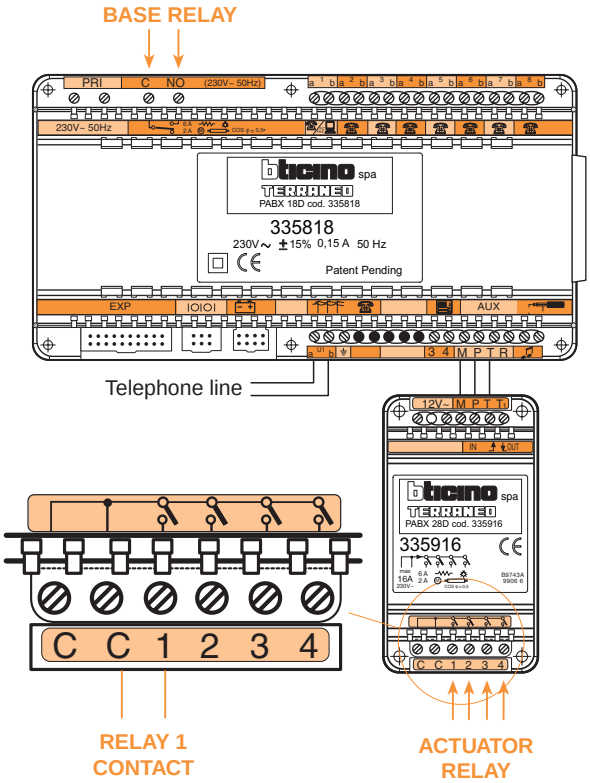
The automatic recognition of the Fax or Modem tone has been set on the telephone line:
(**✱ 74 ✱ 5999 #** macrocommand to activate the individual function).

A modem has been set on extension 401;
(**✱ 73 ✱ 39 #** macrocommand to activate the individual function).

5 PROGRAMMING THE TYPE APPLICATIONS

Example 2 – "Programming remote activation" type application

Remote activation is programmed for incoming calls from telephone line. Relay 1 is enabled for remote activation and programmed as monostable with activation 2 seconds. The programming is valid for all the house-automation scenarios.



to activate this type application use the command: ✶ 76 ✶ 01 #

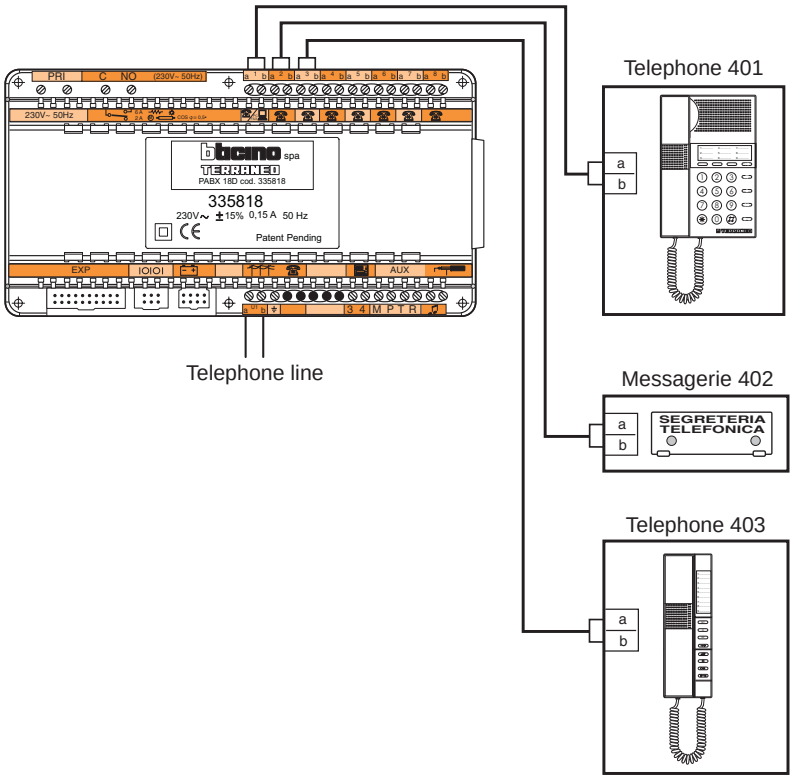
Remote activation has been set on telephone line.
(**✶ 74 ✶ 9499 #** macrocommand to activate the individual function).

Relay 1 has been programmed for remote activation;
(**✶ 75 ✶ 10 #** macrocommand to activate the individual function).

5 PROGRAMMING THE TYPE APPLICATIONS

Example 3 – "Answering machine" type applications

The answering machine is programmed on extension 2. The programming is valid for all the house-automation scenarios. To disable door entry calls on extension 1 refer to the "Disabling telephones for door entry calls" section, remembering that the command only acts on the house-automation scenario programmed.



to activate this type application use the command: ✱ 76 ✱ 02 #

An answering machine has been set on extension 402:
(**✱ 73 ✱ 91 #** macrocommand to activate the individual function).

6 ADVANCED PROGRAMMING

To set just one parameter without automatically reinitialising other values, as happens with macrocommands, perform the advanced programming described below.

All the commands described in this chapter can only be sent to the exchange after performing the programming access procedure described in section 3.3.

6.1 PROGRAMMING TELEPHONE LINE TYPE

This **must** be performed when the line is pulse-dial

Lift the receiver.

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

If the telephone line is **touch-tone**, type:

* → 2 0 0 0 2 → * → 1 0 0 0 → #

If the telephone line is **pulse-dial**, type:

* → 2 0 0 0 2 → * → 2 0 0 0 → #

After receiving the confirmation tone, hang up.

6 ADVANCED PROGRAMMING

6.2 CHARACTERISATION OF AN EXTENSION (TELEPHONE ANSWERING MACHINE, FAX OR MODEM)

Any extension can be characterised as fax, answering machine etc.

		Extension from 0 to 16			Answering machine 0 absent 1 present	Fax 0 absent 1 present	Modem 0 absent 1 present				
*	3	01	00	*	0	0	0	0	0	0	#

Example: to indicate that there is an answering machine on extension 1, dial:

6.3 PROGRAMMING RELAYS FOR STAIRCASE LIGHT FUNCTION

The relay inside the exchange is already set up as base as staircase light commanded by the button; any other relays (**item 335916**) can however be programmed as staircase light.

		Relay identification number		Staircase light function	Timing	
*	200	04	*	3	0	#
		04 = internal relay 0 22 = relay 1 25 = relay 2 28 = relay 3 31 = relay 4 34 = relay 5 37 = relay 6 40 = relay 7 43 = relay 8			0 = 2 seconds 1 = 10 seconds 3 = 30 seconds 4 = 1 minute 5 = 3 minutes 6 = 10 minutes 7 = 30 minutes 8 = 60 minutes	

Example: to enable relay 3 for the staircase light function with 2-second timing, dial:

To reset the initial condition for internal relay 0 dial sequence * **20004** * **30** #

6 ADVANCED PROGRAMMING

6.4 ASSIGNING A RELAY TO THE STAIRCASE LIGHT PUSHBUTTON OF THE OUTDOOR STATION

It is valid for all the house-automation scenarios.

		Relay identification number (see table at the side)				Disabling/Enabling the staircase light button of the outdoor station 0 = disabled 1 = enabled			
						Outdoor station 0	Outdoor station 1	Outdoor station 2	
*	200	XX	*	2	0	1	1	1	#

Relay number	XX
0	20
1	23
2	26
3	29
4	32
5	35
6	38
7	41
8	44

Example: to assign relay 0 and enable the staircase light button of outdoor station 0, dial:

6.5 PROGRAMMING THE CALL REPEATER FUNCTION FOR EXTRA BELL

This programming can associate a relay to an extension. This relay activates when the associated telephone receives a call (from outside telephone line, door entry unit and extension).

		Identification number of the relay to be associated			Identification number of the extension called	
*	200	XX	*	2	Z	#

where **XX** and **Z** have the following meaning:

XX	relay number
04	0 extension relay
22	relay 1
25	relay 2
28	relay 3
31	relay 4
34	relay 5
37	relay 6
40	relay 7
43	relay 8

Z	telephone number
0	416
1	401
2	402
3	403
4	404
5	405
6	406
7	407
8	408

Example: to associate relay 4 with extension 6 to operate the extra bell dial:

6 ADVANCED PROGRAMMING

6.6 PROGRAMMING REMOTELY OPERATED RELAYS AS MONOSTABLE ACTUATORS ONLY FROM EXTENSIONS

This programming can define the monostable operation and establish the timing of the relay inside the exchange and the relays on the extra expansion modules **item 335916**.
The programming on internal relay 0 excludes the "Switch staircase light on" door entry service and activates the possibility of controlling the internal relay in monostable mode with a command from the keypad.

To reset the "Switch staircase light on" function (with ⊙≡ or R8) on relay 0, dial the sequence:
✱ 20004 ✱ 30 #

		Relay identification number		Monostable actuator function for just local command	Timing	
✱	200	04	✱	0	0	#
		04 = internal relay 0 22 = relay 1 25 = relay 2 28 = relay 3 31 = relay 4 34 = relay 5 37 = relay 6 40 = relay 7 43 = relay 8			0 = 2 seconds 1 = 10 seconds 3 = 30 seconds 4 = 1 minute 5 = 3 minutes 6 = 10 minutes 7 = 30 minutes 8 = 60 minutes	

Example: to program relay 1 as monostable actuator with 30-second timing dial:

6.7 PROGRAMMING REMOTELY OPERATED RELAYS AS BISTABLE ACTUATORS ONLY FROM EXTENSIONS

This programming can define the bistable operation of the relay inside the exchange or, if installed, one of the relays on the extra expansion modules **item 335916**.
The programming on relay 0 excludes the "Switch staircase light on" door entry service and activates the possibility of controlling the relay in bistable mode with a command from the keypad.

		Relay identification number			
✱	200	04	✱	02	#
		04 = internal relay 0 22 = relay 1 25 = relay 2 28 = relay 3 31 = relay 4 34 = relay 5 37 = relay 6 40 = relay 7 43 = relay 8			

Example: to program relay 4 as bistable actuator dial:

Note: to check relay operation see section 5.1 of the user manual.

6 ADVANCED PROGRAMMING

6.8 PROGRAMMING REMOTELY OPERATED RELAYS AS MONOSTABLE ACTUATORS FROM EXTENSIONS AND TELEPHONE LINE

This programming can define the monostable operation and establish the timing even from outside telephone line of the relay inside the exchange and the relays on the extra expansion modules **item 335916**.
The programming on internal relay 0 excludes the "Switch staircase light on" door entry service and activates the possibility of controlling the internal relay in monostable mode with a command from the keypad.

To reset the "Switch staircase light on" function (wit ⊙≡ or R8) on relay 0, dial the sequence:
✱ 20004 ✱ 30 #

		Internal relay identification number		Monostable actuator function	Timing	
✱	200	04	✱	1	0	#
		04 = internal relay 0 22 = relay 1 25 = relay 2 28 = relay 3 31 = relay 4 34 = relay 5 37 = relay 6 40 = relay 7 43 = relay 8			0 = 2 seconds 1 = 10 seconds 3 = 30 seconds 4 = 1 minute 5 = 3 minutes 6 = 10 minutes 7 = 30 minutes 8 = 60 minutes	

Example: to program relay 1 as monostable actuator with 30-second timing dial:

6.9 PROGRAMMING REMOTELY OPERATED RELAYS AS BISTABLE ACTUATORS FROM EXTENSIONS AND TELEPHONE LINE

This programming can also define the bistable operation from the outside of the internal staircase light relay or, if installed, one of the relays on the extra expansion modules **item 335916**.
The programming on relay 0 excludes the "Switch staircase light on" door entry service and activates the possibility of controlling the internal relay in bistable mode with a command from the keypad.

		Internal relay identification number			
✱	200	04	✱	12	#
		04 = internal relay 0 22 = relay 1 25 = relay 2 28 = relay 3 31 = relay 4 34 = relay 5 37 = relay 6 40 = relay 7 43 = relay 8			

Example: to program relay 4 as bistable actuator dial:

Note: to check relay operation see section 5.1 of the user manual.

6 ADVANCED PROGRAMMING

6.10 LENGTH OF THE CALL SIGNAL FROM THE OUTDOOR STATION

To reduce the length of the call signal from 30 seconds to 6 seconds.

1. Lift the receiver
2. Perform the programming access procedure (sect. 3.3).
3. Dial the sequence: **✶ 20003 ✶ 0 #**
4. After receiving the confirmation tone, hang up.

To reset 30 seconds dial the sequence: **✶ 20003 ✶ 1 #.**

6.11 PROGRAMMING THE OUTSIDE MUSIC SOURCE

If an outside music source has been connected program as follows

1. Lift the receiver
2. Perform the programming access procedure (sect. 3.3).
3. Dial the sequence: **✶ 42002 ✶ 2 #**
4. After receiving the confirmation tone, hang up.

To return to the basic music source

1. Lift the receiver
2. Perform the programming access procedure (sect. 3.3).
3. Dial the sequence: **✶ 42002 ✶ 1 #**
4. After receiving the confirmation tone, hang up.

6.12 PROGRAMMING THE R (OR FLASH KEY) RECOGNITION TIMES

1. Lift the receiver
2. Perform the programming access procedure (sect. 3.3).
3. Dial the sequence: **✶ 10008 ✶ 0080 #**
4. After receiving the confirmation tone dial the sequence: **✶ 10001 ✶ 0065 #**
5. After receiving the confirmation tone, hang up.

To return to the basic conditions

1. Lift the receiver
2. Perform the programming access procedure (sect. 3.3).
3. Dial the sequence: **✶ 10001 ✶ 0015 #**
4. After receiving the confirmation tone dial the sequence: **✶ 10008 ✶ 0025 #**.
5. After receiving the confirmation tone, hang up.

⚠ **Warning:** Be very careful to respect the command entry sequence.

7 HOUSE-AUTOMATION SCENARIO PERSONALISATION

Just one operation can activate one of the five programmings for:

- incoming and outgoing calls (subdivision into bands for each telephone)
- remote activation
- recognition of the FAX and MODEM tone
- door entry services
- the Dosa service

These programmings are defined **house-automation scenarios**.
Each house-automation scenario can be activated by means of one of the following commands **311, 312, 313, 314 or 315**.
The exchange is supplied with house-automation scenario 1 (311) active and house-automation scenario 2 (312) programmed for the night service (all incoming calls switched to extensions 401 and 402); the other house-automation scenarios are the same as the first.
The installer can personalise the house-automation scenarios using the commands described below.
Make a note of the personalisations made in the "**summary tables**".

7.1 ENABLING TELEPHONES FOR INCOMING AND OUTGOING CALLS

This personalisation can be performed using the following command, after performing the programming access procedure (sect. 3.3).
As a base **all the telephones** connected to the exchange are **enabled** for incoming and outgoing calls.

		House automation scenario from 1 to 5	Telephone number from 01 to 08	Calls 2 outgoing 3 incoming		Line 1 0 disab. 1 enable				
*	5	1	01	3	*	0	0	0	0	#

Example 1 – Modification of house-automation scenario 2 (night service).
To switch all the incoming telephone calls to telephone **401**, modifying the programming of house-automation scenario **2**, (can be activated with command **312),** which provides as basis for switching to telephones **401** and **402**, dial:

Example 2 – Modification of house-automation scenario 3.
To disable telephone 408 in house-automation scenario 3 (**313**) for outgoing calls (the basic programming for scenario 3 has enabling for outgoing calls), dial:

7 HOUSE-AUTOMATION SCENARIO PERSONALISATION

7.2 PROGRAMMING REMOTE ACTIVATION AND RECOGNITION OF FAX/MODEM

These services can be activated on each telephone line. To use the service perform both the **programming** and the **activation**. The programming and activation commands must be sent to the exchange after performing the programming access procedure (sect. 3.3).

PROGRAMMING
The programming occurs with the following command:

		Link with scenario 311÷315 from 1 to 5					Remote activation 0 disabled 1 enabled		Recognition of FAX and MODEM 0 disabled 1 enabled				
*	5	1÷5	3	1	1	*	0 o 1	0	0 o 1	0	0	0	#

ACTIVATION
After performing the programming the services must be activated with the following command:

		Link with scenario 311÷315 from 1 to 5					Line 1 0 disabled 1 enabled						
*	5	3	3	0	0	*	0	0	0	0	0	0	#

Warning: The second command modifies the activations of the services on all the local lines; the enabling of the services already programmed on other local lines must thus be reconfirmed.

Example:
To program the enabling for remote activation in house-automation scenario **3**, associated with command **313**, dial:

To make the programming performed active dial:

7 HOUSE-AUTOMATION SCENARIO PERSONALISATION

7.3 PROGRAMMING WAIT RINGS

For remote activation the number of wait rings before answering can be set, to allow any answering machines to work if an answering machine has been programmed; the exchange can still supply the remote activation service.

		Link with scenario 311 – 315 from 1 to 5		Telephone line			N° of rings		
*	5	1÷5	3	1	2	*	1 ÷ 9	0	#

To complete the programming of the remote activation service at least one relay must be programmed for remote activation.

7.4 MANAGEMENT OF FAX AND MODEM

The exchange can automatically recognise the FAX or MODEM tones from the local line and send the call to the extensions programmed as FAX or MODEM. For the programming proceed as indicated in points A, B and C.
The commands which follow can be sent to the exchange **after** performing the **programming access procedure** (sect. 3.3).

A - Enabling for recognition of a FAX or MODEM tone (for house-automation scenario 1)

Lift the receiver

Perform the programming access procedure

Dial: ✳ 5 1 3 1 ✳ 0 0 1 0 0 0 #

Wait for the confirmation tone

Dial: ✳ 5 1 3 0 0 ✳ 1 0 0 0 0 0 #

After receiving the confirmation tone, hang up.

7 HOUSE-AUTOMATION SCENARIO PERSONALISATION

B - Programming FAX or MODEM

To program the extension number where there will be a FAX or MODEM proceed as follows:

Modem on number 401

Lift the receiver

Perform the programming access procedure

Dial: ✳ 3 0 1 0 0 ✳ 0 0 1 0 0 0 #

FAX on number 402

Lift the receiver

Perform the programming access procedure

Dial: ✳ 3 0 2 0 0 ✳ 0 1 0 0 0 0 #

Note: Other extensions can have fax or modem. See the “Advanced programming” chapter “Characterisation of an extension” section.

C - Disabling FAX or MODEM for door entry calls (for house-automation scenario 1)

Lift the receiver

Perform the programming access procedure

Dial: ✳ 5 1 0 1 0 ✳ 3 #

Wait for the confirmation tone

Dial: ✳ 5 1 0 2 0 ✳ 3 #

7 HOUSE-AUTOMATION SCENARIO PERSONALISATION

7.5 TRANSFERRING THE DOOR ENTRY CALL TO OUTSIDE TELEPHONE LINE (DOSA SERVICE)

When the service is active, when there is a door entry call, the exchange rings the extensions enabled and automatically dials a telephone number, landline or mobile, which the user has previously saved in the short number phone book, transferring the call to the outside.
The telephone number must be saved in memory location:

- **50** of the short number phone book (see user manual sect. 6.11).

On answering the user will hear a confirmation tone which tells him that the call is from the exchange. Then, to start the conversation and exclude the extensions, he must type a number between 0 and 9. After 45 seconds of conversation the exchange sends a sound to warn the user that the conversation is about to finish. If the user types a number between 0 and 9 the conversation can continue, if not, it will end after 50 seconds.

The conversation time can be longer in the following cases:

- Systems with dedicated speaker unit item 335902 connected directly to the telephone exchange;
- Systems with video distributor item 335918, dedicated outdoor stations item 335902 and 335910 and extra cameras;
- Systems with video distributor connected to the analog riser with just one outdoor station.

It is not possible in the following cases:

- Analog or digital systems with door entry interface item 335910;
- Systems with video distributor item 335918 connected to the digital riser;
- Systems with video distributor item 335918 connected to the analog riser with camera switcher item 391467

To finish the conversation early press * or #.

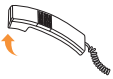
7 HOUSE-AUTOMATION SCENARIO PERSONALISATION

Programming the Dosa service

Typing the following command programs the Dosa service, after performing the programming access procedure:

			House automation scenario from 1 to 5	Outdoor station on which the Dosa service will be activated	
*	83	*	1	00	#
			1 = scenario 1 **2** = scenario 2 **3** = scenario 3 **4** = scenario 4 **5** = scenario 5	00 = deactivated on door entry call 1 and 2 01 = activated on door entry call 2 10 = activated on door entry call 1 11 = activated on door entry call 1 and 2	

Programming example

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: (#) (✳) (#)

Dial the password (e.g. base (1) (2) (3) (4))

If the password is correct you will hear a start-dialling tone

To activate the Dosa service in house-automation scenario 5 on door entry call 1, dial:

(✳) → (8) (3) → (✳) → (5) → (1) → (0) → (#)

After receiving the confirmation tone (3 quick tones) hang up.

Once programmed the service will be activated with telephone command **315** for house-automation scenario 5.

Note: in the basic exchange configuration, this service is **deactivated** on all the house-automation scenarios.

8 CALL LOCK MANAGEMENT

This programming can define for each telephone which telephone prefixes cannot be called.
The locked telephones must be programmed individually.
In basic programming conditions all prefixes are unlocked.

There are two types of lock:

1. Lock prefix **00**

2. Lock programmed prefixes

The locks are valid for all the programmed telephone carriers as described below.

The type of lock activated can be defined for each telephone.

Warning: *lock 1 excludes lock 2*

To be able to make a telephone call to a number which begins with a locked prefix the prefixes must be temporarily unlocked (see “Temporary unlock” section in the “User Instruction” manual).
The emergency numbers (112 carabinieri, 113 emergency, etc.) are not locked and can thus be called even if the active prefixes are locked.

8.1 LOCK PREFIX 00

The procedure to lock prefix **00** is the following:

1. Lift the receiver.
2. Press the R key
3. Dial the sequence **961 XXXX** (where **XXXX** corresponds to the programming password) **01** (Extension number from 01 to 08) **R** to lock prefix **00** on telephone 1.

The procedure to unlock prefix **00** on telephone 1 is the following:

1. Dial the sequence **960 XXXX** (where **XXXX** corresponds to the programming password) **01** (Extension number from 01 to 08) **R**.

2. After receiving the confirmation tone, hang up.

To individually lock the telephone carriers for international calls do not use this lock (prefix 00) but the programmed carriers lock; see section below and examples.

8.2 LOCK PROGRAMMED PREFIXES

The “lock programmed prefixes” operation locks a series of prefixes which has previously been defined and entered in the exchange.
The **lock programmed prefixes** procedure is the following:

1. Lift the receiver.
2. Press the R key
3. Dial the sequence **951 XXXX** (where **XXXX** corresponds to the programming password) **01** (Extension number from 01 to 08) **R** to lock programmed prefixes **00** on telephone 1.

The procedure to unlock the **programmed prefixes** on telephone 1 is the following:

1. Dial the sequence **950 XXXX** (where **XXXX** corresponds to the programming password) **01** (Extension number from 01 to 08) **R** to unlock the programmed prefixes on telephone 1.

2. After receiving the confirmation tone, hang up.

8 CALL LOCK MANAGEMENT

8.3 ENTERING PREFIXES TO BE LOCKED

1. Fill in the table of the prefixes to be locked.

nn	Prefix to be locked max. 4 numbers
01	
02	
03	
04	
05	
06	
07	
08	

2. Lift the receiver.

3. Press the R key

4. Dial the sequence **370 XXXX** (where **XXXX** are the four numbers of the programming password).

5. Wait for the dial tone.

6. Dial the sequence **nn** (from 01 to 08) **YYYY** (YYYY prefix to lock maximum 4 numbers) **R**.

7. Wait for the confirmation tone and then enter other prefixes (maximum 8) repeating operation 5.

8. Hang up.

If a mistake is made when entering the prefix hang up and repeat all the operations starting from 2.
To cancel a prefix to be locked, proceed as above and in point 5 dial the sequence **nn** (from 01 to 08) **R**.

Warning: if you want the “programmed prefix lock” and the “international call lock” simultaneously, enter prefix **00** in the “prefixes to lock” table and do not use the “lock prefix **00**” function.

8 CALL LOCK MANAGEMENT

8.4 ENTERING PREFIXES TO BE UNLOCKED FOR TELECOM

If, after performing the lock with the operation described above, you want to unlock one or more prefixes (e.g.: having locked 0 you want to be able to make local and not long-distance calls) proceed as follows:

1. Fill in the table of the prefixes to be unlocked for Telecom carrier:

nn	Prefix to be unlocked max. 4 numbers
01	
02	
03	
04	
05	
06	
07	
08	

2. Lift the receiver.

3. Press the R key

4. Dial the sequence **371 XXXX** (where **XXXX** are the four numbers of the programming password).

5. Wait for the dial tone.

6. Dial the sequence **nn** (from 01 to 08) **YYYY** (YYYY prefix to unlock) **R**.

7. Wait for the confirmation tone and then enter other prefixes (maximum 8) repeating operation 5.

8. Hang up.

If a mistake is made when entering the prefix hang up and repeat all the operations starting from 2.

To cancel a prefix to be unlocked, proceed as above and in point 5 dial the sequence **nn** (from 01 to 08) **R**.

Note: If prefix “1” is locked you can still make emergency calls to the police, fire brigade, etc.. (112, 113, 115, 116, 117, 118 and 19696)

8 CALL LOCK MANAGEMENT

8.5 ENTERING PREFIXES OF OTHER CARRIERS

If you want the exchange to recognise other carriers (max 5) proceed as follows:

1. Fill in the table of enabled carriers.

nn	Carrier	Prefix YYYYYY
01		
02		
03		
04		
05		

2. Lift the receiver.

3. Press the R key

4. Dial the sequence **380 XXXX** (where **XXXX** are the four numbers of the programming password).

5. Wait for the dial tone.

6. Dial the sequence **nn** (from 01 to 05) **YYYYYY** (carrier prefix from 4 to 6 numbers) **R**.

7. Wait for the confirmation tone and then enter other carrier prefixes (maximum 5) repeating operation 5.

8. Hang up.

If a mistake is made when entering the carrier prefix hang up and repeat all the operations starting from 2.

To cancel a carrier prefix, proceed as above and in point 5 dial the sequence **nn** (from 01 to 05) **R**.

8 CALL LOCK MANAGEMENT

8.6 PREFIXES TO BE UNLOCKED FOR OTHER CARRIERS

Each carrier has an unlock table which defines which telephone prefixes (maximum 3) should be unlocked only for that carrier.

Carrier 01 table	
nn	**Prefix to be unlocked max. 4 numbers**
01	
02	
03	

Carrier 02 table	
01	
02	
03	

Carrier 03 table	
01	
02	
03	

Carrier 04 table	
01	
02	
03	

Carrier 05 table	
01	
02	
03	

1. Fill in the table of the carriers with prefixes to be unlocked:
2. Soulever le combiné
3. Press the (R) key
4. Dial the sequence **381 XXXX** (where **XXXX** are the four numbers of the programming password) to unlock the prefixes of the table for carrier 01.
5. Wait for the dial tone.
6. Dial the sequence **nn** (from 01 to 03) **YYYY** (prefix to unlock) **R**.
7. Wait for the confirmation tone and then enter other prefixes to be unlocked (maximum 3) repeating operation 5.
8. Hang up.

Proceed in the same way to unlock the prefixes for other carriers dialling the sequences:

382 XXXX for carrier **02**

383 XXXX for carrier **03**

384 XXXX for carrier **04**

385 XXXX for carrier **05**

If for one or more carriers you want to unlock the prefixes already defined in the Telecom carrier table, in point 4 dial the sequence **01 # R**; any other prefixes are ignored.

To cancel a prefix to be unlocked associated with a carrier, proceed as above and in point 5 dial the sequence **nn** (from 01 to 03) **R**.

8 CALL LOCK MANAGEMENT

8.7 EXAMPLE OF ACTIVATION OF LOCKS ON OUTGOING DIALLING

The following operations should be performed to activate locks on outgoing dialling:

1. Define which telephone prefixes should be locked and make a note of them in the table
2. Define which are the Telecom telephone prefixes to be unlocked and make a note of them in the table. As an example, if the 0 is locked, but you want to make calls in your local area, unlock its telephone prefix (02 for Milan, 06 for Rome, etc.)
3. Define the other carriers (as well as Telecom) and make a note of them in the table
4. Define the telephone prefixes to be unlocked for each carrier and make a note of them in the table

EXAMPLE 1

Lock long-distance calls with just one carrier (Telecom)

A. Fill in the table of prefixes to be locked (0 for all Telecom local and long-distance calls)

nn	Prefix to be locked max. 4 numbers
01	0

A.1 Lift the receiver

A.2 Press the (R) key

A.3 Dial the sequence:

	Password (ex. 1234)	From the table of prefixes to be locked		
		nn	prefix	
3 7 0	1 2 3 4	0 1	0	R

A.4 After receiving the confirmation tone, hang up

B. Fill in the table of prefixes to be unlocked (unlock the local area prefix to make just local calls. As an example for Milan 02, for Rome 06 etc.).

nn	Prefix to be unlocked max 4 numbers
01	02 (for Milan)

B.1 Lift the receiver

B.2 Press the (R) key

B.3 Dial the sequence:

	Password (e.g. 1234)	From the table of prefixes to be unlocked		
		nn	prefix	
3 7 1	1 2 3 4	0 1	0 2	R

B.4 After receiving the confirmation tone, hang up

8 CALL LOCK MANAGEMENT

EXAMPLE 2
Lock long-distance calls via Telecom and enable other carriers for long-distance and international calls
In the example long-distance calls via Telecom are locked, the first carrier (01) is enabled for long-distance calls and the second carrier (02) for international calls.

A. Fill in the table of prefixes to be locked (0 and 00 for all local and long-distance calls)

nn	Prefix to be locked
01	0
02	00

A.1 Lift the receiver
A.2 Press the (R) key
A.3 Dial the sequence:

	Password (ex. 1234)	From the table of prefixes to be locked		
		nn	prefix	
3 7 0	1 2 3 4	0 1	0	R

A.4 After receiving the confirmation tone, hang up
A.5 Lift the receiver
A.6 Press the (R) key
A.7 Dial the sequence:

	Password (ex. 1234)	From the table of the prefixes to be locked		
		nn	prefix	
3 7 0	1 2 3 4	0 2	0 0	R

A.8 After receiving the confirmation tone, hang up

Go to point **B**.

8 CALL LOCK MANAGEMENT

B. Fill in the table of prefixes to be unlocked (unlock the local area prefix to make just local calls. As an example for Milan 02, for Rome 06 etc.).

nn	Prefix to be unlocked
01	02 (for Milan)

B.1 Lift the receiver

B.2 Press the (R) key

B.3 Dial the sequence:

	Password (e.g. 1234)	From the table of prefixes to be unlocked		
		nn	prefix	
3 7 1	1 2 3 4	0 1	0 2	R

B.4 After receiving the confirmation tone, hang up

C. Fill in the table of enabled carriers (define the carriers for long-distance calls)

nn	Carrier	Prefix
01	.....	YYYY
02	.....	ZZZZ

C.1 Lift the receiver

C.2 Press the (R) key

C.3 Dial the sequence:

	Password (ex. 1234)	From the table of enabled carriers		
		nn	prefix	
3 8 0	1 2 3 4	0 1	Y Y Y Y	R

C.4 After receiving the confirmation tone, hang up

C.5 Lift the receiver

C.6 Press the (R) key

C.7 Dial the sequence:

	Password (ex. 1234)	From the table of enabled carriers		
		nn	prefix	
3 8 0	1 2 3 4	0 2	Z Z Z Z	R

C.8 After receiving the confirmation tone, hang up

Go to point **D**

8 CALL LOCK MANAGEMENT

D. Fill in the table of prefixes to be unlocked for each carrier (in the example the first carrier 01 is enabled for long-distance calls and the second carrier 02 just for international calls).

Carrier 01 table	
nn	**Prefix to be unlocked max. 4 numbers**
01	**0**
02	
03	

Carrier 02 table	
nn	**Prefix to be unlocked max. 4 numbers**
01	**00**
02	

D.1 Lift the receiver

D.2 Press the (R) key

D.3 Dial the sequence:

	Password (ex. 1234)	From the table of the prefixes to be unlocked for carrier 1		
		nn	**prefix**	
3 8 1	1 2 3 4	0 1	0	R

D.4 After receiving the confirmation tone, hang up

Note: In this way carrier 01 is enabled for all calls with numbers which begin with 0, but international calls (numbers which begin with 00) are locked (because they are in the table of prefixes to be locked).

D.5 Lift the receiver

D.6 Press the (R) key

D.7 Dial the sequence:

	Password (ex. 1234)	From the table of the prefixes to be unlocked for carrier 2		
		nn	**prefix**	
3 8 2	1 2 3 4	0 1	0 0	R

D.8 After receiving the confirmation tone, hang up

Note: In this way carrier 02 is enabled for all calls with numbers which begin with 00 (international), but the other numbers which begin with 0 are locked (because they are in the table of prefixes to be locked).

8 CALL LOCK MANAGEMENT

EXAMPLE 3
Lock long-distance calls via Telecom and enable other carriers for long-distance, international and satellite calls

In the example long-distance calls via Telecom are locked, the first carrier (01) is enabled for long-distance and international calls and the second carrier (02) for satellite calls.

A. Fill in the table of prefixes to be locked (0 for all local and long-distance calls, 0088 for all satellite calls).

nn	Prefix to be locked max 4 numbers
01	0
02	0088

A.1 Lift the receiver

A.2 Press the (R) key

A.3 Dial the sequence:

	Password (ex. 1234)	From the table of prefixes to be locked		
		nn	prefix	
3 7 0	1 2 3 4	0 1	0	R

A.4 After receiving the confirmation tone, hang up

A.5 Lift the receiver

A.6 Press the (R) key

A.7 Dial the sequence:

	Password (ex. 1234)	From the table of prefixes to be unlocked for carrier 2		
		nn	prefix	
3 7 0	1 2 3 4	0 1	0 0 8 8	R

A.8 After receiving the confirmation tone, hang up

Go to point **B**.

8 CALL LOCK MANAGEMENT

B. Fill in the table of prefixes to be locked (unlock the local area prefix to make just local calls. As an example for Milan 02, for Rome 06 etc.).

nn	Prefix to be unlocked max 4 numbers
01	02 (for Milan)

B.1 Lift the receiver

B.2 Press the (R) key

B.3 Dial the sequence:

	Password (e.g. 1234)	From the table of prefixes to be unlocked		
		nn	prefix	
3 7 1	1 2 3 4	0 1	0 2	R

B.4 After receiving the confirmation tone, hang up

Go to point **C**

8 CALL LOCK MANAGEMENT

C. Remplir le tableau des gérants autorisés (il faut définir quels sont les gérants pour les communications interurbaines, internationales et via satellite).

nn	Gérant	Indicatif
01	.....	YYYY
02	.....	ZZZZ

C.1 Lift the receiver

C.2 Press the (R) key

C.3 Dial the sequence:

	Password (ex. 1234)	From the table of enabled carriers		
		nn	prefix	
3 8 0	1 2 3 4	0 1	Y Y Y Y	R

C.4 After receiving the confirmation tone, hang up

C.5 Lift the receiver

C.6 Press the (R) key

C.7 Dial the sequence:

	Password (ex. 1234)	From the table of enabled carriers		
		nn	prefix	
3 8 0	1 2 3 4	0 2	Z Z Z Z	R

C.8 After receiving the confirmation tone, hang up

Go to point **D**

8 CALL LOCK MANAGEMENT

D. Fill in the table of prefixes to be unlocked for each carrier (in the example the first carrier is enabled for all the long-distance and international calls and the second carrier just for satellite calls).

carrier 01 table	
nn	**Prefix to be unlocked max 4 numbers**
01	**0**
02	
03	

carrier 02 table	
nn	**Prefix to be unlocked max 4 numbers**
01	**0088**
02	
03	

D.1 Lift the receiver

D.2 Press the (R) key

D.3 Dial the sequence:

	Password (ex. 1234)	From the table of the prefixes to be unlocked for carrier 1		
		nn	**prefix**	
3 8 1	1 2 3 4	0 1	0	R

D.4 After receiving the confirmation tone, hang up

Note: In this way carrier 01 is enabled for all calls with numbers which begin with 0, including international calls (numbers which begin with 00) unlike example 2 (because 00 is not in the table of prefixes to be locked). For this carrier satellite calls remain locked (because 0088 is in the table of prefixes to be locked).

D.5 Lift the receiver

D.6 Press the (R) key

D.7 Dial the sequence:

	Password (ex. 1234)	From the table of prefixes to be unlocked for carrier 2		
		nn	**prefix**	
3 7 0	1 2 3 4	0 1	0 0 8 8	R

D.8 After receiving the confirmation tone, hang up

Note: In this way carrier 02 is enabled only for satellite calls.

9 INSTALLATION

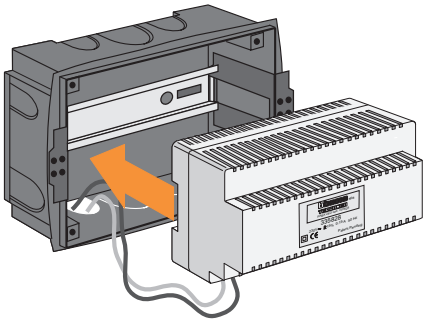
9.1 CABLES AND CONNECTIONS

- Use cables which comply with CEI Standards.
- Cables for the connection of telephones and speaker units **item 335902**; use twisted rigid one-pair telephone cables, with conductor 0.28 mm^2.
- Connection cable for the Outdoor door entry or video door entry station: depending on the type of door entry or video door entry system to be connected.
- Maximum distance between exchange and telephone 200 metres.
- Maximum distance between exchange and outdoor station 200 metres (with speaker unit **item 335902**)..

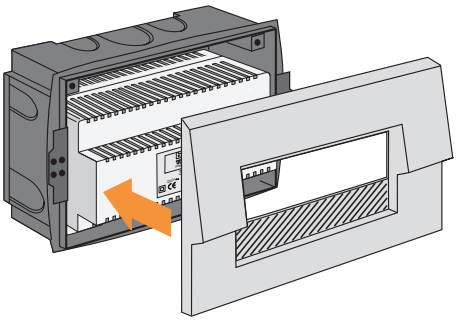
9.2 INSTALLING PABX EXCHANGE

After arranging the cables connect the devices as indicated in the diagrams.

Install the PABX inside the cabinet with DIN rail



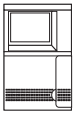
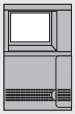
Install the cabinet closing cover

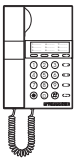
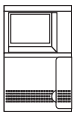
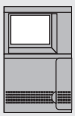


9 INSTALLATION

9.3 COMPOSITION OF THE TELEPHONES + VIDEO SECTION (VIDEO DOOR ENTRY TELEPHONES)

The telephone + video section (video door entry telephone) can be made up depending on the type of telephone (compact or standard) and its colour (white or grey).
For a correct combination consult the tables below.

COLOUR	COMPACT TELEPHONES	VIDEO SECTION
WHITE	Art. 335022	Art. 335102 
GREY	Art. 335023	Art. 335103 

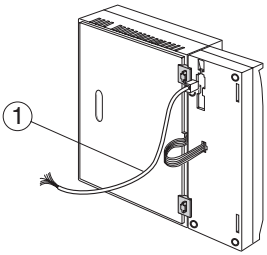
COLOUR	STANDARD TELEPHONES	VIDEO SECTION
WHITE	Art. 335032 	Art. 335102 
GREY	Art. 335033	Art. 335103 

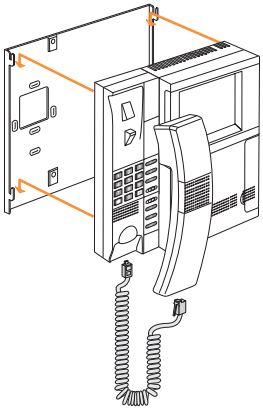
9 INSTALLATION

9.4 INSTALLING THE TELEPHONE + WALL-MOUNTED VIDEO SECTION

To install the telephones + wall-mounted video section (video door entry telephones) connect the braided cable (1) which comes with the Pivot telephone following the correspondence of the conductors as indicated in the table below.

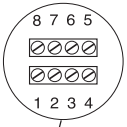
BRAIDED CABLE		FUNCTION
CABLE N.	COLOUR	
1	YELLOW	GND
2	GREEN	+V
3	BLUE	TEL. LINE
4	WHITE	TEL LINE
5	BROWN	BELL
6	RED	ON
7	BLACK	VID -
8	GREY	VID +



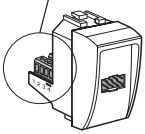


9.5 INSTALLING THE TELEPHONE + TABLE-MOUNTED VIDEO SECTION

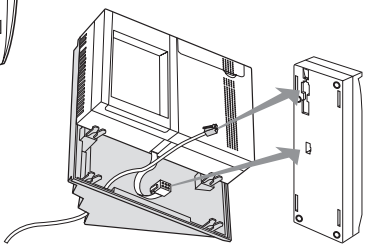
To install the telephones + table-mounted video section (video door entry telephones) connect the conductors to the terminals of the 8-way socket as indicated in the table below.

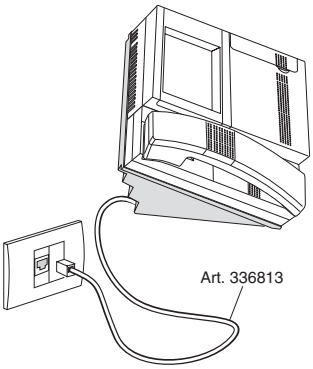


item.336982
336983
336984



SOCKET TERMINAL	FUNCTION
1	GND
2	+V
3	TEL. LINE
4	TEL. LINE
5	BELL
6	ON
7	VID -
8	VID +



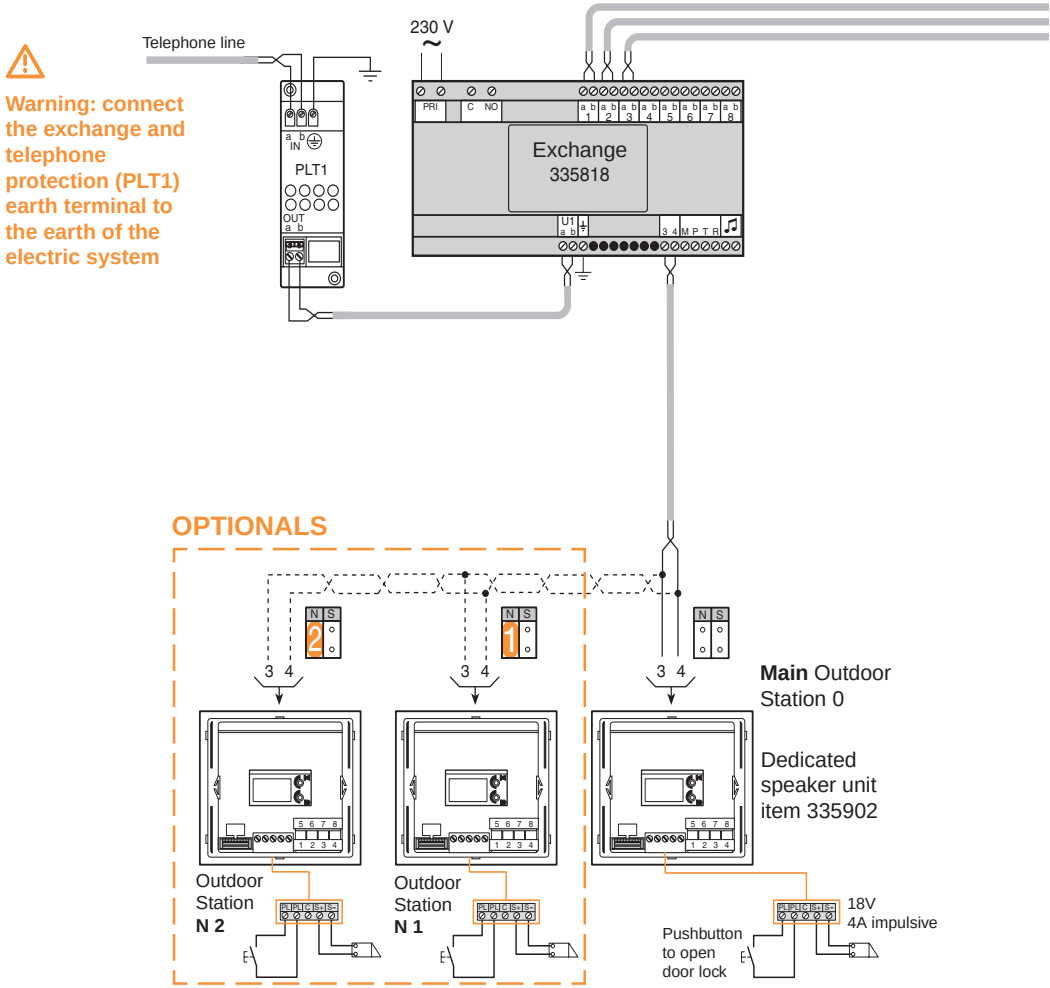


9 INSTALLATION

9.6 CONNECTION DIAGRAMS

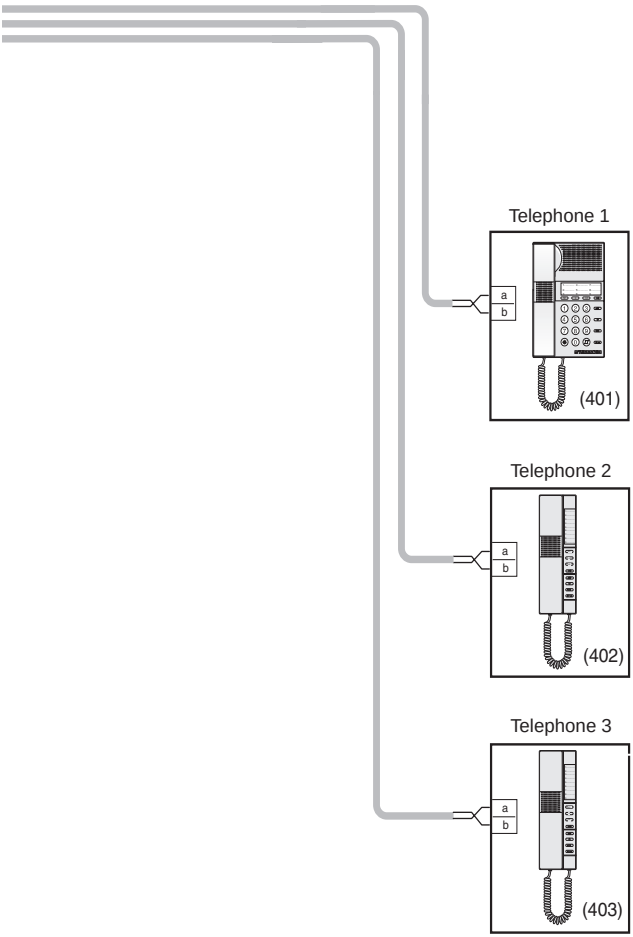
Audio system with one door entry call with dedicated speaker unit

Up to **3 outdoor stations** can be connected without mixer. The system automatically switches to the outdoor station from which the call was made.
If, while a door entry conversation is taking place, a call is made from one of the two temporarily excluded speaker units, you will hear a telephone busy tone. One of the three outdoor stations can be fitted with a nameplate for address or other information.
The speaker units of outdoor stations 1 and 2 must be configured.
At rest the open door lock command acts on the main outdoor station.



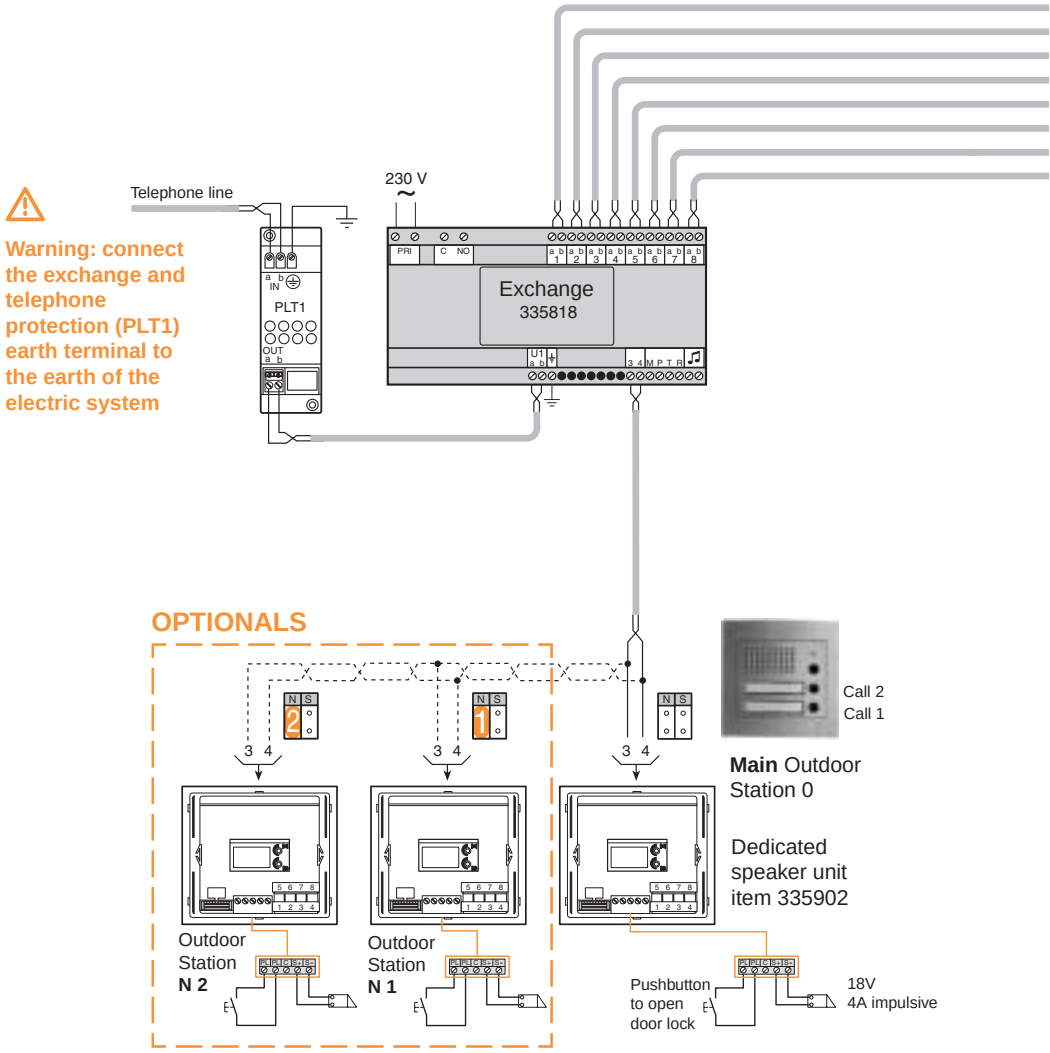
9 INSTALLATION

Maximum distance between	furthest away outdoor station —> PABX	PABX———> telephone
	200 m	200 m
type of cable	telephone pair 0.28 mm^2	telephone pair 0.28 mm^2



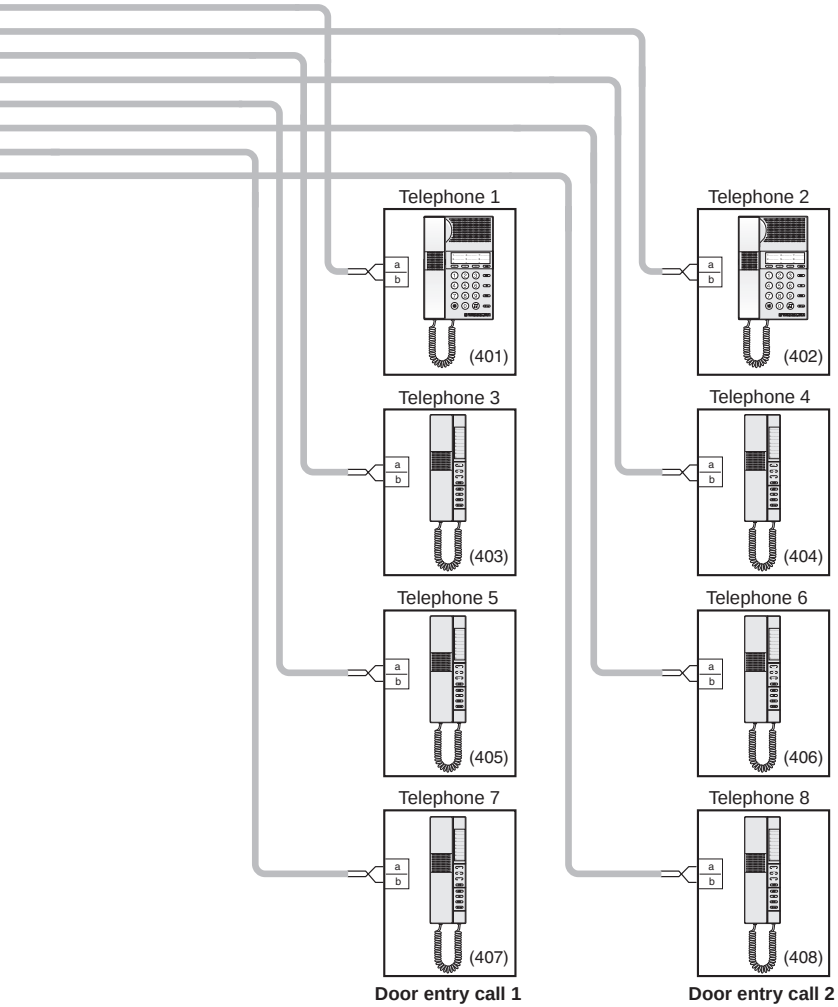
9 INSTALLATION

System with two door entry calls with dedicated speaker unit



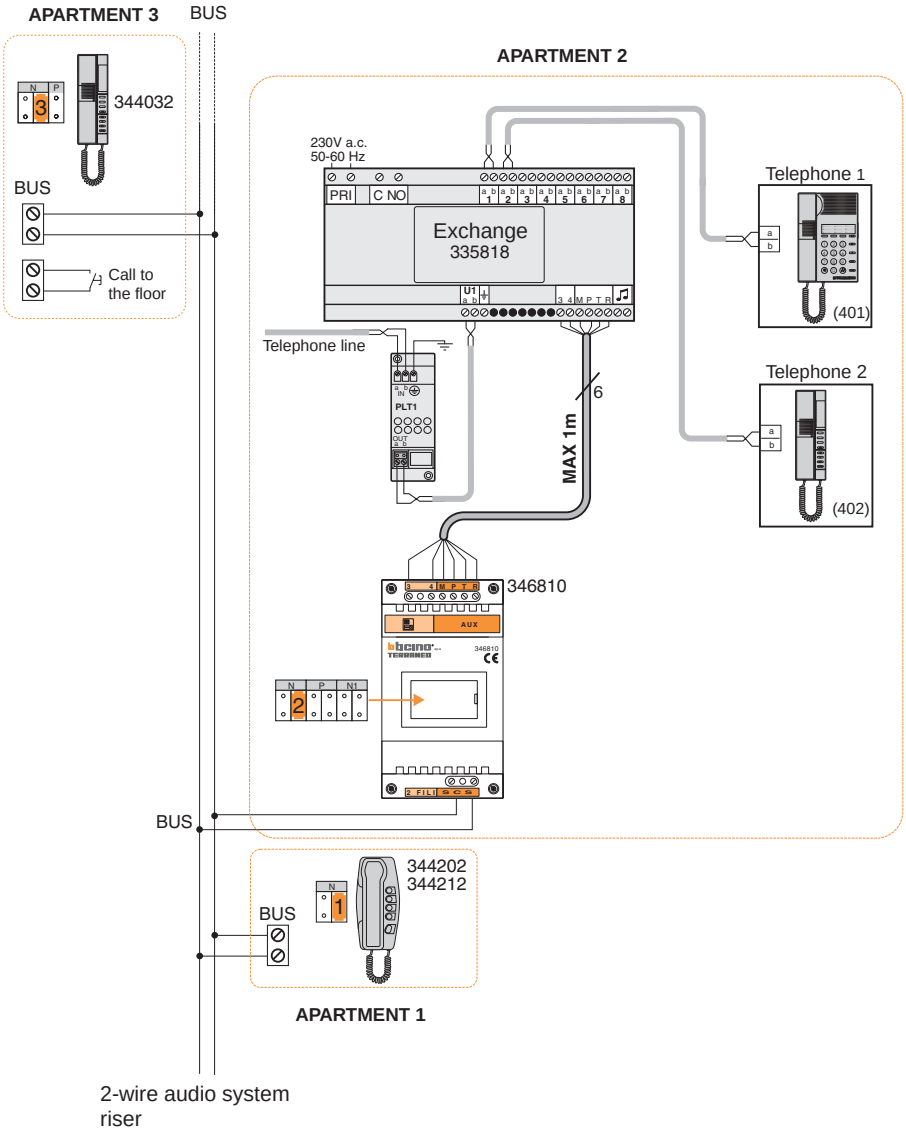
9 INSTALLATION

Maximum distance between	furthest away outdoor station —> PABX	PABX———> telephone
	200 m	200 m
type of cable	telephone pair 0.28 mm^2	telephone pair 0.28 mm^2



9 INSTALLATION

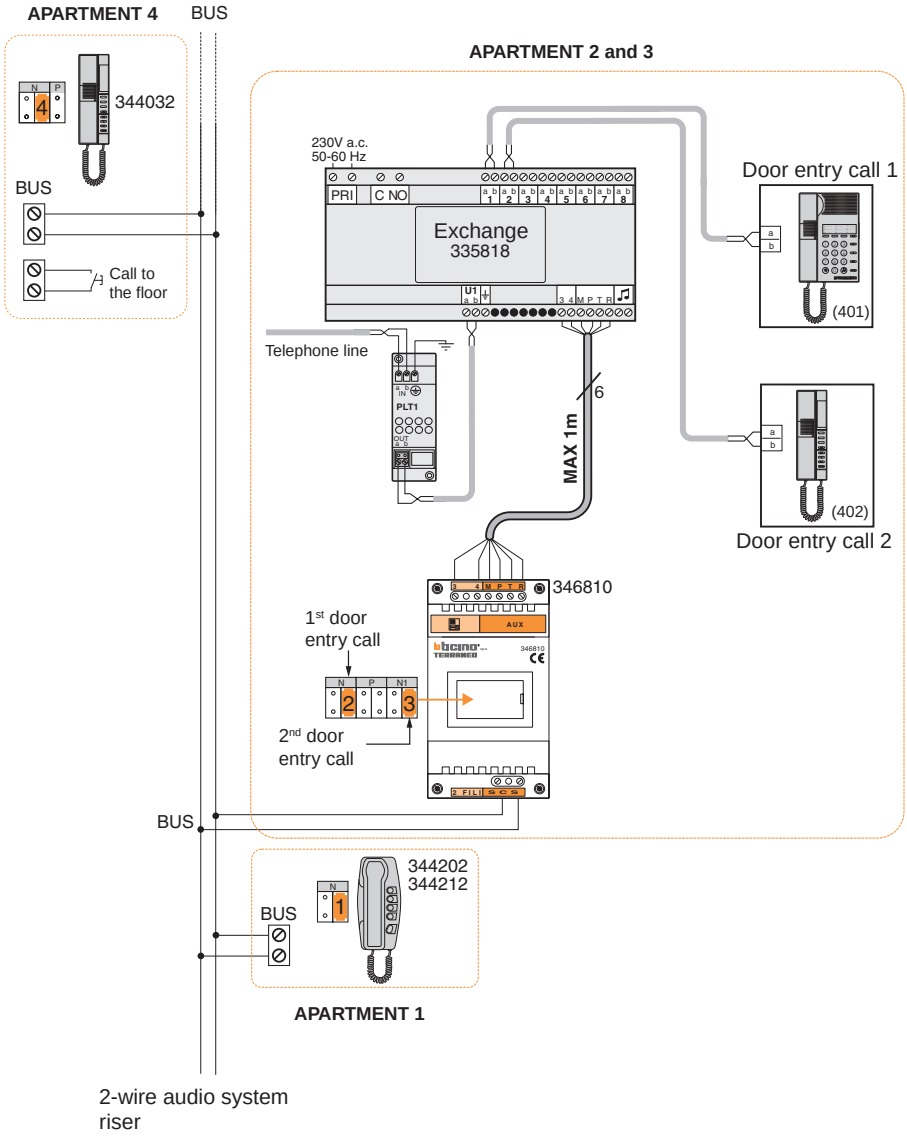
Audio system with one door entry call connected to the riser of the 2-wire system (audio)



Warning: Arrange the configurators on interface item 346810 as indicated in the diagram.

9 INSTALLATION

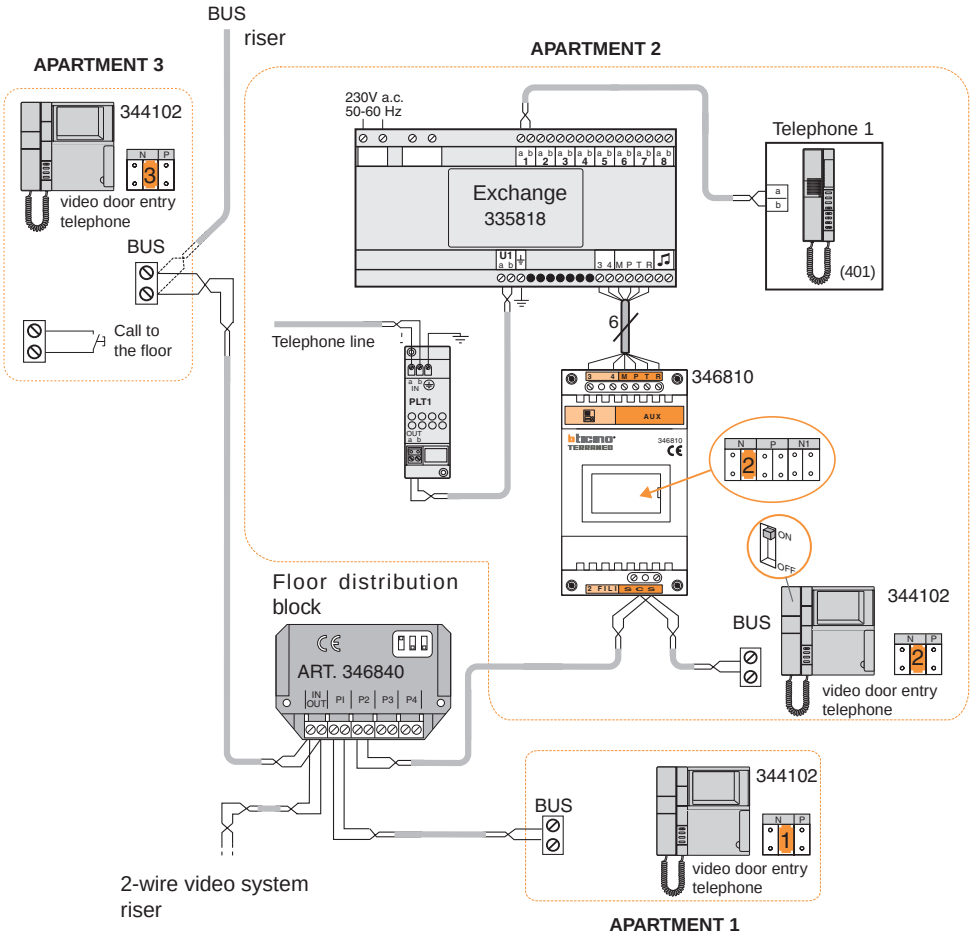
Audio system with two door entry calls connected to the riser of the 2-wire system (audio)



Warning: Arrange the configurators on interface item 346810 as indicated in the diagram.

9 INSTALLATION

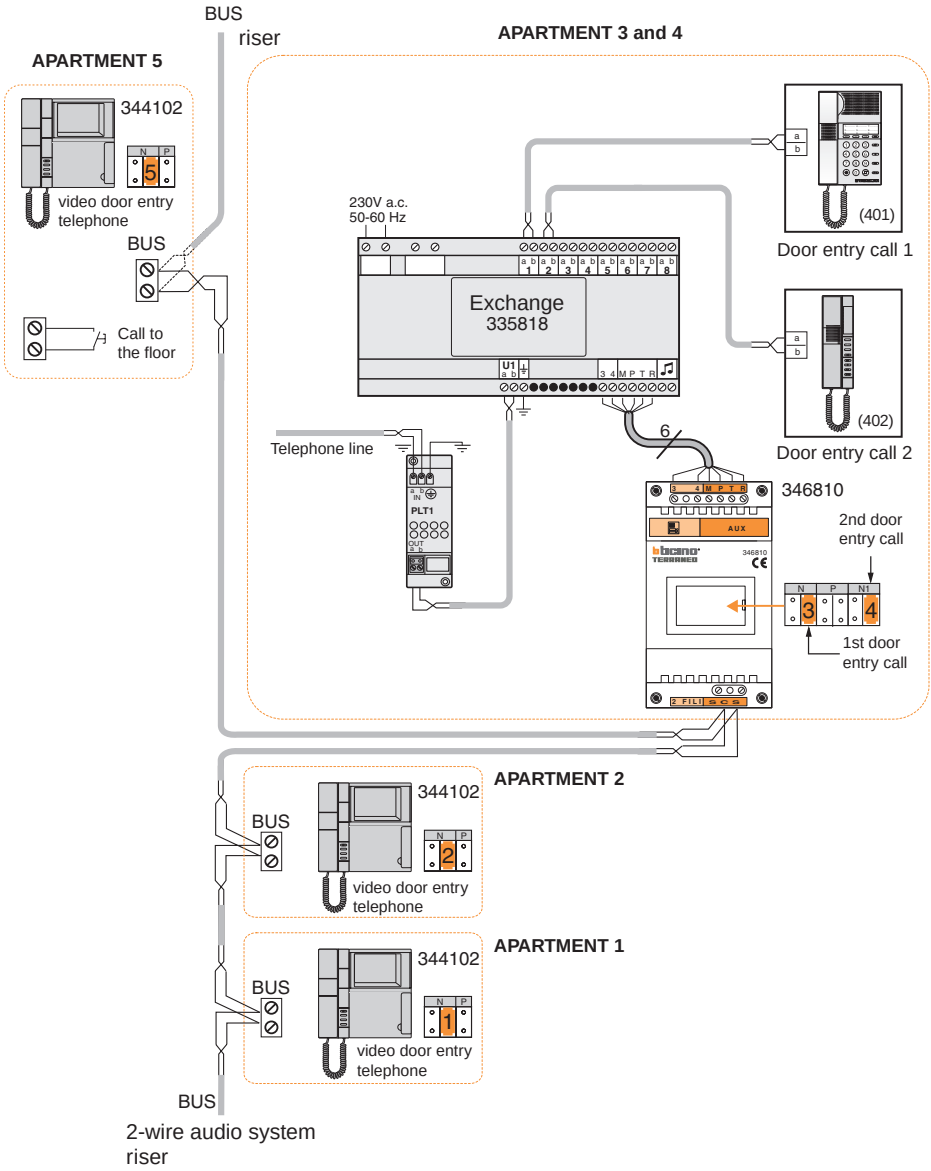
Audio system with one door entry call connected to the riser of the 2-wire system (video)



Warning: Arrange the configurators on interface item 346810 as indicated in the diagram.

9 INSTALLATION

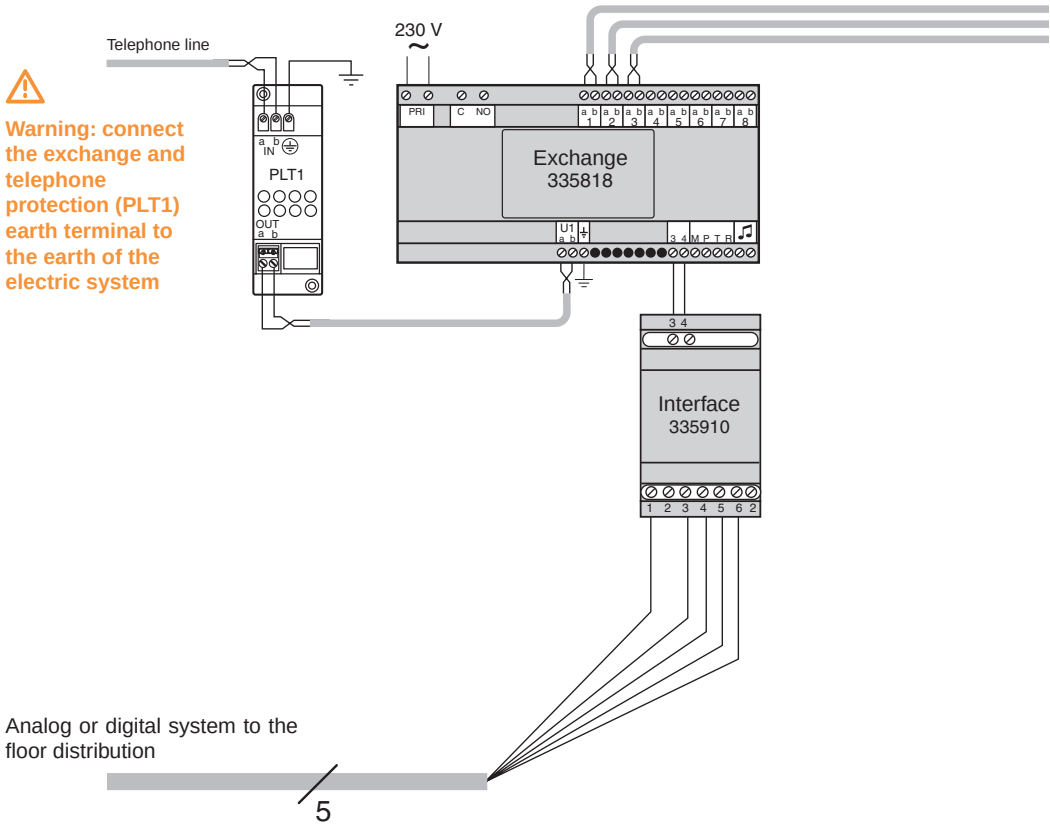
Audio system with two door entry calls connected to the riser of the 2-wire system (video)



Warning: Arrange the configurators on interface item 346810 as indicated in the diagram.

9 INSTALLATION

Audio system with one door entry call connected to the riser of the analog or digital systems



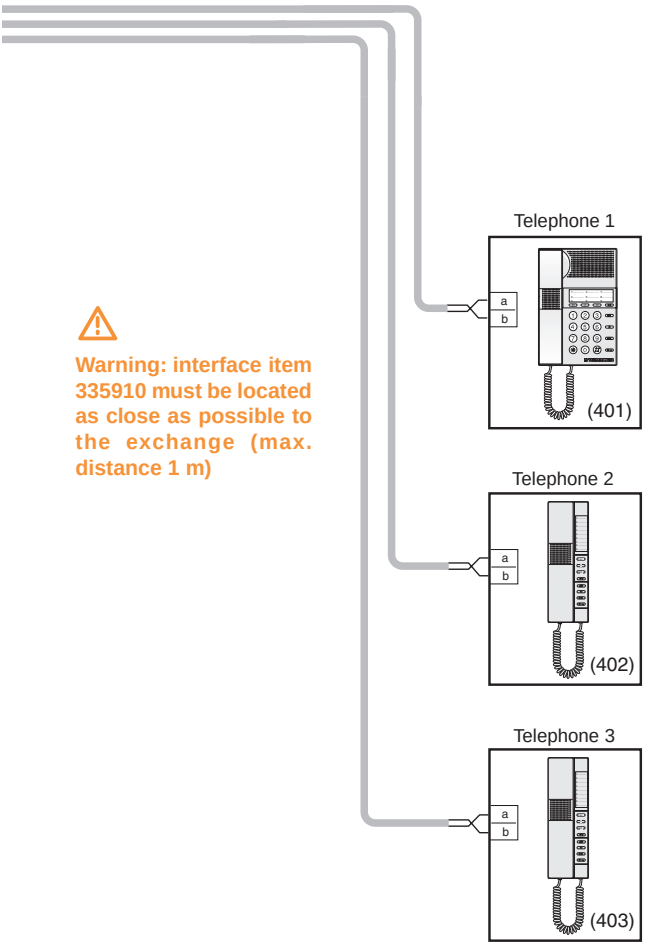
Warning: Interface **item 335910** must be set up as a function of the system to which it is connected

Analog system

Digital system

Note: as a base the interface is supplied to be connected to an analog system.

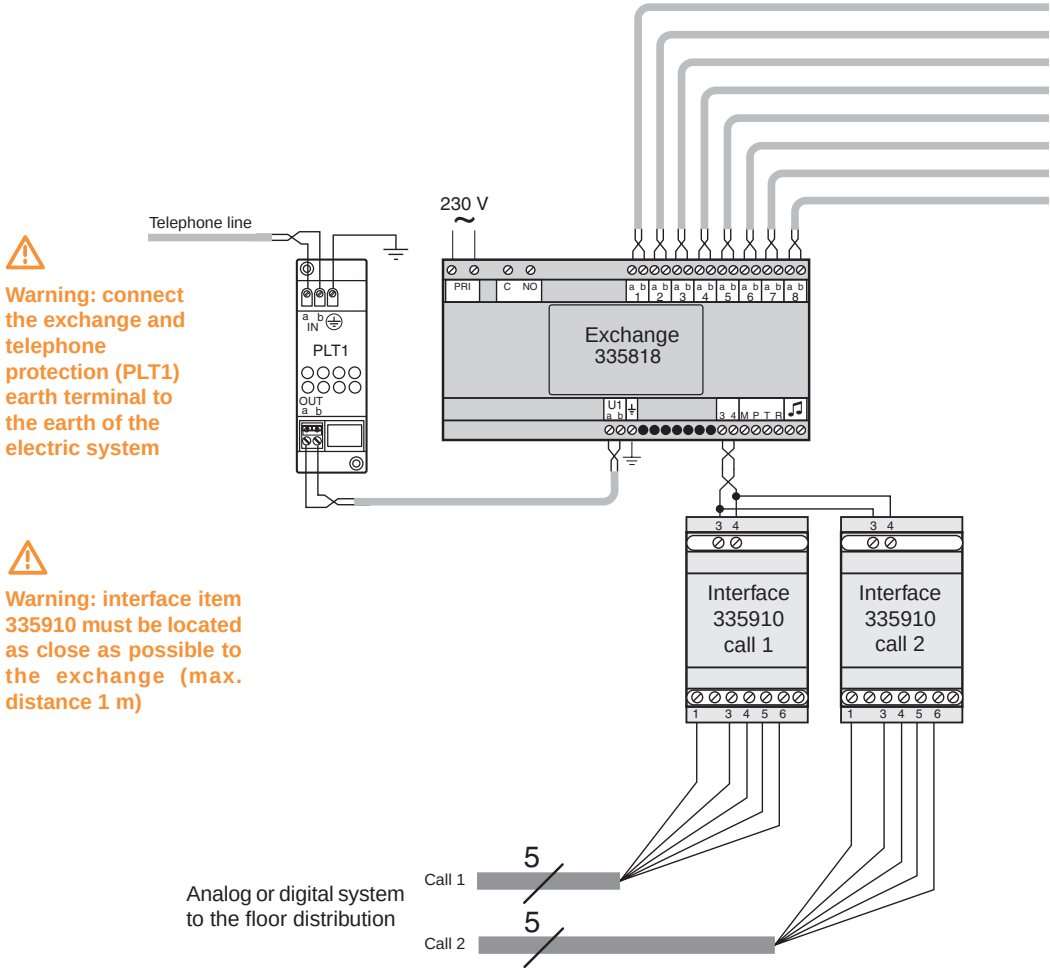
9 INSTALLATION



Warning: interface item 335910 must be located as close as possible to the exchange (max. distance 1 m)

9 INSTALLATION

Audio system with two door entry calls connected to the riser of the analog or digital systems



Warning: connect the exchange and telephone protection (PLT1) earth terminal to the earth of the electric system

Warning: interface item 335910 must be located as close as possible to the exchange (max. distance 1 m)

Warning: Interface **item 335910** must be set up as a function of the different types of system, by means of dip-switches, as follows:

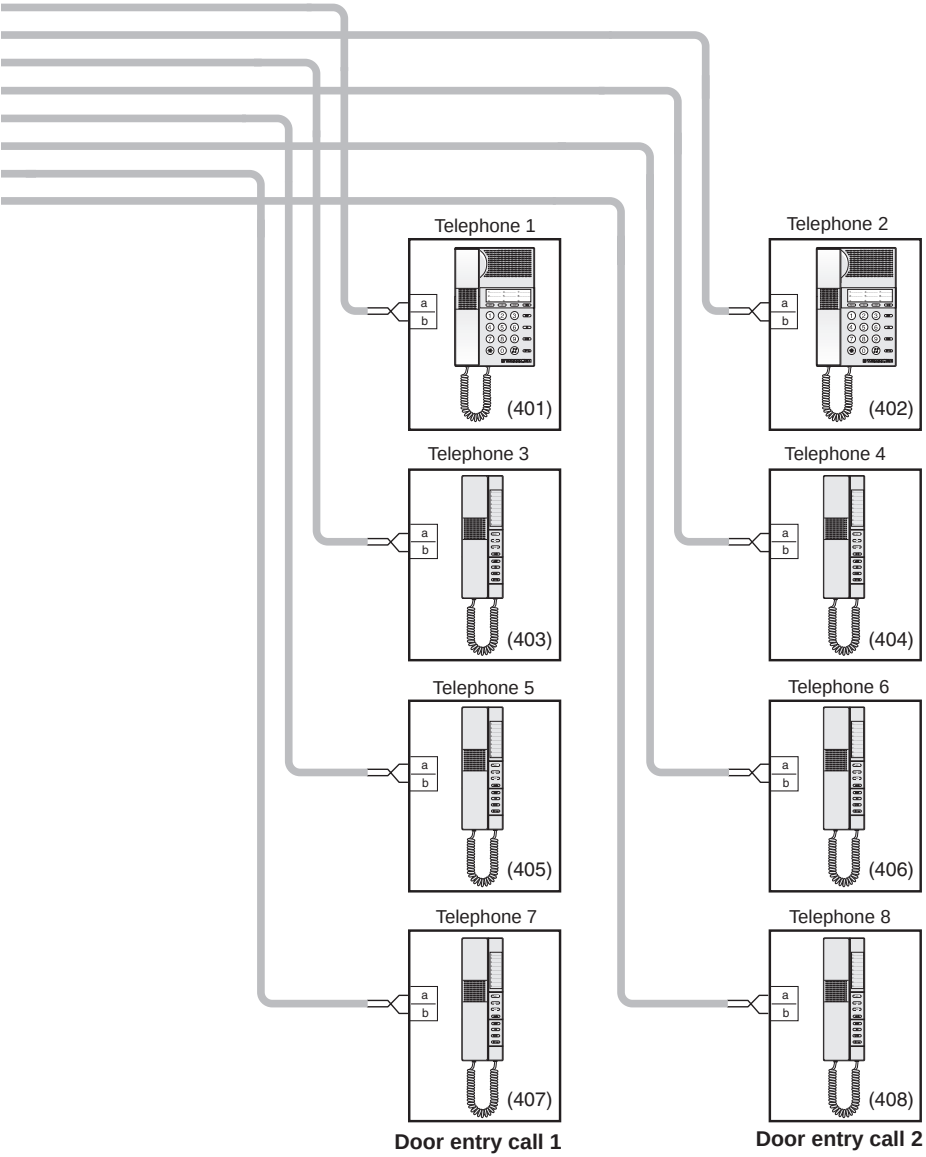
Door entry call 1
analog system

Door entry call 2
analog system

Door entry call 1
digital system

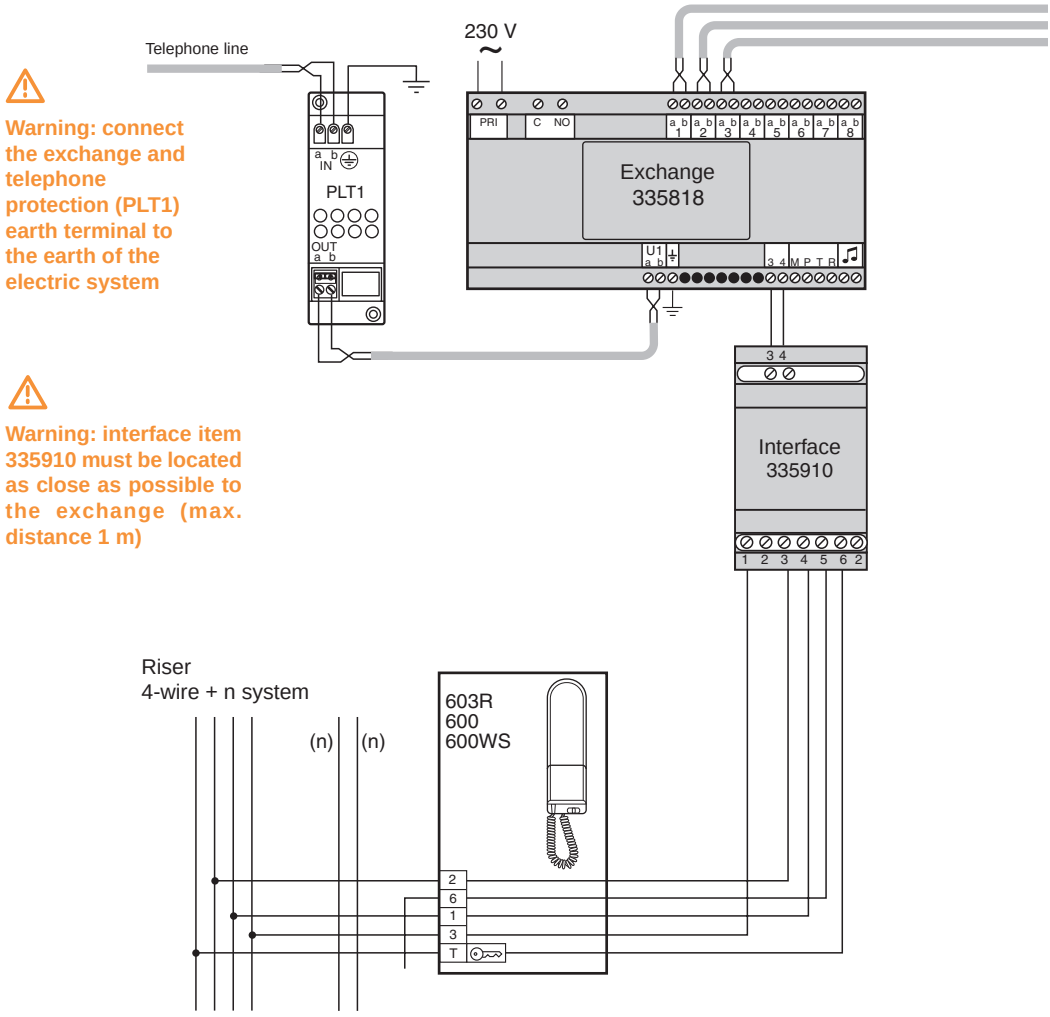
Door entry call 2
digital system

9 INSTALLATION



9 INSTALLATION

Audio system with one door entry call connected to “4-wire + n” system



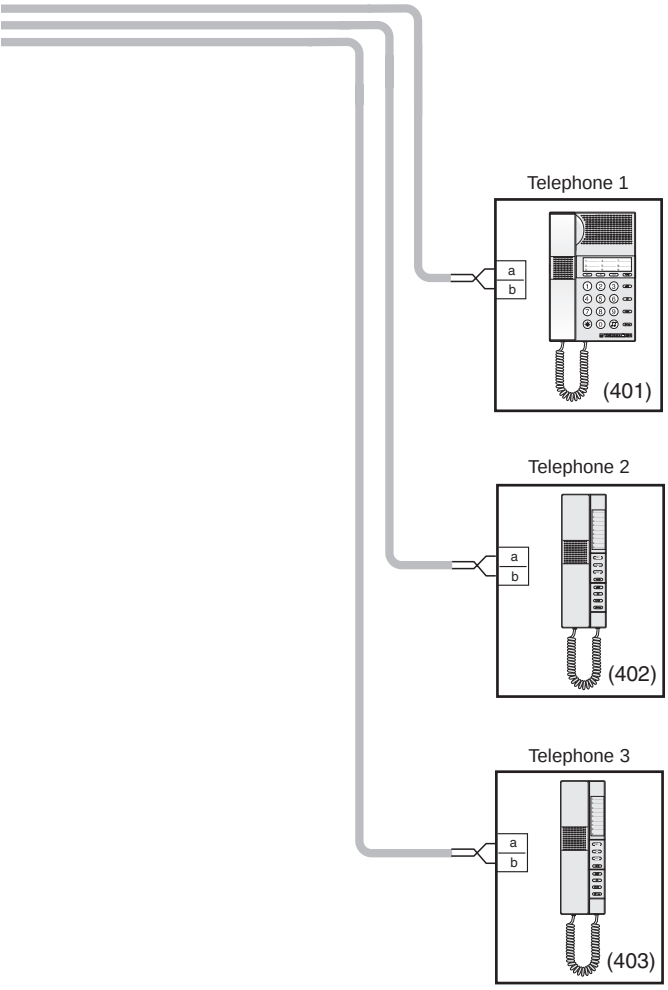
Warning: Interface **item 335910** must be set up as a function of the system to which it is connected

Analog system

Digital system

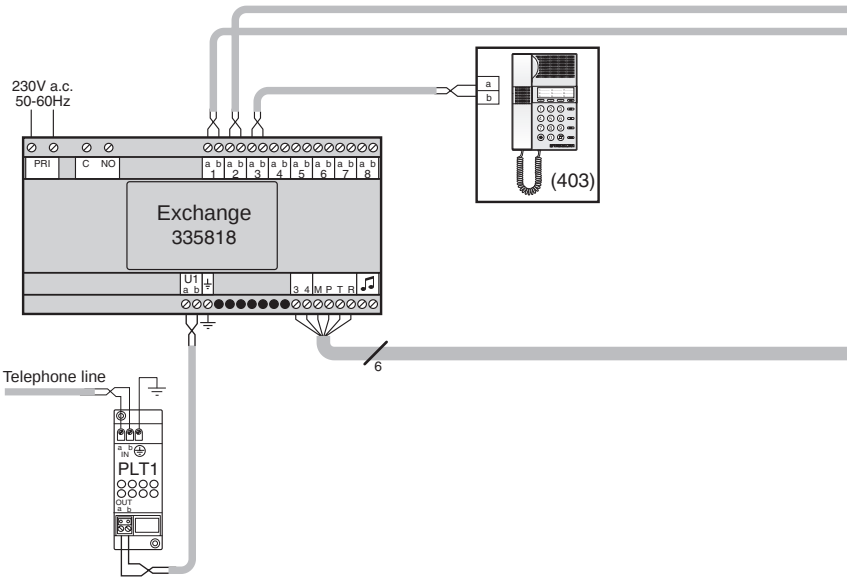
Note: as a base the interface is supplied to be connected to an analog system.

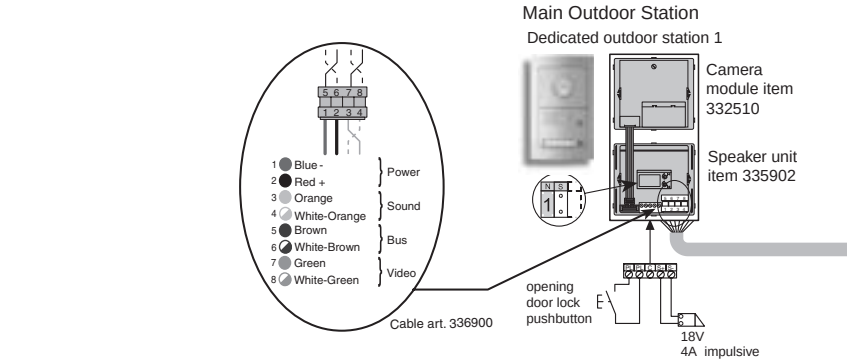
9 INSTALLATION



9 INSTALLATION

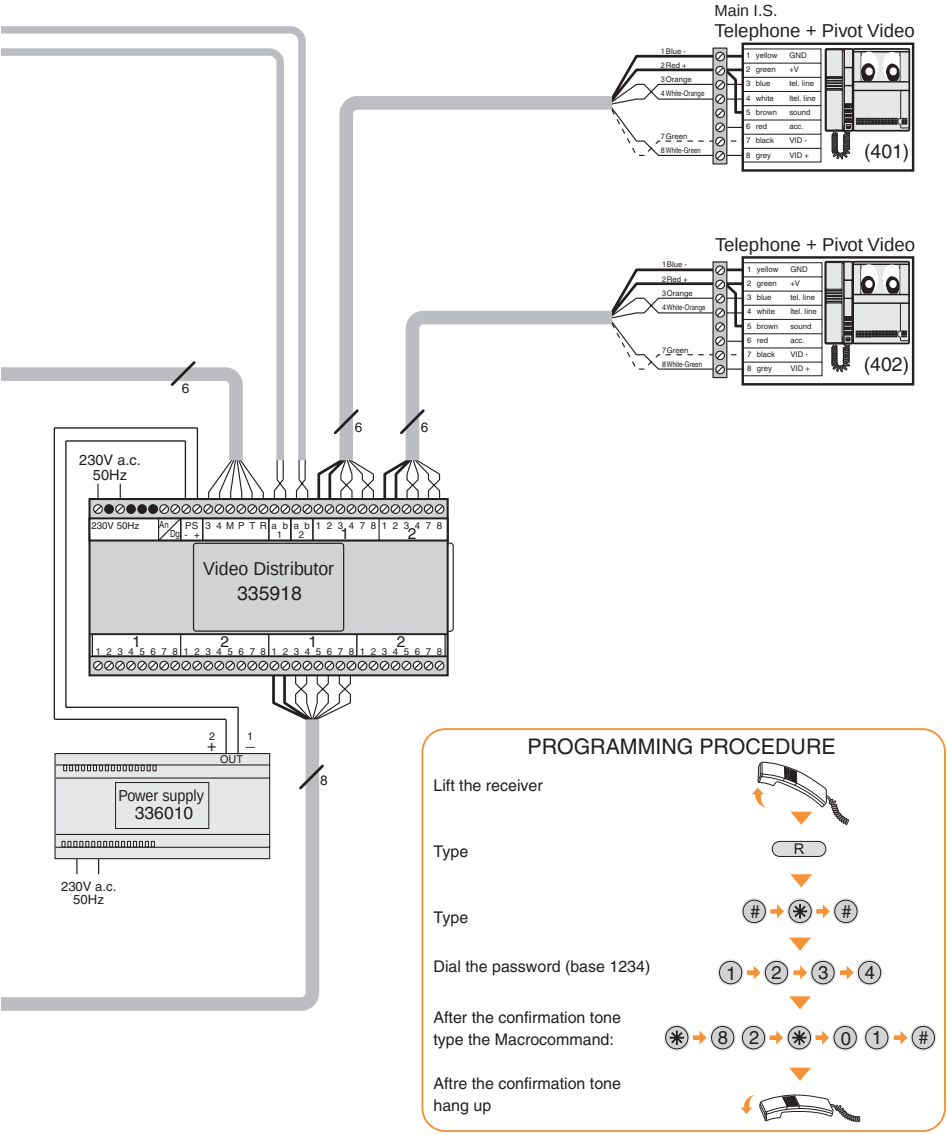
One-call audio and video system, connected to the dedicated outdoor station, with two telephones + video section (video door entry units) switched on at the same time.





9 INSTALLATION

The system configures itself on typing the Macrocommand ✱ → 8 2 → ✱ → 0 1 → # from any extension. For more information consult the Video distributor manual.



PROGRAMMING PROCEDURE

Lift the receiver

Type R

Type # → ✱ → #

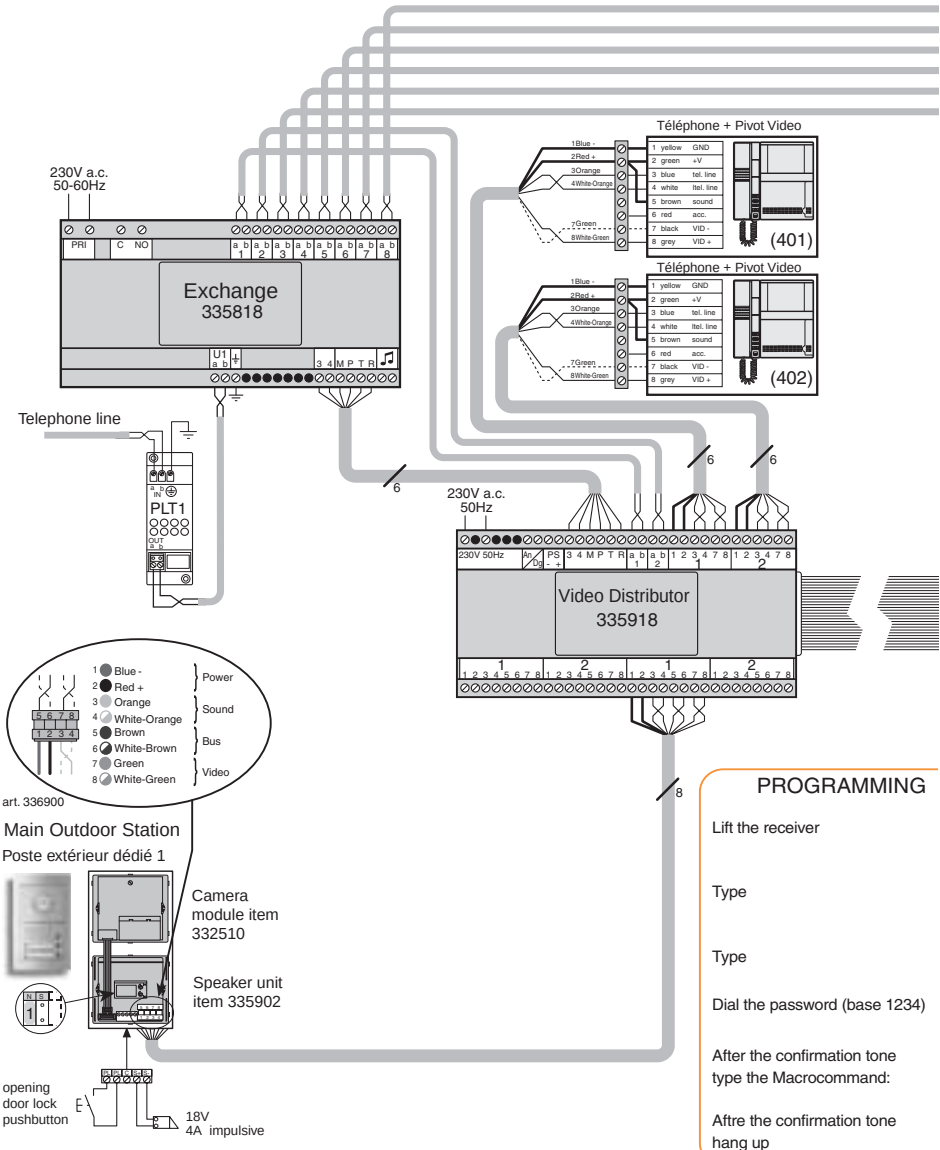
Dial the password (base 1234) 1 → 2 → 3 → 4

After the confirmation tone type the Macrocommand: ✱ → 8 2 → ✱ → 0 1 → #

Aftre the confirmation tone hang up

9 INSTALLATION

Audio and video system with two calls connected to the dedicated outdoor station.



PROGRAMMING

Lift the receiver

Type

Type

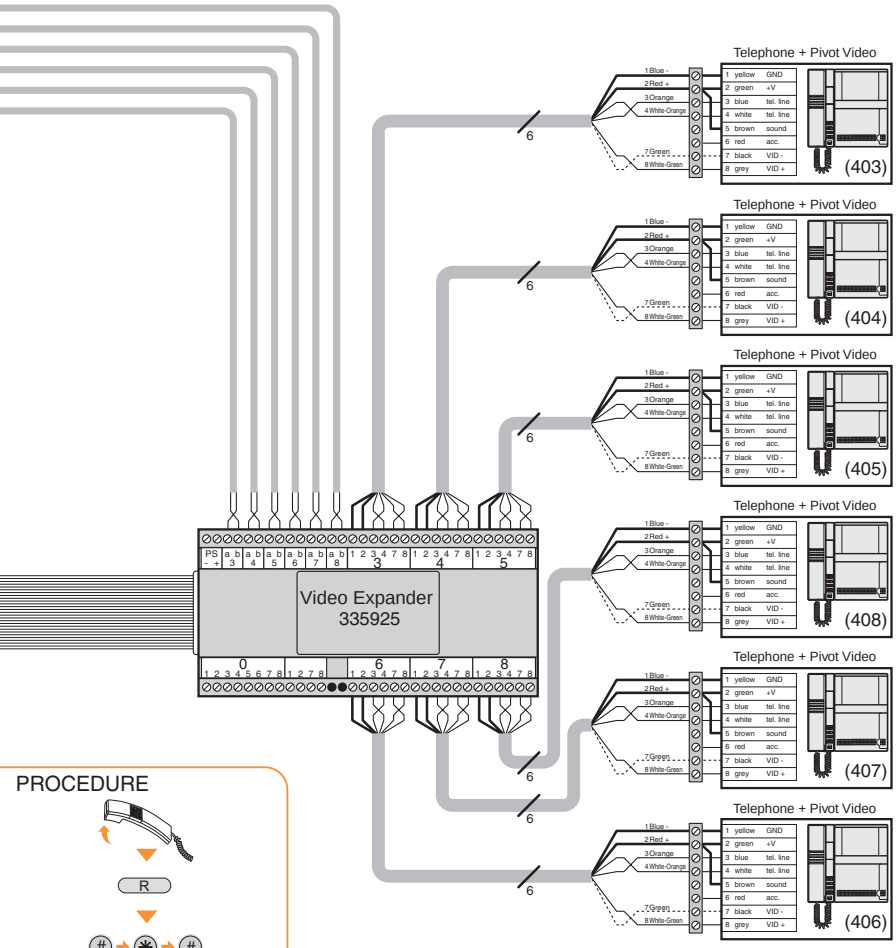
Dial the password (base 1234)

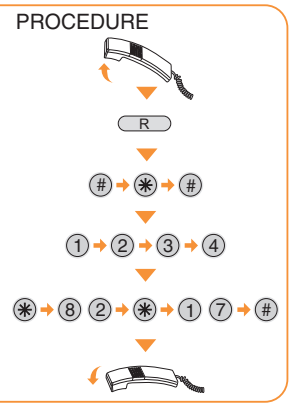
After the confirmation tone type the Macrocommand:

Aftre the confirmation tone hang up

9 INSTALLATION

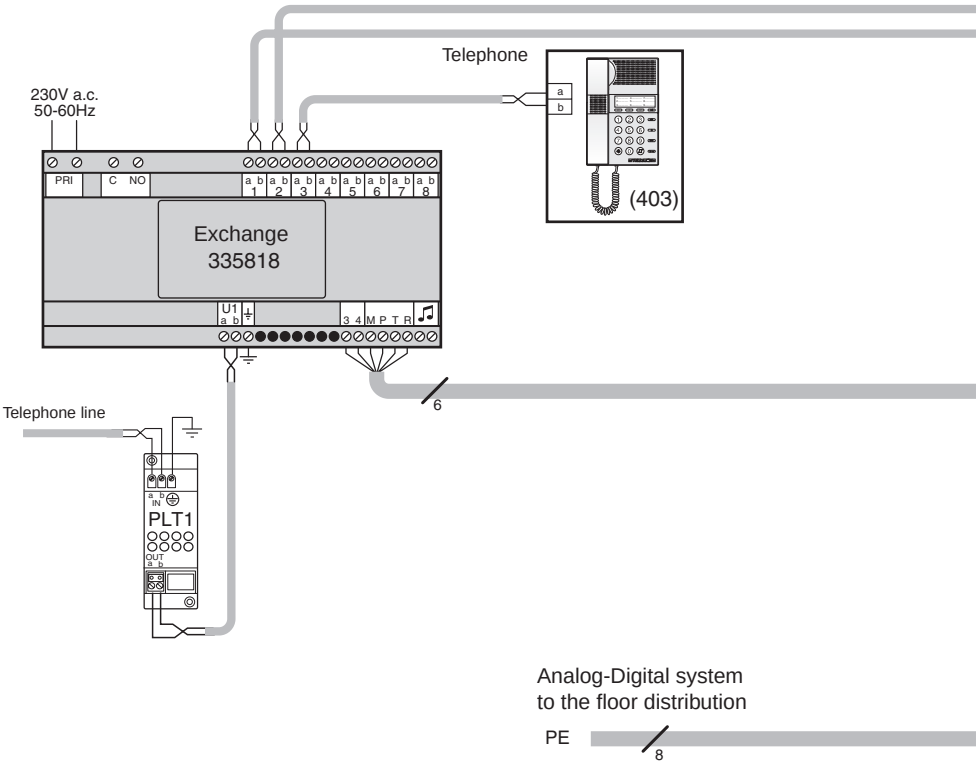
The system configures itself on typing the Macrocommand ✱ → 8 2 → ✱ → 1 7 → # from any extension. For more information consult the Video distributor manual.





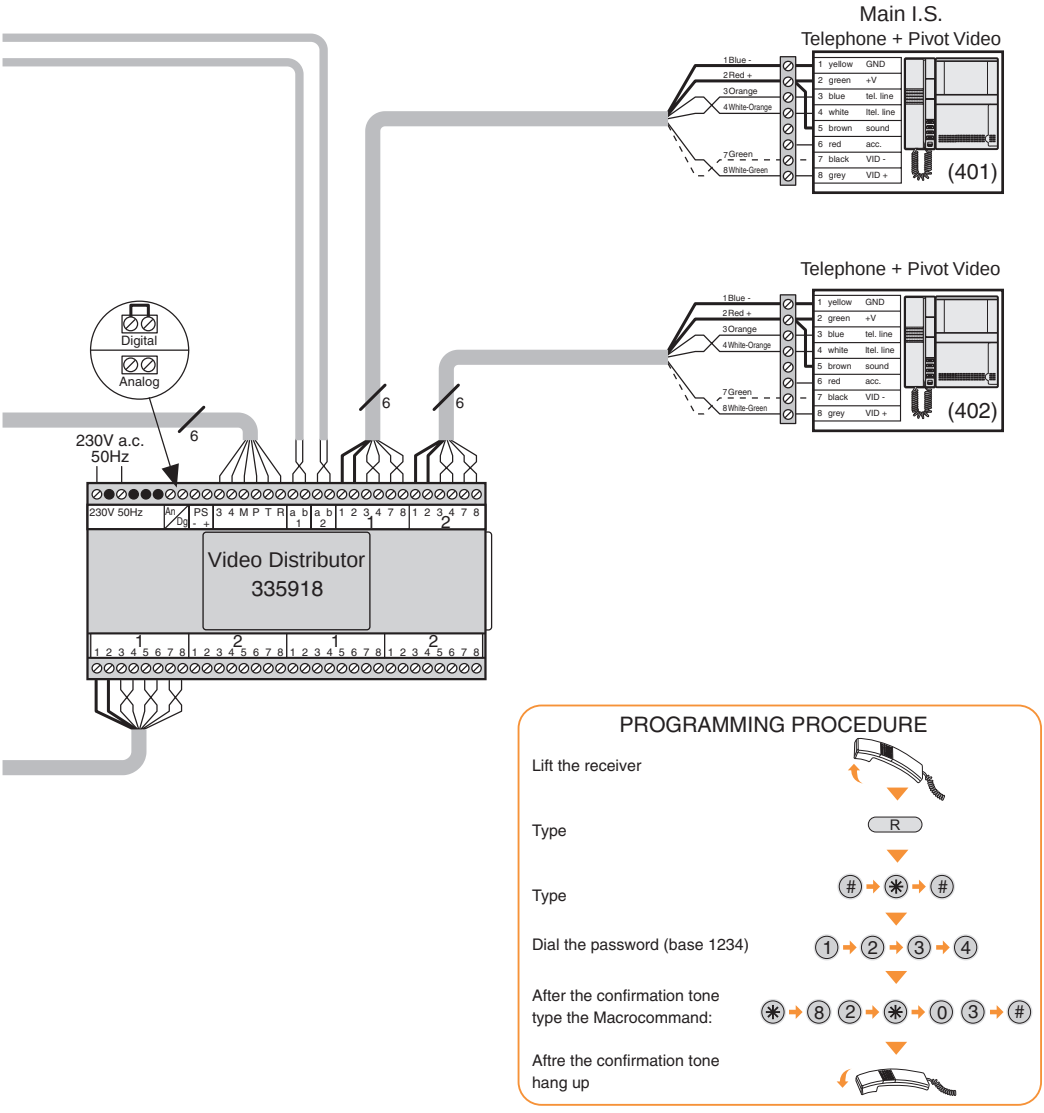
9 INSTALLATION

Audio and video system, with one call, connected to the floor distributor of the analog or digital system



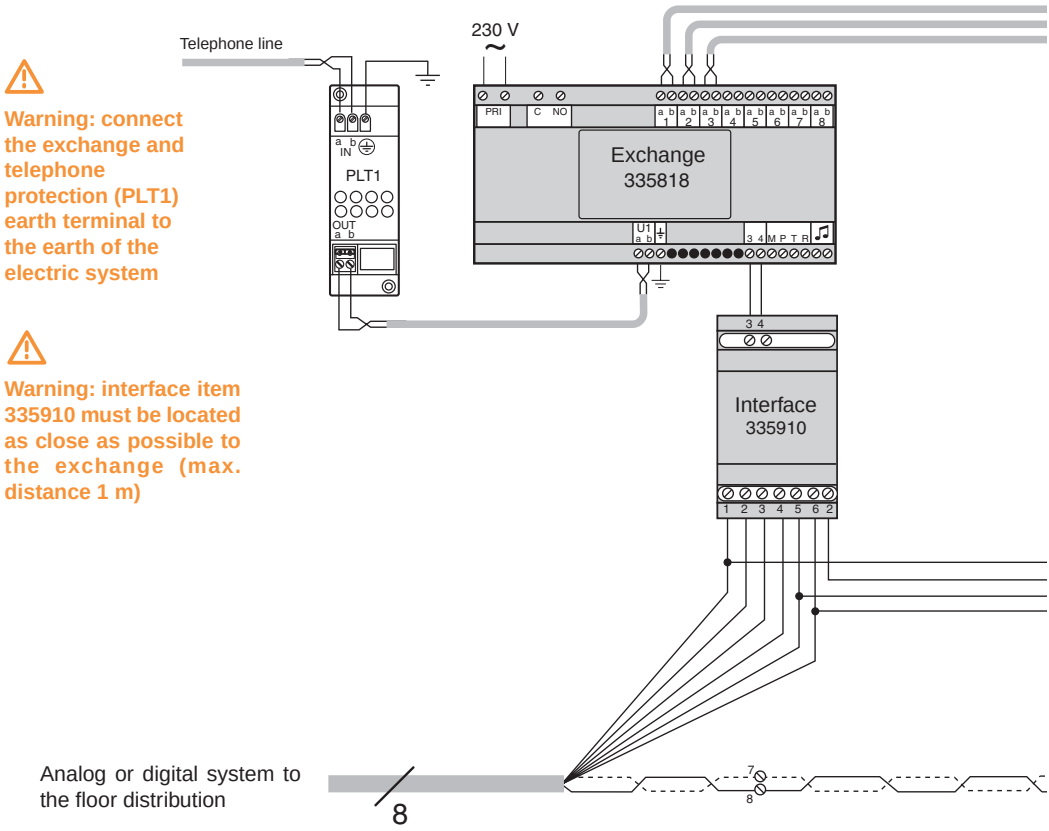
9 INSTALLATION

The system configures itself on typing the Macrocommand ✱ → 8 2 → ✱ → 0 3 → # from any extension. For more information consult the Video distributor manual.



9 INSTALLATION

Audio and video system, with one call, connected to the of the analog or digital riser



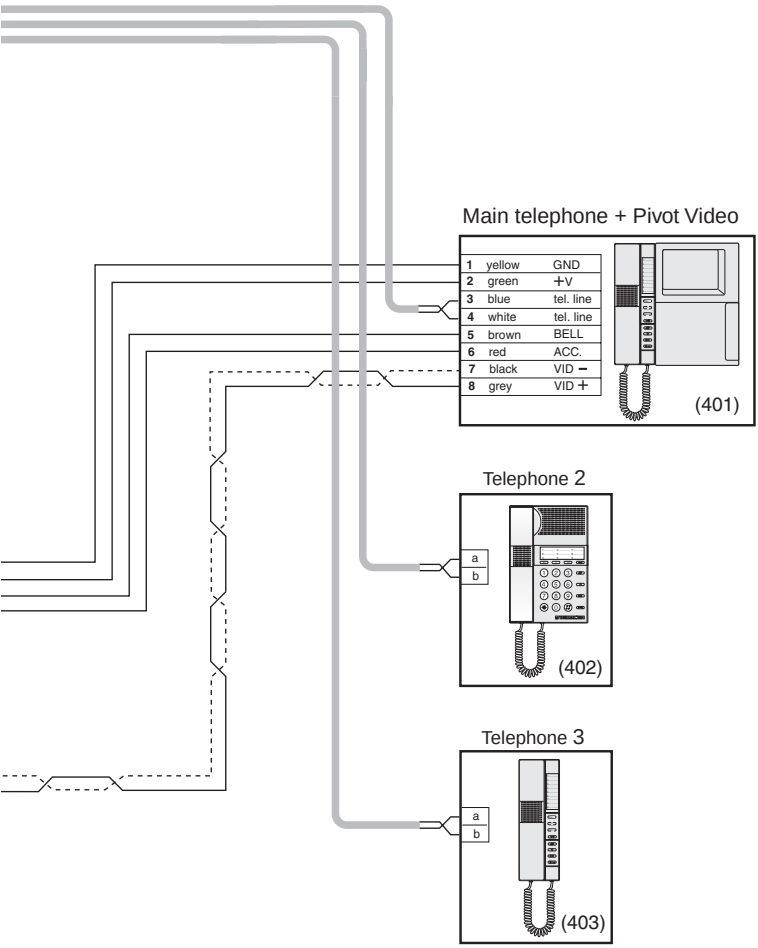
Warning: Interface **item 335910** must be set up as a function of the system to which it is connected

Analog system

Digital system

Note: as a base the interface is supplied to be connected to an analog system.

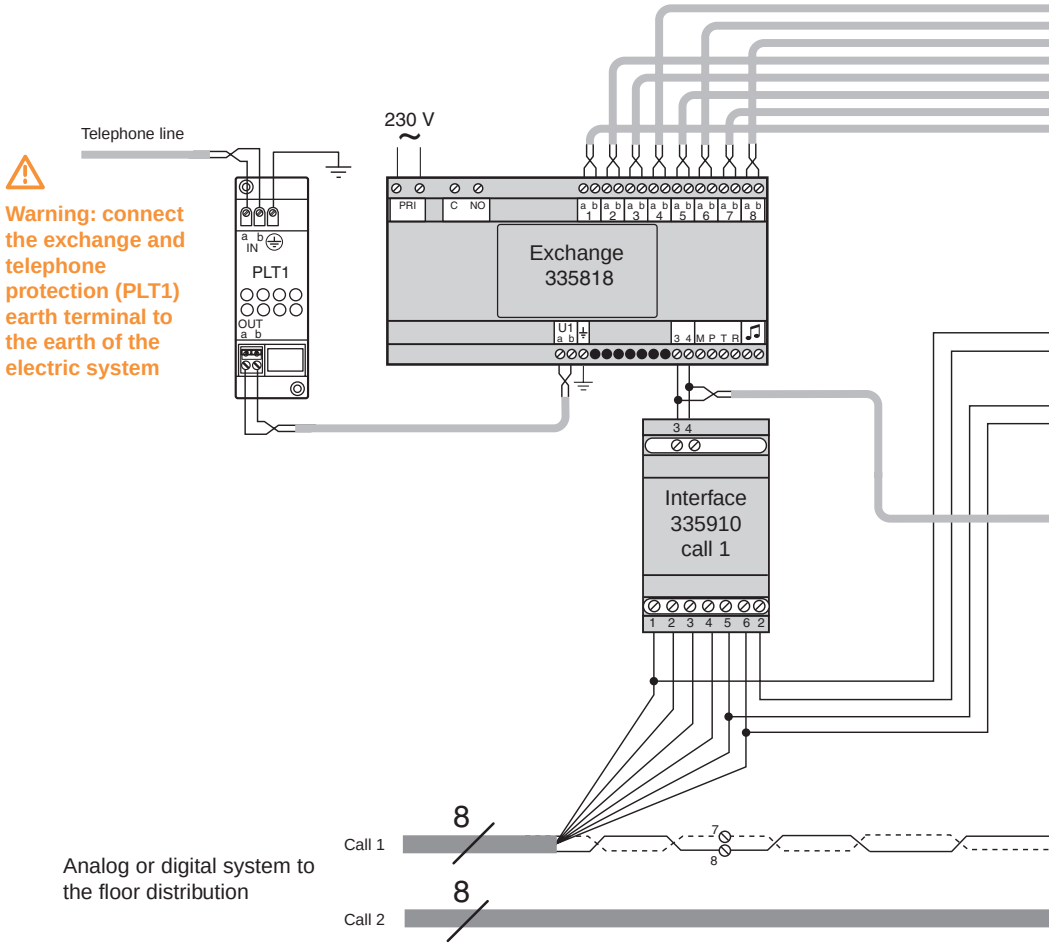
9 INSTALLATION



Note: in mixed audio and video systems the “self-switching on of the outdoor station” service can **only** be activated **from telephones with video section**.

9 INSTALLATION

Audio and video system with two door entry calls connected to the analog or digital riser



Warning: Interface **item 335910** must be set up as a function of the different types of system, by means of dip-switches, as follows:

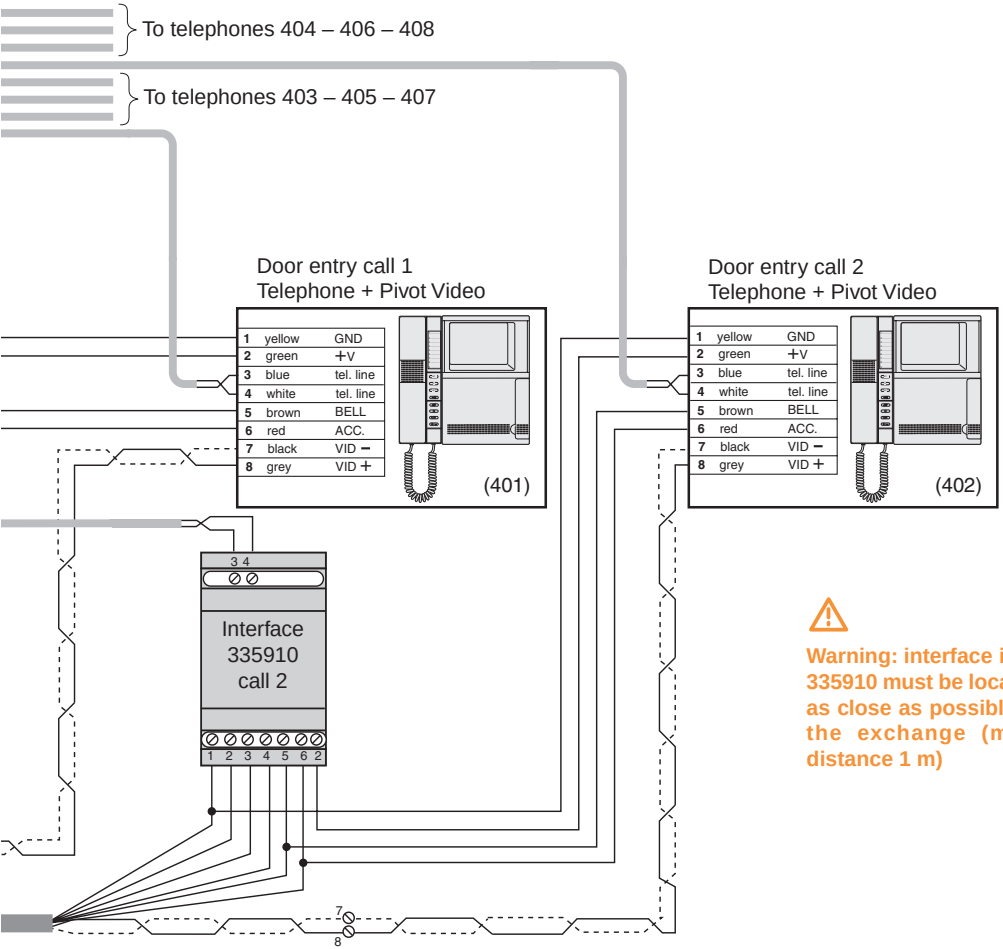
Door entry call 1 analog system

Door entry call 2 analog system

Door entry call 1 digital system

Door entry call 2 digital system

9 INSTALLATION

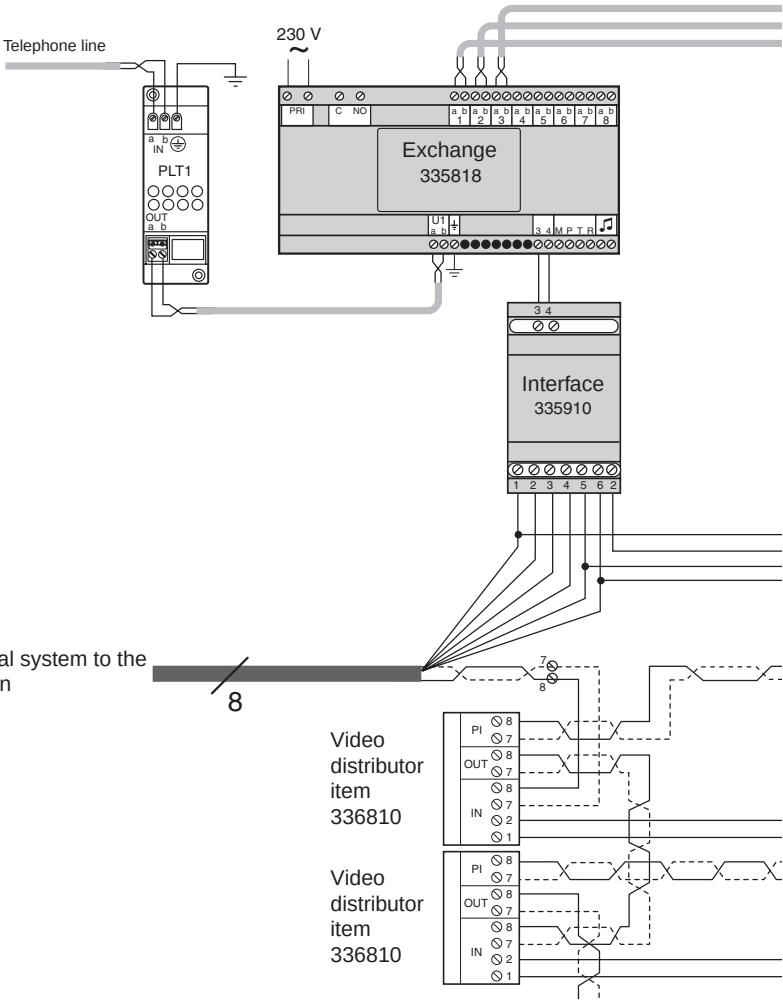


Warning: interface item 335910 must be located as close as possible to the exchange (max. distance 1 m)

Note: in mixed audio and video systems the “self-switching on of the outdoor station” service can **only** be activated **from telephones with video section**.

9 INSTALLATION

Audio and video system with one door entry call connected to the analog or digital riser.



Warning: connect the exchange and telephone protection (PLT1) earth terminal to the earth of the electric system

Warning: interface item 335910 must be located as close as possible to the exchange (max. distance 1 m)

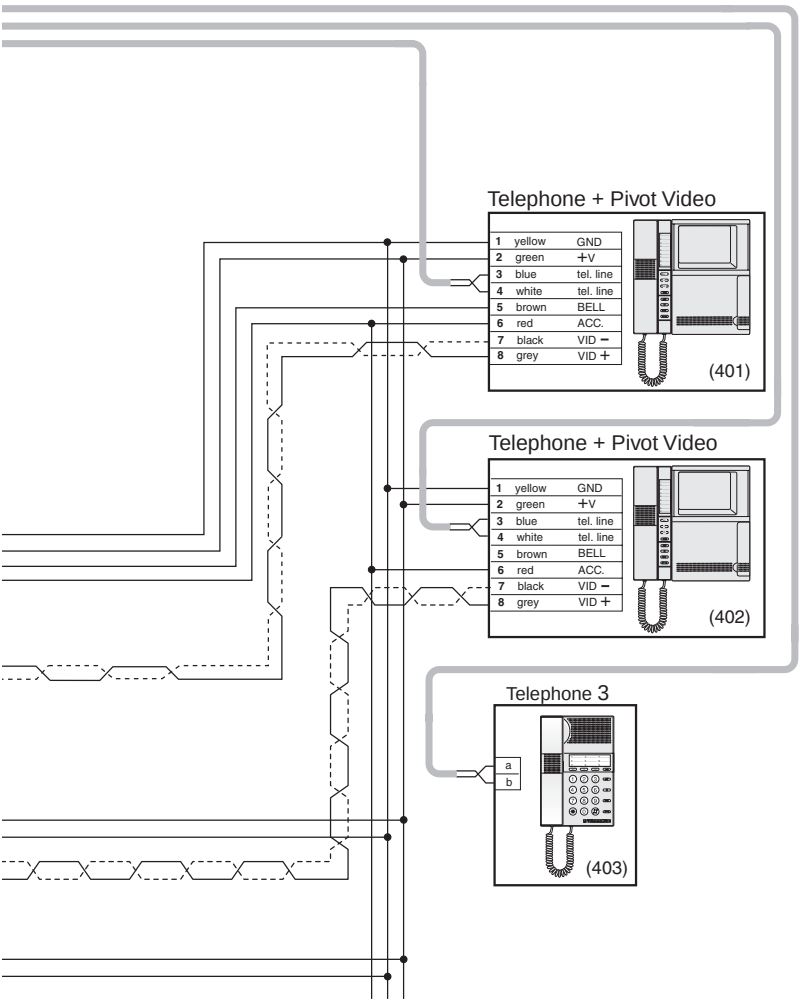
Warning: Interface **item 335910** must be set up as a function of the system to which it is connected

Analog system

Digital system

Note: as a base the interface is supplied to be connected to an analog system.

9 INSTALLATION



Note: in mixed audio and video systems the “self-switching on of the outdoor station” service can **only** be activated **from telephones with video section**.

9 INSTALLATION

9.7 SYSTEM TYPE APPROVAL

After completing the installation and connection operations, perform the tests described below carefully, to check that the telephone lines and extensions are wired correctly and that the exchange is working properly.

1. Connect the telephones and the telephone line.

2. With the system switched off lift the receiver of **telephone 401**; you should hear the telephone exchange dial tone.
   This checks emergency operation in which telephone 401 is directly connected on telephone line.

3. **Switch on.** The green LED should come on immediately and then after a few seconds the red LED should shine steadily. If the red LED flashes, the exchange is not switched on correctly; make sure that the connector of accessory **item 335919** has not been put into the **IOIOI** port.

4. Lift the receiver of telephone **401** and press **R**; you should hear a continuous tone.

5. Dial **402**: this makes an internal call to extension **402**; answer from telephone 2 and check the sound connection between the two telephones.

6. Repeat the same operation for all the telephones connected to the exchange.

7. Soulever le combiné du téléphone n° **401**; on doit entendre la tonalité libre du standard téléphonique.

8. Lift the receiver of telephone **401**; you should hear the telephone exchange dial tone.

9. Check the door entry services; open door lock, switch on staircase light and self-switching on of the outdoor station.

10 TABLEAUX RECAPITULATIFS

PERSONALISING THE SYSTEM FOR HOUSE-AUTOMATION SCENARIO…
link with command **31**…

Personalisation	Line 1
Receive incoming telephone calls on Telephone 1	
Receive incoming telephone calls on Telephone 2	
Receive incoming telephone calls on Telephone 3	
Receive incoming telephone calls on Telephone 4	
Receive incoming telephone calls on Telephone 5	
Receive incoming telephone calls on Telephone 6	
Receive incoming telephone calls on Telephone 7	
Receive incoming telephone calls on Telephone 8	
Telephone 1 enabled for outgoing telephone calls	
Telephone 2 enabled for outgoing telephone calls	
Telephone 3 enabled for outgoing telephone calls	
Telephone 4 enabled for outgoing telephone calls	
Telephone 5 enabled for outgoing telephone calls	
Telephone 6 enabled for outgoing telephone calls	
Telephone 7 enabled for outgoing telephone calls	
Telephone 8 enabled for outgoing telephone calls	

10 TABLEAUX RECAPITULATIFS

Programming	Active	Not active
Receive door entry calls on Telephone 1		
Receive door entry calls on Telephone 2		
Receive door entry calls on Telephone 3		
Receive door entry calls on Telephone 4		
Receive door entry calls on Telephone 5		
Receive door entry calls on Telephone 6		
Receive door entry calls on Telephone 7		
Receive door entry calls on Telephone 8		
Telephone 1 enabled door entry		
functions		
Telephone 2 enabled door entry		
functions		
Telephone 3 enabled door entry		
functions		
Telephone 4 enabled door entry		
functions		

Expandability

The basic telephone Exchange functions can be expanded, adding a series of devices which increase its performance.

Expansion modules and accessories

- Video distributor (item 335918)
- Video expander (item 335925)
- Relay expansion module (item 335916)
- Door entry interface module for analog and digital systems (item 335910)
- Door entry interface module for the 2-wire system (item 346810)
- Dedicated speaker unit for PABX (item 335902)

11 EXPANDABILITY

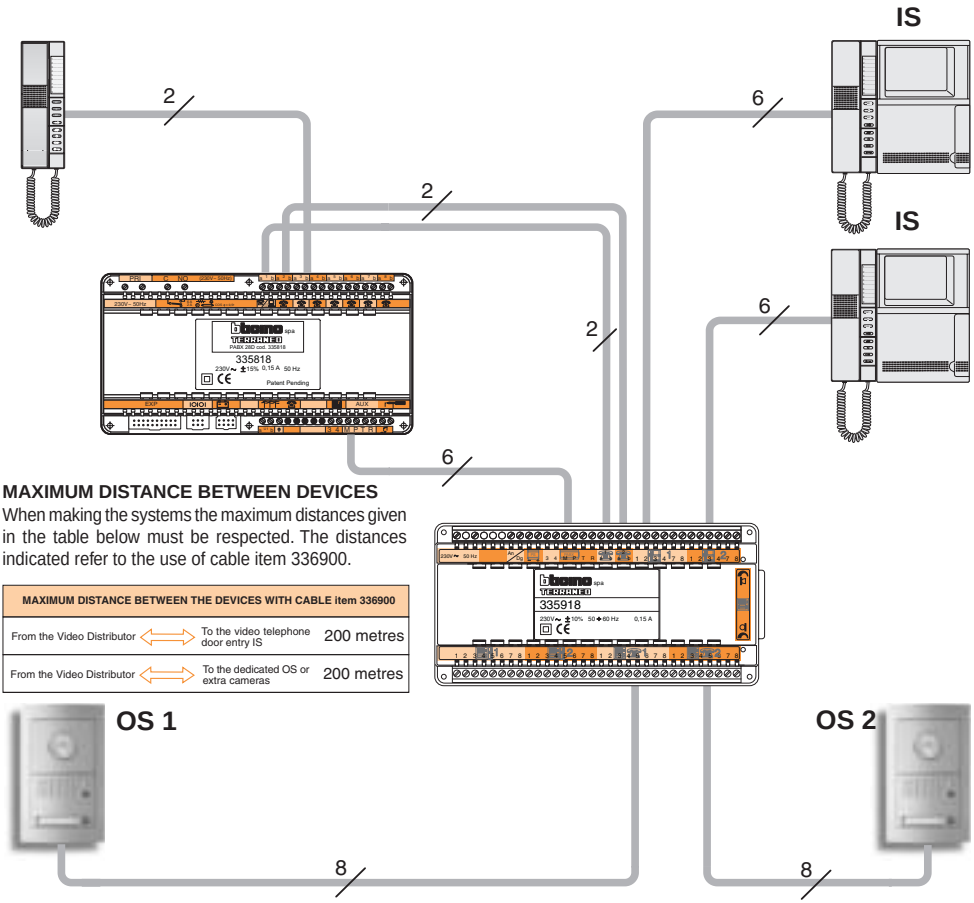
11.1 VIDEO DISTRIBUTION (ITEM 335918)

The video distributor with the PABX telephone exchanges (item 335818 or 335828 produced from batch 0127 6) and its star wiring can quickly and easily produce single or two-family video door entry telephone systems, with one or two divisions. Using the distributor means that all the telephones with video section not only provide all the door entry and telephone services but also provide CCTV of communal and/or private areas.

The following can be directly connected to the distributor:

- Up to two telephones with video function (video door entry telephones)
- Up to two dedicated video outdoor stations (speaker unit item 335902 and camera module item 332510)
- Up to two calls from the same analog or digital floor distribution block. Up to 4 riser OS can be connected in the analog system; up to 15 in the digital system.

EXAMPLE OF A SYSTEM WHICH CAN BE MADE USING THE VIDEO DISTRIBUTOR



MAXIMUM DISTANCE BETWEEN DEVICES

When making the systems the maximum distances given in the table below must be respected. The distances indicated refer to the use of cable item 336900.

MAXIMUM DISTANCE BETWEEN THE DEVICES WITH CABLE item 336900			
From the Video Distributor	⟷	To the video telephone door entry IS	200 metres
From the Video Distributor	⟷	To the dedicated OS or extra cameras	200 metres

11 EXPANDABILITY

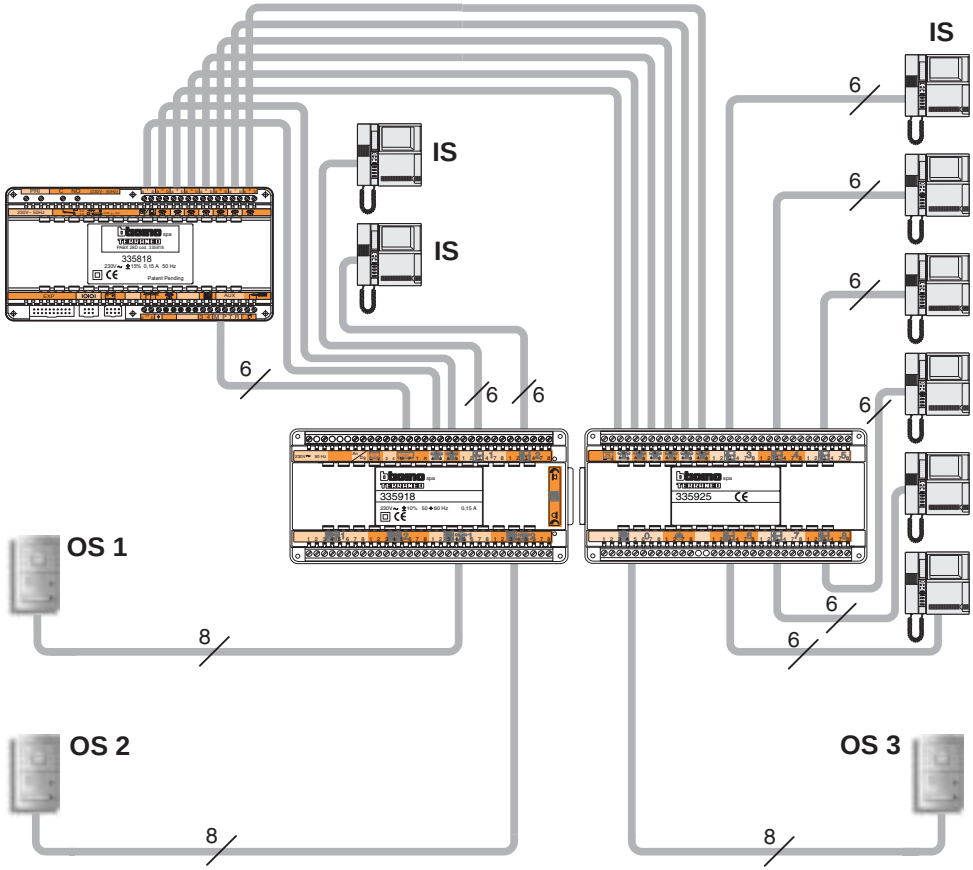
11.2 VIDEO EXPANDER (ITEM 335925)

The video expander with the video distributor item 335918 and the PABX telephone exchanges (item 335818 and 335828 produced from batch 0127 6) can further expand the video door entry telephone system.

The following can be directly connected to the video expander:
- Up to 6 telephones with video function (video door entry telephones)
- 1 dedicated video outdoor station (speaker unit item 335902 and camera module item 332510) if there are no calls from analog or digital riser OS.
- 1 camera from the following:
  - Separate (item 391600/1/2); Dome (item 391603);
  - In Living, Light or Light Tech version (item 391612/3/4)

Note: The cameras listed above cannot be used as an alternative to the dedicated OS

EXAMPLE OF A SYSTEM WHICH CAN BE MADE USING THE VIDEO EXPANDER



11 EXPANDABILITY

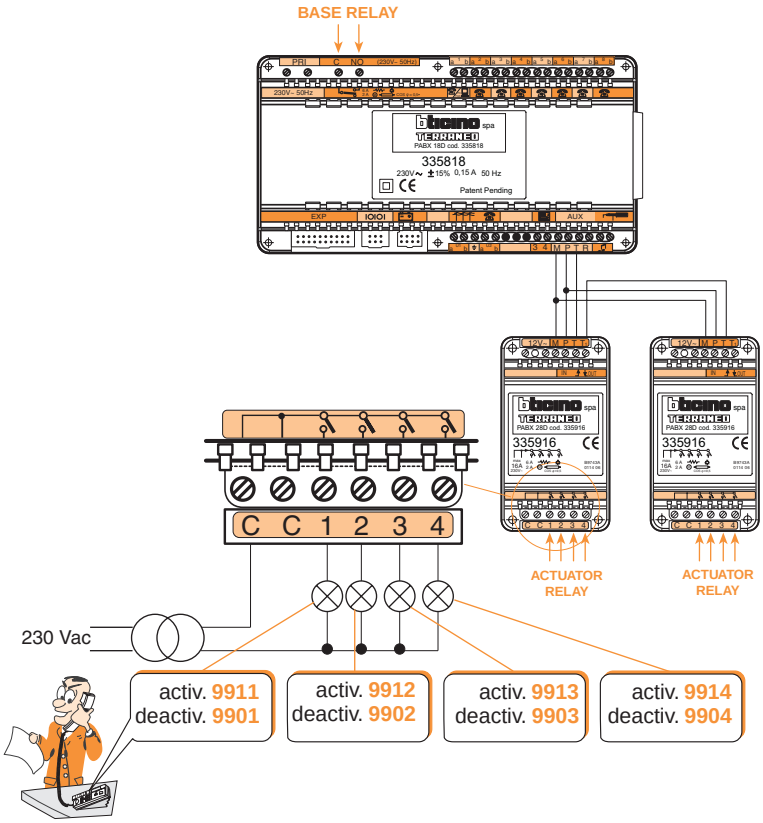
11.3 RELAY EXPANSION MODULE (ITEM 335916)

Each exchange can manage a maximum of 8 relays in addition to the internal relay for switching on the staircase light. A maximum of 2 **item 335916** can thus be connected.

Dimensions 3 DIN modules
Contact output: 6 A resistive, 2 A inductive at cos j 0.5, voltage 230 V.a.c.
The maximum output of 1 terminal C is 8 A.

Note: the distance between the exchange and expansion modules item **335916** must be less than 1 metre. The cable to be used to make the connections must be of section 0.28 mm^2 or greater.

As a base the extra relays are programmed to operate in monostable mode (cannot be activated with ⊂O≡ or R8)

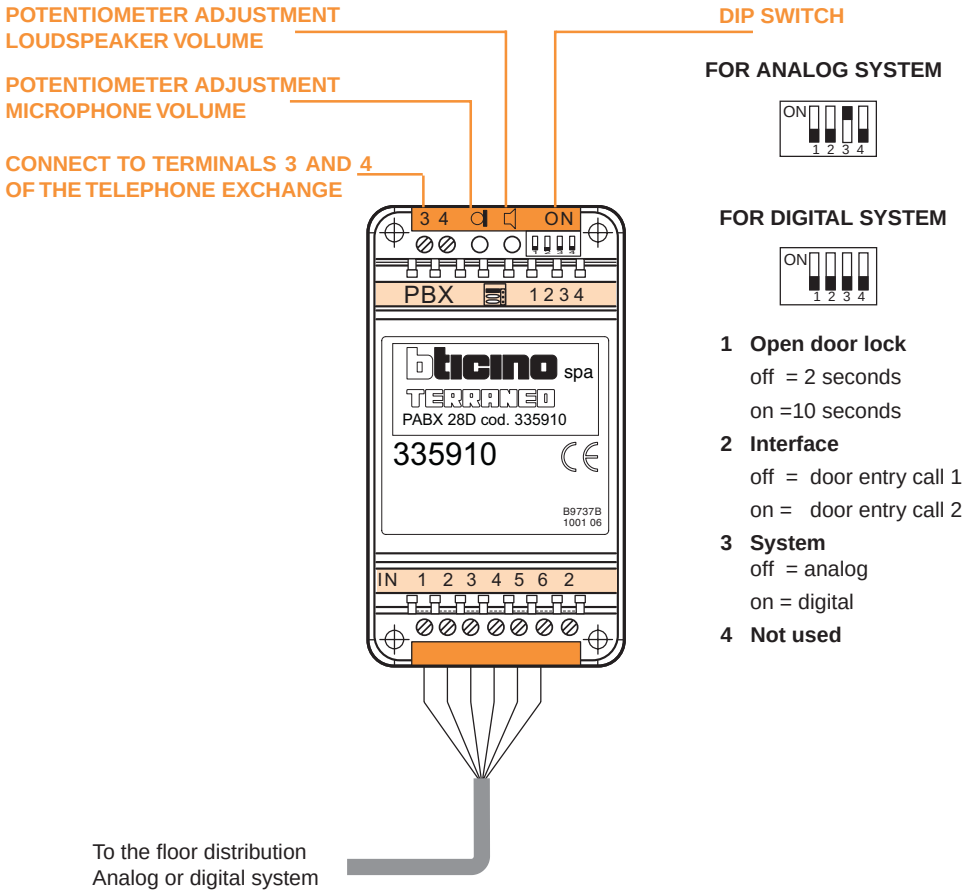


Note: If there are two expansion modules for 4 extensions **item 335912**, two expansion modules for telephone line **item 335913** and three dedicated speaker units **item 335902**, the expansion modules for actuation/remote operation **item 335916** must be supplied with a separate transformer (see diagram on the instructions with **item 335916**).

11 EXPANDABILITY

11.4 DOOR ENTRY INTERFACE MODULE FOR ANALOG AND DIGITAL SYSTEMS (ITEM 335910)

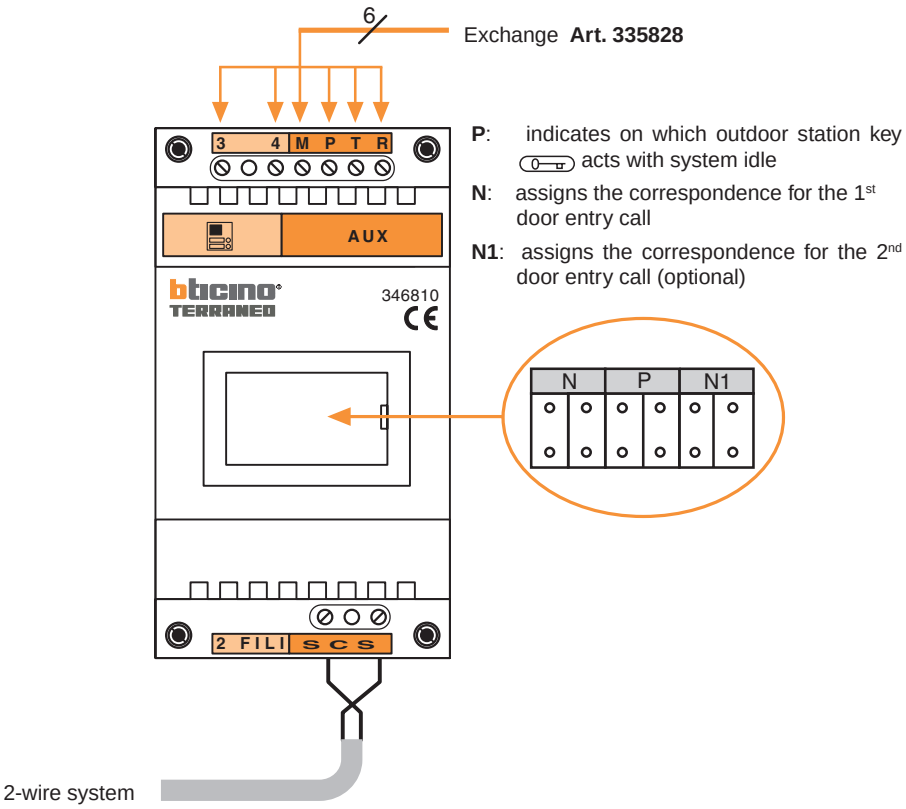
This module must be used to connect the exchange to a riser, in both analog and digital systems. The interface is supplied set up for analog riser. If installed on a digital riser position dip-switch 3 on ON.
Dimensions 3 DIN modules



11 EXPANDABILITY

11.5 DOOR ENTRY INTERFACE MODULE FOR THE 2-WIRE SYSTEM (ITEM 346810)

This interface module must be used to connect the exchange to the riser of the 2-wire system, both audio and video.
The interface must be suitably configured.
Dimensions 3 DIN modules



P: indicates on which outdoor station key acts with system idle

N: assigns the correspondence for the 1st door entry call

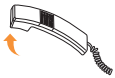
N1: assigns the correspondence for the 2nd door entry call (optional)

Warning: Correct operation of the 2-wire interface is guaranteed using PABX exchanges 335818 and 335828 produced with production batch 0139 6 or later or, if previous, updating it with TIPBX software ver. 4.1 or later; item 335916 (relay module) instead can only be used with the 2-wire interface if produced with production batch 0116 6 or later.

11 EXPANDABILITY

Activating 2-wire interface from extension

The following procedure must be performed to activate the 2-wire interface:

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: # * #

Dial the password (e.g. base 1 2 3 4)

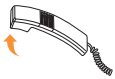
After the start dialling tone type the Macrocommand:

* → 8 2 → * → 9 0 → #

After receiving the confirmation tone, hang up.

Deactivating 2-wire interface from extension

Pour la désactivation de l'interface 2 fils il faut exécuter la procédure suivante:

Lift the receiver 

Press the R key, you will hear the start-dialling tone

Type: # * #

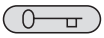
Dial the password (e.g. base 1 2 3 4)

After the start dialling tone type the Macrocommand:

* → 7 7 → * → 0 0 → #

After receiving the confirmation tone, hang up.

Activating door lock on Outdoor Station XY of the riser

R → * → 4 → X Y → 

Intercommunication with Indoor Station XY of the riser

R → * → X Y → *

11 EXPANDABILITY

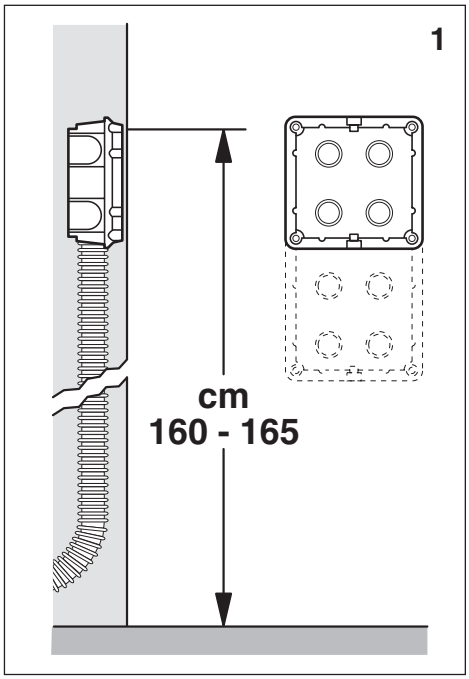
11.6 DEDICATED SPEAKER UNIT FOR PABX (ITEM 335902)

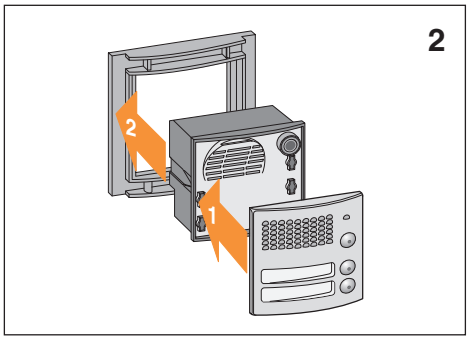
A maximum of three speaker units **item 335902** can be connected to each PABX exchange and a nameplate module **item 342200** can be connected to one of the speaker units.
Up to 3 outdoor stations can be connected without mixer. One of the three outdoor stations can have a nameplate module for street number or other information. The speaker units of outdoor stations 1 and 2 must be configured. The speaker unit of the main outdoor station must not be configured.

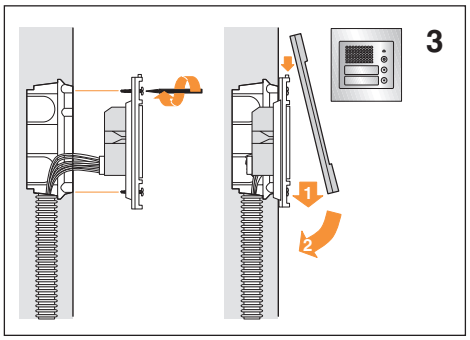
Operation

The system automatically switches to the outdoor station from which the call was made. If a call is made from one of the two temporarily excluded speaker units you will hear a telephone busy tone.
Idle the door lock command acts on the main outdoor station.
As a base the staircase light button of the speaker unit is associated to the exchange relay; it can however be associated to one of the relays of expansion **item 335916** if so programmed.
A twisted cable with minimum section 0.28 mm^2 must be used for the connection between speaker unit and PABX.

11.7 INSTALLING THE SPEAKER UNIT



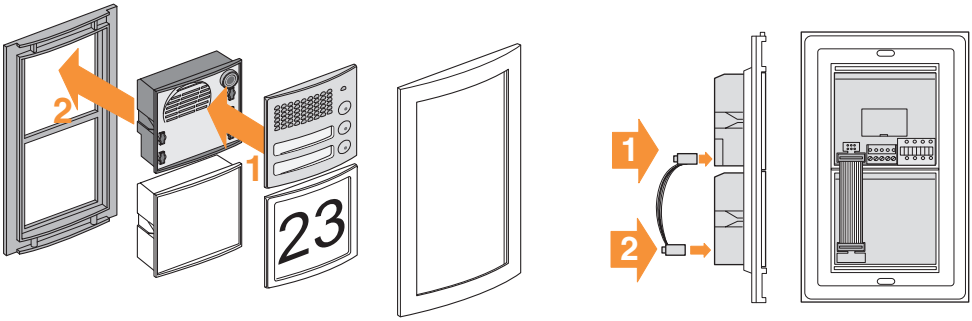




11 EXPANDABILITY

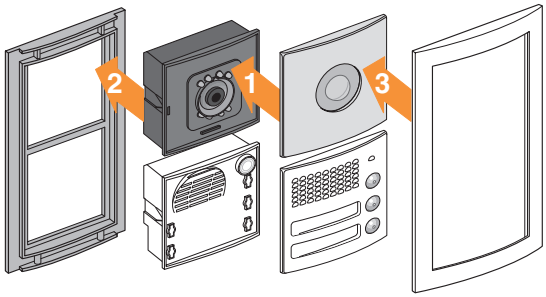
Installing the speaker unit with nameplate module (item 342200)

A nameplate module for item 342200 can be connected to the speaker unit to show the street number or other information.

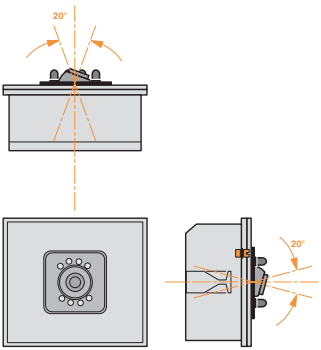


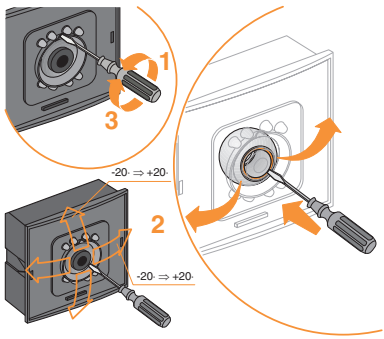
Installing the speaker unit and camera (item 332520)

Camera module item 332520 can be connected to the speaker unit to make video systems.



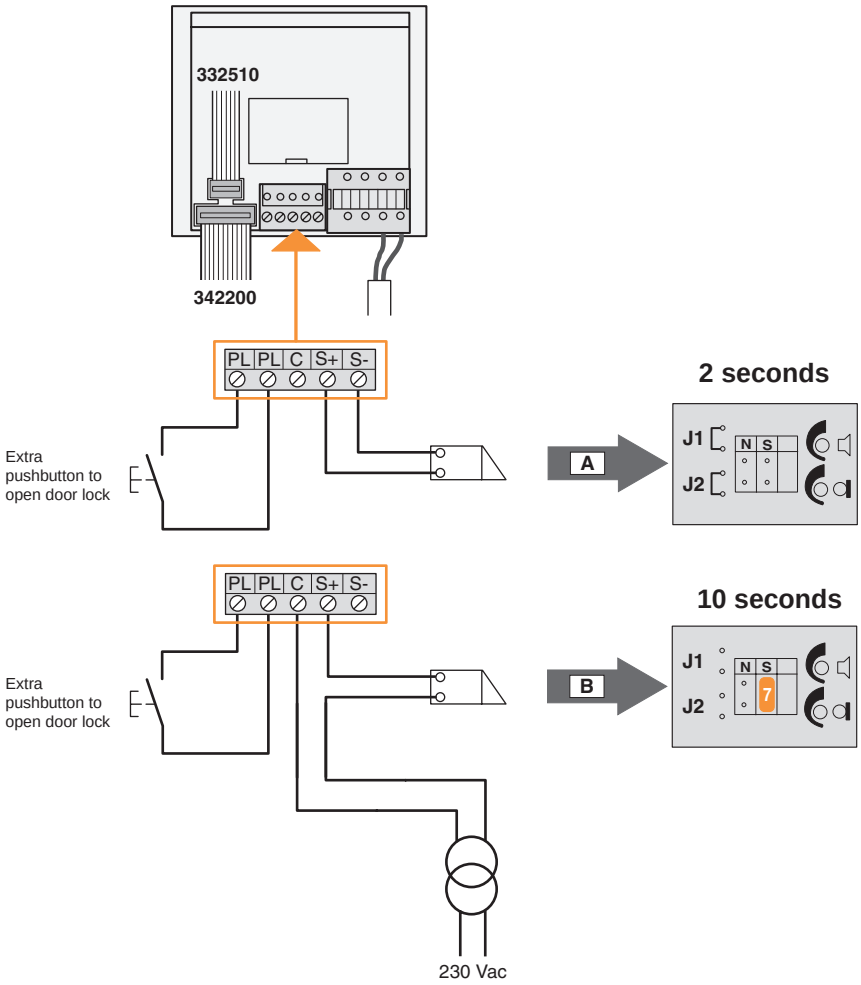
The camera can be rotated for optimum view





11 EXPANDABILITY

Connecting the electric door lock to the outdoor station



11.7 ACCESSORY FOR PROGRAMMING FROM PC (ITEM 335919)

The “TIPBX” software, together with the accessory for programming from PC (**item 335919**) can be used for easier exchange programming.
The “TIPBX” programming software can be downloaded free from the BTicino Internet site, address www.bticino.it software section.
Exchanges item **335828** produced from batch **0127 6** can work together with video Distributor item **335918** and Video Expander item **335925**; to program systems of this type the “TIPBX” software must be version **3.1 or later**.

12 TECHNICAL DATA

12.1 TECHNICAL CARD

Installation:	on DIN rail with size 10 DIN modules
Capacity:	
Outside telephone line (analog)	1
Extensions	8
Connection system:	
Telephone connection	two-wire (with 0.28 mm^2 telephone pair)
Maximum telephone distance	200 m
Outside telephone line connection	two-wire (with 0.28 mm^2 telephone pair)
Max distance between PABX and item 335902	200 m two-wire (with 0.28 mm^2 telephone pair)
Dialling system:	pulse-dial or touch-tone
Power supply:	
Network voltage	230 V a.c. ±10%
Power required	20 VA
Dissipated power	12 W
Staircase light relay contact:	6 A resistive – 2 A inductive 230 V c.a.
Protection against overvoltage and overcurrent on telephone line:	earth leakage integrated and common mode with earth conductor on terminal
Mechanical and environmental characteristics:	
Weight	900 gr
Working temperatures	0 °C - 40 °C
Timing of internal tones: (*)	
start dialling tone	continuous two-tone
call control tone (free)	1 s / 4 s
busy tone	500 ms / 500 ms
time-out tone	100 ms / 100 ms
overcrowded tone	200 ms / 200 ms
on-hold tone	200 ms / 200 ms / 200 ms / 3400 ms
alerting tone	100 ms / 4900 ms
confirmation tone	100 ms / 100 ms / 100 ms / 100 ms / 1500 ms
configuration error tone	100 ms / 100 ms / 300 ms / 300 ms / 500 ms / 2 s
door entry on-hold tone	200 ms / 100 ms / 200 ms / 100 ms / 500 ms / 2 s
door entry call alerting tone	100 ms / 100 ms / 100 ms / 4700 ms
Call signals (bell rhythms): (*)	
extension call	600 ms / 200 ms / 200 ms / 4 s
local call	1s / 4 s
door entry call	400 ms / 400 ms / 400 ms / 400 ms / 400 ms / 1s
Programming the services:	from any extension or by PC from **IOIOI** connector

Emergency service: If there is a power cut, telephone 401 gives direct access to outside telephone line.

(*) Note: The times are given in the sequence pulse / pause / pulse / pause / etc.

12 TECHNICAL DATA

12.2 STANDARDS REFERENCES

The item which is the subject of the manual comes with EC Declaration of conformity according to the requirements indicated below:

BTicino S.p.A. Via Messina, 38 – 21154 MILAN declares that the product with item No.:

335818

conforms to the essential requirements of directive 1999/5/EC in that it respects the following standards:

EN 60950 **EN 50081-1** **EN 50082-1**

ETSI TBR21 **ETSI ES 201 187 V 1.1.1**

Year of Approval EC marking according to the directive indicated: 2001

NOTES

NOTES

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