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PREVIDIA | COMPACT



GameOver



ANALOG-ADDRESSABLE FIRE ALARM CONTROL PANEL,
EXTINGUISHANT SYSTEM CONTROL PANEL,
ALARM TRANSMISSION AND FAULT WARNING ROUTING EQUIPMENT

MANUAL FOR
SYSTEM CONFIGURATION,
COMMISSIONING AND
MAINTENANCE

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General information

1.1 Manufacturer's details

Manufacturer: INIM ELECTRONICS s.r.l

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The persons authorized by the manufacturer to repair or replace the parts of this system, hold authorization to work on INIM Electronics brand devices only.

1.2 About this manual

Manual code: DCMCINE0PREVIDIAC

Version: 1.00

This manual describes the procedures for the configuration, commissioning and maintenance of the Previdia Compact fire-detection system.

1.2.1 Graphic conventions

Following are the graphic conventions used in this manual.

Conventions	Example	Description
Text in italics	Refer to <i>paragraph 1.2.1 Graphic conventions</i>	Indicates the title of a chapter, section, paragraph, table or figure in this manual or other published reference
[Uppercase letter] or [number]	[A] or [1]	Reference relating to a part of the system or video object.

Note: *The notes contain important information relating to the text.*

Attention: *The "Attention" prompts indicate that total or partial disregard of the procedure could damage the device or its peripherals.*

1.3 Description of the configuration and programming procedures

Following is a flow chart which summarizes the operations to be carried out during the installation and commissioning phases of the Previdia Compact system and indications regarding the manuals to refer to for each operation.

1. Installation and cabling (refer to the Installation Manual)
2. Addressing devices
3. Initializing (refer to the Installation Manual)
4. Configuration from the front plate (operations described in this manual)
5. Troubleshooting (operations described in this manual)
6. Connection to PC and reading (optional)
7. Configuration of parameters (editing data, optional)
8. Writing on control panel and testing (optional)
9. Commissioning (operations described in this manual)
10. System handover
11. Maintenance (operations described in this manual)

1.4 Operator classification - Access Levels

The control panel has 4 distinct access levels:

Level 1: Public level - this is the normal access level of the control panel and is the access level for building inhabitants who are neither authorized to use the system nor instructed in its use.

This level allows building inhabitants to view information on the screen and signalling LEDs, interact with the system (in accordance with Level 1) and scroll through the information by means of the buttons and touchscreen. Level 1 allows the following operations only:

- mute buzzer
- test signalling LEDs
- activate alarm signalling when an early-warning process is running

Level 2: Authorized users - this access level is for the system supervisors and is for authorized personnel who are adequately instructed in the use of the system and its functions.

Access requires the use of a key or entry of a valid access code with sufficient access rights. In addition to the operations described for level 1 it is also possible to carry out the following operations:

- mute alarm signalling devices
- rearm the control panel
- activate alarm signalling devices manually
- disable control panel elements
- place in test status one or more of the system elements

Level 3: Programming - this access level is for specialized technical operators who carry out system configuration, commissioning and maintenance.

Access requires entry of a valid access code with sufficient access rights after inserting a jumper which enables programming. Refer to the manual for system configuration, commissioning and maintenance.

ONLY authorized technicians, appointed by the Manufacturer can, by means of special tools, carry out repair work on the motherboard.

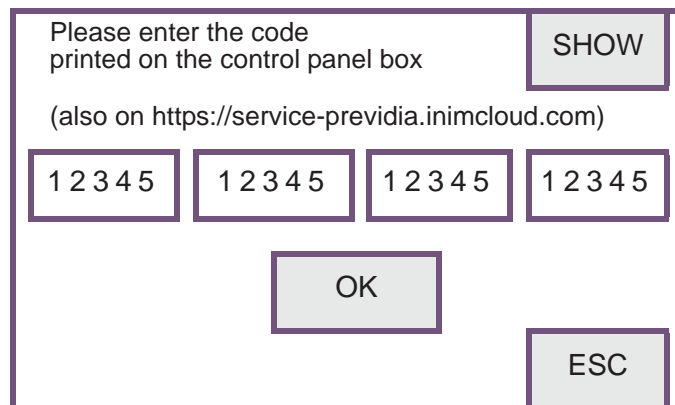
Level 4: ONLY authorized technicians, appointed by the Manufacturer can, by means of special tools, carry out repair work on the motherboard.

Configuration

2.1 First startup

Once the installation and cabling procedures have been completed (refer to the Installation Manual of the Previdia Compact system) the system is ready for first startup.

In the case of first startup and after having performed the procedure to set the factory data, it is necessary to enter the unlock code:



This is a code printed on a special label, affixed to the cardboard box containing the control panel. Alternatively, it can be found at the following Internet address (the serial number of the control panel will be requested, once provided the unlock code will be provided):

<https://service-previdia.inimcloud.com>

Once the unlock code has been entered, you will be asked to select the required the language.

The control panel screen will be as follows:

[A]	Buttons to access the events logs, system status and programming.	
[B]	Status bar (always present) shows essential information regarding the system.	
[C]	"Home" button	

In the case of faults or other types of events, the latter will be shown on the display. You can retrieve the home screen at any time by tapping on the respective icon on the status bar [C].



In order to configure the Previdia control panel it is necessary to work through the following procedure:

1. Access programming (*paragraph 2.2*)
2. Access the configuration menu (*paragraph 2.3*)

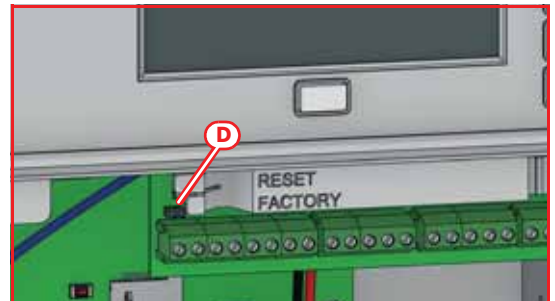
3. Enroll the loop devices, after the respective fault search (*paragraph 3.4.2*)
4. Set up the control panel parameters (*Chapter 3, System Parameters*)
5. Configure the connected devices and their groups (*Chapter 4, Parameters of devices and their groupings*)
6. Check eventual signalling and search for faults (*paragraph 5.3*)
7. Set the date and time (*paragraph 3.10*)

Note: *Once the configuration operations have been completed correctly, the control panel will be ready to operate.
The control panel is configured to consider each input point (detector, module, terminal) as a fire-alarm point. Therefore, in the event of a fire alarm it will activate all the outputs available on its loops or terminals.
At this point it is necessary to proceed with eventual changes to the configuration data for the distribution of points in zones, edit descriptions of the various system elements, define specific activation sequences, etc.*

2.2 Access to programming

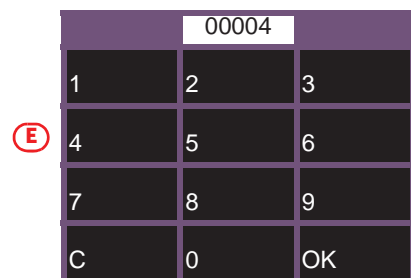
To access the programming phase of the Previdia control panel, it is necessary to work through the following procedure:

1. Insert the programming jumper (see opposite, *[D]*).
2. Press the **Programming** button on the stand-by screen (see above, *[A]*).
3. A keypad will appear (see opposite, *[E]*) for the entry of a code with installation privileges.



Note: *The default access code to level 3 is "00004".*

4. The accessed programming menu will provide the following options:
 - Configuration (refer to *paragraph 2.3*)
 - Modify (refer to *paragraph 2.4*)
 - Factory default settings (refer to *paragraph 2.5*)



2.3 Accessing the configuration menu

The configuration menu allows the programmer to put all the parts of the Previdia Compact System in the configuration (control panel, connections and connected devices) after the initial installation phase.

To access the configuration menu it is necessary to first access the programming phase of the control panel (*paragraph 2.2*) and then tap on the **Configuration** button which appears on the screen. Once inside the Configuration menu, the control panel screen will show an image of the control panel frontplate highlighting the access buttons to the configuration sections.

Icon	Function buttons	Display
	Access to the configuration of the general parameters of the control panel. Refer to <i>paragraph 3.1</i>	
	Access to the configuration of the extinction channel. Refer to <i>paragraph 3.9</i>	
	Access to the configuration of the Ethernet network. Refer to <i>paragraph 3.2</i>	
	Access to the configuration of the Hornet+ network. Refer to <i>paragraph 3.3</i>	
	Access to the configuration of the loops (loop 1 and loop 2). Refer to <i>paragraph 3.4</i>	
	Access to the functions provided by the SD card. Refer to <i>paragraph 3.5</i>	
	Access to the configuration of the inputs and outputs provided by the control panel terminals. Refer to <i>paragraph 4.2</i>	
	Access to the configuration of the control panel access codes. Refer to <i>paragraph 3.7</i>	
	Access to the configuration of the general parameters of the remote communicator. Refer to <i>paragraph 3.8</i>	
	Access to the configuration of the power supply. Refer to <i>paragraph 5.1</i>	

2.4 Access to the device modification menu

Once the Previdia Compact system has been configured it is necessary to set the parameters, or change the default programming of the devices connected to the control panel (single or in group).

The Previdia Compact control panel provides a direct programming option on the control panel for its connected devices and their logical groups (zones and output groups) without need of accessing the "Configuration" section (*paragraph 2.3*). To access it, you must access the programming phase of the control panel (*paragraph 2.2*) and then press the **Modify** button on the menu on the screen.

The section you access will show a list containing the access buttons to the programming subsections::

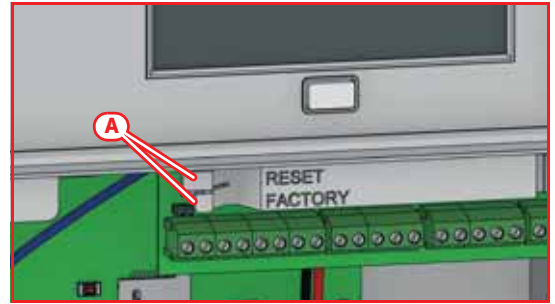
- Zones (refer to *paragraph 4.3*)
- Output groups (refer to *paragraph 4.4*)
- I/O Lines (refer to *paragraph 4.2*)
- Loop points (refer to *paragraph 4.1*)

Pressing one of these buttons will allow you to view the list of the respective elements. The list shows the index, description, and status of each element, and by tapping on one of the lines, you will be able to program the parameters of the individual element.

2.5 Resetting factory default data

The resetting of the factory default data and consequent deletion of the configuration data on the Previdia Compact control panel can be done in two ways:

- Selecting the **Factory data** option from the programming menu (refer to *paragraph 2.2*).
 - Using the buttons available on the plastic support of the electronic boards, as shown in the figure [A]:
1. Press the **FACTORY** button.
 2. While holding down the **FACTORY** button, press the **RESET** button then release it.



After confirmation of the request for reset to factory default data, the control panel will carry out the same operations as at first startup, described at the beginning of this manual.

A progress bar will confirm factory data resetting in course.

System Parameters

The configuration of the Previdia Compact control panel, its interfaces and external connections provides for the settings of a series of parameters reachable from the control panel by accessing control panel programming (*paragraph 2.2*) and then pressing the **Configuration** button on the menu shown on the screen.

Once inside the Configuration menu (*paragraph 2.3*), the control panel screen will show an image of the control panel frontplate highlighting the access buttons to the configuration sections.

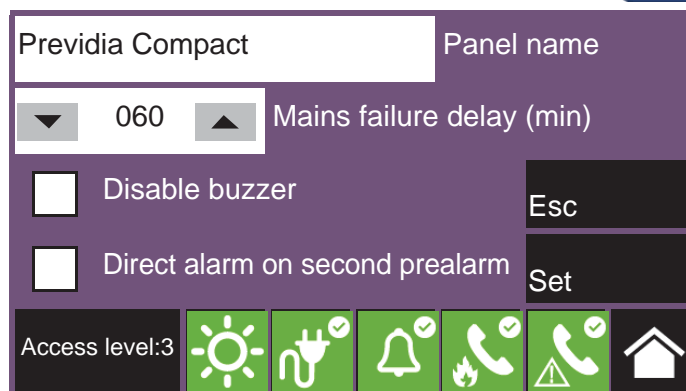
3.1 General parameters of the control panel

Tapping on the appropriate icon inside the control panel configuration screen accesses the configuration section of some of the control panel parameters.



The available parameters are:

- **Panel name**, editable field for the description of the control panel
- **Mains failure delay**, field for the delay (expressed in minutes) which must pass between detection of mains failure by the control panel and mains failure signalling
- **Disable buzzer**, option that, if activated, disables the control panel buzzer
- **Direct alarm on second prealarm**, option that, if activated, generates an alarm signal as soon as two detectors go into prealarm status, regardless of the zone they belong to. Otherwise the alarm condition will activate at the end of the first prealarm time.



The **Esc** and **Set** buttons will allow you to exit the section without changing the programming or saving it.

3.2 Configuring the Ethernet network

If an Ethernet network connection is used, it will be necessary to set up the IP address and parameters of the network.

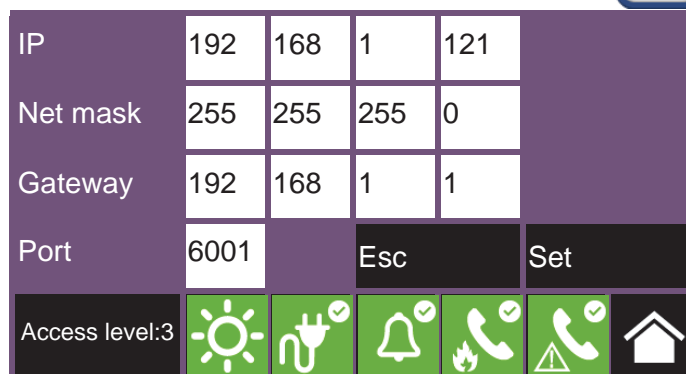
This operation must be carried out for each of the Previdia control panels and repeaters connected to the Ethernet network via LAN cable.

To set the network parameters you must enter the programming phase of the control panel (*paragraph 2.2*) and then tap on the appropriate icon inside the control panel configuration screen.



The available parameters are:

- **IP address**
- **Netmask**
- **Gateway**
- **Port**



The **Esc** and **Set** buttons will allow you to exit the section without changing the programming or saving it.

3.3 Configuring the Hornet+ network

If the installation has control panels connected in a Hornet+ network, it will be necessary to assign the network address to each control panel.

To set the network parameters you must enter the programming phase of the control panel (*paragraph 2.2*) and then tap on the appropriate icon inside the control panel configuration screen.

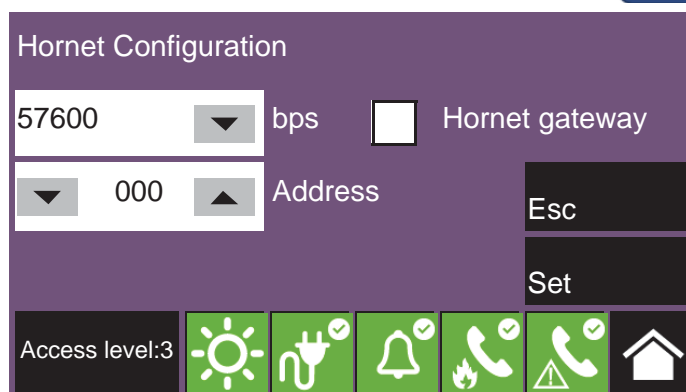


The available parameters are:

- **Bit rate (bps)**
- **Network Address**
- **Hornet gateway**, option that, if activated, will set the control panel as the gateway to the network

Note: *Only one point can be set as the gateway to a Hornet+ network.*

Each control panel in the same Hornet+ network must be set with the same bit rate and univocal address.



The **Esc** and **Set** buttons will allow you to exit the section without changing the programming or saving it.

3.4 Configuring the loops

The operations for the configuration of the loops and the devices connected to them can be reached by first accessing the control panel programming section (*paragraph 2.2*) and then by tapping on the icon of the loop you wish to configure.



The section reached in this way provides the following buttons:

- **Auto-configure**, button to access the automatic loop-configuration procedure (refer to *paragraph 3.4.1*).
- **Diagnostics**, button to access the section for loop diagnostics (refer to *paragraph 3.4.2*).
- **Parameters**, button to access the section for the selection of the type of devices installed on the loop (refer to *paragraph 3.4.3*).
- **Esc**, button to step back.

Note: *For the first configuration of the system, it is recommended that you run the loop configuration after appropriate addressing of the devices as per the following order of access to the sections:*

- *Parameters*
- *Auto-configure*
- *Diagnostics*

3.4.1 Auto-configuration of the loop

Pressing the **Auto-configure** button provides you with the following buttons for access to the relative subsections:

- **Enroll**
- **Readdress**
- **Update**
- **Add/Change**

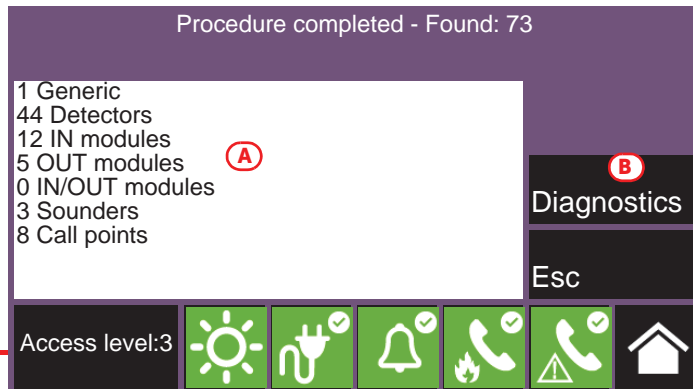
Enroll: This button performs a loop scan (after command confirmation) which searches for all the connected devices and puts those found into the configuration [A].

A report of the devices will be shown when the scan ends.

The **Diagnostics** button [B] allows you to step to the technical report which can also be accessed from the Loop configuration menu (refer to *paragraph 3.4.2*).

Note:

It is possible to use this procedure only when you have already performed an addressing operation, automatic or manual, on the devices connected to the loop.



Readdress: This button performs a loop scan (after command confirmation) which searches for the serial numbers of all the devices. The control panel automatically assigns an address to each device in consecutive order, following the connection order on the loop.

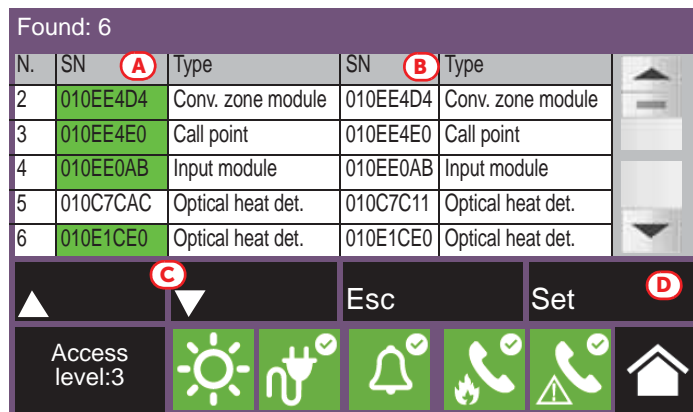
This operation may take some minutes depending on the size and composition of the loop.

A summarized report is shown containing the devices found, as described in the "Enroll" section ([A]).

Update: This button starts the procedure (after command confirmation) which is to be performed after changes have been carried out on a previously configured loop (add, remove or replace devices).

The control panel provides a table showing the previously enrolled configuration in the columns on the left [A], and the newly detected configuration in the columns on the right [B]. Positions in which changes have not been detected will be outlined in green. Changes will be indicated in white.

This operation may take some minutes depending on the size and composition of the loop.



It is possible to select a device from the column on the right and move it up or down by means of the arrow keys [C].

In this way you can select which addresses will be assigned when, after pressing the **Set** button [D], the process that re-addresses the loop devices starts.

Add/Change: This button accesses a section where you can select a specific address and change, remove or add a device manually.

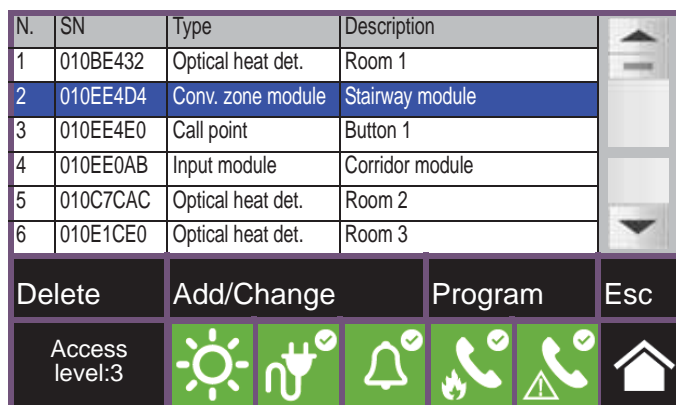
At the side of the loop device list are a series of buttons which will allow you to work on the device selected by a screen tap gesture, as follows:

- **Delete:** button to delete the selected device.
- **Add/Change:** button to change or add a device manually.

After completing the connection of a new device or replacing an old device, it is necessary to select the address involved then tap on the **Add/Change** button. When using Inim protocol, it is necessary to enter the serial number of the new device.

- **Program:** button to access a section where it is possible to change some of the device options (refer to *paragraph 4.1 Loop point parameters*).

Once this operation has been completed the control panel will communicate with the new device. The appearance of the type of device detected is the confirmation of its acquisition.



3.4.2 Loop diagnostics

The **Diagnostics** button in the Loop configuration menu accesses the section for the loop diagnosis.

The upper left side of the template [A] shows some of the electrical data of the loop.

- **Loop status:** indicates whether the loop is a closed ring circuit or open
- **Loop O Terminal:** indicates eventual short-circuits or anomalies immediately on the loop output terminals
- **Loop I Terminal:** indicates eventual short-circuits or anomalies immediately on the loop input terminals
- **Loop Consumption:** indicates the voltage draw of the loop
- **Cable resistance:** indicates the resistance value of the cable

The upper right side of the template [B] shows the number and type of devices currently in configuration.

The lower part [C] provides the following buttons:

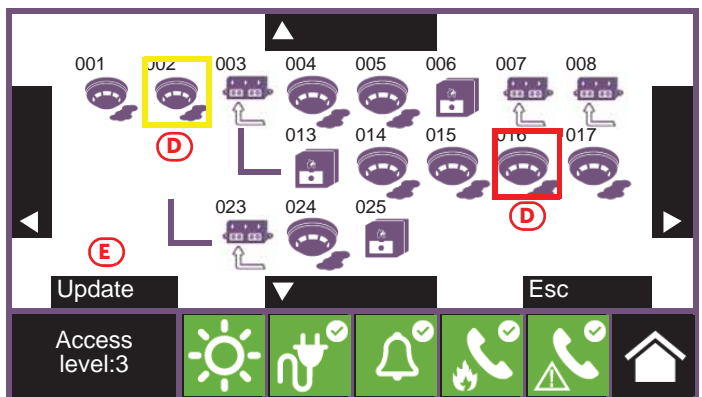
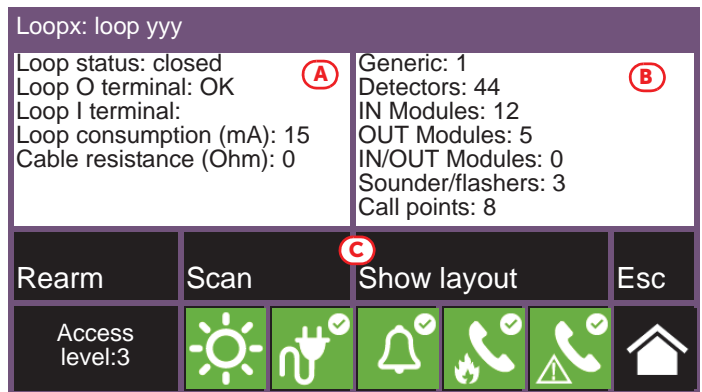
- **Loop reset**, button to reset the loop and reassess its status. In the event of a "Loop open" fault, it will be necessary to tap on this button in order to check whether or not the interruption has been cleared.
- **Scan**, button to start a scan on an already enrolled loop. The procedure verifies whether there are any connected devices which are not in the configuration, if devices have been lost or if there are any other anomalies. The results of the scan can be viewed in the section on the top right of the display.
- **Show topology**, button which steps to the layout screen of the devices in the configuration of the already enrolled loop.

The layout shows all the devices which are connected to the loop and how they are connected to one another.

Any devices in alarm or fault status will be outlined in red or yellow [D].

The selection of a device accesses the management page of the device itself

The **Update** button [E] refreshes the screen by updating any alarms and faults signalled by the devices shown (restored fault events will not be shown).

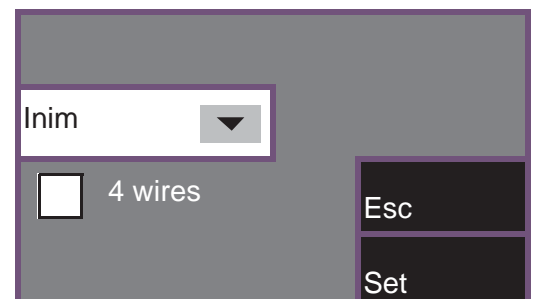


3.4.3 Loop Parameters

The **Parameters** button on the loop configuration menu allows you to set:

- Device protocol
- Wiring type (2 or 4 wires)

Note: *If you are making a two-wire connection, you can install a maximum of 32 fire-alarm devices on the loop (detectors or call points).*



3.5 SD card functions

Tapping on the appropriate icon inside the control panel configuration template accesses some of the functions available on the SD card.



A list with the following buttons will appear:

- **Save Program Data**, saves the control panel programming data to the SD card in a .dat file, the name of which coincides with the serial number of the control panel.
- **Save Log**, saves the contents of the events log to the SD card in a file named "xxxx_log.txt", where "xxxx" is the serial number of the control panel.
It is possible to import the data contained in the file into a spreadsheet (the character used as the delimiter of the various fields is the full stop and comma ";").
- **Read Program Data**, if there is a .dat file on the SD card whose name coincides with the serial number of the control panel, the programming data contained in it will overwrite that currently used.
- **Read Display Config**, if the "Desktop.Bin" file is on the SD card, the data contained in it (images, buttons and labels to be displayed in the stand-by screen) will overwrite that currently used. If the previously-mentioned file is not present on the SD card, and there is the file "Logo.bmp" file is, the image contained in it (260x222 pixel) will be shown on the stand-by screen.

The **Esc** and **Set** buttons will allow you to exit the section without changing the programming or saving it.

3.6 Configuring the terminals

The configuration of the motherboard terminals includes both the configuration of the devices connected to the control panel motherboard terminals, the "I/O" terminals and relay output terminals.

Tapping on the appropriate icon inside the control panel configuration screen accesses the configuration section of the input/output terminals.

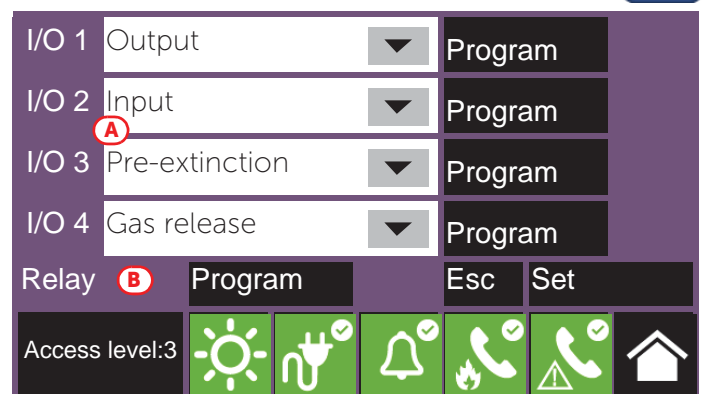


The configuration of the "I/O" [A] terminals requires firstly specification of the type of device connected to them, then the programming of the parameters, which vary according to the specified choice. Each of the 4 "I/O" terminals can be configured as:

- Output
- Input
- Not used

For control panel models that provide extinction functions, the previous screen appears as shown in the figure.

In this case, terminals "I/O3" and "I/O4" are not programmable, and are dedicated to signalling the pre-extinction condition and the activation of the Electrovalve output.



The "relay" output is also available on the list of "I/O" terminals [B].

For each terminal, regardless of whether it is an input or an output, the **Program** button allows access to the programming menu of the connected device (refer to *paragraph 4.2*).

3.7 Configuring the users

Tapping on the appropriate icon inside the control panel configuration screen accesses the configuration section of the control panel access codes.



This section provides the list of available codes.

Once a code is selected, you can remove it from the system by pressing the **Delete** button.

Instead the **Program** button will allow you to set its parameters:

- **Description**, label that identifies the user and that is shown in the events it is involved in.
- **PIN**, 5-figure number that identifies the user, thus allowing access to the system.
- **Type**, determines the set of operations the user can control. The following values are possible (refer to *paragraph 1.4 Operator classification - Access Levels* and the *User manual*):
 - **No code**, code not enabled to access the system.
 - **User level**, coincides with "Level 2" (authorized user)
 - **Superuser level**, same as the previous level, with the added possibility of loop-device replacement.
 - **Maintenance operator level**, same as the previous level with the added possibility of stopping the valve pulse for those models that support extinction functions
 - **User level**, coincides with "Level 3" (authorized user)

Previdia Compact control panels are supplied at default with the first 4 codes already pre-set:

N.	Type	Description
1	User level	Code 1
2	Superuser level	Code 2
3	Maintenance level	Code 3
4	Installer level	Code 4
5	No code	Code 5
6	No code	Code 6

Delete
Program
Esc

Access level:3

Code parameters

Code 2 Description

***** PIN

User level Type

Access level:3

Code number	Code type	Default PIN
1	User level	00001
2	Superuser level	00002
3	Maintenance level	00003
4	Installer level	00004
5 ...	No code	/

3.8 Configuring the communicator

To set the network parameters you must first enter the control panel programming phase (*paragraph 2.2*) and then tap on the appropriate icon inside the control panel configuration screen.

The boxes marked [A] will allow you to select the communication channels you want to use:

- **Ethernet**, for transmission of events with the SIA-IP protocol over Ethernet cable
- **PREVIDIA-C-DIAL**, for transmission through the optional communicator of the Previdia Compact. If selected, the following channels will also become available:
- **SIM (SIA-IP)**, for transmission of events with the SIA-IP protocol over 3G
- **SIM (Voice/SMS)**, for transmission of events with Contact-ID protocol, of voice messages or SMS texts over 3G
- **PSTN**, transmission of events with Contact-ID protocol or voice messages over the landline

PREVIDIA-C-DIAL A

Ethernet

SIM (SIA-IP)

APN B

SIM (voice/SMS)

Contacts C

PSTN

Actions D

Access level:3

The **APN** button [B] provides access to a section for the parameters required for the connection to the mobile network.

The **Contacts** button [C] accesses the phone book programming phase.

After selecting a contact, you will be able to configure it by pressing the **Program** button.

If you are configuring an “SMS” or “PSTN” type channel, the communication protocol will be requested:

- SIA-IP
- Contact ID
- Voice call
- SMS

The parameters made available in the contact programming section that follows vary according to the selected protocol.

Pressing the **Actions** button [D] on the communicator configuration screen will access the list of communication operations set on the control panel. Selecting one of them and then pressing the **Program** button accesses the configuration screen.

The “Type” parameter allows you to specify which events will trigger the action (alarm, fault, etc.).

Note: *For the first two actions (alarm and system failure), the “Description” and “Type” fields are not editable.*

The **Associated contacts** button accesses a screen that allows you to specify to which contacts the event communication will be sent.

If the presence of the Previdia-C-DIAL communicator, set by means of the previously-mentioned option, is different from the one the control panel detects, the appropriate icon inside the control panel configuration screen will change status and appear in yellow



3.9 Configuring the extinction channel

The parameters of the extinction channel, for control-panels that provide one, can be accessed through the control-panel programming section (paragraph 2.2), by simply tapping on the relevant icon on the configuration screen.

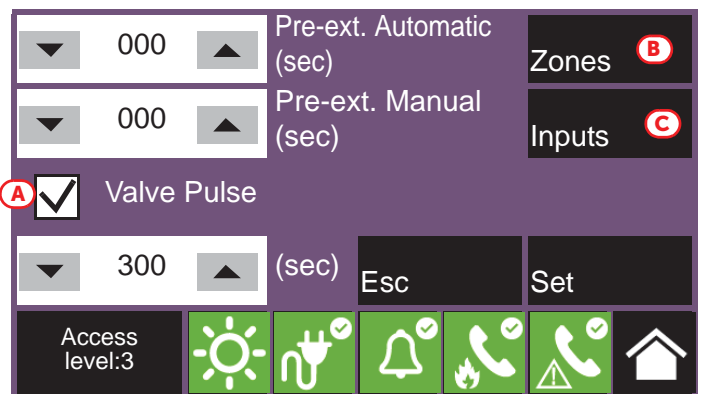


The successive sections provide the various programmable parameters (refer to the extinction flowchart and the table of extinction-terminal functions in the installation manual).

3.9.1 Extinction times

The following parameters can be set on the extinction-channel configuration page:

- **Automatic pre-extinction time:** duration of pre-extinction time, in seconds, when triggered by fire-fighting devices connected to the control panel.
- **Manual pre-extinction time:** duration of pre-extinction time, in seconds, when triggered by input devices programmed for manual-extinction (refer to following sections).
- **Valve Pulse** (option 4.21 “Control of flooding time” of EN 12094-1): duration of release time, in seconds. Leaving the respective box [A] empty removes all time limitations.

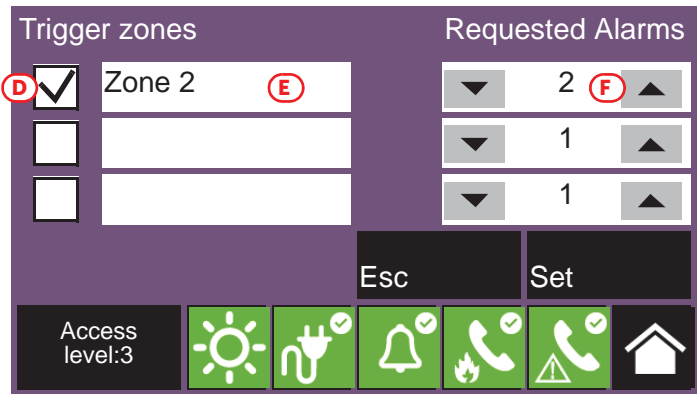


3.9.2 Trigger zones

The **Zones** button [B] accesses a screen that permits up to three zones to activate the extinction phase when, within one of the indicated zones, a certain number of alarms is reached.

In order to select the zones, you must first activate one of the three available options via the [D] check box, then tap on the respective field at the side [E] to access the list of configured zones. The arrow buttons [F] will allow you to specify the number of alarms (maximum 3).

The image at the side shows how the system can be configured so that the extinction channel is activated when there are at least two alarms in zone 2.



3.9.3 Extinction input

The **Inputs** button [C] will allow you to configure the control-panel input points to activate the extinction functions.

EN12094-1: To ensure compliance with EN 12094-1, the inputs in use must be on-board I/O or supervised inputs on loop modules (such as the EM312SR module). It is not possible to connect more than 32 devices to each of the selected input terminals. It is necessary to specify the input associated with the "Manual Extinction" function (the others are optional).

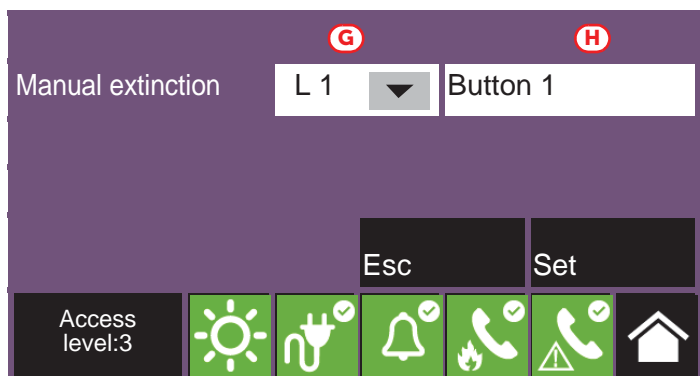
These functions are grouped into the following categories:

- **Activate**

This section provides the extinction-activation parameters.

The parameters of the "Manual extinction" command allow for the selection of an associated group (loop 1, loop 2 or one of the "I/O" terminals [G]), and the point [H] that activates the release of the fire extinguishing agent in accordance with the programmed pre-extinction time.

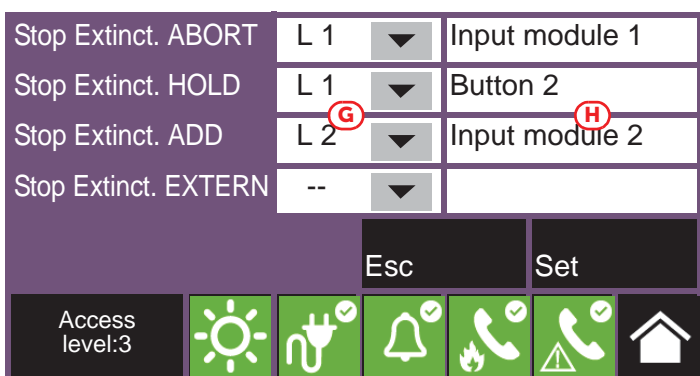
Selecting "--" for the group disables manual extinction on the control panel.



- **Deactivate**

This section provides the parameters for stopping the extinction procedure. There are 4 different modes available for stopping the extinction procedure, each one attributable to a different input:

- **Stop Extinct. ABORT** (Option 4.27 "Emergency interruption device" of EN 12094-1): stops the extinction procedure definitively
- **Stop Extinct. HOLD** (Option 4.20 "Emergency hold device" of EN 12094-1): stops the extinction procedure until reset (which restarts the pre-extinction time)
- **Stop Extinct. ADD** (Option 4.20 "Emergency hold device" of EN 12094-1): stop the extinction procedure until reset (the pre-extinction time-counter will not be altered)
- **Stop Extinct. EXTERN** (Option 4.19 "Monitoring the status of components" of EN 12094-1): same as "Stop Extinct. Hold", but activated without human intervention (for example by a door contact that inhibits the release of gas)



The parameters of the 4 commands allow for the assignment of a group (loop 1, loop 2 or one of the terminals "I/O" [G]) and the point [H] which activates the relative stop-extinction mode.

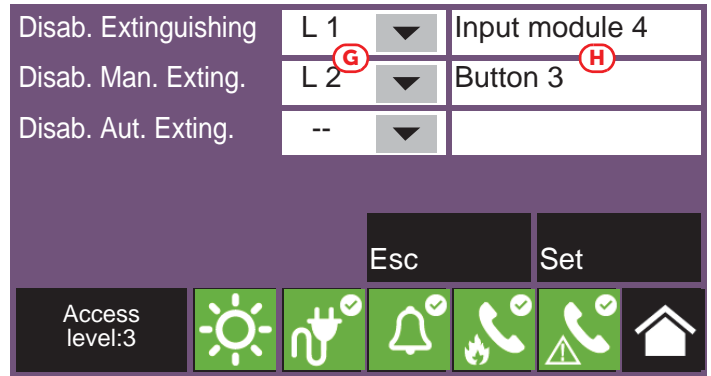
Selecting "--" for the assigned group disables the related stop-extinction mode.

EN12094-1: If the "Stop Extinction ABORT" function is utilized with a Previdia Compact control panel, the "Stop Extinction HOLD" and "Stop Extinction ADD" functions cannot be associated with inputs, and vice versa.

• **Disable**

This section provides the parameters of disabling the extinction procedure. There are 3 different modes available for disabling the extinction procedure, each one attributable to a different input:

- **Disab. Extinguishing:** disables all the extinction functions
- **Disab. Man. Exting.:** disables the programmed inputs for manual activation of the extinction procedure
- **Disab. Aut. Exting.** (option 4.23 "Manual only mode" of EN 12094-1): disables the automatic-activation of the extinction procedure



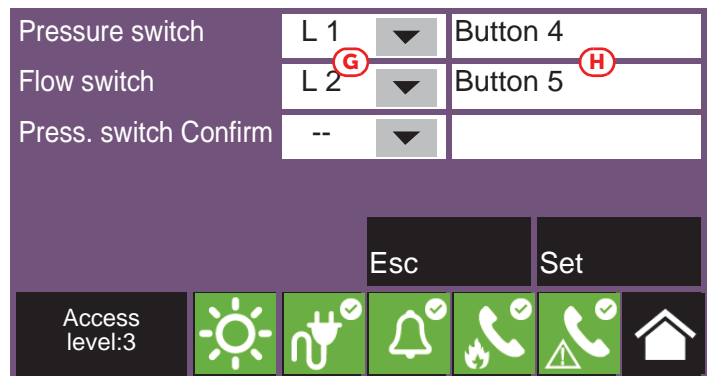
The parameters of the 3 different disablement modes allow for the assignment of a group (loop 1, loop 2 or one of the terminals "I/O" [G]) and the point [H] which activates the related extinction-disablement mode.

Selecting "--" for the assigned group disables the related extinction-disablement mode.

• **Flow/Pressure**

This section provides the parameters for the functions of the "Pressure switch", "Pressure switch confirm" and "Flow switch" that can be associated with three different inputs:

- **Pressure switch** (option 4.19 "Monitoring of the status of components" of EN 12094-1): input for the connection of a pressure valve that activates in the event of low pressure in the cylinders
- **Flow switch** (option 4.18 "Signal representing the flow of the extinguishing agent" EN 12094-1): input for the connection of a flow sensor, the activation of which signals the release of the fire-extinguishing gas
- **Press. switch Confirm:** input for the connection of a device used to verify the release condition of the fire-extinguishing gas by means of the pressure switch



The parameters of the 3 different functions allow for the assignment of a group (loop 1, loop 2 or one of the terminals "I/O" [G]) and the point [H] associated with the extinction function.

Selecting "--" for the assigned group disables the related function type.

3.9.4 Extinction outputs

In order to configure an output for the extinction function, you must associate it with one of the default groups prepared for this purpose, and described below.

EN12094-1: You must use on-board I/O or supervised outputs on the loop (such as the EM312SR module or sounder/flashers on the loop).

You must provide outputs associated with the following functions (the others are optional):

- Electrovalve
- Pre-extinction
- Release

The "Electrovalve" function can only be associated with the output corresponding to the "I/O 4" terminal on the motherboard of the control panel.

The default "Pre-Extinction" function is associated with the output corresponding to the "I/O 3" terminal on the motherboard of the control panel.

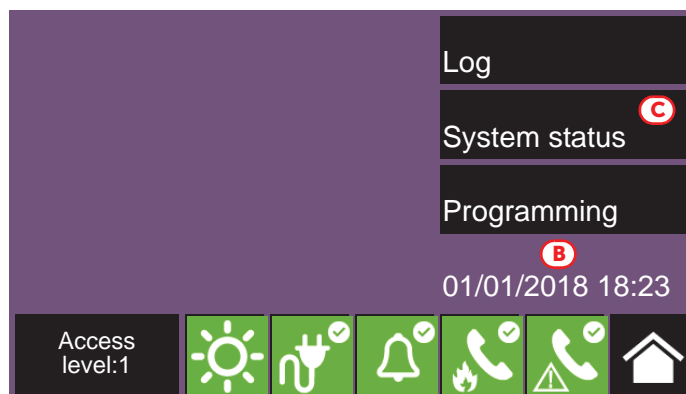
The Previdia Compact control panel has pre-configured default output groups with specific extinction functions:

Outputs group		Activation	EN 12094-1	Associated extinction function
3	Extinguishing	Group that activates the release of the gas.		Release
4	Pre-Extinguishing	Group that goes into prealarm status during the pre-extinction time and into alarm status during the release phase.	By programming a different tone pattern (or sound) for the prealarm and alarm conditions of an output associated with this group, this output will implement option 4.30 ("Activation of alarm devices with different signals").	Pre-Extinguishing
5	Automatic Exting.	Group that activates during pre-extinction and release conditions, if they are triggered by automatic activations (e.g. two alarms in a specific zone).		
6	Manual Exting.	Group that activates during pre-extinction and release conditions, if they are triggered by inputs programmed for manual extinction activation.		
7	Manual Stop	Group that follows the activation of inputs programmed as "Stop extinction Abort", "Stop extinction Hold" or "Stop extinction Add".	Options 4.27 "Emergency abort device" and 4.20 "Emergency hold device"	
8	Stop By Device	Group that follows the activation of the inputs programmed as "Stop extinction External".	4.19 "Monitoring of the status of components"	
9	Disab. Aut. Exting.	Group that activates in the event of the disabling of automatic activation (e.g. two alarms in a specific zone) of extinction	4.19 "Monitoring of the status of components"	
10	Exting. Fault	Group that is activated in the event of a fault on any component of the system with extinction functions (an extinction input or an output set as "Fire Protection System").		
11	Activate Exting.	Group whose activation starts the automatic pre-extinction time count.		

EN12094-1: The previous groups can be associated with supervised outputs connected to other devices, internal or external to the fire extinguishing system, thus creating options 4.24 "Triggering signals to equipment within the system" and 4.26 "Triggering of the equipment outside the system" of standard EN 12094-1.

3.10 Setting the date and time

Proceed with the time and date setting by selecting the time and date pane in the lower-right corner of the start page [B] and, after entering an access code, set the individual fields using the scroll arrows.



3.11 Firmware revision

The installer of the Previdia Compact system may access the firmware revision of each control panel module in order to facilitate any updating or configuration procedure.

The **System status** button on the home page in stand-by [C] accesses a section where you can view the status of the various system components.

Pressing the **Revision** button visualizes the following information:

```
FW001PFPMPCPU
UI:01.00 BUILD:01.01
IO:00.00.01
SW:01.xx.xx

Data: 4
SN:c00000c01
MAC: a1-e1-11-01-0a-0a
```

Esc

- Firmware revision of the CPU unit (UI)
- Firmware revision of the I/O unit (IO)
- Minimum revision required for the configuration software (SW)
- Revision of the technical data viewing configuration data, that is the progressive number of system configuration upgrades
- Serial number of the control panel (SN)
- Control panel MAC address

Chapter 4

Parameters of devices and their groupings

The configuration of the devices connected to the loops and the output/input terminals of the Previdia Compact control panel takes into consideration both the setting of parameters, which vary depending on whether the device is an input or output device, as well as their grouping (zones for the points and output groups for the outputs).

These operations can be carried out in two ways:

- via the **"Configuration" menu** (paragraph 2.3), by selecting the section relative to the type of connection with the control panel (loop or "I/O") and accessing the programming sections until you select the device concerned
- via the **"Modify" menu** (paragraph 2.4), for the direct programming of the devices.
From this menu you can also program the logical groupings (zones and output groups)

4.1 Loop point parameters

The parameters of each device connected to one of the two loops are only available after an enrolling operation which allows the control panel to have a basic loop configuration (paragraph 3.4.1).

At this point the parameters of the enrolled points can be reached in two ways:

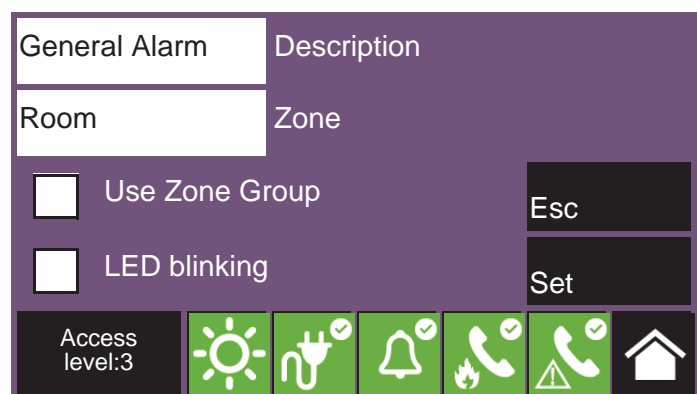
- through the **"Configuration" menu**, by selecting the section relative to one of the two loops and pressing **Auto-configure**, **Add/Change** to access a list of the loop points. Selecting a loop point enables the **Program** button.
- through the **"Modify" menu** and by pressing the **Point** button.
The screen will show the two control-panel loops and their statuses. Selecting a loop enables the **Program** button for the parameter settings of the single loop (refer to paragraph 3.4.3 *Loop Parameters*), and the **View** button for access to the assigned points. This button allows you to view a list of all the devices on the loop and their statuses. Selecting a loop device enables the **Program** button for the parameter settings, and the **Copy on...** button to copy the settings of the selected point (refer to paragraph 4.5).



The **Program** button allows you to access the programming menu which differs depending on the type of device (an input or output):

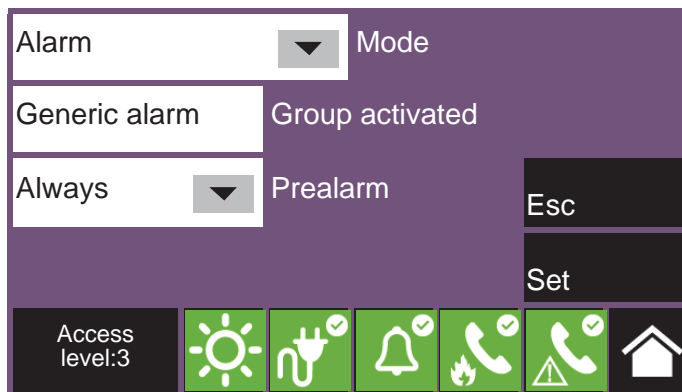
- **General settings**

- **Description**, label that identifies the individual point and which is shown in the events it is involved in.
- **Zone**, geographic group the point belongs to
- **Use Zone Group**, if this box is selected, the point in question will be assigned to the default group associated with the zone selected at the previous step (if this is already the assigned group, the box will be selected automatically when this screen is displayed)
- **LED blinking**, option that enables blinking on the device LED and its remote LED.



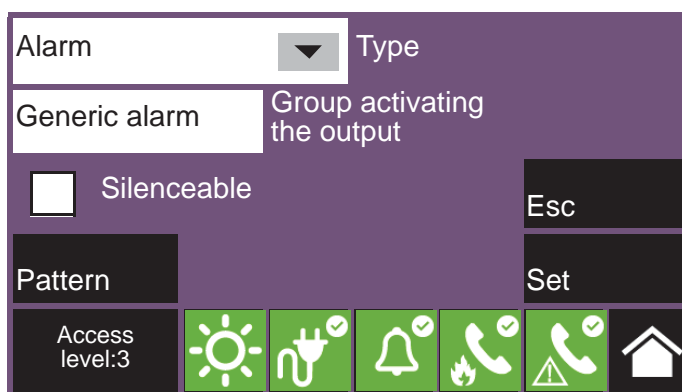
• **Input parameters**

- **Mode**, determines the type of event generated by activation of the input.
- **Group activated**, indicates the group that will activate following input activation.
- **Prealarm**, determines when activation of the input will start the associated prealarm time. The possible values are: "Never", "In day mode" and "Always".
- **Resettable**, where present, if activated, the event generated by the activation of the input will reset when the terminal resets.



• **Output parameters**

- **Type**, determines the way in which the output will be conditioned by bypass and silence operations by type
- **Group activating the output**, group whose activation determines the activation of the output
- **Silenceable**, if selected, once the output is activated it can be deactivated by silencing the control panel
- **Pattern**, pressing this button accesses the successive screen, which allows you to set the activation pattern for each output status. The available output statuses are "Stand-by", "Warning", "Prealarm" and "Alarm".



4.2 Parameters of control panel terminals

It is possible to set the parameters of an "I/O" terminal only after the line has been configured and the type of device connected to it specified (*paragraph 3.6*). The programming of the parameters varies according to the specified choice.

The parameters of each device connected to the terminals on-board the control panel (I/O lines and relays) can be reached in two ways:

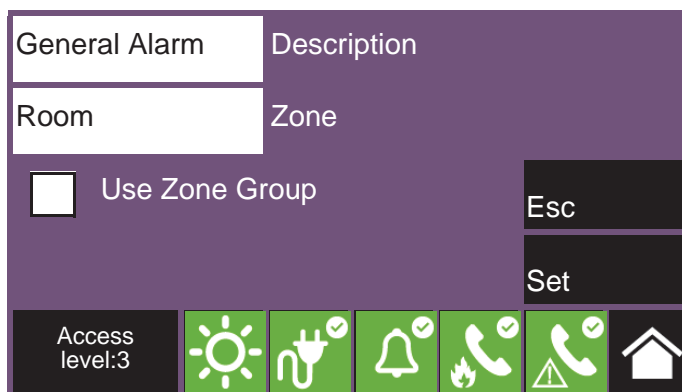
- **via the "Configuration menu"**, selecting the section relative to the terminal shows the section with the list of terminals.
- **via the "Modify" menu** and pressing the **I/O Lines** button. Two pages will be displayed, navigable with the arrow keys, with a list of all the configured devices and their statuses.



The **Program** button is available for each terminal and allows access to the input/output programming menu:

• **General settings**

- **Description**, label that identifies the individual point and which is shown in the events it is involved in.
- **Zone**, geographic group the point belongs to
- **Use Zone Group**, if this box is selected, the point in question will be assigned to the default group associated with the zone selected at the previous step (if this is already the assigned group, the box will be selected automatically when this screen is displayed)

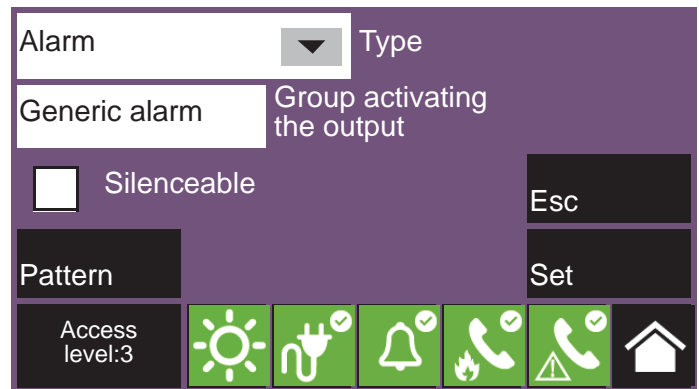
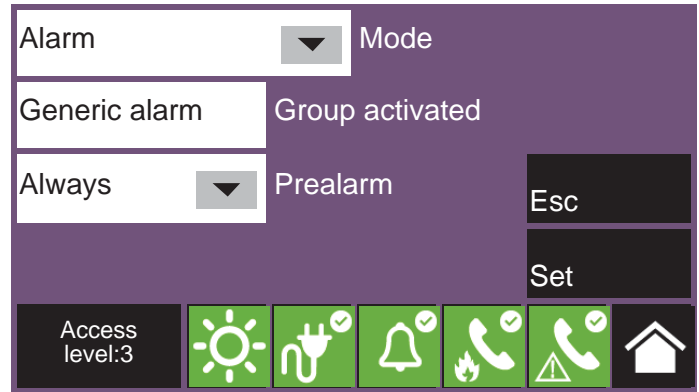


• Input parameters

- **Mode**, determines the type of event generated by activation of the input.
- **Group activated**, indicates the group that will activate following input activation.
- **Prealarm**, determines when activation of the input will start the associated prealarm time. The possible values are: "Never", "In day mode" and "Always".
- **Resettable**, where present, if activated, the event generated by the activation of the input will reset when the terminal resets.

• Output parameters

- **Type**, determines the way in which the output will be conditioned by bypass and silence operations by type
- **Group activating the output**, group whose activation determines the activation of the output
- **Silenceable**, if selected, once the output is activated it can be deactivated by silencing the control panel
- **Pattern**, pressing this button accesses the successive screen, which allows you to set the activation pattern for each output status. The available output statuses are "Stand-by", "Warning", "Prealarm" and "Alarm".



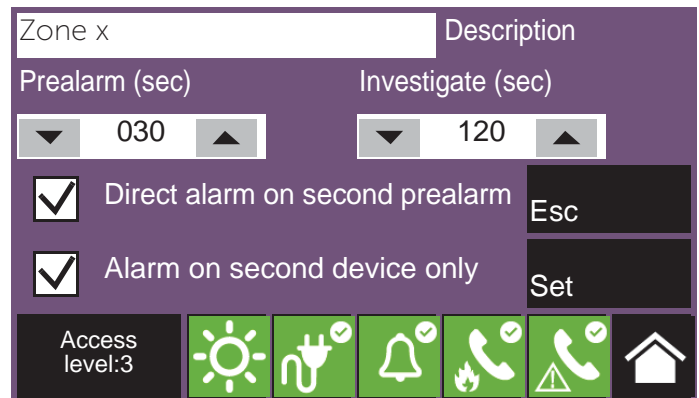
4.3 Zone parameters

Pressing the **Zone** button in the device parameter settings menu accesses the list of all the control panel zones and their statuses.

Selecting a zone enables the **Program** button to set the parameters, and the **Copy on...** button to copy the settings of the selected zone (refer to *paragraph 4.5 Replicate programming procedure*).

The parameters available for programming the zone are:

- **Description** of the zone
- **Pre-alarm (sec)**, length of pre-alarm signal for the zone, in seconds. The zone will trigger an alarm when the set time expires.
- **Investigation (sec)**, length of investigation time, in seconds. Activation of the investigation command during a prealarm, interrupts prealarm time and starts the investigation time.
- **Direct alarm on second prealarm**, option that, if activated, generates an alarm signal as soon as two detectors, regardless of the zone they belong to, go into prealarm status. Otherwise the alarm condition will activate at the end of the first prealarm time.
- **Alarm on second device only**, option that, if activated, will activate an alarm signal only after two detectors belonging to the zone have activated. The first detector will generate a prealarm signal with no time count.



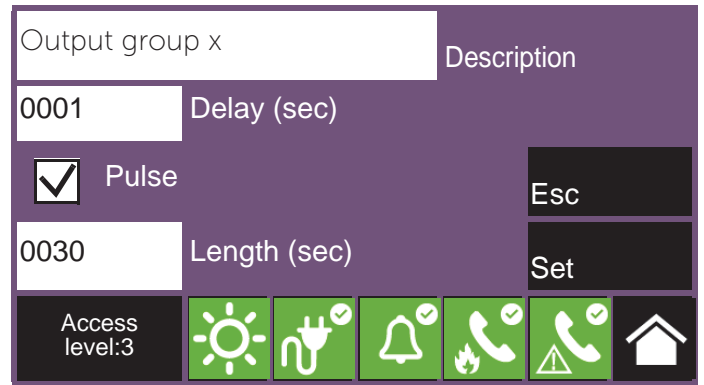
4.4 Output group parameters

Pressing the **Group** button on the device parameter settings menu accesses the list of all the output groups and their statuses.

Selecting a group enables the **Program** button to set the parameters, and the **Copy on...** button to copy the settings of the selected group (refer to *paragraph 4.5 Replicate programming procedure*).

The parameters available for programming the group are:

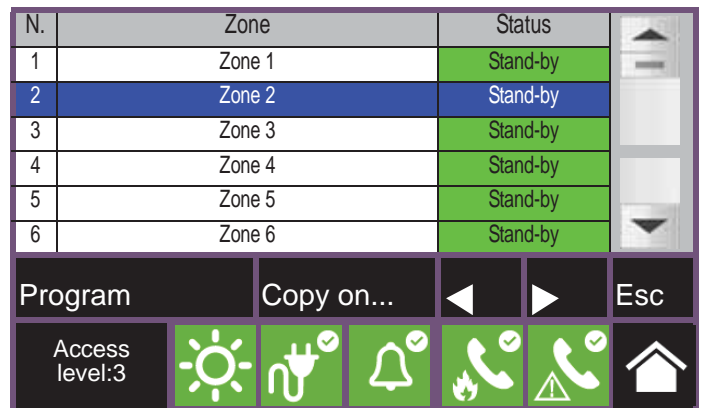
- **Description** of the group
- **Delay (sec)**, duration of the delay (in seconds) before activation of the outputs belonging to the group after the activation of the group itself
- **Pulse**, option that determines that pulse signals will activate the group of outputs (once the group has been activated, the outputs associated with it will remain active for the specified time and then return to the stand-by status).
If activated, you must specify the duration of the pulse activation signal (in the box at the bottom)



4.5 Replicate programming procedure

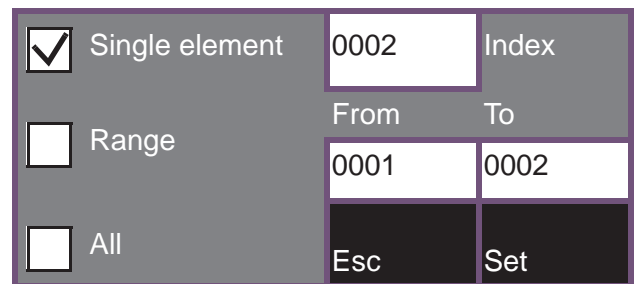
The Previdia Compact control panel allows you to copy the programming of a single element (point, zone, group) and replicate it on other elements in its category and group.

Accessing the screen of the group of elements undergoing programming (in index order) and selecting one of them enables the **Program** button to modify the parameters, and the **Copy on...** button to copy the programming.



The **Copy on...** button opens a window that provides three options:

- **Single item**, if activated, the programming will be replicated on the element with the index indicated in the box next to it.
- **Range**, if activated the programming will be replicated on the elements whose indexes belong to the interval indicated in the boxes at the side.
- **All**, if activated the programming will be replicated in all the elements of the same group of which the selected element is part



Following the selection of one of these options and after pressing the **Set** button, all copied settings, except the description, will be applied to the programming of the desired elements.

Chapter 5

Commissioning

The commissioning phase is a set of tests and verifications which are necessary to ensure the full efficiency and proper functioning of the system as specified in the executive project. This phase is essential and must be performed in a scrupulously in accordance the regulatory requirements of the country where the system is installed and in full respect of the recommendations herein.

Ensure the test and verification procedures are performed only after securing the system and after having verified that any device activations controlled by the system will not cause any conditions of danger, and that all the building occupants who can be reached by the audible and visual signalling have been preventively informed.

Ensure that the person who is responsible for the security of the building where the tests and inspections are being carried out has taken countermeasures to avoid any situations of panic or distress for the building occupants.

5.1 Testing the Control panel

It is necessary to check the functionality status of the front plate by first checking the information supplied on the screen and LEDs and then by inspecting the efficiency of the command devices (user-interface buttons, access keys, etc.):

- Check the functionality status of the screen and ensure that the information provided is clear.
- Ensure that the descriptions of the various zones, points and system elements entered during the data-entry phase are correct, and that the information provided on the screen clearly indicates any detectable conditions of danger.
- Check that there are no indications present of faults, alarms or anomalies of any type whatsoever. In the event of such indications, proceed with the removal of the causes of faults and anomalies.
- Check the status the functionality of the LEDs and buzzer. The front panel provides a button for the simultaneous activation of all the LEDs and buzzer thus allowing evaluation of their efficiency (refer to the description of the User Interface).
- Check the efficiency of the front-plate buttons and keys.
- Check the status of the power-supply sources (mains and batteries) and the control panel current draw.

For control of the power-supply parameters you can:

- access the configuration menu (refer to *paragraph 2.3*) and touch the appropriate icon on the configuration screen of the control panel.
- tap on the power grid icon on the status bar



The sections show the voltages, currents and temperatures of the various elements:

[A]	Internal temperature and battery charge voltages	
[B]	Section containing a list of current faults	
[C]	Battery parameters (internal resistance, voltage, status and current)	
[D]	Voltage and output current of the power supply	
[E]	Button, available only for Access Level 3 (installer), allows immediate battery tests (which normally runs every 10 minutes)	

5.2 Testing to detectors and manual activations

All the installed detectors must be tested during the commissioning phase. It is necessary to check the capacity of each detector to react to a simulated condition of fire, and to check the precision of the signals transmitted to the control panel in response to its activation (description of the point and zone).

For this purpose it is possible to use the **Test** function provided by the control panel ([E]), in the "Zone" section, accessible via the "System status" menu on the homepage (paragraph 2.1).

By tapping this button it is possible to place one or more zones in test status. The activation of a detector which belongs to a zone in test status will not generate any alarm signalling or activate the outputs or signalling devices. However, the control panel will activate the signalling LEDs on the detectors and will perform automatic reset after a few seconds without any need of further intervention by the operator on the control panel.

The activation of a point which belongs to a zone in test status will be recorded in the events log. Therefore, on completion of the test on all the zone devices, the operator can check the congruence of the various indications by means of the log.

N.	Zone status	Status
1	Zone 1	Stand-by
2	Zone 2	Stand-by
3	Zone 3	Stand-by
4	Zone 4	Stand-by
5	Zone 5	Stand-by
6	Zone 6	Stand-by

Disable	Test E	◀	▶	Esc		
Access level:3						

The activation of all the manual call points (alarm buttons) must be tested in the same way as described for the detectors.

5.3 Testing signalling and activations

The functionality and efficiency of all the signalling devices must be checked thoroughly.

It is possible to test such devices by activating the relative LEDs and outputs manually from the control panel via the respective management page.

To reach this page you must access the "Points" section via the "System status" menu on the homepage (paragraph 2.1 First startup). By selecting the loop and point to be tested and then pressing the relative **View** buttons, you can reach the respective management page where you will find the **Actions** button [F]. This button activates other buttons, amongst those for the test functions are:

Input module x
Zone y
Loop: z - Point: x - SN:012345678

Info

Info

Info

Real-time

Actions **F**

Esc

Access level:3

- Turn On output
- Turn On LED

Note: *Testing devices by means of manual activation does not test functionality and efficiency of the cause/effect association which determines their activation (programming coherence of groups), therefore, it is necessary to perform real functionality tests.*

5.4 Extinction system test

Particular attention must be paid to the testing of eventual fire extinction systems.

Special attention must be paid to the functionality and safety of the extinguishing-agent release devices before proceeding with the testing of all activation and stop-extinction procedures in accordance with the requirements of the executive project.

Maintenance

For correct and efficient management of the system it is necessary to carry out periodic maintenance in accordance with the regulatory requirements of the country where the system is installed and in full respect of the recommendations herein.

For the frequency of the maintenance operations it is necessary to adhere to the applicable regulations. However, the manufacturer recommends that tests are performed on each point, component and element of the system at least once a year.

6.1 Testing the control panel

Work through the steps for control-panel test procedure as described in the commissioning section (*paragraph 5.1 Testing the Control panel*).

Additionally, consult the events log and check for the presence of fault or alarm conditions which must be investigated.

6.2 Testing the detectors

As well as the tests which must be performed during the commissioning phase (*paragraph 5.2 Testing to detectors and manual activations*), it is also necessary to check the contamination level in smoke detectors.

The management and configuration software provides a loop diagnostic function which allows you to gather the contamination values of the various devices in such a way to decide when cleaning is necessary.

Refer to the Programming manual for details regarding the diagnostic function and the detector manual for the instructions regarding cleaning operations.

6.3 Manual activation test

Work through the same tests as recommended in the commissioning section (*paragraph 5.2 Testing to detectors and manual activations*).

6.4 Testing signalling and activations

Work through the same tests as indicated in the commissioning section (*paragraph 5.3 Testing signalling and activations*).

6.5 Testing the extinction system

Work through the same tests as recommended in the commissioning section (*paragraph 5.4 Extinction system test*).



ISO 9001 Quality Management
certified by BSI with certificate number FM530352

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