# Mhouse - Alarm System

CE 0682


## Instructions and warnings for installation and operation manual

mhouse

IS0096A00EN_13-05-2011

# Step by step guide to system set-up

## Setting the alarm system

| | |
|---|---|
| **1** - Read the general warnings | *chap. 1* |
| **2** - Place all devices on a table | |
| **3** - Ensure full understanding of the specific application of each device | *chap. 2.1* |
| **4** - Draw up the layout of the house | *chap. 3* |
| **5** - Read the advice on setting up the system | *chap. 3.1* |
| **6** - On the layout, mark the device positioning points | *chap. 3.2* |
| **7** - Divide the system into “Zones” for partial activation | *chap. 4.1* |

## Programming all devices

| | |
|---|---|
| **8** - Open the cover of all devices and remove the batteries | |
| **9** - Associate the touchscreen with the control unit | *chap. 5.1* |
| **10** - Learn how to ‘navigate’ through the touchscreen | *chap. 5.2* |
| **11** - Associate the control unit with the various devices (codes, remote controls, detectors, ...) | *chap. 5.3* |
| **12** - Configure the system parameters (date, time, automatic activation, ...) | *chap. 5.4* |

## Test operation of the devices

| | |
|---|---|
| **13** - Provisionally place the devices at the envisaged fixing points | *chap. 7.1* |
| **14** - Perform the “Control Unit” and “Dialler” test | *chap. 7.1* |

## Install all devices at the envisaged points

| | |
|---|---|
| **15** - Permanently fix the devices | *chap. 7* |
| **16** - Test general system operation (“Control Unit” test) | *chap. 7.1.1* |

## *NOTES TO THE MANUAL*

*• This manual describes how to set up a complete and optimal alarm system, using all devices belonging to the Mhouse alarm system. Some devices and accessories specified in the manual are optional and may not be present in the kit. For a complete overview of the devices, request the information from your local retailer.*

*• This manual is intended as a step-by-step guide. Therefore, to facilitate work and avoid any errors, it is important to perform all specified operations in the same order as described.*

### TECHNICAL GLOSSARY

*The control unit manages different types of alarm, depending on different situations. The alarms are:*

| | |
|---|---|
| **"Deterrent" alarm** | This type of alarm is intentionally activated by the user to deter an attempt at intrusion, activating the sirens and sending the calls (and text messages) to the set numbers. |
| **"Emergency" alarm** | This type of alarm is intentionally activated by the user to request emergency assistance by phone. This sends the calls (and text messages) to the set numbers. |
| **"Technical" alarm** | This type of alarm is activated automatically by the control unit if smoke, flooding or other similar events are detected. |
| **False alarm** | False alarm, caused by defect and/or fault of one or more appliances. |
| **"General" alarm** | This alarm is activated by a detector following an intrusion. This activates the sirens and sends the calls and text messages to the set numbers. |
| **Improper alarm** | Alarm caused by incorrect installation, technical restraint of appliances or external cause. |
| **"Tamper" alarm** | This alarm is generated by an attempt at tampering with a system device (opening of the control unit, removal of a detector etc.). |
| **Anti-duress** | Function that enables the user to deactivate the alarm and at the same time activate the calls envisaged for an "emergency" event. This is obtained by a specific deactivation code. |
| **Detector deactivation** | If necessary (detector faulty) the device can be deactivated temporarily. |
| **Pre-alarm (control unit status)** | Alarm that precedes a "General alarm", caused by detectors for which an alarm signal delay is programmed. |
| **Pre-alarm (siren status)** | External siren status before actual alarm activation (emission of beeps repeated for approx. 10 seconds). |
| **Alarm delay** | Interval between transmission of detector and alarm status: programmable for each detector. |
| **Supervised system** | The control unit monitors the associated radio devices to ensure all are running correctly. |
| **Touchscreen** | Radio device for programming/control with touchscreen technology. |
| **Dual frequency transmission** | Radio transmission simultaneously on two separate frequencies. Enhances security in radio communication. |
| **Bidirectional transmission** | The device that transmits a radio message receives confirmation of reception from the other device. |
| **Zone (A, B, C)** | Grouping of detectors, which can be activated and deactivated together (e.g. a zone may be represented by all detectors in the sleeping area or by all magnetic contacts of the windows). Each detector can be programmed to belong to one zone only. |

# 1 - SAFETY WARNINGS AND GENERAL PRECAUTIONS

## 1.1 - Safety warnings

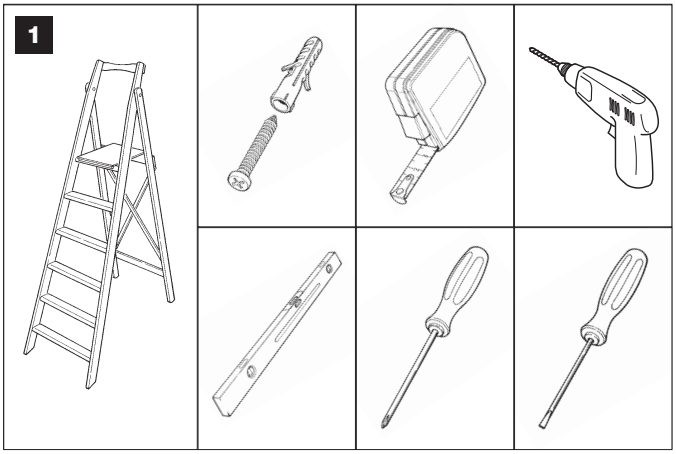
- **CAUTION! – This manual contains important instructions and warnings to ensure personal safety.** Before starting any work, carefully read all sections of this manual. If in doubt, suspend installation and request clarifications from the Mhouse Assistance Service.
- **CAUTION! – Important instructions: keep this manual in a safe place for future maintenance and product disposal procedures.** Further information can be found on the web site: www.mhouse.biz.

## 1.2 - General warnings

- Use of these products for applications other than as specified in this instruction manual is strictly prohibited.
- Never make modifications to any part of the products, other than as described in this manual. Unauthorised operations can cause malfunctions; the manufacturer declines all liability for damage caused by improper product modifications.
- According to the specific application, check whether additional products are required, such as detectors or warning sirens.
- Before proceeding with installation, check whether there are applicable local standards regarding the use of acoustic warning devices (sirens) placed outside buildings.
- To use the touchscreen, simply press the surface lightly with a finger or the stylus supplied (do not exert pressure). Never use sharp pointed objects on the screen as these will cause irreparable damage to the display.
- Always replace batteries in observance of the specified polarity.
- **Manufacturer liability:** the manufacturer declines all liability for faults deriving from incorrect installation or programming, failure to perform maintenance and improper use of the devices. Furthermore the manufacturer will not be responsible for incorrect or incomplete operation of the product or failure to detect intrusion.
- **Guarantee (summary of terms):** Mhouse guarantees company products against concealed defects for a period of 5 years as of the date of manufacture (3 years for the touchscreen). The guarantee applies to the direct purchaser from Mhouse. No guarantee is envisaged for the end user, who in the event of faults must contact the specific installer or retailer.
- **Exclusions from guarantee:** the guarantee does not cover aesthetic parts, the display, parts subject to normal wear or normal consumables, such as batteries.
- The product packaging material must be disposed of in full observance of current local legislation.

## 1.3 - Installation warnings

- The individual parts are designed according to the following environmental classes (EN 50131-1):
  - Class II environment: general indoor use; temperature range –10 - +40 °C, average humidity 75% (condensate free);
  - Class III environment: protected outdoor use; temperature range –25 - +50 °C, average humidity 75% with peaks of 30 days per year between 85 and 95% (condensate free).
- Before proceeding with installation, check the product environmental class as specified in the chapter “Technical specifications”.
- In the device installation sites, check whether the radio range of the devices is greater than the physical distance between the various products (refer to nominal range values specified in the chapter “Technical specifications”).
- Ensure that the devices (detectors, control unit etc.) are positioned on sufficiently solid surfaces.
- Install the products in positions difficult to reach to avoid intentional damage, remaining in compliance with installation specifications.
- During installation and use of the product, ensure that no foreign bodies (solids or liquids) penetrate any open devices.
- Do not place system components near to sources of heat to avoid potential damage.
- Ensure that all tools and materials are available for correct installation; ensure that they are in good condition and comply with relative safety standards. Some examples are provided in **fig. 1**.




# 2 - PRODUCT DESCRIPTION AND INTENDED USE

The products in this kit are part of the Mhouse alarm system designed for the protection of residential spaces. **Any use other than as described in this manual is strictly prohibited!**

The Mhouse alarm system is not to be considered simply a home burglar alarm, as it is able to detect a variety of events thanks to special sensors: intrusion, break-in attempts (impact-vibration sensor), fire risks (smoke detector) and water leaks (flooding sensor).
The different alarm situations can be indicated locally with audible signals (indoor or outdoor sirens), with voice messages or remotely via telephone calls or text messages.
The system offers optimal flexibility and simplicity of installation; it is powered exclusively by batteries and does not require any electrical connection. The various devices interact by radio wave communication. Maximum reliability of communication between the devices is achieved by transmission on 2 separate radio frequencies: 433 MHz and 868 MHz. Furthermore, communication between the main elements is bidirectional; for some devices transmission requires reception of a confirmation signal (e.g. activation of the system via remote control is confirmed by a red led on the remote control itself).
The touchscreen can also be used for radio control of all Mhouse automations.

## 2.1 - Understanding the devices that make up the system

Open the packaging and lay out all the components in the pack on a table. Before proceeding, read the following sections to understand the role and main features of each device in the system. These devices represent the complete range of articles needed to set up an optimal alarm system. Some devices specified in the manual are optional and may not be present in the kit.

### Control unit

The control unit is the decision making core of the system and communicates with all associated devices.
The control unit is programmed and managed by means of one or more keypads with a touchscreen interface (mod. MATS1).
The control unit can also be controlled by means of portable remote controls and radio control keypads. It receives alarm signals from different types of detectors and sends notification signals, inside and outside the environments, with acoustic devices and deterrent voice messages emitted by the sirens. Thanks to the integrated telephone system, the control unit can notify users of the alarms and system technical events by sending calls to the telephone numbers set in the phone book. The model **MACU1** is also able to send text messages.
Lastly, the remote management function enables the user to manage the control unit by telephone.

MACU1
MACU2

*The models available are:*

| | |
|---|---|
| **MACU1** | Control unit for alarm systems • via radio • battery powered • with PSTN and GSM telephone dialler |
| **MACU2** | Control unit for alarm systems • via radio • battery powered • with PSTN telephone dialler |

### Touchscreen

The touchscreen is the radio interface that enables programming of the entire alarm system and management of the intrusion protection system. It implements an icon menu and integrated voice menu to ensure simple and intuitive use. It is equipped with a transponder badge reader to enable rapid activation and deactivation of the alarm system. It can also be used to control Mhouse automations such as a gate, shutter, awning etc. As well as the controls on display, a further 4 buttons are available for direct and immediate control of the automations. There is also a voice recorder to enable recording and listening of voice messages.
The device is battery powered and automatically turns off after a brief period of inactivity. A special charger base, desktop or wall-mounted (MATSC1, optional) enables the display to remain on at all times.

MATS1

*The models and accessories available are:*

| | |
|---|---|
| **MATS1** | Touchscreen with wall-mounted support |
| **MATSC1** | Desktop support for touchscreen, with rechargeable batteries and power supply unit |

### Detectors

The detectors are used to control the environment where they are installed; they control the change in area status, detecting events in the environment and instantly transmitting the relative event to the control unit. For efficient control of the area, they must be positioned at strategic points of the room, doors, windows, shutters, porches etc. The types of detectors are classified as follows:
- perimeter, for opening of doors, windows, shutters;
- perimeter, using “vertical curtain” technology;
- volumetric, for the detection of human presence inside the area covered by the detector;
- special, for the detection of flooding, smoke, glass breakage etc.

*The models available are:*

| | |
|---|---|
| **MAD1** | Door and window opening detector |
| **MAD2** | Infra-red detector with volumetric lens |
| **MAD3** | Infra-red detector with vertical curtain lens |
| **MAD4** | Volumetric detector of glass breakage |
| **MAD5** | Smoke detector |
| **MAD6** | Flooding detector |

MAD1

MAD2

MAD3

MAD4

MAD5

MAD6

## Remote controls and transponder badges

These represent the most practical and simple means of controlling an alarm system, both inside and outside buildings; they enable total or partial activation and deactivation of the system. Some keys are used to send emergency signals and automation control signals.

*The models available are:*

| | |
|---|---|
| **MATX4** | Bidirectional radio remote control • 4 keys dedicated to the alarm system |
| **MATX8** | Bidirectional radio remote control • 4 keys dedicated to the alarm system and 4 keys for the control of Mhouse automations |
| **MAB1** | Transponder badge |

MATX4

MAB1

MATX8

## Keypad

The radio keypad enables control of the alarm system with total or partial activation of the zones to be protected. Thanks to bidirectional communication, it receives information on system status from the control unit (e.g. “zones activated”, “doors/windows left open” etc.), which is displayed by means of leds and acoustic signals.

*The models available are:*

| | |
|---|---|
| **MADS1** | Bidirectional radio keypad • Dual Band |

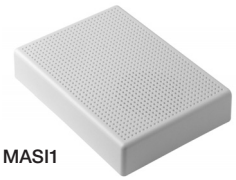
MADS1

## Sirens

The sirens represent the main deterrent elements of the alarm system, thanks to the emission of high-power sounds and intimidating voice messages. The siren scares and dissuades the intruder, while the flashing light (if fitted) enables the area where the alarm trips to be lit up.

*The models available are:*

| | |
|---|---|
| **MASI1** | Indoor siren via radio • Sound power 114 dB |
| **MASO1** | Outdoor bidirectional siren via radio • Dual Band • with built-in flashing light and voice message board • Sound power 116 dB |



MASI1

MASO1

# 3 - LAYOUT OF DEVICES IN THE ENVIRONMENT

## 3.1 - Application limits

- Before proceeding with installation, check the condition of the product, adequacy of the selected model and suitability of the intended installation environment.
- Ensure that all conditions of use remain within the limits as specified in chapter 12 - “Technical Specifications”.
- The product may only be integrated with Mhouse devices (not supplied in the pack.

## 3.2 - Draw the layout of the devices on a drawing of the home to be protected

Prepare a drawing of the environments to be protected and then mark the exact points where the various devices are to be installed. To proceed with work, read the following sections with reference to the example shown in **fig. 1**.

***Caution! – This drawing will be of use later to perform the tasks described in chapters 4 and 7.***

**01. Mark the position of all detectors used to protect the environment <u>perimeter</u>:**

**a**) against opening of doors and windows (MAD1);
**b**) against intrusion from outside, using infra-red technology (MAD2) and vertical curtain technology (MAD3).

It is essential to choose the type of detector with care, depending on the intended use. A detector that is incorrect or positioned in an unsuitable location may not detect intrusion or cause improper alarms. Each type of detector has a specific operating principle; therefore refer to the technical datasheet of each detector as provided in chapter 7.

**02. Mark the position of all detectors used to protect the <u>inside</u> of the environment:**

**a**) against the movement of persons or other (MAD2);
**b**) against glass breakage (MAD4);
**c**) against the presence of smoke (technical sensor MAD5);
**d**) against flooding (technical sensor MAD6).

Avoid the installation of volumetric detectors near to possible turbulence of hot or cold air (fireplace, radiators etc.) and where animals (hot blooded) are present; if necessary, during installation, reduce sensitivity of the sensor or position it with the directional joint supplied.

**03. Mark the position of all fixed devices used to control the alarm system <u>inside</u> the environment:**

**a**) touchscreen (MATS1);
**b**) keypad (MADS1).

The touchscreen can be fixed to the wall, in which case an easily accessible location should be chosen (e.g. near the main door).
As well as the touchscreen, additional radio keypads can be used for daily management of the system (for example to activate and deactivate the alarm, when accessing via secondary entrances). The keypads can be wall-mounted or portable if required.

**04. Mark the position of other devices used to distribute the acoustic alarm, in addition to the siren integrated in the control unit:**

**a**) outdoor siren (MASO1);
**b**) indoor siren (MASI1).

The control unit has a specific built-in siren, but, in the case of isolated buildings, the installation of at least one outdoor siren is strongly recommended. This should be positioned in a highly visible location (its mere presence serves as a deterrent) but in a place difficult to access by vandals/burglars. Although the sirens are adequately protected for outdoor applications, they should be installed in an area protected against direct rain; the ideal location would be under a protruding roof or on a terrace/balcony. In large or multi-floor buildings, the addition of one or

more indoor sirens (MASI1) is recommended, located in the main rooms.

**05. Mark the position of the control unit, taking into consideration the following:**

- the control unit must be positioned at least 1 m from the ground;
- the distance of the control unit from each detector (point **A**);
- the number of walls present between the control unit and devices, and the characteristics of the construction materials (point **B**);
- the position of the telephone land line (only if the function for alarm notification by telephone is required) (point **C**);
- coverage of the GSM telephone network (only if equipped with the MACU1 control unit, with GSM dialler) (point **D**).

**A** - The control unit operates by transmitting and receiving low power radio signals (within the limits as envisaged by standards). For this reason the control unit should be positioned at the centre with respect to all other devices. The latter should not be positioned too far from the unit to avoid failure to receive the relative radio signals.

**B** - The zone where the control unit is installed must enable adequate radio signal propagation. Take into account that inside buildings, radio transmission may be influenced by a number of factors: **a**) the number of walls and other objects located between the emitting device and the receiving device (control unit); **b**) the characteristics of the wall construction materials; c) the presence of electromagnetic sources that create radio disturbance (for example, radio television equipment).
Therefore all system devices should be installed far from radio television equipment; also avoid installation of the control unit in alcoves, metal cabinets, on load-bearing columns of the building or on reinforced concrete walls. There must not be any large metal surfaces or metal grids near the control unit, including those inside walls.

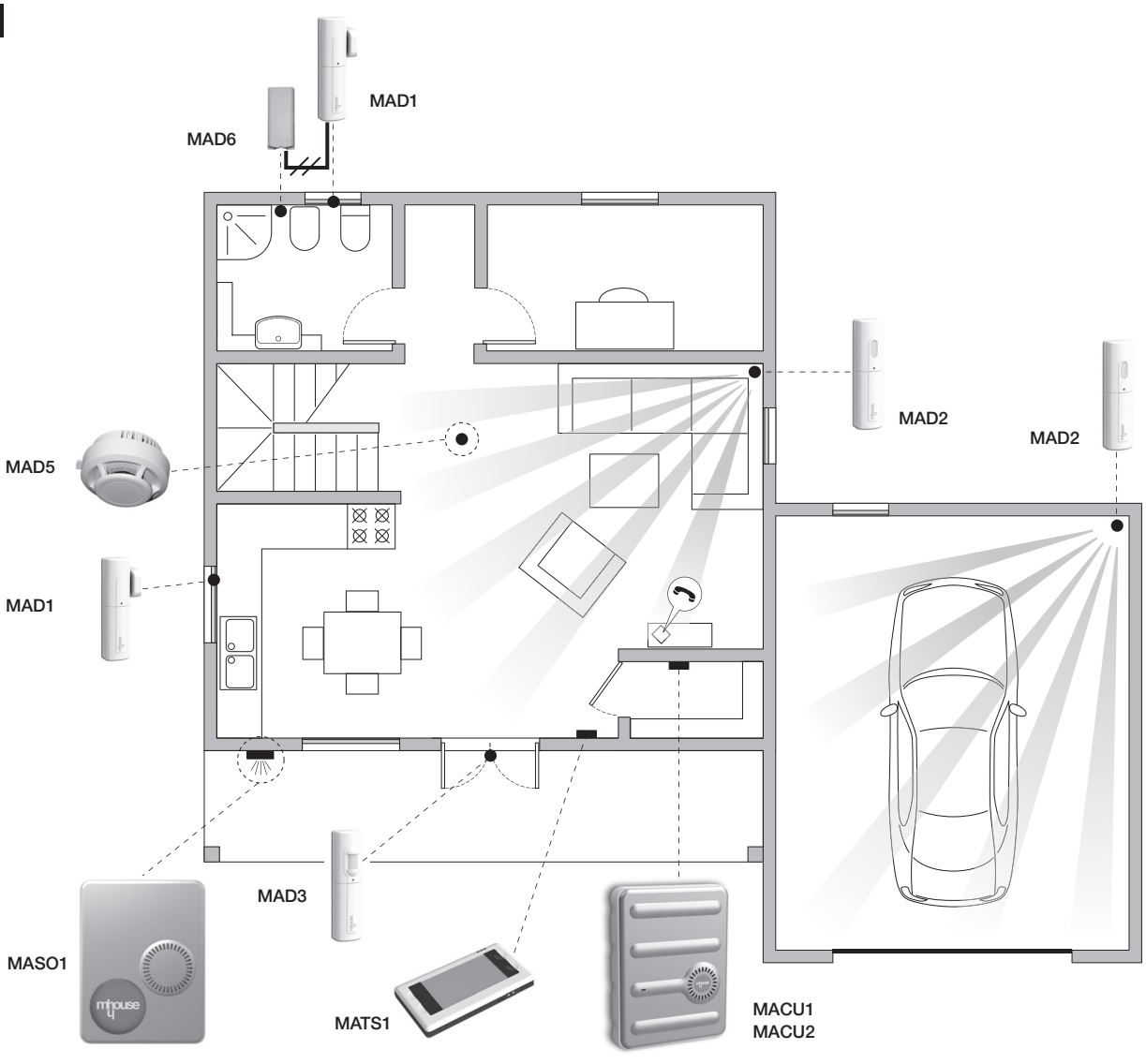
**To sum up, to calculate the maximum admissible distance between the control unit and a device, in relation to the number of obstacles and the shielding properties of the relative materials, refer to Table 1.**

**C and D** - To enable use of the telephone system integrated in the control unit and the relative services available, the control unit should be positioned in an area equipped with the fixed telephone line. Also, if GSM telephone communication is required, the control unit must be positioned in a location with good coverage of the GSM network.

**TABLE 1**

| MATERIAL | ESTIMATED MAXIMUM RANGE |
|---|---|
| In open spaces (outdoors) | approx. 100 metres |
| Walls in plasterboard/wood | approx. 50 metres, through a maximum of 5 walls |
| Walls in brick or concrete | approx. 30 metres, through a maximum of 3 walls |
| Walls in reinforced concrete or ceilings | approx. 20 metres, through a maximum of 1 wall or ceiling |
| Walls in metal | not admitted; metal walls constitute virtual total shielding |

**1**



## 4 - PRELIMINARY PROGRAMMING PROCEDURES (Dividing the alarm area into “zones”)

### 4.1 - Dividing the entire environment into “ZONES” for subsequent total or partial activation of the alarm system

During programming, the detectors can be grouped into **3 different areas**, called “**Zone A**, **B**, **C**”. During system use, this division enables total or partial activation of the alarm, with the option of differentiated protection of the environment.

The logic adopted to assign the detectors to the same group must be evaluated on the basis of the type of building and routine use of the various areas involved. In any event, all devices can be programmed within a single zone as required (e.g. zone C).

**Example of “perimeter” distribution (fig. 2):**

- **zone A** = volumetric proximity sensors on doors and windows, with “curtain” lens (MAD3);
- **zone B** = door and window opening detectors (MAD1);
- **zone C** = indoor volumetric detectors (MAD2).

**Benefits**: freedom of movement within the home, with perimeter protection against intrusion from outside (zone C off; zones A and B on).

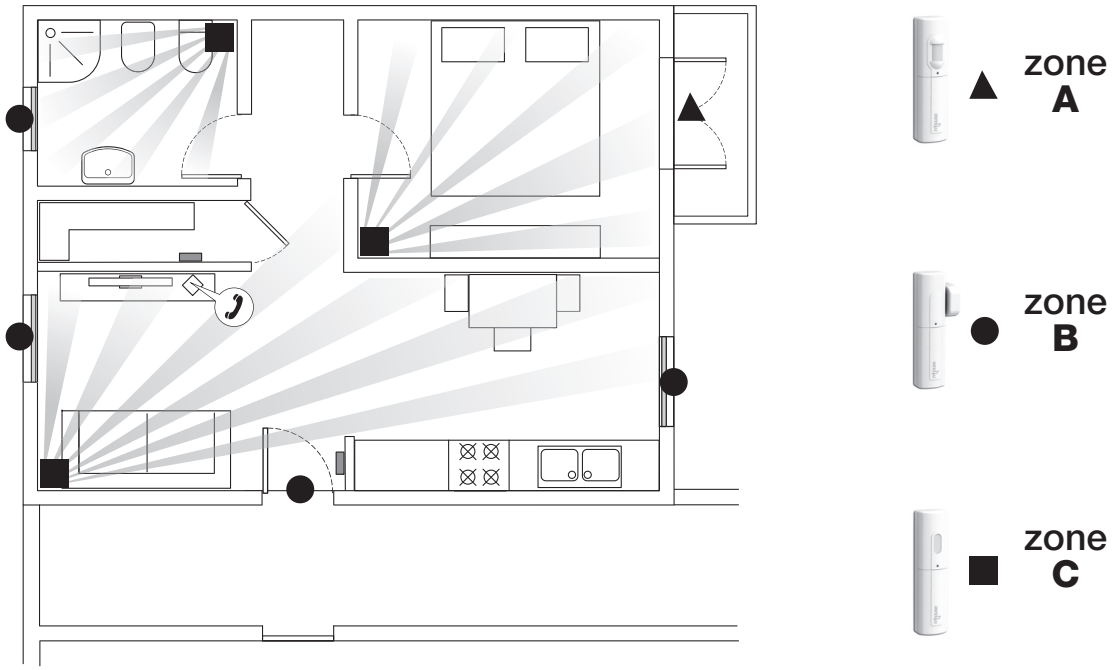
**Example of “block” distribution (fig. 3):**

- **zone A** = garage detectors;
- **zone B** = ground floor detectors;
- **zone C** = first floor detectors.

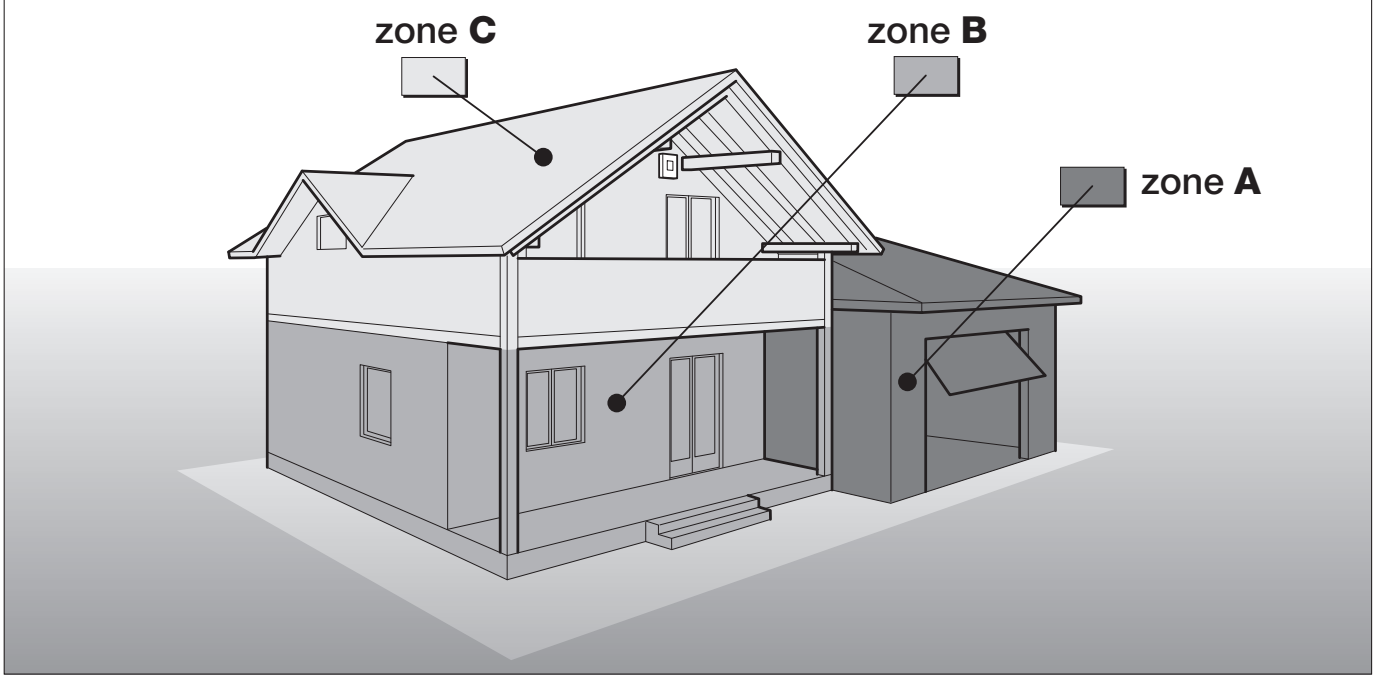
**Benefits**: during the night, only the ground floor and garage detectors can be left activated (zone C off, zones A and B on).

As well as these 3 zones, there is a zone defined as “**24 hour technical**” in which technical sensors are programmed, such as those for smoke and flooding.
This group is always active and cannot be deactivated.

**2**




**3**



# 5 - STANDARD PROGRAMMING OF THE ALARM SYSTEM

The following sections describe how to program the system for standard operation.
**Before proceeding with programming all devices, the touchscreen must first be programmed and associated with the control unit (paragraph 5.1)**.
*Note – Place the control unit and various devices without batteries on a table (to open the battery compartment and personalise the functions of individual devices, refer to the respective datasheets in chapter 7).*

## 5.1 - Associate the touchscreen with the control unit

To ensure that the touchscreen communicates correctly with the control unit, the following association procedure must be performed:

**01. Define the "administrator" and "user" code (minimum 4, maximum 8 digits) and note them down in the following table. Important! – The two codes must be different. See paragraph 5.1.1 - "Defining the three types of code".**

| Codes | |
|---|---|
| administrator code | ..... |
| user code | ..... |

**02.** On the touchscreen:
**a) fig. 4:** press at point (**1**) and push the base (**2**) upwards.
**b) fig. 4:** insert the memory board "A" in the relative slot (**do not insert batteries**).
**03.** On the control unit:
**a)** ensure that no batteries are fitted; remove if necessary.
**b)** to use the GSM line, insert the SIM CARD in the slot (see **fig. 5**) before inserting the batteries. The SIM CARD is not essential for correct operation of the alarm control unit. The SIM CARD enables the delivery of alarm messages, in voice or text form, if the PSTN telephone line is not available (or in addition to the PSTN line).
The SIM CARD is not included in the KIT. The alarm system can operate with contract or "pay as you go" SIM CARDS. Before installing the SIM CARD the PIN CODE must be disabled.
**c)** insert the batteries; 1 beep confirms activation.
**04.** On the touchscreen:
**a)** after the confirmation beep from the control unit, insert the batteries in the touchscreen keypad within one minute.
**b)** The touchscreen immediately requests entry of the "administrator" code and "user" code.
**05.** At this point the control unit and touchscreen are associated after entry of the codes.
**06.** Close the touchscreen cover (to install the control unit, see paragraph 7.3.2).

The other system devices can now be programmed; see paragraph 5.2. Before proceeding, ensure that you are familiar with the various screen pages and icons available on the touchscreen; see paragraph 5.3.

### 5.1.1 - Defining the three types of code.

***"Administrator" code –*** This code is a numerical sequence of at least 4 digits and enables access to programming mode with administrator rights. The administrator is normally the person assigned to program and configure the alarm system; this person is authorised to perform all programming procedures, including total deletion, but may not activate or deactivate the alarm.

***"User" code –*** This code is a numerical sequence of at least 4 digits and enables access to only part of the programming mode. The user is normally the person who manages routine system operation on a daily basis (for example, consulting the event log, temporarily disabling a detector, etc.). The user code enables activation and deactivation of the alarm.

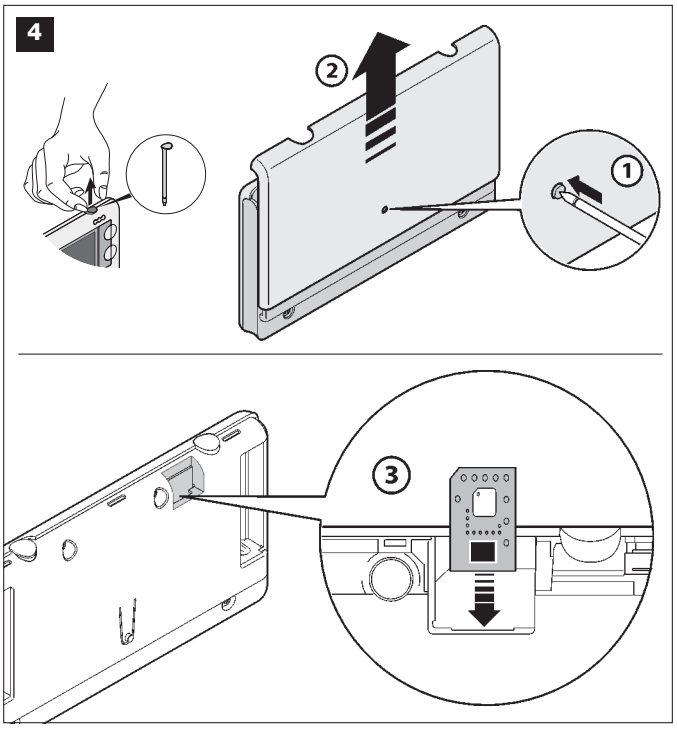
***"Access" codes –*** These codes are numerical sequences of 5 digits, which only enable activation and deactivation of the alarm. Access codes are normally assigned, **–** one per person, **–** to all those who may activate or deactivate the alarm. The same code should not be assigned to more than one person, as it would then be difficult to check who performed which operation in the event log.

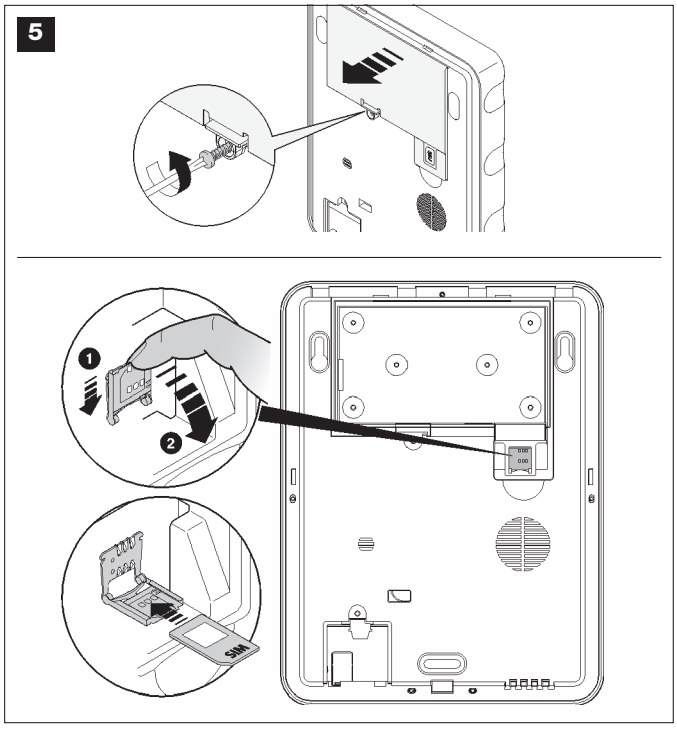
## 5.2 - Programming the other system devices

After associating the touchscreen with the control unit (paragraph 5.1) and ensuring a full understanding of the relative functions, the other system devices can be programmed, as described in paragraphs 5.4 and 5.5. Follow each step of the sequence in the specified order.

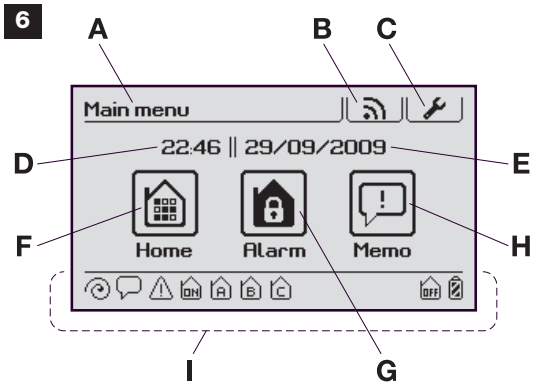
## 5.3 - Navigating the touchscreen menus

The touchscreen is fitted with a tactile graphic display; to use, simply touch the surface with a finger and press lightly; **do not exert pressure!** Only when the virtual graphic keypad is used, for more precision, use of the stylus supplied may be necessary.
On activation, the touchscreen shows the main menu with three icons giving access to the respective sub-menus. To navigate the menus and sub-menus, simply touch the icon on screen. Various screen models and icons are available for navigation. Before proceeding, familiarise yourself with these items with reference to **fig. 6**. and **fig. 6a**.



6




## MAIN MENU

**Key**

**A** - Screen header (read only).
**B** - Enables updates to the alarm system status bar (**I**) .
**C** - Accesses the Settings menu exclusively for the touchscreen.
**D** - Displays the local time (read only).
**E** - Displays the date (read only).
**F** - Accesses the macro-screen for automation management.
**G** - Accesses the macro-screen for alarm management.
**H** - Accesses the macro-screen for voice reminders.
**I** - Displays the status of the alarm and touchscreen.

## Touchscreen settings


To access the parameters menu, touch the icon [ ] and then select the icon of the parameter to be modified.

**SCREEN** *Enables adjustment of the display brightness.*
**Touch the keys [+] or [−] to make adjustments as required. Touch "OK" to confirm.**

**AUTO OFF** *Enables entry of the interval before automatic shut-off of the touchscreen.*
***Note** – The item "**Never**", means that the touchscreen remains on at all times. This option should only be selected if rechargeable batteries are used and recharged regularly, for example by means of the accessory MATSC1.*
**Select the required time. Touch "OK" to confirm.**

**RECHARGE** *Allows the user to enable the battery recharging function if rechargeable batteries are used. **Caution!** – Never attempt to recharge non-rechargeable batteries. This could cause damage to the touchscreen.*
**Select the required item. Touch "OK" to confirm.**

**LINK** *Enables the addition or removal of a link between the touchscreen and an alarm system control unit. For specifications, refer to the system instruction manual.*

**VOLUME** *Enables adjustment of the volume.*
**Touch the keys [+] or [−] to make adjustments as required. Touch "OK" to confirm.**

**MOV.** *Allows the user to enable the movement sensor: if the touchscreen has not been switched off with the ON/OFF key this is activated automatically as soon as movement is detected.*
**Select the required item. Touch "OK" to confirm.**

**FIRMW.** *Enables display of the touchscreen firmware version.*

**RESET** *Enables deletion of all contents of the touchscreen memory. **Important!** – This function does not delete the parameters stored in the control unit; see paragraph 5.4 - Alarm system programming.*
**Select the required item. Touch "OK" to confirm.**

## List of operating icons and status

### Specific operating tools

- Increase
- Decrease
- Rec
- Stop
- Play
- Save
- Delete

### Other operating tools

- [OK] Confirm (OK)
- Item deselected
- Item selected
- Back to previous menu
- Back to main menu
- Delete last character entered
- On alphabetical keypad, switch from upper case to lower case and vice versa. On numerical keypad, switch from numbers to special characters
- [ABC] [123#()] Changes keypad from alphabetical to numerical
- Alarm system status request
- Horizontal scroll arrow
- Vertical scroll arrow

### Status information

- Reminders not read
- Battery level
- Transponder badge reader ON
- New event present in alarm control unit memory
- Alarm ON
- Alarm OFF
- Zone A activated
- Zone B activated
- Zone C activated

## 6a Main subjects


Commands


Gates


Blinds


Lights


Set


Alarms

On

Off


Codes


**Menu**: see detailed list below


Messages


New


List

**LIST OF ITEMS PRESENT IN THE ALARMS MENU**

| | | ADMINISTRATOR | USER | Page |
|---|---|---|---|---|
| **Devices** | Access codes | ● | ● | page 13 (5.4.1) |
| | Remote controls | ● | ● | page 13 (5.4.2) |
| | Badges | ● | ● | page 13 (5.4.3) |
| | Alarm zone A | ● | not accessible | |
| | Alarm zone B | ● | not accessible | |
| | Alarm zone C | ● | not accessible | |
| | Deterrence | ● | not accessible | page 15 (5.4.10) |
| | Emergency | ● | not accessible | page 15 (5.4.10) |
| | Technical | ● | not accessible | page 14 (5.4.6) |
| | Other devices | ● | not accessible | page 14 (5.4.7) |
| | Touchscreen | ● | not accessible | page 10 (5.1) |
| **Messages** | Voice messages | ● | ● | page 14 (5.4.8) |
| | Text messages | ● | ● | page 14 (5.4.8) |
| **Phone book** | | ● | ● | page 15 (5.4.9) |
| **Settings** | Automatic activation | ● | ● | page 16 (5.5) |
| | Exit time | ● | ● | page 16 (5.5) |
| | Detector disable | ● | ● | page 16 (5.5) |
| | Periodic call | ● | ● | page 16 (5.5) |
| | Alarm type | ● | not accessible | page 16 (5.5) |
| | Radio interference | ● | not accessible | page 16 (5.5) |
| | Supervision | ● | not accessible | page 16 (5.5) |
| | User code | not accessible | ● | page 16 (5.5) |
| | Admin. code | ● | not accessible | page 16 (5.5) |
| | Volume | ● | ● | page 16 (5.5) |
| | Date and time | ● | ● | page 16 (5.5) |
| | Daylight saving time | ● | ● | page 16 (5.5) |
| | Line priority | ● | not accessible | page 16 (5.5) |
| | SIM validity | ● | ● | page 17 (5.5) |
| | IMEI | ● | ● | page 16 (5.5) |
| | Firmware version | ● | ● | page 16 (5.5) |
| | Deletion | ● | not accessible | page 16 (5.5) |
| **Events list** | | ● | ● | page 51 (6) |
| **Test** | Control unit | ● | ● | page 18 (7.1.1) |
| | Dialler | ● | ● | page 19 (7.1.2) |

## 5.4 - Alarm system programming

**Warning – Perform all programming procedures described in this paragraph in the specified sequence.**

**Access to the programming menu:**

**1) in the main menu touch the icon "Alarms"** 

**2) use the arrow icon** › **to scroll through the list and select "Menu"** 

**3) enter the "ADMINISTRATOR CODE" (set previously)**

**4) touch "OK" to confirm**

**5) select the required item according to the instructions below (e.g. "tools" > "remote controls" ...)**

### 5.4.1 - Programming an access code

This procedure programs the code entered by the user to activate or deactivate the alarm. Up to 20 codes can be programmed. Each must be personalised with 4 parameters, including the assignment of the **zones** (**A**, **B**, **C**) that the code can activate or deactivate.

**01.** Access the programming menu

**02.** Touch "Devices", then "Access codes" and select one of the 20 programmable codes.

**03.** Touch "Add" and compile the next screen with the following parameters:
• Activation (enables the user to specify the **zones** which can be activated with the code being programmed).
Touch "Activation" and select the **zones** to associate with the code being programmed. Touch "OK" to confirm
• Deactivation (enables the user to specify the **zones** which can be deactivated with the code being programmed).
Touch "Deactivation" and select the **zones** to associate with the code being programmed. Touch "OK" to confirm
• Anti-duress (**always** enables deactivation of the alarm with simultaneous delivery of calls to the numbers set for an "emergency event". Use this code only in the event of danger).
Touch "Anti-duress" and select either "Yes" or "No". Touch "OK" to confirm
• Name (enables the association of a code with the relative user name).
Touch "Name" and enter the user's name (maximum 9 characters). Touch "OK" to confirm

**04.** Touch "OK" to confirm.

**05.** Enter an access code of **5 digits**; then touch "OK" to confirm (the control unit emits a confirmation beep; 3 beeps indicate that the code is already used).

***Modifying or deleting an existing code:***

**01.** Touch "Devices", then "Codes" and select one of the programmed codes.

**02.** Touch "View" or "Delete". Touch "OK" to confirm.

### 5.4.2 - Programming a remote control (MATX4, MATX8)

This procedure programs a remote control used by the user to activate or deactivate the alarm. Up to 20 remote controls can be programmed and each must be personalised with 4 parameters, including the assignment of the **zones** (**A**, **B**, **C**) that the remote control can activate or deactivate.

*Programming a remote control:*

**01.** Access the programming menu

**02.** Touch "Devices", then "Remote controls" and select one of the 20 programmable remote controls.

**03.** Touch "Add" and compile the next screen with the following parameters:
• Activation (enables the user to specify the **zones** which can be activated with the remote control being programmed).
Touch "Activation" and select the **zones** to associate with the remote control being programmed. Touch "OK" to confirm
• Deactivation (enables the user to specify the **zones** which can be deactivated with the remote control being programmed).
Touch "Deactivation" and select the **zones** to associate with the remote control being programmed.
• Name (enables the association of a remote control with the relative user name).
Touch "Name" and enter the user's name. Touch "OK" to confirm.

**04.** Touch "OK" to confirm

**05.** Touch "OK" again and then, on the remote control, press the keys "On" and "Off" at the same time. The control unit emits a confirmation beep (3 beeps indicate that the remote control is already present).

**06.** Lastly, touch "OK" to confirm the parameters entered.

***Modifying or deleting an existing remote control:***

**01.** Touch "Devices", then "Remote controls" and select one of the programmed remote controls.

**02.** Touch "View" or "Delete". Touch "OK" to confirm

### 5.4.3 - Programming a transponder badge (MAB1)

The touchscreen has an integrated transponder badge reader. On the control unit, if at least one proximity/transponder badge has been memorised, this reader is activated as soon as the touchscreen is switched on; it remains active for a few seconds, after which it can be re-activated by touching the relative symbol; for more details, see paragraph 7.2.5. This procedure programs an electronic badge used by the user to activate or deactivate the alarm. Up to 32 badges can be programmed and each must be personalised with 3 parameters, including the assignment of the **zones** (**A**, **B**, **C**) that the badge can activate or deactivate.

*Programming a badge:*

**01.** Access the programming menu

**02.** Touch "Devices", then "Badges" and select one of the 32 programmable badges.

**03.** Touch "Add" and compile the next screen with the following parameters:
• Activation (enables the user to specify the **zones** which can be activated with the badge being programmed).
Touch "Activation" and select the **zones** to associate with the badge being programmed. Touch "OK" to confirm
• Deactivation (enables the user to specify the **zones** which can be deactivated with the badge being programmed).
Touch "Deactivation" and select the **zones** to associate with the badge being programmed. Touch "OK" to confirm
• Name (enables the association of a badge with the relative user name).
Touch "Name" and enter the user's name. Touch "OK" to confirm

**04.** Touch "OK" to confirm

**05.** Touch "OK" again and then move the badge near the bottom left corner of the touchscreen, until a confirmation beep is emitted (3 beeps indicate that the badge is already present).

**06.** On completion, press "OK" to confirm the parameters entered.

***Modifying or deleting an existing badge:***

**01.** Access the programming menu

**02.** Touch "Devices", then "Badges" and select one of the programmed badges.

**03.** Touch "View" or "Delete". Touch "OK" to confirm.

### 5.4.4 - Programming a keypad (MADS1)

his procedure associates a keypad with the control unit. This will enable the user to totally or partially activate/deactivate the alarm, using the various programmed "**access codes**" on the keypad (do not use the "user code" or "administrator code").

**01.** Insert the batteries (remove the separation tab) on the keypad; a beep is emitted and all leds flash for 60 seconds.

**02.** Within 60 seconds, use the touchscreen to immediately activate and deactivate the alarm using an access code (on deactivation 6 beeps are emitted to confirm memorisation).

**Important –** This operation must be performed each time the keypad batteries are changed

### 5.4.5 - Programming an intrusion detector (MAD1, MAD2, MAD3, MAD4)

This procedure enables the association of an intrusion detector (volumetric, magnetic contact, etc.) with the control unit. A single detector can be programmed by selecting "Add 1 detector" or a pair of detectors, used together, by selecting "Add 2 detectors".
Before programming a device:

- decide which group to be assigned (zone A, B, C);

- if necessary, modify the factory settings of the dip-switches on the detector; for each detector, see the corresponding paragraph (7.3.3 - 7.4.3 - 7.5.3).

**Caution!** – A detector may belong to one zone only, and to move it to another zone it must be deleted and then reprogrammed in the new zone.

*Programming a detector:*

**01.** Access the programming menu
**02.** Touch “Devices”, then touch the zone to be associated with the detector: “Alarm zone A”, B, or C.
**03.** Select one of the programmable detectors and then touch “Add 1 detector”.
**04.** Compile the next screen with the following parameters:
• **Delay** Touch “Delay” and enter the delay time of alarm delivery by the detector (0 Sec = immediate alarm). This delay gives the user time to enter the home and deactivate the alarm without tripping the detector. Touch “OK” to confirm.
• **Name** Touch “Name” and enter the name to assign to the detector (for example: “kitchen”). Touch “OK” to confirm.
• **Voice name** Touch “Voice Name” and enter the name to assign to the detector (for example: “kitchen”).
**05.** Touch “OK” to confirm.
**06.** Touch “OK” again and then insert the battery in the detector. The control unit emits a confirmation beep (3 beeps indicate that the detector is already present).

*Programming 2 combined detectors:*

This function is recommended to reduce possible improper alarms, caused by infra-red volumetric detectors in specific situations. To activate the function, the two detectors must be in the same room and positioned opposite one another. When the function is active, the control unit only activates the alarm if it receives a signal from both detectors, within a maximum interval of 30 seconds between one signal and the other.
**Caution!** - the two detectors must be programmed one after the other. If one of the detectors is already programmed, delete it first using the procedure “Modifying or deleting a detector”.

**01.** Access the programming menu
**02.** Touch “Devices”, then touch the zone to be associated with the two detectors: “Alarm zone A”, B, or C.
**03.** Select one of the programmable detectors and then touch “Add 2 detectors”.
**04.** Touch “OK” then insert the battery in the first detector (the control unit emits a confirmation beep; 3 beeps indicate that the detector is already present).
**05.** Compile the next screen with the following parameters:
• **Name** Touch “Name” and enter the name to assign to the pair of detectors (for example: “kitchen”). Touch “OK” to confirm.
• **Voice name** Touch “Voice Name” and enter the name to assign to the pair of detectors (for example: “kitchen”).
**06.** Touch “OK” to confirm.
**07.** Touch “OK” then insert the battery in the second detector (the control unit emits a confirmation beep; 3 beeps indicate that the detector is already present).

*Modifying or deleting an existing detector:*

**01.** Touch “Devices”, then touch the zone associated with the detector: “Alarm zone A”, B, or C.
**02.** Touch “View” or “Delete”. Touch “OK” to confirm.

### 5.4.6 - Programming a technical detector (MAD5, MAD6)

This procedure enables association of the control unit with a technical detector (for example those for flooding, smoke, etc.). This type of detector must be programmed in the specific “technical” group. This group is always active.

**- MAD5 (smoke detector):**

**01.** Access the programming menu
**02.** Touch “Devices”, then touch “technical”.
**03.** Select one of the programmable detectors.
**04.** Compile the next screen with the following parameters:
• **Name** Touch “Name” and enter the name to assign to the detector (for example: “kitchen smoke”). Touch “OK” to confirm.
• **Voice name** Touch “Voice Name” and enter the name to assign to the detector (for example: “smoke”).
**05.** Touch “OK” to confirm.
**06.** Touch “OK” again and then insert the battery in the detector. The control unit emits a confirmation beep (3 beeps indicate that the detector is already present).

**- MAD6 (flood sensor)**: this must be connected by cable to MAD1; to program, see paragraph 7.4.4.

### 5.4.7 - Programming a siren

As well as the siren incorporated in the control unit, additional radio sirens are available, which if fitted in the system must be associated with the control unit as follows:

*Indoor siren (MASI1):*

**01.** Insert the batteries in the siren.
**02.** Within 60 seconds, use the touchscreen or remote control to activate and deactivate the alarm (the siren emits 6 confirmation beeps).
**Important –** This operation must be performed each time the siren batteries are changed.

*Outdoor siren (MASO1)*

**01.** Access the programming menu
**02.** On the touchscreen, touch “Devices” and then “Other devices”.
**03.** Select a device from the list and compile the next screen with the following parameters:
• **Name** Touch “Name” and enter the name to assign to the device (for example: “Siren”). Touch “OK” to confirm.
• **Voice name** Touch “Voice Name” and record the name to assign to the device (for example: “Siren”).
**04.** Touch “OK” to confirm.
**05.** Touch “Ok” again and then insert the batteries in the siren (the control unit emits a confirmation beep).
**06.** Then fix the siren to the wall, following the instructions in chapter 7.
**07.** When the cover is closed, the siren emits a beep and starts to flash. At this point deactivate the alarm immediately via the touchscreen or remote control.
**08.** The siren then emits 6 beeps to indicate completion of programming.

### 5.4.8 - Programming voice and text messagess

This procedure enables the programming of 6 voice messages and 6 text messages. For each one:
a) select the event that generates delivery of the voice (or text) message;
b) record the voice message or write the text message (**maximum 20 characters**).

After completing the initial phase, the message must then be associated with the telephone numbers present in the phone book (see paragraph 5.4.9).

After this, in the event of an alarm, the control unit will send the set voice and text messages to the envisaged numbers. The user will then be able to listen to the recorded message and the name or the device or person generating the alarm (for example: “Warning: intrusion at seaside house! ... kitchen detector!).

**• Note for voice message N° 7.**
When the user calls the control unit for remote management, he/she will hear **voice message n° 7**. The control unit uses this message to remind the user how to interact with it. Therefore record message no. 7 with the following phrase:

- to check the control unit status, press **0**, **#**
- to deactivate the alarm, press **0**, ✱, **0**, **#**
- for total alarm activation, press **0**, ✱, **1**, **#**
- to activate zones A and B: press **0**, ✱, **2**, **#**.

***Programming voice messages:*** *the text messages are available exclusively via the GSM line*

**01.** Access the programming menu
**02.** On the touchscreen, touch “Messages” and then “Voice messages”.
**03.** Select a message to be programmed from the list (for example “Voice Msg 1) and compile the following parameters:
• **Event** Touch “Event” and select the event that generates delivery of the message (see table 2 for an overview of the events).
***Note*** *- If the event “Al. zone” is selected the associated zones must be specified.* Touch “OK” to confirm.
• **Voice Msg.** Touch “Voice Msg. ” and record the message for the selected event (see message examples in table 2).
**04.** Touch “OK” to confirm.

*Programming text messages*

**01.** Access the programming menu
**02.** On the touchscreen, touch “Messages” and then “Text messages”.
**03.** Select a message to be programmed from the list (for example “Text Msg 1) and compile the following parameters:
• **Event** Touch “Event” and select the event that generates delivery of the message (see table 2 for an overview of the events).
***Note*** *- If the event “Al. zone” is selected the associated zones must be specified.* Touch “OK” to confirm.
• **Text** Touch “Text ” and write the message for the selected event (see message examples in table 2). Touch “OK” to confirm.
***Note*** *- If the event “Al. zone” is selected the associated zones must be specified.*
**04.** Touch “OK” to confirm.

### 5.4.9 - Programming numbers in the phone book

This procedure enables memorisation of the telephone numbers of the persons receiving the previously set voice and text messages. For each number it is also possible to specify additional technical type text messages (see **table 3**). These technical type text messages are already present and do not need to be created.

*Memorising a number:*

**01.** Access the programming menu
**02.** On the touchscreen, touch "Phone book", select a position (e.g. "Position 2") and then touch "Add".
**03.** Compile the following fields:
- **Name:** name of the user to be called.
- **Number:** telephone number of the user to be called.
- **Voice Msg.:** list of voice messages to be sent to this number.
- **Text Msg.:** list of text messages to be sent to this number.
- **Tech. text:** select "yes" to enable reception of **all** technical text messages (see **table 3**).

**04.** Touch "OK" to confirm.

*Modifying or deleting an existing number:*

**01.** On the touchscreen, touch "Phone book" and select a name.
**02.** Touch "View" to modify, or "Delete" to remove.

### 5.4.10 - Programming keys for emergency or deterrence requests

This procedure enables programming of keys for emergency or deterrence requests, present on remote controls and keypads.

**01.** Access the programming menu
**02.** On the touchscreen, touch "Devices" and then "Deterrence" or "Emergency".
**03.** In the list displayed, touch a line and complete the next screen with the following parameters:
- **Name** Touch "Name" and enter the name to assign to the event (for example: "emergency"). Touch "OK" to confirm
- **Voice name** Touch "Voice Name" and record the name to assign to the event (for example: "grandmother emergency").

**04.** Touch "OK" to confirm.
**05.** Touch "OK" again and then, on the remote control (or keypad) the icon ◎ or ⚠; press and hold the required emergency or deterrence alarm key for 10 seconds (the control unit emits a confirmation beep; 3 beeps indicate that the remote control is already present).
**06.** Touch "OK" to confirm.

**To activate delivery of the emergency or deterrence request voice or text messages, see paragraphs 5.4.8 and 5.4.9.**

### 5.4.11 - Programming keys for emergency or deterrence requests

As well as the main touchscreen, a maximum of 3 other keys may be used for this function.

**01.** Insert the batteries in the NEW touchscreen
**02.** Touch [🔧] and scroll through the list with ›, then touch 
**03.** In the main menu of the OLD touchscreen, touch the icon  , scroll through the list with the arrow icon › and select 
Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**05.** Touch "**Devices**", and then "**Touchscreen**" and select one from the 3 available.
**06.** Touch "**Add**" and then "**OK**".
**07.** On the NEW touchscreen, touch 
**08.** Touch "**OK**" to confirm.

*Modifying or deleting an existing touchscreen:*

**01.** Touch "**Devices**", then "**Touchscreen**" and select the touchscreen to be deleted.
**02.** Touch "**Rename**" or "**Delete**". Touch "**OK**" to confirm.

**TABLE 2**

| Event | Example of message to record! |
|---|---|
| NO EVENT | |
| AL. ZONES A,B,C | *this regards all indoor and outdoor intrusion detectors – example of voice message to record: "Warning: intrusion alarm at home of Rossi, via Pascoli 10 Rome".* |
| TAMPER | *all tamper-proof devices can trip this alarm – example of voice message to record: "Warning: tamper alarm at home of Rossi, via Pascoli 10 Rome".* |
| DETERRENCE | *alarm activated manually by the user via transmitter or keypad – example of voice message to record: "Warning: danger at home of Rossi, via Pascoli 10 Rome".* |
| EMERGENCY | *alarm activated manually by the user via transmitter or keypad – example of voice message to record: "Warning: emergency request at home of Rossi, via Pascoli 10 Rome".* |
| TECHNICAL | *alarm activated by technical sensors (smoke, flooding and other set devices) – example of voice message to record: "Warning: technical alarm at home of Rossi, via Pascoli 10 Rome".* |
| BATTERY LOW | *signal to indicate low battery charge on one of the system devices – example of voice message to record: "Warning: low battery at home of Rossi, via Pascoli 10 Rome".* |
| PERIODIC CALL | periodic message to confirm correct operation of the telephone dialler – *example of voice message to record: "Telephone dialler operation OK at home of Rossi, via Pascoli 10 Rome".* |
| TEMPERATURE | *signal to indicate abnormal temperature (below - 5°C or above 70°C) – example of voice message to record: "Warning: abnormal temperature at home of Rossi, via Pascoli 10 Rome".* |

**TABLE 3**

| Event that causes delivery of text message | Testo dell'Sms già impostato di fabbrica |
|---|---|
| **1** - control unit battery discharged | LOW BATTERY CONTROL UNIT |
| **2** - detector battery discharged | LOW BATTERY PERIPHERAL |
| **3** - supervision failure and/or radio disturbance present (check event log) | SUPERVISION FAILURE OR SCANNER |
| **4** - system armed (message only sent in response to arming via telephone) | CONTROL UNIT ARMED |
| **5** - system disarmed (message only sent in response to arming via telephone) | CONTROL UNIT DISARMED |
| **6** - no successful call on PSTN line (check for any interruptions on the fixed telephone line) | NO SUCCESSFUL CALL ON PSTN LINE |
| **7** - periodic message to indicate that the system is running (message sent after a certain number of programmable hours; see SETTINGS) | PERIODICAL CALL OK |
| **8** - SIM expiry warning message (programmed expiry, see SETTINGS | SIM VALIDITY |

## 5.5 - System settings

This menu enables configuration of some parameters to adapt operation of the control unit to specific applications.

• Automatic activation

Enables the function for arming the control unit (totally or partially) at a required and set time. Disarming is manual only.
**Caution!** – Ensure that the control unit date and time are correct.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Automatic activation”.
**03.** On the screen displayed, touch “Enable” and select “Yes”; then touch “OK” to confirm.
**04.** Touch “Zones” and specify the zones to be activated; then touch “OK” to confirm.
**05.** Touch “Hours” and specify the time of day for automatic alarm activation; then press “OK” to confirm.
**06.** Touch “Minutes” and specify the minutes; then touch “OK” to confirm.
**07.** Touch “OK” to confirm.

• Exit time

Enables entry of the time delay between activation and effective operation of the alarm system. The factory setting of this delay is 60 seconds. The user is recommended to avoid excessively short intervals to avoid rushed exits.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Exit time”.
**03.** In the screen displayed, enter the time in seconds (from 0 to 99) and touch “OK” to confirm.

• Detector disable

If necessary a detector in the system may be temporarily disabled. This procedure does not delete it, but simply disables use (the alarms sent from these sensors are not tracked, even in the Events List).
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Detector disable”.
**03.** In the list displayed, touch the detector to be disabled. Touch “OK” to confirm

• Periodic call

This enables delivery of technical text message n° 7 (see table 3) by the control unit, at a precise time of day and at a set periodic interval (for example, at 20:30, repeated every 24 hours).
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Periodic call”.
**03.** On the screen displayed, touch “Enable” and select “Yes”; then touch “OK” to confirm.
**04.** Touch “Hours” and specify the time of day for text message reception; then touch “OK” to confirm.
**05.** Touch “Minutes” and specify the minutes; then touch “OK” to confirm.
**06.** Touch “Frequency” and specify after how many hours to receive the message since the last time of delivery (for example, “12”, i.e. after 12 hours; “24”, i.e. after 24 hours, etc.). Touch “OK” to confirm.
**Caution!** – After programming the frequency of the periodic call, reception of the technical text message must be programmed on the required telephone numbers (see paragraph 5.4.9).

• Alarm type

This enables association of each zone (A, B, C) with the required acoustic signal, selectable from a standard siren sound and a deterrent voice message which can be recorded on the outdoor siren.
In this way, when a detector trips the alarm, the siren emits the programmed sound for the zone where the detector is located.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Alarm type”.
**03.** In the screen displayed, select a zone and associate the type of alarm required: “Siren” (traditional siren sound) or “Voice” (personalised voice message recorded on the outdoor siren. To record, see chapter “Further information”). Touch “OK” to confirm.

• Radio interference

This enables control of radio interference in the surrounding area. The maximum duration of disturbance must be set, over which the control unit signals the event by activation of the siren and delivery of technical text message no. 3.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Radio interference”.
**03.** On the screen displayed, touch “Enable” and select “Yes”; then touch “OK” to confirm.
**04.** Touch “Duration”, enter the time in seconds (from 0 to 99) and touch “OK” to confirm.
***Note*** *– The factory setting is 60 seconds; this should not be reduced.*
**Caution!** – After programming the radio interference, reception of the technical text message must be programmed on the required telephone numbers (see paragraph 5.4.9).

• Supervision

This enables a periodic check to ensure correct operation of communication between devices. Absence of a signal on a device, for approx. 3 hours, generates a specific signal on the control unit and delivery of technical text message no. 3.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Supervision”.
**03.** On the screen displayed, select “Active”. Touch “OK” to confirm.
**Caution!** – After programming supervision, reception of the technical text message must be programmed on the required telephone numbers (see paragraph 5.4.9).

• Administrator code *(item displayed only if programming mode is accessed with the “administrator” code)*

This enables programming of the administrator code.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Admin. code”.
**03.** In the screen displayed, enter a personal code of at least 4 digits. Touch “OK” to confirm.

• User code *(item displayed only if programming mode is accessed with the “user” code)*

This enables programming of the user code.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “User code”.
**03.** In the screen displayed, enter a personal code of at least 4 digits. Touch “OK” to confirm.

• Volume

This enables adjustment of the volume of the beeps emitted by the control unit during total or partial activation and deactivation.

• Date and Time

This enables the user to update the system date and clock; these data are important as they are used for automatic activation and to record the times of events.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Date and Time”.
**03.** In the screen displayed, touch “Year”, “Month”, “Day”, “Hours”, “Minutes” and enter the values for each. Touch “OK” to confirm.

• Daylight saving time

This function enables the user to enable/disable automatic changeover to daylight saving time.
**01.** Access the programming menu.
**02.** On the touchscreen, touch “Settings” and then “Daylight saving time”.
**03.** In the screen displayed, touch “Yes” to activate automatic management of daylight saving time or “No” to disable. Touch “OK” to confirm.

• Line priority

This enables selection of the priority telephone line for use by the control unit in the event of an alarm.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” and then “Line priority”.
**03.** On the screen displayed, touch “First PSTN” or “First GSM”, to specify which of the two lines is to be used first for sending alarm notification signals. Touch “OK” to confirm.

• SIM validity

This enables entry of the telephone SIM card expiry and delivery of the technical text message n° 8 (see table 3) to notify the user of this expiry.

**01.** Access the programming menu.
**02.** On the touchscreen, touch “Settings” and then “SIM validity”.
**03.** On the screen displayed, touch “Enable” and select “Yes”; then touch “OK” to confirm.
**04.** Touch “Expiry” and enter after how many years the SIM card expires. Touch “OK” to confirm.

• IMEI code

This enables display of the IMEI code of the GSM module on board the control unit.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” followed by “IMEI” to display the code

• Firmware version

Enables display of the control unit firmware version.
**01.** Access the programming menu
**02.** On the touchscreen, touch “Settings” followed by “Firmware version” to display the code.

• Deletion

This enables total deletion of the control unit parameters, including the code of the touchscreen and events log. **Caution!** – this operation is irreversible and requires reprogramming of the touchscreen on the control unit.

**01.** Access the programming menu.
**02.** On the touchscreen, touch “Settings” and then “Deletion”.
**03.** On the screen displayed, touch “Yes” to delete all parameters of the control unit or “No” to cancel the operation. Touch “OK” to confirm.
**04.** 1 beep from the control unit confirms deletion.

## 6 - USING THE TOUCHSCREEN AS A REMOTE CONTROL FOR AUTOMATIONS

The touchscreen can also be used as a remote control for different types of automation in the Mhouse range (gates, doors, awnings, shutters, lights etc.).

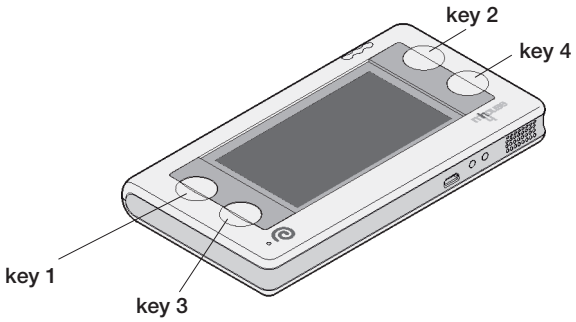
### 6.1 - Creating commands on the touchscreen

Up to 16 commands can be programmed. Each one must be assigned a specific name (for example, “open gate 1”) and a category (type) in which the automation is classified (e.g. “Gates”). Before starting the procedure, consult the **list of commands available for programming in “Mode II”** (in the manual of the automation to be controlled, in the section dealing with memorising transmitters or remote controls) to check how many and which commands are required to ensure correct operation. For example, in the case of a gate, the single command “Open” may be sufficient as closure is automatic; a control receiver of a light may need 2 commands: one for ON and one for OFF commands, while an awning automation may require 3 commands: Open, Stop, Close.

*To create a new command:*
**01.** Turn on the touchscreen and on the main menu, touch the icon “**Commands**” ;
**02.** Scroll to the right through the icons by touching the symbol > ;
**03.** Touch “**Set**” , followed by “**Commands**”.
**04.** On the list displayed, touch “**Command 1**”, and then “**Name**”; enter the name of the command (for example, “open gate”; “close garage”, etc.); and touch “**OK**” to confirm.
**05.** Touch “**Type**”, then select one of the three types of the automation to be controlled; then touch “**OK**” to confirm.

### 6.2 - Programming the 4 keys to the side of the touchscreen

After creating the required commands, 4 immediate keys can be programmed, located to the side of the touchscreen, associating each with the commands most commonly used.




*To program the 4 keys:*
**01.** Turn on the touchscreen and on the main menu, touch the icon “**Commands**” ;
**02.** Scroll to the right through the icons by touching the symbol > ;
**03.** Touch “**Set**” , and then “**Immediate keys**”.
**04.** n the list displayed, touch “**Key 1**” and then select a previously created with procedure 6.1; touch “**OK**” to confirm.
**05.** Repeat point 04 to program any other keys and then touch “**OK**” to confirm.

It is possible to leave keys without assigned commands, or to assign the same command to more than one key.

### 6.3 - Using the touchscreen to send commands

After creating and memorising all required commands, the automation can be controlled as described below.

**01.** Turn on the touchscreen and on the main menu, touch the icon “**Commands**” ;
**02.** Touch one of the 3 types assigned to the specific automation to be controlled.
**03.** Scroll through the list to find the required command and then touch or or press and hold to activate radio transmission )the touchscreen led flashes to confirm transmission).

A command can also be sent directly, using the keys to the side of the touchscreen (only if previously memorised as described in paragraph 6.2).

## 6.4 - Memorising commands in the automation receiver

After creating the required commands, memorise each of these in the receiver of the automation to be controlled. To memorise a command, proceed as follows:

**01.** In the instruction manual of the receiver (or automation) read the operations to be performed for **memorising a command in "Mode II"**. **Caution!** - Do not use the procedure for "Mode I".

**02.** Then perform the procedure and when the request is displayed to touch or press and hold the key of a remote control, touch or press and hold the command on the touchscreen (blue led lit = transmission in progress). To send a command, refer to paragraph 6.3.

## 6.5 - Disabling an existing command

This procedure does not delete a command memorised on the automation; it simply disables transmission. To delete it permanently, refer to the instruction manual of the automation receiver.

*To disable a command:*

**01.** Turn on the touchscreen and on the main menu, touch the icon "**Commands**" ;

**02.** Scroll to the right through the icons by touching the symbol > ;

**03.** Touch "**Set**" and then "**Commands**".

**04.** In the list displayed, touch the command to be disabled.

**05.** In the next screen, touch "**Type**" and the item "**----**"); ; then touch "**OK**" to confirm.

*To disable a key to the side of the touchscreen:*

**01.** Turn on the touchscreen and on the main menu, touch the icon "**Commands**" ;

**02.** Scroll to the right through the icons by touching the symbol > ;

**03.** Touch "**Set**" and then "**Immediate keys**".

**04.** In the list displayed, touch the required key followed by ""**----**"; touch "**OK**" to confirm.

**05.** Repeat point 04 for each key to be disabled and then touch "**OK**" to confirm.

# 7 - INSTALLATION: the control unit and accessories

This chapter describes installation of all devices belonging to the system. The work phases are described and grouped into various sections, each dedicated to a specific device.

## 7.1 - Checking radio and telephone transmission before installation

**After programming all devices on a table (as described in chapters 5 and 6), temporarily position each device at the various envisaged points (read chapter 3) and run the "Control unit" test (7.1.1) and "Dialler" test (7.1.2).**

### — "Control Unit" Test (checking radio transmission between detectors and the control unit) —

On initial installation, run the test with the control unit and detectors positioned provisionally at the envisaged fixing points. This test enables confirmation of whether the control unit can receive the radio signal from the detectors; it also enables a check of the received signal quality.
The test is particularly suitable for systems subject to extreme conditions, with respect to the application limits stated in chapter 3. In these cases a prior check should be made, before final fixture, to ensure that the radio signal emitted by a detector is able to reach the control unit. The test must be repeated periodically.

Perform the test as follows:

**01.** Place the control unit provisionally in the envisaged point.

**02.** Activate the "Control unit" test function:

**03.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon > and select

**04.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.

**05.** Touch "**Test**" followed by "**Control Unit**".

**06.** Touch **1** to run the test.

**07.** Perform the test: from the envisaged point of final installation, transmit a radio signal from each of the various devices.
*Example: open the window or pass in front of a volumetric detector (MAD2).* The control unit emits a beep to confirm signal reception.

**08.** The check test results on the touchscreen, touch **2** and check the list of recorded transmissions on display.
For each transmission it is possible to display the name of the detector that transmitted the signal and the signal quality on both transmission frequencies; *for example, if the display shows*:

ALL CAMERA 1
C1: ■■■ C2: ■■■

*this means:*
AL = alarm event
ROOM 1 = name of receiver
C1 = 433 MHz radio frequency
C2 = 868 MHz radio frequency
■■■ = optimal signal
■■ = good signal
■ = sufficient signal
= no signal

If there is no signal (■) on **one** of the frequencies (C1 or C2) the detector is probably outside the maximum range or there is disturbance on this frequency; in any event a single frequency should still be sufficient to guarantee correct system operation.
However, if **both** frequencies display nothing, a practical test must be made by arming the control unit and generating the alarm. Technical practices envisage the test when the signal is weak: in normal conditions the system should continue to be operative.
A detector signal may at times be optimal (■■■) and at other times good (■■): this may depend on random interference or the movement of persons in the area during testing. This often occurs with remote controls as their position with respect to the control unit can easily change.

At the end of the test, if results are not satisfactory, move the point where the control unit is to be fixed (or, when possible, the detector fixing point) and repeat the test.

***Notes on control unit testing***

- Some detectors transmit the alarm twice; therefore there may be two consecutive signals on the list.
- In normal conditions, after a volumetric detector has detected and transmitted the first alarm, it remains inactive for 3 minutes Therefore, to test these detectors, ensure that there have been no persons in the area for at least three minutes beforehand. When the detector battery compartment is opened, the 3-minute block is disabled; therefore to facilitate the procedure, run the test with the battery compartment open.

**VERY IMPORTANT** - **At the end of installation of all devices, repeat this procedure 7.1.1 for a final check and ensure correct operation of the system in general.**

### — 7.1.2 - "Dialler" Test (to ensure correct telephone communication of the control unit) —

This test enables the user to check whether the control unit can make a telephone call, on the land line or mobile network, to a required number. Before proceeding with the test:

**a)** ensure that the telephone land line is connected to the control unit (**fig. 7**). **Important! – If a broadband line is used, a special filter must be fitted between the telephone socket and control unit; see figure 7a**;

**b)** insert and enable the SIM card (see chapter 7.3);

**c)** ensure that all voice and text messages have been programmed (see chapter 5.4.8).

Perform the test as follows:

**01.** Place the control unit provisionally in the envisaged point.

**02.** Activate the "Dialler" test function:

**03.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon and select .

**04.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.

**02.** Touch "**Test**" and then "**Dialler**".

**03.** On the numerical keypad displayed, dial the telephone number to receive a voice or text message; then touch "**OK**" to confirm.

**04.** In the list displayed, select one of the voice or text messages previously programmed and touch "**OK**" to confirm**.**

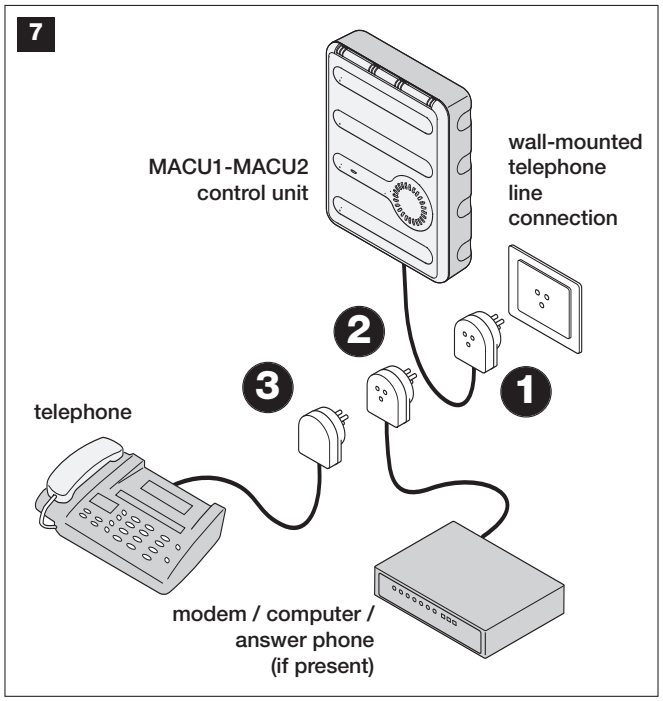
**05.** Select the type of line (PSTN or GSM) to be used then touch "**OK**" to confirm.

**06.** Wait for message reception. The test can be interrupted by touching "**OK**".

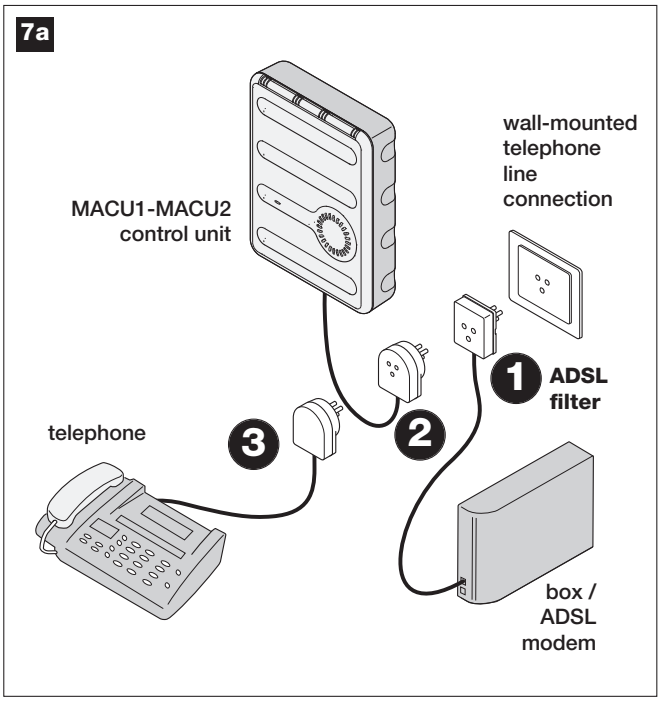
If the test fails, the causes may be:
- SIM card not inserted correctly;
- PIN number not disabled;
- no messages or calls are received = try moving the control unit to a zone with better GSM coverage or change telephone provider;
- no calls are made on the PSTN land line (also broadband) = the cause may be disturbance on the telephone line; in this case to override the call enter the symbol ✱ before the telephone number (e.g. ✱0421 987654).

**If the call is made correctly, the symbol ✱ must be added to each number entered in the Phone book.**
*Note - With the insertion of ✱, the system makes the call on the land line (PSTN), and also automatically sends a security call using the GSM connection ad eseguire la chiamata sulla linea telefonica fissa (PSTN), invia automaticamente anche una chiamata di sicurezza utilizzando il collegamento GSM.*

**Traditional telephone line**




**Telephone line with broadband**




### — 7.1.3 - Final installation of all system devices —

Proceed with final installation of all devices, as described in the sections below in this chapter, dedicated to each device.

## 7.2 - Touchscreen (MATS1)

### 7.2.1 - OPERATION (fig. 8)

MATS1 is powered by 2 batteries (the factory supplies non-rechargeable versions). On insertion of the batteries, the touchscreen switches on automatically, ready for immediate use (see paragraph 7.2.2 for initial activation).

It is equipped with an on/off key (**fig. 8**) and an automatic shut-down function to limit battery consumption; in fact, after a few seconds since the display was touched the device turns off automatically (the time is settable); to reactivate simply touch the display or pick up the device (it is equipped with a movement sensor).

As an alternative to the batteries supplied, rechargeable batteries may be used and a battery charger (optional) to be connected to the USB port or the special desktop/wall-mounted support with built-in charger (MATSC1).

MATS1 is equipped with the following indicator leds:

- **Red led** = indicates when the battery charge level is low
- **Orange led** = indicates the charging phase; this is lit when the MATS1 is activated on the MATSC1 support or directly connected to the battery charger via the USB port.
- **Green led** = indicates completion of battery charging.
- **Blue led** = indicates transmission of commands to the control unit and automations.

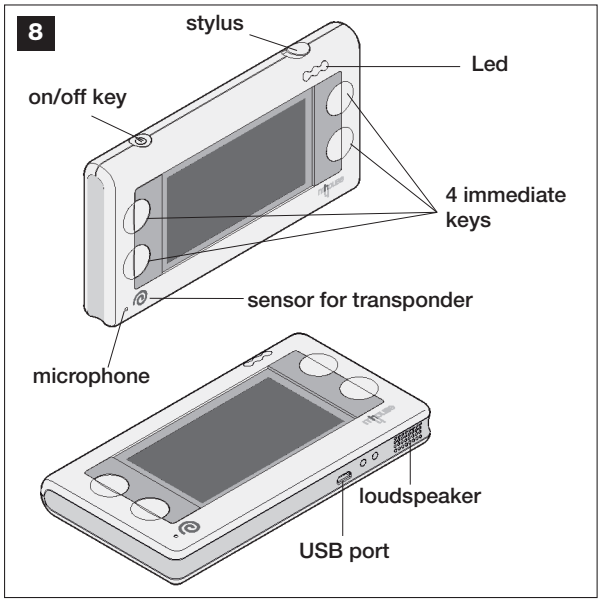
### 7.2.2 - INITIAL ACTIVATION AND PROGRAMMING (fig. 9):

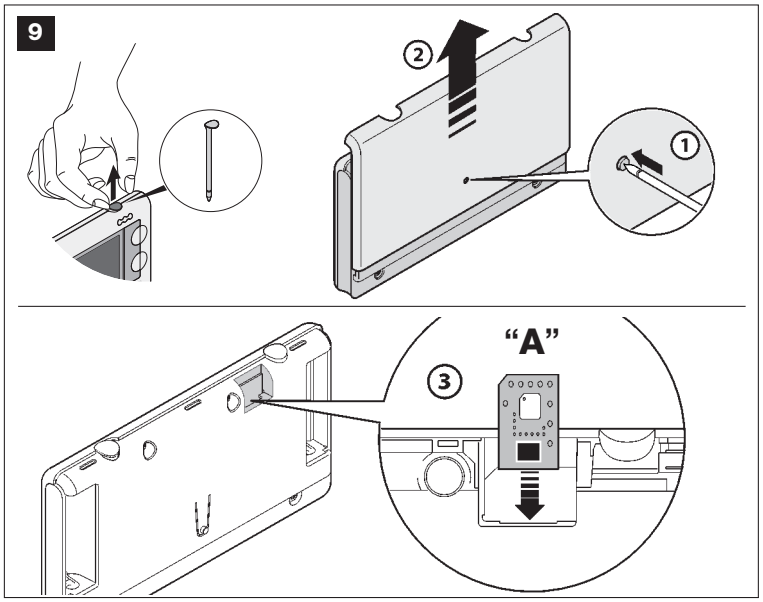
When activating the unit for the first time, proceed as follows:

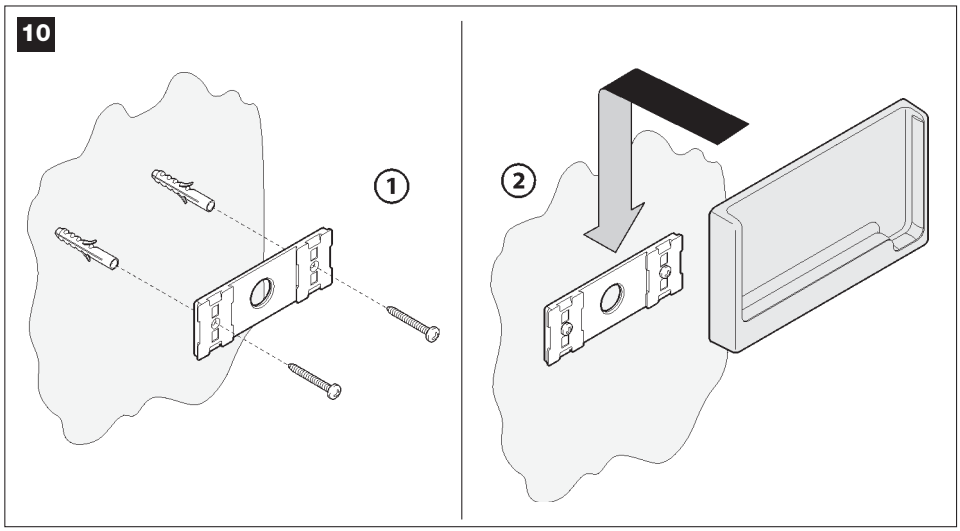
**01.** Open the cover (**fig. 1**): press at point 1 and push the base (point 2) upwards;
**02.** Insert memory board "**A**" (enclosed with this instruction manual);
**03.** Before inserting the batteries, carefully read paragraph 5.1 (associating the touchscreen with the control unit - chapter 5).
**Caution!** – Only insert the batteries when requested, in observance of the specified polarity.

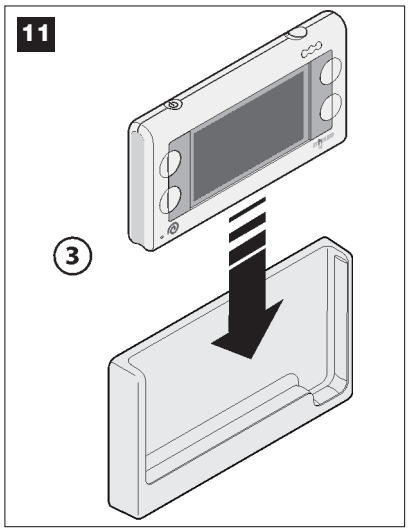
### 7.2.3 - INSTALLING THE WALL-MOUNTED SUPPORT

**01.** Mark the fixing points on the wall, drill the holes and insert the plugs supplied, securing the support by means of the screws supplied (**fig. 10**):
**02.** Attach the support (**fig. 11**) and insert the touchscreen.



### 7.2.4 - USING THE TOUCHSCREEN

To understand how to use and navigate the touchscreen menus, refer to chapter 5.

### 7.2.5 - USING THE INTEGRATED BADGE READER (transponder badge)

The touchscreen has a transponder badge reader that can be set to two modes: “always active” or “temporarily active”. When the reader is active the icon appears at the bottom left of the display, which can be enabled and disabled as required.

To activate and deactivate the alarm using a previously programmed transponder badge (see paragraph 5.4.3), simply move it close to the symbol on the touchscreen (**fig. 8**).

**Reader mode “always active”**: function available only when MATS1 is connected to the power supply unit and the “**automatic shut-down**” function is disabled. To disable the “Automatic shut-down” function: **01.** Touch the icon ; **02.** Touch the icon and select “**Never**”; **03.** Touch “**OK**” to confirm.

**Reader mode “temporarily active”**: function available when MATS1 is powered by non-rechargeable batteries (standard) or when MATS1 is connected to the power supply unit and the “automatic shut-down” function is enabled.

In this mode the reader is activated each time the touchscreen is reactivated (by touching the display or by means of the on/off key, or by moving it, if the “movement” option is enabled), or by touching the corresponding icon in the Alarms menu.

To enable the “Movement” function: **01.** Touch the icon ; **02.** Touch the icon and select “**Enabled**”; **03.** Touch “**OK**” to confirm.

### 7.2.6 - USING THE TOUCHSCREEN AS VOICE RECORDER

The touchscreen has a voice recorder function which the user can use to record and listen to messages. This function is accessed directly from the main menu, by touching the icon “**Memo**”.

*<u>To record a new message:</u>*

**01.** Turn on the touchscreen and on the main menu, touch the icon “**Messages**” followed by “**New**”;
**02.** Assign a name to the new message to be recorded and touch “**OK**”.
**03.** In the screen displayed, touch the key to start recording; then at 30-50 cm from the touchscreen, record the message in a clear voice. On completion, touch to stop the recording.
**04.** Lastly:
- touch to listen the message again;
- touch to save the message permanently;
- touch to remove the message and record a new on.

The symbol indicates the presence of new messages on the voice recorder unit.

*<u>To listen to a message:</u>*

**01.** Turn on the touchscreen and on the main menu, touch the icon “**Messages**” followed by “**List**”;
**02.** Scroll through the messages in the list and select which one to listen to:
- to listen to the message, touch ;
- touch , to delete the message.

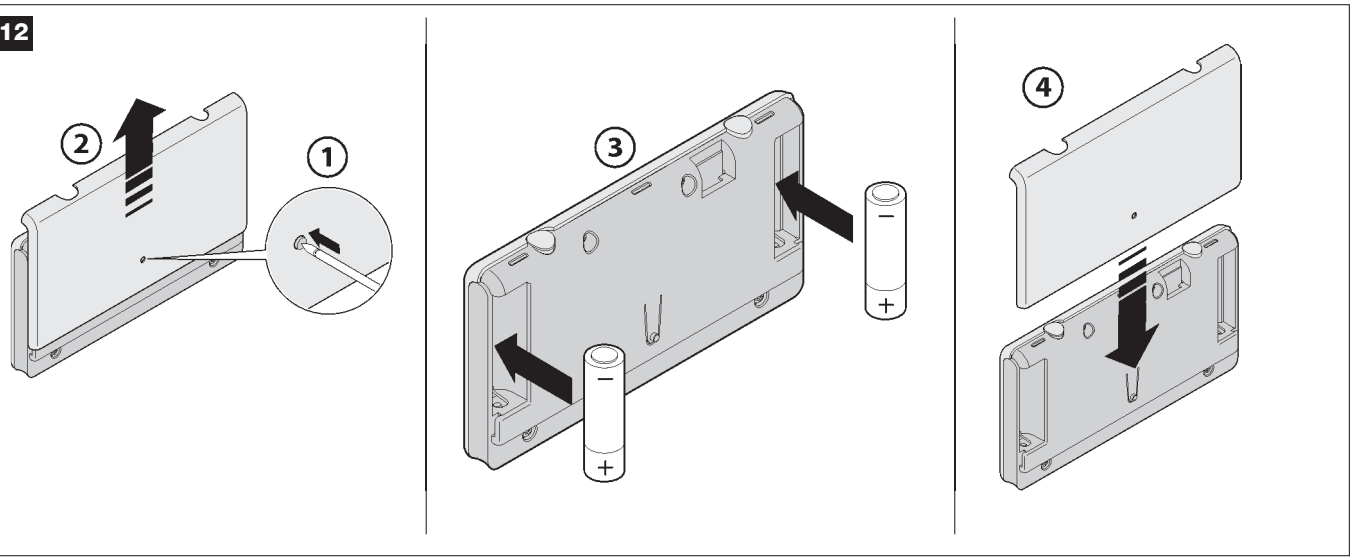
After listening to the new messages, the symbol disappears from the lower section of the screen .

### 7.2.7 - BATTERY REPLACEMENT (fig. 12)

Only replace the batteries when requested on the touchscreen. Use two AA type 1.5 V batteries.

**01.** Open the cover and replace the batteries with 2 of the same type, in observance of the specified polarity.
**02.** Close the cover.

**12**



## 7.3 - Control unit (models MACU1 - MACU2)

### 7.3.1 - SPECIAL WARNINGS

- To ensure correct installation, read chapter 3.
- **Before proceeding with installation, associate the touchscreen with the control unit as described in chapter 5 - paragraph 5.1.**

### 7.3.2 - INSTALLATION

**01.** Open the box (**fig. 13**);
**02.** Remove part "**a**" and keep in a safe place (**fig. 14**);
**03.** Remove part "**b**" (**fig. 15**);
**04.** To connect the telephone line, remove part "**c**" (**fig. 16**).
**05.** Mark the 3 fixing points on the wall and the 4th point for part "**a**" (**fig. 17**): **use the template at the end of the manual with the outline of the control unit to a scale of 1:1**;
**06.** Drill the wall, insert the plugs supplied and fix (before the control unit) part "**a**" with the screw supplied (**fig. 18**). **Caution! - This part is fixed to the hole of part "b", previously removed**.
**07.** Fix the control unit to the wall using the screws supplied.
**08.** Connect the telephone cable (**fig. 19**).
**09. On the control unit with GSM module, insert the SIM card (fig. 20).**
**Note -** Ensure that the control unit does not have the batteries inserted. The control unit accepts any type of SIM card provided that it has voice and text message services. **Before inserting it, disable the PIN request using a mobile phone (or configure it using the PIN number 1234)**.
**10.** Insert the batteries as shown in **fig. 21**, in observance of the specified polarity: 1 beep confirms activation;
**11.** Close the box (**fig 22**).

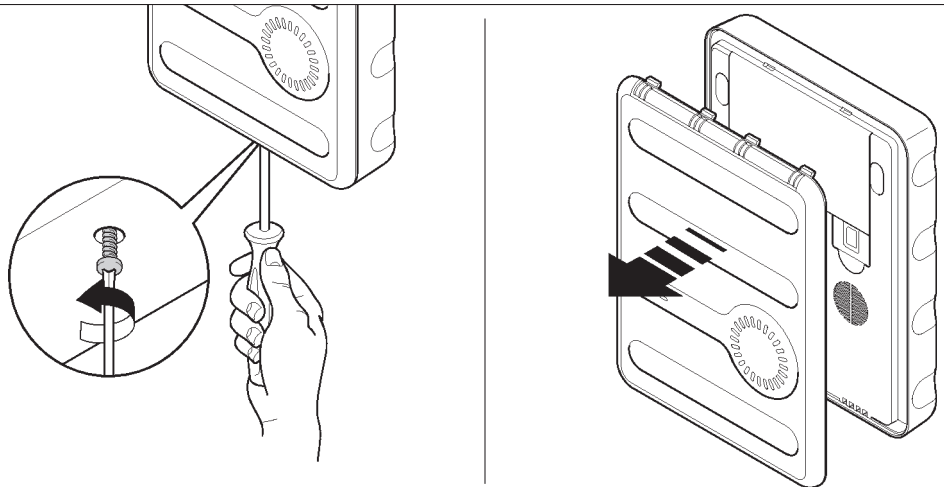
To program the control unit, refer to chapter 5.

### 7.3.3 - CONTROL UNIT BATTERY REPLACEMENT

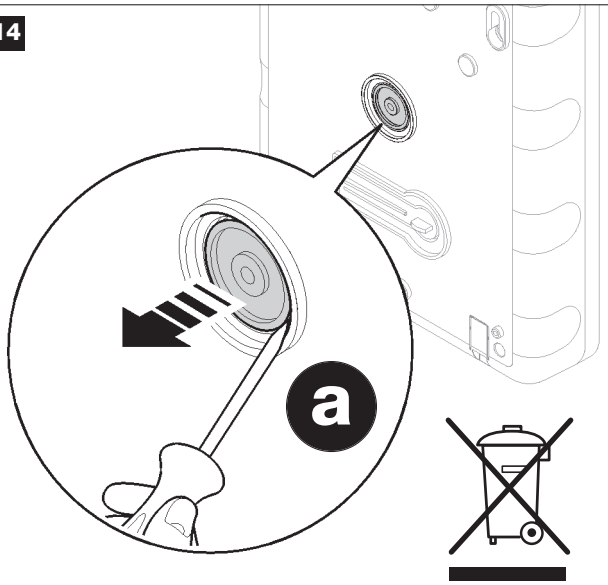
Only replace the batteries when signalled by the control unit. Use 4 batteries, 1.5 V type D.

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon and select
**02.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.
**03.** Open the cover (**fig. 13**) and then the control unit battery compartment (**fig. 21**) and replace the batteries with 4 of the same type, in observance of the specified polarity.
**04.** Close the control unit box (**fig 22**).
**05.** Exit programming mode.

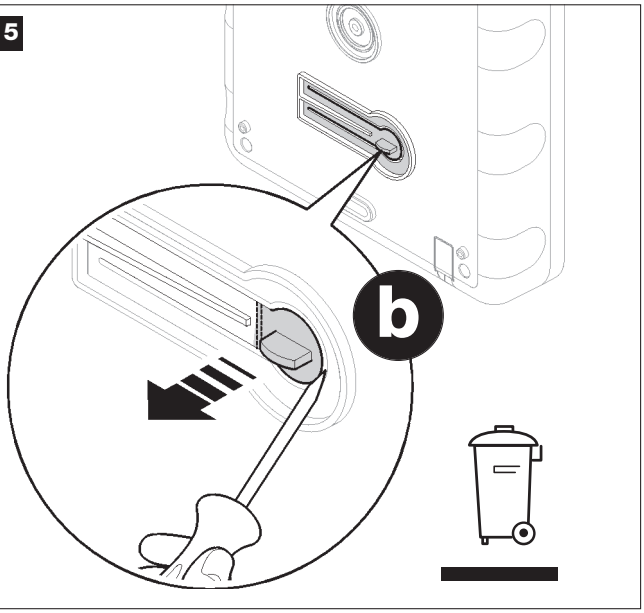
**13**



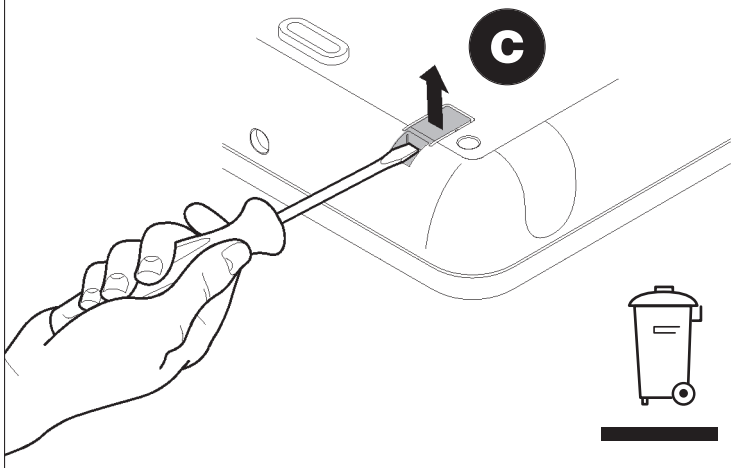
**14**

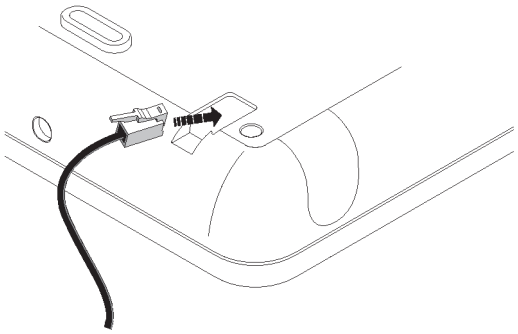



**15**

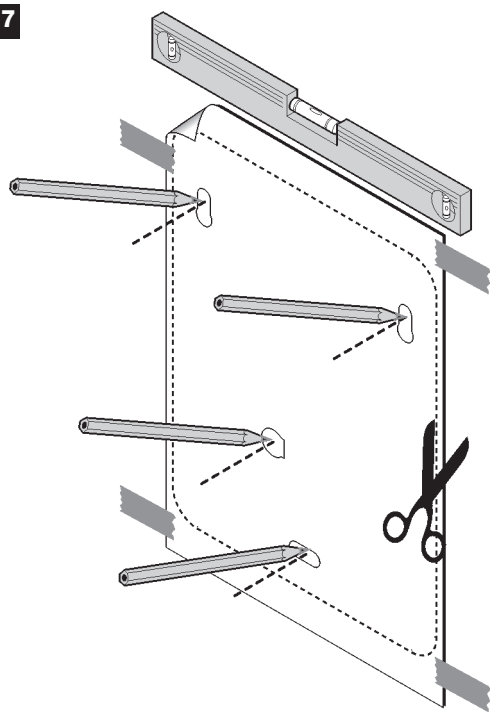


**16**

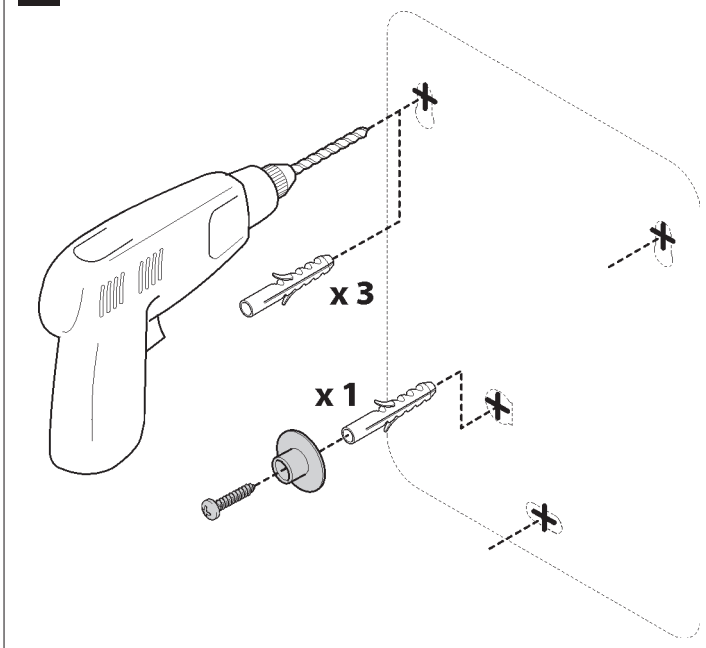


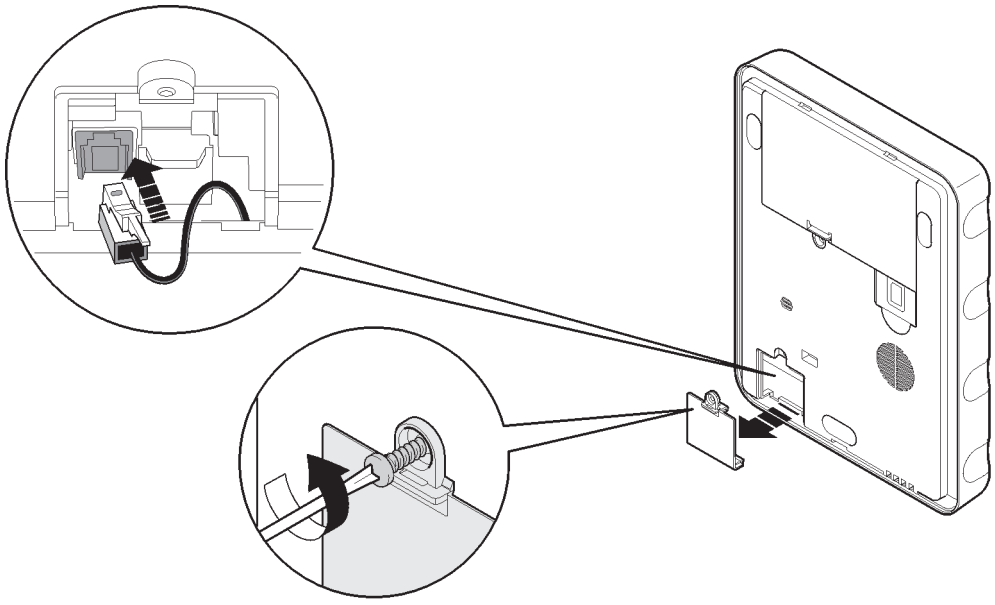
**17**



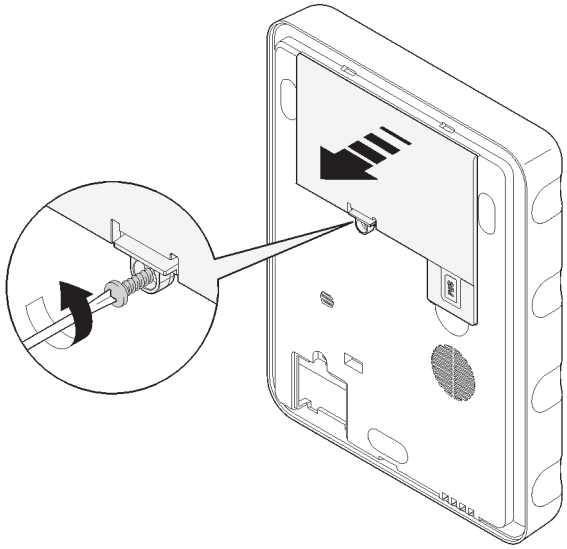
**18**

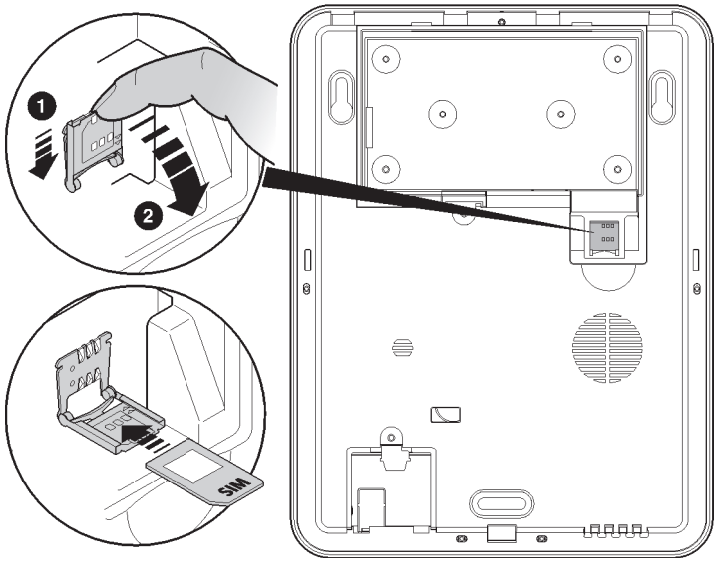



**19**

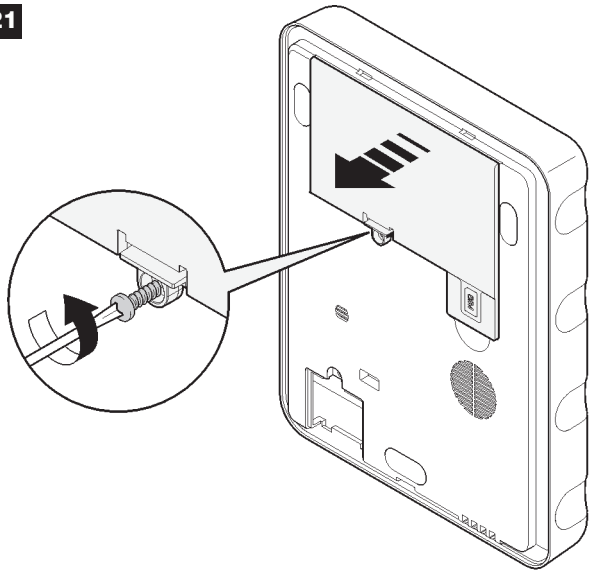


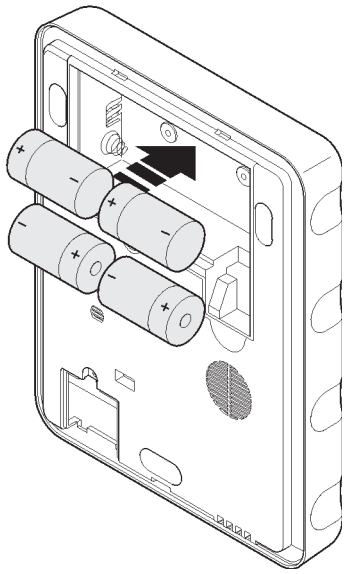
**20**



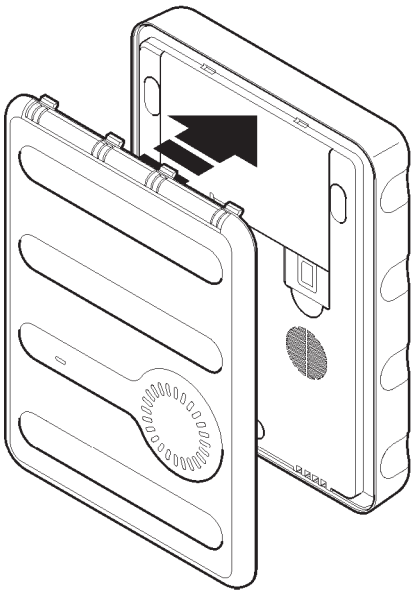


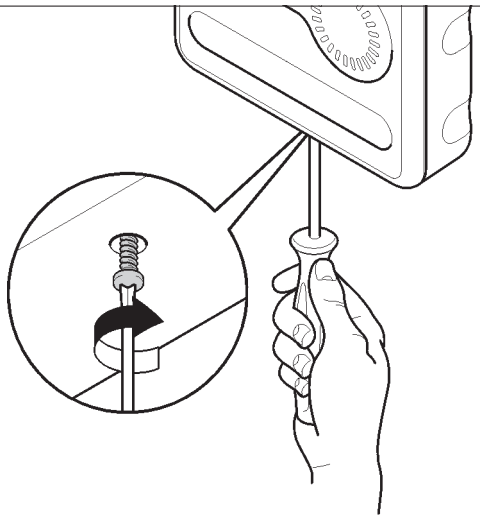

**21**





**22**





## 7.4 - Door and window opening detector (MAD1)

### 7.4.1 - OPERATION

MAD1, detects opening doors and windows (by separation of the magnet from the sensor) and transmits the event to the associated control unit. It is also possible to connect an additional detector by cable (e.g. a sensor for shutters).

Equipped with LED indicator visible from the outside and 6 dip switches for programming.

Types of alarm signal sent to the control unit:

– **Intrusion alarm:** alarm signal tripped by opening of the door or window; the led lights up for 1 second to confirm transmission of the event.
– **Alarm of second detector (via cable):** MAD1 can be programmed so that it transmits 2 differentiated alarms (transmission of 2 different alarm codes: one for the magnetic contact and one for the second detector connected by cable to MAD1.
– **Battery low**: the low battery signal is by means of 4 quick flashes of the led and 4 beeps, following opening of a door/window. The event is also transmitted to the control unit and memorised in the "Events list".
– **Supervision:** approximately every 40 minutes, MAD1 sends a signal to the control unit to confirm correct operation (operative status).
– **Tamper alarm:** alarm signal caused by an attempt at tampering (opening of the battery compartment and/or detachment of the device from the fixing surface).

### 7.4.2 - STANDARD PROGRAMMING

The touchscreen is required for programming; see chapter 5 (paragraph 5.1).

Before proceeding with programming, the factory settings of MAD1 may be modified if required by adjusting the dip switches (**fig. 23**) as follows: **IMPORTANT! - Before any operation, remove the battery from the detector** (**fig. 28**)**.**

• **Open door/window signal**
If required (for the alarm activation phase only) the control unit can signal the presence of doors/windows left open, by setting **Dip switch 1** to **ON**.
*Note – When this function is enabled (**ON**) battery lifetime is reduced.*
**Dip switch 1** set to **OFF** = No door/window left open signal.

• **Intruder function**
If an additional intruder protection is required, it can be enabled by setting **Dip switch 4** to **ON**.
*Note – This function is not recommended on door/windows subject to vibrations.*
**Dip switch 4** set to **OFF** = function disabled.

• **Tamper protection disable (anti-detachment)**
If required the anti-detachment protection can be disabled (disabling the tamper device on the rear of the detector - **fig. 24**), by setting **Dip switch 5** to **ON**.
*Note – This function is recommended in the event of fixture on irregular surfaces, subject to vibrations or deformations (due to variations in temperature).*
**Dip switch 5** set to **OFF** = anti-detachment protection enabled.

At this point, MAD1 can be programmed on the control unit:

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select

**02. 02.** Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**03.** Touch "**Devices**", then touch the zone: for example "**Alarm zone B**".
**04.** Select one of the programmable detectors and then touch "**Add 1 detector**".
**05.** Compile the next screen with the following parameters:
• Delay Touch "Delay" and enter the delay time of alarm delivery by the detector (0 Sec = immediate alarm). This delay gives the user time to enter the home and deactivate the alarm without tripping the detector. Touch "OK" to confirm.
• Name Touch "Name" and enter the name to assign to the detector (for example: "kitchen"). Touch "OK" to confirm.
• Voice name Touch "Voice Name" and enter the name to assign to the detector (for example: "kitchen").
**06.** Touch "**OK**" to confirm.
**07.** Touch "OK" again and then insert the battery in the detector. The control unit emits a confirmation beep (3 beeps indicate that the detector is already present).

*If a second detector is required, connected by cable, see paragraph 7.4.3.*

At this point, proceed with installation (paragraph 7.4.4).

### 7.4.3 - CONNECTING A SECOND DETECTOR (BY CABLE)

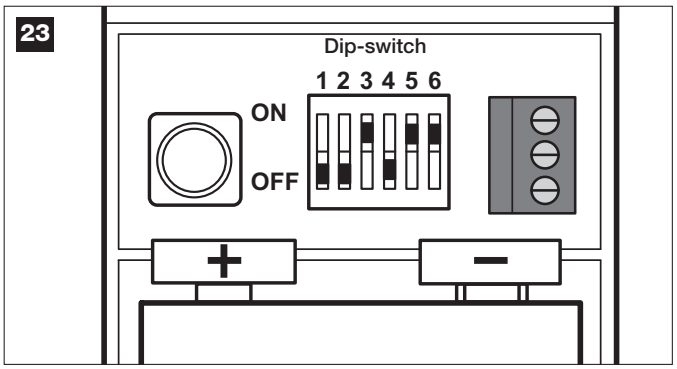
**Caution! – Before connecting an additional detector by cable, MAD1 must be programmed on the control unit (see paragraph 7.4.2).**

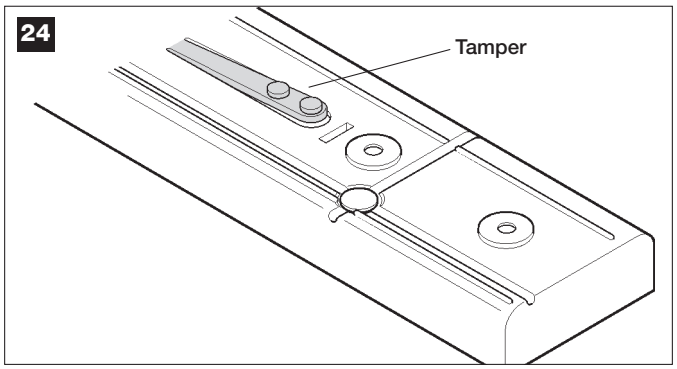
**– Connecting a detector for shutters (pulse counter):**

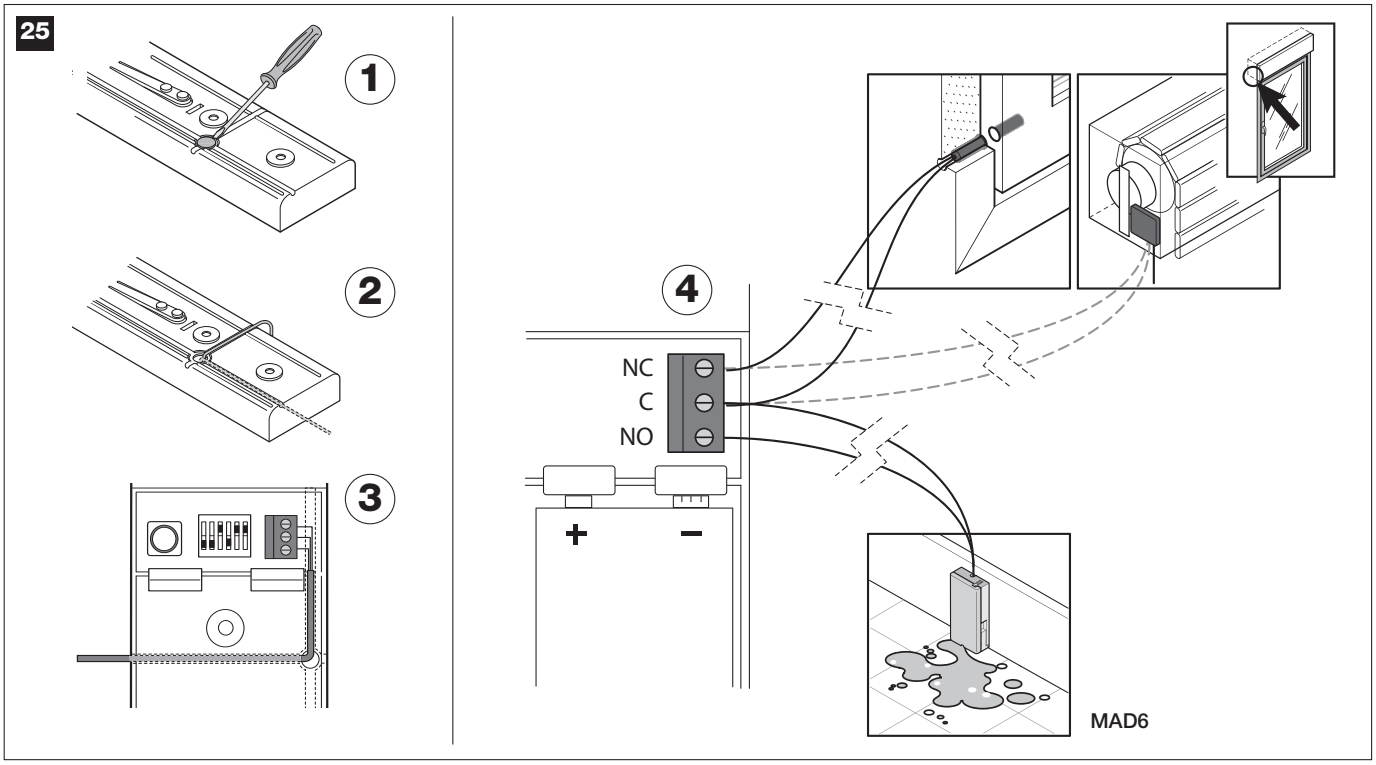
**01.** Remove the battery from the previously programmed MAD1 (**fig. 28**);
**02.** Connect the 2 wires of the additional detector to the inputs NC and C (**fig. 25**).
*Note - Maximum wire section = 0.25 mm*
**03.** On MAD1, set **Dip switch 3** to **ON**;
**04.** Insert the battery again.
If the user wishes to assign different names (and different associated zones) to MAD1 and the second detector by cable, also perform point **05**:
**05.** With the touchscreen, perform the standard programming procedure (paragraph 7.4.2) from point **01** to **07**.
**At point 07**, instead of "**INSERTING THE BATTERY IN THE DETECTOR**" (already present), move **Dip switch 2** to **ON**.

**– Connecting a magnetic contact detector (NC) or a flooding sensor (NO):**

**01.** Remove the battery from the previously programmed MAD1 (**fig. 28**);
**02.** Connect the 2 wires of the additional detector to the inputs NC and C (for the magnetic contact) or NO and C (for the flooding sensor), **fig. 27**;
*Note - Maximum wire section = 0.25 mm*
**03.** On MAD1, set **Dip switch 3** to **OFF**;
**04.** Insert the battery again.
If the user wishes to assign different names and different associated zones to MAD1 with respect to the second detector by cable, also perform point **05**:
**05.** Using the touchscreen, perform the standard programming procedure (paragraph 7.4.2) from point **01** to **07** and at **point 07**, instead of "**INSERTING THE BATTERY IN THE DETECTOR**" (already present), move **Dip switch 2** to **ON**.



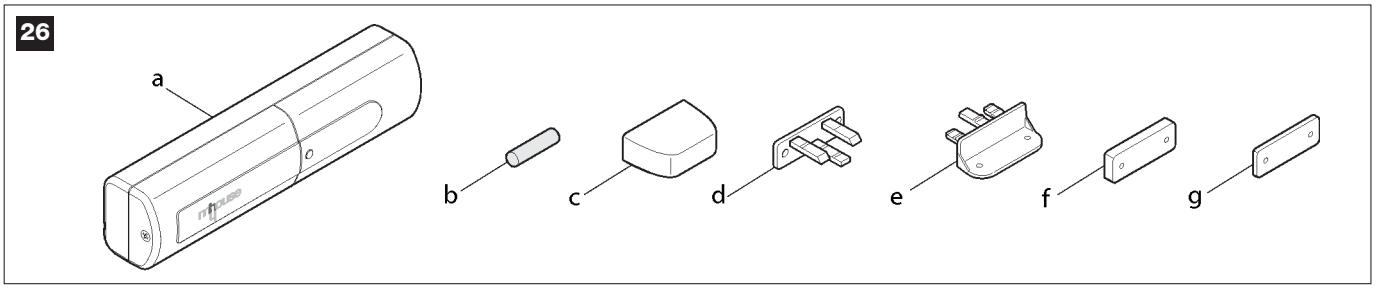

**7.4.4 - INSTALLATION**

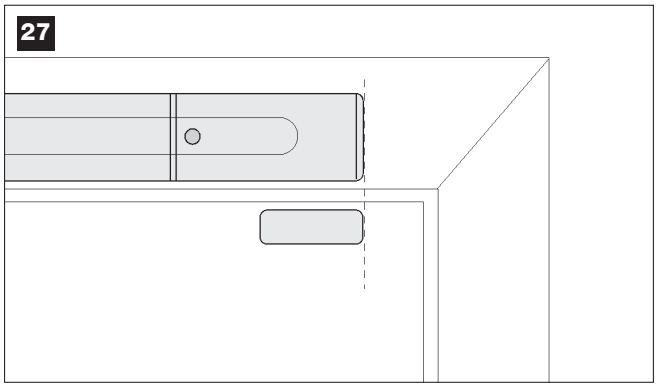
Before proceeding with installation, the detector must be programmed on the control unit.
MAD1 comprises a sensor (**a - fig. 26**), a magnet (**b - fig. 26**), a cover (**c - fig. 26**), 2 types of support (**d/e - fig. 26**) and 2 types of spacer (**f/g - fig. 26**).

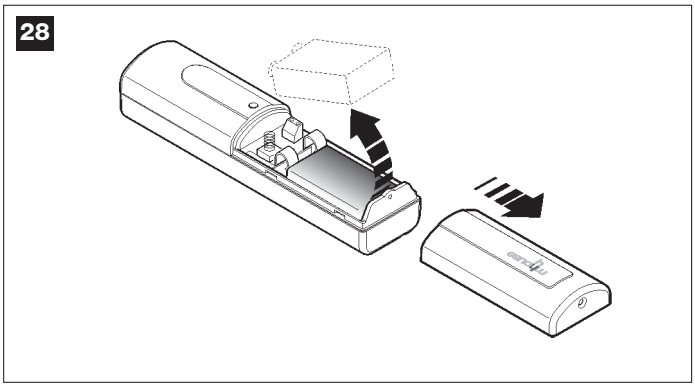
It must be secured to the fixed part of the door/window to be protected, on the opposite side to the hinge, at the point of maximum door/window movement, while the magnet is secured to the mobile section, perfectly aligned with the edge of the detector (**fig. 27**).
Before securing MAD1 select the type of support (**d/e** - **fig. 26**) to be used for the magnet, from the two types available.

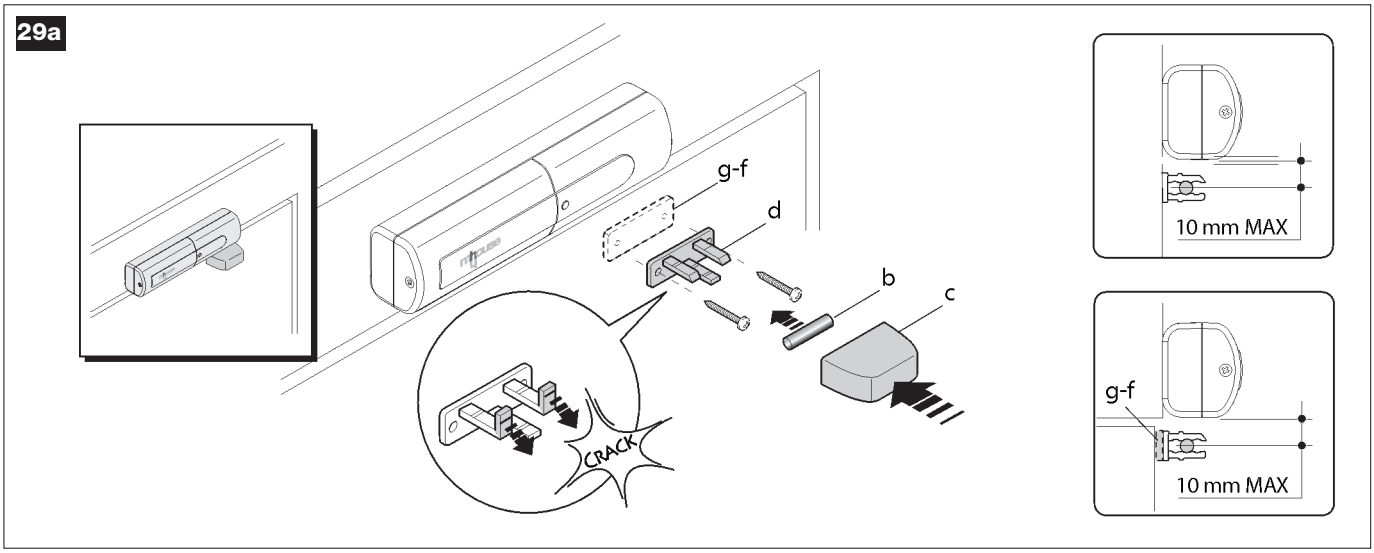
**Installation operations:**
**01.** Open the detector box (**fig. 24**) and remove the battery;
**02.** Secure the detector and selected support for the magnet: **fig. 29a** or **fig. 29b**.
If a spacer is used (**f** or **g- fig. 26**) position this before the support. **Caution! – The magnet must be perfectly aligned as shown in fig. 27**;
**03.** At this point refit the battery;
**04.** Perform the operation test by opening and closing the door/window, checking that the alarm signal (led flashing) is transmitted to the control unit;
**05.** Close the box.

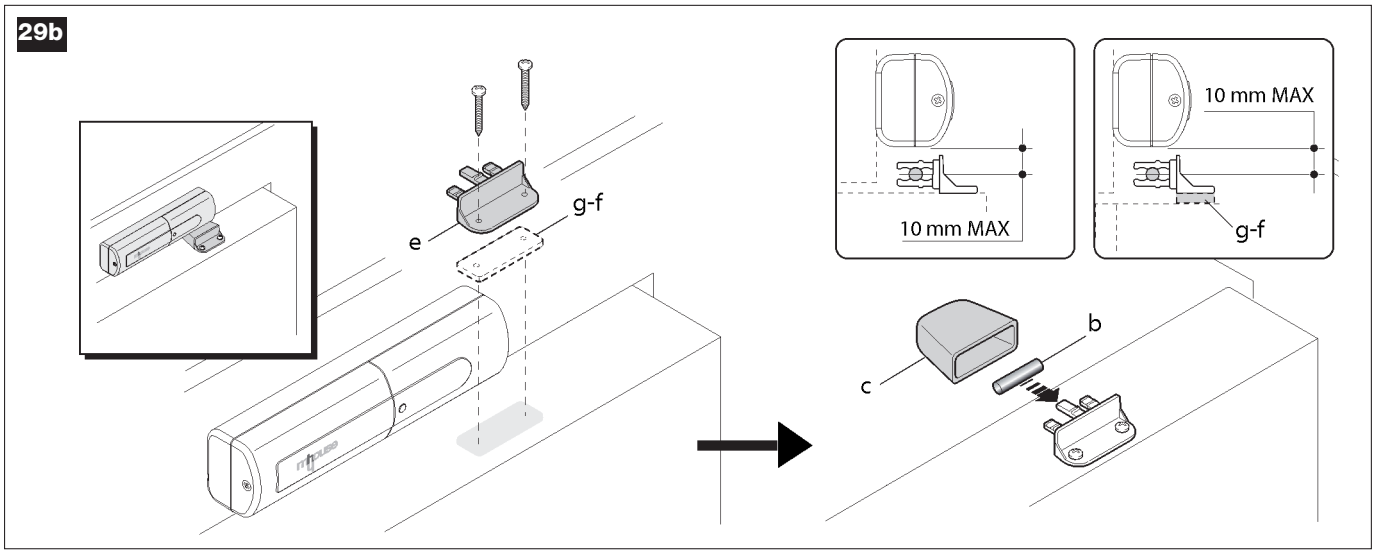
On completion of installation, perform the control unit test (paragraph 7.1.1)






### 7.4.5 - BATTERY REPLACEMENT

Only replace the batteries when signalled by the detector and control unit. Use a 9 V alkaline battery (GP1604A).

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon and select .

**02.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.

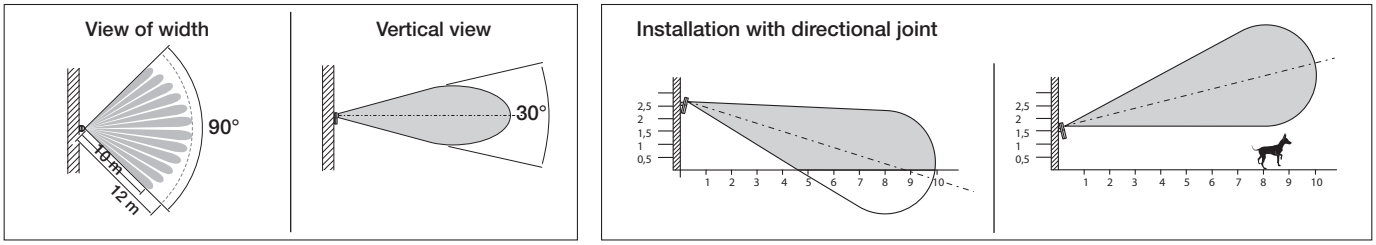
**03.** Open the detector cover and replace the battery (fig. 28) with one of the same type, in observance of the specified polarity.

**04.** Exit the alarms menu by touching the icon at the top right of the display.

## 7.5 - Infra-red detector with volumetric lens (MAD2)

### 7.5.1 - OPERATION

MAD2 signals movement of persons in the protected area; thanks to the directional joint the system avoids detecting the movement of small pets in the protected area. It is also possible to connect an additional detector by cable (e.g. a sensor for shutters) or a magnetic contact.
Equipped with LED indicator visible from the outside and 6 dip switches for programming.



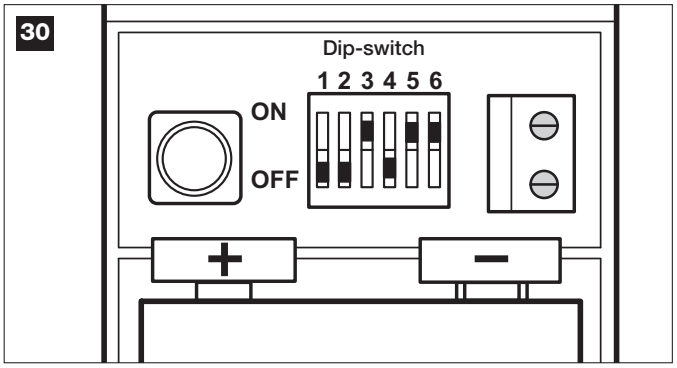

Types of alarm signal sent to the control unit:

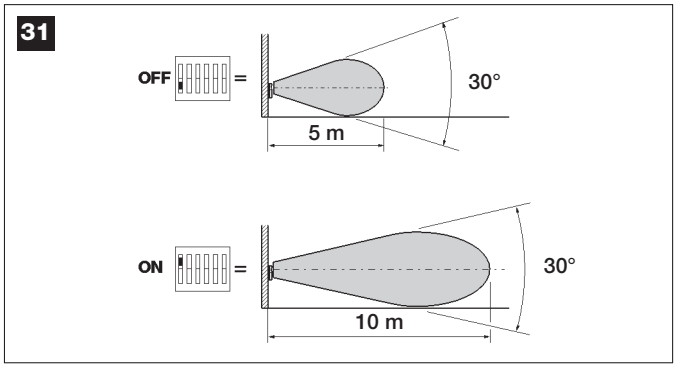
- **Intrusion alarm:** alarm signal caused by the detection of movement in the protected area. in order not to waste the batteries the detector does not send out any other signal after the first alarm signal if there is no further movement for at least 2 minutes (except when the battery compartment is open).
- **Alarm of second detector (via cable):** MAD2 can be programmed so that it transmits 2 differentiated alarms (transmission of 2 different alarm codes: one for the magnetic contact and one for the second detector connected by cable to MAD2.
- **Battery low**: the low battery signal is by means of 4 quick flashes of the led, following detection of movement. The event is also transmitted to the control unit and memorised in the "Events list".
- **Supervision:** approximately every 40 minutes, MAD2 sends a signal to the control unit to confirm correct operation (operative status).
- **Tamper alarm:** alarm signal caused by an attempt at tampering (opening of the battery compartment and/or detachment of the device from the fixing surface).

### 7.5.2 - STANDARD PROGRAMMING

The touchscreen is required for programming; see chapter 5 (paragraph 5.1).

Before proceeding with programming, the factory settings of MAD1 may be modified if required by adjusting the dip switches (**fig. 30**) as follows:
**IMPORTANT! - Before any operation, remove the battery from the detector** (**fig. 35**).




- **Detector range (fig. 31)**

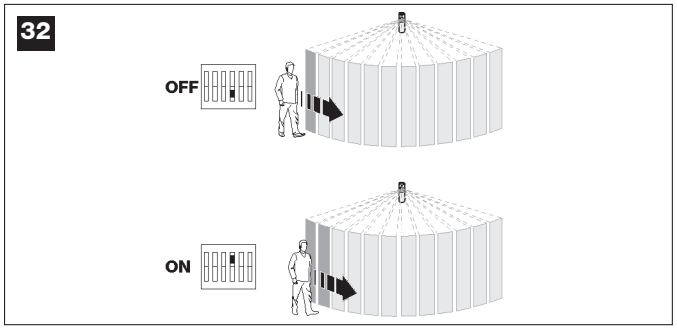
  The detector range can be set as follows:
  **Dip switch 1** set to **OFF** = 5 m.
  **Dip switch 1** set to **ON** = 10 m.
  *Note – Set the range on the basis of the size of the room to be protected.*

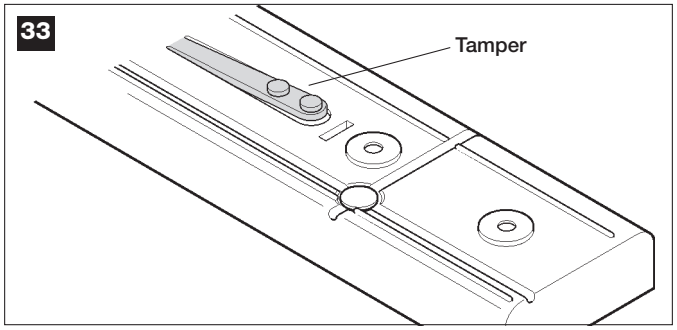
- **Detector sensitivity (fig. 32)**

  The detector sensitivity can be set as follows:
  **Dip switch 4** set to **OFF** = alarm signal when movement of the intruder is first detected.
  **Dip switch 4** set to **ON** = alarm signal when movement of the intruder has been detected twice.

- **Tamper protection disable (anti-detachment)**

  If required the anti-detachment protection can be disabled (disabling the tamper device on the rear of the detector - **fig. 33**), by setting **Dip switch 5** to **ON**.
  *Note – This function is recommended in the event of fixture on irregular surfaces, subject to vibrations or deformations (due to variations in temperature).*
  **Dip switch 5** set to **OFF** = anti-detachment protection enabled.



At this point, MAD2 can be programmed on the control unit:

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon and select

**02.** Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**03.** Touch "**Devices**", then touch the zone: for example "**Alarm zone B**".
**04.** Select one of the programmable detectors and then touch "**Add 1 detector**".
**05.** Compile the next screen with the following parameters:
- **Delay** Touch "Delay" and enter the delay time of alarm delivery by the detector (0 Sec = immediate alarm). This delay gives the user time to enter the home and deactivate the alarm without tripping the detector. Touch "**OK**" to confirm
- **Name** Touch "Name" and enter the name to assign to the detector (for example: "kitchen"). Touch "**OK**" to confirm
- **Voice name** Touch "Voice Name" and enter the name to assign to the detector (for example: "kitchen").

**06.** Touch "**OK**" to confirm.
**07.** Touch "OK" again and then insert the battery in the detector. The control unit emits a confirmation beep (3 beeps indicate that the detector is already present).

*If a second detector is required, connected by cable, see paragraph 7.5.3.*
*If installing two combined detectors (MAD2), see paragraph 5.4.5.*

At this point, proceed with installation (paragraph 7.5.4).

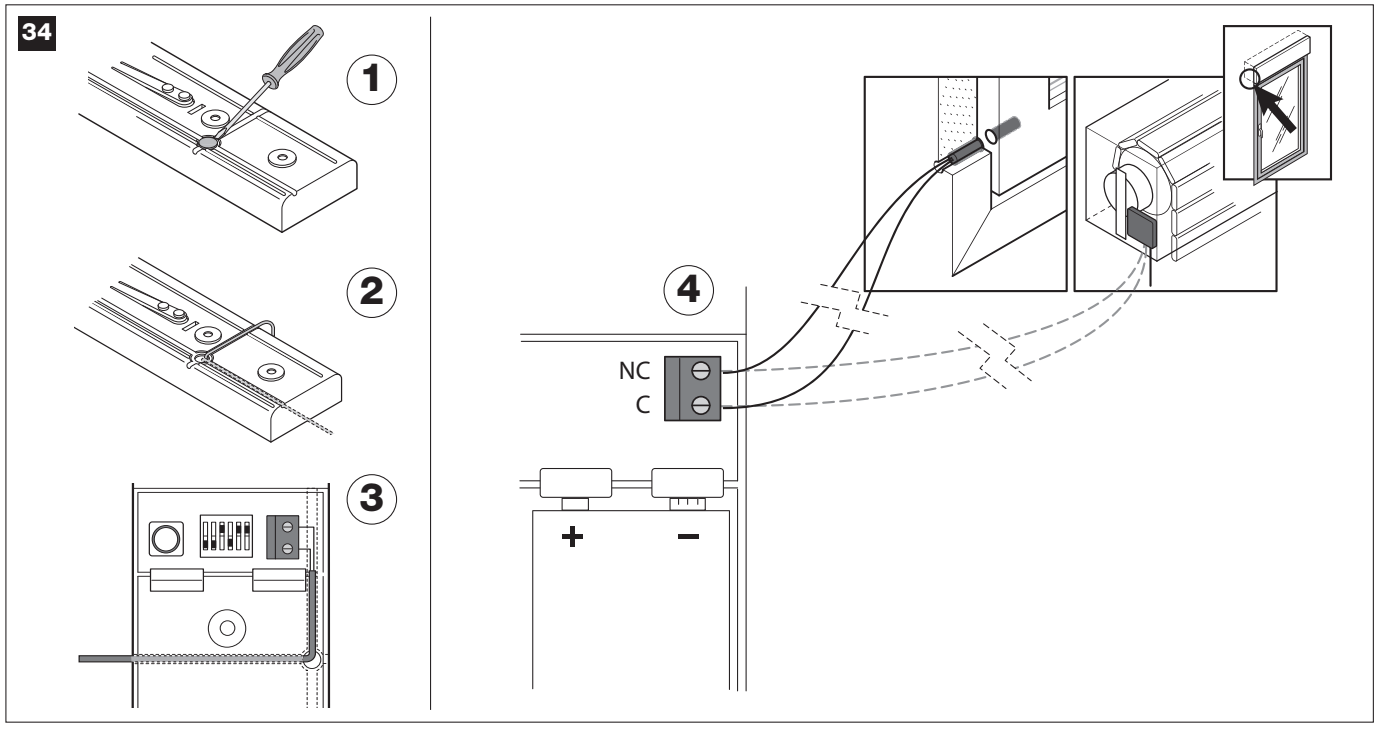
### 7.5.3 - CONNECTING A SECOND DETECTOR (BY CABLE)

**Caution! – Before connecting an additional detector by cable, MAD2 must be programmed on the control unit (see paragraph 7.5.2).**

**Connection of a magnetic contact detector (NC) or a pulse counter detector for shutters:**

**01.** Remove the battery from the previously programmed MAD2 (**fig. 35**);
**02.** Connect the 2 wires of the additional detector to the inputs NC and C (**fig. 34**)
*Note - Maximum wire section = 0.25 mm*
**03.** On MAD2, set Dip switch 3 to OFF for the magnetic contact or to ON for the pulse counter;
**04.** Insert the battery again.
If the user wishes to assign different names (and different associated zones) to MAD2 and the second detector by cable, also perform point **05**:
**05.** With the touchscreen, perform the standard programming procedure (paragraph 7.5.2) from point **01** to **07**.
**At point 07**, instead of "**INSERTING THE BATTERY IN THE DETECTOR**" (already present), move **Dip switch 2** to **ON**.

**34**




### 7.5.4 - INSTALLATION

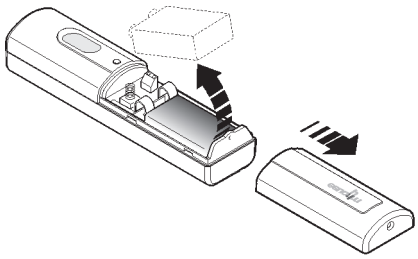
Before proceeding with installation, the detector must be programmed on the control unit.

**Installation operations:**

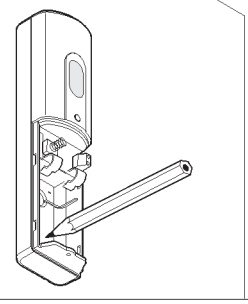
**01.** Open the detector box and remove the battery (**fig. 35**);
**02. Secure MAD2 according to the required type of installation**:
- **fixture without support**: see **fig. 36**. Note – the detector should be installed at a maximum height of 1.8 m; in the case of heights over 1.8 m (maximum 2.5 m), use the directional joint, pointed downwards.
- **corner fixture** : see **fig. 37**. Note – The detector should be installed at a maximum height of 1.8 m.
- **directional joint installation**: see **fig. 38**. To avoid detection of movement of small pets on ground level, position the directional joint at a height of 1.5 m, pointed upwards.

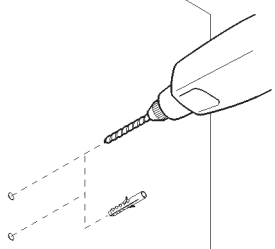
**03.** Set up the control unit for learning MAD2, see chapter 5;
**04.** Refit the battery (**fig. 39**);
**05.** Perform the operation test, simulating an intruder with brief movements of the body within the coverage area. **Caution! – The test must be performed with the battery box open**, otherwise after the first alarm, no others are transmitted until a new normal situation returns (after approx. 3 minutes);
**06.** Close the box.

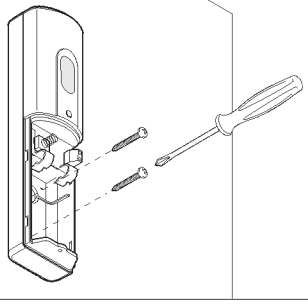
**35**



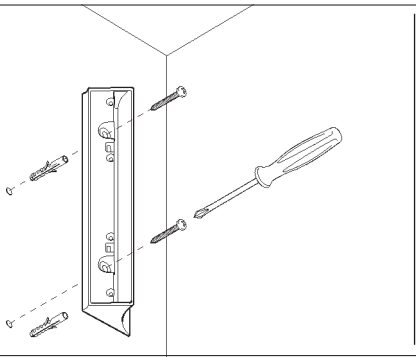
**36**

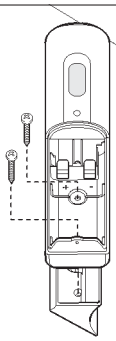




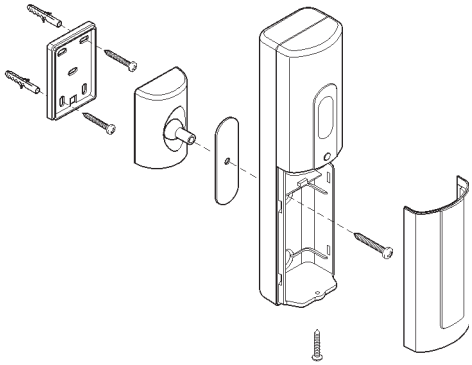


**37**

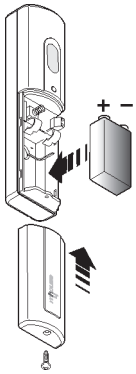




**38**



**39**




**7.5.5 - BATTERY REPLACEMENT**

Only replace the batteries when signalled by the detector and control unit. Use a 9 V alkaline battery (GP1604A).

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon > and select .

**02.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.

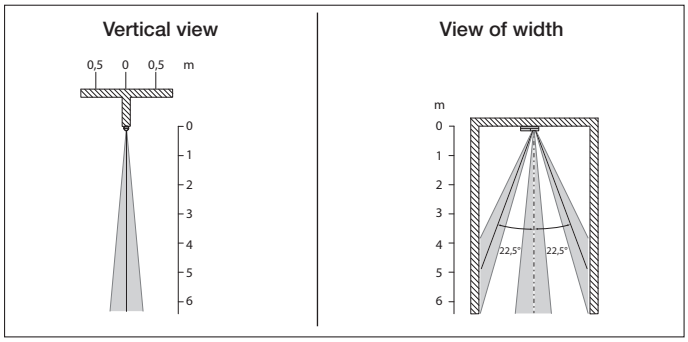
**03.** Open the detector cover and replace the battery (**fig. 35**) with one of the same type, in observance of the specified polarity.

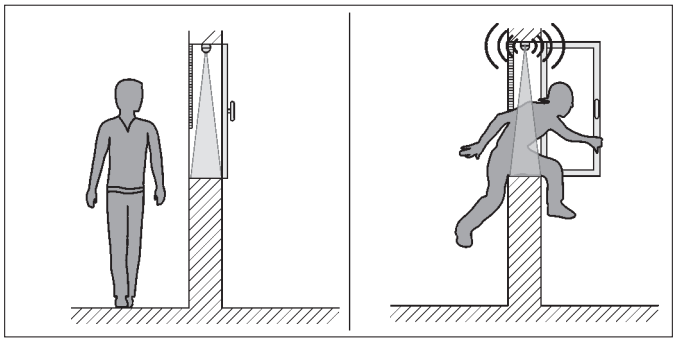
**04.** Exit the alarms menu by touching the icon at the top right of the display.

## 7.6 - Infra-red detector with vertical curtain lens (MAD3)

### 7.6.1 - OPERATION

MAD3 is a detector used for the protection of door or window perimeters. Thanks to the curtain effect lens, it detects the movement of persons located inside its operating radius. It is also possible to connect an additional detector by cable (e.g. a sensor for shutters) or a magnetic contact.
Equipped with LED indicator visible from the outside and 6 dip switches for programming.



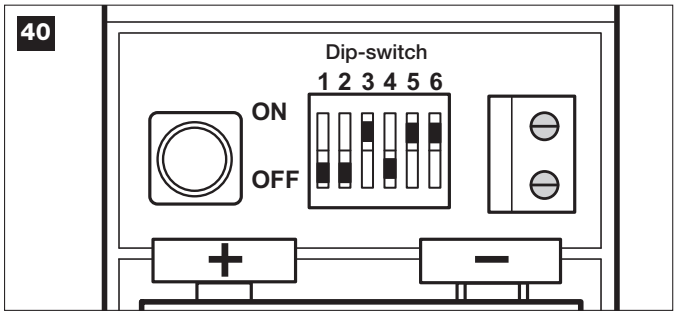



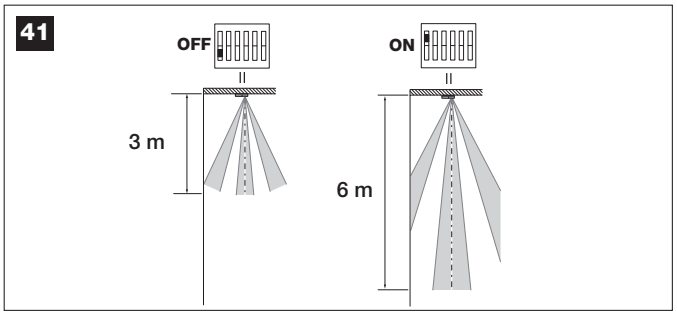
Types of alarm signal sent to the control unit:
– **Intrusion alarm:** alarm signal caused by the detection of movement in the protected area. in order not to waste the batteries the detector does not send out any other signal after the first alarm signal if there is no further movement for at least 2 minutes (except when the battery compartment is open).
– **Alarm of second detector (via cable):** MAD3 can be programmed so that it transmits 2 differentiated alarms (transmission of 2 different alarm codes): one for the magnetic contact and one for the second detector connected by cable to MAD3.
– **Battery low**: the low battery signal is by means of 4 quick flashes of the led, following detection of movement. The event is also transmitted to the control unit and memorised in the "Events list".
– **Supervision:** approximately every 40 minutes, MAD3 sends a signal to the control unit to confirm correct operation (operative status).
– **Tamper alarm:** alarm signal caused by an attempt at tampering (opening of the battery compartment and/or detachment of the device from the fixing surface).

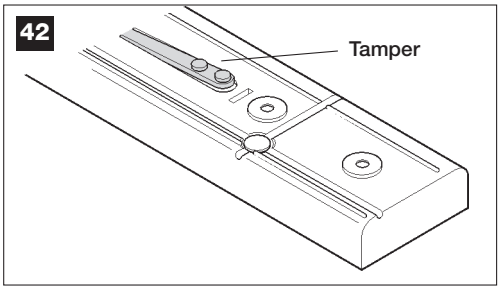
### 7.6.2 - STANDARD PROGRAMMING

The touchscreen is required for programming; see chapter 5 (paragraph 5.1).

Before proceeding with programming, the factory settings of MAD1 may be modified if required by adjusting the dip switches (**fig. 40**) as follows:
**IMPORTANT! - Before any operation, remove the battery from the detector** (**fig. 44**).




• **Detector range (fig. 41)**

The detector range can be set as follows:
**Dip switch 1** set to **OFF** = 3 m.
**Dip switch 1** set to **ON** = 6 m. **Important!** – At this distance, the operating radius of MAD3 may also detect movements in the vicinity of the door/window.

• **Tamper protection disable (anti-detachment)**

If required the anti-detachment protection can be disabled (disabling the tamper device on the rear of the detector - **fig. 42**), by setting **Dip switch 5** to **ON**.
*Note – This function is recommended in the event of fixture on irregular surfaces, subject to vibrations or deformations (due to variations in temperature).*
**Dip switch 5** set to **OFF** = anti-detachment protection enabled.

At this point, MAD1 can be programmed on the control unit:
**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select
**02.** Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**03.** Touch "**Devices**", then touch the zone: for example "**Alarm zone B**".
**04.** Select one of the programmable detectors and then touch "**Add 1 detector**".
**05.** Compile the next screen with the following parameters:
• Delay Touch "Delay" and enter the delay time of alarm delivery by the detector (0 Sec = immediate alarm). This delay gives the user time to enter the home and deactivate the alarm without tripping the detector. Touch "**OK**" to confirm.
• Name Touch "Name" and enter the name to assign to the detector (for example: "kitchen"). Touch "**OK**" to confirm.
• Voice name Touch "Voice Name" and enter the name to assign to the detector (for example: "kitchen").
**06.** Touch "**OK**" to confirm.
**07.** Touch "**OK**" again and then insert the battery in the detector. The control unit emits a confirmation beep (3 beeps indicate that the detector is already present).

*If a second detector is required, connected by cable, see paragraph 7.6.3.*

At this point, proceed with installation (paragraph 7.6.4).

### 7.6.3 - CONNECTING A SECOND DETECTOR (BY CABLE)

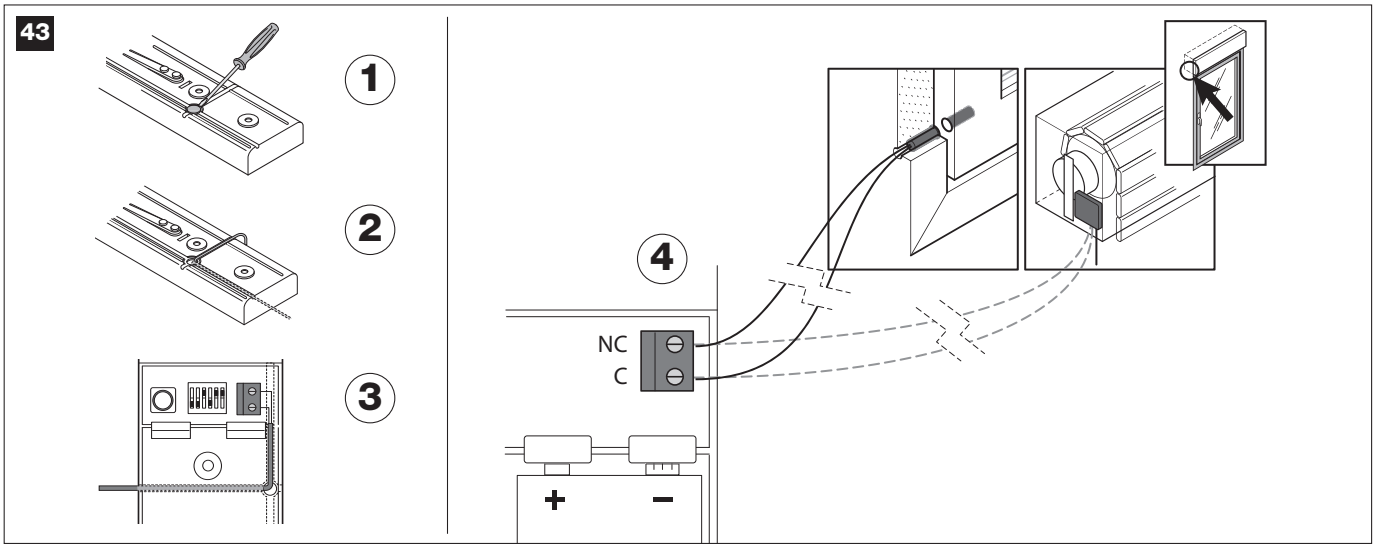
**Caution! – Before connecting an additional detector by cable, MAD3 must be programmed on the control unit (see paragraph 7.6.2).**

**Connection of a magnetic contact detector (NC) or a pulse counter detector for shutters:**

**01.** Remove the battery from the previously programmed MAD3 (**fig. 44**);
**02.** Connect the 2 wires of the additional detector to the inputs NC and C (**fig. 43**)
*Note - Maximum wire section = 0.25 mm*
**03.** On MAD3, set **Dip switch 4** to **OFF**; **Important!** – Set Dip switch 4 to ON if not detector is connected by cable.
**04.** Then set **Dip switch 3** to **OFF** for the magnetic contact (NC) or to **ON** for the pulse counter;
**05.** Insert the battery again.

If the user wishes to assign different names and different associated zones to MAD3 with respect to the second detector by cable, also perform point **06**:
**06.** With the touchscreen, perform the standard programming procedure (paragraph 7.6.2) from point **01** to **07**.
**At point 07**, instead of "**INSERTING THE BATTERY IN THE DETECTOR**" (already present), move **Dip switch 2** to **ON**.

**43**



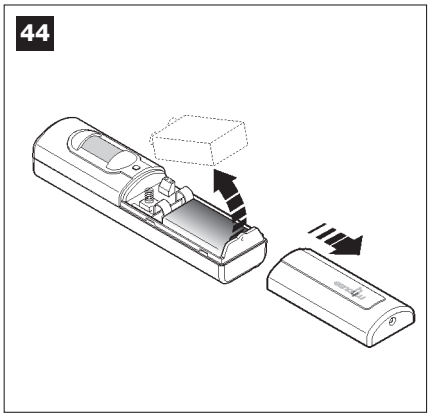

### 7.6.4 - INSTALLATION

Before proceeding with installation, the detector must be programmed on the control unit.

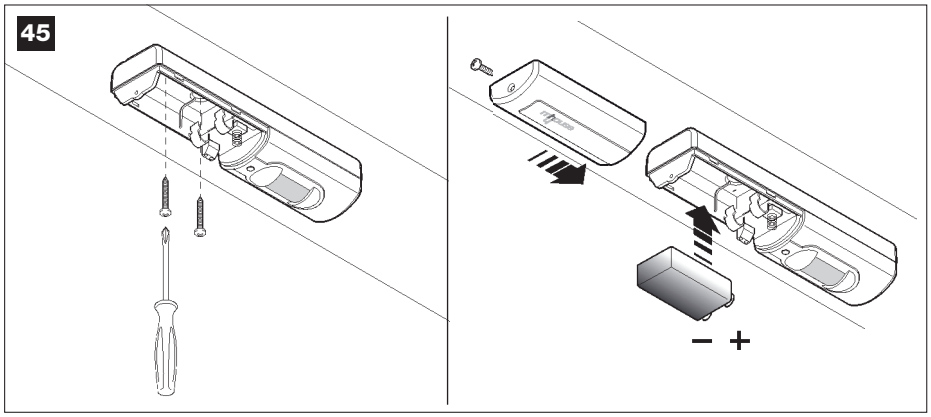
**Installation operations:**

**01.** Open the detector box and remove the battery (**fig. 44);**
**02. Secure MAD3** (**fig. 45**);
**03.** Refit the battery;
**04.** Perform the operation test by simulating intrusion through the coverage area. **Caution! – The test must be performed with the battery box open**, otherwise after the first alarm, no others are transmitted until a new normal situation returns (after approx. 3 minutes);
**05.** Close the box.

**44**



**45**




### 7.6.6 - BATTERY REPLACEMENT

Only replace the batteries when signalled by the detector and control unit. Use a 9 V alkaline battery (GP1604A).

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select

**02.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.
**03.** Open the detector cover and replace the battery (fig. 44) with one of the same type, in observance of the specified polarity.
**04.** Exit the alarms menu by touching the icon at the top right of the display.

## 7.7 - Detector of glass breakage (MAD4)

MAD4 is a detector suitable to detect glass breakage; suitable for normal glass, double glazing or security glazing. The detector is equipped with a microphone calibrated to recognise the sound of breaking glass. It contains an anti-tamper device, and a signalling led visible from the exterior.

### 7.7.1 - OPERATION

It must be used with a great deal of attention because it may also detect sounds similar to the breakage of glass; the sensor should only be activated when there is no risk of other sounds that may trigger the alarm. Also appliances able to generate sudden pressure surges in rooms (air conditioners, fans) may generate improper alarms.
Sound-absorbing materials (such as curtains and carpets) may reduce sensitivity of the device.
The device is optimised with factory-setting and may not be modified.

Types of alarm signal sent to the control unit:

– **Noise signal (test):** by producing a sudden noise in front of the detector (clapping hands or knocking two metal objects together) the led should flash briefly twice. These noises do not trigger the alarm. **Caution! –** If the LED does not flash after the noise test the battery may be discharged or the device may be faulty**;**
- **Alarm status:** the breakage of glass (an old bottle can be broken for testing) generates the transmission via radio of the alarm signal and makes the LED switch on for 4 seconds. The LED flashes for about one minute after the alarm;
– **Anti-opening protection:** The opening of the casing triggers the “tampering” alarm signal. To avoid this problem, set the control unit to “TEST” mode before opening the sensor.
- **Battery discharged:** the low battery signal is transmitted to the control unit a few days in advance. Replace the battery only when the control unit indicates that the detector has a discharged battery. Battery lifetime is reduced if the detector is placed in very noisy areas due to the continuous signalling of noise.
– **Supervision:** approximately every 40 minutes, MAD4 sends a signal to the control unit to confirm correct operation (operative status).

### 7.7.2 - PROGRAMMING

The touchscreen is required for programming; see chapter 5 (paragraph 5.1).

**01.** Remove the battery from the detector (**fig. 48**).
**02.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select .
**03.** Enter the “**ADMINISTRATOR CODE** and touch “**OK**” to confirm.
**04.** Touch “**Devices**”, then touch the zone: for example “**Alarm zone C**”.
**05.** Select one of the programmable detectors and then touch “**Add 1 detector**”.
**06.** Compile the next screen with the following parameters:
- Delay Touch “Delay” and enter the delay time of alarm delivery by the detector (0 Sec = immediate alarm). This delay gives the user time to enter the home and deactivate the alarm without tripping the detector. Touch “**OK**” to confirm.
- Name Touch “Name” and enter the name to assign to the detector (for example: “kitchen”). Touch “**OK**” to confirm.
- Voice name Touch “Voice Name” and enter the name to assign to the detector (for example: “kitchen”).

**07.** Touch “**OK**” to confirm.
**08.** Touch “**OK**” again and then insert the battery in the detector. The control unit emits a confirmation beep (3 beeps indicate that the detector is already present).

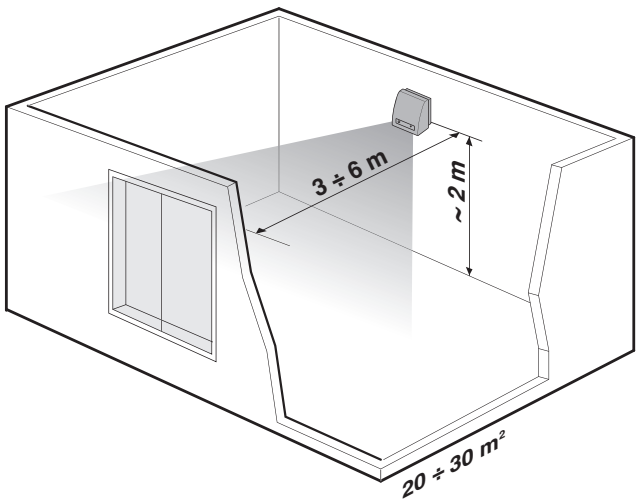
At this point, proceed with installation (paragraph 7.7.3).

### 7.7.3 - INSTALLATION

**Warnings**

- To ensure optimal detection, the device must be installed in rooms with an area of 20 to 30 square metres, at a distance of 3 to 6 m from the glass to be protected and at a height of approx. 2 m (**fig. 46**)
- Installation is not recommended: in areas with dimensions of less than 3 x 3 m, in excessively humid environments (bathrooms or kitchens) or in garages with large metal doors. These situations may generate improper alarms.

**46**



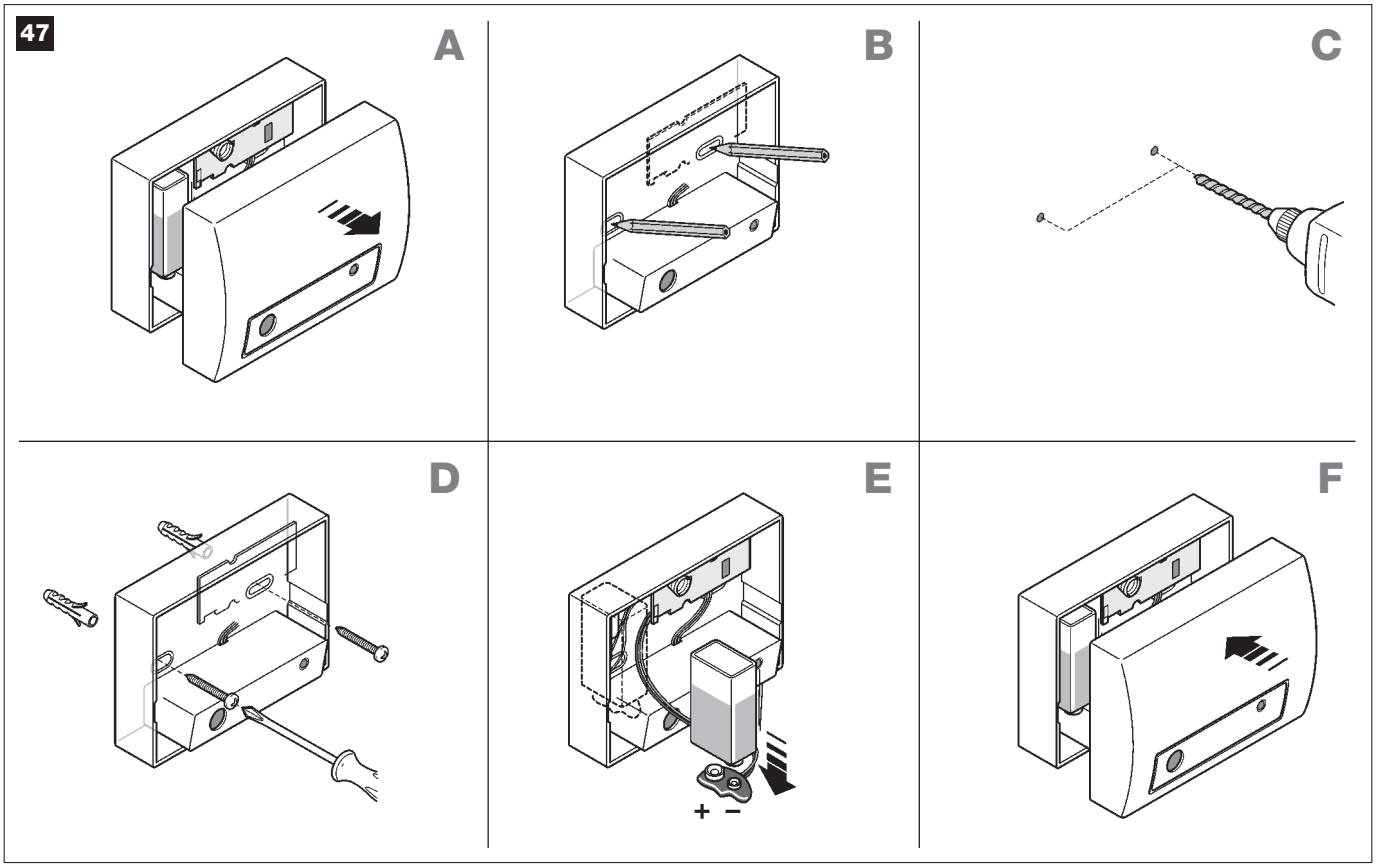

Installation operations:

**01.** Open the box (**fig. 47-A**) and remove the battery;
**02.** Secure MAD4 (**fig. 47-B-C-D**);
**04.** Refit the battery (**fig. 47-E**): MAD4 is programmed in self-learning mode and is confirmed by 1 beep emitted by the control unit (3 beeps indicate that the device is already programmed);

**05.** Close the box (**fig. 47-F**);

**06.** Perform the operation test, by producing a sudden noise in front of the detector (clapping hands or knocking two metal objects together) the led should flash briefly twice. These noises do not trigger the alarm. **Caution! –** If the LED does not flash after the noise test the battery may be discharged or the device may be faulty.

**47**




### 7.7.4 - BATTERY REPLACEMENT

Only replace the batteries when signalled by the detector and control unit. Use a 9 V alkaline battery (GP1604A).

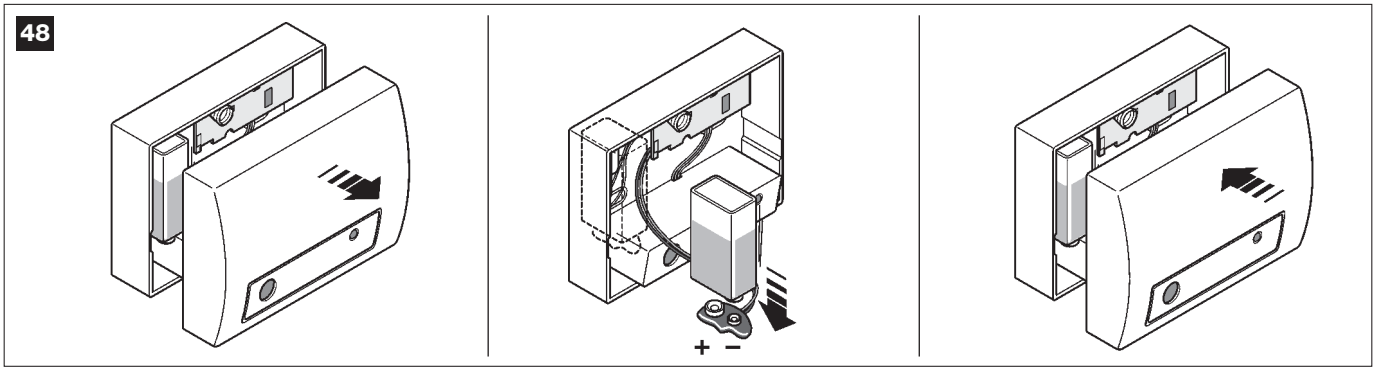
**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select

**02.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.

**03.** Open the detector cover and replace the battery (**fig. 48**) with one of the same type, in observance of the specified polarity.

**04.** Exit the alarms menu by touching the icon at the top right of the display.

**48**



## 7.8 - Fine combustion powder detector (MAD5)

### 7.8.1 - SPECIAL WARNINGS

**Caution! –** The detector must not be considered a total protection but simply a support in the protection against combustion risks. The device is not a fire detector and does not comply with any regulations on fire detection.

- The alarm signal emitted by the detector may not be heard by people with hearing problems or under the effect of alcohol or drugs.
- Do not modify sensitivity of the detector.
- The detector must not be painted or varnished.
- Battery lifetime is reduced in the event of frequent alarm signals.
- The detector may not function correctly if the batteries are discharged.
- To clean the surface of the detector use a soft, slightly damp cloth; do not use products that contain alcohol, benzene, diluents or similar. Do not dust with feather dusters**.**
- The device must be replaced after 10 years of use; within 2-3 years if installed in particularly dusty areas.

### 7.8.2 - OPERATION

MAD5 is a fine combustion powder detector (mist or smoke effect) designed for residential applications. A photodiode detects opacity of the air and signals the alarm directly on site (by means of a buzzer) and also via radio to the control unit. The detection technology used is of the photo-optical type and does not emit any type of harmful radiations. It is suitable to control an area of up to 6 x 6 m; it should be installed on the ceiling at the centre of the area. Smaller rooms that are not square, such as corridors, require the use of more than one detector.
Equipped with led indicator visible from the outside and buzzer for audible signals.

Types of alarm signal**:**

– **Normal operation (self-diagnostics):** led flashes briefly every 45 seconds**;**
– **Alarm status**: the concentration of combustion powders in the environment generates transmission of the alarm signal via radio, continuous flashing of the external led and continuous sounding of the buzzer. The alarm status ends when the situation ends**;**
– **Presence of heavy powders inside the sensor:** short acoustic tone every 45 seconds and flashing of the external led not synchronised with the acoustic tone. This alarm status ends once the powder has been removed (this operation must be carried out by the technical assistance service);
– **Battery nearly discharged:** short acoustic tone every 45 seconds and flashing of the external led synchronised with the acoustic tone. Replace the battery only when the control unit indicates that the detector has a discharged battery.
– **Supervision:** transmission of a signal every 40 minutes (approx.) to indicate that the system is running.

### 7.8.3 - PROGRAMMING

The touchscreen is required for programming.

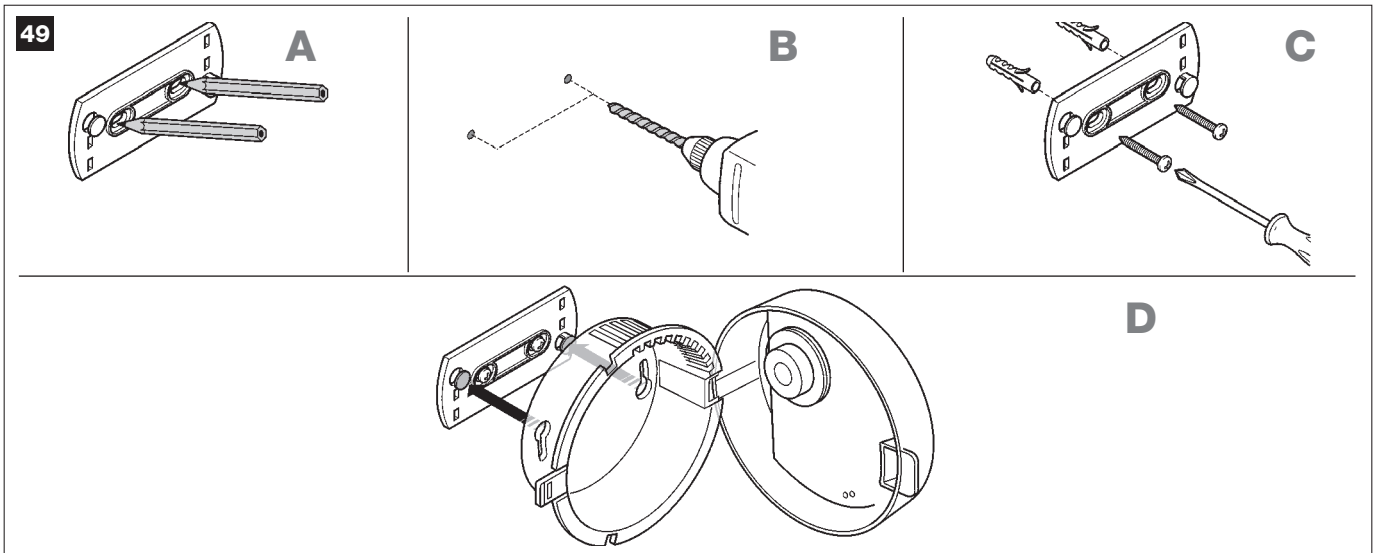
**01.** Remove the battery from the detector (**fig. 50**).
**02.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select .
**03.** Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**04.** Touch "**Devices**", then touch "**Technical**".
**04.** Select one of the programmable detectors.
**05.** Compile the next screen with the following parameters:
- **Name** Touch "Name" and enter the name to assign to the detector (for example: "kitchen smoke"). Touch "**OK**" to confirm
- **Voice name** Touch "Voice Name" and enter the name to assign to the detector (for example: "kitchen smoke").

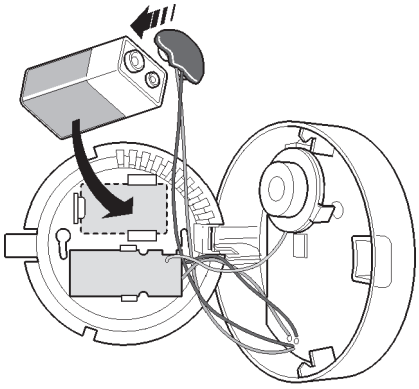
**06.** Touch "**OK**" to confirm.
**07.** Touch "**OK**" then insert the battery in the detector (the control unit emits a confirmation beep; 3 beeps indicate that the detector is already present).

At this point, proceed with installation.

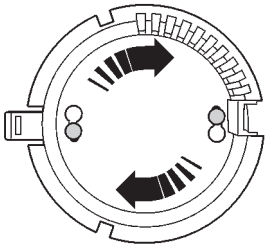
### 7.8.4 - INSTALLATION

**Caution!** – MAD5 must be installed approximately at the centre of the room to be protected.
**01.** To install MAD5 see **fig. 49**;
**02.** Refit the battery (**fig. 49-E**): the control unit emits 1 beep to confirm programming. **Caution!** (4 beeps indicate that MAD5 has already been programmed);
**03.** Close the box.





E



F

### 7.8.5 - TEST

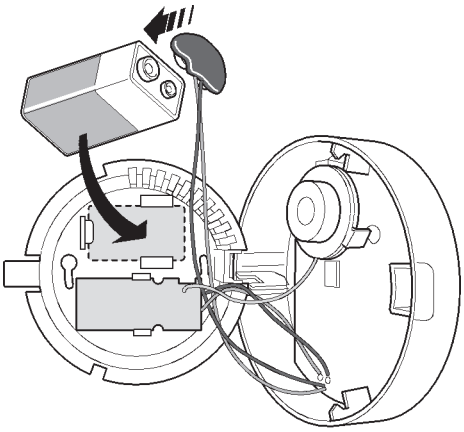
The detector is equipped with a test button to verify efficient operation of the detector.
Press the button for about 1 second to test the sensor; if it is in good working order the led should flash, the buzzer should emit acoustic tones and the alarm signal should be transmitted.
To guarantee adequate safety levels, the test should be carried out at least once a month.

### 7.8.6 - BATTERY REPLACEMENT

Only replace the batteries when signalled by the detector and control unit. Use a 9 V alkaline battery (GP1604A).

**01.** Open the detector cover and replace the battery (**fig. 50**) with one of the same type, in observance of the specified polarity.

**50**



## 7.9 - Flooding detector (MAD6)

MAD6 comprises 2 electric contacts which must be positioned at approx. 1 mm from the ground. It must be connected by cable to a compatible detector (e.g. MAD1). In the event of flooding, when the two electric contacts are wet, MAD6 sends a signal to the connected detector, which transmits it via radio to the control unit.

**Caution**: the detector connected to MAD6 must be positioned at a height not reached by water.

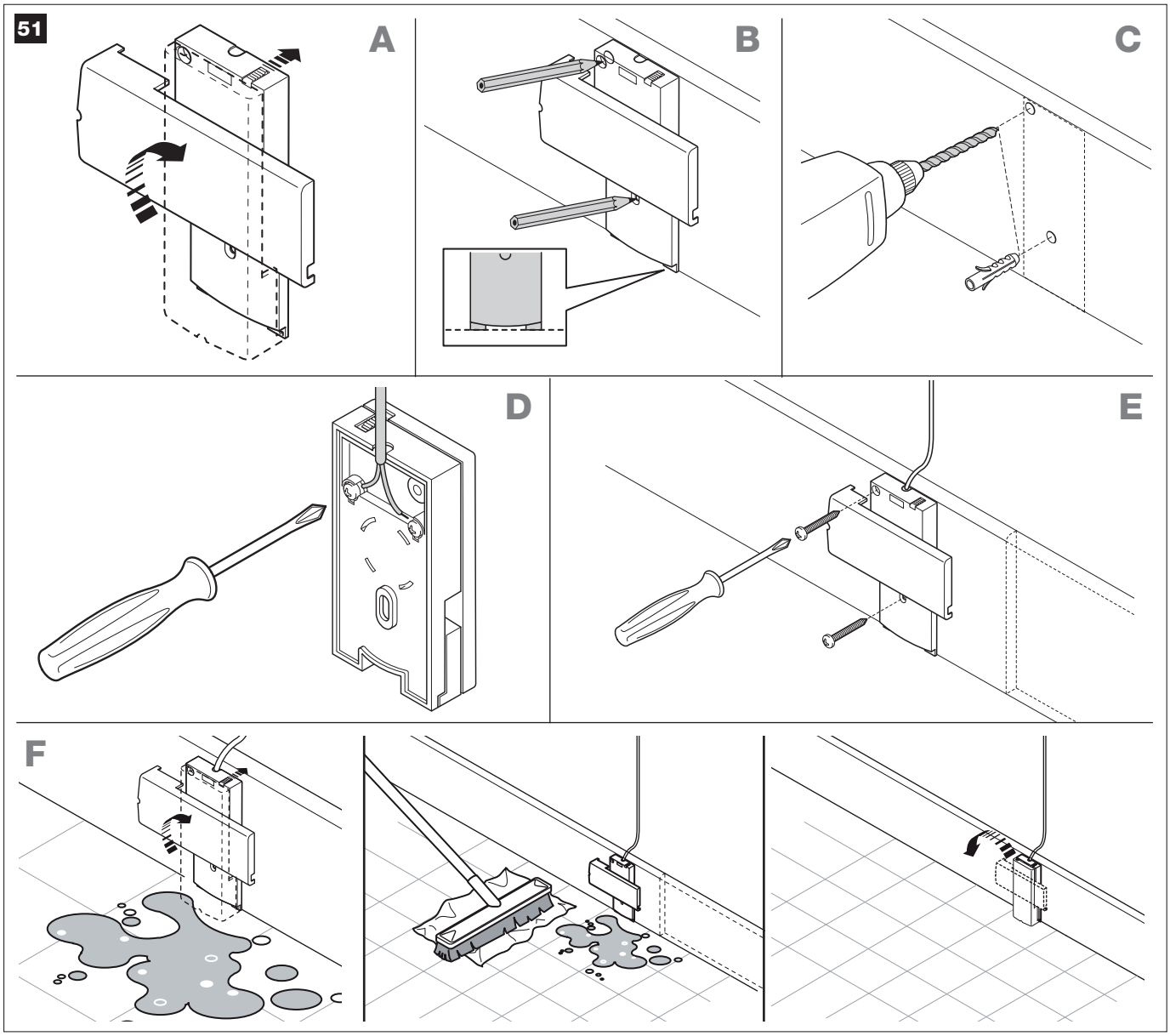
To obtain optimal detection, the device must be installed vertically on the wall and flush with the ground surface (fig. 51b).
The sensor should be installed in a location most subject to the risk of water leaks, but if the floor is not level, it should be placed at the lowest point of the room.

### 7.9.1 - PROGRAMMING

For programming, refer to paragraph 7.9.4 - Connecting a second detector (by cable).

### 7.9.2 - INSTALLATION

For installation operations, see la **fig. 51:** using 2 electric wires, connect MAD6 to the input terminals of detector MAD1.
The length of the cable must not exceed 10 m (maximum cable section = 0.25 mm).



## 7.10 - 4-channel radio transmitter (MATX4)

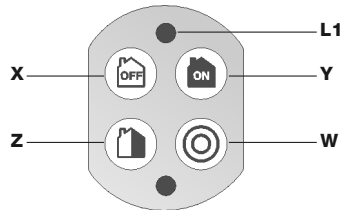
### 7.10.1 - OPERATION

MATX4 uses 64 bit rolling code transmission technology. Each key is factory set with a precise function (**Table 7**) and some of these can be programmed differently as required. The transmitter is bidirectional, and led **L1** (**fig. 52**) shows the event in progress.

**Table 7** (fig. 52)

| |
|---|
| **X** = Key (OFF): TOTAL DEACTIVATION |
| **Y** = Key (ON): TOTAL ARMING |
| **Z** = Key : PARTIAL ACTIVATION OF ZONES A + B |
| **W** = Key : DETERRENCE (direct activation of sirens and telephone calls ) / EMERGENCY (silent alarm with activation of telephone calls) |

**52**




### 7.10.2 - STANDARD PROGRAMMING

Before memorising MATX4 on the control unit, check correct operation by pressing any key and ensuring that led **L1** lights up (**fig. 52**).

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon and select .
**02.** Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**03.** Touch "**Devices**", then "Remote controls" and select one of the 20 programmable remote controls.
**04.** Touch "**Add**" and compile the next screen with the following parameters:

- Activation (enables the user to specify the **zones** which can be activated with the remote control being programmed).
  Touch "Activation" and select the **zones** to associate with the remote control being programmed. Touch "OK" to confirm
- Deactivation (enables the user to specify the **zones** which can be deactivated with the remote control being programmed).
  Touch "Deactivation" and select the **zones** to associate with the remote control being programmed.
- Name (enables the association of a remote control with the relative user name).
  Touch "Name" and enter the user's name. Touch "OK" to confirm

**05.** Touch "**OK**" to confirm.
**06.** Touch "**OK**" again and then, on the remote control, press the keys and at the same time. The control unit emits a confirmation beep (3 beeps indicate that the remote control is already present).
**07.** Lastly, touch "**OK**" to confirm the parameters entered.

### 7.10.3 - SPECIFIC KEY PROGRAMMING

To program the key for the **emergency or deterrence** request, proceed as follows:

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon and select .
**02.** Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**03.** On the touchscreen, touch "**Devices**" and then "Deterrence" or "Emergency".
**04.** In the list displayed, touch a line and complete the next screen with the following parameters:

- Name Touch "Name" and enter the name to assign to the event (for example: "emergency"). Touch "OK" to confirm
- Voice name Touch "Voice Name" and record the name to assign to the event (for example: "grandmother emergency").

**05.** Touch "**OK**" to confirm.
**06.** Touch "**OK**" again and then, on the remote control press and hold the required emergency or deterrence alarm key for 10 seconds (the control unit emits a confirmation beep; 3 beeps indicate that the remote control is already present).
**07.** Touch "**OK**" to confirm.

To program the key for the **partial alarm activation (zone B + C)** request, proceed as follows:

**01.** Press and hold keys and at the same time for 10 seconds, the led emits 2 brief orange flashes to confirm changeover of the key function from alarm to partial activation. The functions can be changed in the other direction simply by repeating the operation. On completion, the led emits 2 short flashes if the key is assigned for partial activation or 3 short flashes if it is assigned as an alarm key.

The partial activation zones of the keys (partial A+B) and (partial B+C) are not modifiable.

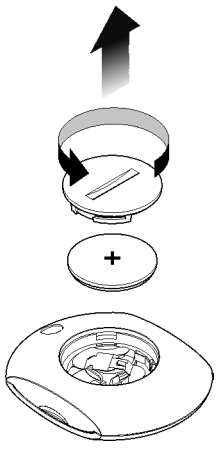
*Note – Total and partial activation depend on zones A, B, C enabled in the memorisation phase on the touchscreen.*

### 7.10.4 - SIGNALS

The transmitter is bidirectional; after sending the arming or disarming commands, partial or total (phase in which the orange led is illuminated) it remains on standby for response by the control unit (phase in which the orange led flashes), after which it displays the results.

- **Steady orange led** = transmission in progress
- **Flashing orange led** = awaiting response
- **Green led lit for 2 seconds:** OFF, system disarmed
- **Red led lit for 2 seconds:** ON, system armed (total or partial)
- **Led off:** response not received.

**53**




### 7.10.5 - BATTERY REPLACEMENT

When the battery charge is low, the transmitter range is reduced significantly. When a key is pressed, if led L1 illuminates and then immediately fades and turns off, this means that the battery is completely discharged and must be replaced immediately.
Otherwise if led L1 illuminates briefly, this means that the battery charge is low; in this case press and hold the key for at least half a second to enable the transmitter to attempt delivery of the command. In any event, if the battery charge is too low to complete a command (and wait for a response) led L1 fades and the transmitter turns off In these cases, to restore normal operation of the transmitter, replace the old battery with a new version of the same type (Lithium battery type CR2032), taking care to observe the specified polarity. To replace the battery, proceed as shown in **fig. 53**.

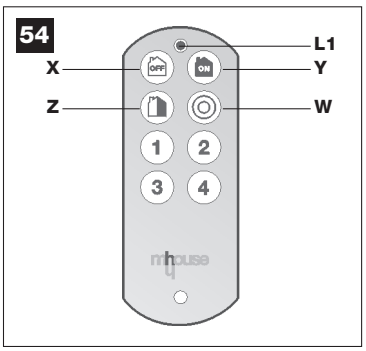
## 7.11 - 8-channel radio transmitter (MATX8)

### 7.11.1 - OPERATION

MATX8 is equipped with 8 keys divided into two groups with different functions: 4 keys (**X**, **Y**, **Z**, **W** - **fig. 54**) used for the control of Mhouse alarm systems and 4 keys (**1**, **2**, **3**, **4** - **fig. 1**) used for the control of any automation in the Mhouse range.
The encoding of keys **X**, **Y**, **Z**, **W** (**fig. 54**) is compatible with Mhouse alarm systems; each key is factory set with a precise function (see **Table 8**) but some keys may be programmed differently as required. The transmitter is bidirectional, and led **L1** (**fig. 54**) shows the event in progress.

**Table 8** (fig. 54)

| |
|---|
| **X** = Key (OFF): TOTAL DEACTIVATION |
| **Y** = Key (ON): TOTAL ARMING |
| **Z** = Key : PARTIAL ACTIVATION OF ZONES A + B |
| **W** = Key : DETERRENCE (direct activation of sirens and telephone calls) / EMERGENCY (silent alarm with activation of telephone calls) |




### 7.11.2 - STANDARD PROGRAMMING

Before memorising MATX8 on the control unit, check correct operation by pressing any key and ensuring that led **L1** lights up (**fig. 54**).

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon and select .
**02.** Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**03.** Touch "**Devices**", then "**Remote controls**" and select one of the 20 programmable remote controls.
**04.** Touch "**Add**" and compile the next screen with the following parameters:

- Activation (enables the user to specify the **zones** which can be activated with the remote control being programmed).
  Touch "Activation" and select the **zones** to associate with the remote control being programmed. Touch "**OK**" to confirm
- Deactivation (enables the user to specify the **zones** which can be deactivated with the remote control being programmed).
  Touch "Deactivation" and select the **zones** to associate with the remote control being programmed.
- Name (enables the association of a remote control with the relative user name).
  Touch "Name" and enter the user's name. Touch "**OK**" to confirm.

**05.** Touch "**OK**" to confirm.
**06.** Touch "**OK**" again and then, on the remote control, press the keys and at the same time. The control unit emits a confirmation beep (3 beeps indicate that the remote control is already present).
**07.** Lastly, touch "**OK**" to confirm the parameters entered.

### 7.11.3 - SPECIFIC KEY PROGRAMMING

To program the key for the **emergency or deterrence** request, proceed as follows:

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon and select .
**02.** Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**03.** On the touchscreen, touch "**Devices**" and then "Deterrence" or "Emergency".
**04.** In the list displayed, touch a line and complete the next screen with the following parameters:

- Name Touch "Name" and enter the name to assign to the event (for example: "emergency"). Touch "OK" to confirm
- Voice name Touch "Voice Name" and record the name to assign to the event (for example: "grandmother emergency").

**05.** Touch "**OK**" to confirm.
**06.** Touch "**OK**" again and then, on the remote control press and hold the required emergency or deterrence alarm key for 10 seconds (the control unit emits a confirmation beep; 3 beeps indicate that the remote control is already present).
**07.** Touch "**OK**" to confirm.

To program the key for the **partial alarm activation (zone B + C)** request, proceed as follows:

**01.** Press and hold keys and at the same time for 10 seconds, the led emits 2 brief orange flashes to confirm changeover of the key function from alarm to partial activation. The functions can be changed in the other direction simply by repeating the operation. On completion, the led emits 2 short flashes if the key is assigned for partial activation or 3 short flashes if it is assigned as an alarm key.

The partial activation zones of the keys (partial A+B) and (partial B+C) are not modifiable.

*Note – Total and partial activation depend on zones A, B, C enabled in the memorisation phase on the touchscreen.*

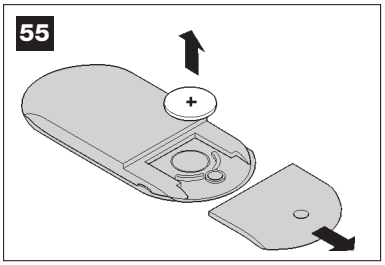
### 7.11.4 - MEMORISATION FOR CONTROL OF MHOUSE AUTOMATIONS (keys **1**, **2**, **3**, **4** - **fig. 54**)

For the memorisation procedure, refer to the instruction manual of the receiver supplied with the automation. *These manuals are also available on the website: www.mhouse.biz*

### 7.11.5 - SIGNALS

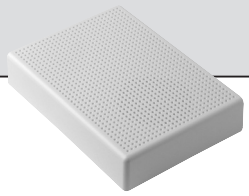
The transmitter is bidirectional; after sending the arming or disarming commands, partial or total (phase in which the orange led is illuminated) it remains on standby for response by the control unit (phase in which the orange led flashes), after which it displays the results.

– **Steady orange led** = transmission in progress
– **Flashing orange led** = awaiting response
– **Red led** = confirmation of system activation
– **Green led** = confirmation of system deactivation




### 7.11.6 - BATTERY REPLACEMENT

Replace the old battery with one of the same type (1 lithium battery type CR2032), in observance of the specified polarity; see **fig. 55**.



## 7.12 - Indoor siren (MASI1)

### 7.12.1 - SPECIAL WARNINGS

Install the product in a location difficult to reach, to avoid inadvertent damage, possibly in a location where the sound produced can be propagated to the various other rooms. If necessary, fit additional sirens.

### 7.12.2 - OPERATION

MASI1 signals intrusion with a powerful acoustic alarm. On each alarm command send by the control unit, it emits an alarm signal lasting approx. 3 minutes; the alarm signal terminates when the control unit is disarmed.
If the siren housing is opened, an alarm signal is activated, lasting approx. 3 minutes.

Acoustic signals:

- 4 beeps = confirms activation of the control unit
- 1 beep = confirms deactivation of the control unit
- series of beeps for approx. 20 seconds on activation or deactivation of the control unit = batteries discharged

On activation of the battery discharged signal, the batteries must be replaced as soon as possible. Incorrect alarm signals may be generated when batteries are discharged.

### 7.12.3 - STANDARD PROGRAMMING

The touchscreen is required for programming.

**01.** Open the box and remove the batteries from the siren (**fig. 56-E**)
**02.** Refit the battery, in observance of the specified polarity.
**03.** Within 60 seconds, use the touchscreen or remote control to activate and deactivate the alarm: the siren emits 6 beeps to confirm programming.

At this point, proceed with installation (paragraph 7.12.4).

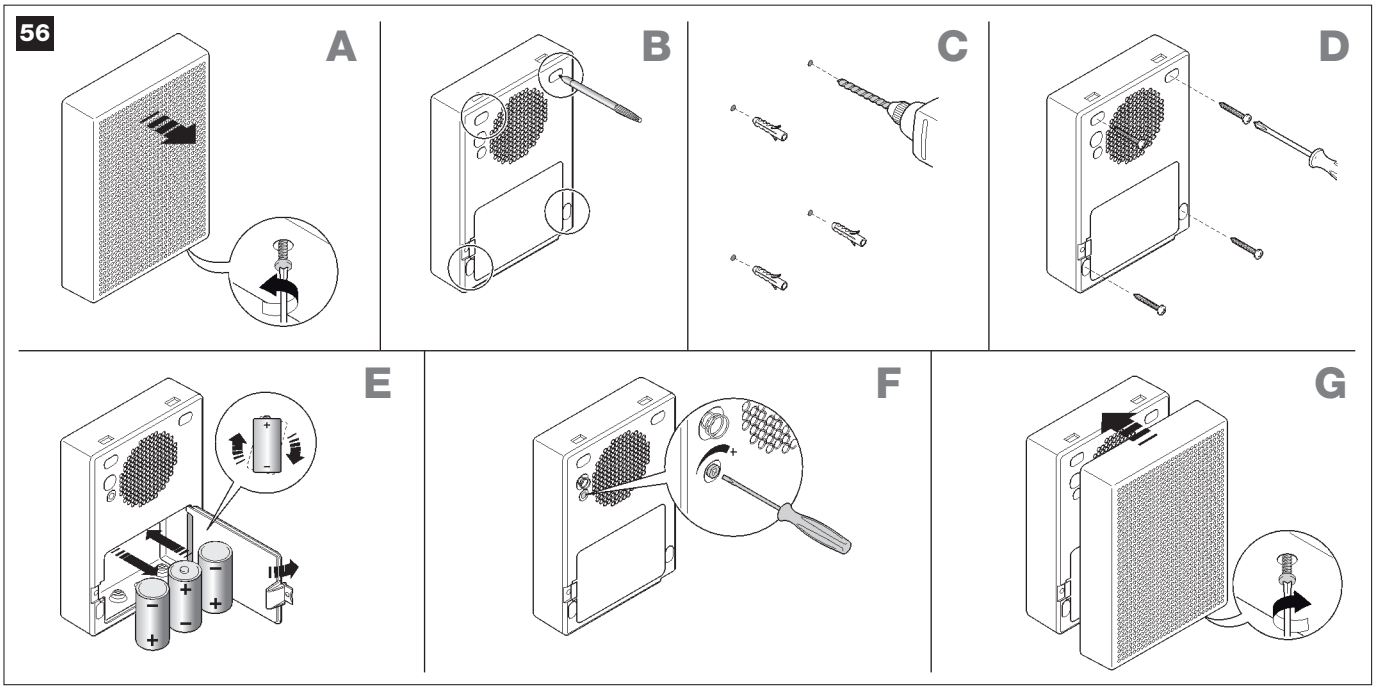
### 7.12.4 - INSTALLATION

For installation, proceed as described in the sequence shown in **fig. 56**.
**If required, the beep volume can be adjusted (not the siren)** by turning the potentiometer (**fig. 56-F**).

### 7.12.5 - BATTERY REPLACEMENT

Only replace the batteries when signalled by the detector and control unit. Use 3 alkaline batteries, 1.5 V size C.

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon and select
**02.**Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.
**03.** Open the siren cover and replace the batteries (**fig. 56-E**), in observance of the specified polarity.
**04.** Close the box.
**05.** Within 60 seconds, use the touchscreen or remote control to activate and deactivate the alarm: the siren emits 6 beeps to confirm programming.
**06.** Exit the alarms menu by touching the icon at the top right of the display.



## 7.13 - Outdoor siren via radio (MASO1)

### 7.13.1 - OPERATION

MASO1 signals intrusion with a powerful acoustic alarm. On each alarm command sent by the control unit, it emits an alarm signal lasting approx. 3 minutes; the alarm signal terminates when the control unit is disarmed.
If the siren housing is opened, an alarm signal is activated, lasting approx. 3 minutes. The tamper alarm is also sent to the control unit.
MASO1 receives the various alarm and system status signals from the control unit and displays these with a flashing signal or acoustic signal.

Signals:

- 3 beeps and 3 flashes = confirms arming of the control unit
- 1 beep and 1 flash = confirms disarming of the control unit
- series of beeps with lamp lit, for approx. 12 seconds: pre-alarm status
- continuous sound with lamp lit, for approx. 2 seconds; control unit in test/programming phase; opening of the siren box does not trigger tamper alarm.
- rapid series of beeps and flashes for approx. 30 seconds on arming and disarming of the control unit = batteries discharged

On activation of the battery discharged signal, the batteries must be replaced as soon as possible. Incorrect alarm signals may be generated when batteries are discharged.

Thanks to bidirectional communication, it sends the “battery low”, “supervision” and “tamper” signals to the control unit.
It is also equipped with a voice board for the recording of voice messages that can be used to replace acoustic signals (beeps and siren); see paragraph 7.13.4 and chapter 8 - Further details.

### 7.13.2 - STANDARD PROGRAMMING

The touchscreen is required for programming.

**01.** Remove the battery from the siren (**fig. 57 - phase H-I**).

**02.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select .

**03.** Enter the “**ADMINISTRATOR CODE** and touch “**OK**” to confirm.

**04.** Touch “**Devices**”, then touch “**Other devices**”.

**05.** Select a device from the list and compile the next screen with the following parameters:
- **Name** Touch “Name” and enter the name to assign to the device (for example: “Siren”). Touch “**OK**” to confirm
- **Voice name** Touch “Voice Name” and record the name to assign to the device (for example: “Siren”).

**06.** Touch “**OK**” to confirm.

**07.** Touch “**Ok**” again and then insert the batteries in the siren (the control unit emits a beep to confirm siren programming).

To complete programming and then also program the control unit on the siren, proceed with complete installation (paragraph 7.13.3).

### 7.13.3 - INSTALLATION

**Warning-** Install the product in a location difficult to reach, to avoid intentional damage, possibly in a location where the sound produced can be propagated efficiently in the required directions. If necessary, fit additional sirens.

For installation, proceed as described in the sequence shown in **fig. 57**.

**01.** Open the box (**fig. 57-A and B**);

**02.** Remove part “**a**” and keep in a safe place (**fig. 57-C**);

**03.** Remove part “**b**” (**fig. 57-D**);

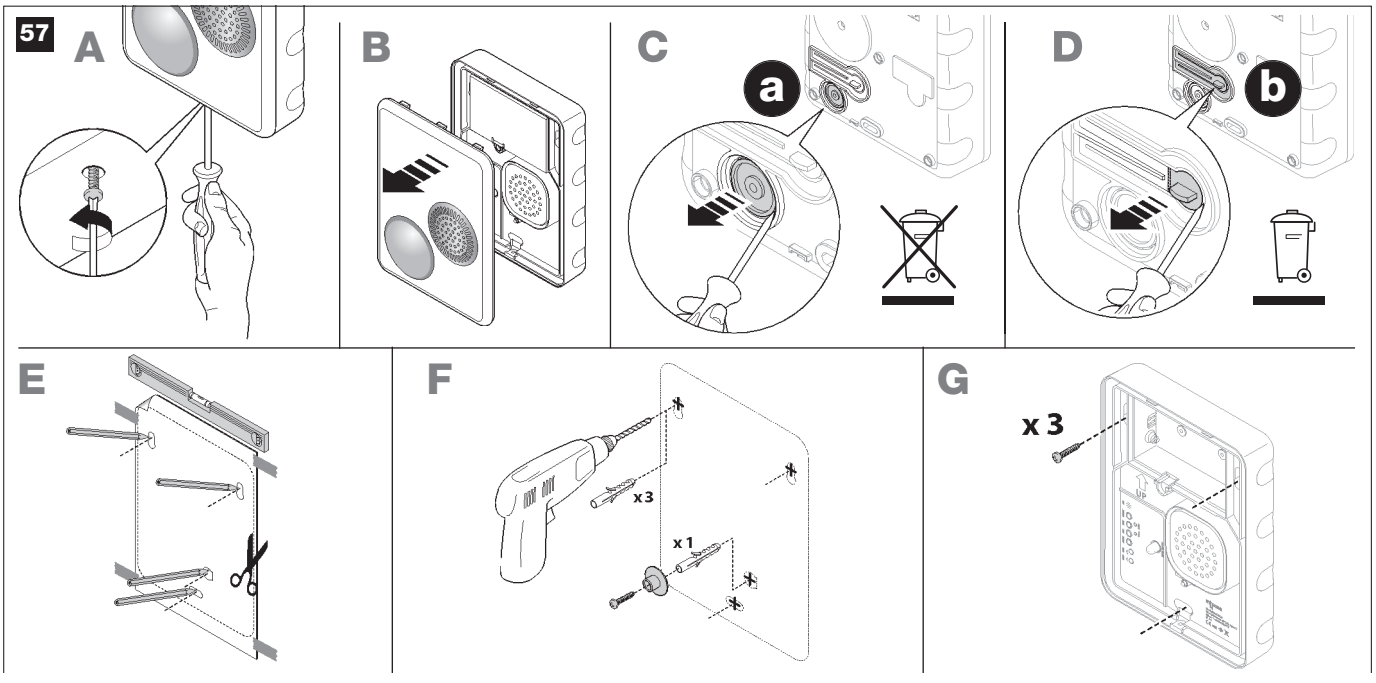
**04.** Mark the 3 fixing points on the wall and the 4th point for part “**a**” (**fig. 57-E**): **use the template at the end of the manual with the outline of the control unit to a scale of 1:1**;

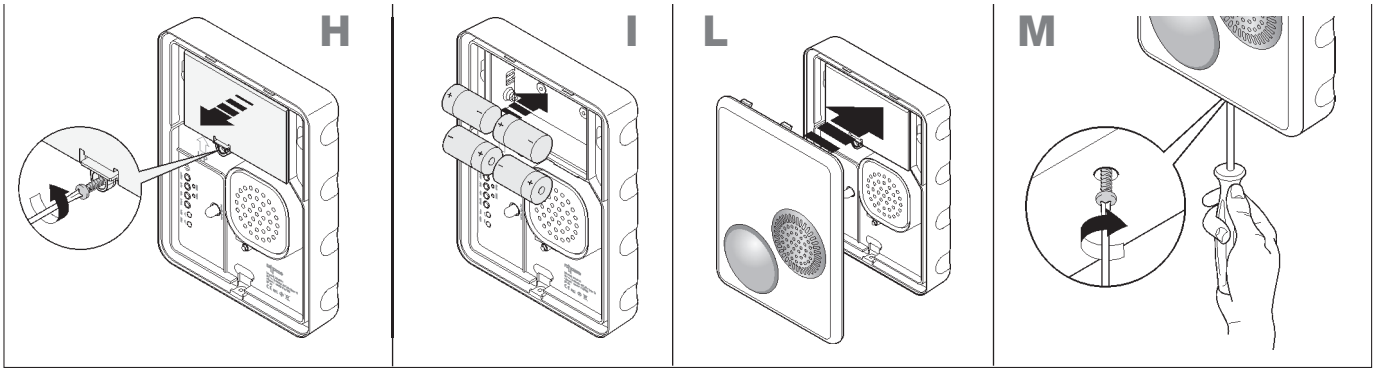
**05.** Drill the wall, insert the plugs supplied and fix (before the siren) part “**a**” with the screw supplied (**fig. 57-F**). **Caution! - This part is fixed to the hole of part “b”, previously removed**.

**06.** Secure the siren with the screws supplied (**fig. 57- G**);

**07.** Close the box (**fig. 57- L and M**): the siren emits a beep to confirm box closure. If this does not occur, ensure correct closure of the cover;

**08.** Immediately afterwards, activate and deactivate the alarm via the touchscreen or remote control; the siren emits 6 beeps and 6 flashes to confirm programming.






### 7.13.4 - RECORDING VOICE MESSAGES

MASO1 emits the 2 voice messages in two ways; these depend on the type of programming set by the control unit and associated with the siren (see chapter 8 - Further details):

**1)** pre-alarm signal: voice message **MSG1** lasting a maximum of 10 seconds and replacing the siren pre-alarm beeps; the high power siren sound then follows for 3 minutes.

**2)** voice alarm signal: voice message **MSG2** (replacing the siren) lasting a maximum of 20 seconds, repeated continuously for 3 minutes.

To select to a message:

**01.** Press the key **SELECT** (**fig. 58**) one or more times to select the required message (MSG 1 or MSG 2): the relative led flashes (no message is already recorded) or lights up permanently (message already recorded);

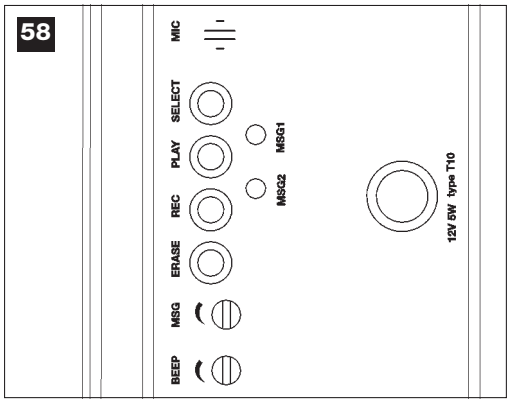
**02.** Then, within 10 seconds, proceed with one of the following:

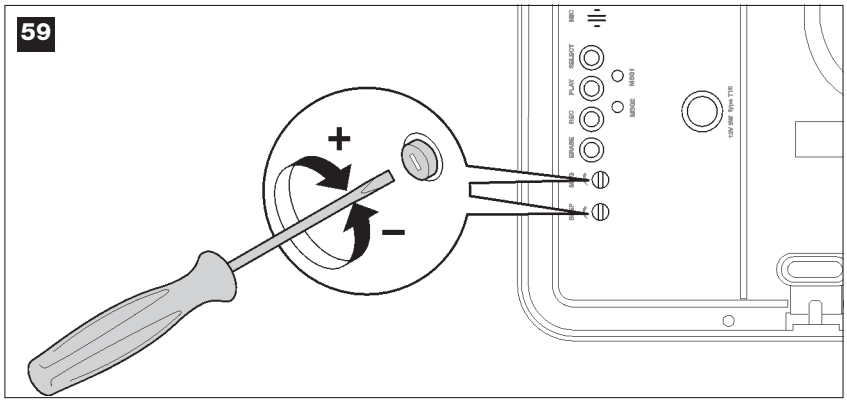
- **Record a new message (only if led is flashing):** press and hold the key **REC** (**fig. 58**). Then record the message speaking with a normal voice at approx. 40-50 cm from the microphone. Release REC at the end of recording (the message will then be played automatically).
- **Listen to the selected message (only if led is permanently lit):** press the key **PLAY** (**fig. 58**).
- **Delete a recorded message (only if led is lit):** press and hold the key **ERASE** (**fig. 58**) until the relative led turns off;

Before closing the housing the volume of the messages can be adjusted as required:

**01.** Turn the BEEP potentiometer (**fig. 59**) to modify the volume of the beeps.

**02.** Turn the MSG potentiometer (**fig. 59**) to modify the volume of the voice messages.




### 7.13.5 - BATTERY REPLACEMENT

Only replace the batteries when signalled by the siren and control unit. Use 4 batteries, 1.5 V type D.

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select .

**02.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.

**03.** Open the box (**fig. 57-A and B**) and then the control unit battery compartment (**fig. 57**-**H and I**) and replace the batteries with 4 of the same type, in observance of the specified polarity.

**04.** Close the box (fig. **57- L and M**): the siren emits a beep to confirm box closure. If this does not occur, ensure correct closure of the cover;

**05.** Exit the alarms menu by touching the icon at the top right of the display.

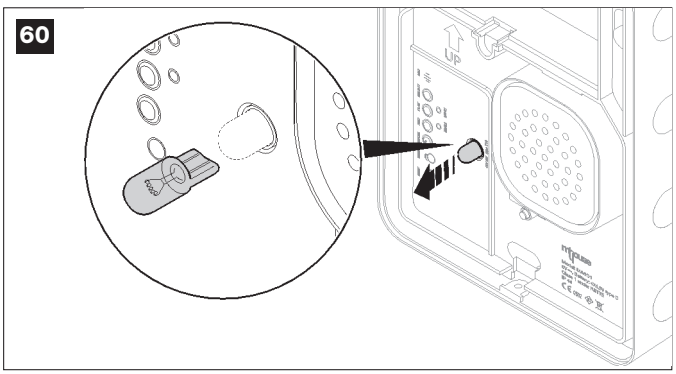
### 7.13.7 - LAMP REPLACEMENT

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select .

**02.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.

**03.** Open the box (**fig. 57-A and B**) and replace the lamp with one of the same type (**fig. 60**);

**04.** Close the box (**fig. 57-L and M**).



## 7.14 - Control keypad (MADS1)

### 7.14.1 - OPERATION

This enables partial or total activation and deactivation of the control unit using one of the **ACCESS CODES** (5 digits) previously programmed. **IMPORTANT!** – On MADS1, the ADMINISTRATOR and USER codes cannot be used.
Maximum transmission security is guaranteed thanks to encrypting using a Rolling Code system. An internal buzzer confirms manoeuvres and emits audible signals when new events occur and are memorised on the control unit. A battery low signal is also incorporated.

**Description of leds and keys**

There are 8 indicator leds, 10 numerical keys and 10 function keys (**fig. 61**):

**1** = Leds of zones **A**, **B**, **C**: lit when the zone is enabled

**2** = Led ((•)): transmission; lit when a radio signal is transmitted

**3** = Led : warning - in the case of new events in the control unit memory the led lights up during deactivation

**4** = Led : warning - door open; lit when the control unit is activated and a door or window has been left open

**5** = Led : warning - battery charge low; lit when the control unit is activated or deactivated to indicate that the battery charge is low and batteries need to be replaced

**6** = Led : lit during standby for confirmation of a control unit command

**7** = Keys P1, P2 and ⚠ : the key ⚠ can be used to activate the "Emergency" or "Deterrence" requests. P1 and P2 special functions

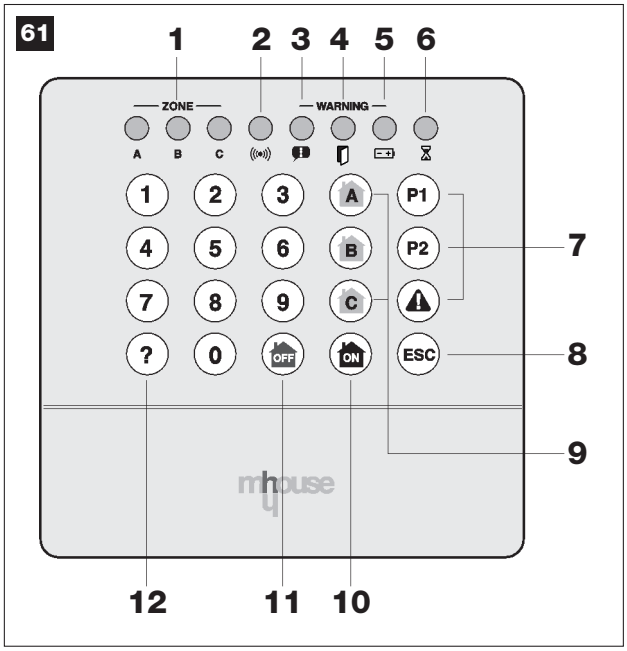
**8** = Key ESC : reset key, used to delete a code entered incorrectly

**9** = Keys A, B and C : used to select the zones **A**, **B**, **C** to be activated

**10** = Key ON : used to send an activation command to the control unit

**11** = Key OFF : used to send a deactivation command to the control unit

**12** = Key ? : used to send a query command to the control unit




**Functions available and relative signals**

• **Control unit activation/deactivation:**
- **Total arming:** enter the personal 5-digit code and after entry of the fifth digit, leds "A - B - C" illuminate, after which press the red key ON. Entry is confirmed by the emission of 3 beeps and leds A - B - C remain lit for 30 seconds.

- **Partial arming:** enter the personal 5-digit code and after entry of the fifth digit, leds (A - B - C) illuminate. Press keys A, B or C of the zones not to be activated; the relative leds turn off. Now press the red key ON;

- **Deactivation:** enter the personal 5-digit code and after entry of the fifth digit, leds "A - B - C" illuminate, after which press the green key OFF. Deactivation is confirmed by the emission of 1 beep and leds A - B - C remain off.
***Note*** – *Deactivation is only total.*
***Note 1*** *- Each code used can only activate or deactivate the alarm zones for which it was enabled during the programming phase.*
- **Deactivation under force (anti-duress):** If one or more anti-duress codes have been programmed on the control unit, as an alternative to entry of the personal 5-digit code, this specific 5-digit code can be entered, which, as well as deactivating the control unit also makes telephone calls to request assistance as envisaged for this function (see paragraph 5.4.1).

• **Code entry errors:** if an incorrect code is entered, press the key ESC to reset and enter the correct version.

• **Incorrect code:** if an incorrect code is used (code not memorised) led [(•)] flashes 8 times, and during this interval led [ ] remains lit. After 8 attempts with an incorrect code, all leds start flashing, and the control unit remains blocked for 30 seconds.

• **Control unit status check:** press the key ? to query the control unit; after a brief interval the leds (A, B, C) illuminate according to the zones activated; if no led turns on, this means that the control unit is deactivated.

### 7.14.2 - PROGRAMMING

The touchscreen or remote control is required for programming.

• **Programming the keypad on the control unit (to use the 5-digit code for activation/deactivation):**
**01.** Open the box and remove the batteries from the keypad (**fig. 63**).
**02.** Insert the batteries (remove the separation tab) on the keypad; a beep is emitted and all leds flash for 60 seconds.
**03.** Within this interval, the control unit must be deactivated (using the touchscreen or remote control); on deactivation, 6 beeps are emitted to confirm memorisation of the keypad on the control unit.
*Note - The volume of the keypad beeps can be adjusted by turning the trimmer as shown in fig. 62 - I.*
**04.** Close the box.

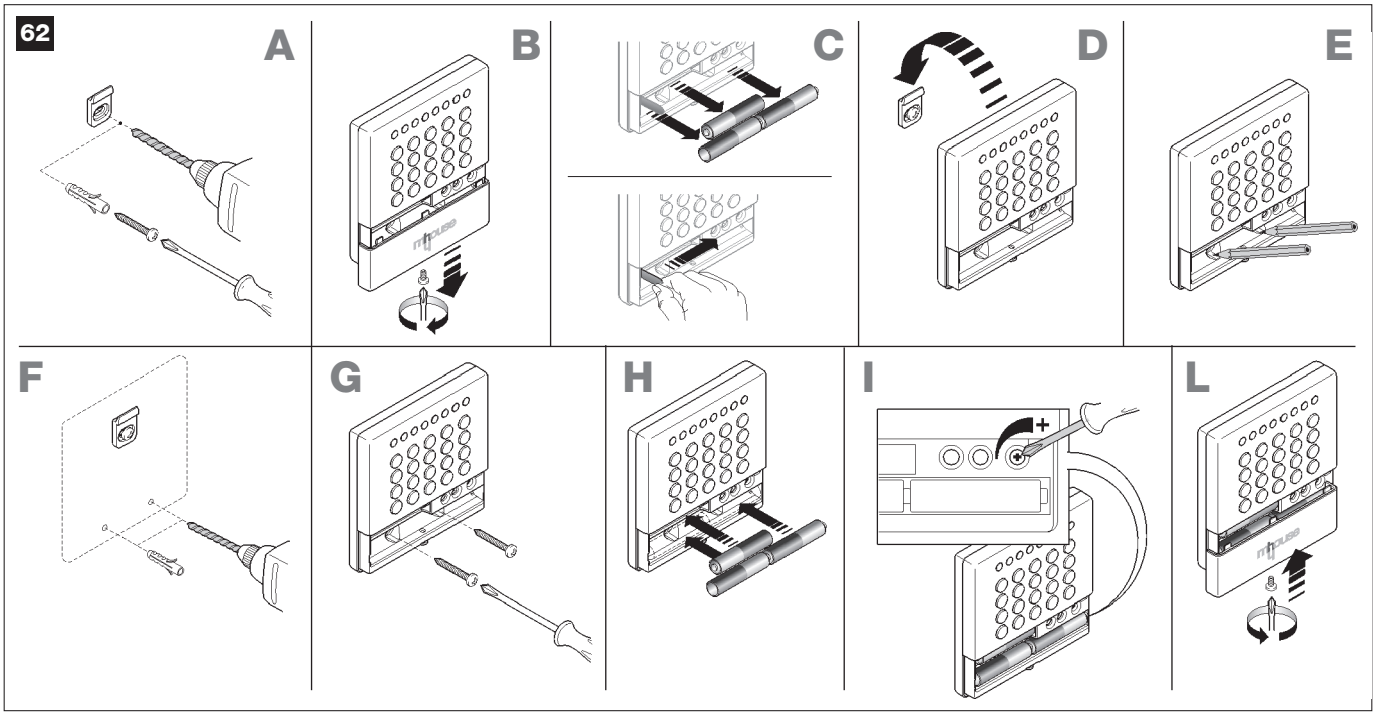
• **Programming the key ⚠ to send "deterrence" or "emergency" alarms:**
This procedure enables programming of keys for **emergency or deterrence requests**, present on the keypad.
**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select
**02.** Enter the "**ADMINISTRATOR CODE** and touch "**OK**" to confirm.
**03.** On the touchscreen, touch "**Devices**" and then "**Deterrence**" or "**Emergency**".
**04.** In the list displayed, touch a line and complete the next screen with the following parameters:
• Name Touch "Name" and enter the name to assign to the event (for example: "emergency"). Touch "OK" to confirm
• Voice name Touch "Voice Name" and record the name to assign to the event (for example: "grandmother emergency").
**05.** Touch "**OK**" to confirm.

**06.** Touch "**OK**" again and then, on the keypad, press and hold ⚠ for 10 seconds to generate the emergency or deterrence alarm (the control unit emits a confirmation beep; 3 beeps indicate that the code is already present).
**07.** Touch "**OK**" to confirm.

### 7.14.3 - WALL-MOUNTED INSTALLATION

**Warning -** Install the product in an easily accessible location (for example close to the main entrance).

To install the keypad on a wall, proceed as follows:
**01.** Open the cover (**fig. 62-B**) and remove **the insulation protection** (**fig. 62-C**);
**02.** Insert the batteries, inobservance of the specified polarity (**fig. 62-H**): the keypad emits 1 beep and all leds flash for 60 seconds.
During this time, the alarm should be activated and immediately deactivated using the touchscreen or a transmitter: 6 beeps and shut-down of all leds confirm programming of the keypad.

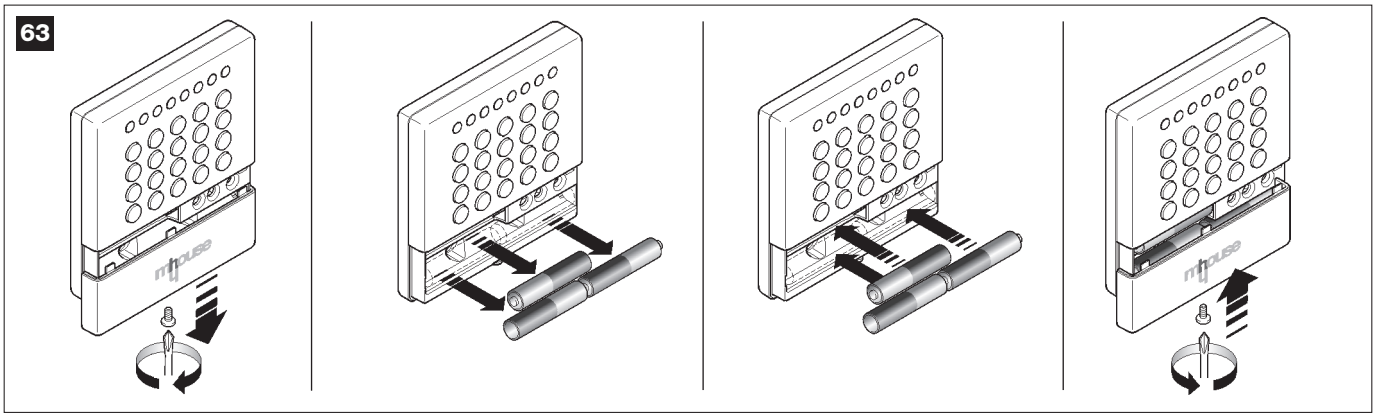



### 7.14.4 - BATTERY REPLACEMENT

Only replace the batteries when signalled by the keypad and control unit. 3 alkaline batteries, 1.5 V size AAA.

**01.** In the main menu of the touchscreen, touch the icon , scroll through the list with the arrow icon › and select

**02.** Enter the "**ADMINISTRATOR or USER CODE**" and touch "**OK**" to confirm.
**03.** Open the keypad battery compartment (**fig. 63**) and replace the batteries with 3 of the same type, in observance of the specified polarity.
**04.** Insert the batteries, inobservance of the specified polarity : the keypad emits 1 beep and all leds flash for 60 seconds.
During this time, the alarm should be deactivated using the touchscreen or a transmitter: 6 beeps and shut-down of all leds confirm programming of the keypad.



# 8 - FURTHER DETAILS

## 8.1 - Alarm types

There are different types of alarm:
- **Pre-alarm status:** the control unit emits an acoustic signal (beep) or pre-alarm voice message.
- **General alarm:** activation of all sirens for 3 minutes and dialling of all telephone numbers envisaged for this type of alarm.
- **Voice alarm:** in replacement of the siren sound, the siren emits a deterrent voice message in the event of an alarm.
- **Deterrence alarm:** when the system is enabled, this activates all sirens for 3 minutes and dialling of all telephone numbers envisaged for this type of alarm; when the system is partially enabled or disabled, this only activates the sirens.
- **Emergency alarm:** dialling of all telephone numbers envisaged for this type of alarm.
- **Technical alarm:** the control unit emits an intermittent audible signal for 15 seconds and dials all telephone numbers envisaged for this type of alarm.
- **Tamper alarm:** with the system enabled, this generates a "general alarm"; when the system is partially enabled or disabled, this activates an intermittent audible signal for 3 minutes and dials all telephone numbers envisaged for this type of alarm.

## 8.2 - Siren operation

**- Indoor sirens:** on total or partial activation, these sirens emit 3 beeps and 1 beep on deactivation. The beep volume can be adjusted through to level zero.
They are activated for 3 minutes in the event of "general", "tamper" or "deterrence" alarms.

**- Outdoor sirens:** on total or partial activation, these sirens emit 3 beeps and 1 beep on deactivation. The beep volume can be adjusted through to level zero. The flashing light flashes during siren activation.
They first emit a pre-alarm (series of beeps for 10 seconds) and immediately afterwards the acoustic alarm (3 minutes) in the event of "general", "tamper" or "deterrence" alarms. Both the pre-alarm and alarm acoustic signals can be replaced with two different voice messages which must be recorded via the microphone on the siren (see **fig. 64**).

### *8.2.1 - Procedure for recording voice messages on the outdoor siren (MAS01)*

2 voice messages can be recorded:
- **message 1** = replaces the beep sound during the pre-alarm phase.
*(e.g. ""Caution! Pre-Alarm status)*
- **message 2** = replaces the siren sound during the general alarm phase.
*(e.g. ""Caution! Alarm in progress)*

**01.** After opening the siren cover (the siren must already be programmed in the alarm system), using the relative keys proceed as follows:
**a**) - press **SELECT** to select the required message (MSG 1 or MSG 2); the relative led (L1 or L2) flashes ( = MSG not present) or lights up permanently (= MSG present).
**b**) - listen to the selected message (only if the message is already present = led lit): press **PLAY**.
**c**) - record a new message (MSG 1 or MSG 2): (only if the message is not already present = led flashing) press and hold **REC**.
**d**) - delete a recorded message (MSG 1 or MSG 2): press **ERASE** until the relative led turns off (L1 or L2);
**02.** At this point the voice function volume can be adjusted by means of the trimmer "MSG".
**03.** Close the siren cover.

### *8.2.2 - Procedure for activating voice messages on the outdoor siren (MAS01)*

After recording messages on the siren, decide which group of detectors (zone A, B, C) will activate voice type alarms and which will activate traditional alarms. To activate the messages, proceed as follows.

**01.** From the main menu press "Alarms", then "Menu", "Settings" and "Alarm type".
**02.** In the list displayed, select a zone and associate the type of alarm required. Touch "**OK**" to confirm.

***Example**: after activation, all detectors belonging to zone A will generate a voice type alarm. The remaining detectors (zones B and C) will generate standard acoustic alarms.*

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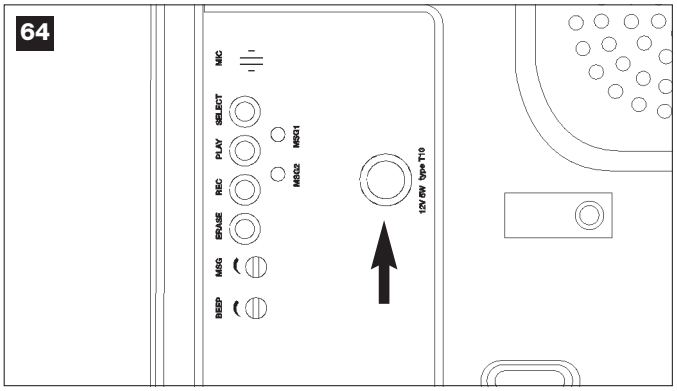



# 9 - PRODUCT MAINTENANCE

In general devices in the Mhouse alarm system do not require special maintenance. In any event, ensure regular cleaning of the product surfaces, and in particular the sensitive elements of the detectors (sensor areas). These parts must be dust-free and clean at all times.

**Warning** – For cleaning the product surfaces, use a slightly damp cloth; use water only and never detergents or solvents.

An alarm system does not normally signal alarm conditions for extended periods of time and for this reason correct operation is not always verified. In any event is is advisable to periodically check efficiency using the special functions of the control unit.

- Perform the device operation test using the function "**CONTROL UNIT TEST**" (see paragraph 7.1.1).
- Analyse the "Events list" to locate the source of any malfunctions and to prevent future problems (the control unit records all events and stores the last 200 in the memory - see point 6 - User's guide).
- All system devices powered by batteries have a function that checks battery charge status and indicates when the charge level is low (in these cases, residual autonomy is approx. 15-30 days). Each device has a specific indicator for this purpose (see chapter 7 for details). This signal is also sent to the control unit and is displayed on the touchscreen.
**Caution!** – When batteries are partially discharged, the radio range between devices is reduced and system operation is not guaranteed. Therefore replace batteries to restore full system operation. To replace batteries, refer to chapter 7 for the instructions related to each alarm system device.
**Caution! – Never use new battery models different from the specified version.**

## 10 - TROUBLESHOOTING... (troubleshooting guide)

### • A detector occasionally generates an improper alarm:

**a**) - check any warnings in the events list (see point 7 - User's guide), to identify which device tripped the alarm;
**b**) - check whether the batteries are discharged;
**c**) - ensure that the detector is not dirty or damp.
**d**) - also, for each type of sensor, perform the following checks:

<u>For door and window opening detectors (MAD1)</u>

- **Incomplete door/window closure**: if the door or window is not perfectly closed, the wind may move it.
- **Door/window deformation:** check the correct distance between the sensor and magnet with the door/window closed
- **Vibrations:** the internal anti-intruder sensor (if active) is sensitive to strong vibrations
- **External contact:** the connection to the external contact is sensitive to high levels of humidity

<u>For infra-red detectors with volumetric lens (MAD2) and with vertical curtain lens (MAD3)</u>

- **Strong currents of hot or cold air**: the infra-red sensor is sensitive to hot moving bodies
- **Large insects:** for the sensor, a bumblebee of one centimetre would be like an elephant at a distance of 10 metres
- **External contact:** the connection to the external contact is sensitive to high levels of humidity

<u>For detectors of glass breakage (MAD4 )</u>

- **Falling objects**: can cause noise similar to breaking glass
- **Rapid pressure changes**: the activation of air conditioners or fans can generate improper alarms.

<u>For smoke detectors (MAD5)</u>

- **Cooking fumes and vapours**: place the sensor far from cooking areas
- **Dust:** avoid positioning the sensor in dusty environments

<u>For flooding detectors (MAD5)</u>

- **Condensation or high levels of humidity**: high levels of humidity can produce condensation on the sensor.
- **Sensor dirty:** dirt increases the risk caused by humidity.

### • For all devices in the Mhouse alarm system

Virtually all products are fitted with protection against opening and removal; this system normally acts on the cover and base of the product. Inadequate fixture or incorrect closure of the covers could cause a tamper alarm signal; this is a rare case for example in the case of temperature variations.

If a detector repeatedly trips a "tamper" type alarm, check that it is fixed in place correctly. If necessary, disable the anti-detachment protection (tamper), by setting Dip switch 5 to ON (see the paragraphs on detectors in chapter 7);

### • The "dialler test" does not work:

If the test fails, the causes may be:
- <u>no messages or calls are received</u> = try moving the control unit to a zone with better GSM coverage or change telephone provider;
- <u>no calls are made on the PSTN land line (also broadband)</u>= the cause may be disturbance on the telephone line; in this case to override the call enter the symbol ✱ before the telephone number (e.g. ✱0421 987654).

Refer also to chapter 7.1.2.

## 11 - DISPOSAL

### Product disposal

All devices in the alarm system are an integral part of the installation and must be disposed of as a whole. As in installation, also at the end of product lifetime, the disassembly and scrapping operations must be performed by qualified personnel.

These products are made of various materials; some may be recycled and others must be disposed of. Seek information on the recycling and disposal systems envisaged by the local regulations in your area for this product category.

**Caution!** – Some parts of the products may contain pollutant or hazardous substances which, if disposed of into the environment, may cause serious damage to the environment or physical health.

As indicated by the symbol alongside, disposal of this product in domestic waste is strictly prohibited.

Separate the waste into categories for disposal, according to the methods envisaged by current legislation in your area, or return the product to the retailer when purchasing a new version.

**Caution!** – Local legislation may envisage serious fines in the event of abusive disposal of this product.

### Disposal of batteries

**Caution! – The backup batteries and battery packs in the devices present in this alarm system, also if discharged, contain pollutant substances and therefore must not be disposed of as household waste. Dispose of according to separate waste collection procedures as envisaged by local current standards**

# 12 - TECHNICAL SPECIFICATIONS

The kit is produced by Nice S.p.a. (TV) IT, **MHOUSE** is a company in the group NICE S.p.a.
**WARNINGS:** • All technical specifications specified herein refer to an ambient temperature of 20°C (± 5°C). • NICE S.p.a reserves the right to apply modifications at any time as deemed necessary, while maintaining the same functionality and intended use.

## Control unit models MACU1 and MACU2

- **Power supply:** 4 batteries, 1.5 V type D supplied
- **Insulation:** Class III (safety extra low voltage).
- **Absorption:** approx. 200 µA on stand-by; maximum 200 mA in alarm status with PSTN operative; maximum 400 mA in alarm status with GSM operative.
- **Autonomy:** at least 2 years; autonomy estimated with 2 on/off cycles per day, 10 detectors present and 10 alarms per year. Autonomy is reduced in the event of numerous telephone calls.
- **Programming**: via MATS1 control keypad with portable wireless bidirectional graphic touchscreen with voice guide. The control unit can manage up to 4 MATS1 keypads.
- **Radio reception-transmission:** digital bidirectional communication, in dual band frequency (433 and 868 Mhz) with quartz control; devices pre-encoded in the factory and managed in self-learning mode.
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Alarm inputs via radio:** up to 50 programmable detectors: immediate, in pairs, or delayed; on 3 activation zones A-B-C or in three 24-hour zones Panic, Emergency, Technical Alarms.
- **Anti-tamper via radio:** reception of tamper signal from each detector or siren
- **Radio system control:** continuous, simultaneous on the 2 operating frequencies and programmable anti-scanner function; reception of supervision and low battery signals.
- **Alarm output via radio:** 72 bit coded digital transmissions for alarm system control
- **Event log:** last 200 events
- **Timers:** programmable delayed activations. Programmable alarm delay on each detector. Duration of general alarm 3 cycles of 3 minutes each with an interval of 3 minutes.
- **Indoor siren:** Sound power of 106 db + buzzer with low intensity signal function.
- **Acoustic signals:** 6 voice messages recordable on 32 Mbit flash memory for approx. 500 s of messages.
- **Phone book for telephone calls:** up to 10 numbers
- **Fixed PSTN telephone connection:** Connection with standard RJ11 socket. Automatic adaptation to line characteristics in country of use, according to the selected language. Compatible with broadband lines.
- **GSM telephone connection** (*): GSM module, Quad-band, EGSM 850/900/1800/1900 MHz. Output power: - Class 4 (2W) at 850 / 900 MHz - Class 1 (1W) at 1800 / 1900 MHz Sensitivity: - 107 dBm at 850 / 900 MHz - 106 dBm at 1800 / 1900 MHz.
- **Additional functions with GSM:** telephone calls also in event of land line mains failure. Delivery of alarm text messages (up to 6) or technical text messages (up to 8)
- **Operating temperature:** from –10 to +40 °C.
- **Dimensions (LxDxH):** 211 x 54 x 307 mm.
- **Weight:** 2 kg, batteries included.

*(*) **Note** – The model MACU2 is not fitted with the GSM module and therefore does not offer the relative GSM functions.*

## Detector model MAD1

- **Type:** magnetic contact detector with input for second contact (NC or pulse count); single or differentiated alarm. Intruder sensor
- **Power supply:** Alkaline battery 9 V (GP1604A), supplied
- **Current absorption:** 16 µA on standby - 40 mA in transmission
- **Autonomy:** approx. 2 years
- **Supervision:** approx. every 40 minutes
- **Display and checks:** illumination of led to confirm each alarm. If a led flashes after an alarm this indicates “battery low”
- **Radio transmission:** digital communication, in dual band frequency (433 and 868 Mhz) with quartz control; devices pre-encoded in the factory and managed in self-learning mode
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Insulation:** class III
- **Operating temperature:** from –10 °C to +40 °C
- **Environmental class according to EN 50131-1:** II
- **Assembly:** on the frame of doors or windows
- **Dimensions (LxDxH):** 33 x 29 x 135 mm
- **Weight:** 120 g

## Detector model MAD2

- **Type:** infra-red detector with volumetric lens with input for second contact (NC or pulse count); single or differentiated alarm.
- **Power supply:** Alkaline battery 9 V (GP1604A), supplied
- **Current absorption:** 16 µA on standby - 40 mA in transmission
- **Autonomy:** approx. 2 years
- **Supervision:** approx. every 40 minutes
- **Display and checks:** illumination of led to confirm each alarm. If a led flashes after an alarm this indicates “battery low”
- **Radio transmission:** digital communication, in dual band frequency (433 and 868 Mhz) with quartz control; devices pre-encoded in the factory and managed in self-learning mode
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Insulation:** class III
- **Operating temperature:** from –10 °C to +40 °C
- **Environmental class according to EN 50131-1:** II
- **Assembly:** Wall-mounted
- **Dimensions (LxDxH):** 33 x 28 x 135 mm
- **Weight:** 130 g

## Detector model MAD3

- **Type:** Infra-red detector with curtain lens and input for second contact (NC or pulse count); single or differentiated alarm.
- **Power supply:** Alkaline battery 9 V (GP1604A), supplied
- **Current absorption:** 16 µA on standby - 40 mA in transmission
- **Autonomy:** approx. 2 years
- **Supervision:** approx. every 40 minutes
- **Display and checks:** illumination of led to confirm each alarm. If a led flashes after an alarm this indicates “battery low”
- **Radio transmission:** digital communication, in dual band frequency (433 and 868 Mhz) with quartz control; devices pre-encoded in the factory and managed in self-learning mode
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Insulation:** class III
- **Operating temperature:** from –10 °C to +40 °C
- **Environmental class according to EN 50131-1:** II
- **Dimensions (LxDxH):** 33 x 31 x 135 mm
- **Weight:** 120 g

## Detector model MAD4

- **Type:** Detector of glass breakage
- **Power supply:** Alkaline battery 9 V (GP1604A), supplied.
- **Current absorption:** 25 µA on standby, 20 mA in transmission
- **Autonomy:** approx. 2 years
- **Display and checks:** operating status test and alarm
- **Radio transmission:** digital communication, in dual band frequency (433 and 868 Mhz) with quartz control; devices pre-encoded in the factory and managed in self-learning mode
- **Insulation:** class III
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Operating temperature:** from –10°C to +40°C
- **Environmental class according to EN 50131-1:** II
- **Dimensions (LxDxH):** 108 x 44 x 80 mm
- **Weight:** 166 g

## Detector model MAD5

- **Type:** detector of dense combustion fumes
- **Power supply:** Alkaline battery 9 V (GP1604A), supplied.
- **Current absorption:** 15 µA on standby, 25 mA in transmission
- **Autonomy:** approx. 2 years, with low battery signal
- **Supervision:** approx. every 40 minutes
- **Display and checks:** signals via leds
- **Protected volume:** standard 6 x 6 x 3 m in height; larger or non-square rooms require more detectors
- **Radio transmission:** Digital communication, in dual band frequency (433 and 868 Mhz) with quartz control; devices pre-encoded in the factory and managed in self-learning mode
- **Insulation:** class III
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Operating temperature:** from –10°C to +40°C
- **Environmental class according to EN 50131-1:** II
- **Assembly:** wall-mounted
- **Dimensions (∅xA):** ø 106 x 60 mm
- **Weight:** 100 g

## Detector model MAD6

- **Power supply**: not necessary; requires connection to sensor MAD1
- **Functions**: the alarm signal is generated by a variation in electrical resistances in the sensor, when contact with water occurs on flooding. Possibility of disabling sensor, for example when cleaning floors
- **Dimensions (LxDxH)**: 35 x 15 x 80 mm
- **Weight:** 120 g
- **Operating temperature:** from –10°C to +40°C

## Siren model MASO1

- **Power supply:** 4 batteries, 1.5 V type D supplied
- **Average autonomy:** 3 years
- **Supervision:** Approx. every 40 minutes
- **Sound power:** 116 db at 1 m
- **Voice messages:** 2 for a total of 30 seconds
- **Radio reception:** Digital bidirectional communication, on “Dual Band” frequency (433 and 868 MHz)
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Tampering alarm:** Transmission of tamper alarm in event of opening of box and/or detachment from wall and/or violent break-in attempts
- **Temperature:** –25°C +55°C
- **Protection rating:** IP 55
- **Dimensions:** 211 x 66 x 307 mm
- **Weight:** 2,5 kg

## Siren model MASI1

- **Type:** Indoor siren via radio
- **Power supply:** 3 alkaline batteries, 1.5 V size C, supplied.
- **Current absorption:** 60 µA on standby - 300 mA in alarm status
- **Autonomy:** approx. 2 years, with 10 alarms per year and two ON-OFF manoeuvres per day
- **Sound power:** 114 db at 1 m
- **Radio reception:** digital communication, in dual band frequency (433 and 868 Mhz) with quartz control; devices pre-encoded in the factory and managed in self-learning mode
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Insulation:** class III
- **Operating temperature:** from –10°C to +40°C
- **Environmental class according to EN 50131-1:** II
- **Wall-mounted assembly:** vertical / horizontal
- **Dimensions (LxDxH):** 153 x 37 x 111 mm
- **Weight:** 700 g

## Remote control model MATX8

- **Type:** 8-key radio transmitter; 4 keys for alarm system and 4 keys for automation control
- **Technology adopted:** Encoded AM OOK radio modulation (433MHz) with quartz control
- **Radio transmission:** digital bidirectional communication; devices pre-encoded in the factory and managed in self-learning mode
- **Encoding:** “Mhouse Alarm” on keys **X**, **Y**, **Z**, **W** (**fig. 1**), 64 bit rolling-code, “Mhouse Automations” on keys **1**, **2**, **3**, **4** (**fig. 1**) 72 bit rolling-code
- **Keys:** 8
- **Frequency:** 433 MHz
- **Radiated power:** 1 dBm e.r.p.
- **Power supply:** 3 V; +20% –40%; with 1 lithium battery type CR2032
- **Current absorption:** 1 µA on stand by, approx. 25 mA in transmission or reception
- **Autonomy:** approx. 2 years
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings(*****)
- **Housing protection rating:** IP 40 (use in the home or protected environments)
- **Operating temperature:** from –20°C to +55°C
- **Dimensions (LxDxH):** 38.5 x 13.5 x 93 mm
- **Weight:** 27 g

*(*) **Note**: All radio controls may be subject to interference which may alter performance. In the event of such interference, Mhouse cannot provide guarantees as to the effective operating range of devices.*

## Remote control model MATX4

- **Type:** 4-key radio transmitter for alarm systems
- **Technology adopted:** Encoded AM OOK radio modulation
- **Radio transmission:** digital bidirectional communication, 433 Mhz with quartz control; devices pre-encoded in the factory and managed in self-learning mode
- **Encoding:** 64 bit rolling code (18 billion billion combinations)
- **Keys:** 4
- **Radiated power:** 1 dBm e.r.p.
- **Power supply:** 3 V; +20% -40%; with 1 lithium battery type CR2032
- **Current absorption:** 1 µA on stand by, approx. 25 mA in transmission or reception
- **Autonomy:** approx. 2 years
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings(*****)
- **Housing protection rating:** IP 40 (use in the home or protected environments)
- **Operating temperature:** from –20°C to +55°C
- **Dimensions (mm):** 38.5 x 13.5 x 50 mm
- **Weight:** 16 g

*(*) **Note**: All radio controls may be subject to interference which may alter performance. In the event of such interference, Mhouse cannot provide guarantees as to the effective operating range of devices.*

## Keypad model MADS1

- **Type:** bidirectional dual band keypad, for control of alarm system control units
- **Power supply:** 3 alkaline batteries, 1.5 V size AAA, supplied.
- **Absorption:** 5 µA on standby - 70 mA in operation
- **Autonomy:** Approx. 2 years
- **Display and checks:** 8 function control Leds and buzzer
- **Radio transmission:** digital communication, in dual band frequency (433 and 868 Mhz) with quartz control; devices pre-encoded in the factory and managed in self-learning mode
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Insulation:** Class III
- **Operating temperature:** from –10°C to +40°C
- **Environmental class according to EN 50131-1:** II
- **Assembly:** wall-mounted or desktop
- **Dimensions (LxDxH):** 100 x 23 x 100 mm
- **Weight:** 200 g

## Touchscreen model MATS1

- **Display:** graphic, 3.75” (84 x 45 mm) with 240 x128 dots; b/w, backlit
- **Input interface:** Touchscreen + 4 function keys
- **Power supply:** 2 batteries, 1.5V type AA supplied
- **Autonomy:** on average over 1 year (depending on intensity and type of use)
- **Voice guide:** 150 pre-recorded phrases (available in main European languages)
- **Audio:** built-in microphone and loudspeaker
- **Voice recorder:** 5 messages for a total of 120s (in addition to those on the control unit)
- **Audio output:** 0.5W loudspeaker
- **Transponder badge reader:** for MAB1 type badges
- **Automation commands:** up to 16 commands
- **Luminous signals:** 1 blue led, 1 green-red led
- **Ports:** USB (micro usb) for power supply, battery charging and firmware update
- **Radio reception-transmission:** digital bidirectional, on 2 channels 433.92 and 434.32 MHz
- **Radio range:** 100 m in open field free of disturbance or approx. 20 m inside buildings.
- **Operating temperature:** from +5°C to +40°C
- **Environmental class according to EN 50131-1:** I
- **Dimensions (LxDxH):** 154 x 83 x 20 mm
- **Weight:** 250 g

# EC declaration of conformity

**Declaration in accordance with Directive 1999/5/EC**

*MACU1, MACU2, MAD1, MAD2, MAD3, MAD4, MAD5, MATX4, MATX8, MADS1, MATS1, MASO1, MASI1 are produced by NICE S.p.a. (TV) I*
*MHOUSE is a commercial brand name of Nice S.p.a*

***Note** - The contents of this declaration correspond to declarations in the official document deposited at the registered offices of Nice S.p.a. and in particular to the last revision available before printing this manual. The text herein has been re-edited for editorial purposes.*
*A copy of the original declaration can be requested from Nice S.p.a. (TV) I.*

**Number of declaration:** 355/MAK **Revision:** 0 **Language:** GB

The undersigned, Luigi Paro, in the role of Managing Director, declares under his sole responsibility, that the product:

| | |
|---|---|
| **Manufacturer's Name:** | NICE S.p.A. |
| **Address:** | Via Pezza Alta n° 13, 31046 Rustignè di Oderzo (TV) Italy |
| **Product type:** | Anti-intruder alarm control unit, battery-powered |
| **Model / Type:** | MACU1, MACU2 |
| **Accessories:** | MAD1, MAD2, MAD3, MAD4, MAD5, MATX4, MATX8, MADS1, MATS1, MASO1, MASI1 |

conforms to the essential requirements stated in article 3 of the following EC directive, for the intended use of products:

- Directive 1999/5/EC OF THE EUROPEAN PARLIAMENT AND COUNCIL of 9 March 1999 regarding radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity according to the following harmonised standards:
  - Health protection (art. 3(1)(a)): EN 50371:2002, only for MACU1 : EN50360:2001+A1:2006
  - Electrical safety (art. 3(1)(a)): EN 60950-1:2006
  - Electromagnetic compatibility (art. 3(1)(b)): EN 301 489-1 V1.8.1:2008, EN 301 489-3 V1.4.1:2002, only for MACU1 : EN301489-7 V1.3.1:2005
  - Radio spectrum (art. 3(3)): EN 300 220-2 V2.1.2:2007, only for MACU1 : EN 301511 V9.0.2:2003 only for MATS1 : EN 300330-2 V.1.3.1.:2006

In accordance with the directive 1999/5/EC (appendix V), the product is class 1 and marked:

CE 0682

The product also conforms to the requirements of the following harmonised standards:
EN 50130-4:1995+A1:1998+A2:2003

Oderzo, 24 June 2010

**Luigi Paro**
*(Managing Director)*

# — Alarm management —

This section describes the general operation of the control unit and system: operation depends on the devices present and type of settings made during installation.

### *1 - Activating or deactivating the alarm by remote control*

- **For activation:** press the key (ON) (the red led confirms total activation).
- **For partial activation (zone A + B):** press the key (the red led confirms partial activation).
- **For deactivation:** press the key (OFF) (the green led confirms total deactivation).

***Note*** *- Each remote control used can only activate or deactivate the alarm zones for which it was enabled during the programming phase.*

**Caution!** - if an alarm is in progress, the corresponding GSM calls may cause problems with deactivation of the alarm system. In this case move as close as possible to the control unit to send the deactivation command.

### *2 - Activating or deactivating the alarm by a code enabled on the touchscreen*

Turn on the terminal; the current alarm status is shown immediately on the status bar.

- **For total or partial activation:** touch the symbol (ON) and enter the personal ACCESS CODE (or "USER" code); then touch "**OK**". To disable activation in specific system zones, touch the relative items and then "**OK**" to confirm.
  The envisaged zones are then activated immediately.
- **For deactivation:** touch the symbol (OFF) and enter the personal ACCESS CODE (or "USER" code); then touch "**OK**".
  The zones enabled with this code are then deactivated immediately.
- **For deactivation of the alarm under threat (anti-duress):** in the event of a threat the alarm can be deactivated with simultaneous dialling of the telephone numbers envisaged for "emergency" situations, using a specific code programmed with the "Anti-duress" function.

***Note*** *- Each code used can only activate or deactivate the alarm zones for which it was enabled during the programming phase*

### *3 - Activating the alarm automatically at a set time*

See paragraph 5.5 - Automatic activation.

### *4 - Activating or deactivating the alarm via a supplementary keypad*

- **For activation:** enter an access code, the press keys A, B, or C to disable any zones not to be activated, after which press key (ON) once.
- **For deactivation:** enter the access code then press the key (OFF) once.

***Note*** *- Each code used can only activate or deactivate the alarm zones for which it was enabled during the programming phase. -* ***Do not use the ADMINISTRATOR CODE or USER CODE****.*

**Caution!** - if an alarm is in progress, the corresponding GSM calls may cause problems with deactivation of the alarm system. In this case move as close as possible to the control unit to send the deactivation command.

### *5 - Managing the alarm system by telephone*

*Calling the control unit on the PSTN land line (*)*

**01.** Dial the control unit reference telephone number (fixed number)
**02.** Interrupt the call **after the second ring**.
**03.** Wait 7 seconds and call again: the control unit responds with voice message N° 7(******).
**04.** After listening to the message, slowly dial the digits of the **USER CODE** followed by the symbol **#**(*******).
**05.** Then slowly enter the digits of the required command (see **Table A**).

***Caution!***
***(*) It is not possible to call the control unit on the GSM line***
***(**) Voice message N° 7 must be recorded during programming (see paragraph 5.4.8)***
***(***) Between pressing one key and the next, wait for the telephone to emit one beep to confirm reception by the control unit***

***Note - Remote listening***
*Both when called by the control unit and when the user calls the control unit, during connection on the PSTN fixed line, the user can listen to the environmental noise captured by the control unit microphone.*
*To enable this function, press ✱ on the telephone. Press ✱ again to stop listening and proceed with sending any commands as required. If no operation is performed, the call is terminated after 60 seconds from ending the remote listening function.*

*Control unit calling the user automatically*

In the event of an alarm, the control unit sends the programmed text messages and makes the calls to all numbers programmed for a specific event, using the GSM mobile phone line or PSTN land line (for priority see paragraph 5.5).
The first user that answers the call can interrupt the cycle of calls to the subsequent users set in the phone book; to interrupt the calls, listen to the message and end-of-message beep and then press **#** on the telephone.
The called user can then interact with the control unit, by entering one of the commands listed in **Table A**.

**TABELLA A**

| | |
|---|---|
| ✱ | Listen to ambient noise (interrupts listening if pressed again) |
| 0 # | Query control unit status: 3 beeps = system activated, 1 beep = system deactivated |
| 0 ✱ 1 # | Total activation: confirmed by 3 beeps |
| 0 ✱ 2 # | Partial activation (zones A+B only): confirmed by 1 long beep |
| 0 ✱ 0 # | Disarming and vocal confirmation: 1 beep |
| # | Interrupt call cycle |

### *6 - Consulting the events list*

The control unit records all events occurred (activation, deactivation, alarms, incoming/outgoing call management etc.), memorising the date, time, name of the person performing the operation and the device concerned. It is not possible to modify or delete events in the list. The most recent event is shown on the display.

**01.** Turn on the touchscreen and on the main menu, touch the icon (Alarms);
**02.** Scroll to the right through the icons by touching the symbol ;
**03.** Touch the icon (Menu); enter the "ADMINISTRATOR or USER CODE" and touch "**OK**" to confirm.
**04.** Touch "**Events list**" to show the most recent event on display: the first line displays the date and time of the event; the second line displays the description of the event. **Important** – The events are shown in abbreviated form; for an explanation of their meanings, refer to examples in **Table B**.

## — Automation control —

### *7 - Sending a command by pressing the immediate keys on the touchscreen*

This mode is only available if the immediate keys have been associated with commands. Press an immediate key related to the automation to be controlled (flashing blue led = transmission complete).

### *8 - Sending a command by touching an icon on display*

**01.** Turn on the touchscreen and on the main menu, touch the icon (Commands);
**02.** Touch one of the 3 types assigned to the specific automation to be controlled.
**03.** Scroll through the list to find the required command and then touch or or press and hold to activate radio transmission (the touchscreen led flashes to confirm transmission).

The touchscreen turns off after a few seconds of inactivity; otherwise touch to return to the previous screen.

## — Voice recorder —

The touchscreen has a voice recorder function which the user can use to record and listen to messages. This function is accessed directly from the main menu, by touching the icon (Memo).

### *9 - Recording a new message*

**01.** Turn on the touchscreen and on the main menu, touch the icon (Messages), then (New);
**02.** Assign a name to the new message to be recorded and touch "**OK**".
**03.** On the screen displayed, touch (REC) to start recording; then hold the touchscreen in the vicinity of the mouth and record the message in a normal voice. Touch (STOP) to stop and complete recording.
**04.** Infine:
- touch (PLAY) to listen the message again;
- touch (SAVE) to save the message permanently;
- touch (DELETE) to remove the message and record a new one.

When the bottom section of the main screen displays the symbol , this means that there are new messages on the voice mail.

### *10 - Listening to a message*

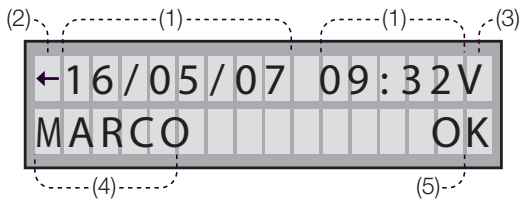
**01.** Turn on the touchscreen and on the main menu, touch the icon (Messages), then (List).
**02.** Scroll through the messages in the list and select which one to listen to:
- touch (PLAY) to listen to the message;
- touch (DELETE) to delete the message.

After listening to the new messages, the symbol disappears from the lower section of the screen .

## TABLE B

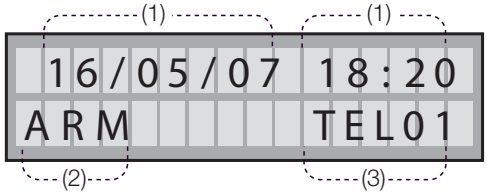
| Note | On display | Meaning |
|---|---|---|
| (6) | | date/time of event |
| (1) | | date/time of call |
| (4) | (name) | name of call recipient (stored in PHONE BOOK) |
| | **ALL** | alarm |
| | **ALL VOC** | voice alarm |
| | **ADMIN** | access to menu with administrator code |
| | **OPEN** | door/window open |
| | **BATT** | battery low |
| | **CANC** | deletion |
| | **BDG** | Transponder badge |
| | **COD** | access code |
| | **DISARM** | off |
| | **IN A** (o B o C) | partial activation |
| (7) | **ARM** | total activation |
| | **C.UNIT INTERF** | radio disturbance |
| | **KO:** | call failed |
| | **NO GSM NETWORK** | no connection to GSM network |
| | **NO PSTN LINE** | no connection to PSTN telephone line |
| | **TAMPER** | tamper |
| | **NO:** | call failed as no answer |
| | **OC** | call failed as engaged |
| (5) | **OK** | call successful |
| | **PROG** | programming |
| | **REMOTE** | intervention via remote telephone |
| | **DET** | sensor/detector |
| | **DET OFF** | detector disabled |
| | **DET ON** | detector enabled |
| | **S** | SMS text message |
| | **SUPERV** | supervision failure |
| (8) | **TEL** | remote control |
| | **TCH** | touchscreen |
| | **USER** | access to menu with installer code |
| (3) | **V** | voice message |
| | **Xxxxx** (label) | device name (e.g. which activates alarm) |
| (2) | **<** | outgoing call |
| | **>** | incoming call |

**EXAMPLE 1**




on the date 16/05/10, at 9.32 the control unit sent (**<**) a voice message ( **V** ) to Marco. Results were positive.

**EXAMPLE 2**




on the date 16/05/10, at 18.20 the alarm was activated (**ARM**) using remote control **TEL01**

Cut out the coupon and use as a quick guide to manage your system by telephone

### *Managing the alarm system by telephone*

*Calling the control unit on the PSTN land line*

**01.** Dial the control unit reference telephone number (fixed number)

**02.** Interrupt the call **after the second ring**.

**03.** Wait 7 seconds and call again: the control unit responds with voice message N° 7.

**04.** After listening to the message, slowly dial the digits of the **USER CODE followed by the symbol #**(*).

**05.** Then slowly enter the digits of the required command (see **Table overleaf**).

***(*) Between pressing one key and the next, wait for the telephone to emit one beep to confirm reception by the control unit***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***(*) Between pressing one key and the next, wait for the telephone to emit one beep to confirm reception by the control unit***

**TABLE**

| | |
|---|---|
| * | Listen to ambient noise (interrupts listening if pressed again) |
| 0 # | Query control unit status: 3 beeps = system activated, 1 beep = system deactivated |
| 0 * 1 # | Total activation: confirmed by 3 beeps |
| 0 * 2 # | Partial activation (zones A+B only): confirmed by 1 long beep |
| | Disarming and vocal confirmation: 1 beep |
| 0 * 0 # | Interrupt call cycle |
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**TABLE**

| | |
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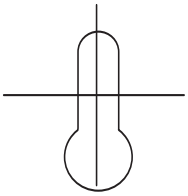
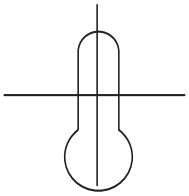
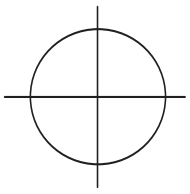
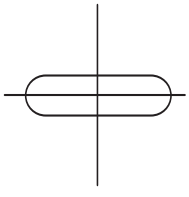
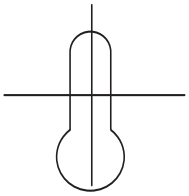


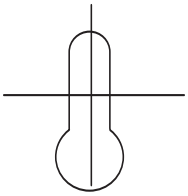


Layout drawing of control unit **MACU1/MACU2**
to cut out and use for marking wall fixing points
(to scale 1:1)

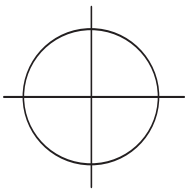


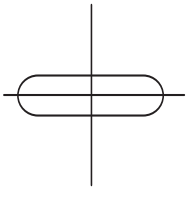






Layout drawing of siren **MASO1**
to cut out and use for marking wall fixing points
(to scale 1:1)





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