TELEPHONE SYSTEM

TELEPHONE SYSTEM, VIDEO DOOR ENTRY SYSTEM AND HOME AUTOMATION IN ONE SOLUTION

bticino

Contents

An integrated solution

Telephone system, video door entry system and home automation in one solution

Making a telephone call, managing the home automation and the video door entry system of the home, the shop, or the office, today is possible with one single solution, thanks to the new BTicino telephone system. Thanks to the use of the new PBAX telephone switchboard, the installation of the new Iryde Touch Phone telephone system, which can be perfectly integrated with the BTicino 2 wire video door entry system, ensures at all times the possibility of expanding the system, adding advanced home automation and telephone functions. Therefore, the new telephone system has the distinguishing characteristic of being a perfectly scalable system; this means that it can be used to manage a simple call, but also to adjust the temperature in a zone of the home.

IRYDE TOUCH PHONE, BLACK

PABX SWITCHBOARD

1 TELEPHONE SYSTEM

- Display of the number of the caller on all the extensions, including for intercom calls (CID service).
- General call for all the extensions.
- Pager service, broadcasting handsfree on all amplifiers.
- Selection of the handset from the PSTN telephone line using the voice menu (DISA service).
- Typical functions of the PABX switchboard.

2 VIDEO DOOR ENTRY SYSTEM

- Transfer of door entry system call to the telephone line or mobile device (DOSA service).
- Remote door lock release.
- Unlimited intercommunication within the apartment.
- Answer of door entry system calls using the telephone.

3 MY HOME AUTOMATION

- Remote management with voice guide.
- Management from cordless devices (door lock release, and answering of video door entry system calls).
- System management: Automation, Sound System, Temperature control and Burglar alarm.

IRYDE TOUCH PHONE, WHITE

MOBILE PHONE

ENTRANCE PANEL

1 CORDLESS

IRYDE TOUCH PHONE

PABX

The
applications
in the home sector

1 INTERCOMMUNICATION

It is possible to establish calls among several devices installed in the same home. The PABX switchboard can also be programmed for operation with two partitions, for example to separate the services towards a private home from those towards, for example, an office part of the same dwellings.
When used as intercom, it is also possible to display the caller number, or CID.

4 MOBILE PHONE

1 CORDLESS

1 CORDLESS
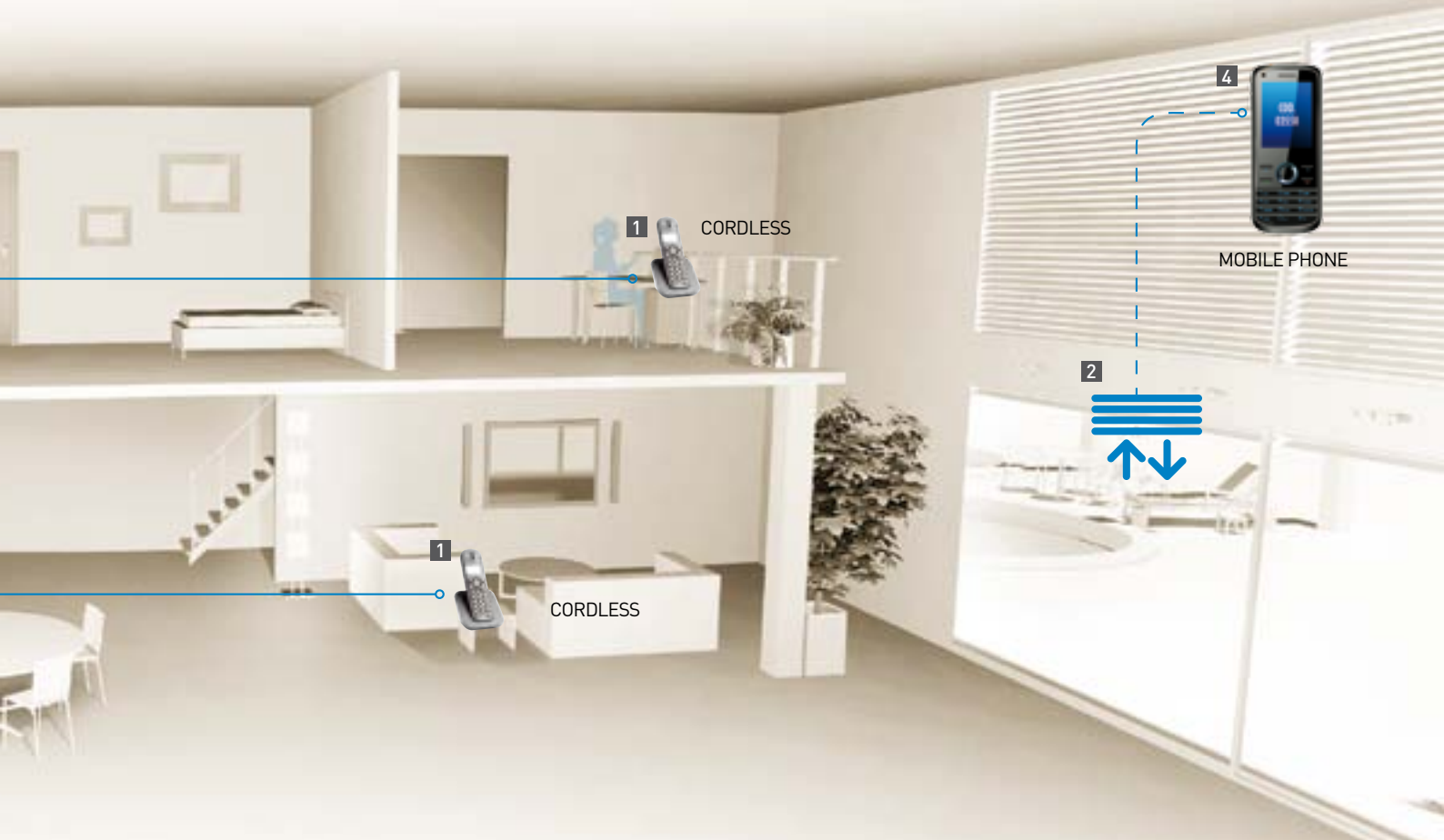
2 MY HOME FUNCTIONS
In a MY HOME automation system, Iryde Touch Phone can be used to:
- send home automation scenario management commands
- manage the sound system sources
- display the burglar alarm system alarm log
- manage the temperature control system

3 TRANSFERRING DOOR ENTRY SYSTEM CALLS (DOSA FUNCTION)
Calls from the entrance panel can be transferred to a fixed or mobile telephone number, previously saved as speed number in the address book of the PABX telephone switchboard.
This means that one can always be available.

4 REMOTE HOME AUTOMATION SYSTEM ACTIVATIONS
Using the customised voice guide it is possible to control, from a fixed line or mobile telephone, the activation of home automation scenarios/functions, like activating, while out, the closing of the rolling shutters in case of bad weather (1).

Note [1]: the provision of the service is connected to the telephone service provider used (DTMF tone management)

CORDLESS

CORDLESS

Reception

FAX

IRYDE TOUCH PHONE,
TABLE TOP
INSTALLATION

The
applications
in the
small service
sector

PARTITION 2 - HOME

CORDLESS

CORDLESS

ENTRANCE PANEL

PABX

IRYDE TOUCH PHONE,
WALL MOUNTED INSTALLATION

The PABX switchboard gives the possibility of creating two partitions, to separate the calls to the private home (partition 2) from those to the office (partition 1). The two partitions are independent as far as video door entry system calls, services, and telephone calls are concerned, but their internal extensions intercommunicate with each other.

Among the main functions and services are:
- DISA with voice guide
- CID, both for intercommunication, and the PSTN telephone line (to display: office name, hotel room, warehouse, etc.)
- FAX-SWITCH service for the forwarding of calls to the fax machine.

A
scalable
solution

Iryde Touch Phone can be installed Stand-alone, and used in a telephone or video door entry system, as a telephone and/or handset. If installed as part of a telephone, video door entry, or home automation system, it can be integrated with the MY HOME system. Lastly, in systems also including the new PABX switchboard, it can also perform advanced telephone and video door entry system functions.

Basic solution

PLT1

IRYDE TOUCH PHONE   ENTRANCE PANEL

IRYDE TOUCH PHONE   ENTRANCE PANEL
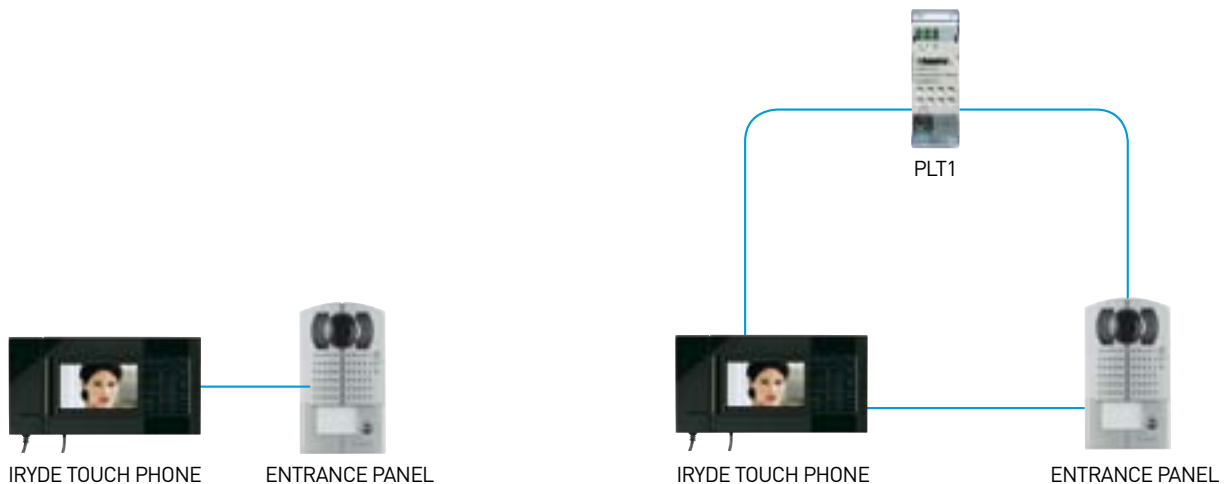
- Video door entry system functions

- Video door entry system functions
- Telephone functions[1]

Note [1]: check with the telephone service provider what is the maximum number of telephone devices that may be installed, in parallel, directly on the PSTN telephone line.

Advanced solution

PLT1	F422
IRYDE TOUCH PHONE	ENTRANCE PANEL

PLT1	F422	PABX
IRYDE TOUCH PHONE		ENTRANCE PANEL
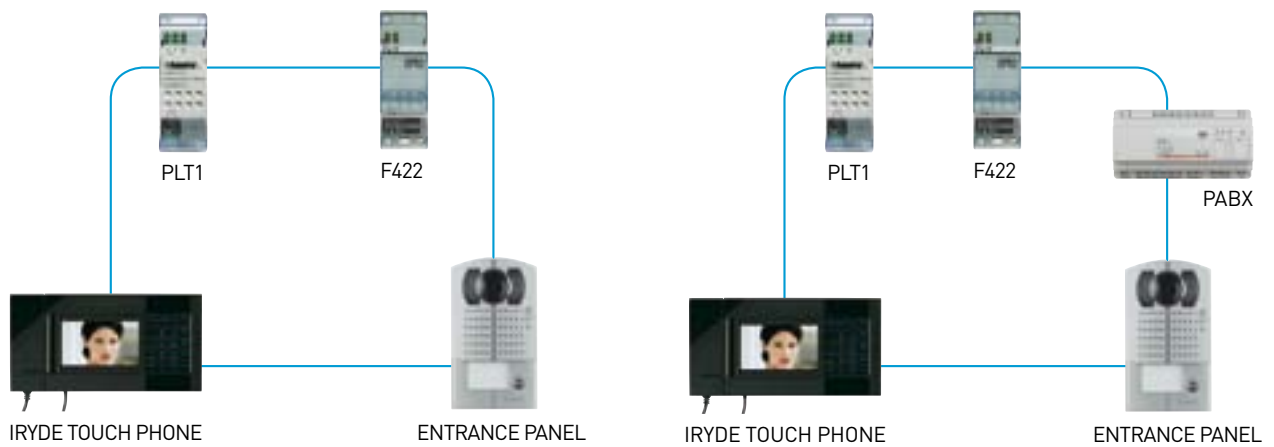
- Video door entry system functions
- Telephone functions[1]
- Home Automation functions - Interfacing with the MY HOME system

- Video door entry system functions **ADVANCED**
- Telephone Functions **ADVANCED** (up to 24 ITP)
- Home Automation functions - Interfacing with the MY HOME system

IRYDE
TOUCH PHONE

MAIN FEATURES

Iryde Touch Phone is a device that gives the possibility of integrating the video door entry system functions to the telephone functions. It can be mounted on the wall, using the appropriate metal bracket, or on a table-top base.

It features a Touch Screen with 4.3" LCD colour display, backlit keypad and navigation menu, which can be customised using a PC, for the management of the following functions:

- Video door entry system
- Telephone system
- Automation
- Temperature control
- Sound system
- Burglar alarm

Loudspeaker (handsfree)

TOUCH SCREEN LCD colour display

Microphone (handsfree)

Handset

Keypad with telephone and video door entry system controls

Mini USB for PC connection
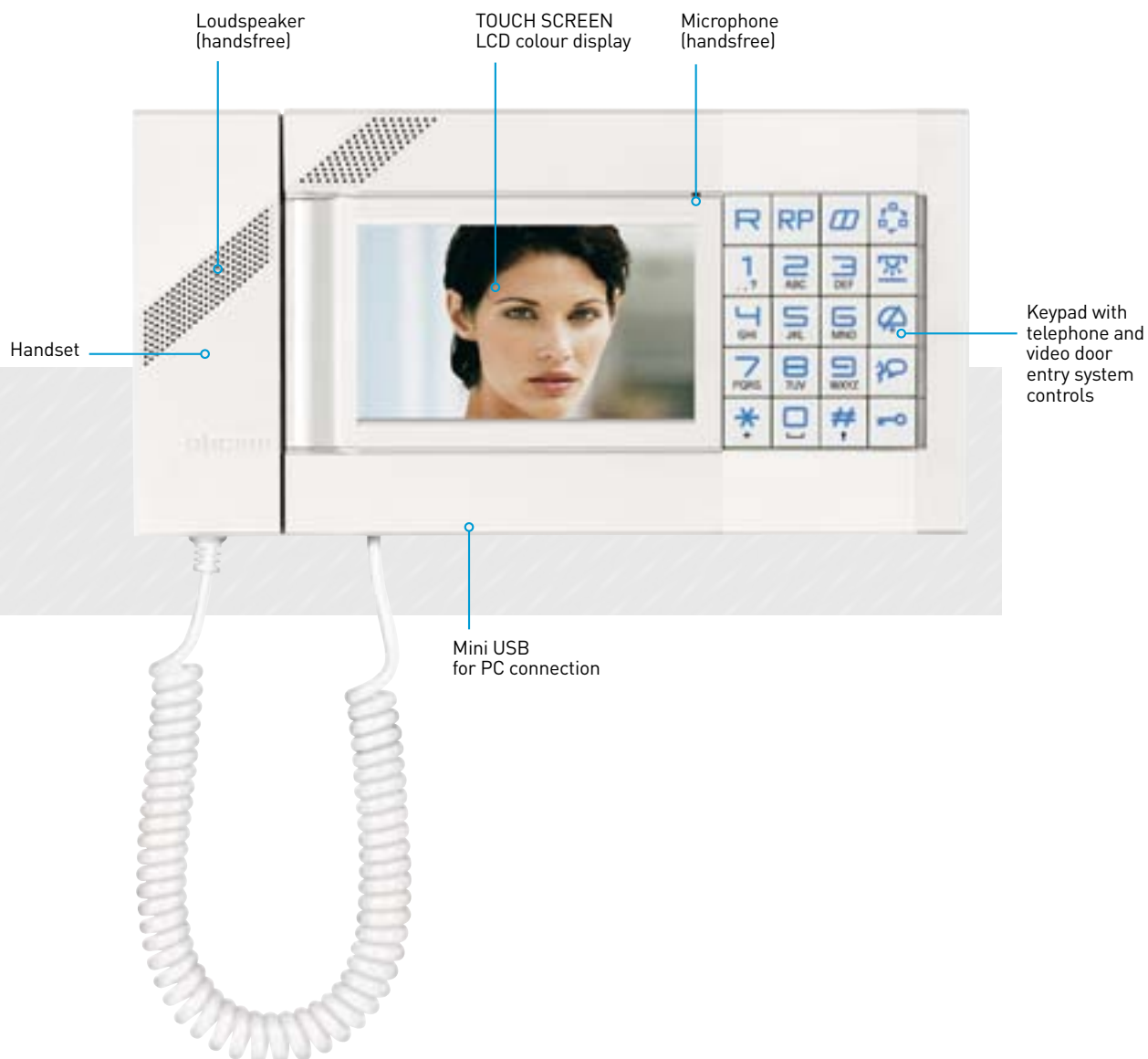
MAIN FUNCTIONS:

TELEPHONE FUNCTIONS
- Address book with contact customisation (photo)
- Identification of extension caller
- Customisable melodic bells
- Call log: missed, received, made
- Handsfree enabling and disabling function
- Call forwarding and repetition
- Call exclusion
- Telephone transfer

VIDEO DOOR ENTRY SYSTEM FUNCTIONS
- Entrance panel switching on
- Cycling of cameras
- Staircase light switching on
- Door lock release

VIDEO DOOR ENTRY SYSTEM FUNCTIONS
- Programming and management of the sound system sources
- Alarm log display
- Temperature control central unit management
- My Home scenario management

Video door entry system screen

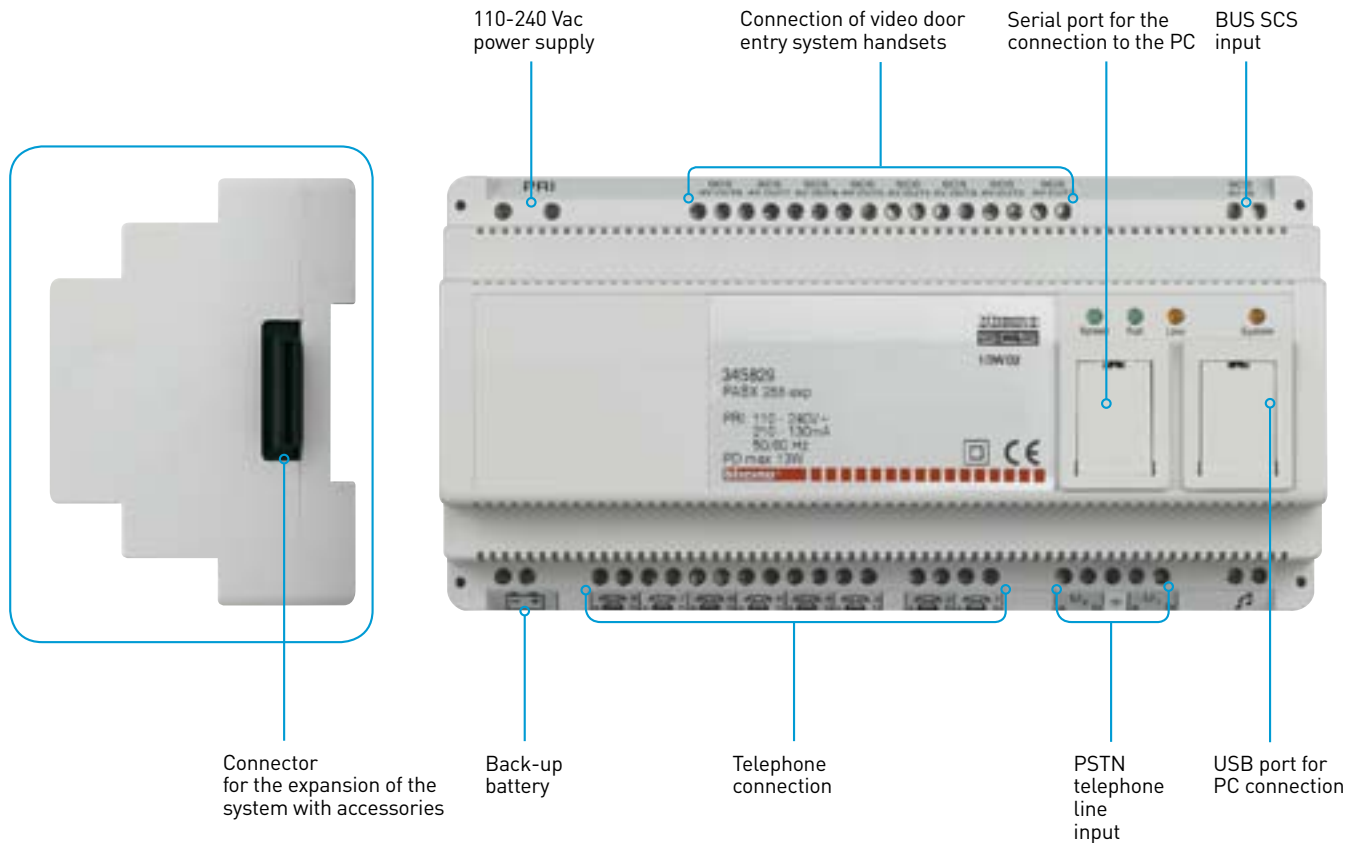Temperature control screen

Sound system screen

PABX
SWITCHBOARD

MAIN FEATURES

The use of the telephone switchboard in a door/video door entry and telephone system also provides intercommunication among all the telephones installed, video monitoring system functions, and remote activation: it is possible to send commands to the My Home system using Iryde Touch Phone (if non Iryde Touch Phone extensions are used, it will only be possible to send to the My Home system the commands for the activation of the door lock of the main Entrance Panel, or the switching on of the lights), or by making a simple call from the PSTN telephone line using the voice menu. The switchboard provides interaction with the My Home system through 9 different customisable voice commands.

Thanks to the ease of use, and the flexibility of the services, the switchboard is particularly suitable for use in homes, shops, offices, and the small service sector in general. The manufacturer ensures in fact full compatibility with all telephone devices, with touch tone telephones, modems, faxes, cordless phones and answering machines.

110-240 Vac power supply

Connection of video door entry system handsets

Serial port for the connection to the PC

BUS SCS input

Connector for the expansion of the system with accessories

Back-up battery

Telephone connection

PSTN telephone line input

USB port for PC connection

MAIN FUNCTIONS:

- Telephone functions: call on-hold and call transfer, extension call, answer to a second call.
- Advanced video door entry system functions:
  DOSA service for the transfer of a door entry system call to a mobile/fixed phone, and for ordering the release of an entrance panel door lock.
- My Home control functions:
  send up to 9 different home automation system commands through a PSTN telephone line, with the support of a voice guide.
- Additional functions:
  automatic recognition of the type of calls: fax, telephone, and video door entry system.

OTHER FUNCTIONS:

- Door lock release from a telephone.
- Answer for another extension.
- Division into partitions: the switchboard can be programmed to differentiate between calls (door/video door entry system and telephone calls) and services directed towards the home, and those directed to an office belonging of the same dwellings.
- Caller ID (CID) on all extension telephones of the PABX, for calls from the PSTN telephone line, and for intercommunicating calls.
- Selection of the extension to call directly from the PSTN telephone line, using a voice guide (DISA).

For the complete list of the PABX functions, see the dedicated table.

PABX SWITCHBOARD ACCESSORIES
The new 345829 telephone switchboard is capable of managing, in its basic versions, two PSTN telephone lines, and up to 8 telephone extensions, or Iryde Touch Phones. A range of accessories is available,
which when connected to the switchboard (directly, or using an accessory connection cable on DIN rail) offer the possibility of expanding the performance and potentials of the system, to meet the needs of the user.

Thanks to these system accessories it is possible to increase:
- the number of extensions (maximum 2 accessories, for a total of 16 additional extensions);
- the PSTN telephone lines, up to a maximum of 4.

Functions performed
by the PABX switchboard

Telephone services

■ **Calls to the PSTN telephone line:**
It is possible to enable/disable the individual extension for making call through the PSTN telephone line.
This enabling/disabling is individual for each PSTN telephone line in the system.

■ **Calls from the PSTN telephone line:**
It is possible to enable/disable the individual extension for receiving calls from the PSTN telephone line.
This enabling/disabling is individual for each PSTN telephone line in the system.

■ **Calling a number on the PSTN telephone line:**
The extension can call and talk with a telephone number on the PSTN telephone line. It is possible, using the appropriate keypad control, to select the PSTN telephone line on which to make the call (codes to be used are 11 and 12).

■ **Answering a call:**
When the telephone rings, irrespective of the type of call, it is possible to establish communication with the caller by lifting the receiver. The user can identify the origin of the call, using the ¨differentiated call¨ service, or by means of a message shown on the display (CID service, only for enabled extensions).

■ **Putting a call on and off hold on a PSTN telephone line:**
During a call, the extension can, using the appropriate command (R key) put the caller of the PSTN telephone line on hold. The PSTN caller hears a waiting tone. While the call is on hold, the extension can call another extension, activate an available service, or continue the conversation, by pressing the same key (R) again, to put the caller off hold. It is possible to put on hold an intercommunicating call with another extension, but not one from the 2 wire video door entry system.

■ **Transferring a PSTN telephone line call to another extension:**
The extension (or caller) can transfer a PSTN telephone line call, after putting it on hold, to another extension.
The caller can make an intercommunicating call, a general call, or a pager call to another extension, and transfer the call.

■ **Answering a second call during a conversation on the PSTN telephone line (call warning tones):**
During a conversation, the arrival of a second call is notified by a warning tone, The user can interrupt the current conversation by replacing the receiver, lifting it again to answer the new call. However, if the user does not want to stop the current call, the second call can be answered using the ¨call switching¨ service.

■ **Call switching:**
During a conversation through the PSTN telephone line, if another call is received, the user of the extension can use the appropriate keypad control to put on hold the current conversation, and answer the second call. The same control can be used to put the second call on hold and return to the first one.

■ **Emergency operation:**
In case of power supply cut, only extensions 1 and 2, connected to the PSTN telephone lines 1 and 2 respectively, can make and receive calls.
No other services are available, and the other extensions will not work.

■ **Direct access to the PSTN telephone line:**
When lifting the receiver, the extension is connected directly to the PSTN telephone line and a telephone number can directly be selected. In this mode, internal services (intercom, etc...) are accessed by pressing the R key after lifting the receiver.

■ **Disconnection from the PSTN telephone line:**
If no number is entered within 20 seconds, the extension engaging the line is disconnected, and the line is made available to the system.

■ **Fax Switch service:**
The service can be activated on each of the two PSTN telephone lines. If the incoming call is a FAX call, this will be directly diverted to the appropriate extension, otherwise the enabled telephones will start ringing. In case of VOICE call, the user will be asked to wait, by a voice message, while the switchboard recognises the type of incoming call.

■ **DOSA Service:**
The service gives the possibility of entering a telephone number on the PSTN telephone line through an EP door entry system call. It is possible to associate a telephone number for DOSA CITO1 type calls (address book item 48), and a number for CITO2 DOSA type calls (address book item 49).
On arrival of a (CITO1, CH_GEN, CITO2) call from the EP, the enabled extensions ring at the same time, and if the PSTN telephone line is free, the number entered in position (49-50) of the address book is dialled.
If an extension or a handset answers, the call towards the PSTN telephone line is stopped. If there is no answer for 25 seconds, the PABX answers the call automatically to enable the remote telephone to decide whether to accept or refuse the call.

■ **Door lock DOSA service:**
By entering code 97, the user of the remote telephone can order the release of the door lock.

■ **DISA Service:**
This service gives a remote telephone the possibility of directly initiating a conversation with an extension connected to the PABX.
Following an incoming call on LU1 or LU2, the switchboard automatically answers and sends to the remote telephone a voice menu explaining how to enter in conversation with one of the PABX extensions.

■ **CID:**
Caller ID on all extension telephones of the PABX, both PSTN telephone line calls and for intercommunicating calls.

Video door entry system services

Door entry system services:
It is possible to enable/disable the extension for the release of the EP door lock (also addressed), and the activation of the staircase lights.

Calls from the entrance panels (EP):
It is possible to enable/disable the individual extension for receiving calls from the entrance panel. It is possible to independently enable/disable the reception of each individual call address configured in the PABX (CITO1 and CITO2), and of the general call.

Intercommunicating calls from another apartment:
It is not possible to enable/disable the individual apartment for receiving intercommunicating calls between the extensions of the 2 wire video door entry system.

Intercommunicating calls from the handset of the same apartment:
A handset can call an individual PABX extension by making an intercommunicating call with an address between 1 and 8 (the addresses for CITO1 and CITO2 are not considered for calls from the handset).

Release of the main entrance panel door lock:
The door lock of the main entrance panel may be released from any extensions. The main entrance panel address can be configured by the user.

Staircase light switching on:
The staircase lights can be activated by any extensions, either when the extension is idle, or during a conversation. The extensions (e.g. ITP) feature a dedicated key for the activation of the service.

Intercommunicating calls between extensions of the 2 wire system:
The extensions can make or receive calls from other extensions of the 2 wire system. The call to the extension is made by selecting a keypad code (from 409 to 499). The call from the handset shall have an address between 1 and 8, and will cause the individual extension to ring.

Intercommunicating call between two apartments of the 2 wire system:
The extensions can make or receive calls from handsets belonging to other apartments of the 2 wire system. The call to the other apartment is made by entering a code in the keypad (from 501 to 509). The call coming from the other apartment will have a General address and cause all the extensions to ring.

General handsfree call (pager function):
The user can make a handsfree announcement through the amplifiers of all the handsets and sound system accessories (e.g. video stations, ITP, etc.). The service can be activated from any extension by pressing the # key. The relevant individual can enter into conversation with the caller from any system extension. To end the service simply disconnect.

Managing calls from the 2 wire system (video door entry system):
The system answers the calls from the 2 wire bus with address 01, 02, and general. The addresses can be customised using the configuration program (TiPABAX).

Various Services

Encapsulation of the extension:
The extension performing a wrong operation that causes a slow down in the system operation is disconnected from all resources. The extension receives a time-out tone to invite the user to replace the receiver.

Extension selection mode:
The PABX can detect notifications in multi-frequency selection mode (DTMF) sent by the extension. Dedicated mode notifications (DC) are not detected.

Classification of the extensions:
Possibility of enabling or disabling the individual extension in relation to certain services, calls received, or made. The factory configuration is with the extensions enabled for all services, and for all types of incoming and outgoing calls.

Extension call (intercommunicating call):
The extensions can communicate with each other. The extension to call is selected using the keypad (40x, with x being a number between 1 and 8).

General call of all the extensions:
The extension can simultaneously call all the other extensions and handsets of the apartment. The first handset or extension answering, will initiate a conversation with the caller (enter 400).

Differentiated call:
The user can identify the type of incoming call (intercommunicating, from the PSTN telephone line, or from the SCS BUS), by associating a different ringtone on the ACB extensions.

MY HOME remote activation service:
The service gives a remote user the possibility of sending "open" commands through a PSTN telephone line call to the PABX. Open "commands" may relate to scenario (CHI=0), lights (CHI=1), and automations (CHI=2), but also temperature control and sound system management functions, as well as CEN and CEN plus commands. Following a call from the PSTN telephone line, the switchboard automatically answers after a number of rings that can be set by the user (default 5). The remote telephone receives a voice message inviting the user to enter a password, after which access to a voice menu will be granted, giving the possibility of sending previously set "open" commands.
The user can perform up to a maximum of 5 activations by pressing a number between 1 and 9. The PABX sends a voice message informing the user if the action has been successful or not.

Customisation of messages directly from any telephone extensions.

Doctor's office function.

Managing the answering machine when the MY HOME service is enabled.

345020

345829

345832

345024

345021

345830

345831

345023

| Item	Description
345829	2 wire PABX telephone switchboard, 2 PSTN telephone lines, 8 extensions, expandable – 10 DIN modules
345020	Iryde Touch Phone, white
345021	Iryde Touch Phone, black
345023	Iryde Touch Phone table-top base
345024	Bracket for wall installation of the Iryde Touch Phone
345830	Accessory for the expansion of 8 additional extensions – 3 DIN modules
345831	Accessory for the expansion of 2 additional PSTN telephone lines - 3 DIN modules
345832	Accessory connection cable on DIN rail
346020	Compact additional power supply - 2 DIN modules
336983	8 way socket, LIVINGLIGHT series, WHITE
336982	8 way socket, LIVINGLIGHT series, TECH
336984	8 way socket, LIVINGLIGHT series, ANTHRACITE
336813	Connection cable

Item	Description
N4258/11N	RJ11 telephone connector - K10 connection - 2 pairs, LIVINGLIGHT series, WHITE
NT4258/11N	RJ11 telephone connector - K10 connection - 2 pairs, LIVINGLIGHT series, TECH
L4258/11N	RJ11 telephone connector - K10 connection - 2 pairs, LIVINGLIGHT series, ANTHRACITE
N4258/12	RJ12 telephone connector - K10 connection - 3 pairs, LIVINGLIGHT series, WHITE
NT4258/12	RJ12 telephone connector - K10 connection - 3 pairs, LIVINGLIGHT series, TECH
L4258/12	RJ12 telephone connector - K10 connection- 3 pairs, LIVINGLIGHT series, ANTHRACITE
PLT1	Protection for 1 PSTN telephone line - 2 DIN modules
C9412/5	Patch for PSTN telephone lines and data transmission lines, with Rj45 sockets - 6 DIN modules - category 5
F461/2	Telephone actuator, 2 independent relays with exchange contact, 230 Vac power supply - 3 DIN modules
E47/12	Power supply with back-up battery - size 8 DIN modules - for the connection of 1 12 V 6.5-24 Ah battery for the powering of 12 V devices
E47ADCN	Power supply - 230 Vac input, 27 Vdc SELV output - maximum current absorbed 450 mA - size 8 DIN modules - for the connection of a 12 V 7/12/24 Ah backup battery
3505/12	12 V 12 Ah battery

DIMENSIONAL DATA:
Iryde Touch Phone

235mm

120mm

22mm
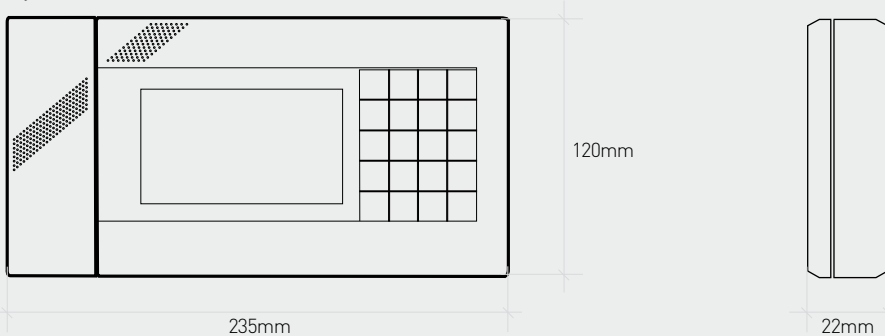
DESIGN AND ESTIMATE
PREPARATION SOFTWARE

- **YouDiagram Software** for the design of the system and the preparation of estimates - free to download from the website **www.bticino.com – Technical service – software and diagrams.**

You Diagram is the **BTicino** software for designing 2 WIRE one-family and multi-family telephone systems, video door entry systems and CCTV systems. It can be used for producing the system diagram, selecting / dressing entrance panels, selecting handsets and cameras, for the configuration of the devices, and to check the absorption levels on the system BUS.

Examples of YouDiagram software screenshots
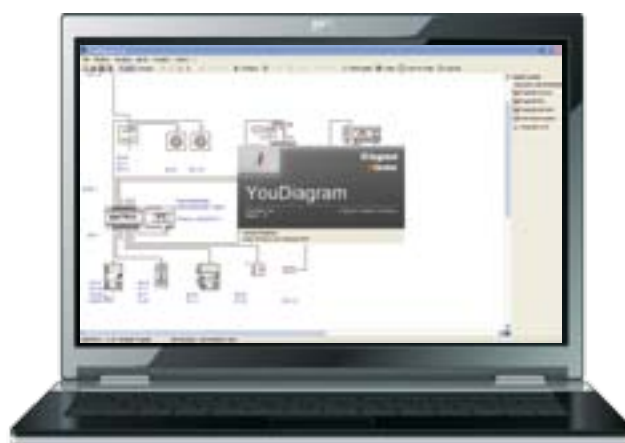
SUPPORT AND AFTER SALE SERVICE

For the realisation of 2 WIRE telephone systems, audio/video door entry systems, and CCTV systems, BTicino supports the professionals of the sector with dedicated estimate preparation and design tools:

- **COST ESTIMATE PREPARATION SERVICE**
  free of charge call to the

Total free number 800.293.000 (Italy)

The BTicino operators are able to identify and produce the solutions that best meet the requirements of the customers, supplying customised estimates:
- Detailed material list.
- System block diagram and multi-wire connection diagrams for the individual devices.
- Configuration of all the system devices.
- Current absorption checks.

Servizio
PREVENTIVAZIONE
GRATUITO

Numero Verde
800 293 000

Il servizio è attivo dal lunedì a venerdì dalle ore 8.30 alle 19.00
e il sabato dalle 8.30 alle 12.30

IL SERVIZIO SPECIALIZZATO SEMPRE AL TUO FIANCO:
- preventivi personalizzati
- schemi di collegamento e note tecniche
- consulenza nell'installazione e configurazione dei dispositivi
- invio documentazione tecnica
- possibilità di aderire a promozioni dedicate

MY HOME   CITOFONIA   QUADRI
           E VIDEOCITOFONIA   E ARMADI MAS

ORA ANCHE TVCC

INSTALLATION RULES FOR TELEPHONE AND VIDEO DOOR ENTRY SYSTEMS

The system is SELV (Safety Extra Low Voltage) classified because its power supply is with independent double-insulation safety power supplies not connected to the earth and with maximum operating voltage of 25 Vac (effective) or 60 Vdc not inverted.

Also, all the BTicino devices have double insulation. Correspondence to the SELV classification is only guaranteed with COMPLETE RESPECT of the installation rules in force and of the GENERAL RULES OF INSTALLATION of the individual devices and wires which make up the system indicated by BTicino.

Below is a list of the terms used in this section of the guide:

■ **ITP:** Iryde Touch Phone. This is the telephone unit that includes in one single device the 2 wire video handset and the ACB extension functions. The ITP is connected using 4 wires, 2 for the ACB extension side, and 2 for the video door entry system side.

■ **PABX:** telephone switchboard which, in addition to the many telephone functions, also provides integration with the BTicino 2 wire video door entry system.

■ **ACB:** Automatic Central Battery. Traditional telephone handset found on sale, so called because directly powered by the telephone central unit it is connected to: telephones, cordless phones, faxes, modems, telephone answering machines, accessories for services like CID and SMS. All ACBs must comply with the current telephone regulations. Connection is performed using 2 wires (telephone pair).

■ **PSTN telephone line:** public analogue telephone line.

■ **HANDSET:** Handset: Any device of the 2 wire SCS BUS for audio/video reception of the calls from the entrance panel.

■ **EP:** entrance panel. Device of the 2 wire SCS BUS featuring a pushbutton panel and a camera, used to call the handsets.

ONE/MULTI FAMILY SYSTEM WITHOUT PABX SWITCHBOARD

In a One-family system it is possible to install up to 4 ITPs connected to each other, as well as the video adapter (in/out wiring), or audio/video node (star wiring), using the BUS cable. The connection to the PSTN telephone line is ensured by directly connecting the PSTN telephone line to the appropriate connector on the back of the telephone.
If no additional power supply is used, when several menus are switched on simultaneously, display brightness limitation occurs.

In the diagram shown it is possible to replace one or more ITPs with an ACB telephone unit (fax, cordless, etc.).
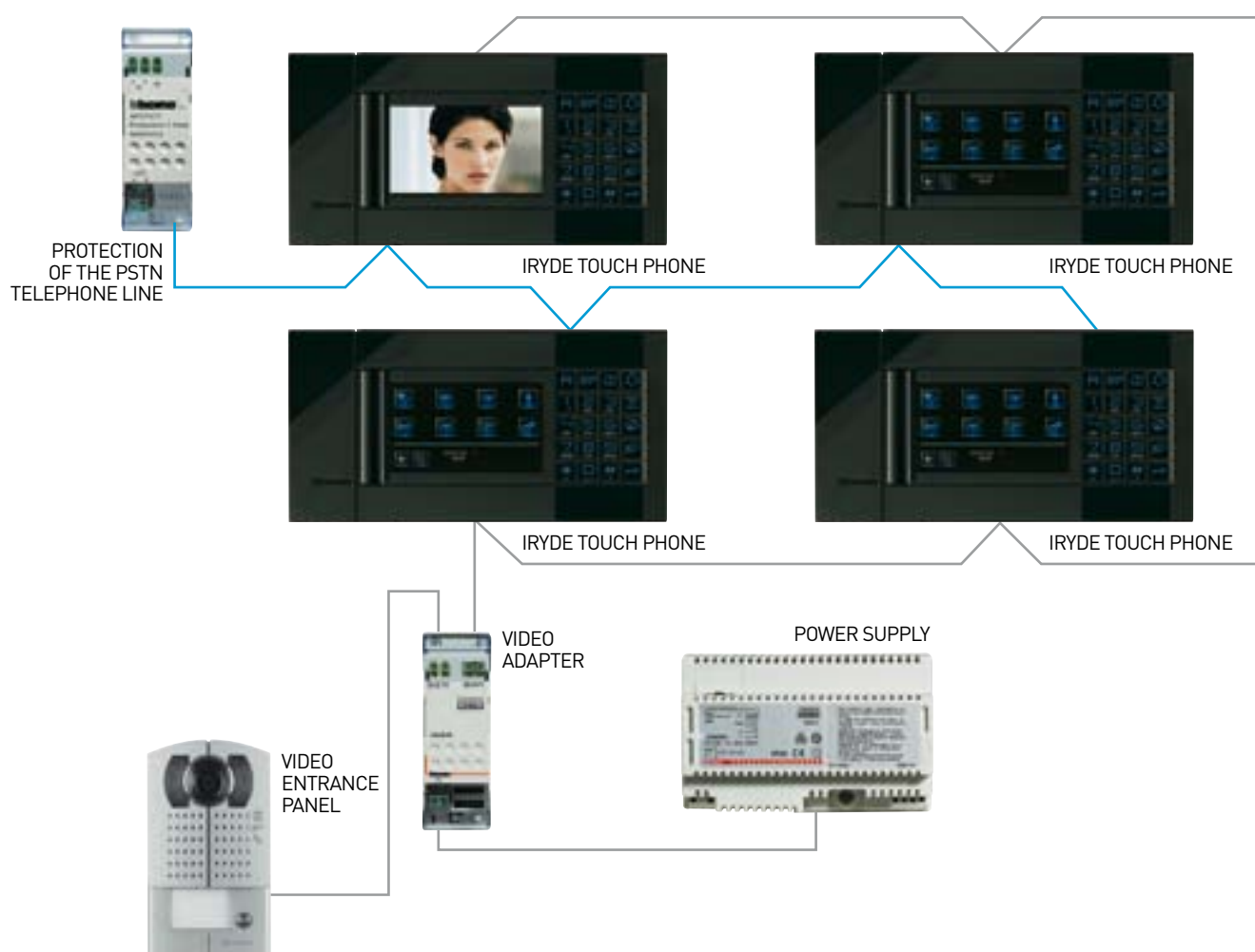**System operation in emergency mode:**
in case of lack of power supply from the SCS BUS, it is possible, thanks to an additional power supply, to ensure all the technical functions of the ITP only. The additional power supply is ensured by the power supply with back-up battery, E47ADCN + 3505/12, to be connected to the telephone for which backup is required.

For the connection of the internal extensions use the BTicino SCS cable, or the individual twisted pair with a minimum section of 0.28 mm. For particularly long distances between devices and ITP telephones, it is good practice to allow for a separate conduit (green corrugated tube), for each individual Twisted pair, or BTicino SCS cable.
For the installation of a multi family system the same rules apply, with the difference that upstream the audio/video node the apartment interface item 346850 must be installed.

PROTECTION OF THE PSTN TELEPHONE LINE

IRYDE TOUCH PHONE

IRYDE TOUCH PHONE

IRYDE TOUCH PHONE

IRYDE TOUCH PHONE

VIDEO ADAPTER
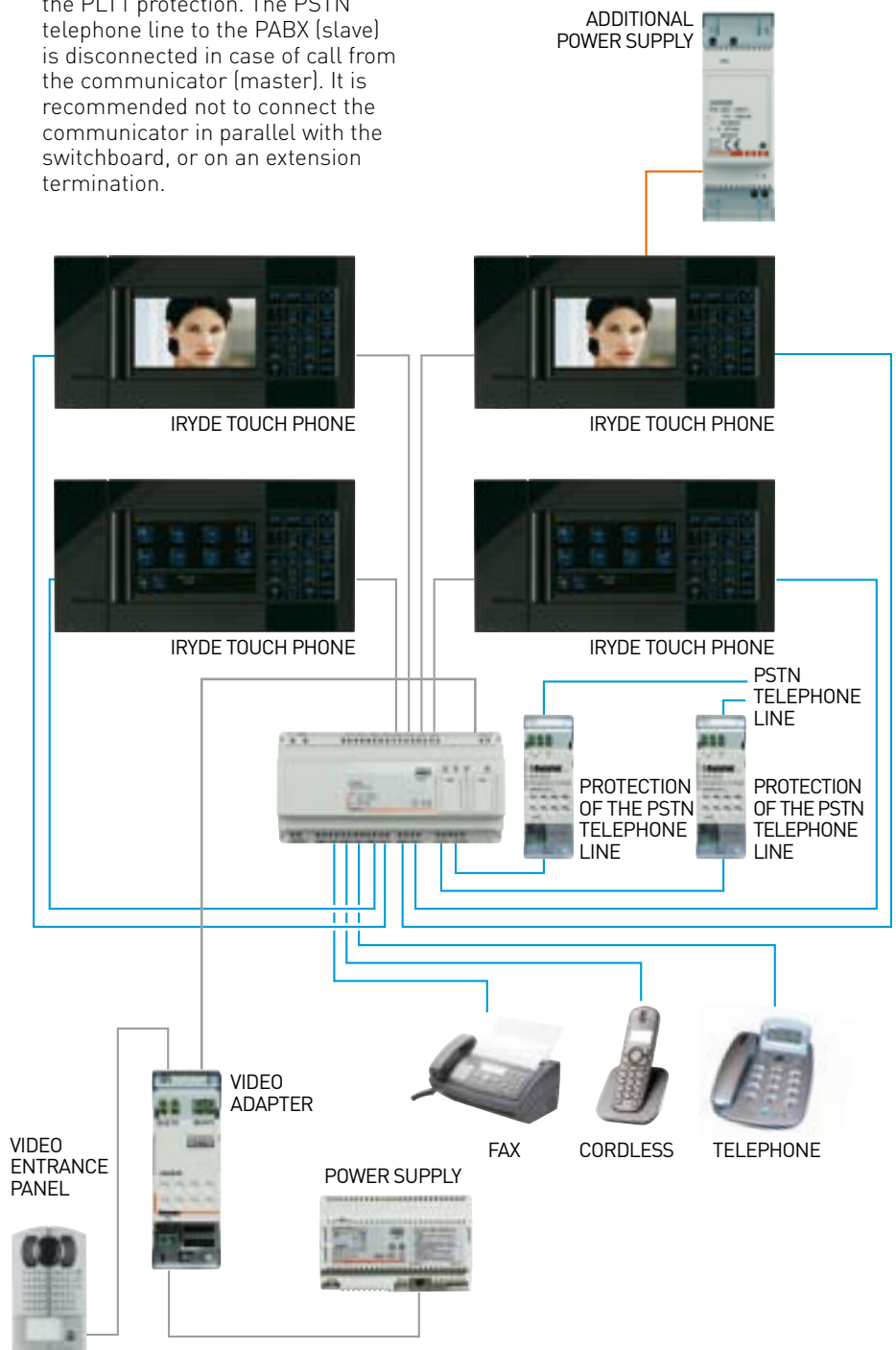
POWER SUPPLY

VIDEO ENTRANCE PANEL

SINGLE/MULTI FAMILY SYSTEM WITH PABX SWITCHBOARD

In a one-family system with PABX, the ITP devices are connected to the PABX switchboard using the extension terminations of the switchboard, and the SCS AV OUT termination. It is possible to connected up to 8 ITPs (or 24 when using accessories); **with up to 4 ITPs with no additional power supply, in case of simultaneous switching on of several menus, display brightness limitation occurs.** In the diagram shown it is possible to replace one or more ITPs with an ACB telephone unit (fax, cordless, etc.). It is necessary to configure the PABX using the configuration software, indicating in which position the Iryde Touch Phones have been installed. The general rules for the installation of the PABX are:

- **Protection of the PSTN telephone line:** to ensure a high protection index from overvoltage on the PSTN telephone line, it will be necessary to install the PLT1 device upstream the PABX. The earth connection on the PLT1 must be performed complying with the current regulations.
- **Protection of the power supply network:** to ensure a high protection index from overvoltage from the AC power supply network, it is necessary to install upstream the PABX a protection, selected and connected to the ground in compliance with current regulations.

- **Telephone communicator:** it is possible to connect up to 2 ACB telephone terminals on the individual extension output. In case of ITP devices, it is possible to connect one individual device for each individual extension line.
- **Telephone communicator:** if included in the system, it must always be installed on the PSTN telephone line, upstream the PABX and downstream the PLT1 protection. The PSTN telephone line to the PABX (slave) is disconnected in case of call from the communicator (master). It is recommended not to connect the communicator in parallel with the switchboard, or on an extension termination.

ADDITIONAL POWER SUPPLY

IRYDE TOUCH PHONE

IRYDE TOUCH PHONE

IRYDE TOUCH PHONE

IRYDE TOUCH PHONE

PSTN TELEPHONE LINE

PROTECTION OF THE PSTN TELEPHONE LINE

PROTECTION OF THE PSTN TELEPHONE LINE

VIDEO ADAPTER

VIDEO ENTRANCE PANEL

POWER SUPPLY

FAX

CORDLESS

TELEPHONE

- **ADSL systems:** if the PSTN telephone line is an ADSL line, it will be necessary to install a filter or splitter capable of separating the data (modem output on filter) from the telephone signal (telephone output on filter). The device must be connected downstream the PLT1 protection, while the internal telephone system (PABX or communicator) must be connected to the telephone output. To ensure correct system operation, it will be necessary to comply with the installation notes supplied by the ADSL service provider and use a filter or splitter complying with the current product regulations.
- **PSTN telephone line connection:** the section of conduit between the input point of the PSTN telephone line (three-pole stud of the telephone service provider), and the PLT1 protection, must only be dedicated to the passage of the PSTN telephone line twisted pair.
- **Connection to the ISDN stud:** connect the ACB 1 output of the stud to the clamps of the PSTN 1 telephone line of the PABX, and the ACB 2 telephone output of the ISDN stud to the clamps of the PSTN 2 telephone line of the PABX.
  Check that the ISDN stud is configured in "Alternate Distribution" or "Preferential" mode of the calls from the PSTN telephone line.
- **Connection of the telephone terminals:** using the BTicino 336904 cable, the maximum distance between the PABX and the telephone terminal is 700 mm. Using other cables (see the cable table), the maximum distance is 500 m. The maximum distance with ITP and BTicino cable is 140 and 200 m with local power supply.

The use of dedicated corrugated tubes for each individual extension (star wiring) is recommended, to avoid any crosstalk problems. For the connection of one individual extension it is possible to use multi-pair cables, while for the connection of several extensions multi-pair cables cannot be used.

SYSTEM OPERATION IN EMERGENCY MODE:

- In case of power cut on the whole system (PABX and SCS BUS), extensions 1 and 2 can receive and call on the PSTN 1 and PSTN2 telephone lines they are connected to. No other services are available, and no other extensions will work. If the extensions are ITPs, these must be powered using the power supply with back-up battery E47ADCN+3505/12.
  To provide backup to the PABX switchboard, power supply item E47/12+3505/12 must be used.
  See the diagrams in the Connection diagrams section.

LIST OF THE FUNCTIONS THAT CAN BE PERFORMED BY THE SYSTEM:

1. The ACBs and the ITPs can make calls:
- Intercommunicating with other ACBs/ITPs (400, 401...)
- Intercommunicating with the Handsets (video door entry system handsets on SCS 2 wire system), if included in the system (409, 410...)
- On the PSTN telephone line.

2. The ACBs and the ITPs of the system can receive calls:
- intercommunicating from other ACBs/ITPs
- intercommunicating from Handset (video door entry system handsets on SCS 2 wire system), if included in the system (the call with address 1 calls extension 1)
- from the PSTN telephone line
- from the EP (entrance panel on SCS 2 wire bus). Using the general call function, the extensions and the ITPs of the system can:
- activate the door lock of the main EP
- activate the staircase light
- transfer a conversation to another extension/ITP
- put a call on hold (non SCS), and answer another call.

3. The extensions and the ITPs of the system can:
- activate the door lock of the main EP
- activate the staircase light
- transfer a conversation to another extension/ITP
- put a call on hold (non SCS), and answer another call
- Display the CID on all extensions.

4. The PABX also gives the possibility of using advanced services like:
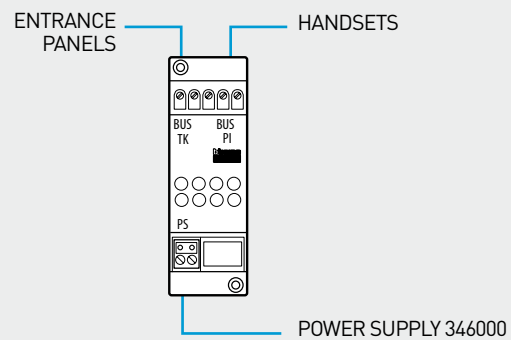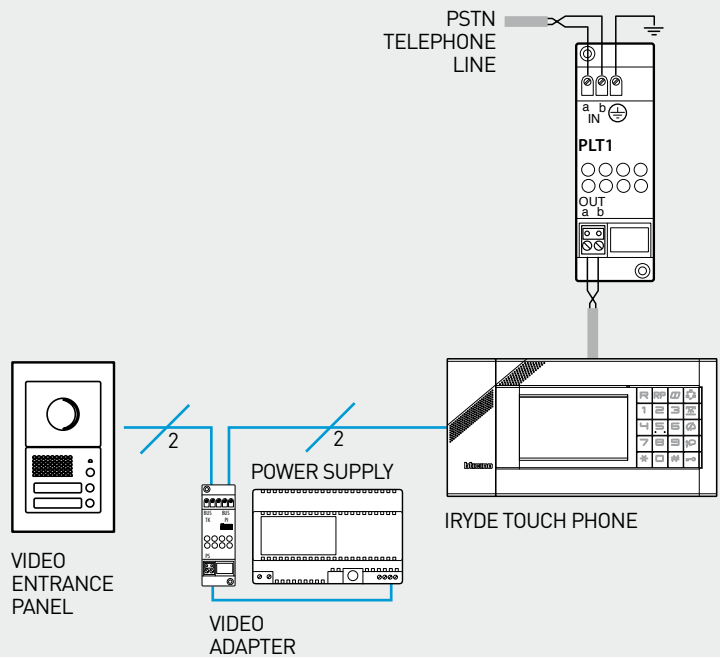- DOSA
- DISA
- FAX_SWITCH
- MY HOME
- PAGER.

NOTE: The auto-switching on of an EP is not possible from an extension (not ITP).

For the installation of a multi family system the same rules apply, with the difference that upstream the audio/video node, apartment interface item 346850 must be installed.

SYSTEM COMPOSITION

**BASIC ELEMENTS OF
THE VIDEO SYSTEM**
In order to install a video system it is
necessary to purchase, in addition to the
entrance panel and the handset, also the
346830 video adapter, or the F441 audio/
video node.

PSTN
TELEPHONE
LINE

a b
IN

PLT1

OUT
a b

2

2

POWER SUPPLY

IRYDE TOUCH PHONE

VIDEO
ENTRANCE
PANEL

VIDEO
ADAPTER

ENTRANCE
PANELS

HANDSETS

BUS
TK

BUS
PI

PS

POWER SUPPLY 346000

VIDEO ADAPTER
The video adapter is used to connect
entrance panels and handsets to a 2 wire
video system.
A maximum of 3 connections are allowed
on the video adapter.

A MAXIMUM OF 3 CONNECTIONS ARE ALLOWED ON THE VIDEO ADAPTER

(*) ENTRANCE
PANELS

HANDSETS

ENTRANCE
PANEL

HANDSETS

BUS
TK

BUS
PI

PS

BUS
TK

BUS
PI

PS
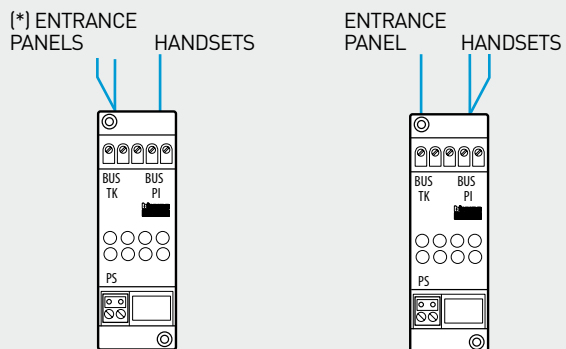
CONNECTION OF 2 ENTRANCE PANELS
AND A RISER
FOR THE HANDSETS

CONNECTION OF 1 ENTRANCE PANEL
AND 2 RISERS
FOR THE HANDSETS

(*) IF EITHER AN INTERFACE IS CONNECTED TO THE ENTRANCE PANEL,
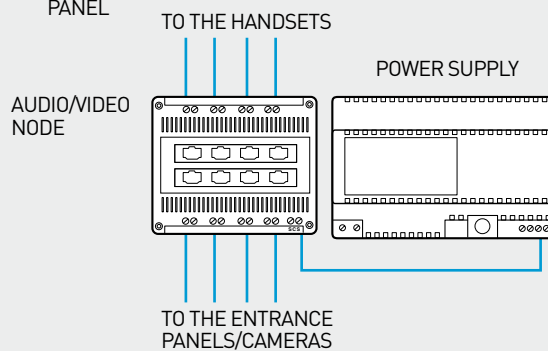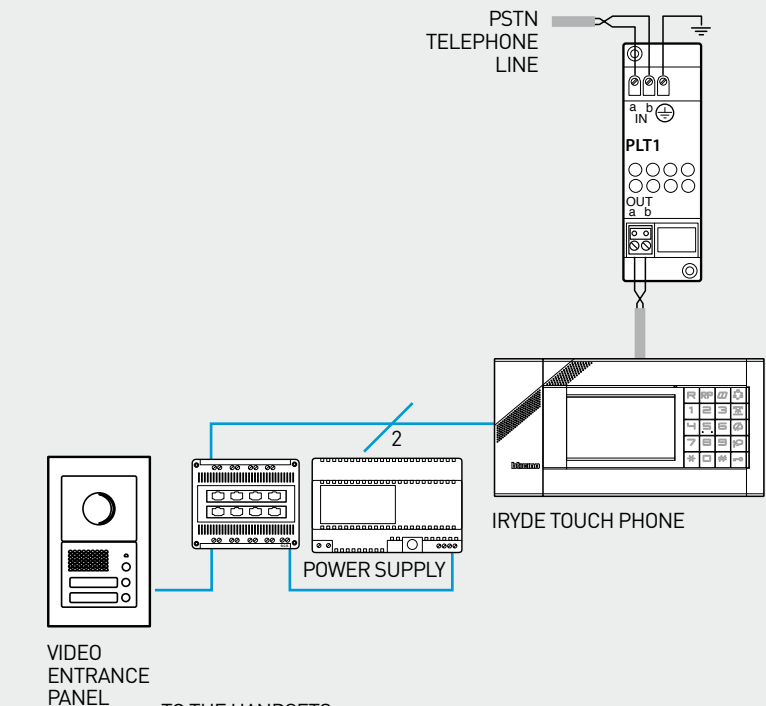ONLY ONE CONNECTION ON THE TK BUS TERMINAL OF THE VIDEO
ADAPTER IS POSSIBLE.

AUDIO/VIDEO NODE

The F441 audio/video node must be used in alternative to the video adapter when more than 2 entrance panels must be installed in the system, or when more than 2 risers are needed.

The use of the audio/video node is however recommended, to allow for future MY HOME integrations, system expansions, and/or addition of cameras. Allow for one output of the audio/video node for each video door entry system video handset with table-top installation.

PSTN TELEPHONE LINE

a b
IN

PLT1

OUT
a b

2

IRYDE TOUCH PHONE

POWER SUPPLY

VIDEO ENTRANCE PANEL

TO THE HANDSETS

POWER SUPPLY

AUDIO/VIDEO NODE

TO THE ENTRANCE PANELS/CAMERAS

MULTICHANNEL MATRIX

The F441M multichannel matrix must be use in alternative to the audio/video node when, in addition to the video signal from the entrance panels or the cameras, the distribution of up to 4 sound sources is also required. It manages in fact up to 4 audio/video inputs, and up to 4 sound source inputs.

NO. 8 AUDIO/VIDEO OUTPUTS

POWER SUPPLY

NO. 4 2 WIRE VIDEO HANDSETS OR CAMERAS

NO. 4 SOUND SOURCE INPUTS
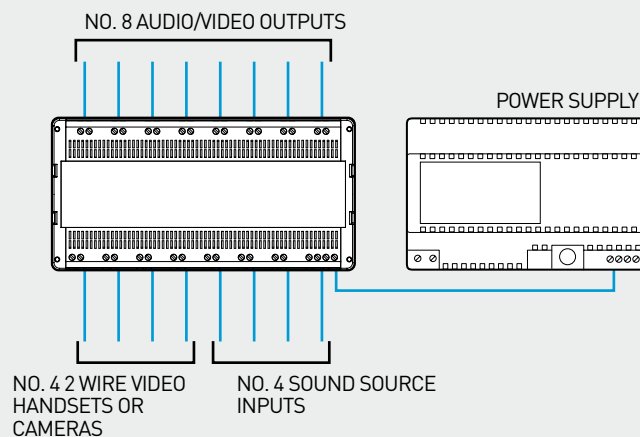
SYSTEM COMPOSITION

FLOOR SHUNT, ITEM 346841
Dedicate one output of the floor shunt or the audio/video node to each table-top video handset installed.
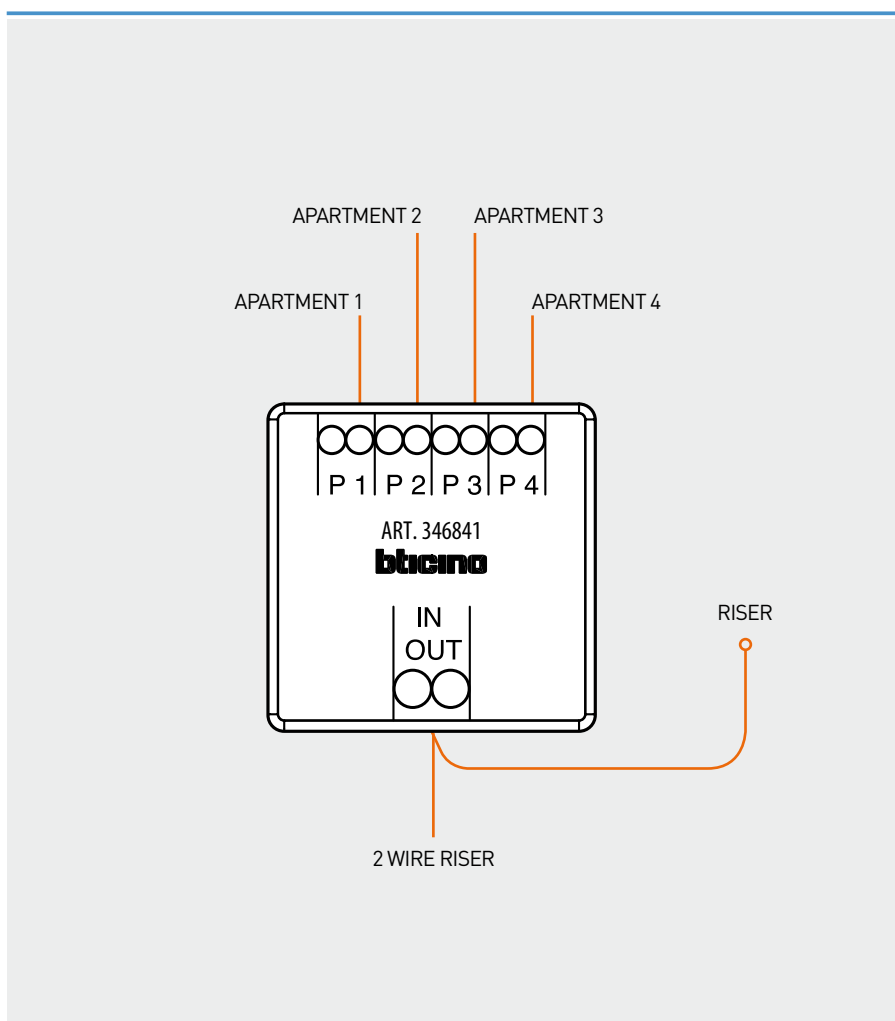In case of ITPs downstream the floor shunt, a local power supply for the same is also required.

For each output:
- max. 3 video handsets or bells in the same apartment
- max. 1 video handset in simultaneous switching on
- max. 1 table-mounted video handset

SYSTEM EXPANSION MODULE, ITEM 346851
IN MODE MOD = 0
(SYSTEM EXPANSION MODE)

To be used for system expansion, in order to:
- Regenerate the video signal and have a further 200 m available after the interface (using the 336904 cable)
- Increase the number of devices connected to the BUS
- Use a max. of 3 modules, configured using the MOD = 0 in cascade.

As far as the system composition, distances and topology are concerned, within the system 1 section, the system expansion module item 346851 must be considered as a handset.
On the other side, within the system 2 section it should be considered as an entrance panel.

MOD = 0

ENTRANCE PANEL · SYSTEM 1 SECTION · F441 · 346000 · 346851 · SYSTEM 2 SECTION · F441 · 346000 · 200 M · 200 M

346851 · 346851 · 346851 · 346851 · MAX 1 ITEM 346851 WITH MOD = 0 FOR EACH OUTPUT · 346000 · F441

ENTRANCE PANEL · 346000 · F441
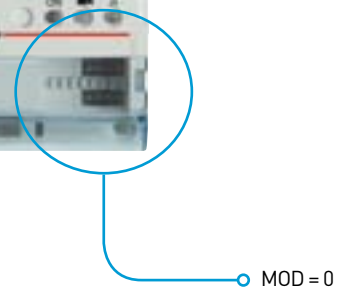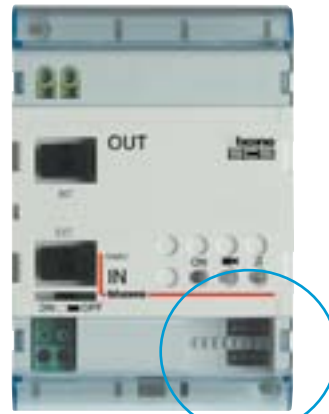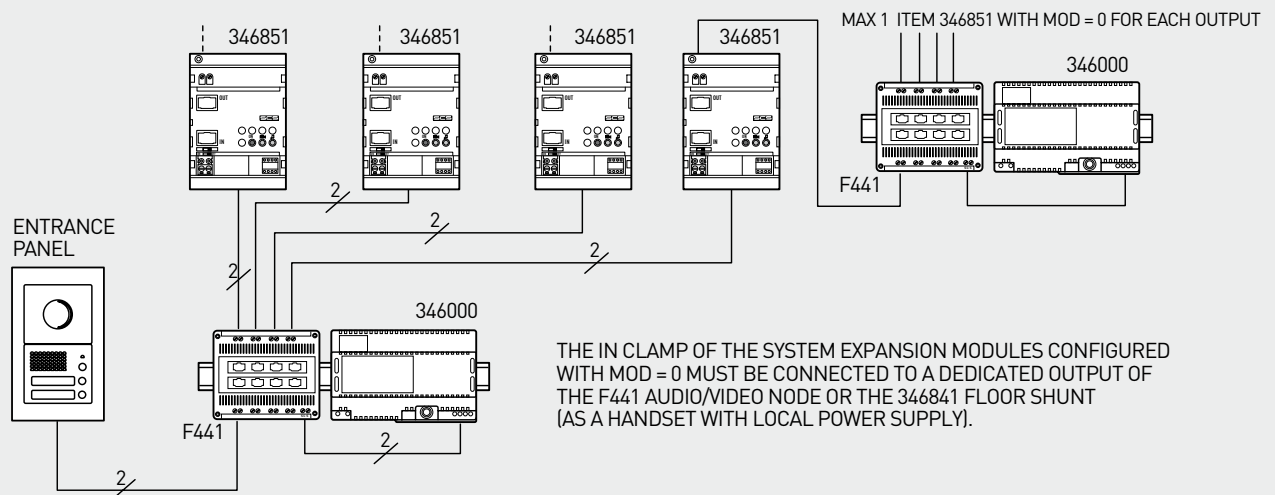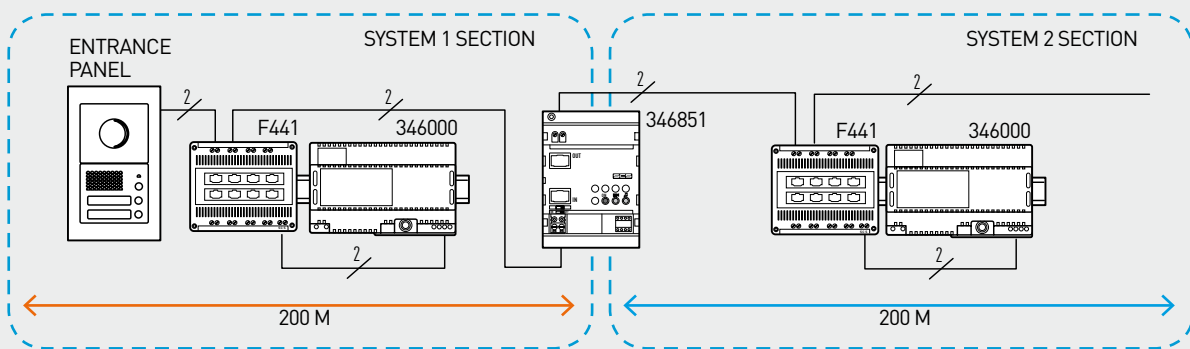
THE IN CLAMP OF THE SYSTEM EXPANSION MODULES CONFIGURED WITH MOD = 0 MUST BE CONNECTED TO A DEDICATED OUTPUT OF THE F441 AUDIO/VIDEO NODE OR THE 346841 FLOOR SHUNT (AS A HANDSET WITH LOCAL POWER SUPPLY).

SYSTEM COMPOSITION

**SYSTEM EXPANSION MODULE,
ITEM 346851
IN MODE MOD = 5
(SYSTEM EXPANSION MODE)**
This is used in buildings to have risers with riser entrance panels and independent audio and video functions.

MOD = 5

RISER 1 SYSTEM SECTION
(WITH INDEPENDENT AUDIO)

RISER 1

F441   346000

RISER ENTRANCE PANEL

346851

RISER 2 SYSTEM SECTION
(WITH INDEPENDENT AUDIO)

RISER 2

F441   346000

RISER ENTRANCE PANEL

346851

COMMON SYSTEM SECTION

ENTRANCE PANEL

F441   346000

IN THE COMMON SYSTEM SECTION, FOR THE PURPOSE OF SYSTEM COMPOSITION, DISTANCES AND LAYOUT, THE SYSTEM EXPANSION MODULES MUST BE TREATED AS A HANDSETS. ON THE OTHER HAND, IN THE RISER SYSTEM SECTIONS THEY MUST BE TREATED AS ENTRANCE PANELS.

THE BUILDING ENTRANCE PANEL MUST BE MADE WITH ALPHANUMERIC OR NUMERIC CALL MODULE

APARTMENT INTERFACE 346850

This is used to have an apartment system independent from the building. In this way, the apartment system can have private cameras and entrance panels and can be integrated with all the MY HOME applications.

In apartments including the PABX switchboard, and/or the ITP, the installation of the apartment interface is also required.
In multi family video door entry systems with ITP, only the additional power supply is required.

As far as the system composition, distances and topology are concerned, within the building system, the interface item 346850 must be treated as a handset. On the other side, within the apartment system, it should be treated as an entrance panel configured with P = 0.

APARTMENT BLOCK SYSTEM SECTION

APARTMENT SYSTEM SECTION

FOR THE COMPLETION OF THE SYSTEM, ANY TYPE OF CABLE CAN BE USED (INCLUDING EXISTING CABLES). MAXIMUM PERFORMANCE AND DISTANCES ARE ACHIEVED USING THE 336904 CABLE.

INT
EXT
346850

ENTRANCE PANEL

F441   346000

IRYDE TOUCH PHONE

F441   346000

2

2

APARTMENT ENTRANCE PANEL

APARTMENT CAMERA
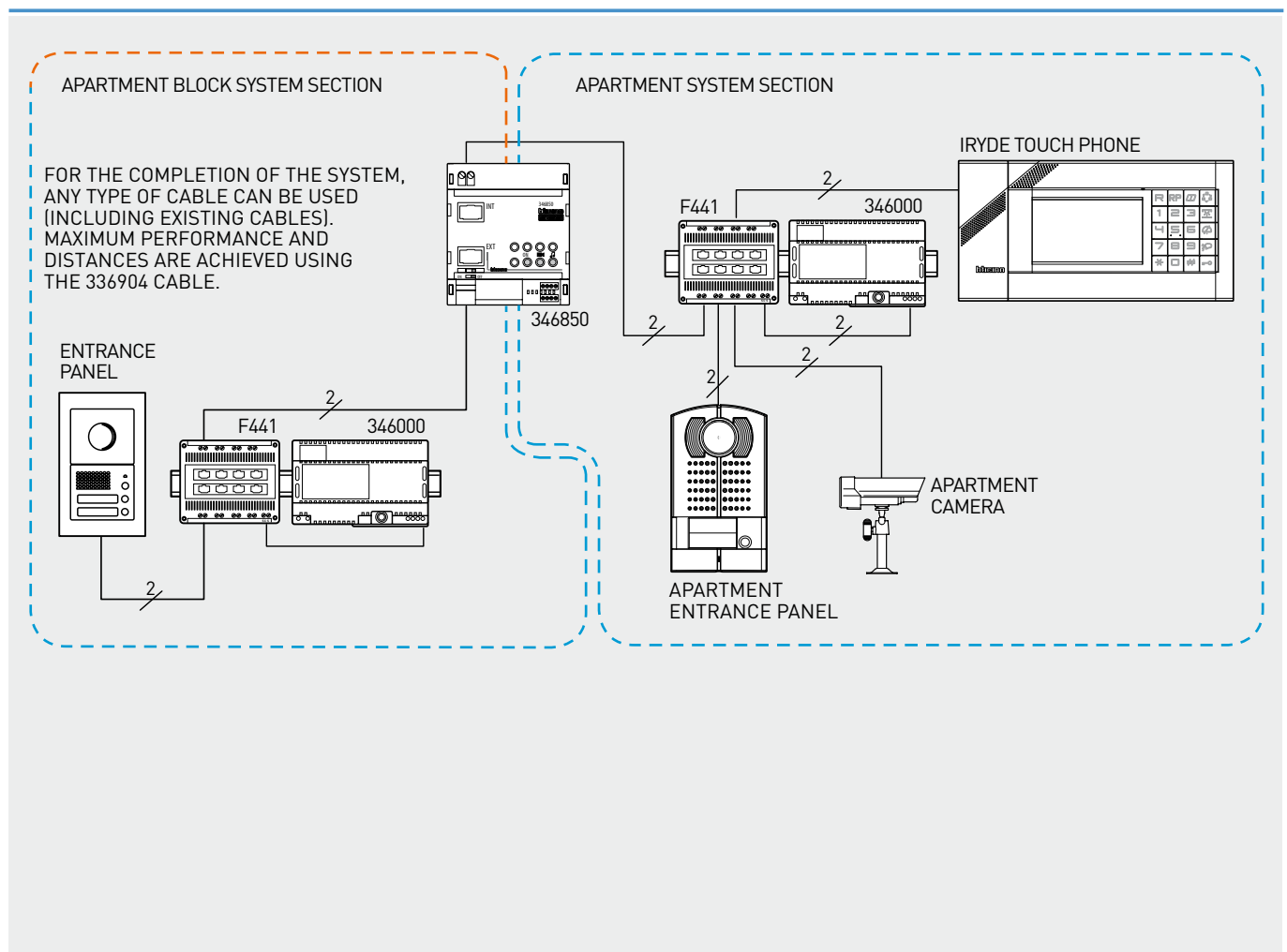
SYSTEM LAYOUT

GENERAL FEATURES

The first step towards the installation of a system is to design and ensure a good basic installation setup.

In fact, an accurate setup of cables, trunking, boxes, equipment rooms and control points, enables to follow in a much simpler way the evolution of the devices already installed inside the home and include new ones in the future.

Irrespective of the type of system and the required applications, it is necessary that the layout of the house and a general furniture plan, are made available to the installer.

It is also important that a check is carried out, to ensure that the initial estimate is in line with the actual site. In creating a system it will be necessary to take into account the factors based on the installation features of a "BUS" system:

- the layout of the conduits;
- the type of wiring;
- the coexistence of cables inside the same conduit.

DEVICE

JUNCTION BOX

POWER SUPPLY
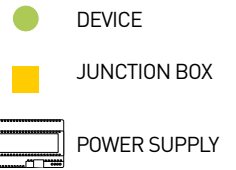
FREE
STRUCTURE WIRING
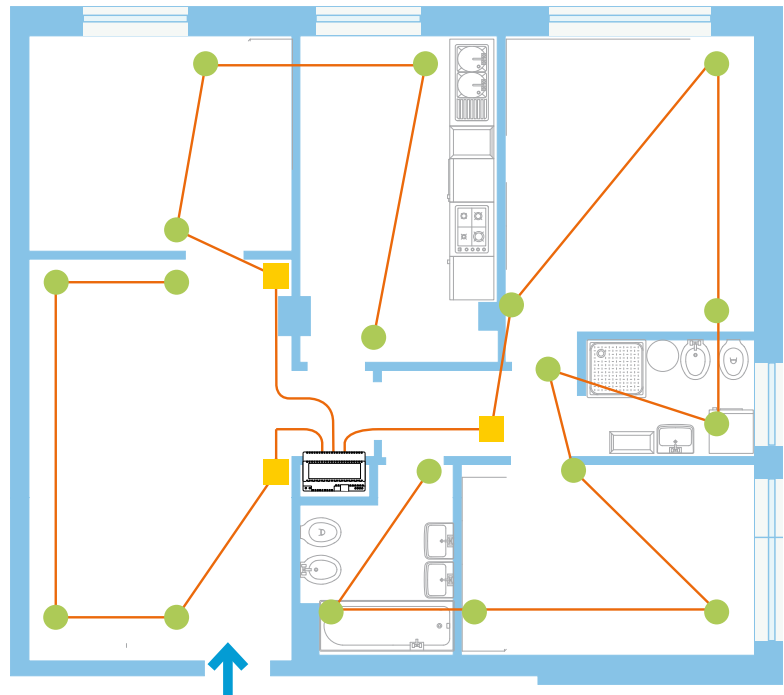
STAR
STRUCTURE WIRING
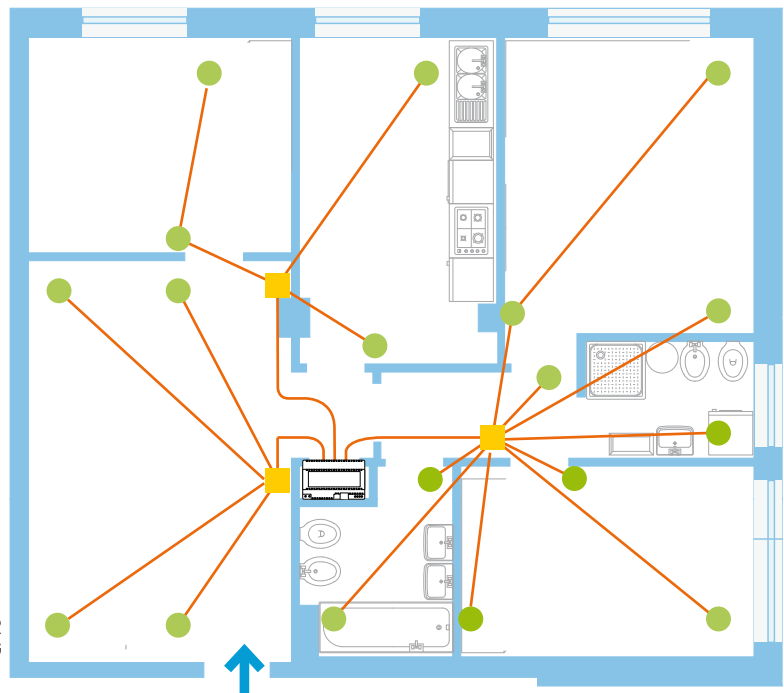
THE CABLE

White SCS BUS cable, item 336904, purposely designed and produced for the installation of Video Door Entry Systems, Sound Systems, and Telephone Systems. This cable is used for the distribution of the power supplies and the operating signals to all BUS system devices.
The cable consists of a white external cable sheath and two twisted flexible conductors (section of 0.5 mm2), one brown and one brown/white.
It is sold in 200 m coils.
It is therefore suitable for use:

- In open air installations, inside trunking, cable trays, and piping
- Inside walls, using suitable piping
- In the ground, using suitable piping.

For the connection of the audio (ITP) dedicated speaker module, and for audio extension handsets, use the twisted telephone pair.

INSTALLATION TOGETHER WITH OTHER CABLES

Although the construction of the cable guarantees the necessary electrical insulation level for installation together with 450/750 V system cables, it is however not capable of guaranteeing immunity from any electromagnetic disturbances that may occur when installed in the same conduits as those used for the power supply cables.
It is therefore strongly recommended that the BUS/SCS cable and the power supply cables are installed in separate piping.

UNDERGROUND CABLE INSTALLATION

The 336904 BUS SCS cable can be installed underground (protected using appropriate piping), together with other signalling cables, provided the voltage is <50 V.
It is strictly forbidden to install the 336904 cable in the same conduit as power supply cables with voltages >50 V. Failure to comply with the installation requirements will relieve BTicino of all responsibilities for the operation of the system installed.
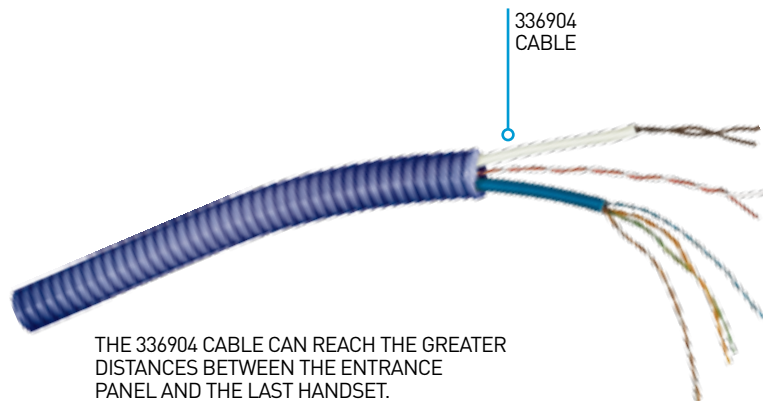
336904
CABLE

THE 336904 CABLE CAN REACH THE GREATER DISTANCES BETWEEN THE ENTRANCE PANEL AND THE LAST HANDSET.

CABLES USED FOR THE SCS BUS AND FOR TELEPHONE EXTENSIONS					
Cable type	Item	Can be buried	Audio systems	Video systems	Telephone system
BTicino twisted cable, Sect. 0.50 mm^2	336904	YES	Recommended	Recommended	Recommended
BTicino twisted cable, Sect. 0.35 mm^2	L4669	NO	Usable	Usable	Usable
Twisted telephone pair, Sect. 0.28 mm^2 < 1 mm^2		NO	Usable	Usable	Usable

NOTE: the distance entrance panel - furthest away handset depends on the type of the cable used.

SELECTION AND POSITIONING OF THE ELECTRIC DISTRIBUTION BOARD

The disposition of the electric systems in the building entails the need for grouping in one central point all the active devices (power supplies, interfaces, telephone switchboards, etc.) that contribute to the control and the management of all the functions.

This location is effectively the "brain" of the whole system of the building. Its size shall be defined taking into account the following general requirements:

- allow for extra space for expansion using new devices that may be needed for future requirements;
- install the power supplies in the lower position of the switchboard in order to facilitate thermal dissipation;
- the switchboard must be capable of dissipating a power higher than the sum of the powers dissipated by all the devices it will hose.

BTicino offers a wide range of switchboards suitable for types of needs, with different capacities and installation solutions (flush mounted, or wall mounted).

A useful selection criteria in terms of installation of the MY HOME system is the following:

- for **one-floor or multi-floor installations in new or existing (refurbished) buildings** where an equipment room will be installed for the electric distribution board of the home, it is possible to select among the various wall mounted or flush mounted distribution board or switchboard solutions belonging to the Multiboard and Idroboard series for the integration of the MY HOME system.

For the calculation of the dissipated power, all BTicino switchboards and distribution boards meet the requirements of CEI 23-51 standards.

WALL MOUNTED AND FLUSH
MOUNTED SWITCHBOARDS

The positioning of the electric distribution board(s) must be decided based on the type of building.
The most suitable position of the distribution board should be agreed with the installer (unless already preset).

SERVICE SECTOR
Install a dedicated distribution board inside an equipment room for the centralisation of all the devices on DIN rail.

ONE FLOOR BUILDING
1, 2 or 3 rooms + bathroom & kitchen: arrange only one distribution board in a barycentre position, for the centralisation of all DIN devices.

MORE THAN 3 ROOMS + BATHROOM & KITCHEN
only include one distribution board, at a central position. Part of the DIN rail devices will be installed on the board, while part of them will be distributed.

BUILDING ON SEVERAL FLOORS
Install the main distribution board in an equipment room, or under the stairs. Install another distribution board on each floor, in a barycentre position. DIN rail devices will be partly centralised, and partly distributed.

SELECTION OF THE CONDUITS
Inside the home, cables must be placed inside protective conduits made of insulating material, embedded in floors, walls or ceilings. For garages and cellars, due to the difficulty in embedding the components in the walls (garage walls normally made of solid concrete, and often less than 10 cm wall thickness in cellars), it is preferable to leave conduits and boxes exposed. The path of the conduits must take into account the possibility of cables connecting different systems. For the installation of flush mounted components, corrugated tubes of different colours should be used. This will make installation and individuation of the system easier. It is recommended that only conduits with a minimum diameter of 25 mm are used.

REQUIREMENTS OF THE CEI 306-2 STANDARDS (*)
In the planning and sizing of the conduits the CEI 306-2 standards recommend to allow for any future requirements of advanced wiring systems.

NOTE(*): CEI 306-2. Guide for telecommunication and multimedia distribution wiring inside residential buildings.
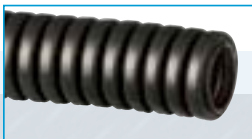
AUTOMATION
ENERGY
TEMPERATURE CONTROL
ENERGY MANAGEMENT
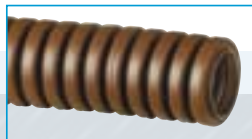
BURGLAR ALARM

TELEPHONE SYSTEM

DATA NETWORK
TV/SAT
VIDEO DOOR ENTRY SYTEM
SOUND SYSTEM

DATA NETWORK
TV/SAT

INSTALLATION OF ENTRANCE PANELS, HANDSETS AND INTERFACES

160 – 165 CM

160 – 165 CM

NO
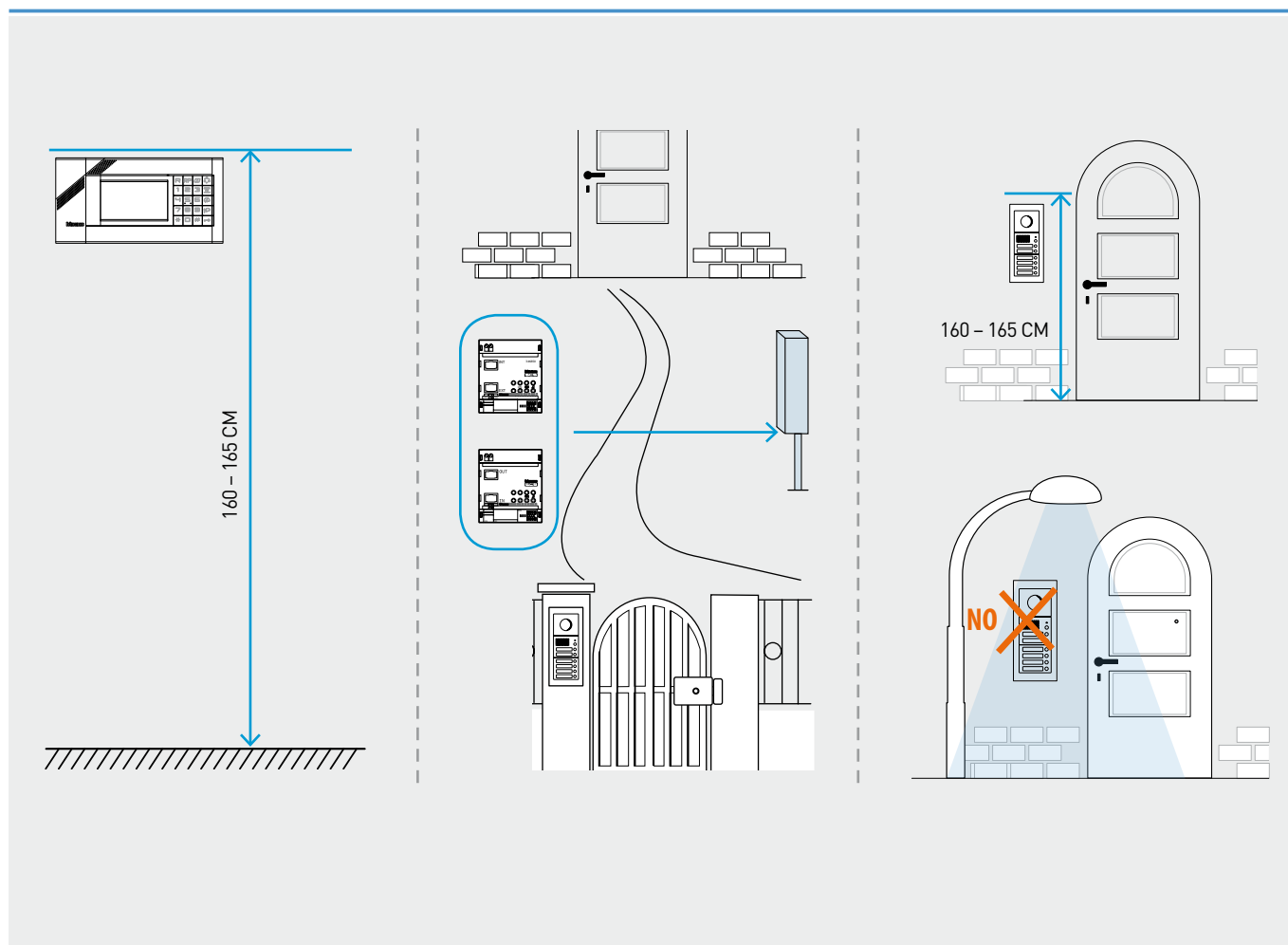
HEIGHT OF THE HANDSET
When installing the video handset, it is recommended that the devices are positioned at a height of 160 – 165 cm (top edge)

NOTE: recommended installation heights, unless otherwise required by local regulations.

INTERFACES, 346850 AND 346851
The interfaces item 346850 (apartment interface) and item 346851 (system expansion module) cannot be installed in a manhole.
For their installation, a sealed electric cabin with DIN rail must be used (DIN switchboard).

HEIGHT OF THE ENTRANCE PANEL
When installing the Entrance panel, it is recommended that the pushbutton panel is installed at a height of 160 – 165 cm (top edge).
The camera must not be installed in front of light sources, or in places where the subject being filmed is in the shadow.
If this condition cannot be respected, the picture will not have much contrast in the darker areas. This is because the brightness is self-regulated on the lighter part of the picture. To solve these problems change the camera installation to a height of 180 cm and direct the lens downwards to improve the quality of the shots.
In scarcely lit areas, the installation of an additional light source is recommended.

IRYDE TOUCH PHONE WALL MOUNTED INSTALLATION
The wall mounted installation of the device requires the use of the 345024 metal base (not supplied with the product). Connect the BUS cable, the PSTN telephone line, and the additional power supply (optional), to the appropriate sockets.

ADDITIONAL
POWER SUPPLY

1-2	1	5	BUS
	2	6	
	3	7	
	4	8	

336982
336983
336984
349414
349415
349418

N4258/11N
NT4258/11N
L4258/11N
HD4258C11N
HC4258/11N
HS425811N

TABLE TOP INSTALLATION OF THE IRYDE TOUCH PHONE (WITH STAR WIRING)
The table top installation of the device requires the use of the 345023 base (not supplied with the product). Connect the SCS-BUS and the additional power supply, if required, through the video door entry system cable supplied with the table top base. Connect the PSTN telephone line using the cable with RJ11 connector supplied with the base.

MAXIMUM DISTANCES FOR VIDEO DOOR ENTRY AND TELEPHONE SYSTEMS

Maximum distances that can be reached depending the type of cable used for the installation of the system.

DISTANCES WITHOUT PABX
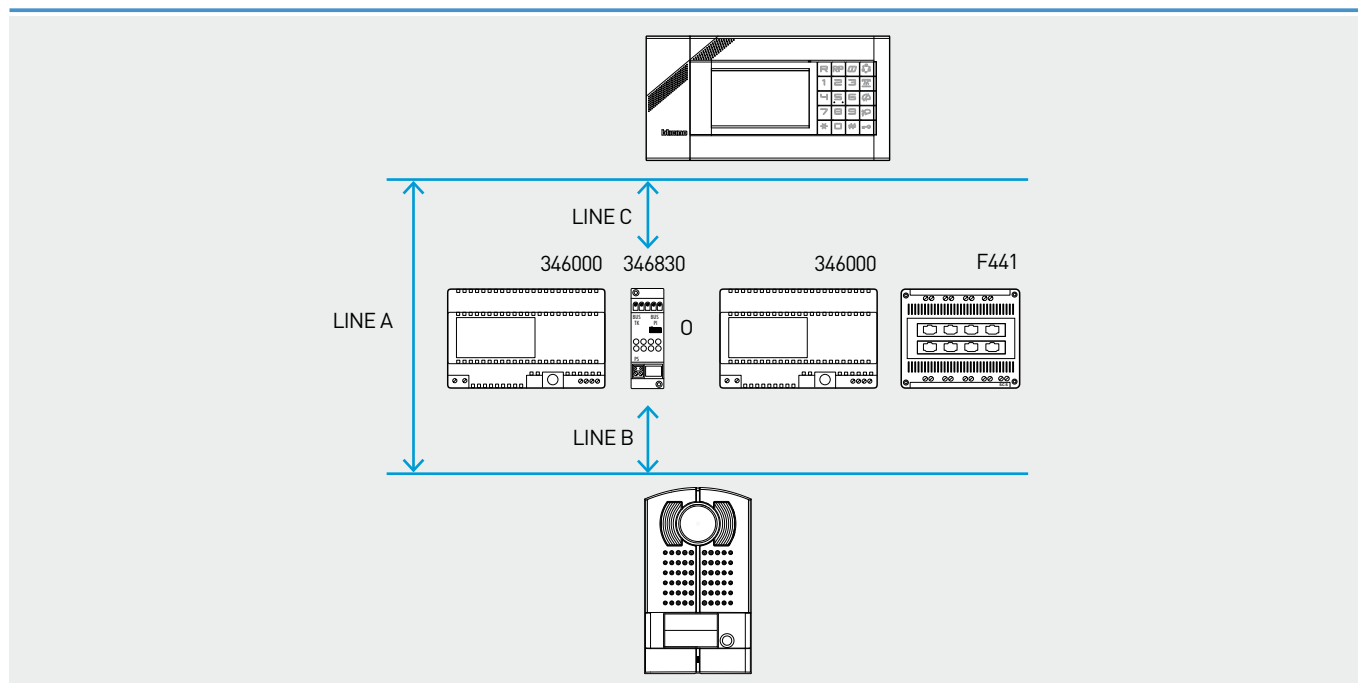
MAXIMUM DISTANCES AND FEATURES OF THE CONDUCTORS
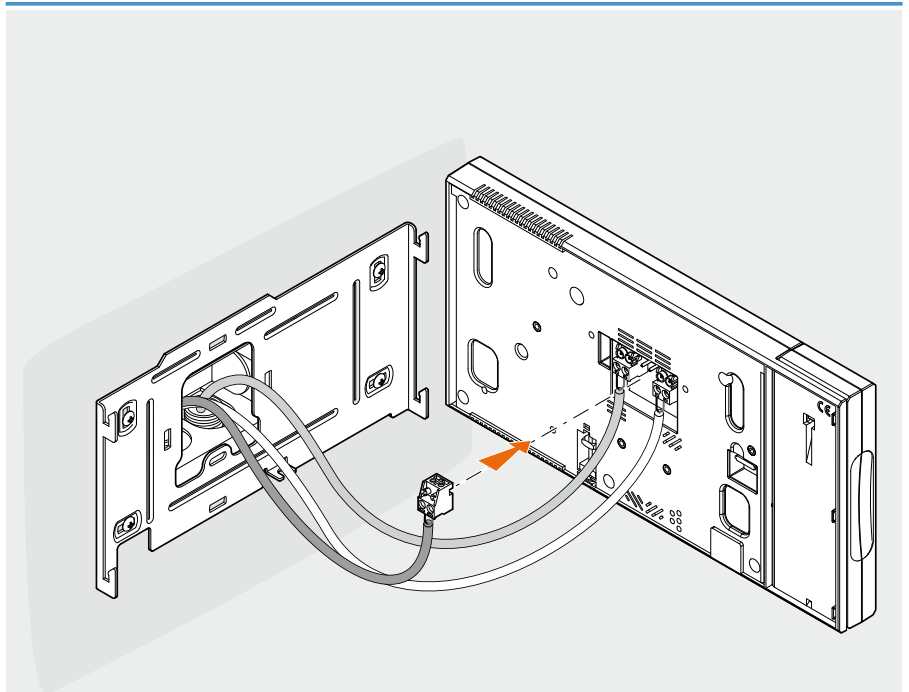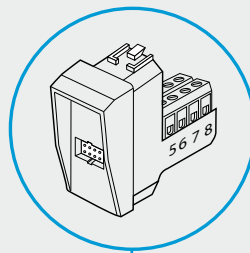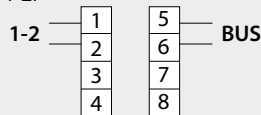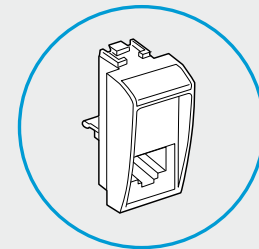
MAXIMUM DISTANCE LINE C POWER SUPPLY - FURTHEST IRYDE TOUCH PHONE

Cable section (mm^2)	2 normal cables > 0.2 mm^2 or L4669	BTicino cable 336904	twisted telephone pair 0.28 mm^2	one pair of the multi-pair data cable C9881U/5E
1 Iryde Touch Phone, in/out	50	200	140	125
2 Iryde Touch Phones, in/out	50	170	115	65
3 Iryde Touch Phones, in/out	50	125	80	40
4 Iryde Touch Phones, in/out	40	90	60	40
up to 4 Iryde Touch Phones, star connection	50	200	140	125
up to 4 Iryde Touch Phones with local power supply	50	200	140	200

MAXIMUM DISTANCE LINE B ENTRANCE PANEL - POWER SUPPLY

Cable section (mm^2)	2 normal cables > 0.2 mm^2 or L4669	BTicino cable 336904	twisted telephone pair 0.28 mm^2	one pair of the multi-pair data cable C9881U/5E
2 pushbuttons	50	200	115	90
OUTDOOR [1]	20	50	30	20
Entrance panel with local power supply	50	200	140	120

MAXIMUM DISTANCE LINE A ENTRANCE PANEL - FURTHEST IRYDE TOUCH PHONE

Cable section (mm^2)	2 normal cables > 0.2 mm^2 or L4669	BTicino cable 336904	twisted telephone pair 0.28 mm^2	one pair of the multi-pair data cable C9881U/5E
1 Iryde Touch Phone / EP, 2 pushbuttons	50	200	140	190
2 Iryde Touch Phones / EP, 2 pushbuttons	50	200	140	145
3 Iryde Touch Phones / EP, 2 pushbuttons	50	200	140	130
4 Iryde Touch Phone / EP, 2 pushbuttons	50	200	140	120
1 Iryde Touch Phone / OUTDOOR EP [1]	50	190	140	120
2 Iryde Touch Phones / OUTDOOR EP [1]	50	170	110	75
3 Iryde Touch Phones / OUTDOOR EP [1]	50	140	85	60
4 Iryde Touch Phones / OUTDOOR EP [1,2]	50	200	140	150
1 Iryde Touch Phone / EP with local power supply	50	200	140	200
2 Iryde Touch Phones / EP with local power supply	50	200	140	175
3 Iryde Touch Phones / EP with local power supply	50	200	140	160
4 Iryde Touch Phones / EP with local power supply	50	200	140	150
up to 4 Iryde Touch Phones, star connect. / EP, 2 pushbuttons	50	200	140	190
up to 4 Iryde Touch Phones, star connect. / OUTDOOR EP [1,2]	50	200	140	200
up to 4 Iryde Touch Phones, star connect. / EP with loc. supply	50	200	140	200
up to 4 Iryde Touch Phones with loc.supply / EP, 2 pushbuttons	50	200	140	200
up to 4 Iryde Touch Phones with loc.supply / OUTDOOR EP [1,2]	50	200	140	200
up to 4 Iryde Touch Phones with loc.supply / EP with loc. supply	50	200	140	200

Note: 1) 349140; 2) connect the OUTDOOR EP to a local power supply when using 4 Iryde Touch Phones.

DISTANCES WITH PABX

LINE C

346830   345829*   F441   345829*

LINE A

O

LINE B

*WARNING: THE DISTANCE BETWEEN 346830O OR F441 DEVICES AND THE 345829 PABX MUST BE LESS THAN 1 M INSTALLATION IN THE SAME CABINET.

MAXIMUM DISTANCES AND FEATURES OF THE CONDUCTORS

MAXIMUM DISTANCE LINE C POWER SUPPLY/PABX - FURTHEST IRYDE TOUCH PHONE

Cable section (mm^2)	2 normal cables > 0.2 mm^2 or L4669	BTicino cable 336904	twisted telephone pair 0.28 mm^2	one pair of the multi-pair data cable C9881U/5E
up to 4 Iryde Touch Phones, star connection	50	200	140	125
up to 4 Iryde Touch Phones with local power supply	50	200	140	200

MAXIMUM DISTANCE LINE B ENTRANCE PANEL/PABX - POWER SUPPLY

Cable section (mm^2)	2 normal cables > 0.2 mm^2 or L4669	BTicino cable 336904	twisted telephone pair 0.28 mm^2	one pair of the multi-pair data cable C9881U/5E
2 pushbuttons	50	200	115	90
OUTDOOR (349140) [1]	20	50	30	20
Entrance panel with local power supply	50	200	140	120

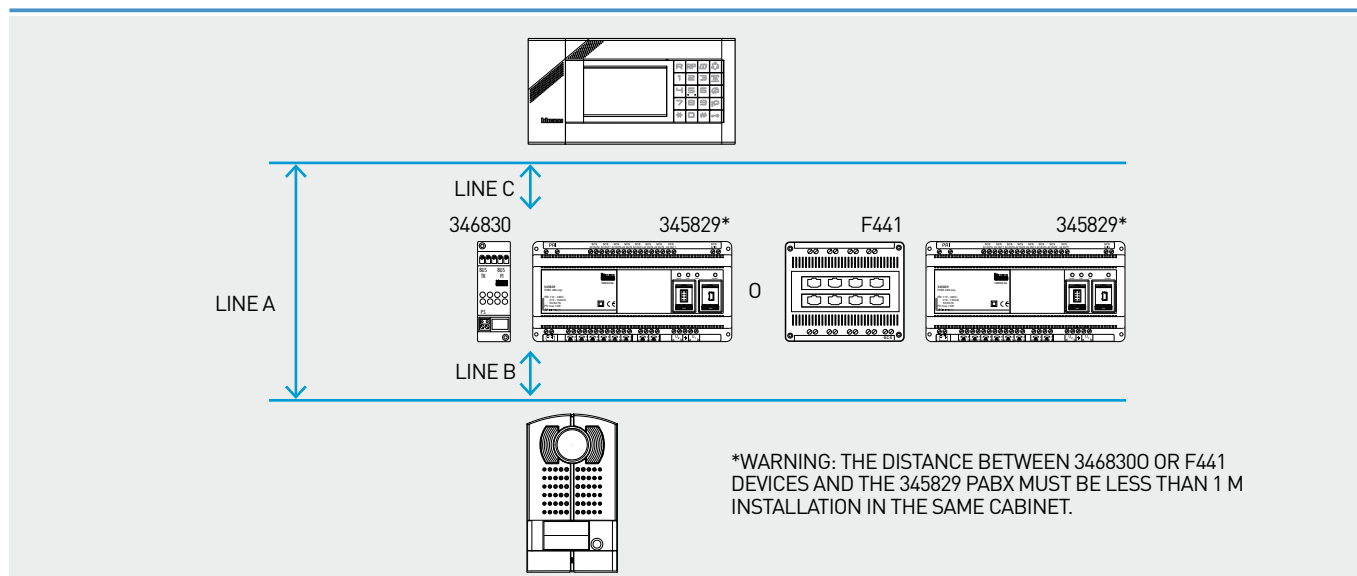**MAXIMUM DISTANCE LINE A ENTRANCE PANEL/PABX - FURTHEST IRYDE TOUCH PHONE**

Cable section (mm^2)	2 normal cables > 0.2 mm^2 or L4669	BTicino cable 336904	twisted telephone pair 0.28 mm^2	one pair of the multi-pair data cable C9881U/5E
up to 4 Iryde Touch Phones, star connection / EP, 2 pushbuttons	50	200	140	190
up to 4 Iryde Touch Phones, star connection / OUTDOOR EP [1] [2]	50	200	140	200
up to 4 Iryde Touch Phones, star connection / EP with l.supply	50	200	140	200
up to 4 Iryde Touch Phones, with l.supply / EP, 2 pushbuttons	50	200	140	200
up to 4 Iryde Touch Phones, with l.supply / OUTDOOR EP [1] [2]	50	200	140	200
up to 4 Iryde Touch Phones, with l.supply / EP with local supply	50	200	140	200

Note: 1) 349140; 2) connect the OUTDOOR EP to a local power supply when using 4 Iryde Touch Phones.

SYSTEM COMPOSITION

MAXIMUM NO. OF IRYDE TOUCH PHONES FOR ONE FAMILY SYSTEMS, OR WITH APARTMENT INTERFACE WITHOUT PABX 345829

No. of private colour video entrance panels	System power supply	SFERA 342170 + 342550 Max. no. of system handsets with Iryde Touch Phone handsets	L2000 METAL 342991 Max. no. of system handsets with Iryde Touch Phone handsets	A/V SFERA 342560 343001 Max. no. of system handsets with Iryde Touch Phone handsets	AXOLUTE Outdoor 349140 Max. no. of system handsets with Iryde Touch Phone handsets
1	1	4	4	4	3
2	1	4	4	4	1
3	1	3	4	4	1
4	1	3	4	4	1*

MAXIMUM NO. OF IRYDE TOUCH PHONES FOR ONE FAMILY SYSTEMS, OR WITH APARTMENT INTERFACE WITH PABX 345829

No. of private colour video entrance panels	System power supply	SFERA 342170 + 342550 Max. no. of system handsets with Iryde Touch Phone handsets	L2000 METAL 342991 Max. no. of system handsets with Iryde Touch Phone handsets	A/V SFERA 342560 343001 Max. no. of system handsets with Iryde Touch Phone handsets	AXOLUTE Outdoor 349140 Max. no. of system handsets with Iryde Touch Phone handsets
1	1	4	4	4	3
2	1	3	4	4	1
3	1	3	3	4	1
4	1	3	3	3	1*

* Note: at least one OUTDOOR EP with local power supply

Notes:
- It is possible to replace one Iryde Touch Phone with one of the following handsets, without the need for additional power supplies:

  344032-344033-344034 PIVOT handset   344162 POLYX VIDEO DISPLAY video handset   344702-344703-344704 SWING handset
  344082 colour PIVOT video handset   344192 POLYX VIDEO basic video handset   349311-349312 AXOLUTE VIDEO DISPLAY video handset
  344122-344123-344124 colour PIVOT video handset   344202-344212 SPRINT handset   349320-349321 SWING colour video handset
- For the installation of systems with a higher number of Iryde Touch Phones or handset than what listed in the table, use a local power supply for each device added.
- To check the feasibility of systems different from those indicated in the tables and the notes, use the YouDiagram software program.

IRYDE TOUCH PHONE CONFIGURATION

Iryde Touch Phone can be used with two different configurations:

- Basic configuration: when switched on for the first time, the product asks the user to select the language.
  After this has been done, if no physical configurators are present, the device displays a main page showing the video door entry system icon (inside which standard door entry system commands can be found: camera, door lock release, intercom, automatic cycling), the telephone icon, and the settings icon.
  The basic configuration can also be performed using physical configurators: N (address of the device within the video door entry system), P (address of the EP associated to the device).

IRYDE TOUCH PHONE

EXAMPLE TIIRYDETOUCHPHONE CONFIGURATION SOFTWARE SCREENSHOT
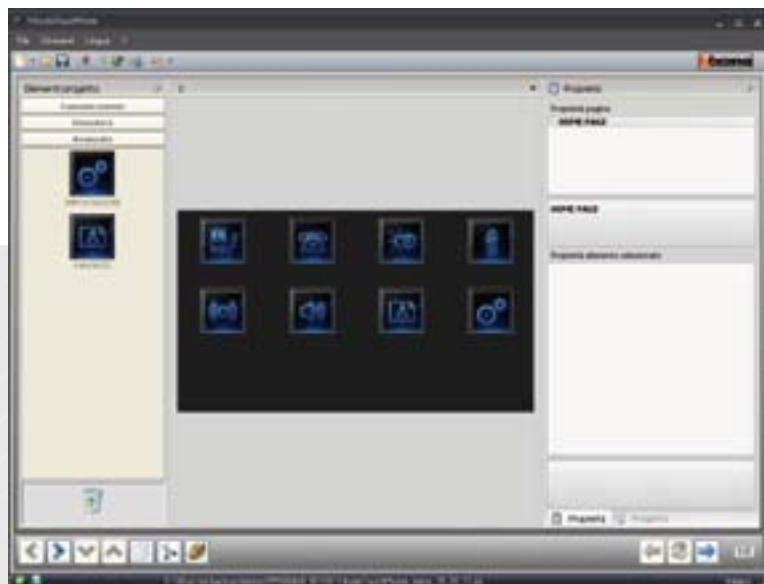
- Configuration using the PC: using the TiIrydeTouchPhone software, it gives the possibility of configuring the main menu page without being limited to a pre-set number of functions.
  Each function may be customised in terms of type, parameter, and text.
  The PC configuration provides:
  - Better flexibility in the composition of the menu.
  - Customisation of text.
  - Functionalities for the management of the MY HOME automation systems.

The PABX switchboard must be
programmed using the PC, the TiPABX
software, and the 335919 (RS232), or
3559 (USB) connection cable.

EXAMPLES OF TIPABX CONFIGURATION SOFTWARE SCREENSHOTS
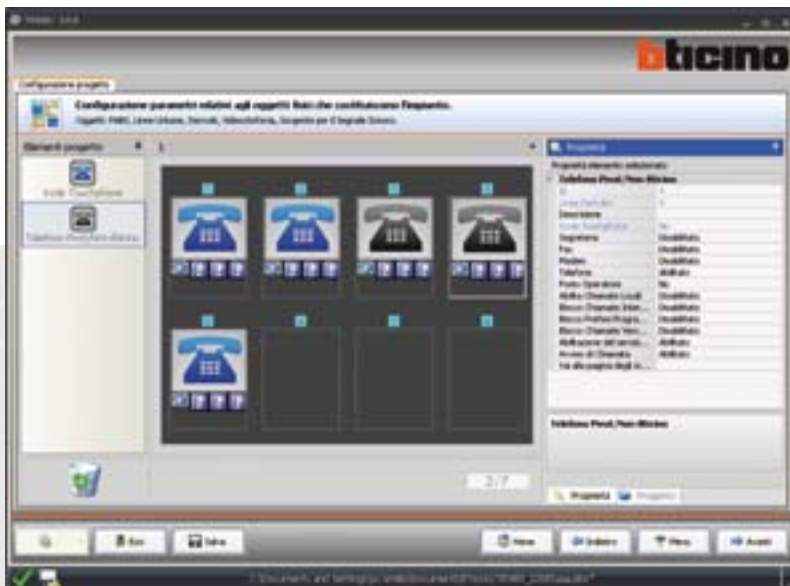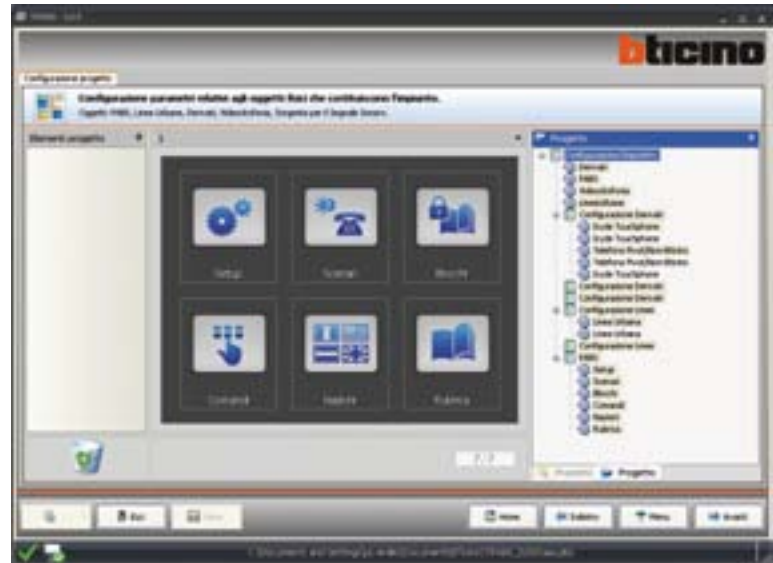
24/01/201 1
09:00

Contents

ONE-FAMILY SYSTEM WITHOUT PABX

PSTN telephone line

BUS

BUS

PLT1

PLT1

ON

$N = -$
$= 1$
$P = -$
$M = -$

345020

OFF

$N = -$
$= 2$
$P = -$
$M = -$

345020

PSTN

PSTN

PSTN

PSTN

OFF

$N = -$
$= 3$
$P = -$
$M = -$

345020

OFF

$N = -$
$= 4$
$P = -$
$M = -$

345020

BUS

BUS

346000

Entrance panel

$P = -$
$= -$
$N = -$
$= 1$
$T = -$
$S = 9$

BUS
TK

BUS
PI

PS

BUS 2 1

230 Vac

BUS

ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of the PSTN telephone line	1
345020	Iryde Touch Phone	4
346830	Video adapter	1
346000	AV Power supply, 230 V	1

Note: maximum 4 ITC can be connected to the outside line

ONE-FAMILY SYSTEM WITHOUT PABX
AND MIXED WIRING (IN-OUT = STAR)
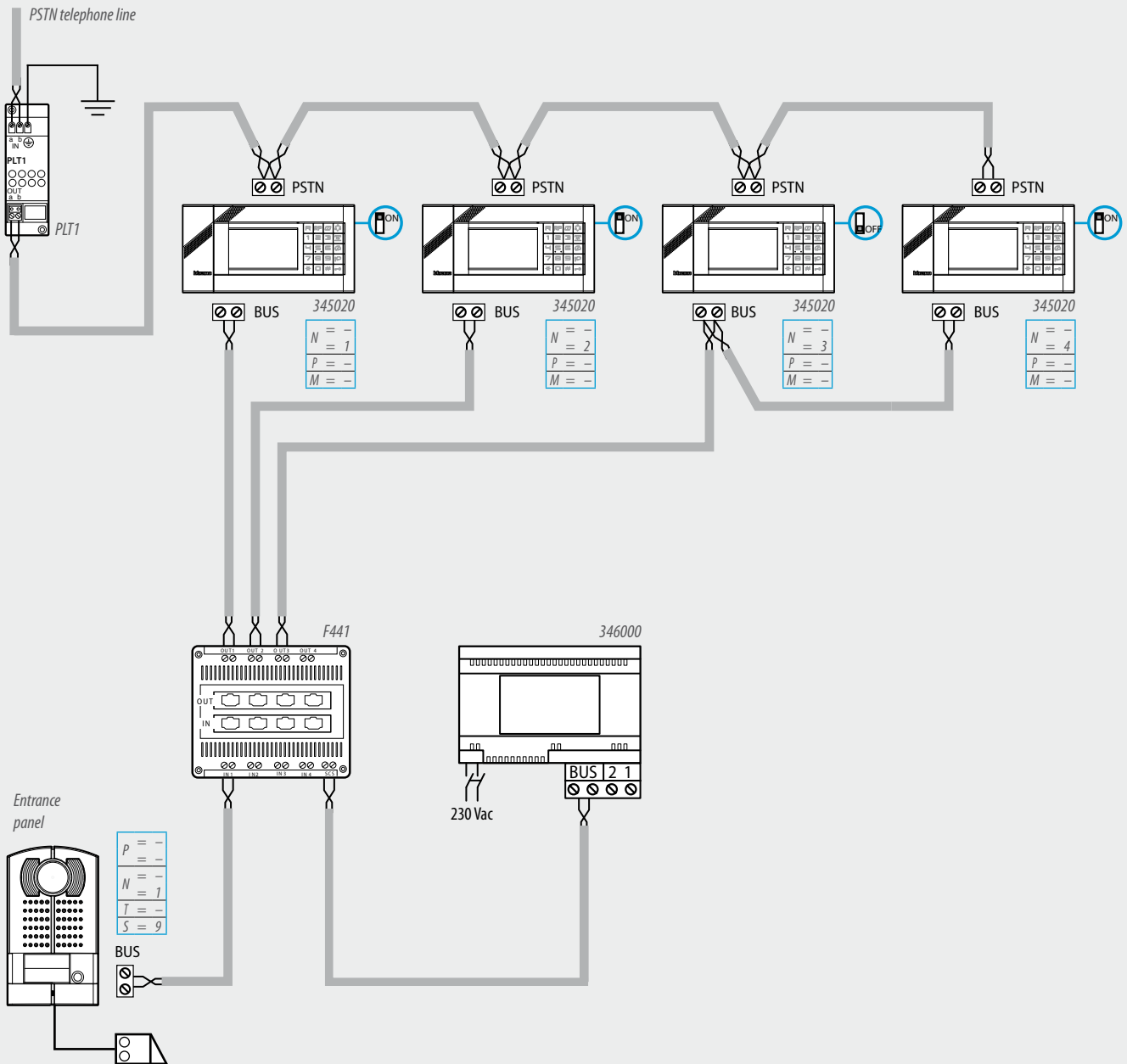
PSTN telephone line

PLT1 — *PLT1*

PSTN · PSTN · PSTN · PSTN

BUS *345020* · BUS *345020* · BUS *345020* · BUS *345020*

N	=	–
	=	1
P	=	–
M	=	–

N	=	–
	=	2
P	=	–
M	=	–

N	=	–
	=	3
P	=	–
M	=	–

N	=	–
	=	4
P	=	–
M	=	–

F441

OUT1 OUT2 OUT3 OUT4

OUT
IN

IN1 IN2 IN3 IN4 SCS

346000

BUS 2 1

230 Vac

Entrance panel

P	=	–
	=	–
N	=	–
	=	1
T	=	–
S	=	9

BUS

ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of the PSTN telephone line	1
345020	Iryde Touch Phone	4
F441	Audio-video node	1
346000	AV Power supply, 230 V	1

ONE-FAMILY SYSTEM WITH PABX
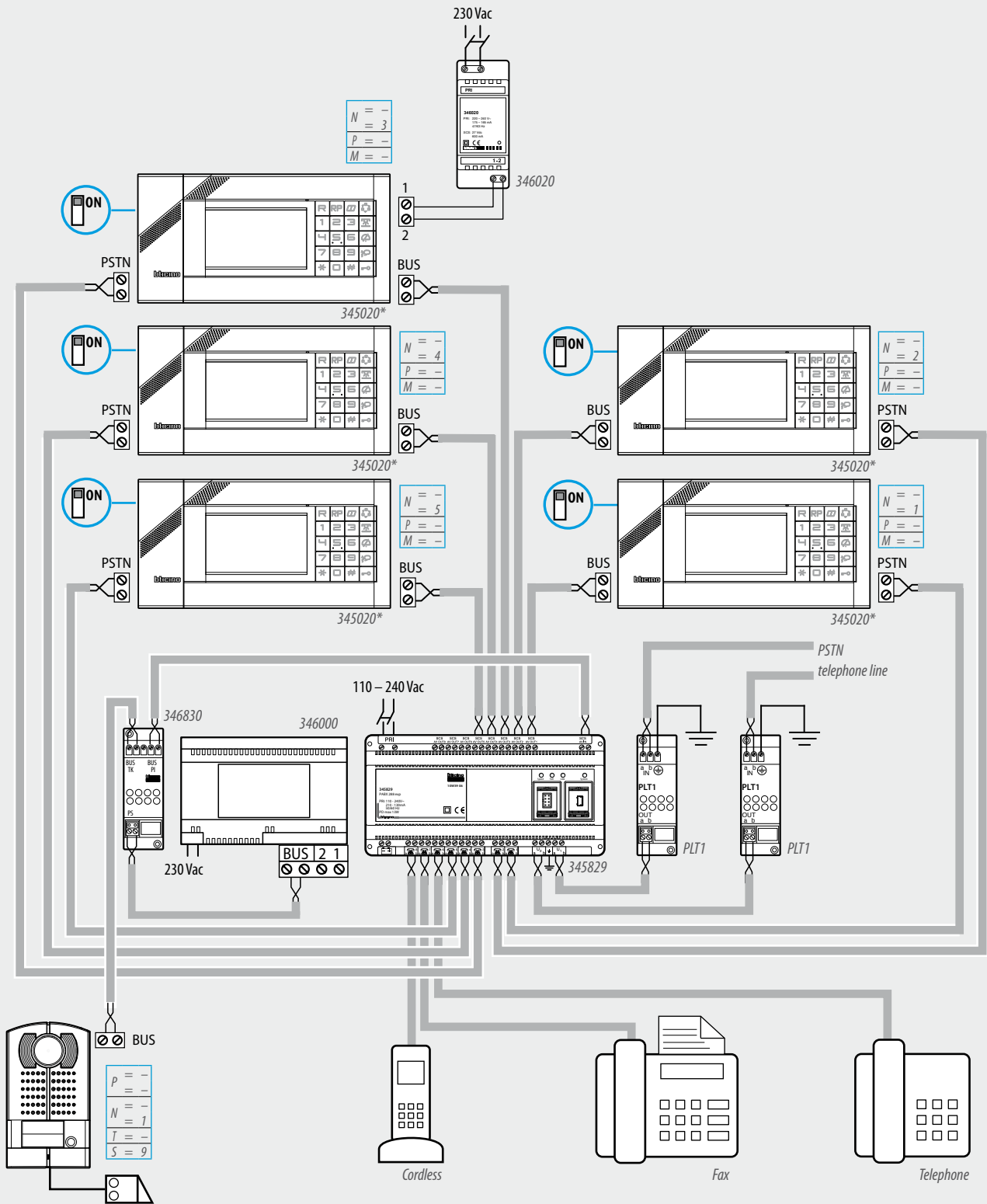
ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of the PSTN telephone line	2
345020	Iryde Touch Phone	5
346830	Video adapter	1
346000	AV Power supply, 230 V	1
345829	Switchboard	1
346020	Additional power supply, 230 V	1

Note(*): configure the ITPs (using the Menu or the Software) to recognise that the PABX switchboard is present

ONE-FAMILY SYSTEM WITH PABX AND CAMERAS

230 Vac

346020

N	=	–
	=	3
P	=	1
M	=	–

N	=	–
	=	2
P	=	1
M	=	–

PSTN

BUS

345020*

ON

BUS

PSTN

345020*

N	=	–
	=	4
P	=	1
M	=	–

N	=	–
	=	1
P	=	1
M	=	–

ON

PSTN

BUS

345020*

ON

BUS

PSTN

345020*

PSTN
telephone line

110 – 240 Vac

PLT1

PLT1

345829

PLT1

PLT1

F441

346000

230 Vac

BUS 2 1

Telephone

Cordless

Fax

BUS

BUS

BUS

P	=	1
N	=	1
T	=	–
S	=	9

P	=	2
N	=	–
Z	=	–
A	=	–
PL	=	–

P	=	3
N	=	–
Z	=	–
A	=	–
PL	=	–

391670

391670

ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of the PSTN telephone line	2
345020	Iryde Touch Phone	4
F441	Audio-video node	1
346000	AV Power supply, 230 V	1
345829	Switchboard	1
346020	Additional power supply, 230 V	1
391670	Outdoor 2 wire colour camera	2

Note (*): configure the ITPs (using the Menu or the Software) to recognise that the PABX switchboard is present

HOME/OFFICE SYSTEM WITH PABX

Thanks to the PABX switchboard, with the system represented it is possible to create two partitions, to separate the calls to the office (partition 1), from those to the home (partition 2). The two partitions are independent as far as video door entry system calls, services, and telephone calls are concerned, but their internal extensions intercommunicate with each other. The individual devices cannot be disabled for the reception of general type intercommunicating calls.

It is possible to make video door entry system calls with address CITO1 and CITO2, to communicate with one of the two apartment 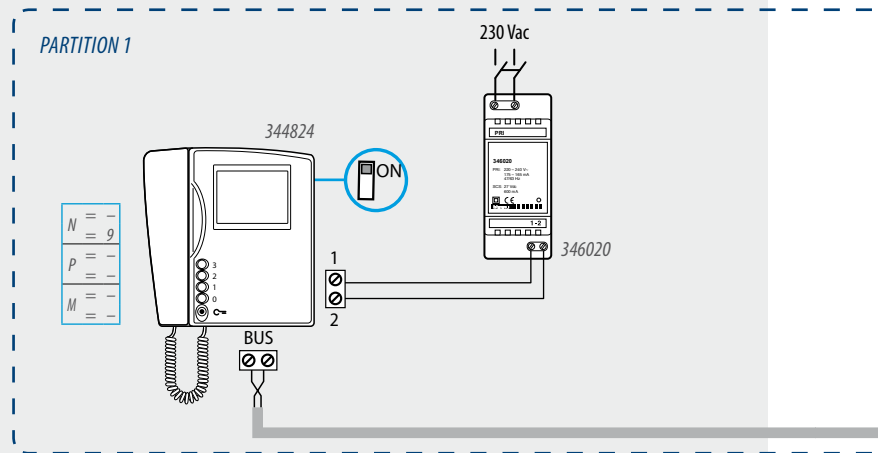partitions, it is possible to associate one handset (with Handset→8) to CITO1 door entry system calls, and one handset (with Handset 0 to 8) to CITO2 door entry system calls. By default CITO1=1, CITO2=2, video handset for CITO1=9, video handset for CITO2=10.
The installation rules and the functions of the PABX are the same as shown in the ¨one-family with PABX¨ diagram.
Up to 3 video handsets can be associated to each partition.
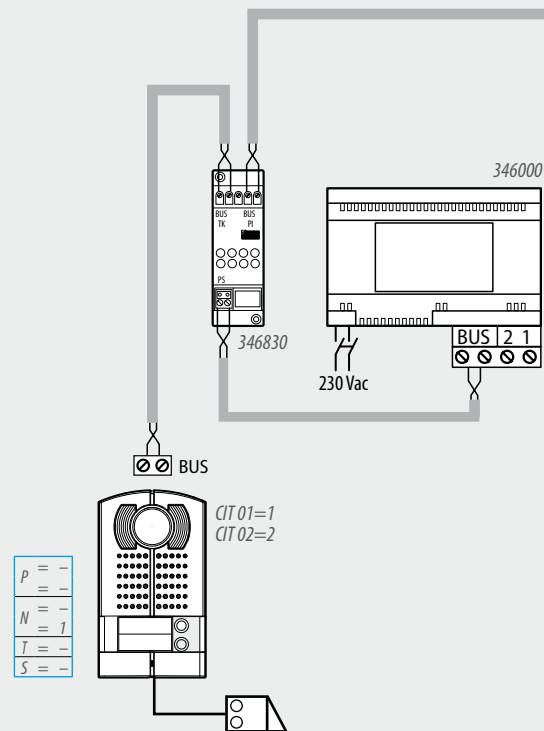
ITEM	DESCRIPTION	QUANTITY
344824	Colour SWING video handset	1
345829	Switchboard	1
344192	POLYX handsfree video handset	2
PLT1	Protection of the PSTN telephone line	2
345020	Iryde Touch Phone	2
346830	Video adapter	1
346000	AV Power supply, 230 V	1
346020	Additional power supply, 230 V	1

Note: for the configuration of ITP handsets and the PABX use the dedicated software programs

Note (*): configure the ITPs (using the Menu or the Software) to recognise that the PABX switchboard is present

Fax

345020*

ON

BUS

PSTN

PSTN
telephone line

110-240 Vac

PRI

345829

345829

PLT1
a IN
OUT
a b
PLT1

PLT1
a IN
OUT
a b
PLT1

ON

ON

PSTN

ON

N = 1
= –
P =
= –
M =
= –

N = 1
= –
P =
= –
M =
= –

344192
BUS
Master

344192
BUS
Slave

BUS

345020*

Cordless

PARTITION 2
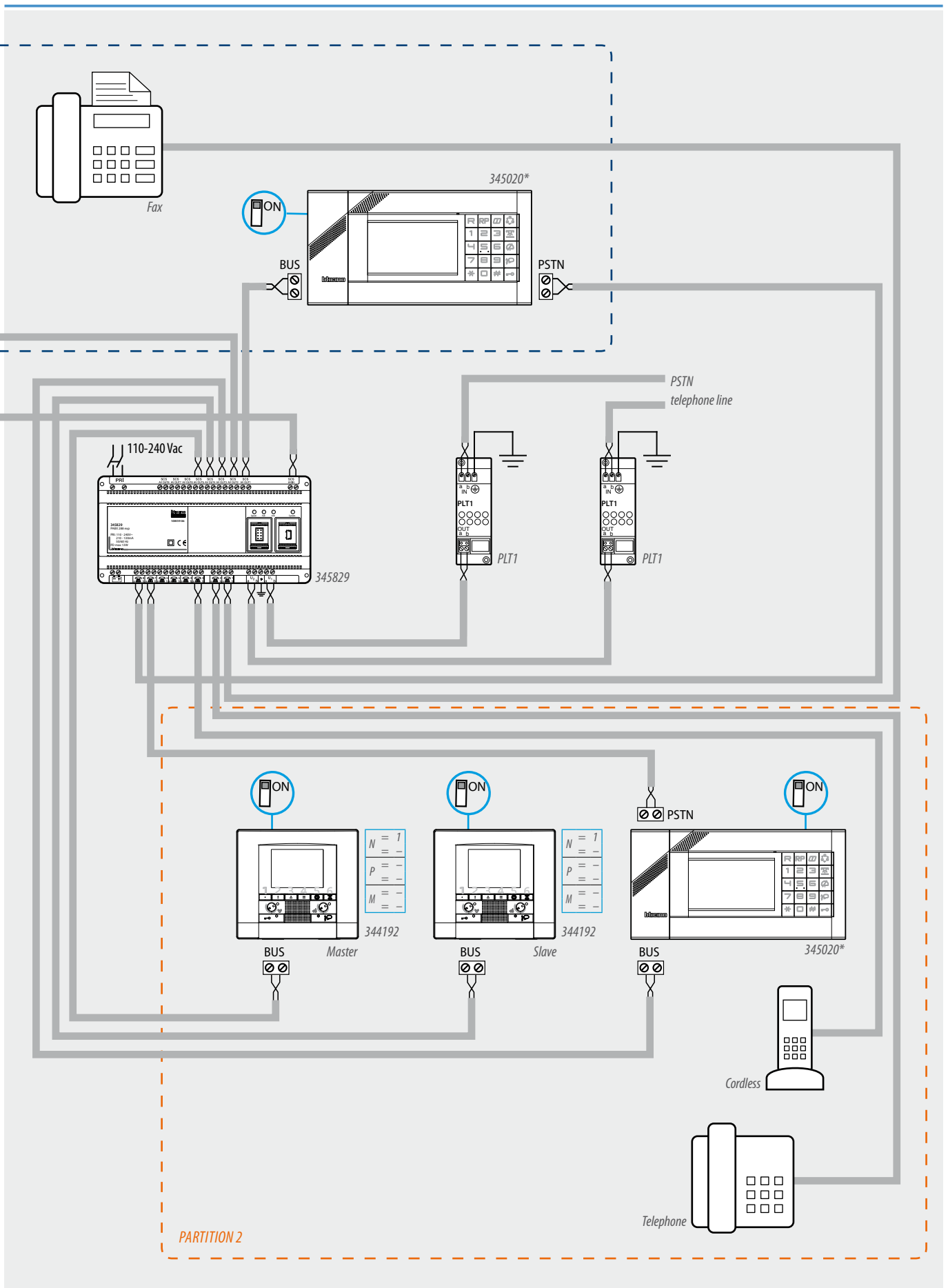
Telephone

MULTI-FAMILY SYSTEM WITH CAMERA WITHOUT PABX

APARTMENT 2

APARTMENT N

ON

N = –
= 1
P = –
M = –

BUS

PSTN

345020

OFF

N = –
= 2
P = –
M = –

BUS

PSTN

345020

INT

EXT

346850

ON

346830

BUS TK BUS PI

PS

346000

230 Vac

BUS 2 1

PSTN
telephone line

PLT1

OUT a b

PLT1

N = –
= 2
M = 3

OFF

INT

EXT

346850

F441

346000

OUT 1 OUT 2 OUT 3 OUT 4

OUT

IN

IN 1 IN 2 IN 3 IN 4 SCS

230 Vac

BUS 2 1

P = –
N = –
T = –
S = –

342550

342170

342240

EP/S

BUS PL S+ S-

PS

S1

P = –
= 1
N = –
T = –
S = –

342550

342170

342240

EP/S

BUS PL S+ S-

PS

S1

APARTMENT 1

N	=	−
	=	1
P	=	−
M	=	−

345020

ON
BUS

BUS
ON

N	=	−
	=	3
P	=	−
M	=	−

345020

N	=	−
	=	2
P	=	−
M	=	−

345020

OFF
BUS

BUS
OFF

N	=	−
	=	4
P	=	−
M	=	−

345020

PSTN
telephone line

PLT1

PLT1

F441

346000

230 Vac

BUS 2 1

N	=	−
	=	1
M	=	3

INT
346850
EXT

OFF

346850

BUS

3916..

P	=	−
	=	1
N	=	−
Z	=	−
A	=	−
PL	=	−

ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of the PSTN telephone line	2
345020	Iryde Touch Phone	6
342170	Speaker module	2
342240	Pushbutton module	2
342550	Colour camera module	2
F441	Audio-video node	2
346000	AV Power supply, 230 V	3
346850	Apartment interface	3

ITEM	DESCRIPTION	QUANTITY
346830	Video adapter	1
EP/S	SFERA entrance panel (main)	2
391657		
391658		
391659	2 wire indoor camera	1
391661		
391662		
391663		

MULTI-FAMILY SYSTEM WITH CAMERA AND PABX

By configuring the address assigned in the apartment interface (I/A), it will be possible for the system to manage a call from the riser. Inside the individual apartment the system can control two different calls (ADR=01 and ADR=02) generated by a private EP (home/office mode inside the same apartment).
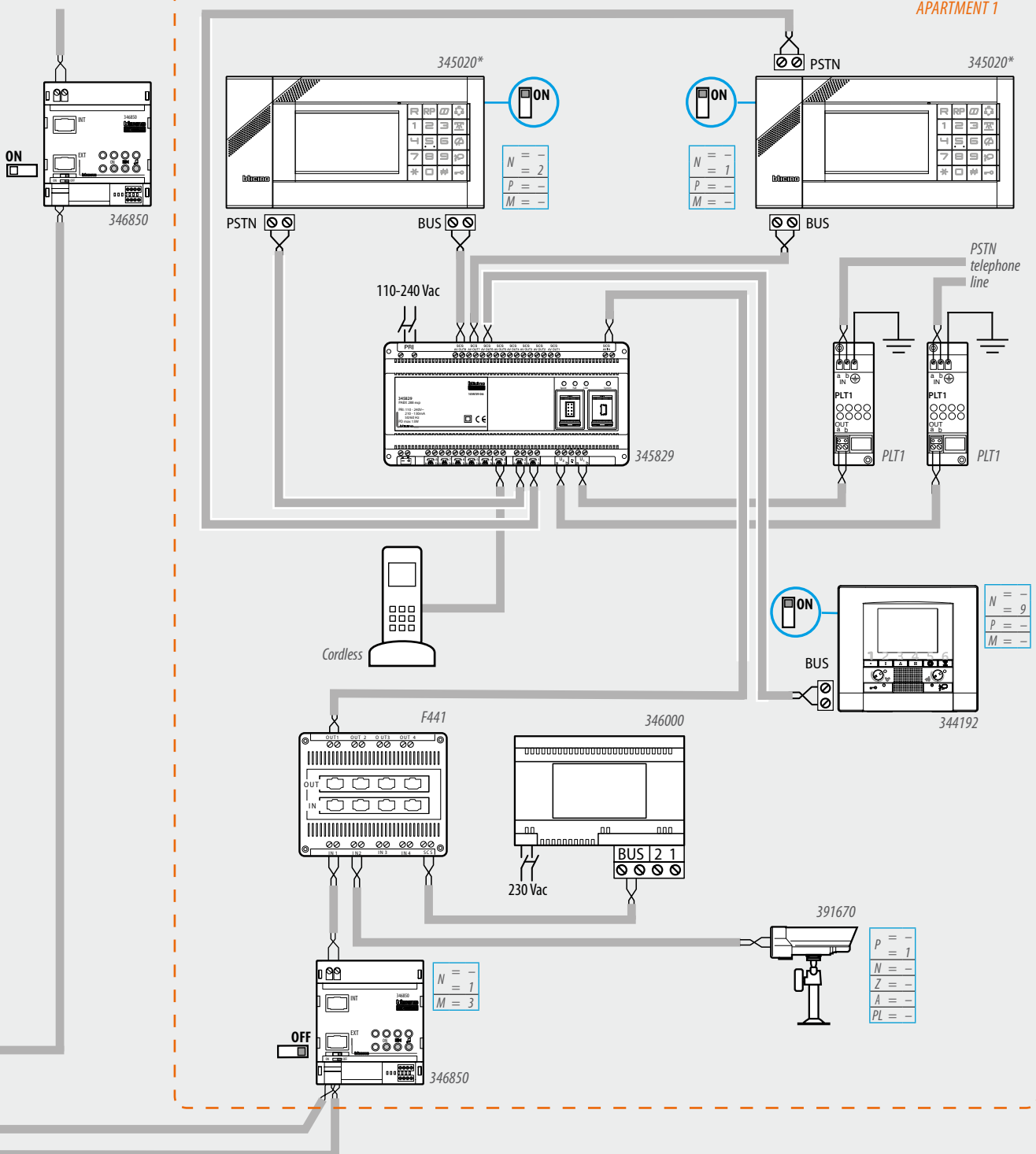General type intercommunicating calls (for example from another apartment) cannot be disabled for the extensions and the ITPs of the system.

APARTMENT 2

ON

$$N = -$$
$$= 1$$
$$P = -$$
$$M = -$$

BUS

PSTN

345020

OFF

$$N = -$$
$$= 2$$
$$P = -$$
$$M = -$$

BUS

PSTN

345020

OFF

$$N = -$$
$$= 3$$
$$P = -$$
$$M = -$$

BUS

PSTN

PSTN telephone line

346830

BUS TK BUS PI

PS

346000

BUS 2 1

230 Vac

a b IN

PLT1

OUT a b

PLT1

$$N = -$$
$$= 2$$
$$M = 3$$

INT

346850

OFF EXT

346850

F441

346000

OUT

IN

BUS 2 1

230 Vac

$$P = -$$
$$= -$$
$$N = -$$
$$= -$$
$$T = -$$
$$S = -$$

342550

342170

342240

BUS PL S+ S-

PS

S1

EP/S

$$P = -$$
$$= 1$$
$$N = -$$
$$= -$$
$$T = -$$
$$S = -$$

342550

342170

342240

BUS PL S+ S-

PS

S1

EP/S

APARTMENT N

APARTMENT 1

345020*

345020*

PSTN

ON

ON

$N = \dfrac{-}{2}$
$P = -$
$M = -$

$N = \dfrac{-}{1}$
$P = -$
$M = -$

346850

ON

PSTN

BUS

PSTN telephone line

110-240 Vac

345829

a b
IN
PLT1
OUT
a b
PLT1

a b
IN
PLT1
OUT
a b
PLT1

$N = \dfrac{-}{9}$
$P = -$
$M = -$

ON

BUS

344192

Cordless

F441

346000

230 Vac

BUS 2 1

391670

$N = \dfrac{-}{1}$
$M = 3$

OFF

346850

$P = \dfrac{-}{1}$
$N = -$
$Z = -$
$A = -$
$PL = -$

ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of the PSTN telephone line	3
345020	Iryde Touch Phone	5
342170	Speaker module	2
342240	Pushbutton module	2
342550	Colour camera module	2
346830	Video adapter	1

ITEM	DESCRIPTION	QUANTITY
EP/S	SFERA entrance panel (main)	2
F441	Audio-video node	2
346000	AV Power supply, 230 V	3
346850	Apartment interface	3
345829	Switchboard	1
344192	POLYX handsfree video handset	1
391670	Outdoor 2 wire colour camera	1

Note (*): configure the ITPs (using the Menu or the Software) to recognise that the PABX switchboard is present

SYSTEM FOR CONNECTION BETWEEN THE IRYDE TOUCH PHONE AND THE POWER SUPPLY WITH BACK-UP BATTERY

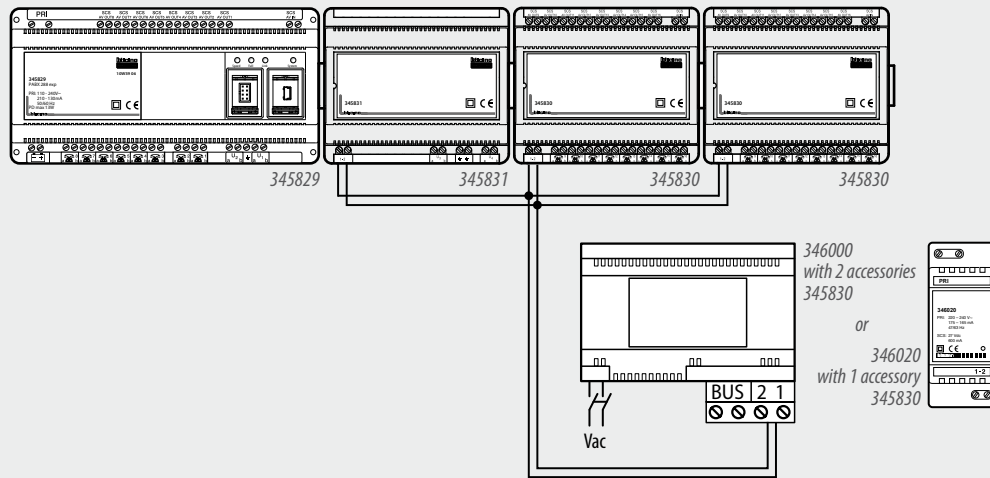| ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of the PSTN telephone line	1
345020	Iryde Touch Phone	1
345829	Switchboard	1
E47ADCN	Power supply	1
3505/12	Battery	1
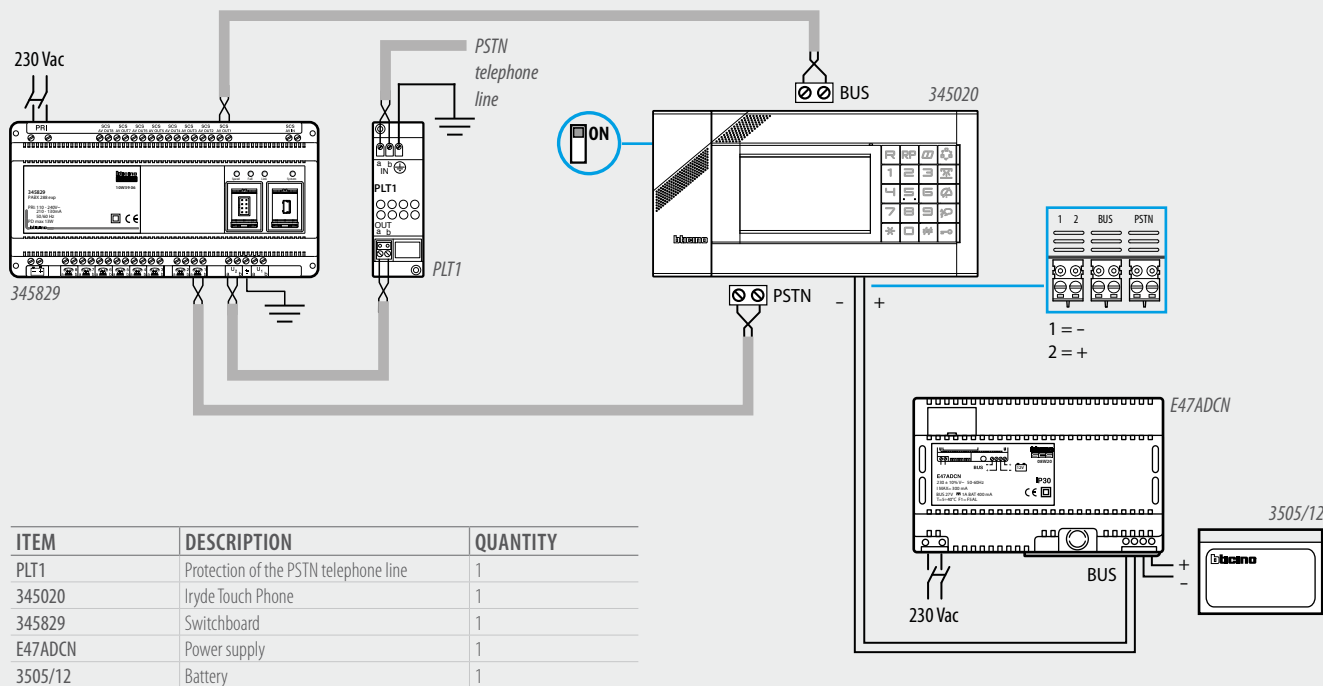
Note:

- *diagram to ensure the possibility of preserving the telephone functions only, in case of power line cut.*
- *In alternative to the power supply with back-up battery, clamp 1 of the PABX can be used to connect an ACB extension. The ITP telephone must be connected to another output and, in one-family systems, it must be configured as slave using the Menu or the software program, to ensure that it switches on upon receipt of a video door entry system call.*

SYSTEM FOR THE CONNECTION OF THE PABX WITH ACCESSORIES TO THE BACK-UP BATTERY
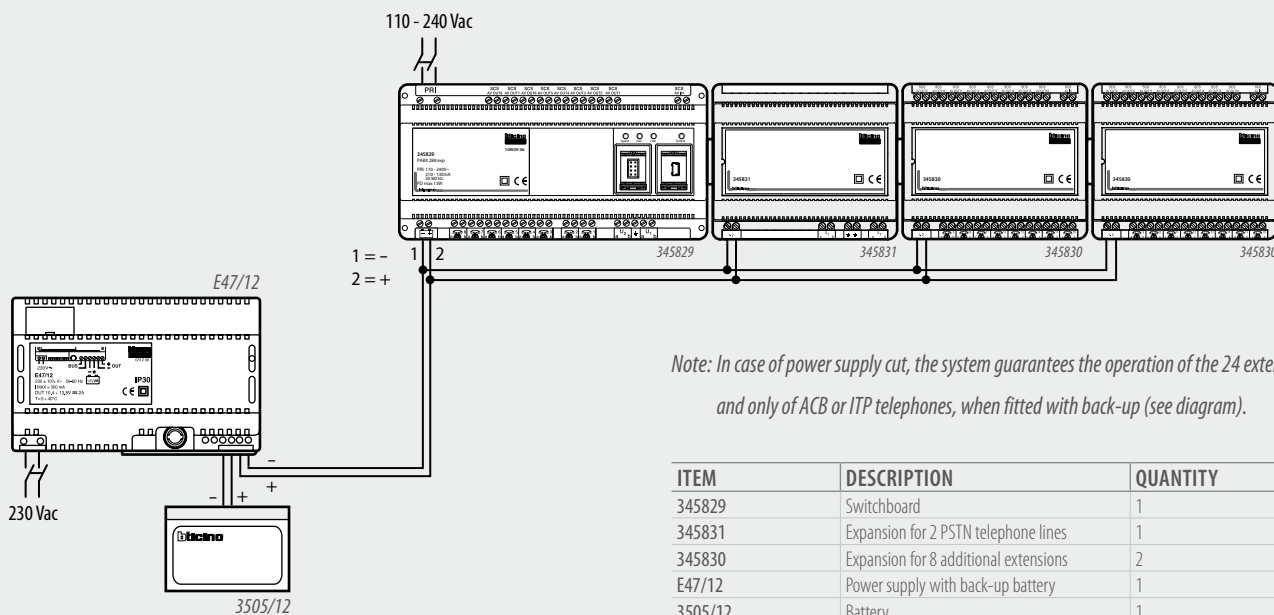
Note: In case of power supply cut, the system guarantees the operation of the 24 extensions and only of ACB or ITP telephones, when fitted with back-up (see diagram).

ITEM	DESCRIPTION	QUANTITY
345829	Switchboard	1
345831	Expansion for 2 PSTN telephone lines	1
345830	Expansion for 8 additional extensions	2
E47/12	Power supply with back-up battery	1
3505/12	Battery	1

SYSTEM FOR THE CONNECTION OF THE POWER SUPPLY
FOR THE ACCESSORIES

ITEM	DESCRIPTION	QUANTITY
345829	Switchboard	1
345831	Expansion for 2 PSTN telephone lines	1
345830	Expansion for 8 additional extensions	2
346000	Power supply	1
346020	Mini power supply	1

Proprietà pagina

HOME PAGE

HOME PAGE

Proprietà elemento selezionato
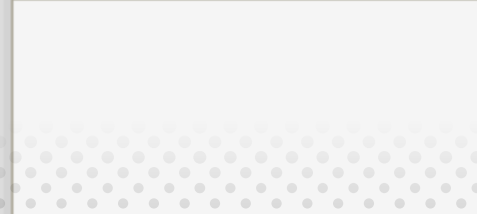
Contents

DESCRIPTION

2 wire telephone and video handset for wall mounted installation (with optional bracket, item 345024) or table-top version (with optional support, item 345023). It has a 16/9, 4.3" LCD colour touch screen display with icon navigation menu, which can be customised using a PC for the management of the functions:
- telephone;
- video door entry
- MY HOME automation: temperature control, sound system, automation scenarios, burglar alarm.

The device also features:
- backlit keypad with blue LED.
- handset with magnet for logic release functions through the Hall sensor fitted inside the base, with extendable spiral cable. On the back of the receiver is a loudspeaker for the handsfree function.

Programming and configuration using the TiIrydeTouch Phone software supplied with the product.

TECHNICAL DATA

|	
Power supply from SCS BUS:	18 – 27 Vdc
Maximum absorptions from the BUS:	
- Standby	35 mA and up to 160 mA when the telephone functions are used
- ON	350 mA
- With additional power supply (1-2)	20 mA
Operating temperature:	5 – 45 °C

LEGEND

1. Handsfree loudspeaker
2. Handset
3. LCD colour touch screen display: it displays the user menus and shows the images recorded from the entrance panel and from other cameras
4. Handsfree microphone
5. Backlit keypad
6. Mini USB PC connection
7. Call forwarding and repeat/pause telephone function keys
8. Telephone address book key
9. EP switching on and camera cycling key
10. Stair lights switching on key
11. Call exclusion key: press once to disable the ringtone (telephone and video door entry system), and press again to enable. Steady red LED with ringtone disabled, flashing for incoming call and ringtone disabled
12. Handsfree enable/disable key. Green LED when enabled
13. Main EP door lock release key. Notification LED:
    - off when the door lock is idle and the door is locked, red when the door is open
    - red flashing when the Office function is active
14. * and # keys used for telephone services
15. Line termination ON/OFF switch
16. PSTN telephone line or PABX switchboard connector
17. 2 wire video SCS/BUS connector
18. 1-2[1] power supply connector
19. Configurator socket
20. Bracket fixing screw

NOTE: 1) The telephone functions are still ensured in case of power cut to the SCS/BUS, provided that an additional power supply is present. (1= –; 2= +)

FRONT VIEW

KEYPAD

REAR VIEW

BT00477-a-UK

DIMENSIONAL DATA

120 mm

235mm

22mm
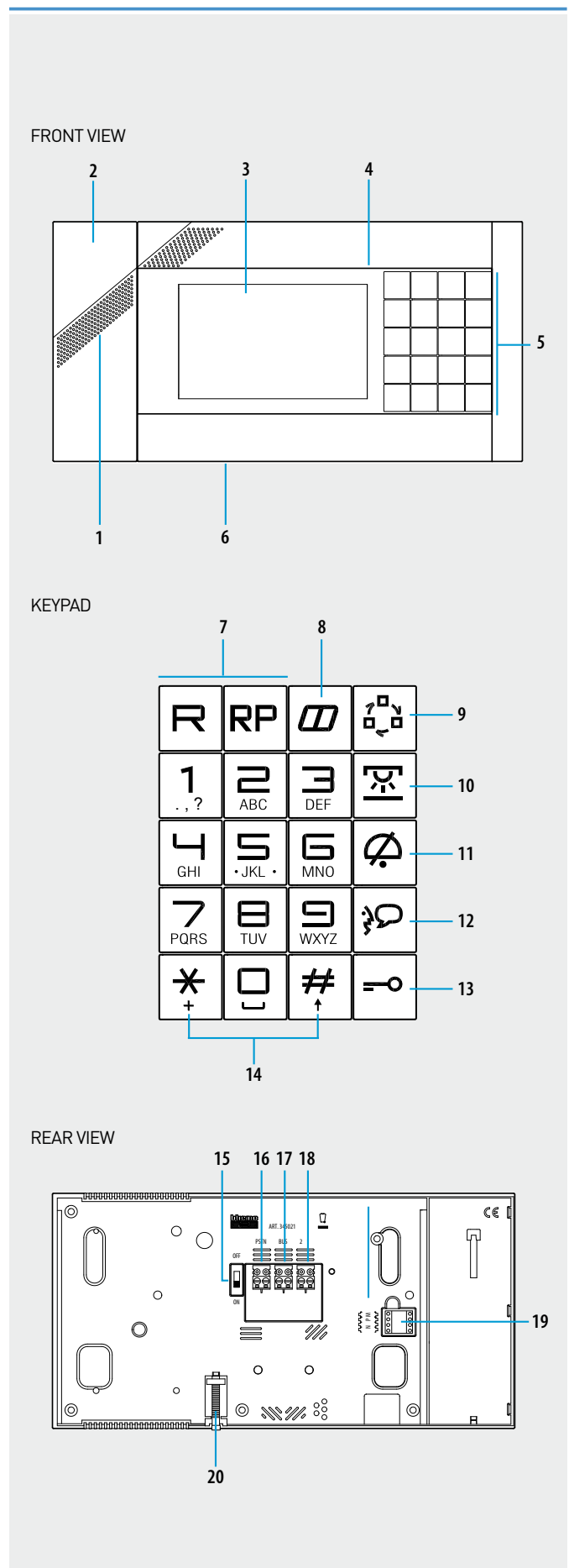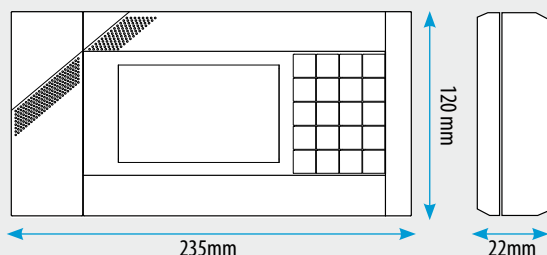
RULES, CERTIFICATION, MARKS

Iryde Touch Phone 345020 – 345021 complies with the 1999/5EC directive, certified following the current regulations listed below:
- EN 60950-1:2006-04 + EN 60950-1/A11:2009-03
- EN 50090-2-2/Ec:1997-03 + EN 50090-2-2/A1:2002-01
  + EN 50090-2-2/A2:2007-04

CONFIGURATION

Iryde Touch Phone can be configured in two different modes:
■ **Basic configuration:**
  when switched on for the first time, the product asks the user to select the language. After this has been done, if no physical configurators are present, the device displays a main page showing the video door entry system icon (inside which, standard door entry system commands can be found: camera, door lock release, intercom, automatic cycling), the telephone icon, and the settings icon.
  The basic configuration can also be performed using physical configurators: N (address of the device within the video door entry system), P (address of the EP associated to the device).

■ **Configuration using the PC:**
  using the TiIrydeTouchPhone software, it gives the possibility of configuring the main menu page without being limited to a pre-set number of functions. Each function may be customised in terms of type, parameter, and text.
  PC configuration provides:
  - better flexibility in the creation of the menu;
  - customisation of text;
  - functionalities for the management of the MY HOME automation systems.

MAIN FUNCTIONS

■ **Simultaneous switching on with additional power supply:**
  it is possible to connect up to 4 ITPs with no additional power supply. In case of simultaneous switching on of several menus, display brightness limitation occurs. In system with or without PABX switchboard, where however the PSTN telephone line and the SCS BUS are connected using the star wiring solution, the image from the camera is visible on all the ITPs, provided that these are powered individually using the additional power supply (item 346020).
  In general, when installing systems in apartments with ITPs connected to the telephone line, the installation of the apartment interface, item 346850, is also required.

■ **Home automation functions:**
  using the software, it is possible to configure the pages for the control of the home automation systems installed inside the home.
  The available pages are: alarms (alarm log display), sound system (programming of the rooms and source names), temperature control (management of the 4 zone and 99 zone system), execution of scenarios.

■ **Ringtones:**
  stored in the ITP, can be associated to specific events: door entry system, telephone, and intercom call, alarms, etc. The ringtones are played by the loudspeaker used for the handsfree function. It is possible to update the ringtones, with Wav or MP3 files, using the configuration software.

■ **Address book:**
  using the telephone menu, the address book can be used for the following functions: add a contact, delete a contact, change a contact, select and call a contact, customise a contact by associating a photo to the number (using the software), management of several numbers (max 3) for each contact.

TELEPHONE SERVICES

▪ Calling a number on the PSTN line:
using the appropriate keypad command, the user can select the PSTN telephone line on which to make the call. ITP is capable of selecting a telephone number on the PSTN line in touch tone mode (DTMF).

▪ Calling a number on the private, or system, address book using the PSTN line.

▪ Pager:
Press the dedicated icon to communicate with handsets and telephones with handsfree function.

▪ Answering incoming calls.

▪ Differentiated call:
when a call arrives, the user has the possibility of distinguishing between type of calls (intercommunicating, from the outside line, or video door entry system call), by using different sound tracks.

▪ CID service:
upon arrival of a PSTN line call, the caller number or name is displayed (if the number is included in the address book), together with the photo of the caller (if present in the private address book). The availability of the service is subjected to the activation of the function for forwarding information by the central unit.

▪ Extension call (intercommunicating call):
possibility for the extensions to talk to each other. The selection of the extension to call can be made in two ways:
- by entering on the code of the extension to call on the keypad (from 401 to 408)
- by selecting the extension to call from the menu, and then pressing "OK" to confirm the call.

▪ General call of all the extensions:
it is possible to make an announcement on all CTB and ITP extensions using the loudspeaker on the bases of the telephones. To activate the service lift the handset and press the dedicated icon. The first telephone engaging the line enters in conversation with the caller, excluding all the other extensions called. If no answer is received within the activation time, the service is interrupted and the caller receives a time-out tone. The service can be interrupted by replacing the handset. Press the "pager" key during the activation time or when the time-out tone is heard from the handset to reactivate the service. The microphone used for the pager function can be the handset or the handsfree microphone.

▪ Automatic redial of the last external number.

▪ Putting a call on and off hold on the telephone line:
the extension engaged in the call can put the user of the PSTN line on hold by pressing the "R/HOLD" key. While on hold the extension can:
- enable a permitted service.
- restart the conversation by replacing the handset (call return).
- restart the conversation on hold by pressing the "R/HOLD" key again.

▪ Answering a second call.

▪ Transfer without consent in case of free tone:
in case of installation with PABX, after pressing "R" and selecting the number of the extension to which to transfer the conversation, the user can replace the handset once a free tone is heard.

▪ Transferring a door entry system and DOSA outside line call:
in case of installation with PABX.

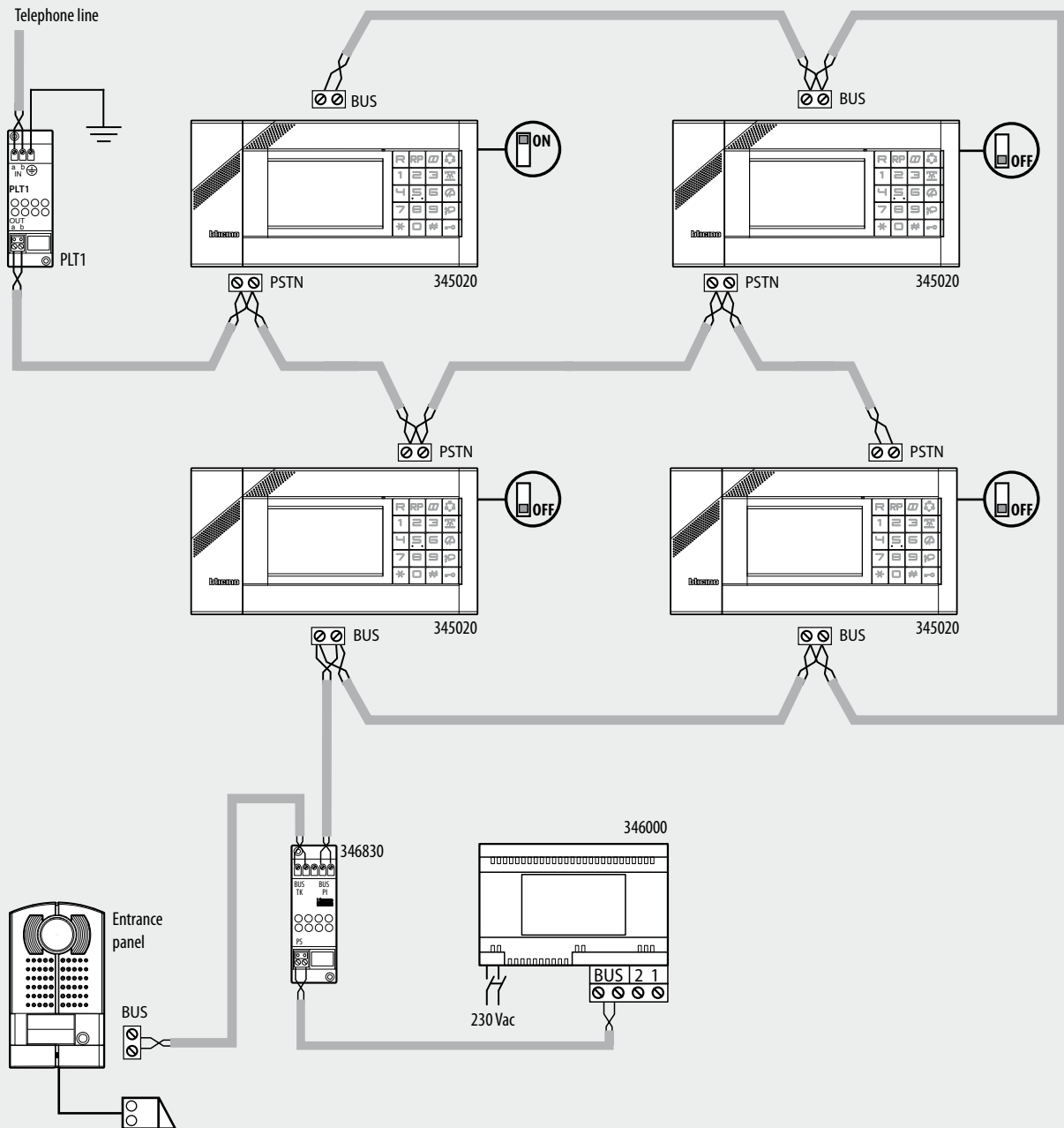**▪ DISA service, selection of the handset from the outside line using the voice menu:**
in case of installation with PABX.

▪ Day/lunchtime/night scenarios for the various telephone lines:
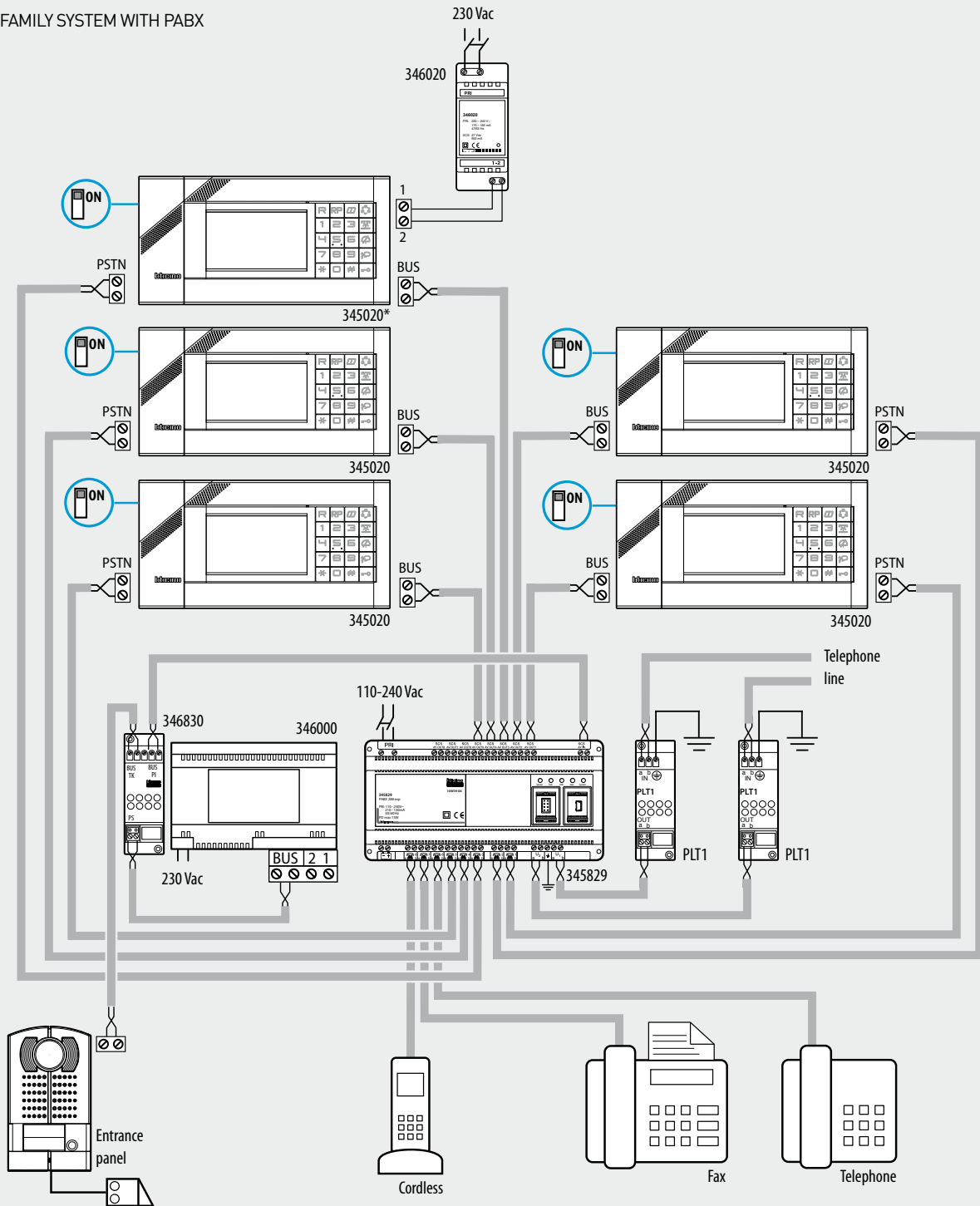in case of installation with PABX.

WIRING DIAGRAMS

ONE-FAMILY SYSTEM WITHOUT PABX

Telephone line

BUS

BUS

ON

OFF

PLT1

PLT1

PSTN   345020

PSTN   345020

PSTN

PSTN

OFF

OFF

BUS   345020

BUS   345020

346830

346000

BUS
TK

BUS
PI

PS

Entrance
panel

BUS

230 Vac

BUS 2 1

ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of telephone line	1
345020	Iryde Touch Phone	4
346830	Video adapter	1
346000	AV Power supply, 230 V	1

ONE-FAMILY SYSTEM WITH PABX

230 Vac

346020

ON

PSTN

BUS

345020*

ON

ON

PSTN

BUS

BUS

PSTN

345020

345020

ON

ON

PSTN

BUS

BUS

PSTN

345020

345020

Telephone
line

110-240 Vac

346830   346000

BUS BUS
TK PI

PS

230 Vac

BUS 2 1

PLT1

OUT

PLT1

345829

PLT1

PLT1

Entrance
panel

Cordless

Fax

Telephone

ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of telephone line	2
345020	Iryde Touch Phone	5
346830	Video adapter	1
346000	AV Power supply, 230 V	1
345829	Switchboard	1
346020	Power supply	1

Note (*): configure the ITPs (using the Menu or the Software) to recognise that the
          PABX switchboard is present

PABX SWITCHBOARD

DESCRIPTION

Device that, in addition to the various telephone functions, also provides integration with the BTicino video door entry system; for example, using the telephones connected to the switchboard it will be possible to: answer a door entry system call, control the opening of the door lock, check what happens at the entrance panel. The use of the telephone switchboard in a door/video door entry system also enables intercommunication among all the telephones installed, video monitoring system functions, and remote activation (functions only available using BTicino telephones).

The remote activation function gives the possibility of sending commands to the My Home system with a simple call, both from any of the extensions, and the external telephone line. The PABX is capable of managing, in its basic version, two telephone lines, up to 8 telephone extensions, and as many video door entry systems. A range of accessories is available which, when connected to the switchboard, offers the possibility of expanding its performance and potential, to meet the needs of the user.

- 345830 accessory for the expansion of 8 extensions; two can be installed, to reach 24 extensions
- 345831 accessory for the expansion of the outside line to 4.

The switchboard provides interaction with the MY HOME system with 9 different customisable voice controls, and is fully compatible with all telephone systems, with touch tone telephones, modems, faxes, cordless phones, and answering machines. Programming and configuration using the TiPABX software supplied with the product.

TECHNICAL DATA

Power supply:	110 – 240 Vac @ 50/60 Hz
Absorption:	130 – 210 mA
Absorption with 12 Vdc power supply (see back-up battery):	
- Standby	390 mA
- Max. load (8 telephones engaged)	1100 mA
Maximum power consumption:	13 W max
Operating temperature:	0 – 40 °C
Size:	10 DIN modules
External telephone lines (analogue):	2 (up to 4 with accessory 345831)
Extensions:	8 (up to 24 with accessory 345830)
Telephone connection:	0.28 mm^2 telephone pair or 336904 cable
Maximum telephone distance:	500 m with 0.28 mm^2 telephone pair 700 m with 336904 cable
External telephone line connection:	0.28 mm^2 telephone pair
Dialling system:	pulse dialling or touch tone

RULES, CERTIFICATION, MARKS

PABX switchboard 345829 complies with the 1999/5/EC, directive, certified following the current regulations listed below:
EN 60950-1:2006-04 + EN 60950-1/A11:2009-03
EN 50090-2-2/Ec:1997-03 + EN 50090-2-2/A1:2002-01
+ EN 50090-2-2/A2:2007-04
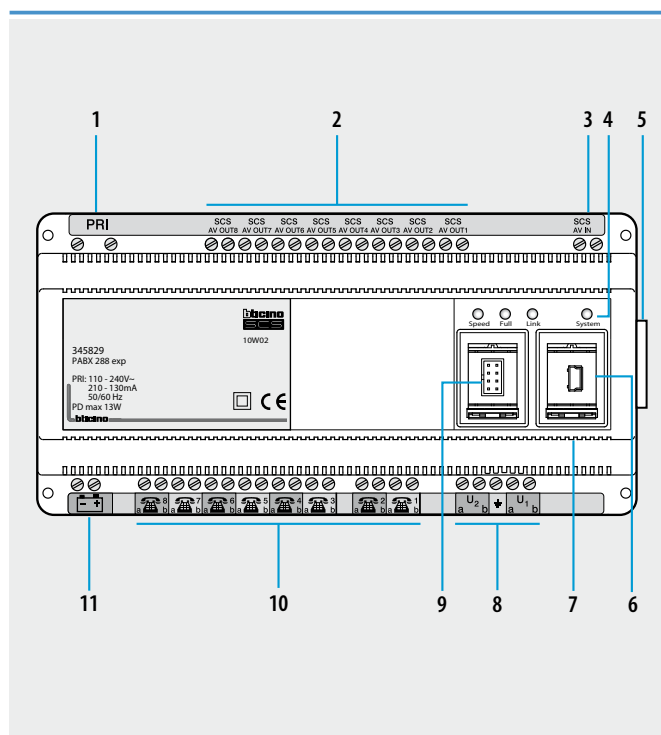
LEGEND

1. Power supply 110 - 240 Vac @ 60 Hz
2. 2 wire video door entry system handset connection
3. SCS BUS input
4. Visible signals:
   - Speed: Connection speed (on=100 Mbit; off=10 Mbit)
   - Full: On=full duplex, Off=half duplex
   - Link: On when Ethernet line detected
   - System: System in operation
5. Expansion accessory connector, up to 24 extensions and 4 outside lines
6. Mini USB port for PC configuration and Firmware update
7. RJ45 for 10/100 Mbit Ethernet LAN
8. Telephone line input
9. Serial port for configuration using a PC, and for updating the Firmware
10. Telephone connection
11. Additional power supply using item E47/12 with battery 350512

CONFIGURATION
The PABX switchboard must be programmed using the PC,
the TiPABX software, and the 335919 (RS232), or 3559 (USB)
connection cable.
Factory configuration:
8 general extensions, enabled for receiving and making calls
on two outside lines. All telephones are enabled for answering
CITO1 and CITO2 calls, GENERAL door entry system calls, to
open the door lock, and to switch the staircase lights on.
- CITO1 = 1 Address
- CITO2 = 2 Address
- Main EP address = 00
- Address of the video handset associated to CITO1= 09
- Address of the video handset associated to CITO2= 10

TELEPHONE SERVICES – MAIN FUNCTIONS
Calls to the PSTN line:
It is possible to enable/disable the individual extension for
making call through the PSTN line.

Calls from the PSTN line:
It is possible to enable/disable the individual extension for
receiving calls from the PSTN line. This enabling/disabling
is individual for each PSTN line in the system.

Calling a number on the outside line:
The extension can call and talk with a telephone number on the
PSTN telephone line. It is possible, using the appropriate keypad
control, to select the PSTN telephone line on which to make the
call (codes to be used are 11 and 12).

Answering a call:
When the telephone rings, irrespective of the type of call,
it is possible to establish communication with the caller by
lifting the receiver. The user can identify the origin of the
call, using the ¨differentiated call¨ service, or by means of a
message shown on the display (CID service, only for enabled
extensions).

Putting a call on and off hold on a PSTN telephone line:
During a call, the extension can, using the appropriate
command (R key) put the caller of the PSTN telephone line on
hold. The PSTN caller hears a waiting tone. While the call is
on hold, the extension can call another extension, activate an
available service, or continue the conversation, by pressing the
same key (R) again, to put the caller off hold. It is possible to
put on hold an intercommunicating call with another extension,
but not one from the 2 wire video door entry system.

**Transferring a PSTN telephone line call to another
extension:**
The extension (or caller) can transfer a PSTN telephone line
call, after putting it on hold, to another extension.
The caller can make an intercommunicating call, a general
call, or a pager call to another extension, and transfer the
call.

**Answering a second call during a conversation on the
outside line (call warning tones and CID in conversation):**
During a conversation, the arrival of a second call is notified
by a warning tone, The user can interrupt the current
conversation by replacing the receiver, lifting it again to
answer the new call. However, if the user does not want to
stop the current call, the second call can be answered using
the ¨call switching¨ service.

Call switching:
During a conversation through the PSTN telephone line, if
another call is received, the user of the extension can use
the appropriate keypad control to put on hold the current
conversation, and answer the second call. The same control
can be used to put the second call on hold and return to the
first one.

Direct access to the PSTN telephone line:
When lifted, the extension connects directly to the external
line, with the possibility of simply dialling a telephone
number. In this mode, internal services (intercom, etc...) are
accessed by pressing the R key after lifting the receiver.

Disconnection from the outside line:
If no number is entered within 20 seconds, the extension
engaging the line is disconnected, and the line is made
available to the system.

Fax Switch service:
The service can be activated on each of the two PSTN
telephone lines. If the incoming call is a FAX call, this will be
directly diverted to the appropriate extension, otherwise the
enabled telephones will start ringing. In case of VOICE call,
the user will be asked to wait, by a voice message, while the
switchboard recognises the type of incoming call.

DOSA Service:
The service gives the possibility of entering a telephone
number on the PSTN telephone line through an EP door
entry system call. It is possible to associate a telephone
number for DOSA CITO1 type calls (address book item 48),
and a number for CITO2 DOSA type calls (address book item
49). On arrival of a (CITO1, CH_GEN, CITO2) call from the EP,
the enabled extensions ring at the same time, and if the PSTN
telephone line is free, the number entered in position (49-50)
of the address book is dialled. If an extension or a handset
answers, the call towards the PSTN telephone line is stopped.
If there is no answer for 25 seconds, the PABX answers the
call automatically to enable the remote telephone to decide
whether to accept or refuse the call.

Door lock DOSA service:
By entering code 97, the user of the remote telephone can
order the release of the door lock.

DISA service:
This service gives a remote telephone the possibility of
directly initiating a conversation with an extension connected
to the PABX. Following an incoming call on LU1 or LU2,
the switchboard automatically answers and sends to the
remote telephone a voice menu explaining how to enter in
conversation with one of the PABX extensions.

CID:
Caller ID on all extension telephones of the PABX, for external
line and intercommunication calls.

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VIDEO DOOR ENTRY SYSTEM SERVICES

■ **Door entry system services:**
It is possible to enable/disable the extension for the release of the EP door lock (also addressed), and the activation of the staircase lights.

■ **Calls from the entrance panels (EP):**
It is possible to enable/disable the individual extension for receiving calls from the entrance panel. It is possible to independently enable/disable the reception of each individual call address (CITO1 and CITO2), and of the general call.

■ **Intercommunicating calls from another apartment:**
It is not possible to enable/disable the individual apartment for receiving intercommunicating calls between the extensions of the 2 wire video door entry system.

■ **Intercommunicating calls from the handset of the same apartment:**
A handset can call an individual PABX extension by making an intercommunicating call with an address between 1 and 8 (the addresses for CITO1 and CITO2 are not considered for calls from the handset).

■ **Release of the main entrance panel door lock:**
The door lock of the main entrance panel may be released from any extensions. The main entrance panel address can be configured by the user.

■ **Staircase light switching on:**
The staircase lights can be activated by any extensions, either when the extension is idle, or during a conversation. The extensions (e.g. ITP) feature a dedicated key for the activation of the service.

■ **Intercommunicating calls between extensions of the 2 wire system:**
The extensions can make or receive calls from other extensions of the 2 wire system. The call to the extension is made by selecting a keypad code (from 409 to 499).
The call from the handset shall have an address between 1 and 8, and will cause the individual extension to ring.

■ **Intercommunicating call between two apartments of the 2 wire system:**
The extensions can make or receive calls from handsets belonging to other apartments of the 2 wire system.
The call to the other apartment is made by entering a code in the keypad (from 501 to 509). The call coming from the other apartment will have a General address and cause all the extensions to ring.

■ **General handsfree call (pager function):**
The user can make a handsfree announcement through the amplifiers of all the handsets and sound system accessories (e.g. video stations, ITP, etc.).
The service can be activated from any extension by pressing the # key.
The relevant individual can enter into conversation with the caller from any system extension.
To end the service simply disconnect.

■ **Managing calls from the 2 wire system (video door entry system):**
The system answers the calls from the 2 wire bus with address 01, 02, and general. The addresses can be customised using the configuration program (TiPABAX).

VARIOUS SERVICES

■ **Encapsulation of the extension:**
The extension performing a wrong operation that causes a slow down in the system operation is disconnected from all resources. The extension receives a time-out tone to invite the user to replace the receiver.

■ **Extension selection mode:**
The PABX can detect notifications in multi-frequency selection mode (DTMF) sent by the extension.
Dedicated mode notifications (DC) are not detected.

■ **Classification of the extensions:**
Possibility of enabling or disabling the individual extension in relation to certain services, calls received, or made.
The factory configuration is with the extensions enabled for all services, and for all types of incoming and outgoing calls.

■ **Extension call (intercommunicating call):**
The extensions can communicate with each other. The extension to call is selected using the keypad (40x, with x being a number between 1 and 8).

■ **General call of all the extensions:**
The extension can simultaneously call all the other extensions and handsets of the apartment. The first handset or extension answering, will initiate a conversation with the caller (enter 400).

■ **Differentiated call:**
The user can identify the type of incoming call (intercommunicating, from the PSTN telephone line, or from the SCS BUS), by associating a different ringtone on the ACB extensions.

■ **MY HOME remote activation serviCE:**
The service gives a remote user the possibility of sending "open" commands through a PSTN telephone line call to the PABX. Open "commands" may relate to scenario (CHI=0), lights (CHI=1), and automations (CHI=2), but also temperature control and sound system management functions, as well as CEN and CEN plus commands. Following a call from the PSTN telephone line, the switchboard automatically answers after a number of rings that can be set by the user (default 5). The remote telephone receives a voice message inviting the user to enter a password, after which access to a voice menu will be granted, giving the possibility of sending previously set "open" commands. The user can perform up to a maximum of 5 activations by pressing a number between 1 and 9. The PABX sends a voice message informing the user if the action has been successful or not.

■ **Customisation of messages directly from any telephone extensions**

■ **Doctor's office function**

■ **Managing the answering machine when the MY HOME service is enabled**

INSTALLATION RULES
The PABX switchboard:
- must be installed in the cabinet near the system power supply;
- has the video termination always active, it must be installed on OUT of the node, as the last in the chain;
- enables the connection, on the AV-OUT SCS outputs, of video door entry system handsets.
Absorption from AV SCS BUS at 27 Vdc:
- Standby 20mA
- Telephone conversation 40 mA
Maximum current on the AV-IN SCS clamp: 1 A
Maximum current that can be supplied on the individual AV-OUT SCS output: 1 A

WIRING DIAGRAMS

MULTI-FAMILY SYSTEM WITH CAMERA
By configuring the address assigned
in the apartment interface (I/A), it will
be possible for the system to manage
a call from the riser.
Inside the individual apartment, the
system can control two different calls
(ADR=01 and ADR=02) generated by a
private EP (home/office mode inside
the same apartment).
General type intercommunicating
calls (for example from another
apartment) cannot be disabled for
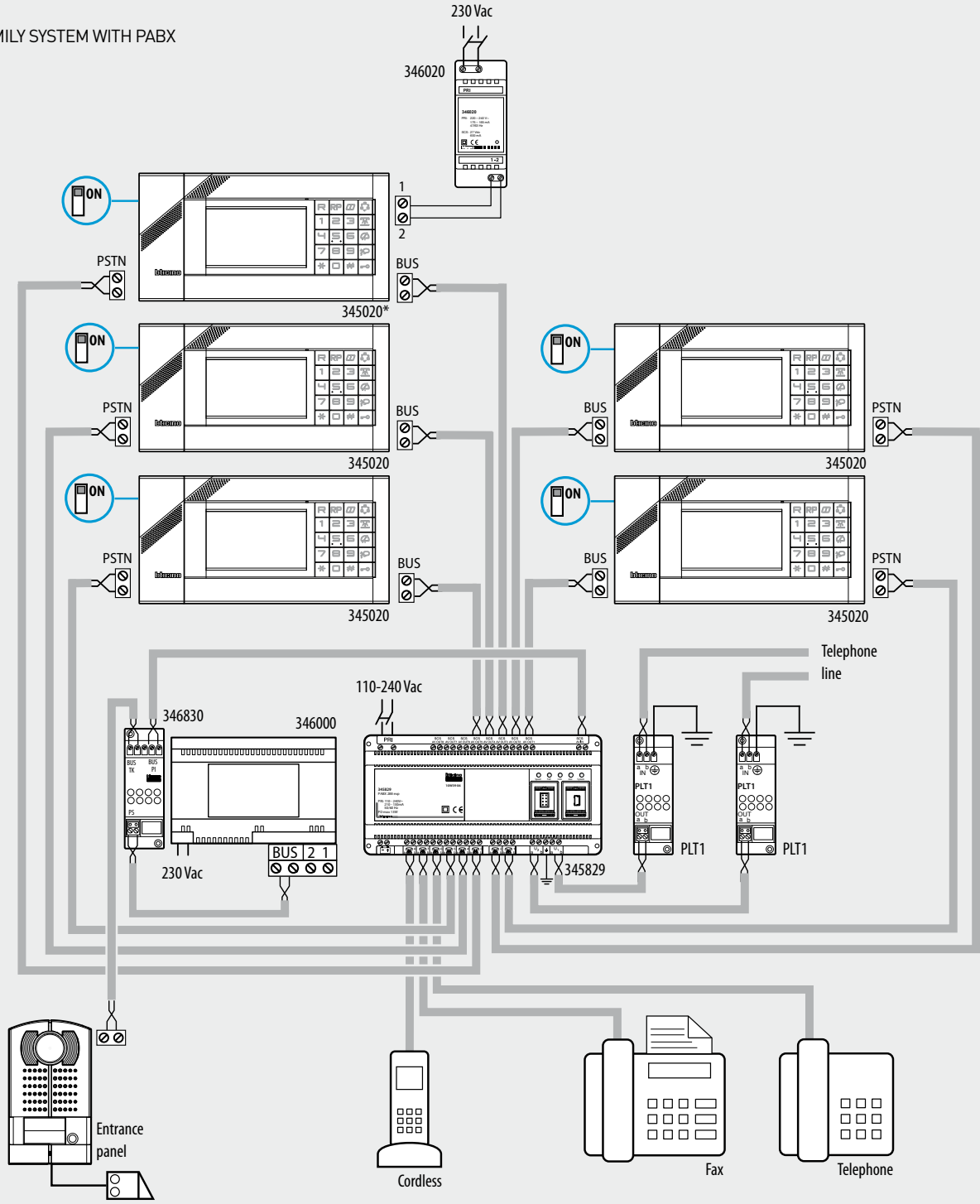the extensions and the ITPs of the
system.
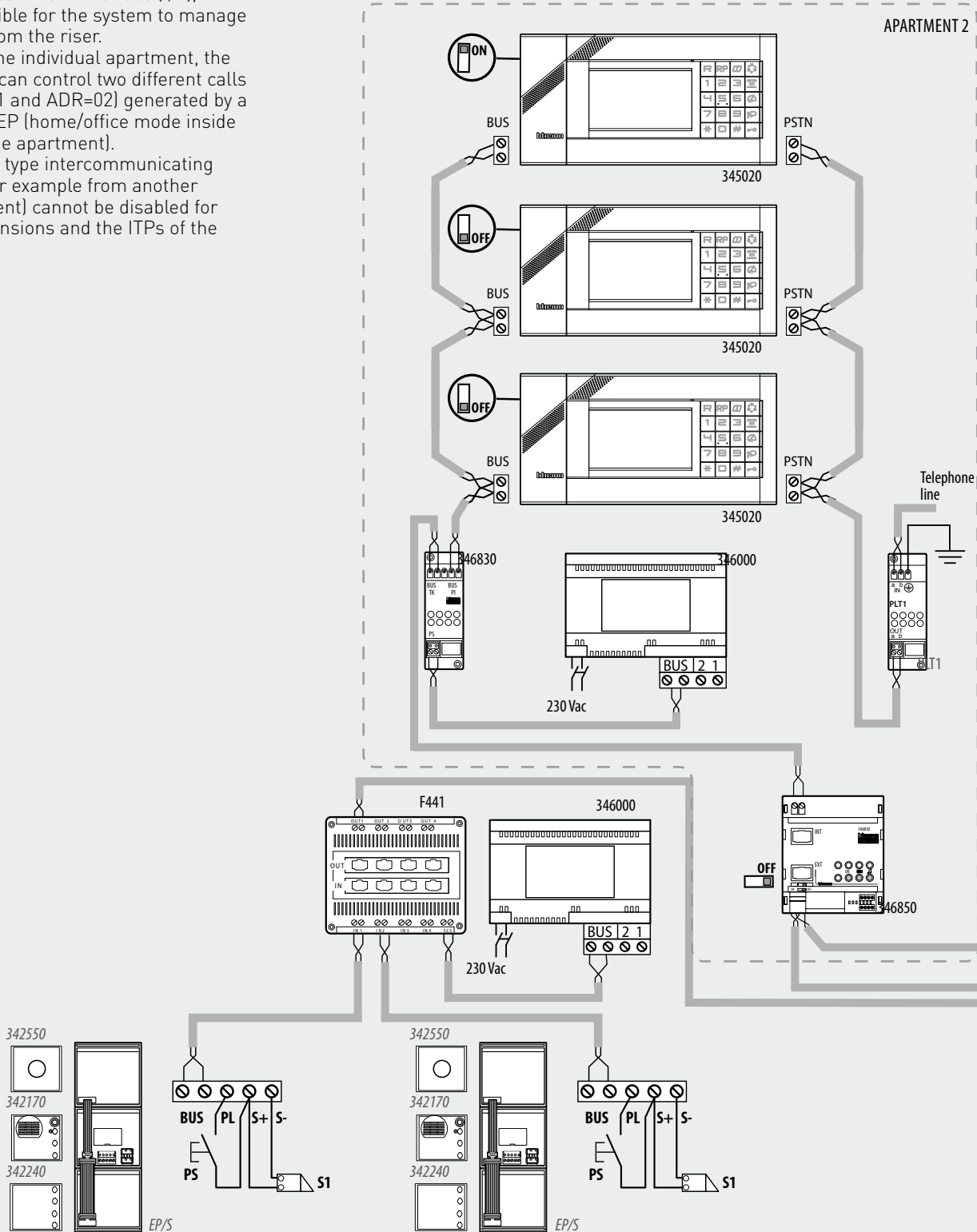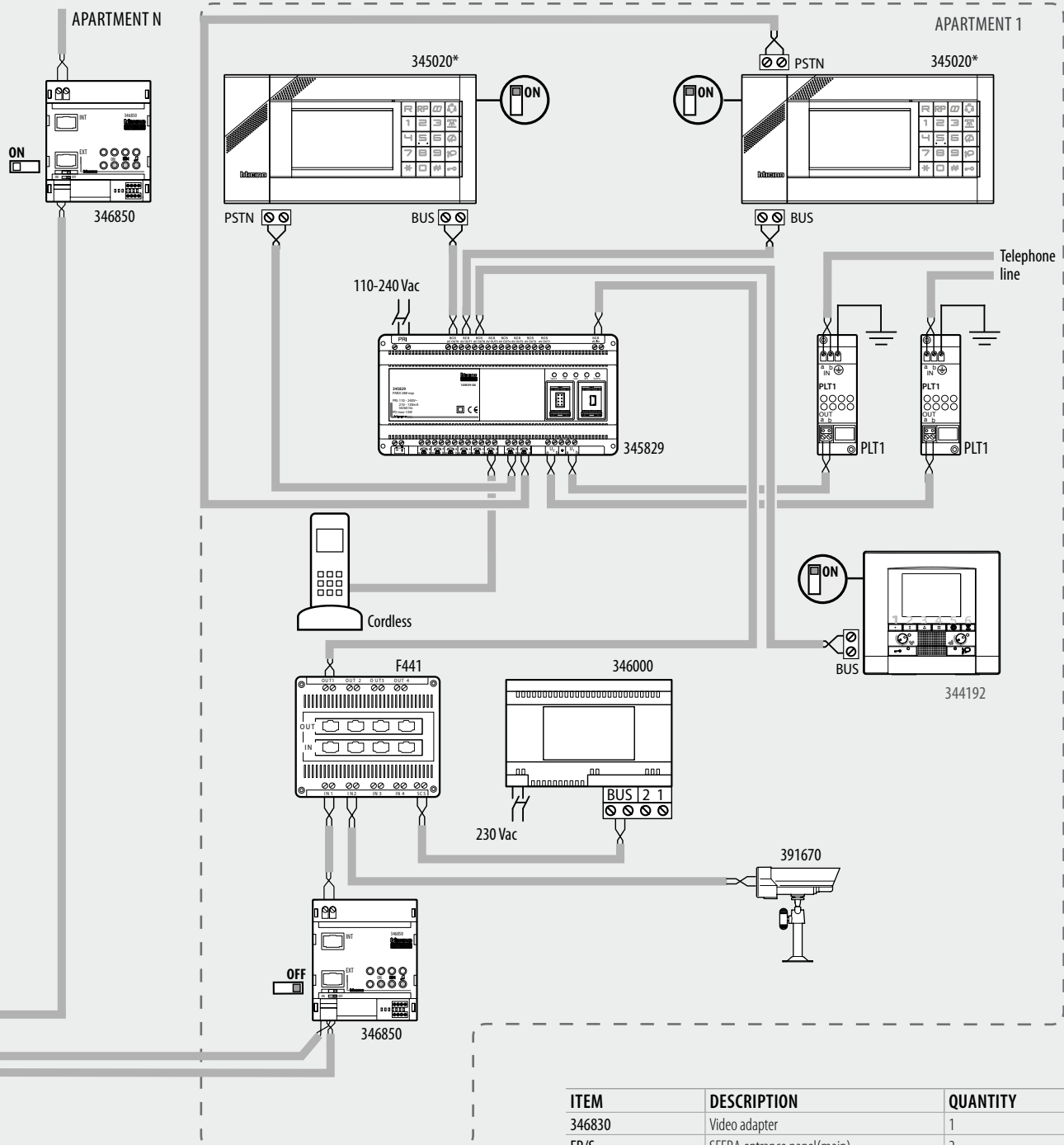
ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of telephone line	3
345020	Iryde Touch Phone	5
342170	Speaker module	2
342240	Pushbutton module	2
342550	Colour camera module	2

ITEM	DESCRIPTION	QUANTITY
346830	Video adapter	1
EP/S	SFERA entrance panel(main)	2
F441	Audio-video node	2
346000	AV Power supply, 230 V	3
346850	Apartment interface	3
345829	Switchboard	1
344192	POLYX handsfree video handset	1
391670	Outdoor 2 wire colour camera	1

Note (*): configure the ITPs (using the Menu or the Software) to recognise that the PABX switchboard is present

ONE-FAMILY SYSTEM WITH PABX

230 Vac

346020

1
2

ON

PSTN

BUS

345020*

ON

ON

PSTN

BUS

BUS

PSTN

345020

345020

ON

ON

PSTN

BUS

BUS

PSTN

345020

345020

Telephone
line

346830   346000

110-240 Vac

BUS
TK

BUS
PI

PLT1

PLT1

PS

230 Vac

BUS 2 1

345829

PLT1

PLT1

Entrance
panel

Cordless

Fax

Telephone

ITEM	DESCRIPTION	QUANTITY
PLT1	Protection of telephone line	2
345020	Iryde Touch Phone	5
346830	Video adapter	1
346000	AV Power supply, 230 V	1
345829	Switchboard	1
346020	Power supply	1

Note (*): configure the ITPs (using the Menu or the Software) to recognise that the
PABX switchboard is present

ACCESSORY FOR 2 OUTSIDE LINES

DESCRIPTION

The 2 outside lines device is an accessory of the 345829 PABX telephone switchboard. It is only possible to connect one expansion, for a total of 2 additional lines. The expansion is ensured mechanically using 6 high DIN modules, with connectors on the two sides, the left one for connection to the PABX, or to any upstream modules, and the right one, for the connection of any downstream modules. The PABX recognises and allocates numbers to the two additional lines as outside line 3 (13), and outside line 4 (14). It is possible to install the module directly downstream the PABX, downstream of the first accessory, or downstream an extension expansion. With the exception of the telephone profiles, the configuration of the device is saved and managed by the PABX.

TECHNICAL DATA

|	
Power supply 1-2:	12 – 27 V
Absorption:	35 mA @ 27 Vdc
Absorption with 12 Vdc power supply (see back-up battery):	
- Standby	67 mA
- Max. load	70 mA
Operating temperature:	0 – 40 °C
Size:	6 DIN modules
External telephone lines (analogue):	2
External telephone line connection:	0.28 mm^2 telephone pair

RULES, CERTIFICATION, MARKS

Accessory for 2 outside lines 345831 complies with the 1999/5/EC directive, certified following the current regulations listed below:
EN 60950-1:2006-04 + EN 60950-1/A11:2009-03
EN 50090-2-2/Ec:1997-03 + EN 50090-2-2/A1:2002-01
+ EN 50090-2-2/A2:2007-04

INSTALLATION RULES

The accessory for 2 outside lines:
- must be installed inside the cabinet, near its own dedicated power supply;
- on the PABX switchboard it is only possible to install one accessory for 2 outside lines;
- if the system does not include an accessory for 8 additional extensions, item 345830, it is possible to connect the accessory for 2 outside lines to the PABX switchboard without the need for an additional power supply. If item 345830 is present, also connect clamps 1-2 of item 345831 to the additional power supply;
- the installation and the connection of the accessory to the PABX must be completed with the system off;
- no accessory configuration is required, although the PABX switchboard must be configured, using the software, confirming the presence of the additional external lines.
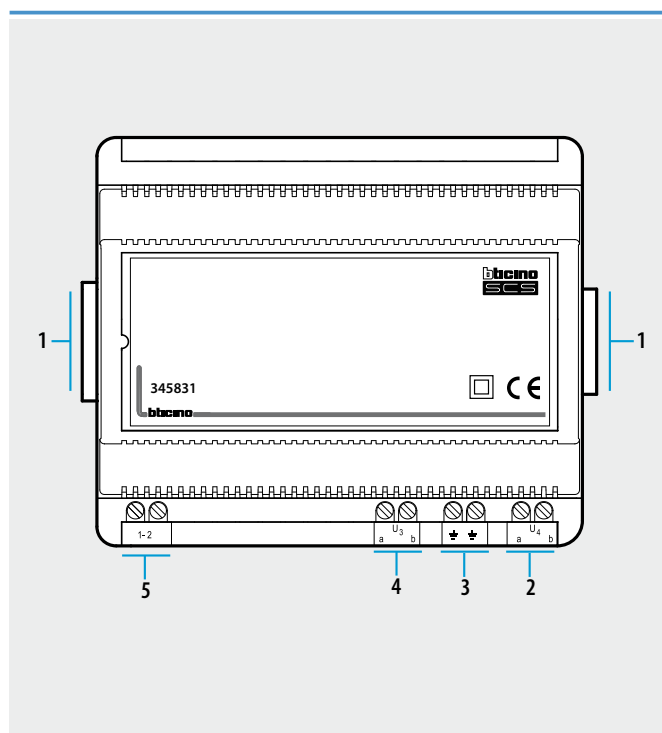
LEGEND

1. Connectors for the connection of the PABX and other expansion modules (345830)
2. Clamps for the connection of outside line 3
3. Clamps for the connection of the system to the ground
4. Clamps for the connection of outside line 4
5. Power supply 1-2

WIRING DIAGRAMS
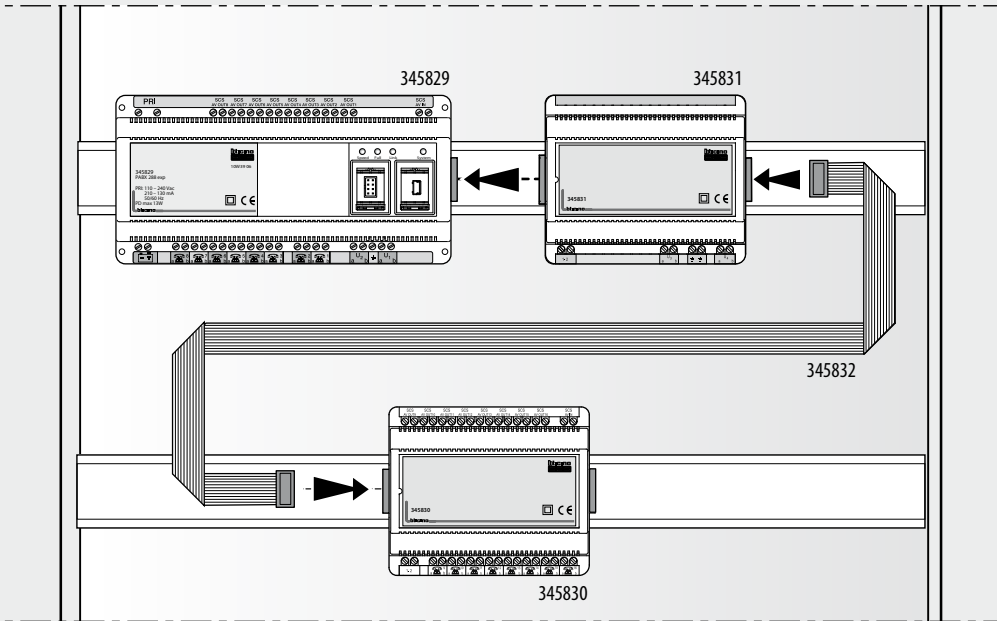
ACCESSORY FOR 8 ADDITIONAL EXTENSIONS

DESCRIPTION

The 8 extensions device is an accessory of the PABX 345829 telephone switchboard. It is possible to connect up to a maximum of 2 expansions, for a total of 16 additional extensions. The expansion is ensured mechanically using 6 high DIN modules, with connectors on the two sides, the left one for connection to the PABX, or to any upstream modules, and the right one, for the connection of any downstream modules.

It is possible to install the module directly downstream the PABX, downstream of the first accessory, or downstream an outside line expansion. No configurator is required to separate the two expansions. With the exception of the telephone profiles, the configuration of the device is saved and managed by the PABX.

TECHNICAL DATA

Power supply 1-2:	12 – 27 V
Assorbimento max:	35 mA @ 27 Vdc
Absorption with 12 Vdc power supply (see back-up battery):	
- Standby	127 mA
- Max. load (8 telephones engaged)	770 mA
Operating temperature:	0 – 40 °C
Size:	6 DIN modules
Telephone connection:	$0.28\ mm^2$ telephone pair or L4669 or 346904 BUS cable
Maximum telephone distance:	500 m with $0.28\ mm^2$ telephone pair
	700 m with 346904 cable

LEGEND

1. 2 wire video door entry system handset connection
2. SCS BUS input
3. Connectors for the connection of the PABX and other expansion modules
   (it is possible to connect up to two modules item 345830)
4. Connection of telephone extensions
5. Power supply 1 – 2

RULES, CERTIFICATION, MARKS

Accessory for 8 additional extensions 345830 complies with the 1999/5/EC directive, certified following the current regulations listed below:
EN 60950-1:2006-04 + EN 60950-1/A11:2009-03
EN 50090-2-2/Ec:1997-03 + EN 50090-2-2/A1:2002-01
+ EN 50090-2-2/A2:2007-04

INSTALLATION RULES
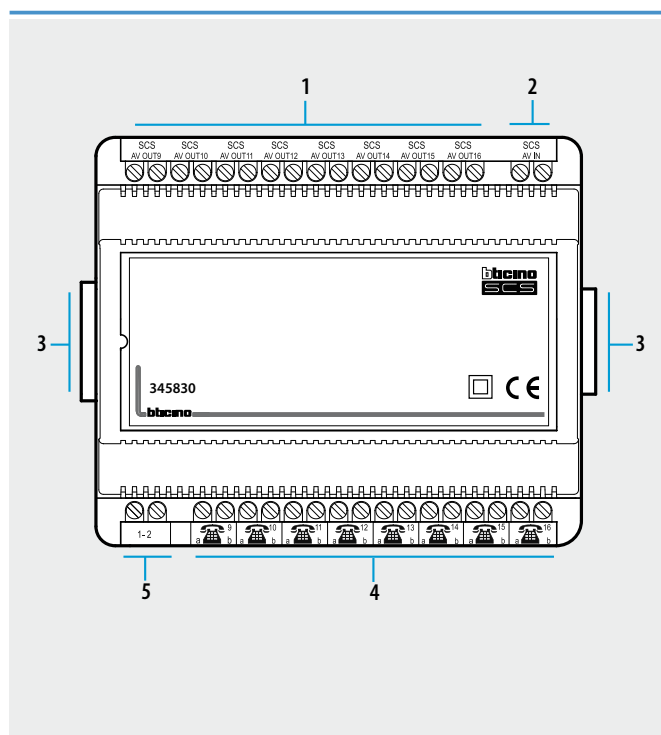
The accessory for 8 additional extensions:
- must be installed inside the cabinet, near its own dedicated power supply;
- it is possible to connect up to 2 accessories with 8 extensions maximum to the PABX switchboard;
- it must be powered with an additional compact power supply, item 346020; if two accessories are required, connect both to the same power supply. With two accessories and high telephone traffic, use power supply item 346000;
- the installation and the connection of the accessory to the PABX must be completed with the system off;
- no accessory configuration is required, although the PABX switchboard must be configured, using the software, confirming the presence of the additional external lines;
- it is possible to connect video door entry system handsets to the AV-OUT SCS output.

Absorption from AV SCS BUS at 27 Vdc:
- Standby 20mA
- Telephone conversation 20 mA
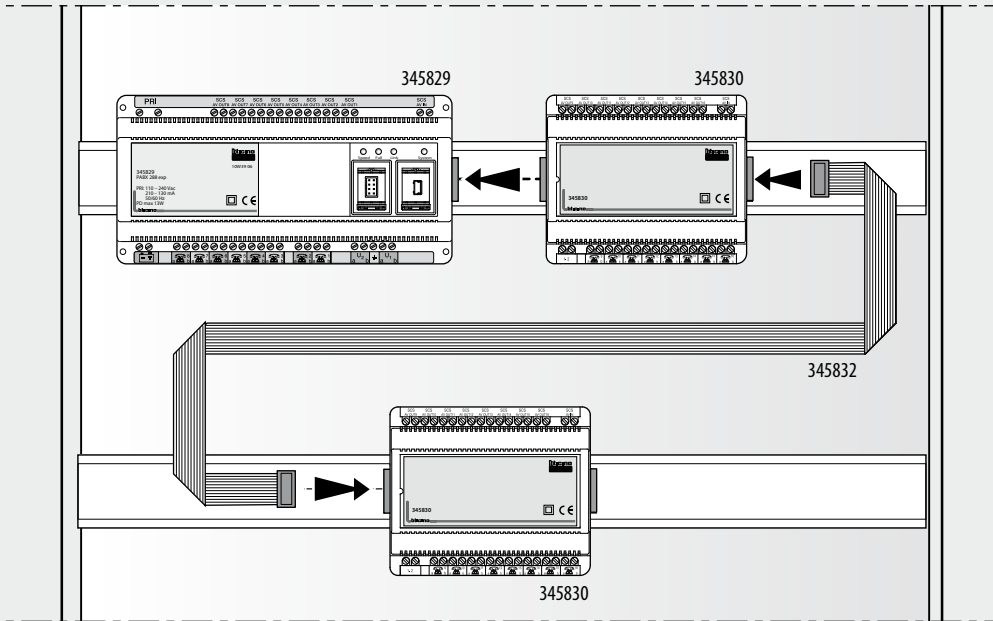Maximum current on the AV-IN SCS clamp: 1 A
Maximum current that can be supplied on the individual AV-OUT SCS output: 1 A

WIRING DIAGRAMS

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