

# GUIDE MANUAL



*Analogue fire detection control panels  
Installation Guide*



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## 1- Introduction

This manual contains instructions for installation, commissioning and maintenance of the range of analogue panels, and technical data.

The range of analogue panel consists of 2 models:

- 1 loop.
- 2 loop.

These are designed to serve small and medium-sized installations that require a fire detection system, such as businesses, schools, small and medium enterprises, etc.



The analogue panels are designed in accordance with the requirements for fire detection and alarm systems listed in the standards EN54 Part 2 and 4.

These panels should be installed by qualified personnel who are familiar with the guidelines of EN54 Part 14.

## 2- Pre-Installation Checks

Before installing the equipment, verify that all material on the following list is inside the package:

- One panel.
- Two end of line resistors for the sounder outputs (4K7).
- 5x20 2A fuse for 1 and 2 loops.
- 5x20 5A fuse for 4 and 8 loops.
- 5X20 0.5A fuse.
- 5X20 4A fuse.
- Two keys for 4 and 8 loops control panel.
- Installation manual.
- User manual.
- Language labels according the control panel.
- Battery cable for batteries of 2.3Ah and 7.5Ah for 1 and 2 loops.
- Battery cable for batteries of 17Ah and 24Ah for 4 and 8 loops.

If you find any on the above material missing or damaged, contact your dealer.

### 3- The Analogue System

The analogue system consists of one or two loops containing fire detection or alarm devices, also known as points. The loops can be connected to optical detectors, heat detectors, sounder, sounder / flashers, manual call points, and combined or individual input / output modules. Devices can also be connected on one or more spurs off the closed loop.

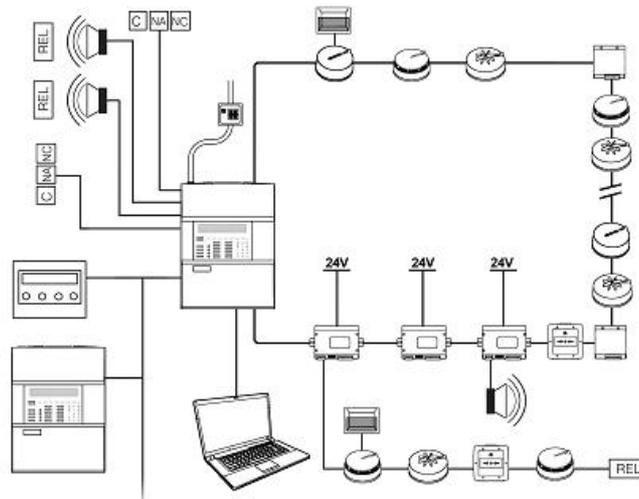
Each loop of the system can be connected to up to 250 randomly routed sensor points, manual call points and input and / or output modules. The maximum loop length should not exceed 2 Km, and you should use screened 1.5 mm<sup>2</sup> 2-wire cable.

**GB**

The Analogue system can either be configured from the keyboard of the panel via the menu structure, or via the software on a PC connected to the panel. The use of this software saves time and errors in the system configuration.

#### Main features

- The system autosearches all of the points connected to the panel.
- System configuration via PC software or through the panel's menus.
- Record up to 4.000 events in the Event Log.
- Up to 250 points on the loop, which can be a mixture of manual call points, optical detectors, heat detectors, sounders, sounder / flashers, and input and /or output modules.
- Two monitored conventional sounder outputs on the motherboard.
- Two voltage-free relay output at the motherboard.
- An auxiliary 24V DC output on the motherboard.
- USB connector for programming the central PC.
- Shortcut keys for navigation menus and sub-menu entries.

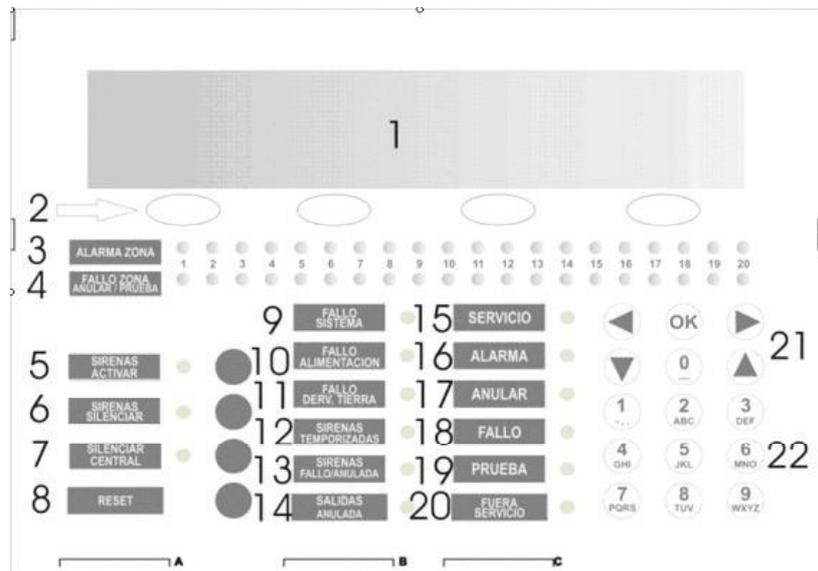


## 4- The Control Panel

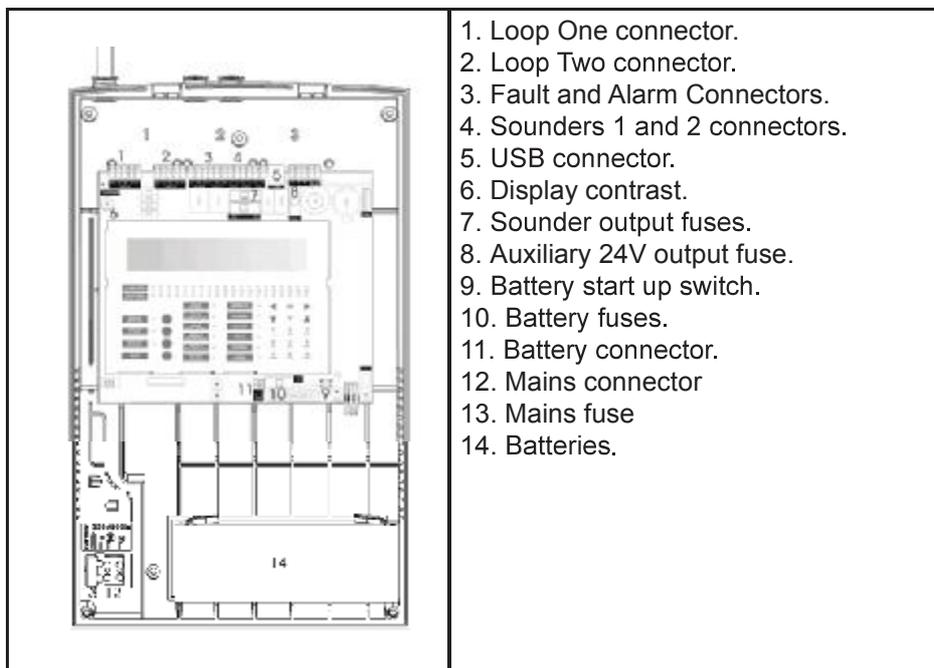
### 4.1 The Control Panel 1 and 2 Loops

A description of all equipment components and a description of indicators and control keys / buttons on the keyboard is given below:

Indications Keyboard

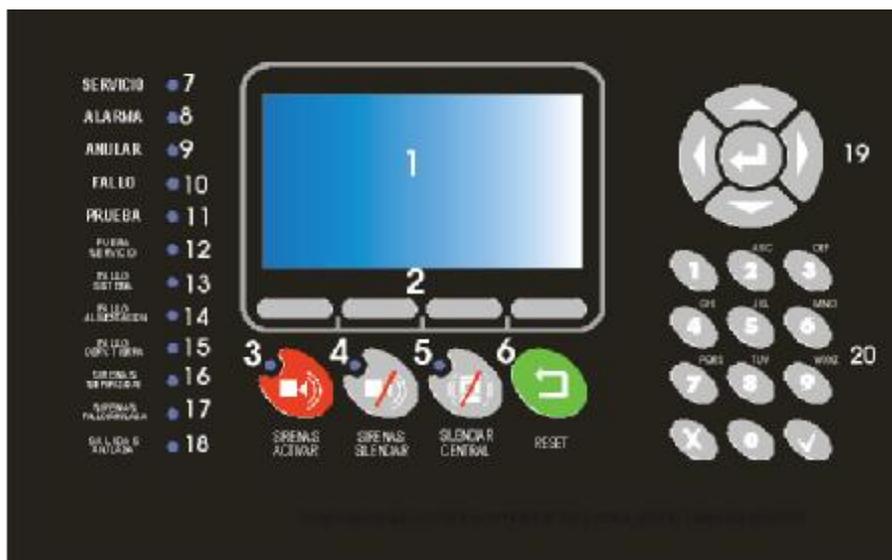


1	LCD Display	13	Sounder Fault LED
2	Navigation controls	14	Output disablement LED
3	Alarm zone LEDs	15	Service LED
4	Fault-disablement-test-zone LEDs	16	Alarm LED
5	Start sounders control	17	Disablement LED
6	Stop sounders control	18	Fault LED
7	Buzzer Silence control	19	Test LED
8	Reset control	20	Out of service LED
9	System fault LED	21	Navigational Keypad
10	Power supply fault LED	22	Keypad
11	Earth fault LED		
12	Delay ON LED		



1. Loop One connector.
2. Loop Two connector.
3. Fault and Alarm Connectors.
4. Sounders 1 and 2 connectors.
5. USB connector.
6. Display contrast.
7. Sounder output fuses.
8. Auxiliary 24V output fuse.
9. Battery start up switch.
10. Battery fuses.
11. Battery connector.
12. Mains connector
13. Mains fuse
14. Batteries.

## 4.2 The Control Panel 4 and 8 Loops



1	Display	11	Test LED
2	Navigation keys	12	Out of service LED
3	Switch on sounder LED-Control	13	System fault LED
4	Switch off sounder LED-Control	14	Power supply fault LED
5	Silence Buzzer LED-Control	15	Earth fault LED
6	Reset Control	16	Delay ON LED
7	Alarm LED	17	Sounder fault / disablement LED
8	Alarm LED	18	Output disablement LED
9	Disablement LED	19	Cursor Control & Confirmation Keypad
10	Fault LED	20	Alphanumeric Keypad

## 5- Installation Guide

This chapter defines the steps for proper installation of the Analogue control panels. The installer must read the entire manual before installing the system. Not following the instructions in this manual can cause damage to equipment.

### 5.1 Pre-Installation Checks

Before installing this equipment must ensure that they meet the following conditions:

**GB**

- The ambient temperature should be between  $-10^{\circ}\text{C}$  and  $40^{\circ}\text{C}$ .
- The relative humidity should be below 95%.
- Do not install the panel in places with mechanical vibrations or shocks.
- Do not install the panel where it obstructs access to internal equipment and wiring connections.

It is imperative that the fire detection and alarm system has been designed by qualified personnel taking into account EN-54 part 14, as well as local regulations.

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## 5.2- Tools Required

Listed below are the basic tools for installation of the panel:

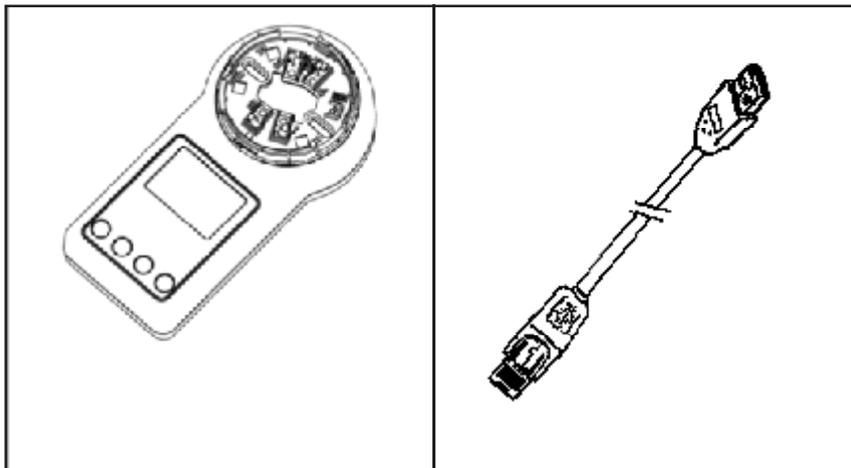
- Screwdriver for terminal blocks.
- Phillips screwdriver for the screws on the front cover.
- Cable cutters or strippers.
- Voltmeter.
- Drill and appropriate bits to fix the panel to the wall.

To configure the system and analog detectors the following tools are required:

- Programmer.
- Cable configuration.

The programmer is a tool that allows us to assign an address to both detectors and modules, and the USB cable is the tool that allows us to communicate from the PC to the panel through the configuration software.

**GB**

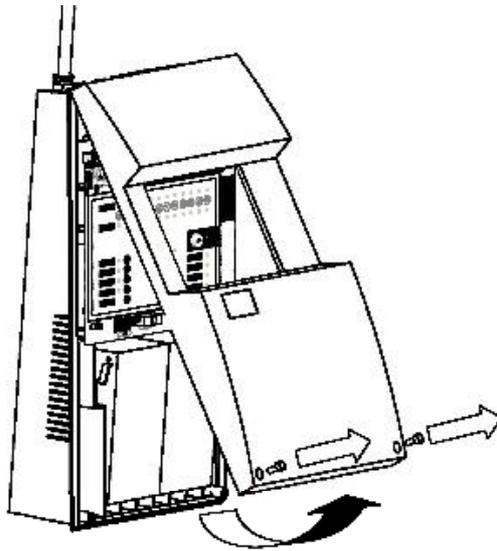


## 5.3 Installation Steps 1 and 2

### 5.3.1 Removing the front cover

Unscrew the 2 screws on the front located at the bottom. Once unscrewed remove the cover.

GB



### 5.3.2 Panel location on the wall

Choose a location easily accessible and free of obstacles, where the indicator lights are easily seen, and the cover can be easily removed. The panel must be located at a height of 1.5 m.

Remember that the weight of the batteries is significant.

### 5.3.3 Fixing the panel to the wall

Place the rear housing in the proper position against the wall and mark the position of the holes to make sure the casing is level.

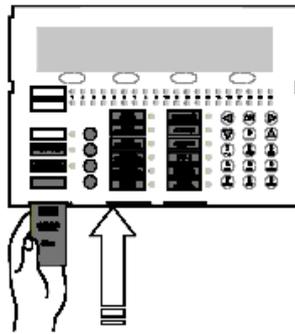
Do not use the back cover as a guide when drilling the holes, as this may cause irreparable damage to the equipment.

Drill holes in the wall, and prepare the required holes for the cable installation. Screw the cabinet to the wall using the holes in the box.

---

### 5.3.4- Language Selection

The panel's controls are designed to be easy to customize the language. In the languages sheet attached to this manual, you will find the entries for Spanish, English, Italian and Portuguese. Select the required language and insert the card into the slot located at the bottom of the keyboard. The locations are marked with the letters A, B and C.



**GB**

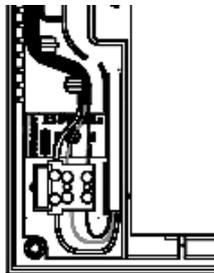
### 5.3.5- Electrical wiring

It is recommended that the equipment is powered and tested before connecting devices such as sensors, manual call points etc. The panel must be connected via an external circuit breaker using a 1.5 mm<sup>2</sup> cable section. The voltage should be 230VAC.

To avoid crossing the network, the mains cable must be separated from the communication bus lines. If the system can be affected by an electrical disturbance, we recommend the use of a ferrite tube as close as possible to the connection.

It is essential to use the holes marked on the box. Use a drill bit to drill the box and insert the cable glands.

It is advisable to use a shielded cable. Connect the cable shield to the corresponding terminals (insulating the screen to prevent short circuits) and ensure that the facility has an approved mains Earth.

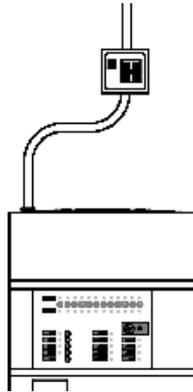


### 5.3.6- Power up the panel

Always disconnect the mains power before handling the panel.

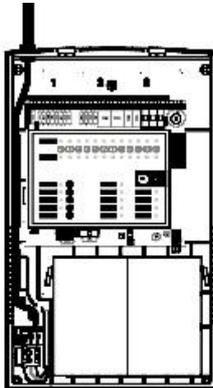
Always connect the mains first and then the batteries.

GB



#### 5.3.6.1- Mains connection

Make the Earth cable longer so that in case of abrupt removal it is the last to disconnect. Insert the wire into the plastic guide tabs using the plastic case, to prevent the wire coming loose in the case of sudden removal.



Never use the fuses to connect and disconnect the mains power, use the external circuit breaker.

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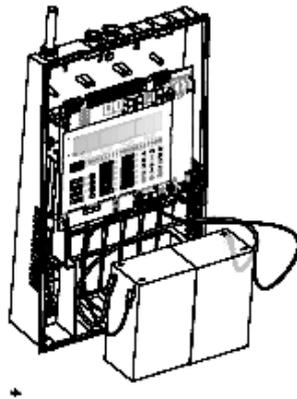
### 5.3.6.2- Battery connection

The panel requires two 12V 7Ah batteries. The batteries must be connected in series for the proper functioning of the panel.

The cable supplied with the unit must be connected so that the positive terminal of one battery is connected with the negative terminal of the other.

The batteries are placed in the bottom of the box, vertically in the space provided. Connect the wires from the circuit (red and black) to the unused positive and negative terminals of the two batteries.

GB



### 5.3.7- Loop connection

The facility should be closed loop, ie the two-wire shielded cable should come out of the panel and return to it, this cable will connect all devices in the system.

The cable used must be at least 1.5 mm<sup>2</sup>, braided shield should be used to avoid interference. The maximum length of the loop cable is 2 Km. The resistance of the loop must be less than 44 Ohms, and the maximum capacity of the line should be less than 500 nF.

Connect the loop output cables at the connector marked S + & S-, and the screen to the terminal indicated as  $\oplus$ , and the return of the loop at the connector marked R + and R-, and the screen returns to terminal indicated as  $\oplus$ . It is essential to have a continuous screen on each loop.

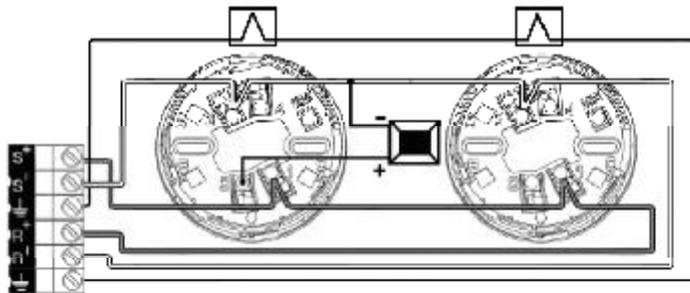
### 5.3.8 Detectors connection

The system is designed to communicate with these detectors.

- Optical Smoke detector.
- Heat ROR detector.
- Optical-Heat detector.
- Detector High ROR detector.

**GB**

All sensors feature a microprocessor that allows them to communicate with power and algorithmic analysis of signals received by the detectors. Each loop on the system can have up to 250 sensors connected. Analogue detectors should be routed prior to configuration with the programmer, and connected to the bus through the docking station Z-200, remember that there must be continuity of the cable screen on each loop connected.



### 5.3.9 Input/Output Modules

The system is designed to communicate with the following modules.

- A single input module (low voltage).
- A dual input module (low voltage).
- A single output relay module (low voltage).
- A dual output relay module (low voltage).
- An input / output module (low voltage).
- A dual input module with 2 relay outputs.
- A single monitored output module.
- A dual monitored output module.
- A conventional zone module.
- A dual conventional zone module.
- An analogue MCP.
- An analogue sounder.
- A combined sounder / flasher.
- 230 Vac Relay Module.
- Isolator module.

Some of the modules require external power, which can be derived from the auxiliary output on the motherboard (do not connect more than 10 modules), or an auxiliary source, located as close as possible to the module.

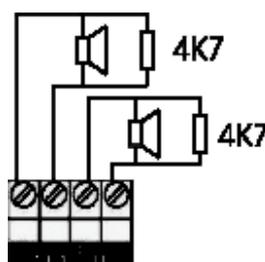
For more information see the installation manual of each module.

### 5.3.10 Sounder connection

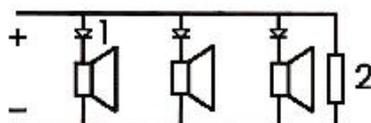
The panel has 2 sounder outputs, listed in the motherboard as SN1 and SN2. Each monitored output can power conventional sounders with a total consumption of 500 mA.



It is imperative that the sounders are polarized, or else it is necessary to insert a diode to prevent the sounders from activating in the quiescent condition. A 4K7 end-of-line resistor is required.

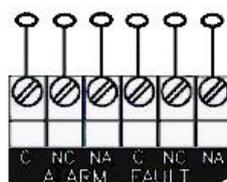


When using sounders or bells which are not polarized, you must install a type 1N4007 diode to prevent reverse current effect.



### 5.3.11 Relay connection

The panel has a fault relay and an alarm relay for outputs that act as an alarm or malfunction. The maximum relay contact current is 2A.



### 5.3.12 USB Connection

The unit features a USB communications port. This port allows us to connect with a PC and work with the configuration software.

## 5.3 Installation Steps 4 and 8

### 5.3.1 Removing the front cover

**GB**

Use the key to open the control panel.



### 5.3.2 Panel location on the wall

Choose a location easily accessible and free of obstacles, where the indicator lights are easily seen, and the cover can be easily removed. The panel must be located at a height of 1.5 m.

Remember that the weight of the batteries is significant.

### 5.3.3 Fixing the panel to the wall

Place the rear housing in the proper position against the wall and mark the position of the holes to make sure the casing is level.

Do not use the back cover as a guide when drilling the holes, as this may cause irreparable damage to the equipment.

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Drill holes in the wall, and prepare the required holes for the cable installation. Screw the cabinet to the wall using the holes in the box.

#### 5.3.4- Language Selection

The panel's controls are designed to be easy to customize the language. In the languages sheet attached to this manual, you will find the entries for Spanish, English, Italian and Portuguese. Select the required language and insert the card into the slot located at the bottom of the keyboard. The locations are marked with the letters A, B and C.



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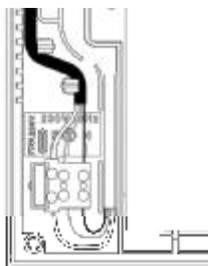
#### 5.3.5- Electrical wiring

It is recommended that the equipment is powered and tested before connecting devices such as sensors, manual call points etc. The panel must be connected via an external circuit breaker using a 1.5 mm<sup>2</sup> cable section. The voltage should be 230Vac.

To avoid crossing the network, the mains cable must be separated from the communication bus lines. If the system can be affected by an electrical disturbance, we recommend the use of a ferrite tube as close as possible to the connection.

It is essential to use the holes marked on the box. Use a drill bit to drill the box and insert the cable glands.

It is advisable to use a shielded cable. Connect the cable shield to the corresponding terminals (insulating the screen to prevent short circuits) and ensure that the facility has an approved mains Earth.



### 5.3.6- Power up the panel

Always disconnect the mains power before handling the panel.

Always connect the mains first and then the batteries.

**GB**



#### 5.3.6.1- Mains connection

Make the Earth cable longer so that in case of abrupt removal it is the last to disconnect. Insert the wire into the plastic guide tabs using the plastic case, to prevent the wire coming loose in the case of sudden removal.

Never use the fuses to connect and disconnect the mains power, use the external circuit breaker.

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The cable used must be at least 1.5 mm<sup>2</sup>, braided shield should be used to avoid interference. The maximum length of the loop cable is 2 km. The resistance of the loop must be less than 44 ohms, and the maximum capacity of the line should be less than 500nF.

Connect the loop output cables at the connector marked S + & S-, and the screen to the terminal indicated as Earth, and the return of the loop at the connector marked R + and R-, and the screen returns to terminal indicated as Earth. It is essential to have a continuous screen on each loop.

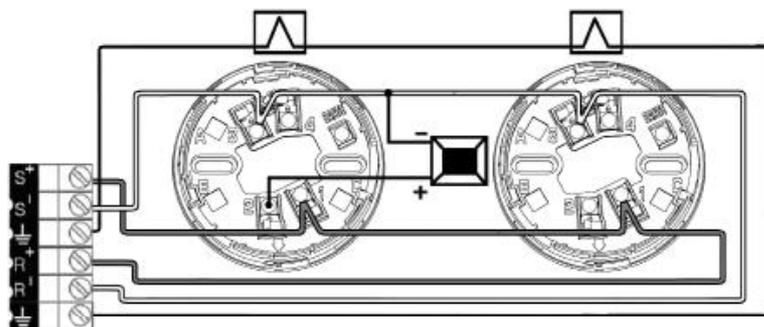
**GB**

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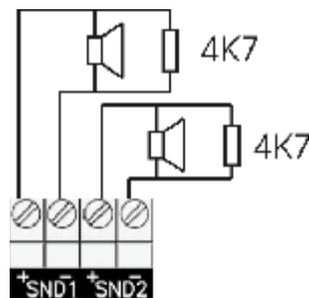
Some of the modules require external power, which can be derived from the auxiliary output on the motherboard (do not connect more than 10 modules), or an auxiliary source, located as close as possible to the module.

For more information see the installation manual of each module.

### 5.3.10 Sounder connection

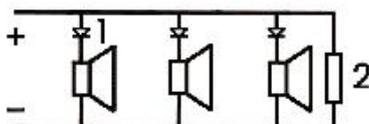
The panel has 2 sounder outputs, listed in the motherboard as SN1 and SN2. Each monitored output can power conventional sounders with a total consumption of 500 mA.

It is imperative that the sounders are polarized, or else it is necessary to insert a diode to prevent the sounders from activating in the quiescent condition. A 4K7 end-of-line resistor is required.



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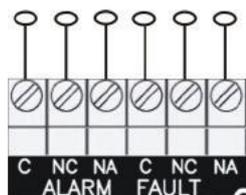
When using sounders or bells which are not polarized, you must install a type 1N4007 diode to prevent reverse current effect.



### 5.3.11 Relay connection

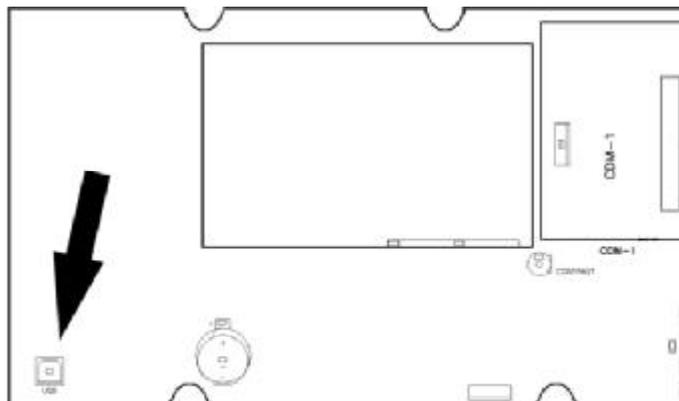


The panel has a fault relay and an alarm relay for outputs that act as an alarm or malfunction. The maximum relay contact current is 2A.



### 5.3.12 USB Connection

The unit features a USB communications port. This port allows us to connect with a PC and work with the configuration software.



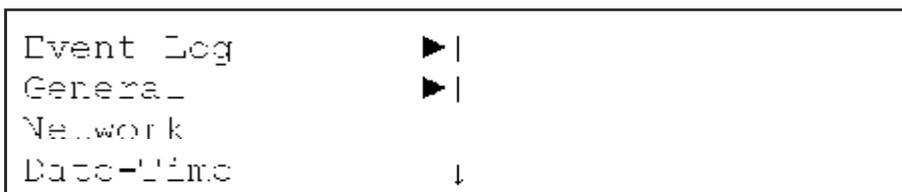
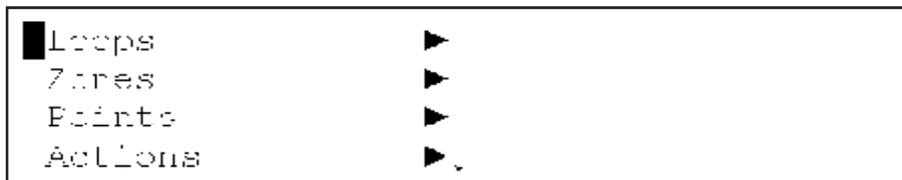
## 6- System Configuration

### 6.1 System Configuration 1 and 2 Loops

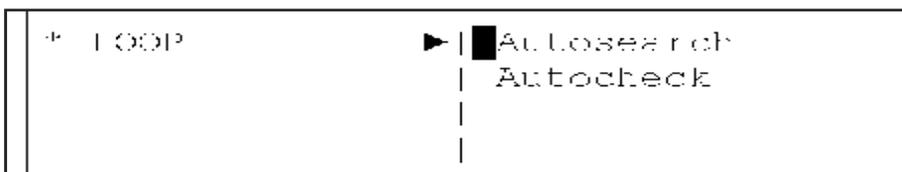
#### 6.1 Main menu

After entering the access level 2 code, the installation engineer can access the configuration menus. (See below). To move through the menus, press the '↑' and '↓' buttons, then press the OK button to select the menu you want to access., after selecting the menu to which you want to access must press the OK button.

**GB**



#### 6.1.1 Loop Menu



On the menu loop we can access the submenús Autosearch and Autocheck.

### 6.1.1.1 AUTOSEARCH Menu

AUTOSEARCH performs a scan of all points that are connected to the loop. This may take a few minutes.

```
SELECT LOOP SEARCH
LOOP : [01]

[ Accept ]           [ Cancel ]
```

**GB**

To select the loop that we want to autosearch, enter the number in the square brackets or select the loop number using the '↑' and '↓' buttons. Once selected click on OK, and the following screen appears.

```
SEARCHING LOOP           01

                        15%

                        [ Cancel ]
```

Once the loop AUTOSEARCH has finished, a summary of the search result is displayed, indicating all points that are connected to the loop. This report should be compared to the actual points installed to ensure that the devices are correctly detected and there are no connection errors.

```
SEARCH LOOP REPORT 01
VALID:100   DOUBLE ADDRESSES:02
CHANGED TYPE:05
[Accept]   [Cancel]           [Reports]
```

The meaning of the fields is as follows:

- VALID field is the number of addresses where they have found an item, both detectors and modules.
- DOUBLE ADDRESSES field are addresses where they found more than one item.
- The CHANGED TYPE field shows the addresses which have changed from the last AUTOSEARCH accepted.

Pressing the **Accept** button validates the Autosearch, and the system will work with the points detected in the loop.

Pressing the **Cancel** button means that the AUTOSEARCH is not recorded, and the system will work with the previous AUTOSEARCH accepted.

Pressing the **Reports** button allows access to 2 types of reports which can be helpful for the implementation of the system.

The first report is a summary by type of points found in the loop. As the summary is several screens, the engineer can jump from one screen to the next using the + and - keys.

**GB**

```
TYPE LOOP REPORT          1
Optical: 050 Heat: 000 Opt-Heat : 000
MCP      : 040 Zone: 000 Sounder  : 000
[ + ]    [ - ]    [Addresses]    [ Exit ]
```

The second type of report accessed by pressing the function key Addresses. This reports all addresses that have been found in the loop, indicating the type of point found at the address.

```
INFORME DIRECCIONES BUCLE 1          (1/25)
001 002 003 004 005 006 007 008 009 010
OPT OPT TER TER PUL      ZON REL XXX OPT
      < + >      < - >      < SALIR >
```

Again the + and - keys can be used to navigate through the screens of the report.

If there is no abbreviation under an address, it means that this address is free, and if you see XXX, it means there is more than one point that responds to that address.

#### 6.1.1.2 AUTOCHECK Menu

```
* LOOP          ?| Autosearch
                |?Autocheck
                |
                |
```

The autocheck submenu checks for problems on the loop , by checking how many points are connected to the start of the loop (S) and how many are connected to the end of the loop

```
LOOP CHECK
LOOP   : [01]

[ Accept ]                [ Cancel ]
```

To select the loop to be checked, either enter its number or select it using the '↑' and '↓' buttons. Once selected click on OK, and the following screen is displayed.



```
LOOP CHECK
From S  : 5
From R  : 27

[Exit]
```

This report shows that from the output connector on the loop (S) 5 points have been found, and from the return connector on the loop 27 points have been found. This tells us that we must look for problems between the 5<sup>th</sup> point from the output connector and the twenty-seventh point from the return connector.

To access the previous menu, press the Exit button.

### 6.1.2 ZONE Menu

The installation can be divided into zones which are geographical sub-divisions of the protected premises in which one or more points are installed and for which a common zonal indication is provided. The maximum number of zones is 250. The following options are available in the zone menu:

```
* Zones                ?|?Zone edit
                        | Assign points
                        |
                        |
```

Use the '↑' and '↓' buttons to move the cursor, and then select using the OK button.

### 6.1.2.1 ZONE edit menu

This allows the installer to assign a name for each zone number, to indicate the area of the building covered by the zone.

```
AD AR ZONA
ZONA:<001>          MODE : [CONCLADA]
TEXTO : [012345678901234567890123456789]
<-> <-> <Veremos> <Salir>
```

**GB**

The fields can be edited by using the '↑' and '↓' buttons, or with the alphanumeric keypad. The next field can be selected using the '→' and '←' buttons.

The mode field shows the status of the zone, ie enabled or disabled.

Use the alphanumeric keypad to edit the name of the zone.

Use the + or – keys to edit the next or previous zone, respectively.

The option 'Points' permits the installer to assign points to the specified zone on a given loop.

```
ASSIGN POINTS
ZONE : [001]          LOOP:[001]
RANGE : [001]         to [001]
[Accept]              [Exit]
```

### 6.1.2.2 ASSIGN POINTS menu

In the Assign option, points can assigned to specific zones on a loop.

```
ASSIGN POINTS
ZONE : [001]          LOOP:[001]
RANGE : [001]         to [001]
[Accept]              [Exit]
```

---

As with the previous menu, the '↑' and '↓' buttons, or the alphanumeric keyboard, can be used to increment or decrement the numeric fields, and the '→' and '←' buttons are used to move to the next or previous field.

### 6.1.3. Point menu

```
*Points          ?|?Edit Point
                  | Address Programming
                  | Toggling LED
                  |
```

**GB**

#### 6.1.3.1 Edit Point

In the Edit Point menu, the name of points can be provided, and a zone can be assigned. The mode of the point is also displayed, i.e. enabled or disabled.

```
LOOP:[01]      ADR [001]      ZONE : [001]
Type :Optical  MODE : Enabled  AV : 020
TEXT: [012345678901234567890123456789]
          [-]          [+]          [Exit]
```

The fields can be edited by using the '↑' and '↓' buttons, or with the alphanumeric keypad. The next field can be selected using the '→' and '←' buttons. The address field can also be increased or decreased using the + or – keys, regardless of the position of the flashing cursor.

Of course, the text field can only be edited with the alphanumeric keypad. AV is the analogue value of the point being displayed.

Pressing the Exit key will return to the previous menu and save the values.

### 6.1.3.2 Address programming

This option is used to assign a new address to a point. Select the loop number and the current address of a point. Use the + and – buttons, or the numeric keys on the keypad to select a new address for the point. Once selected, click the Accept button to fix it.

```
ADDRESS PROGRAMMING           LOOP <1>
CURRENT ADDRESS [001]
NEW ADDRESS [100]
      [+]      [-]      [Accept]      [Exit]
```

**GB**

### 6.1.3.3 Toggling LED

This option is helpful to locate a particular point in the system. Select the loop number and address of the point to be located, and the point's indicating LED will automatically light until either another address is chosen or the Exit option is selected.

```
LOOP <1>      ADR : [001]      ZONE:001
TYPE :                MODE : ENABLE      AV:
TEXT :
      [-]      [+]      [Exit]
```

### 6.1.4. Actions menu

Cause and effect actions are created from this menu.

```
*Actions      ?| ?New
              | Modify
              |
              |
```

### 6.1.4.1 New Actions (Action Creation)

An action is the cause and effect generated by an event in the building protected by the analogue system. It allows you to activate, deactivate or reset any output of the installation based on the configured cause and effect actions. When a detector, MCP or other kind of input device is triggered, the output which is generated depends on the input and output actions which have been programmed in to the panel. The input can be from a point or a zone or a loop or a panel. Likewise, the effected output may be one or more individual points, or one or more zones, or one or two loops, or all the points connected to the panel.

To set up an action, you first define an input generated by the event and then define the type output you require. It is possible to associate a delay time (in seconds) with the output, to prevent false alarms occurring if the output is immediate. NB the maximum delay time permitted by the European standard is 600 seconds (i.e. 10 minutes).

GB

#### 6.1.4.1 Input Selection - Point

Press the first of the 4 buttons which are directly under the LCD in order to select "Point" as the Input in Action number 0001.

```
ACTION CREATION                                0001
      INPUT SELECTION
<Point>      Zone      Loop      Panel
```

Then select the address of the point for which we want to activate the operation.

```
POINT SELECTION                                0001
LOOP: [2]          ADR : [035]
[Alarm]          [Cancel]
```

#### 6.1.4.1 Zone as an input

Below is an input generated by a zone or by a range of zones:

```
ACTION CREATION                                0002
      INPUT SELECTION
Point      <Zone>      Loop      Panel
```

```
ZONE SELECTION                                0002
RANGE: [001] to [007]
[ General Alarm ]      [More]      [Cancel]
```

By pressing the More you can change the type of event that is generated by the zone or range of zones. These events are as follows:

- General alarm.
- MCP Alarm.
- Detector Alarm.
- Multi Point Alarm.

#### 6.1.4.1 Loop as an input

Below is an input generated by a loop:

**GB**

ACTION CREATION		0003	
INPUT SELECTION			
Point	Zone	<Loop>	Panel

#### 6.1.4.1 Panel as an input

Below is an input generated by a panel

ACTION CREATION		0004	
INPUT SELECTION			
Point	Zone	Loop	<Panel>

PANEL SELECTION		0002	
[General Alarm]	[More]	[Cancel]	

Pressing the More button changes the type of alarm that is generated by the panel. These are as follow:

- General Alarm.
- Multi Point Alarm.

After selecting the input of the Action, the required output must then be chosen, which may be point(s), zone(s), loop(s) or the entire panel.

#### 6.1.4.1 Point as an output

ACTION CREATION	0001
OUTPUT SELECTION	
RMT EVENT : <NO >	
<Point>    Zone    Loop    Panel	

**GB**

POINT SELECTION	0001
LOOP: [01]    ADR [101]    DELAY:[030]	
[ON]    [OFF]    [Cancel]	

The actions on the points may be of ON or OFF, i.e. activate the output point such as a sounder point or switch it off.

#### 6.1.4.1 Zone as an output

The following shows how to select one or more zones as the outputs to be activated.

ACTION CREATION	0002
OUTPUT SELECTION	
RMT EVENT : <NO >	
Point    <Zone>    Loop    Panel	
ZONE SELECTION	0002
RANGE:[003]    TO :    [013]	
DELAY: [090]	
[Outputs ON]    [More]    [Cancel]	

Pressing the More button changes the type of output that can be activated or deactivated in the zone(s). The following outputs can be configured:

- Outputs ON
- Outputs OFF.
- Sounders ON.
- Sounders OFF.
- Relays ON.
- Relays OFF.

### 6.1.4.1 Loop as an output

Next is shown how to activate one or two loops as outputs.

```
ACTION CREATION                                0003
      OUTPUT SELECTION
RMT EVENT : <NO >
Point      Zone      <Loop>      Panel
```

**GB**

```
LOOP SELECTION
RANGE: [1]                TO:      [1]
DELAY: [000]
[Outputs ON]      [More]      [Cancel]
```

Pressing the More button changes the type of loop output that is activated or deactivated. The following options are available:

- Outputs ON.
- Outputs OFF.
- Sounders ON.
- Sounders OFF.
- Relays ON.
- Relays OFF.

#### 6.1.4.1 Panel as an output

Next is shown how to select an output that activates the panel as an action.

```
ACTION CREATION                                0004
      OUTPUT SELECTION
RMT EVENT : <NO >
Point      Zone      Loop      <Panel>
```

```
PANEL SELECTION
DELAY      : [120]

[Outputs ON ]      [More]      [Cancel]
```

Pressing the More button changes the type of output that is activated on the entire panel. The outputs that can be selected are as follows:

- Outputs ON.
- Outputs OFF.
- Sounders ON.
- Sounders OFF.
- Relays ON.

- Relays OFF.
- PCB sounder 1 ON.
- PCB sounder 1 OFF.
- PCB sounder 2 ON.
- PCB sounder 2 OFF.

After selecting an input and an output, an action will be set up and stored in the panel. The system can be configured with up to 1,024 different actions. Each action number is displayed in the top right of the LCD. All actions are started simultaneously so be careful that you do not configure conflicting actions.

#### 6.1.4.2 Modify Actions



In this sub-menu you can modify a previously programmed action. You can change both the input and the output. To modify an action, use the alphanumeric keypad or the '↑' and '↓' buttons.

```

ACTION MODIFICATION <0001>:0003 DLY:030
I Point LOOP 2 ADR 001 Alarm
O Zone RANGE 001 TO 100 Sounders ON
[Input] [Output] [Erase] [Exit]

```

The above display is showing previously configured Action no. 1, and the total number of programmed actions is 3.

- Press the Input button to modify the Input.
- Press the Output button to modify the Output.
- Press the Erase button to cancel the displayed action.

When the modification is complete, press the Exit button to save the action and to leave the sub-menu.

#### 6.1.5 Event Log

In the Event Log menu you can access the list of events which have been detected by the system. For greater flexibility you can select the type of event you want to see. Alternatively you can list all events.

```

*Event Log      ►|■ Faults      |
                | Alarms      |
                | Test        |
                ↓ All          ↓
                Erase

```

As a last option in this menu, the Erase option. This deletes all events from Event Log. This process is recommended to be used after commissioning the installation, so that information will only be saved from the date the system begins to operate.

```
ERASE LOG
                Are you sure?
                [YES]                [NO]
```

**GB**

### 6.1.6 General menu

In the General menu you can enter the installation name, choose the menu language, change the passwords, and check & upgrade the firmware versions.

```
*General      ?|?Installation Name
              | Language
              | Passwords
              | Check version
              | FW upgrade
```

#### 6.1.6.1 Installation name

In this submenu the installation engineer can enter the name of the facility, the company responsible for maintaining the facility and a help line.

When the system operates in the normal condition the panel displays the name of the facility.

When a fault occurs in the alarm system, the panel shows the maintenance company and its phone number.

The editing of the fields is done with the alphanumeric keypad, and you can move from one field to another using the '→' and '←' buttons.

```
REFERENCE      : [                ]
MAINTENANCE    : [                ]
PHONE          : [                ]
[Accept]                [ Exit ]
```

### 6.1.6.2 Language selection

The system can operate in different languages to suit local requirements. The available languages include English, Spanish, Portuguese, Italian and Portuguese.

```
REFERENCE      : [                ]
MAINTENANCE    : [                ]
PHONE          : [                ]
[Accept]                               [ Exit ]
```

**GB**

### 6.1.6.3 Password modification

The system uses two passwords, both of which may be changed using this submenu. The level 1 password is for use by the system user, and the level 2 password by the installation engineer.

Each panel may be programmed with up to 15 different user level passwords. The default value of the user password is 1111.

```
REFERENCE      : [                ]
MAINTENANCE    : [                ]
PHONE          : [                ]
[Accept]                               [ Exit ]
```

The default value of the installer password is 2222.

```
CHANGE PASSWORD                                LEVEL: [2]
CURRENT PASSWORD : [2222]
NEW PASSWORD     : [2222]
[Accept]                               [Exit]
```

Press Accept to store password in memory, and then Exit to return to the previous menu.

#### 6.1.6.4 Update firmware

This menu allows us to update the firmware of the computer through the USB port.

```
SW UPGRADE
[ Accept ]           [ Cancel ]
```

Press the Accept key, and the next screen is displayed

**GB**

```
#####
[BIOS]
```

Press the BIOS button before the # symbols reaches the far right of the row to start updating the firmware / software.

```
Version V1.0
[EXIT]
```

Press Exit to exit the application.

#### 6.1.7 Network Menu

The network allow to link panels and repeaters. The network support up to 32 panels or repeaters. You can configure the systems using this menu.

In the Network menu we can find the submenus Node setup, Node filter and Node search.

```
*Network      ▶|█ Node setup
               | Network filter
               | Node search
               |
```

### 6.1.7.1 Node Setup Menu (Network card and Fiber Optic Card)

This menu allows you to configure the panel as a node inside the network.

```
NETWORK SETUP          :
CURRENT ADDRESS        <001>
NODE TYPE              : [Controller  ]
[Accept  ]             [Cancel  ]
```

“Node Type” can be set to Normal or Controller. All nodes in the network are configured as normal except one that is configured as Controller. The network must have one controller node.

**GB**

“Node Address” is the network address of the panel inside the network. Each node inside the network must have a different address.

### 6.1.7.1 Node Setup Menu (Ethernet Card)

```
NETWORK SETUP          :
CURRENT ADDRESS        <001>
NODE TYPE              : [Controller  ]
[Accept  ] [ IP      ] [Cancel  ]
```

“Node Type” can be set to Normal or Controller. All nodes in the network are configured as normal except one that is configured as Controller. The network must have one controller node.

“Node Address” is the network address of the panel inside the network. Each node inside the network must have a different address.

IP: Submenú setup IP

### 6.1.7.1 Setup IP (Ethernet Card)

```
NETWORK SETUP          :
IP      : <192> . [168] . [001] . [200]
[Next
```

IP: IP Address. Each node inside the network must have a different IP address.  
- Allow values de 0.0.0.0 a 255.255.255.255

### 6.1.7.1 Node Setup Menu (Ethernet Card)

```
NETWORK SETUP                :
GAT   :<000>.[000].[000].[000]
MSK   : [255].[255].[000].[000]
                                           [Next
```

**GB**

### 6.1.7.2 Network Filter

```
NETWORK FILTER                :
NODE TYPE                     :<LISTEN ALL   >
DIRECCION                     : [000]
[Accept ]                     [Cancel ]
```

NODE TYPE:  
- LISTEN ALL.  
- SELECTIVE LIST

DIRECCION:  
- LISTEN ADDRESS.

### 6.1.7.3 Node Search Menu

```
NODE SEARCHING

                                           15%
```

```
NETWORK REPORT
NODE NUMBER      :001      ISOLATED
[Accept ]       [Cancel
```

NODE NUMBER: Number of nodes found in the network.  
- Possible number of nodes from 01 to 32.

NODE MODES: Modes of operation of the network.  
- ISOLATED: There is only one node.  
- BUS: Network topology type bus.  
- RING: The network topology ring.

### 6.1.8 Printer Menu

The Printer menu allows to access to the submenus Real Time and Historical Print.



```
*Printer      ▶|█ Real time |
              | Print Log  |
              |             |
              |             |
```

#### 6.1.8.1 Real Time Menu

```
ONLINE PRINT
ALARM :          <ENABLE      >
FAULT :          [ENABLE     ]
[Accept ]          [Cancel   ]
```

ALARM: Alarm Status Printing.  
- ENABLE  
- DISABLED

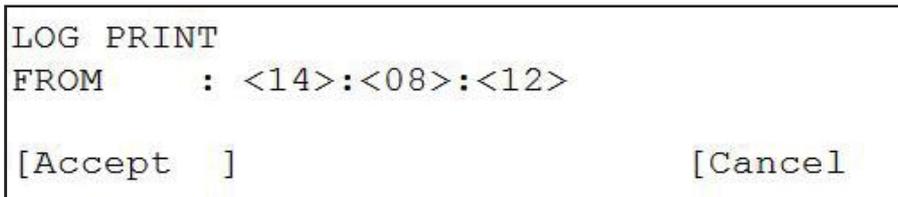
FAULT: Fault Status Printing.  
- ENABLE  
- DISABLED

With the Accept button the changes are saved.

Press the EXIT key to exit of the menu.

### 6.1.8.2 Print LOG

The Printer menu allows to access to the submenus Real Time and Historical Print.



A screenshot of a terminal window showing the 'LOG PRINT' menu. The text is as follows:

```
LOG PRINT
FROM      : <14>:<08>:<12>

[Accept  ]                               [Cancel]
```

**GB**

FROM:

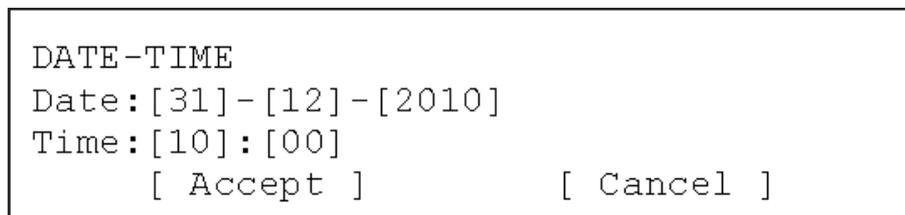
- Day. Range from 01 to 31.
- Month. Range from 01 to 31.
- Year. Range from 00 to 99.

With the Accept button the changes are saved.

Press the EXIT key to exit of the menu.

### 6.1.9 Day and time

Use this submenu to change the date and time displayed on the panel.



A screenshot of a terminal window showing the 'DATE-TIME' menu. The text is as follows:

```
DATE-TIME
Date:[31]-[12]-[2010]
Time:[10]:[00]
      [ Accept ]                               [ Cancel ]
```

## 6.2 System Configuration 4 and 8 Loops

### 6.2 Main menu

After entering the access level 2 code, the installation engineer can access the configuration menus. (See below).

To move through the menus, press the '↑', '↓', '→' and '←' buttons, then press the Enter button or '→' to select the menu you want to access., after selecting the menu to which you want to access must press the Enter button or '→'.

INSTALLER	25/12/2003 15:30
Loop	▶
Zones	▶▶
Point	▶▶▶
Actions	▶▶▶▶
Event Log	▶▶▶▶▶
General	▶▶▶▶▶▶
Network	▶▶▶▶▶▶▶
Printer	▶▶▶▶▶▶▶▶
Date-Time	▶▶▶▶▶▶▶▶▶
Test LED & LCD	▶▶▶▶▶▶▶▶▶▶

GB

#### 6.2.1 Loop Menu

On the menu loop we can access the submenús Autosearch and Autocheck.

INSTALLER	25/12/2003 15:30
<u>Loop</u>	▶▶▶▶▶▶▶▶▶▶ Autosearch
Zones	▶▶▶▶▶▶▶▶▶▶ Autocheck
Point	▶▶▶▶▶▶▶▶▶▶
Actions	▶▶▶▶▶▶▶▶▶▶
Event Log	▶▶▶▶▶▶▶▶▶▶
General	▶▶▶▶▶▶▶▶▶▶
Network	▶▶▶▶▶▶▶▶▶▶
Printer	▶▶▶▶▶▶▶▶▶▶
Date-Time	▶▶▶▶▶▶▶▶▶▶
Test LED & LCD	▶▶▶▶▶▶▶▶▶▶

### 6.2.1.1 Menu AUTOSEARCH

AUTOSEARCH performs a scan of all points that are connected to the loop. This may take a few minutes

**GB**

INSTALLER		25/12/2003 15:30	
<u>Loop</u>	▶	<u>Autosearch</u>	
Zones	▶	Autocheck	
Point	▶		
Actions	▶		
Event Log	▶		
General	▶		
Network	▶		
Printer	▶		
Date-Time	▶		
Test LED & LCD	▶		
LOOP SEACH SELECTION		25/12/2003 15:30	
LOOP	:	[1]	
Accept			Cancel

To select the loop that we want to autosearch, enter the number in the square brackets or select the loop number using the '↑' and '↓' buttons. Once selected click on Accept, and the following screen appears.

SEARCHING LOOP		25/12/2003 15:30	
LOOP : [1]			
			Cancel

**GB**

Once the loop AUTOSEARCH has finished, a summary of the search result is displayed, indicating all points that are connected to the loop. This report should be compared to the actual points installed to ensure that the devices are correctly detected and there are no connection errors.

SEARCH LOOP REPORT		25/12/2003 15:30	
VALID	:001	CHANGED	:000
Optical	:001	Heat	:000
MCP	:000	Zone	:000
Output	:000	Input	:000
		Opt-Heat	:000
		Sounder	:000
		Error	:000
001	002	003	004
005	006	007	008
OPT			
Accept	<-	->	Cancel

The meaning of the fields is as follows:

In the second window we have:

- VALID field is the number of addresses where they have found an item, both detectors and modules.
- DOUBLE ADDRESSES field are addresses where they found more than one item.
- The CHANGED TYPE field shows the addresses which have changed from the last AUTOSEARCH accepted.

**GB**

In the third window we have:

Se presenta un tipo de informe donde se muestra un resumen del número por tipo de elementos encontrados en el lazo.

In the four windows we have:

The second type of report accessed by pressing the function key Addresses. This reports all addresses that have been found in the loop, indicating the type of point found at the address and the status.

Again the → and ← keys can be used to navigate through the screens of the report.

If there is no abbreviation under an address, it means that this address is free, and if you see XXX, it means there is more than one point that responds to that address.

Pressing the Accept button validates the Autosearch, and the system will work with the points detected in the loop.

Pressing the Cancel button means that the AUTOSEARCH is not recorded, and the system will work with the previous AUTOSEARCH accepted.

#### **6.2.1.2 Menu AUTOCHECK**

The autocheck submenu checks for problems on the loop, by checking how many points are connected to the start of the loop (S) and how many are connected to the end of the loop (R). This helps find where the position where the loop is open circuit.

INSTALLER		25/12/2003 15:30	
<u>Loop</u>	▶	Autosearch	
Zones	▶	<u>Autocheck</u>	
Point	▶		
Actions	▶		
Event Log	▶		
General	▶		
Network	▶		
Printer	▶		
Date-Time	▶		
Test LED & LCD	▶		



Select the loop where you want to check.

LOOP CHECK		25/12/2003 15:30	
LOOP	:	[1]	
Accept			Cancel

To select the loop to be checked, either enter its number or select it using the '↑' and '↓' buttons. Once selected click on Accept, and the following screen is displayed.

LOOP CHECK		25/12/2003 15:30					
LOOP :001							
FROM S: 005							
001	002	003	004	005	006	007	008
OPT	OPT	OPT		OPT	OPT		
FROM R: 027							
001	002	003	004	005	006	007	008
OPT	OPT	OPT		OPT	OPT		
			<-		->		Cancel

**GB**

This report shows that from the output connector on the loop (S) 5 points have been found, and from the return connector on the loop 27 points have been found. This tells us that we must look for problems between the 5 th point from the output connector and the twenty-seventh point from the return connector.

To access the previous menu, press the Exit button.

### 6.2.2 Menu Zone

The installation can be divided into zones which are geographical sub-divisions of the protected premises in which one or more points are installed and for which a common zonal indication is provided. The maximum number of zones is 250. The following options are available in the zone menu:

```

INSTALLER                25/12/2003 15:30
Loop                    ▶ Zone edit
Zones                 ▶ Show
Point                   ▶ Enable
Actions                 ▶
Event Log               ▶
General                 ▶
Network                 ▶
Printer                 ▶
Date-Time               ▶
Test LED & LCD         ▶

```



Use the '↑' and '↓' buttons to move the cursor, and then select using the ENTER button.

#### 6.2.2.1 Zone Edit Menu

This menu allows to the installer to assign a name for each zone number, to indicate the area of the building covered by the zone.

```

INSTALLER                25/12/2003 15:30
Loop                    ▶ Zone edit
Zones                 ▶ Show
Point                   ▶ Enable
Actions                 ▶
Event Log               ▶
General                 ▶
Network                 ▶
Printer                 ▶
Date-Time               ▶
Test LED & LCD         ▶

```

**GB**

EDIT ZONE		25/12/2003 15:30	
ZONE	:	[002]	
TEXT	:	[Floor 2 ]	
MODE	:	[ENABLE ]	
POINT	:	001	
LOOP	:	[1]	
FROM	:	[010]	
TO	:	[ ]	
+Points			Exit

In the second window we have the following fields:

- The ZONE field allow you to select the area to be edited.
- The fields can be edited by using the '↑' and '↓' buttons, or with the alphanumeric keypad. The next field can be selected using the '→' y '←' buttons.
- Use the alphanumeric keypad to edit the name of the zone in the TEXT field.
- The MODE field shows the status of the zone, ie enabled, disabled or test.
- In the test case appears the field ENABLE to select if you want to enable the sounders in this mode.
- The option 'Points' allow to the installer to assign points to the specified zone on a given loop.

In the third window

- This window allow to the installer to assign points to the specified zone on a given loop.
- The Point field identifies the number of devices in the assigned zone.
- We can select the Loop number and the addresses range to add to the Zone.
- (ie. the displayed window, to press the key "+ Points" we are assign addresses 10 through 115 of loop 1 to zone 2).



The MODE field shows the status of the zone, ie enabled, disabled or test.  
 The option 'Points' shows to the installer to assign points to the specified zone on a given loop.

The third window is an information window with the number of areas that we have enabled, disabled and under test, with the total number 250 zones.

### 6.2.2.3 Enable Zones Menu



The menu Enable Zones allow us to setup the mode of the zone, ie, setup all zones in enable mode, disable mode or test mode.

INSTALLER		25/12/2003 15:30	
Loop	▶	Zone edit	
<u>Zones</u>	▶	Show	
Point	▶	<u>Enable</u>	
Actions	▶		
Event Log	▶		
General	▶		
Network	▶		
Printer	▶		
Date-Time	▶		
Test LED & LCD	▶		

ZONE MODE SETUP		25/12/2003 15:30	
ENABLE	:	240	
DISABLE	:	005	
TEST	:	005	
MODE	:	[ENABLE	]
FROM	:	[001]	
TO	:	[001]	
Accept	Cancel		Exit

---

In the test case appears the field ENABLE to select if you want to enable the sounders in this mode.

The fields can be edited by using the '↑' and '↓' buttons, or with the alphanumeric keypad. The next field can be selected using the '→' y '←' buttons.

With the fields FROM and TO we fix the range of zones to set up in the selected mode. With the Accept button the changes are saved.

With the CANCEL button cancels the changes made and not accepted.

Press the EXIT key to exit the menu ZONE CONNECT.



The TEST option of this menu allows us to put in test mode the select areas. This option allows us to check the detectors without reset the Control Panel.

If this option is enabled you can choose if you want to trigger the sounders in case of alarm or not. If you have the sounders enabled, its will be enable under a few seconds and after the smoke detector will be in alarm mode. After it the sounders will be stopped automatically. If there is delay associated with the sounders, under test mode, it will be cancelled, to improve up the test mode.

After 20 minutes under the test mode selection, if the system detects that there has been no alarm trigger, the Control Panel will be in normal mode, it will be cancel the test mode.

The second window is an information window with the number of zones that we have enabled, disabled and under test, with the total number 250 zones.

In the third window we have the following fields:

The MODE field shows the status of the zone, ie enabled, disabled or test.

### 6.2.3. Point Menu

In the Edit Point menu, the name of points can be provided, and a zone can be assigned. The mode of the point is also displayed, i.e. enabled or disabled. Also turn on the led.

**GB**

INSTALLER	25/12/2003 15:30
Loop	▶ Edit Point
Zones	▶ Address Programming
<b><u>Point</u></b>	▶ Show
Actions	▶ Enable
Event Log	▶ Turn On LED
General	▶
Network	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

To move through the menus, press the '↑', '↓', '→' and '←' buttons, then press the Enter button or '→' to select the menu you want to access., after selecting the menu to which you want to access must press the Enter button or '→'.

### 6.2.3.1 Edit Point Menu

In the Edit Point menu, the name of points can be provided, and a zone can be assigned. The mode of the point is also displayed, i.e. enabled or disabled.

The device type is available in the display. AV is the analogue value of the point being displayed.

INSTALLER	25/12/2003 15:30
Loop	<u>Edit Point</u>
Zones	Address Programming
<u>Point</u>	Show
Actions	Enable
Event Log	Turn On LED
General	
Network	
Printer	
Date-Time	
Test LED & LCD	

**GB**

POINT EDIT	25/12/2003 15:30
LOOP : [ ]	DIR : [001]
TYPE : OPTICAL	VA : 000
TEXT : [WAITING ROOM ]	
MODE : [ENABLE	
ZONE : [001]	
TEXT : [FLOOR 1 ]	
Accept	Cancel
	Exit

The fields can be edited by using the '↑' and '↓' buttons, or with the alphanumeric keypad. The next field can be selected using the '→' and '←' buttons.

With the Accept button the changes are saved.  
 With the CANCEL button cancels the changes made and not accepted.  
 Press the EXIT key to exit the menu ZONE CONNECT.

### 6.2.3.2 Address Programming Menu



This option is used to assign a new address to a point. This device must be alone in the loop.

INSTALLER		25/12/2003 15:30	
Loop	▶	Edit Point	
Zones	▶	<b><u>Address Programming</u></b>	
<b><u>Point</u></b>	▶	Show	
Actions	▶	Enable	
Event Log	▶	Turn On LED	
General	▶		
Network	▶		
Printer	▶		
Date-Time	▶		
Test LED & LCD	▶		

ADDRESS PROGRAMMING		25/12/2003 15:30	
LOOP : [ ]			
CURRENT ADDRESS : 001			
NEW ADDRESS : [004]			
Accept			Exit

Select the loop number and the current address of a point. Use the '↑' and '↓' buttons, or the numeric keys on the keypad to select a new address for the point. Once selected, click the Accept button to fix it. Remember to keep alone in the loop this device before to use this function.

### 6.2.3.3 Show Point Menu

This menu allows to the installer to show the data for each point inside the installation displayed.

INSTALLER		25/12/2003 15:30	
Loop	▶	Edit Point	
Zones	▶	Address Programming	
<b><u>Point</u></b>	▶	<b><u>Show</u></b>	
Actions	▶	Enable	
Event Log	▶	Turn On LED	
General	▶		
Network	▶		
Printer	▶		
Date-Time	▶		
Test LED & LCD	▶		



SHOW POINT		25/12/2003 15:30	
LOOP	:	[ ]	
ADR	:	[001]	
TYPE	:	Optical	
TEXT	:	Waiting room	
ZONE	:	001	
TEXT	:	FLOOR 1	
ENABLE	:	0241	
DISABLE	:	0001	
Filter			Exit

In the second window we have the following fields:

This menu allows you to select the loop and the device to be check. You can see the type, the text of the point, the zone and the zone text for the selected device.

In the third window shows:

A summary of the number of devices enabled and disabled.

Pressing the Filter key you can go to a new window were you can see the enable or disable addresses of each loop.

**GB**

SHOW POINT		25/12/2003 15:30					
LOOP	:	[ ]					
ENABLE	:	001					
001	002	003	004	005	006	007	008
OPT	OPT	OPT		OPT	OPT		
001	002	003	004	005	006	007	008
	YES						
ENABLE	DISABLE						Exit

In the third window you can select the loop. Press the key "ENABLE" to show the summary of the enable devices or press the key "DISABLE" to show the summary of the disable devices. With the keys '→' and '←' you can show the status of all addresses in the loop.

### 6.2.3.4 Enable Point Menu

The menu Enable Points allow us to enable or disable the points in the system.

INSTALLER	25/12/2003 15:30
Loop	▶ Edit Point
Zones	▶ Address Programming
<u>Point</u>	▶ Show
Actions	▶ <u>Enable</u>
Event Log	▶ Turn On LED
General	▶
Network	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

GB

POINT MODE SETUP	25/12/2003 15:30
ENABLE	:0240
DISABLE	:0001
MODE	:[ ]
LOOP	:[001]
FROM	:[001]
TO	:[001]
	Exit

The second window is a resume window with the number of devices ENABLES and the number of devices DISABLES.

In the thirist windows we have the next fields:

The MODE field allow you to change the status of the point, ie enabled or disabled. The fields can be edited by using the '↑' and '↓' buttons, or with the alphanumeric keypad. The next field can be selected using the '→' y '←' buttons. The LOOP field allow you to select the loop to be change.

With the fields FROM and TO we fix the range of addresses to set up in the selected mode.



With the Accept button the changes are saved.  
With the CANCEL button cancels the changes made and not accepted.  
Press the EXIT key to exit the menu POINT CONNECT.

#### 6.2.3.5 Turn on LED Menu

This option is helpful to locate a particular point in the system. Select the loop number and address of the point to be located, and the point's indicating LED will automatically light until either another address is chosen or the Exit option is selected.

INSTALLER	25/12/2003 15:30
Loop	▶ Edit Point
Zones	▶ Address Programming
<u>Point</u>	▶ Show
Actions	▶ Enable
Event Log	▶ <u>Turn On LED</u>
General	▶
Network	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

POINT EDIT		25/12/2003 15:30	
LOOP	: [ ]	ADR	: [001]
TYPE	: OPTICAL	AV	: 000
TEXT	: Waiting room		
MODE	: ENABLE		
ZONE	: 001		
TEXT	: FLOOR 1 ]		
+		-	
			Salir

**GB**

After selecting the loop, using the + - keys or numeric keypad, we can change the address of the item that you want to turn on the LED.

Press the EXIT key to exit the menu TURN ON LED.

#### 6.2.4. Actions Menu

Cause and effect actions are created from this menu.

INSTALLER	25/12/2003 15:30
Loop	▶
Zones	▶▶
Point	▶▶▶
<b><u>Actions</u></b>	▶▶▶▶
Event Log	▶▶▶▶▶
General	▶▶▶▶▶▶
Network	▶▶▶▶▶▶▶
Printer	▶▶▶▶▶▶▶▶
Date-Time	▶▶▶▶▶▶▶▶▶
Test LED & LCD	▶▶▶▶▶▶▶▶▶▶

ACTION		25/12/2003 15:30	
EVENT	: [0001/0001]		
RMT EVENT:	[NO]	REL:	[000]
I	: [Panel ]		
EVENT	: [Gen Alarm ]		
O	: [Panel ]		
EVENT	: [Outputs ON ]		
	+	Erase	Exit

Press the EXIT key to exit the menu ACTIONS.  
 Press the Erase button to cancel the displayed action.  
 Press the + button to add actions.

**6.2.4.1 New Actions (Action Creation)**

An action is the cause and effect generated by an event in the building protected by the analogue system. It allows you to activate, deactivate or reset any output of the installation based on the configured cause and effect actions. When a detector, MCP or other kind of input device is triggered, the output which is generated depends on the input and output actions which have been programmed in to the panel. The input can be from a point or a zone or a loop or a panel. Likewise, the effected output may be one or more individual points, or one or more zones, or one or two loops, or all the points connected to the panel.

To set up an action, you first define an input generated by the event and then define the type output you require. It is possible to associate a delay time (in seconds) with the output, to prevent false alarms occurring if the output is immediate. NB the maximum delay time permitted by the European standard is 600 seconds (i.e. 10 minutes).

The following shows the steps to create an action:

#### 6.2.4.1 Delay and Remote Event Action Setup

First step is to define if this action is internal to the panel or remote. This is for network systems. If the panel is inside a network the name for this action is remote event. It's happens when an event in a panel trigger an output in other panel.

RMT EVENT [NO] If it's only one panel or it's an internal event.

RMT EVENT [YES] If it's a network panel and the action is in other panel. In this case you must to fill the panel address and the delay for this action.

The actions may have an associated delay time (DEL) in seconds, to prevent the immediate actions in case of false alarms.



#### 6.2.4.1 Setup Event Input

The second step to create an action is to define the input (I) that triggers the event. The action can be done by an input from a Panel, Loop, Zone or Point Input.

##### **Input Actions allowed by the Control Panel.**

We can choice between the next events:

- General Alarm.
- Multiple Point Alarm.
- Multiple Zone Alarm.

##### **Input Actions allowed by the Loop**

After selecting the loop, we can select the next events types:

- General Alarm.

##### **Input Actions allowed by the Zone**

After selecting the zone, we can select the next events types:

- General Alarm.
- MCP Alarm.
- Detector Alarm.
- Multiple Alarm.

##### **Input Actions allowed by the Point**

After selecting the loop and the address point, we can select the next events types:

- Alarm.

After selecting the input of the Action, the required output must then be chosen, which may be point(s), zone(s), loop(s) or the entire panel.

### 6.2.4.1 Setup Event Output

The third step to create an action is to define the output (O) that triggers the event activate. The action can be done by an output from a Panel, Loop, Zone or Point Input.

#### Output Actions allowed by the Control Panel.

We can choice between the next events:

- Enable outputs.
- Disable outputs.
- Enable sounders.
- Disable sounders.
- Enable relays.
- Disable relays.
- Enable PCB sounder 1.
- Disable PCB sounder 1.
- Enable PCB sounder 2.
- Disable PCB sounder 2.

GB

#### Output Actions allowed by the Loop

After selecting the loop, we can select the next events types:

- Enable outputs.
- Disable outputs.
- Enable sounders.
- Disable sounders.
- Enable relays.
- Disable relays.

#### Output Actions allowed by the Zone

After selecting the zone, we can select the next events types:

- Enable outputs.
- Disable outputs.
- Enable sounders.
- Disable sounders.
- Enable relays.
- Disable relays.
- Output Actions allowed by the Point.

#### After selecting the loop and the address point

We can select the next events types:

- Enable.
- Disable.

---

### 6.2.5 Event Log Menu

In the Event Log menu you can access the list of events which have been detected by the system. For greater flexibility you can select the type of event you want to see. Alternatively you can list all events.

INSTALLER	25/12/2003 15:30
Loop	▶ Faults
Zones	▶ Alarms
Point	▶ Test
Actions	▶ All
<b>Event Log</b>	▶ Erase
General	▶
Network	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

**GB**

As a last option in this menu, the Erase option. This deletes all events from Event Log. This process is recommended to be used after commissioning the installation, so that information will only be saved from the date the system begins to operate.

## 6.2.6 General Menu

In the General menu you can enter the installation name, choose the menu language, change the passwords, check & upgrade the firmware versions and Disable LED Switch.

**GB**

INSTALLER	25/12/2003 15:30
Loop	▶ Installation name
Zones	▶ Language
Point	▶ Password
Actions	▶ Check version
Event Log	▶ FW Update
<u>General</u>	▶ Disable LED Switch
Network	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

### 6.2.6.1 Installation Name Menu

In this submenu the installation engineer can enter the name of the facility, the company responsible for maintaining the facility and a help line.

INSTALLER	25/12/2003 15:30
Loop	▶ <u>Installation name</u>
Zones	▶ Language
Point	▶ Password
Actions	▶ Check version
Event Log	▶ FW Update
<u>General</u>	▶ Disable LED Switch
Network	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

25/12/2003 15:30			
REFERENCE	[		]
MAINTENANCE	[		]
PHONE	[		]
Accept			Exit

**GB**

When the system operates in the normal condition the panel displays the name of the facility.

When a fault occurs in the alarm system, the panel shows the maintenance company and its phone number.

The editing of the fields is done with the alphanumeric keypad, and you can move from one field to another using the '→' and '←' buttons.

With the Accept button the changes are saved.

Press the Exit key to exit of the menu.

### 6.2.6.2 Language Selection Menu

The system can operate in different languages to suit local requirements. The available languages include English, Spanish, Italian, French and Portugese.

### 6.2.6.2 Language Selection Menu

The system can operate in different languages to suit local requirements. The available languages include English, Spanish, Italian, French and Portuguese.

**GB**

INSTALLER	25/12/2003 15:30
Loop	▶ Installation name
Zones	▶ <b><u>Language</u></b>
Point	▶ Password
Actions	▶ Check version
Event Log	▶ FW Update
<b><u>General</u></b>	▶ Disable LED Switch
Network	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

LANGUAGE	25/12/2003 15:30
Espanyol	
English	
Italian	
Portuguese	
French	
Accept	Exit

Use the '↑' and '↓' buttons to move the cursor, and then select using the ENTER button.

With the Accept button the changes are saved.

Press the Exit key to exit of the menu.

### 6.2.6.3 Password Modification Menu

The system uses two passwords, both of which may be changed using this submenu. The level 1 password is for use by the system user, and the level 2 password by the installation engineer.

INSTALLER		25/12/2003 15:30	
Loop	▶	Installation name	
Zones	▶	Language	
Point	▶	<b><u>Password</u></b>	
Actions	▶	Check version	
Event Log	▶	FW Update	
<b><u>General</u></b>	▶	Disable LED Switch	
Network	▶		
Printer	▶		
Date-Time	▶		
Test LED & LCD	▶		

**GB**

CHANGE PASSWORD		25/12/2003 15:30	
	USER		
<b><u>LEVEL 1</u></b>	USER	:	[01]
LEVEL 2	PASSWORD	:	[1111]
<- ->		Accept	Exit

Each panel may be programmed with up to 31 different user level passwords. The default value of the user password is 1111.

With the Accept button the changes are saved.  
Press the EXIT key to exit of the menu

One installer level key available. The default value of the installer password is 2222.

**GB**

CHANGE PASSWORD		25/12/2003 15:30	
LEVEL 1		INSTALLER	
		CURRENT PASSWORD	: [0000]
		NEW PASSWORD	: [0000]
<u>LEVEL 2</u>		NEW PASSWORD	: [0000]
<- ->		Accept	Exit

With the Accept button the changes are saved.

Press the EXIT key to exit of the menu.

#### 6.2.6.4 Check Version Menu

This menu is to check the firmware. This menu reports the versions of the panel and the loops.

INSTALLER		25/12/2003 15:30	
Loop	▶	Installation name	
Zones	▶	Language	
Point	▶	Password	
Actions	▶	<u>Check version</u>	
Event Log	▶	FW Update	
<u>General</u>	▶	Disable LED Switch	
Network	▶		
Printer	▶		
Date-Time	▶		
Test LED & LCD	▶		

### 6.2.6.5 FW Update Menu

This menu allows us to update the firmware of the computer through the USB port.

INSTALLER		25/12/2003 15:30	
Loop	▶	Installation name	
Zones	▶	Language	
Point	▶	Password	
Actions	▶	Check version	
Event Log	▶	<b><u>FW Update</u></b>	
<b><u>General</u></b>	▶	Disable LED Switch	
Network	▶		
Printer	▶		
Date-Time	▶		
Test LED & LCD	▶		
SW UPGRADE		25/12/2003 15:30	
Accept			Exit

**GB**

This menu allows us to update the firmware of the computer through the USB port.

Press the BIOS button before the # symbols reaches the far right of the row to start updating the firmware / software.

**GB**

			BIOS

BOOTLOADER V1.0			
EXIT			

Press Exit to exit the application.

### 6.2.6.6 Disable LED Switch Menu

This menu allows us to update the firmware of the computer through the USB port.

INSTALLER	25/12/2003 15:30
Loop	▶ Installation name
Zones	▶ Language
Point	▶ Password
Actions	▶ Check version
Event Log	▶ FW Update
<u>General</u>	▶ <u>Disable LED Switch</u>
Network	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

GB

DISABLE LED SWITCH	25/12/2003 15:30
[DISASBLE     ]	
Accept	Exit

Use the '↑' and '↓' buttons to enable or disable the mode DISABLE LEDS

ENABLE: The LED flashing is enable when the panel is speaking with the devices in the Loop.

DISABLE: The LED flashing is disable when the panel is speaking with the devices in the Loop.

### 6.2.7 Network Menu

The network allow to link panels and repeaters. The network support up to 32 panels or repeaters. You can configure the systems using this menu.

In the Network menu we can find the submenus Node setup, Node search and Check version.

**GB**

INSTALLER	25/12/2003 15:30
Loop	▶ Node setup
Zones	▶ Node search
Point	▶ Check version
Actions	▶
Event Log	▶
General	▶
<b><u>Network</u></b>	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

Note: To access the internal network menus you will need to have a network card connected (this card is an optional and not included in the panel).

### 6.2.7.1 Node Setup Menu

This menu allows you to configure the panel as a node inside the network.

INSTALLER	25/12/2003 15:30
Loop	▶ <u>Node setup</u>
Zones	▶ Node search
Point	▶ Check version
Actions	▶
Event Log	▶
General	▶
<u>Network</u>	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

GB

NETWORK SETUP	25/12/2003 15:30						
NODE TYPE	:[ ]						
CURRENT ADDRESS:	[01]						
NETWORK FILTER							
001	002	003	004	005	006	007	008
[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Accept							Exit



NETWORK REPORT		25/12/2003 15:30					
TOPOLOGY :							
NODE NUMBER :001							
001	002	003	004	005	006	007	008
[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Aceptar	<--	-->	Salir				

**GB**

NODE NUMBER: Number of nodes found in the network.  
 - Possible number of nodes from 01 to 32.

NODE MODES: Modes of operation of the network.  
 - ISOLATED: There is only one node.  
 - BUS: Network topology type bus.  
 - RING: The network topology ring.

### 6.2.7.3 Check Network Version Menu

This menu is to check the firmware. This menu reports the version of the network card installed in the panel.

**GB**

INSTALLER	25/12/2003 15:30
Loop	▶ Node setup
Zones	▶ Node search
Point	▶ <u>Check version</u>
Actions	▶
Event Log	▶
General	▶
<u>Network</u>	▶
Printer	▶
Date-Time	▶
Test LED & LCD	▶

VERSION	25/12/2003 15:30		
NETWORK VERSION : 1.1			
			Exit

Press the EXIT key to exit of the menu.

### 6.2.8 Printer Menu

The Printer menu allows to access to the submenus Real Time and Historical Print.

INSTALLER	25/12/2003 15:30
Loop	▶ Real time
Zones	▶ Print Log
Point	▶
Actions	▶
Event Log	▶
General	▶
Network	▶
<b><u>Printer</u></b>	▶
Date-Time	▶
Test LED & LCD	▶

GB

#### 6.2.8.1 Real Time Menu

INSTALLER	25/12/2003 15:30
Loop	▶ <b><u>Real time</u></b>
Zones	▶ Print Log
Point	▶
Actions	▶
Event Log	▶
General	▶
Network	▶
<b><u>Printer</u></b>	▶
Date-Time	▶
Test LED & LCD	▶

**GB**

ONLINE PRINT	25/12/2003 15:30		
ALARM :	<ENABLE >		
FAULT :	[DISABLE ]		
Accept			Exit

ALARM: Alarm Status Printing.  
- ENABLE  
- DISABLED

FAULT: Fault Status Printing.  
- ENABLE  
- DISABLED

With the Accept button the changes are saved.

Press the EXIT key to exit of the menu.



### 6.2.9 Date and Time Menu

Use this submenu to change the date and time displayed on the panel.

INSTALLER	25/12/2003 15:30
Loop	▶
Zones	▶
Point	▶
Actions	▶
Event Log	▶
General	▶
Network	▶
Printer	▶
<b><u>Date-Time</u></b>	▶
Test LED & LCD	▶

**GB**

DATE-TIME	25/12/2003 15:30		
DATE	: <14>:<08>:<12>		
HOUR	: <17>:<30>		
Accept			Cancel

With the Accept button the changes are saved.

Press the EXIT key to exit of the menu.

---

### 6.2.10 Test LED & LCD Menu

Use the menu Test LED & LDC to check all the light indications from the panel

INSTALLER	25/12/2003 15:30
Loop	▶
Zones	▶▶
Point	▶▶▶
Actions	▶▶▶▶
Event Log	▶▶▶▶▶
General	▶▶▶▶▶▶
Network	▶▶▶▶▶▶▶
Printer	▶▶▶▶▶▶▶▶
Date-Time	▶▶▶▶▶▶▶▶▶
<b><u>Test LED &amp; LCD</u></b>	▶▶▶▶▶▶▶▶▶▶

**GB**

## 6.3 A Basic Configuration Installation

The basic configuration of the panel can be made entirely from the keypad of the panel itself, but we recommend using the configuration software provided so that the process will be simpler and faster.

Here are the steps for a basic installation.

- **Select the Language.** See section 6.1.6.2
- **Date and Time Settings.** To set the date and time on the panel see section 6.1.7
- **Name the installation.** To enter the name of the installation, and the maintenance company & phone number see section 6.1.6.1 of this manual.
- **Set a loop.** Use loop autosearch so the system will scan and show all the items it finds. This search should match the items found with the plans for the installation. To access the AUTOSEARCH LOOP menu. See Section 6.1.1.1 of this manual.
- **Configure zones.** The installation can be divided into zones, this allows the installation to be structured according to installation requirements. To create and assign zones see section 6.1.2 of this manual.
- **Configure the points.** A point can be assigned a name that identifies its location and zone. The points can be disabled if necessary. To name and assign the points see section 6.1.3 of this manual.
- **Set actions.** An action is the “cause and effect” rule which applies when a fire event occurs. To set up a move, you first define an input generated by the event and then define the output that is required. The outputs may be associated with a time delay in seconds, to avoid false alarms in case of immediate actions. To access the programming menu for ACTIONS see section 6.1.4 of this manual.

Once all the steps outlined above have been carried out, the system is configured to protect the installation.

**GB**

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## 7- Start-up Guide System

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This chapter defines step by step how you should correctly install the analogue panel.

### 7.1- System Check

Before connecting the mains supply check the points listed below carefully:

- Check that the equipment has been installed correctly.
- With the help of a voltmeter to verify that there are no short or open circuits.
- Use the tester to verify continuity of the line. Verify that the circuits connected to zone modules have 4k7 end of line resistors.
- Verify that the sounder circuits are connected with the correct polarity, and have 4K7 EOL resistors.
- Check output connections on the motherboard. Make sure they are properly installed.
- Set the desired delay for the sounders.
- Check that the mains voltage is 230VAC by using a voltmeter and check the batteries have a voltage greater than 24V.

**GB**

### 7.2- System supply

After reviewing all the points described above, the correct order to connect the power is:

- Connect the mains power supply.
- Connect the batteries.

If necessary, you can turn the panel on with only the battery connected, but it is essential to press TAB to start the panel.

Once both power supplies are connected all the panel indicators should be turned off except the green power LED. If you have programmed a sounder delay, you should also see the sounder delay LED on.

If you notice any indication other than those described above, the origin of the problem in the installation should be detected and the fault repaired before proceeding (see problems).

### 7.3- System Test

A quick test of the system can be performed as follows:

- Create a fault, such as a loop open circuit or a power failure, and check that the fault relay operates and the fault is indicated on the LEDs and LCD.
- Cause an alarm to occur and check that the alarm relay outputs are activated and the correct sounders operate (after the correct delay, if programmed).

Note: A power failure may take several minutes to be indicated.

**GB**

### 7.4- How to solve common problems

#### 7.4.1 Earth Fault.

The panel detects whether there is any earth fault on the installation, i.e. where any part of the system has a low resistance connection. This will be indicated by the Earth fault LED. Even if there is an earth fault, the system will probably operate correctly, but it is important to solve the problem, since it can affect communications. If an Earth fault occurs check the following points.

- Verify that the fault is not caused by the panel itself, by disconnecting all circuits connected to the panel.
- If the panel itself is OK, next check circuit by circuit, disconnecting and connecting all one by one, to find out what causes the Earth fault.
- Once the circuit that causes the Earth fault is ascertained, disconnect the return loop, and create an open circuit halfway round the loop. If the Earth fault disappears then the problem is in the part of the loop that was disconnected. If not, it is in the half still connected. Continue this process until the exact location of the Earth fault is found.

#### 7.4.2 Communication Problems.

The system may have problems that are caused mainly by the following reasons.

- Removal of any point of the loop.
- Short circuit on a loop.
- Interference with communication wires.

If the panel shows that the item is no longer receiving power, then:

In the event of any open or short circuit of the loop proceed as follows.

- Check the voltage with a meter, the output of the loop located at the panel motherboard should be 32V.
- Introduce a diagnostic loop which cuts out the location of the power loss. In the case of cutting the system at the exit loop only communicate to the point where it is cut and return the same loop. Are there cross the system from both the output and input from only communicate to the nearest crossing insulators.

In the case of interference from communication cables operate as follows:

- Verify that you have voltage in the output and return of the loop (32V), to ensure that there is indeed interference with the communications.
- To locate the point where there is interference, perform the following procedures:
  - Make a bridge between the output and input of the loop, so avoid cutting fault.
  - Disconnect half of the loop.
  - Perform an AUTOSEARCH. If the system works correctly and the communication problems disappear, this means that the communication problem interference is in the other half of the installation. If problem persists this means that the communication problems are in the half of the loop still connected to the power.
  - Repeat the above procedure to narrow the area of the search for the interference problem.
  - Once you reach the area, the normal solution is to remove from the loop installation any electrical or electronic equipment which is possibly interfering with our communications.
- Once solved the problem, reconnect the loop in all its entirety and carry out another AUTOSEARCH. The communication problems should be gone.

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#### 7.4.3. Double address 1 and 2 Loops

During the installation of the system, it can fail because of the same address at different points of the loop.

Following an AUTOSEARCH, the system will show the report:

```
SEARCH LOOP REPORT          01
VALID:100    DOUBLE ADDRESSES:02
CHANGED TYPE:05
[Accept]      [Cancel]      [Reports]
```

Press the Reports button to go to the next screen:

```
TYPE LOOP REPORT                                01
Optical: 050   Heat:000   Opt-Hea: 000
MCP   : 040   Zone   : 000   Sounder: 000
[ + ]   [ - ]   [Addresses]   [ Exit]
```

**GB**

Pressing the Addresses button will obtain a report of all addresses that have been found in the loop indicating the type of the point at the address.

```
LOOP 1 ADDRESSES REPORT                        (1/25)
 001 002 003 004 005 006 007 008 009 010
 OPT OPT HEA HEA MCP      ZON I/O XXX OPT
      [ + ]      [ - ]      [ EXIT ]
```

If there is not any abbreviation under an address, it means that this address is free, and if you see XXX, it means there is more than one point that responds to that address. In the screen above we see that address 6 does not answer, because no point has been given that address, and address 9 shows that there is more than one point that responds to that address. In this case it is likely that the detector with the desired address of 6 has accidentally been given an address of 9.

- After locating items with double addresses, give them the correct address, and perform another AUTOSEARCH. This eliminates double address fault.

#### 7.4.3. Double address 4 and 8 Loops

During the installation of the system, it can fail because of the same address at different points of the loop.

Following an AUTOSEARCH, the system will show the report:

SEARCH LOOP REPORT				25/12/2003 15:30			
VALID	:001	CHANGED	:000				
Optical	:001	Heat	:000	Opt-Heat	:000		
MCP	:000	Zone	:000	Sounder	:000		
Output	:000	Input	:000	Error	:000		
001	002	003	004	005	006	007	008
OPT							
Accept	<-	->	Cancel				

**GB**

Press the Reports button to go to the next screen:

SEARCH LOOP REPORT				25/12/2003 15:30			
VALID	:001	CHANGED	:000				
Optical	:001	Heat	:000	Opt-Heat	:000		
MCP	:000	Zone	:000	Sounder	:000		
Output	:000	Input	:000	Error	:000		
001	002	003	004	005	006	007	008
OPT							
Accept	<-	->	Cancel				

Pressing the Addresses button will obtain a report of all addresses that have been found in the loop indicating the type of the point at the address.

SEARCH LOOP REPORT				25/12/2003 15:30			
VALID	:001	CHANGED	:000				
Optical	:001	Heat	:000	Opt-Heat	:000		
MCP	:000	Zone	:000	Sounder	:000		
Output	:000	Input	:000	Error	:000		
001	002	003	004	005	006	007	008
OPT							
Accept	<-	->	Cancel				

**GB**

If there is not any abbreviation under an address, it means that this address is free, and if you see XXX, it means there is more than one point that responds to that address. In the screen above we see that address 6 does not answer, because no point has been given that address, and address 9 shows that there is more than one point that responds to that address. In this case it is likely that the detector with the desired address of 6 has accidentally been given an address of 9.

- After locating items with double addresses, give them the correct address, and perform another AUTOSEARCH. This eliminates double address fault.

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#### 7.4.4. CPU System fault

If the System Fault LED lights, disconnect all power from the panel and then re-connect the power to the panel. If the problem persists, contact your dealer, since the service technician should check the central microprocessor.

#### 7.4.5 Power supply fault

The system is capable of showing different types of power failure.

- Mains Power Fault: Check the input voltage, if correct, check the fuse of the terminal network and fuse board.
- Battery Power Fault: It is possible that the battery voltage is low. Disconnect the mains power so that the panel is only connected to the batteries, and check the battery voltage. This should be 27.6V. If the voltage is correct, check the fuses on the motherboard under the batteries. If the fuses are correct, check the power cable to the circuit. Finally check that the batteries are in good condition.
- 24V Auxiliary Output Fault: Check the auxiliary output voltage, it should be at least 24V. If not, check the output fuse. If the fuse is OK, contact your dealer.
- Battery charger Fault: If the panel displays a battery charger fault, contact your dealer.



#### 7.4.6 Password incorrect

All panels have user and installer level Access codes, which can be changed by users and installers, respectively. If you forget the code, contact your dealer.

#### 7.4.7 Display fault

It is possible that the display does not look good because of the contrast of the screen. To change it, slowly turn the knob next to the display.

## 8- Maintenance

The care recommendations of EN54 Part 14 should be followed, in addition the recommendations found in this section.

### 8.1- User maintenance

The user must make daily and monthly checks:

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- The user must check daily as follows: Any faults are to be recorded in the incident logbook, and the company responsible for maintaining the equipment advised.
- The user must check each month: The state of the installation by triggering a detector or manual call point. A different area should be tested every month. Any anomaly detected in these tests shall be recorded in the incident logbook, taking corrective action as soon as possible.

### 8.2- Maintainer maintenance

The maintenance and installation companies must make quarterly and annual checks:

- The company in charge of maintenance of the facility shall test every six months as follows:
  - » Check the entries in the incident logbook, carrying out the necessary corrective actions.
  - » Examine the battery connections and load voltage.
  - » In each area, check the functions of alarm, fault and auxiliary equipment.
  - » Visually inspect the equipment to detect any increase in moisture or any other deterioration.
  - » Find out if there has been some structural changes at the facility, which could alter the normal operation of the facility
- » The company responsible for maintenance of the facility must demonstrate annually that:
  - » Put the panel on test mode, and verify that all sensors and call points operate according to the manufacturer's specifications.
  - » Inspect all connections to the panel and its attachments to verify that there has been no deterioration.
  - » Examine the state of the batteries and replace if necessary.
  - » We recommend replacing the batteries every 4 years.

## 9- Features

Mechanical features 1 and 2	
• Dimensions (height-width-depth)	439 mm x 268 mm x 112 mm
• Material	ABS
Mechanical features 4 and 8	
• Dimensions (height-width-depth)	460 mm x 360mm x 120 mm
• Dimensions (height-width-depth)	460 mm x 450 mm x 120 mm
• Dimensions (height-width-depth)	460 mm x 450 mm x 200
• Material	ABS
Environmental features	
• Working temperature	Between -5° & 40°C
• Relative Humidity	Maximum 95% dry
• IP Rating	IP30
• Class type	3K5 of EN607 21-3-3-1995
Loop features	
• Maximum points per loop	250 points
• Loop voltage	Min 25 Vdc Max 32 Vdc
• Loop maximum output current	225 mA
• Maximum loop length	2 Km
• Maximum loop capacitance	500 nF
• Recommended wire	Shielded and twisted 2x1,5 mm <sup>2</sup>
• Maximum loop resistance	44 Ohms
Características salida de relé de alarma	
• Relé libre de tensión	1 relé con contactos C, NA, NC
• Potencia máxima de conmutación	2A a 30 Vdc
Características salida del relé de avería	
• Relé libre de tensión	1 relé con contactos C, NA, NC
• Potencia de máxima de conmutación	24 a 30 Vdc
• Situación de reposo	Energizado

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Sounder output features	
• Number of monitored sounder outputs	2
• Quiescent output voltage	Between -5 Vdc & -9 Vdc
• Activate output power	Min 18 Vdc Max 29 Vdc
• Maximum output current	400 mA per sounder output
• Recommended wire	Twisted 2 x 1,5 mm <sup>2</sup>
• End of line resistor	4K7 Ohms 1/4W
• Protecting fuses SND1 and SND2	500 mA 5x20 (Quick Blow).
24V auxiliary output features	
• Output voltage	Min 18Vdc Max 29 Vdc
• Maximum output current	400 mA
• Recommended wire	Twisted 2 x 1,5 mm <sup>2</sup>
• Protecting fuses 24V aux	500 mA 5x20 (Quick Blow)
Power supply features	
• Mains voltage	230 Vac +10% -15%
• Output voltage	Max 29 Vdc
• Protecting fuse	250 Vac 4 A 5x20 (Time Delay Fuse)
• Maximum output current	2A
Battery charger features 1 and 2	
• Output voltage	27,6 Vdc at 20°C
• Temperature compensation	3 mV/°C x C
• Maximum load current	350 mA
• Rimax resistance	2.3 Ohms
• Battery fuse	2A 5x20 (Quick Blow)
• Recommended battery	NP7-12
• Minimum battery voltage	21.0V
• Maximum battery voltage	28,7V
• I <sub>max</sub> per panel	1,65A



Battery charger features 4 and 8	
• Output voltage	27,6 Vdc at 20°C
• Temperature compensation	3 mV/°C x C
• Maximum load current	1200 mA
• Rimax resistance	2.3 Ohms
• Battery fuse	2A 5x20 (Quick Blow)
• Recommended battery	NP7-12 NP24-12 Plus version
• Minimum battery voltage	21.0V
• Maximum battery voltage	28,7V
• I <sub>max</sub> per panel	1,65A
EN54-2 options with requirements	
• Externat power supply lost warning (Clause 8.4)	Yes
• Output delay (Clause 7.11)	Yes
• Test condition (Clause 10)	Yes
• Output to fire alarm devices (Clause 7.8)	Yes
Manufacturing passwords	
• User level code	1111
• Installator level code	2222

