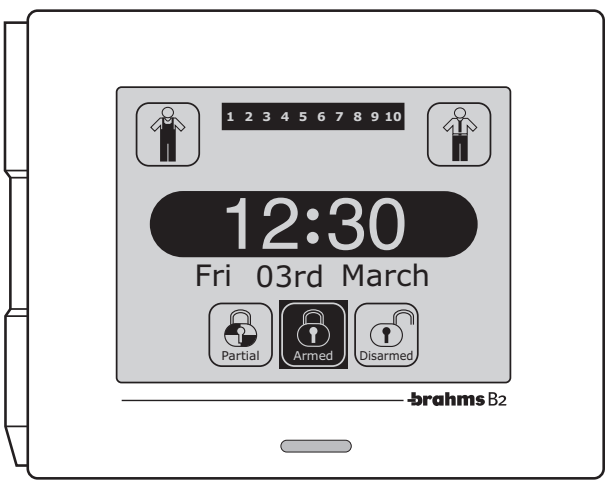
brahms

Burglar Alarm System

B2



Installation instructions

10_08 / 24848501

CONTENTS

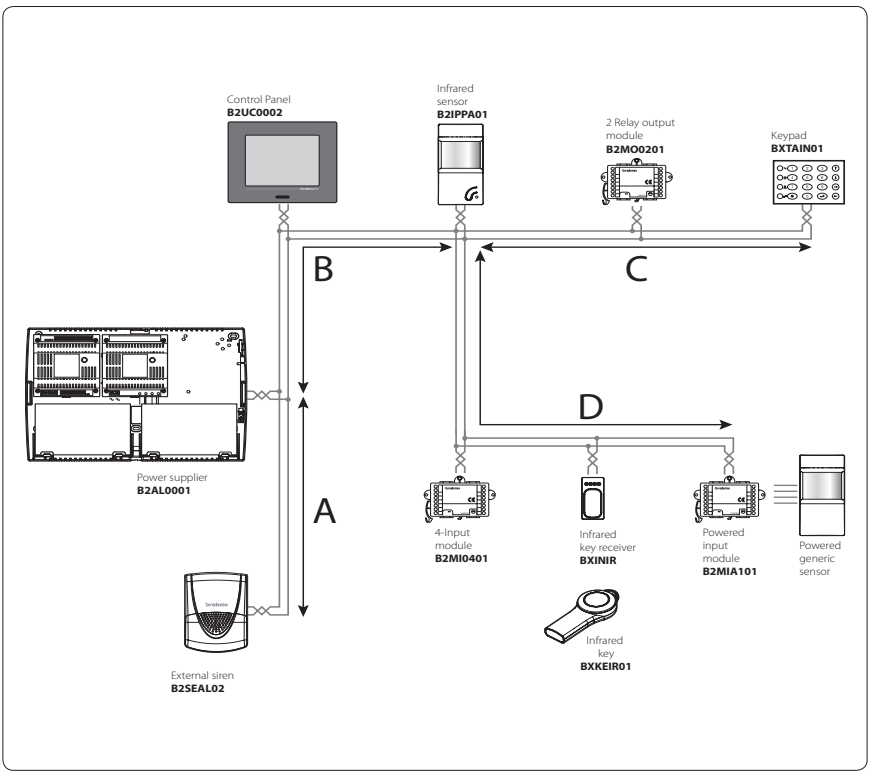
Safety notes

⚠ WARNING

- Carefully read the instructions before starting installation. Perform work as specified by the manufacturer.
- It is prohibited to use the product for purposes other than those specified or which are improper.
- It is prohibited to tamper with or modify the product.
- The removal of the labels on the card will void the guarantee.
- Use original spare parts.
- Installation, setting, commissioning and maintenance of the product must only be performed by qualified technicians who have been properly trained in compliance with current standards. Installation of security systems is regulated and may be performed by persons who possess the legally required qualifications, including compliance with accident prevention.
- Operate in sufficiently lighted areas that are conducive to health and use tools, utensils and equipment that are in good working order.
- Upon completion of installation, always check for correct operation of the unit and the system as a whole.
- Do not install the devices outdoors or in areas where they are exposed to seepage or splashes of water.
- Handle the devices with care. They contain electronic parts that are fragile and sensitive to humidity.
- Always disconnect the power supply before doing any work on the devices.
- The electrical system must comply with current standards in the country of installation.

GENERAL SYSTEM INFORMATION

General Diagram



The system bus allows:

- non-polarized connection of the devices;
- maximum wiring length of 800 metres (A+B+C+D in the figure) and a maximum distance of 400 metres between the power supplier and the most distant device (B+D in the figure) (*);
- maximum current available for devices on bus 1 A (*).
- connection of a maximum of 32 devices which are part of the system with free typology.

(*)These distances can be achieved by adding the repeater modules B2RP0001 and B2RPAL01 not shown in the drawing. If these devices are not present, the distance and current values shown are halved.

⚠ WARNING

In order to obtain the best system performance, it is recommended that you use unshielded, non-polarized twisted pair with a minimum section of 0.5 mm².

Devices that can be connected to the Control Panel

Code	Description
BXTAIN01	Recessed keypad
B2IPPA01	Passive infrared sensor
B2MO0201	2 Relay output module
B2MIA101	Powered 1 input module
B2MI0401	Non-powered 4 input module
B2SEAL02	Self-powered external siren
B2AL0001	Power supplier

Code	Description
BXINIR	IR key receiver that can be used only with the key BXKEIR01
BXKEIR01	Infrared key
BXGM0001	GSM communicator
BRP0001	BUS signal repeater module
BRPAL01	Power supply repeater module
B2DTPA01	Volumetric detector
BXRS4201	Interface module

The BXIRI receiver can be integrated in the standard bodies listed in the table below.

Code	Model
BXINIRMA	Ticino Magic
BXINIRLV	Ticino Living
BXINIRLI	Ticino Living International
BXINIRTL	Ticino Living Light
BXINIRPB	Gewiss Play Bus

Code	Model
BXINIRGB	Gewiss 20
BXINIRVN	Vimar Idea black
BXINIRVB	Vimar Idea white
BXINIRAN	Ave Noir
BXINIRAB	Ave Blanque

Absorption of the system components

DEVICES	AVERAGE ABSORPTION
Control Panel **B2UC0002**	25 mA
Recessed keypad **BXTAIN01**	22 mA
Passive infrared sensor **B2IPPA01**	9 mA
2 Relay output module **B2MO0201**	12 mA
Powered 1 input module **B2MIA101**	(without output load) 13 mA
Non-powered 4 input module **B2MI0401**	3 mA
Self-powered external siren **B2SEAL02**	18÷100 mA
Infrared key receiver **BXINIR**	30 mA
GSM communicator **BXGM0001**	110 mA
Volumetric detector **B2DTPA01**	16 mA
Interface module **BXRS4201**	50 mA

⚠ WARNING

The sum of the current absorbed by the devices connected to the bus must not exceed the maximum current available from the power supplier (500 mA).

Technical characteristics of the Control Panel B2UC0002

Main power supply

• Power supply voltage	12÷35 V DC
• Max current absorbed	30 mA

The module can ONLY be powered by means of the system BUS

Mechanical characteristics

• Weight	170 g
• Dimensions (L x H x D)	116x95x27 mm
• Container material	ABS
• Protection rating	IP30

Security Level II as per CEI 79-2

Climatic characteristics

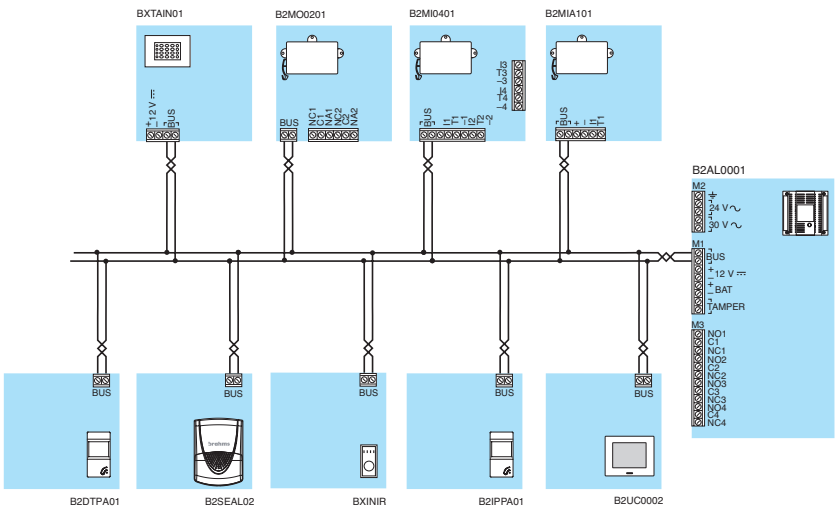
• Operating temperature	0 ÷ 40 °C
• Maximum relative humidity during operation	93% RH without condensation
• Storage temperature	-10 ÷ +50 °C
• Maximum relative humidity for storage	85% RH with no condensation

The touchscreen keypad as well as the supplementary keypad BXTAIN01 provides each user with more than 1,000,000 combinations for the access code.

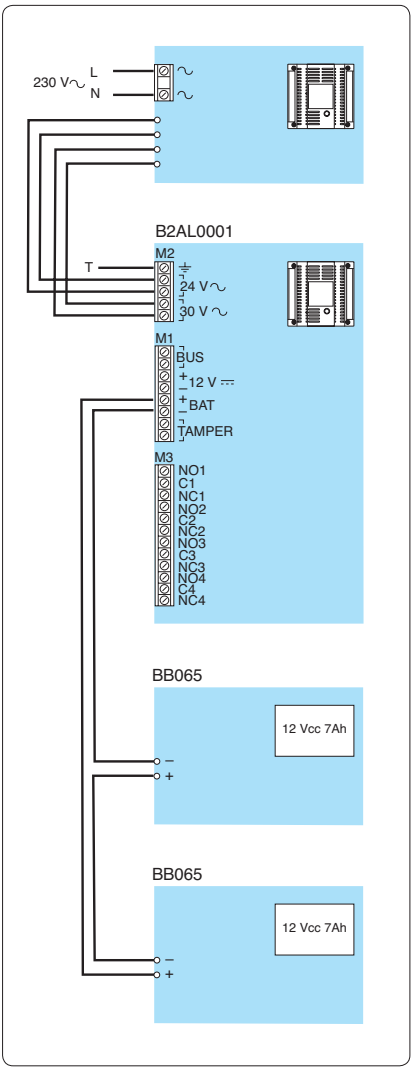
CONNECTION DIAGRAMS

Connection of the devices to the system BUS

An example of the connection of the keypad (BXTAIN01), expansion modules (B2MO0201, B2MI0401, B2MIA101), siren (B2SEAL02), IR key receiver (BXINIR), sensor (B2IPPA01) and Control Panel (B2UC0002) on the B2 BUS.



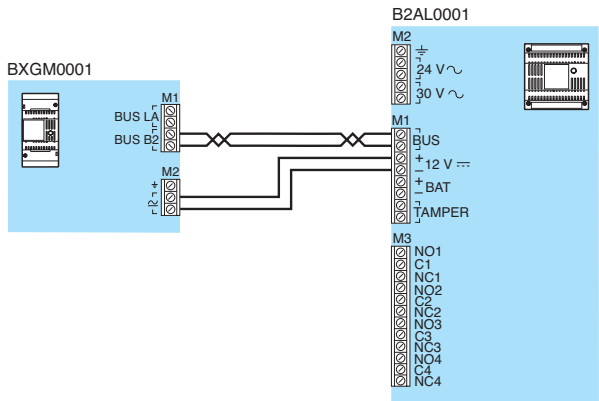
Connection of the Power Supplier B2AL0001

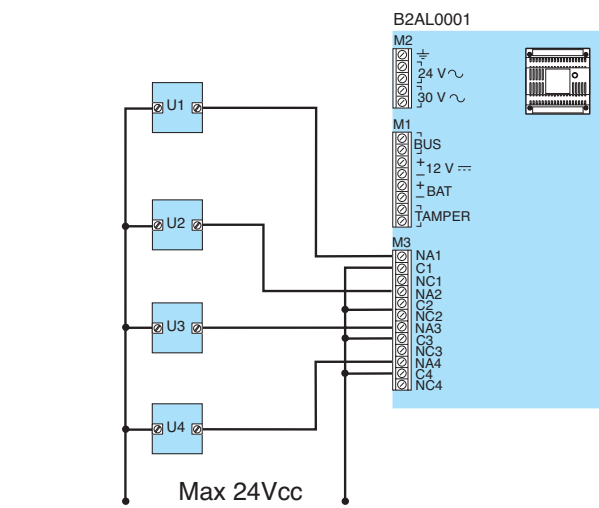


⚠ WARNING

- The unit is powered at mains voltage, 230 V AC - 50/60 Hz. Therefore, it must be provided with an earth connection using the appropriate terminals. Failure to connect all accessible metal parts to the earth will make the unit unsafe to use.
- For the 230 V AC power supply, it is essential to use a cable with double insulation (with double sheath), as set forth in electrical safety standards.
- Use wire terminals for connection to the mains at 230V AC - 50/60 Hz.
- Protect the appliance using a suitable disconnection device to protect the power supply network such as an easily accessible bi-polar switch (or other).
- Use a cable passage hole only for the passage of the cable for connection to the 230V AC - 50/60 Hz mains.
- The backup battery should only be replaced by qualified personnel. Dispose of the unit in accordance with current standards. Use only sealed lead batteries.

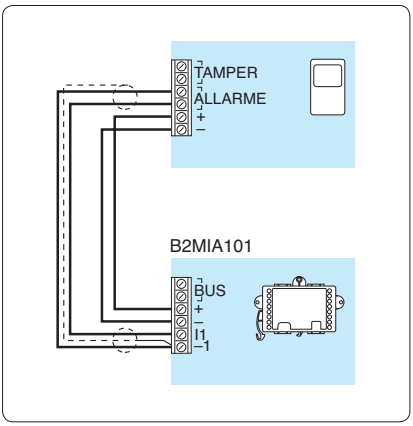
Connection of the GSM module or generic loads to the Power Supplier



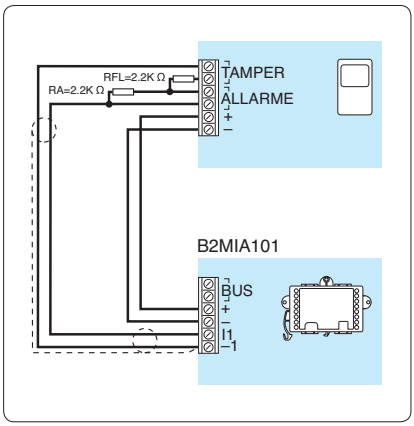


Connection of the sensors to the modules B2MIA101

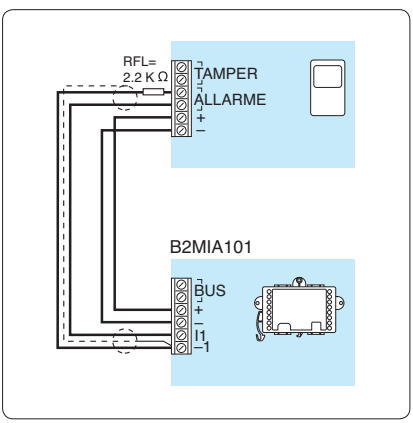
Connection for sensors with Normally Open or Normally Closed contacts **without balancing.**



Connection for sensors with Normally Closed contacts **with Two Resistance Mode.**

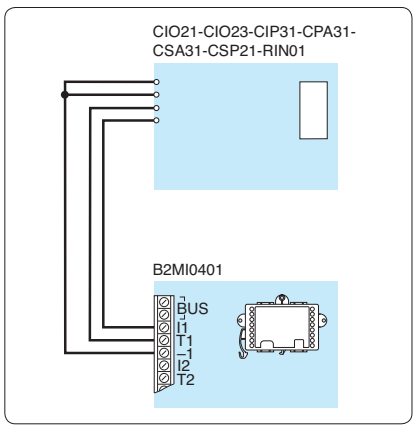


Connection for sensors with Normally Closed contacts **with One Resistance Mode.**

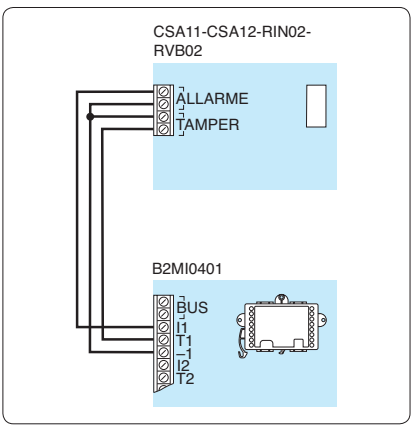


Connection of the sensors to the modules B2MI0401

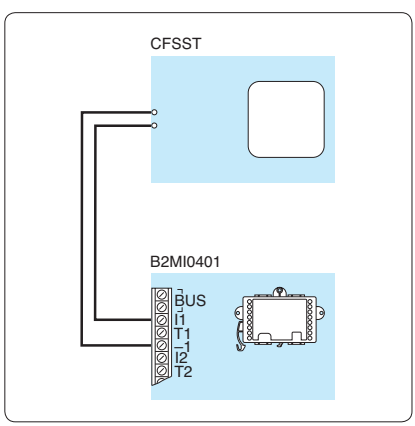
Connection of 4-wire magnetic contacts and wall/fence-breaking sensors (RIN01).



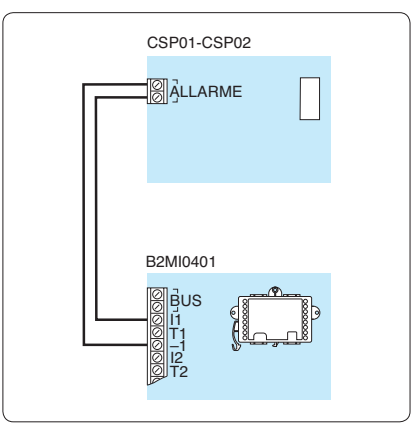
Connection of magnetic contacts and wall/fence-breaking sensors (RIN02) with four terminals.



Connection of 2-wire cable contacts for shutters.

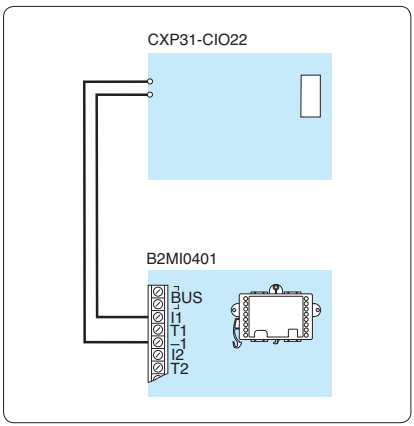


Connection of magnetic contacts with two terminals.



Connection of the sensors to the modules B2MI0401

Connection of magnetic contacts with two wires.

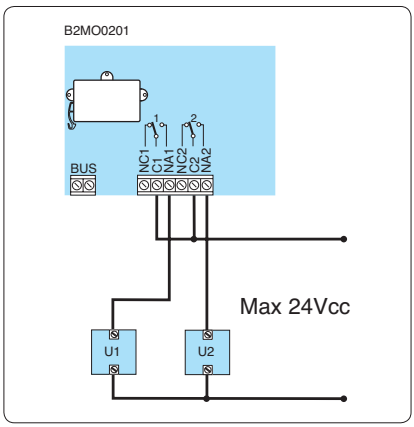


BRAHMS CONTACTS AND SENSORS

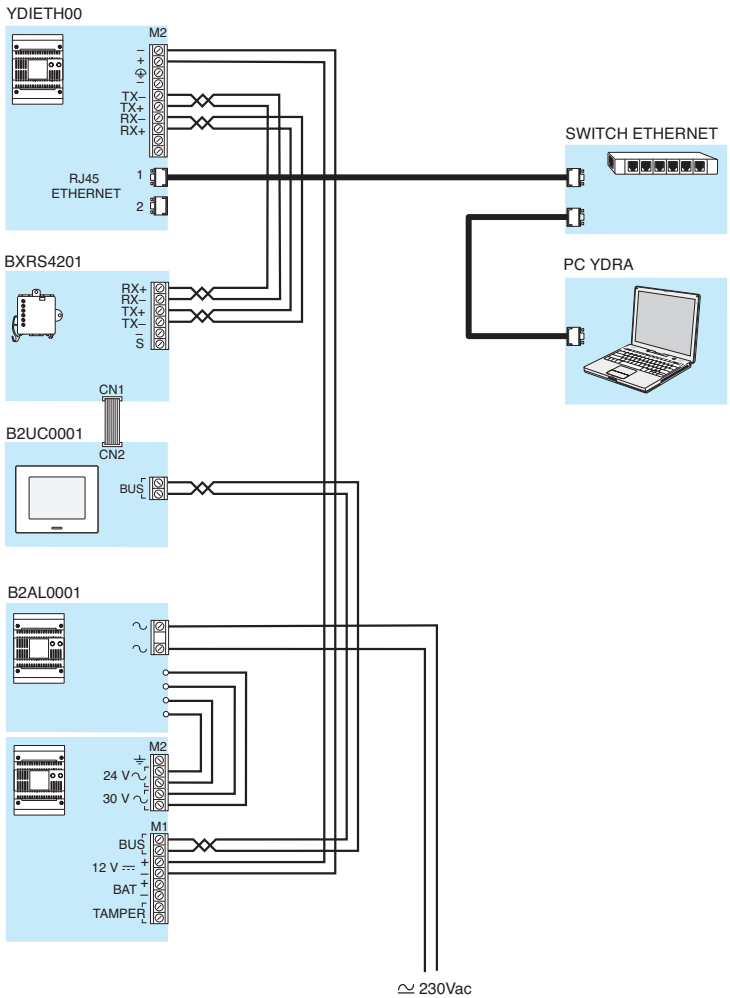
CONTACTS FOR SHUTTERS AND BLINDS	
CFSST	cable contact pre-wired two wires
MAGNETIC CONTACTS	
CIO21	magnetic recessed with four wires
CIO22	magnetic recessed with two wires
CIO23	magnetic recessed with four wires
CIP31	magnetic recessed with four wires
CIPA31	magnetic contact for garage door with four wires
CSA11	surface mounted magnetic contact with four terminals
CSA12	surface mounted magnetic contact with four terminals
CSA31	surface mounted magnetic contact with four wires
CSP01	surface mounted magnetic contact with two terminals
CSP02	surface mounted magnetic contact with two terminals
CSP21	surface mounted magnetic contact with four wires
CXP31	surface mounted magnetic contact with two wires
VIBRATION SENSORS	
RIN01	wall/fence breaking sensor with 4 wires
RIN02	wall/fence breaking sensor in box with four terminals
RVB02	glass-breaking sensors with 6 terminals

Connection of loads to the module B2MO0201

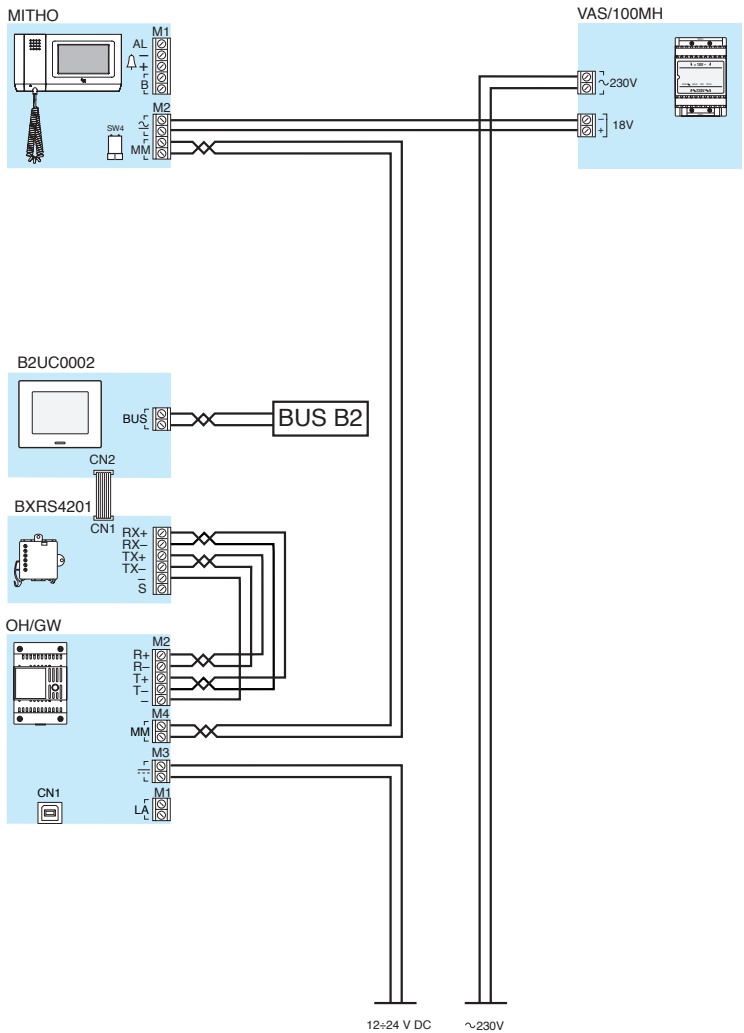
Connection of the 2-Relay output module B2MO0201 to a generic load (U1 and U2).



Connection to YDRA supervision systems



Connection to BPT Mitho terminals

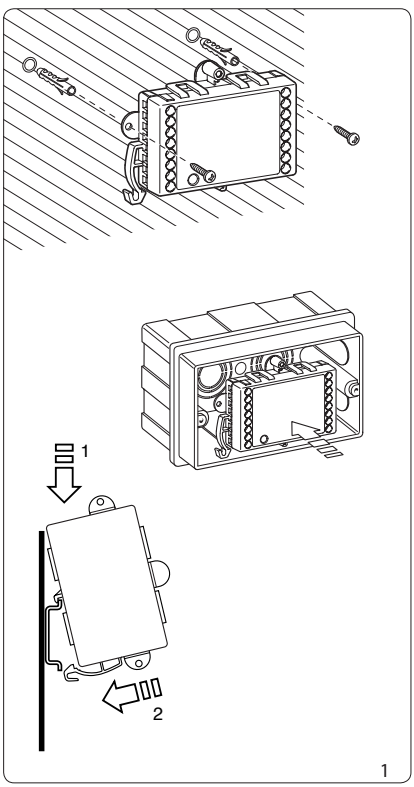


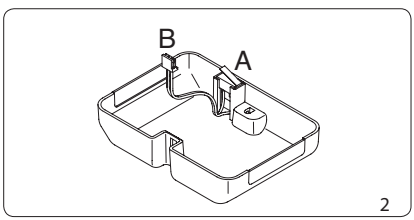
Anti-tampering cover EBTAM

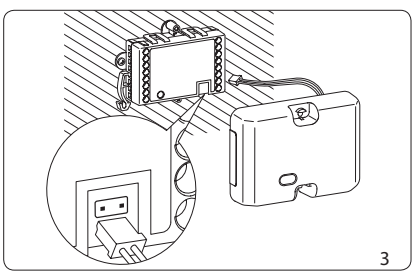
The use of this cover (fig. 2) is indispensable if the modules are to be equipped with an anti-opening and anti-tampering device in order to achieve the Security Level II as per the Standard CEI 79-2.

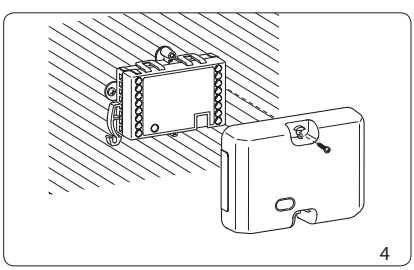
INSTALLATION

The modules (B2MIA101, B2MI0401, B2MO0201) can be wall-mounted on a completely flat surface or mounted inside a junction box or even on a DIN rail (fig. 1). Remove the jumper present on the module and insert the one present on the cover (fig. 3). Fix the protection to the module with the screws provided (fig. 4), being very careful that, in the chosen position, the lever (**A**) of the protection's microswitch is operated and the connection cable (**B**) between the cover and the module is not accidentally positioned between the two elements.

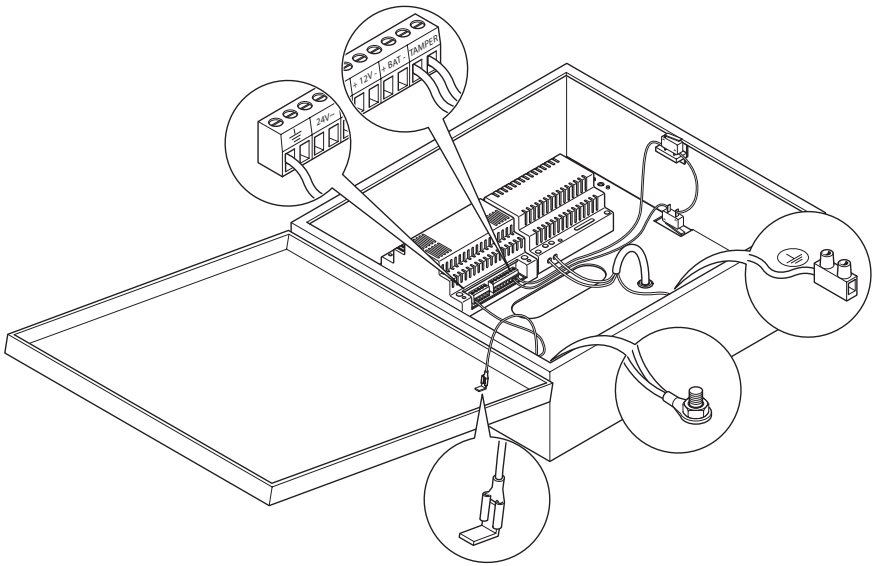




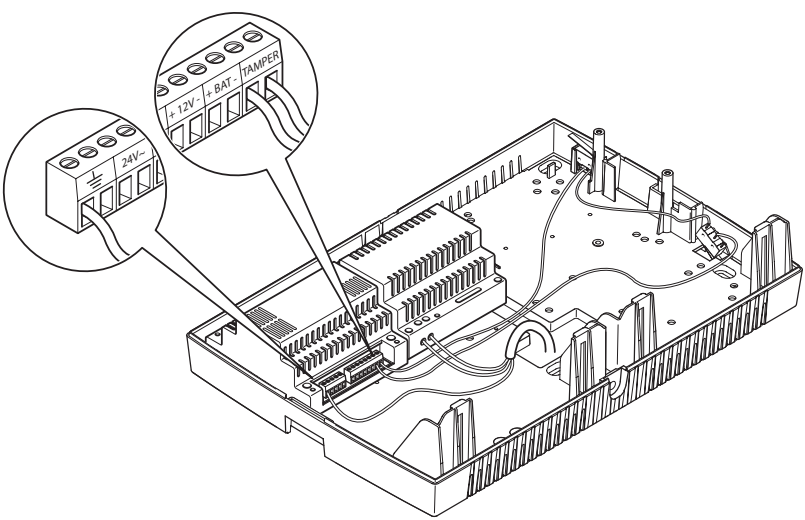




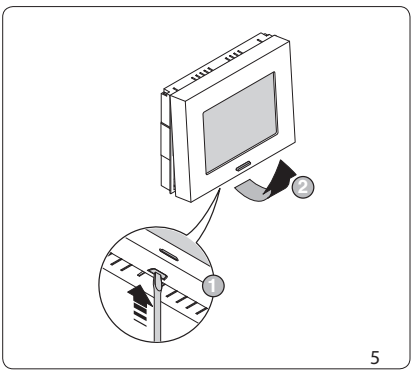
Connection of the B2CTME01 metal container



Connection of the B2CTPL01 plastic container



Installation of the Control Panel B2UC0002



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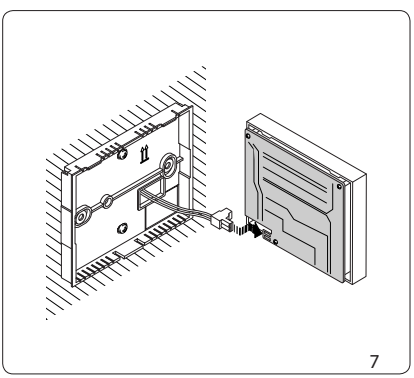
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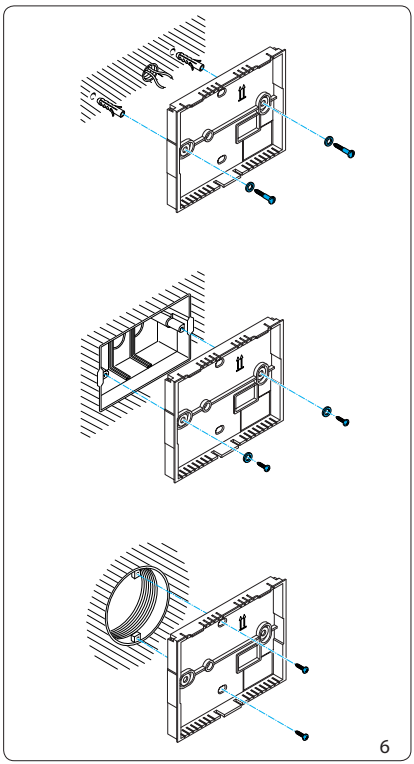
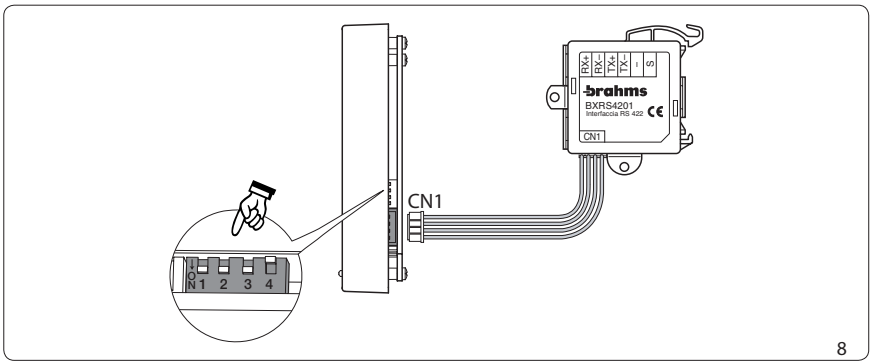

6

Open the unit by using a screwdriver in the slot (fig. 5). Fasten the base to the wall using the screws and plugs provided or on a recessed box (fig. 6).
We recommend you install it on a flat surface, being careful not to over tighten screws.
Connect the wires of the twisted pair to the terminals of the provided connector and insert it on the printed circuit (fig. 7). Close the unit.
After connecting the various system devices, connect the power supplier B2AL0001 to the local network.



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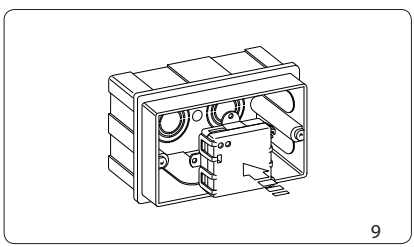


9

An additional terminal in SLAVE configuration can also be installed in a system. From a SLAVE-configured terminal, it is possible to totally or partially arm/disarm the system. No other terminal function can be accessed. In order to operate in SLAVE mode, the terminal must be configured as indicated in figure 8.
If you want to connect a Brahms B2 burglar alarm system to a Mitho BPT terminal or a YDRA supervision system, the BXRS4201 module (fig. 9) must be installed using the CN1 connector provided (fig. 8).

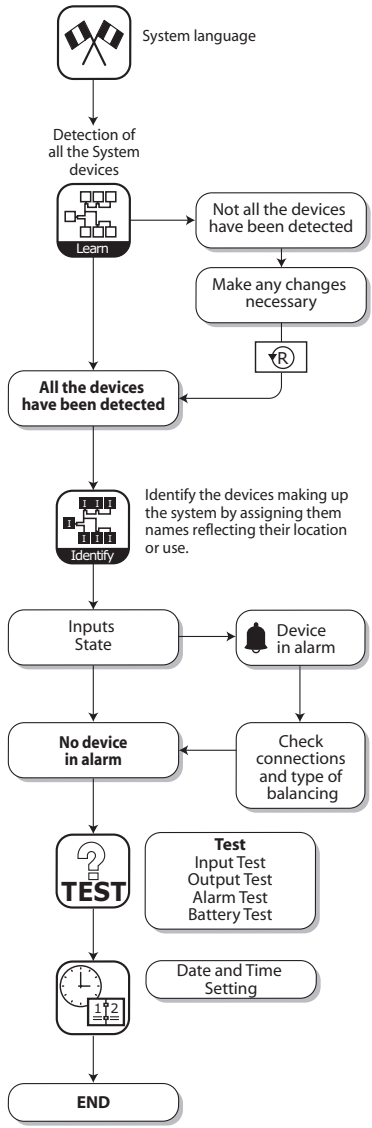
COMMISSIONING

Introduction

The objectives of the "**Commissioning**" are the following:
- Setting the language of the system.
- Check that all the connections have be made correctly.
- Check that the Control Panel is able to communicate with all the system devices.
- Check the correct operation of each device.
- Set the main parameters of each device.

Thus this chapter will only illustrate the functions regarding Commissioning; all other functions have been intentionally omitted here and will be covered in the **Installer Manual**.

We recommend that you follow the procedure illustrated to the side that summarizes the essential steps for a correct "**Commissioning**".



Commissioning of the system

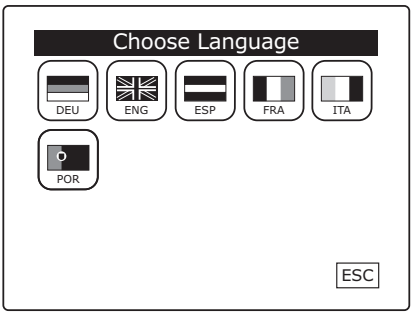


Fig. 1

When the system is started for the first time, after a brief standby period (fig. 1), by pressing the appropriate icon it will be possible to choose the system language.

⚠

The "Choose Language" window will appear automatically when the system is turned on or turned back on after a complete power outage.

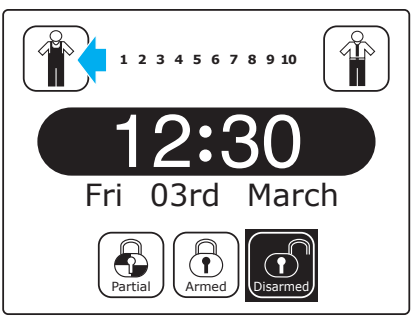


Fig. 2

Once you have chosen the system language, provide for automatic detection of the connected devices.
Push the icon (fig. 2).
A keypad will appear on which to enter the **Installer Code** (which at the first start-up will be 5, 6, 7, 8, fig. 3) in order to access the **Installer Menu** (fig. 4).

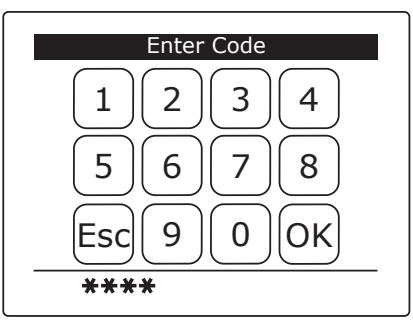


Fig. 3

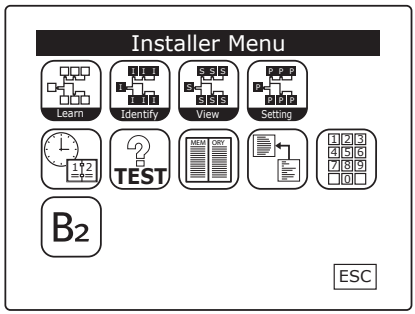


Fig. 4

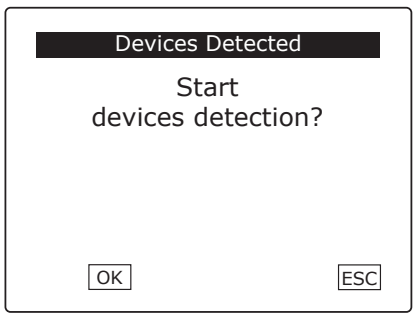


Fig. 5

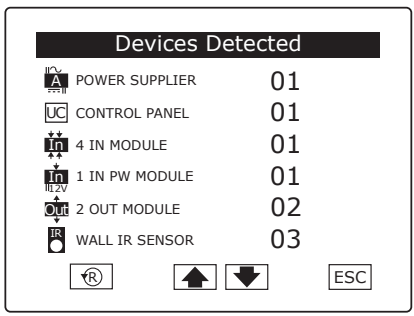


Fig. 6

Learning

When the appropriate icon is pressed, the system automatically detects the connected devices (fig. 4).

At this point, a list will appear with the number of devices detected and a different icon for each type of device (figg. 6, 7).
To scroll through the complete list of detected devices, press the buttons ▲ ▼.

If a device is not recognized during this phase, it may not have been connected correctly.

Once the connection problems have been resolved, the detection of the devices can be repeated by simply pressing the icon ↻.

Pressing the icon **ESC**, we will now return to the "**Installer Menu**" (fig. 8).

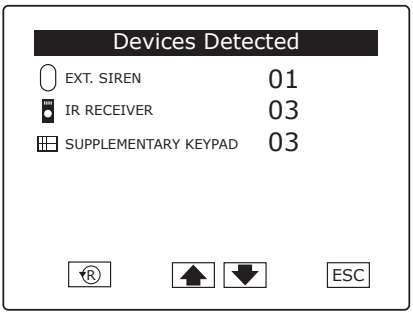


Fig. 7

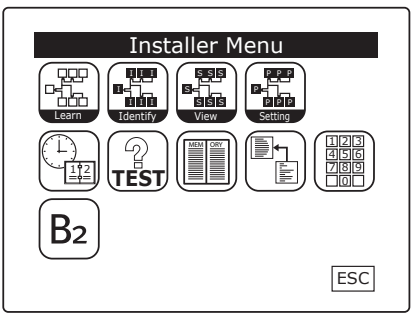


Fig. 8

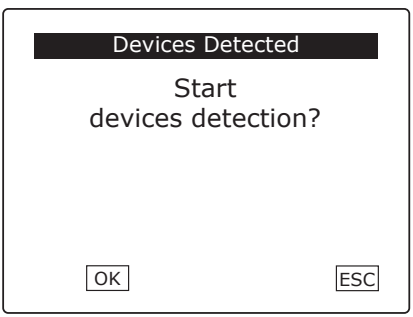


Fig. 9

On the following pages we will analyze **ONLY** the items of the "**Installer Menu**" which are useful for properly carrying out the commissioning (fig. 8).

Learn devices

Devices Detection

Device Test

Date & Time Setting

Learning

Pressing the icon "**Learn**" allows you to repeat the detection of the connected devices (fig. 9).

⚠

Before proceeding with the commissioning, it is important that all the devices are recognized by the system

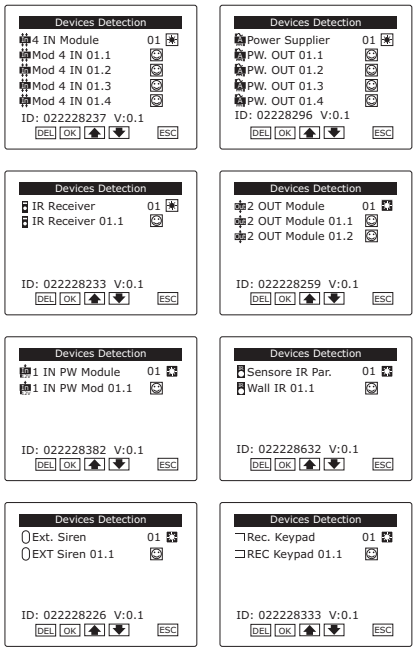


Fig. 10

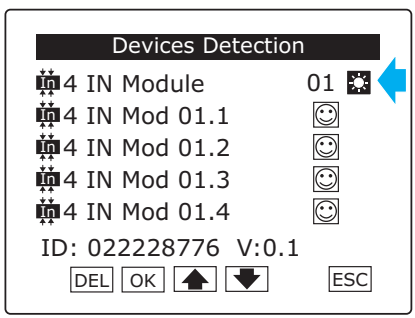


Fig.11

Identification

By pressing the appropriate icon, we will now proceed with the identification of the devices.

During this phase of the commissioning, we can identify, name and program the components of the burglar alarm system.

To facilitate the identification of each individual device and its outputs or inputs, numbered progressively, these will now appear in a list divided over several pages (fig. 10).

To scroll through the pages containing the list of devices, use the icons ▲▼.

⚠

In the event, once the siren has been recognized, it is necessary to perform work on the installation and on the wiring of the siren itself, (or branches upstream from the siren), it is necessary to proceed as follows in order to avoid the "Tamper Alarm":

1- Erase the Siren(s) by pressing on the button DEL.
2- Carry out the necessary operations on the installation.
3- Perform the detection of the Siren(s) again and recheck the setting.

DEVICE IDENTIFICATION

The icon ☼ allows you to activate the LEDs and buzzers present on the connected devices and identify their position within the environment (fig. 11).

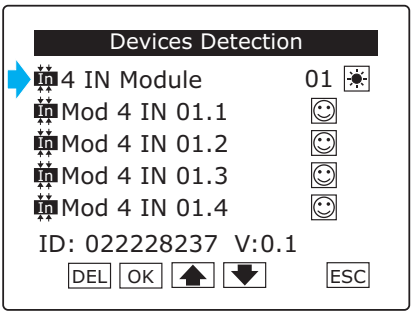


Fig.12

Consider a 4-input module as an example; the first line (fig. 12) cannot be changed, it contains the default name assigned by the system and represents the type of device recognized.

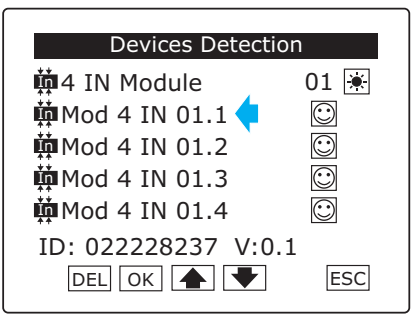


Fig.13

ASSIGNING A SYMBOLIC NAME TO THE DEVICES

The next lines on the page (fig. 13) represent each of the 4 inputs to which an external sensor can be connected; pressing on the text, an alphanumeric keypad will appear which allows us to assign them a name.

We recommend that you use a symbolic name that identifies their position, for example **garage 01.1**, or that identifies their use, for example **Gas detector** (fig. 14).

Press **OK** to confirm the selections made before exiting from the screen with **ESC**.

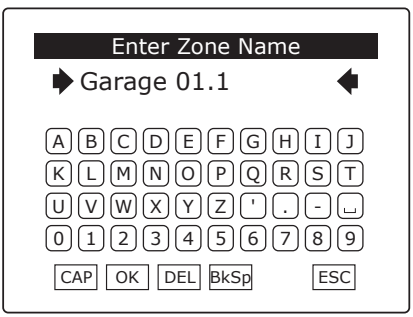


Fig.14

Once these operations have been carried out for all the connected devices, whether these are entry panels, outputs, sirens, IR receivers or what have you, we will have a precise picture of the location of each component and/or its function.

It is advisable that you carry out the identification operations carefully, as the names assigned to the devices during this phase will help you to recognize them during the setting phase as well.

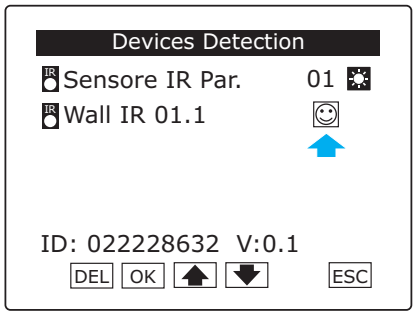


Fig. 15

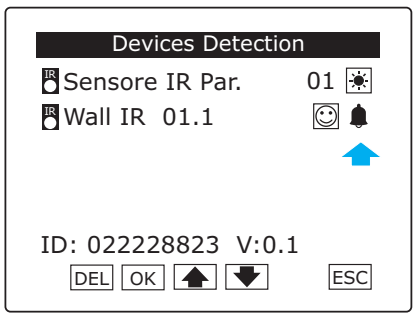


Fig. 16

CHECK MODULE OPERATION

We will now consider as an example another device recognized by the system during detection, and we will analyze the column indicated by the arrow (fig. 15).

Clicking on this icon, we act on the state of the device as follows:

On

Off

In Test state

With the device in test state we can perform maintenance on the installation while keeping it active but avoiding the effective sounding of the alarm sirens; the activation of the devices, however, will be indicated in the "Event Log".

The second column (fig. 16) cannot be changed from the display, as it shows the effective state of the connected device:

Alarm

Tamper

Fault

Press OK to confirm the selections made before exiting from the screen with ESC.

⚠

- The state of the devices set during this phase (On, Off, in Test State) become a permanent state which cannot be modified by the User.
- In order to avoid false alarms or malfunctioning, it is recommended to turn Off all the unconnected inputs.

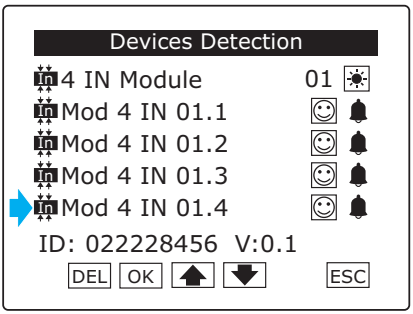


Fig. 17

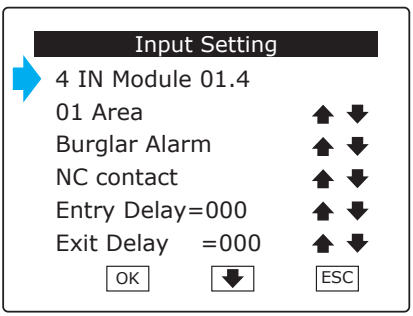


Fig. 18

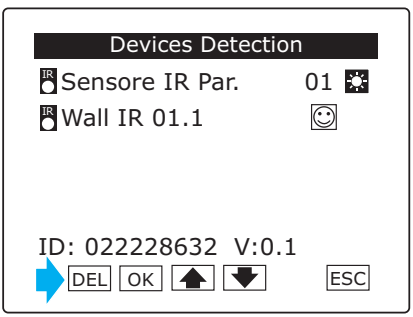


Fig. 19

STATE OF THE CONNECTED SENSORS

During this commissioning phase, it is important that none of the connected inputs are in a state of alarm; otherwise, it is necessary to check that the connection is correct and consistent with the "**Type of Balancing**" parameter for each input; in order to do this, just press on the icon of the device in alarm (fig. 17) in order to access the window "**Input Setting**" (fig. 18).

From this window it is possible to access all the setting functions, but for the commissioning we will limit ourselves only to the parameters necessary for correct recognition of the inputs by the control panel, referring to the setting manual for further information.

The first line of the "**Input Setting**" page contains the name that we have assigned to the input during the identification phase (this name, however, can also be changed from this window using the procedures described previously).

ERASING A DEVICE

In the event you must remove a device, just press the button DEL (fig. 19) and confirm the selection so that the device is no longer recognized by the system.

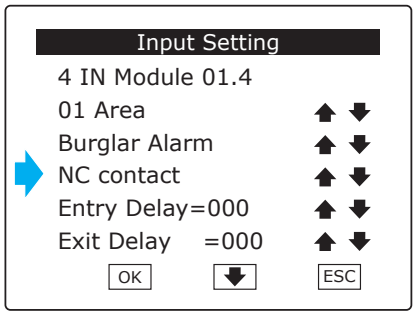


Fig. 20

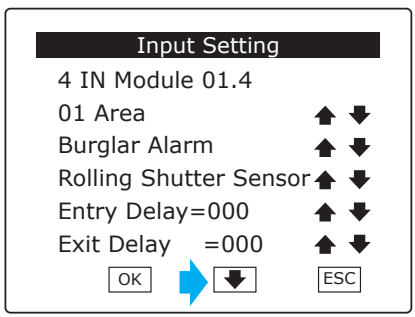


Fig. 21

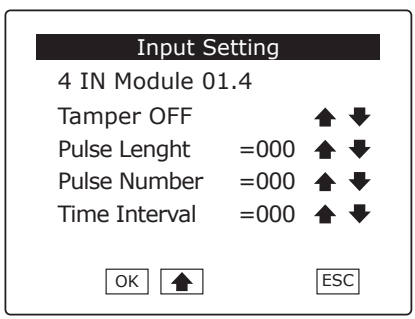


Fig. 22

On the fourth line (fig. 20), of the "**Input Setting**" page, pressing the icons ▲ ▼ allows you to identify the correct type of balancing for the input in question.
The available options are:
NC contact (Normally Closed)
NO contact (Normally Open)
One Resistance Mode
Two Resistance Mode
Vibration Sensor
Rolling Shutter Sensor

For the types of balancing defined as "**Vibration Sensor**" and "**Rolling Shutter Sensor**", you will also have to set the pulse length, pulse number and time interval (fig. 22); to access these parameters, press on the icon ▼ (fig. 21).

For the other types of balancing, we will be able to set "**Tamper**" and "**Gong**" (fig. 22).

The correctness of the connections and balancing can be checked from the inputs, by purposely triggering the alarms and checking that they are recognized correctly by the Control Panel.

This phase of the commissioning can be considered completed when, returning to the "**Devices Detection**" window, none of the devices are in a state of alarm.

Press **OK** to confirm the selections made before exiting from the screen with **ESC**.

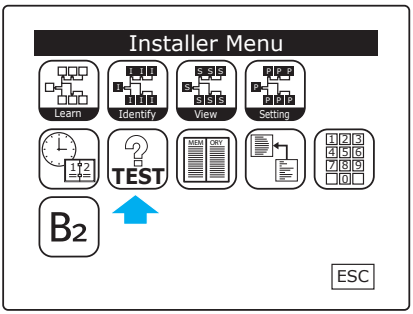


Fig. 23

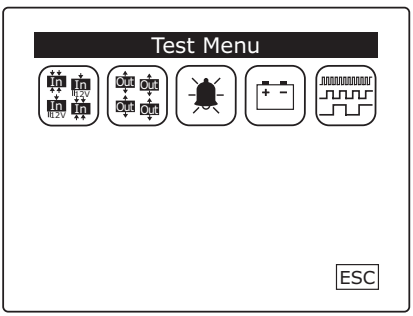


Fig. 24

Device Test

From the "**Installer Menu**" (fig. 23), pressing the icon "**Test**" will take us to the "**Test Menu**" (fig. 24) that allows us to test the correct operation of the connected devices.
Each individual test available is analyzed below.

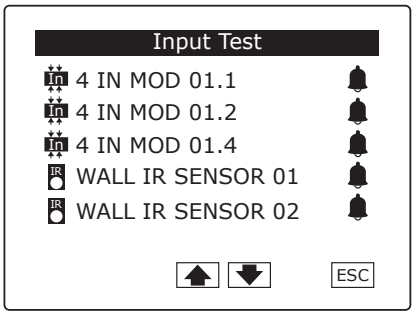


Fig. 25

INPUT TEST

Only the inputs that are in a state of alarm will appear in this window (fig. 25).
Thus, by materially activating the inputs, we can check their correct operation, name and location.
If the balancing of the inputs has been set correctly and the inputs are not effectively activated, this window must be empty.

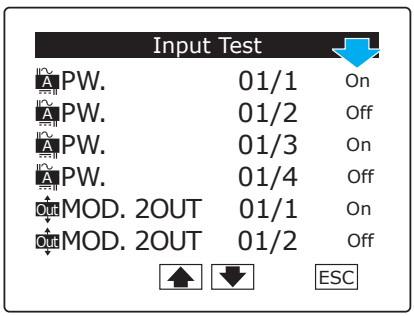


Fig. 26

OUTPUT TEST

All the connected outputs will appear in this window, with the icon in the right column (fig. 26) on **Off**.
By pressing the pen provided on the icon **Off**, the state of the output will change to **On** and the output will be activated in order to allow us to check its operation.
When exiting from the window by pressing the icon **ESC**, any outputs that may have been left active will automatically be deactivated.

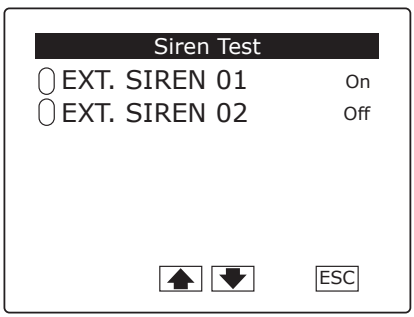


Fig. 27

SIREN TEST

The legend "On" or "Off" next to the name of the device acts as a switch (fig. 27).
By simply pressing on the legend we can turn the sirens on or off.

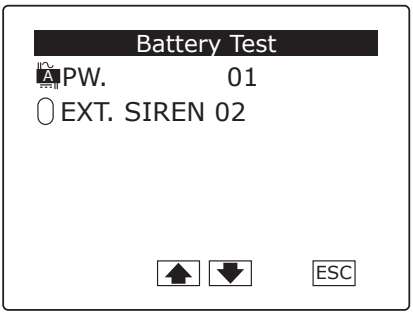


Fig. 28

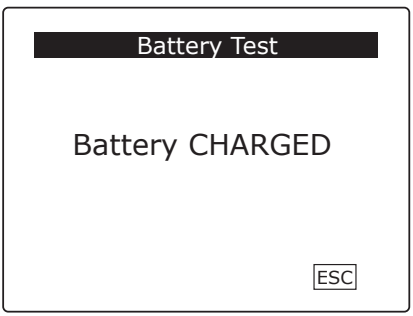


Fig. 29

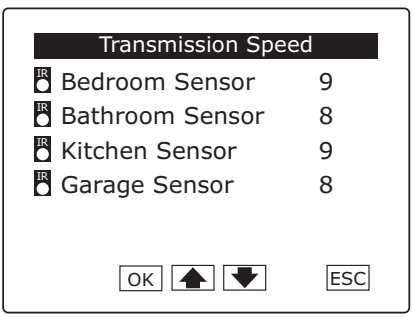


Fig. 30

BATTERY TEST

By simply pressing on the name of the device, we will be informed about the state of the battery housed inside the device (figg. 28, 29).

TRANSMISSION QUALITY TEST

Pressing the appropriate icon, a list of the inputs will appear with a numerical value next to each that indicates the speed and quality of communication between the Control Panel and the device, on a scale from 1 to 10 (fig. 30).
If the value is less than 7, check that the length of the connection is within the limits indicated in the section "**General system information**".

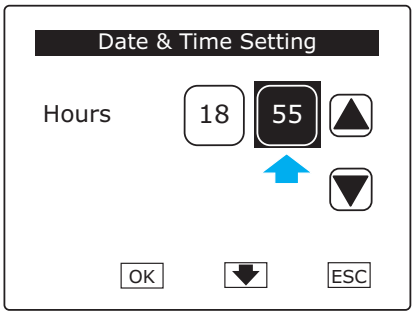


Fig. 31

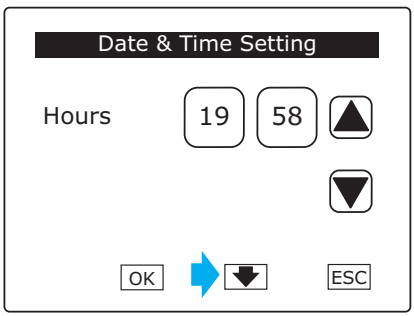


Fig. 32

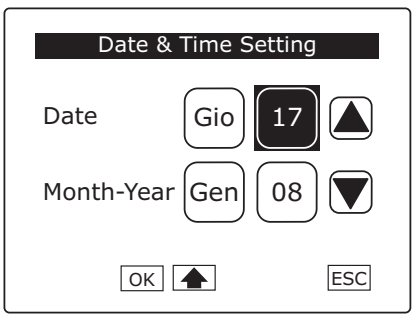


Fig. 33

Date & Time Setting

From the "**Installer Menu**", pressing the appropriate icon will take us to the window for the Date and Time Setting.
Set the correct time by selecting the area to be modified (fig. 31) and using the arrows on the side.
Proceed in the same manner to set the date after having pressed the arrow at the bottom of the window (fig. 32) which allows access to the appropriate screen (fig. 33).

Press **OK** to confirm the selections made before exiting from the screen with **ESC**.

Commissioning complete

At this point the commissioning can be considered as completed, and the system is ready to operate.
It is possible to arm the system, trigger the alarms and check that all the devices respond correctly.
For the system activation and deactivation procedures, refer to the "User Manual".

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