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SmartLoop

Analogue fire alarm control panel
Alarm transmission and fault warning routing
equipment with integrated power supply equipment

Programming manual



GameOver

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European directive compliance

This control panel has been designed and developed to the highest standards of quality and performance implemented by INIM Electronics s.r.l.

This control panel must be installed in accordance with the instructions described in this manual and in compliance with the laws in force.

All control panels from the SmartLoop series are **EN54-2**, **EN54-4** and **EN54-21** compliant.

All control panels from the SmartLoop series, and all accessory items and special functions have IMQ-Security systems certification, unless otherwise stated.

Declarations of performance, declarations of compliance and certificates relating to the products mentioned in this manual can be downloaded from the following website:

www.inim.biz

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Chapter 1

Introduction

This Programming manual describes the essential configuration phases of a fire alarm system and the programming process via the control panel or via the SmartLeague software programme.

Regardless of the exact type of control panel, all the instructions herein are pertinent to the SmartLoop system.

Refer to the User's Manual for the complete description of all the control-panel signaling methods (LED, display) and the respective response actions.

Note: *The control panels described in this manual have been designed and developed to the highest standards of quality, reliability and performance adopted by INIM Electronics. All product components are capable to application requirements and able to operate in compliance with the related technical specifications when the temperature external to their casings complies with Category 3k5 of IEC EN60721-3-3:1995.*

1.1 In order to validate the IMQ-SECURITY SYSTEMS certification, and in compliance with EN54-2 regulations:

1. All the manual alarm buttons and fire detectors employed in the system must be associated with fire detection and alarm functions.
2. The functions associated with the programmable LEDs on the control panel frontplate (Keypad/Display board and LED board), and on SmartLetUSee/LCD and SmartLetUSee/LED repeaters must be set up in accordance with the colour of the LEDs:
 - Red: alarm
 - Yellow: fault, test and tamper

Note: *The GAS control function is not EN54-2 compliant, due to the fact that this feature is not mentioned in the aforesaid standard.*

Chapter 2

General information

2.1 Documentation supplied

- Programming Manual (this document)
- Installation manual
- User manual

These manuals are supplied with the apparatus. For extra copies, contact the offices at INIM Electronics.

2.2 Manual details

- Title: SmartLoop programming manual
- Version: 3.60
- Code: DCMPINE0SLOOP
- Addresses: installer, technicians

2.3 Intellectual property rights

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INIM Electronics s.r.l. shall not be responsible for damage arising from improper application or use.

2.4 Conventions

2.4.1 Glossary and terminology

Device; apparatus: the device defined in the installation manual.

Left, right, behind, above, below: refer to the directions as seen by the operator in front of the mounted device.

Pulse Output: same as “monostable output”.

Communicator (telephone, SMS, digital): same as “dialer”.

Qualified personnel: those persons whose training, expertise and knowledge of the laws and bylaws regarding service conditions and the prevention of accidents, are able to identify and avoid all possible situations of danger.

Select: click on and select a specific item (from drop-down menu, options box, graphic object, etc.).

Press: click on a video button.

2.4.2 Graphic conventions

Following are the graphic conventions used in the text. For the description of the text rules refer to *Chapter 3 - The SmartLoop control panel* and *Chapter 4 - How to use the display and keypad*.

Conventions	Example	Description
<i>Text in Italics</i>	Refer to <i>paragraph 2.4.2 - Graphic conventions</i>	Text in italics: indicates the title of a chapter, section, paragraph, table or figure in this manual or other published reference.
<text>	<CustomerCode>	Editable field
[lowercase letter] or [number]	[A] or [1]	Representation of a part of the system or video object.
BUTTON	Esc, RESET	Computer or control panel keys.

Note: *The detached notes contain important information about the text.*

Attention: **The attention prompts indicate that total or partial disregard of the procedure could damage the connected devices.**

Danger: **The danger warnings indicate that total or partial disregard of the procedure could injure the operator or persons in the vicinity.**

The SmartLoop control panel

3.1 The Overlay

All the models in the SmartLoop series, except for SmartLoop2080/S and SmartLoop1010/S (flush front with no display or keypad), have the following overlay:



[A]	40 character x 4 line alphanumeric display. Indicates the system status, signals critical events (with priority given to the most serious events) and allows you to navigate through of the main menu and screens.
[B]	Keys ▲, ▼, ◀, and ▶ allow you to move and work on the menu screens.
[C]	The Esc key allows you to quit an operation and exit the screen without saving, or go to the options of a higher-level menu. The ◀ key allows you to confirm an operation and exit a screen, or go to the options of a lower-level menu.
[D]	Alphanumeric keypad for data entries. Key 1 allows you to view the specifics of events which provide detailed information. If an event relating to a loop device is shown on the display, key 2 will allow you to access the bypass/unbypass loop device menu (refer to paragrafo 12.2.1) .
[E]	Pre-configured status LEDs.
[F]	Programmable status LEDs (yellow). Customizable. This LED will blink during the programming phase.
[G]	Fast buttons for use in the event of alarm or fault.
[H]	Keyswitch: allows level 2 users (Users, Authorized Users) to access the system. Can be used instead of code entry.

3.2 The buttons

TEST	Initializes the test phase and activates all the control panel LEDs.
BUZZER	Silences the control panel buzzer. The buzzer will be enabled automatically if another event occurs. RESET operations also silence the buzzer.
INVESTIGATE	During Pre-alarm status, this button will activate a pre-set alarm delay.
SILENCE	If this button is pressed once, it will silence the NAC outputs, fault output and all the 'Silenceable' outputs. If this button is pressed again (when the LED is On), it will toggle (undo) the silence command.
RESET	Resets the control panel (clears alarms).
EVACUATE	Activates the evacuation procedure. If this button is pressed by a member of the public (Level 1- no access code or key required) during pre-alarm status, it will generate an instant alarm. If this button is pressed by a "User" or "Authorized User" (Level 2), it will generate an instant alarm regardless of the system status.

3.3 The LEDs

STATUS group		
Description	Colour	If On solid:
ALARM	Red	The control panel is in alarm status. This LED goes On to signal the following conditions: - alarm status of a point defined as an "Alarm" point - the evacuation phase is running (triggered by the EVACUATE button on the control panel or on a connected repeater panel) - the evacuation phase is running (triggered by the EVACUATE button a Network control panel or on a Network repeater panel)
PRE-ALARM	Red	The control panel is in pre-alarm status. This LED goes On to signal the alarm status of a point programmed as an "Alarm" point with the "Pre-alarm" attribute.
DISABLED	Yellow	If this LED is On, at least one of the system objects (point, zone, output, communicator, etc.) has been disabled.
TEST	Yellow	If this LED is On, at least one of the system objects (point, zone, output, communicator, etc.) is in test status. A zone test affects all the points of the zone concerned.
NIGHT MODE	Yellow	If this LED is On, the control panel is operating in night mode. During Day mode, the control panel can generate pre-alarms and hold silence status for an unlimited time. During Night mode, the control panel can hold silence status for the pre-set time only. During Night mode, the control panel cannot generate pre-alarms as this function is disabled.
ON	Green	If this LED is On, the control panel is fully powered and operative.

FAULTS group			
Description	Colour	If On solid:	If blinking:
FAULT	Yellow	If this LED is On (solid), at least one system fault has been detected. The other LEDs in this group indicate specific fault conditions.	If this LED blinks, a fault has been cleared and saved to the memory. You can access the events log and view the event/s concerned.
CPU FAULT	Yellow	If this LED is On (solid), the logic unit is not working properly (motherboard microprocessor). Under such circumstances, immediate technical assistance is required as system functionality is gravely at risk. The cause of this fault must be cleared and the motherboard microprocessor must be restored to proper working order.	If this LED blinks, the motherboard microprocessor has reset (due to system shutdown or jamming). Danger: <u>Under such circumstances, the efficiency of the entire system must be checked. This LED will stop signaling (LED Off) when the panel resets.</u>
BATTERY	Yellow	If this LED is On (solid), the battery is not working properly. This may be due to either battery inefficiency, in which case the batteries must be changed; or to a drop in power-supply voltage (below the level of the programmed threshold), in which case the voltage must be restored in such way as to allow the power supply to charge the batteries properly.	If this LED blinks, a battery fault event has been cleared and saved to the memory.
EARTH	Yellow	If this LED is On (solid), voltage dispersion to earth has been detected. Immediate maintenance is required to clear this fault.	If this LED blinks, a voltage-dispersion-to-earth event has been cleared and saved to the memory.
FUSE	Yellow	If this LED is On (solid), one of the resettable fuses has been interrupted. This fault may be due to a malfunction related to the AUX and AUX-R terminal connections.	If this LED blinks, a malfunction related to the AUX and AUX-R terminal connections has been cleared and saved to the memory.
MAINS	Yellow	If this LED is On (solid), the Mains power is not present (blackout), therefore, the control panel power supply is unable to power the system and charge the batteries.	If this LED blinks, a Mains failure event has been cleared and saved to the memory.

BELLS group			
Description	Colour	If On solid:	If blinking:
ACTIVE	Red	If this LED is On (solid), at least one of the 4 NAC outputs on the control panel motherboard or on the SmartLoop/INOUT expansion board (programmed to activate in the event alarm) or NAC alarm output is active.	
FAULT	Yellow	If this LED is On (solid), at least one of the 4 NAC outputs on the control panel motherboard or on the SmartLoop/INOUT expansion board (programmed to activate in the event alarm) or NAC alarm output is active.	If this LED blinks, one of the above-mentioned events has been cleared and saved to the memory.
DISABLED	Yellow	If this LED is On (solid), at least one of the 4 NAC outputs on the control panel motherboard or on the SmartLoop/INOUT expansion board (programmed to activate in the event alarm) or NAC alarm output has been disabled.	

DIALLER group			
Description	Colour	If On solid:	If blinking:
ACTIVE	Red	If this LED is On (solid), the system is sending a communication generated by the SmartLoop/PSTN and/or Smart/LAN telecom board related to an alarm or fault event.	If this LED blinks, the system is sending a communication generated by the SmartLoop/PSTN and/or Smart/LAN telecom board that is not related to an alarm or fault event.
FAULT	Yellow	If this LED is On (solid), communication with the SmartLoop/PSTN board is not possible or a fault has been detected on one of the two telephone lines (L.E. or L.B.).	If this LED blinks, a fault relating to the SmartLoop/PSTN board or telephone lines has been cleared and saved to the memory.
DISABLED	Yellow	If this LED is On (solid), alarm related telephone communications generated by the SmartLAN board and/or fault related telephone calls generated by the SmartLAN board cannot be sent.	

Chapter 4

How to use the display and keypad

All SmartLoop models, except for the SmartLoop2080/S and SmartLoop1010/S, allow users to operate the system from the control panel keypad. All control panels allow users to operate the system from their connected SmartLetUSee/LCD Repeater panels.

This section describes how to navigate and work on the menu screens.

Attention: The procedures described in this section will not be repeated in other parts of this manual, however, any exceptions to this procedure will be described.

4.1 Selecting an option

This section describes how to navigate through the menus and which options to select:

From panel:<key>, **Programming**, <code>, **Configuration**, **Modify Configuration**, **AUTO Enroll**, **Loop**, ↵

or: <key>, 8, <code>, 1, 2, 1, 2

4.1.1 Scrolling the menu

```
SmartLoop In Service
No Alarm
No Fault
01/01/18 00:45 Sat
```

Press any key to access the Main menu.

```
→1 Read Log
2 Check detector status
3 Panel settings
4 Disable ↓
```

Use keys ▲ and ▼ to scroll the list.

Press ↵ to access the menu option (open another menu or screen).

An '↓' indicates that the menu options continue after the last line.

Press **Esc** to step back to the previous level.

4.1.2 Entering the number of the menu options

```
5 Dialler Settings ↑
6 Printer Settings
7 Maintenance
→8 Programming ↓
```

If you already know the numbers of the menu options, press the respective number/s on the keypad. For example:

1. Settings
2. Enter the Access Code
3. Configuration
4. View configuration
5. RS485 BUS

Type in:

8, <code>, 1, 1, 3

4.2 Selecting a loop device

To select a function that operates at loop device level (e.g. Testing), you must first select the respective loop then the point the device is assigned to. For example:

```
→1 Loop 1      < Loop Type >
 2 Loop 2      < Loop Type >
 3 Loop 3      < Loop Type >
 4 Loop 4      < Loop Type >      ↓
```

Select the loop.

Press **↵** to view the connected devices.

```
→001 <Detector type> < Description >
002 <Detector type> < Description >
003 <Detector type> < Description >
004 <Detector type> < Description >
```

Select the device.

Press **↵** to view the device screen related to the requested function.

This can also be done by typing in the requested number:

<key>, 8, <code>, 2, x, yyy

'x' represents the loop number and 'yyy' the device number.

4.3 Editing a programming field

```
→Zone      001      _corridor floor 1

Release zonal door holder
in case of:      Fire Alarm
```

Press keys **◀** and **▶** to move along the string.

Press the key which comprises the required letter (in the same way as you would use a mobile phone).

Press **↵** to confirm the entry or press **Esc** to exit and step back to the previous screen, the entered data will be saved.

4.4 Entering numbers in a numerical programming field

```
Double-knock window
Inside the zone      :      ---
→Pre-alarm Time      :      _30
Investigation Time   :      060
```

Use keys **▲** and **▼** to move from one editable field to another.

Use keys **◀** and **▶** to increase/decrease the selected value or, alternatively, enter the value from the keypad.

Press **Esc** to exit and step back to the previous screen, the entered value will be accepted.

4.5 Selecting values in a variable field

```
Pre-alarm:      YES
Early Warning   NO
→ Fault         _ES
Monitoring      NO
```

Use keys **▲** and **▼** to scroll the list and move from one editable field to another.

Use keys **◀** and **▶** to toggle the value in the field (e.g. YES, NO).

Press **Esc** to exit and step back to the previous screen, the selected value will be saved automatically.

Chapter 5

How to view the events

5.1 Overview

The system displays and deals with real-time events in the following order of priority: Alarm, Pre-alarm, Early Warning, Supervision, Fault, Monitor, Disable, Test (refer to paragraph 7.2 - *The events*). All events are shown on the control and repeater panel displays. Events may be generated by any of the control panels in the network (refer to *Chapter 9 - Programming the local network (SmartLoop\NET)*) and can be printed via the on-panel thermal printer (SmartLoop2080/P and SmartLoop1010/P models only) or via a serial printer (refer to *Chapter 9 - Setting up the events printout*).

If several events of the same type occur successively (e.g. three fault events), only the first event will be shown on the display. If several events of different types occur successively (e.g. three faults and a pre-alarm event), the first critical event will be shown on the display (in this case,) the prealarm event).

Control panel RESET operations clear all the events from the display, however, all events will be saved to the log and can be viewed on the control panel and via the software application.

5.1.1 Active Events

These are the events that occurred after the last control panel RESET operation.

```
FAULT          001 of 003
SMART-Loop
Telephone Line 01/01/2018 14:34 Fri
```

This is the first of three events. Use keys ▲ and ▼ to view other active events.

Press **Esc** to view the Events menu:

```
→1 Main menu
 2 View Log
 3 View Faults
```

Press ↵ to select the menu option.

The option from menu 3 shows all the events related to the current event type.

From panel: <key>, Read Log, ↵

or: <key>, 1

Chapter 6

Introduction to control panel programming

The SmartLoop control panels accept different configuration and programming methods which can be combined to suit particular installation requirements.

6.1 Via the panel

If you are working on a particularly difficult installation with console-equipped control panels (i.e. control panels with keypads and displays), you can install the system (control panel, attachment boards, loop devices, etc.), then instruct the control panel to assign addresses to the loop devices automatically. Once this phase has been completed, you can upload the data to your computer and use it for the successive programming phase, or proceed with programming from the control panel.

The configuration/programming operations via control panel are reserved for the installer company technicians (level 3), who can:

1. By means of a screwdriver or similar tool, remove the screws and open the panel enclosure.
2. Place the programming jumper in the correct position (refer to paragraph 4.2 - [N] in the installation manual). The control panel comes with the jumper already inserted (factory setting).
3. Access the **Programming** menu.
4. Type in a code which allows access to the programming phase.

Note: *The access PIN is "00004" at default.*

Operators with authorization to use this code can access all programming and maintenance functions.

Attention: **Some programming functions cannot be accessed through the control panel.**

6.1.1 Accessing the main menu

```
5 Dialler settings
6 Printer Settings
7 Maintenance
→8 Programming      ↓
```

Once you have placed the jumper in the correct position, select the **Programming** option from the main menu.

```
Enter Code
-----
```

Type in a code which allows access to the programming phase (level 3 access).

```
Internal Programming jumper
NOT inserted !!!
```

If the jumper is not connected properly, the display will show the respective message.

Note: *Access to the programming phase from a computer will not be allowed unless this jumper is connected to the control panel.*

6.2 Via the SmartLeague software

The SmartLoop system can be programmed from the panel or from a PC. You can access all the programming functions via the SmartLeague programming and management software for INIM Electronics security products.

The SmartLeague software programme allows you to access all the system parameters which can be accessed via the control panel. In addition, it provides a clear, complete view of the status of the system and its parts and thus a more precise programming process. The programming process is further enhanced by a greater number of parameters for each point and the use of combinatory logic in the zone “equations”.

For further details regarding the SmartLeague software programme, refer to the respective manual.

6.2.1 The solutions

Each *solution* comprises an installation structure and the respective group of programming parameters. You can save the system solution to the SmartLeague database and use it for maintenance purposes or as a “model” for other systems.

Each solution is dedicated to a device type and has its own programming interface. In this way, it is possible to compare different solutions, or keep two solutions open (one real and the other for test purposes), in order to verify step by step the effects of the programming process.

A solution can be created and changed without computer to device link up. For example, you can prepare a system layout and/or set parameters without leaving your office. The data can be downloaded to the system when you are ready.

6.2.2 Enabling programming via PC

All functions can be accessed without connecting to the control panel; connection is necessary only for upload and download operations.

1. By means of a screwdriver or similar tool, remove the screws and open the panel enclosure.
2. Place the programming jumper in the correct position (refer to paragraph 4.2 - [N] in the installation manual). The control panel comes with the jumper already inserted (factory setting).
3. Connect the computer to the RS232 or USB port. The connection cable must be long enough to reach the mounted device without difficulty (refer to the installation manual, paragraph 7.12 - *Connecting to a PC*).
4. Start the SmartLeague software application.
5. Type in a code which allows access to the programming phase. On startup, the Installer or Maintenance access code (level 3) is already set.

Note: *It is advisable to program the entire system via computer and use the control panel for minor changes only.*

6.3 From remote computer

If you are working on a console-equipped control panel (i.e. control panel with keypad and display) from a remote location (for monitoring or software maintenance purposes), you can set up the control panel for programming, connect to the Internet and, using a password-protected virtual control panel, carry out the desired operations.

6.3.1 Initializing remote programming

The programming and maintenance operations are the same as when using the SmartLeague software application. However, it is necessary that:

- the programming jumper is placed in the correct position (refer to paragraph 4.2 - [N] in the installation manual).
- the SmartLAN or SmartLAN/SF board is configured to allow Internet access.

Accessing remote programming:

1. Connect to the Internet.
2. Open the Internet browser and enter the IP address of the control panel.
3. Enter the Access Code

Refer to *Chapter 9 - Programming the local network (SmartLoop\NET)*.

Chapter 7

The basic concepts of control panel programming

7.1 Overview

The the SmartLoop control can:

- Trigger “events” which indicate its own status and that of its peripheral fire-detection devices. The events are signaled on the LEDs and display and then saved to the events log.
- Control, by means of the loop-device outputs and NAC outputs, its peripheral devices (e.g. bells, pressure valves, remote LEDs, etc.).

The first task - “monitoring” - involves dealing with fault conditions and the status changes of the system devices. Analogue devices activate when their values exceed their Early warning and/or Alarm thresholds; whereas, digital devices activate when they switch On/Off.

Each activation can be “controlled” by means of the programming options which generate the various event types: Alarm, Pre-alarm, Monitor, Supervisory, Early Warning or Generic activation. Faults, however, always generate fault events (unless you choose to program the system to ignore specific fault conditions). All events are saved to the events log (which can be viewed via computer or control panel) and are signaled on the control panel display and LEDs (refer to paragraph 7.2 - *The events*).

Each event influences the 16 device statuses (e.g. Alarm, Pre-alarm, Evacuation, etc., refer to paragraph 7.3 - *The signals*) and modifies the respective values. The second task “control” is based on the 16 statuses and is managed by the zones (which represent different groups of strategically positioned devices). In this way, each zone is independent and operates autonomously on each separate output. In order to allow this, it is necessary to configure each input device accurately.

- For each input device configure:
 - which of the 16 signals it will activate
 - the “cause/effect” actions it will activate (maximum three)
 - the direct actions on the control panel and on specific zones
- For each zone:
 - the delays which will determine the zone Alarm and Evacuate signals
 - the “cause/effect” actions it will activate (maximum three)

In this way, the zone determines which type of control algorithm to apply.

- For each NAC output on the control panel and for each device on the loop:
 - which signals activate the output, whether received from the control panel, zones, other devices or from the device itself and or the “cause/effect” actions (maximum three)

7.2 The events

Each event provides the following details:

- name of the device
- zone it belongs to
- date and time of its occurrence

These details are saved to the log and can be viewed via computer or control panel, and are also indicated on the display and/or LEDs (refer to *Chapter 5 - How to view the events*).

A device will generate a “fault” event if a fault condition occurs, and an Early Warning event when its analogue value exceeds its Early Warning threshold.

If its value exceeds its alarm threshold (this is a programmed value for analogue devices and an On/Off switching signal for digital devices), it will generate an Alarm, Pre-alarm, Monitor, Supervisory or Generic activation event in accordance with its “*Activation type*” (as defined during the device programming phase).

Depending on the programmed activation type of a device, it is possible to activate or ignore specific zone signals.

- A device with “Alarm” activation type can activate the following signals: Pre-alarm, Arm, Evacuate, Extinction, Fire door holders, Sprinkler On, Voice Alarm.
- A device with “Monitoring” activation type can activate Monitor signals.
- A device with “Supervisory” activation type can activate Supervisory signals.
- A device with “Silent” activation type can activate the following signals: Stop extinction, Fire door holders, Change class, Voice Alarm.

Devices can also activate Fault and Early Warning signals.

7.3 The signals

Each device can be programmed to various zone and control panel signals in accordance with its own status (e.g. fault, pre-alarm, etc.). In turn, these signals can be used to activate the respective outputs of each zone.

The signals which can be activated depend on the activation type of the device concerned.

Following are the signals relating to the control panel and various zones which can be activated by the devices. These signals are restricted by the zone parameters (e.g. Activate fire doors in the event of pre-alarm, etc.), by “cause/effect” actions activate or inhibit these signals and by zone interaction.

Alarm	Signal used for alarm signaling. Activated by alarm points belonging to the zone.
Double knock	Zone signal which occurs when at least two devices belonging to the zone concerned go into alarm status.
Evacuate	Signal for second-alarm-level management (an alarm confirmed by a manual operation or after the expiry of a delay).
Extinction	Signal to be used for the activation of the fire-extinguishing system.
Stop extinction	Activation of this signal will interrupt the countdown of the delay which precedes activation of the fire-extinction system of the zone concerned. Any device which activates this signal will block the respective zone extinction signal (whether already active or about to activate).
Fire door holder	This signal can be used to command the outputs which control the fire doors holders. It will be generated either in accordance with the zone settings (Activate fire door holders in the event of ...) or after a direct activation command (from devices, etc.).
Pre-alarm	This signal activates during the pre-alarm time of one or more of the zone detectors. It can be used to activate specific warning signals to alert Security personnel.
Sprinkler On	This signal activates when at least one of the zone devices, capable of generating the “Sprinkler On” signal, activates (e.g. Flow detector in sprinkler-system pipes). This signal allows the system to handle separately an alarm triggered by the activation of a sprinkler.
Early Warning	This signal activates when at least one of the zone devices, capable of generating the “Early Warning ” signal, exceeds the early warning threshold. This signal allows the system to activate signaling in response to an anomalous rise in the values of some detectors.
Fault	This signal activates when one or more devices belonging to the zone signals fault status.
Supervisory	This signal (activated by devices belonging to zones with this attribute) allows the system to manage fault signals related to a components of the fire-prevention system but extraneous to the SmartLoop system (e.g. This signal can be used to control the sprinkler pipe valve, etc.).
Monitoring	This signal (activated by devices belonging to zones with this attribute) allows the system to manage functions which are not related the fire-detection system such as building automation functions (e.g. “Cold room door open” output signal, etc.).

Change Class	This signal can be used to activate the outputs separately from the alarm.
Voice Alarm	This signal allows the system to manage a voice alarm device. This signal is activated by the zone settings ("Activate voice alarm signal in the event of...") or by direct activation (devices, etc.).
Bypassed Zone	This signal indicates the "bypassed" or "Off" status of a zone. The zones can be bypassed in different ways (by "cause/effect" actions, operations at the control panel, etc.).
Test Zone	This signal indicates the "Test" status of a zone. The zones can be put into test status in different ways (by "cause/effect" actions, operations at the control panel, etc.).

7.4 The zones

The zones represent the "physical" components of each control panel and are associated with loop devices (e.g. Basement zones receive signals from the devices installed in the basement). The 16 signals managed by each zone change status in accordance with the corresponding signals generated by their associated devices, taking into account the settings implemented by the installer during the system configuration. The 16 signals managed by each zone can also be influenced by a "cause/effect" action which blocks or forces some of them to activate when it triggers.

For example, a zone can go into Early Warning status if:

- at least one device has exceeded the programmed Early Warning threshold and the Early Warning signal to the zone it belongs to is enabled;
- the "cause/effect" equation which activates the Early Warning signal of the zone is "TRUE".

Furthermore, the zone has internal "times" (e.g. Pre-alarm time, Investigation time, etc.) which influence the Pre-alarm, Alarm, Investigation, Evacuation, Fire door holders, Extinction and Voice alarm signals.

For example, if a zone receives an Alarm signal from at least one of its devices, it will wait for the Pre-alarm time to expire before activating an alarm. Or, if a zone receives an Evacuate signal, it can activate the Emergency light group which in turn will activate the outputs that drive the Emergency lights. Or, it can activate a "cause/effect" action that blocks the fire-door holder signal to the zones thus avoiding the activation of the associated outputs.

The signals that activate on a zone can activate the loop device outputs of the NAC outputs. The latter, as well as being supervised outputs, are able to manage different combinations of On/Off status (for instance, they can manage the different intermittent sounds emitted by sounders and similar devices).

In order to influence the statuses of the zones which belong to different control panels in the same network, it is necessary to use coincident zones (programmable exclusively via the respective software application).

7.5 Cause / Effect actions

A "cause/effect" action (programmable exclusively via the Smartleague software programme) instructs the control to carry out a response action ("effect") when the correlated trigger action ("cause") occurs.

The software application provides a list of events, which allow you to select the "cause" and a list of actions, which allows you to select the correlated "effect" (point activation, bypass zone, etc.).

For details, refer to the respective section in the software programme manual.

7.6 The Control panel

The control panel to all effects is a zone which manages 16 signals and the following operating modes: Investigation, Reset, Silence, Day/Night.

Besides being influenced by manual operations (for example, an **INVESTIGATE** command from the control panel), the control panel status and signals can be influenced by the activation of signals generated by input devices, or by the activation of a "cause/effect" action (refer to the SmartLeague software programme).

The control panel signals can be used to command the outputs (for example, to monitor a reception area).

7.7 Day / Night Mode

The control panel has two operating modes: Day and Night. The behaviour of the control panel depends on the set operating mode

7.7.1 Day

There are people in the building, therefore, those in charge of the safety of the building and its occupants should be duly informed before the evacuation command is given.

Silence: silences (turns Off) the panel buzzer and silenceable outputs. The silence command will be undone automatically, if a new alarm event occurs (e.g. another detector signals alarm conditions).

Pre-alarm: some points can be programmed to signal pre-alarm status. If no-one intervenes during the pre-alarm phase, the system will generate an alarm when the programmed pre-alarm time expires. Refer to paragraph 9.7 - *How to configure loop devices* to enable/disable the pre-alarm time of points.

Alarm: detectors can be programmed with a Day mode alarm threshold and Night mode alarm threshold, refer to paragraph 9.7 - *How to configure loop devices*.

7.7.2 Night

There are no people in the building, therefore, there is only one person in charge of building safety (e.g.: night watchman, guard).

Silence: the silence command will act as a signaling delay. The silence phase will run for the pre-set time. If no-one intervenes during this phase, the system will undo the silence command and the alarm will continue.

Pre-alarm: the pre-alarm signal can be disabled on specific points. Alarm events will generate instant alarms. Refer to paragraph 9.7 - *How to configure loop devices* to enable/disable the pre-alarm time on points during Night mode.

Alarm: detectors can be programmed with a Day mode alarm threshold and Night mode alarm threshold, refer to paragraph 9.7 - *How to configure loop devices*.

Configuring the system

Once the loop devices have been installed, it is necessary to configure them in accordance with instructions in the installation manual appendix.

8.1 Auto-configuration of the system

The auto-configuration option (from the control panel menu) will allow the system to auto-enroll the loops, loop devices, repeaters SmartLetUSee/LCD, SmartLoop/INOUT expansion boards and the SmartLoop/PSTN dialer. Once the control panel has enrolled a device (included the device in the configuration), it will be able to supervise the device and signal any changes in its status (e.g. fault, etc.). Devices which are not enrolled (included in the configuration) cannot be controlled/supervised by the control panel.

During the auto-configuration phase, the control panel enrolls the loop devices, repeaters, I/O expansion board and the voice board and includes itself in the network. Once this phase has been completed, the control panel will be able to “see” all the loop devices.

You (the installer) can choose the method you use for addressing the loop devices. You can either assign addresses manually (refer to the appendix in the installation manual) and then enroll them on the control panel, or instruct the control panel to assign the addresses to the loop devices automatically (this method is for capable loop protocols).

The auto-configuration and auto-addressing functions greatly simplify the configuration process of complex systems.

Auto-configuration procedure:

1. Set the parameters of each loop.
2. Assign the addresses manually to the devices of each loop (if necessary).
3. Auto-configure the loop, repeaters, I/O expansion boards, the dialer and the network.
4. Connect the computer and allow it to acquire the configuration data then proceed with the programming phase.

8.1.1 Setting the loop parameters

Specify the type of loop wiring applied and protocol used (in accordance with the installed devices). Refer to paragraph 8.3.1 - *Viewing the loop configuration data*.

8.1.2 Auto-configuration of the Loop

From panel: **<key>, Programming, <code>, Configuration, Modify Configuration, AUTO Enroll, Loop, ↵**

or: **<key>, 8, <code>, 1, 2, 1, 2**

The control panel operates in two different ways:

Auto-configuration	The control panel learns the manually-assigned addresses of the installed devices, however, it will ignore any devices with factory-set addresses. Physical removal of devices from the loop results in their automatic deletion from the configuration.
Auto-addressing	The control panel will verify the presence of new devices (address=255) and will assign addresses automatically, starting from the first free address. It will then enroll the new devices and refresh as per auto-configuration phase.

Choose the method which is most suited to the needs of the loop you are working on.

```

Loop N.          1 2 3 4 5 6 7 8
AUTO-CONFIGURATION : . . . . . . . .
AUTO-ADDRESSING : . . . . . . . .

```

Use keys ◀ and ▶ to move between the columns and along the lines.

Use keys ▲ and ▼ to select ('+') or deselect ('.') the function on each of the eight loops.

Press ↵ to confirm.

This procedure may take several minutes.

A progress bar will indicate the advancement of the auto-configuration phase.

```

Loop Auto-configuration running ?
--- 61% --- --- --- --- --- ---

```

```

Loop n.  x      <Loop Description>
Detectors :xxx IN Modules :xxx
OUT Modules :xxx IN/OUT Modules :xxx
Sounders :xxx Call Points :xxx

```

On completion, a report showing the devices enrolled on each loop will be shown.

Use keys ▲ and ▼ to scroll the loops in the configuration.

Note: *Ensure that the type and number of the enrolled devices corresponds with the total number of detector/device placements. If the totals differ, check the device connections and addresses or refer to the installation manual before repeating the operation.*

8.1.3 Auto-configuration the devices on the RS485 BUS

From panel: <key>, Programming, <code>, Configuration, Modify Configuration, AUTO Enroll, RS485 BUS, ↵

or: <key>, 8, <code>, 1, 2, 1, 3

If the system is enhanced with repeaters (SmartLetUSee/LCD), SmartLevel power stations or SmartLine-EXT extinction stations, the system will enroll the address assigned during the installation phase (refer to installation manual paragraph 7.9).

Note: *All these devices must be addressed manually before initializing the auto-configuration phase. The auto-configuration phase deletes any devices which are no longer physically connected to the BUS.*

```

You have chosen Auto-configuration:
RS485 BUS

```

Press ↵ to confirm.

```

CONTINUE? Enter=YES Esc=NO

```

As per the auto-configuration of loops, a progress bar will indicate the advancement of the phase. On completion, a report showing the enrolled repeaters.

8.1.4 Auto-configuration of the network (SmartLoop/NET)

From panel: <key>, Programming, <code>, Configuration, Modify Configuration, AUTO Enroll, Network, ↵

or: <key>, 8, <code>, 1, 2, 1, 4

If the control panel is to be included in a network (a network environment requires installation of a SmartLoop/NET), you must change the default address ('0'). Once this phase has been completed, the blue LED on the Smart Loop//NET board will light and the control panel will start communicating with the other control panels in the network. Refer to paragraph 9.9.1 - *Programming the SmartLoop\NET board*.

Note: *Once the network has been set up, faults present on any single control panel, will be signaled on all the control panels in the network.*

```
SMART-Loop
Panel network address = n_
(Panel not in network)
```

Set the control panel address.

Press **↵** to confirm.

You have chosen Auto-configuration:

```
Network address          nn,
CONTINUE? Enter=YES  Esc=NO
```

Press **↵** to confirm.

Note:

To delete a control panel from the network, follow the procedure described above and assign address "00" to the control panel concerned.

8.1.5 Auto-configure the local I/O and dialer boards (SmartLoop\INOUT and SmartLoop\PSTN)

From panel:<key>, Programming, <code>, Configuration, Modify Configuration, AUTO Enroll, Attachment boards, **↵**

or: **<key>, 8, <code>, 1, 2, 1, 5**

If I/O expansion boards (SmartLoop\INOUT) and the dialer board (SmartLoop\PSTN) are present, the control panel will detect and recognize them.

To delete the dialer from the configuration, simply disconnect it and initialize the local I/O auto-configuration phase.

```
Optional cards found      :
SmartLoop/PSTN
```

"I/O Expansion" and "SmartLoop/PSTN" appear only when these boards are detected.

8.1.6 Auto-configuration of the entire system

From panel:<key>, Programming, <code>, Configuration, Modify Configuration, AUTO Enroll, Complete, **↵**

or: **<key>, 8, <code>, 1, 2, 1, 1**

The complete auto-configuration function configures (in the following order) the loops, the RS485 BUS devices, the network, the I/O expansion board and the voice dialer. It presents the screens of the manual procedure (described in the previous paragraphs) and requests confirmation before starting.

```
You have chosen Auto-configuration:
The Loops  x,x,x,x, RS485 BUS
Network address xx, Boards
CONTINUE? Enter=YES  Esc=NO
```

Press **↵** to confirm and start the Global auto-configuration phase.

Note:

This procedure may take several minutes. A progress bar will indicate the advancement of the auto-configuration phase.

8.2 Restoring factory default settings

From panel: <key>, Programming, <code>, Configuration, Factory default restore, ↵

or: <key>, 8, <code>, 1, 3

If you wish to change the configuration radically, you must re-initialize the control panel. This operation restores the control panel to factory default settings (no configuration, all network devices at address '0').

Note: *Restoral of the factory default settings is the only method that ensures total data re-initialization. Creating a new software solution and re-uploading the control panel does not guarantee total data re-initialization.*

```
Panel will be restored to factory
default and all programmed data will
be deleted !!!
CONTINUE? Enter=YES Esc=NO
```

Press ↵ to confirm.

8.3 Viewing the configuration at panel

It is possible to view the configuration at all times.

8.3.1 Viewing the loop configuration data

From panel: <key>, Programming, <code>, Configuration, View Configuration, Loop, ↵

or: <key>, 8, <code>, 1, 1, 1

```
Loop n.  x      <Loop Description>
Detectors      :nnn IN Modules      :nnn
OUT Modules    :nnn IN/OUT Modules  :nnn
Sounders       :nnn Call Points     :nnn
```

Use keys ▲ and ▼ to navigate through the loops in the configuration.

8.3.2 Viewing the control panels in the network

From panel: <key>, Programming, <code>, Configuration, View Configuration, Network, ↵

or: <key>, 8, <code>, 1, 1, 2

It is possible to view the status/data of the control panels adjacent to the one in use and the control panels in the network, whether "In service" or "Out of order" (due to connection faults).

Note: *The list excludes control panels which are not yet included in the configuration (address '0').*

```
Panel Network Address      = rr
panel connected on PORT A   : aa
panel connected on PORT B   : bb
Press Enter for configuration view
```

Press ↵ to view the control panels in the network.

```

      0      1      2      3
ADD   : 123456789012345678901234567890
CONF  : x      xxx
FAULT:                x
```

The CONF line shows the connected control panels in the network configuration.

The FAULT line shows the disconnected control panels in the network configuration.

8.3.3 View the devices on the RS485 BUS

From panel: <key>, Programming, <code>, Configuration, View Configuration, RS485 BUS, ↵

or: <key>, 8, <code>, 1, 1, 3

Note:

The description will be shown only if the repeater is present in the configuration.

```
Repeater      n
in Configuration : YN
<Description repeater>
```

Use keys ▲ and ▼ to navigate through the devices in the configuration.

8.3.4 Viewing I/O expansion boards

From panel: <key>, Programming, <code>, Configuration, View Configuration, Optional boards, ↵

or: <key>, 8, <code>, 1, 1, 4

```
Local I/O
in Configuration : YN
```

8.4 Manual configuration at panel

The manual configuration option (from the control panel) allows you to work on the parameters of the loops, the BUS RS485 devices, the I/O expansion board and the dialer and on the loop-device parameters.

8.4.1 Modifying the loop parameters manually

From panel: <key>, Programming, <code>, Configuration, Modify Configuration, Manual Configuration, Loop, ↵

or: <key>, 8, <code>, 1, 2, 2, 1

```
→1 Loop 1      <Loop Description>
 2 Loop 2      <Loop Description>
 3 Loop 3      Not available
 4 Loop 4      Not available ↓
```

Use keys ▲ and ▼ to navigate through the loops.

Press ↵ on the loop you wish to configure/modify.

```
→1 Loop Parameters
 2 Add/Modify Point
 3 Remove Point
```

Press ↵ on the **Loop Parameters** to go to the Loop configuration phase.

8.4.2 Adding / Modifying a device

From panel: <key>, Programming, <code>, Configuration, Modify Configuration, Manual Configuration, Loop, x Loop x, Add/Modify Point, ↵

or: <key>, 8, <code>, 1, 2, 2, 1, x, 2

```
→000 New Device  Loop  n.  x
 001 <Type Description> <Description>
 002 <Type Description> <Description>
 003 <Type Description> <Description>
```

Press ↵ on the first line to add a new device.

Note: To modify an existing device: use keys ▲ and ▼ to scroll the list, or type in the device number then press ↵ to view the parameters.

```
Point      x/yy
Type :    ttt      <Type Description>
↕= Select Type      Enter = Confirm
```

Ensure that “yyy” is the address the system has assigned to the device.

Use keys ▲ and ▼ to change the device type.

Press ↵ to confirm and access the parameter settings.

```
→Point      x/yyy <Description>
Type :      ttt      <Type Description>
Activation Type : <Activation>
Pre-alarm   :   YN
```

Use keys ▲ and ▼ to view the device parameters.

8.4.3 Removing a device from the loop

From panel: <key>, Programming, <code>, Configuration, Modify Configuration, Manual Configuration, Loop, x Loop x, Remove Point, ↵

or: <key>, 8, <code>, 1, 2, 2, 1, x, 3

It is possible to delete a device from the loop via the panel:

```
Point      x/yyy <Point Description>
Type :      ttt      <Type Description >
The device will be deleted ....
CONTINUE? Enter=YES  Esc=NO
```

Press keys ◀ and ▶ on the first line to view other devices.

Press ↵ to delete the device and step back to the previous menu.

Press **Esc** to exit without deleting the device.

8.4.4 Adding / Deleting RS485 BUS devices from the configuration

From panel: <key>, Programming, <code>, Configuration, Modify Configuration, Manual Configuration, RS485 BUS, ↵

or: <key>, 8, <code>, 1, 2, 2, 2

Note: The description appears only when the device is included in the configuration.

```
Repeater      n
in Configuration : YN
<Description repeater>
```

Use keys ▲ and ▼ to navigate through the repeaters in the configuration.

Use keys ◀ and ▶ to add or delete a repeater from the configuration.

8.4.5 Adding / Deleting I/O expansion boards from the configuration

From panel: <key>, Programming, <code>, Configuration, Modify Configuration, Manual Configuration, I/O, ↵

or: <key>, 8, <code>, 1, 2, 2, 3

```
Local I/O
in Configuration : _0
```

Use keys ◀ and ▶ to add or delete the I/O expansion board from the configuration.

8.5 Configuration via the SmartLeague

The SmartLeague application allows you to configure the system and create a solution that specifies the type and number of peripherals and devices that are present on the system.

You can either create a new solution or change an existing one. The solution can be either created through the SmartLeague application or imported directly from a 'real' system (i.e. a system that is already up and going).

1. If you are creating a new solution, go to the **Recent solutions** section, or to the **File** menu and click on **New solution**, then select the type of control panel and the respective firmware version.
If you intend to modify an existing solution, press the **Open solutions** button,
or
import the data from the 'real' system you are connected to by clicking on the **Read** button .
2. A tree structure of the system you wish to configure is shown on the left side of the window. The structure shows all the devices that make up the system.
3. In the section on the right of the **System Layout** window, select the type of device you wish to configure and drag and drop it to the appropriate part of the tree structure.
or
Double-click on a device to add it to the configuration.
To remove a component from the structure, select the component in question and press **Cancel** on the computer keyboard.
4. Connect your computer to the system.
5. To write (send) the data to the control panel, click on the **Write** key .

Note: *If an error occurs during the writing phase, you must repeat the operation. Any data currently on the control panel will be overwritten.*

6. Save the solution (>**File, Save**) and print the details (>**File, Print**).

Chapter 9

Programming from the panel

9.1 Setting the Time and Date

From panel: <key>, Maintenance, <code>, DATE / TIME, ↵

or: <key>, 7, <code>, 5

This option allows you to set the Time and Date on the control panel clock and select the date format (European, British and ISO) that will be used on the displays, in the events log and by the timers.

Attention: If you are dealing with several control panels in a network, it is advisable to set the Date and Time via computer, this method will align all the control panels in the network.

The control panel which operates as the “system clock” synchronizes all the clocks of the control panels in the network. You should avoid setting the date and time separately on each control panel, as the settings will be deleted at the successive alignment, that is, unless the settings are implemented by the control panel that manages the “system clock”.

DATE Format:	EUROPE dd/mm/yy
TIME :	00:00
DAY : 00	MONTH : 00
YEAR : 00	

Complete all fields.

Press ↵ to confirm the data entry.

The confirm screen will appear.

9.2 Defining the access codes

This option allows you to define the control panel access codes used by authorized security personnel to access the reserved functions.

The defined user levels established by the law which governs the persons responsible for the installed system (level 2) and for the Installers and Maintenance technicians (level 3), have been further divided into Users and Authorized users (for level 2) and Installer or Maintenance technician (for level 3), thus creating four different access levels.

Each control panel manages 10 access codes which can be assigned to any one of the previously mentioned access levels.

Level	Users	Jumper	Keyswitch	Default code
1	The public	No	No	No
2	User	No	Position “LEV.2”	00001
2	Authorized user	No	Position “LEV.2”	00002
3	Maintenance	To be inserted	No	00003
4	Installer	To be inserted	No	00004

Refer to the installation manual paragraph 2.3 - *Operator classification - Access Levels*.

From panel: <key>, Programming, <code>, Access Codes, xxx Code, ↵

or: <key>, 8, <code>, 7, xxx

```
001 <Code Description>
Access level: <level>
              < PIN      >
```

Use keys ◀ and ▶ to scroll and view other codes.

Press ↵ to go to the next programming field.

Note: *PINs may have 4 or 5 digits.*

9.3 Setting up holiday periods

This option will allow you to set specific periods which determine exceptions with regard timer programming, for example, holidays, bank holidays, etc.

Day of the week	Day of the week for weekly arrangements. Valid only if Lenght = 1
Day Month Year	Date of the holiday or start date of the holiday period. You can set any day, month or year (for example, to set the 3rd of every month of every year enter: DAY=3, MONTH="Every", YEAR= "Every"). Day, month or year should be "Every", if you wish to create the setting using the day of the week (e.g. Sunday).
Lenght	The duration (expressed in days) of the holiday period is 1 at default.

From panel: <key>, **Programming**, <code>, **TIMER settings**, **Holidays list**, ↵

or: <key>, 8, <code>, 4, 2

```
→Holiday   Num.    01
DAY       : dd
MONTH     : mm
YEAR      : yy
```

Press keys ◀ and ▶ on the first line to view other holidays.

Use keys ▲ and ▼ to scroll the parameters list.

Press keys ◀ and ▶ on the other lines to change the values.

9.4 Setting the control panel options

This option will allow you to set the generic parameters regarding the behaviour of the control panel during an alarm and the visual event-signaling mode triggered by points with the "monitor" attribute.

Remove automatically silence after (night mode)	The silence operation will be undone when the time indicated expires.
Disable buzzer	If selected, the control panel buzzer will be mute.
Lock codes	If selected, the programmed codes will not be deleted when the factory default settings are restored.

From panel: <key>, **Programming**, <code>, **Panel Settings**, ↵

or: <key>, 8, <code>, 6

```
→In Night mode remove automatically
silence after      : sss Seconds
Disable buzzer     YES
Lock Codes         NO
```

Press keys ▲ and ▼ to scroll the parameters list.

Note: *For modifications to these fields, read the conventions (refer to Chapter 4 - How to use the display and keypad).*

9.5 Defining zones

This option allows you to define separately the operating mode of the 240 zones the control panel manages. For each zone, you must define: the parameters that regulate the process of the zone signals when activation is triggered by devices and “cause/effect” actions.

For each zone, you can define: an affixed text that will appear on the display during alarms and/or fault events triggered by the zone and the zones influenced by alarm and/or evacuation statuses on the zone. Refer to *Chapter 7 - The basic concepts of control panel programming*.

Pre-alarm Time	This is the delay the zone applies before triggering an alarm (expressed in seconds).
Recognize time	Length of investigation time, the countdown starts when the INVESTIGATE button is pressed during pre-alarm status (in seconds). Pressing this button will stop the pre-alarm timer and start the INVESTIGATE timer.

From panel: <key>, Programming, <code>, NETWORK Programming, ↵

or <key>, 8, <code>, 3

```
→Zone          nnn
<Zone Description>
Pre-alarm time   :    030
Recognize time   :    120
```

Use keys ◀ and ▶ to view the adjacent zones.

Press keys ▲ and ▼ to scroll the parameters list.

Define the affixed texts.

9.6 Setting the Timers

This option allows you to define up to 32 timer intervals (e.g. 13.00 to 14.00), dates (e.g. 25-12-2011) or specific days (e.g. Sundays and days off). The timer can be included in an cause/effect equation and in this way can contribute to the activation of an output. Timer activation may trigger associated actions (e.g. Force to Night mode) or indirect actions via cause/effect equations (e.g. Activate a zone signal).

STATUS	Option for enabling or disabling the timer
Interval Num. 1 :	Hour and minutes from start to end of the interval (time slot). If you do not wish to specify an interval, leave "--". If the two intervals are left as "--" the timer will be inactive.
Interval Num. 2 :	
Date	Operational date of the timer. To indicate any day, month or year, leave "--" (for example, every 3rd of the: day=3, month = "--", year = "--"). Day, month or year should be "--", if you wish to create the setting using the day of the week.
Days of the week	Day of the week for weekly arrangements. Valid only when the Day , Month , Year have no setting.
Included holydays Except holydays	Options to include / exclude the holidays to the list of days programmed for the timer (see paragraph 9.3).
Actions on activation Actions on deactivation	Activation/Deactivation of the timer will toggle the Night/Day operating mode. The panel can be switched back either by another timer or manually from the panel.

From panel: <key>, Programming, <code>, TIMER Settings, Set up timer, ↵

or: <key>, 8, <code>, 4, 1

```
→Timer          tt
<Timer description>
STATUS :
Interval Num.   1 : Disabled
```

Press keys ◀ and ▶ on the first line to view the other timers.

Press keys ▲ and ▼ to scroll the parameters list.

Press keys ◀ and ▶ on the other lines to change the values.

9.7 How to configure loop devices

If you wish the device to generate alarm, monitor, supervisory events or remain mute, you must assign the required attribute in the **Activation Type** programming field.

Attention: Consult the local laws in force for any restrictions regarding the definition of zones (dimensions and installation).

Note: If you wish to add a new device to a previously configured loop, simply drag and drop it to the structure, then assign the address (provided by the software application) and connect it to the loop.

9.7.1 Activation Type

The loop supports digital and analogue devices. A device will activate when its “input” goes from “Off” to “On” status, or when its values exceed the programmed alarm threshold.

The activation of a device can be triggered at various levels of the event, depending on the tasks of the device.

Alarm	The device will be used for alarm signaling purposes. On its activation, an Alarm event will be signaled on the display and all the alarm signaling devices will activate.
Monitoring	The device will be used for monitoring purposes only and will be free of any functions strictly connected to fire detection or signaling. On its activation, a Monitor event will be signaled on the displays of consoles enabled to indicate this type of event.
Supervisory	The device will be used for the supervision of the efficiency of a fire system component (for example, a flow detector on the Sprinkler system valve). The event will be signaled on the console display and the control panel fault signals will activate.
Silent	The device will be used for generic purposes and will not be strictly connected to fire detection or signaling functions. On its activation, no signals will be generated on the display or LEDs and only the programmed actions will be implemented (zone signals, cause/effect actions, control panel signals, etc.).

Note: The activation type determines which signals the device (as an input) can activate with regard to the zone. If the device is programmed to trigger an output, the activation type also determines the signals available for such activations.

9.7.2 Parameters

Address	Device address assigned during configuration
Activation Type	Refer back to paragraph 9.7.1 - Activation Type.
Primary Zone	The zone the point belongs to. Consult the local laws in force for any restrictions regarding the definition of zones (dimensions and installation).
Day sensitivity	For detectors only. The sensibility determines the alarm threshold during Day/Night mode. If the detector exceeds the set alarm threshold, it will activate and trigger the respective Activation Type . The value depends on the type of detector.
Night sensitivity	If you set Day sensitivity values only, the set values will be applied during Day and Night mode.
Thermal mode	If enabled, the device will sense for heat rise. Refer to the device instructions sheet.
Combination mode	If enabled, the device will sense for heat and smoke in the optical chamber. Refer to the device instructions sheet.
Pre-alarm	This option allows you to assign the pre-alarm attribute to the selected point. “Only Day Mode” also available.

Early warning	This option allows you to set the Early Warning threshold.
Threshold	If you select "YES", the "Early warning" signal will appear on the display when the device values exceed the set threshold. This option allows you to set both the smoke and heat thresholds.
Alarm verify	In order for the control panel to signal alarm status, the detector must exceed the alarm threshold, reset automatically, then exceed the alarm threshold again within a set time (refer to paragraph 9.5 - <i>Defining zones</i>). If the detector values exceed the alarm threshold after automatic reset, the control panel will trigger an alarm. If not, the control panel will consider the first signal to be a false alarm and consequently will ignore the event. If this option is not selected, the control will signal alarm status as soon the detector values exceed the alarm threshold.
LED blink	This option enables the periodic visual signal on the device LED.
Remote blink	This option enables the periodic visual signal on the remote output LED.

From panel: <key>, Programming, <code>, POINT Programming, x Loop x, yyy point, ↵

or: <key>, 8, <code>, 2, x, yyy

```
→001 <Dev. Type> <Dev. Description>
002 <Dev. Type> <Dev. Description>
003 <Dev. Type> <Dev. Description>
004 <Dev. Type> <Dev. Description>
```

Press the ▲ and ▼ keys to scroll the list to select the device and press ↵ to enter the parameters setting.

```
→Point x/yyy
< Type Description >
Type : < Device Type >
Primary Zone 001 <Zone Description>
```

Use keys ▲ and ▼ to view the device parameters.

Use keys ◀ and ▶ to enable or disable the option.

Press ↵ to confirm and step back to the previous menu.

Press **Esc** to cancel the changes and step back to the previous menu.

9.8 Programming I/O expansion boards (SmartLoop\INOUT)

Some installations require extra inputs and/or outputs on the control panel. In such cases, you can install a SmartLoop\INOUT board which provides 6 inputs/outputs.

Refer to paragraph 7.11 - *Connecting the SmartLoop/INOUT Board* in the installation manual.

Depending on the type of I/O you may have:

9.8.1 Type:

NAC output	NAC outputs are identical to those present at default on the control panel.
Input	These are supervisory inputs for connections with devices such as detectors. Detectors of this type generate faults in the event of Open or Short-circuit status.
Conventional line	These are input lines with up to 32 conventional detectors connected in parallel (standby/alarm). Detectors of this type generate faults in the event of Open or Short-circuit status and alarm status is activated by the current consumption.
4-20 mA GAS detector	These are gas detector inputs (refer to the wiring diagram in the installation manual). Detectors of this type generate early warning and alarm status when their current-draw values exceed the set thresholds. The early warning signal is resettable

9.9 Programming the local network (SmartLoop\NET)

The SmartLoop\NET board allows you to create installations which can include as many 30 control panels (refer to the installation manual, paragrafo 5.1.2). After installation of each control panel, you must assign its network address.

The control panels pass data through the network in such way as to allow each control panel to manage the data of all the others. This allows the operator to be at one control panel, view the real-time status of all the others and implement remote commands (reset, silence, etc.).

Each control panel in the network can filter the priority level of the events it broadcasts through the network and those it receives from other panels.

9.9.1 Programming the SmarLoop\NET board

From panel: **<key>, Programming, <code>, NETWORK Programming, ↵**

or: **<key>, 8, <code>, 5**

You can set the network configuration parameters directly on the panel you are working on and, if desired, assign it the task of control panel clock. You must assign the address beforehand by means of the Network or Complete auto-configuration option (refer to *Chapter 8 - Configuring the system*).

→Panel configured in the network as
Address: 00

Event broadcast over network

Use keys ▲ and ▼ to scroll the control panels and parameters list.

Use keys ◀ and ▶ to enable or disable the option.

Press ↵ to confirm and step back to the previous menu.

Press **Esc** to cancel the changes and step back to the previous menu.

Panel address

The address (1 to 30) must be assigned directly at the control panel. Control panels with address 00 will not be included in the network configuration.

Event broadcast over network

The control panel will transmit its events to the other control panels in the network in accordance with the specified priority level.

Event accept from the network

The control panel will receive events from the other control panels in the network in accordance with the specified priority level.

Panel which can reset this panel

The control panel will accept reset commands from the selected panels.

Panel which can silence this panel

The control panel will accept silence commands from the selected panels.

9.10 Setting up the events printout

The SmartLoop control panel can be programmed to transmit events (generated by the control panel or received from other control panels) to the various printing devices.

- For \P models, this can be an on-board thermal printer (accessory item).
- For all other models, this can be a printer (optional) connected to the RS232 port or a system which can receive and manage coded events.

From panel: **<key>, Printer settings, Printer Setup, <code>, ◀/▶, ↵**

or: **<key>, 6, 2, <code>, ◀/▶**

You can select the print channel you wish to activate, on the RS232 port of the control panel with or without a serial printer or on the on-board thermal printer.

If you select activation of the RS232 print channel, you will be able to set the communication protocol parameters. You can select priority level of the events, starting from which events must be sent to the control panel RS232 port. The port can be connected to an optional printer or can be connected to a monitoring system which is capable of acquiring and managing the events.

Printer Type : NONE

Printer Type : on RS232
 BAUD RATE: 9600 Num. Bit :8
 Parity:E StopBit:1 Flow C.: XON/XOFF
 Print event from: ALL EVENTS

Press keys ◀ and ▶ on the first line to select the type of output for the events.

Press **Esc** to confirm the operation and step back to the previous menu.

If you select the “RS232 Printer Type” option, the communication protocol parameters will appear:

Use keys ▲ and ▼ to scroll the parameters list.

Use keys ◀ and ▶ to select the values.

Press ↵ to confirm and step back to the previous menu.

Press **Esc** to cancel the changes and step back to the previous menu.

No printer	The control panel will save events to the events log but will be unable to provide a printout of the events,
On RS232 port	The control panel will printout the events on the printer connected to the motherboard (refer to the installation manual paragraph 4.2 - <i>The motherboard</i>) in accordance with the specified priority (level of importance). The system structure in the SmartLeague application will show a printer on the RS232 port.
Print event from	The control panel will print its own events and those received from other control panels in accordance with the specified priority.
Baud Rate	Printer speed (bps)
Num. bit	Number of data bits per packets
Parity	N=no parity bit, E=Even O=Odd
Stop bit	Number of Stop bits
Flow C.	Flow control type (XON/XOFF or NO)
Panel printer	Only for “/P” models with housing for an on-board thermal printer (accessory item). The control panel will printout the events on the thermal printer in accordance with the specified priority (level of importance).
Print event from	As above.
Log on Serial	The control panel will send the events in coded form to the RS232 port on the motherboard. The event data can be sent to a home-automation system or saved to the SmartLAN board for storage and retrieval via the Web Server. Contact your service centre for details regarding event coding.

9.11 Closing the programming session

Press **Esc** until you return to the standby screen, the control panel will be “In service” (operating).

Remove the jumper (refer to paragraph 4.2 - [N] in the installation manual) to stop access to the programming phase via control panel or computer.

Double check the functionality of all the input devices.

Chapter 10

Programming from SmartLeague software

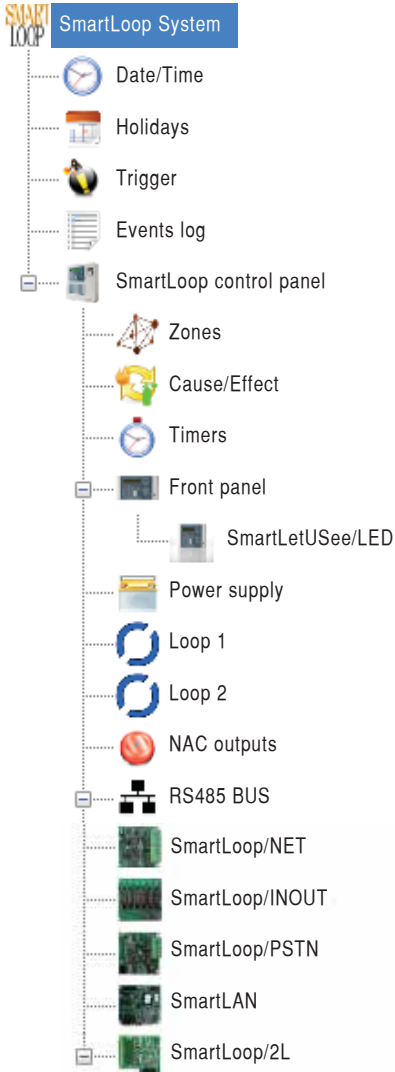
1. Open a solution for a system (>**File, Open**).
2. Select the first element to be programmed from the tree structure on the left of the window, then customize the device options/parameters in the respective template on the right.
3. Connect your computer to the system.

To write (send) the data to the control panel, click on the **Read** key .

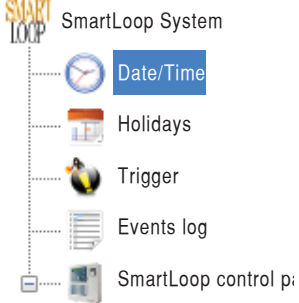
Note: *If an error occurs during the writing phase, you must repeat the operation. Any data currently on the control panel will be overwritten.*

4. Save the solution (>**File, Save**) and print the details (>**File, Print**).

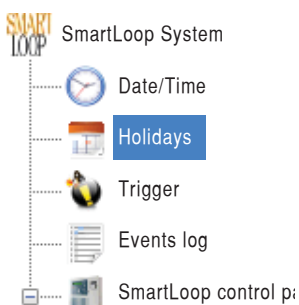
10.1 SmartLoop system

Parts of the system	Programming section	
 - SmartLoop System - Date/Time - Holidays - Trigger - Events log - SmartLoop control panel - Zones - Cause/Effect - Timers - Front panel - SmartLetUSee/LED - Power supply - Loop 1 - Loop 2 - NAC outputs - RS485 BUS - SmartLoop/NET - SmartLoop/INOUT - SmartLoop/PSTN - SmartLAN - SmartLoop/2L	Name Street/Road City Installation code Telephone number SIM number Note Date of board Date of last change	Solution identification date The first time a solution is saved, a window will appear requesting all the above-mentioned details. The entered data can be edited at any time.
		In the case of a previously saved solution, an image will be shown alongside the above-mentioned data. This image can be overwritten.
	Delete image	Button to delete the loaded image.
		These buttons allow you to read/write data to/from the control panel. Right click on any part of the window to open a menu which will allow you to carry out read/write operations from/to the control panel.
		This button signal coincident zones. A window containing a list of links, zone groups, which belong to different control panels, which are defined as "coincident" zones. In order to establish coincident zones, first select the link from the list on the left then press the New button. A list will appear on the right where you can specify the control panel, among those configured, and the zone. This window allows you to delete any multiple zones and read/write the data from/to the control panel.
		The print button (an additional button to those usually available) allows you to print an entire file or only specific sections. The print preview window must be confirmed before the printout can start.
		This button generates a file which allows the current solution to be used by supervisory software such as SmartLook and WinMag.
	SmartLoop models	
	The various models in the SmartLoop control panel series are represented by icons on the bottom part of the window. Double click on the required icon to add the respective control panel to the installation solution you are working on.	

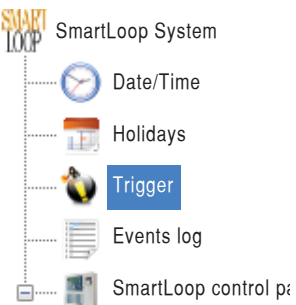
10.2 Date/Time

Parts of the system	Programming section		
	Group	Option	Note
	Date / Time	System time-keeper panel	Selection menu for the control panel (to be selected from those in the HorNet network) which will assign its date/time to the entire system.
		Date / Time	Editable fields for the date and time of the system. Both of these fields can assume the date and time of the computer you are using by means of the respective button.
	Date format	Three date formats are available.	
	Daylight Saving Time	You can choose the Daylight Saving Time changeover mode	
		Never	
		Automatic	A selection menu allows you to choose the time of day when the automatic DST changeover will occur. If this option is enabled, you can define the hour of the changeover ("Hour start/end").
		User defined list	The available field allows you to program several dates and times for the changeover format.

10.3 Holidays

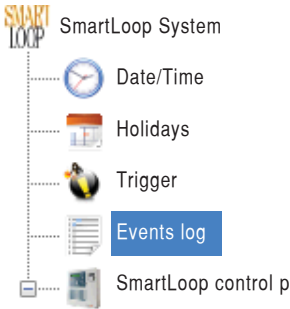
Parts of the system	Programming section		
	The software provides a table which allows you to program holidays. Each line on the table corresponds to a holiday and each column corresponds to a parameter of each holiday. Click on any line or section of the table to edit the contents.		
	Option		Note
		Button to add the holidays by means of a guided procedure.	
		Button to delete the selected holiday.	
	Day of the week	Any, Sunday, ..., Saturday	
	Day of the month	Any, 1, ..., 31	
	Month	Any, January, ..., December	
	Year	Any, 2001, ...	
	Time	This is the length of the respective holiday. The entered value must be more than "0" otherwise the holiday will be invalid.	Days

10.4 Trigger

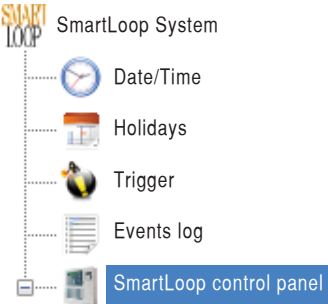
Parts of the system	Programming section		
	This section allows you to program the event triggers (i.e. the automatic actions which occur in pre-defined situations). You can define the causes of trigger actions (activation or restoral of an event) and their effects (activation or restoral of an output). The effects of a trigger action will remain active until another trigger action occurs, or until the control panel rearms. The programmed triggers are arranged on an easy to view table and can be verified by clicking-on the Verify Triggers button. Click on any line or section of the table to edit the contents.		
	Option		
	Verify Triggers	Button to verify all the programmed triggers. The  icon represents the activation of the respective event or output and the  icon represents its restoral.	
		Button to add a trigger action via a window where you can set the following parameters.	
		Button to delete the selected trigger.	

Description	Editable field is for the trigger description.
Event	You can select an event (from the selection menu) which will activates the trigger, and also indicate whether the trigger will activate or restore the selected event. If you select "Customized event", the check boxes will provide a series of events listed in order of importance.
Control panel	Check box for the association of the previously-mentioned event to one of the control panels in the configuration.
Zones	By means of a check box, you can select which control panel zones will be involved when the selected event occurs. You can select all the zones ("Any") or specific zones by means of the check boxes.
Loop	By means of a check box, you can select which control panel loops will be involved when the selected event occurs. You can select all the loops ("Any") or a specific loop. In the latter case, you can also select specific points by means of the check boxes. If you do not select any points, the entire loop will be involved in the event in question.
Output	Section for the selection of the output which will be activated by the trigger. By means of the check box menu, you can select the control panel and loop the output belongs to and, by means of an Icon window, you can also select the output. Finally, you can indicate whether the trigger action will activate or restore the output in question.

10.5 Events log

Parts of the system	Programming section	
	This section allows you to view all the events saved to the control panel Log. The lines on the table show the individual events and the columns show the following categories. There is a check box above the table which allows you to filter the events log in accordance with the number of configured control panels.	
	Option	
	N.	Number which indicates the chronological order of the events in the log.
	Date / Time / Day	Date, time and day of the week of the event.
	Event type	Event classification
	Control panel name	Control panel involved in the event
	Identifier 1 / 2 (Id)	Event identifier details
	Loop	Control panel loop involved in the event
	Point	Control panel loop point involved in the event

10.6 SmartLoop control panel

Parts of the system	Programming section		
	When you select a SmartLoop control panel from the installation tree, a graphic map appears which represents the control panel layout. The layout illustrates the components in the system configuration. Clicking on any of the components directly accesses the respective programming section. The section on the bottom part of the window shows the available optional boards (SmartLoop/NET, SmartLoop/INOUT, SmartLoop/PSTN, SmartLAN, SmartLoop/2L). To add one or more of these boards to the control panel configuration, simply double-click on the board/s you require.		
	Group	Option	Note
	Description	Editable field for the description of the control panel.	Press the Apply button to assign the parameter settings.
	Control panel type	Check box to indicate the type of control panel	
	Programming data	Stop Silence after (night mode)	Numeric field for the respective time window. If you enable this option, "Silence" commands activated when the system is operating in night mode will be deactivated automatically after the specified time. Seconds
		Date of maintenance fault event	This editable field allows you to set the date and time of the next maintenance session. If enabled, the control panel will signal a fault event in accordance with this setting. The signalled fault event can be cleared only by entering this menu and setting a later date.

Programming data	Post-reset delay	If this value is set above 0, the system will ignore the input status for the set time after reset operations.	Seconds
	Save output activations	If enabled, this option allows the system to save output activation events to the events memory.	
	Enable condition cause / effect and zones	If this option is enabled, you will be able to program the control panel activations associated with cause / effect actions with those of other duly enabled SmartLoop control panels in the Hornet network.	
	Generate alarm on second pre-alarm	If enabled, the control panel will generate an alarm in the instant a second pre-alarm occurs on any point in the system, even if the first pre-alarm time is still running.	
	Change access codes	Button to open the access-code window where you can change the code descriptions, PINs and system access levels. Also available are: - A software access code which must be a valid for installer access to the control panel programming phase (a valid code is set at default). - Code lock which, if enabled, saves the programmed codes to a protected memory. Reset operations on the control panel and/or reset to factory operations will not affect the protected codes.	
	Edit extra texts	Button to open a window containing 10 editable fields for further information relating to the control panel event-signals relating to the events selected below. These texts can be viewed on the display after the corresponding event occurs, by pressing button 1 "info" on the front panel.	Alarm, Fault, Pre-alarm, Early warning, Supervision events

10.7 Zones

Parts of the system	Programming section		
 SmartLoop control pa  Zones	The section on the right side of the window, next to the Zone option, is divided into three parts: - a table (on the left) in which each line corresponds to a zone and each column corresponds to a zone parameter - a section (at the top) with filters for viewing the zones and devices - a section (on the right) divided into different sub-sections selectable by means of tabs for the viewing of the zone devices and parameters: - Grid - Icons - Loop connections - Zone settings - Cause/Effect - Zone interactions This window, besides having read and write buttons for the transfer of programming data, also has buttons for direct connections to the control panel (🔴/🟢, On/Off Real time) and for zone programming purposes (arranged on the button bar top left). The 🚶 buttons opens a window which allows you to start a Walk Test and view the respective results.		
	Group	Option	Note
	 	Activation of a direct connection to the control panel (Real-time On) opens a table showing all the control panel zones. The table allows you to view the zone status and all the zone signals. The zone status, indicated by a coloured dot, depends on the signals activated by the zone itself. When the activation of several signals occurs, "Red" status has priority over "Yellow" which in turn has priority over "Orange".	
		N°, Description	Zone number and description
		Status dot	Red - Activation of Alarm, Double knock, Evacuation, Extinction, Pre-alarm and Sprinkler active signals Yellow - Activation of Fault, Supervision, Stop extinction signals Orange - Activation of Fire door, Early warning, Monitor, Change Class, Voice alarm, Bypass and Test signals Green - No signal activated, zone in standby status
Zones Table	N°	Zone number	
	Description	Editable field for the description/name of the zone	
	Devices	Number of devices belonging to the zone	

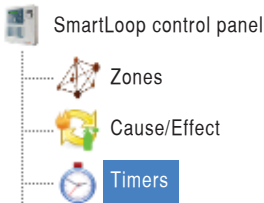
Filters	Loop	Field for the selection of the loop (from those configured) of the zones you wish to view.	
	All	Tick to view all the devices configured in the selected loop.	
	Selected zone	Tick to view all the devices configured in the zone selected from the table on the left.	
	Free	Tick to view all the devices which are not assigned to any zone.	
	Zone + Free	Tick to view all the devices configured in the zone selected from the table on the left, and also all the devices which are not assigned to any zone.	
Grid Icons Loop connections	Sections for viewing the selected loop; the viewing methods are described in <i>paragraph Loop</i> . These sections allow you to associate the loop devices with the zones by means of the available buttons or by clicking on the right mouse button.		
		Button for the assignment of the zone selected from the list on the left to the points selected from the list on the right.	
		Button for the deletion of the assignment of the zone to the points selected from the list on the right.	
Zone settings	Pre-alarm Time	Programming field for the delay between activation of the pre-alarm signal and activation the zone alarm.	Seconds
	Investigation Time	Programming field for the duration of the investigation time. The countdown starts when "INVESTIGATE" button is pressed during pre-alarm status. Pressing this button interrupts the pre-alarm timer and starts the investigation timer.	Seconds
	Alarm verification time for detectors	Programming field for the duration of the alarm verification time. It is applied to detectors with the "Verify alarm" option enabled (refer to <i>paragraph Devices</i>).	Seconds
	Verification delay	Field for the time the control panel must wait before starting the "Alarm verification time".	Seconds
	Double knock windows	The system will generate a "Double knock" signal only when two or more zone devices generate an alarm (regardless of the time elapsed after the first alarm). This option acts as a protection against false alarms and can be managed separately from the alarm signal. If this option is enabled, double alarms will be considered valid only when they occur within the programmed time (to be specified by the installer).	Minutes
	Evacuation delay after an alarm during day/night mode	If this option is enabled, alarm signals will activate a pre-set delay. When the pre-set delay ends the zone will activate the "Evacuate" signal. This operating method manages two alarm levels: a first level (Alarm) activated automatically by the system and a second level (Evacuation) activated after confirmation by an authorized person or automatically after a further delay.	Seconds Programmable in different ways for day and night mode.
	Close zone fire doors in the event of	Check box for the signal which will activate "Fire doors" signal as well as external causes (inputs, timers or equations). "Never automatic" indicates the signal can be activated only by external causes.	Early warning, Pre-alarm, Alarm, Never automatic
	Activate extinction in the event of	Dropdown box for the signal which will activate the "Extinction" signal, which can also be activated as external causes (inputs, timers, equations, etc.). "Never automatic" indicates the signal can be activated only by external causes.	Alarm, Double knock, Never automatic
	Extinction activation delay	Programming field for the delay to be applied when the previously-mentioned causes occur.	Seconds
	Generate alarm on second pre-alarm	If enabled, the control panel will generate an alarm in the instant a second pre-alarm occurs on any point in the system, even if the first pre-alarm time is still running.	
	Activate "Voice alarm" signal in the event of	Check box for the signal which activates the "Voice alarm" signal as well as external causes (inputs, timers or equations). "Never automatic" indicates the signal can be activated only by external causes.	Alarm, Pre-alarm, Never automatic
	Additional info in the event of Alarm/Fault	Dropdown box for the text which will appear on the control panel display in the event of a zone alarm or fault. The texts are described in detail in <i>paragraph SmartLoop control panel</i> and can be edited by pressing the  button.	

Cause / Effect	Section illustrating the cause/effect actions associated with the zone selected from the table on the left.	
Zone inter-actions	This section allows you to programmed the activation of Alarm, Pre-alarm and Evacuation signals of loop zones in relation to the activation of the Alarm or Evacuation signals of a specifically selected zone.	
	In the event of Zone Alarm / Evacuation:	Box containing the zones and signals which will activate in the event of Alarm/Evacuation on the zone selected on the left.
	Add	Button to open a window where you can select the influenced zones. The possible activation signals for these zones are: Alarm, Pre-alarm, Evacuation.
	Delete	Button to cancel the activation of the influenced zone selected in the box.

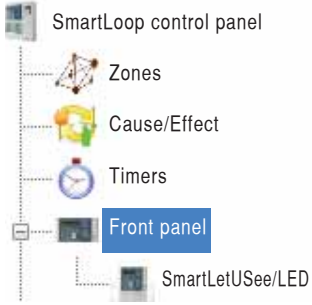
10.8 Cause / Effect

Parts of the system	Programming section		
 SmartLoop control panel  Zones  Cause/Effect	Programming section for the "cause/effect" actions. This section instructs the control panel to carry out a specific action (e.g. activation of a signal) when processing a cause (signal already activated). The system will display a table containing a list of all the programmed cause/effect actions. Click on any line or section of the table to edit the contents.		
	Group	Option	Note
		Activation of the direct connection to the control panel (Real-time On) accesses a table showing all the cause/effect settings. If the line corresponding to the cause/effect action is white (not grey) it means the cause/effect action is ongoing.	
	Only active	Check box to filter the visualization of non-active cause/effect actions.	
	Cause/effect list		Button column for the activation () or deactivation () of the relative cause/effect action.
		Description	Editable field for the description of the cause/effect action.
			Button to add a cause/effect action by means of the respective window, described below.
			Button to delete the selected cause/effect action.
	Cause/Effect window	Description	Editable field for the description of the cause/effect action.
		Delayed implementation of effects by a cause	This is the delay the control panel applies before implementing the programmed effect action after verification of the respective cause. Seconds
		Duration of effects	The duration of the activated effects can be programmed to be the same as the causes ("Follow causes"), or can be programmed with a specific duration ("Single pulse"), the latter must be indicated in the following field. Seconds (if "Single pulse")
		Complete activation time	If this option is enabled, the duration of the effect will be the full specific duration of "Single pulse".
		Enable	Option which enables/disables the cause/effect action.
		Actions on activation / deactivation	Options which impose "Day" or "Night" operating mode on the control panel after the activation/deactivation of the cause/effect action. Switch to DAY/NIGHT mode
		Cause	Box containing a list of the programmed causes. Double-click to access a window where you can select the signals, zones and loops involved in the causes.
		Effect	Box containing a list of the programmed effects. Double-click to access a window where you can select the signals, zones, NAC outputs and the expansions involved in the effects. The "Status" parameter allows you to indicate whether the selected signals are to be activated or inhibited for the entire duration of the programmed effect.
		Equation	Button to open a window for the logic combination of several causes.

10.9 Timers

Parts of the system	Programming section		
	The timers window provides a table containing all the available times and, on the right of the table, a section which shows the parameters of the selected timer. Click on any line or section of the table to edit the contents. In particular, by clicking-on the first column (Enable) it is possible to enable (ON) or disable (OFF) the corresponding timer.		
	Group	Option	Note
		Activation of a direct connection to the control panel (Real-time On) accesses a list of pre-set timers, represented by icons. Each icon is marked by a colour which indicates its status: • Grey- timer disabled • Green- timer enabled • Red- timer enabled and running	
	Timeframe 1 / 2	This sub-section allows you to select the "ON" and "OFF" times of the selected timer. If you do not wish to specify a timeframe, leave this space empty.	
	Date	This field allows you to select the day/month/year when the selected timer must activate.	Day / Month / Year
	Days of the week	This field allows you to select the day when the selected timer must activate. If you require the timer to activate on days defined as holidays, you must select the "Holidays" option. If you do not require the timer to activate on days defined as holidays, you must select the "NO Holidays" option. This section is valid only when the programming fields in the Date section are programmed as "Any".	Sunday / ... / Holidays / NO Holidays
	Actions on activation / deactivation	Options which impose "Day" or "Night" operating mode on the control panel after the activation/deactivation of the timer.	Switch to DAY/NIGHT mode

10.10 Front panel

Parts of the system	Programming section		
	In this section SmartLeague provides a replica of the SmartLoop control panel which allows you to work on the system from remote locations.		
	Group	Option	Note
		Activation of a direct connection to the control panel (Real-time On) allows SmartLeague to provide a replica control panel with a display, signalling LEDs and buttons. The display shows the same strings (written information) as the real display, the replica LEDs provide the same visual signals as the real LEDs, and the replica buttons allow the user to operate on the system as if using the real buttons on the control panel.	
		Button to activate/deactivate an audible feedback signal (beep) on the computer which simulates the audible signal emitted by the control panel when the keys are pressed.	
	Monitor signal visualization mode	Dropdown box for the selection of the visualization mode of the Monitor active signals on the selected control panel.	Silent, Display, Display + buzzer
	Programmable LEDs	Click on the box corresponding to the programmable LED to open a window where you can assign the signals which activate the LED. LED activation can be associated with: • zone/loop/point signal activation by selecting the zone, loop or point from the respective dropdown box and the required signal type. • activation of a cause/effect action selected from the dropdown box • activation by both	
	SmartLetUSee/LED	If you are working on a SmartLoop 1010/P or 2080/P control panel, the system tree on the left will show the SmartLetUSee/LED option, which allows you to program the LEDs on the lower part of the frontplate. Each of the 48 LEDs can be programmed as per the instructions described for the 3 LEDs on the user interface.	

10.11 Power supply

Parts of the system	Programming section		
	Option		Note
 SmartLoop control panel  Zones  Cause/Effect  Timers  Front panel  SmartLetUSee/LED  Power supply	Mains failure delay	This is the delay (from 0 to 30 minutes) between detection of a drop in mains voltage and the respective fault signal. This delay avoids the unnecessary signalling of brief black-outs in the mains electricity supply.	2 - 30 min
	Inhibit battery test on mains restoral	This is the time during which the battery efficiency test will be inhibited after mains restoral. This option allows the control panel to suspend the battery efficiency test after mains restoral which, due to the fact that the batteries are recharging, might fail.	0 - 15 seconds
	Standby autonomy	This is the required autonomy for the system in the event of mains failure during stand-by status.	hours
	Alarm autonomy	This is the required autonomy for the system in the event of mains failure during Alarm status after the required Standby autonomy has been completely exhausted.	minutes
	Extra loads in standby	Current absorbed by external loads (loads connected to the AUX and AUX-R outputs) when the control panel is in Standby status.	mA
	Extra loads in alarm	Current absorbed by external loads (loads connected to the AUX and AUX-R outputs) when the control panel Alarm status.	mA
	Battery efficiency factor	Coefficient that represents the battery efficiency status (e.g.: new battery=1).	
	Minimum battery requirements	The Calculate button calculates the minimum battery requirements for the aforementioned performance.	Ah

10.12 Loop

Parts of the system	Programming section
 SmartLoop control panel  Zones  Cause/Effect  Timers  Front panel  SmartLetUSee/LED  Power supply  Loop 1  Loop 2	This section allows you to plan and program the loops connected to the control panel. This section is divided in two windows, positioned one above the other: - The lower section has three sub-sections, one for each type of loop (Argus, Apollo, Inim), accessible through the tabs on the top left. It contains all the different types of loop devices, identified by icons. To add a device to the selected loop simply double-click on the respective icon. If you are adding an INIM device, a window will open for the physical address (hexadecimal serial number). The device will be added to the main loop line or, if activated, to a T-junction branch (see following). - The upper window allows you to view the layout of the loop you are working on and also to access the programming parameters of the loop and its devices. The window is subdivided into a further three sections, accessible through the labels on the top left: Grid - provides a table containing the list of devices in the loop, indicating (in rows) each device, its logic address, its description, the respective zone and the device type. Double click on the device to open a window where you can view and program all the device parameters. Right click on the specific device to: - Delete the selected point - Open the device property window. - Open the multiple programming window. This window will allow you to program all the common parameters of devices selected via this window simultaneously. Icons - allows quick viewing of all the loop devices. Each device is represented by an icon and accompanied by a description. Double click on the device to open a window where you can view and program all the device parameters. Right click on the specific device to: - Delete the selected point - Open the device property window.

- **Loop connections** (for INIM devices only) - provides the loop wiring diagram layout showing all the devices in the loop. Each device is identified by an icon, logic address and serial number. Double click on the device to open a window where you can view and program all the device parameters.
Right click on the specific device to:
 - Delete the selected point
 - Add multiple points - opens a window where you can indicate the number and physical addresses of duplicates of the selected devices which will be added to the loop undergoing programming.
 - Activate the "T junction" - when activated, the device icon will appear on a red background and any devices added successively will be configured as its "slaves". Therefore, their connections will start from the device with the "T junction" function enabled and not from the line concerned.
 - Change the device serial number/physical address.
 - Select the connected nodes, that is, view the "slave" devices of this point.
- **Parameters** - this section allows you to set up the loop parameters.

Group	Option		Note
Loop parameters - Type	Loop type	Loop type check box	Argus, Apollo, Inim
	Wiring type	Wiring type check box	2 wires, 4 wires
	Maximum number of LED devices ON	Numeric field for the maximum number of LEDs on the loop which can switch on at the same time.	Max. 255
	Maximum number of detector R outputs activated	Numeric field for the maximum number of detector outputs on the loop which can activate at the same time.	Max. 255
	Signal contamination fault on smoke detectors	If enabled, the control panel will signal dust contamination as a fault.	
	Periodic check on open-loop fault restoral	If enabled, in the event of an open-loop, the control panel will run a periodic check to see if the fault has cleared. If the fault is no longer detected, the system will stop the fault signal instantly, instead of when the system rearms.	
	Drive the loop from both ends in the event of an alarm	If enabled, in the event of an alarm, the control panel can drive the loop from both ends (LOOP-O and LOOP-I), in such a way as to make up for any voltage drop caused by the devices in alarm status and/or activated outputs.	
	Interrogate only devices in configuration	If activated, the cyclic interrogation implemented by the control panel will include only the points in the system configuration.	
Loop parameters - Dimensioning	Total cable length	Numeric field for the total cable length of the installation.	metres
	Equally distributed Concentrated at the end of loop Concentrated at the start of loop	Check box to indicate the distribution of points on the loop	
	Minimum required gauge	The Calculate button allows you to obtain the minimum required wire section in accordance with the loop under configuration.	mm ²
Set emergency configuration	Button to open a window where you can set up an emergency configuration, more specifically, a group of devices which will continue to function in the event of a CPU fault on the control panel. You must specify whether each of the enabled loop devices in the emergency configuration must contribute to the alarm, and whether it must activate its own output.		

Loop setting buttons		Activation of a direct connection to the control panel (Real-time On) opens the "Grid" section (loop viewing section) where you can view the status of the loop points. The status of the points, indicated by the colour of the Description column, depends on the signals they have activated. When the activation of several signals occurs, "Red" status has priority over "Yellow" which in turn has priority over "Orange". • Red - Activation of Alarm, Double knock, Evacuation, Extinction, Pre-alarm and Sprinkler active signals • Yellow - Activation of Fault, Supervision, Stop extinction signals • Orange - Activation of Fire door, Early warning, Monitor, Change Class, Voice alarm, Bypass and Test signals • Green - No signal activated, zone in standby status
		Button to delete the selected device.
		Button to add multiple points - opens a window where you can indicate the number and physical addresses of duplicates of the selected device which will be added to the loop being programmed.
		Activate the "T junction" - when activated, the device icon will appear on a red background and any devices added successively will be configured as its "slaves". Therefore, their connections will start from the device with the "T junction" function enabled and not from the line concerned.
		Button to change the serial number and logic address of the selected device. If the "Set physical address on insertion" option is enabled, the software will request the serial numbers of the successive devices during the insertion phase.
		Button to open a window where you can read and program all the parameters of the selected device.
		Button for the importation of a loop configuration (using .xml file) previously exported from FireGenius software.
		Button to open a window which will allow you to perform loop analysis operations. The Start analysis button triggers the loop analysis signal which, by means of the loop drive, provides the information relating to the status of loop status and each individual device. The application provides a graphic replica of the loop showing all the loop devices and connections. The response of each interrogated device is indicated by the colour of its icon, as per the status of the points. In the event of an interruption (open loop) any devices which cannot be interrogated will be shown in grey. The Loop drive menu allows you to select the loop analysis mode: • Drive O: starts the loop analysis from the loop output terminal (LOOP-O) • Drive I: starts the loop analysis from the loop input terminal (LOOP-I) • Drive both: starts the loop analysis from both terminals
		Button to open a window where you can start and read the analysis results detected by the device sensors. The Test details section allows you to type in information regarding the test results and select the information you require from the analysis: • Contamination • Loop voltage • Alarm counter • Real-time smoke level • Real-time temperature level The  button allows you to view a table containing the test analysis results. The Save collected data button allows you to save the test results and respective information.
		This button opens a menu which allows you to start the following loop operations: • Enroll - this command starts the loop "Enrolling" process • Re-address - this command starts the loop "Re-addressing" process • Update - this command starts a process which allows the software to compare the loop configuration on the PC with that on the control panel, detect any differences and propose the actions to be implemented. • Assign logic addresses - this command is valid only for Enea series devices which writes the logic addresses on the control panel. • Check EEPROM devices - this procedure checks the internal memory of the devices (to be carried out only if requested by INIM technicians)

10.12.1 Devices

Double click on any of the loop devices to open a window which allows you to view all the properties of the selected device, change its settings and carry out monitoring.

The various parameters described below do not apply to all devices, therefore, may not apply to the type of device selected.

Group	Option		Note
Device	Physical address	Text field indicating the device ID serial number (requested when the device was added to the loop).	Hexadecimal
	Logic address	Field indicating the address of the device on the loop.	
	Device type	Field indicating the device model and type.	
	Firmware version Date of firmware revision	The View button allows you to view the version and upgrade date of the device firmware.	Connection with the system is necessary
Buttons	OK	Closes and saves any parameter changes.	The solution must be saved otherwise any changes will be lost.
	Wiring diagram	Shows an example wiring diagram for the device.	
	Monitoring	This button opens a window where you can open a monitoring session; refer to <i>paragraph Device monitoring</i> .	
	Write settings	Button to save all the changes to the device memory.	Connection with the system is necessary
Input	Description	Editable field for the device description.	
	Zone	This programming section provides a list which allows you to select the zone the device belongs to.	
	Activation type	Section for the selection of signals to be activated by devices. Other buttons are available for customized activations, that is to say, for direct signals to the control panel, to its zone, to secondary zones or to all the zones.	
	Direct actions	Section for the selection of statuses which will exercise control panel constraints when the device activates. Some statuses simulate actions on the control panel (e.g.: Investigation, Silence, Reset).	
	Restorable	If this option is enabled, the device will restore to standby when the activating conditions clear.	This option is not valid for Alarm activations.
	Verify alarm	If enabled, the control panel will not generate an alarm when the detector exceeds the programmed threshold, instead it will start the pre-set "Verification Time". If the detector exceeds the threshold while the "Verification Time" is running, the control panel will generate an alarm, if not, it will not generate any kind of signal.	Refer to <i>paragraph Zones - Zone parameters</i>
	Early warning	This check box allows you to indicate whether the device has a warning threshold. The device will generate a "Early warning" signal when the detected value exceeds the programmed threshold.	Activation of this option automatically activates the Early warning threshold programming parameters.
	Blink on LED	Check box to enable blinking on the LED of the device connected to the device.	The green LED will blink each time it is polled by the loop.
	Heat sensitivity	Dropdown box for the selection of the operating mode of the heat detector.	A1R, B, A2S, BR
	Smoke sensitivity	Dropdown box for the selection of the smoke alarm value.	0.08 - 0.10 - 0.12 - 0.15 dB/m
	Smoke sensibility - night	Dropdown box for the selection of the smoke alarm value when the control panel is operating in "Night" mode.	
	Operating mode	Dropdown box for the selection of the operating mode of the heat and smoke detector.	- Heat or Smoke - Heat and Smoke - Only heat - Only smoke - Plus
	Early warning threshold	The threshold bar allows you to select the desired threshold level. Each level corresponds to a pre-determined value detected by the device which must not be exceeded.	The measuring unit levels depend on the type of device.

Output	Blink on remote output LED	Check box to enable blinking on the LED of the repeater connected to the device.	
	Detector alarm repeater	This check box indicates the presence of an alarm repeater connected to the device.	This is required by the software for the loop dimensioning operations.
	Output activation / Signals	This section will allow you to program the signals which will activate the device output; as follows: • Check box for the signal that will activate the output. • Check box for the signal source (control panel, zone or zone group; the zone groups can be accessed through the "secondary zones" section). • Activation filter: if you select "Customized activation", this button open a window where you can select the signals and signal sources. • Check box to select the control panel statuses which will activate the device output.	
	Further activations	Section for the addition of further cause/effect actions and trigger actions which activate the output.	
	Output disabled by bypass sounder operations	If this option is selected, the output will be excluded automatically when the "Sounder group" is excluded.	
Advanced settings	Automatic LED	This check box allows you to enable the device to control automatically the LED in accordance with its various events (commands from the control panel are not required).	For example, in the event of an alarm the detector activates the red LED.
	Do not bypass on zone bypass	Check box to enable the device to operate even when the zone it belongs to is bypassed.	
	Do not supervise	If this option is enabled the control panel will not check the integrity of the connection to the remote LED or the EOL resistor.	
Advanced settings / Input	Post-rearm filter	If enabled, the control panel will ignore signalling from the device for a pre-set time after control panel reset operations ("Post-reset delay").	
Advanced settings / Output	Rearm immune	This check box allows you to select whether the output will reset to standby when the control panel rearms.	
	Non-silenceable	This check box allows you to select whether the output can be silenced (deactivated) by means of the "SILENCE" button on the control panel.	
	Inverted	The output is normally active and deactivates when the programmed activation conditions occur.	
	Priority repetition output	If enabled, the device output will activate when the device triggers an alarm. This output has activation priority over the others which must be activated.	
	Type	Classification of output	Bistable, Single pulse, Delayed
	Activation Time	Valid when the output is configured as single pulse or delayed.	seconds For unlimited period, leave the value at "0"

10.12.2 Device monitoring

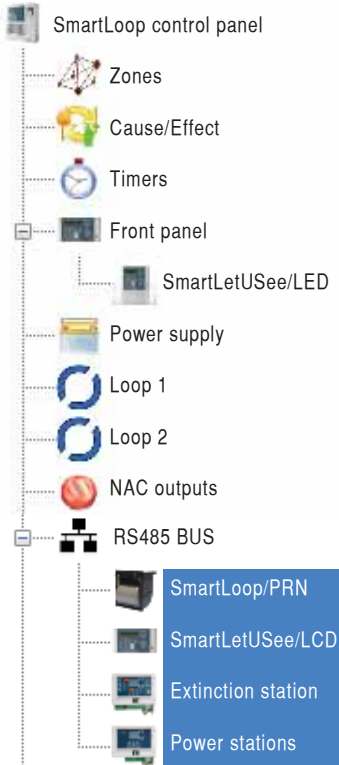
The device monitoring window is divided into two sections. The device parameters can be seen only when the SmartLeague equipped computer is connected to the system the device belongs to.

Group	Option		Note
Real-time	This section shows a graph containing the values read by the device (in accordance with its type) during the monitoring period (seconds): - Level of smoke in the protected environment in mdB/m (for optical detectors) - Temperature in the protected environment in °C (for heat detectors) - Input resistance in Ohm (for modules)		In the case of optical-heat detectors the graph shows both the level of smoke (in light blue, on the left) and the temperature (in red, on the right).
	Real-time ON/OFF	Button to start/stop the device monitoring phase and the report graph.	
	Contamination analysis	Button for feed-back information regarding the contamination value in the optical chamber.	%
	Voltage	Button for feed-back information regarding the power-supply voltage to the loop device.	
	Alarm counter	Button for feed-back information regarding the number of alarms detected by the device and saved to its memory.	
	LED ON/OFF	Button to switch ON/OFF the device status LED.	
	Output ON/OFF	Button to switch ON/OFF the device output.	
Alarm history	This section allows you to start a process which provides a graphic report containing the values detected by the device in the 5 minute period prior to the last alarm.		
	Alarm history	Button to start the Alarm history report.	

10.13 NAC outputs

Parts of the system	Programming section		
	When you select NAC outputs option from the system tree, a graphic map appears which represents the control panel board. The maps highlight, by means of a red background, the three NAC outputs; click on any one of these to open the programming window.		
	Group	Option	Note
	Description	Editable field for the NAC output description.	
	Zone	List of check boxes for the selection of the zone which activates the NAC output, if duly programmed for zone activation.	
	Output activation/Signals	This section will allow you to program the signals which will activate the device output; as follows: - Check box for the signal that will activate the output. - Check box for the signal source (control panel, zone or zone group; the zone groups can be accessed through the "secondary zones" section). - Activation filter: if you select "Customized activation", this button open a window where you can select the signals and signal sources. - Activations generated by control panel conditions: these are other non-selectable signals in the filter described above, which depend on the status of the control panel (investigate, silence, rearm and night mode).	
	Further activations	Section for the addition of further cause/effect actions and trigger actions which activate the output.	
	Type	Classification of output	Bistable, Monostable
	Activation Time	Valid when the output is single monostable	seconds For unlimited period, leave the value at "0"
	Inverted	The output is normally active and deactivates when the programmed activation conditions occur.	
	Non-silence-able	This check box allows you to select whether the output can be silenced (deactivated) by means of the "SILENCE" button on the control panel.	
	Pattern	Check box list for the selection of an output activation pattern.	
	Patterns	Button to open the window where you can edit the available patterns.	

10.14 BUS RS485

Parts of the system	Programming section	
	When you select the RS485 BUS option from the installation tree, the list of the devices connected to the BUS will appear. The lower section shows the devices which are connectable to the BUS (SmartLoop/PRN, SmartLetUSee/LCD, SmartLetUSee/LED, Extinction Station and Power supply station); simply click on the icon of the respective item to add it to the BUS configuration. This section also allows you to program the printer connected to the RS232 port, whose configuration excludes the addition of the SmartLoop/PRN printer on BUS (the system accepts one printer only). For the programming options of these devices, simply select the respective option from the installation tree on the left.	
	Group	Option
	SmartLoop/PRN Printer on RS232 port	Printer present Check box to indicate whether the printer is present or not. If it is present, events generated by the control panel or received from other control panels in the network, and selected in the list below, will be sent to the RS232 port.
		Print events starting from: List of event categories in order of importance ("pre-alarm is the maximum level"). the control panel prints it own the events and those received from other control panels, starting from the programmed priority level.
		Baud rate, Parity, Stop bit, Data bit, Xon/Xoff, Add Line feed Operating parameters of the printer connected to the RS232 port.
	SmartLetU-See / LCD	The section on the right shows a replica of the repeater frontplate which will allow you to setup the programmable LEDs. The programming method for the repeater LEDs is as described in <i>paragraph Front panel</i>. The lower section shows the SmartLetUSee/LED icon. Double-click on the icon to configure the repeater LED connected to the SmartLetUSee/LCD.
	SmartLetU-See / LED	The programming method for the repeater LEDs is as described in <i>paragraph Front panel</i> .
	Extinction station	The section on the right shows a replica of the connected extinction station, its terminal board and its two programmable outputs. The programming method for the selected output is as described in <i>paragraph Devices</i>.
	Power supply station	The section on the right shows a replica of the connected power-supply station, its terminal board and its three programmable outputs. The programming method for the selected output is as described in <i>paragraph Devices</i>.

10.15 SmartLoop / Net

Parts of the system	Programming section		
 SmartLoop control panel  Zones  Cause/Effect  Timers  Front panel  SmartLetUSee/L  Power supply  Loop 1  Loop 2  NAC outputs  RS485 BUS  SmartLoop/NET	Option		Note
	Control panel address in the network	This is the address assigned to the control panel inside the HorNet network. The address 00 will automatically exclude the control panel from the network.	1 - 100
	Apply	Button to configure the address on the software. SmartLeague will refer to the control panel using the specified address.	
	Write	Button to write (or change) the address on the connected control panel.	
	Send events starting from	List of event categories in order of importance (“pre-alarm is the maximum level”). The control panel will transmit its events to the other control panels in the network, starting from the programmed priority level.	
	Emergency line wiring check	If this option is enabled, the control panel will monitor the integrity of the electrical wiring of the “emergency line” (terminals Alarm-A and Alarm-B on the SmartLoop/NETboard). The “emergency line” is a ring circuit which includes all the control panels and allows the system to pilot eventual alarm conditions even in the event of a microprocessor fault on one or more control panels. If this option is enabled and a wiring fault occurs, the control panel/s will signal a fault.	
	Control panel number	Address of all the control panels in the network.	
	Control panel name	Descriptions of all the control panels in the network.	
	Accept events starting from	List of event categories in order of importance (“pre-alarm is the maximum level”). The control panel will transmit its events to the other control panels in the network, starting from the programmed priority level.	
	Enable Reset commands from remote control panel	The control panel can be reset from other control panels in the network.	
	Enable Silence commands from remote control panel	The control panel can be silenced from other control panels in the network.	

10.16 SmartLoop / INOUT

Parts of the system	Programming section	
 SmartLoop control panel  Zones  Cause/Effect  Timers  Front panel  SmartLetUSee/LED  Power supply  Loop 1  Loop 2  NAC outputs  RS485 BUS  SmartLoop/NET  SmartLoop/INOUT	This section will allow you to program the six terminals on the SmartLoop\INOUT board. Clicking-on any of these terminals will open a window containing the parameters of the selected type:	
	Option	
	NAC outputs	This NAC output is identical to the one present at default on the control panel (refer to <i>paragraph NAC outputs</i>).
	Input	Supervised input identical to that of the devices connected to the loop (refer to <i>paragraph Devices</i>).
	Conventional zone	Input for connection in parallel of up to 32 conventional detectors (standby/ alarm). Fault signals on this type of detector are generated by open or short-circuit conditions, whereas alarm status is generated by current absorption. The programming process is similar to that of a supervised input of devices connected to the loop (refer to <i>paragraph Devices</i>).
	Gas zone	Input for the connection of a gas detector. Early warning and alarm signals on this type of detector are generated by excess of two current absorption thresholds. Early warning signals are always restorable. The programming process is similar to that of a supervised input of devices connected to the loop (refer to <i>paragraph Devices</i>).

10.17 SmartLoop / PSTN

Parts of the system	Programming section			
	Group	Option		Note
 SmartLoop control panel  Zones  Cause/Effect  Timers  Front panel  SmartLetUSee/  Power supply  Loop 1  Loop 2  NAC outputs  RS485 BUS  SmartLoop/NET  SmartLoop/INOUT  SmartLoop/PSTN	Telephone N°	N°		
		Description	Identification data of the telephone number	
		Protocol	This is the reporting protocol. If the number is a digital number, select one of the protocols. If the number is non-digital, select "Voice". "None" indicates that the number in question will not receive any telephone actions. It can be used to temporarily disable the actions to a specific number.	Refer to the control-panel installation manual for the instructions relating to the voice-message recording procedure.
		Account code	This is the code which allows the Alarm Receiving Centre to identify the system.	
	Actions	Section showing the list of actions (relations between cause/effect actions) which activate the telephone calls. Double-click on any of the cause/effect actions to open a window where you can program the parameters described below:		
		Description	This editable field is for the description of the Action.	
		Call all voice numbers	If this option is enabled, the system will call the two or more numbers associated with the event (to send voice messages) until all the numbers have successfully received the message. If this option is not enabled, the system will call the number until one of the numbers has received the message.	
		Call all digital numbers	Similar to "Call all voice numbers", but for digital numbers.	
		Action queued on TCP/IP	In the event of activation, the action will also be sent to the SmartLAN board. The respective programming page allows you to define the actions to be undertaken (e-mail, communications via TCP/IP, etc.).	

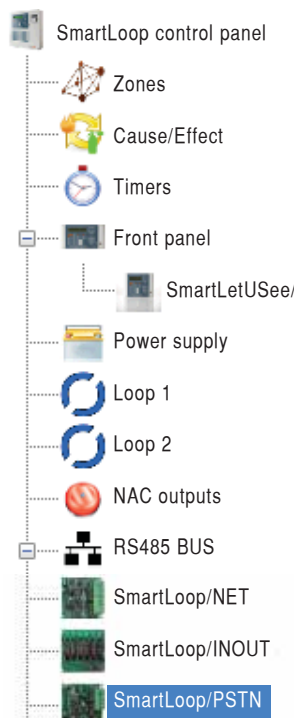
Actions	Cause	Box containing a list of the programmed causes. Double click to access a window where you can select the type of activation: - Event activation: select the events, zones, loop and control panels which activate/reset the call. - Logic activation: a combination of signals will activate the call (as per the activations of the NAC outputs in <i>paragraph NAC outputs</i>).	
	Effect	Box listing the programmed effects, that is to say, the calls generated automatically by the control panel in response to the above-listed causes. Double click to access a window containing a list of all the telephone numbers. You can select the telephone numbers the call will be sent to. You can indicate the call parameters in the section alongside: Message class: for CONTACT-ID telephone numbers only Event code: for digital calls only Voice messages: for voice calls only - to be selected from the 8 available	
Options	Dialing type	Dialing type to be implemented on the line.	- DTMF - Pulse
	Check backup telephone line	If this option is enabled, the communicator will check for the presence of the PSTN backup line connected to the "L.B." terminals.	
	Dial tone check	If this option is enabled, the communicator will check for the presence of the dial tone before dialing.	
	Press "#" key to confirm successful calls	If this option is enabled, the control panel will not consider the telephone call successful until the recipient presses the "#" key, even if the message has been played and listened to.	
	Send voice message after	The communicator will play the voice message in accordance with the selected playback mode: Answer - the voice message will start as soon as the call is picked up and any audible signal is detected Dial - the voice message will start soon after the device dials the telephone number Delay - the voice message will start after a pre-set delay (see below) which starts after dialing the telephone number	
Emergency calls	Voice message delay	After dialling the telephone number, the communicator will delay the voice message transmission for the indicated time.	seconds
	This section shows the telephone numbers which the SmartLoop/PSTN board must call in the event of a fault condition on the control panel CPU. Primarily: Control panel lost - this section is for the numbers to be called in the event of a CPU fault. Alarm during emergency - this section is for the numbers to be called in the event of a CPU fault when a system-alarm condition has also been detected.		
	N°	This represents the order in which the calls will be made.	
	Telephone number	This check box allows you to select the telephone number.	
	Protocol	This is the protocol of the telephone number.	
	Account code Event code	These are the parameters of the indicated protocol.	
	1, 2, ..., 8	If the respective telephone number is a voice number, selection of this check box will enable the playback of the voice-messages with the corresponding numbers.	

10.17.1 Programming a periodic telephone action

The SmartLoop control panel allows to program periodic telephone actions for periodic monitoring of the control panel, the system and telephone line status.

These actions can be activated by means of appropriate programming of the control panel timers and of the SmartLoop/PSTN board.

In this paragraph we provide a standard programming procedure, using the SmartLeague software, in which we set up an automatic telephone action, activated by a timer, with the playback of a voice message:



1. Open the SmartLoop solution that represents the system and go to "Timers" section (paragraph 10.9 - *Timers*).
2. Select the timer from the list on the right and set it to "ON" (by double clicking on the string "OFF").
3. Set the activation and deactivation time for one of the two time slots.
4. Select the section of the SmartLoop/PSTN option (paragraph 10.17 - *SmartLoop/PSTN*) from the system tree on the left.
5. Go to the "Actions" section on the right and select one of the available actions with a double click.
6. From the "New telephone action" window that opens, double-click on the "Cause" box.
7. From the window that opens select the type of activation "Logic activation" and click on the **New Cause/Effect** button.
8. From the "Cause/Effect" window that opens click on the **Equation** button.
9. From the "Timers" box, select the timer previously set and add it to the equation by clicking on the **Add timer** button.
10. Press the **OK** buttons to close the open windows and to save the entered data until you return to the telephone action programming section.
11. From the "New telephone action" open window, double-click on the "Effect" box.
12. From the "Effect" window that opens, select the telephone numbers for the periodic phone call.
13. In the same window, select the voice message to be played.
14. Press the **OK** buttons to close the open windows and to save the entered data until you return to the control panel programming section.

Upload to the control panel the programmed data clicking on **Write** button .

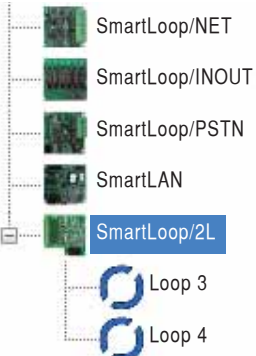
Attention: In order to validate the IMQ-SISTEMI DI SICUREZZA certification and comply with EN 54-4 requirements, the telephone verification action of the telephone transmission must have a 24-hour frequency.

10.18 SmartLAN

Parts of the system	Programming section		
	Group	Option	
 SmartLoop/NET  SmartLoop/INOUT  SmartLoop/PSTN  SmartLAN	Board parameters	IP Address	Static IP address of the control panel
		Netmask	Ask the network administrator or provider about Internet service.
		Gateway	
		DNS	
	Connection parameters	Outgoing post server	Server name for outgoing emails (e.g.: "smtp.<nameServer>.com").
		Port	Server port for outgoing post. 25 at default.
		E-mail	The e-mail address of the sender, used as the control panel identifier. Used only to recognize the sender and not to manage replies, therefore, it can be a fictitious name.
		Request authentication	Option to be activated when the post server in use requests authentication from the account sending the emails. If activated, it will be necessary to indicate the user name and password.
		Timeout	Selection field for the maximum time (from 60 to 300 seconds) within which the control panel must send an email to the post server.
		SSL	Selection field for the SSL cryptography protocol for mail sending.
		SD card	Two buttons are provided to enable and disable the SD card.

IP address	IP addresses and their respective reporting protocols which the SmartLAN board can use to communicate events.
Action queued on TCP/IP	Action list section showing the actions (cause/effect relationships programmed in the Actions section) with the "Action queued on TCP/IP" option enabled. Double-click each of these to setup an: • e-mail: subject, attachment and body of the e-mail to be sent when the action occurs • e-mail addresses: list of contact addresses the e-mail is to be sent to • IP addresses: list of IP addresses the data packets are to be sent to when the action occurs
Dynamic DNS	If a dynamic public IP address is available, you may find it useful to use a domain name which will allow you to trace your SmartLAN device at all times. SmartLeague supports the service offered by: • dyndns.org • freedns.afraid.org • no-ip.com By registering at one of these addresses, you will obtain the access data required in this programming section: • Domain • User name • Password • Update every - interval (expressed in seconds) applied by the SmartLAN when upgrading the association of the selected domain with the public IP address.
Actions	Section showing the list of actions (relations between cause/effect actions) which activate the telephone calls. Double click on any of these cause/effect actions to open a window where you can program the parameters described below: <i>paragraph SmartLoop/Net</i> . To send e-mails and/or data packets, it is necessary to enable the "Action queued on TCP/IP" option.

10.19 SmartLoop / 2L

Parts of the system	Programming section
	This section allows you not only to carry out programming, but also to plan the layout of the loops connected to the SmartLoop/2L board. This can be done by clicking directly on the loop option or by first clicking on the SmartLoop/2L option and then on the respective loop terminal. The loop visualization mode, project layout and programming methods are the same as those for loops which are directly connected to the motherboard, as described in <i>paragraph Loop</i>.

Chapter 11

Maintenance operations

The configuration/programming operations via control panel are reserved for the installer company technicians (level 3), who can:

1. By means of a screwdriver or similar tool, remove the screws and open the panel enclosure.
2. Locate the programming jumper in position (refer to paragraph 4.2 - [N] in the installation manual).
3. Enter the access code: the control panel will enable the maintenance functions.

11.1 Testing/Enabling a zone

During zone test status, detectors and all other signaling devices associated with the zone will be unable to generate faults, alarms or signals. Activation of a detector during test status will activate its LED which will reset automatically. This feature provides a trouble-free way of testing the system devices.

From panel: **<key>, Maintenance, <code>, Zone in TEST mode, ↵**

or: **<key>, 7, <code>, 1**

Zone	yyy < Zone Description >
STATUS :	Normal Mode
↑↓= Select Zone	↔= Test ON/OFF

Use keys ▲ and ▼ to view the data of the adjacent zones.

Press **Esc** to confirm the operation and step back to the previous menu.

Note:

If a zone is in Test/In Service status, it means that all its associated points are in Test/In Service status.

11.2 Testing/Enabling a detector

During Test status, the detector will be unable to generate faults, alarms or signals. Activation of a detector during test status will activate its LED which will reset automatically. This feature provides a trouble-free way of testing the system devices.

From panel: **<key>, Maintenance, <code>, Point in TEST mode, x Loop x, yyy Point, ↵**

or: **<key>, <code>, 2, x, yyy**

Point	x/yyy < Description >
Type :	< Device Type >
STATUS :	Normal mode
↑↓= Select Point	↔= Test ON/OFF

Use keys ▲ and ▼ to view the adjacent detectors.

Press **Esc** to confirm the operation and step back to the previous menu.

11.3 Forcing the status of the device outputs

On first power-up or during maintenance sessions, it may become necessary to force a device output.

From panel: **<key>, Maintenance, <code>, TEST Outputs, Loop Output, x Loop x, yyy device, ↵**

or: **<key>, 7, <code>, 3, 1, x, yyy**

```
Point      x/yyy < Description >
Type :      < Device Type >
STATUS :      OFF
↑↓= Select Point ↔= Output ON/OFF
```

Use keys ▲ and ▼ to view the to view the adjacent devices.

Press **Esc** to confirm the operation and step back to the previous menu.

11.4 Forcing the status of the control panel outputs

On first powerup or during maintenance sessions it may be necessary to force one of the control panel outputs.

From panel: <key>, Maintenance, <code>, TEST Outputs, Panel output, x Output, ↵

or: <key>, 7, <code>, 3, 2, x

Supervised alarm relay

```
STATUS :      OFF
↑↓= Output select ↔= Output ON/OFF
```

Use keys ▲ and ▼ to view the adjacent outputs.

Press **Esc** to confirm the operation and step back to the previous menu.

11.5 Force the device LEDs On

On first power-up or during maintenance sessions, it may become necessary to switch the device LED On manually. For example, activating the LED of a detector will help you identify it quickly inside the protected area.

From panel: <key>, Maintenance, <code>, TEST Point LED, x Loop x, yyy device, ↵

or: <key>, 7, <code>, 4, x, yyy

```
Point      x/yyy < Description >
Type :      < Device Type >
STATUS :      Spy OFF
↑↓= Select Point ↔= Output ON/OFF
```

Use keys ▲ and ▼ to view the to view the adjacent devices.

Press **Esc** to confirm the operation and step back to the previous menu.

11.6 Testing the local network

On first power-up or during maintenance sessions, it may become necessary to verify the presence of the control panels in the network.

From panel: <key>, Maintenance, <code>, TEST Network, ↵

or <key>, 7, <code>, 6

```
1 Control panel 01
2 Control panel 02
3 NOT In Configuration
4 NOT In Configuration
```

Use ▲ and ▼ to view the control panels in the network.

Press ↵ on the control panel you wish to send the ping to. After a few seconds, if the ping is successful, the following message will appear:

```
Control panel PRESENT
Response Time 0012.45 ms
```

If, however, the “NO ANSWER !” message appears, refer to the installation manual *Chapter 10 - Troubleshooting*.

11.7 Loop Diagnostics

This menu will allow you to carry out diagnostics on all the devices connected to the loop.

At the end of the diagnostics phase, the control panel will show: the maximum level of contamination, the device concerned, the average level of contamination level, the value read on all devices and (with regard the supported protocol) the quality of the signal received by each loop device on the LED.

From panel: **<key>, Maintenance, <code>, LOOP Diagnostic, ↵**

or **<key>, 7, <code>, 7**

```
→1 Loop 1      <Loop Description>
 2 Loop 2      <Loop Description>
 3 Loop 3      Not available
 4 Loop 4      Not available  ↓
```

Use keys ▲ and ▼ to navigate through the loops.

Press ↵ on the loop you wish configure/modify.

```
→< Loop Description >
Detectors      :xxx
IN Modules     :yyy
OUT Modules    :zzz          ↓
```

Use keys ▲ and ▼ to navigate through the parameters.

Detectors, IN Modules, OUT Modules, Sounders, Call points

This is the total number of devices connected to the loop, arranged in categories.

Average contamination level

The level is calculated on all the detectors of the same type.

Higher contamination level on detector

This is the maximum percentage of contamination found on the detector concerned.

Average loop contamination

This is the average percentage of signal deterioration calculated on all the detectors on the loop.

MAX signal deterioration on point

This is the maximum percentage of deterioration found on the detector concerned.

Report Printout

Press ► on this option to printout the data relating to loop and the devices in the configuration (with addresses other than "255").

Status Temperature

Press ↵ to view the device list:

```
→001 <Detector type> < Description >
002 <Detector type> < Description >
003 <Detector type> < Description >
004 <Detector type> < Description >
```

Use keys ▲ and ▼ to scroll the devices, or type in the device number.

Press ↵ to view the device parameters.

```
→Point      1/001 <Point Description>
Type :      Optical detector
Smoke : ---
Sensitivity : ---
```

Use keys ▲ and ▼ to navigate through the parameters.

Use keys ◀ and ▶ to scroll the devices.

Note:

The parameters depend on the type of device installed, refer to the device instructions for details.

11.8 Maintenance date

This section will allow you to set the date for the maintenance request.

From panel: **<key>, Maintenance, <code>, Maintenance date, ↵**

or **<key>, 7, <code>, 8**

```
Maintenance date  _Enabled
TIME      :      00:00
DAY       :   01      MONTH   :   01
YEAR      :   11
```

Use key ◀ or ▶ to enable or disable the parameter.

Use keys ▲ and ▼ to scroll the parameters.

Press ↵ on the loop you wish configure/modify.

Chapter 12

Operating the system

Only persons responsible for the safety of the building and its occupants (level 2) can operate the system after entering a code or inserting the key in the keyswitch.

These operators can access the functions described in this chapter.

12.1 Changing Day / Night mode

This option allows operators to change manually the Day/Night operating mode of the control panel.

From panel: <key>, Panel settings, <code>, ↵

or: <key>, 3, <code>

Control panel mode : Day

Use keys ▲ and ▼ to change the operating mode.

Note:

If you require automatic control of the Day/Night operating mode, you must set a timer.

12.2 Bypassing / Unbypassing devices

Under certain circumstances (e.g. maintenance or fault conditions), it may be necessary to bypass a zone, a point, an output or the entire loop.

Bypassed elements cannot generate fault or alarm signals and cannot be activated. The SmartLoop control panel provides a programming menu which allows users to bypass and unbypass the various system elements.

Once you have accessed the menu relating to the element you wish to bypass/unbypass, refer to the following section.

1. Use keys ▲ and ▼ to navigate through the elements.
2. Use keys ◀ and ▶ to enable or disable the selected element.
3. Press **Esc** to confirm the operation and step back to the previous menu.

12.2.1 Bypassing / Unbypassing a device

From panel: <key>, Disable, <code>, Loop Devices, x Loop x, yyy device, ↵

or: <key>, 4, <code>, 1, x, yyy

```
Point      x/yyy < Description > < Device
Type >
STATUS :      _Enabled
↑↓= Select Point ↔=Enable/Disabled
```

12.2.2 Bypassing / Unbypassing a zone

From panel: <key>, Bypass, <code>, Zone, ↵

or: <key>, 4, <code>, 2

12.2.3 Enable / Disable outputs

Available outputs list:

- NAC 1
- NAC 2
- NAC 3
- Supervised alarm
- Supervised fault
- Alarm relay
- Fault relay
- Sounder group

The “Sounder group” incorporates all the outputs, (programmed via computer) with the “sounderflasher” attribute.

From panel: **<key>, Disable, <code>, Outputs, ↵**

or **<key>, 4, <code>, 3**

12.2.4 Enable / Disable I / O line

This option disables or enables on of the inputs/outputs on the SmartLoop/INOUT board.

From panel: **<key>, Disable, <code>, I/O expansion, ↵**

or **<key>, 4, <code>, 4**

12.2.5 Enable / Disable a loop

This option will allow you to disable or enable an entire loop from the control panel configuration.

From panel: **<key>, Disable, <code>, Loop, ↵**

or **<key>, 4, <code>, 5**

Voice messages for the telephone dialer

A.1 Record

The SmartLoop\PSTN board has an 8 slot audio memory (each slot has a capacity of 10 seconds) for up to 8 voice call messages.

You can record the voice messages by connecting an ordinary touch-tone phone to the respective connector on the board. See also the installation manual, paragraph 5.1.4 - *The SmartLoop/PSTN board*.

The recording procedure is as follows.

1. Connect the phone to the SmartLoop/PSTN board.
2. Press the “1” key on the phone keyboard; the phone will emit 1 beep to signal access to the recording phase.
3. Press the key on the phone keyboard corresponding to the number of the message you want to record.
4. Wait a “beep” and speak clearly into the receiver to record the message
5. To end the recording phase, press the “*” key or wait until the recording time runs out automatically.
6. The phone will emit 2 beeps to signal the ending of the recording phase.

The playback procedure is as follows.

1. Connect the phone to the SmartLoop/PSTN board.
2. Press the “2” key on the phone keyboard; the phone will emit 2 beeps to signal access to the playback phase.
3. Press the key on the phone keyboard corresponding to the number of the message you want to listen to.

At the end of both procedures you can:

- start one of the procedures without hanging up the receiver
- hang up and then lift the receiver and start one of the procedures
- hang up the receiver and disconnect the phone

A.2 Playback

Depending on the programming, on an event occurrence, the control panel plays the voice messages with the following procedure:

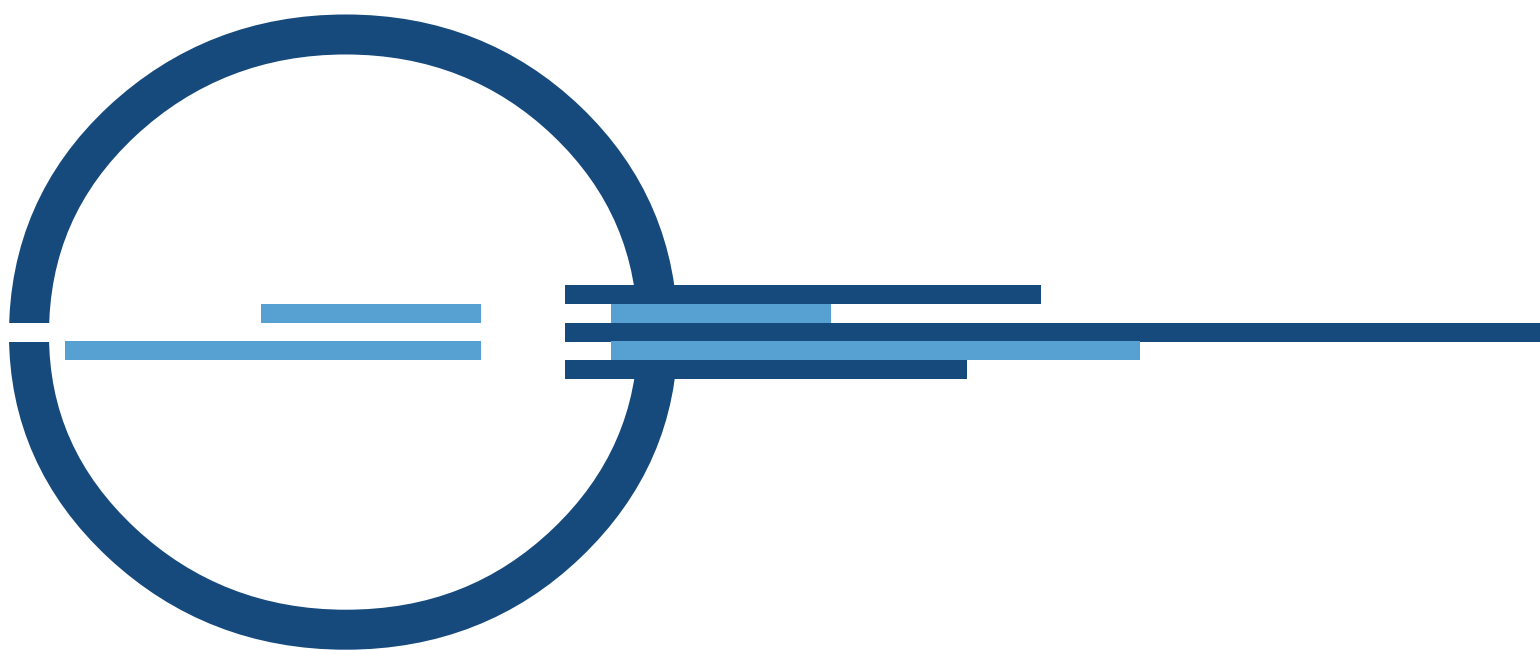
1. The control panel sends the telephone call.
2. The control panel waits for a sound from the user during the voice message delay time.

Nota:

*The Voice message delay time is set to 30 seconds by default.
The modification of this parameter can be done via software programming.*

3. As soon as the user have made a sound for voice recognition, the voice message playback starts.
4. The user have to press any key of the telephone to confirm reception of the call.
5. The control panel closes the communication.

Notes



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